

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	72875	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

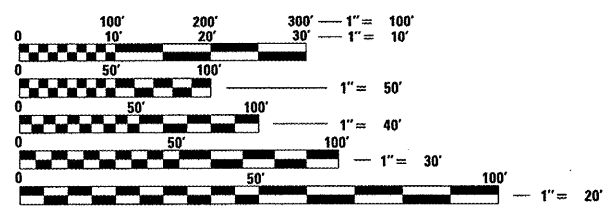
FAP ROUTE 67 (IL 125)
SECTION (6X-1)B-2
PROJECT: ESP-0067(080)
CASS COUNTY
C-96-507-07

INDEX OF SHEETS

1	TITLE SHEET
2	GENERAL NOTES
3 - 4	SUMMARY OF QUANTITIES
5	QUANTITY SCHEDULES (STA. 76 + 61) S.N. 009-7000
6	QUANTITY SCHEDULES S.N. 009-2506
7	QUANTITY SCHEDULES S.N. 009-2507
8 - 9	DETAILS & TYPICAL ROADWAY SECTIONS S.N. 009-2506
10 - 11	DETAILS & TYPICAL ROADWAY SECTIONS S.N. 009-2507
12 - 14	STAGE CONSTRUCTION TRAFFIC DETAILS S.N. 009-2506
15 - 17	STAGE CONSTRUCTION TRAFFIC DETAILS S.N. 009-2507
18	TRAFFIC SIGNAL DETAILS S.N. 009-7000
19	PLAN & PROFILE (STA. 76 + 61) S.N. 009-7000
20	PLAN & PROFILE S.N. 009-2506
21	PLAN & PROFILE S.N. 009-2507
22	ENTRANCE DETAILS & RIPRAP LAYOUT S.N. 009-2506
23	ENTRANCE DETAILS S.N. 009-2507
24 - 27	STORM WATER POLLUTION PREVENTION PLAN
28	EROSION CONTROL PLAN S.N. 009-2506
29	EROSION CONTROL PLAN S.N. 009-2507
30 - 34	CULVERT DETAILS (STA. 76 + 61) S.N. 009-7000
35 - 43	STRUCTURE PLANS S.N. 009-2506
44 - 54	STRUCTURE PLANS S.N. 009-2507
55 - 57	CROSS SECTIONS (STA. 76 + 61) S.N. 009-7000
58 - 64	CROSS SECTIONS S.N. 009-2506
65 - 71	CROSS SECTIONS S.N. 009-2507
	STANDARDS

LIST OF ILLINOIS DOT STANDARDS

000001-05	701301-03
280001-04	701311-03
482001-02	701321-10
515001-03	701326-03
542401-01	701901-01
666001-01	704001-05
701006-03	780001-02
701011-02	781001-03
701201-03	BLR 24-2
701306-02	



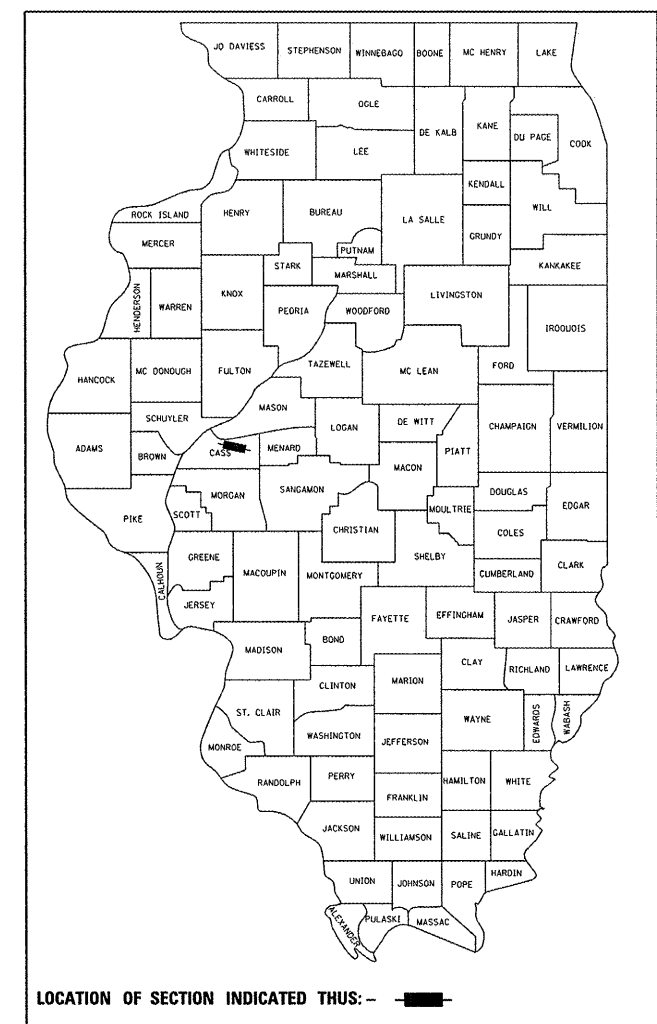
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

SQUAD LEADER: VINCE MADONIA (217)785-9046
PROJECT ENGINEER: JOHN NEGANGARD (217)782-6990

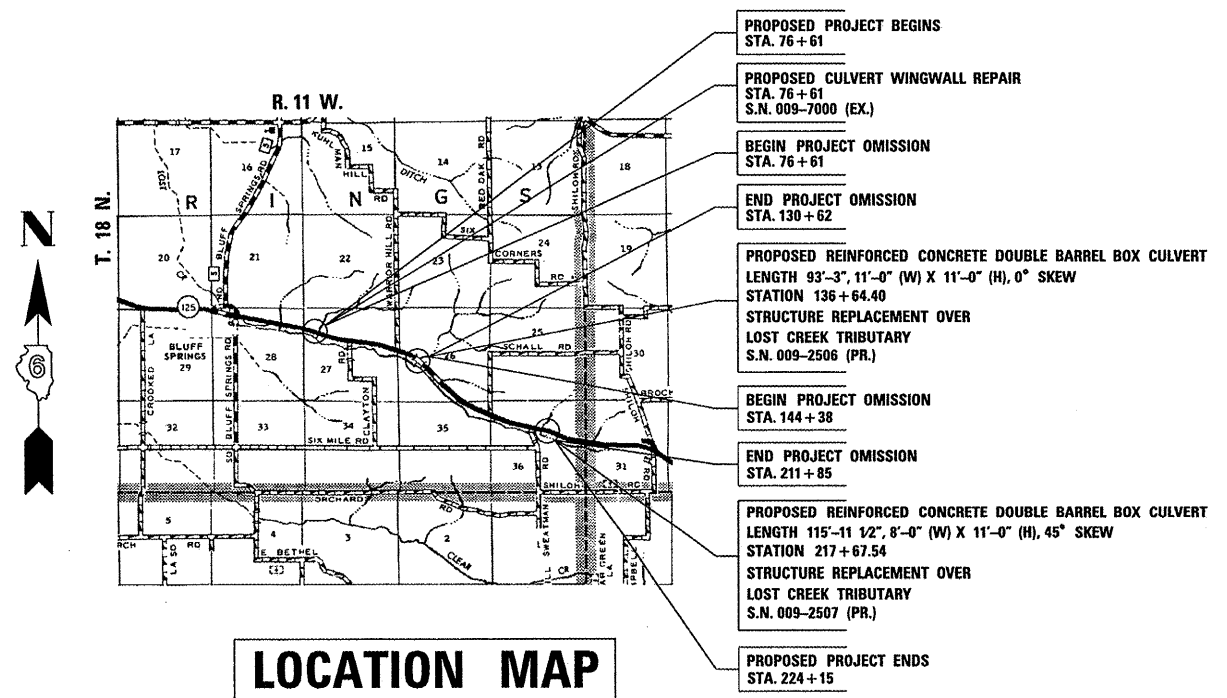
CONTRACT NO. 72875

D-96-509-04

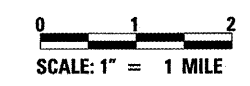


LOCATION OF SECTION INDICATED THIS: — ■ —

ADT = 3750 (2003)/5980 (2021)
% SU = 4.0
% MU = 7.3
TOWNSHIP: RINGS
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (NON-URBAN)



LENGTH OF PROJECT (S.N. 009-2506) = 1371.07 FEET = 0.260 MILES
LENGTH OF PROJECT (S.N. 009-2507) = 1230.00 FEET = 0.233 MILES
NET LENGTH OF PROJECT = 2601.07 FEET = 0.493 MILES
TOTAL LENGTH OF PROJECT = 14749.07 FEET = 2.793 MILES



Richard K. Allender III 2-4-09
Expiration Date: 11/30/2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED February 5, 20 09
Rogee Z. Ombler
DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

March 13, 20 09
Charles G. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

March 13, 20 09
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

ENVIRONMENTAL REVIEWS

PRIOR TO THE USE OF ANY PROPOSED BORROW AREAS, USE AREAS, (TEMPORARY ACCESS ROADS, DETOURS, RUN-AROUNDS, ETC.) AND/OR WASTE AREAS, THE CONTRACTOR SHALL FILE THE REQUIRED ENVIRONMENTAL RESOURCE REQUEST SURVEYS ACCORDING TO SECTION 107.22 OF THE STANDARD SPECIFICATIONS. THESE SURVEYS ARE REQUIRED IN ORDER FOR THE DEPARTMENT TO CONDUCT CULTURAL AND BIOLOGICAL RESOURCE SURVEYS FOR THE PROPOSED SITE.

PRIOR TO ANY WASTE MATERIALS BEING REMOVED FROM THE CONSTRUCTION SITE THE REQUIRED ENVIRONMENTAL RESOURCE SURVEYS WILL NEED TO BE OBTAINED AND FILED BY THE CONTRACTOR. EXCESS WASTE PRODUCTS REMOVED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF AS REQUIRED IN SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

ANY PROTRUDING METAL BARS SHALL BE REMOVED PRIOR TO THE DISPOSAL OF BROKEN CONCRETE AT APPROVED DISPOSAL SITES.

THE REQUIRED ENVIRONMENTAL RESOURCE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

- BDE FORM 2289 (ENVIRONMENTAL SURVEY REQUEST)
- A LOCATION MAP SHOWING THE SIZE LIMITS AND LOCATION OF THE USE AREA
- SIGNED PROPERTY OWNER AGREEMENT FORM
- COLOR PHOTOGRAPHS DEPICTING THE USE AREA

PLEASE NOTE THAT A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR THE DISTRICT TO OBTAIN THE REQUIRED ENVIRONMENTAL CLEARANCES.

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.

GENERAL 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 SEPARATELY 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: 217-785-5312)
- 15.) QUANTITY FOR EARTH EXCAVATION INCLUDES ANY EXCAVATION NECESSARY TO PLACE HOT MIX ASPHALT BASE COURSE 10".

COMMITMENTS

- 1.) THE RESIDENT ENGINEER SHALL CONTACT STUDIES AND PLANS CONCERNING ANY ANY MAJOR PLAN CHANGE, TO MAKE SURE NO PREVIOUS COMMITMENTS (NOT LISTED) WERE MADE AFFECTING THE DESIGN AND ALLOW AN IMPROVED DESIGN FOR FUTURE PROJECTS.
- 2.) STORM WATER POLLUTION PREVENTION PLAN.

MIXTURE REQUIREMENTS

MIXTURE USE(S)	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	LEVELING BINDER (MACHINE METHOD), N70	HOT-MIX ASPHALT BASE COURSE	HOT-MIX ASPHALT SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22	PG 58-22
DESIGN AIR VOIDS	4.0% @ N DESIGN = 70	4.0% @ N DESIGN = 70	4.0% @ N DESIGN = 50	2.0% @ N DESIGN = 30
MIXTURE COMPOSITION	IL 9.5 OR 12.5	IL 9.5 ONLY	IL 19.0	BAM (OTHER)
FRICTION AGGREGATE	MIX C	N/A	N/A	N/A

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	1.5 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.
AGRICULTURAL GROUND LIMESTONE	2.0 TON/ACRE
ROCKFILL - FOUNDATION	1.89 TON/CU. YD.

DISTRICT SIX	
EXAMINED	January 30 20 09 <i>Sam J. Hoar</i>
OPERATIONS ENGINEER	
EXAMINED	Jan 14 20 09 <i>WRJ</i>
PROGRAM IMPLEMENTATION ENGINEER	
EXAMINED	Jan 9 20 09 <i>WRJ</i>
PROGRAM DEVELOPMENT ENGINEER	

100% FED

SUMMARY OF QUANTITIES				HWL. REPAIR STA. 76+65		S.N. 009-2506		S.N. 009-2507	
				ROADWAY FAP 67	STRUCTURE S.N. 009-C100	ROADWAY FAP 67	STRUCTURE S.N. 009-2506	ROADWAY FAP 67	STRUCTURE S.N. 009-2507
CODE NO.	SUMMARY OF QUANTITIES PAY ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE					
				1000-2A	X028-2A	1000-2A	X028-2A	1000-2A	X028-2A
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	36	36					
20100500	TREE REMOVAL, ACRES	ACRE	1.7			0.3		1.4	
20200100	EARTH EXCAVATION	CU. YD.	10660	228		3637		6795	
20200300	EARTH EXCAVATION FOR EROSION CONTROL	CU. YD.	50			25		25	
25000200	SEEDING, CLASS 2	ACRE	5.3	0.2		2.5		2.6	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	477	18		225		234	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	477	18		225		234	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	477	18		225		234	
25000700	AGRICULTURAL GROUND LIMESTONE	TON	10.6	0.4		5.0		5.2	
25100115	MULCH, METHOD 2	ACRE	5.3	0.2		2.5		2.6	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	1060	40		500		520	
28000400	PERIMETER EROSION BARRIER	FOOT	300			300			
28001000	AGGREGATE (EROSION CONTROL)	TON	175			70		105	
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	3207	403		623		2181	
28200200	FILTER FABRIC	SQ. YD.	6405	806		1241		4358	
35501324	HOT-MIX ASPHALT BASE COURSE 10"	SQ. YD.	3603			1679		1924	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	288	12		145		131	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	3.7			1.9		1.8	
40600300	AGGREGATE PRIME COAT	TON	19.1			9.7		9.4	
40600635	LEVELING BINDER (MACHINE METHOD), N 70	TON	312			183		129	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ. YD.	389			167		222	
40600990	TEMPORARY RAMP	SQ. YD.	73			25		48	
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N 70	TON	540			282		258	
44000100	PAVEMENT REMOVAL	SQ. YD.	514			184		330	
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ. YD.	2078			999		1079	
44000920	BITUMINOUS CONCRETE SHOULDER REMOVAL	SQ. YD.	792			433		359	
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	197			100		97	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	389			187		202	
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1				1		
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1						1
50100500	REMOVAL OF EXISTING STRUCTURES NO. 3	EACH	1		1				
50105220	PIPE CULVERT REMOVAL	FOOT	472	84		226		162	
50800105	REINFORCEMENT BARS	POUND	132050		16610		52200		63240
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2370		350				2020
50800515	BAR SPLICERS	EACH	242				133		109
51201600	FURNISHING STEEL PILES HP 12 X 53	FOOT	1104		600				504
51202305	DRIVING PILES	FOOT	1104		600				504
51203600	TEST PILE STEEL HP 12 X 53	EACH	4		2				2
51500100	NAME PLATES	EACH	2				1		1
54002020	EXPANSION BOLTS 3/4 INCH	EACH	56		56				
54003000	CONCRETE BOX CULVERTS	CU. YD.	806.3		114.1		327.6		364.6

FILE NAME = 0672875-sh1-500.dgn

USER NAME =
 PLOT SCALE =
 PLOT DATE = Feb-05-2009 05:03:19PM

DESIGNED - RKA
 DRAWN - RKA
 CHECKED - CPK
 DATE - 04/07/08

REVISED -
 REVISED -
 REVISED -
 REVISED -



Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL.
 62709 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 3 OF 71 SHEETS STA. TO STA.

F.A.P. RTE. 67	SECTION (6X-1)B-2	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 3
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

100% FED

SUMMARY OF QUANTITIES				HDWL. REPAIR STA. 76+65		S.N. 009-2506		S.N. 009-2507	
				ROADWAY FAP 67	STRUCTURE S.N. 009-2506	ROADWAY FAP 67	STRUCTURE S.N. 009-2506	ROADWAY FAP 67	STRUCTURE S.N. 009-2507
SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE					
CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	1000-2A	X028-2A	1000-2A	X028-2A	1000-2A	X028-2A
54201483	PIPE CULVERTS, TYPE 2, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 18"	FOOT	326	90		44		192	
54201489	PIPE CULVERTS, TYPE 2, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 24"	FOOT	210			210			
54215553	METAL END SECTIONS 18"	EACH	8	2		2		4	
54215559	METAL END SECTIONS 24"	EACH	4			4			
60500050	REMOVING CATCH BASINS	EACH	1	1					
63200305	STEEL PLATE BEAM GUARDRAIL REMOVAL	FOOT	1660			660		1000	
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	25			15		10	
67000500	ENGINEERS FIELD OFFICE, TYPE B	CAL. MO.	8			4		4	
67100100	MOBILIZATION	L. SUM	1			0.5		0.5	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L. SUM	1			0.5		0.5	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L. SUM	1			0.5		0.5	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L. SUM	1			0.5		0.5	
70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	2			1		1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL. DA	10			5		5	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2			1		1	
70106800	CHANGEABLE MESSAGE SIGN	CAL. MO.	17	3		7		7	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	521			275		246	
70300230	TEMPORARY PAVEMENT MARKING - LINE 5"	FOOT	7119			3541		3578	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ. FT.	3185			1591		1594	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1087.5			512.5		575	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	925			350		575	
78001120	PAINT PAVEMENT MARKING - LINE 5"	FOOT	6355			3082		3273	
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	34			18		16	
78300100	PAVEMENT MARKING REMOVAL	SQ. FT.	1887			913		974	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	34			18		16	
X0321100	GEOTEXTILE RETAINING WALL	SQ. FT.	153.0				153.0		
X0323665	RIPRAP SLURRY	SQ. YD.	3409	806		1174		1429	
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ. FT.	1736				853		883
X0324118	GRANULAR CULVERT BACKFILL	CU. YD.	3160				1600		1560
X7200201	WIDTH RESTRICTION SIGNING	L. SUM	1			0.5		0.5	
XX000610	RELOCATE EXISTING MAILBOX	EACH	1			1			
Z0013798	CONSTRUCTION LAYOUT	L. SUM	1			0.5		0.5	
Z0015500	DEBRIS REMOVAL	L. SUM	1	.33		.33		.34	
Z0030260	IMPACT ATTENUATORS TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4			2		2	
Z0030330	IMPACT ATTENUATORS RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	4			2		2	
Z0054517	ROCKFILL - FOUNDATION	TON	811		66		375		370
Z0073100	TEMPORARY SHORING	EACH	1						1

• SPECIALTY ITEM

FILE NAME :
D672875-sh1-500.dgn

USER NAME :
PLOT SCALE :
PLOT DATE : Feb-05-2009 08:15:47AM

DESIGNED - RKA	REVISED -
DRAWN - RKA	REVISED -
CHECKED - CPK	REVISED -
DATE - 04/07/08	REVISED -



Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL
62703 Phone: (217)544-8033 IL Design Firm
No. 184-001907

SUMMARY OF QUANTITIES
SCALE: NONE SHEET NO. 4 OF 71 SHEETS STA. TO STA.

F.A.P. RTE. 67	SECTION 6X-10B-2	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 4
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

**SCHEDULE
PERMANENT SEEDING**

LOCATION	SEEDING CLASS 2 (ACRE)	NITROGEN FERT. NUT. (POUND)	PHOSPHORUS FERT. NUT. (POUND)	POTASSIUM FERT. NUT. (POUND)	MULCH METHOD 2 (ACRE)	TEMPORARY EROSION CONTROL SEEDING (POUND)	AGRICULTURAL GROUND LIMESTONE (TON)
STA. 75+45 TO STA. 77+87 LT.	0.1	9	9	9	0.1	20	0.2
STA. 75+45 TO STA. 77+87 RT.	0.1	9	9	9	0.1	20	0.2
TOTAL	0.2	18	18	18	0.2	40	0.4

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD
STA. 75+47 TO STA. 76+57 RT.	178	133	282	-149
STA. 76+66 TO STA. 77+77 LT.	50	38	26	+12
TOTAL	228	171	308	-137*

- NO FURNISHED EXCAVATION WILL BE REQUIRED AT THIS LOCATION. ANY FURNISHED EXCAVATION THAT IS SUITABLE AND REQUIRED AND NOT FOUND AT THIS PROJECT LOCATION DUE TO THE CONSTRUCTION OF EACH EXTENSION, SHALL BE PROVIDED FROM THE EXCESS EARTH EXCAVATION FROM S.N. 009-2506 OR AS DIRECTED BY THE ENGINEER.

**SCHEDULE
PIPE CULVERTS, TYPE 2, CORRUGATED STEEL OR ALUMINUM**

LOCATION	QUANTITY (FOOT) 18"Ø
STA. 76+05 TO STA. 76+95 LT.	90
TOTAL	90

**SCHEDULE
METAL END SECTIONS, 18"**

LOCATION	QUANTITY (EACH)
STA. 76+05 LT.	1
STA. 76+95 LT.	1
TOTAL	2

**SCHEDULE
PIPE CULVERT REMOVAL**

LOCATION	QUANTITY (FOOT)
STA. 76+06 TO STA. 76+67 LT.	61
STA. 76+70 TO STA. 76+84 LT.	23
TOTAL	84

**SCHEDULE
REMOVING CATCH BASINS**

LOCATION	QUANTITY (EACH)
STA. 76+68, 53' LT.	1
TOTAL	1

**SCHEDULE
AGGREGATE SURFACE COURSE, TYPE B**

LOCATION	QUANTITY (TON)
P.E. STA. 76+32	12
TOTAL	12

**SCHEDULE
FILTER FABRIC**

LOCATION	QUANTITY (SQ. YD.)
STA. 76+66 TO STA. 77+77 LT.	303
STA. 75+47 TO STA. 76+57 RT.	503
TOTAL	806

**SCHEDULE
STONE RIPRAP, CLASS A4**

LOCATION	QUANTITY (TON)
STA. 76+66 TO STA. 77+77 LT.	151
STA. 75+47 TO STA. 76+57 RT.	252
TOTAL	403

**SCHEDULE
TREE REMOVAL (OVER 15 UNITS DIAMETER)**

LOCATION	QUANTITY (UNIT)
STA. 76+94 56' LT.	36
TOTAL	36

**SCHEDULE
DEBRIS REMOVAL**

LOCATION	QUANTITY (L. SUM)
STA. 76+00 70' RT. TO STA. 76+30 90' RT.	1
TOTAL	1

**SCHEDULE
RIPRAP SLURRY**

LOCATION	QUANTITY (SQ. YD.)
STA. 76+66 TO STA. 77+77 LT.	303
STA. 75+47 TO STA. 76+57 RT.	503
TOTAL	806

FILE NAME = D672875-sht-schedule1.dgn

USER NAME =

DESIGNED - RKA

REVISED -

DRAWN - RKA

REVISED -

PLOT SCALE =

CHECKED - CPK

REVISED -

PLOT DATE = Jan-30-2009 09:37:40AM

DATE - 04/07/08

REVISED -



Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL
62708 Phone: (217)544-8033 IL Design Firm
No. 184-001907

**QUANTITY SCHEDULES
STA. 76 + 61**

SCALE: NONE

SHEET NO. 13 OF 71 SHEETS

STA.

TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	5
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PAVEMENT MARKING SCHEDULE							
LOCATION	LENGTH (FT.)	PAVEMENT MK. REMOVAL		SHORT TERM PVMT. MARKING		PAINT PVMT. MK. LINE - 5"	
		WHITE (SQ. FT.)	YELLOW SKIP DASH & NO PASSING (SQ. FT.)	WHITE (FT.)	YELLOW (FT.)	WHITE (FT.)	YELLOW SKIP DASH & NO PASSING (FT.)
STA. 130+62 TO STA. 136+27 (EDGE) LT.	565					565	
STA. 137+02 TO STA. 144+38 (EDGE) LT.	731					731	
STA. 130+62 TO STA. 136+27 (Ø)	565						140
STA. 137+02 TO STA. 144+38 (Ø)	731						180
STA. 130+62 TO STA. 136+27 (EDGE) RT.	565	225				565	
STA. 137+02 TO STA. 144+38 (EDGE) RT.	731	296				731	
STA. 130+62 TO STA. 144+38	1371			*275			
STA. 136+27 TO STA. 137+02 (EDGE) LT.	75					75	
STA. 136+27 TO STA. 137+02 (Ø)	75						20
STA. 136+27 TO STA. 137+02 (EDGE) RT.	75					75	
STA. 132+58 TO STA. 140+09 (EDGE) LT.	751	313					
STA. 132+58 TO STA. 140+09 (Ø)	751		79				
TOTAL			913		275		3082

NOTE: SHORT-TERM PAVEMENT MARKING QUANTITIES ARE FOR TWO APPLICATIONS.
 * 10% OF TOTAL LENGTH FOR SHORT-TERM PAVEMENT MARKING

HOT MIX ASPHALT SCHEDULE							
LOCATION	TEMPORARY RAMP (SQ.YD.)	LEVELING BINDER (MACHINE METHOD), N50 (TON)	HOT MIX ASPHALT BASE COURSE 10" (SQ. YD.)	HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50 (TON)	BITUMINOUS MATERIALS (PRIME COAT) (TON)	HOT MIX ASPHALT SHOULDERS (TON)	AGGREGATE PRIME COAT (TON)
STA. 130+62 TO STA. 130+67	12.5						
STA. 144+33 TO STA. 144+38	12.5						
STA. 131+07 TO STA. 143+93		183					
STA. 130+62 TO STA. 144+38 LT. SHLD.			473		0.2	55.6	1.0
STA. 130+62 TO STA. 144+38 RT. SHLD.			1022		0.4	131.4	2.0
STA. 136+27 TO STA. 137+02			184				
STA. 130+62 TO STA. 144+38				282	1.3		6.7
STA. 130+62 TO STA. 136+27							
STA. 137+02 TO STA. 144+38							
TOTAL	25	183	1679	282	1.9	187	9.7

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD
STA. 130+62 TO STA. 144+38 ST I	2139	1604	779	+875
STA. 130+62 TO STA. 144+38 ST II	1498	1124	706	+418
TOTAL	3637	2728	1485	+1293*

* EXCESS EARTH EXCAVATION AT THIS LOCATION THAT IS NOT USED FOR THE STRUCTURE LOCATED AT STA. 76+61 SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS. THE COST FOR THIS DISPOSAL SHALL BE INCLUDED IN THE COST PER CUBIC YARD FOR EARTH EXCAVATION.

SCHEDULE HOT MIX ASPHALT SURFACE REMOVAL

LOCATION	BUTT JOINT (SQ. YD.)	VAR. DEPTH (SQ. YD.)
STA. 130+62 TO STA. 130+92	83.5	
STA. 144+08 TO STA. 144+38	83.5	
STA. 130+62 TO STA. 136+27		595
STA. 137+02 TO STA. 144+38		404
TOTAL	167	999

SCHEDULE BITUMINOUS CONCRETE SHOULDER REMOVAL

LOCATION	QUANTITY (SQ. YD.)
STA. 130+62 TO STA. 136+27 LT. & RT.	189
STA. 137+02 TO STA. 144+38 LT. & RT.	244
TOTAL	433

SCHEDULE RAISED REFLECTIVE PAVEMENT MARKER

LOCATION	QUANTITY (EACH)
ASSUME 80' CTS.	
STA. 130+62 TO STA. 144+38	18
TOTAL	18

SCHEDULE RAISED REFLECTIVE PAVEMENT MARKER REMOVAL

LOCATION	QUANTITY (EACH)
ASSUME 80' CTS.	
STA. 130+62 TO STA. 144+38	18
TOTAL	18

SCHEDULE PIPE CULVERTS, TYPE 2, CORRUGATED STEEL OR ALUMINUM

LOCATION	QUANTITY (FOOT) 18"Ø	QUANTITY (FOOT) 24"Ø
STA. 135+43 TO STA. 136+48 LT.		112
STA. 136+80 TO STA. 137+70 LT.		98
STA. 138+33 TO STA. 138+77 LT.	44	
TOTAL	44	210

SCHEDULE METAL END SECTIONS

LOCATION	QUANTITY (EACH) 18"	QUANTITY (EACH) 24"
STA. 135+43 LT.		1
STA. 136+48 LT.		1
STA. 136+80 LT.		1
STA. 137+70 LT.		1
STA. 138+33 LT.	1	
STA. 138+77 LT.	1	
TOTAL	2	4

SCHEDULE STEEL PLATE BEAM GUARDRAIL REMOVAL

LOCATION	QUANTITY (FOOT)
STA. 133+59 TO STA. 138+69 RT.	510
STA. 135+97 TO STA. 137+37 LT.	150
TOTAL	660

SCHEDULE FURNISHING AND ERECTING RIGHT OF WAY MARKERS

LOCATION	QUANTITY (EACH)
STA. 130+62 RT.	2
STA. 131+85.29 RT.	1
STA. 132+32.03 RT.	1
STA. 135+00 LT. & RT.	2
STA. 136+00 LT. & RT.	2
STA. 137+00 LT. & RT.	2
STA. 138+00 LT. & RT.	2
STA. 142+63.13 RT.	1
STA. 144+38 RT.	2
TOTAL	15

SCHEDULE PIPE CULVERT REMOVAL

LOCATION	QUANTITY (FOOT)
STA. 135+51 TO STA. 136+30 LT.	80
STA. 136+22 TO STA. 136+48 RT.	26
STA. 136+82 TO STA. 137+60 LT.	80
STA. 138+35 TO STA. 138+75 LT.	40
TOTAL	226

SCHEDULE AGGREGATE WEDGE SHOULDER, TYPE B

LOCATION	QUANTITY (TON)
STA. 130+62 TO STA. 131+62 LT.	4
STA. 131+62 TO STA. 143+38 LT.	49
STA. 143+38 TO STA. 144+38 LT.	4
STA. 130+62 TO STA. 143+38 RT.	43
TOTAL	100

SCHEDULE AGGREGATE SURFACE COURSE, TYPE B

LOCATION	QUANTITY (TON)
F.E. STA. 135+74 LT.	70
F.E. STA. 137+52 LT.	45
P.E. STA. 138+55 LT.	30
TOTAL	145

SCHEDULE TREE REMOVAL

LOCATION	QUANTITY (ACRE)
STA. 136+20 TO STA. 137+46 LT.	0.1
STA. 135+54 TO STA. 136+35 RT.	0.1
STA. 137+09 TO STA. 138+02 RT.	0.1
TOTAL	0.3

SCHEDULE PAVEMENT REMOVAL

LOCATION	QUANTITY (SQ. YD.)
STA. 136+27 TO STA. 137+02	184
TOTAL	184

FILE NAME = D672875-sht-schedule1e2.dgn

USER NAME =
 PLOT SCALE =
 PLOT DATE = Jan-30-2009 09:37:42AM

DESIGNED - RKA
 DRAWN - RKA
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 DATE - 04/07/08

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 62708 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

QUANTITY SCHEDULES
STA. 136 + 64.40 /S.N. 009-2506
 SCALE: NONE SHEET NO. 14 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	6
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PAVEMENT MARKING SCHEDULE							
LOCATION	LENGTH (FT.)	PAVEMENT MK. REMOVAL		SHORT TERM PVMT. MARKING		PAINT PVMT. MK. LINE - 5"	
		WHITE (SQ. FT.)	YELLOW SKIP DASH & NO PASSING (SQ. FT.)	WHITE (FT.)	YELLOW (FT.)	WHITE (FT.)	YELLOW SKIP DASH & NO PASSING (FT.)
STA. 211+85 TO STA. 224+15 (EDGE) LT.	1230					1230	
STA. 211+85 TO STA. 224+15 (C)	1230						310
STA. 211+85 TO STA. 216+88 (C)	503		162				503
STA. 211+85 TO STA. 216+95 (EDGE) RT.	510					510	
STA. 218+30 TO STA. 224+15 (EDGE) RT.	585	165				585	
STA. 211+85 TO STA. 224+15	1230			*246			
STA. 216+95 TO STA. 218+30 (EDGE) RT.	135					135	
STA. 213+00 TO STA. 216+95 RT.	395	166					
STA. 213+00 TO STA. 222+24 LT.	924	385					
STA. 213+00 TO STA. 222+24 (C)			96				
TOTAL			974		246		3273

NOTE: SHORT-TERM PAVEMENT MARKING QUANTITIES ARE FOR TWO APPLICATIONS.
 * 10% OF TOTAL LENGTH FOR SHORT-TERM PAVEMENT MARKING

EARTHWORK SCHEDULE				
LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD
STA. 211+85 TO STA. 224+15 ST I	5327	3995	810	+3185
STA. 211+85 TO STA. 224+15 ST II	1468	1101	649	+452
TOTAL	6795	5096	1459	+3637*

* EXCESS EARTH EXCAVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS. THE COST OF THIS DISPOSAL SHALL BE INCLUDED IN THE COST PER CUBIC YARD FOR EARTH EXCAVATION.

SCHEDULE HOT MIX ASPHALT SURFACE REMOVAL		
LOCATION	BUTT JOINT (SQ. YD.)	VAR. DEPTH (SQ. YD.)
STA. 211+85 TO STA. 212+15	87.5	
STA. 223+85 TO STA. 224+15	83.5	
SWEATMAN ROAD	55.0	
STA. 211+85 TO STA. 216+95		667
STA. 218+30 TO STA. 224+15		412
TOTAL	222	1079

SCHEDULE BITUMINOUS CONCRETE SHOULDER REMOVAL	
LOCATION	QUANTITY (SQ. YD.)
STA. 211+85 TO STA. 216+95 LT. & RT.	170
STA. 218+30 TO STA. 224+15 LT. & RT.	189
TOTAL	359

SCHEDULE RAISED REFLECTIVE PAVEMENT MARKER	
LOCATION	QUANTITY (EACH)
ASSUME 80' CTS.	
STA. 211+85 TO STA. 224+15	16
TOTAL	16

SCHEDULE RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	
LOCATION	QUANTITY (EACH)
ASSUME 80' CTS.	
STA. 211+85 TO STA. 224+15	16
TOTAL	16

HOT MIX ASPHALT SCHEDULE							
LOCATION	TEMPORARY RAMP (SQ. YD.)	LEVELING BINDER (MACHINE METHOD), N50 (TON)	HOT MIX ASPHALT BASE COURSE 10" (SQ. YD.)	HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50 (TON)	BITUMINOUS MATERIALS (PRIME COAT) (TON)	HOT MIX ASPHALT SHOULDERS (TON)	AGGREGATE PRIME COAT (TON)
STA. 211+85 TO STA. 211+90	12.5						
STA. 224+10 TO STA. 224+15	12.5						
STA. 212+30 TO STA. 223+70		129					
STA. 211+85 TO STA. 224+15 LT. SHLD.			392.5		0.15	49.9	0.8
STA. 211+85 TO STA. 224+15 RT. SHLD.			1201.5		0.46	152.1	
STA. 216+95 TO STA. 218+30			330				2.5
STA. 211+85 TO STA. 224+15				253	1.14		6.0
SWEATMAN ROAD	23			5	0.05		0.1
TOTAL	48	129	1924	258	1.8	202	9.4

SCHEDULE PIPE CULVERTS, TYPE 2, CORRUGATED STEEL OR ALUMINUM	
LOCATION	QUANTITY (FOOT) 18" Ø
STA. 216+80 TO STA. 218+12.45 LT.	136
STA. 220+78.4 TO STA. 221+33.7 LT.	56
TOTAL	192

SCHEDULE METAL END SECTIONS, 18"	
LOCATION	QUANTITY (EACH)
STA. 216+80 LT.	1
STA. 218+12.45 LT.	1
STA. 220+78.4 LT.	1
STA. 221+33.7 LT.	1
TOTAL	4

SCHEDULE STEEL PLATE BEAM GUARDRAIL REMOVAL	
LOCATION	QUANTITY (FOOT)
STA. 217+67 TO STA. 218+40 LT.	75
STA. 214+14 TO STA. 220+14 RT.	600
STA. 215+40 TO STA. 218+65 RT.	325
TOTAL	1000

SCHEDULE FURNISHING AND ERECTING RIGHT OF WAY MARKERS	
LOCATION	QUANTITY (EACH)
STA. 213+17.20 RT.	1
STA. 215+00 RT.	1
STA. 216+00 RT.	1
STA. 217+50 LT.	1
STA. 218+00 LT.	1
STA. 219+00 LT.	1
STA. 220+00 LT.	1
STA. 220+35.46 RT.	1
STA. 222+00 RT.	1
STA. 223+00 RT.	1
TOTAL	10

SCHEDULE PIPE CULVERT REMOVAL	
LOCATION	QUANTITY (FOOT)
STA. 216+91 TO STA. 217+58 LT.	67
STA. 218+20 TO STA. 218+45 LT.	25
STA. 220+95 TO STA. 221+20 LT.	26
STA. 218+47 TO STA. 218+82 RT.	44
TOTAL	162

SCHEDULE TREE REMOVAL	
LOCATION	QUANTITY (ACRE)
STA. 214+50 TO STA. 216+70 RT.	0.2
STA. 216+60 TO STA. 224+73 RT.	1.2
TOTAL	1.4

SCHEDULE PAVEMENT REMOVAL	
LOCATION	QUANTITY (SQ. YD.)
STA. 216+95 TO STA. 218+30	330
TOTAL	330

SCHEDULE AGGREGATE WEDGE SHOULDER, TYPE B	
LOCATION	QUANTITY (TON)
STA. 211+85 TO STA. 224+15 LT.	51
STA. 211+85 TO STA. 224+15 RT.	46
TOTAL	97

SCHEDULE AGGREGATE SURFACE COURSE, TYPE B	
LOCATION	QUANTITY (TON)
F.E. STA. 217+06 LT.	43
F.E. STA. 217+38 LT.	43
F.E. STA. 221+08 LT.	45
TOTAL	131

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DESIGNED - RKA
 DRAWN - RKA
 CHECKED - CPK
 DATE - 04/07/08

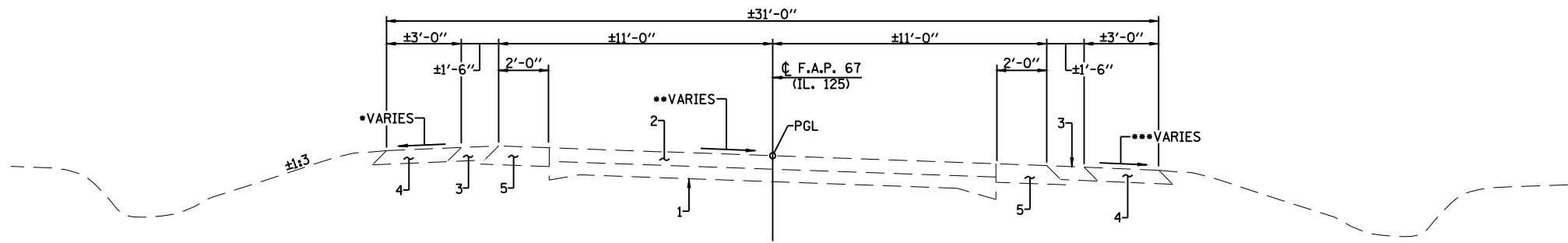
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 No. 184-001907

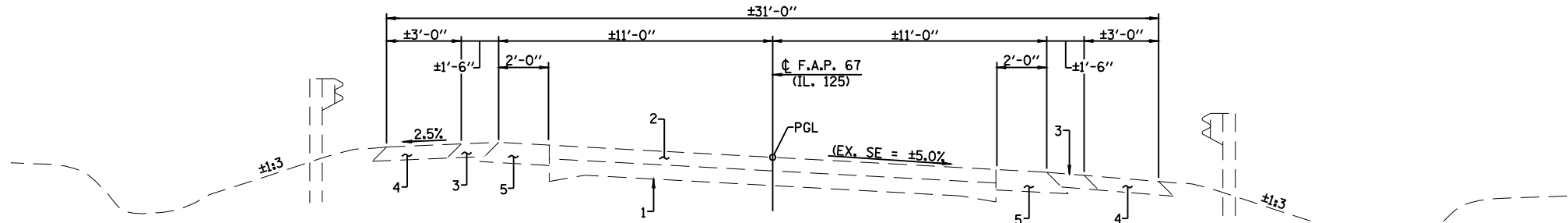
QUANTITY SCHEDULES
STA. 217 + 67.54 /S.N. 009-2507
 SCALE: NONE SHEET NO. 15 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	70	7
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

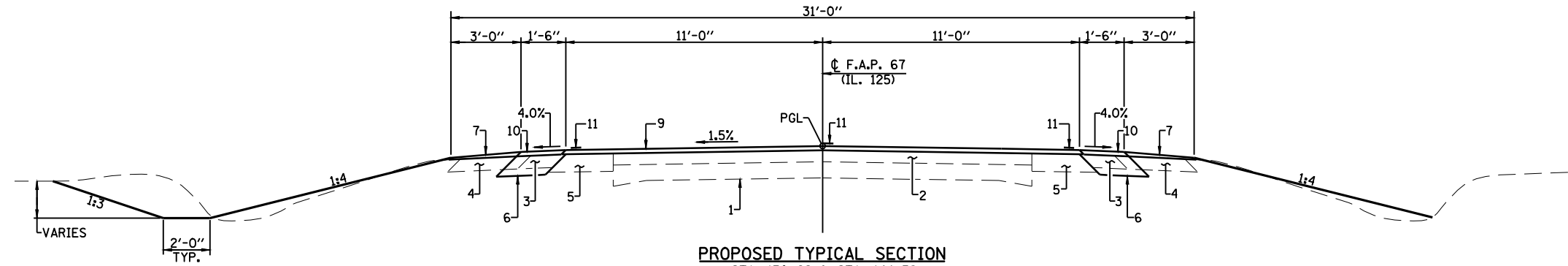


EXISTING TYPICAL SECTION
 STA. 130+62 TO STA. 132+92 &
 STA. 142+03 TO STA. 144+38

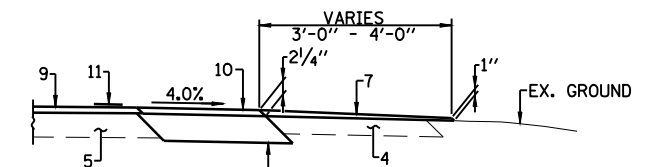
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- VARIES 1.5% TO 5.0%
- VARIES 4.0% TO 5.0%



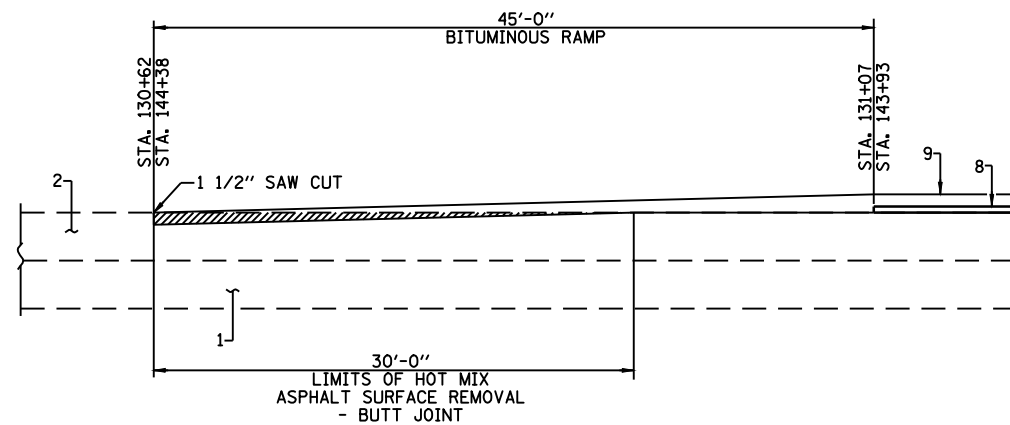
EXISTING TYPICAL SECTION
 STA. 132+92 TO STA. 142+03



PROPOSED TYPICAL SECTION
 STA. 130+62 & STA. 144+38



AGGREGATE WEDGE SHOULDER DETAIL

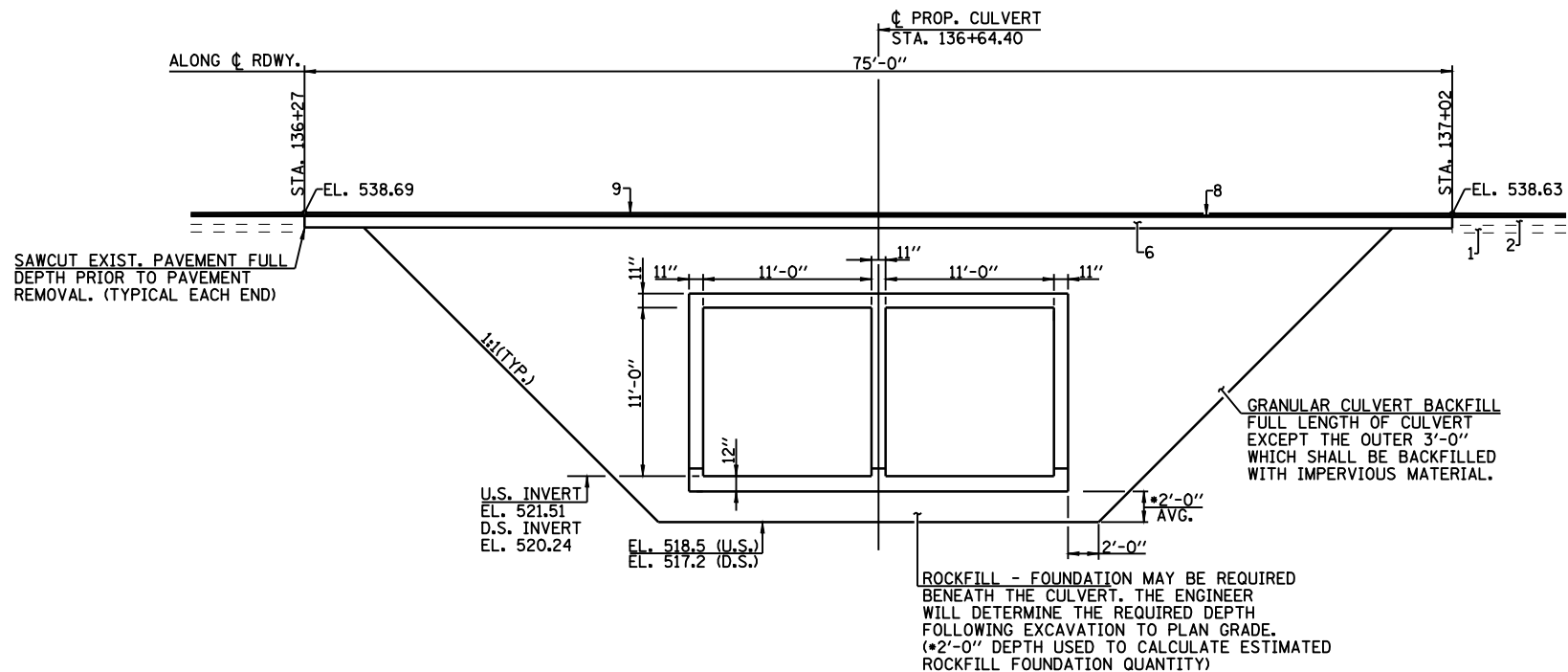


BUTT JOINT DETAIL
 (STA. 130+62 TO STA. 131+07 & STA. 143+93 TO STA. 144+38)

PAVEMENT LEGEND

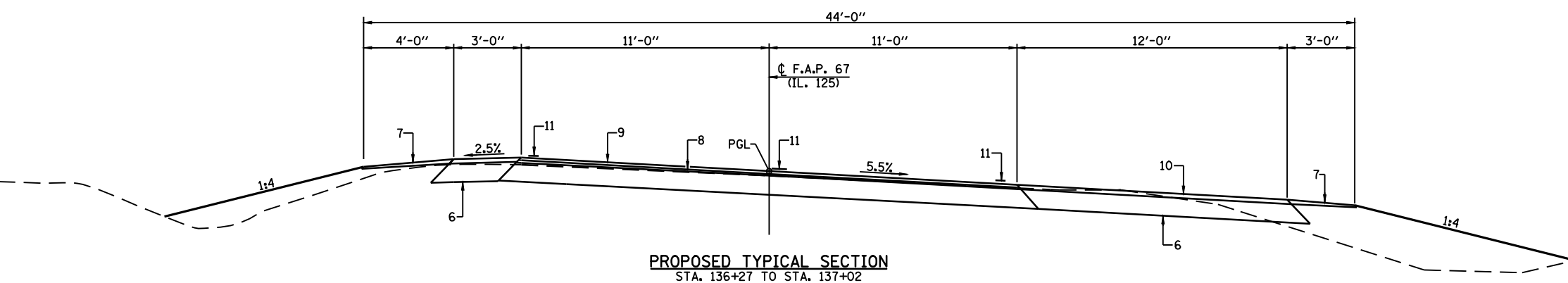
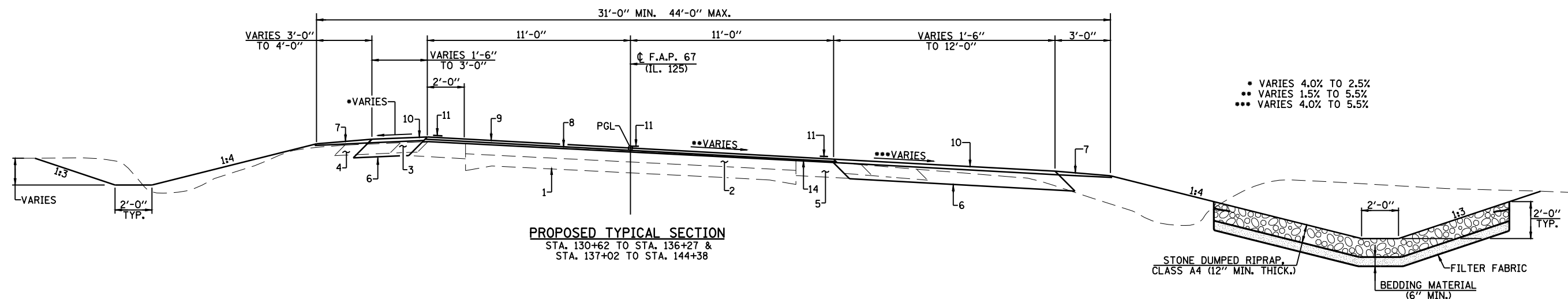
- 1) EXISTING P.C.C. PAVEMENT (9'-6"-9')
- 2) EXISTING HOT-MIX ASPHALT SURFACE ±6 1/2"
- 3) EXISTING HOT-MIX ASPHALT SHOULDER ±6 1/2"
- 4) EXISTING AGGREGATE SHOULDER
- 5) EXISTING HOT-MIX ASPHALT BASE COURSE WIDENING
- 6) PROPOSED HOT-MIX ASPHALT BASE COURSE 10"
- 7) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- 8) PROPOSED LEVELING BINDER MACHINE METHOD, N TO 3/4" MIN.
- 9) PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2"
- 10) PROPOSED HOT-MIX ASPHALT SHOULDER 2 1/4"
- 11) PROPOSED PAINT PAVEMENT MARKING - 5" LINE
- 12) TEMPORARY PAINT PAVEMENT MARKING - 5" LINE
- 13) PROPOSED GEOTECHNICAL FABRIC AND GRANULAR BACKFILL
- 14) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

FILE NAME =	USER NAME = laughlinr1	DESIGNED -	REVISED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	DETAILS & TYPICAL ROADWAY SECTIONS STA. 136 + 64.40 /S.N. 009-2506		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = Jan-30-2009 01:51:06PM	DATE -	CHECKED -	REVISED -		CONTRACT NO. 72875			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			
					SCALE: VARIES	SHEET NO. ___ OF ___ SHEETS	STA. _____ TO STA. _____				



ELEVATION - BOX CULVERT

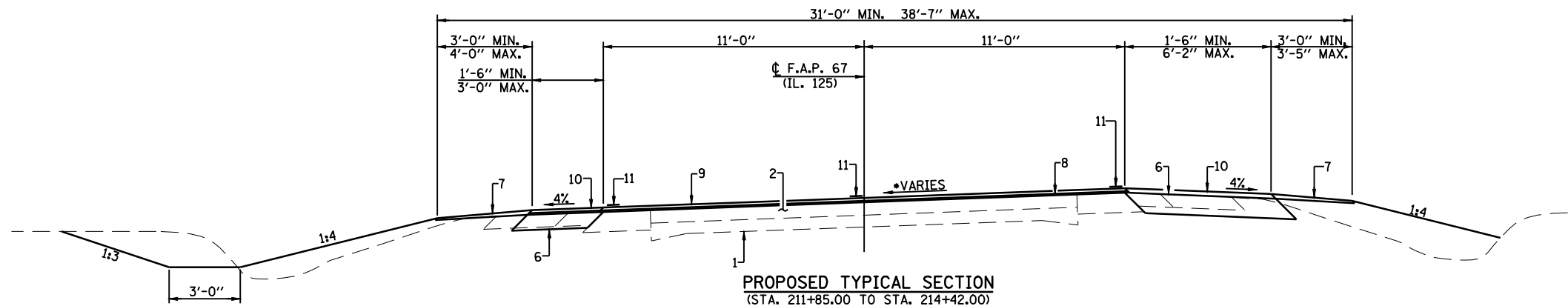
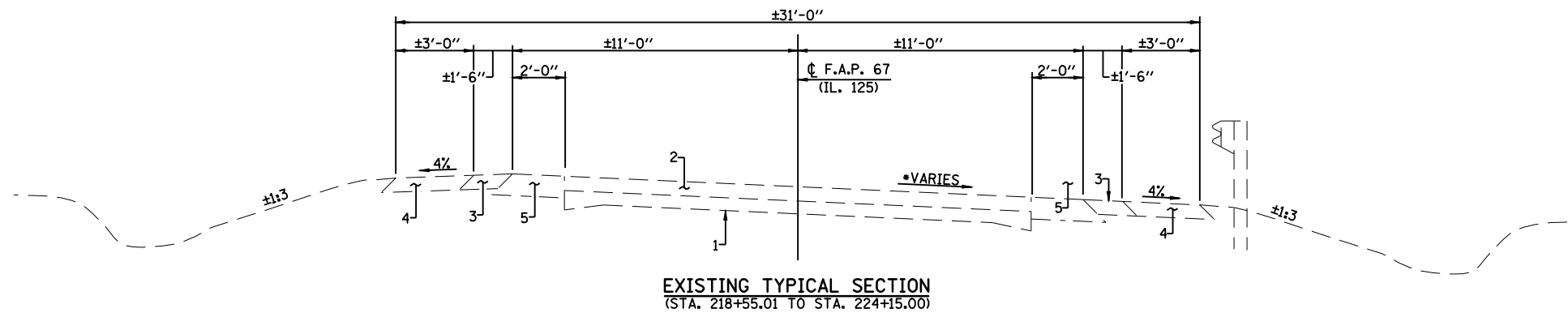
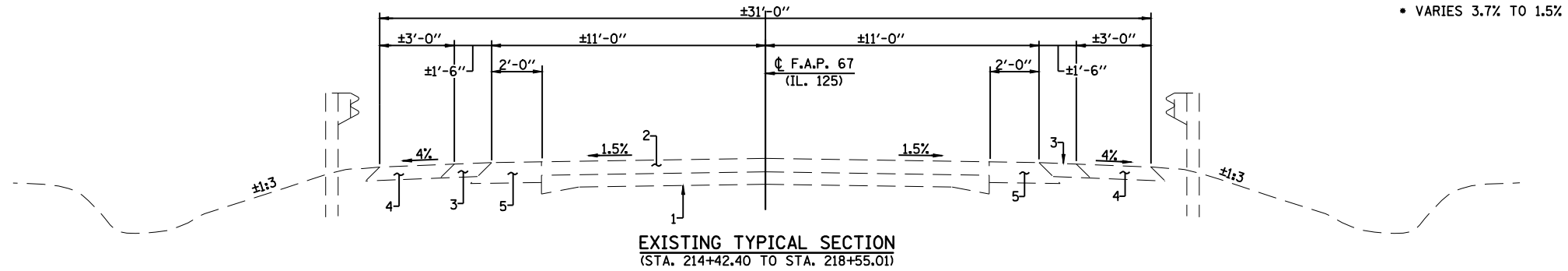
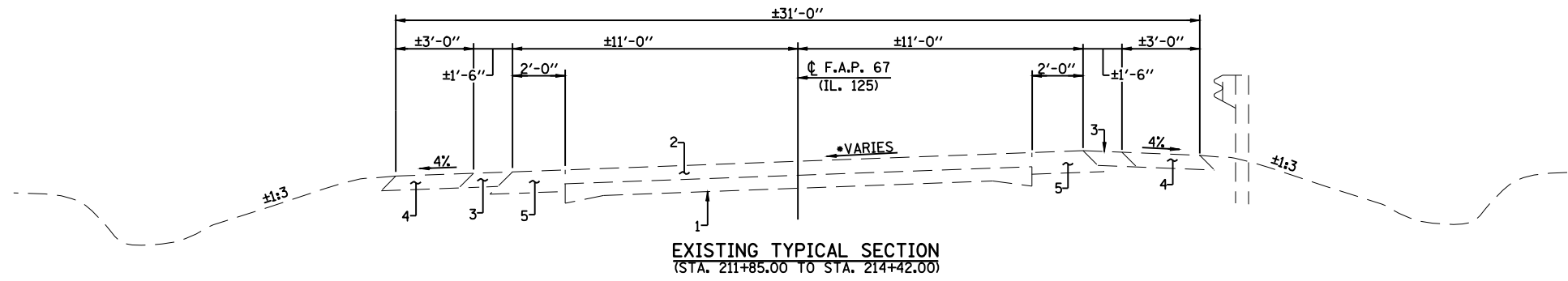
NOTE: ALL DIMENSIONS ARE AT RIGHT ANGLES EXCEPT AS NOTED.




PAVEMENT LEGEND

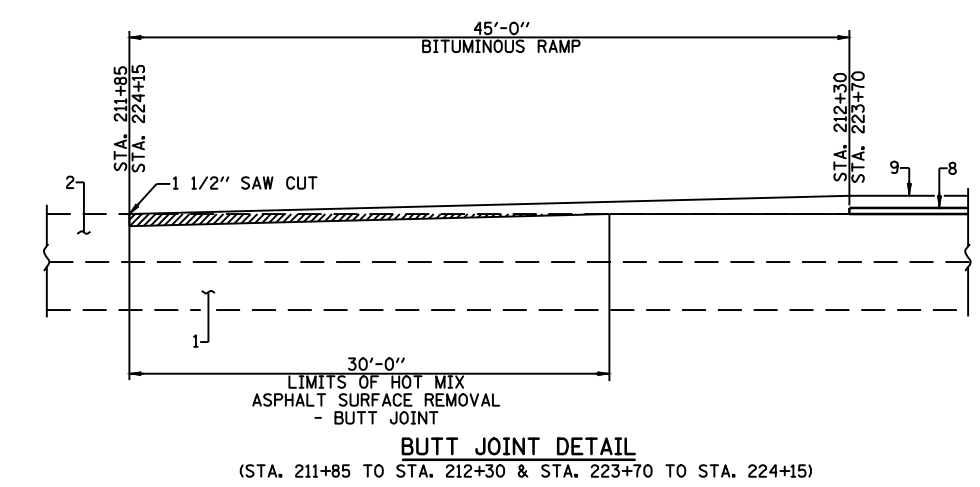
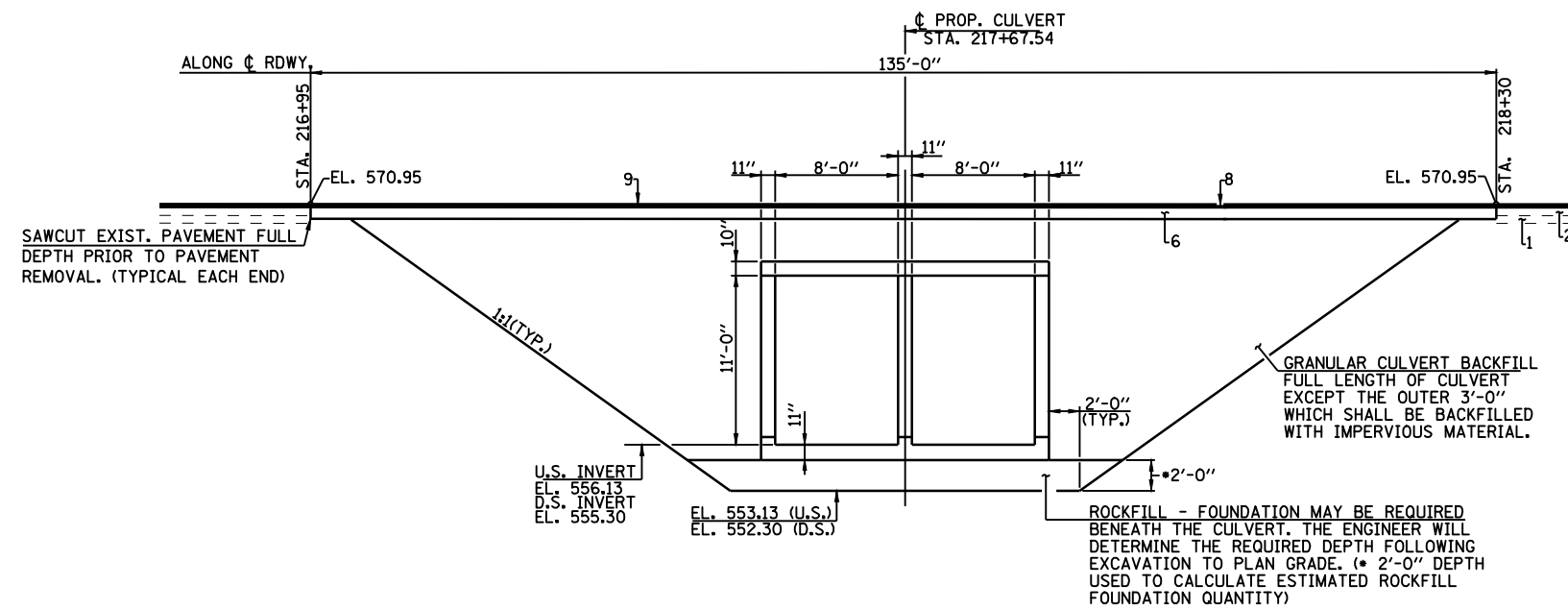
- 1) EXISTING P.C.C. PAVEMENT (9"-6"-9")
- 2) EXISTING HOT-MIX ASPHALT SURFACE $\pm 6\frac{1}{2}"$
- 3) EXISTING HOT-MIX ASPHALT SHOULDER $\pm 6\frac{1}{2}"$
- 4) EXISTING AGGREGATE SHOULDER
- 5) EXISTING HOT-MIX ASPHALT BASE COURSE WIDENING
- 6) PROPOSED HOT-MIX ASPHALT BASE COURSE 10"
- 7) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- 8) PROPOSED LEVELING BINDER MACHINE METHOD, N TO $\frac{3}{4}"$ MIN.
- 9) PROPOSED HOT-MIX ASPHALT SURFACE COURSE $1\frac{1}{2}"$
- 10) PROPOSED HOT-MIX ASPHALT SHOULDER $2\frac{1}{4}"$
- 11) PROPOSED PAINT PAVEMENT MARKING - 5" LINE
- 12) TEMPORARY PAINT PAVEMENT MARKING - 5" LINE
- 13) PROPOSED GEOTECHNICAL FABRIC AND GRANULAR BACKFILL
- 14) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

FILE NAME =	USER NAME = laughlinr1	DESIGNED - ---	REVISED - ---	 Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907	DETAILS & TYPICAL ROADWAY SECTIONS STA. 136 + 64.40 /S.N. 009-2506	F.A.P. RTE. 67	SECTION (6X-11B-2)	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 9	
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PLOT DATE = Jan-30-2009 01:51:09PM	DATE - ---	REVISED - ---	REVISED - ---		FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT						

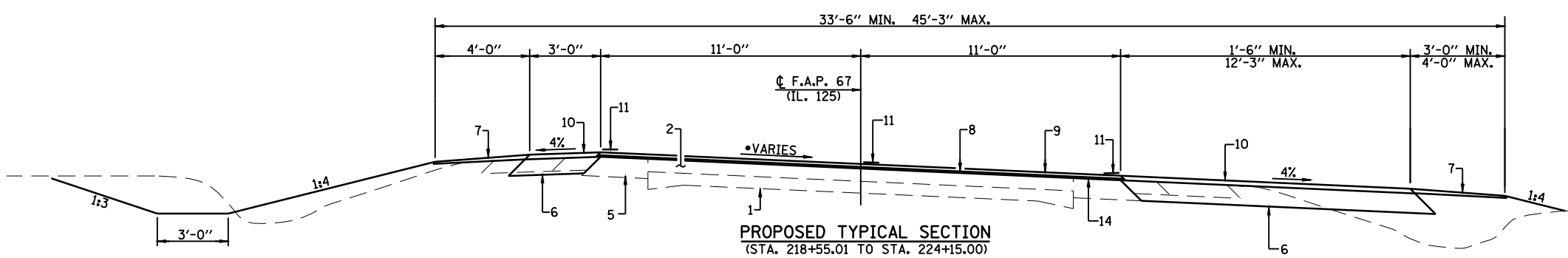
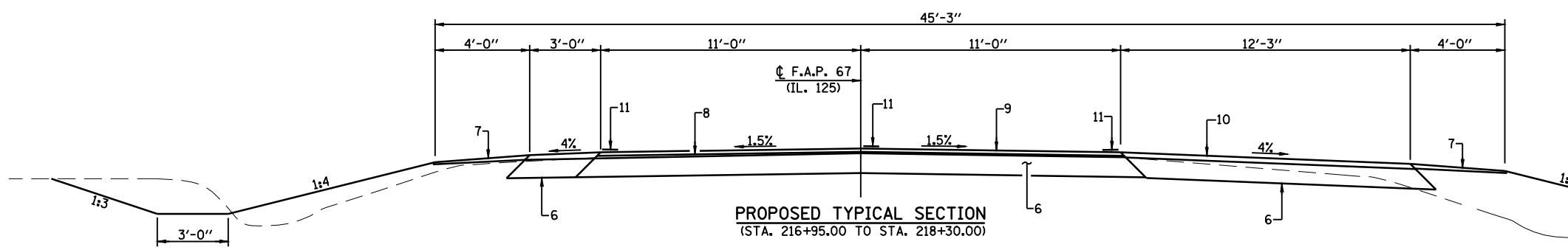
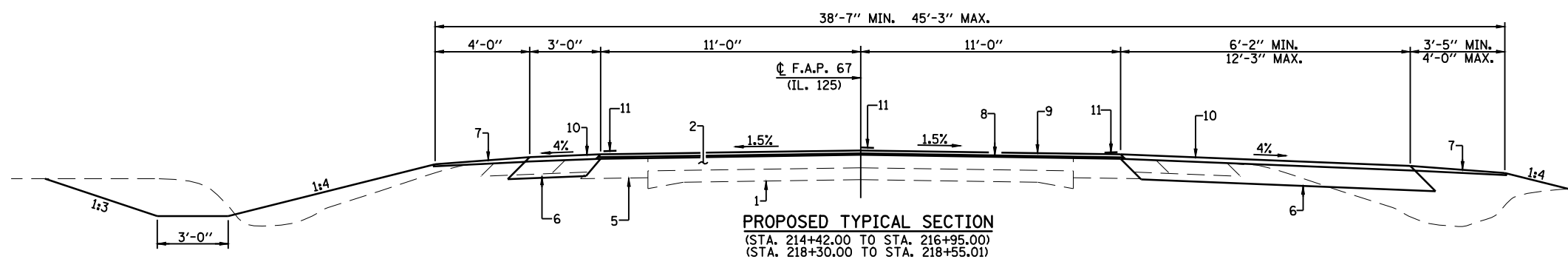


- PAVEMENT LEGEND**
- 1) EXISTING P.C.C. PAVEMENT (9''-6''-9'')
 - 2) EXISTING HOT-MIX ASPHALT SURFACE ±6 1/2''
 - 3) EXISTING HOT-MIX ASPHALT SHOULDER ±6 1/2''
 - 4) EXISTING AGGREGATE SHOULDER
 - 5) EXISTING HOT-MIX ASPHALT BASE COURSE WIDENING
 - 6) PROPOSED HOT-MIX ASPHALT BASE COURSE 10''
 - 7) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
 - 8) PROPOSED LEVELING BINDER MACHINE METHOD, N TO 3/4'' MIN.
 - 9) PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2''
 - 10) PROPOSED HOT-MIX ASPHALT SHOULDER 2 1/4''
 - 11) PROPOSED PAINT PAVEMENT MARKING - 5'' LINE
 - 12) TEMPORARY PAINT PAVEMENT MARKING - 5'' LINE
 - 13) PROPOSED GEOTECHNICAL FABRIC AND GRANULAR BACKFILL
 - 14) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

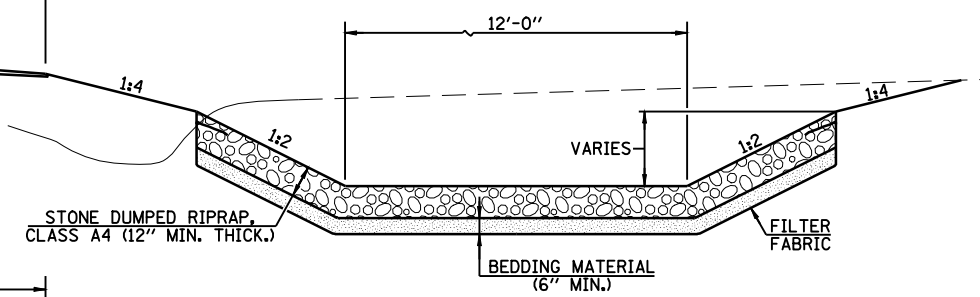
FILE NAME =	USER NAME = laughlinr1	DESIGNED -	REVISED -	 Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907	DETAILS & TYPICAL ROADWAY SECTIONS STA. 217 + 67.54 / S.N. 009-2507		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pwork\pwork\LAUGHLINRL\0125304\0672875-sht-typical3.dgn	DRAWN -	REVISED -	67				(6X-1)B-2	CASS	71	10	
PLOT SCALE = 6.0000' / IN.	CHECKED -	REVISED -	CONTRACT NO. 72875								
PLOT DATE = Jan-30-2009 01:51:11PM	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								



ELEVATION - BOX CULVERT
NOTE: ALL DIMENSIONS ARE AT RIGHT ANGLES EXCEPT AS NOTED.

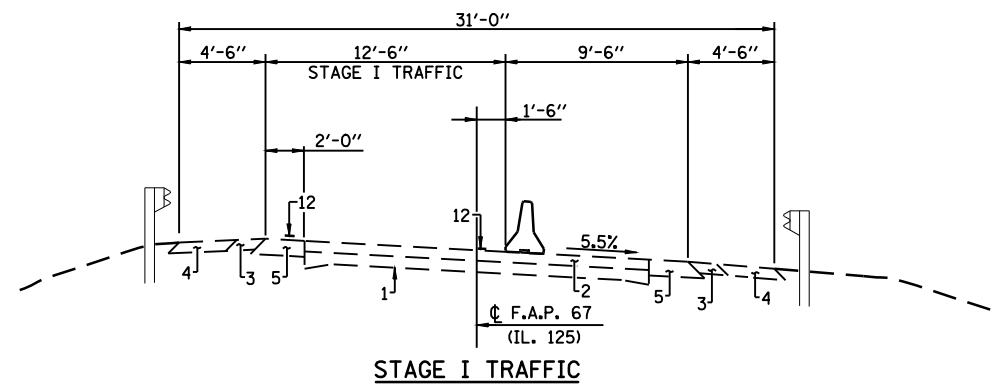


* VARIES 3.7% TO 1.5%

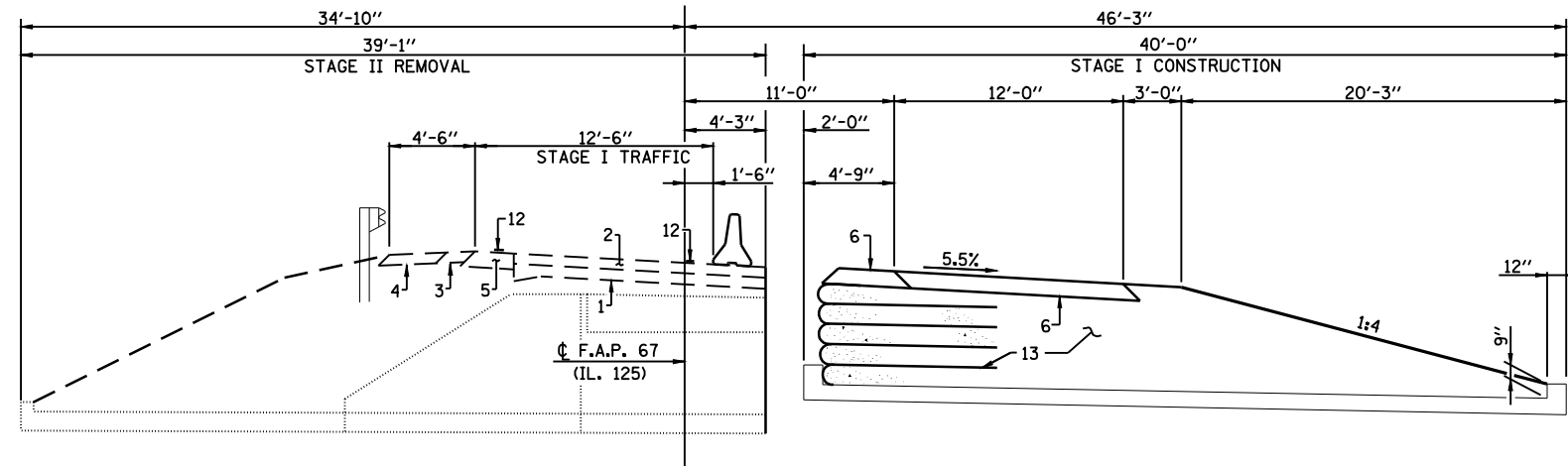


- PAVEMENT LEGEND**
- 1) EXISTING P.C.C. PAVEMENT (9"-6"-9")
 - 2) EXISTING HOT-MIX ASPHALT SURFACE $\pm 6\frac{1}{2}$ "
 - 3) EXISTING HOT-MIX ASPHALT SHOULDER $\pm 6\frac{1}{2}$ "
 - 4) EXISTING AGGREGATE SHOULDER
 - 5) EXISTING HOT-MIX ASPHALT BASE COURSE WIDENING
 - 6) PROPOSED HOT-MIX ASPHALT BASE COURSE 10"
 - 7) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
 - 8) PROPOSED LEVELING BINDER MACHINE METHOD, N TO $\frac{3}{4}$ " MIN.
 - 9) PROPOSED HOT-MIX ASPHALT SURFACE COURSE $1\frac{1}{2}$ "
 - 10) PROPOSED HOT-MIX ASPHALT SHOULDER $2\frac{1}{4}$ "
 - 11) PROPOSED PAINT PAVEMENT MARKING - 5" LINE
 - 12) TEMPORARY PAINT PAVEMENT MARKING - 5" LINE
 - 13) PROPOSED GEOTECHNICAL FABRIC AND GRANULAR BACKFILL
 - 14) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

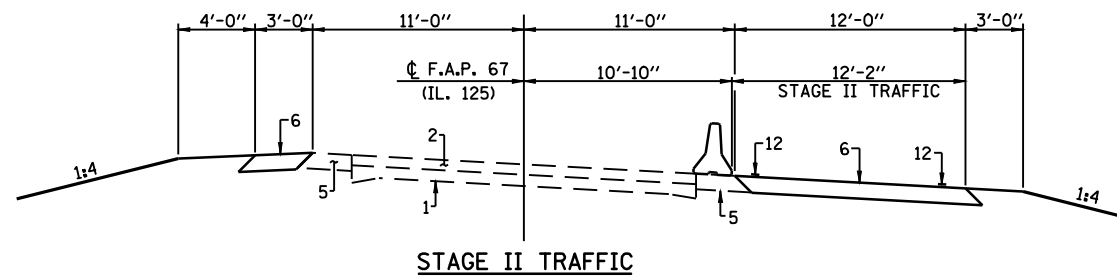
FILE NAME =	USER NAME = laughlinr1	DESIGNED -	REVISED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	<p>DETAILS & TYPICAL ROADWAY SECTIONS STA. 217 + 67.54 /S.N. 009-2507</p>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = Jan-30-2009 01:51:14PM	DATE -	CHECKED -	REVISED -		CONTRACT NO. 72875			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			
					SCALE: VARIES	SHEET NO. OF SHEETS	STA. TO STA.				



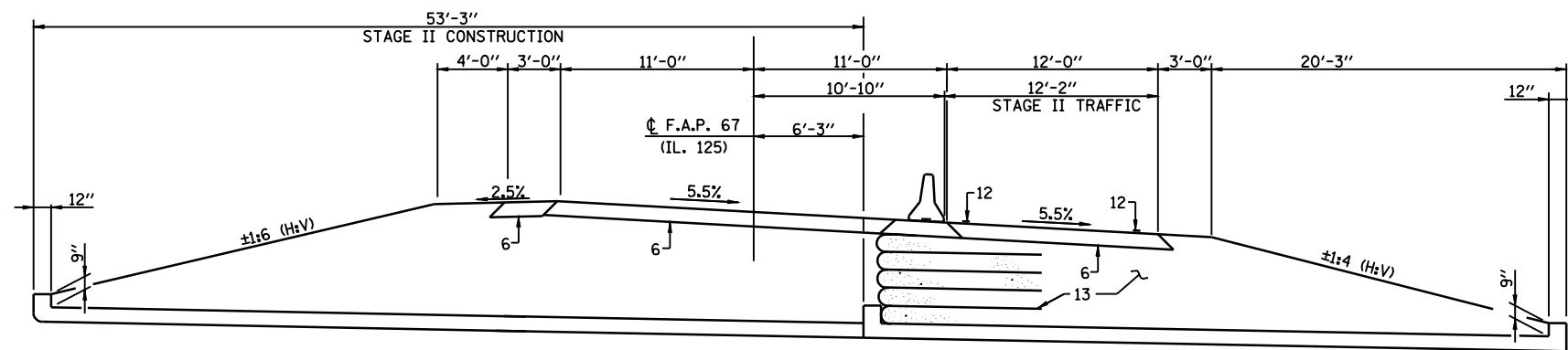
STAGE I TRAFFIC



STAGE I TRAFFIC AND CONSTRUCTION OVER CULVERT



STAGE II TRAFFIC



STAGE II TRAFFIC AND CONSTRUCTION OVER CULVERT

NOTES: ALL TYPICAL SECTIONS LOOKING EAST
WORK THIS SHEET WITH SHEETS 13, 14 & 18 OF 71.

PAVEMENT LEGEND

- 1) EXISTING P.C.C. PAVEMENT (9'-6"-9')
- 2) EXISTING HOT-MIX ASPHALT SURFACE ±6 1/2"
- 3) EXISTING HOT-MIX ASPHALT SHOULDER ±6 1/2"
- 4) EXISTING AGGREGATE SHOULDER
- 5) EXISTING HOT-MIX ASPHALT BASE COURSE WIDENING
- 6) PROPOSED HOT-MIX ASPHALT BASE COURSE 10"
- 7) PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- 8) PROPOSED LEVELING BINDER MACHINE METHOD, N TO 3/4" MIN.
- 9) PROPOSED HOT-MIX ASPHALT SURFACE COURSE 1 1/2"
- 10) PROPOSED HOT-MIX ASPHALT SHOULDER 2 1/4"
- 11) PROPOSED PAINT PAVEMENT MARKING - 5" LINE
- 12) TEMPORARY PAINT PAVEMENT MARKING - 5" LINE
- 13) PROPOSED GEOTECHNICAL FABRIC AND GRANULAR BACKFILL
- 14) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

FILE NAME =
D672875-sht-staging2.dgn

USER NAME =
PLOT SCALE =
PLOT DATE = Jan-30-2009 09:37:58AM

DESIGNED - RKA
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No. 184-001907

STAGE CONSTRUCTION TRAFFIC DETAILS
STA. 136 + 64.40 /S.N. 009-2506

SCALE: NONE SHEET NO. 16 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	12
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SUGGESTED STAGE CONSTRUCTION SEQUENCE

STAGE I

1. THE CONTRACTOR SHALL PLACE MAX. WIDTH SIGNS AND ROAD CLOSED AHEAD SIGNS AS CALLED OUT IN SPECIAL PROVISIONS, BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL. THESE SIGNS SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL)".
2. ERECT TRAFFIC CONTROL FOR STAGE I.
3. REMOVE EXISTING STRUCTURE RIGHT, CL. STA. 136+64.8, AND EXISTING GUARDRAIL STA. 135+42 TO STA. 137+84 RT.
4. CONSTRUCT PROPOSED STAGE I DOUBLE BARREL 11'-0" X 11'-0" CULVERT AND WINGWALLS CL. STA. 136+64.8.
5. MILL EXISTING H.M.A. SURFACE COURSE FOR SUPERELEVATION SLOPE CORRECTION.
6. CONSTRUCT PROPOSED H.M.A. BASE COURSE 10" RT. STA. 130+62 TO STA. 144+38 (12'-0" WIDE MAX.).
7. CONSTRUCT H.M.A. BASE COURSE RT. STA. 136+27 TO STA. 137+02.
8. SEED RT. SIDE.

STAGE II

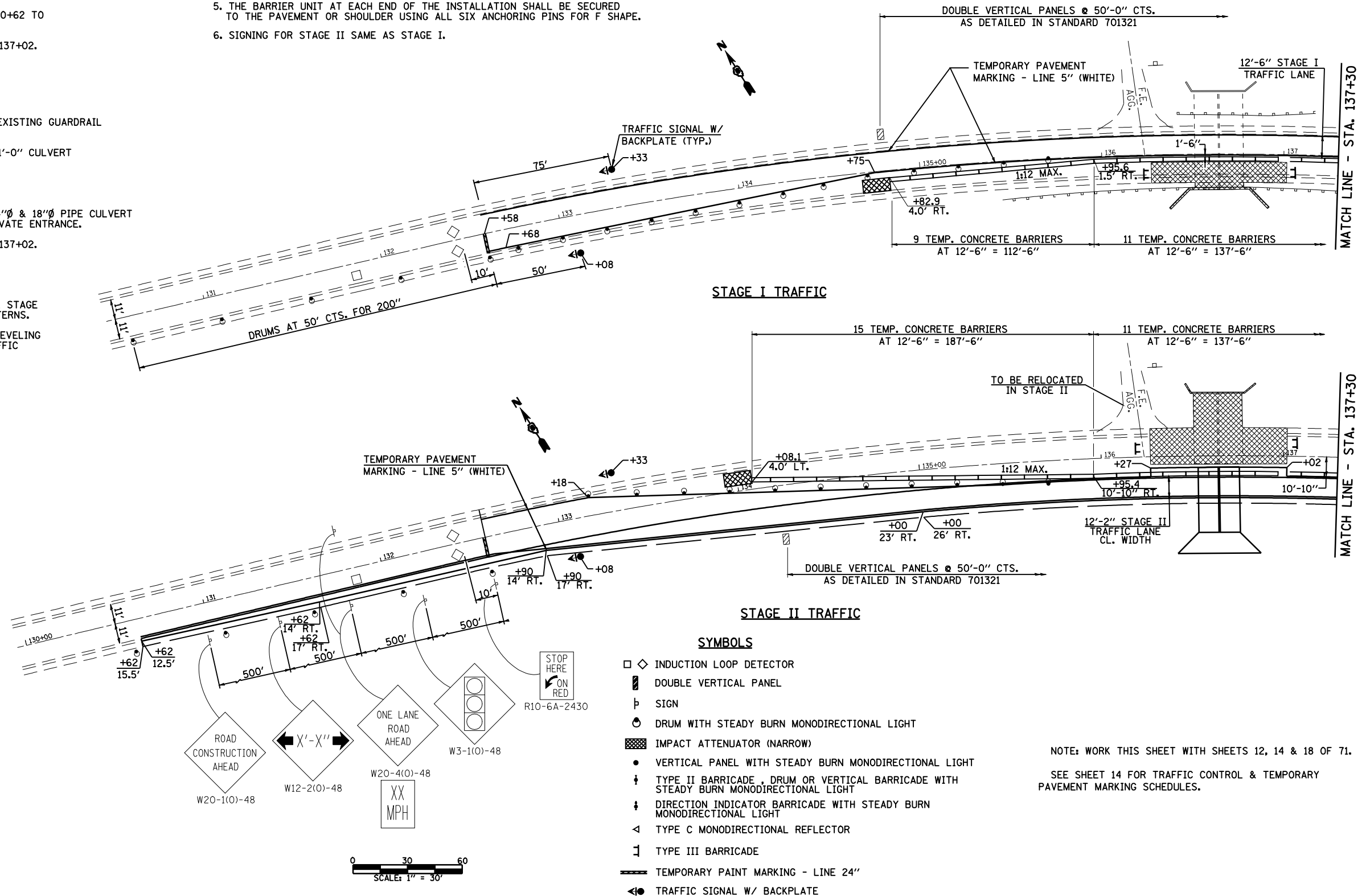
1. ERECT TRAFFIC CONTROL FOR STAGE II.
2. REMOVE EXISTING STRUCTURE LEFT CL. STA. 136+64.8, AND EXISTING GUARDRAIL STA. 136+42 TO STA. 137+38 LT.
3. CONSTRUCT PROPOSED STAGE II DOUBLE BARREL 11'-0" X 11'-0" CULVERT AND WINGWALLS CL. STA. 136+64.40.
4. CONSTRUCT REMAINING PROPOSED H.M.A. BASE COURSE 10" LT. STA. 130+62 TO STA. 144+38.
5. REMOVE EXISTING 24" & 15" C.M.P. AND INSTALL NEW 24" & 18" PIPE CULVERT TYPE 2 CS/A. CONSTRUCT NEW FIELD ENTRANCES AND PRIVATE ENTRANCE.
6. CONSTRUCT H.M.A. BASE COURSE LT. STA. 136+27 TO STA. 137+02.
7. SEED LT. SIDE.

FINAL

1. INSTALL SHORT-TERM PAVEMENT MARKINGS AND REMOVE ALL STAGE TRAFFIC CONTROL AND RE-ESTABLISH NORMAL TRAFFIC PATTERNS.
2. REMOVE SHORT TERM PAVEMENT MARKINGS AND COMPLETE LEVELING BINDER AND H.M.A. SURFACE COURSE ON IL. 125 UNDER TRAFFIC WITH FLAGGERS.
3. FINAL STRIPING, SEEDING AND MISCELLANEOUS CLEANUP.

GENERAL NOTES

1. THIS TRAFFIC CONTROL DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD 701321.
2. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 6 TRAFFIC SECTION OF THE BUREAU OF OPERATIONS (PH. 785-5836) AT LEAST 21 DAYS PRIOR TO IMPLEMENTING STAGE TRAFFIC CONTROL.
3. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE REVISED STAGE TRAFFIC PATTERNS DURING ALL PHASES OF STAGE CONSTRUCTION SHALL BE REMOVED AS SPECIFIC IN SECTION 783 OF THE STANDARD SPECIFICATIONS AND PAID FOR AS "PAVEMENT MARKING REMOVAL".
4. THE CONTRACTOR SHALL MAINTAIN FULL OPERATIONAL STATUS OF ALL SIDEROADS AND ACCESS TO ALL PRIVATE AND COMMERCIAL PROPERTIES DURING ALL PHASES OF CONSTRUCTION.
5. THE BARRIER UNIT AT EACH END OF THE INSTALLATION SHALL BE SECURED TO THE PAVEMENT OR SHOULDER USING ALL SIX ANCHORING PINS FOR F SHAPE.
6. SIGNING FOR STAGE II SAME AS STAGE I.



FILE NAME = D672875-sht-staging2.dgn

USER NAME =
PLOT SCALE =
PLOT DATE = Jan-30-2009 09:38:00AM

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DRAWN - RKA
CHECKED - CPK
DATE - 04/07/08

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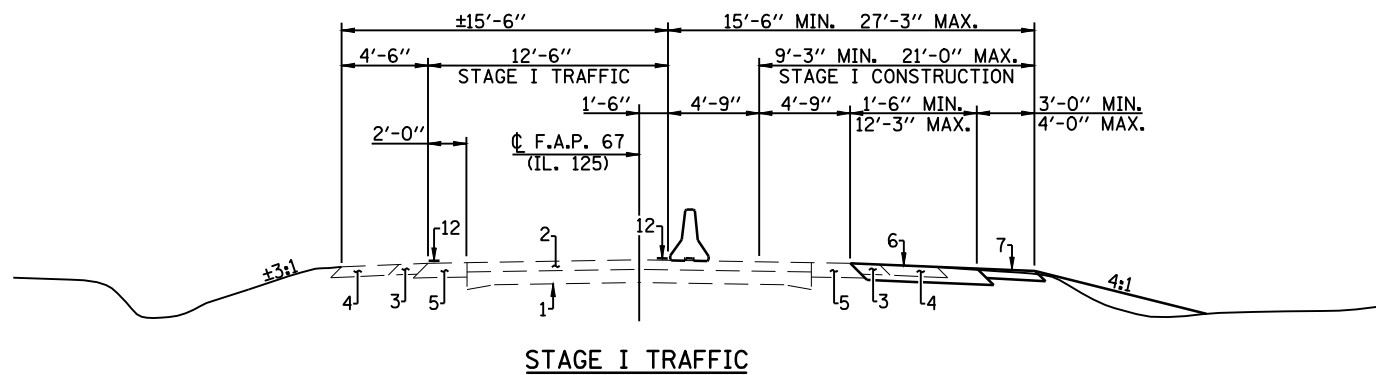


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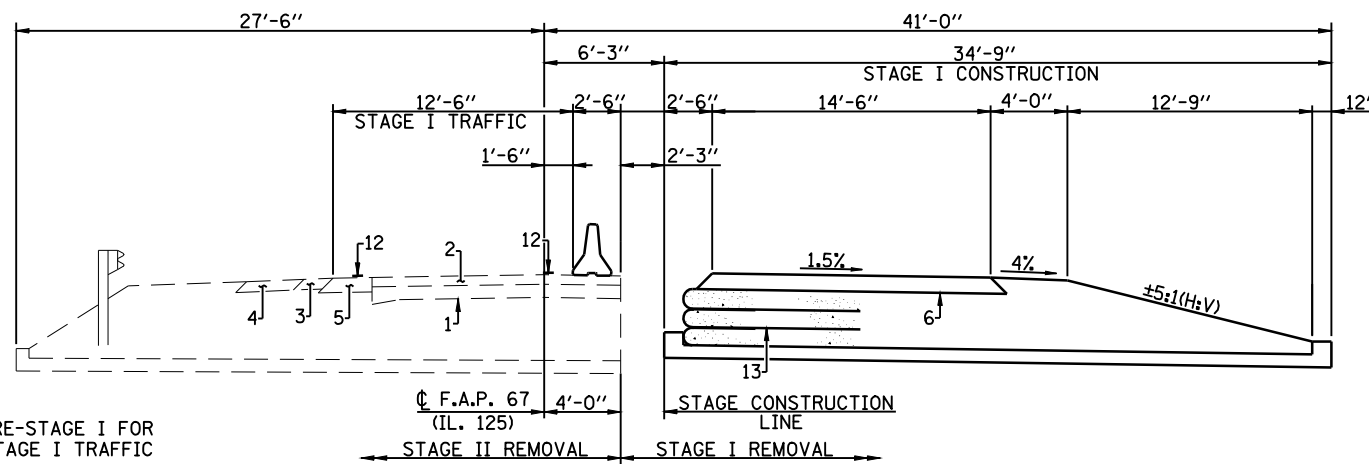
STAGE CONSTRUCTION TRAFFIC DETAILS
STA. 136 + 64.40 / S.N. 009-2506

SCALE: 1"=30' SHEET NO. 17 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	13
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

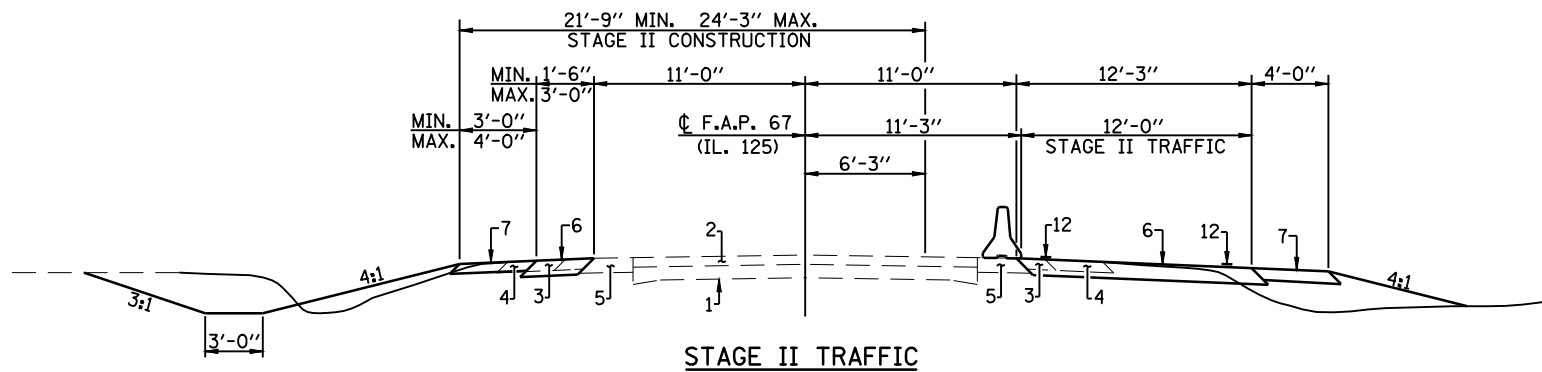


STAGE I TRAFFIC

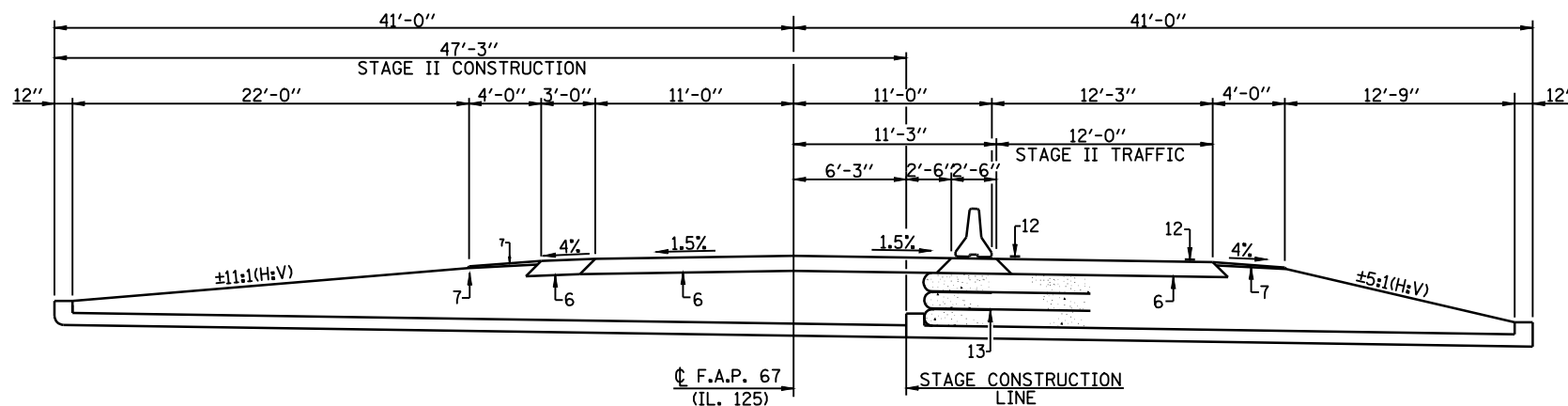


* PRE-STAGE I FOR STAGE I TRAFFIC

STAGE I TRAFFIC AND CONSTRUCTION OVER CULVERT



STAGE II TRAFFIC



STAGE II TRAFFIC AND CONSTRUCTION OVER CULVERT

PAVEMENT LEGEND

- 1) EXISTING P.C.C. PAVEMENT (9'-6"-9')
- 2) EXISTING HOT MIX ASPHALT SURFACE ±6 1/2 "
- 3) EXISTING HOT MIX ASPHALT SHOULDER ±6 1/2 "
- 4) EXISTING AGGREGATE SHOULDER
- 5) EXISTING HOT MIX ASPHALT BASE COURSE WIDENING
- 6) PROPOSED HOT MIX ASPHALT BASE COURSE 10"
- 7) PROPOSED AGGREGATE SHOULDER 6"
- 8) PROPOSED LEVELING BINDER MACHINE METHOD, N50 3/4" MIN.
- 9) PROPOSED HOT MIX ASPHALT SURFACE COURSE 1 1/2"
- 10) PROPOSED HOT MIX ASPHALT SHOULDER 2 1/4 "
- 11) PROPOSED PAINT PAVEMENT MARKING - 5" LINE
- 12) TEMPORARY PAINT PAVEMENT MARKING - 5" LINE
- 13) PROPOSED GEOTECHNICAL FABRIC AND GRANULAR BACKFILL
- 14) PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE A 4"

NOTES: ALL TYPICAL SECTIONS LOOKING EAST.
WORK THIS SHEET WITH SHEETS 16, 17 & 18 OF 71.

FILE NAME = D672875-sh1-staging3-2.dgn

USER NAME =
PLOT SCALE =
PLOT DATE = Jan-30-2009 01:51:57PM

DESIGNED - RKA
DRAWN - RKA
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DATE - 04/07/08

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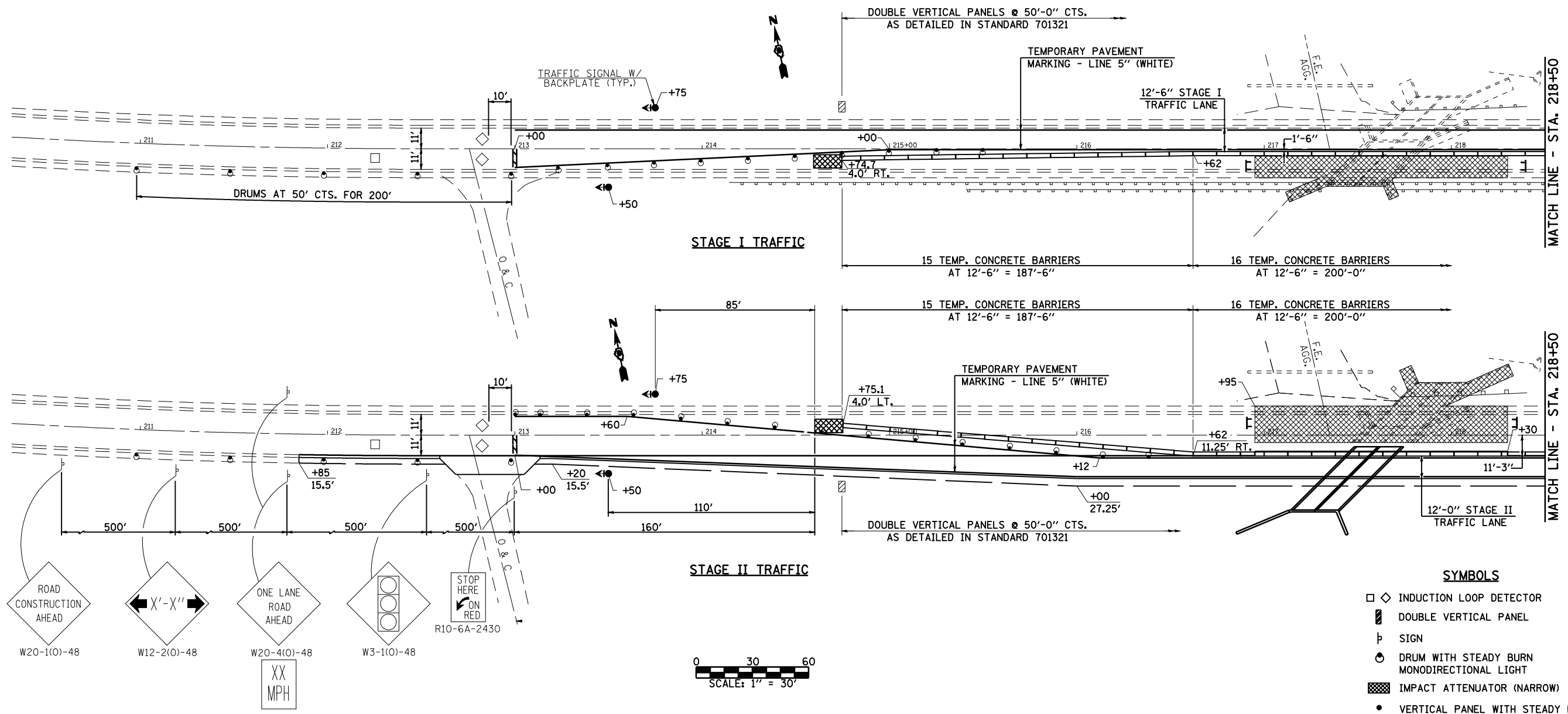
STAGE CONSTRUCTION TRAFFIC DETAILS
STA. 217 + 67.54 / S.N. 009-2507

SCALE: NONE

SHEET NO. 19 OF 71 SHEETS

STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	15
CONTRACT NO. 72875				
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				



SUGGESTED STAGE CONSTRUCTION SEQUENCE

STAGE I

1. THE CONTRACTOR SHALL PLACE MAX. WIDTH SIGNS AND ROAD CLOSED AHEAD SIGNS AS CALLED OUT IN SPECIAL PROVISIONS BEFORE IMPLEMENTING ANY STAGE TRAFFIC CONTROL. THESE SIGNS SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION STANDARD 701321 (SPECIAL)".
2. ERECT TRAFFIC CONTROL FOR STAGE I.
3. REMOVE EXISTING STRUCTURE RIGHT, @ STA. 217+70, AND EXISTING GUARDRAIL STA. 214+14 TO STA. 220+14 RT.
4. CONSTRUCT PROPOSED STAGE I DOUBLE BARREL 8'-0" X 11'-0" CULVERT AND WINGWALLS @ STA. 217+67.54.
5. MILL EXISTING H.M.A. SURFACE COURSE FOR SUPERELEVATION SLOPE CORRECTION.
6. CONSTRUCT PROPOSED H.M.A. BASE COURSE 10" RT. STA. 211+85 TO STA. 224+15 (12'-3" WIDE MAX.) AND AGGREGATE SHOULDERS, TYPE B (4'-0" WIDE).
7. CONSTRUCT H.M.A. BASE COURSE RT. STA. 216+95 TO STA. 218+30.

STAGE II

1. ERECT TRAFFIC CONTROL FOR STAGE II.
2. REMOVE EXISTING STRUCTURE LEFT @ STA. 217+70, AND EXISTING GUARDRAIL STA. 217+67 TO STA. 218+40 LT.
3. CONSTRUCT PROPOSED STAGE II DOUBLE BARREL 8'-0" X 11'-0" CULVERT AND WINGWALLS @ STA. 217+67.54.
4. CONSTRUCT REMAINING PROPOSED H.M.A. BASE COURSE 10" LT. STA. 211+85 TO STA. 224+15 AND AGGREGATE SHOULDERS, TYPE B (4'-0" WIDE).
5. REMOVE EXISTING 15"Ø C.M.P. AND INSTALL NEW 18"Ø PIPE CULVERT TYPE 2 CS/A, (TWO LOCATIONS). CONSTRUCT NEW FIELD ENTRANCES.
6. CONSTRUCT H.M.A. BASE COURSE LT, STA. 216+95 TO STA. 218+30.

FINAL

1. INSTALL SHORT-TERM PAVEMENT MARKINGS AND REMOVE ALL STAGE TRAFFIC CONTROL AND RE-ESTABLISH NORMAL TRAFFIC PATTERNS.
2. REMOVE SHORT TERM PAVEMENT MARKINGS AND COMPLETE LEVELING BINDER AND H.M.A. SURFACE COURSE ON IL. 125 UNDER TRAFFIC WITH FLAGGERS.
3. FINAL STRIPING, SEEDING AND MISCELLANEOUS CLEANUP.

GENERAL NOTES

1. THIS TRAFFIC CONTROL DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD 701321.
2. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 6 TRAFFIC SECTION OF THE BUREAU OF OPERATIONS (PH. 785-5836) AT LEAST 21 DAYS PRIOR TO IMPLEMENTING STAGE TRAFFIC CONTROL.
3. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE REVISED STAGE TRAFFIC PATTERNS DURING ALL PHASES OF STAGE CONSTRUCTION SHALL BE REMOVED AS SPECIFIC IN SECTION 783 OF THE STANDARD SPECIFICATIONS AND PAID FOR AS "PAVEMENT MARKING REMOVAL".
4. THE CONTRACTOR SHALL MAINTAIN FULL OPERATIONAL STATUS OF ALL SIDEROADS AND ACCESS TO ALL PRIVATE AND COMMERCIAL PROPERTIES DURING ALL PHASES OF CONSTRUCTION.
5. THE BARRIER UNIT AT EACH END OF THE INSTALLATION SHALL BE SECURED TO THE PAVEMENT OR SHOULDER USING ALL SIX ANCHORING PINS FOR F SHAPE
6. SIGNING FOR STAGE II SAME AS STAGE I.

NOTE: WORK THIS SHEET WITH SHEETS 15, 17 & 18 OF 71.
SEE SHEET 17 FOR TRAFFIC CONTROL & TEMPORARY PAVEMENT MARKING SCHEDULES.

FILE NAME = D672875-sht-staging3-1.dgn

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PLOT SCALE =	DRAWN - RKA	REVISED -
PLOT DATE = Jan-30-2009 09:38:09AM	CHECKED - CPK	REVISED -
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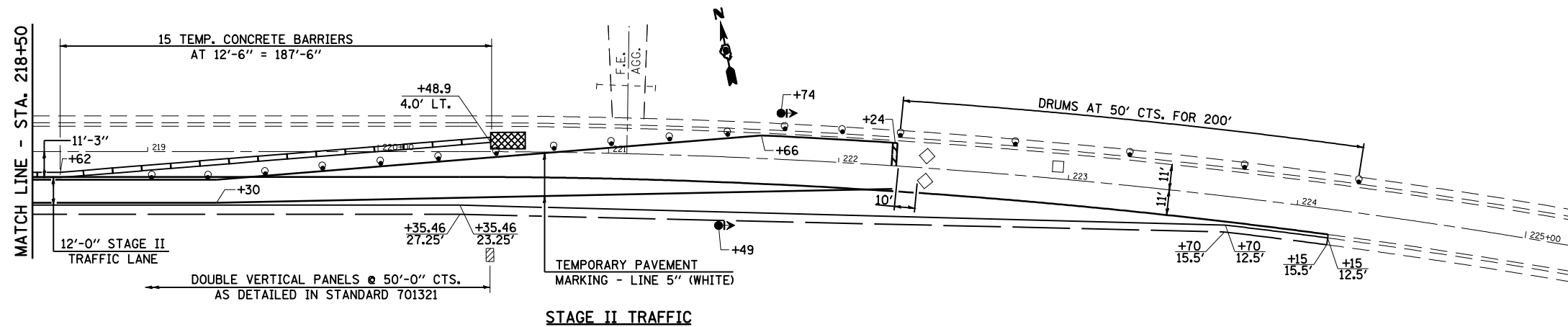
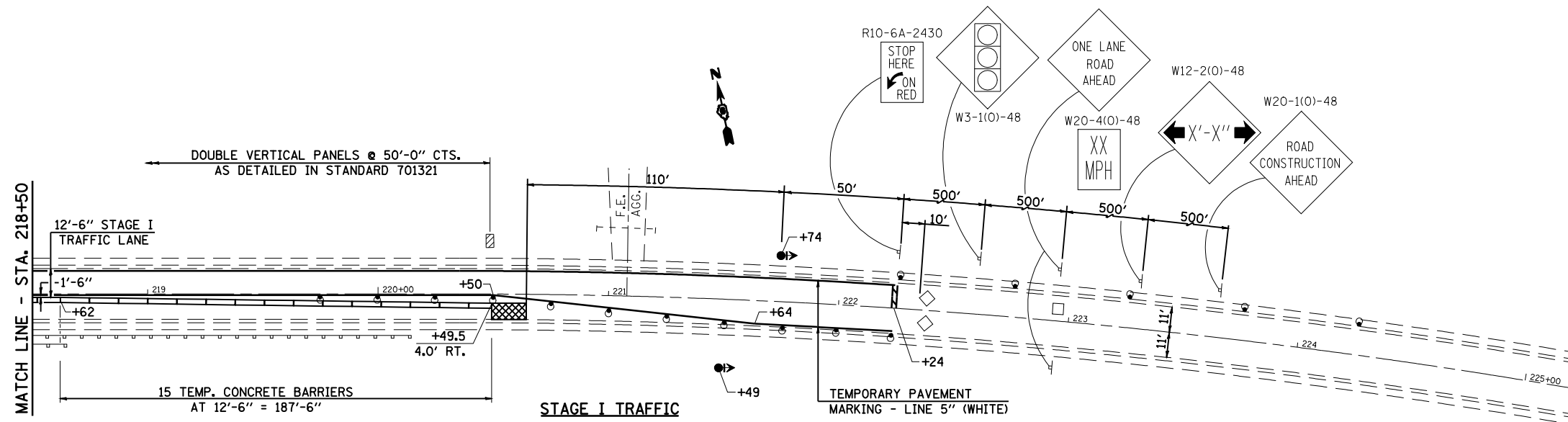


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STAGE CONSTRUCTION TRAFFIC DETAILS
STA. 217 + 67.54 /S.N. 009-2507

SCALE: 1"=30' SHEET NO. 20 OF 71 SHEETS STA. TO STA.

F.A.P. RTE. 67	SECTION (6X-1)B-2	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 16
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



- SYMBOLS**
- ◇ INDUCTION LOOP DETECTOR
 - ▨ DOUBLE VERTICAL PANEL
 - ⊥ SIGN
 - DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
 - ▩ IMPACT ATTENUATOR
 - VERTICAL PANEL WITH STEADY BURN MONODIRECTIONAL LIGHT
 - ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
 - ⊥ DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
 - ◁ TYPE C MONODIRECTIONAL REFLECTOR
 - ⊥ TYPE III BARRICADE
 - ▬ TEMPORARY PAINT MARKING - LINE 24"
 - ◀● TRAFFIC SIGNAL W/ BACKPLATE

**SCHEDULE
TEMPORARY PAVEMENT MARKING &
WORK ZONE PAVEMENT MARKING REMOVAL**

LOCATION STATION TO STATION	TEMP. PAV'T. MARKING LINE - 5" (FOOT)		WORK ZONE PAVEMENT MARKING REMOVAL (SQ. FT.)
	WHITE	YELLOW	
STAGE I			
STA. 213+00 TO STA. 222+24 LT.	924		385
STA. 213+00 TO STA. 222+24 RT.	924		385
STAGE II			
STA. 213+60 TO STA. 221+66 LT.	806		336
STA. 213+00 TO STA. 222+24 RT.	924		385
SHORT TERM PAVEMENT MARKING			103
TOTAL	3578		1594

TRAFFIC CONTROL SCHEDULE

LOCATION STATION TO STATION	TEMP. CONC. BARRIER (FOOT)	RELOCATE TEMP. CONC. BARRIER (FOOT)	IMPACT ATTENUATOR (EACH)	RELOCATE IMPACT ATTENUATOR (EACH)
STAGE I				
STA. 214+59.7 TO STA. 214+74.7			1	
STA. 214+74.7 TO STA. 220+49.3	575			
STA. 220+49.3 TO STA. 220+64.3			1	
STAGE II				
STA. 214+60.1 TO STA. 214+75.1				1
STA. 214+75.1 TO STA. 220+48.9		575		
STA. 220+48.9 TO STA. 220+63.9				1
TOTAL	575	575	2	2

NOTE: WORK THIS SHEET WITH SHEETS 15, 16 & 18 OF 71.

FILE NAME = D672875-sht-staging3-1.dgn

USER NAME =

DESIGNED - RKA

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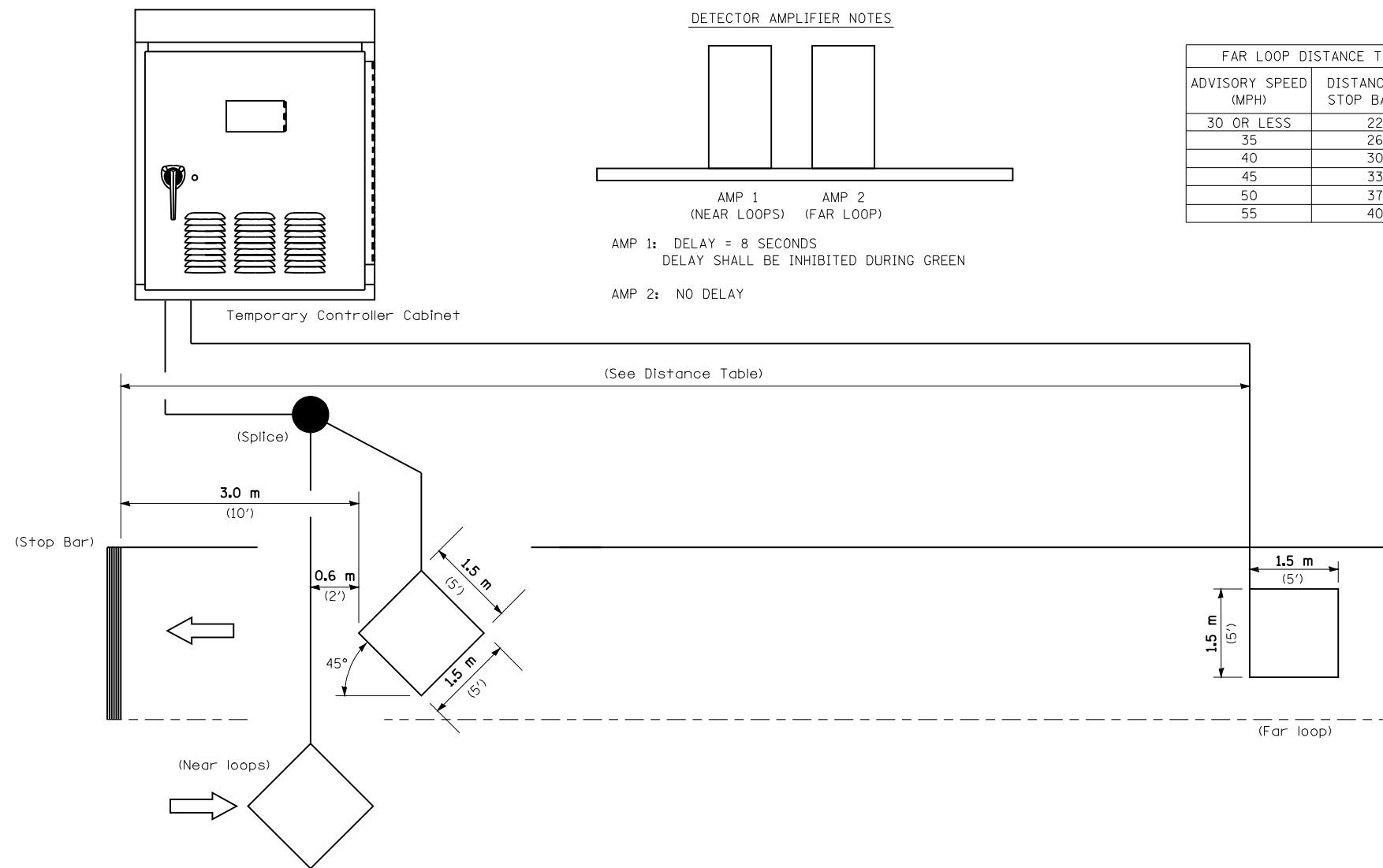
**STAGE CONSTRUCTION TRAFFIC DETAILS
STA. 217 + 67.54 /S.N. 009-2507**

SCALE: 1"=30'

SHEET NO. 21 OF 71 SHEETS

STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	17
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



NOTE: All loops centered in lane.

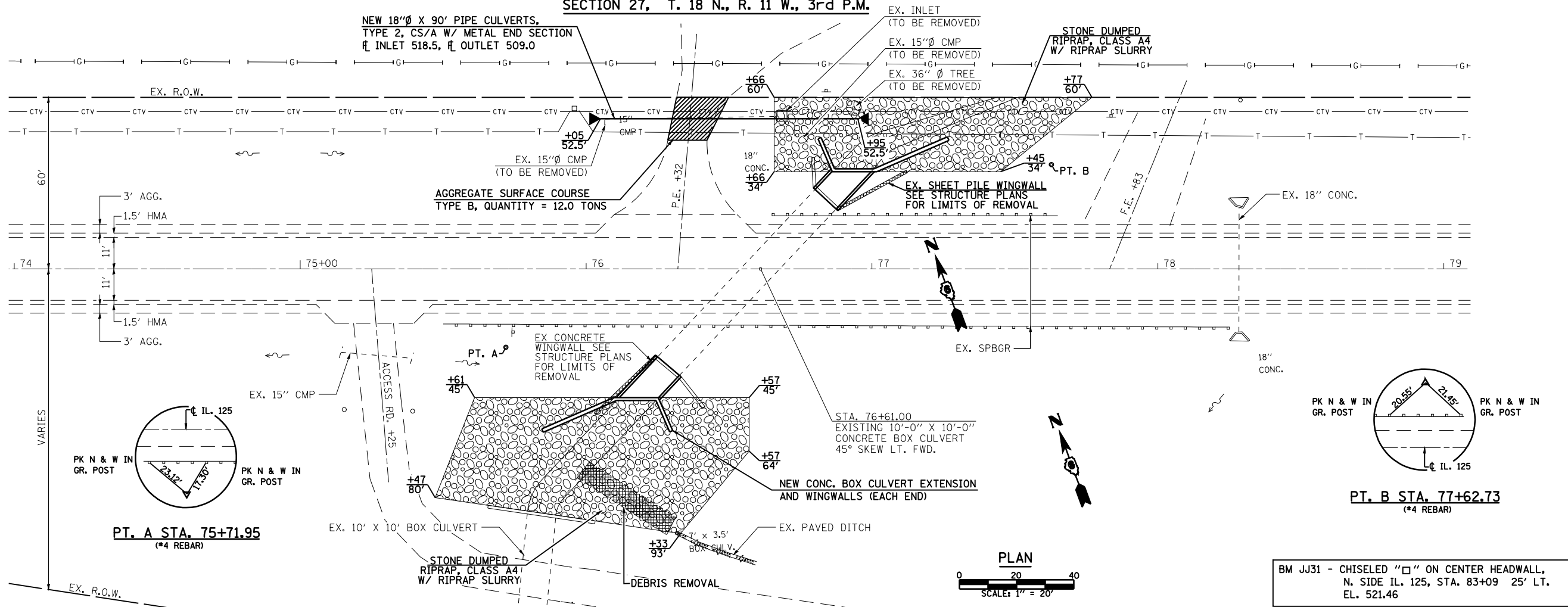
INDUCTION LOOP DETECTOR

NOTE: WORK THIS SHEET WITH SHEETS 12 & 17 OF 71.

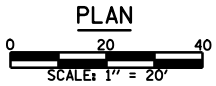
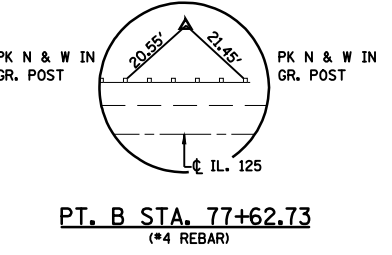
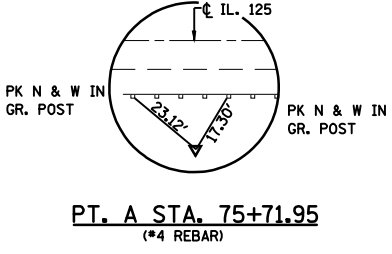
FILE NAME =	USER NAME = laughlinr1	DESIGNED -	REVISED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907	TEMPORARY BRIDGE TRAFFIC SIGNAL LOOP PLACEMENT DETAIL SHEET			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pwork\pwork\LAUGHLINRL\0125304\0572875-sht-ts.dgn	PLOT SCALE = 40.0000' / IN.	DRAWN -	REVISED -		67	(6X-1)B-2	CASS	71	18			
PLOT DATE = Jan-30-2009 09:38:14AM	DATE -	CHECKED -	REVISED -		CONTRACT NO. 72875			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
					SCALE: NONE	SHEET NO.	OF SHEETS	STA.	TO STA.			

SECTION 27, T. 18 N., R. 11 W., 3rd P.M.

NEW 18"Ø X 90' PIPE CULVERTS,
TYPE 2, CS/A W/ METAL END SECTION
R_L INLET 518.5, R_L OUTLET 509.0



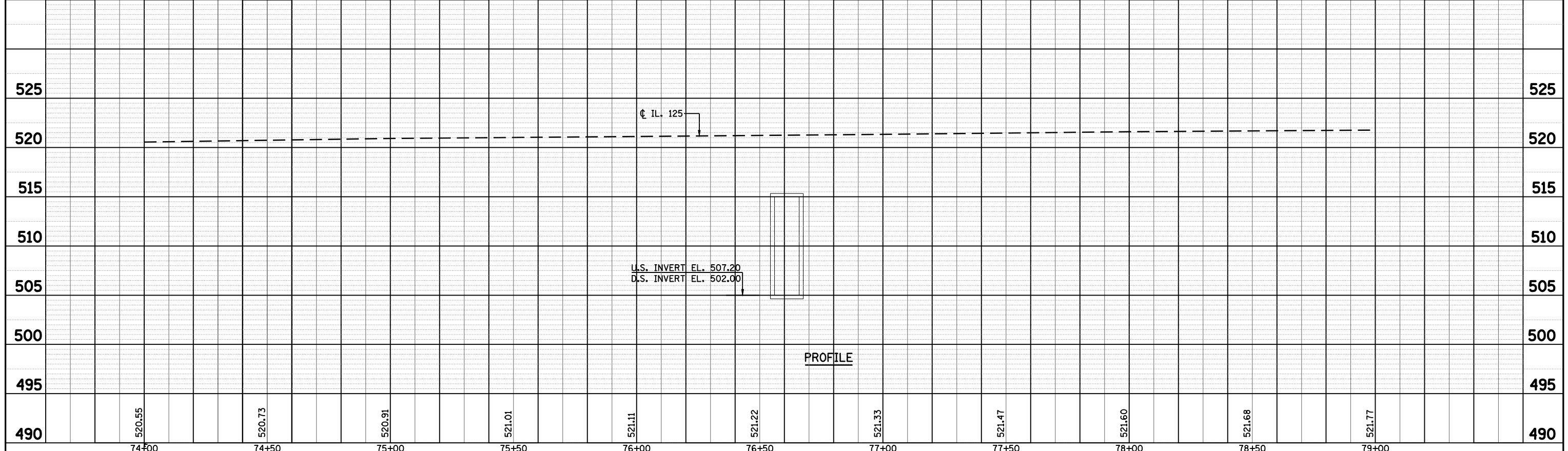
VARIES



BM JJ31 - CHISELED "□" ON CENTER HEADWALL,
N. SIDE IL. 125, STA. 83+09 25' LT.
EL. 521.46

PLAN	SURVEYED	DATE
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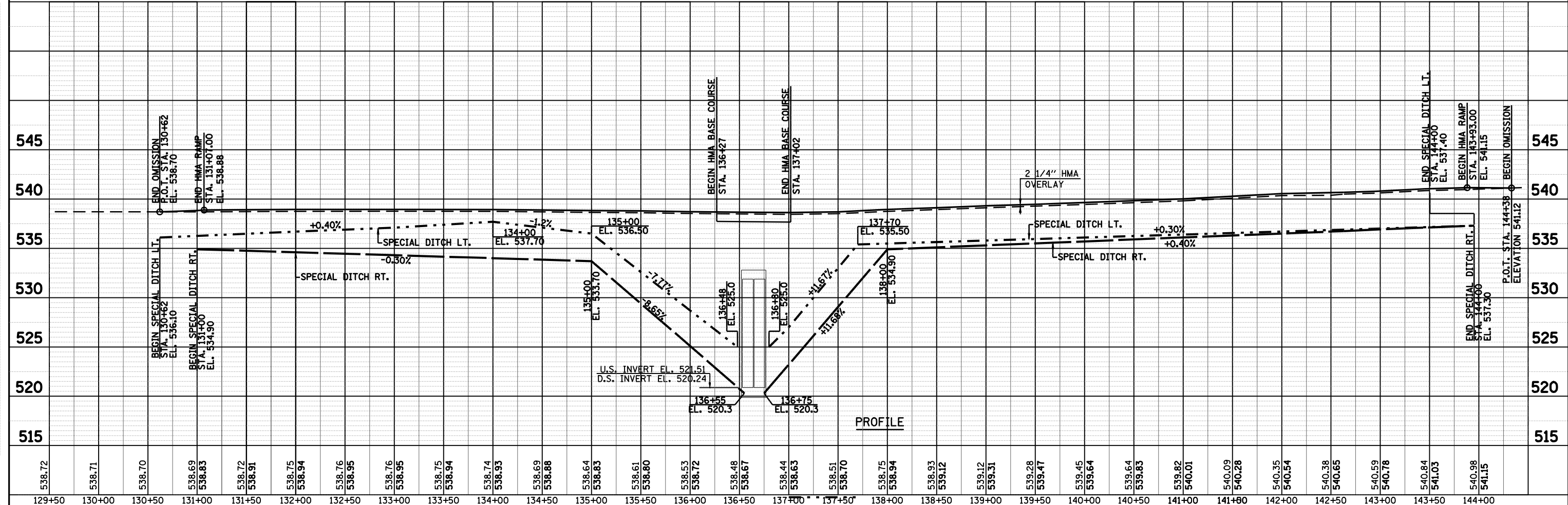
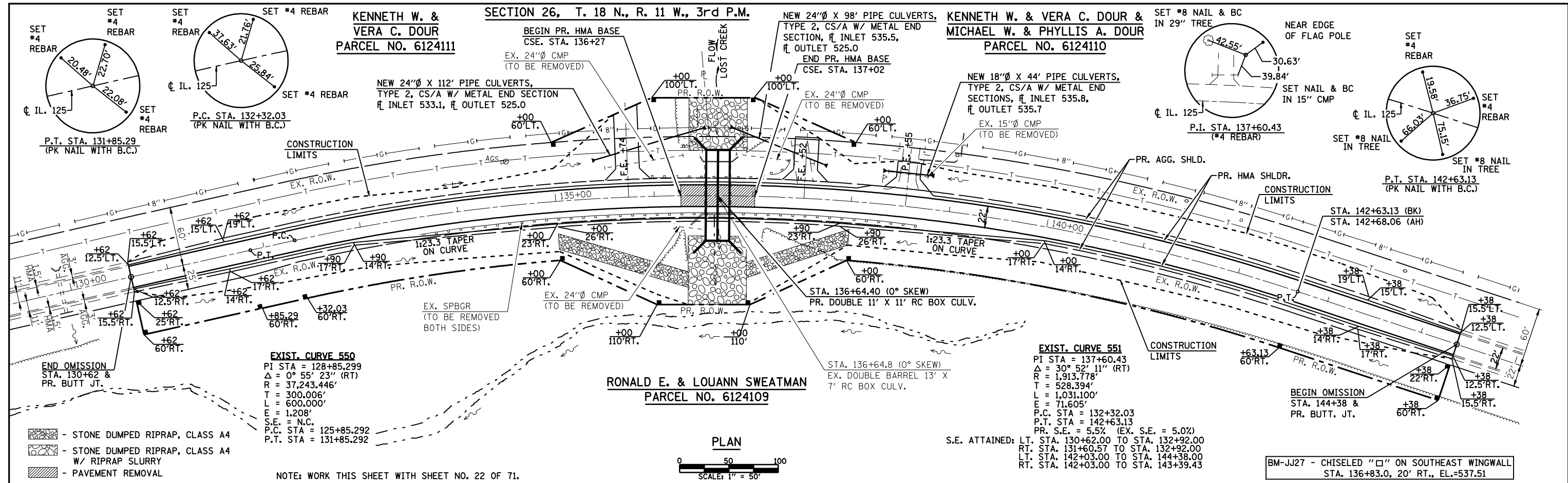
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FILE NAME =	USER NAME =	DESIGNED - RKA	REVISED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	<p>PLAN & PROFILE STA. 76 + 61.00</p>			F.A.P. RTE. 67	SECTION (6X-1)B-2	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 19
FILE#	PLOT SCALE =	CHECKED - RKA	REVISED -		SCALE: 1" = 20'	SHEET NO. 8 OF 71 SHEETS	STA.	TO STA.	CONTRACT NO. 72875			
	PLOT DATE = Jan-30-2009 09:38:17AM	DRAWN - CPK	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
		CHECKED - 04/07/08	REVISED -									

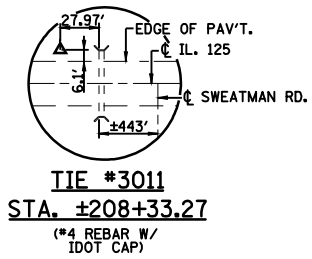
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	GRADES
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FILE NAME =	USER NAME =	DESIGNED - RKA	REVISED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907	PLAN & PROFILE		F.A.P. RTE. = 67	SECTION = (6X-1)B-2	COUNTY = CASS	TOTAL SHEETS = 71	SHEET NO. = 20	
*FILE# =	PLOT SCALE =	CHECKED - CPK	REVISED -		STA. 136 + 64.40 / S.N. 009-2506		CONTRACT NO. 72875		ILLINOIS FED. AID PROJECT			
	PLOT DATE = Feb-05-2009 08:15:50AM	DRAWN - RKA	REVISED -		SCALE: 1"=50'	SHEET NO. 9 OF 71 SHEETS	STA.	TO STA.				
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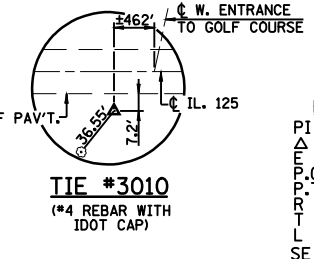
EXIST. CURVE 559
 PI STA = 210+11.20
 $\Delta = 7^\circ 08' 00''$ (LT)
 P.C. STA = 207+72.84
 P.T. STA = 212+48.94
 R = 3,824.149
 L = 238.358
 E = 476.100
 F = 7.421
 SE TRANS:
 L.T. STA. 207+25.69 TO 208+32.99
 R.T. STA. 205+79.39 TO 208+32.99
 SE TRANS:
 L.T. STA. 211+88.79 TO 212+96.09
 R.T. STA. 211+88.79 TO 214+42.40



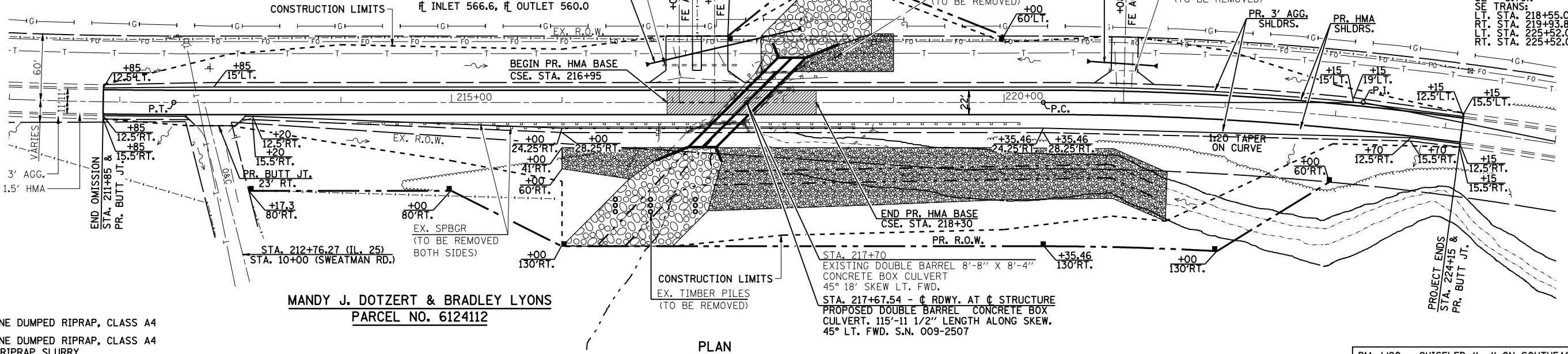
SECTION 36, T. 18 N., R. 11 W., 3rd P.M.

JOHN W. & LOIS A. DOTZERT
 PARCEL NO. 6124113

*8 NAIL & BC IN 11" DOUBLE FORK TREE



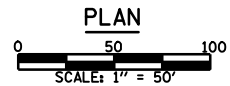
EXIST. CURVE 560
 PI STA = 223+24.78
 $\Delta = 11^\circ 31' 26''$ (RT)
 P.C. STA = 220+35.46
 P.T. STA = 226+12.16
 R = 2,867.33
 L = 289.33
 E = 576.70
 F = 3.70%
 SE TRANS:
 L.T. STA. 218+55.01 TO 220+95.61
 R.T. STA. 219+93.82 TO 220+95.61
 LT. STA. 225+52.01 TO 227+92.61
 RT. STA. 225+52.01 TO 226+72.31



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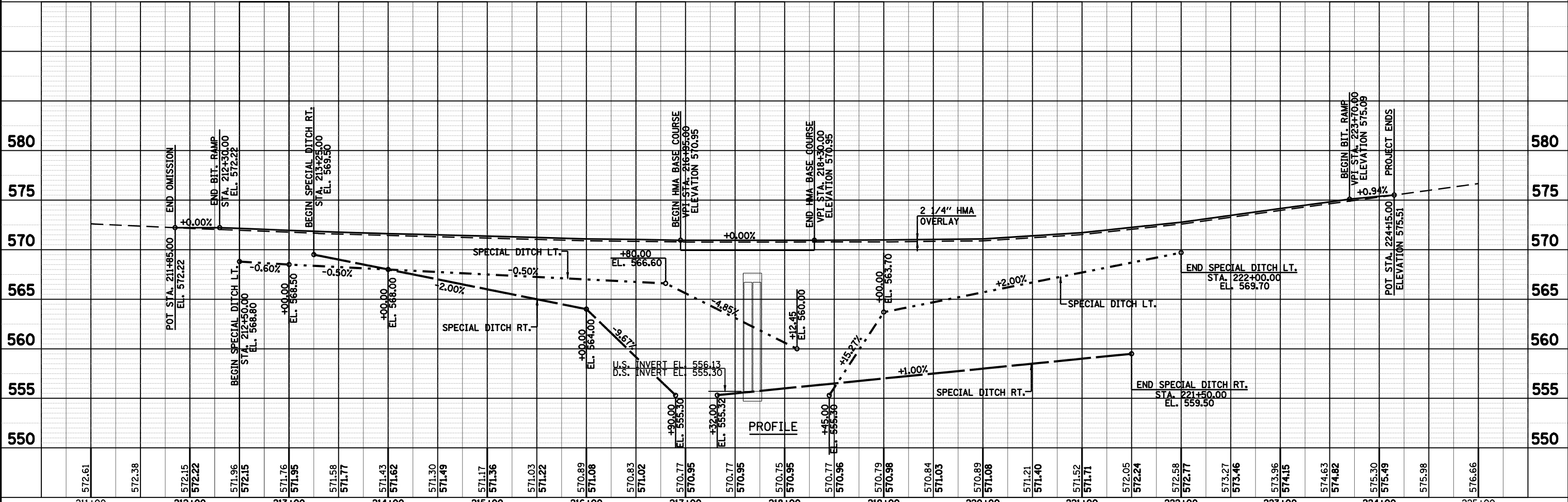
- STONE DUMPED RIPRAP, CLASS A4
- STONE DUMPED RIPRAP, CLASS A4 W/ RIPRAP SLURRY
- PAVEMENT REMOVAL

NOTE: WORK THIS SHEET WITH SHEET NO. 23 OF 71.

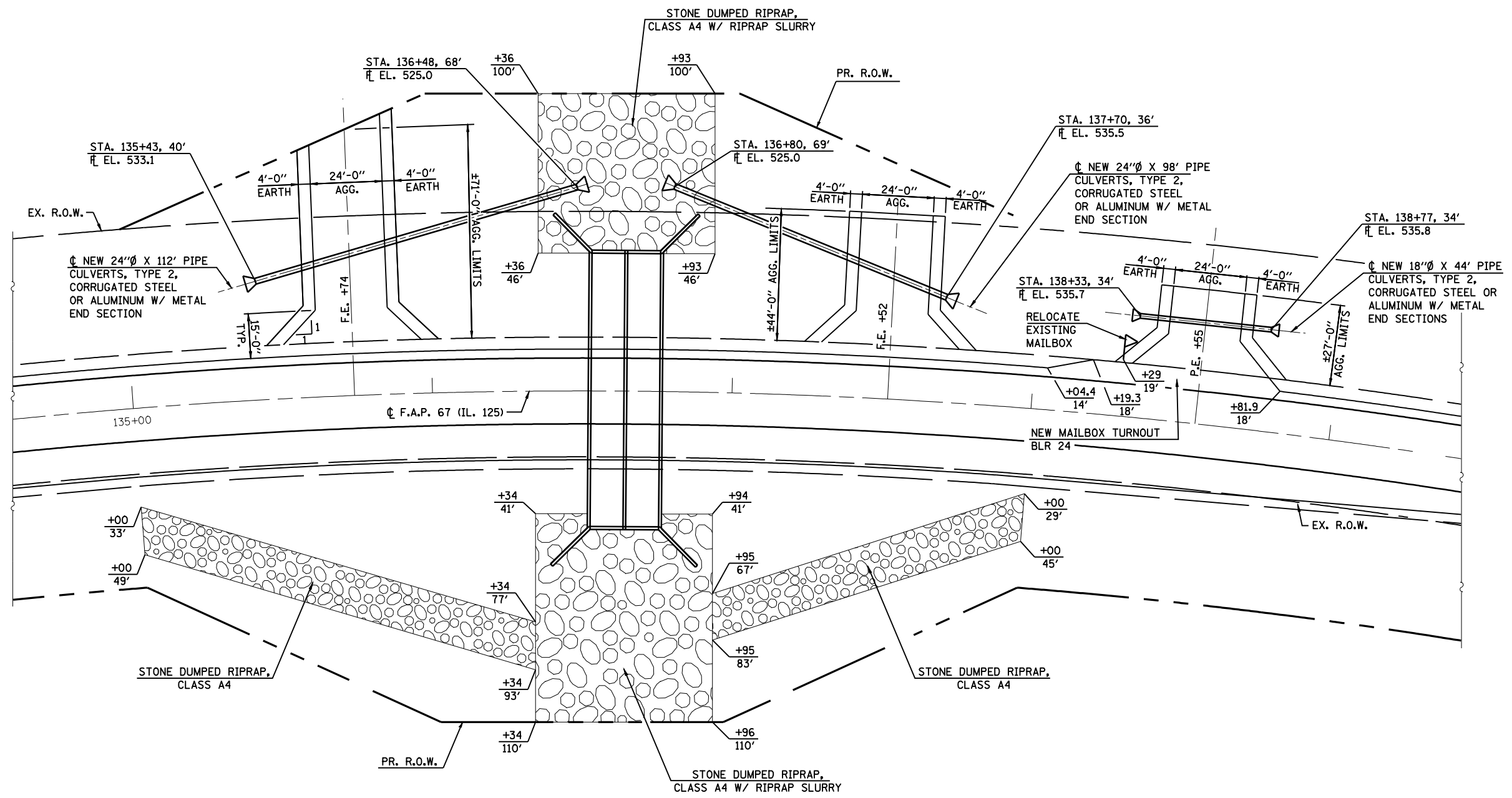


BM JJ20 - CHISELED " " ON SOUTHEAST WINGWALL
 STA. 217+67.01 21.7' RT. EL. 570.33

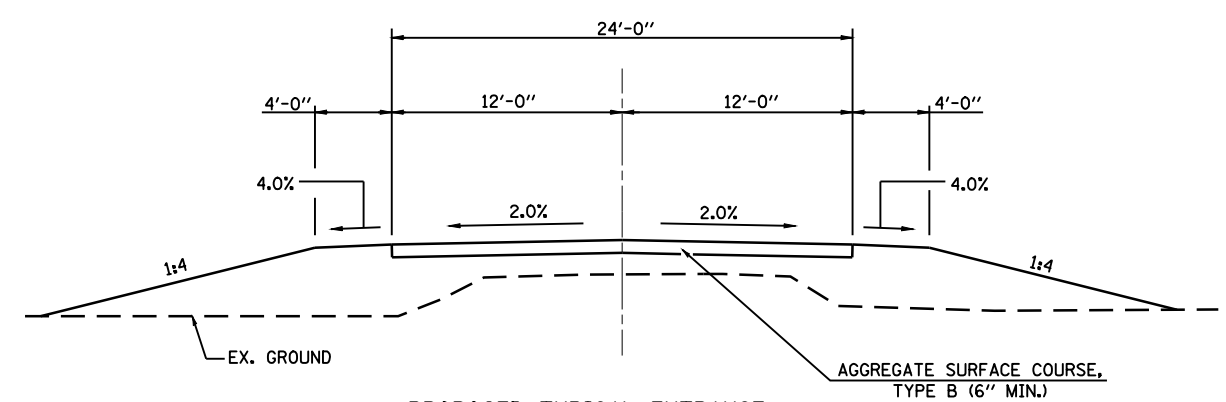
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FILE NAME = D672875-shr-plnprf3.dgn	USER NAME =	DESIGNED - RKA	REVISED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	PLAN & PROFILE		F.A.P. RTE. = 67	SECTION = (6X-1)B-2	COUNTY = CASS	TOTAL SHEETS = 71	SHEET NO. = 21	
PLOT SCALE =	DESIGNED - RKA	REVISED -	SCALE: 1"=50'		SHEET NO. 10 OF 71 SHEETS	STA.	TO STA.	CONTRACT NO. 72875				
PLOT DATE = Feb-05-2009 08:15:54AM	DESIGNED - RKA	REVISED -	FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT							
	DESIGNED - RKA	REVISED -										



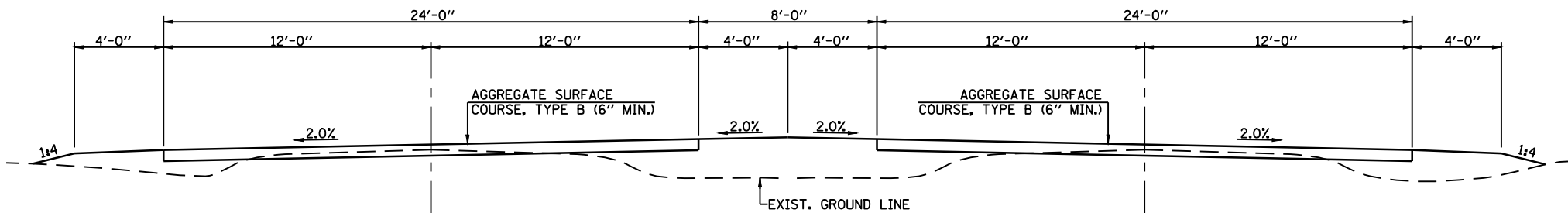
PLAN
(SHOWING ENTRANCE AND RIPRAP LAYOUT)



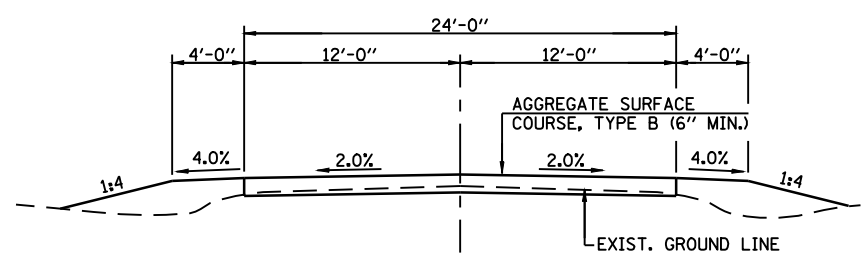
PROPOSED TYPICAL ENTRANCE
(F.E. STA. 135+74 & 137+52, P.E. STA. 138+55)

NOTE: WORK THIS SHEET WITH SHEET NO. 20 OF 71.

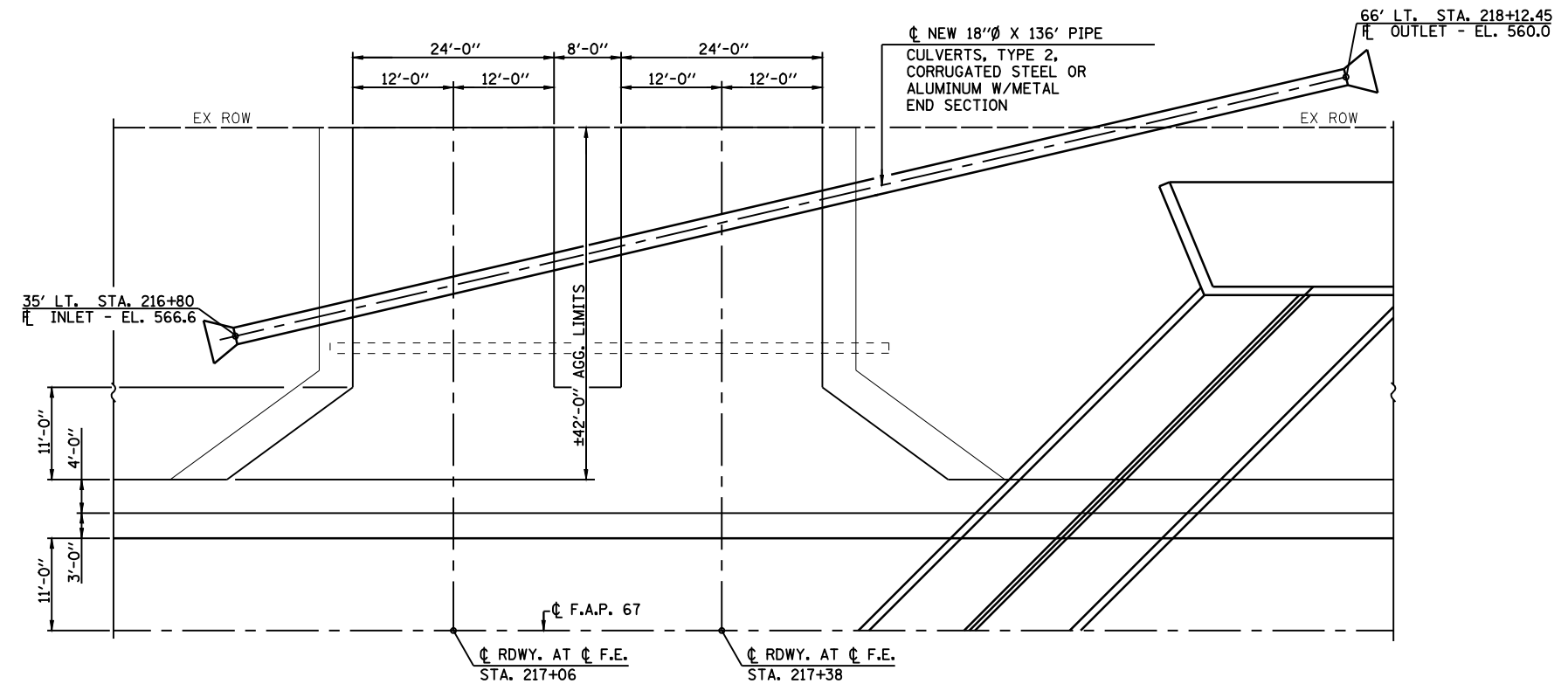
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PLOT SCALE =	CHECKED - CPK	REVISED -	REVISED -		STA. 136 + 64.40 /S.N. 009-2506			67	(6X-1)B-2	CASS	71	22
PLOT DATE = Feb-05-2009 08:15:58AM	DATE - 04/07/08	REVISED -	REVISED -		SCALE: NONE	SHEET NO. 11 OF 71 SHEETS	STA.	TO STA.	CONTRACT NO. 72875			
							FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



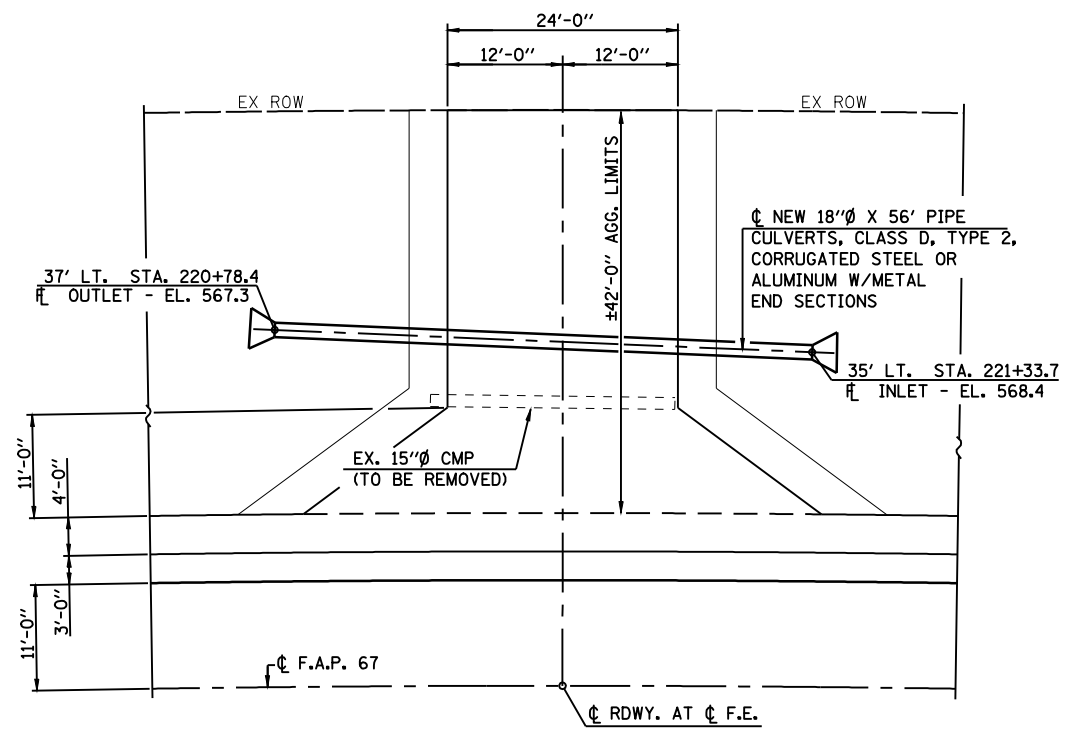
PROPOSED TYPICAL SECTION
(F.E. STA. 217+08 LT. & F.E. STA. 217+39 LT.)



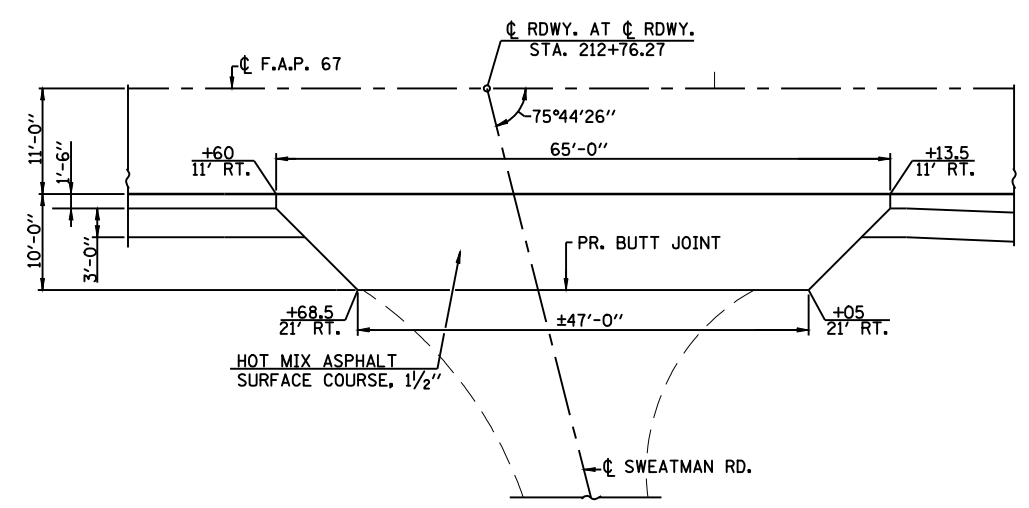
PROPOSED TYPICAL SECTION
(F.E. STA. 221+08 LT.)



PLAN
(F.E. STA. 217+06 LT. & F.E. STA. 217+38 LT.)



PLAN
(F.E. STA. 221+08 LT.)



PLAN
(SWEATMAN RD. STA. 212+76.27 RT.)

NOTE: WORK THIS SHEET WITH SHEET NO. 21 OF 71.

FILE NAME = D672875-shd-details3.dgn	USER NAME =	DESIGNED - RKA	REVISED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907	ENTRANCE DETAILS			F.A.P. RTE. 67	SECTION (6X-1)B-2	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 23
PLOT SCALE =	CHECKED - CPK	REVISED -	REVISED -		STA. 217 + 67.54 / S.N. 009-2507			CONTRACT NO. 72875				
PLOT DATE = Jan-30-2009 09:38:30AM	DATE - 04/07/08	REVISED -	REVISED -		SCALE: NONE	SHEET NO. OF 71 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STORM WATER POLLUTION PREVENTION PLAN

Route: FAP 67 Marked: IL 125
 Section: (6X-1)B-2 Project No.: N/A
 County: CASS Contract No.: 72875

This plan has been prepared to comply with the provision of the NPDES Permit Number ILR10 _____ issued by the Illinois Environmental Protection Agency for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Reg. Z. Dubs 2-5-09
 (Signature) (Date)

Deputy District Engineer
 (Title)

Note: The above boxed in area will be filled out by IDOT - Construction after the award of the contract to obtain the required NPDES permit.

The following plan was established and included in these plans to direct the Contractor in the placement of temporary erosion control systems and to provide a storm water pollution prevention plan for compliance under NPDES. The Contractor shall abide to all requirements within this plan as part of the contract.

The purpose of this plan is to prevent / minimize siltation within the construction zone and to eliminate sediments from entering and leaving the construction zone by utilizing proper temporary erosion control systems and providing ground cover within a reasonable time.

Certain items, as shown in this plan and referenced by the legend, shall be placed by the Contractor at the beginning of construction. Other items shall be placed by the Contractor as directed by the Engineer on a case by case situation resulting from the Contractor's sequence of activities, time of the year, and expected weather conditions.

The Contractor shall place permanent erosion control systems and seeding within a reasonable amount of time; therefore, reducing the amount of area being open to the possibility of erosion and reducing the amount of temporary erosion control systems and temporary seeding. The Resident Engineer will determine if temporary erosion control systems shown in the plan can be deleted, the size of the proposed ditch checks, the proper method of installation, and if any additional temporary erosion control systems shall be added which are not included in this plan. The Contractor shall perform all work as directed by the Engineer and as shown in special details and in Standard 280001 of the plans.

The special provisions Temporary Seeding, Temporary Erosion Control Seeding, and Temporary Erosion Control additionally supplement this plan.

All disturbed areas having high potential for erosion, as determined by the Engineer, shall be temporarily seeded or permanently seeded by October 1st of each construction year and shall not be reopened until after the winter shutdown period.

SITE DESCRIPTION

Description of Construction Activity:

1. The proposed project consists of the repair and replacement of various concrete box culverts located on IL 125 in Cass County.
2. Construction consists of grading, riprap placement, hot mix asphalt resurfacing, placing hot mix asphalt and aggregate shoulders, guardrail removal and other miscellaneous work to complete improvements to the proposed roadway.

Description of Intended Sequence of Major Construction Activities Which Will Disturb Earth and Lead to Possible Erosion for Major Portions of the Construction Site:

1. Widening, grading and shaping of ditches at each project location.
2. Excavation will be completed along the IL 125 section to grade out for proposed roadway ditches.
3. Embankment will be completed at shoulders to raise the existing ground elevation to meet the proposed roadway template.
4. Drainage structures will be installed before and/or during the construction of the excavation and embankment to allow proper drainage across private and field entrances.
5. Placement, maintenance, removal and proper clean-up of temporary erosion control, such as erosion control fence, ditch checks, temporary seeding etc.
6. Placement of permanent erosion control, such as seeding, mulch and fertilizer nutrients.
7. Final grading, paving and other miscellaneous items.

Area of Construction Site:

The total drainage area entering and including the construction site is estimated to be approx. 2.87 sq miles in which 5.3 acres will be disturbed by excavation, grading or other activities.

Other Reports, Studies and Plans which Aid in the Development of this Storm Water Pollution Prevention Plan as Referenced Documents:

1. Information on the soils within the site was obtained from field reviews which were utilized for proposed placement of the temporary erosion control systems.
2. U.S.G.S. drainage maps indicating drainage patterns and approximate slopes were referenced along with project plan documents to assist in the proposed placement of the temporary erosion control systems.

Drainage Tributaries Receiving Water from this Construction Site:

1. Lost Creek
2. Hagers Ditch
3. Muscooten Bay
4. Illinois River

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROLS

Description of Stabilization Practices at the Beginning of Construction:

1. The area between the existing and proposed right-of-way/temporary easement boundaries and limits of the project will be improved and managed for the purposes of controlling erosion within the area, reducing water flow by temporary diversion and minimizing siltation into the construction zone, and establishing vegetative cover which will become permanent vegetation and act as an erosion barrier. Work at the beginning of construction will consist of the following:
 - (a) Areas of existing vegetation (woods and grasslands) outside the proposed construction slope limits shall be identified for preserving and shall be protected from mowing, brush cutting, tree removal and other activities which would be detrimental to their maintenance and development.
 - (b) Dead, diseased, or unsuitable vegetation within the site shall be removed as directed by the Engineer, along with required tree removal.
 - (c) As soon as reasonable access is available (such as trees cleared) to all locations where water drains away from the project, sediment basins, riprap ditch checks, temporary ditch checks, and/or erosion control fence shall be installed as called out in this plan and directed by the Engineer.
 - (d) Bare and sparsely vegetated ground in highly erodible areas as determined by the Engineer shall be temporarily seeded at the beginning of construction where no construction activities are immediately expected as stated in the special provision "Temporary Erosion Control Seeding".
 - (e) Immediately after tree removal is completed in certain areas which are highly erodible areas as determined by the Engineer, the areas shall be temporarily seeded where no construction activities are immediately expected as stated in the special provision "Temporary Erosion Control Seeding".
 - (f) At locations where a significant amount of water drains into the construction zone from outside areas (adjacent landowners), erosion control fence, temporary ditch checks, or riprap ditch checks will be utilized to locally divert water, reduce flow rates, and collect outside siltation inside the right-of-way line. Erosion control items will not be allowed to be installed to cause flooding to upstream private property which could cause crop damages or other undesirable conditions.
2. Establishment of these temporary erosion control measures will have additional benefits to the project. Desirable grass seed will become established in these areas and will spread seeds onto the construction site until permanent seeding/mowing and overseeding can be complete.
3. A third benefit of these filter areas is that they will begin to provide a screen and buffer. They will help protect the construction site from winds and excess sun and mitigate construction noise and dust.

Description of Stabilization Practices During Construction:

1. During roadway construction, areas outside the construction slope limits as outlined previous herein shall be protected from damaging effects of construction. The Contractor shall not use this area for staging (except as designated on the plans or directed by the Engineer), parking of vehicles or construction equipment, storage of materials, or other construction related activities.
 - (a) Within the construction zone, critical areas which have high flows of water as determined by the Engineer shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion.
 - (b) Top soil and earth stockpiles shall be temporarily seeded if they are to remain unused for more than fourteen days.
 - (c) As the Contractor constructs a portion of roadway in a fill section, he/she shall follow the following steps as directed by the Engineer:
 - i. Place temporary erosion control systems at locations where water leaves and enters the construction zone
 - ii. Temporary seed highly erodible areas outside the construction slope limits
 - iii. Construct roadside ditches and provide temporary erosion control systems
 - iv. Temporary divert water around proposed culvert locations
 - v. Build necessary embankment at culvert locations and then excavate and place culvert
 - vi. Continue building up the embankment to the proposed grade while at the same time place permanent erosion control such as riprap ditch lining and conduct final shaping to the slopes
 - (d) The Contractor shall immediately follow major earth moving operations with final grading equipment. After the major earth spread operation has moved to a new location, final grading shall be completed within fourteen days. If grading is not completed within fourteen days, all major earth moving operations will be stopped, as directed by the Engineer, until disturbed areas are final graded and seeded.
 - (e) Excavated areas and embankments shall be permanently seeded when final graded. If not, they shall be temporarily seeded as stated in the special provision "Temporary Erosion Control Seeding".

- (f) Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or pollution run-off in compliance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.
- (g) The Resident Engineer shall inspect the project daily during activities and weekly or after large rains during the winter shutdown period. The project shall additionally be inspected by the Construction Field Engineer on a bi-weekly basis to determine that erosion control efforts are in place and effective and if other control work is necessary.
- (h) Sediment collected during construction by the various temporary erosion control systems shall be disposed of on the site on a regular basis as directed by the Engineer. The cost of this maintenance will be paid for in accordance with Article 109.04 of the Standard Specifications.
- (i) The temporary erosion control systems shall be removed as directed by the Engineer after use is no longer needed or no longer functioning. The costs of this removal shall be included in the unit bid price for the temporary erosion control system. No additional compensation will be allowed.

Description of Structural Practices After Final Grading:

1. Temporary erosion control systems shall be left in place with proper maintenance until permanent erosion control is in place and working properly and all proposed turf areas seeded and established with a proper stand.
2. Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up, and disturbed turf reseeded. Temporary riprap ditch checks will be allowed to remain in place where approved by the Engineer.

Maintenance after Construction:

1. Construction is complete after acceptance is received at the final inspection.
2. Areas will be inspected on a regular basis by IDOT District 6 Bureau of Operations.
3. Maintenance crews will perform regular mowings to aid in keeping weeds down and establishing a good roadside seed stand.
4. Maintenance crews will also aid in any ditch lining maintenance or in any drainage problems.
5. All maintenance will be conducted at times when weather conditions will not cause site damage.

DOCUMENTATION

1. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with Section 4.b. shall be made and retained as part of the plan for at least three years after the date of inspection. The report shall be signed in accordance with part VI.G of the general permit.
2. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer or Resident Technician shall complete and file an "Incident of Noncompliance (ION)" report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI.G. of the general permit. The report of noncompliance shall be mailed to the following address:

Illinois Environmental Protection Agency
 Division of Water Pollution Control
 2200 Churchill Road, P.O. Box 19276
 Springfield, IL 62794-9276
 Attn: Compliance Assurance Section

FILE NAME =	D672875-sh1-swppp.dgn
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USER NAME =	DESIGNED - RKA	REVISED -
	DRAWN - RKA	REVISED -
PLOT SCALE =	CHECKED - CPK	REVISED -
PLOT DATE = Jan-30-2009 09:38:35AM	DATE - 04/07/08	REVISED -



Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62708 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

STORM WATER POLLUTION PREVENTION PLAN			
SCALE: NONE	SHEET NO. 25 OF 71 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	25
CONTRACT NO. 72875				
<small>FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT</small>				

CONTRACTOR CERTIFICATION STATEMENT

This certification statement is part of the Storm Water Pollution Plan for the project described below in accordance with NPDES Permit No. ILR10 _____, issued by the Illinois Environmental Protection Agency on _____.

Route: _____ Marked: _____
 Section: _____ Project No.: _____
 County: _____ Contract No.: _____

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature _____ Date _____
 Title _____
 Name of Firm _____
 Street Address _____
 City, State, Zip _____
 Phone Number _____

Note: The above boxed in area shall be filled out by the Contractor after the award of the contract to obtain the required NPDES Permit from IEPA. This is a requirement for this contract.

FILE NAME =
D672875-sh1-swppp.dgn

USER NAME =

DESIGNED - RKA	REVISED -
DRAWN - RKA	REVISED -
CHECKED - CPK	REVISED -
DATE - 04/07/08	REVISED -

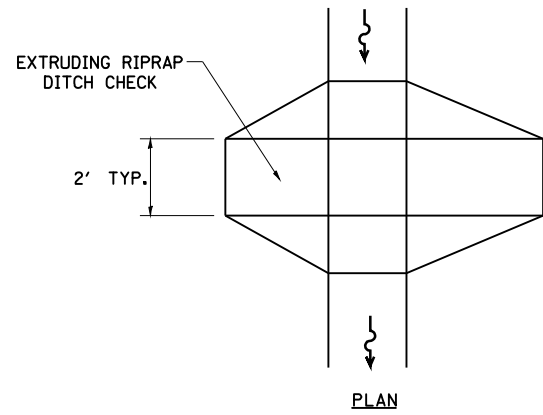


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 Civil and Structural Engineers Springfield, IL
 62708 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

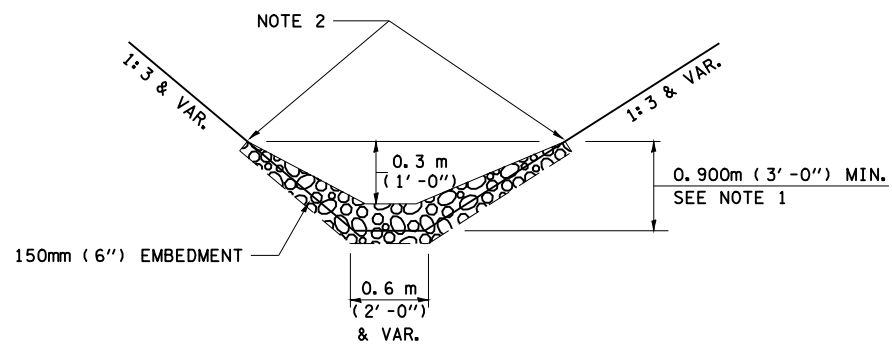
STORM WATER POLLUTION PREVENTION PLAN

SCALE: NONE SHEET NO. 26 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	26
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



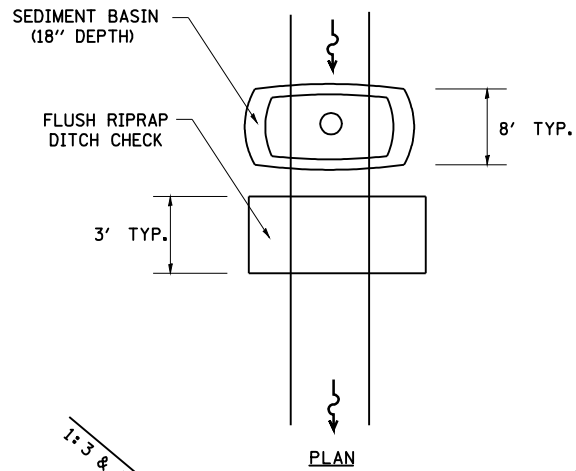
PLAN



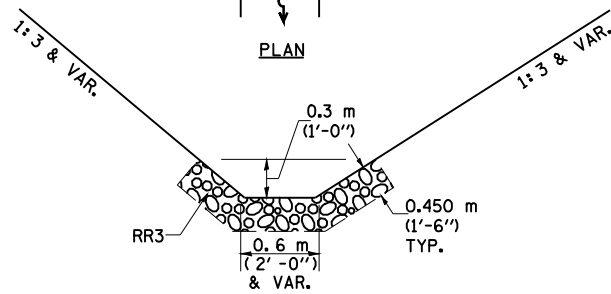
ELEVATION

OPTION 1

(EXTRUDING DITCH CHECK)
RECOMMENDED FOR AREAS
W/ RIPRAP DITCH LINING



PLAN



ELEVATION

OPTION 2

(FLUSH DITCH CHECK)
RECOMMENDED FOR AREAS
W/O RIPRAP DITCH LINING

STONE DUMPED RIPRAP DITCH CHECK
(TYPICAL & OPTIONS 1 & 2
AS DIRECTED BY THE ENGINEER)

NOTE 1: RIPRAP SHALL EXTEND FAR ENOUGH UP THE SLOPES TO ALLOW 0.3m (1') OVERTOPPING TO AVOID ERODING AROUND THE EDGES OF THE RIPRAP.

NOTE 2: ENDS SHALL BE TIED INTO SLOPES.

LEGEND FOR STORM WATER POLLUTION PREVENTION PLAN

ITEM	SYMBOL
AGGREGATE (EROSION CONTROL)	
ESTONE DUMPED RIPRAP DITCH CHECKS: Height = 0.6m (2')	
TEMPORARY DITCH CHECKS	
INLET PIPE PROTECTION (I&PP)	
EROSION CONTROL FENCE	
EARTH EXCAVATION FOR EROSION CONTROL (SEDIMENT BASINS)	
PRESERVE EXISTING TREES, WOODLANDS, AND UNDERSTORY (OUTSIDE CONSTRUCTION LIMITS)	
ITEM PLACED AT BEGINNING OF CONSTRUCTION (Requirement)	
ITEM PLACED AS DIRECTED BY ENGINEER (When required by situation)	
DIRECTION OF OVERLAND FLOW	

GENERAL NOTES:

All items shall be constructed as shown on this sheet, on Standard 280001, and as directed by the Engineer.

The symbology on the STORM WATER POLLUTION PREVENTION PLAN sheets does not represent the size or quantity of bales, for number of bales refer to details and notes shown on this sheet and/or as directed by the Engineer.

THE CONTRACTOR SHALL INSTALL DITCH CHECKS AS DIRECTED BY THE ENGINEER. IF THE ENGINEER ELECTS TO UTILIZE FLUSH RIPRAP DITCH CHECKS IN LIEU OF TEMPORARY DITCH CHECKS AS SHOWN ON THE FOLLOWING PLAN SHEETS, THE SPACING SHOULD BE DOUBLED.

FILE NAME = D672875-sh1-swppp.dgn

USER NAME =

DESIGNED - RKA

REVISED -

DRAWN - RKA

CHECKED - CPK

REVISED -

PLOT DATE = Jan-30-2009 09:38:41AM

DATE - 04/07/08

REVISED -



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No. 184-001907

STORM WATER POLLUTION PREVENTION PLAN

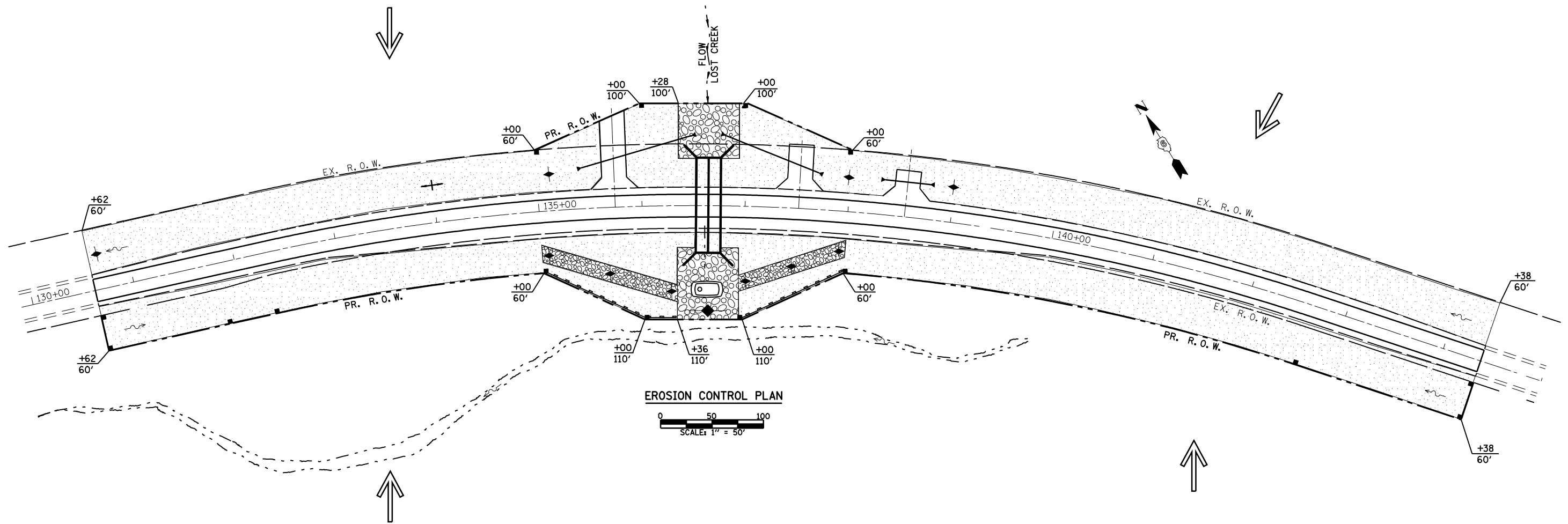
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SHEET NO. 27 OF 71 SHEETS

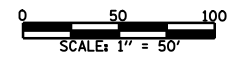
STA.

TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	27
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



EROSION CONTROL PLAN



**SCHEDULE
EROSION CONTROL ITEMS**

PERIMETER EROSION BARRIER (FOOT)	AGGREGATE EROSION CONTROL (TON)	EARTH EXCAVATION FOR EROSION CONTROL (CU. YD.)
300	70	25

QUANTITIES IN SCHEDULE ARE ESTIMATED. FINAL QUANTITIES AND LOCATION TO BE DETERMINED BY ENGINEER.

**SCHEDULE
PERMANENT SEEDING**

LOCATION	SEEDING CLASS 2 (ACRE)	NITROGEN FERT. NUT. (POUND)	PHOSPHORUS FERT. NUT. (POUND)	POTASSIUM FERT. NUT. (POUND)	MULCH METHOD 2 (ACRE)	TEMPORARY EROSION CONTROL SEEDING (POUND)	AGRICULTURAL GROUND LIMESTONE (TON)
STA. 130+62 TO STA. 144+38 LT.	1.3	117	117	117	1.3	260	2.6
STA. 130+62 TO STA. 144+38 RT.	1.2	108	108	108	1.2	240	2.4
TOTAL	2.5	225	225	225	2.5	500	5.0

**SCHEDULE
STONE DUMPED RIPRAP, CLASS A4**

LOCATION	QUANTITY (TON)
STA. 135+00 TO STA. 136+34 RT.	120
STA. 136+95 TO STA. 138+00 RT.	89
STA. 136+36 TO STA. 136+92 LT.	184
STA. 136+34 TO STA. 136+94 RT.	230
TOTAL	623

**SCHEDULE
RIPRAP SLURRY**

LOCATION	QUANTITY (SQ. YD.)
STA. 136+36 TO STA. 136+92 LT.	368
STA. 136+34 TO STA. 136+94 RT.	459
TOTAL	1174

**SCHEDULE
FILTER FABRIC**

LOCATION	QUANTITY (SQ. YD.)
STA. 135+00 TO STA. 136+34 RT.	238
STA. 136+34 TO STA. 136+94 RT.	459
STA. 136+94 TO STA. 138+00 RT.	176
STA. 136+36 TO STA. 136+92 LT.	368
TOTAL	1241

LEGEND

- SEEDING, CLASS 2 WITH MULCH, METHOD 2
- STONE DUMPED RIPRAP, CLASS A4 W/ RIPRAP SLURRY
- STONE DUMPED RIPRAP, CLASS A4
- AGGREGATE (EROSION CONTROL)
- EARTH EXCAVATION FOR EROSION CONTROL

FILE NAME = D672875-shr-eros2.dgn

USER NAME =

DESIGNED - RKA

REVISED -

DRAWN - RKA

REVISED -

PLOT SCALE =

CHECKED - CPK

REVISED -

PLOT DATE = Feb-05-2009 08:16:00AM

DATE - 04/07/08

REVISED -



Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL
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No. 184-001907

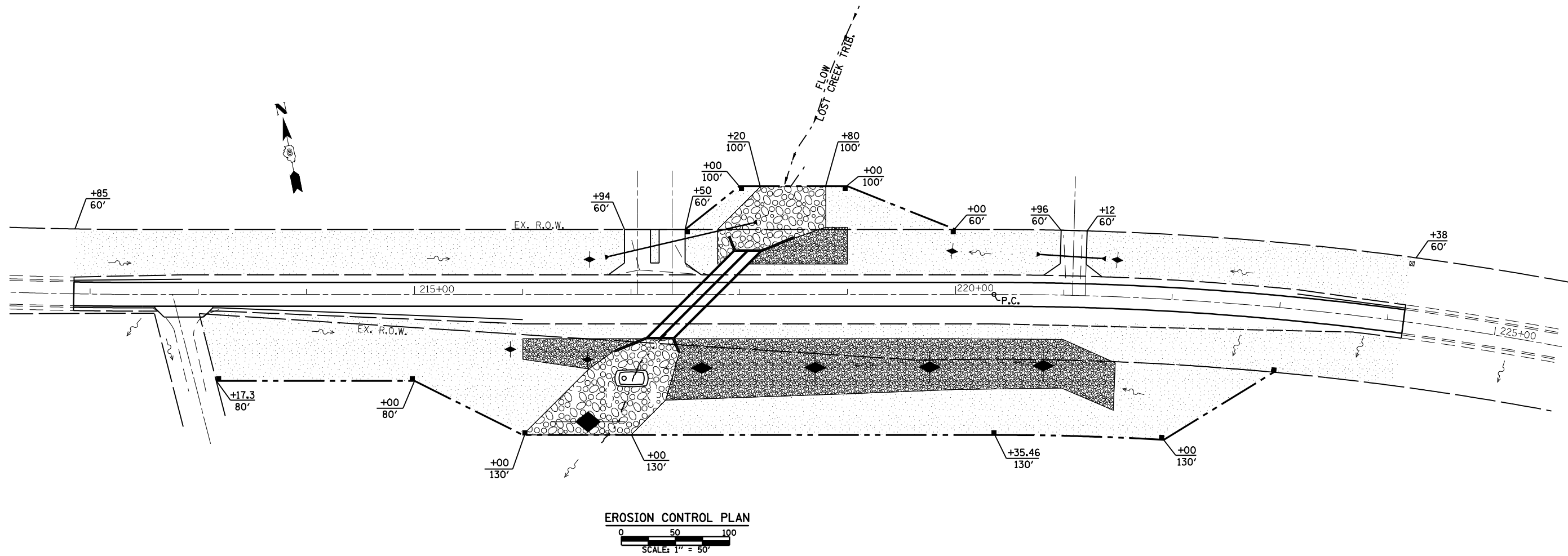
**EROSION CONTROL PLAN
STA. 136 + 64.40 /S.N. 009-2506**

SCALE: 1"=50'

SHEET NO. 27 OF 71 SHEETS

STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	28
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



EROSION CONTROL PLAN

0 50 100
SCALE: 1" = 50'

SCHEDULE EROSION CONTROL ITEMS

AGGREGATE EROSION CONTROL (TON)	EARTH EXCAVATION FOR EROSION CONTROL (CU. YD.)
105	25

QUANTITIES IN SCHEDULE ARE ESTIMATED. FINAL QUANTITIES AND LOCATION TO BE DETERMINED BY ENGINEER.

SCHEDULE PERMANENT SEEDING

LOCATION	SEEDING CLASS 2 (ACRE)	NITROGEN FERT. NUT. (POUND)	PHOSPHORUS FERT. NUT. (POUND)	POTASSIUM FERT. NUT. (POUND)	MULCH METHOD 2 (ACRE)	TEMPORARY EROSION CONTROL SEEDING (POUND)	AGRICULTURAL GROUND LIMESTONE (TON)
STA. 211+85 TO STA. 224+15 LT.	1.1	99	99	99	1.1	220	2.2
STA. 211+85 TO STA. 224+15 RT.	1.5	135	135	135	1.5	300	3.0
TOTAL	2.6	234	234	234	2.6	520	5.2

SCHEDULE STONE DUMPED RIPRAP, CLASS A4

LOCATION	QUANTITY (TON)
STA. 216+00 TO STA. 217+11 RT.	117
STA. 216+00 TO STA. 217+45 RT.	440
STA. 217+32 TO STA. 221+50 RT.	1226
STA. 217+80 TO STA. 218+80 LT.	275
STA. 218+09 TO STA. 219+00 LT.	123
TOTAL	2181






SCHEDULE RIPRAP SLURRY

LOCATION	QUANTITY (SQ. YD.)
STA. 217+80 TO STA. 218+80 LT.	550
STA. 216+00 TO STA. 217+45 RT.	879
TOTAL	1429

SCHEDULE FILTER FABRIC

LOCATION	QUANTITY (SQ. YD.)
STA. 216+00 TO STA. 217+11 RT.	233
STA. 217+32 TO STA. 221+50 RT.	2451
STA. 218+09 TO STA. 219+00 LT.	245
STA. 216+00 TO STA. 217+45 RT.	879
STA. 217+80 TO STA. 218+80 LT.	550
TOTAL	4358

LEGEND

-  - SEEDING, CLASS 2 WITH MULCH, METHOD 2
-  - STONE DUMPED RIPRAP, CLASS A4 W/ RIPRAP SLURRY
-  - STONE DUMPED RIPRAP, CLASS A4
-  - AGGREGATE (EROSION CONTROL)
-  - EARTH EXCAVATION FOR EROSION CONTROL

FILE NAME = D672875-shr-eros3.dgn

USER NAME =

DESIGNED - RKA

REVISED -

DRAWN - RKA

REVISED -

PLOT SCALE =

CHECKED - CPK

REVISED -

PLOT DATE = Feb-05-2009 08:16:04AM

DATE - 04/07/08

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No. 184-001907

**EROSION CONTROL PLAN
STA. 217 + 67.54 /S.N. 009-2507**

SCALE: 1"=50'

SHEET NO. 28 OF 70 SHEETS

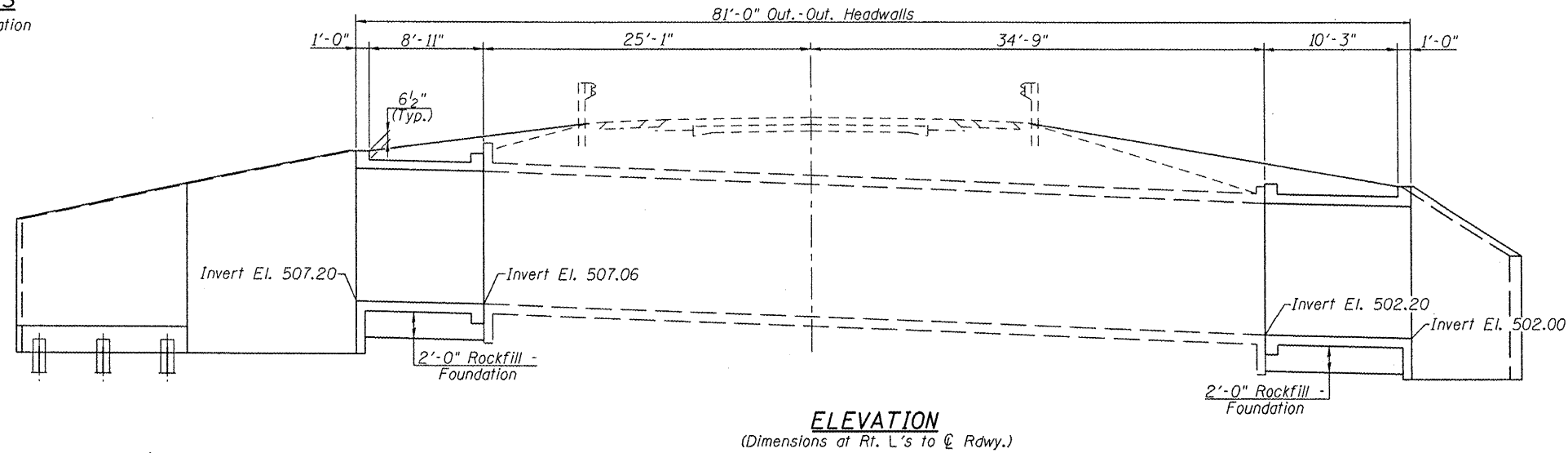
STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	29
CONTRACT NO. 72875				
<small>FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT</small>				

Benchmark: JJ31 - Chiseled "□" on center headwall, N. Side
of IL 125, Sta. 83+09, 25' Lt. El. 521.46
Existing Structure: S.N. 009-7000 - Single barrel 10'-0" x 10'-0" reinforced
concrete box culvert with a length of ±82'-1⁵/₈"

INDEX OF SHEETS

- 1 - General Plan & Elevation
- 2-4 - Culvert Details
- 5 - Borings



ELEVATION
(Dimensions at Rt. L's to C.Rdwy.)

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 3	Each	1
Concrete Box Culverts	Cu. Yd.	114.1
Reinforcement Bars	Pound	16610
Reinforcement Bars, Epoxy Coated	Pound	350
Furnishing Steel Piles HP 12x53	Foot	600
Driving Piles	Foot	600
Test Pile Steel HP 12x53	Each	2
Rockfill - Foundation	Ton	66
Expansion Bolts 3/4 Inch	Each	56

GENERAL NOTES

A Precast Box Culvert alternative will not be allowed at this site.
The layout of the stone riprap may be varied in the field to suit ground conditions as directed by the Engineer.
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provisions.
For backfilling and embankment, see Standard Specifications.
All construction joints shall be bonded.
Exposed edges shall have standard 3/4" chamfer unless otherwise noted.
Removal and replacement of weak soils with Rockfill - Foundation may be required beneath the culvert. The Engineer will determine the required depth following excavation to plan grade.
At least seven feet of the barrel shall be poured monolithically with the wingwalls.

DESIGN SPECIFICATIONS

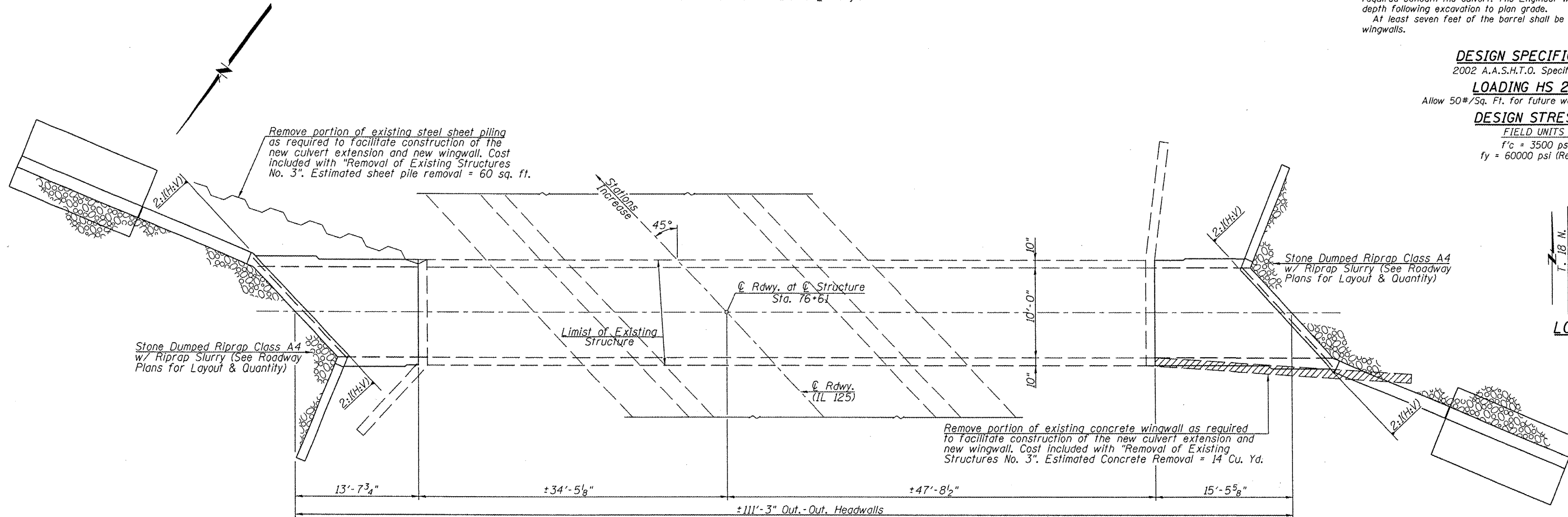
2002 A.A.S.H.T.O. Specifications

LOADING HS 20-44

Allow 50#/Sq. Ft. for future wearing surface.

DESIGN STRESSES

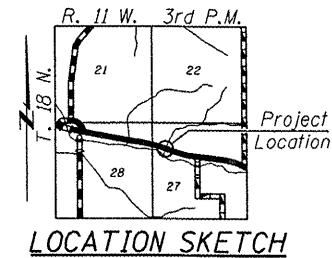
FIELD UNITS
f'c = 3500 psi
fy = 60000 psi (Reinf.)



PLAN
(Dimensions Along C. Culvert)

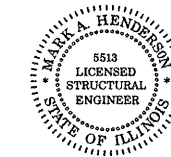
Remove portion of existing steel sheet piling as required to facilitate construction of the new culvert extension and new wingwall. Cost included with "Removal of Existing Structures No. 3". Estimated sheet pile removal = 60 sq. ft.

Remove portion of existing concrete wingwall as required to facilitate construction of the new culvert extension and new wingwall. Cost included with "Removal of Existing Structures No. 3". Estimated Concrete Removal = 14 Cu. Yd.



APPROVED
For Structural Adequacy Only

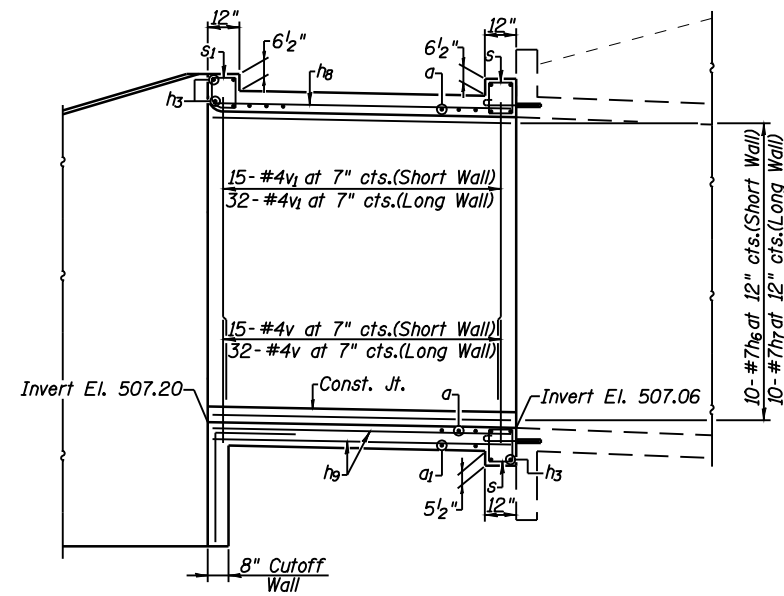
Ralph E. Anderson (TOD)
Engineer of Bridges & Structures



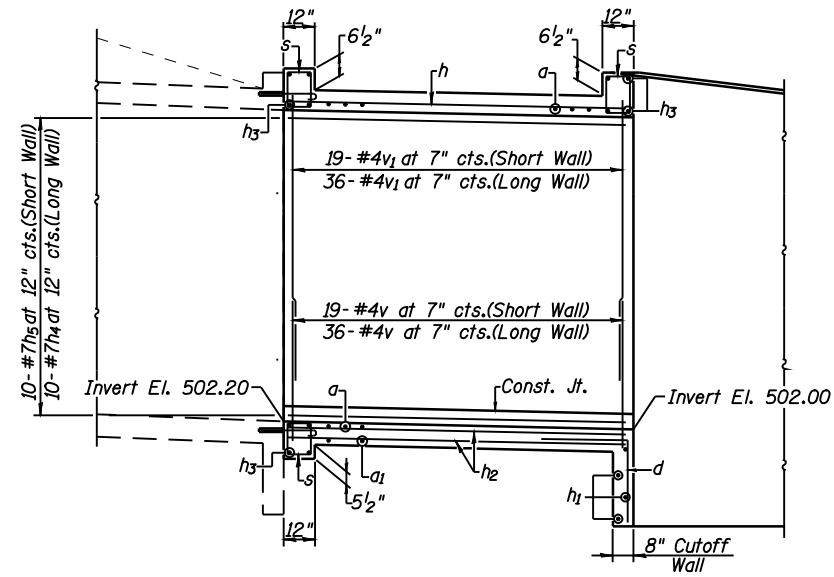
Mark A. Henderson 1/29/09
Expiration Date: 11/30/2010

GENERAL PLAN
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 76+61.00
S.N. 009-7000

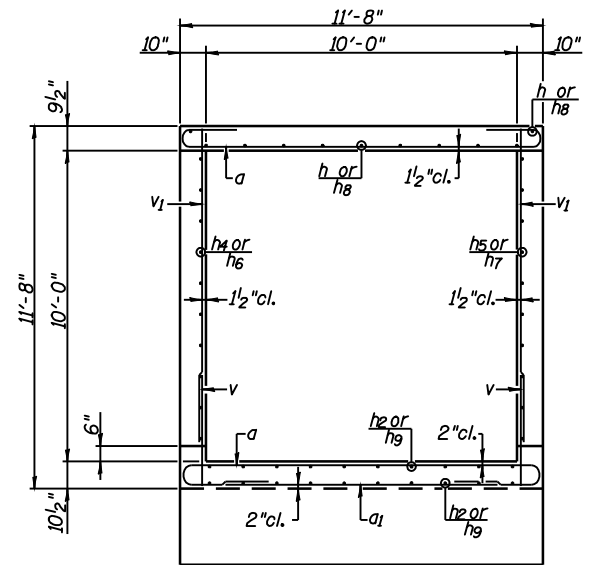
Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	SHEET NO. 1 OF 5 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		67	(6X-1)B-2	CASS	71	30
CONTRACT NO. 72875						
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT						



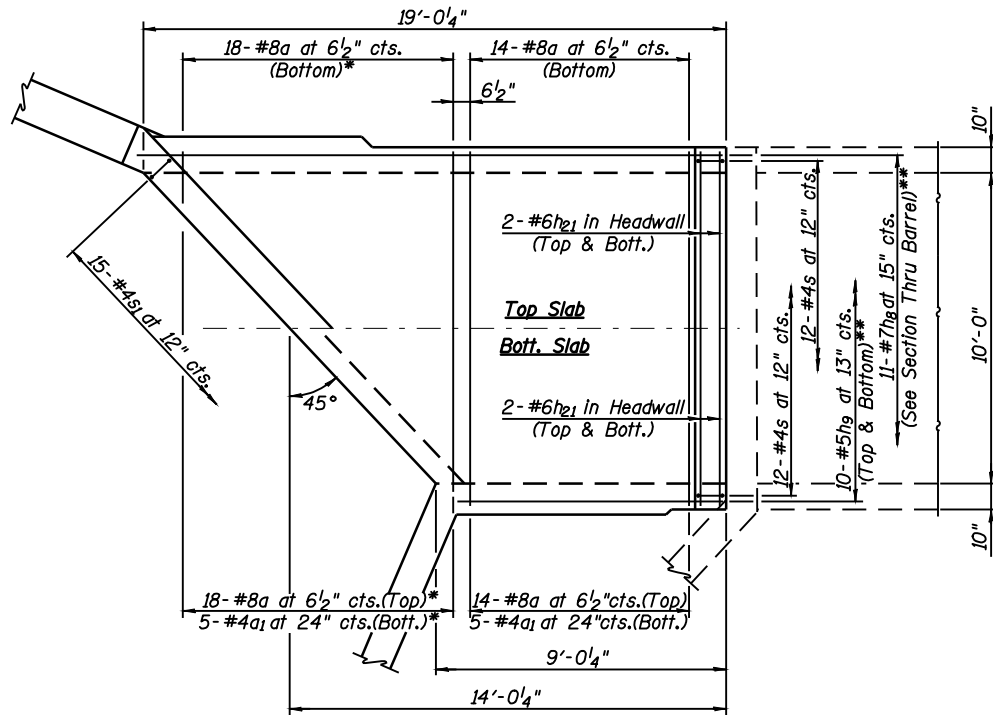
ELEVATION



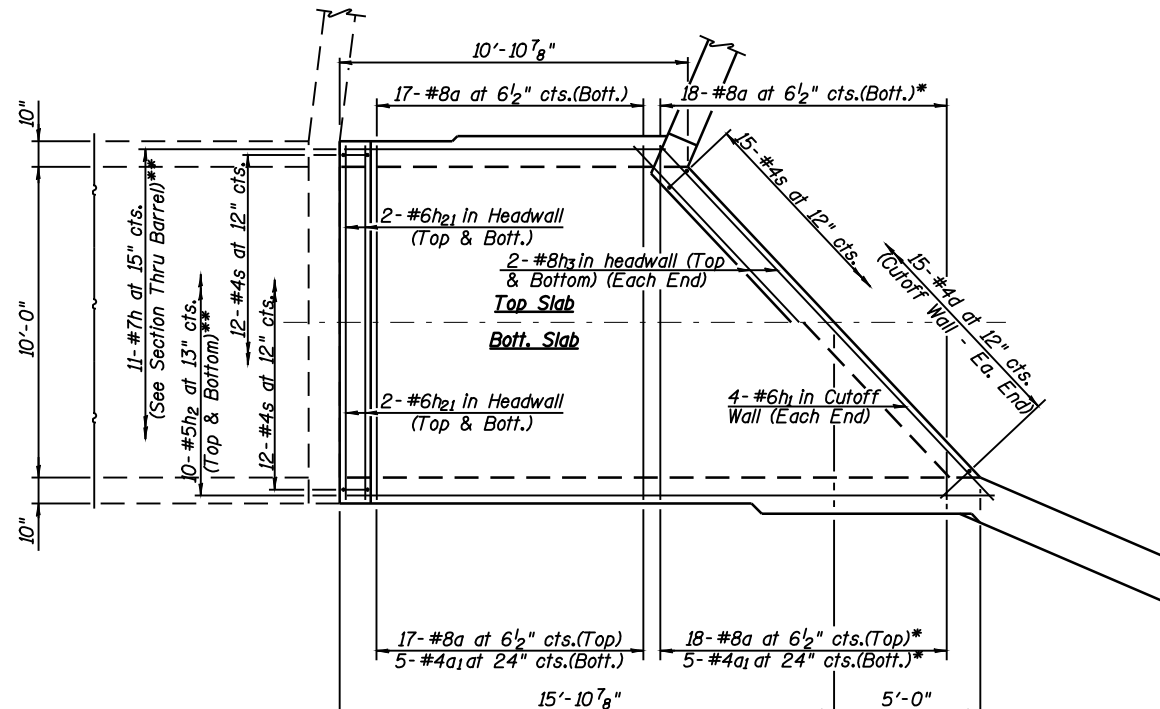
ELEVATION



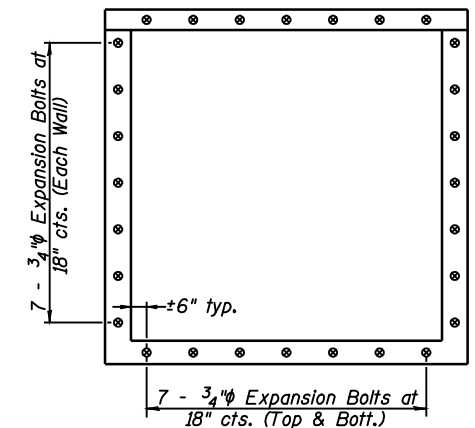
SECTION THRU BARREL
(Looking Upstream)



PLAN



PLAN



CROSS SECTION THRU CULVERT

Note: Expansion bolts shall be 3/4" ϕ hooked bolts. Hooked bolts shall extend a minimum of 9" into new concrete.

* a and a₁ bars in skew portion of slab shall be ordered full length and cut to fit. Balance of bar shall be used in opposite end of culvert.
** Cut in field as required.

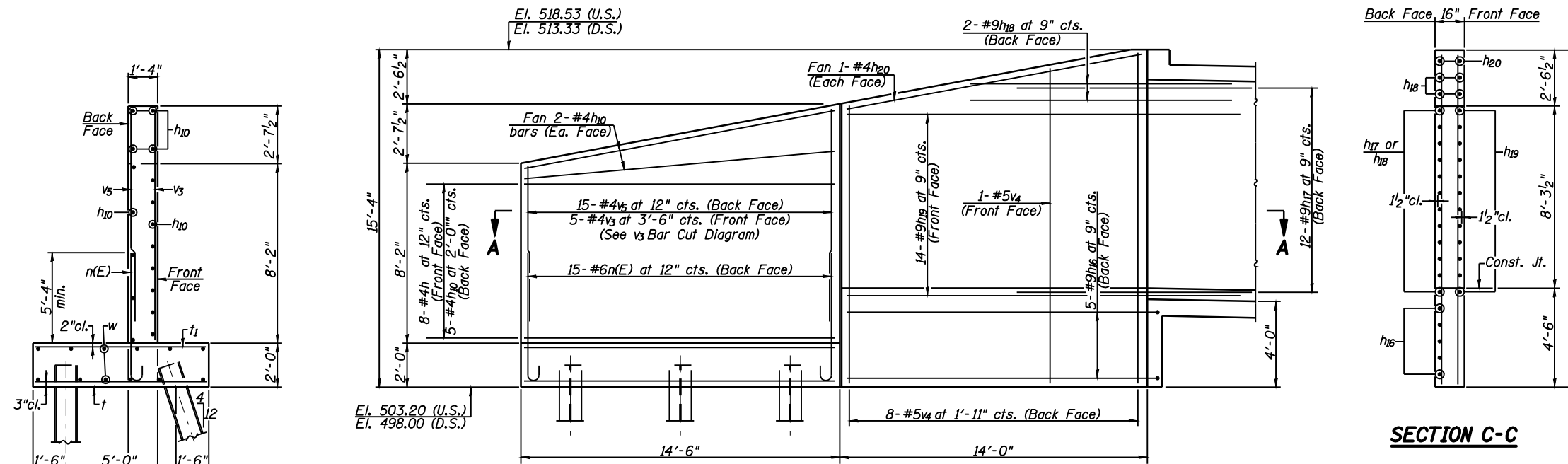
CULVERT DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 76+61.00
S.N. 009-7000



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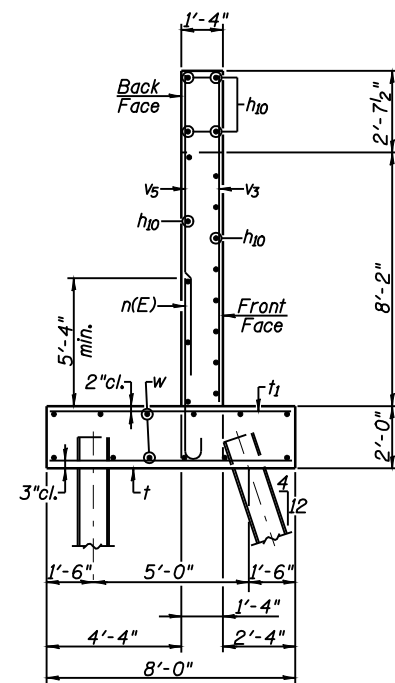
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OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 72875				
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				

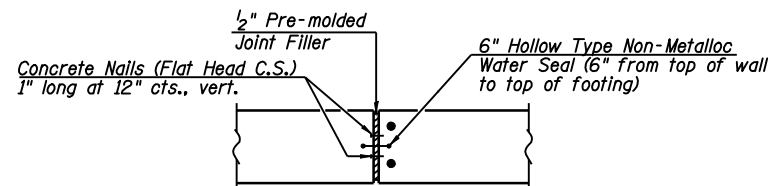


ELEVATION

SECTION C-C



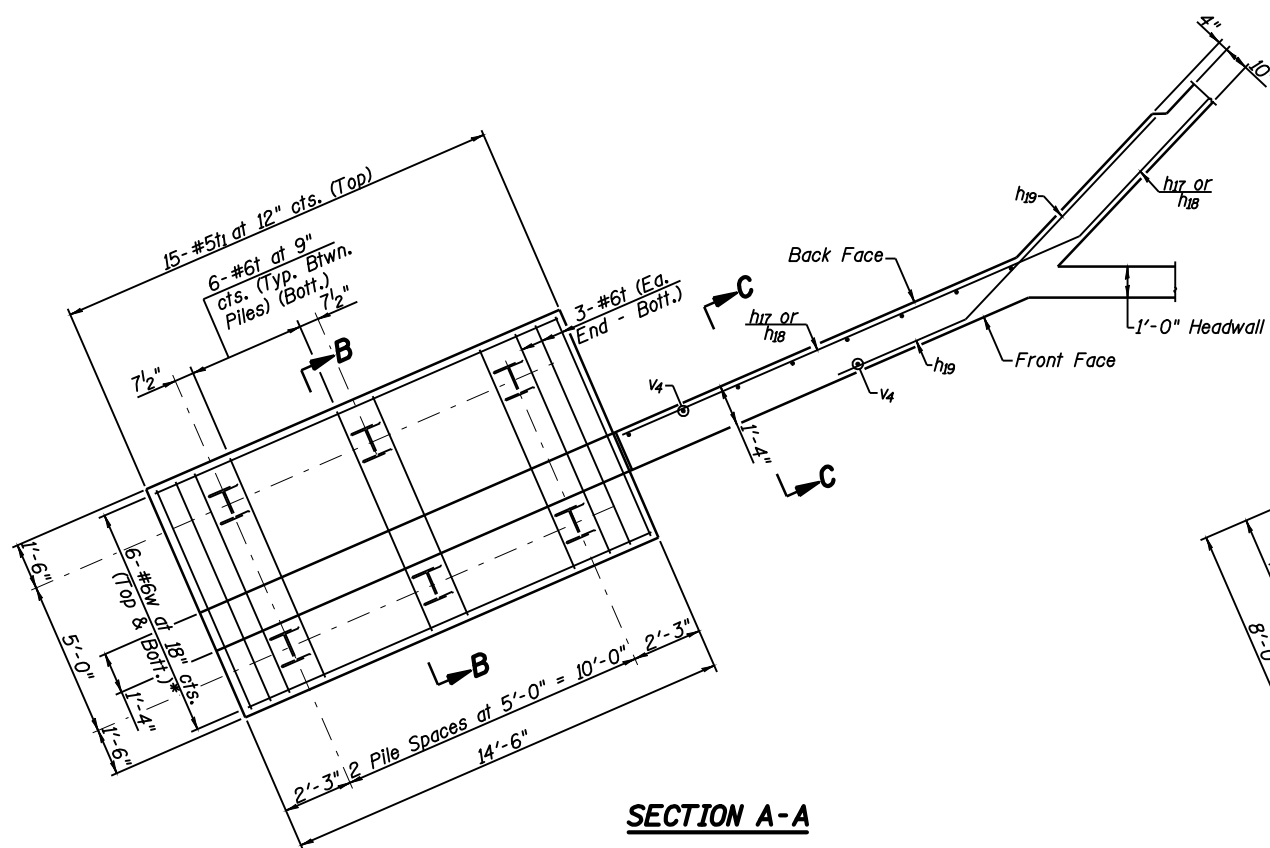
SECTION B-B



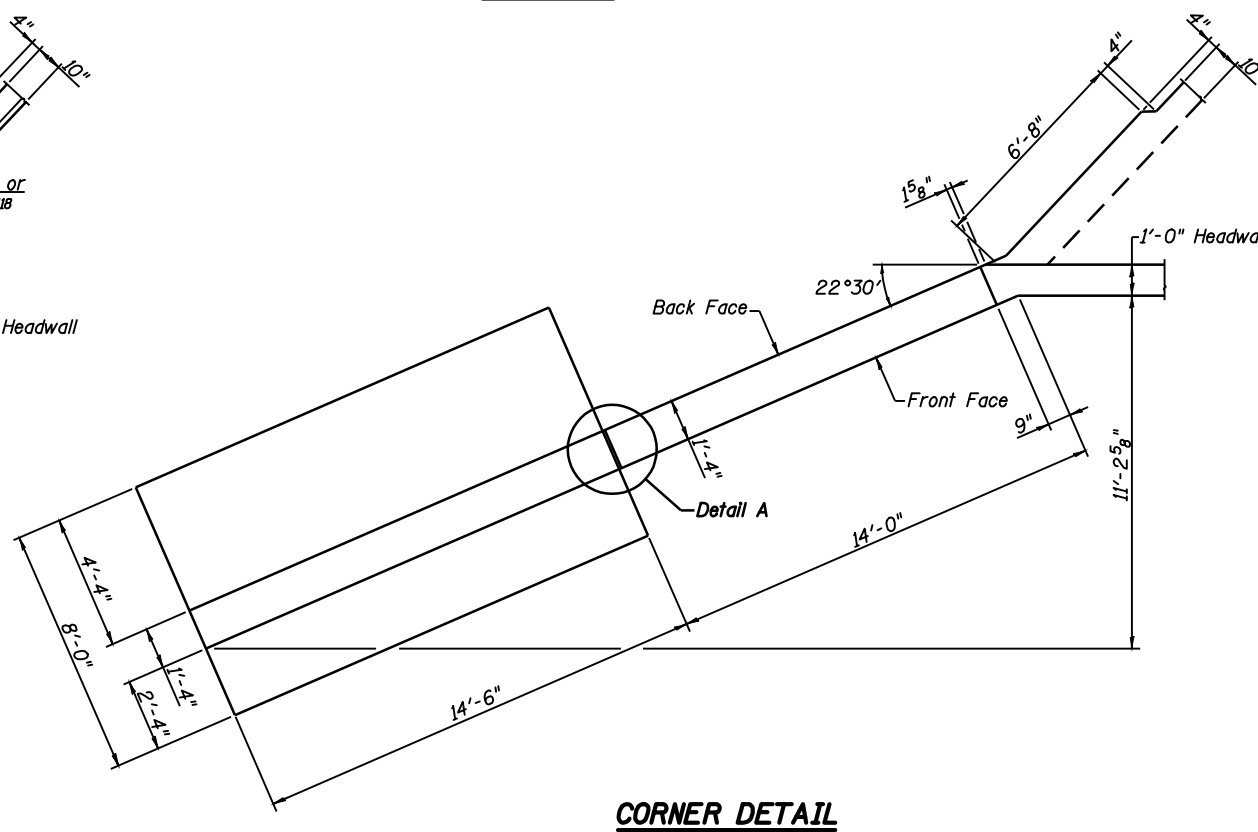
DETAIL A

PILE DATA

	N.E. Wing.	S.W. Wing.
Pile Type & Size:	Steel HP 12 x 53	Steel HP 12 x 53
Nominal Required Bearing:	137k	137k
Allowable Resistance Available:	45k	45k
Estimated Pile Length:	60'	60'
Number of Production Piles:	5	5
Number of Test Piles:	1	1



SECTION A-A



CORNER DETAIL

* Shift w bars in bottom of footing to miss piles

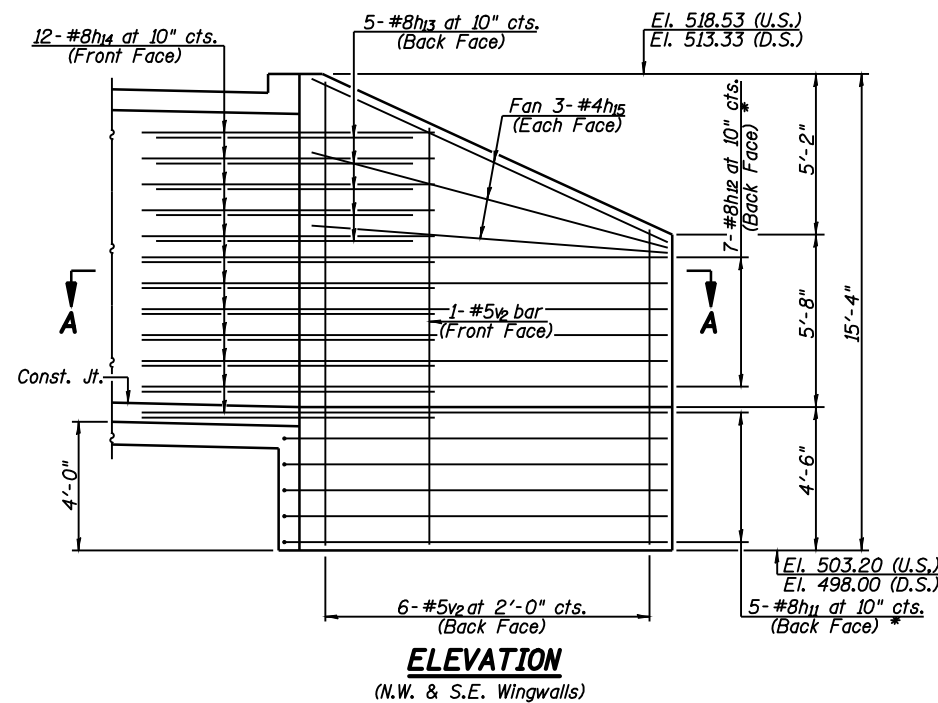
CULVERT DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 76+61.00
S.N. 009-7000



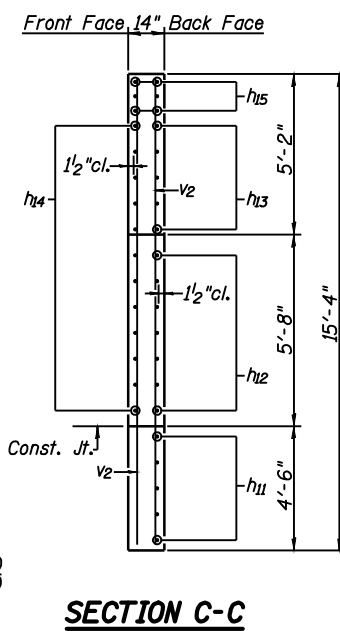
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 62703 Phone: (217)544-8033 IL. Design Firm
 No. 184-001907

SHEET NO. 3
 OF 5 SHEETS

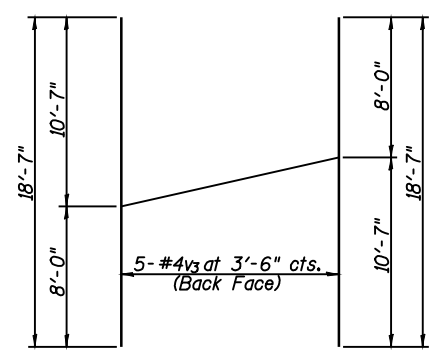
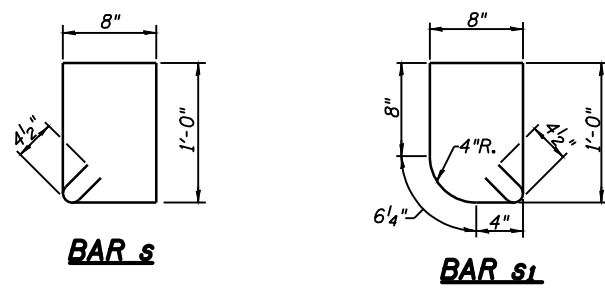
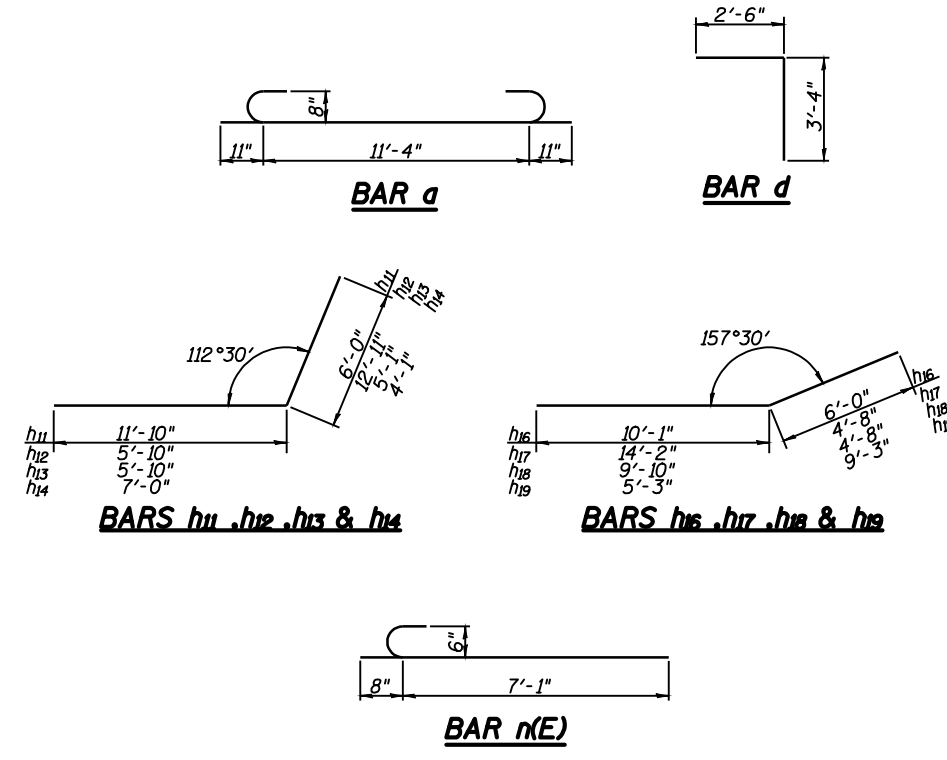
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	32
CONTRACT NO. 72875				
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				



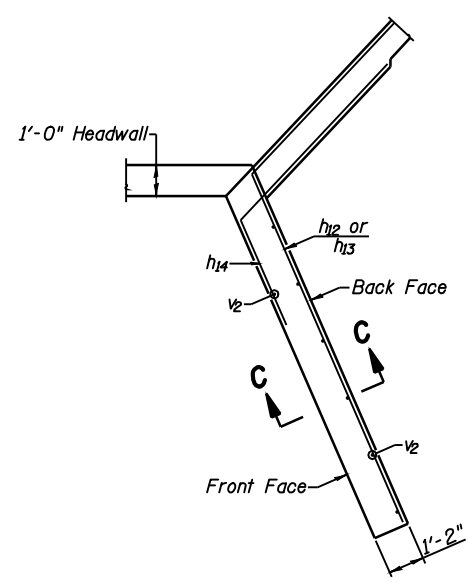
ELEVATION
(N.W. & S.E. Wingwalls)



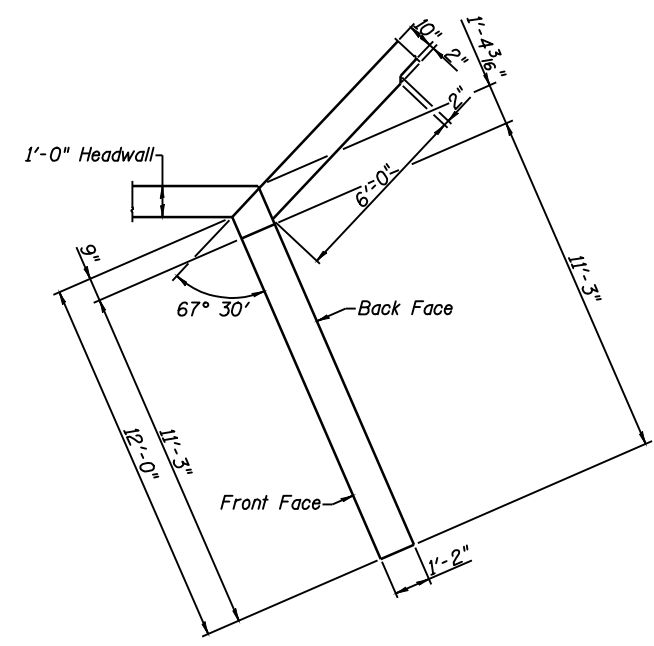
SECTION C-C



BAR v3 CUT DIAGRAM
Note: Order v3 bars full length. Lay out in field as shown. Cut along cut line. Use remainder of bar in opposite wingwall.



SECTION A-A
(Showing Reinforcement)



CORNER DETAIL
(Showing Dimensions)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	98	#8	13'-2"	U
a1	15	#4	11'-4"	—
d	30	#4	5'-10"	—
h	11	#7	20'-6"	—
h1	8	#6	16'-0"	—
h2	20	#5	20'-6"	—
h3	8	#8	16'-0"	—
h4	10	#7	20'-6"	—
h5	10	#7	10'-6"	—
h6	10	#7	8'-8"	—
h7	10	#7	18'-8"	—
h8	11	#7	18'-8"	—
h9	20	#5	18'-8"	—
h10	34	#4	14'-2"	—
h11	10	#8	17'-10"	—
h12	14	#8	18'-9"	—
h13	10	#8	10'-11"	—
h14	24	#8	11'-1"	—
h15	12	#4	11'-3"	—
h16	10	#9	16'-1"	—
h17	24	#9	18'-10"	—
h18	4	#9	14'-6"	—
h19	28	#9	14'-6"	—
h20	4	#4	13'-8"	—
h21	16	#6	11'-4"	—
n(E)	30	#6	7'-9"	—
s	63	#4	4'-1"	□
s1	15	#4	4'-0"	□
f	36	#5	7'-8"	—
f1	30	#6	7'-8"	—
v	102	#4	2'-11"	—
v1	102	#4	10'-1"	—
v2	14	#5	15'-0"	—
v3	5	#4	18'-7"	—
v4	18	#5	15'-0"	—
v5	30	#4	7'-2"	—
w	24	#6	14'-2"	—
Concrete Box Culverts	Cu. Yd.	114.1		
Reinforcement Bars	Pound	16610		
Reinforcement Bars, Epoxy Coated	Pound	350		
Furnishing Steel Piles, HP 12x53	Foot	600		
Driving Piles	Foot	600		
Test Piles, Steel HP 12x53	Each	2		
Expansion Bolts 3/4 Inch	Each	56		

CULVERT DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 76+61.00
S.N. 009-7000

Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907	SHEET NO. 4 OF 5 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		67	(6X-1)B-2	CASS	71	33
CONTRACT NO. 72875						
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

Benchmark: JJ27 Found Chiseled "□" on S.E. Wingwall of S.N. 009-2000, Sta. 136+83.0, 20' Rt., Elev. 537.51
 Existing Structure: S.N. 009-2000 built in 1955 as Double Barrel 14'-0" x 7'-3" R.C. Box Culvert, with a Culvert Length of ±47'-2". Traffic to be maintained utilizing Stage Construction. No salvage.

INDEX OF SHEETS

- 1 - GENERAL PLAN & ELEVATION
- 2 - STAGING DETAILS
- 3 - GEOTEXTILE RETAINWALL DETAILS
- 4 & 5 - CULVERT DETAILS
- 6 - BAR SPLICER DETAILS
- 7 - TEMPORARY CONCRETE BARRIER DETAILS
- 8 & 9 - BORINGS

TOTAL BILL OF MATERIAL

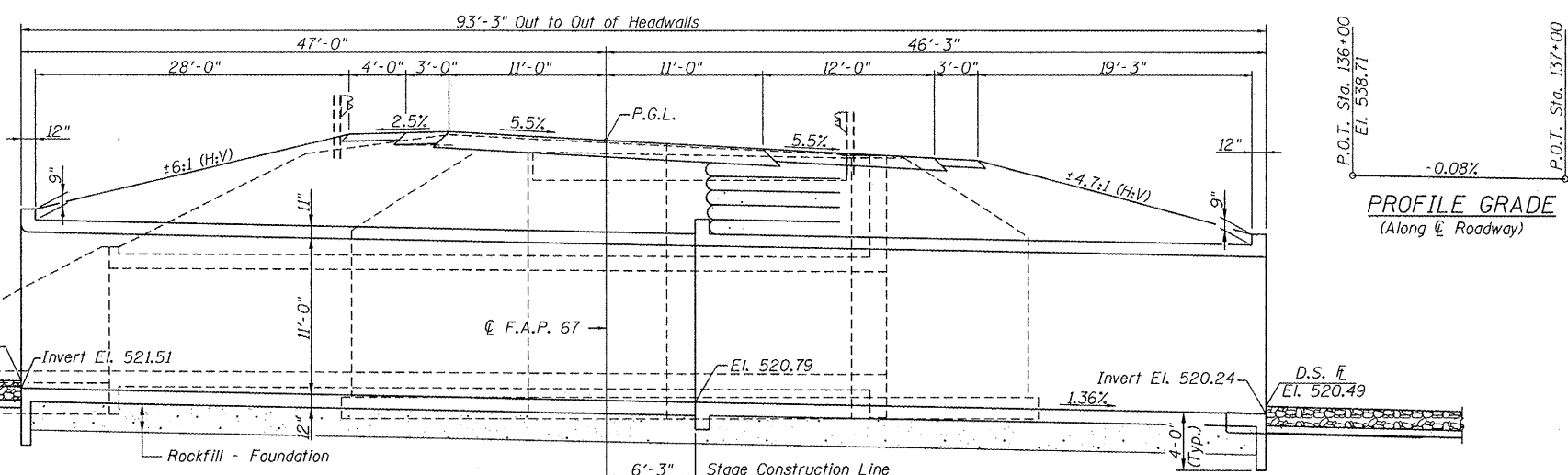
Item	Unit	Quantity
Removal of Existing Structures No. 1	Each	1
Concrete Box Culverts	Cu. Yd.	327.6
Reinforcement Bars	Pound	52200
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	853
Rockfill - Foundation	Ton	375
Bar Splicers	Each	133
Geotextile Retaining Wall	Sq. Ft.	153.0
Granular Culvert Backfill	Cu. Yd.	1600

WATERWAY INFORMATION

Drainage Area = 1.72 Sq. Mi. Low Grade Elev. = 538.63 @ Sta. 137+00

Flood	Freq. Yr.	0 C.F.S.	Opening Sq. Ft.	** Nat. Exist. Prop.	H.W.E. Exist.	Head - ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	10	791	78	94	525.88	0.17 0.03	526.05 525.91
Base	50	1321	113	121	527.11	0.66 0.27	527.77 527.38
Overtopping	100	1559	136	139	527.96	0.93 0.73	528.89 528.69
Max. Calc.	500	2154	187	179	529.76	0.73 0.58	530.49 530.34

** Upstream face of culvert



LONGITUDINAL SECTION

GENERAL NOTES

A Precast Box Culvert alternative will not be allowed at this site.
 Excavation behind existing culvert walls shall be done before removing the existing top slab. The Contractor shall sawcut the existing culvert at the stage removal line before Stage I Removal.
 The layout of the stone riprap may be varied in the field to suit ground conditions as directed by the Engineer.
 Reinforcement bars shall conform to the requirements of ASTM A706 Gr. 60. See Special Provisions.
 For backfilling and embankment, see Standard Specifications.
 Exposed edges shall have standard 3/4" chamfer unless otherwise noted.
 Removal and replacement of weak soils with Rockfill - Foundation may be required beneath the culvert. The Engineer will determine the required depth following excavation to plan grade.
 A ±1.4 ft. void exists between the bottom of the existing bridge and the top of the existing culvert. Removal of the slab on the existing bridge creates an unstable condition for the existing abutment walls. The primary vertical reinforcement is in the face of the wall closest to the stream. Bracing of the walls or excavation prior to Stage I removal will be necessary to prevent collapse.

APPROVED
 For Structural Adequacy Only

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

DESIGN SPECIFICATIONS
 2002 A.A.S.H.T.O. Specifications

LOADING HS 20-44

Allow 50#/Sq. Ft. for future wearing surface.

DESIGN STRESSES

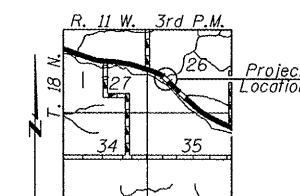
FIELD UNITS
 $f'_c = 3500$ psi
 $f_y = 60000$ psi (Reinf.)

STA. 136+64.40
 BUILT 20 BY
 STATE OF ILLINOIS
 F.A.P. RTE. 67 SECTION (6X-1)B-2
 LOADING HS 20-44
 STR. NO. 009-2506

NAME PLATE
 (Standard 515001)

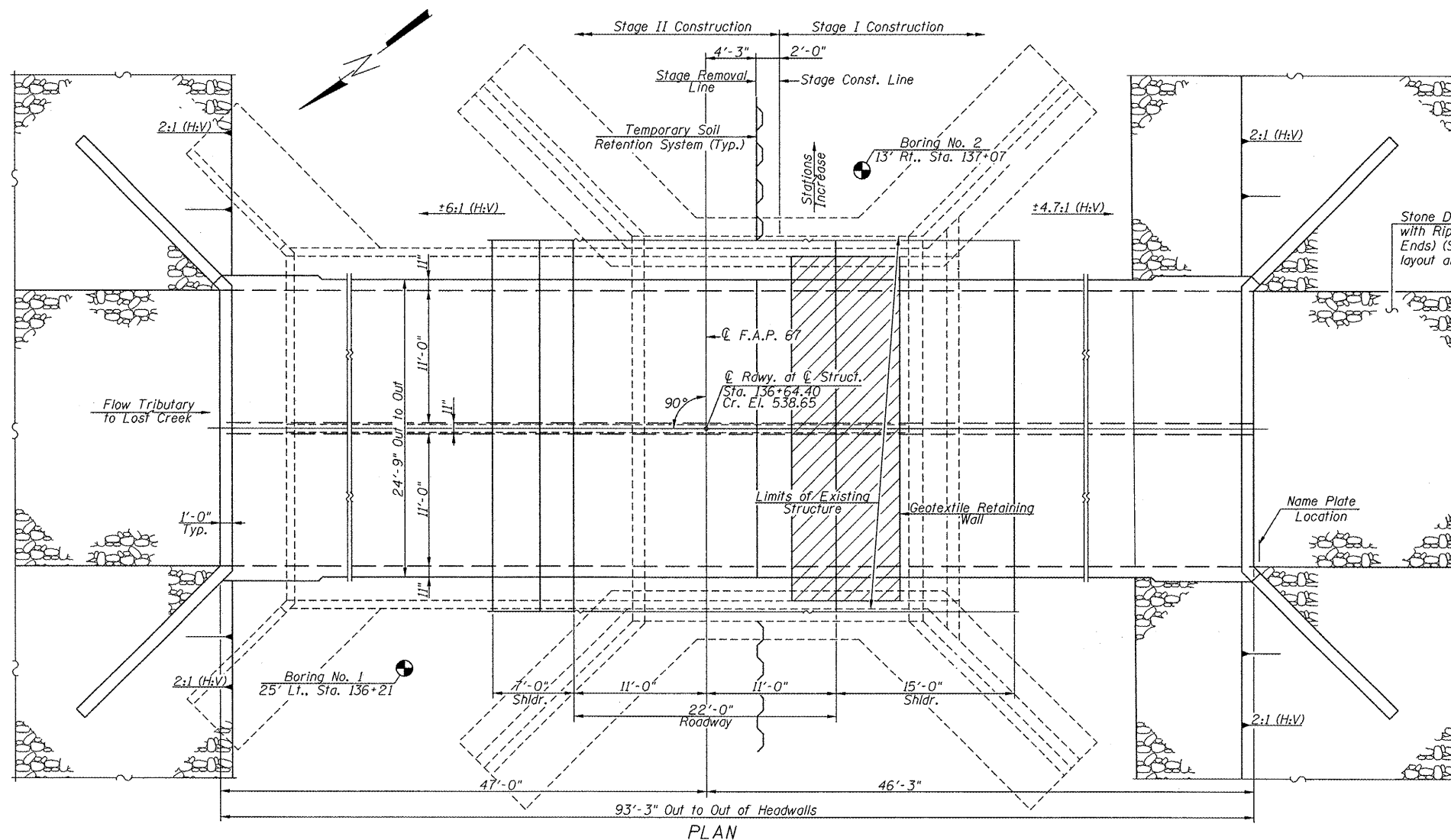


Mark Henderson 2/14/09
 Expiration Date: 11/30/2010



LOCATION SKETCH

GENERAL PLAN
 IL. ROUTE 125 OVER
 TRIBUTARY TO LOST CREEK
 F.A.P. ROUTE 67 - SECTION (6X-1)B-2
 CASS COUNTY
 STA. 136+64.40
 S.N. 009-2506



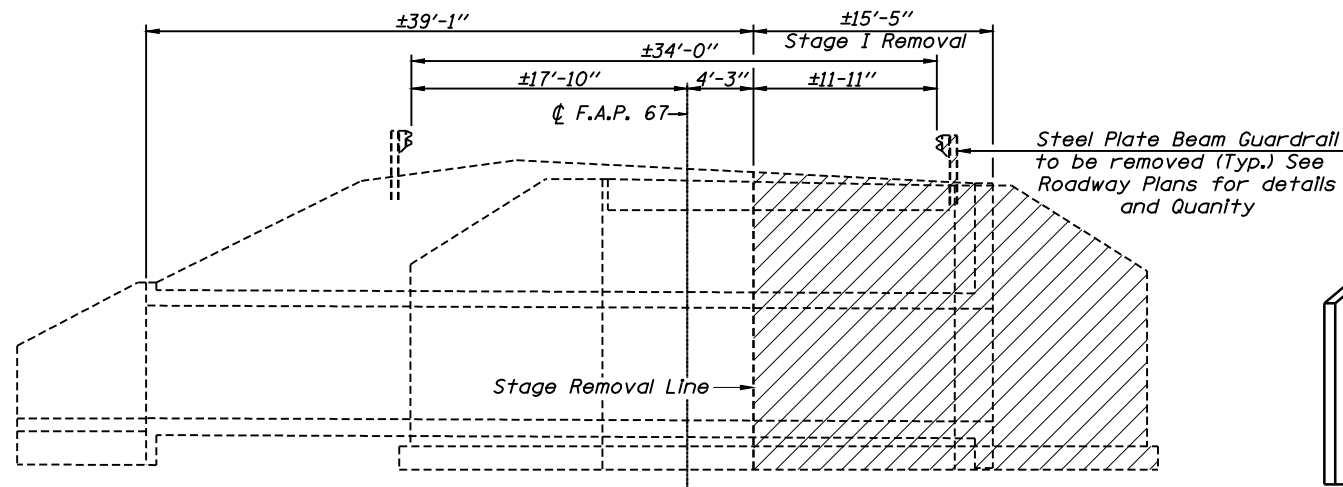
PLAN



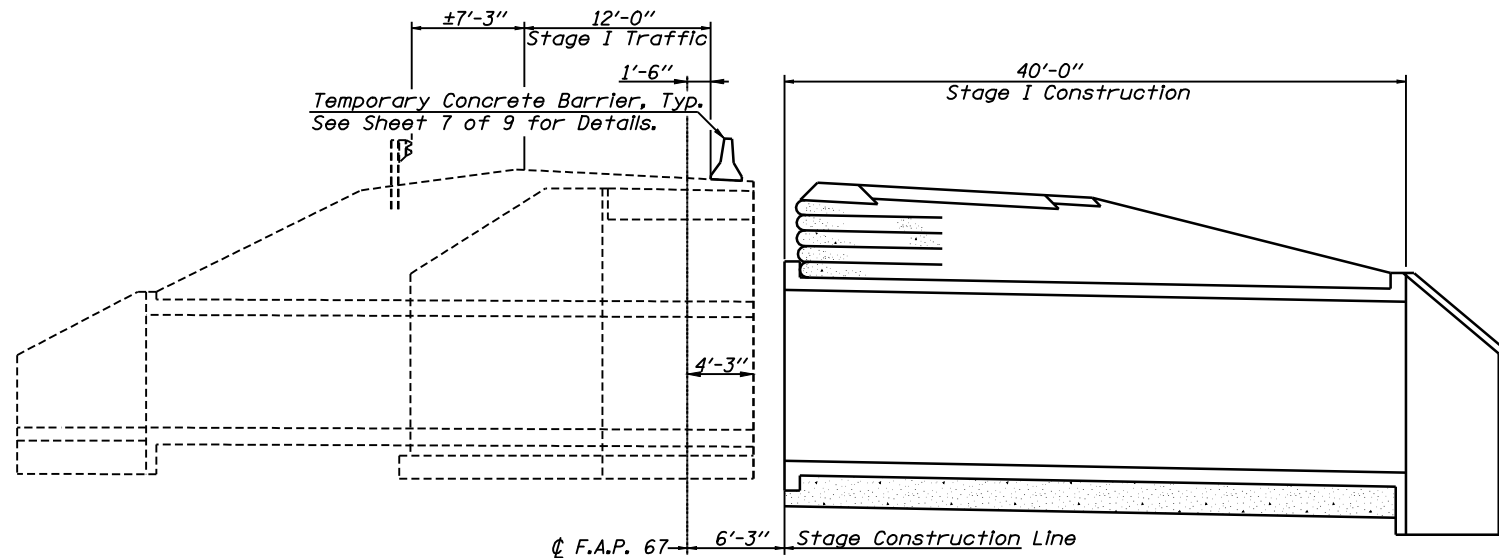
Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

SHEET NO. 1
 OF 9 SHEETS

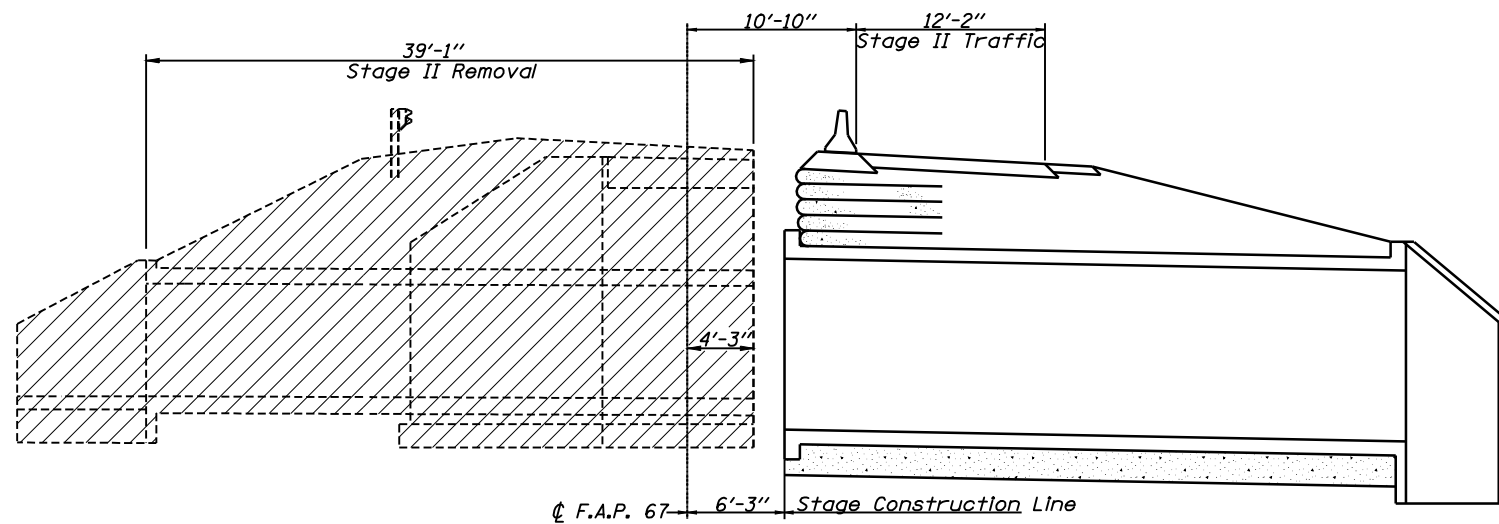
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	35
CONTRACT NO. 72875				
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				



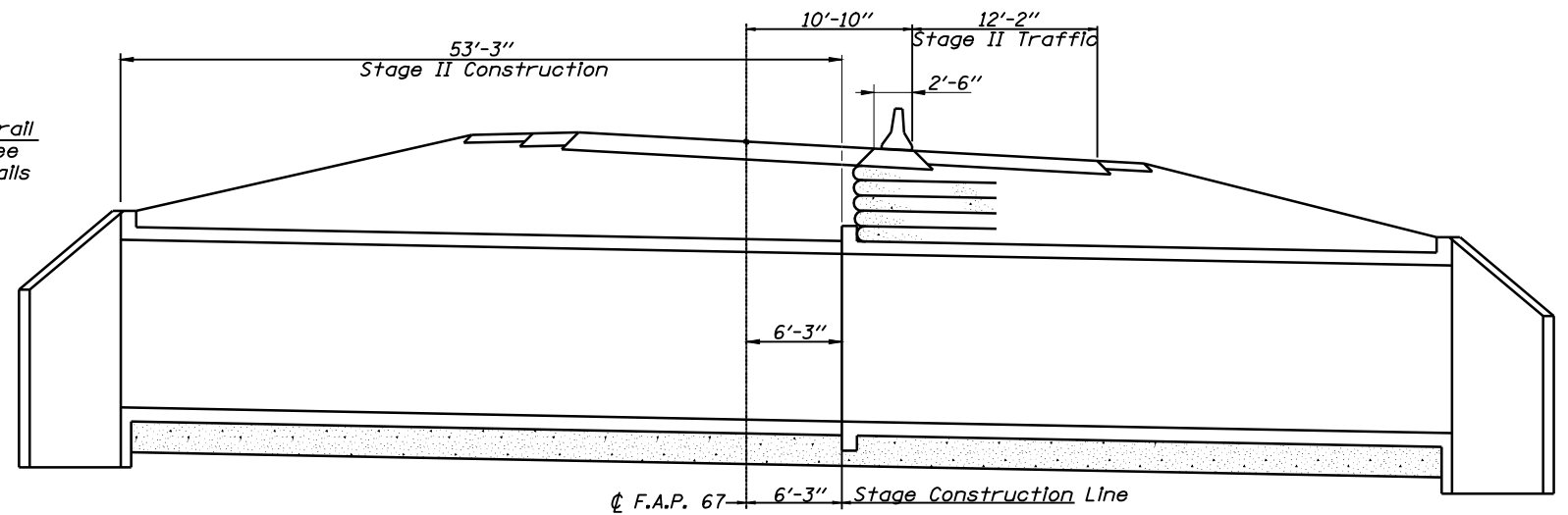
STAGE I REMOVAL



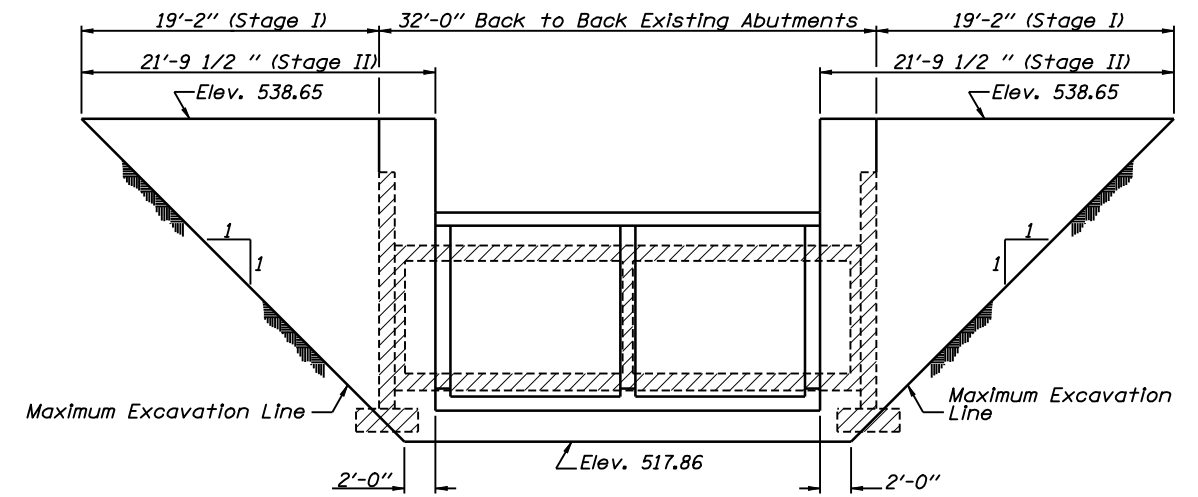
STAGE I CONSTRUCTION



STAGE II REMOVAL



STAGE II CONSTRUCTION



TEMPORARY SOIL RETENTION SYSTEM

A cantilevered sheet piling system does not appear feasible and additional members or other retention systems may be necessary. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

Estimated Exposed Area to be Retained: 383 sq. ft. (Stage I)
 470 sq. ft. (Stage II)

Notes: Hatched areas indicate "Removal of Existing Structures".
 See Roadway Plans for quantity of Temporary Concrete Barrier.
 All Elevations are looking East.

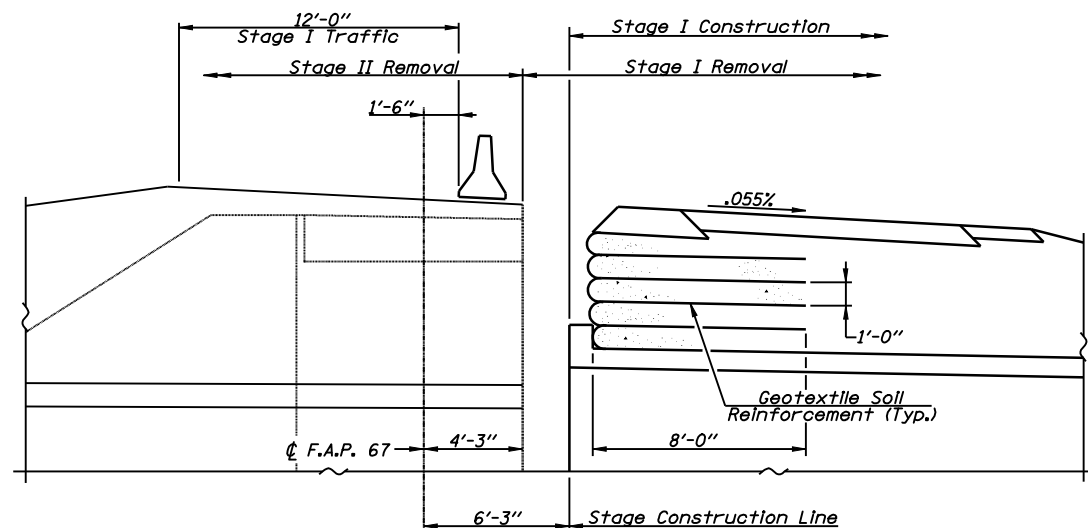
STAGING DETAILS
 IL. ROUTE 125 OVER
 TRIBUTARY TO LOST CREEK
 F.A.P. ROUTE 67 - SECTION (6X-1)B-2
 CASS COUNTY
 STA. 136+64.40
 S.N. 009-2506



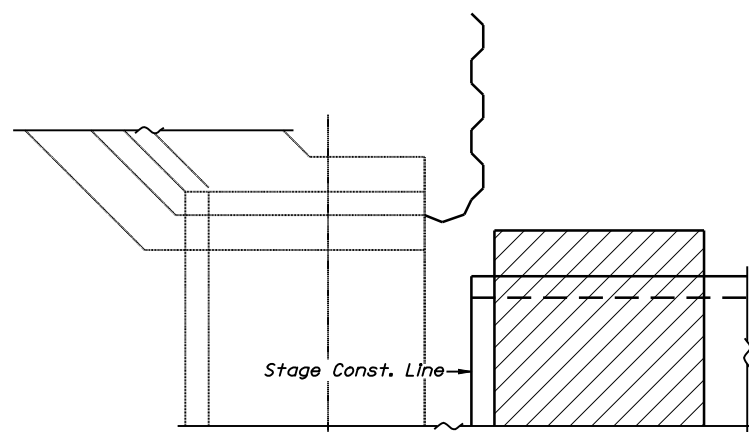
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 No. 184-001907

SHEET NO. 2
 OF 9 SHEETS

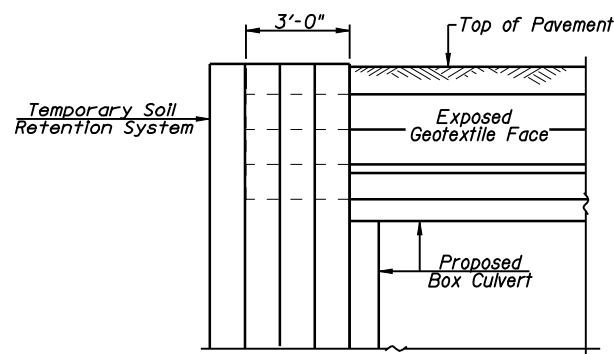
F.A.P. RTE. 67	SECTION (6X-1)B-2	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 36
CONTRACT NO. 72875				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TYPICAL SECTION



PLAN

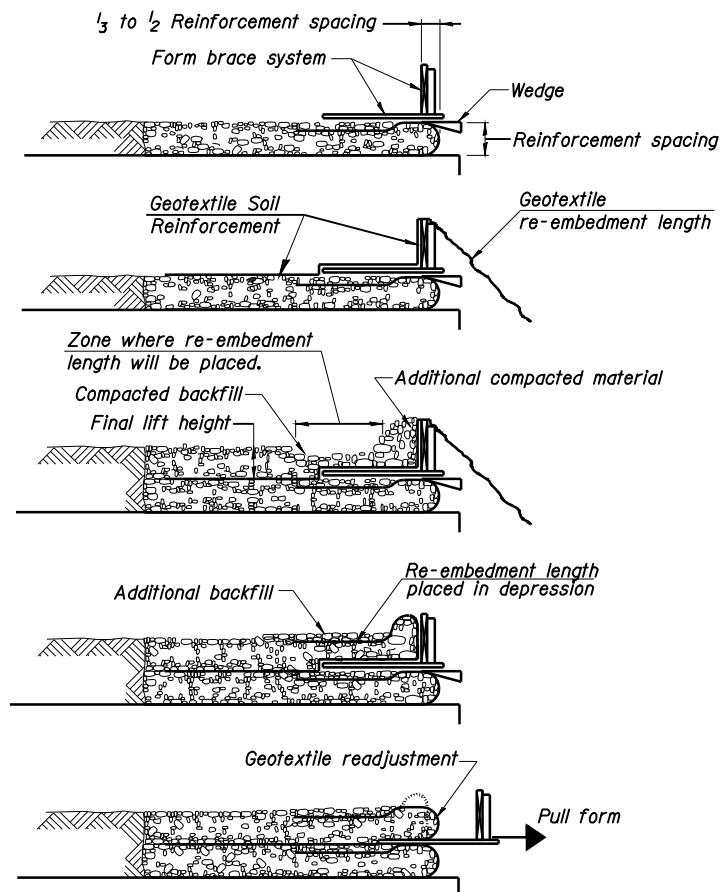


ELEVATION

BILL OF MATERIAL

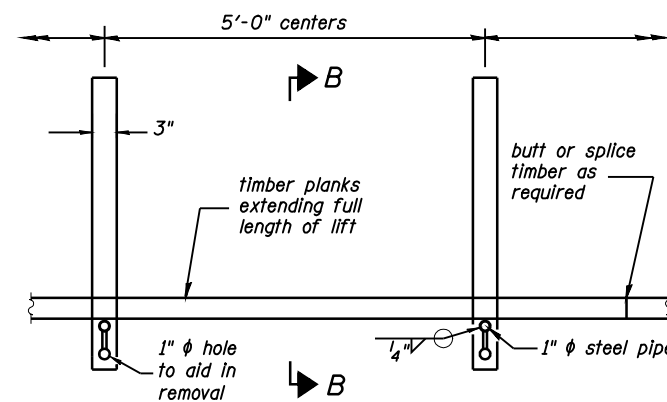
Item	Unit	Quantity
Geotextile Retaining Wall	Sq. Ft.	153.0

Note:
The geotextile soil reinforcement shall have a minimum allowable tensile strength (T min.) of 23 lb./in. as determined by the procedure described in the Special Provision. The computations supporting the determination of T min. shall be submitted to the engineer for approval.

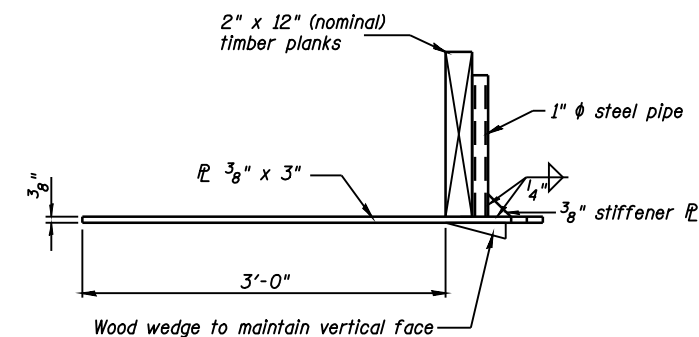


1. Place form brace system on completed reinforcement level; back from the finished fabric face a distance of $\frac{1}{3}$ to $\frac{1}{2}$ the geotextile reinforcement spacing.
2. Position fabric so that the required geotextile re-embedment length extends over the top of the form brace and the design reinforcement width is placed with no slack against the previous level.
3. Compact backfill material in lifts to final lift height, create ($\pm 3'$) depression in zone where re-embedment length will be located and place additional height of compacted material against form brace.
4. Fold Geotextile re-embedment length back over form brace into zone where depression was made in backfill and place additional compacted backfill, ($\pm 3'$) to embed geotextile and bring to final lift height.
5. Pull form brace outward allowing geotextile face to slightly readjust to form tight round face and level with plan reinforcement spacing.

GEOTEXTILE WALL CONSTRUCTION PROCEDURE



PLAN



SECTION B-B

GEOTEXTILE TEMPORARY FORM BRACE DETAIL

Note:
The temporary form brace detail is provided as a guide. The contractor is responsible for the design and performance of the form system used.

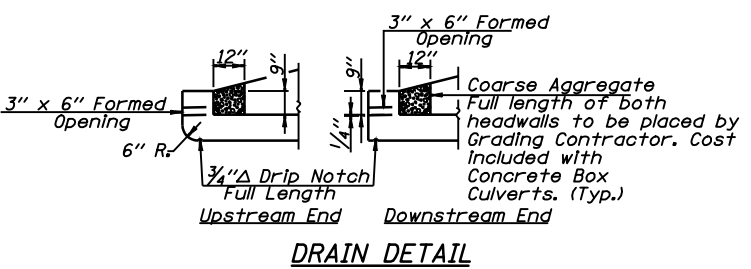
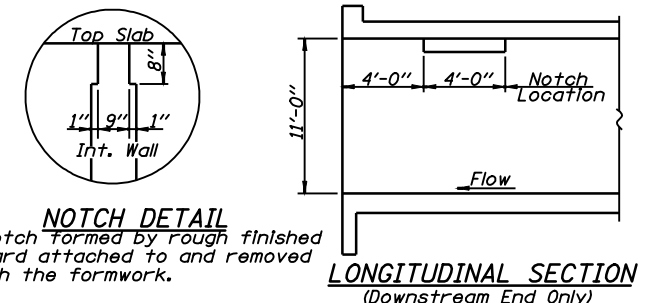
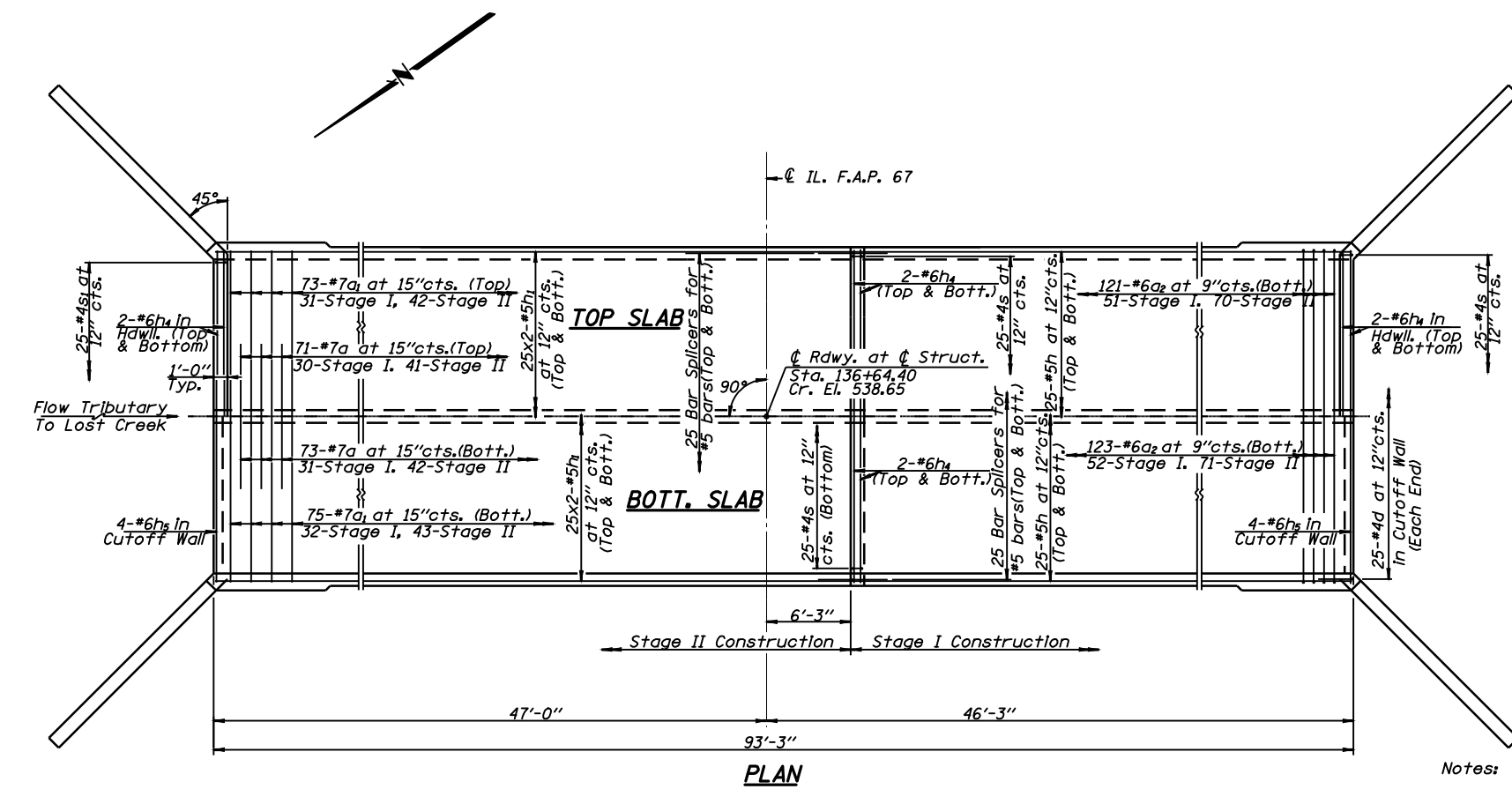
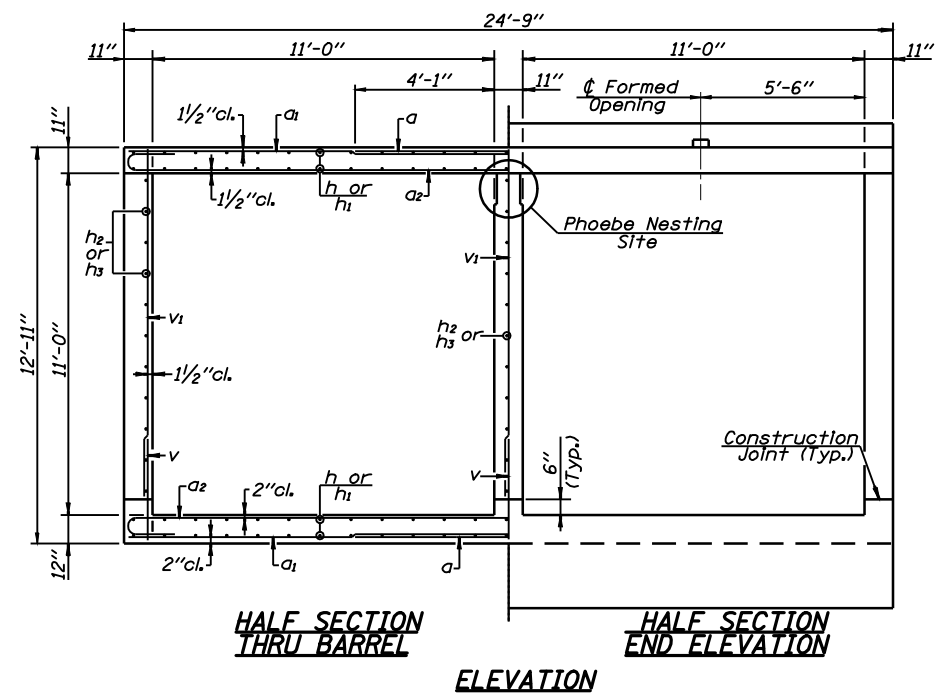
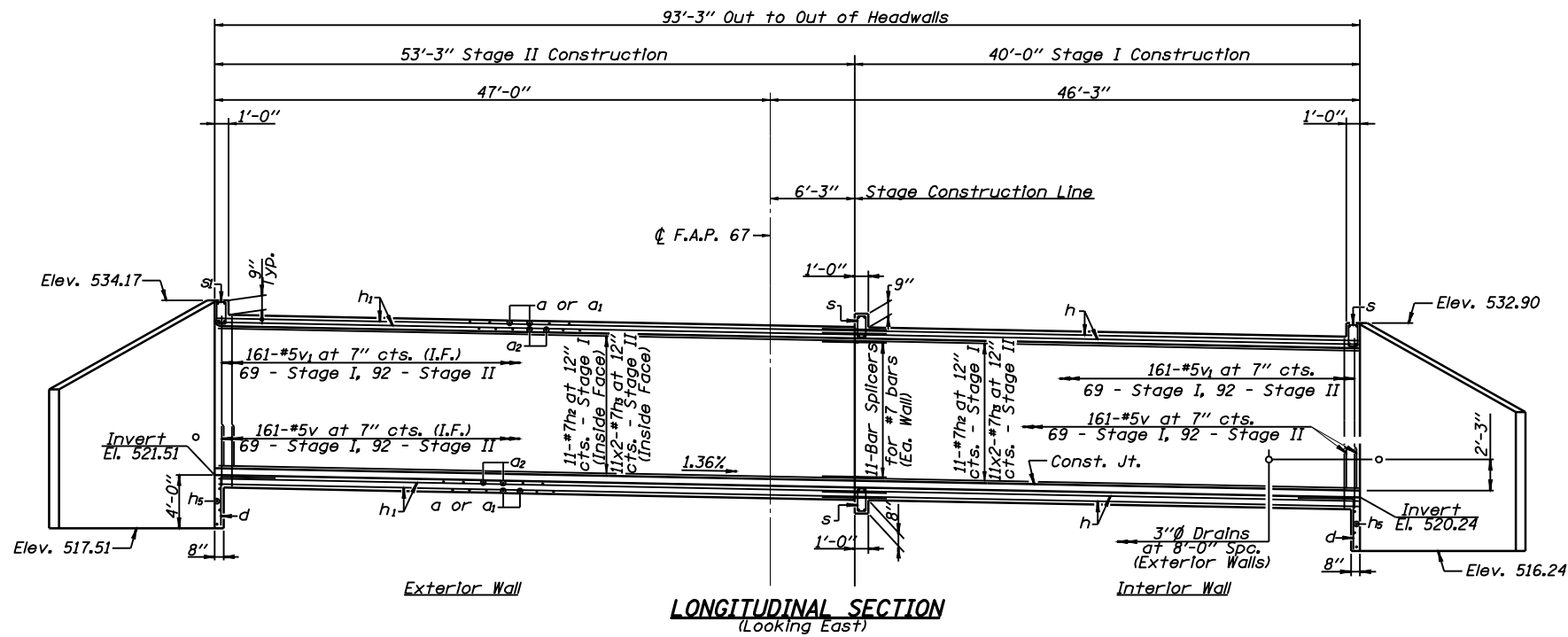
**GEOTEXTILE RETAINING WALL
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 136+64.40
S.N. 009-2506**



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No. 184-001907

SHEET NO. 3
OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	37
CONTRACT NO. 72875				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

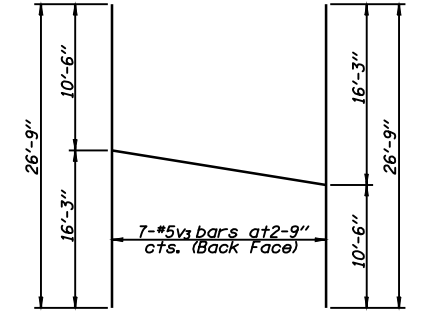
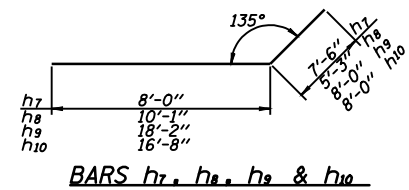
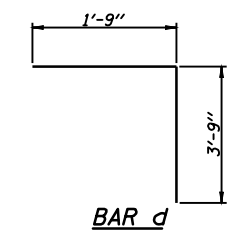
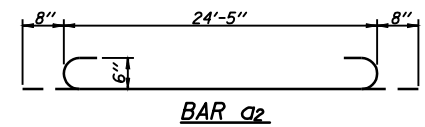
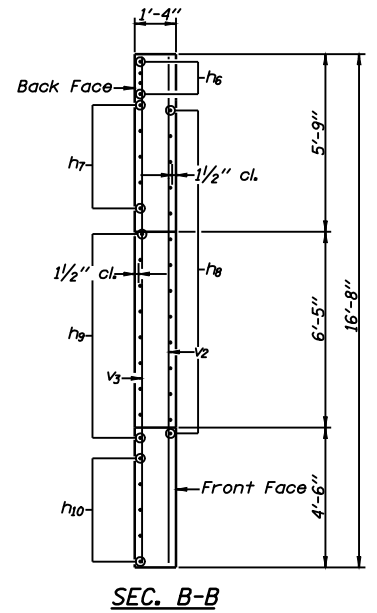
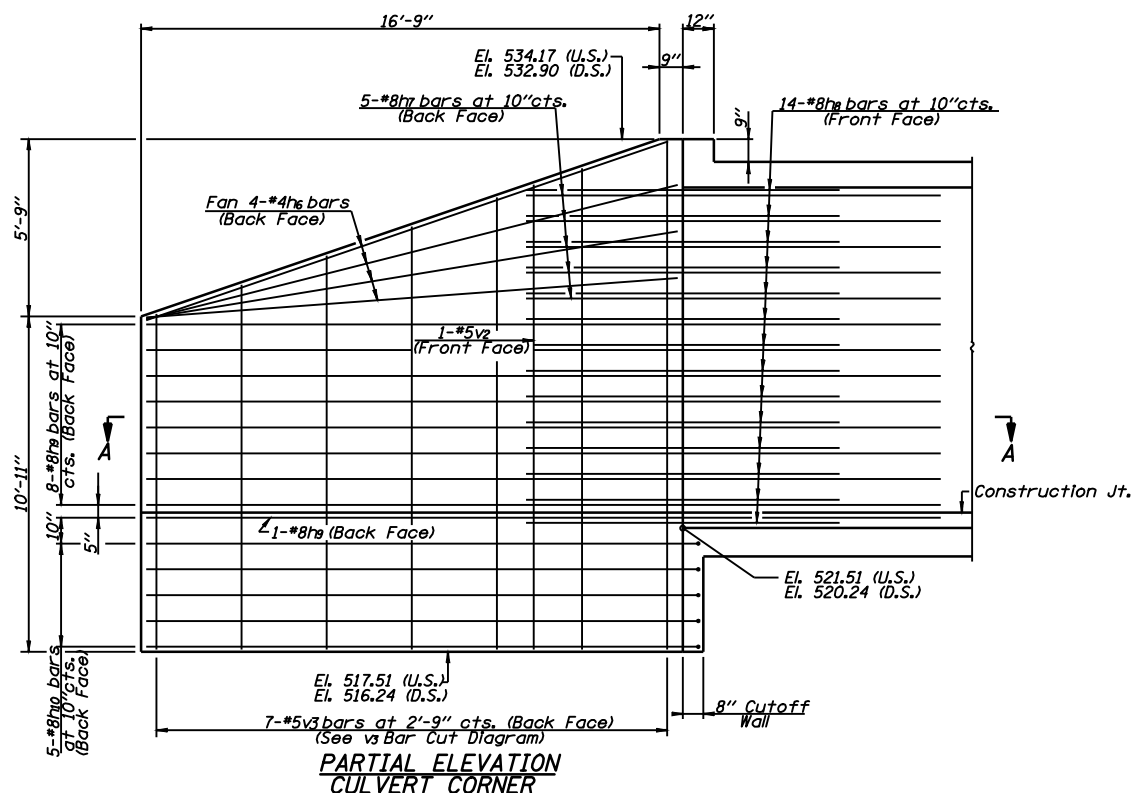


MIN. BAR LAPS
#5 Bar = 2'-2"
#7 Bar = 3'-5"

Notes: Work this sheet with Sheet No 5 of 8. A distance of half the length of the wingwall but not less than 6 feet of the barrel shall be poured monolithically with the wingwalls. Bars indicated thus 25 x 2-#5 etc. indicates 25 lines of bars with 2 lengths per line.

CULVERT DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 136+64.40
S.N. 009-2506

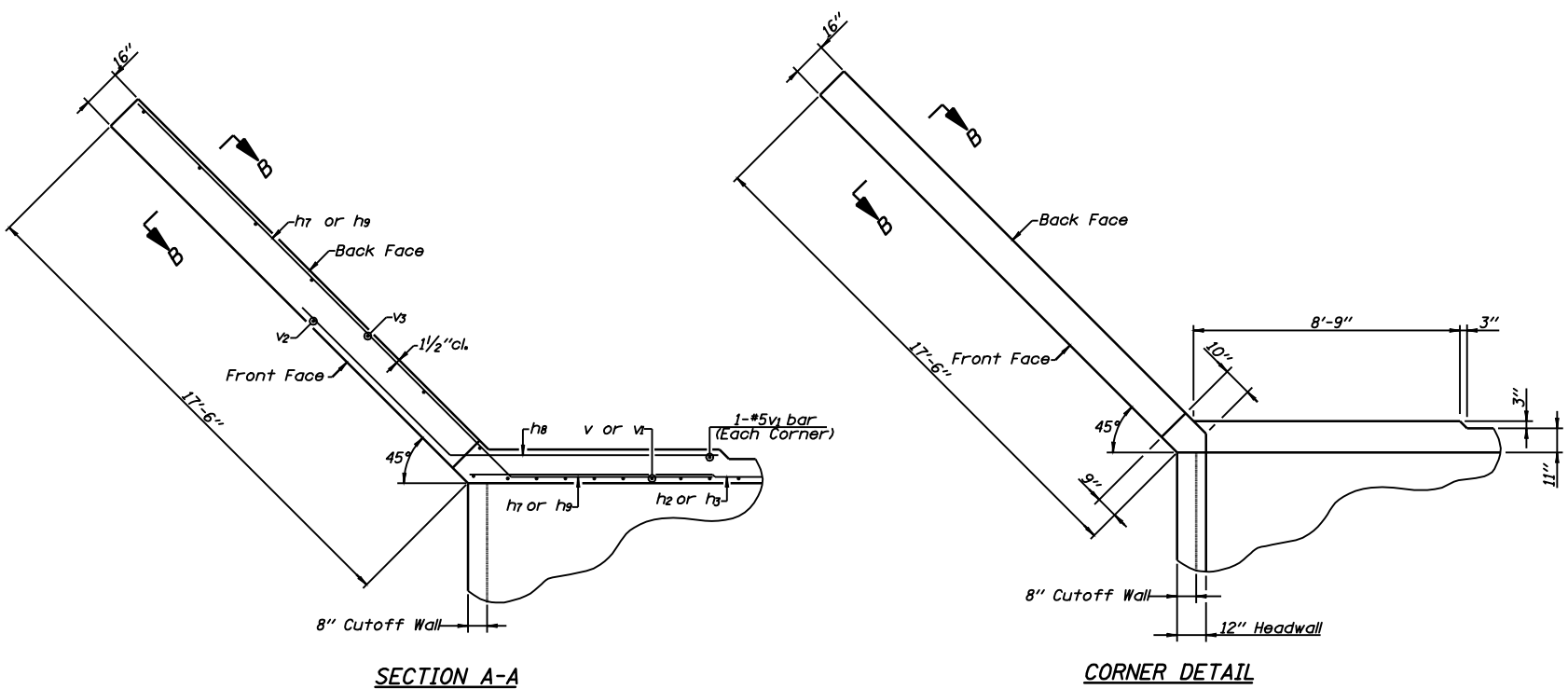
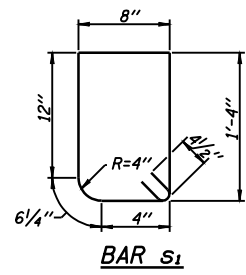
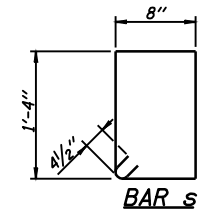
Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907	SHEET NO. 4 OF 9 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		67	(6X-1)B-2	CASS	71	38
		CONTRACT NO. 72875				
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



BAR v3 CUT DIAGRAM
 Note: Order v3 bars full length. Lay out in field as shown. Cut along cut line. Use remainder of bar in opposite wingwall.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	144	#7	9'-1"	—
a1	148	#7	24'-5"	—
a2	244	#6	25'-9"	—
d	50	#4	5'-6"	—
h	100	#5	39'-8"	—
h1	200	#5	27'-7"	—
h2	33	#7	39'-8"	—
h3	66	#7	28'-2"	—
h4	16	#6	24'-5"	—
h5	8	#6	22'-7"	—
h6	16	#4	17'-0"	—
h7	20	#8	15'-6"	—
h8	56	#8	15'-4"	—
h9	36	#8	26'-2"	—
h10	20	#8	24'-8"	—
s	75	#4	4'-9"	—
s1	25	#4	4'-7"	—
v	483	#5	3'-5"	—
v1	487	#5	11'-2"	—
v2	4	#5	14'-3"	—
v3	14	#5	26'-9"	—
Concrete Box Culverts			Cu. Yd.	327.6
Reinforcement Bars			Pound	52200
Bar Splicers			Each	133



CULVERT DETAILS
 I.L. ROUTE 125 OVER
 TRIBUTARY TO LOST CREEK
 F.A.P. ROUTE 67 - SECTION (6X-1)B-2
 CASS COUNTY
 STA. 136+64.40
 S.N. 009-2506

Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 I.L. Design Firm
 No. 184-001907

SHEET NO. 5
 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	39
CONTRACT NO. 72875				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

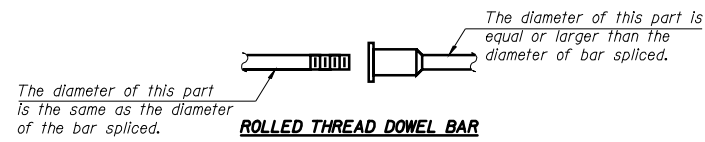
NOTES

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

BAR SPLICER ASSEMBLIES			
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



ROLLED THREAD DOWEL BAR



**** ONE PIECE**

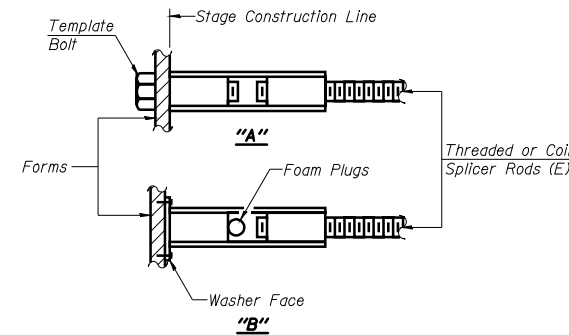
Wire Connector



WELDED SECTIONS

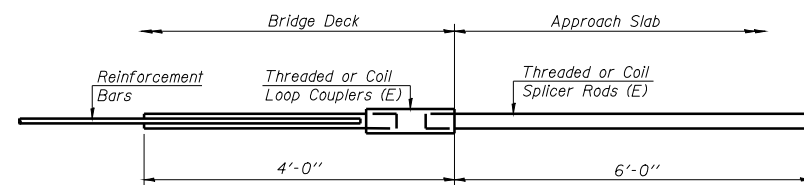
BAR SPLICER ASSEMBLY ALTERNATIVES

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



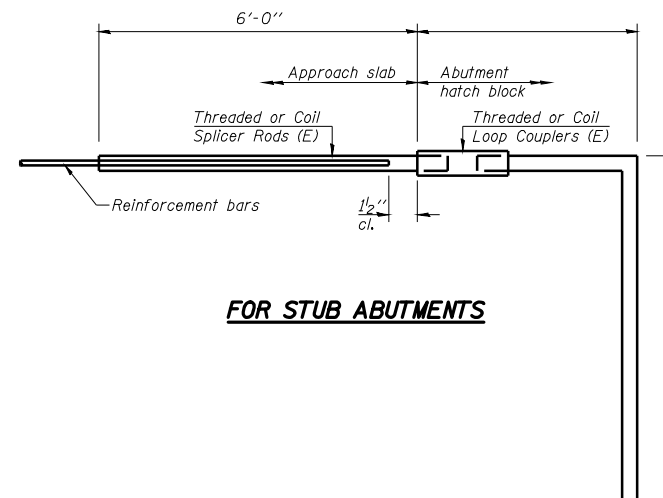
INSTALLATION AND SETTING METHODS

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



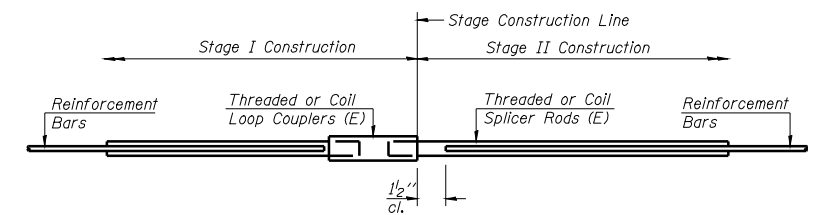
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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
#5	50	Top Slab
#5	50	Bottom Slab
#7	33	Walls

BAR SPLICER ASSEMBLY DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 136+64.40
S.N. 009-2506

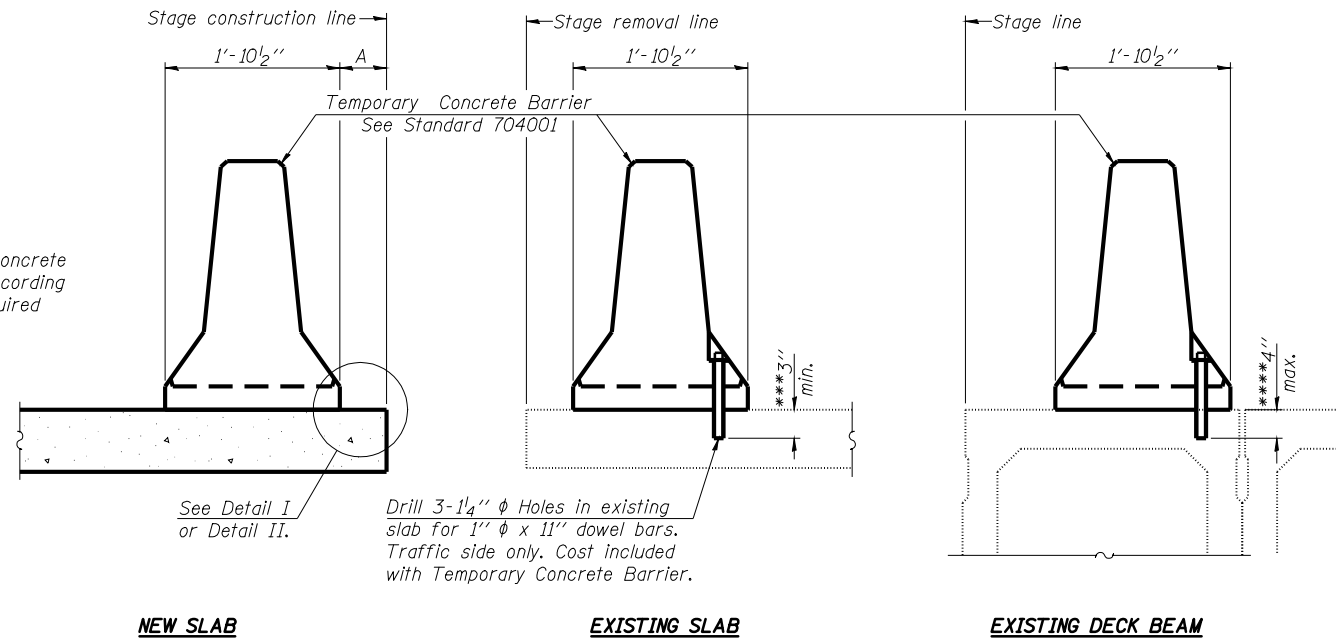


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 No. 184-001907

SHEET NO. 6
 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	40
CONTRACT NO. 72875				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

NOTES

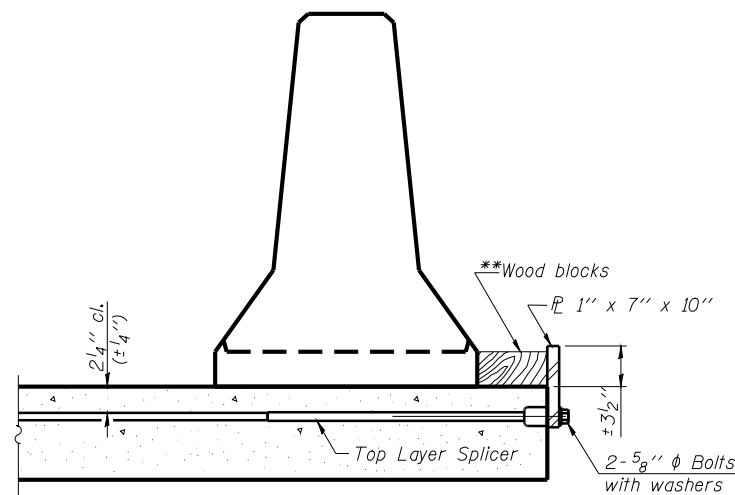
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

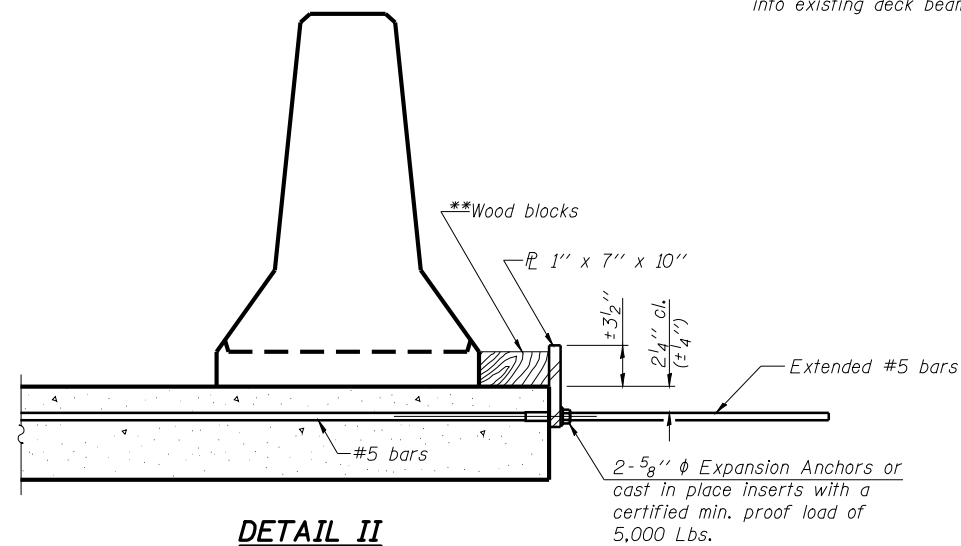
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

***Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

***If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.

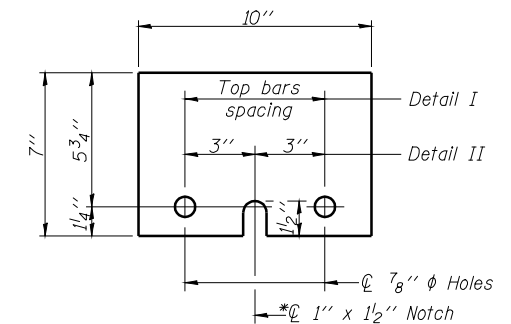


DETAIL I



DETAIL II

**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.



STEEL RETAINER PL 1" x 7" x 10"

*Required only with Detail II

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
IL. ROUTE 125 OVER TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 136+64.40
S.N. 009-2506



Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL.
 62703 Phone: (217)544-8033 IL. Design Firm
 No. 184-001907

SHEET NO. 7
 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	41
CONTRACT NO. 72875				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



Illinois Department
of Transportation
Division of Highways
DOT DISTRICT 1

SOIL BORING LOG

Page 1 of 2

Date 8/17/04

ROUTE FAP 67 DESCRIPTION IL 125 over Tributary to Lost Creek LOGGED BY M. Tappan

SECTION (6X-1) B-2, B-3 LOCATION SW 1/4, SEC. 26, TWP. 18 N, RNG. 11 W, 3 PM

COUNTY Cass DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 009-2000 Ex
009-2506 Pr
Station 136+64.8

BORING NO. 2 SE WW
Station 137+07
Offset 13.00 ft RI
Ground Surface Elev. 537.7 ft

DEPTH (ft)	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After Hrs.	DEPTH (ft)	B	U	M	Soil Description		
														(ft)	(%)	
0				519.8	519.0					0				0	0.1	32
1										0				0	0.1	34
2	0.6									0				0	0.1	34
2	S-12									0				0	0.1	34
529.70										0				0	0.1	34
1	0.6									1				1	0.7	28
1	S-12									3				3	0.7	28
1	0.5									0				0	0.6	36
1	B									1				1	0.6	36
524.70										0				0	0.0	31
1	0.4									0				0	0.0	31
1	B									0				0	0.0	31
522.20										0				0	0.0	31
0	0.2									0				0	0.0	31
1	B									0				0	0.0	31
519.70										0				0	0.0	31
0	0.1									0				0	0.0	31
0	B									0				0	0.0	31

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING 009-2000 EX, DISTRICT 1 DOT 28003
Lands 28 Day 28 Inch Lengths 80 Day 18 07/17/04



Illinois Department
of Transportation
Division of Highways
DOT DISTRICT 1

SOIL BORING LOG

Page 2 of 2

Date 8/17/04

ROUTE FAP 67 DESCRIPTION IL 125 over Tributary to Lost Creek LOGGED BY M. Tappan

SECTION (6X-1) B-2, B-3 LOCATION SW 1/4, SEC. 26, TWP. 18 N, RNG. 11 W, 3 PM

COUNTY Cass DRILLING METHOD HSA HAMMER TYPE 140 # Auto

STRUCT. NO. 009-2000 Ex
009-2506 Pr
Station 136+64.8

BORING NO. 2 SE WW
Station 137+07
Offset 13.00 ft RI
Ground Surface Elev. 537.7 ft

DEPTH (ft)	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After Hrs.	DEPTH (ft)	B	U	M	Soil Description		
														(ft)	(%)	
0				519.8	519.0					0				0	0.1	25
1	0.4									0				0	0.1	25
1	B									0				0	0.1	25
468.70										0				0	0.2	25
3	0.9									0				0	0.2	25
4	B									1				1	0.2	25
487.20										0				0	0.2	25
1	0.5									6				6	3.6	17
1	B									9				9	3.6	17
482.70										0				0	0.0	31
0	0.1									0				0	0.0	31
0	B									0				0	0.0	31

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING 009-2000 EX, DISTRICT 1 DOT 28003
Lands 28 Day 28 Inch Lengths 80 Day 18 07/17/04

BORINGS
IL ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 136+64.40
S.N. 009-2506



Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL
62703 Phone: (217)544-8033 IL Design Firm
No. 184-001907

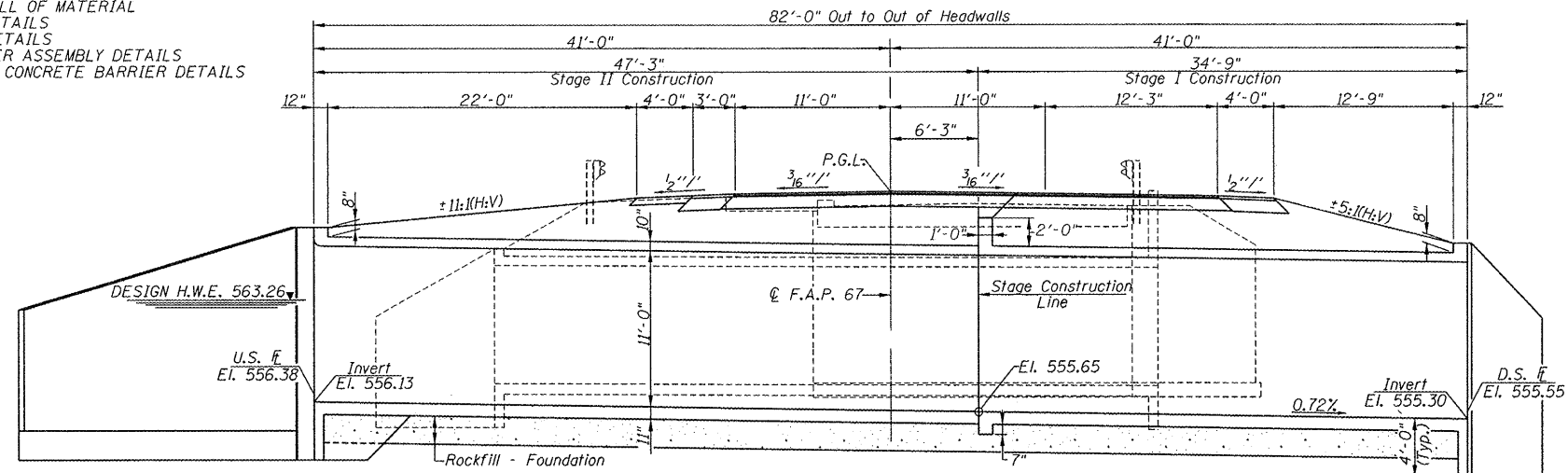
SHEET NO. 9
OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	43
CONTRACT NO. 72875				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Benchmark: JJ20 - Found Chiseled "□" on S.E. Wingwall of S.N. 009-2002.
 Station 217+67.0, 21.7' Rt., El. 570.33
 Existing Structure: S.N. 009-2002 built in 1955 as a Double Barrel 8'-8" x 8'-4"
 R.C. Box Culvert with a Culvert Length of ±66'-4". Traffic
 to be maintained utilizing stage construction. No Salvage.

INDEX OF SHEETS

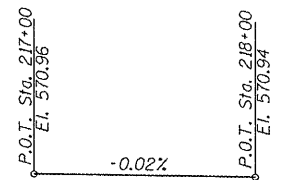
- 1 - GENERAL PLAN & ELEVATION
- 2 - NOTES & BILL OF MATERIAL
- 3 - STAGING DETAILS
- 4 - CULVERT DETAILS
- 7 - BAR SPLICER ASSEMBLY DETAILS
- 8 - TEMPORARY CONCRETE BARRIER DETAILS
- 9-11 - BORINGS



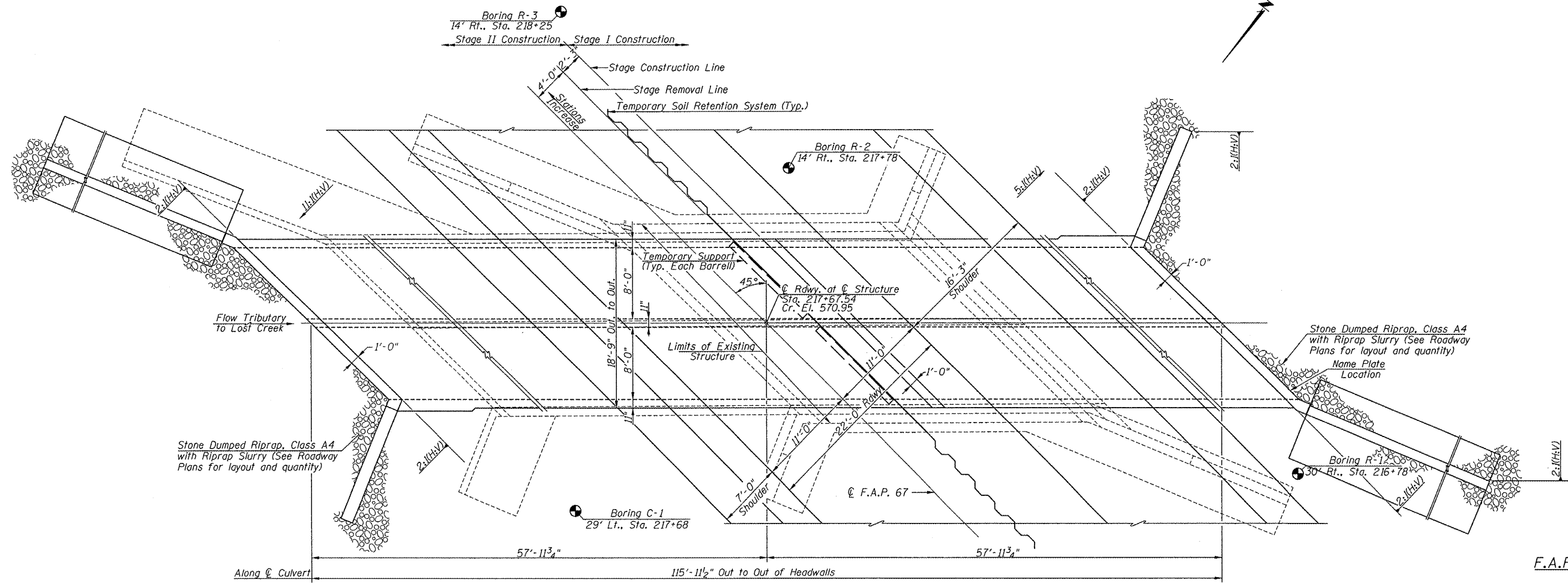
LONGITUDINAL SECTION
 (All Dimensions are at Rt. L's to C.Rdwy.)

STA. 217+27.64
 BUILT 20 BY
 STATE OF ILLINOIS
 F.A.P. RTE. 67 SECTION (6X-1)B-2
 LOADING HS 20-44
 STR. NO. 009-2507

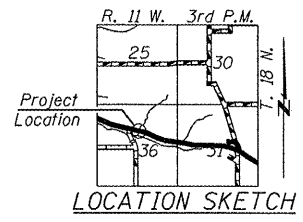
NAME PLATE
 (Standard 515001)



PROFILE GRADE
 (Along C.Rdwy.)



PLAN



Mark A. Henderson 2/4/09
 Expiration Date: 11/30/2010

APPROVED
 For Structural Adequacy Only

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

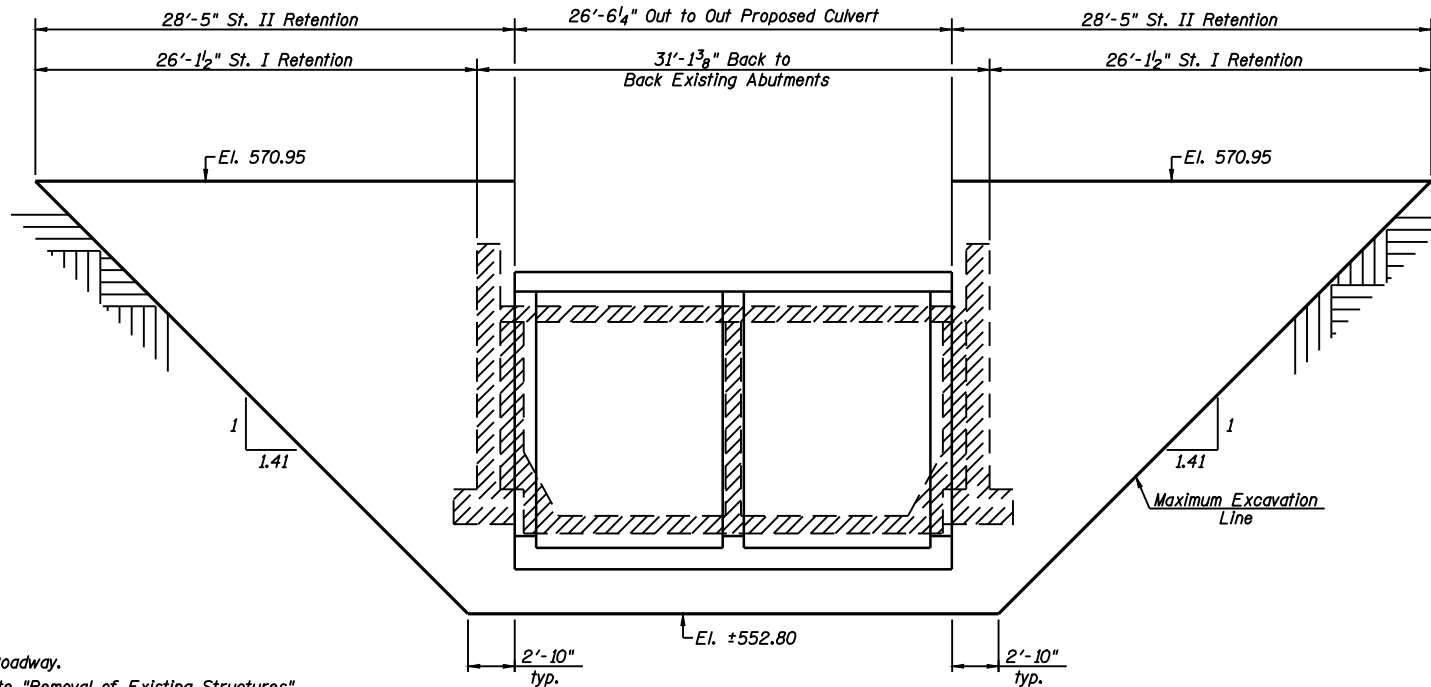
GENERAL PLAN
 IL. ROUTE 125 OVER
 TRIBUTARY TO LOST CREEK
 F.A.P. ROUTE 67 - SECTION (6X-1)B-2
 CASS COUNTY
 STA. 217+67.54
 S.N. 009-2507



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 No. 184-001907

SHEET NO. 1
 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	44
CONTRACT NO. 72875				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



- Notes
1. Dimensions along ϕ Roadway.
 2. Hatched areas indicate "Removal of Existing Structures"
 3. Stage I Temporary Soil Retention System shall extend to the edge of the existing abutment footing on the stream side of the abutment.

TEMPORARY SOIL RETENTION SYSTEM

A cantilevered sheet piling system does not appear feasible and additional members or other retention systems may be necessary. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

Estimated Exposed Area to be Retained: 450 sq. ft. (Stage I), 433 sq. ft. (Stage II)

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 2	Each	1
Concrete Box Culverts	Cu. Yd.	364.6
Reinforcement Bars	Pound	63240
Reinforcement Bars, Epoxy Coated	Pound	2020
Furnishing Steel Piles HP 12x53	Foot	504
Driving Piles	Foot	504
Test Pile, Steel HP 12x53	Each	2
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	883
Rockfill - Foundation	Ton	370
Bar Splicers	Each	109
Granular Culvert Backfill	Cu. Yd.	1560
Temporary Shoring	Each	1

WATERWAY INFORMATION

Drainage Area = 1.15 Sq. Mi. Ex. Low Grade Elev. = 570.56 Sta. 219+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	507.1	69	94	561.98	0.57	0.00	562.55	561.98
Design	50	839.4	92	114	563.26	0.99	0.00	564.25	563.26
Base	100	987.6	100	122	563.75	1.18	0.18	564.93	563.93
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1355	120	140	564.88	1.82	0.95	566.70	565.83

GENERAL NOTES

A Precast Box Culvert alternative will not be allowed at this site. Excavation behind existing abutment walls shall be done before removing the existing superstructure. The Contractor shall sawcut the existing abutments at the stage removal line before Stage I Removal. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provisions. For backfilling and embankment, see Standard Specifications. Exposed edges shall have standard $\frac{3}{4}$ " chamfer unless otherwise noted. Removal and replacement of weak soils with Rockfill - Foundation may be required beneath the culvert. The Engineer will determine the required depth following excavation to plan grade. A ± 2.1 ft. void exists between the bottom of the existing bridge and the top of the existing culvert. At least seven ft. of barrel shall be poured monolithically with the N.W. and S.E. Wings. Removal of the slab on the existing bridge creates an unstable condition for the existing abutment walls. The primary vertical reinforcement is in the face of the wall closest to the stream. Bracing of the walls or excavation prior to Stage I Removal will be necessary to prevent collapse.

DESIGN SPECIFICATIONS

2002 A.A.S.H.T.O. Specifications

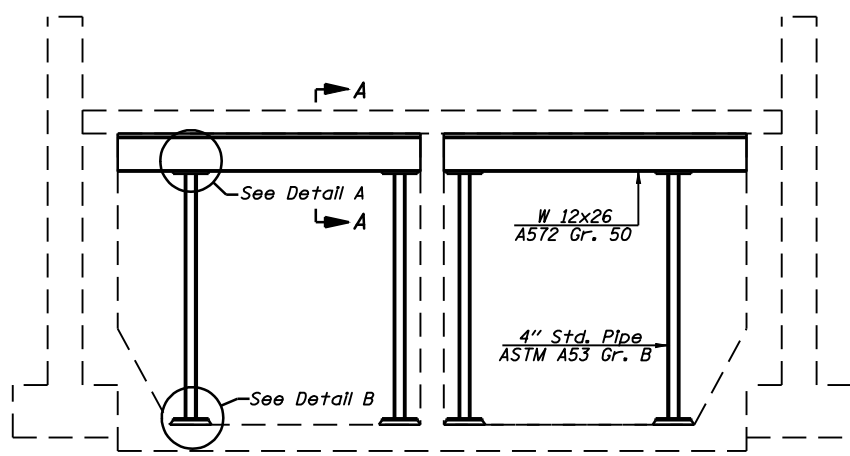
LOADING HS 20-44

Allow 50#/Sq. Ft. for future wearing surface.

DESIGN STRESSES

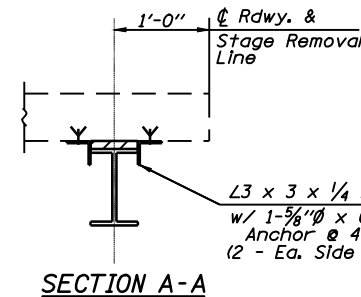
FIELD UNITS

$f'_c = 3500$ psi
 $f_y = 60000$ psi (Reinf.)

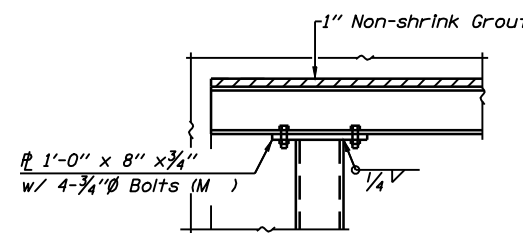


TEMPORARY SHORING DETAIL

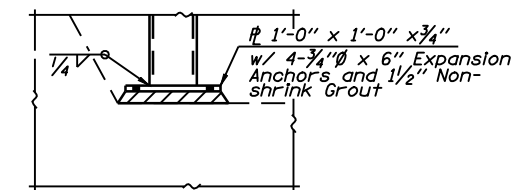
Note: Place temporary shoring prior to Stage I Removal.



SECTION A-A



DETAIL A



DETAIL B

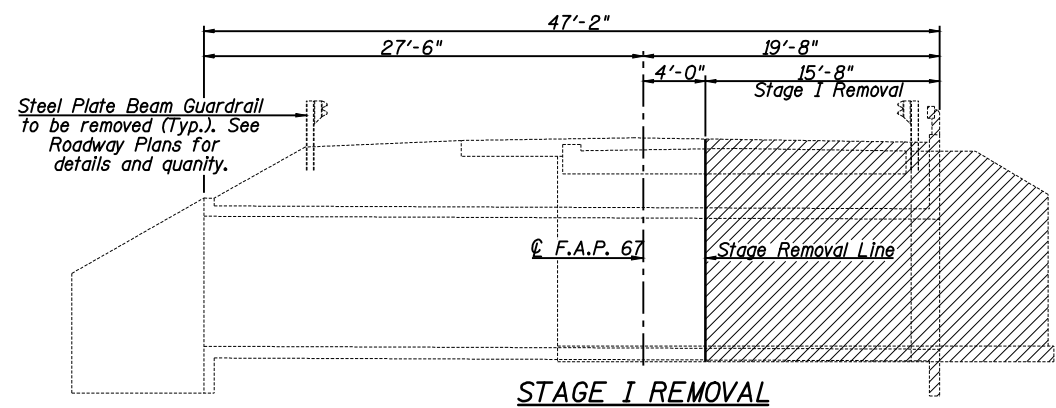
GENERAL PLAN
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 217+67.54
S.N. 009-2507



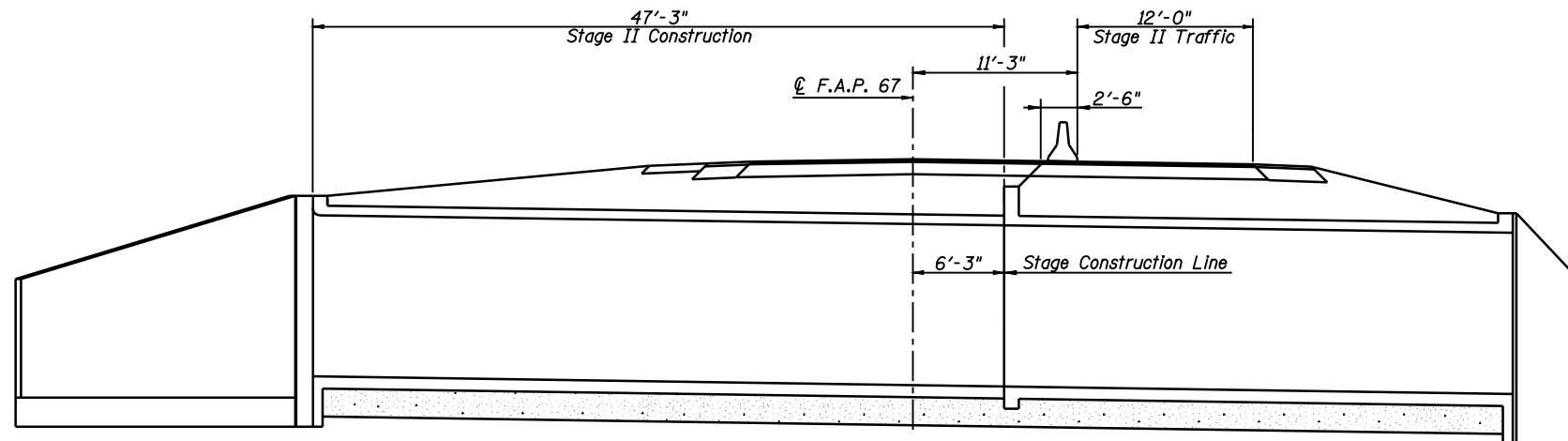
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No. 184-001907

SHEET NO. 2
OF 11 SHEETS

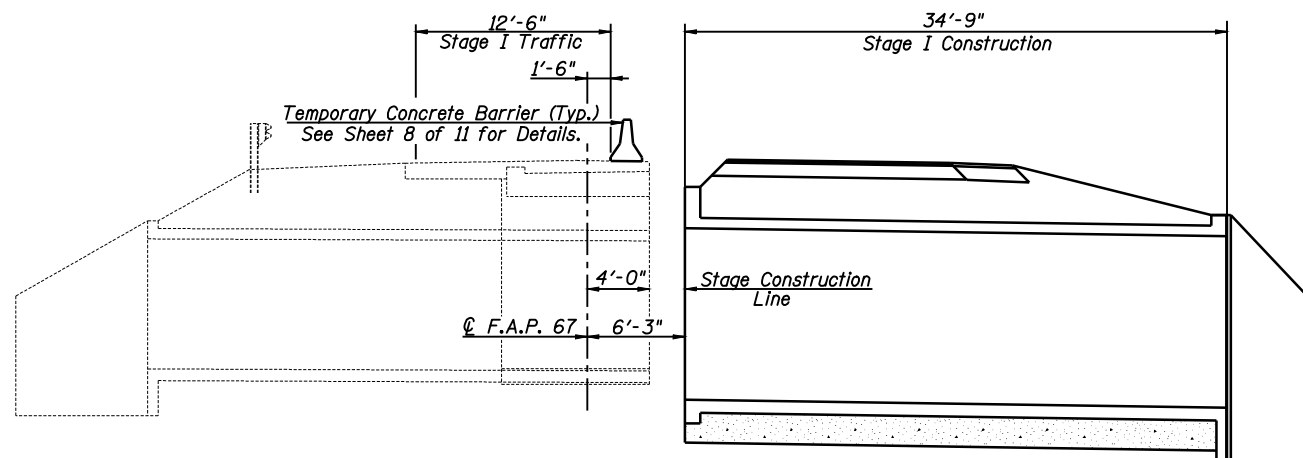
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	45
CONTRACT NO. 72875				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



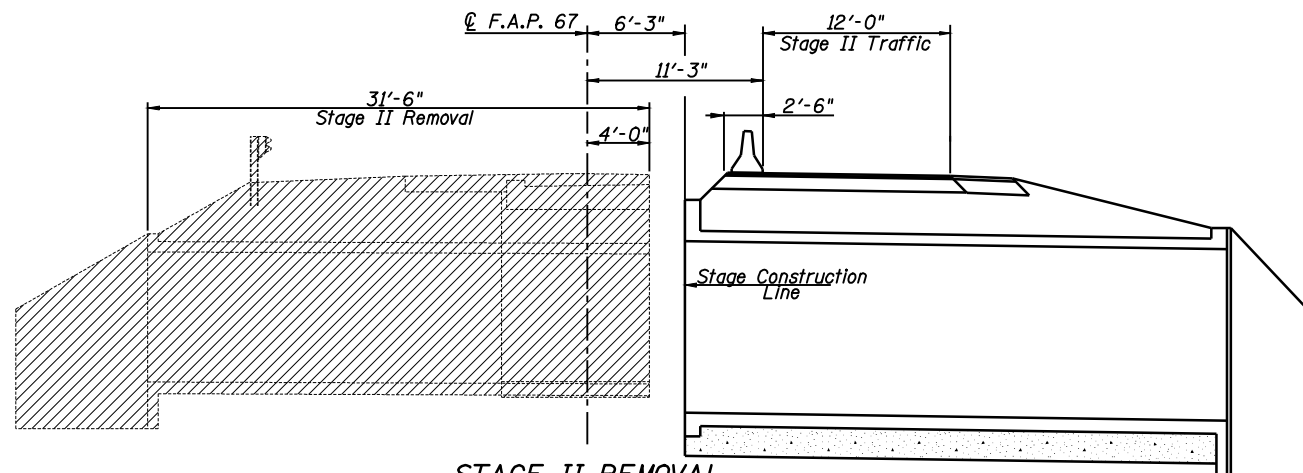
STAGE I REMOVAL



STAGE II CONSTRUCTION



STAGE I CONSTRUCTION



STAGE II REMOVAL

Notes: Hatched areas indicate "Removal of Existing Structures".
See Roadway Plans for quantity of Temporary Concrete Barrier.
All Elevations are looking East.
All Dimensions are at Rt. L's to C Rdwy.

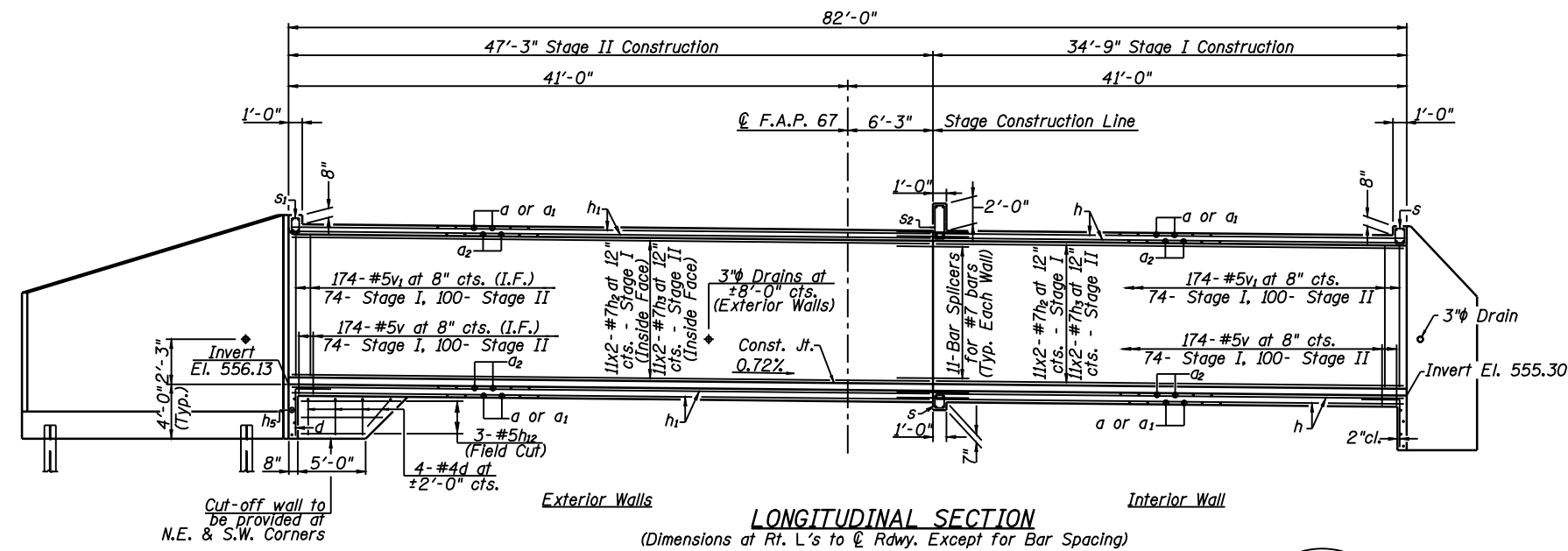
STAGING DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 217+67.54
S.N. 009-2507



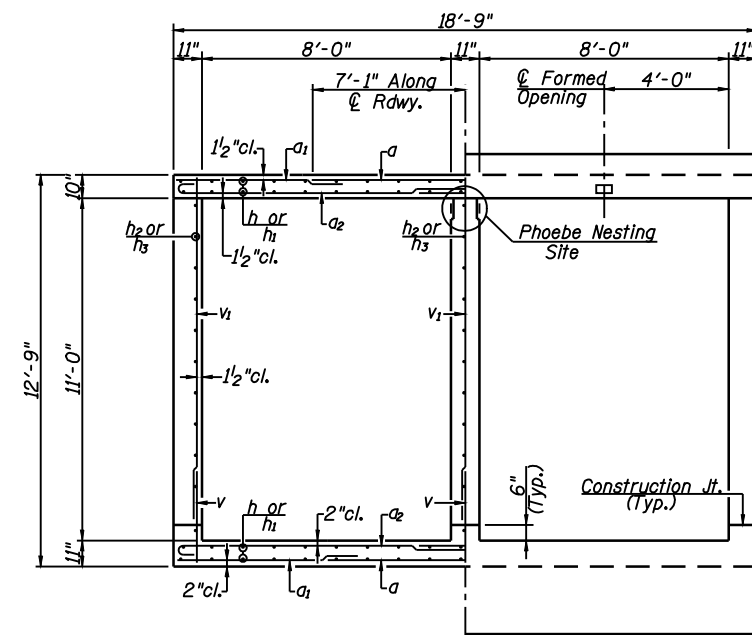
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No. 184-001907

SHEET NO. 3
OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	46
CONTRACT NO. 72875				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

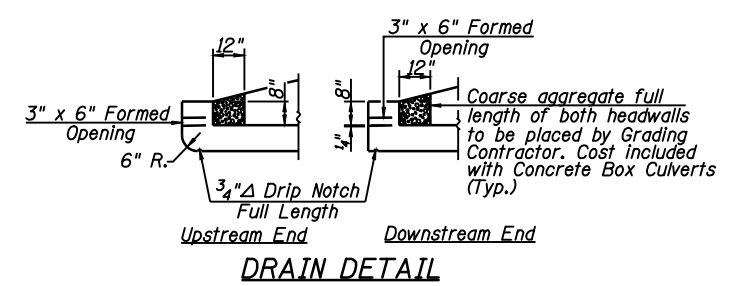


LONGITUDINAL SECTION
(Dimensions at Rt. L's to \bar{C} Rdwy. Except for Bar Spacing)

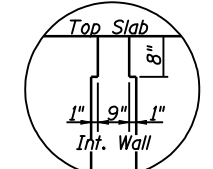


HALF SECTION THRU BARREL **HALF SECTION END ELEVATION**
ELEVATION
(Dimensions are at Rt. L's unless otherwise noted)

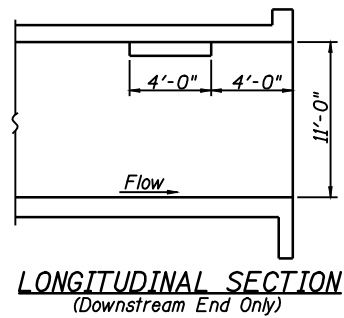
Notes: Work this sheet with Sheet No. 5 and 6 of 11.
Bars indicated thus 19 x 2-#5 etc. indicates 19 lines of bars with 2 lengths per line.



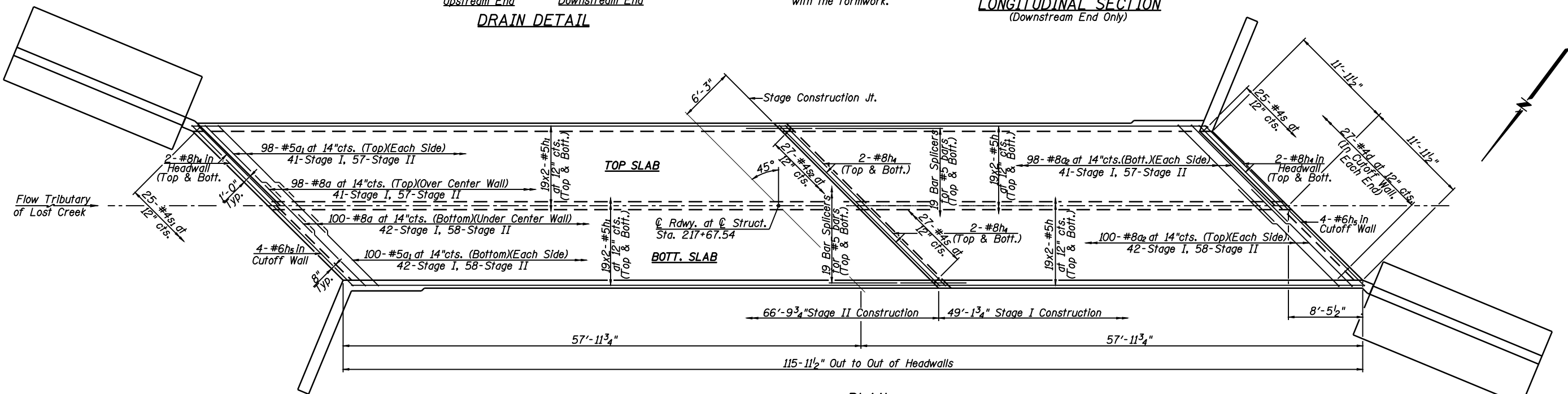
DRAIN DETAIL



NOTCH DETAIL
Notch formed by rough finished board attached to and removed with the formwork.



LONGITUDINAL SECTION
(Downstream End Only)



PLAN

MIN. BAR LAPS
#5 Bar = 2'-2"
#7 Bar = 3'-5"
#8 Bar = 3'-8"

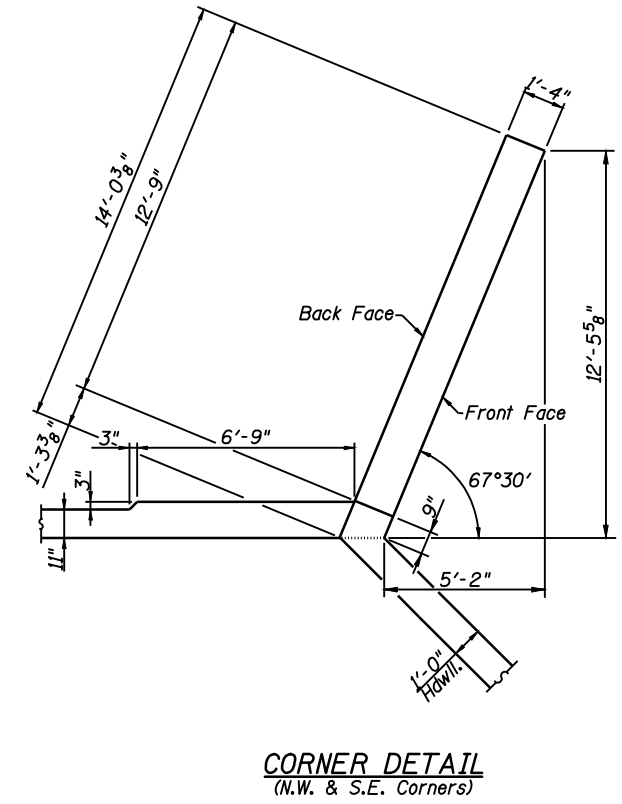
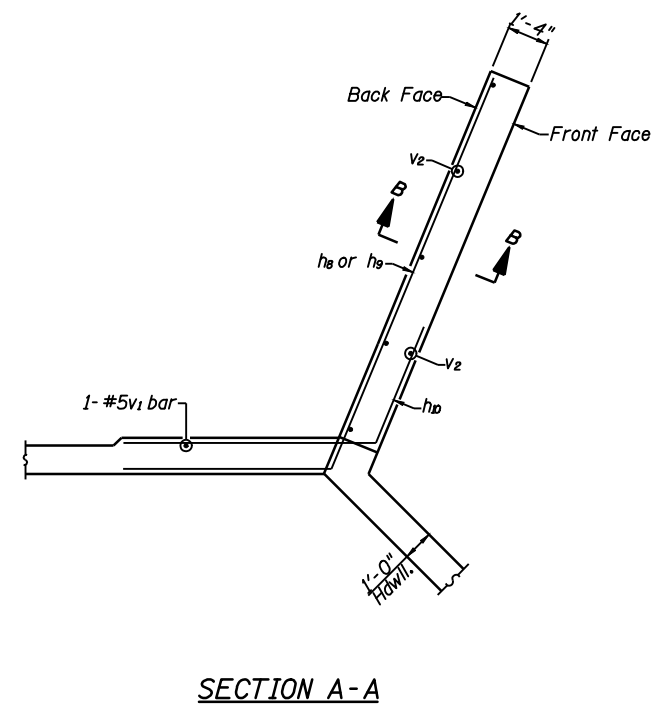
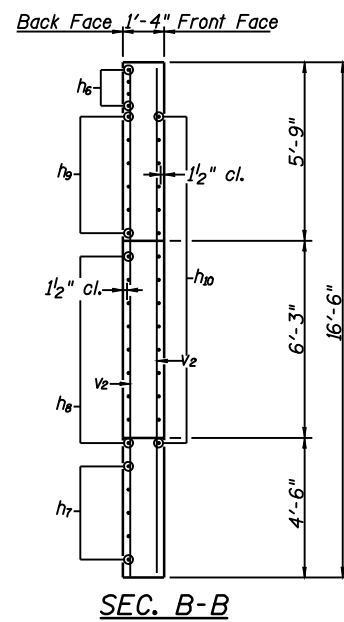
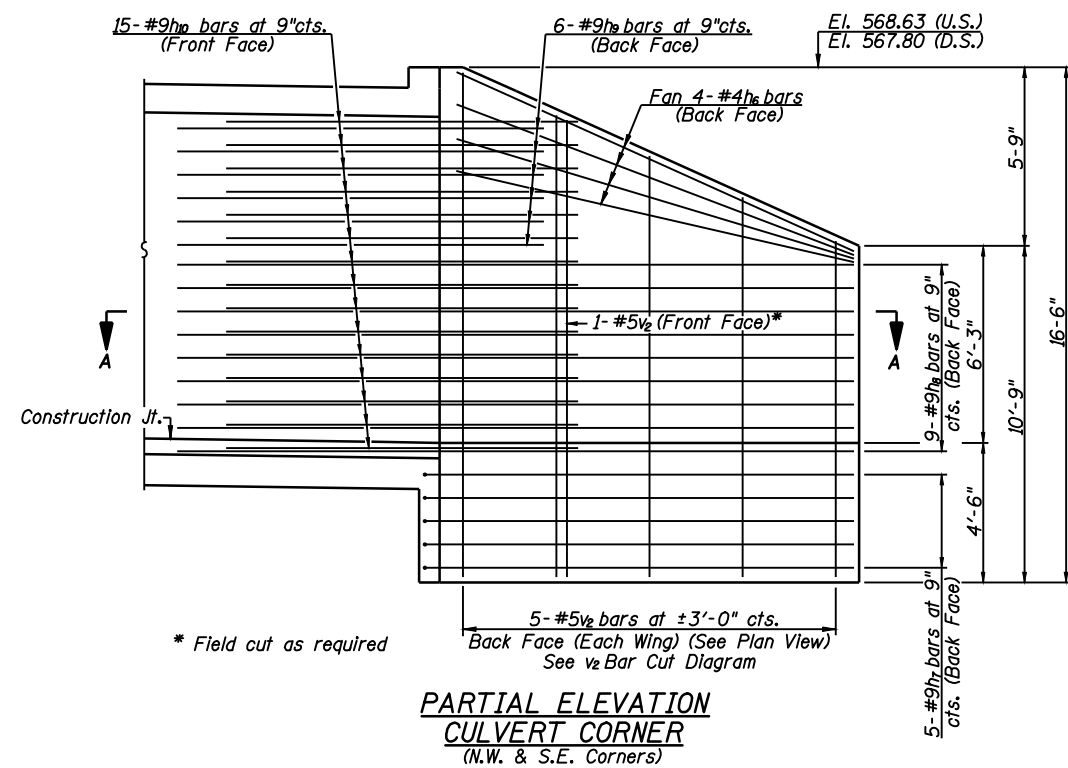
CULVERT DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 217+67.54
S.N. 009-2507




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No. 184-001907

SHEET NO. 4
OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	47
CONTRACT NO. 72875				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

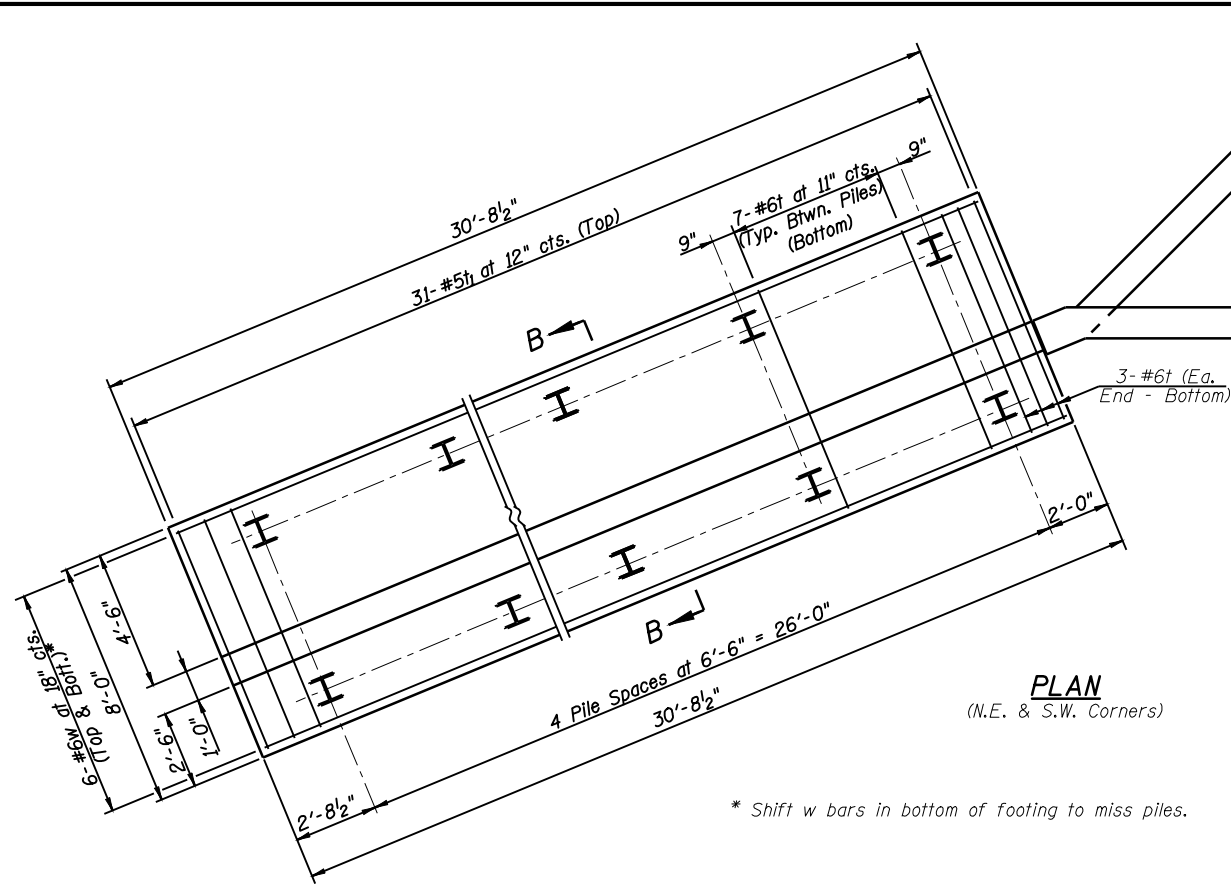


CULVERT DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 217+67.54
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 No. 184-001907

SHEET NO. 5
 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	48
CONTRACT NO. 72875				
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				

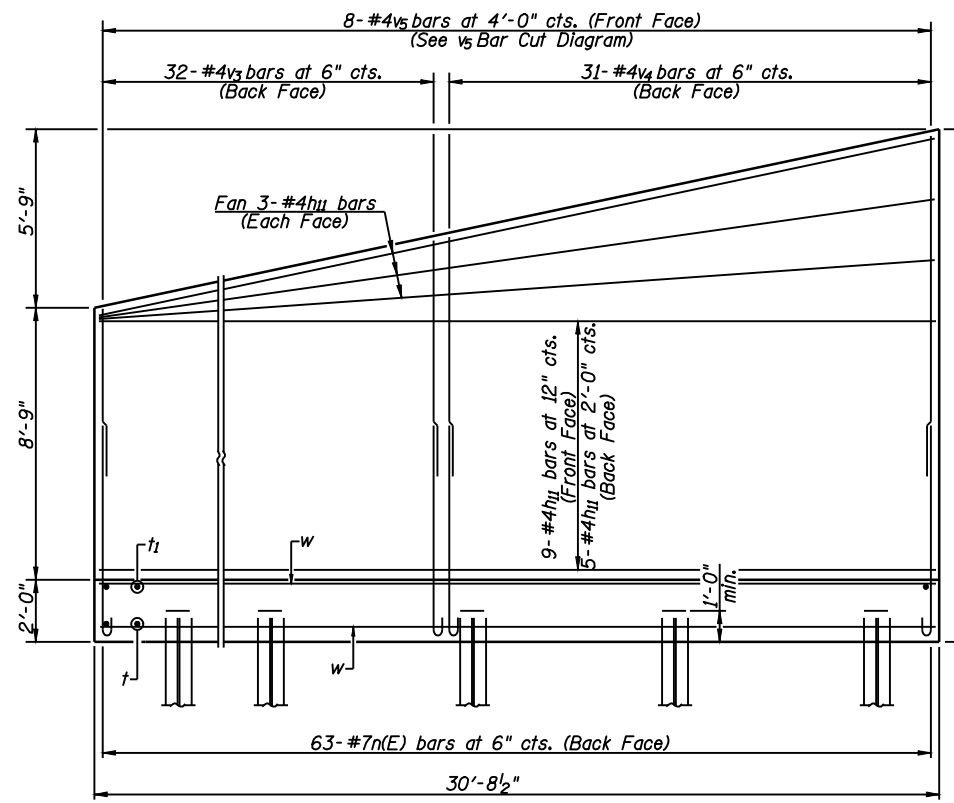
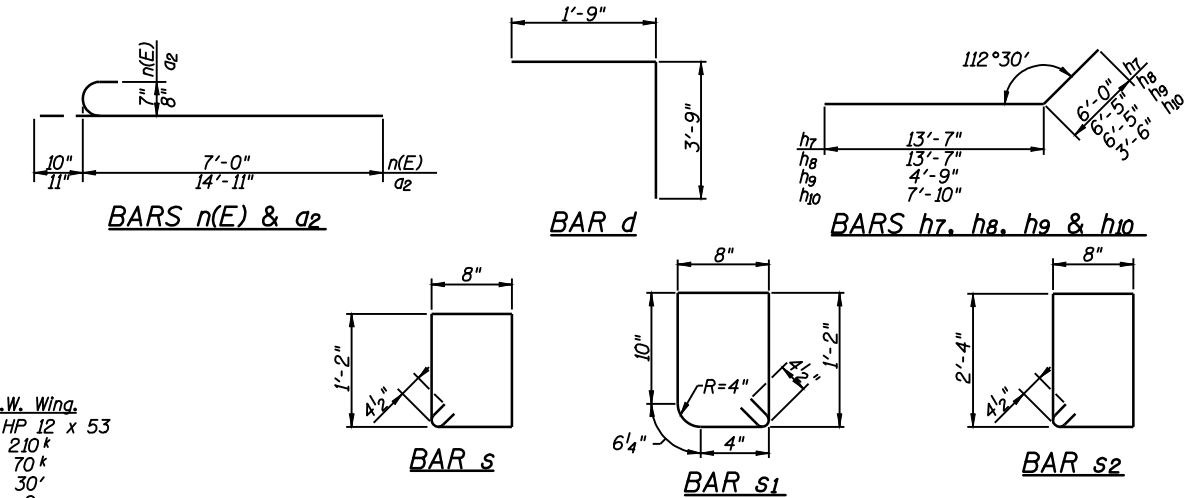


PLAN
(N.E. & S.W. Corners)

* Shift w bars in bottom of footing to miss piles.

PILE DATA

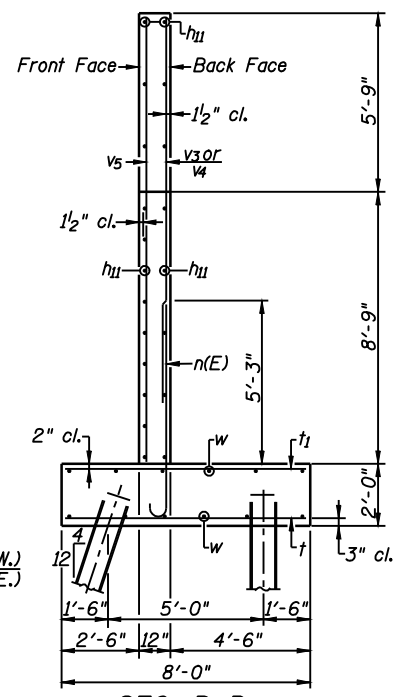
	N.E. Wing.	S.W. Wing.
Pile Type & Size:	Steel HP 12 x 53	Steel HP 12 x 53
Nominal Required Bearing:	210 ^k	210 ^k
Allowable Resistance Available:	70 ^k	70 ^k
Estimated Pile Length:	26'	30'
Number of Production Piles:	9	9
Number of Test Piles:	1	1



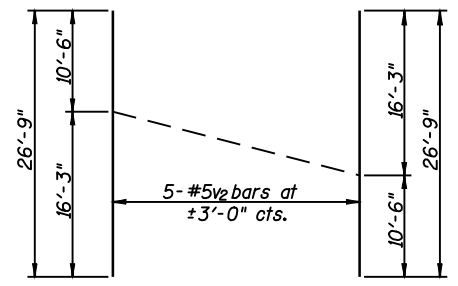
PARTIAL ELEVATION
(N.E. & S.W. Corners)

EL. 567.80 (S.W.)
EL. 568.63 (N.E.)

EL. 551.30 (S.W.)
EL. 552.13 (N.E.)

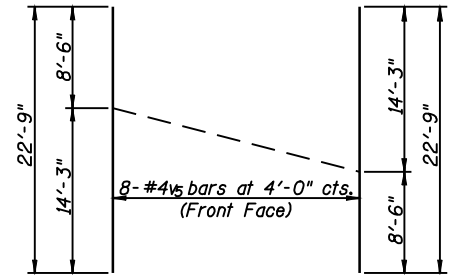


SEC. B-B



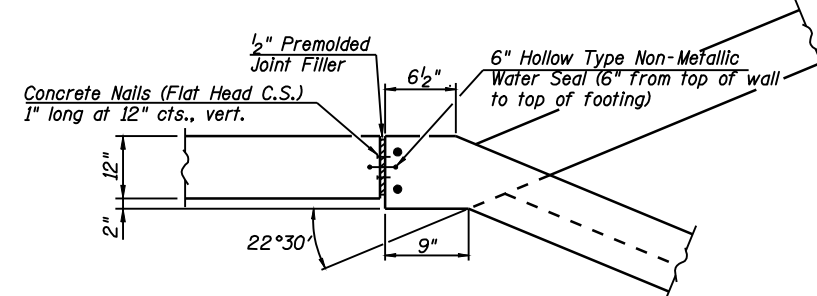
BAR v2 CUT DIAGRAM

Note: Order v2 bars full length. Lay out in field as shown. Cut along cut line. Use remainder of bar in opposite wingwall.



BAR v5 CUT DIAGRAM

Note: Order v5 bars full length. Lay out in field as shown. Cut along cut line. Use remainder of bar in opposite wingwall.



CORNER DETAIL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	198	#8	14'-2"	—
a1	396	#5	8'-2"	—
a2	396	#8	15'-10"	—
d	62	#4	5'-6"	—
h	152	#5	25'-6"	—
h1	152	#5	34'-5"	—
h2	66	#7	26'-2"	—
h3	66	#7	35'-0"	—
h4	16	#8	26'-0"	—
h5	8	#6	26'-0"	—
h6	8	#4	12'-5"	—
h7	10	#9	19'-7"	—
h8	18	#9	20'-0"	—
h9	12	#9	11'-2"	—
h10	30	#9	11'-4"	—
h11	40	#4	30'-4"	—
h12	6	#5	7'-10"	—
n(E)	126	#7	7'-10"	—
s	52	#4	4'-5"	□
s1	25	#4	4'-3"	□
s2	27	#4	6'-9"	□
t	68	#6	7'-8"	—
t1	62	#5	7'-8"	—
v	522	#5	3'-6"	—
v1	524	#5	11'-1"	—
v2	7	#5	26'-9"	—
v3	64	#4	8'-2"	—
v4	62	#4	11'-0"	—
v5	8	#4	22'-9"	—
w	24	#6	30'-4"	—
Concrete Box Culverts		Cu. Yd.	364.6	
Reinforcement Bars		Pound	63240	
Reinforcement Bars, Epoxy Coated		Pound	2020	
Bar Splicers		Each	109	
Furnishing Steel Piles, HP 12x53		Foot	504	
Driving Piles		Foot	504	
Test Piles, Steel HP 12x53		Each	2	

CULVERT DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 217+67.54
S.N. 009-2507

Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm
No. 184-001907

SHEET NO. 6
OF 11 SHEETS

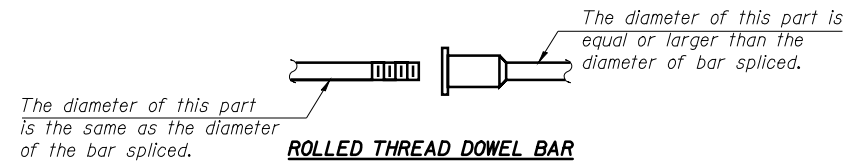
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	49
CONTRACT NO. 72875				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

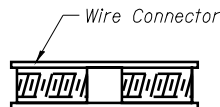
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0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



ROLLED THREAD DOWEL BAR



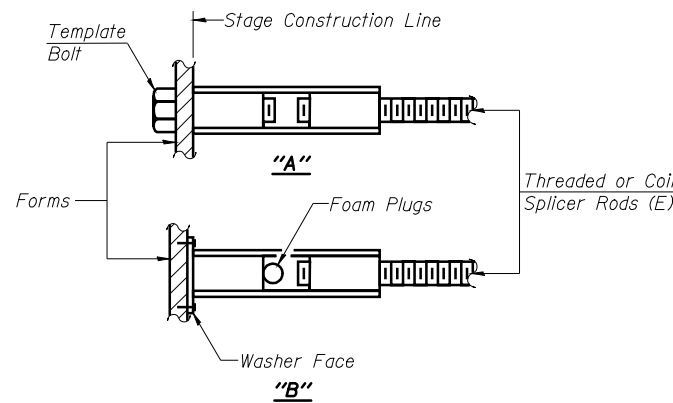
**** ONE PIECE**



WELDED SECTIONS

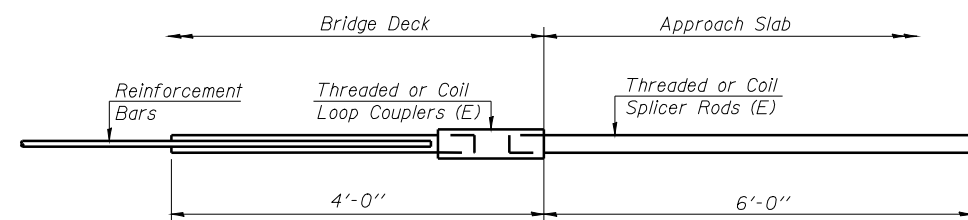
BAR SPLICER ASSEMBLY ALTERNATIVES

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

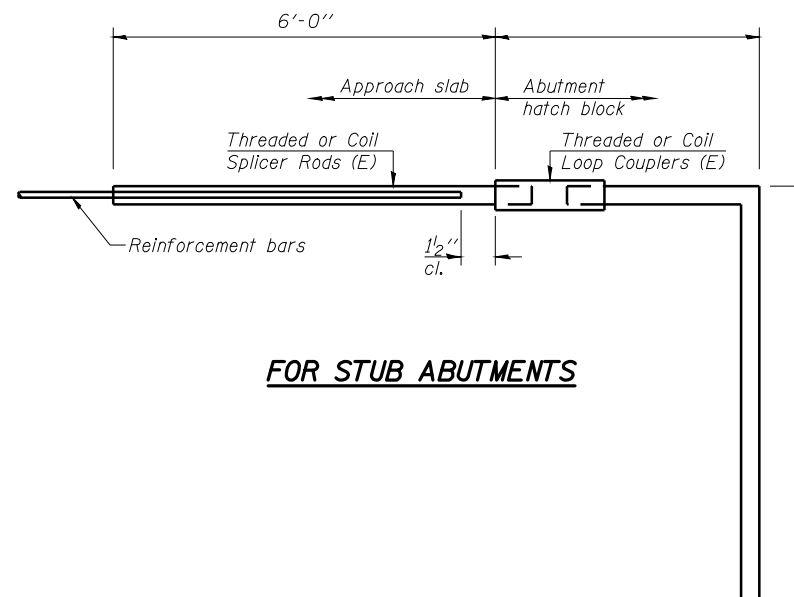


INSTALLATION AND SETTING METHODS

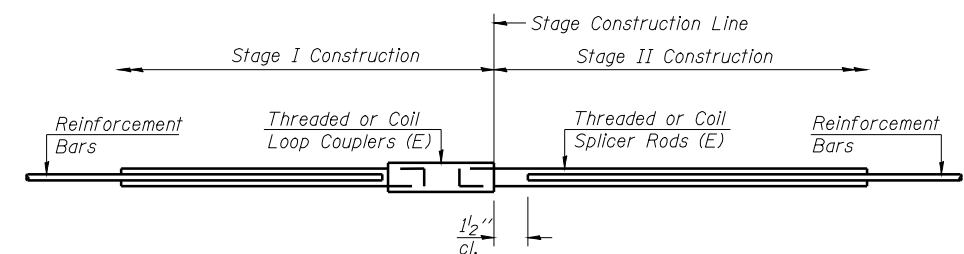
"A" :Set bar splicer assembly by means of a template bolt.
 "B" :Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS



FOR STUB ABUTMENTS



STANDARD

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

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

Bar Size	No. Assemblies Required	Location
#5	38	Top Slab
#5	38	Bott. Slab
#7	33	Walls

BAR SPLICER DETAILS
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 217+67.54
S.N. 009-2507

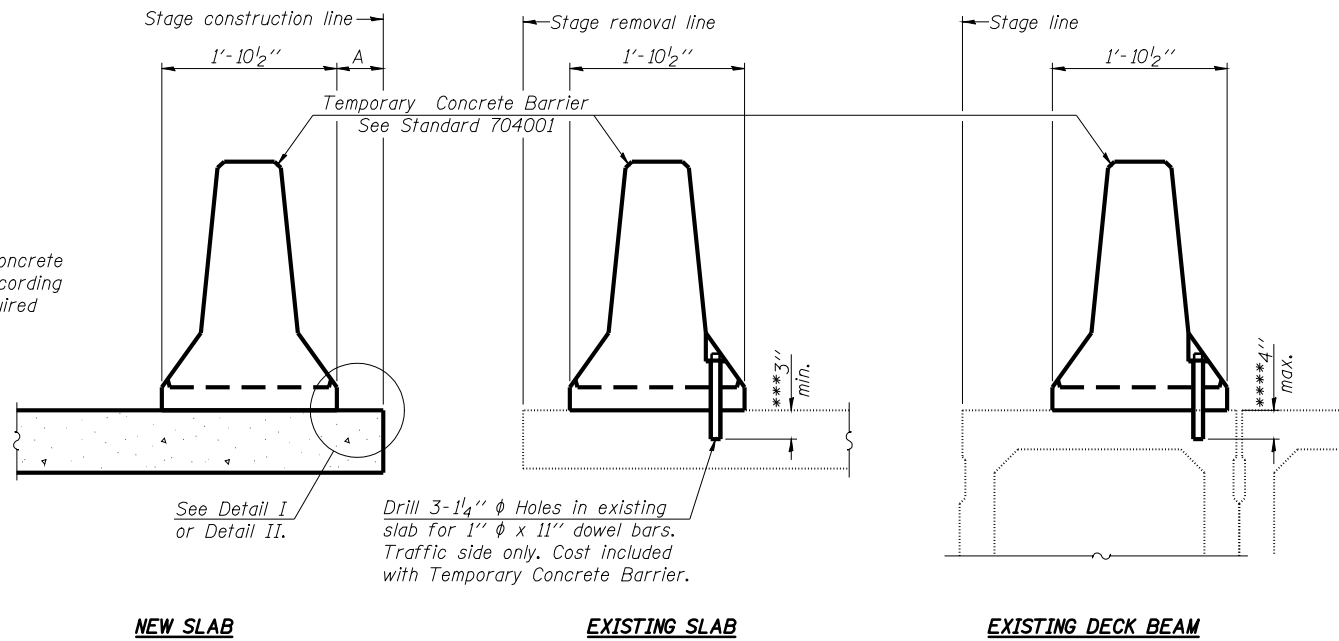


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SHEET NO. 7
 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	50
CONTRACT NO. 72875				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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



NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

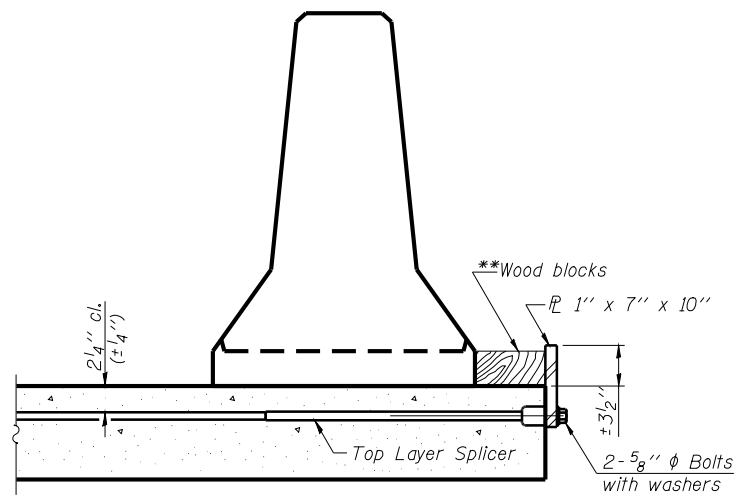
NOTES

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

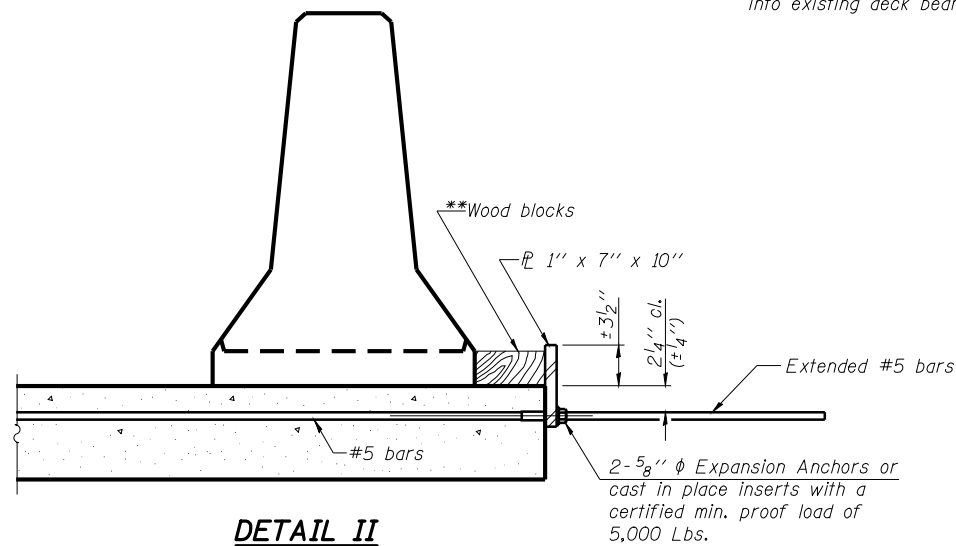
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

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.

***Dimension shown is minimum required embedment into concrete.
If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
****If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.

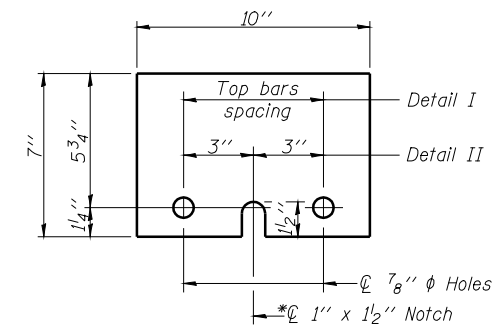


DETAIL I



DETAIL II

**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.



STEEL RETAINER \bar{P} 1" x 7" x 10"

*Required only with Detail II

**TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 217+67.54
S.N. 009-2507**



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SHEET NO. 8
OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1-B-2)	CASS	71	51
CONTRACT NO. 72875				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



SOIL BORING LOG

ROUTE FAP 67 (IL 125) DESCRIPTION IL 125 over Lost Creek Tributary LOGGED BY M. Tappan

SECTION 6X-1 LOCATION NE 1/4, SEC. 36, TWP. 18 N, RNG. 11 W, 3 PM

COUNTY Cass DRILLING METHOD HSA HAMMER TYPE 140 # Auto

Table with columns for Depth (ft), Blows (B), Unconfined Compressive Strength (UCS) (tsf), Moisture Content (w%), and Soil Description. Includes data for various soil layers like Brown and Grey Moist SILT LOAM, V. Moist, and Olive Brown Moist CLAY LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

SOIL BORING 009-2507.GPJ DATE/TIME: 07/23/02 1:00:00 PM



SOIL BORING LOG

ROUTE FAP 67 (IL 125) DESCRIPTION IL 125 over Lost Creek Tributary LOGGED BY M. Tappan

SECTION 6X-1 LOCATION NE 1/4, SEC. 36, TWP. 18 N, RNG. 11 W, 3 PM

COUNTY Cass DRILLING METHOD HSA HAMMER TYPE 140 # Auto

Table with columns for Depth (ft), Blows (B), Unconfined Compressive Strength (UCS) (tsf), Moisture Content (w%), and Soil Description. Includes data for layers like Olive Brown Moist CLAY LOAM, V. Moist, and Olive Brown Moist CLAY LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

SOIL BORING 009-2507.GPJ DATE/TIME: 07/23/02 1:00:00 PM



SOIL BORING LOG

ROUTE FAP 67 (IL 125) DESCRIPTION IL 125 over Lost Creek Tributary LOGGED BY M. Tappan

SECTION 6X-1 LOCATION NE 1/4, SEC. 36, TWP. 18 N, RNG. 11 W, 3 PM

COUNTY Cass DRILLING METHOD HSA HAMMER TYPE 140 # Auto

Table with columns for Depth (ft), Blows (B), Unconfined Compressive Strength (UCS) (tsf), Moisture Content (w%), and Soil Description. Includes data for layers like Brown and Grey Moist SILT LOAM, V. Moist, and Olive Brown Moist CLAY LOAM.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

SOIL BORING 009-2507.GPJ DATE/TIME: 07/23/02 1:00:00 PM

BORINGS IL ROUTE 125 OVER TRIBUTARY TO LOST CREEK F.A.P. ROUTE 67 - SECTION (6X-1)B-2 CASS COUNTY STA. 217+67.54 S.N. 009-2507

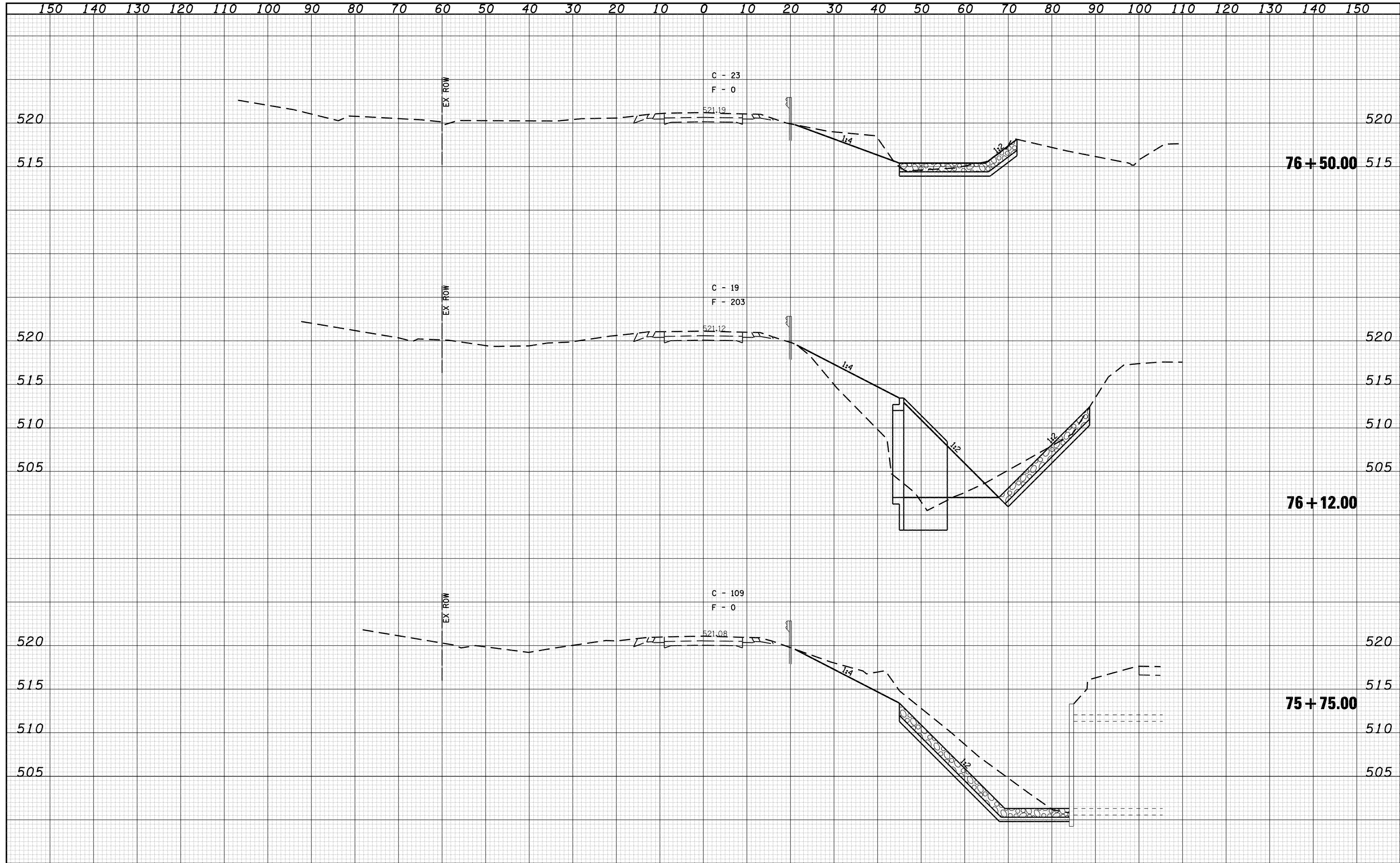


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Table with columns: SHEET NO. 9 OF 11 SHEETS, F.A.P. RTE. 67, SECTION (6X-1)B-2, COUNTY CASS, TOTAL SHEETS 71, SHEET NO. 52, CONTRACT NO. 72875, FED. ROAD DIST. NO. ILLINOIS, FED. AID PROJECT

DATE	
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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
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	CHECKED



FILE NAME = D672875-sht-xssht1.dgn

USER NAME =
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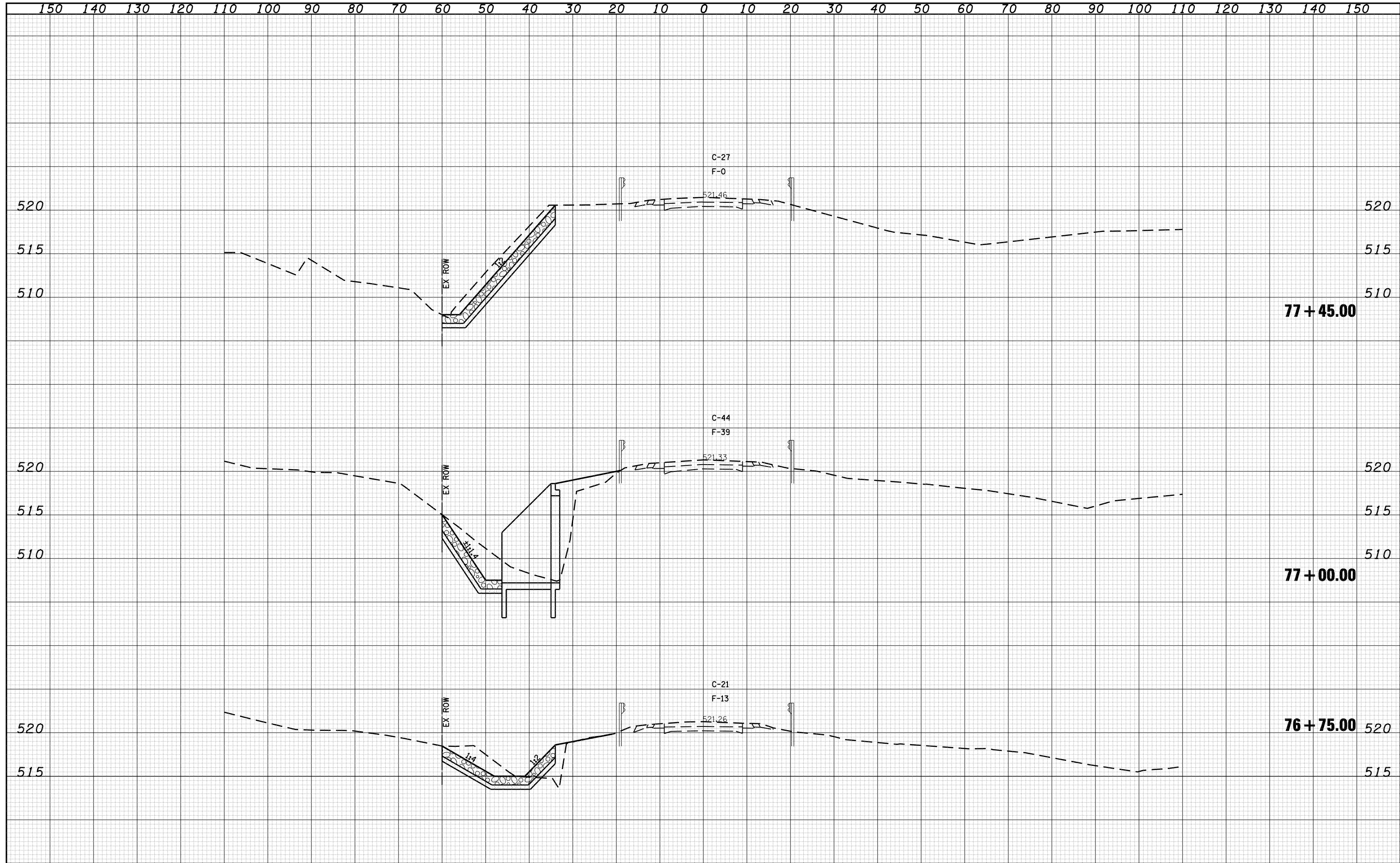
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 No. 184-001907


CROSS SECTIONS
STA. 76 + 61.00
 SCALE: VARIES SHEET NO. 55 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	55
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 72875	

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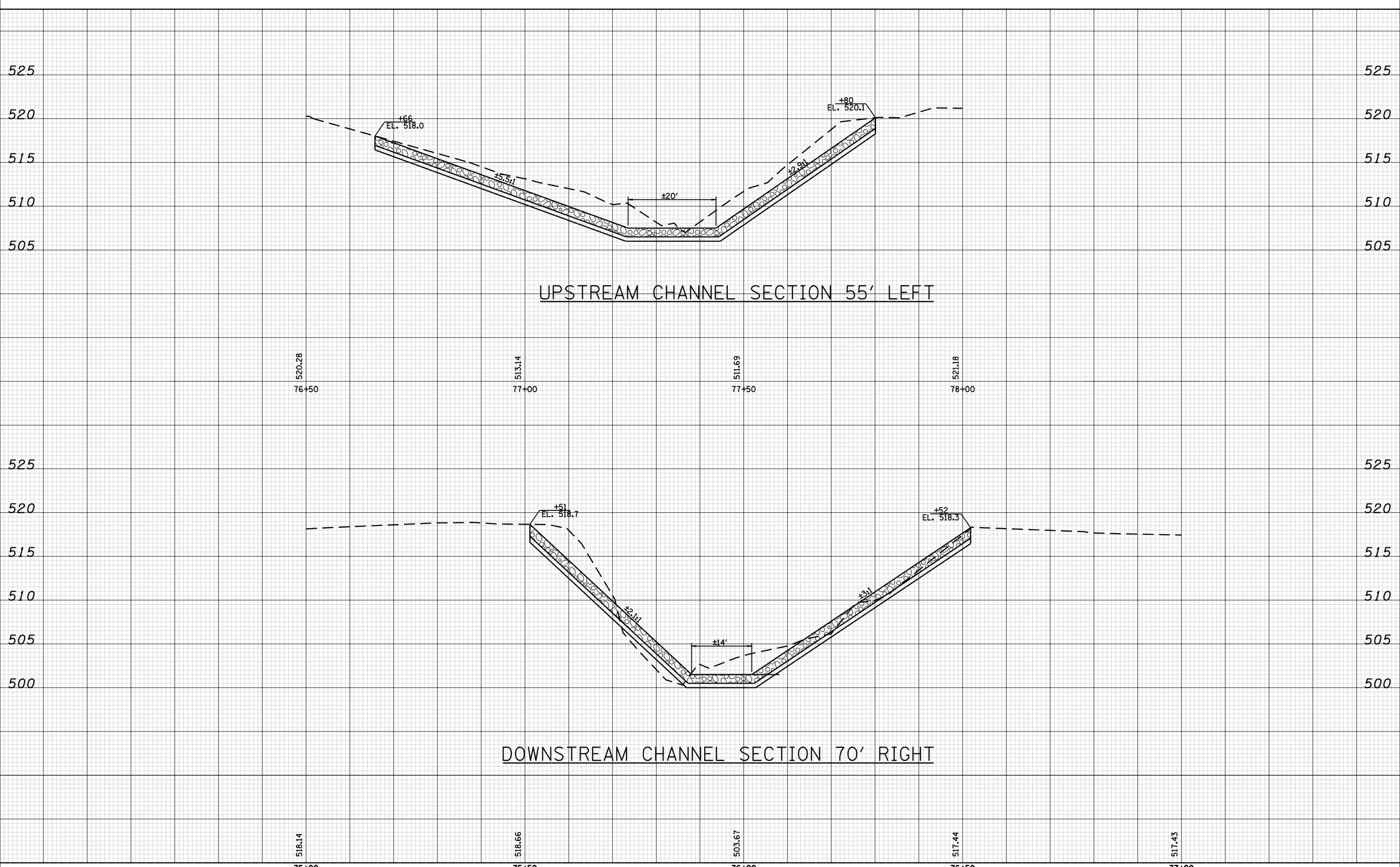
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		CHECKED - CPK	REVISIED -		SCALE: VARIES			SHEET NO. 56 OF 71 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
		DATE - 3/25/08	REVISIED -									

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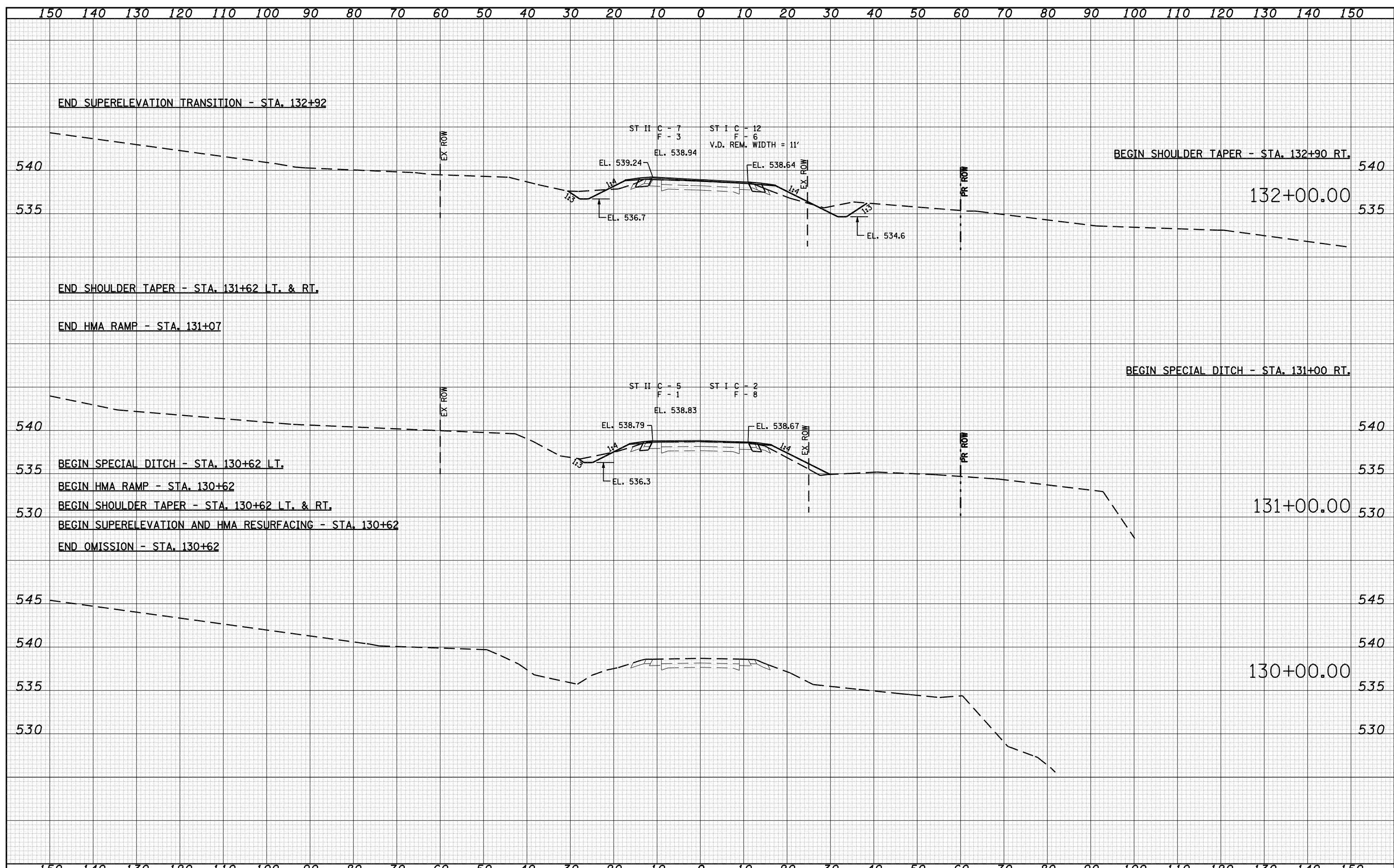
UPSTREAM CHANNEL SECTION 55' LEFT

DOWNSTREAM CHANNEL SECTION 70' RIGHT

FILE NAME = D672875-sht-xssht1.dgn	USER NAME =	DESIGNED - RKA	REVISIONS	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	CROSS SECTIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = Jan-30-2009 09:41:26AM	DATE - 3/25/08	REVISIONS					CONTRACT NO. 72875					
							ILLINOIS FED. AID PROJECT					

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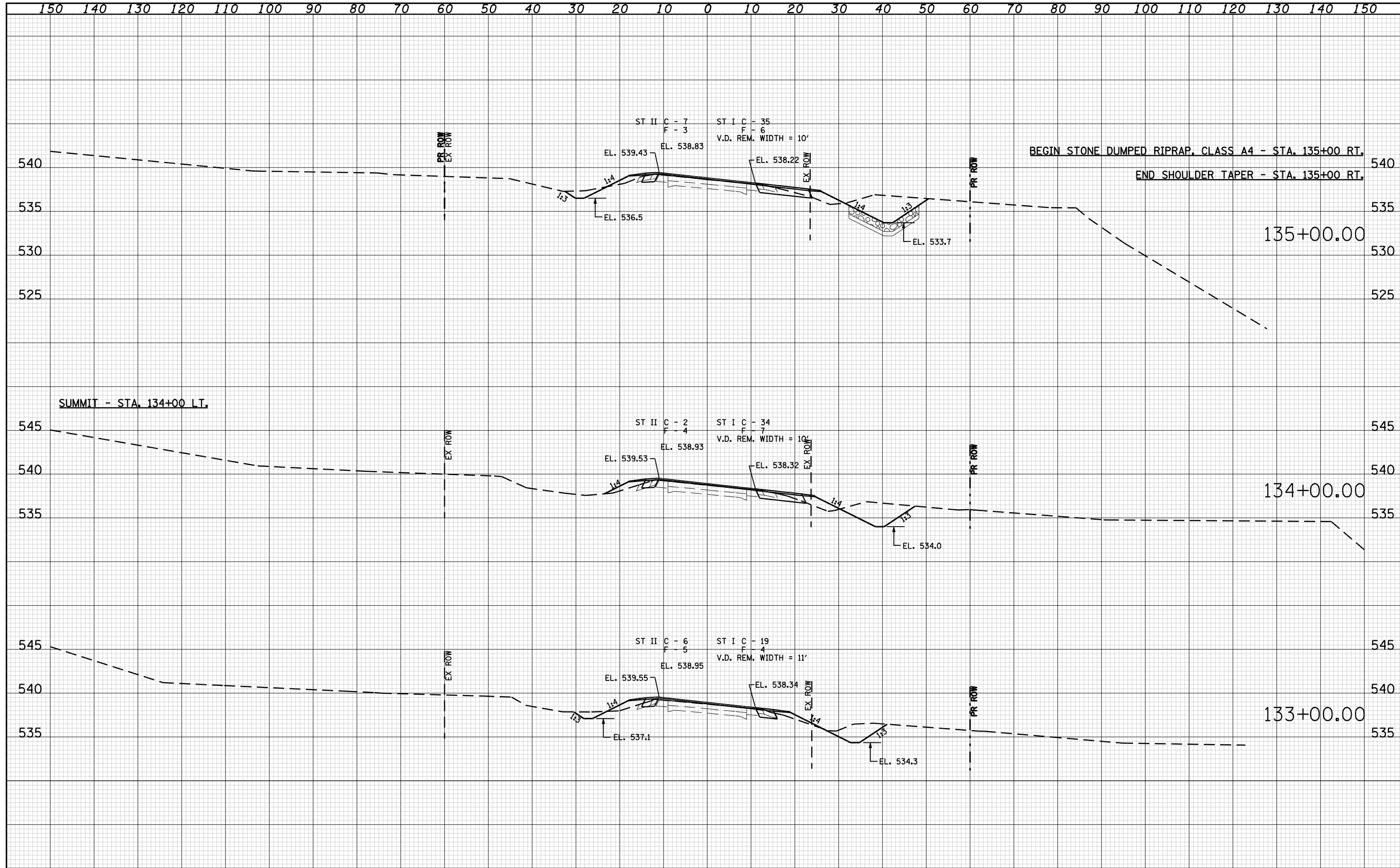
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		DATE - 3/25/08	REVISIED -										

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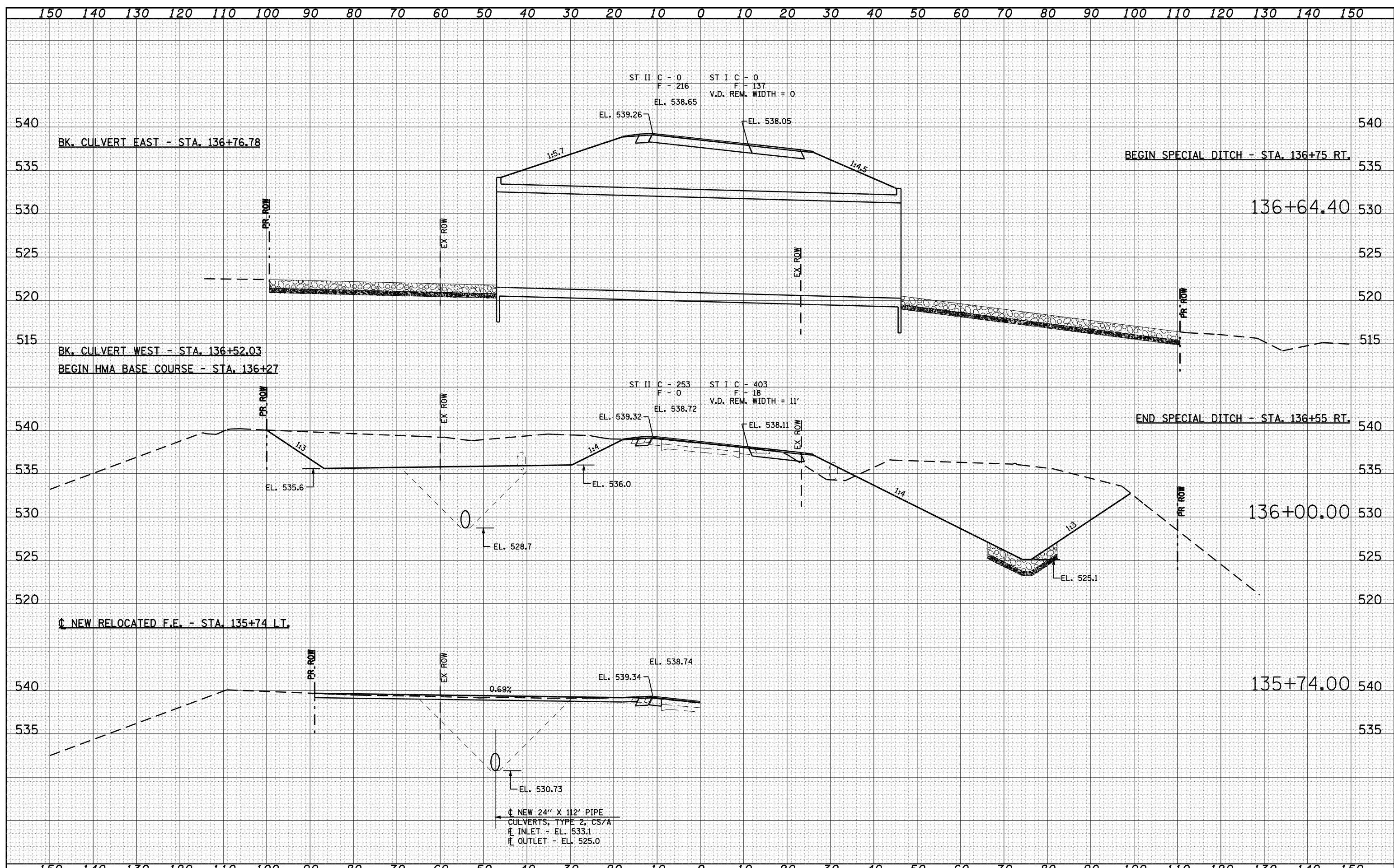
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 Civil and Structural Engineers Springfield, IL
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 No. 184-001907

CROSS SECTIONS
STA. 136 + 64.40 /S.N. 009-2506
 SCALE: VARIES SHEET NO. 59 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	59
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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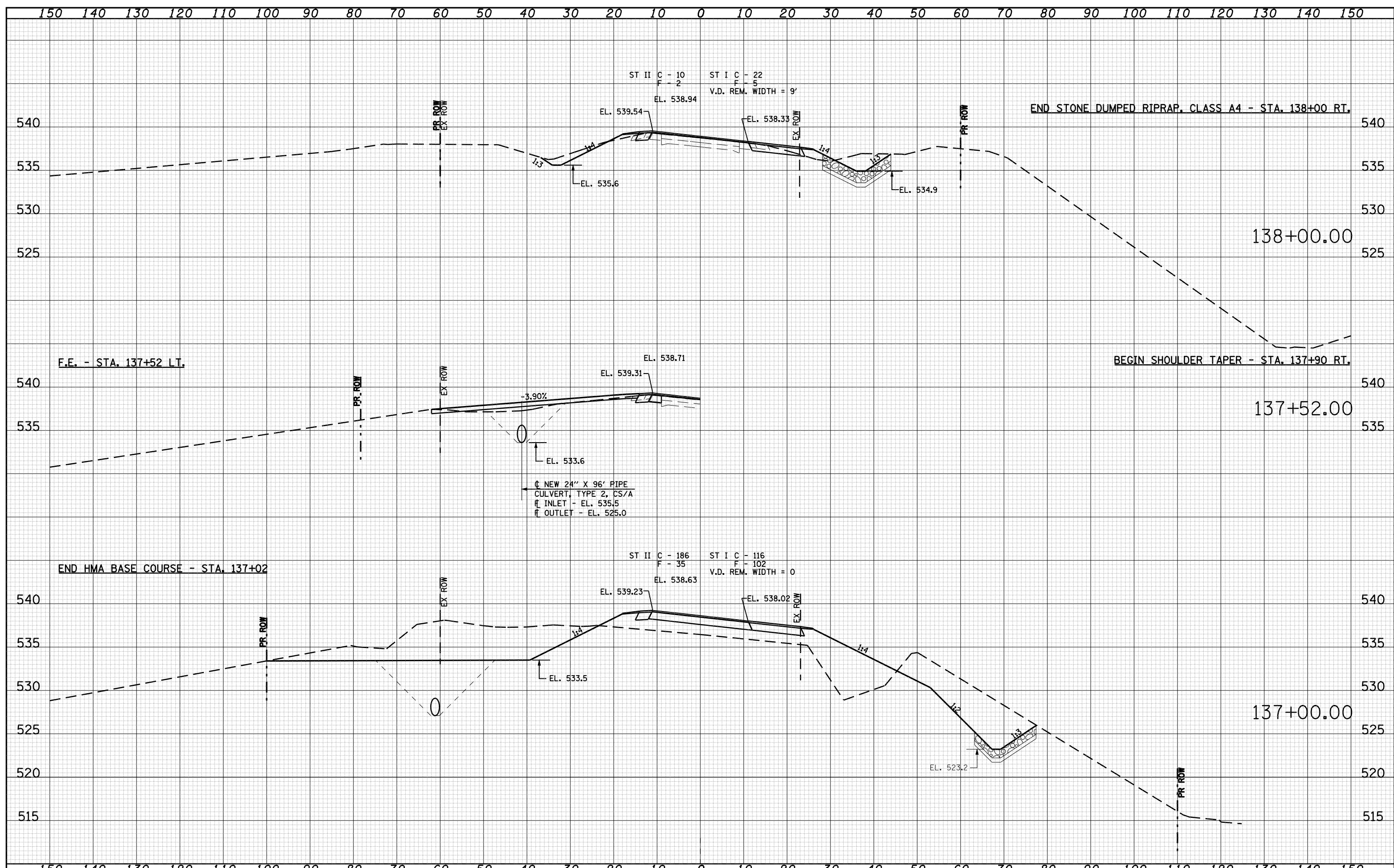
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FILE NAME = D672875-shr-xssht2.dgn	USER NAME =	DESIGNED - RKA	REVISED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907	CROSS SECTIONS		F.A.P. RTE. 67	SECTION (6X-1)B-2	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 60	
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DATE	
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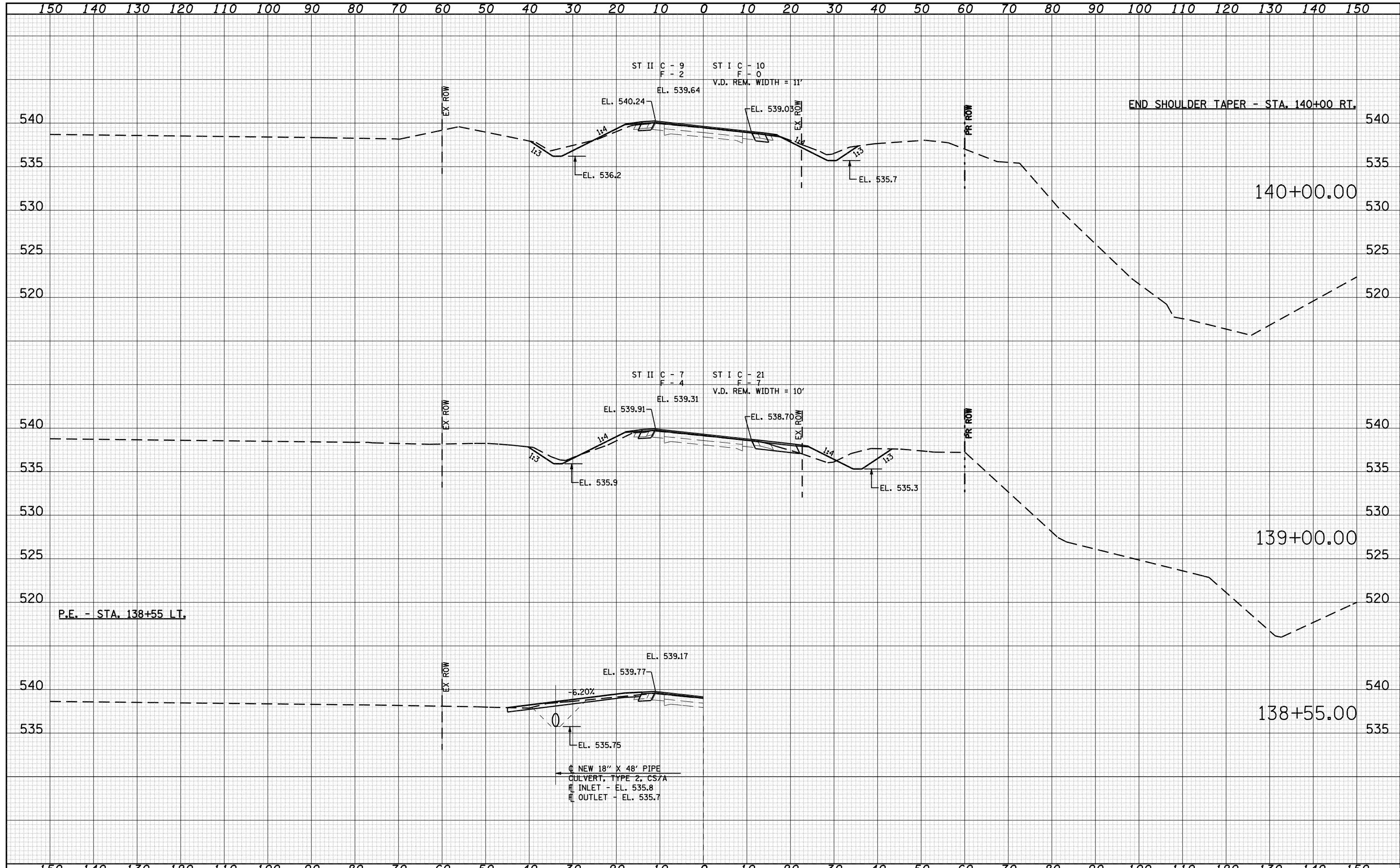
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 No. 184-001907

CROSS SECTIONS
STA. 136 + 64.40 / S.N. 009-2506
 SCALE: VARIES SHEET NO. 61 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	61
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 72875	

DATE	
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FINAL SURVEY	
NOTE BOOK	
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ORIGINAL SURVEY	
NOTE BOOK	
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PLOT DATE = Jan-30-2009 09:41:41AM	DATE - 3/25/08	REVISED -

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 No. 184-001907

CROSS SECTIONS	
STA. 136 + 64.40 / S.N. 009-2506	
SCALE: VARIES	SHEET NO. 62 OF 71 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	62
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

BEGIN SHOULDER TAPER - STA. 143+38 LT. & RT.

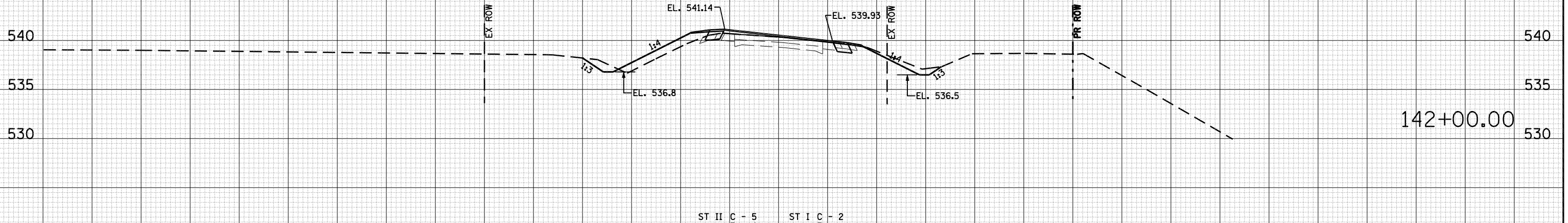
ST II C - 6
F - 12
EL. 540.78
ST I C - 2
F - 4



143+00.00

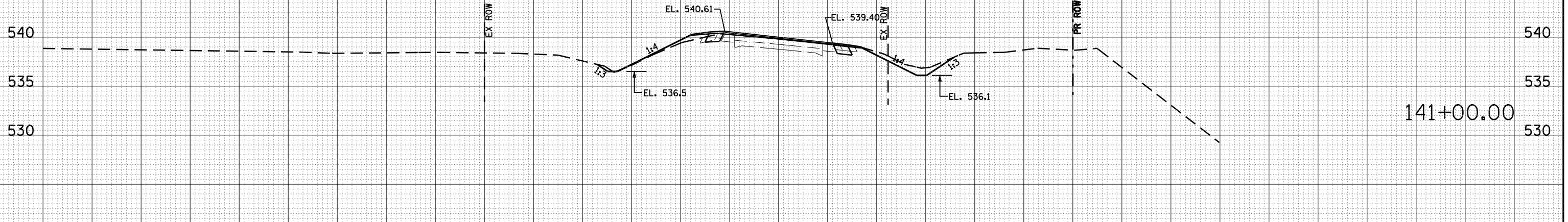
BEGIN SUPERELEVATION TRANSITION - STA. 142+03

ST II C - 6
F - 14
EL. 540.44
ST I C - 9
F - 0
V.D. REM. WIDTH = 11'



142+00.00

ST II C - 5
F - 4
EL. 539.64
ST I C - 2
F - 0
V.D. REM. WIDTH = 10'



141+00.00

DATE	
BY	
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PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
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TEMPLATE	
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NOTE BOOK	
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FILE NAME = D672875-sht-xssht2.dgn

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DRAWN - RKA
CHECKED - CPK
DATE - 3/25/08
PLOT SCALE =
PLOT DATE = Jan-30-2009 09:41:44AM

REVISED -
REVISED -
REVISED -
REVISED -



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CROSS SECTIONS
STA. 136 + 64.40 /S.N. 009-2506
SCALE: VARIES SHEET NO. 63 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	63
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	
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PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY NO.	

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ORIGINAL SURVEY NO.	



FILE NAME = D672875-shr-xssht2.dgn

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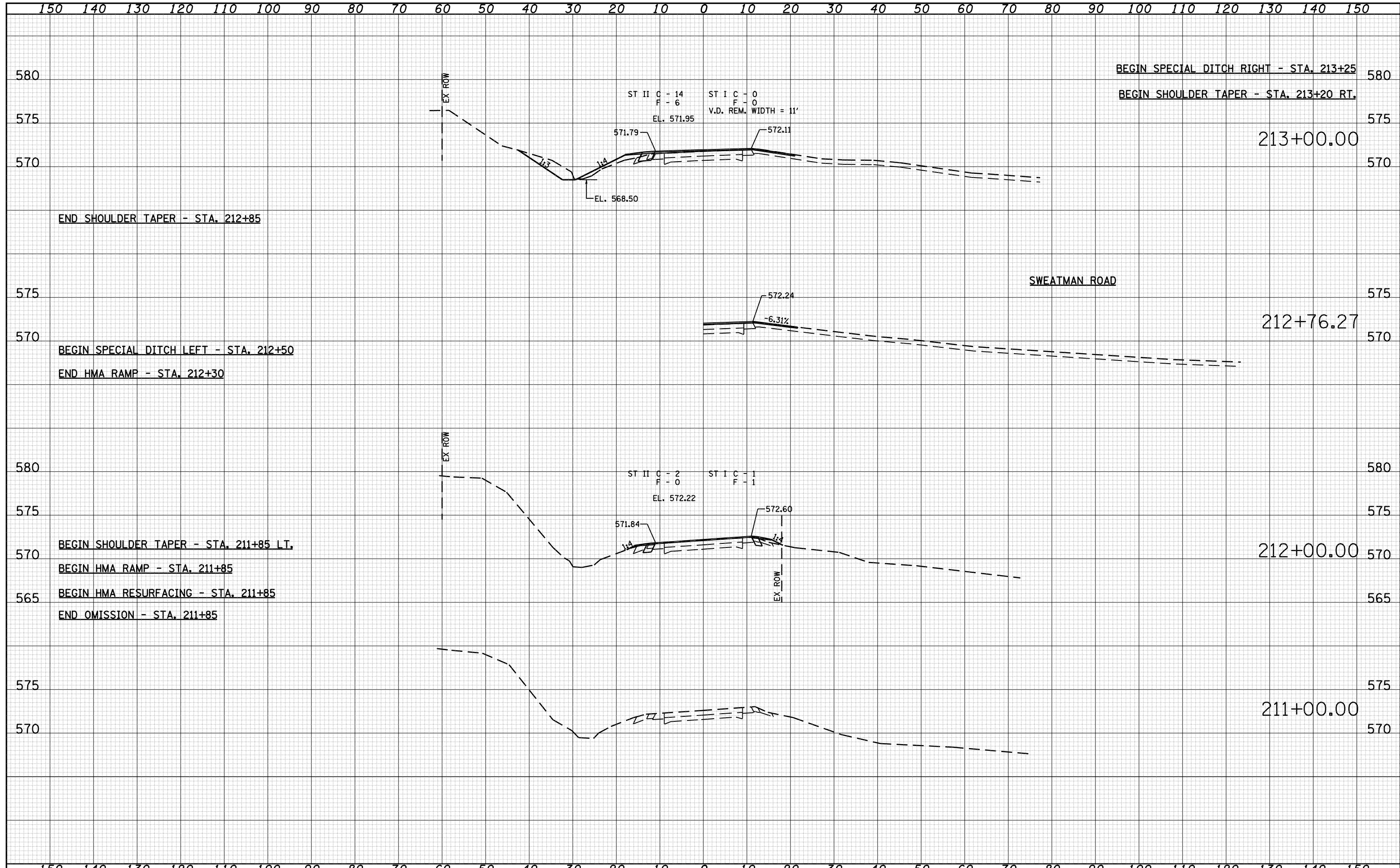
Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62708 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

CROSS SECTIONS
STA. 136 + 64.40 /S.N. 009-2506
 SCALE: VARIES SHEET NO. 64 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	64
CONTRACT NO. 72875				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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NOTE BOOK	
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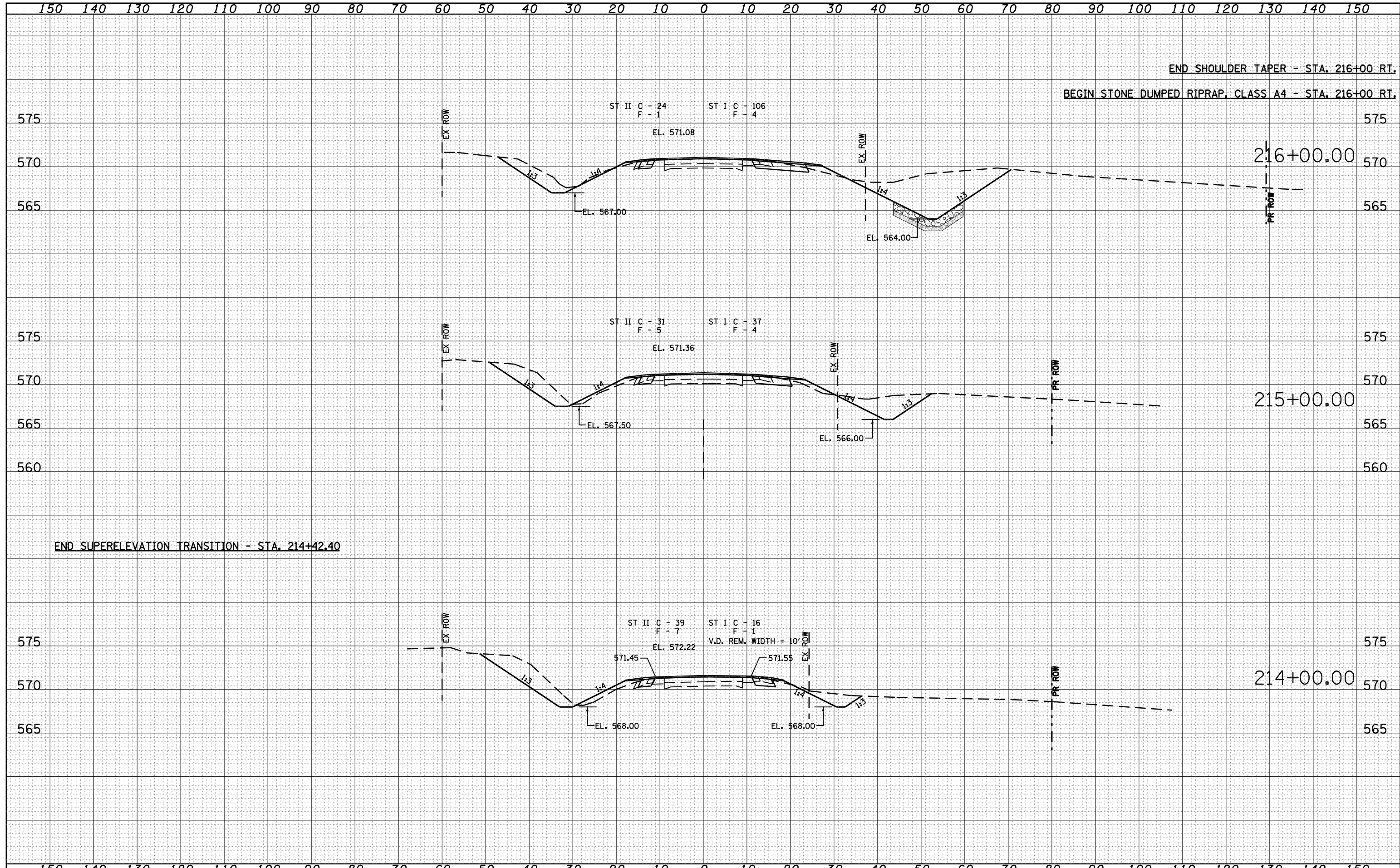
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PLOT SCALE =	CHECKED - CPK	REVISIED -	REVISIED -		STA. 217 + 67.54 / S.N. 009-2507			CONTRACT NO. 72875					
PLOT DATE = Jan-30-2009 09:41:50AM	DATE - 3/25/08	REVISIED -	REVISIED -		SCALE: VARIES	SHEET NO. 65 OF 71 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

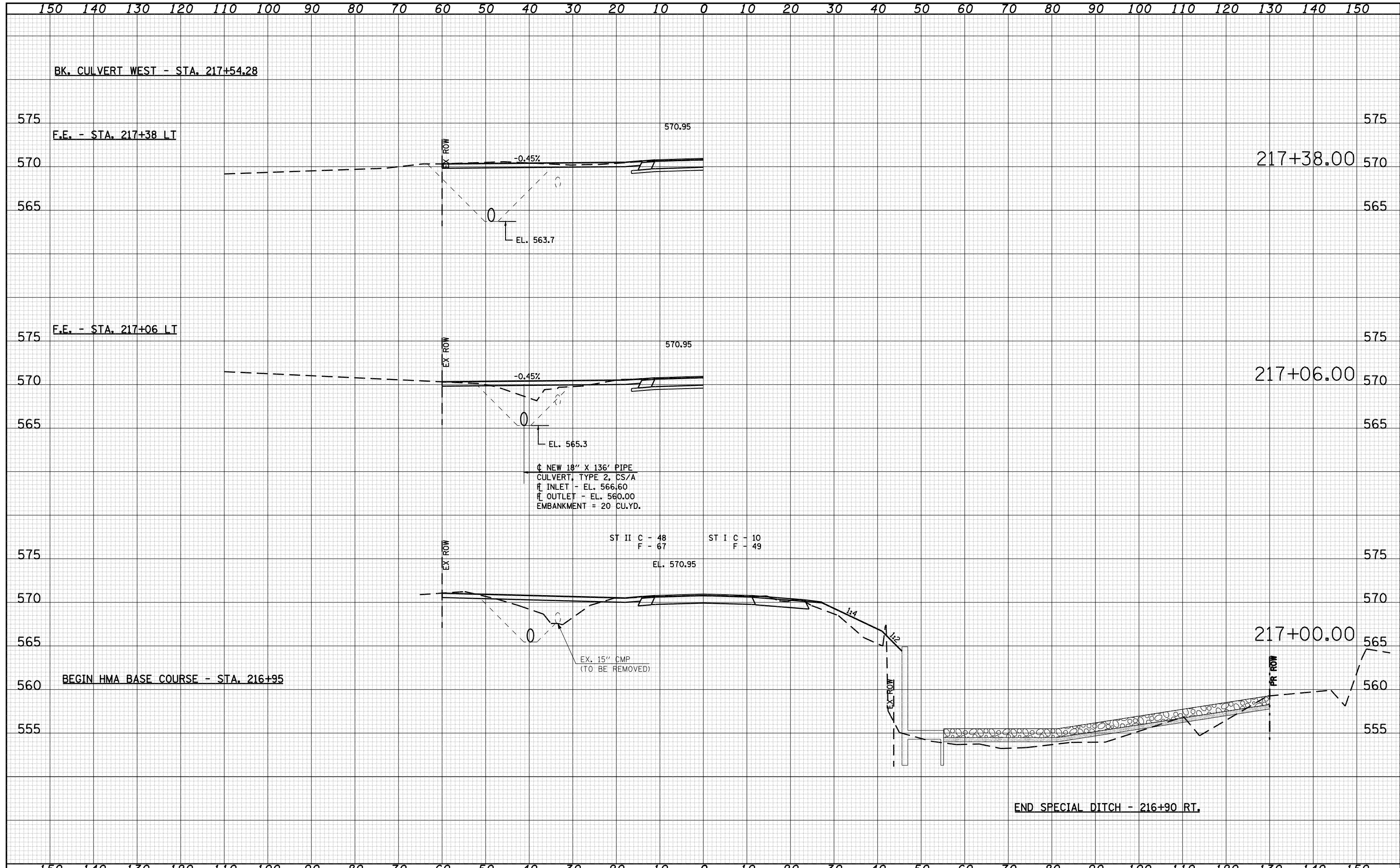
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NOTE BOOK	
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ORIGINAL SURVEY	
NOTE BOOK	
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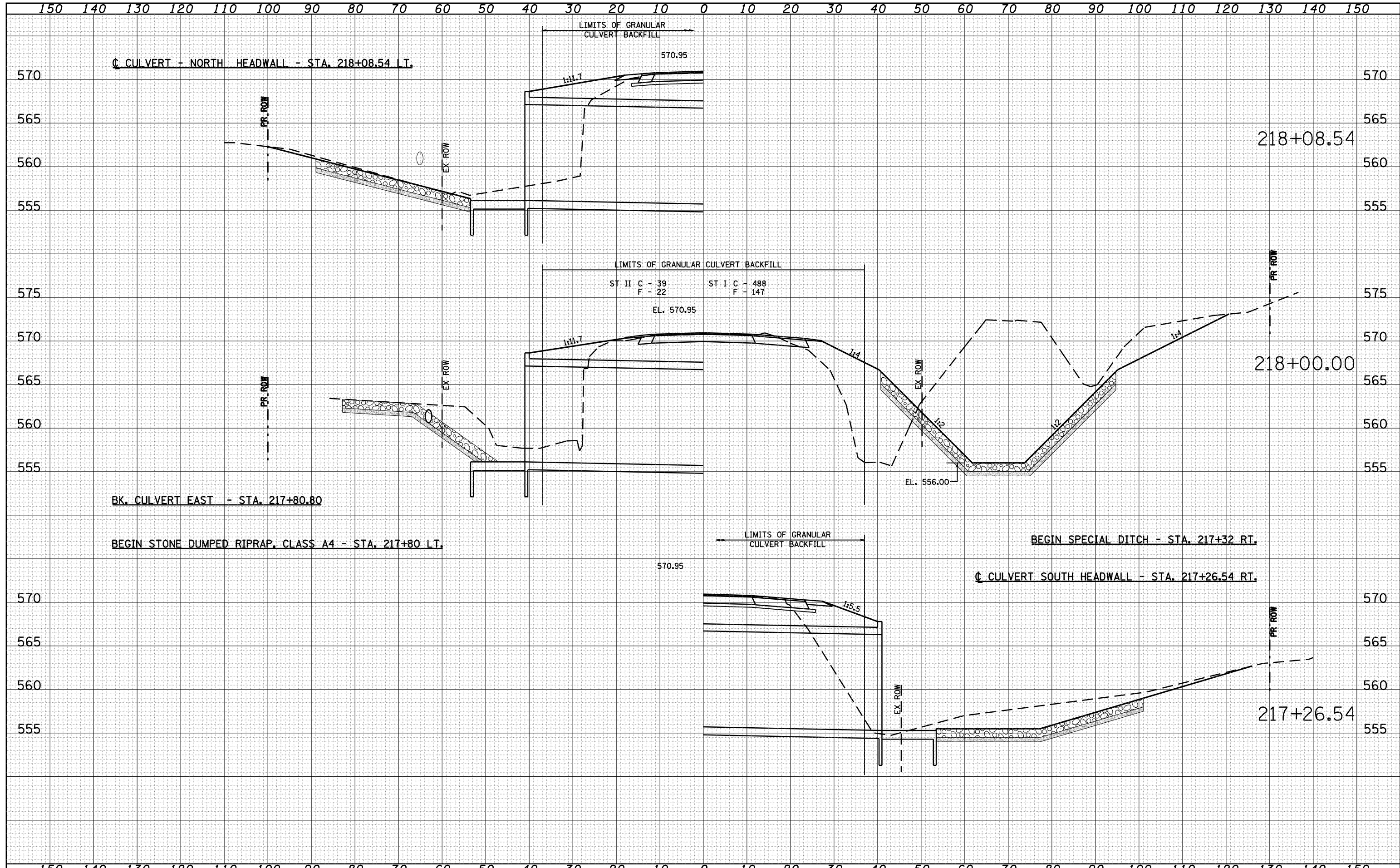
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NOTE BOOK	
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FILE NAME = D672875-shr-xssht3.dgn	USER NAME =	DESIGNED - RKA	REVISIED -	 Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907	CROSS SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - RKA	REVISIED -		67	(6X-1)B-2	CASS	71	67			
		CHECKED - CPK	REVISIED -		STA. 217 + 67.54 / S.N. 009-2507			CONTRACT NO. 72875				
		DATE - 3/25/08	REVISIED -		SCALE: VARIES	SHEET NO. 67 OF 71 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

DATE	
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FILE NAME = D672875-sht-xssht3.dgn

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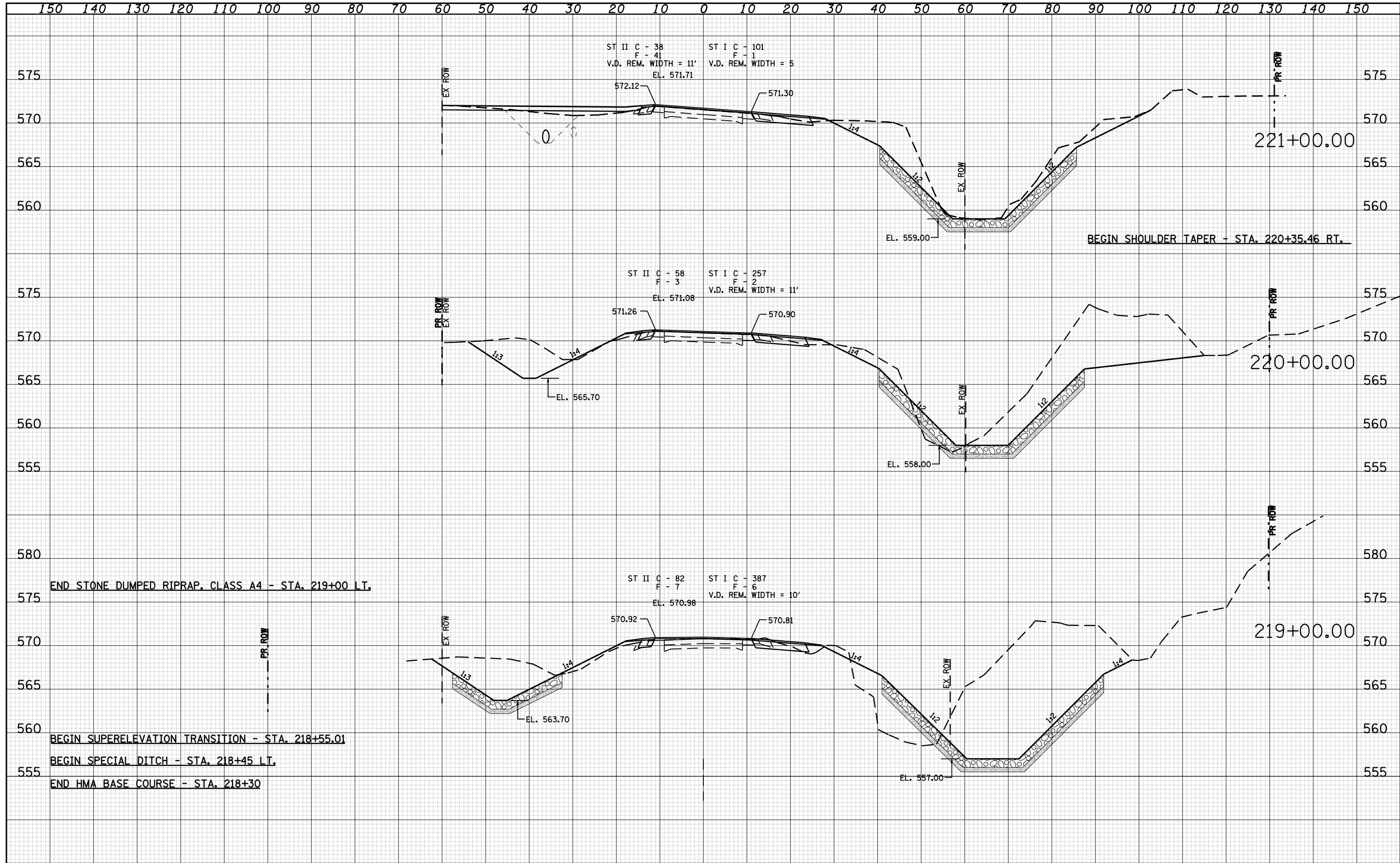
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 No. 184-001907

CROSS SECTIONS	
STA. 217 + 67.54 / S.N. 009-2507	
SCALE: VARIES	SHEET NO. 68 OF 71 SHEETS
STA.	TO STA.

F.A.P. RTE. 67	SECTION (6X-1)B-2	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 68
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT	
CONTRACT NO. 72875				

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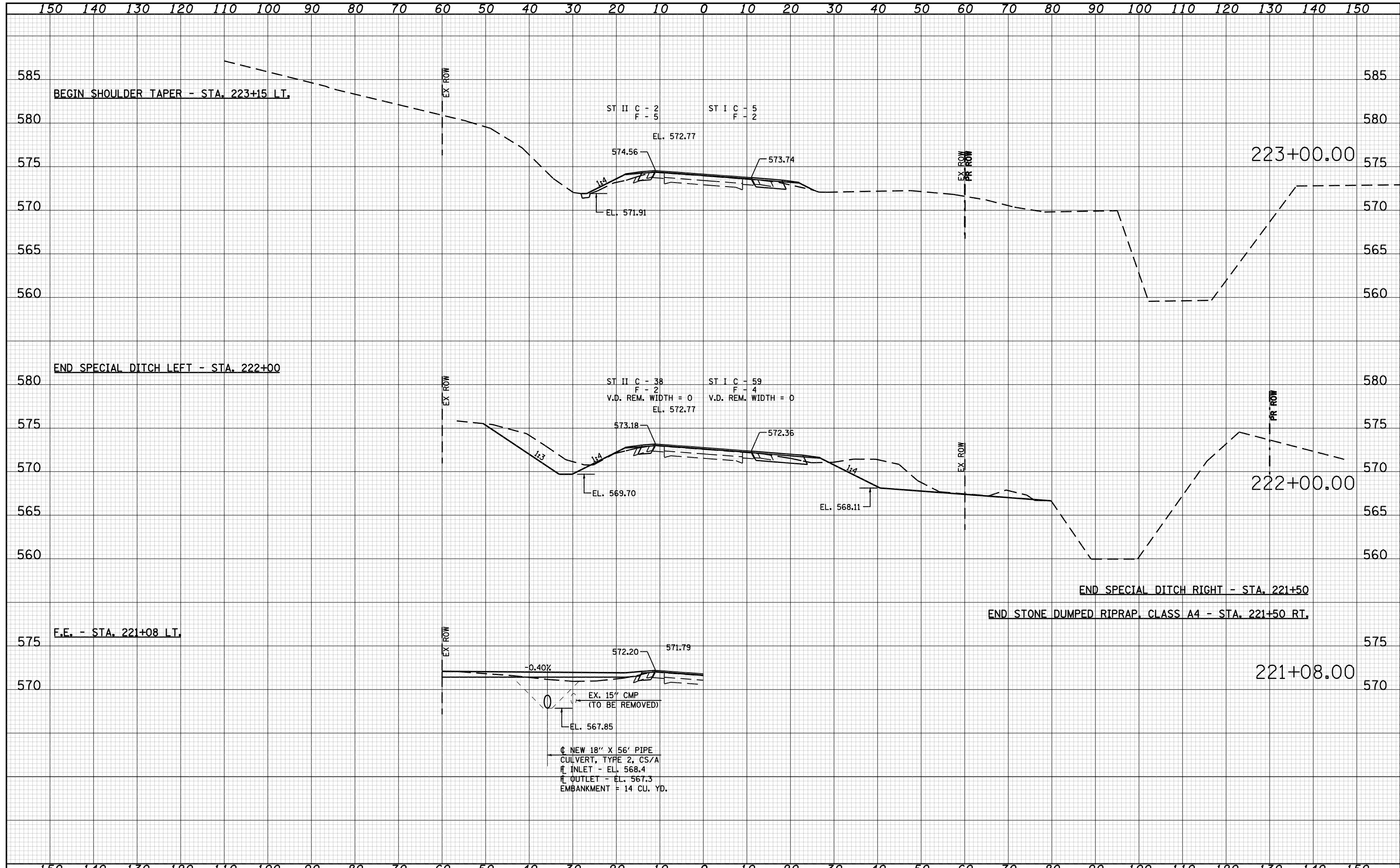
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NOTE BOOK	
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FILE NAME = D672875-sht-xssht3.dgn	USER NAME =	DESIGNED - RKA	REVISSED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	CROSS SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT DATE = Feb-05-2009 08:16:40AM	DATE - 3/25/08	REVISSED -	REVISSED -		STA. 217 + 67.54 / S.N. 009-2507			CONTRACT NO. 72875				
					SCALE: VARIES	SHEET NO. 69 OF 71 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

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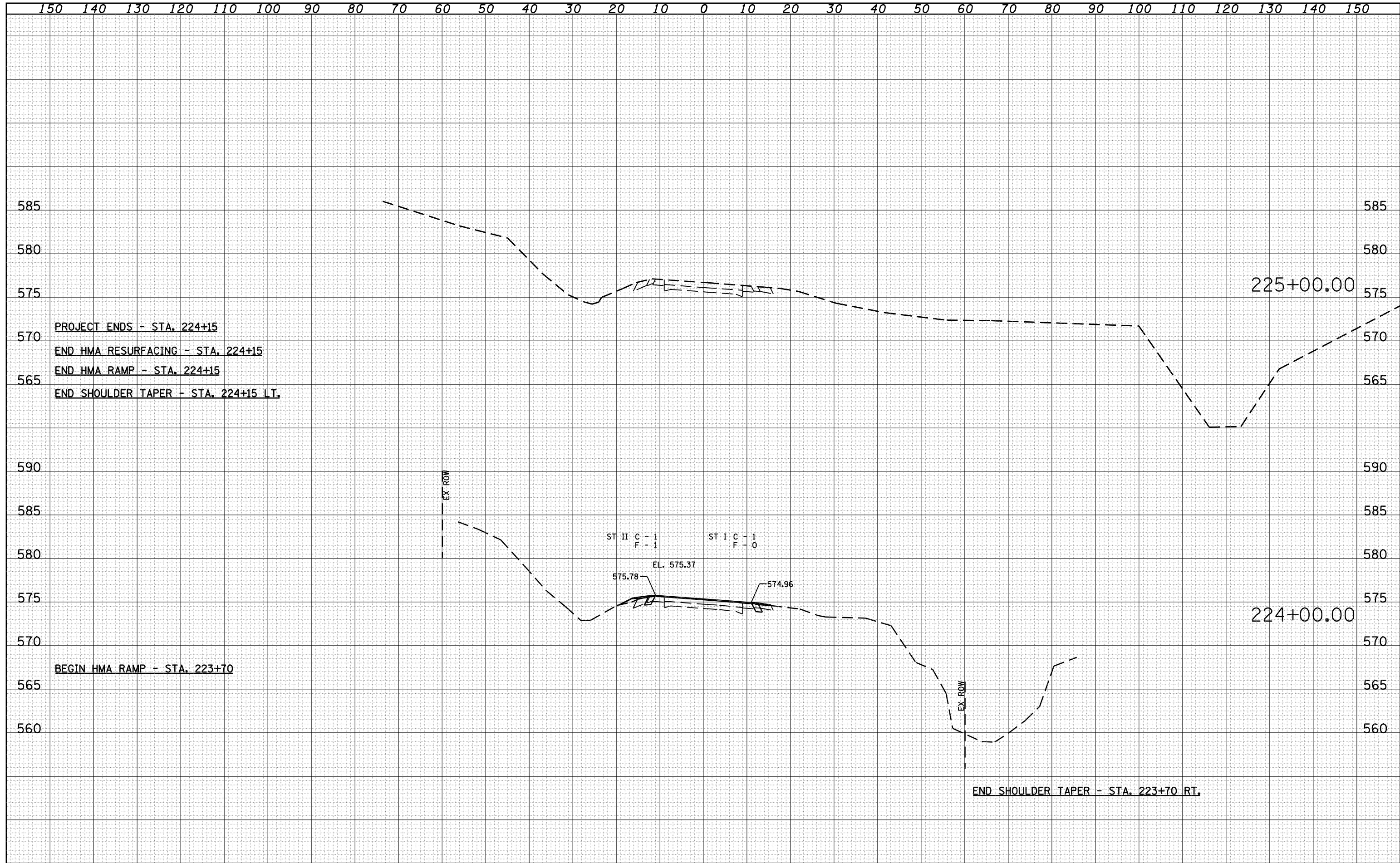
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NOTE BOOK	
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FILE NAME = D672875-sht-xssht3.dgn	USER NAME =	DESIGNED - RKA	REVISIED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62708 Phone: (217)544-8033 IL Design Firm No. 184-001907	CROSS SECTIONS			F.A.P. RTE. 67	SECTION (6X-1)B-2	COUNTY CASS	TOTAL SHEETS 71	SHEET NO. 70
PLOT SCALE =	CHECKED - CPK	REVISIED -	REVISIED -		SCALE: VARIES	SHEET NO. 70 OF 71 SHEETS	STA.	TO STA.	CONTRACT NO. 72875			
PLOT DATE = Feb-05-2009 08:16:44AM	DATE - 3/25/08	REVISIED -	REVISIED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

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FILE NAME = D672875-shr-xssht3.dgn

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 No. 184-001907

CROSS SECTIONS
STA. 217 + 67.54 / S.N. 009-2507
 SCALE: VARIES SHEET NO. 71 OF 71 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67	(6X-1)B-2	CASS	71	71
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 72875	