

04-26-13 LETTING ITEM 168

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
 BRIDGE RECONSTRUCTION**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
546	10-00237-00-BR	MACON	25	1
CONTRACT NO. 95694				

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	HIGHWAY STANDARDS AND LEGEND
4	SUMMARY OF QUANTITIES
5	SCHEDULE OF QUANTITIES
6	EXISTING AND PROPOSED TYPICAL SECTIONS
7	REMOVALS/RELOCATIONS PLAN
8	PLAN AND PROFILE
9	PAVEMENT JOINT AND PAVEMENT MARKING PLAN
10	TRAFFIC CONTROL PLAN
11	MISCELLANEOUS DETAILS
12-20	BRIDGE PLANS
21-25	CROSS SECTIONS

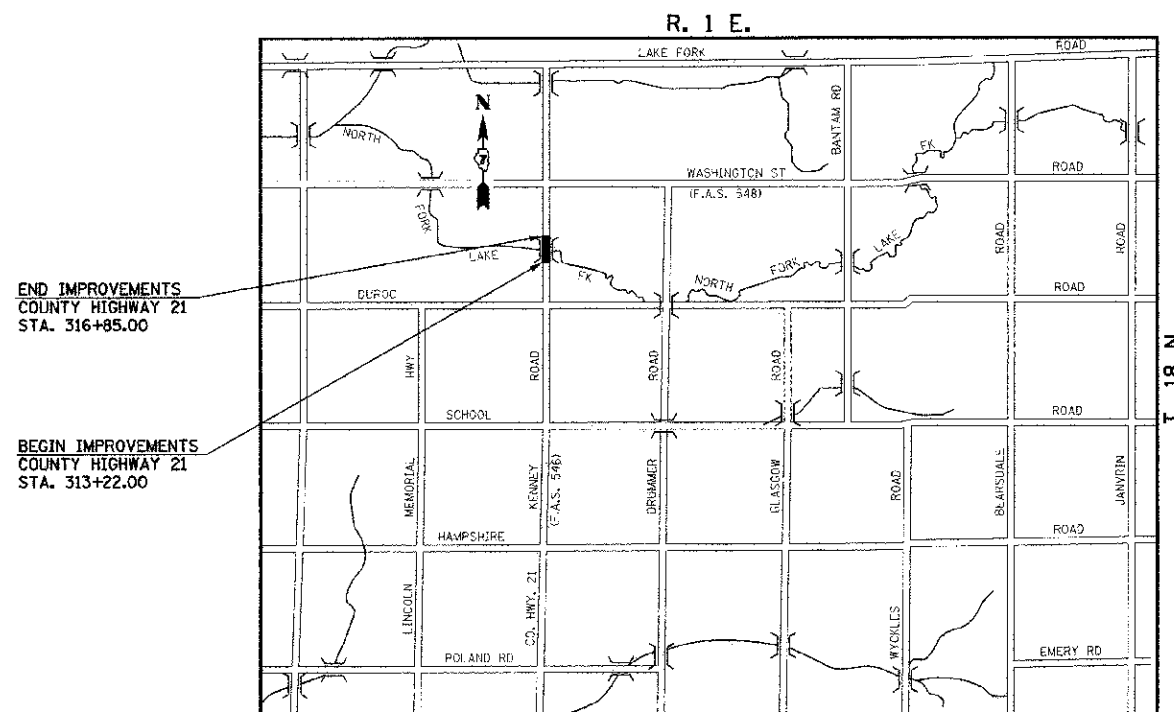
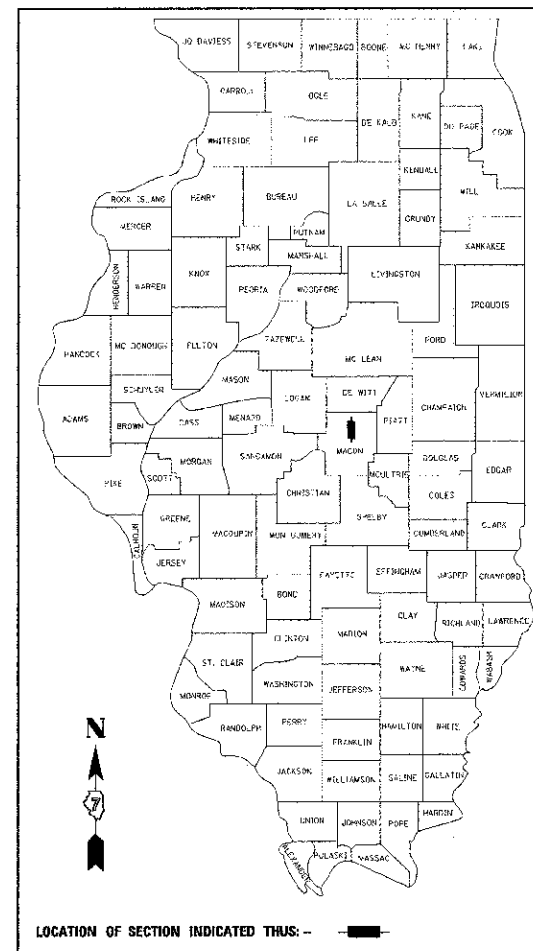
SCALES

PLAN	1 INCH = 20 FEET
PROFILE HORIZ.	1 INCH = 20 FEET
PROFILE VERT.	1 INCH = 5 FEET
CROSS SECTIONS HORIZ.	1 INCH = 5 FEET
CROSS SECTIONS VERT.	1 INCH = 5 FEET

MACON COUNTY, ILLINOIS
 SECTION NO. 10-00237-00-BR
 PROJECT NO. BRS-0546 (109)
 JOB NO. C-97-011-13
 BRIDGE HIGHWAY PROGRAM

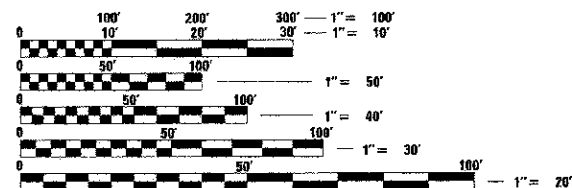
**COUNTY HIGHWAY 21 (KENNEY ROAD) – F.A.S. ROUTE 546
 OVER NORTH FORK OF LAKE FORK CREEK**

ILLINOIS HIGHWAY STANDARD DRAWINGS
 (SEE SHEET NO. 3)



END IMPROVEMENTS
 COUNTY HIGHWAY 21
 STA. 316+85.00

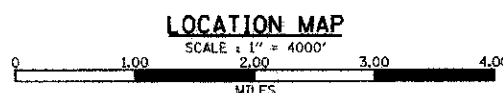
BEGIN IMPROVEMENTS
 COUNTY HIGHWAY 21
 STA. 313+22.00



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 OR 811

CONTRACT NO. 95694



TOTAL LENGTH OF IMPROVEMENTS 363.00 = FEET 0.07 = MILE

ADT = 350 (2012)
 ADT = 425 (2033)
 FUNCTIONAL CLASSIFICATION = COLLECTOR
 DESIGN SPEED = 55 MPH

Sean M. Widener
 PROFESSIONAL ENGINEER
 CLARK DIETZ, INC.
 DATE: 12.19.2012
 LICENSE EXPIRES 11-30-2013



Clark Dietz
 ENGINEERS
 125 WEST CHURCH STREET
 CHAMPAIGN, IL 61820
 PHONE : 217.373.8900
 FAX : 217.373.8923

MACON COUNTY
 APPROVED *Desmond* 19 20 12
 COUNTY ENGINEER
 PASSED *Marcus* 117 20 13
 DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS
 Releasing For Bid Based on Limited Review
 DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER
 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

1. ALL ELEVATIONS SHOWN ARE REFERRED TO THE N.A.V.D. 88 DATUM.
2. WHEREVER IN THE PLANS OR SPECIFICATIONS THE TERM "STANDARD SPECIFICATIONS" IS USED IT SHALL BE UNDERSTOOD BY THE CONTRACTOR TO MEAN THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED ON JANUARY 1, 2012.
3. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT AS SHOWN ON THE HIGHWAY STANDARDS AND LEGEND SHEET NO. 3.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THE PROJECT.
5. THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH STATE REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION.
6. THE CONTRACTOR SHALL TAKE CARE NOT TO STORE OR DISPOSE OF DEBRIS OR UNSUITABLE MATERIALS WITHIN LIMITS OF THE IMPROVEMENT AND TAKE CARE TO LIMIT CONSTRUCTION TO WITHIN THE RIGHT-OF-WAY AND EASEMENT AREAS. UNNECESSARY ENCROACHMENTS ONTO PRIVATE OR PUBLIC AREAS WILL NOT BE ALLOWED.
7. WHERE SECTION OR SUBSECTION MONUMENTS, BENCHMARKS, OR IRON PIPE MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN ILLINOIS REGISTERED LAND SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN ILLINOIS REGISTERED LAND SURVEYOR RE-ESTABLISH ANY MONUMENTS UNNECESSARILY DESTROYED BY HIS OPERATIONS.
8. ALL EXISTING SIGNS LOCATED ON PUBLIC RIGHT-OF-WAY WHICH INTERFERE WITH THE WORK SHALL BE REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
9. THE EXCAVATION FOR THIS PROJECT IS CLASSIFIED AS EARTH EXCAVATION, STRUCTURE EXCAVATION, OR CHANNEL EXCAVATION IN ACCORDANCE WITH SECTIONS 202, 203, AND 502 OF THE STANDARD SPECIFICATIONS. THE EARTH, STRUCTURE, AND CHANNEL EXCAVATION SHALL INCLUDE THE REMOVAL OF EARTH AND UNCLASSIFIED MATERIALS, AND THE TRANSPORTATION AND PLACEMENT OF SUITABLE MATERIALS IN EMBANKMENTS. THE REMAINING EXCAVATION IS CLASSIFIED AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND PAVEMENT REMOVAL.
10. IT MAY BE NECESSARY TO UNDERCUT AND REMOVE EARTH AND ORGANIC MATERIAL BELOW THE PROPOSED PAVEMENT SYSTEM OR AT LOCATIONS AS DIRECTED BY THE ENGINEER. ALL UNSTABLE, UNSUITABLE, OR ORGANIC MATERIAL SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER. MATERIALS THAT ARE REMOVED AND ARE NOT CLASSIFIED AS EARTH EXCAVATION, STRUCTURE EXCAVATION, OR CHANNEL EXCAVATION SHALL BE MEASURED AND PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
11. THE FINISHED EARTHWORK SHALL HAVE VEGETATIVE SUSTAINING TOPSOIL COVERING THE TOP 4 INCHES IN AREAS TO BE SEEDED. THE TOPSOIL REQUIRED SHALL BE SALVAGED FROM VARIOUS EXCAVATION OPERATIONS AND STOCKPILED AT A LOCATION APPROVED BY THE ENGINEER. THE TOPSOIL EXCAVATION, STOCKPILING, AND PLACEMENT WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.
12. ONLY EXISTING PAVEMENT AND BASE COURSES COMPOSED OF PORTLAND CEMENT CONCRETE OR ASPHALT SHALL BE MEASURED AND PAID FOR AS "PAVEMENT REMOVAL" IN ACCORDANCE WITH SECTION 440 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PAVEMENT REMOVAL ITEMS DUE TO VARIATIONS IN PAVEMENT TYPES, THICKNESSES OR AMOUNT OF REINFORCEMENT. THE ADJUSTMENT OF QUANTITIES AS SPECIFIED IN ARTICLE 440.07 OF THE STANDARD SPECIFICATIONS SHALL NOT APPLY. REMOVAL OF OTHER TYPES OF PAVEMENT COMPOSITION SUCH AS AGGREGATE OR A MIX OF AGGREGATE/OIL AND CHIP SHALL BE MEASURED AND PAID FOR AS "EARTH EXCAVATION" IN ACCORDANCE WITH SECTION 202 OF THE STANDARD SPECIFICATIONS.
13. ALL DISTURBED AREAS SHALL BE SEEDED AS SHOWN ON THE PLANS. SEEDING, FERTILIZING, AND MULCHING SHALL BE DONE AS SOON AS POSSIBLE AS DIRECTED BY THE ENGINEER. EXISTING TURF WHICH IS DAMAGED OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY OR EASEMENTS SHALL BE REESTABLISHED WITH SEED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
14. UTILITY LOCATIONS WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES AND THEIR ACCURACY SHOULD BE CONSIDERED APPROXIMATE. NO RESPONSIBILITY IS ACCEPTED FOR THE LOCATIONS AS SHOWN OR THAT ALL UTILITY FACILITIES ARE SHOWN. UTILITY LOCATIONS SHOWN IN THE PLANS AND PROFILES ARE APPROXIMATE AND REPRESENT LOCATIONS PRIOR TO ANY UTILITY RELOCATIONS REQUIRED TO ACCOMMODATE THE PROPOSED CONSTRUCTION. THE CONTRACTOR IS ADVISED THAT SOME UTILITY COMPANIES MAY HAVE RELOCATED THEIR FACILITIES PRIOR TO THE START OF CONSTRUCTION UNDER THIS CONTRACT. BEFORE COMMENCING CONSTRUCTION OPERATIONS THE CONTRACTOR SHALL OBTAIN FROM THE ENGINEER ANY AVAILABLE INFORMATION REGARDING THE RELOCATED POSITIONS OF UTILITIES WITHIN THE PROJECT LIMITS. WHETHER VARIOUS UTILITIES HAVE BEEN RELOCATED OR REMAIN IN THEIR ORIGINAL LOCATION, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THEIR EXACT LOCATION AT THE TIME OF CONSTRUCTION AND TO PROTECT SAME. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR AVOIDING CONFLICTS BETWEEN OVERHEAD UTILITY LINES AND THE EQUIPMENT USED FOR EXCAVATING. SEE "STATUS OF UTILITIES" SHEET WITHIN THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION REGARDING KNOWN UTILITY RELOCATIONS OR ADJUSTMENTS REQUIRED FOR THE PROPOSED CONSTRUCTION. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE SPECIAL PROVISIONS ENTITLED "COOPERATION WITH UTILITIES", OR "UTILITY COORDINATION AND CONFLICTS", AND ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
16. UTILITY OWNERS:
 *INDICATES J.U.L.I.E. MEMBER

*CORN BELT ENERGY CORP. 1 ENERGY WAY BLOOMINGTON, IL 61705 (309) 662-5330	*FRONTIER COMMUNICATIONS 109 E. MARKET ST. BLOOMINGTON, IL 61701 (309) 827-1253
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17. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE REMOVED AND DISPOSED OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS APPROVED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.
18. ALL TRENCHES AND EXCAVATIONS FOR PIPES, CULVERTS, OR PIPE REMOVALS BELOW OR WITHIN TWO FEET Laterally OF THE PROPOSED PAVEMENT, SHOULDER, OR FIELD ENTRANCES SHALL BE BACKFILLED WITH TRENCH BACKFILL (SPECIAL) MATERIAL AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE TRENCH BACKFILL (SPECIAL) MATERIAL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH ARTICLE 550.07 OF THE STANDARD SPECIFICATIONS. IN NO CASE SHALL THE BACKFILL MATERIAL BE PLACED WITHOUT COMPACTING.
19. EXISTING PAVEMENTS IN WHICH THE TOP SURFACE IS TO BE JOINED TO THE PROPOSED WORK SHALL BE SO JOINED THROUGH SAW CUT JUNCTURES.
20. THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO WEIGHTED SAND BAGS ON EACH TYPE II BARRICADE USED. (ONE WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.)
21. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.
22. MACON COUNTY HAS ACQUIRED A N.P.D.E.S. PERMIT FOR THIS PROJECT FOR EROSION AND SEDIMENT CONTROL. TO SATISFY THE REQUIREMENTS OF THIS PERMIT, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE INLET AND PIPE PROTECTION, TEMPORARY DITCH CHECKS, PERIMETER EROSION BARRIER, AND TEMPORARY EROSION SEEDING AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH STD. 280001. THE LOCATIONS FOR THE INLET AND PIPE PROTECTION SHALL BE AT UPSTREAM ENDS OF CULVERTS. A PERIMETER EROSION CONTROL BARRIER SHALL BE PLACED ADJACENT TO CONSTRUCTION AREAS TO PREVENT SILT AND SEDIMENT FROM LEAVING THE SITE AS DIRECTED BY THE ENGINEER. AN ESTIMATED QUANTITY FOR THE EROSION CONTROL ITEMS HAS BEEN INCLUDED IN THE PROJECT AND MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
23. HORIZONTAL CENTERLINE CONTROL POINTS AND VERTICAL BENCHMARKS ARE SHOWN FOR THE CONTRACTOR TO PHYSICALLY LOCATE MONUMENTATION IN THE FIELD. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CENTERLINE CONTROL POINTS OR BENCHMARKS AND SET ADDITIONAL POINTS AND TIES AS NECESSARY TO INSURE THAT CONTROL POINTS AND BENCHMARKS CAN BE ACCURATELY REPLICATED DURING CONSTRUCTION.
24. THE MACON COUNTY HIGHWAY DEPARTMENT SHALL BE RESPONSIBLE FOR NOTIFYING THE PUBLIC, THE UNITED STATES POSTAL SERVICE, AND THE EMERGENCY SERVICE AGENCIES OF ALL ROAD CLOSURES AND CHANGES IN THE TRAFFIC MAINTENANCE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL ROAD CLOSURES AND CHANGES IN THE TRAFFIC MAINTENANCE PLANS A MINIMUM OF 48 HOURS IN ADVANCE.
25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF THE SITE PRIOR TO FINAL ACCEPTANCE IN ACCORDANCE WITH ARTICLE 104.06 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL ALSO INCLUDE CLEANING ALL DRAINAGE FACILITIES OF FOREIGN MATERIALS IN ACCORDANCE WITH ARTICLE 602.15 OF THE STANDARD SPECIFICATIONS. THIS WORK SHALL BE DONE AS DIRECTED BY THE ENGINEER AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
26. THE CONTRACTOR'S COST OF ABIDING BY THE PROVISIONS OF PERMITS ISSUED BY VARIOUS AGENCIES SHALL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS OF THE CONTRACT. ALL ASSOCIATED BONDING REQUIREMENTS AND COSTS SHALL ALSO BE INCLUDED IN THE VARIOUS PAY ITEMS OF THE CONTRACT. THE FOLLOWING IS A LIST OF PERMITS THAT WILL BE REQUIRED FOR THIS PROJECT AND THE AGENCY RESPONSIBLE FOR ACQUIRING THE PERMIT. COPIES OF THE PERMITS ARE AVAILABLE FOR VIEWING AT THE OFFICE OF THE MACON COUNTY ENGINEER.

<u>TYPE OF PERMIT</u>	<u>ACQUIRING AGENCY</u>
USAOE NATIONWIDE PERMIT NO. 14 - LINEAR TRANSPORTATION PROJECTS	MACON COUNTY
IDNR OWR STATEWIDE PERMIT NO. 12 - BRIDGE AND CULVERT REPLACEMENT STRUCTURES AND BRIDGE WIDENINGS	MACON COUNTY
IEPA SECTION 401 WATER QUALITY CERTIFICATION	MACON COUNTY
IEPA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT NO. ILR10	MACON COUNTY
27. THE MACON COUNTY HIGHWAY DEPARTMENT WILL BE RESPONSIBLE FOR THE CONSTRUCTION LAYOUT.

FILE NAME = g:\m0329040_macon county - ch 21 bridge replacement\plans\sheet\gennote.dgn PLOT DATE = 12/21/2012 10:49:30 AM	DESIGNED - R.L.H. DRAWN - J.L.B. CHECKED - S.M.W. DATE - NOV. 2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.S. RTE. 546	SECTION 10-00237-00-BR	COUNTY MACON	TOTAL SHEETS 25	SHEET NO. 2	CONTRACT NO. 95694
				SCALE: NONE	SHEET NO. 2 OF 25 SHEETS	STA.	TO STA.			
				FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT				

ILLINOIS HIGHWAY STANDARD DRAWINGS

STANDARD NO.	DESCRIPTION
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
515001-03	NAME PLATE FOR BRIDGES
542401-01	METAL END SECTION FOR PIPE CULVERTS
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-08	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701301-04	LANE CLOSURE 2L, 2W, SHORT TIME OPERATIONS
701901-02	TRAFFIC CONTROL DEVICES
780001-03	TYPICAL PAVEMENT MARKINGS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO LANE, TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)

LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED

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DESIGNED - R.L.H.	REVISED -
DRAWN - J.L.B.	REVISED -
CHECKED - S.M.W.	REVISED -
DATE - NOV, 2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGHWAY STANDARDS AND LEGEND

SCALE = NONE SHEET NO. 3 OF 25 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS
546	10-00237-00-BR	MACON	25 3
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 95694

SUMMARY OF QUANTITIES					
CODE NO.	PAY ITEM	CONSTRUCTION CODE		0004	0011
		UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE
20200100	EARTH EXCAVATION	CU YD	136	136	
* 20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	20	20	
20300100	CHANNEL EXCAVATION	CU YD	717		717
* 21000300	GRANULAR EMBANKMENT, SPECIAL	TON	40	40	
* 21001000	GEO TECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	60	60	
25000200	SEEDING, CLASS 2	ACRE	0.6	0.6	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	54	54	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	54	54	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	54	54	
25100115	MULCH, METHOD 2	ACRE	0.6	0.6	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	60	60	
28000400	PERIMETER EROSION BARRIER	FOOT	618	618	
28000500	INLET AND PIPE PROTECTION	EACH	1	1	
28100107	STONE RIPRAP, CLASS A4	SQ YD	496		496
28200200	FILTER FABRIC	SQ YD	485		485
31100500	SUBBASE GRANULAR MATERIAL, TYPE A 6"	SQ YD	138	138	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	56	56	
44000100	PAVEMENT REMOVAL	SQ YD	140	140	
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	20	20	
48100100	AGGREGATE SHOULDERS, TYPE A	TON	110	110	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50105220	PIPE CULVERT REMOVAL	FOOT	82	82	
50200100	STRUCTURE EXCAVATION	CU YD	122		122
50200300	COFFERDAM EXCAVATION	CU YD	94		94
* 50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1		1
* 50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1		1
50300225	CONCRETE STRUCTURES	CU YD	103.5		103.5
50300255	CONCRETE SUPERSTRUCTURE	CU YD	123.9		123.9
50300260	BRIDGE DECK GROOVING	SQ YD	349	125	224
50300300	PROTECTIVE COAT	SQ YD	439	125	314
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	36,010		36,010
Δ 50901050	STEEL RAILING, TYPE SM	FOOT	164		164
51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	746		746
51202305	DRIVING PILES	FOOT	746		746

* SEE SPECIAL PROVISIONS

SUMMARY OF QUANTITIES					
CODE NO.	PAY ITEM	CONSTRUCTION CODE		0004	0011
		UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE
51203200	TEST PILE METAL SHELLS	EACH	2		2
51500100	NAME PLATES	EACH	1		1
54205491	PIPE CULVERTS, CLASS C, TYPE 1 EQUIVALENT ROUND-SIZE 36"	FOOT	166	166	
54215781	METAL END SECTIONS, EQUIVALENT ROUND-SIZE 36"	EACH	1	1	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	32		32
Δ 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4	
Δ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	150	150	
67100100	MOBILIZATION	L SUM	1	1	
Δ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	790	790	
Δ 78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8	
Δ 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
* X0323265	REMOVE EXISTING RIPRAP	SQ YD	15	15	
* X2080250	TRENCH BACKFILL, SPECIAL	CU YD	9	9	
* X4201400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	125	125	
* X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	54		54
* X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
* Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	98		98

* SEE SPECIAL PROVISIONS Δ SPECIALTY ITEMS

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DESIGNED - R.L.H.	REVISED -
DRAWN - J.L.B.	REVISED -
CHECKED - S.M.W.	REVISED -
DATE - NOV. 2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE : NONE SHEET NO. 4 OF 25 SHEETS STA. TO STA.

F.A.S. RTE. 546	SECTION 10-00237-00-BR	COUNTY MACON	TOTAL SHEETS 25	SHEET NO. 4
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 95694	

SCHEDULE OF QUANTITIES

EARTHWORK SUMMARY						
LOCATION	20200100 EARTH EXCAVATION (CU YD)	20300100 CHANNEL EXCAVATION (CU YD)	50200100 STRUCTURE EXCAVATION (CU YD)	50200300 COFFERDAM EXCAVATION (CU YD)	EMBANKMENT (CU YD)	*ESTIMATED EARTH WASTE (CU YD)
C.H. 21 (KENNEY RD.)	136	717	122	94	399	570
TOTALS	136	717	122	94	399	570

*EARTH WASTE = EARTH EXCAVATION + CHANNEL EXCAVATION + STRUCTURE EXCAVATION
+ COFFERDAM EXCAVATION - (EMBANKMENT x 1.25 SHRINKAGE FACTOR)

- NOTES**
- THE INDICATED EARTHWORK VOLUMES ARE ESTIMATES BASED ON THE "AVERAGE END AREA" METHOD OF CALCULATION. EARTHWORK VOLUMES WILL VARY WITH ACTUAL SOIL CONDITIONS ENCOUNTERED DURING CONSTRUCTION. THESE ESTIMATES ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND SHOULD BE CONSIDERED APPROXIMATE. ACTUAL VOLUMES OF EARTH EXCAVATION, CHANNEL EXCAVATION, STRUCTURE EXCAVATION, COFFERDAM EXCAVATION, AND EMBANKMENT WILL BE PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
 - THE EMBANKMENT QUANTITIES DO NOT ACCOUNT FOR SHRINKAGE FACTORS. A 25% SHRINKAGE FACTOR HAS BEEN APPLIED TO THE EMBANKMENT TO DETERMINE THE ESTIMATED VOLUME OF EARTH WASTE. THE EMBANKMENT QUANTITIES INCLUDE THE 4" THICK TOPSOIL LAYER.
 - EXCESS EARTH MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR. THE COST OF DISPOSING OF EXCESS EARTH MATERIAL WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
 - AN ESTIMATED QUANTITY FOR THE REMOVAL AND DISPOSAL OF UNSUITABLE MATERIALS HAS BEEN INCLUDED IN THE CONTRACT. THE REMOVAL AND DISPOSAL OF UNSUITABLE MATERIALS WILL BE AS DIRECTED BY THE ENGINEER AND WILL BE MEASURED AND PAID FOR AS DESCRIBED IN THE SPECIAL PROVISIONS.

20201200 REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	
LOCATION	CU YD
ASSUMED QUANTITY FOR UNSUITABLE SUBGRADE CONDITIONS	20
TOTAL	20

21000300 GRANULAR EMBANKMENT, SPECIAL	
LOCATION	TON
ASSUMED QUANTITY FOR UNSUITABLE SUBGRADE CONDITIONS	40
TOTAL	40

21001000 GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	
LOCATION	SQ YD
ASSUMED QUANTITY FOR UNSUITABLE SUBGRADE CONDITIONS	60
TOTAL	60

25000200 SEEDING, CLASS 2	
LOCATION	ACRE
C.H. 21 (KENNEY RD.) 313+10 TO 317+23 LT. & RT.	0.6
TOTAL	0.6

25000400, 25000500, 25000600 FERTILIZER NUTRIENTS (NITROGEN, PHOSPHORUS, POTASSIUM)	
LOCATION	POUND
C.H. 21 (KENNEY RD.) 313+10 TO 317+23 LT. & RT.	54
TOTAL	54

25100115 MULCH, METHOD 2	
LOCATION	ACRE
C.H. 21 (KENNEY RD.) 313+10 TO 317+23 LT. & RT.	0.6
TOTAL	0.6

28000250 TEMPORARY EROSION CONTROL SEEDING	
LOCATION	POUND
C.H. 21 (KENNEY RD.) 313+10 TO 317+23 LT. & RT.	60
TOTAL	60

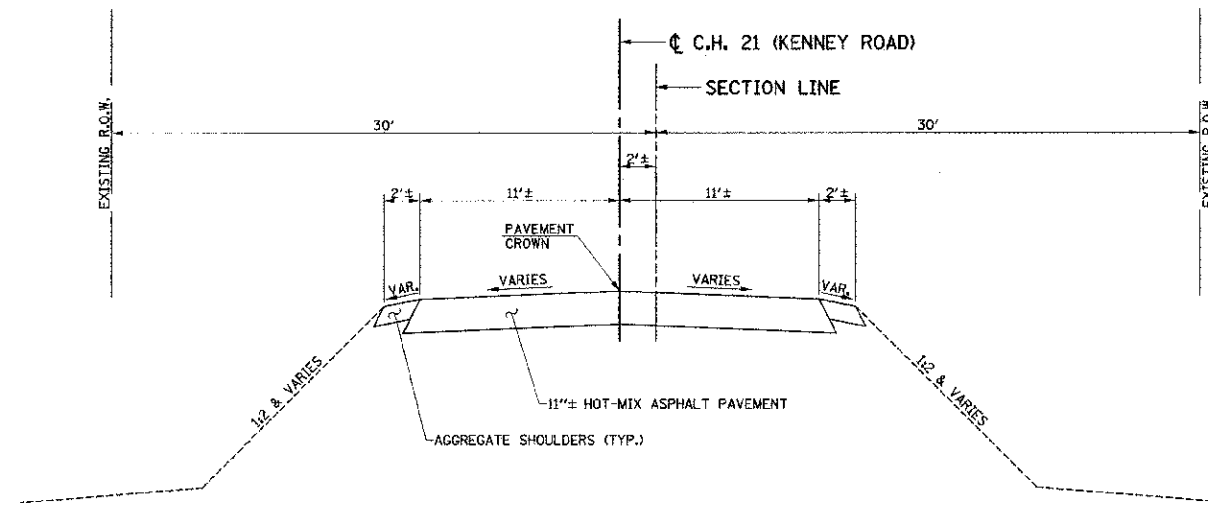
31100500 SUBBASE GRANULAR MATERIAL, TYPE A 6"		
STATION	TO STATION	SQ YD
C.H. 21 (KENNEY RD.) 314+30.07 LT. & RT.	314+50.07 LT. & RT.	69
315+30.74 LT. & RT.	315+50.74 LT. & RT.	69
TOTAL		138

40200800 AGGREGATE SURFACE COURSE, TYPE B	
LOCATION	TON
C.H. 21 (KENNEY RD.) 316+60 RT. - F.E. 18" THICK	56
TOTAL	56

48100100 AGGREGATE SHOULDERS, TYPE A		
STATION	TO STATION	TON
C.H. 21 (KENNEY RD.) 313+22.0 LT.	314+50.07 LT.	28
313+22.0 RT.	314+50.07 RT.	28
315+30.74 LT.	316+59.0 LT.	28
315+30.74 RT.	316+45.9 RT.	26
TOTAL		110

50300300 PROTECTIVE COAT	
LOCATION	SQ YD
C.H. 21 (KENNEY RD.) BRIDGE APPROACH PAVEMENT	125
BRIDGE DECK	314
TOTAL	439

X4201400 BRIDGE APPROACH PAVEMENT (SPECIAL)		
STATION	TO STATION	SQ YD
C.H. 21 (KENNEY RD.) 314+30.07 LT. & RT.	314+50.07 LT. & RT.	62.2
315+30.74 LT. & RT.	315+50.74 LT. & RT.	62.2
TOTAL		125



**EXISTING TYPICAL SECTION
COUNTY HIGHWAY 21 (KENNEY ROAD)**

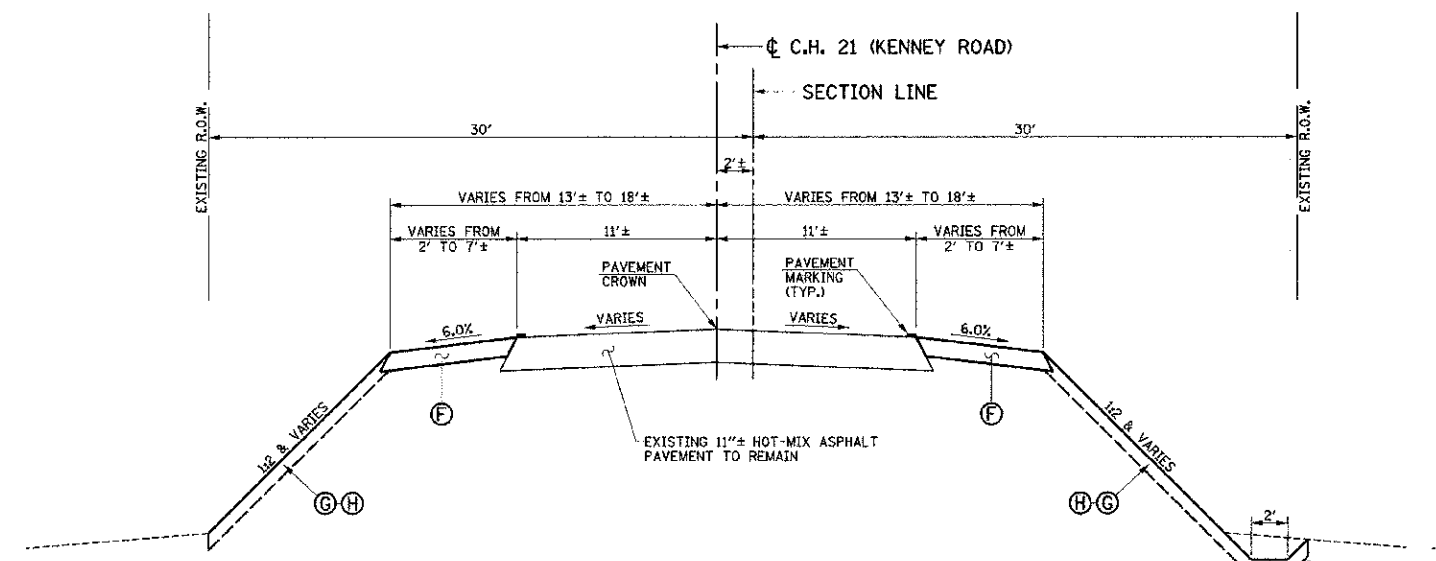
STA. 313+22.00 TO STA. 314+57.69
STA. 315+23.11 TO STA. 316+85.00

TYPICAL SECTION NOTES

1. THE EXISTING PAVEMENT TYPE AND THICKNESS REPRESENTS THE BEST INFORMATION AVAILABLE. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PAVEMENT REMOVAL ITEMS DUE TO VARIATIONS IN THE EXISTING PAVEMENT TYPE, THICKNESS, OR AMOUNT OF REINFORCEMENT. THE ADJUSTMENT OF QUANTITIES AS SPECIFIED IN ARTICLE 440.07 OF THE STANDARD SPECIFICATIONS SHALL NOT APPLY.
2. SEE THE PAVEMENT JOINT PLAN SHEET FOR ADDITIONAL NOTES FOR JOINTS, JOINT SEALING, AND SURFACE GROOVING FOR THE PROPOSED BRIDGE APPROACH PAVEMENT (SPECIAL).
3. PROTECTIVE COAT SHALL BE APPLIED TO THE PAVEMENT AS REQUIRED BY ARTICLE 420.18 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.
4. THE SUBGRADE FOR THE PAVEMENT SHALL BE PREPARED AND COMPACTED IN ACCORDANCE WITH SECTION 301 OF THE STANDARD SPECIFICATIONS AND THE I.D.O.T. SUBGRADE STABILITY MANUAL. THIS WORK WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF THE BRIDGE APPROACH PAVEMENT (SPECIAL). IF THE REQUIRED DENSITY AND STABILITY CAN NOT BE ATTAINED IT WILL BE NECESSARY TO UNDERCUT AND REMOVE EARTH AND ORGANIC MATERIAL BELOW THE PROPOSED PAVEMENT SYSTEM TO A DEPTH AS DIRECTED BY THE ENGINEER. ALL UNSTABLE, UNSUITABLE, OR ORGANIC MATERIAL SHALL BE DISPOSED OF OFF THE SITE IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. MATERIALS THAT ARE REMOVED AND ARE NOT CLASSIFIED AS EARTH EXCAVATION OR CHANNEL EXCAVATION SHALL BE MEASURED AND PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL. GRANULAR EMBANKMENT, SPECIAL MATERIAL SHALL BE PLACED ON GEOTECHNICAL FABRIC FOR GROUND STABILIZATION TO FILL THE EXCAVATED UNSUITABLE MATERIAL AREA BELOW THE SUBBASE GRANULAR MATERIAL OR AGGREGATE SHOULDERS AND MUST MEET THE GRADATION REQUIREMENTS LISTED IN THE SPECIAL PROVISIONS.
5. THE FINISHED EARTHWORK SHALL HAVE VEGETATIVE SUSTAINING SOIL COVERING THE TOP 4" OF AREAS TO BE SEEDDED. THE TOPSOIL SHALL MEET THE REQUIREMENTS OF ARTICLE 108L.05 OF THE STANDARD SPECIFICATIONS OR BE APPROVED BY THE ENGINEER. THE VEGETATIVE SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.
6. ALL EXPOSED EARTH AREAS SHALL BE SEEDDED, FERTILIZED, AND MULCHED IN ACCORDANCE WITH SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS. SEEDING, CLASS 2 AND MULCH, METHOD 2 SHALL BE USED.

PROPOSED TYPICAL SECTION KEY

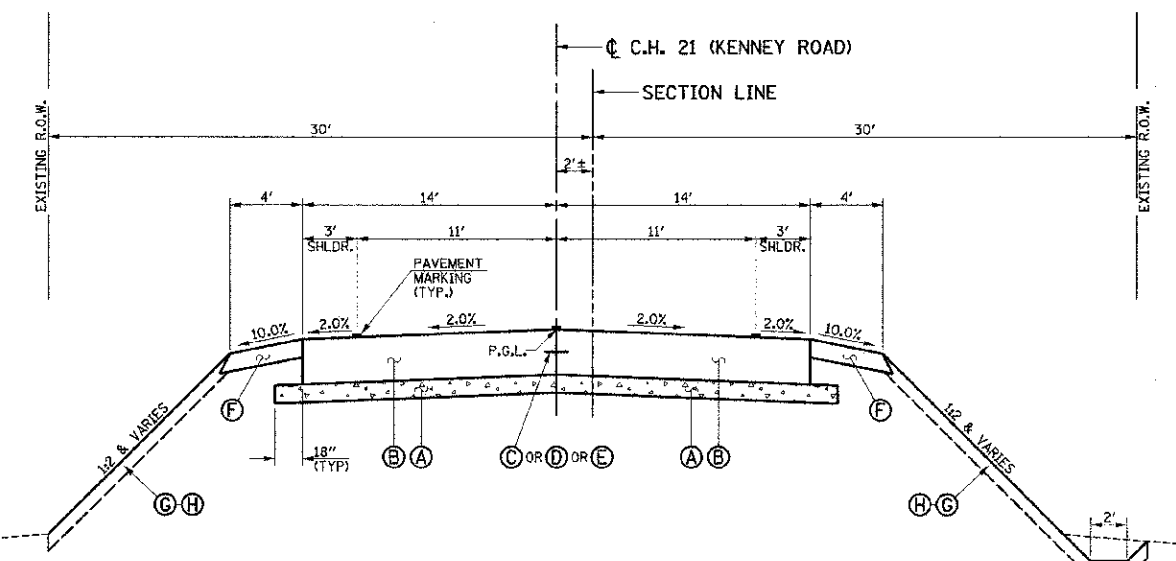
- (A) SUBBASE GRANULAR MATERIAL, TYPE A (6" THICK)
- (B) BRIDGE APPROACH PAVEMENT (SPECIAL) (15" THICK)
- (C) LONGITUDINAL CONSTRUCTION JOINT WITH NO. 6 X 30" EPOXY COATED TIE BARS AT 24" CENTERS FORMED IN PLACE (STD. 420001)
- (D) LONGITUDINAL CONSTRUCTION JOINT WITH NO. 6 X 24" EPOXY COATED TIE BARS AT 24" CENTERS DRILLED AND GROUTED IN PLACE (STD. 420001) (PREFORMED HOLES WITH GROUTED TIE BARS WILL NOT BE ALLOWED)
- (E) SAWED LONGITUDINAL JOINT WITH NO. 6 X 30" EPOXY COATED TIE BARS AT 30" CENTERS (STD. 420001)
- (F) AGGREGATE SHOULDERS, TYPE A (6" THICK)
- (G) TOPSOIL (4" THICK)
- (H) SEEDING, CLASS 2, FERTILIZER, AND MULCH, METHOD 2



**PROPOSED TYPICAL SECTION
COUNTY HIGHWAY 21 (KENNEY ROAD)**

STA. 313+22.00 TO STA. 314+30.07
STA. 315+50.74 TO STA. 316+85.00

SPECIAL DITCH
RT. STA. 315+25 TO
RT. STA. 316+25



**PROPOSED TYPICAL SECTION
COUNTY HIGHWAY 21 (KENNEY ROAD)**

STA. 314+30.07 TO STA. 314+50.07
STA. 315+30.74 TO STA. 315+50.74

SPECIAL DITCH
RT. STA. 315+25 TO
RT. STA. 316+25

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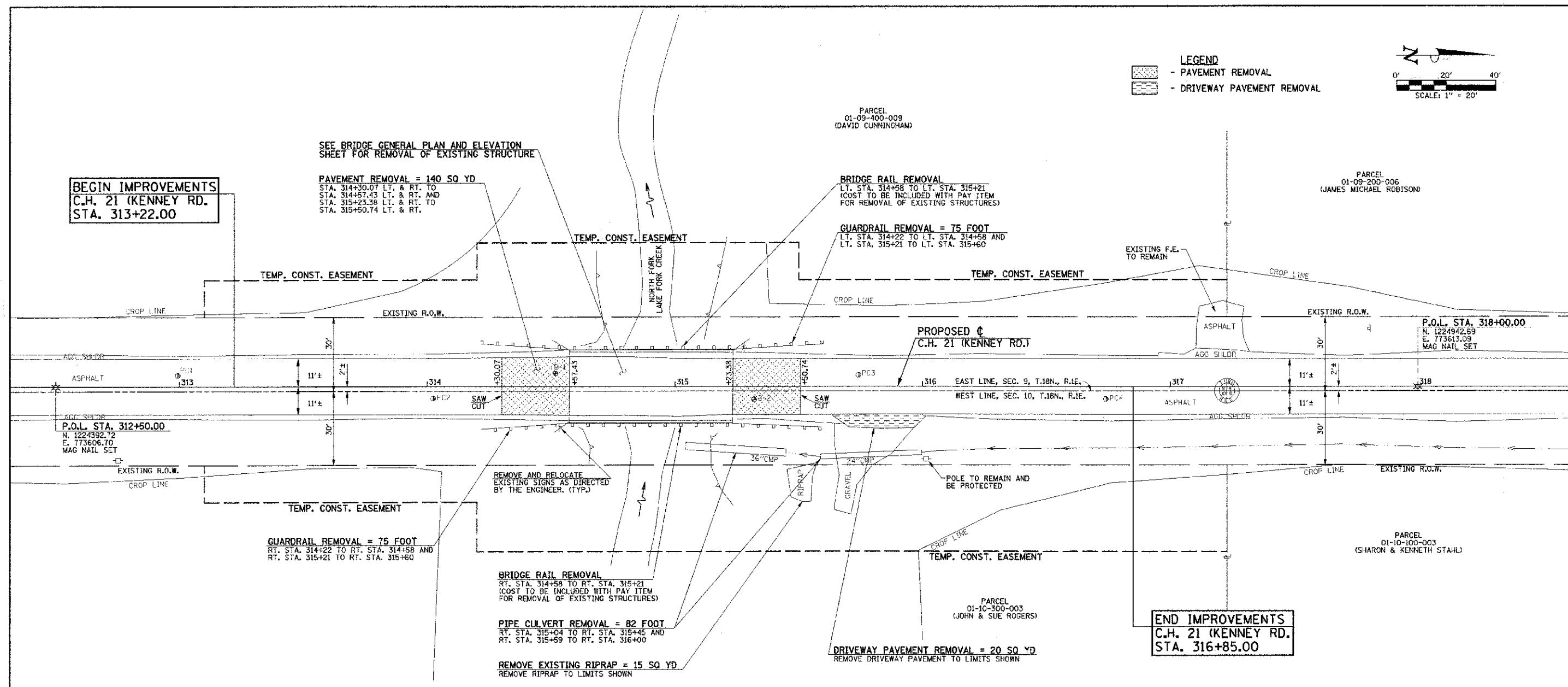
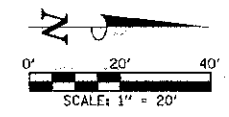
DESIGNED - R.L.H.	REVISED -
DRAWN - J.L.B.	REVISED -
CHECKED - S.M.W.	REVISED -
DATE - NOV. 2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
SCALE : NONE SHEET NO. 6 OF 25 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS	NO.
546	10-00237-00-BR	MACON	25	6
CONTRACT NO. 95694			ILLINOIS FED. AID PROJECT	

LEGEND
 [Pattern] - PAVEMENT REMOVAL
 [Pattern] - DRIVEWAY PAVEMENT REMOVAL



BEGIN IMPROVEMENTS
 C.H. 21 (KENNEY RD.)
 STA. 313+22.00

END IMPROVEMENTS
 C.H. 21 (KENNEY RD.)
 STA. 316+85.00

FOR PROPOSED CONSTRUCTION IN THIS AREA SEE PLAN AND PROFILE SHEET.

EXISTING PAVEMENTS IN WHICH THE TOP SURFACE IS TO BE JOINED TO THE PROPOSED WORK SHALL BE SO JOINED THROUGH SAW CUT JUNCTURES.

THE REMOVAL AND RELOCATION OF VARIOUS TRAFFIC SIGNS NOTED HEREON SHALL BE AS DIRECTED BY THE ENGINEER AND AS SPECIFIED IN THE STANDARD SPECIFICATIONS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY AND IS CONSIDERED INCLUDED IN THE VARIOUS REMOVAL ITEMS.

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DESIGNED - R.L.H.	REVISED -
DRAWN - J.L.B.	REVISED -
CHECKED - S.M.W.	REVISED -
DATE - NOV. 2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

REMOVALS/RELOCATIONS PLAN

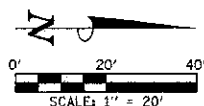
SCALE: 1"=20' SHEET NO. 7 OF 25 SHEETS STA. 312+50.00 TO STA. 318+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
546	10-00237-00-ER	MACON	25	7
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 95694	

SEC. 9, T.18N., R.1E., 3rd P.M.
MACON COUNTY, IL

PARCEL
01-09-400-003
(DAVID CUNNINGHAM)

PARCEL
01-09-200-006
(JAMES MICHAEL ROBISON)



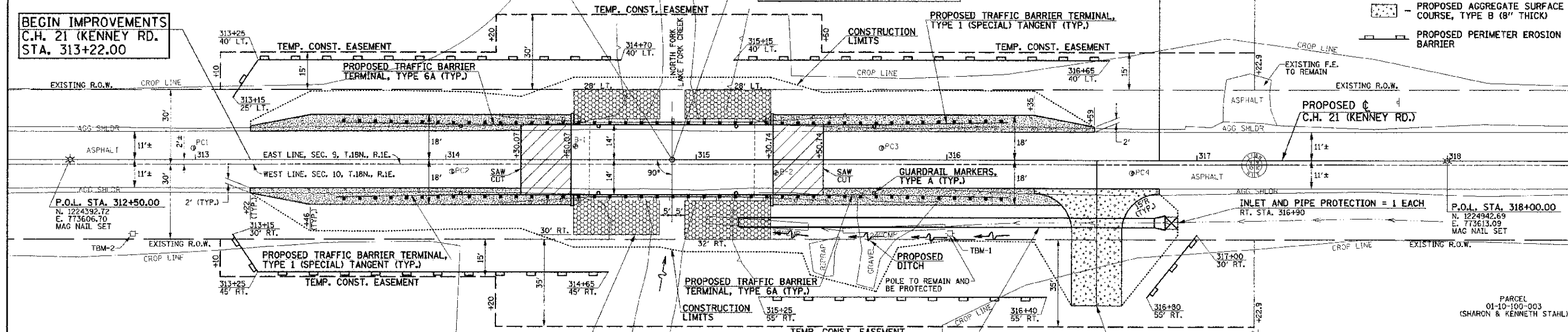
EXISTING BRIDGE
SN 058-3004, @ STA. 314+90.40
THREE SIMPLE SPAN CONCRETE
DECK ON STEEL STRINGERS WITH
TIMBER SUBSTRUCTURE
SKEW = 0°
WIDTH = 29'-11" OUT TO OUT OF DECK
LENGTH = 66'-0" BACK TO BACK OF ABUTMENTS

PROPOSED BRIDGE REPLACEMENT
SN 058-3396, @ STA. 314+90.40
THREE SPAN CONTINUOUS R.C.
SLAB BRIDGE
SKEW = 0°
WIDTH = 28'-0" OUT TO OUT OF DECK AND
FACE TO FACE OF BRIDGE RAILS
LENGTH = 81'-8" BACK TO BACK OF ABUTMENTS

END IMPROVEMENTS
C.H. 21 (KENNEY RD.)
STA. 316+85.00

- LEGEND**
- PROPOSED BRIDGE APPROACH PAVEMENT (SPECIAL) (15" THICK)
 - PROPOSED AGGREGATE SHOULDERS, TYPE A (6" THICK)
 - PROPOSED AGGREGATE SURFACE COURSE, TYPE B (8" THICK)
 - PROPOSED PERIMETER EROSION BARRIER

BEGIN IMPROVEMENTS
C.H. 21 (KENNEY RD.)
STA. 313+22.00



PERIMETER EROSION BARRIER = 618 FOOT
TOTAL QUANTITY FOR ALL 5 LOCATIONS

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT = 4 EACH

TERMINAL MARKER - DIRECT APPLIED = 4 EACH
STA. 313+66.27 LT. & RT. TO STA. 314+06.27 LT. & RT.
STA. 315+74.53 LT. & RT. TO STA. 316+24.53 LT. & RT.

TRAFFIC BARRIER TERMINAL, TYPE 6A = 4 EACH

STA. 314+06.27 LT. & RT. TO STA. 314+52.85 LT. & RT.
STA. 315+27.95 LT. & RT. TO STA. 315+74.53 LT. & RT.

GUARDRAIL MARKERS, TYPE A = 8 EACH

STA. 314+06 LT. & RT.
STA. 314+61 LT. & RT.
STA. 315+16 LT. & RT.
STA. 315+71 LT. & RT.

STONE RIPRAP CL A4 = 496 SQ YD
FILTER FABRIC = 690 SQ YD
STA. 314+81.1 TO STA. 314+85.4 AND
STA. 314+95.4 TO STA. 315+29.7
SEE BRIDGE PLANS FOR DETAILS.

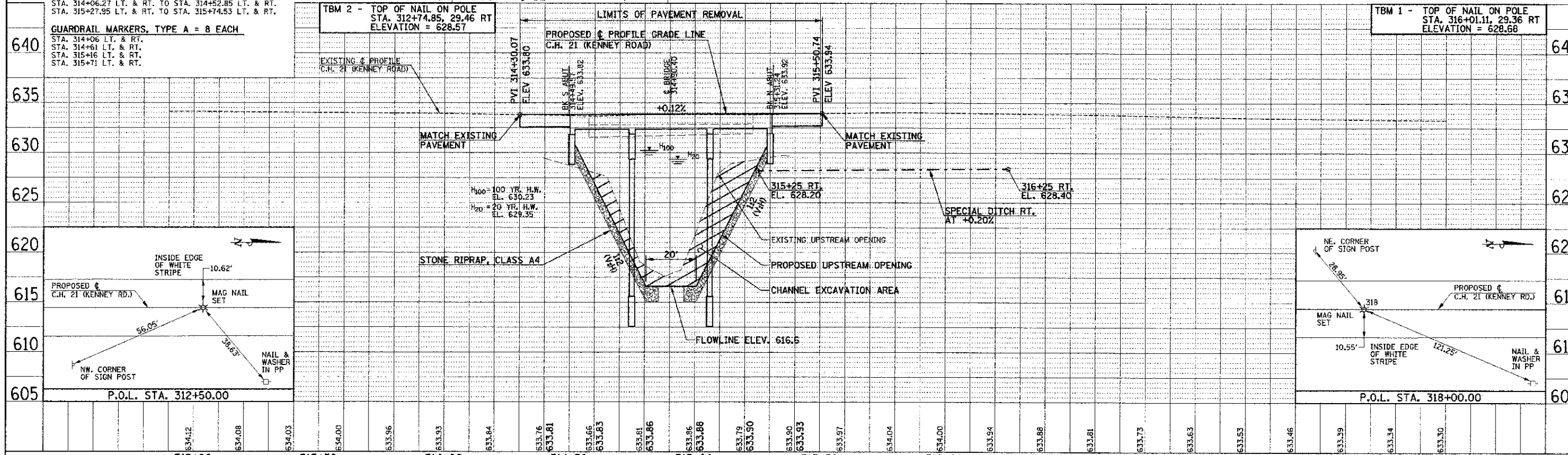
P CUL CL C 1 EQRS 36 = 166 FOOT
MET END SEC EQV RS 36 = 1 EACH
TRENCH BACKFILL (SPECIAL) = 9 CU YD
U.S.F.L. ELEV. = 627.30 (END SEC) - STA. 316+87.4, 25.0' RT.
U.S.F.L. ELEV. = 625.60 (PIPE) - STA. 315+17.0, 25.0' RT.
SEE DETAIL SHEET

CONSTRUCT NEW ENTRANCE
316+60.0, 58.3' RT.
20.0' F.E. (AGG) @ -6.0% & -13.0%
CONSTRUCT ENTRANCE WITH AGGREGATE
TO 18.0' RT. AT -6.0% AND TO 58.3' RT.
AT -13.0%. SEE DETAIL SHEET AND
CROSS SECTIONS.

SEE REMOVAL/RELOCATION PLANS
FOR ADDITIONAL INFORMATION.

SEE PAVEMENT JOINTS AND PAVEMENT MARKING
PLANS FOR ADDITIONAL INFORMATION.

SEC. 10, T.18N., R.1E., 3rd P.M.
MACON COUNTY, IL

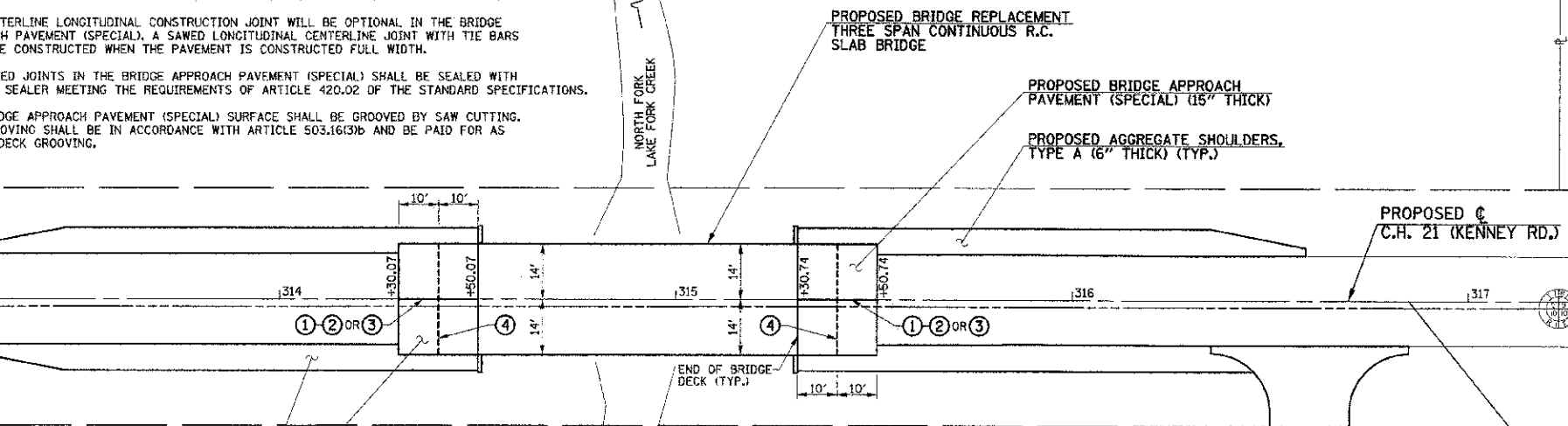
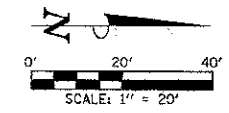


FILE NAME = p:\m\020040_macon county - ch 21 bridge replacement\plans\sheet\pp-ch21.dgn	DESIGNED - R.L.H.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE - C.H. 21 (KENNEY ROAD)	F.A.S. NO. 546	SECTION 10-00237-00-BR	COUNTY MACON	TOTAL SHEETS 25	SHEET NO. 8	
PLOT DATE = 12/21/2012 10:49:35 AM	DRAWN - J.L.B.	REVISED -			SCALE = 1"=20'	SHEET NO. 8 OF 25 SHEETS	STA. 312+50.00 TO STA. 318+00.00	CONTRACT NO. 95694		
	CHECKED - S.M.W.	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
	DATE - NOV. 2012	REVISED -								

NOTES

1. SAWED TRANSVERSE CONTRACTION JOINTS 5" DEEP SHALL BE PLACED AT 10 FOOT CENTERS MAXIMUM IN THE BRIDGE APPROACH PAVEMENT (SPECIAL) OR AS DIRECTED BY THE ENGINEER (STD. 42000). ALL DOWEL BARS 18" LONG AT 12" CENTERS SHALL BE CENTERED ACROSS THE CONTRACTION JOINTS. THE DOWEL BARS SHALL BE 1 1/2" DIAMETER.
2. THE CENTERLINE LONGITUDINAL CONSTRUCTION JOINT WILL BE OPTIONAL IN THE BRIDGE APPROACH PAVEMENT (SPECIAL). A SAWED LONGITUDINAL CENTERLINE JOINT WITH TIE BARS SHALL BE CONSTRUCTED WHEN THE PAVEMENT IS CONSTRUCTED FULL WIDTH.
3. ALL SAWED JOINTS IN THE BRIDGE APPROACH PAVEMENT (SPECIAL) SHALL BE SEALED WITH A JOINT SEALER MEETING THE REQUIREMENTS OF ARTICLE 420.02 OF THE STANDARD SPECIFICATIONS.
4. THE BRIDGE APPROACH PAVEMENT (SPECIAL) SURFACE SHALL BE GROOVED BY SAW CUTTING. THE GROOVING SHALL BE IN ACCORDANCE WITH ARTICLE 503.16(3) AND BE PAID FOR AS BRIDGE DECK GROOVING.

BEGIN IMPROVEMENTS
C.H. 21 (KENNEY RD.)
STA. 313+22.00



PROPOSED AGGREGATE SHOULDERS,
TYPE A (6" THICK) (TYP.)

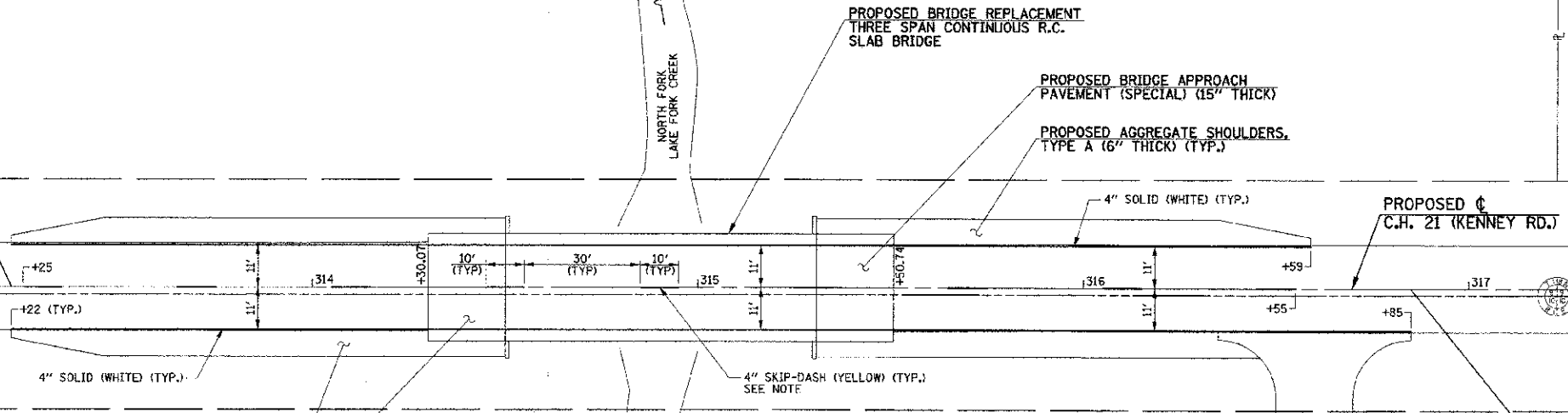
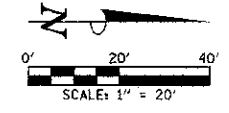
PROPOSED BRIDGE APPROACH
PAVEMENT (SPECIAL) (15" THICK)

- PAVEMENT JOINT KEY**
- ① LONGITUDINAL CONSTRUCTION JOINT WITH NO. 6 x 30" EPOXY COATED TIE BARS AT 24" CENTERS FORMED IN PLACE (STD. 42000)
 - ② LONGITUDINAL CONSTRUCTION JOINT WITH NO. 6 x 24" EPOXY COATED TIE BARS AT 24" CENTERS DRILLED AND GROUTED IN PLACE (STD. 420001) (PERFORMED HOLES WITH GROUTED TIE BARS WILL NOT BE ALLOWED)
 - ③ SAWED LONGITUDINAL JOINT WITH NO. 6 x 30" EPOXY COATED TIE BARS AT 30" CENTERS (STD. 420001)
 - ④ SAWED TRANSVERSE CONTRACTION JOINT WITH 1 1/2" DIA. x 18" EPOXY COATED DOWEL BARS AT 12" CENTERS (STD. 420001)

END IMPROVEMENTS
C.H. 21 (KENNEY RD.)
STA. 316+85.00

PAVEMENT JOINT PLAN

BEGIN IMPROVEMENTS
C.H. 21 (KENNEY RD.)
STA. 313+22.00



PROPOSED AGGREGATE SHOULDERS,
TYPE A (6" THICK) (TYP.)

PROPOSED BRIDGE APPROACH
PAVEMENT (SPECIAL) (15" THICK)

7800110 PAINT PAVEMENT MARKING - LINE 4"		
LOCATION	SKIP-DASH YELLOW (FOOT) SEE NOTE	SOLID WHITE (FOOT)
C.H. 21 (KENNEY ROAD)		
313+25 C. TO 316+55 L.	90	
313+22 LT. TO 316+59 LT.		337
313+22 RT. TO 316+85 RT.		363
SUBTOTAL	90	700
TOTAL		790

NOTE
THE LOCATIONS OF THE 4" SKIP-DASHES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO COINCIDE WITH THE EXISTING PAVEMENT MARKINGS.

END IMPROVEMENTS
C.H. 21 (KENNEY RD.)
STA. 316+85.00

PAVEMENT MARKING PLAN

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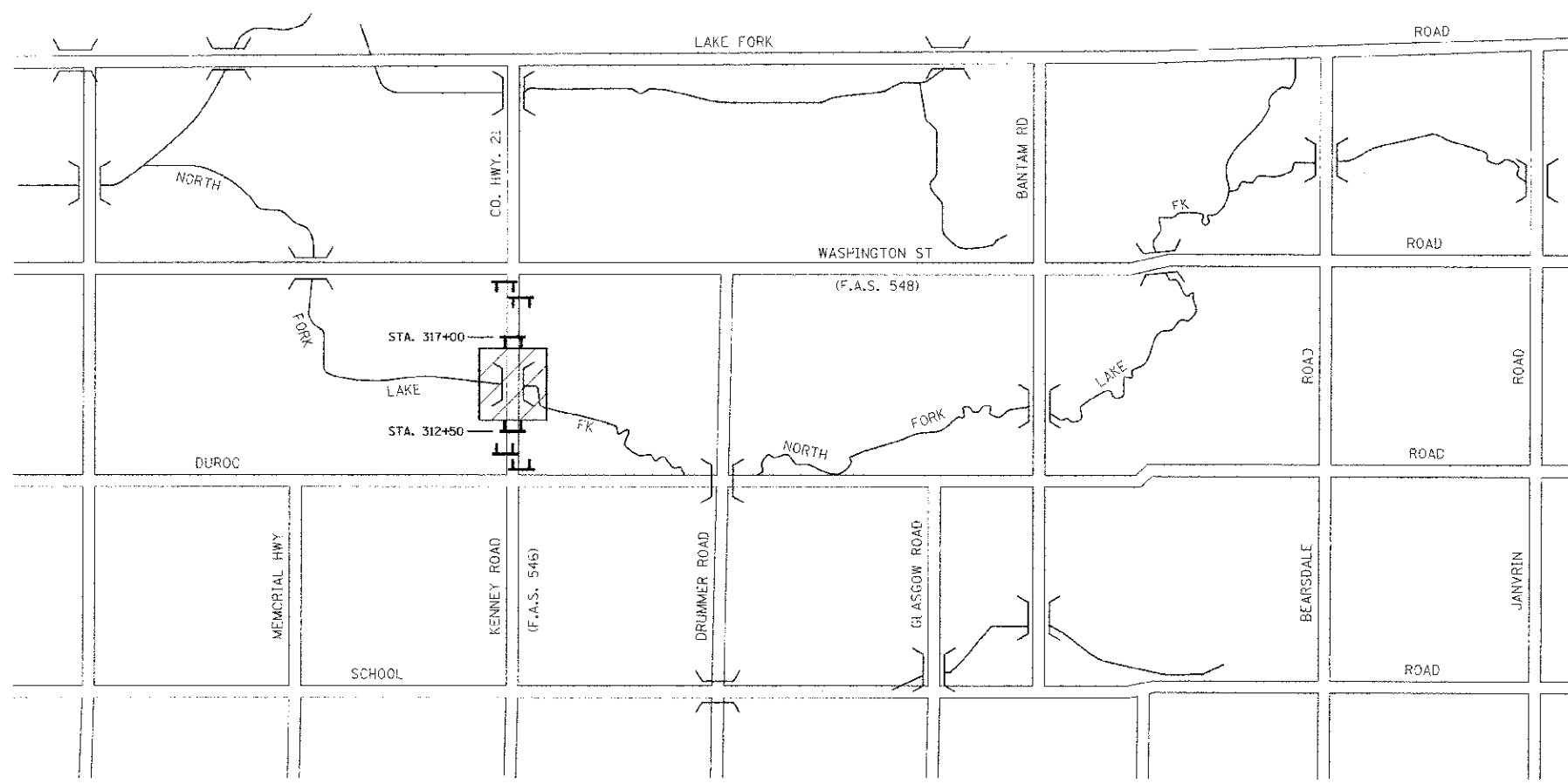
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DRAWN - J.L.B. REVISED -
CHECKED - S.M.W. REVISED -
DATE - NOV. 2012 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT JOINT AND PAVEMENT MARKING PLAN

SCALE: 1"=20' SHEET NO. 9 OF 25 SHEETS STA. 312+50.00 TO STA. 318+00.00

F.A.S. RTE. 946	SECTION 10-00237-00-BR	COUNTY MACON	TOTAL SHEETS 25	SHEET NO. 9
CONTRACT NO. 95694			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



ROAD CLOSURE PLAN

TRAFFIC CONTROL NOTES

1. TRAFFIC CONTROL AND PROTECTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION; THE APPLICABLE GUIDELINES CONTAINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS; STANDARDS 701301, 701901, BLR 21, AND BLR 22; THE TRAFFIC CONTROL PLANS; AND THE SPECIAL PROVISIONS.
2. TRAFFIC CONTROL AND PROTECTION DEVICES AND SIGNAGE WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL AND PROTECTION, SPECIAL. ALL ADDITIONAL TRAFFIC CONTROL DEVICES AND SIGNS REQUIRED FOR THE WORK AS SHOWN ON THE TRAFFIC CONTROL PLAN OR AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE LUMP SUM PRICE OF TRAFFIC CONTROL AND PROTECTION, SPECIAL.
3. TRAFFIC CONTROL SURVEILLANCE WILL NOT BE PAID FOR SEPARATELY FOR THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL TRAFFIC CONTROL DEVICES AND SIGNS AT ALL TIMES INCLUDING NIGHTTIME, WEEKENDS, AND ANY TIME WORKERS ARE NOT PRESENT. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH RECURRING SPECIAL PROVISION LRS3. THE COST OF ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED FOR THE INSPECTION AND MAINTENANCE OF THE TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE INCLUDED IN THE LUMP SUM PRICE OF TRAFFIC CONTROL AND PROTECTION, SPECIAL.
4. FLASHING LIGHTS SHALL BE PLACED ON ALL TYPE III BARRICADES IN ACCORDANCE WITH STANDARD 701901 UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
5. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL ROAD CLOSURES A MINIMUM OF 48 HOURS IN ADVANCE OF THE ROAD CLOSURES.
6. MACON COUNTY WILL BE RESPONSIBLE FOR NOTIFYING THE PUBLIC, THE UNITED STATES POSTAL SERVICE, AND THE EMERGENCY SERVICE AGENCIES OF ALL ROAD CLOSURES.
7. THERE WILL BE A DEDUCTION FOR TRAFFIC CONTROL DEFICIENCIES AS SPECIFIED IN ARTICLE 105.03(b) OF THE STANDARD SPECIFICATIONS. CONTRACT UNIT PRICES SHALL NOT EXCEED 100% OF THE BID UNIT PRICE FOR TRAFFIC CONTROL AND PROTECTION, SPECIAL.

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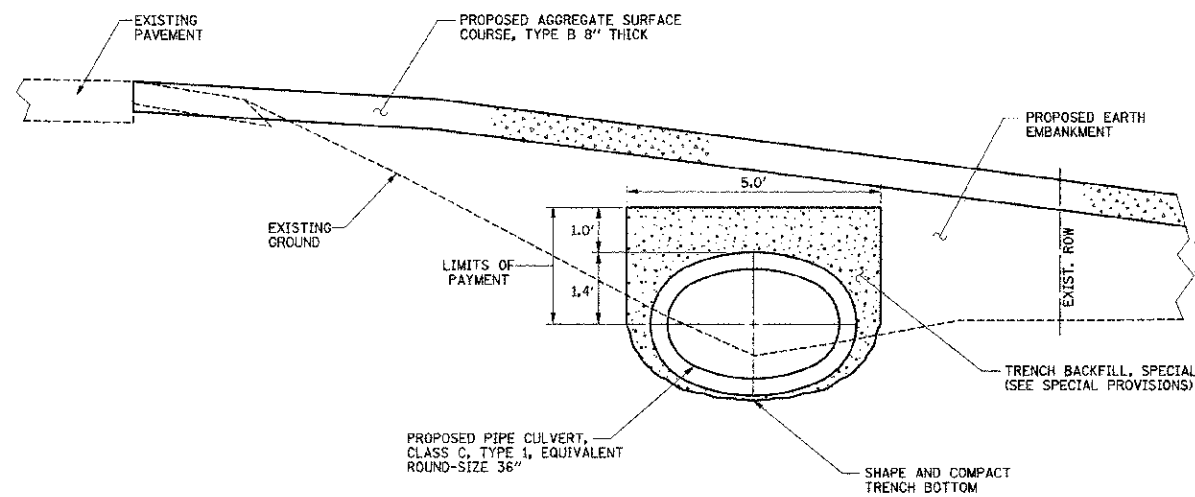
DESIGNED - R.L.H.	REVISED -
DRAWN - J.L.B.	REVISED -
CHECKED - S.M.W.	REVISED -
DATE - NOV. 2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

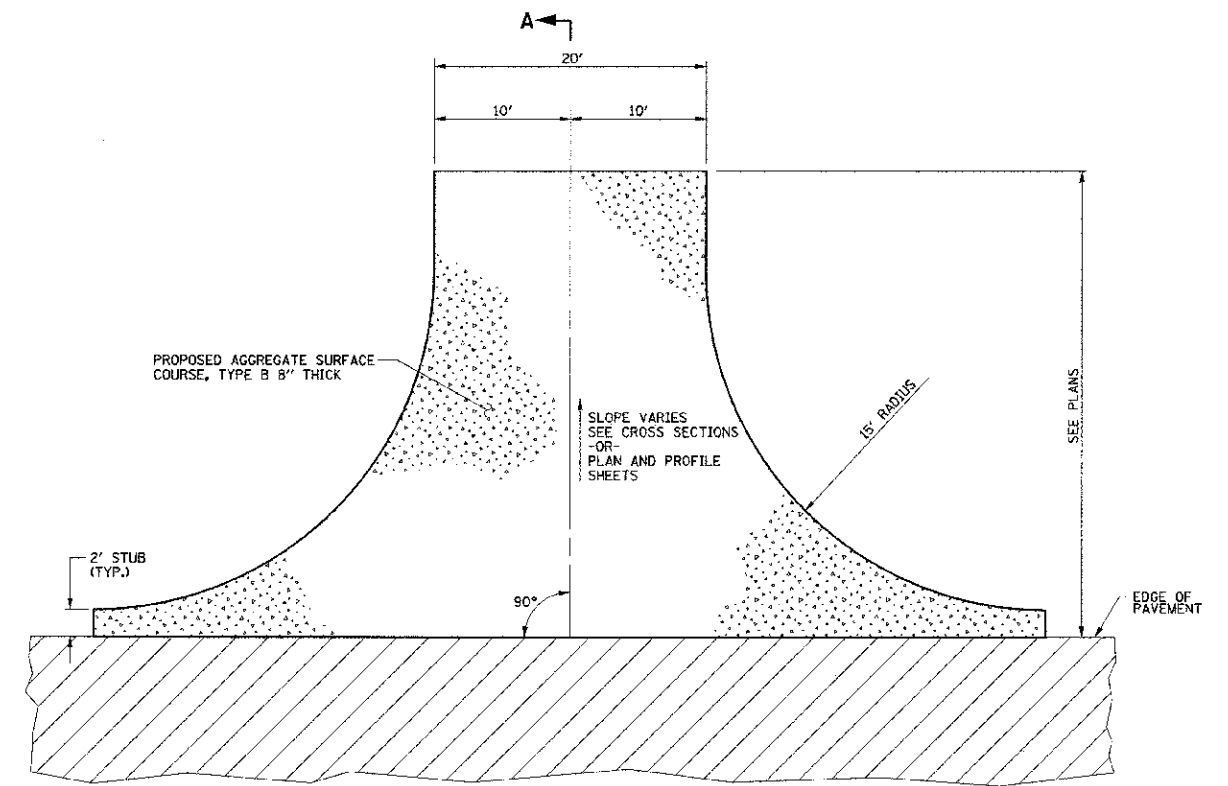
TRAFFIC CONTROL PLAN

SCALE : NONE SHEET NO. 10 OF 25 SHEETS STA. TO STA.

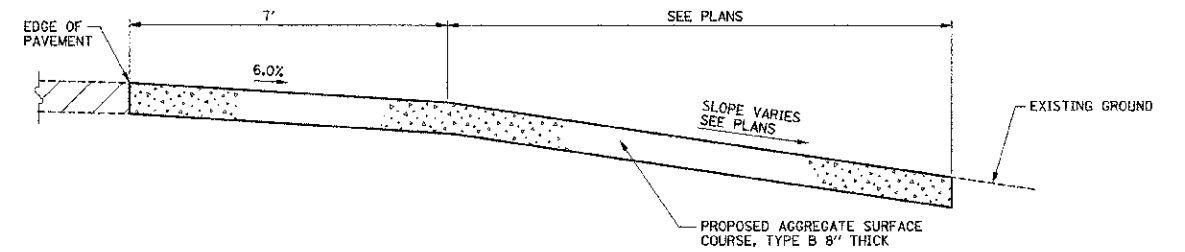
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
546	10-00237-00-BR	MACON	25	10
CONTRACT NO. 95694			ILLINOIS FED. AID PROJECT	



PIPE CULVERT DETAIL
NO SCALE



PLAN



SECTION A-A

FIELD ENTRANCE DETAIL
NO SCALE

FILE NAME = p:\m0320040_macon county - ch 21 bridge replacement\plans\sheet\roadway-details.dgn
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DESIGNED - R.L.H.	REVISED -
DRAWN - J.L.B.	REVISED -
CHECKED - S.M.W.	REVISED -
DATE - NOV, 2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

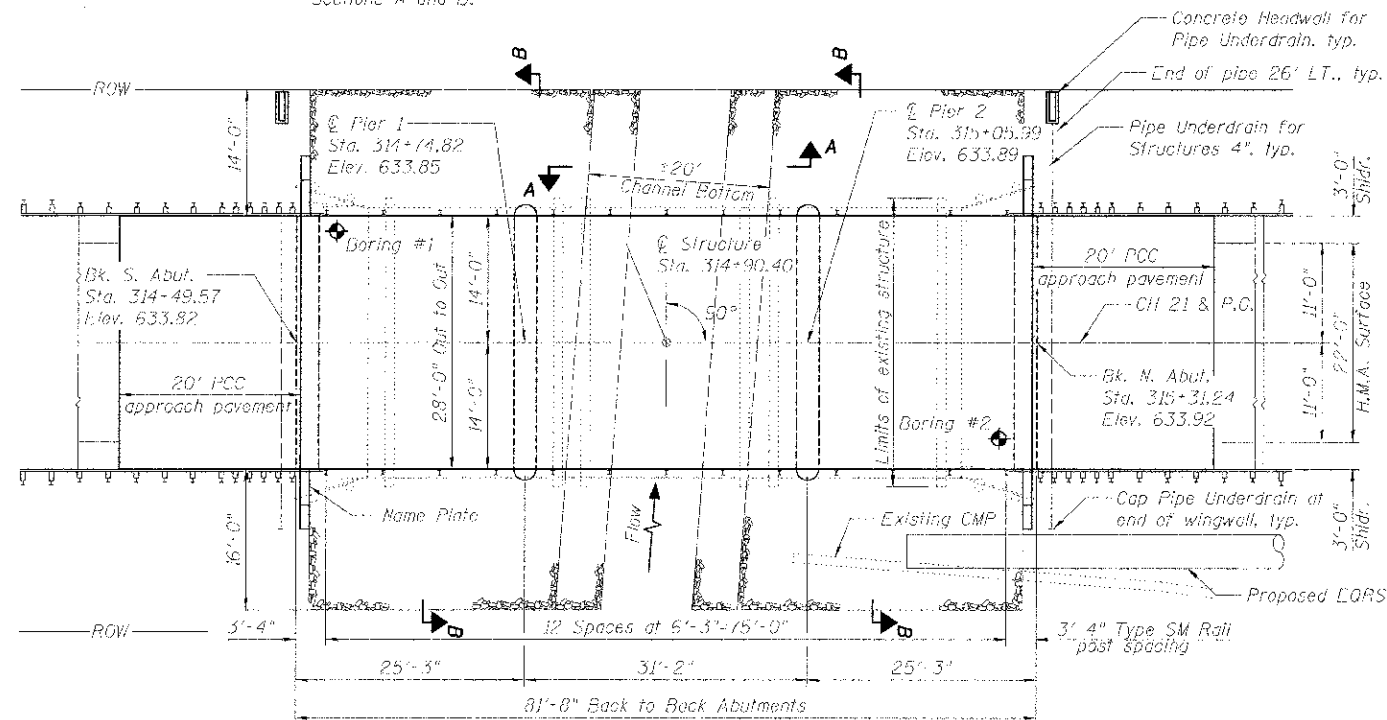
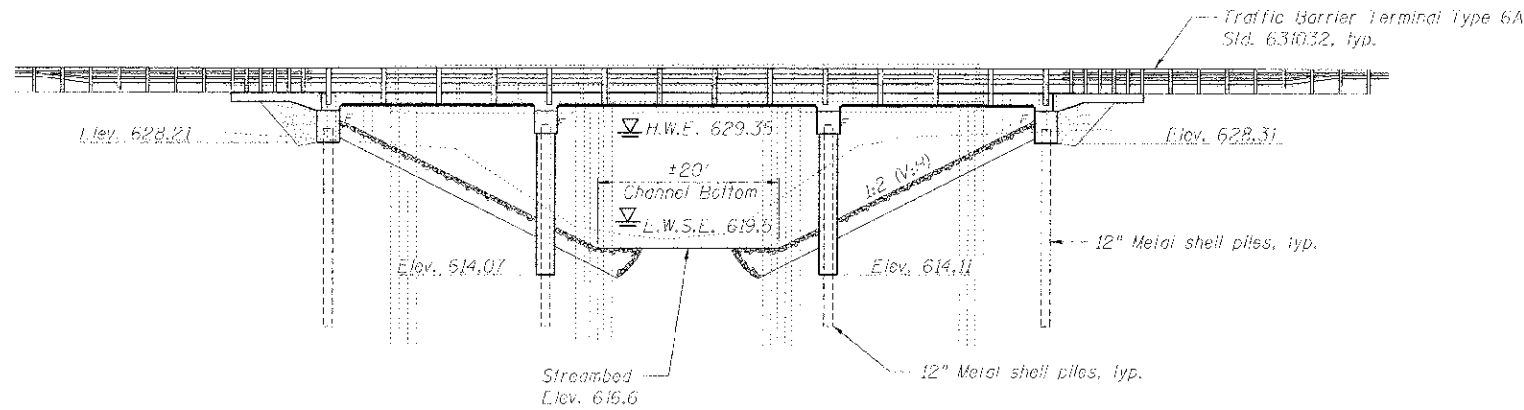
SCALE : NONE SHEET NO. 11 OF 25 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
546	10-00237-00-BR	MACON	25	11
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 95694	

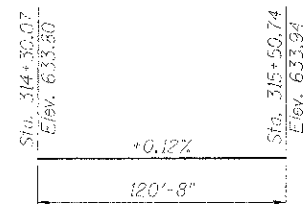
Bench Mark: TBM 1, top of nail on pole STA. 316+01.11, 29.36 RT, Elevation = 628.68

Existing Structure: SM 05B 3004 was built in 1933 with a timber substructure and superstructure at STA 314+90.40. In 1972 the superstructure was reconstructed. The bridge has three spans with a reinforced concrete deck on wide flange steel stringers supported on timber pile supported abutments and piers. The bridge length is 66'-0" Bk. to Bk. of abutments with 28'-0" roadway width between 1'-0" wide concrete curbs with steel railing. The existing structure to be removed and replaced. There will be no stage construction.

No salvages.

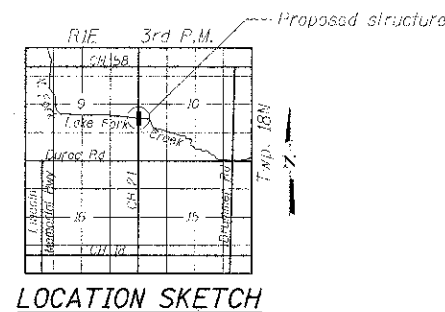


PROFILE GRADE
(along & roadway)



I certify that to the best of knowledge, information and belief, this bridge/box culvert design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

Sean Nagano
Structural Engineer
Clark Dietz, Inc.
DATE: 12-21-2012
License Expires 11-30-2014



WATERWAY INFORMATION

Drainage Area = 23.1 sq. miles Low Grade Elev. 629.0 @ Sta. 337+31.0

Flood Yr.	Freq.	C.F.S.		Opening Sq. Ft.	Nat. Head Ft.		Headwater El.	
		Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
10	1810	367.9	488.0	628.60	629.06	628.86	0.46	0.26
Design	20	2250	388.8	514.0	629.05	629.65	0.60	0.30
	50	2860	442.6	510.3	629.46	629.24	0.76	0.42
Base	100	3330	469.2	511.0	629.76	629.60	0.84	0.41
Max. Calc.	500	4460	477.4	606.3	630.31	630.79	0.48	0.37

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	Pier 1	Pier 2	N. Abut.
	628.6	608.4	608.4	628.7

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Cofferdam Excavation	Cu Yd		94	94
Cofferdam (Type I) (Location 1)	Each		1	1
Cofferdam (Type I) (Location 2)	Each		1	1
Filter Fabric	Sq Yd		485	485
Removal Of Existing Structures	Each		1	1
Structure Excavation	Cu Yd		122	122
Concrete Structures	Cu Yd		103.5	103.5
Concrete Superstructure	Cu Yd	123.9		123.9
Bridge Deck Grooving	Sq Yd		349	349
Protective Coal	Sq Yd		439	439
Reinforcement Bars, Epoxy Coated	Pound	24,020	11,990	36,010
Steel Railing, Type SM	Foot		164	164
Furnishing Metal Shell Piles 12" x 0.250"	Foot		146	146
Driving Piles	Foot		746	746
Test Pile Metal Shells	Each		2	2
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq Yd		32	32
Stone Riprap, Class A4	Sq Yd		196	196
Granular Backfill For Structures	Cu Yd		54	54
Pipe Underdrains for Structures 4"	Foot		98	98

*Quantity includes Bridge Approach Pavement (Special). See roadway plans.

INDEX OF SHEETS

1. General Plan and Elevation
2. General Notes
3. Superstructure
4. Steel Railing, Type SM
5. South Abutment
6. North Abutment
7. Piers
8. Metal Sheet Pile Details
9. Soil Borings

MONTGOMERY BRIDGE
NORTH FORK OF
LAKE FORK CREEK
BUILT BY
MACON COUNTY
SEC. 10-00237-00-BR
F.A.S. 546 STA. 314+90.40
STR. NO. 058-3396 LOADING HL-93

NAME PLATE
See Std. 5150G1

LOADING HL-93
Allow 50#/sq. ft. for future wearing surface.

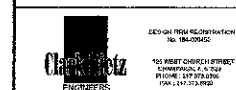
DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications 6th Edition

DESIGN STRESSES
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.10g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.19g
Soil Site Class = C

GENERAL PLAN & ELEVATION
MACON COUNTY CH-21 OVER NORTH
FORK OF LAKE FORK CREEK
F.A.S. 546 - SEC. 10-00237-00-BR
STATION 314+90.40
STRUCTURE NO. 058-3396



DESIGNED	SMM	REVISED	-
CHECKED	RDC	REVISED	-
DRAWN	SMM	REVISED	-
CHECKED	RLH	REVISED	-

MACON COUNTY
HIGHWAY DEPARTMENT

SHEET NO. 1 OF 9 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS	NO.
546	10-00237-00-BR	MACON	25	12

CONTRACT NO. 95694

ILLINOIS FED. AID PROJECT

GENERAL NOTES

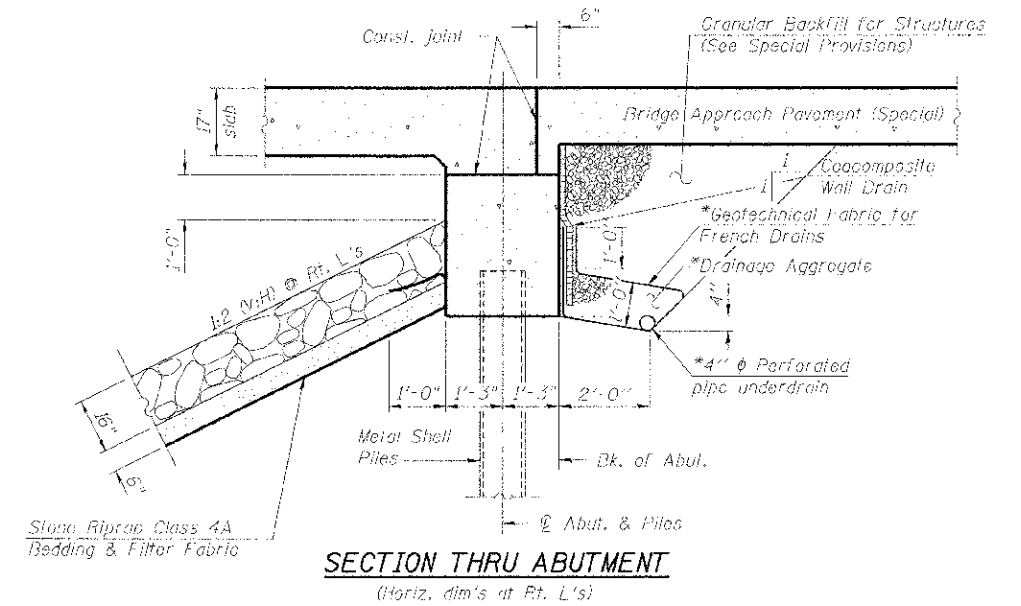
Reinforcement bars designated (E) shall be epoxy coated.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

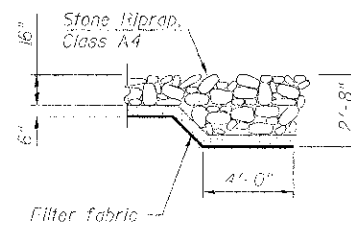
The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.

Protective Coat shall also be applied to deck fascias, exposed portions of wingwalls, ends of pier and abutment caps, and the bridge approach slabs.

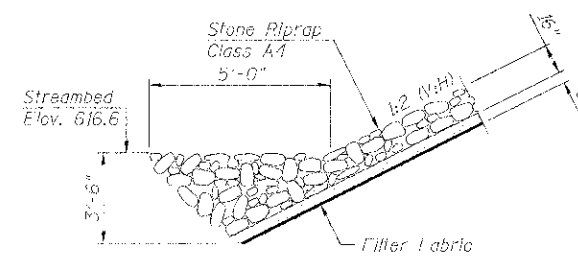


*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 60110.)

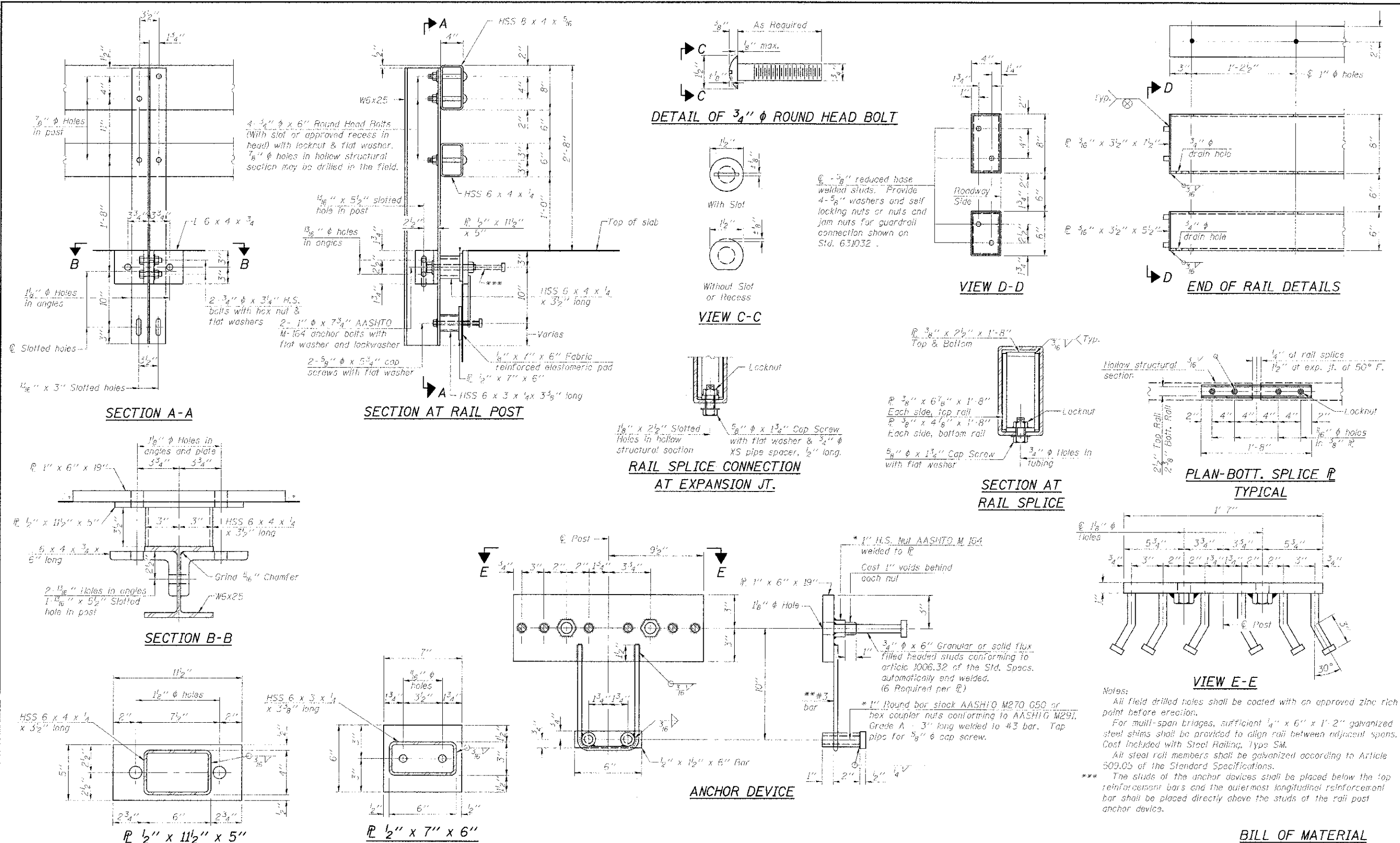


SECTION B-B



SECTION A-A

	DESIGNER ASSOCIATION	DESIGNED - SMM	REVISED -	MACON COUNTY HIGHWAY DEPARTMENT	GENERAL NOTES STRUCTURE NO. 058-3396	S.A.S. RTE.	SECTION	COUNTY	TOTAL SHEET	
	10 WEST FLORENCE STREET COLUMBUS, GA 31906 PHONE: 770-321-1100 FAC: 770-321-1100	CHECKED - RDC	REVISED -			546	10-00237-00-BR	MACON	25	13
	DRAWN - SMM	REVISED -	CONTRACT NO. 95694							
	CHECKED - RLH	REVISED -	ILLINOIS FED. AID PROJECT							
SHEET NO. 2 OF 9 SHEETS										



(6'-5" Maximum Post Spacing) (1/4" minimum to 3/8" maximum HMA thickness)

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

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

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 Railing, Type SM.
 All steel rail members 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	164

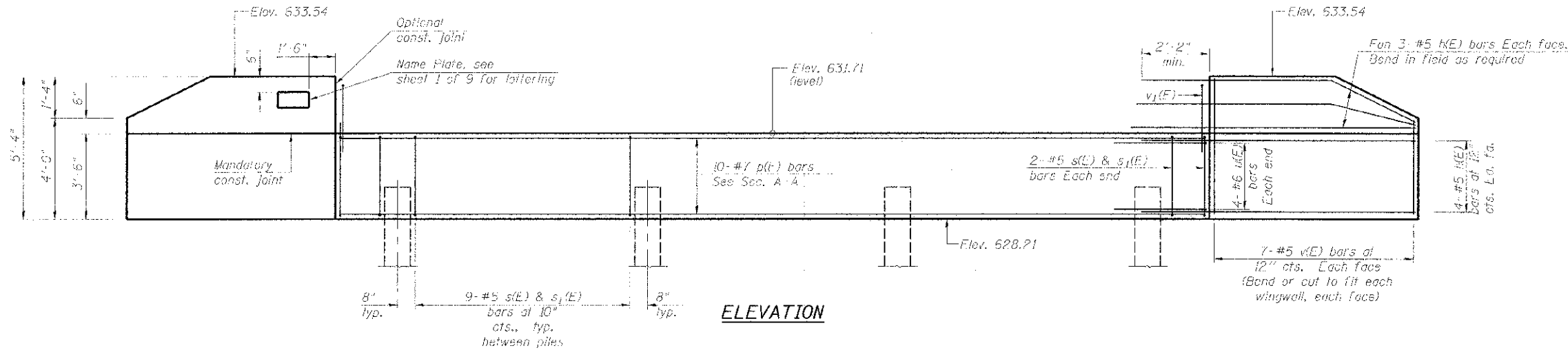


DESIGNED - SMM	REVISED -
CHECKED - ROC	REVISED -
DRAWN - SMM	REVISED -
CHECKED - RLH	REVISED -

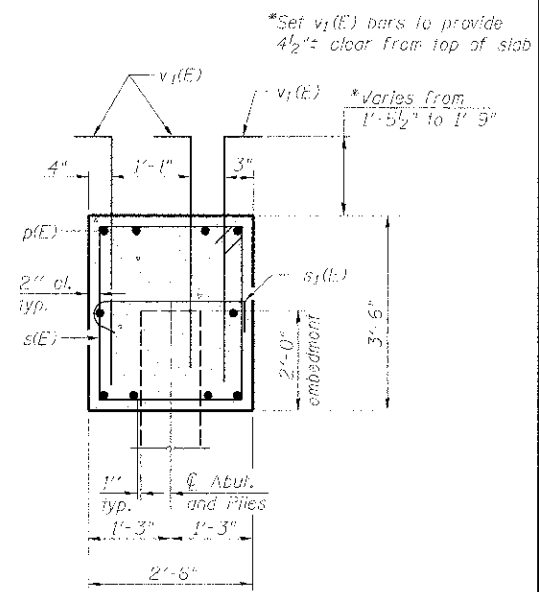
MACON COUNTY HIGHWAY DEPARTMENT

STEEL RAILING, TYPE SM (SPECIAL)
STRUCTURE NO. 058-3396

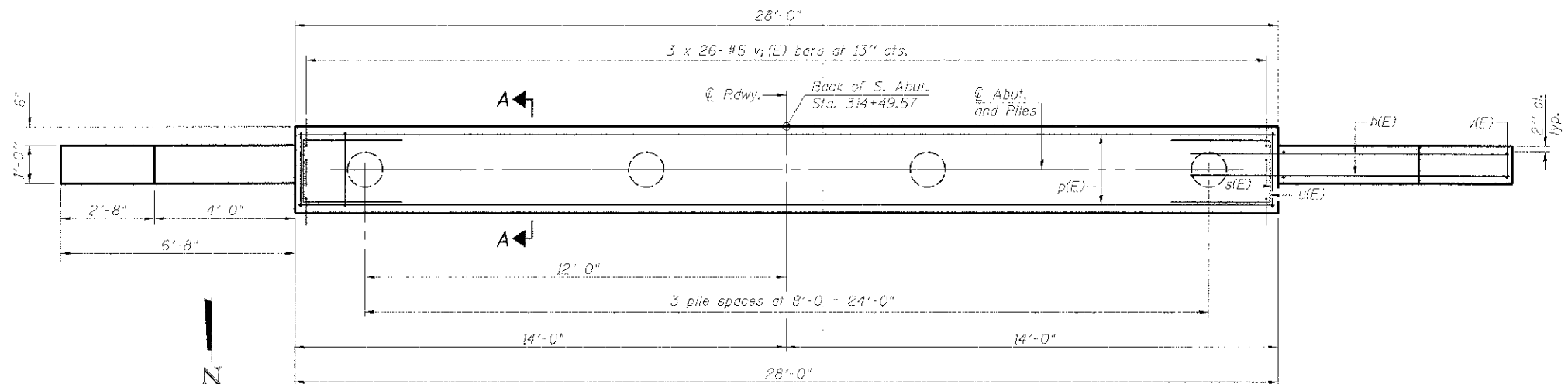
F.A.S. 516	SECTION 10-03237-00-BR	COUNTY MACON	TOTAL SHEET NO. 25
			SHEET NO. 4 OF 9 SHEETS
			CONTRACT NO. 95694



ELEVATION

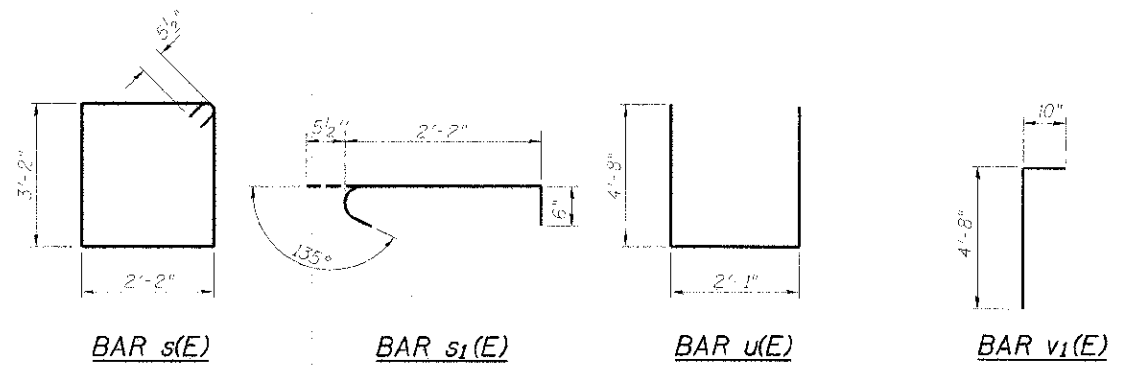


SECTION A-A



PLAN

PILE DATA
 Type: Metal Shell 12" x 0.25"
 Nominal Required Bearing: 355 kips
 Factored Resistance Available: 195 kips
 Pile Length: 40'
 No. Production Piles: 3
 No. Test Piles: 1
 For details of piles see sheet 8 of 9.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
v1(E)	28	#5	57'-0"	—
p(E)	10	#7	27'-8"	—
s(E)	31	#5	11'-5"	□
s1(E)	31	#5	3'-1 1/2"	—
u(E)	8	#6	11'-5"	U
v(E)	28	#5	57'-0"	—
v1(E)	78	#5	57'-6"	—
Structure Excavation		Cu. Yd.	61	
Concrete Structures		Cu. Yd.	11.6	
Reinforcement Bars, Epoxy Coated		Pound	2050	
Furnishing Metal Shell Piles, 12" x 0.25" Driving Piles		Foot	120	
Test Pile Metal Shells		Each	1	
Granular Backfill For Structures		Cu. Yd.	27	



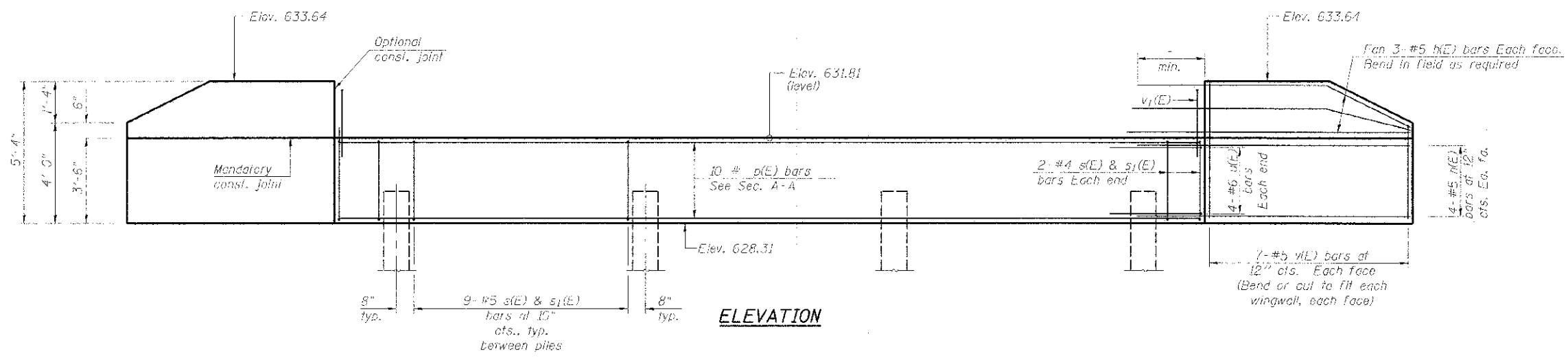
DESIGNED	SMM	REVISED	
CHECKED	RDC	REVISED	
DRAWN	SMM	REVISED	
CHECKED	RLH	REVISED	

**MACON COUNTY
 HIGHWAY DEPARTMENT**

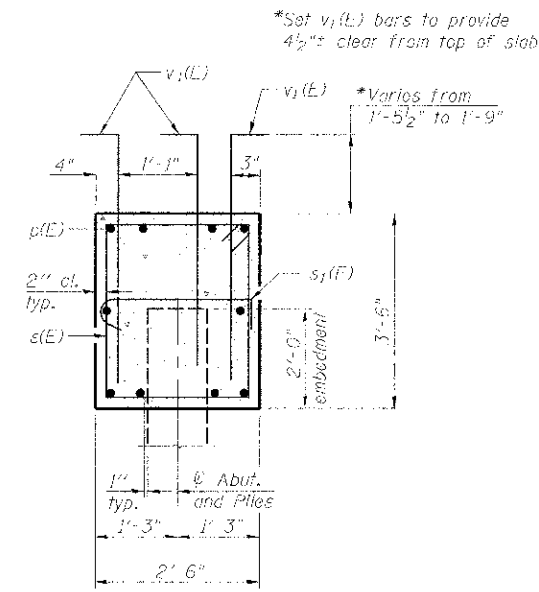
**SOUTH ABUTMENT
 STRUCTURE NO. 058-3396**

SHEET NO. 5 OF 9 SHEETS

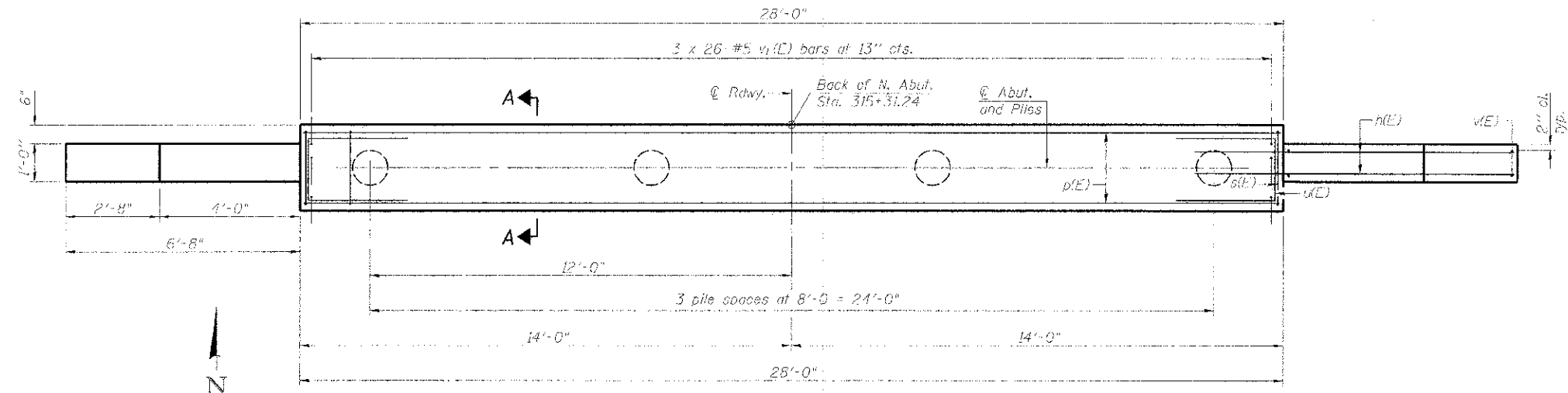
F.A.S. (RTE.)	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
546	10-00231-00-BR	MACON	25	16
			CONTRACT NO. 95694	
ILLINOIS FED. AID PROJECT				



ELEVATION



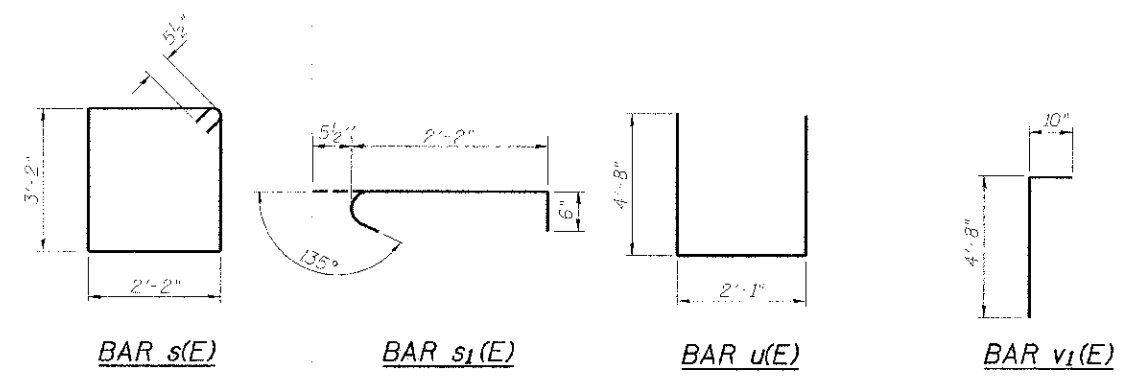
SECTION A-A



PLAN

PILE DATA

Type: Metal Shell 12" x 0.25"
 Nominal Required Bearing: 355 kips
 Factored Resistance Available: 195 kips
 Est. Length: 41'
 No. Production Piles: 4
 No. Test Piles: 0
 For details of piles see sheet 8 of 9.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
v1(E)	28	#5	9'-0"	—
p(E)	10	#7	27'-8"	—
s(F)	31	#5	11'-5"	□
s1(E)	31	#5	3'-1 1/2"	└
u(E)	8	#6	11'-5"	—
v1(E)	28	#5	5'-0"	—
v1(E)	78	#5	5'-6"	└
Structure Excavation			Cu. Yd.	61
Concrete Structures			Cu. Yd.	11.6
Reinforcement Bars, Epoxy Coated			Pound	2030
Furnishing Metal Shell Piles, 12" x 0.25"			Foot	164
Driving Piles			Foot	164
Granular Backfill For Structures			Cu. Yd.	27

DESIGNED	SMM	REVISED	-
CHECKED	RLC	REVISED	-
DRAWN	SMM	REVISED	-
CHECKED	RLH	REVISED	-

**MACON COUNTY
HIGHWAY DEPARTMENT**

**NORTH ABUTMENT
STRUCTURE NO. 058-3396**

F.A.S. 37E	SECTION	COUNTY	TOTAL SHEETS
546	10-00237-00-BR	MACON	25
			17
			CONTRACT NO. 95694
ILLINOIS FED. AID PROJECT			

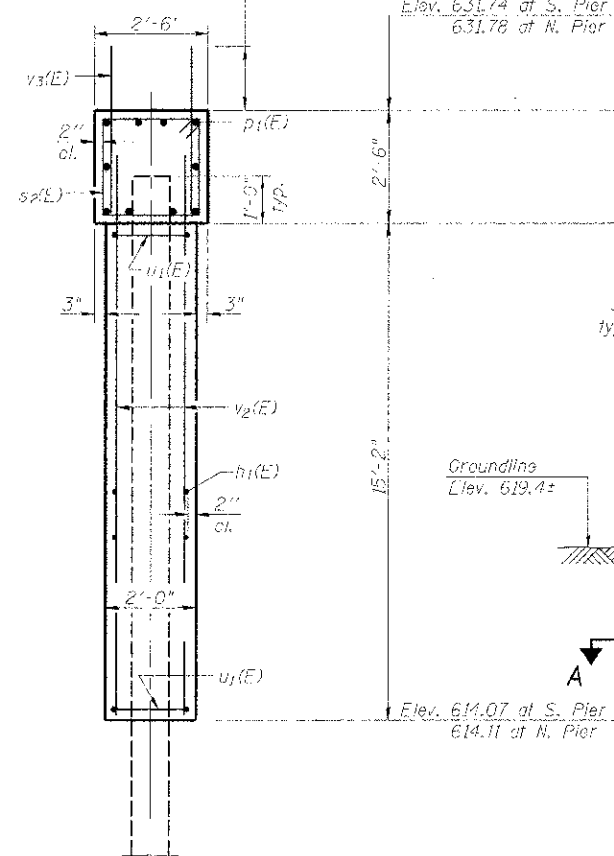
PILE DATA

Type: Metal Shell 12" x 0.25"
 Nominal Required Bearing: 355 kips
 Factored Resistance Available: 195 kips
 Est. Length: 42'
 No. Production Piles: 11
 No. Test Piles: 1 (at North Pier)

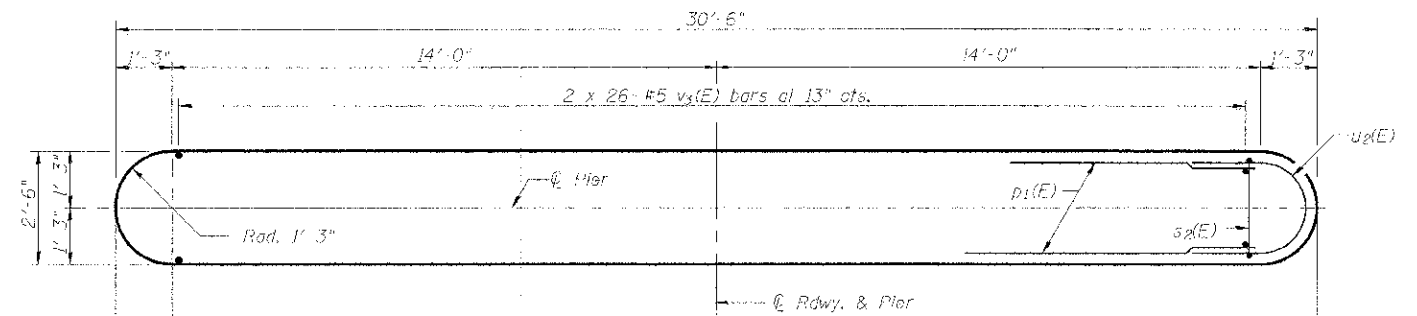
Note:
 For details of piles, see sheet 8 of 9.

*Set v₃(E) bars to provide 4 1/2" clear from top of slab

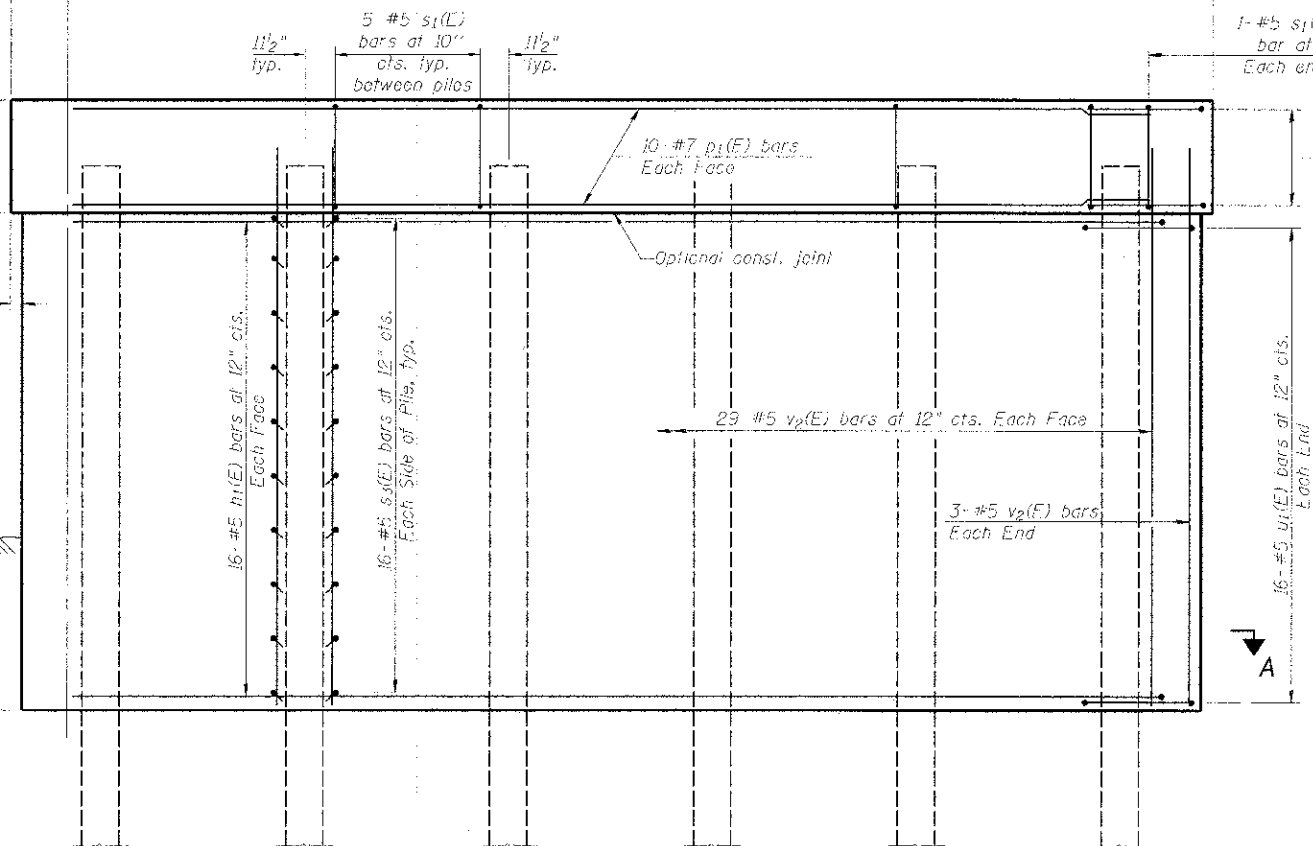
Varies from 1' 5 1/2" to 1' 9"



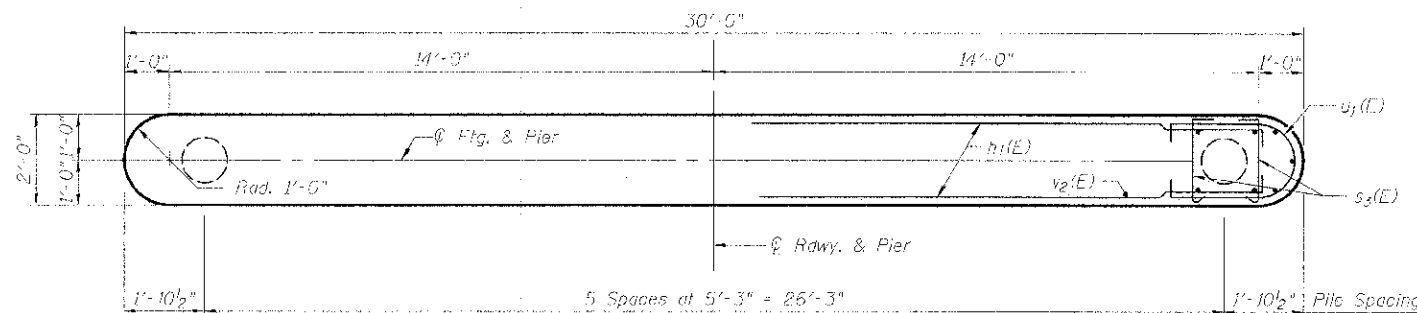
END VIEW



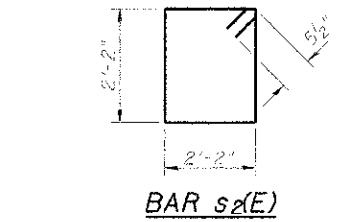
TOP PLAN



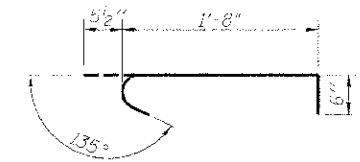
ELEVATION
 (Looking North)



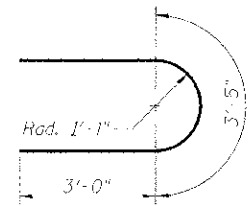
SECTION A-A



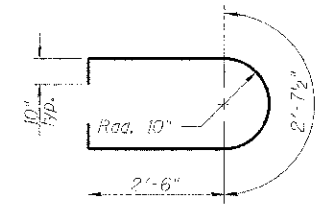
BAR s₂(E)



BAR s₃(E)



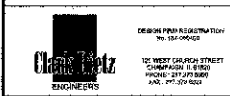
BARS u₂(E)



BARS u₁(E)

BILL OF MATERIAL
TWO PIERS

Bar	No.	Size	Length	Shape
h ₁ (E)	64	#5	28'-0"	—
p ₁ (E)	20	#7	28'-0"	—
s ₂ (E)	54	#5	9'-7"	□
s ₃ (E)	384	#5	2'-7 1/2"	┌
u ₁ (E)	64	#5	9'-3 1/2"	U
u ₂ (E)	12	#5	9'-5"	U
v ₂ (E)	128	#5	16'-3"	—
v ₃ (E)	104	#5	3'-10"	—
Cofferdam Excavation	Cu. Yd.		94	
Concrete Structures	Cu. Yd.		80.3	
Reinforcement Bars	Pounds		79,30	
Epoxy Coated				
Furnishing Metal Shell Piles, 12" x 0.25"	Foot		462	
Driving Piles	Foot		462	
Test Pile Metal Shells	Each		1	
Cofferdam (Type 1)	Each		1	
(Location 1) - S. Pier				
Cofferdam (Type 1)	Each		1	
(Location 2) - N. Pier				



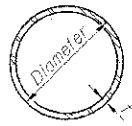
DESIGNED - SMM	REVISED -
CHECKED - RDC	REVISED -
DRAWN - SMM	REVISED -
CHECKED - RLH	REVISED -

MACON COUNTY
HIGHWAY DEPARTMENT

PIERS
STRUCTURE NO. 058-3396

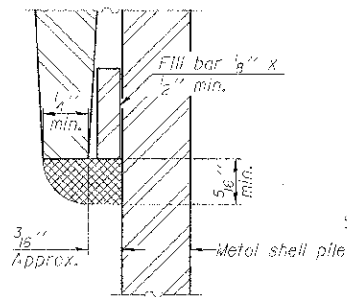
SHEET NO. 7 OF 9 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
546	10-00237-00-BR	MACON	25	18
			CONTRACT NO. 95694	
ILLINOISIFIED, AID PROJECT				

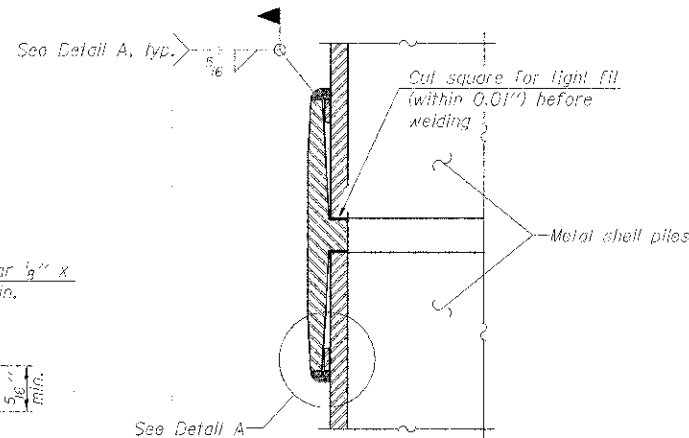


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (lb./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.50	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361

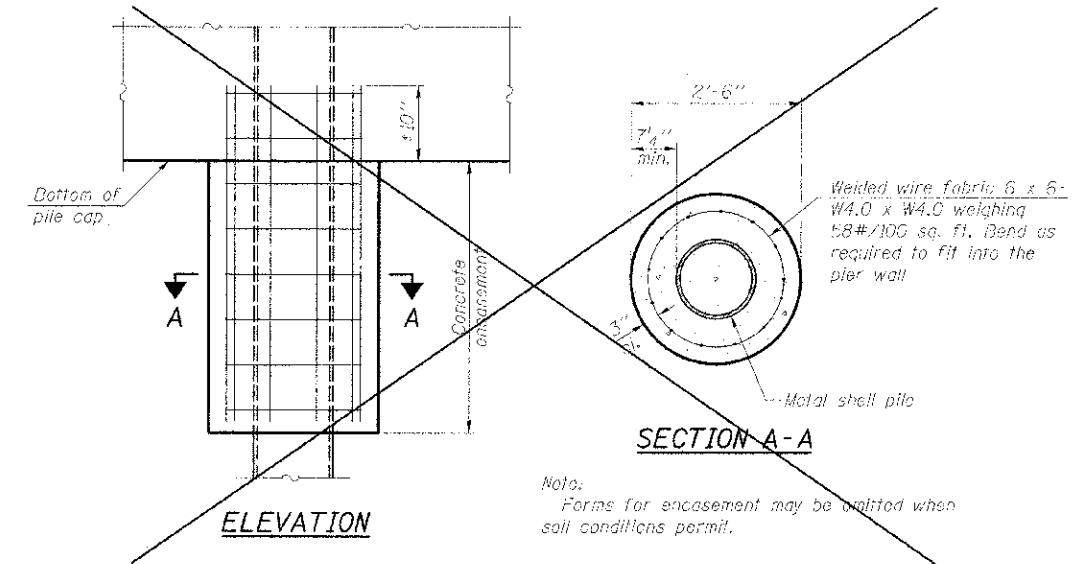


DETAIL A



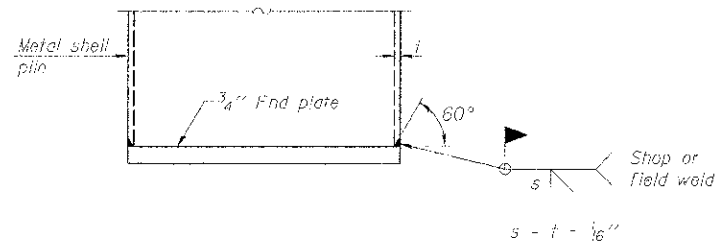
Notes:
 The $\frac{1}{8}$ " x $\frac{1}{2}$ " min. fillet bar may be constructed of 2 bars with a $\frac{1}{8}$ " max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE

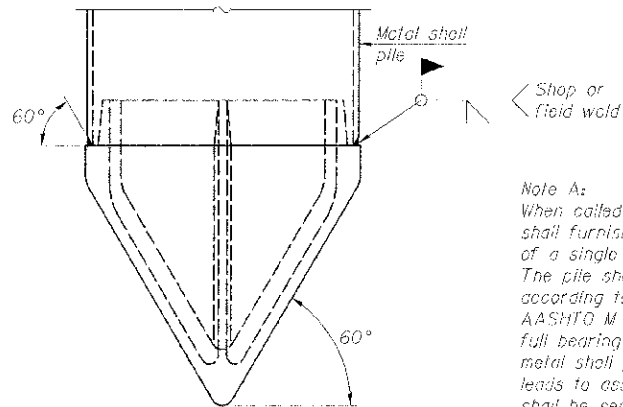


Note:
 Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASEMENT AT PIERS



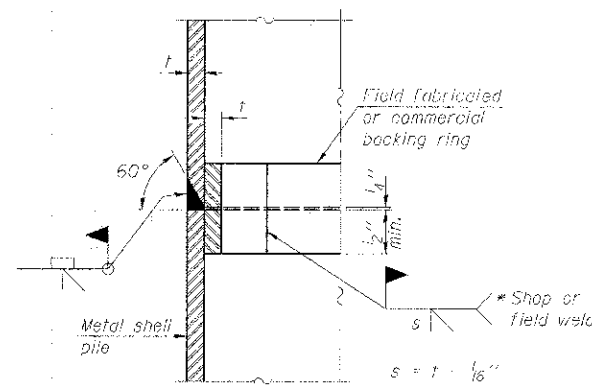
END PLATE ATTACHMENT



Note A:
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

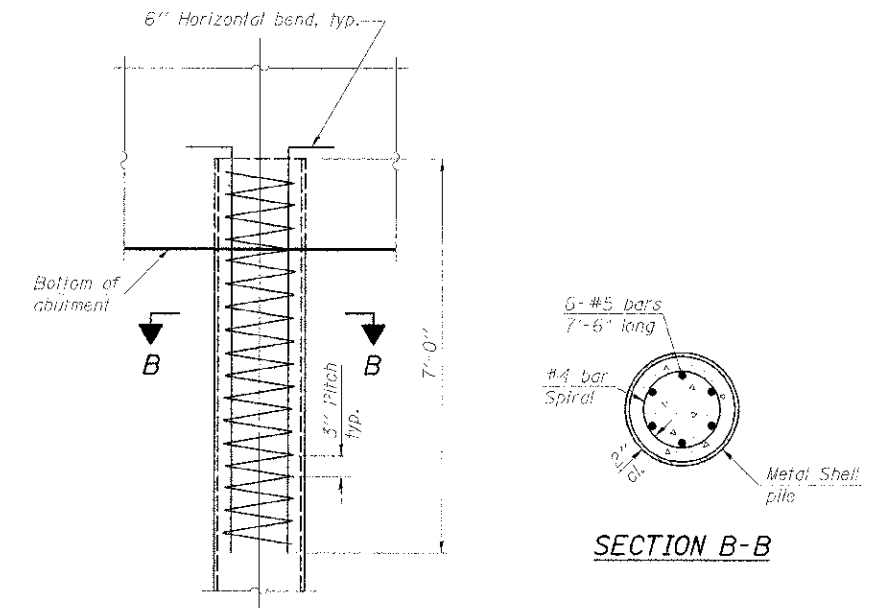
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION

METAL SHELL REINFORCEMENT AT ABUTMENTS

Note:
 The metal shell piles shall be according to ASTM A 252 Grade 3.

F-MS

1-27-12



DESIGNED - SHM	REVISED -
CHECKED - RDC	REVISED -
DRAWN - SHM	REVISED -
CHECKED - RLH	REVISED -

**MACON COUNTY
 HIGHWAY DEPARTMENT**

**METAL SHELL PILE DETAILS
 STRUCTURE NO. 058-3396**

SHEET NO. 8 OF 9 SHEETS

F.A.S. RTE. 546	SECTION 10-00237-00-RR	COUNTY MACON	101A SHEETS 25	SHEET NO. 19
			CONTRACT NO. 95694	

ILLINOIS FED. AID PROJECT

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

Route: CH 21 (FAS 546) Kenney Road
 Section: 4030 MFT
 County: Macon
 Structure No. 058-3004
 Station: 314+30.3
 Offset: 5.3 LL

Boring: B-1
 Page: Page 1 of 2
 Date of Boring: August 11, 2011
 Drilled By: Zach Wilcoxon
 Checked By: Robert Hahn
 MET Project No: 1-13078

Surface Water Elevation: Ground Water Elevation: when drilling: 633.42' (-40') at completion:	D P T H (ft.)	B L O W S (blows)	Q _u (tsf)	MC (%)	Soil Description	D P T H (ft.)	B L O W S (blows)	Q _u (tsf)	MC (%)
Ground Surface Elevation: 633.42'					10.0' Asphalt over 4" Crushed Stone				
					Light gray medium-coarse SAND (SP) with gravel	7	8	8.8 B	13
					(No Sample Recovery)	30			
					Dark grayish-black silty CLAY (CL)	31	1	0.8 P	32
					Gray silty CLAY (CL) with sand and small gravel, Till	32			
					Dd=88 PCF	33	3	3.6 B	28
					Dd=123 PCF	34	6	9.0 B	11
					Dd=78 PCF Dark brown silty CLAY (CL)	35	2	1.2 B	38
					Gray sandy CLAY (SC-CH)	46	1		27
					Gray silty CLAY (CL-ML)	47	1		30
					Gray silty CLAY (CL-CH)	48	2	1.4 B	25
					Dd=105 PCF	49	2	1.7 B	20
					Dd=102 PCF Gray and brownish-gray mottled silty CLAY (CL) with sand and small gravel, Till	50	3	1.6 B	20
					Dd=112 PCF Brownish-gray silty CLAY (CL) with sand and small gravel, Till	51	5	3.0 B	15
					Dd=115 PCF	52	8	8.2 B	13

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

Route: CH 21 (FAS 546) Kenney Road
 Section: 4030 MFT
 County: Macon
 Structure No. 058-3004
 Station: 314+30.3
 Offset: 5.3 LL

Boring: B-1
 Page: Page 2 of 2
 Date of Boring: August 11, 2011
 Drilled By: Zach Wilcoxon
 Checked By: Robert Hahn
 MET Project No: 1-13078

Surface Water Elevation: Ground Water Elevation: when drilling: 593.42' (-40') at completion:	D P T H (ft.)	B L O W S (blows)	Q _u (tsf)	MC (%)	Soil Description	D P T H (ft.)	B L O W S (blows)	Q _u (tsf)	MC (%)
Ground Surface Elevation: 633.42'					Gray silty CLAY (CL) with sand and small gravel, Till	55	30	2.5 P	15
					Grayish-brown sandy CLAY (CL) with small gravel, Till	60			
					Dd=129 PCF	61	97	5.4 B	8
					End of Boring: 61.5'				

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

Route: CH 21 (FAS 546) Kenney Road
 Section: 4030 MFT
 County: Macon
 Structure No. 058-3004
 Station: 314+30.3
 Offset: 5.3 LL

Boring: B-2
 Page: Page 1 of 2
 Date of Boring: August 15, 2011
 Drilled By: Zach Wilcoxon
 Checked By: Robert Hahn
 MET Project No: 1-13078

Surface Water Elevation: Ground Water Elevation: when drilling: 593.75' (-40') at completion:	D P T H (ft.)	B L O W S (blows)	Q _u (tsf)	MC (%)	Soil Description	D P T H (ft.)	B L O W S (blows)	Q _u (tsf)	MC (%)
Ground Surface Elevation: 633.75'					11" Asphalt over 4" Crushed Stone				
					Black mixed Sand and Gravel	3			
					Dd=105 PCF	4	2	4.2 B	10
					Dd=32 PCF	5	2	2.0 B	21
					Dark brownish-black silty CLAY (CL)	6	4	4.2 B	23
					Dd=98 PCF	7	3		
					Dd=30 PCF	8	2	1.4 B	32
					Dark brown silty CLAY (CL) with sand and gravel	9	1	0.6 P	16
					Brownish-gray silty CLAY (CL-ML)	10	2	1.8 B	21
					Dd=99 PCF	11	2		
					Brownish-gray silty CLAY (CL)	12	2	1.8 B	25
					Dd=91 PCF	13	2		
					Dd=133 PCF	14	3		
					Dd=37 PCF Gray/brown mottled silty CLAY (CL) with sand and small gravel, Till	15	3	2.0 B	22
					Dd=114 PCF	16	9	7.3 B	19
					Brownish-gray silty CLAY (CL) with sand and small gravel, Till	17	12		
					Dd=84 PCF Dark brown clayey SILT (ML) with sand	18	10	3.0 B	24
					Dd=112 PCF	19	11	7.8 B	13

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

Route: CH 21 (FAS 546) Kenney Road
 Section: 4030 MFT
 County: Macon
 Structure No. 058-3004
 Station: 314+30.5
 Offset: 5.3 LL

Boring: B-2
 Page: Page 2 of 2
 Date of Boring: August 15, 2011
 Drilled By: Zach Wilcoxon
 Checked By: Robert Hahn
 MET Project No: 1-13078

Surface Water Elevation: Ground Water Elevation: when drilling: 593.75' (-40') at completion:	D P T H (ft.)	B L O W S (blows)	Q _u (tsf)	MC (%)	Soil Description	D P T H (ft.)	B L O W S (blows)	Q _u (tsf)	MC (%)
Ground Surface Elevation: 633.75'					Dd=142 PCF Grayish-brown sandy CLAY (CL) with small gravel, Till	20	34	4.0 B	10
					Dd=139 PCF	21	28	6.4 B	10
					End of Boring: 61.5'				



DESIGNED - SWM
 CHECKED - RDC
 DRAWN - SWM
 CHECKED - RLH

REVISED -
 REVISED -
 REVISED -
 REVISED -

MACON COUNTY
 HIGHWAY DEPARTMENT

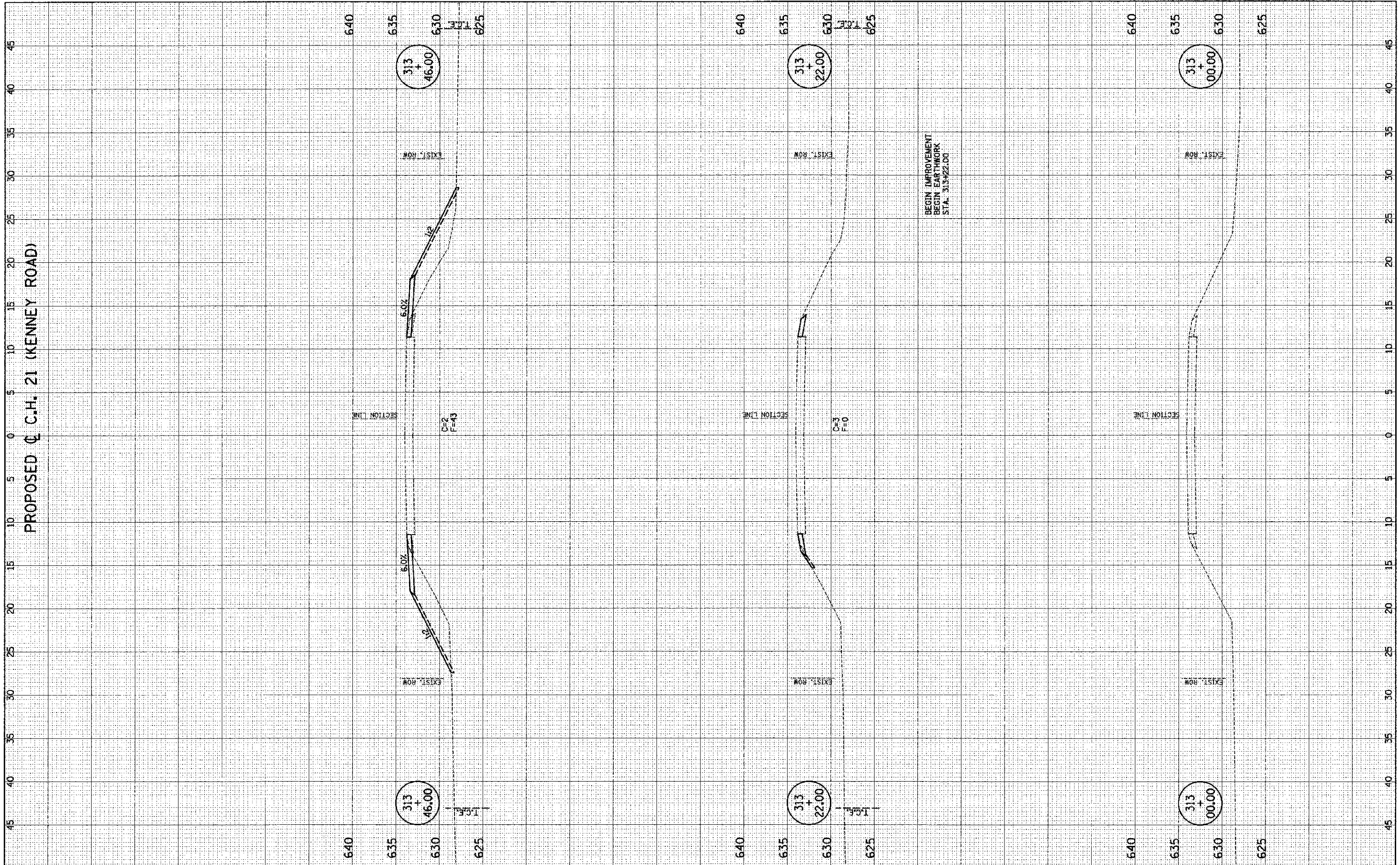
BORING LOGS
 STRUCTURE NO. 058-3396

SHEET NO. 9 OF 9 SHEETS

F.A.S. - RTE. 546	SECTION 10-00237-00-BR	COUNTY MACON	TOTAL SHEETS 25	SHEET NO. 20
CONTRACT NO. 95694			ILLINOIS FED. AID PROJECT	

FINAL SURVEY	DATE
REVISIONS	
NOTE BOOK	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
REVISIONS	
NOTE BOOK	
AREAS CHECKED	



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DESIGNED - R.L.H.	REVISED -
DRAWN - J.L.B.	REVISED -
CHECKED - S.M.W.	REVISED -
DATE - NOV. 2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

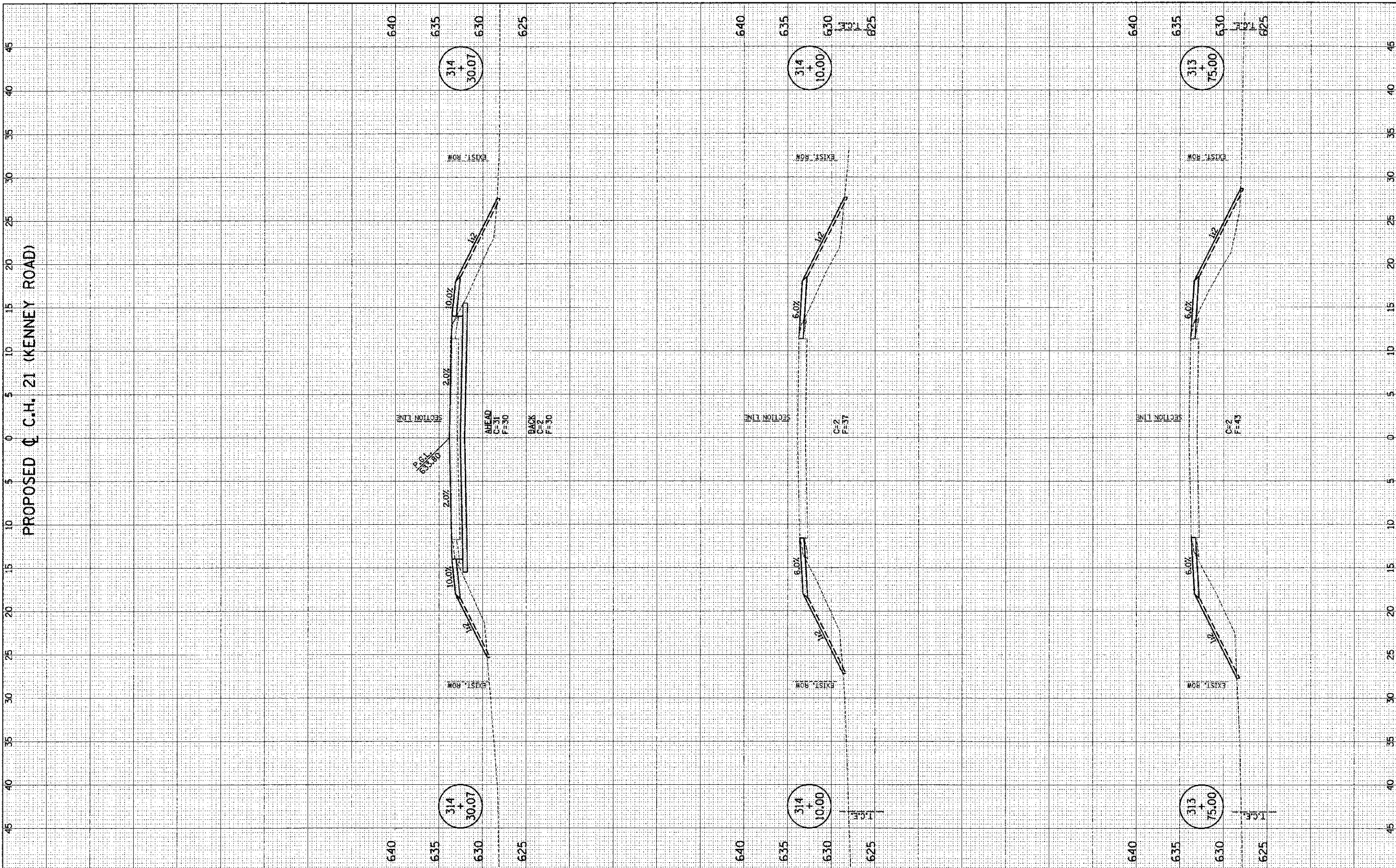
CROSS SECTIONS - C.H. 21 (KENNEDY ROAD)

SCALE : 1" = 5' HOR. 1" = 1' VERT. SHEET NO. 21 OF 25 SHEETS STA. 313+00.00 TO STA. 313+46.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
546	10-00237-00-BR	MACON	25	21
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 95694	

FINAL	SUBMITTED	DATE
SURVEY	REVISION	
NOTE BOOK	REVISION	
AREAS	REVISION	
PLEASE CHECKED		

DESIGNED	BY	DATE
DRAWN		
CHECKED		
DATE		



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DRAWN	- J.L.B.	REVISED	-
CHECKED	- S.M.W.	REVISED	-
DATE	- NOV, 2012	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - C.H. 21 (KENNEY ROAD)

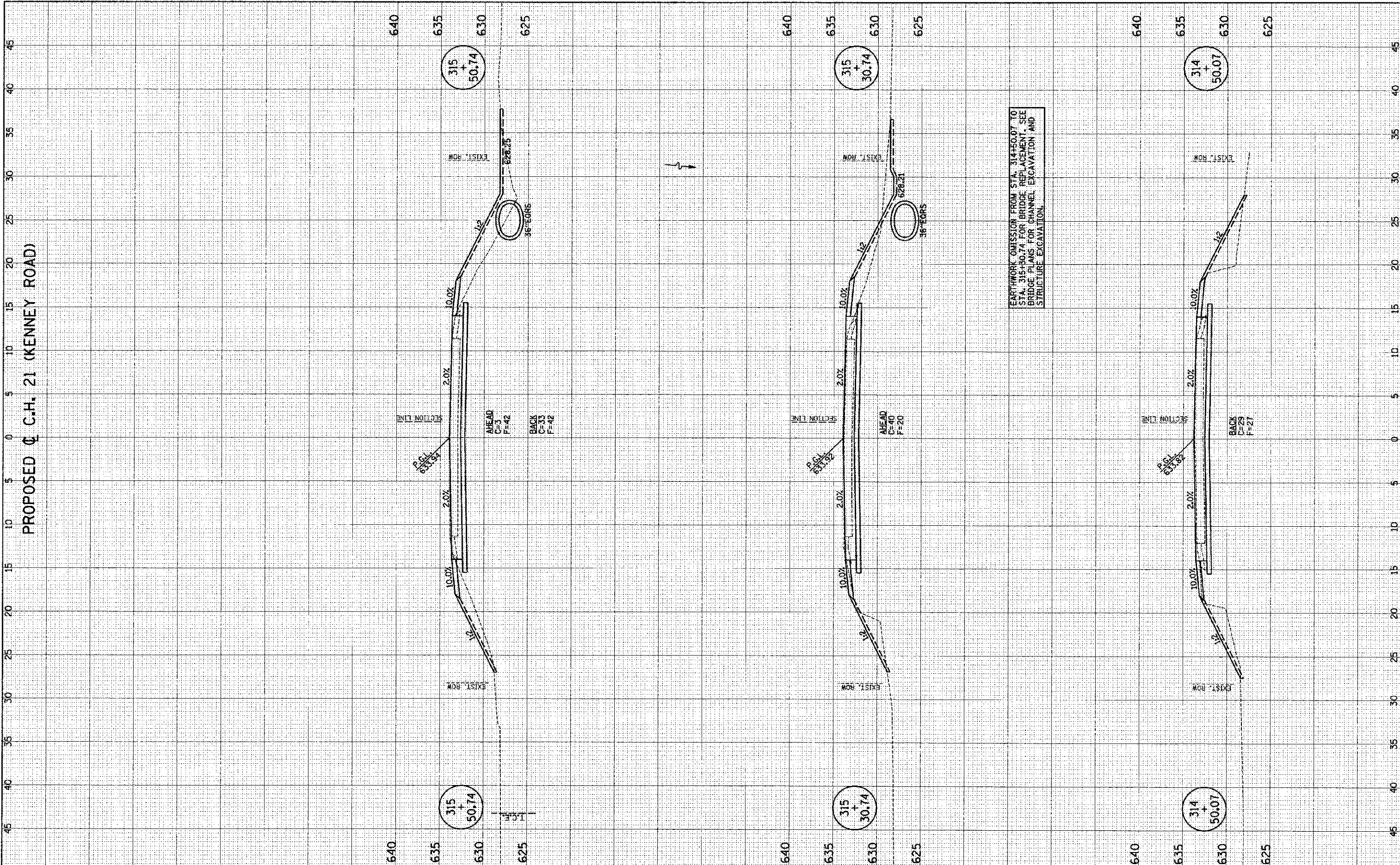
SCALE : 1" = 5' HOR. 1" = 2' VERT. SHEET NO. 22 OF 25 SHEETS STA. 313+75.00 TO STA. 314+30.07

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEET
546	10-00237-00-BR	MACON	SHEETS NO.
			25 22
CONTRACT NO. 95694			

FINAL SURVEY DATE
 SURVEY NO. 10110
 LOC. NO. 10110
 NOTE ROAD AREAS CHECKED

ORIGINAL SURVEY DATE
 SURVEY NO. 10110
 LOC. NO. 10110
 NOTE ROAD AREAS CHECKED

PROPOSED C.H. 21 (KENNEY ROAD)



EARTHWORK OMISSION FROM STA. 314+50.07 TO STA. 315+50.74 FOR BRIDGE REPLACEMENT. SEE BRIDGE PLANS FOR CHANNEL EXCAVATION AND STRUCTURE EXCAVATION.

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CHECKED - S.M.W.	REVISED -
DATE - NOV. 2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

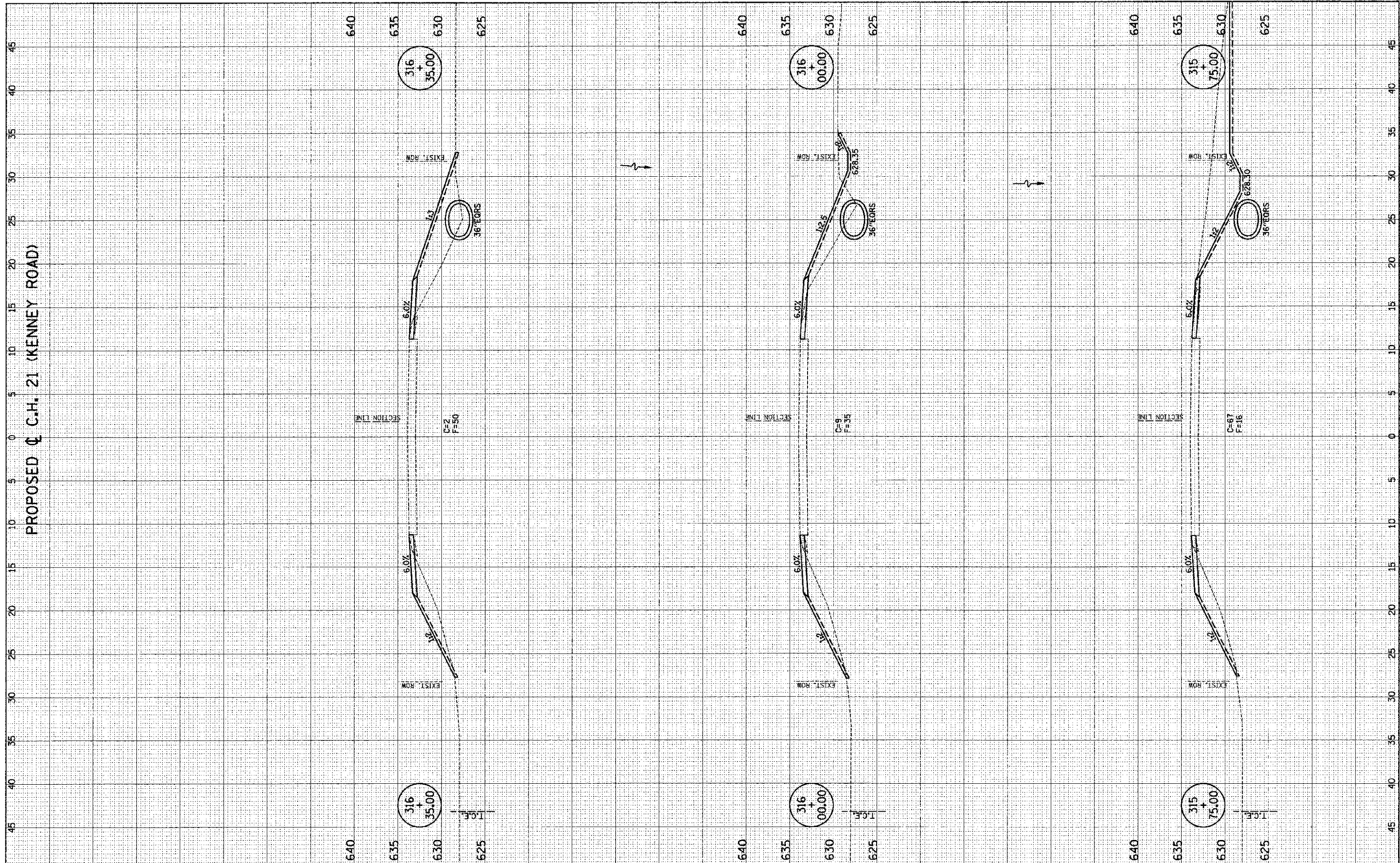
CROSS SECTIONS - C.H. 21 (KENNEY ROAD)

SCALE: 1" = 5' HOR. 1" = 5' VERT. SHEET NO. 23 OF 25 SHEETS STA. 314+50.07 TO STA. 315+50.74

F.A.S. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
546	10-00237-00-BR	MACON	25	23
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 95694	

FINAL SURVEY	DATE
NO. L. WORK	BY
AREAS	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
NO. L. WORK	BY
AREAS	
AREAS CHECKED	



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DRAWN -	J.L.B.	REVISED -	
CHECKED -	S.M.W.	REVISED -	
DATE -	NOV. 2012	REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

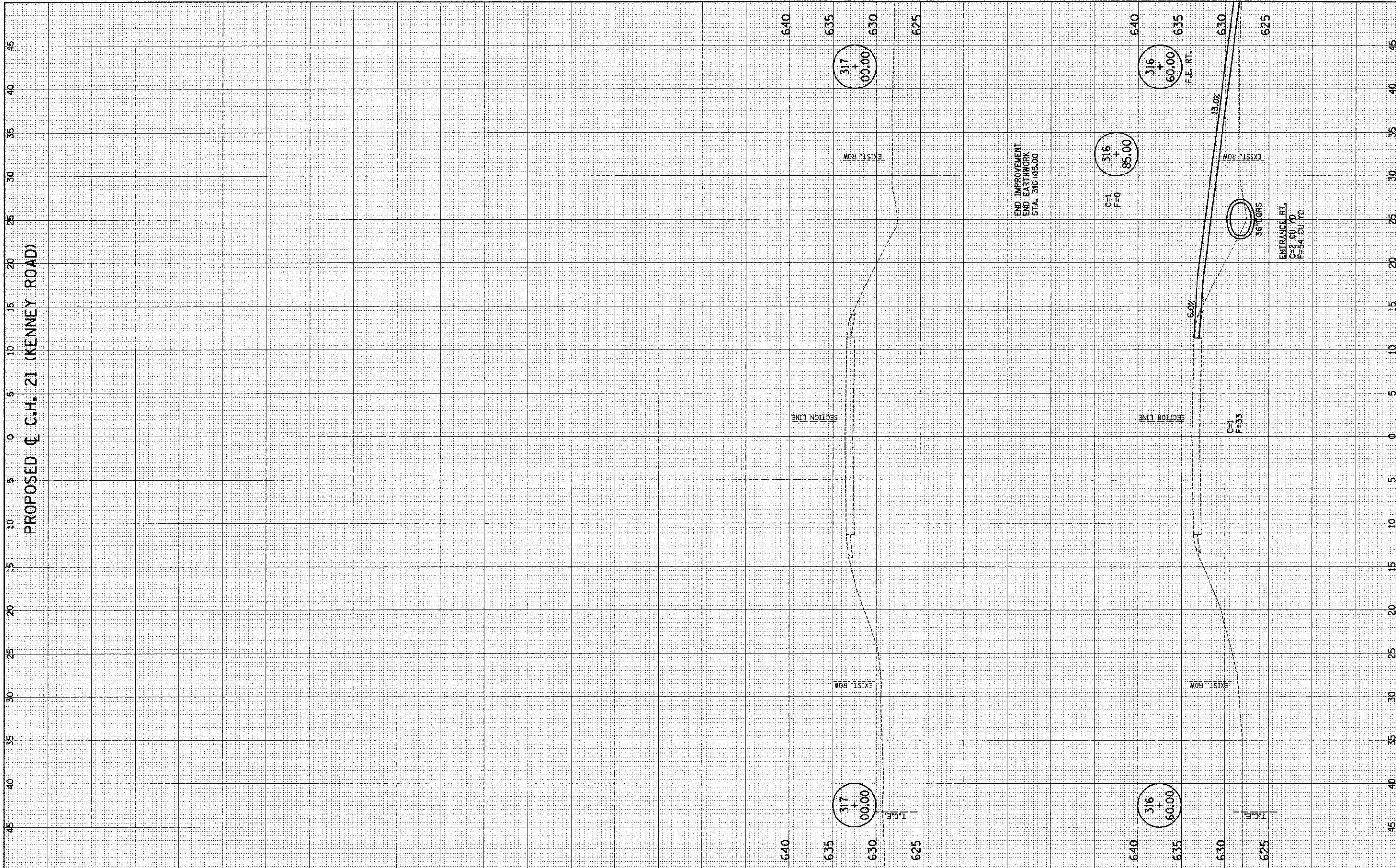
CROSS SECTIONS - C.H. 21 (KENNEY ROAD)

SCALE : 1" = 5' HOR. 1" = 5' VERT. SHEET NO. 24 OF 25 SHEETS STA. 315+75.00 TO STA. 316+35.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	10-00237-00-BR	MACON	25	24
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
			CONTRACT NO. 95694	

FORM	SUPPLEMENTED	DATE
SURVEY	NO. 110	
NOTE BOOK	NO. 110	
AREAS	NO. 110	
AREAS	NO. 110	

FORM	SUPPLEMENTED	DATE
SURVEY	NO. 110	
NOTE BOOK	NO. 110	
AREAS	NO. 110	
AREAS	NO. 110	



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DESIGNED - R.L.H.	REVISED -
DRAWN - J.L.B.	REVISED -
CHECKED - S.M.W.	REVISED -
DATE - NOV. 2012	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - C.H. 21 (KENNEY ROAD)

SCALE: 1/4" = 5' HOR. 1/4" = 5' VERT. SHEET NO. 25 OF 25 SHEETS STA. 316+60.00 TO STA. 317+00.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
546	10-00237-00-BR	MACON	25	25
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 95694	