09-23-11 LETTING ITEM 027

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	1
FED. ROAD DIST. NO. 8	ILLINOIS	CONTRACT NO. 76390		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

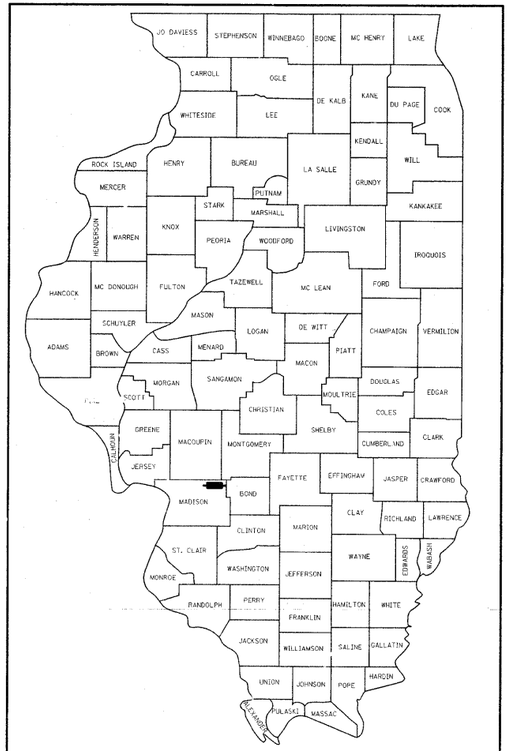
FAP ROUTE 785 (IL 140)
SECTION 137–1BR

MADISON COUNTY

CULVERT REPLACEMENT OF EXISTING CULVERT OVER EAST FORK SILVER CREEK
C–98–078–11

FOR INDEX OF SHEETS, SEE SHEET NO. 2

D–98–120–00



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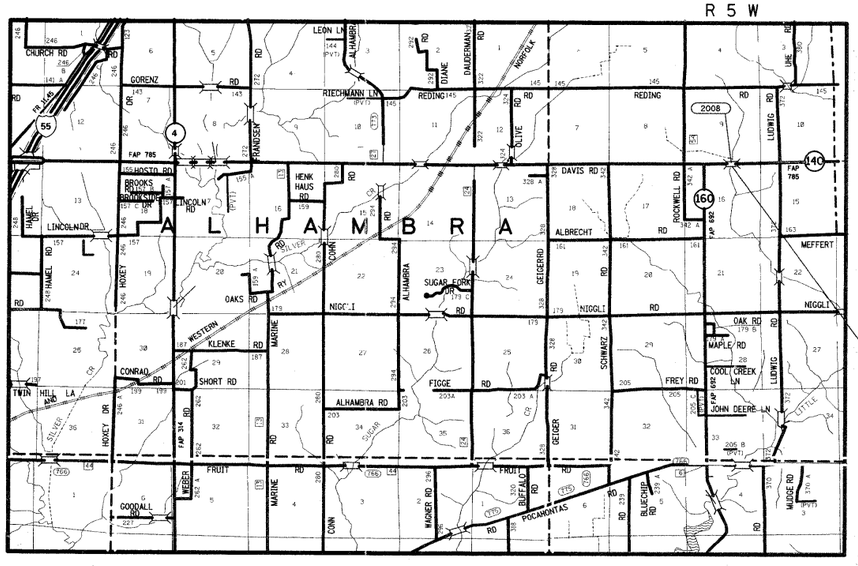

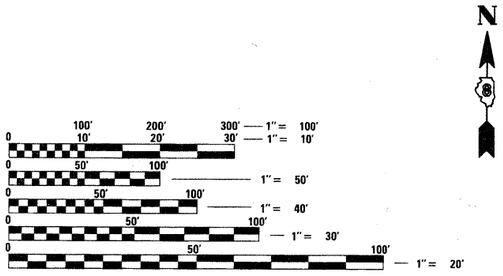

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER PATTI LEBEAU – (618) 346–3179
PROJECT MANAGER ART MUEHLFELD – (618) 346–3209

CONTRACT NO. 76390

ADT
1650(2011)2000(2031)
SU%: 7.8 MU%: 5.0

LAYOUT
0 MI 1 MI 2 MI 3 MI
1" = 1 MILE

LATITUDE = 39.1060
LONGITUDE = 90.5582

GROSS LENGTH = 26.3 FEET= .005 MILES
NET LENGTH = .005 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 7 20 11
Mary C Jamie
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER
August 19 20 11
Scott E. Stitt, P.E. /bk
acting ENGINEER OF DESIGN AND ENVIRONMENT
August 19 20 11
Christine M. Reed /bk
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-06	630101-09	701301-04	635001-01
001001-02	635006-03	701306-03	781001-03
001006	635011-02	701321-11	
280001-05	664001-02	701326-04	
406201-01	701001-02	701901-01	
515001-03	701006-03	704001-06	
630001-09	701011-02	780001-02	

GENERAL NOTES

1. THE STANDARDS AND REVISION NUMBERS STATED IN THE PLANS SHALL APPLY TO THIS CONTRACT.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND THE ORDERING OF MATERIALS.
3. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

   •ALHAMBRA-GRANTFORK TELEPHONE COMPANY •VILLAGE OF GRANTFORK •SOUTHWESTERN ELECTRIC COOPERATIVE, INC.

   MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY AN •. NON- J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
4. THE RESIDENT ENGINEER SHALL VERIFY THE EXISTENCE OF HIGHWAY LIGHTING AND/OR ITS UTILITIES WITHIN THE PROJECT LIMITS. IF HIGHWAY LIGHTING AND/OR ITS EXISTS WITHIN THE PROJECT LIMITS, AND IF THESE ITEMS REQUIRE LOCATING, THE CONTRACTOR SHALL BE DIRECTED TO DO SO ACCORDING TO SECTION 803 OF THE STANDARD SPECIFICATIONS. IF LOCATING UNDERGROUND CABLE IS NOT INCLUDED AS PART OF THE PLANS, THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
5. IF THE CONTRACTOR REMOVES TREES WITHIN THE PROJECT RIGHT-OF-WAY LIMITS FOR HIS CONSTRUCTION ACTIVITY, I.E. IN ORDER TO GAIN ACCESS TO THE PROJECT SITE, IT WILL BE HIS RESPONSIBILITY TO REPLACE THE TREES AT A 1:1 RATIO. THE TREES WILL BE REPLACED WITH A 1 GALLON NATIVE ILLINOIS TREE SPECIES AND SHALL BE APPROVED BY THE ENGINEER. THE TREE REMOVAL AND TREE REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE AND NO OTHER COMPENSATION WILL BE ALLOWED.
6. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND ENDING OF THE PROJECT AND AT ANY SIDEROADS WITHIN THE PROJECT LIMITS. THIS WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE 48" FLUORESCENT ORANGE.
7. THE COST OF GRADING AND SHAPING ALONG THE PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING SHALL BE INCLUDED IN THE COST OF "EARTH EXCAVATION (WIDENING)".
8. IT SHALL BE THE CONTRACTORS'S RESPONSIBILITY TO INSURE THAT ADJACENT PAVEMENT IS NOT DAMAGED DURING ANY OPERATION.
9. ALL TEMPORARY PAVEMENT MARKING SHALL BE PLACED IN SUCH A MANNER AS NOT TO INTERFERE WITH THE PLACEMENT OF PERMANENT PAVEMENT MARKING.
10. EXCAVATIONS ADJACENT TO THE EDGE OF PAVEMENT SHALL BE PROTECTED WITH EXTENDED LEG BARRICADES AND APPROPRIATE FLASHING OR STEADY BURNING LIGHTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
11. THE THICKNESS OF THE BITUMINOUS MIXTURE SHOWN ON THE PLANS IS A NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO THE IRREGULARITY IN THE BASE ON WHICH THE MIXTURE IS PLACED.
12. ALL EXISTING AND PROPOSED RIGHT-OF-WAY LINES AND PROPERTY LINES SHOWN ON THE PLAN SHEETS ARE GRAPHICAL REPRESENTATIONS AND SHALL NOT BE USED AS A MEANS TO ESTABLISH OWNERSHIP. IN ALL MATTERS RELATING TO RIGHT-OF-WAY, THE PLAT OF HIGHWAYS SHALL BE THE CONTROLLING DOCUMENT.
13. THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER SHALL BE PAINTED WITH TEMPORARY PAVEMENT MARKING "WHITE". THIS WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF TEMPORARY CONCRETE BARRIER AND NO OTHER COMPENSATION SHALL BE ALLOWED.
14. THE BITUMINOUS MATERIAL (PRIME COAT) QUANTITIES HAVE BEEN DETERMINED USING AN APPLICATION RATE OF .0003129 TONS/SQUARE YARD AND THE AGGREGATE PRIME COAT QUANTITY HAS BEEN DETERMINED USING AN APPLICATION RATE OF .0015 TONS/SQUARE YARD.
15. THE RECLAIMED ASPHALT PAVEMENT FROM THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
16. SHORT-TERM PAVEMENT MARKING SHALL BE APPLIED TO THE PRIMED AND FINAL SURFACE. AN AMOUNT OF TEMPORARY PAVEMENT MARKING WHICH EQUALS TWICE THE AMOUNT OF PERMANENT PAVEMENT MARKINGS HAS ALSO BEEN INCLUDED IN THE PLANS.
17. WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED THE ENGINEER SHALL BE NOTIFIED BEFORE THE MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THE LOCATION.

COMMITMENTS

NONE

MIXTURE REQUIREMENT CHART

MIXTURE USE	SURFACE	LEVEL BINDER	WIDENING/BASE COURSE
AC/PG	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPEC.	SEE SPEC.	SEE SPEC.
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION			
(GRADATION MIXTURE)	IL 9.5	IL 9.5	IL 19.0
FRICTION AGG	MIXTURE "C"	MIXTURE "C"	MIXTURE "B"

PLAN QUANTITIES FOR HMA ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN.

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	PLOT DATE = 7/1/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS /HIGHWAY STANDARDS
GENERAL NOTES /MIX CHART/COMMITMENTS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	2
		CONTRACT NO. 76390		
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0011 100% STATE		
20200500	EARTH EXCAVATION (WIDENING)	CU YD	70	70		
20300100	CHANNEL EXCAVATION	CU YD	53	53		
20400800	FURNISHED EXCAVATION	CU YD	48	48		
25000200	SEEDING, CLASS 2	ACRE	0.1	0.1		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	12	12		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	8	8		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	5	5		
25100105	MULCH, METHOD 1	ACRE	0.2	0.2		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	22	22		
28000305	TEMPORARY DITCH CHECKS	FOOT	144	144		
28000400	PERIMETER EROSION BARRIER	FOOT	180	180		
28100107	STONE RIPRAP, CLASS A4	SQ YD	185	185		
28200200	FILTER FABRIC	SQ YD	185	185		
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	250	250		
35600720	HOT-MIX ASPHALT BASE COURSE WIDENING, 11"	SQ YD	388	388		
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.1	0.1		
40600300	AGGREGATE (PRIME COAT)	TON	0.6	0.6		
40701921	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 12"	SQ YD	372	372		
44000100	PAVEMENT REMOVAL	SQ YD	348	348		
44004250	PAVED SHOULDER REMOVAL	SQ YD	254	254		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	29,900	29,900		
50800515	BAR SPLICERS	EACH	159	159		
51500100	NAME PLATES	EACH	1	1		
54003000	CONCRETE BOX CULVERTS	CU YD	163.2	163.2		
*63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	270	270		
*63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	58	58		
*63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4		
63200310	GUARDRAIL REMOVAL	FOOT	347	347		
63500105	DELINEATORS	EACH	2	2		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		0011 100% STATE		
67100100	MOBILIZATION	L SUM	1	1		
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1		
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	20	20		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	64	64		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	834	834		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	21	21		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	287.5	287.5		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	287.5	287.5		
*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	834	834		
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4		
*78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8		
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	469	469		
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4	4		
X0323265	REMOVE EXISTING RIPRAP	SQ YD	68	68		
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2		
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	430	430		

* SPECIALTY ITEM

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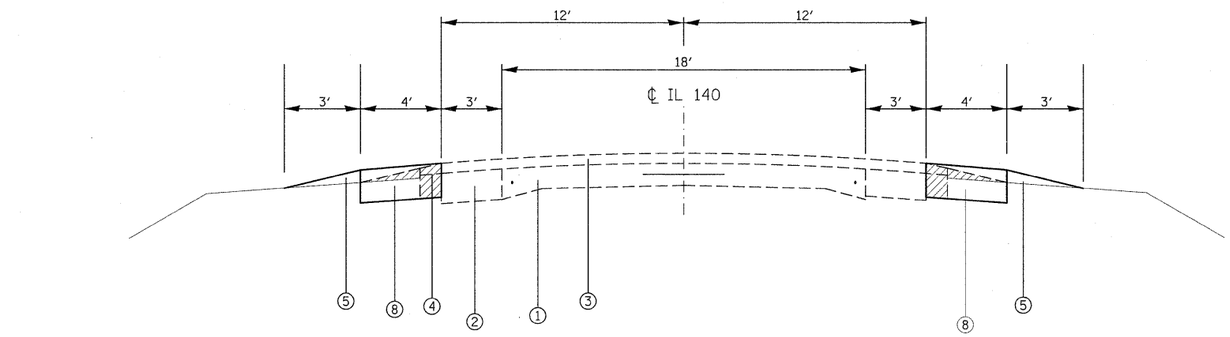
		DATE -	REVISED -

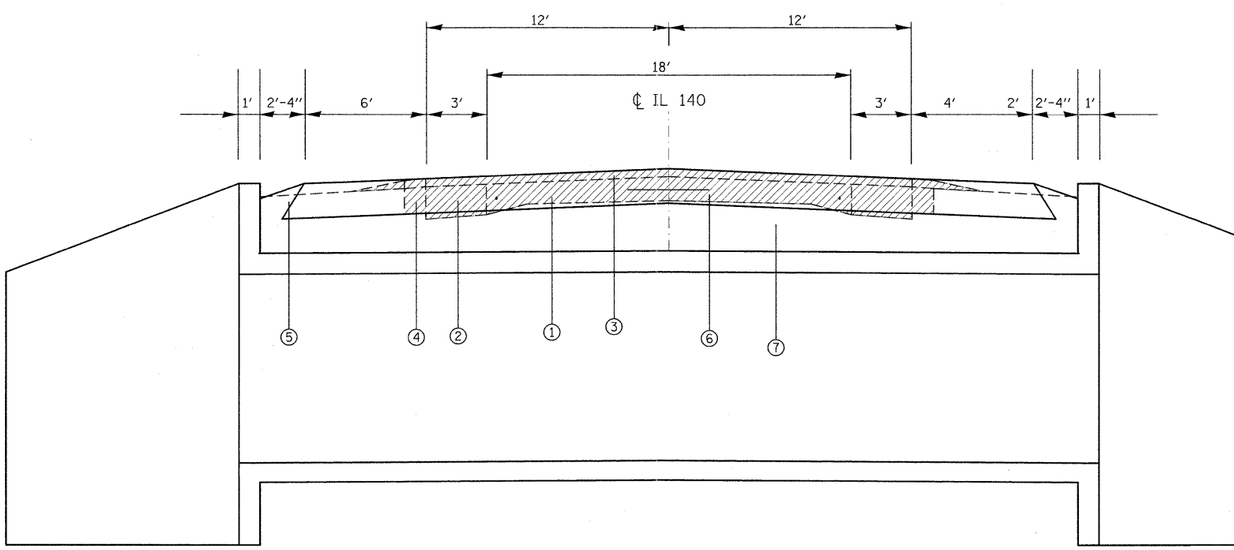
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. - TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	3
		CONTRACT NO. 76390		
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT		

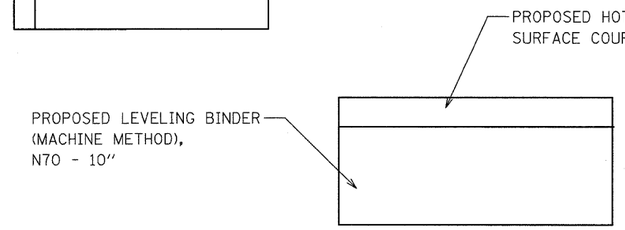




LEGEND

① EXISTING CONCRETE PAVEMENT - 9″-6 1/2 ″-9″
② EXISTING 1′ HMA WIDENING - 9″
③ EXISTING HMA SURFACE COURSE - 5″
④ EXISTING HMA SAFETY SHOULDER
⑤ PROPOSED AGGREGATE SHOULDER, TYPE B
⑥ PROPOSED FULL DEPTH HMA PAVEMENT- 12″
⑦ PROPOSED SUBBASE GRANULAR MATERIAL-12″
⑧ PROPOSED BASE COURSE WIDENING - 10″

REMOVAL



DETAIL

HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH)-12″

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	4
		CONTRACT NO. 76390		
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT		

PAVING SCHEDULE

	BIT. MATERIALS PRIME COAT (TON)	AGGREGATE PRIME COAT (TON)	HMA PAVEMENT FULL-DEPTH-12" (SQ YD)	HMA BASE COURSE WIDENING- 11" (SQ YD)	SUBBASE GRANULAR MAT'L. TY. B (TON)	AGGREGATE SHOULDER TYPE B (TON)
1367+10.00 TO 1368+46.00	0.0	0.0	0	121	0	15
1368+46.00 TO 1369+57.50	0.1	0.6	372	149	250	10
1369+57.50 TO 1370+90.00	0.0	0.0	0	118	0	15
	0.1	0.6	372	388	250	40

PAVEMENT MARKING SCHEDULE

STATION			THERMOPLASTIC PAVEMENT MARKING LINE-4" (FOOT) SOLID WHITE	THERMOPLASTIC PAVEMENT MARKING LINE-4" (FOOT) SOLID YELLOW	THERMOPLASTIC PAVEMENT MARKING LINE-4" (FOOT) SKIP DASH WHITE	SHORT TERM PAVEMENT MARKING (FOOT)	TEMPORARY PAVEMENT MARKING LINE-4" (FOOT) SOLID WHITE	TEMPORARY PAVEMENT MARKING LINE-4" (FOOT) SOLID YELLOW	TEMPORARY PAVEMENT MARKING LINE-4" (FOOT) SKIP DASH WHITE	PAVEMENT MARKING REMOVAL (SQ FT)	WORK ZONE PAVEMENT MRK. REM. (SQ FT)
1365+69.5	TO	1369+00	159.5	159.5	77.0	30.8	159.5	159.5	77.0	132.0	10.1
1369+00	TO	1372+26.5	178.0	178.0	81.5	32.6	178.0	178.0	81.5	145.8	10.9
		SUBTOTAL	337.5	337.5	158.5	63.4	337.5	337.5	158.5	277.8	21.0
TOTAL (ROUNDED)				834.0		64.0		834.0		278.0	21.0

GUARDRAIL SCHEDULE

STATIONING		STATIONING		SPBGR, TY A 6' POST FEET	SPBGR ATTACH. TO STRUCT. FEET	TBT-TY1 SPECIAL EACH	GR MRKRS-TA EACH	TERMINAL MRKR DIRECT APPL. EACH	GUARDRAIL REMOVAL FEET
1367+87	TO	1368+37	LT			1		1	
1368+37	TO	1368+97	LT	60			2		81
1368+97	TO	1369+26	LT		29				29
1369+26	TO	1370+01	LT	75			2		42
1370+01	TO	1370+51	LT			1		1	17
1367+53.5	TO	1368+03.5	RT			1		1	49
1368+03.5	TO	1368+78.5	RT	75			2		50
1368+78.5	TO	1369+07.5	RT		29				29
1369+07.5	TO	1369+67.5	RT	60			2		50
1369+67.5	TO	1370+17.5	RT			1		1	
			TOTAL	270	58	4	8	4	347

REMOVAL SCHEDULE

STATIONING				PAVEMENT REMOVAL (SQ YD)	REMOVE EX. RIPRAP (SQ YD)	PAVED SHLDR. REMOVAL (SQ YD)	COMMENTS
1367+10.00	TO	1368+46.00	LT			45.4	
1368+46.00	TO	1369+57.50	LT	149.0	24.0	37.3	RR REMOVAL - STA. 1369+11 TO STA. 1369+35
1369+57.50	TO	1370+90.00	LT			44.3	
1367+10.00	TO	1368+46.00	RT			45.4	
1368+46.00	TO	1369+57.50	RT	199.0	44.0	37.3	RR REMOVAL - STA. 1369+11 TO STA. 1369+35
1369+57.50	TO	1370+90.00	RT			44.3	
			TOTAL	348.0	68.0	254.0	

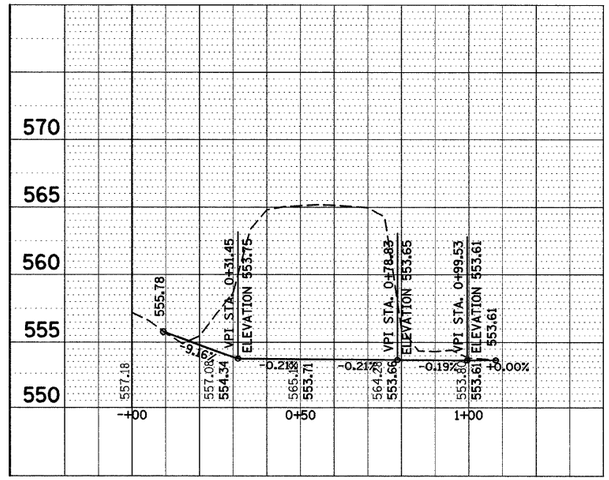
EARTHWORK SCHEDULE

STA	to	STA	UNADJUSTED EXCAVATION (SEE NOTE 1) (CU YD)	EXCAVATION ADJUSTED FOR 25% SHINKAGE (CU YD)	EMBANKMENT (SEE NOTE 2) (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
1368+77.4	to	1369+16.5	47.9	35.9	30.1	5.8
		TOTAL =	47.9	35.9	30.1	5.8
		ROUNDED TOTAL =	48	36	30	6

NOTE 1: EARTHWORK FOR THIS ITEM IS INCLUDED IN THE COST OF *CONCRETE BOX CULVERTS.*
NOTE 2: THIS EARTHWORK IS THE EMBANKMENT TO BE USED FOR THE VOID LEFT FROM THE REMOVAL OF THE EXISTING BOX CULVERT.

EARTHWORK SCHEDULE FOR CHANNEL EXCAVATION

STA	TO	STA	UNADJUSTED CHANNEL EXCAVATION (CU YD)	CHANNEL EXCAVATION ADJUSED FOR 25% SHINKAGE (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
0+00	TO	0+10	1.1	0.3	0.0	0.3
0+10	TO	0+25	21.8	5.5	0.0	5.5
0+25	TO	0+30	7.1	1.8	0.0	1.8
0+30	TO	0+80	0.0	0.0	0.0	0.0
0+80	TO	0+90	17.3	4.3	0.0	4.3
0+90	TO	1+00	5.4	1.4	0.0	1.4
		TOTAL =	52.7	13.3	0.0	13.3
		ROUNDED TOTAL =	53	13	0	13



DETAIL OF CREEK BED PROFILE

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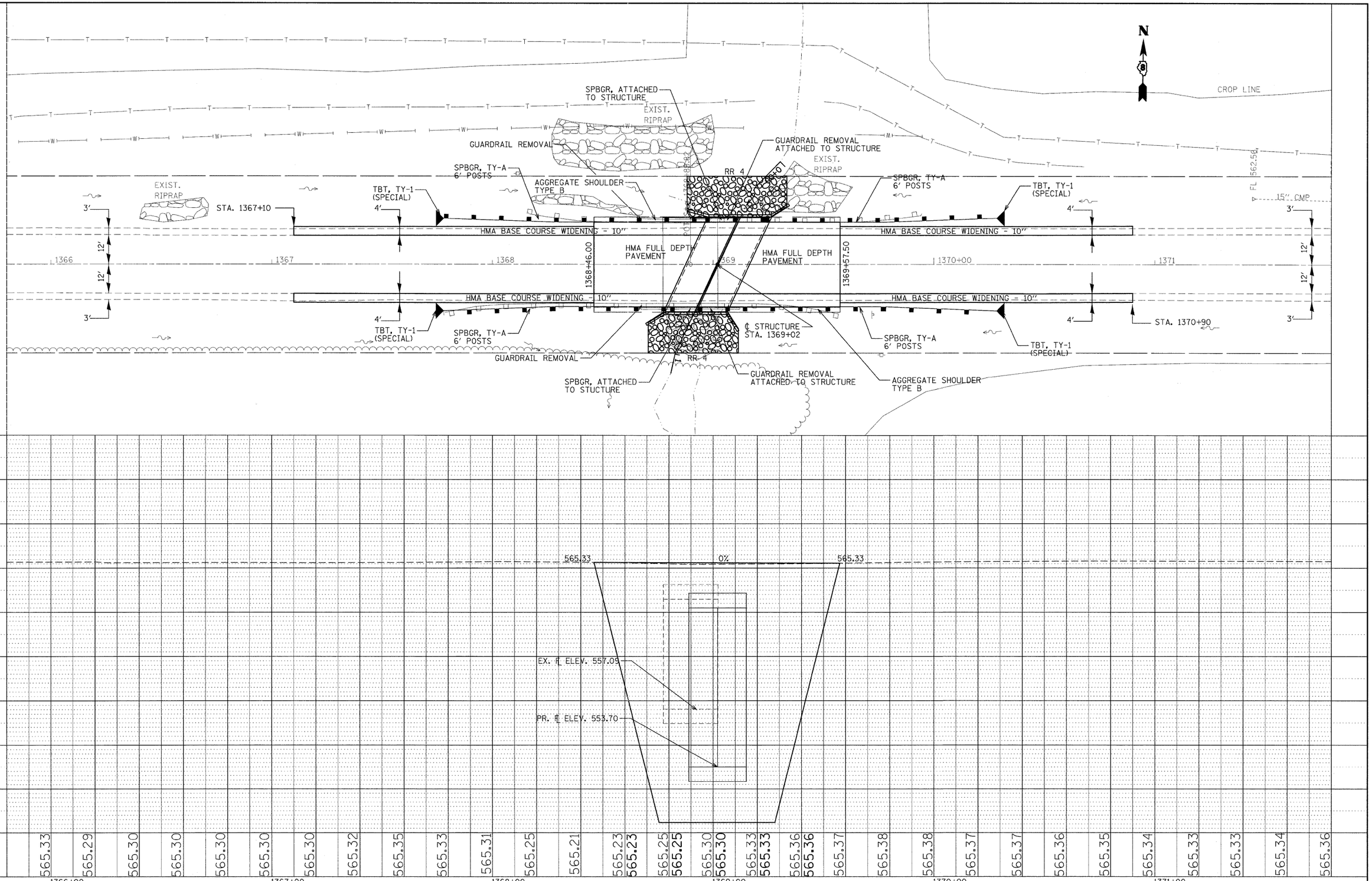
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES /DETAIL

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	5
		CONTRACT NO. 76390		
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT		



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PROFILE — SURVEYED; PLOTTED; ERRORS CHECKED; EXAMINED BY; STRUCTURE NO(S)/RTE NO(S)/CRD; NOTE BOOK; NO.; DATE; BY

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	5137-1BR	MADISON	21	6
		CONTRACT NO. 76390		
	ILLINOIS	FED. AID PROJECT		

SUGGESTED SEQUENCE OF CONSTRUCTION:

PRE-STAGE CONSTRUCTION

1. PRESTAGE CONSTRUCTION SHALL CONSIST OF CONSTRUCTING THE 4' WIDENING ON THE SOUTH SIDE OF THE PAVEMENT.
2. THE PROPOSED WIDENING SHALL INCLUDE PLACING EARTH EXCAVATION AGAINST WIDENING TO DRAIN. THE WIDENING SHALL CONSIST OF HOT-MIX ASPHALT BINDER COURSE-1Ø".

   TRAFFIC CONTROL FOR THIS WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF TRAFFIC CONTROL AND PROTECTION, STANDARD 7Ø1326.

STAGE I CONSTRUCTION

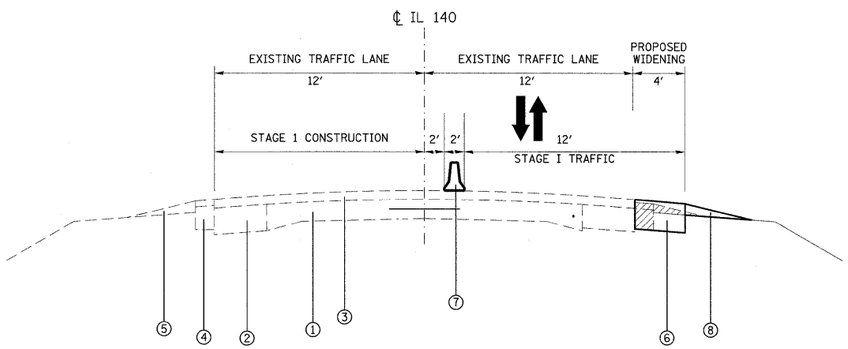
1. STAGE I CONSTRUCTION SHALL CONSIST OF CONSTRUCTING THE 4' WIDENING ON THE NORTH SIDE OF THE PAVEMENT, PAVEMENT REMOVAL AND REPLACEMENT TO THE LIMITS SHOWN, PROPOSED STRUCTURE REMOVAL AND CONSTRUCTION, GUARDRAIL REMOVAL AND REPLACEMENT, REALIGNMENT OF THE STREAMBED TO THE LIMITS SHOWN IN STAGE I CONSTRUCTION, AND PLACING RIPRAP.
2. THE PROPOSED WIDENING SHALL INCLUDE PLACING EARTH EXCAVATION AGAINST WIDENING TO DRAIN. THE WIDENING SHALL CONSIST OF HOT-MIX ASPHALT BINDER COURSE - 1Ø".
3. TRAFFIC CONTROL FOR THIS WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF TRAFFIC CONTROL AND PROTECTION, STANDARD 7Ø1321.

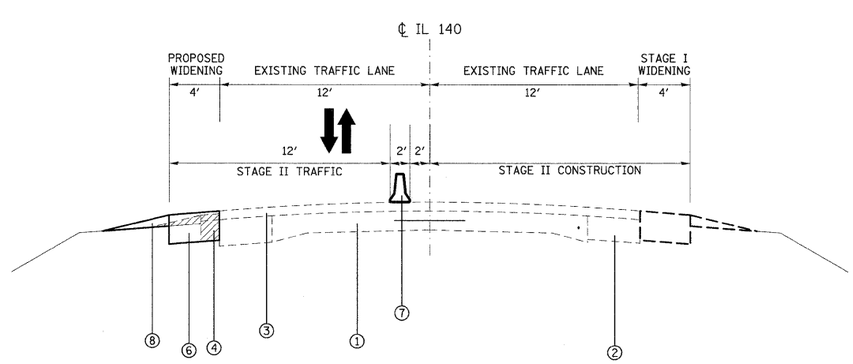
STAGE II CONSTRUCTION

1. STAGE 2 CONSTRUCTION SHALL CONSIST OF PAVEMENT REMOVAL AND REPLACEMENT NECESSARY TO COMPLETE THE STRUCTURE CONSTRUCTION, STRUCTURE REMOVAL AND CONSTRUCTION, GUARDRAIL REMOVAL AND REPLACEMENT, REALIGNMENT OF THE STREAMBED TO THE LIMITS SHOWN, AND PLACING RIPRAP.
2. TRAFFIC CONTROL FOR THIS WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.

NOTES:

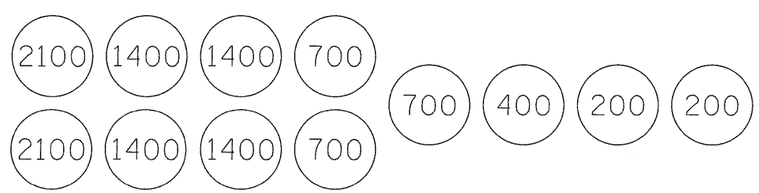
1. THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER SHALL BE PAINTED WITH TEMPORARY PAVEMENT MARKING "YELLOW". THE COST FOR THIS SHALL BE CONSIDERED AS INCLUDED IN THE COST OF TEMPORARY CONCRETE BARRIER.
2. ALL CONFLICTING PAVEMENT MARKING SHALL BE REMOVED PRIOR TO PLACING PAVEMENT MARKING NECESSARY FOR STAGE CONSTRUCTION. THE COST FOR THIS SHALL BE INCLUDED IN THE APPLICABLE TRAFFIC CONTROL AND PROTECTION STANDARD.
3. THE CONTRACTOR WILL BE ALLOWED THE OPTION OF USING SAND MODULE IMPACT ATTENUATORS FOR THIS PROJECT. IF THE CONTRACTOR CHOOSES THIS OPTION THE CONFIGURATION SHOWN WILL BE USED.
4. THIS PROJECT WILL REQUIRE TEMPORARY RUMBLE STRIP.





LEGEND

① EXISTING P.C.C PAVEMENT - 9" x 6" x 9"
② EXISTING P.C.C. WIDENING - 9"
③ EXISTING HMA RESURFACING - 5"
④ EXISTING HMA SHOULDER - 6"
⑤ EXISTING AGGREGATE SHOULDER (WEDGE)
⑥ PROPOSED HMA BASE COURSE WIDENING - 10"
⑦ TEMPORARY CONCRETE BARRIER
⑧ PROPOSED AGGREGATE SHOULDER WEDGE



SAND MODULE IMPACT ATTENUATOR

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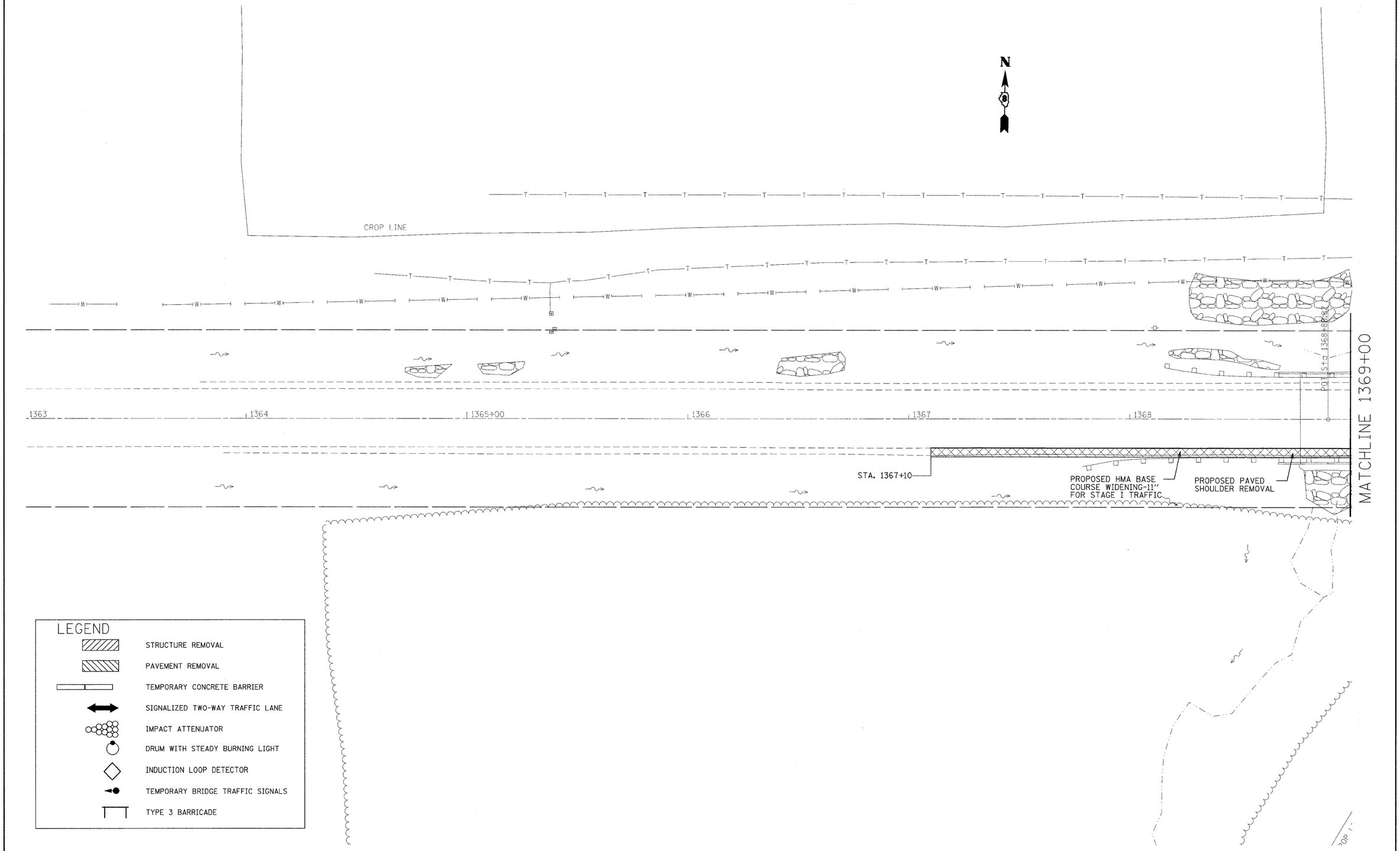
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION PLAN SHEETS
SUGGESTED STAGE CONSTRUCTION

SCALE: | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	7
		CONTRACT NO. 76390		
	ILLINOIS FED. AID PROJECT			



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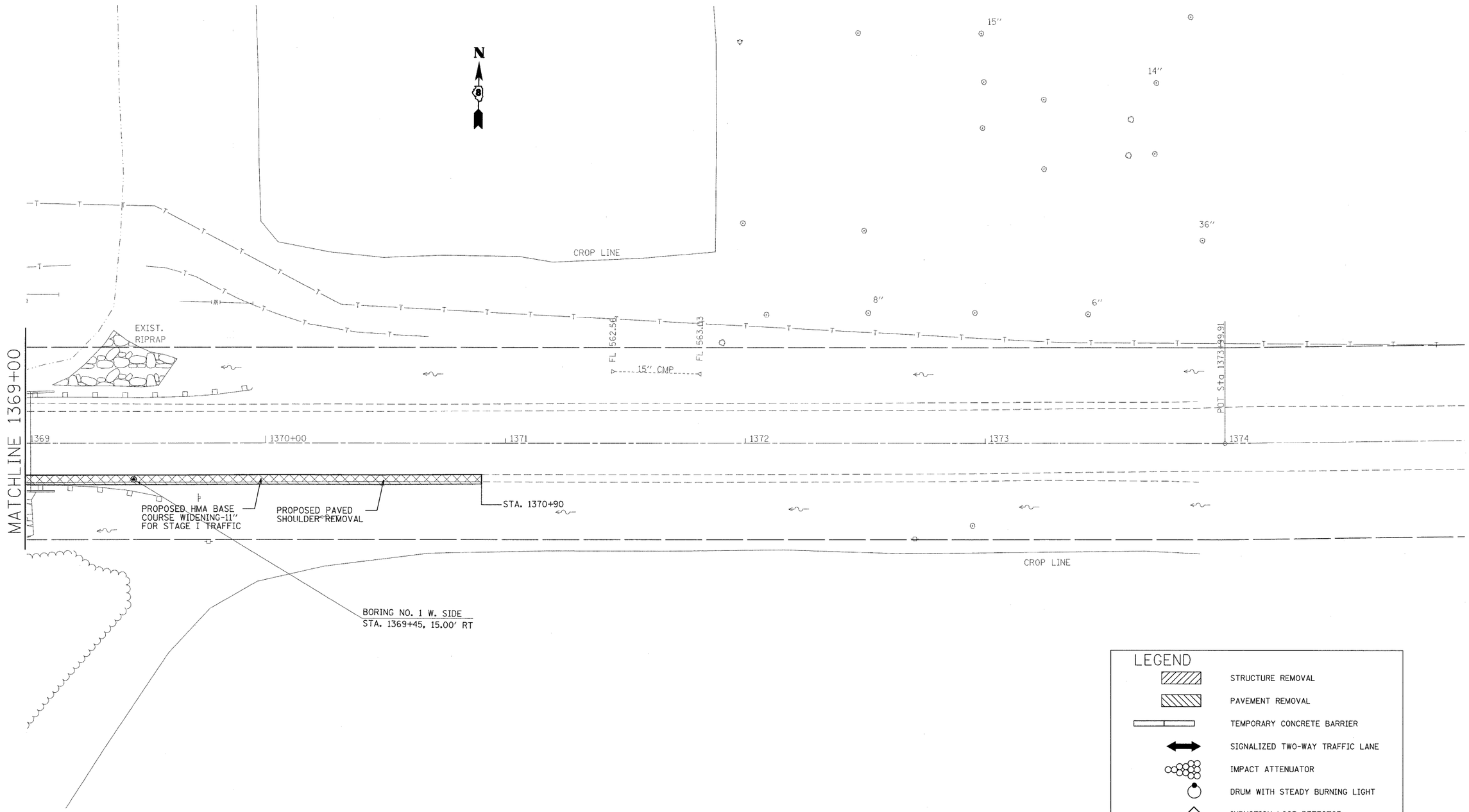
	PLOT DATE = 7/1/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION PLAN SHEETS
PRESTAGE

SCALE: | SHEET NO. 2 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	8
		CONTRACT NO. 76390		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- SIGNALIZED TWO-WAY TRAFFIC LANE
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- INDUCTION LOOP DETECTOR
- TEMPORARY BRIDGE TRAFFIC SIGNALS
- TYPE 3 BARRICADE

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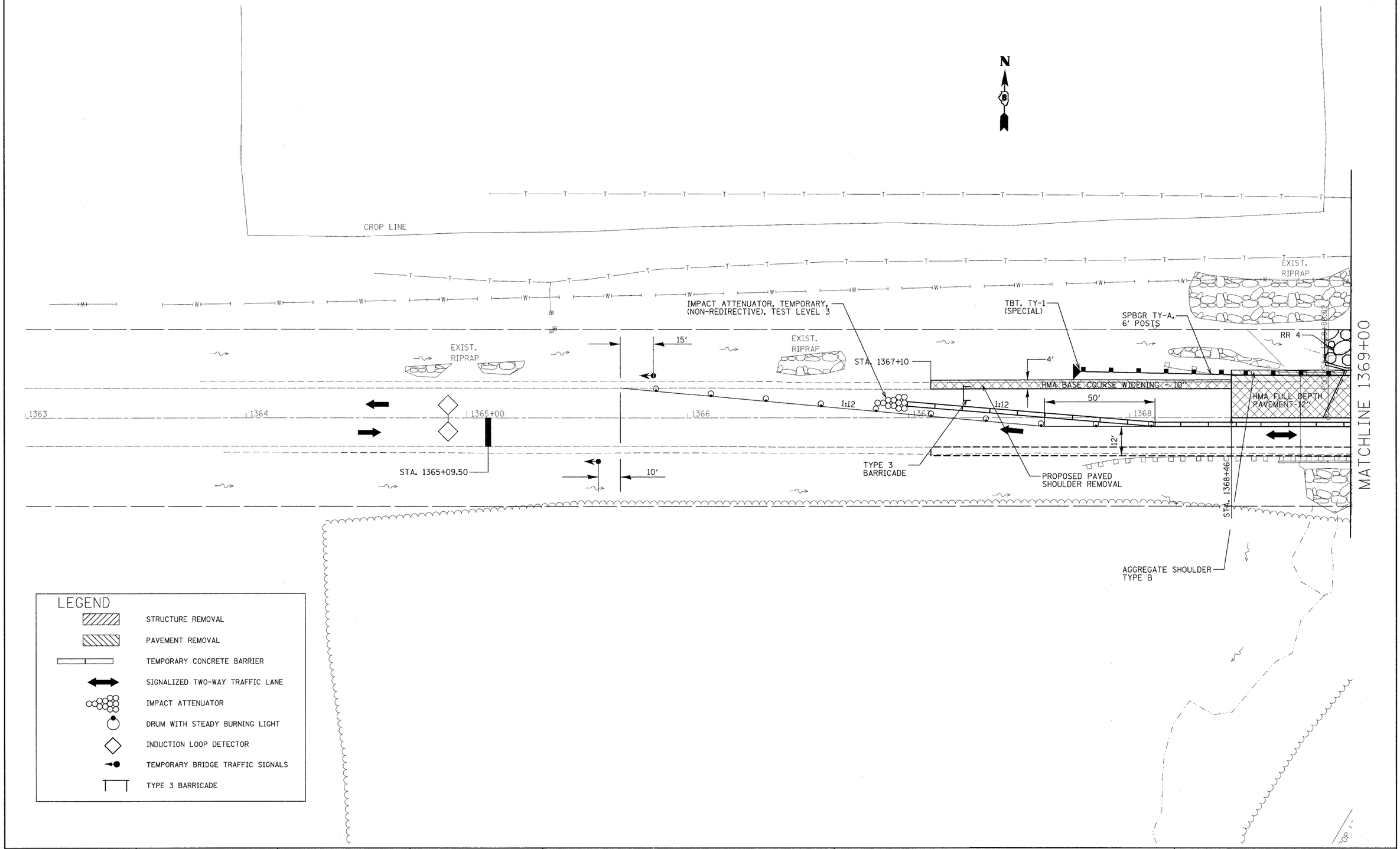
	PLOT DATE = 7/1/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION PLAN SHEETS
PRESTAGE

SCALE: | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	9
		CONTRACT NO. 76390		
		ILLINOIS	FED. AID PROJECT	



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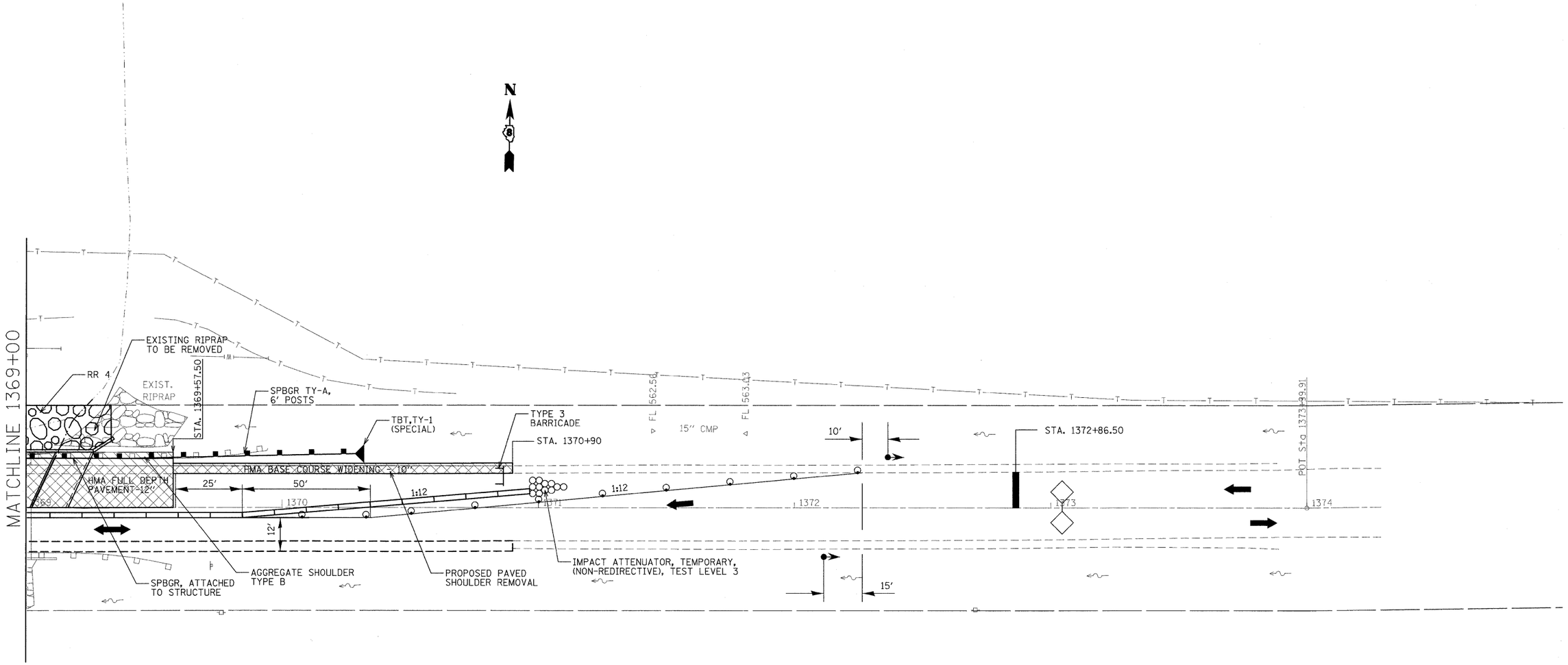
	PLOT DATE = 7/1/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION PLAN SHEETS
STAGE I

SCALE: | SHEET NO. 4 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	10
		CONTRACT NO. 76390		
	ILLINOIS FED. AID PROJECT			



LEGEND

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- SIGNALIZED TWO-WAY TRAFFIC LANE
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- INDUCTION LOOP DETECTOR
- TEMPORARY BRIDGE TRAFFIC SIGNALS
- TYPE 3 BARRICADE

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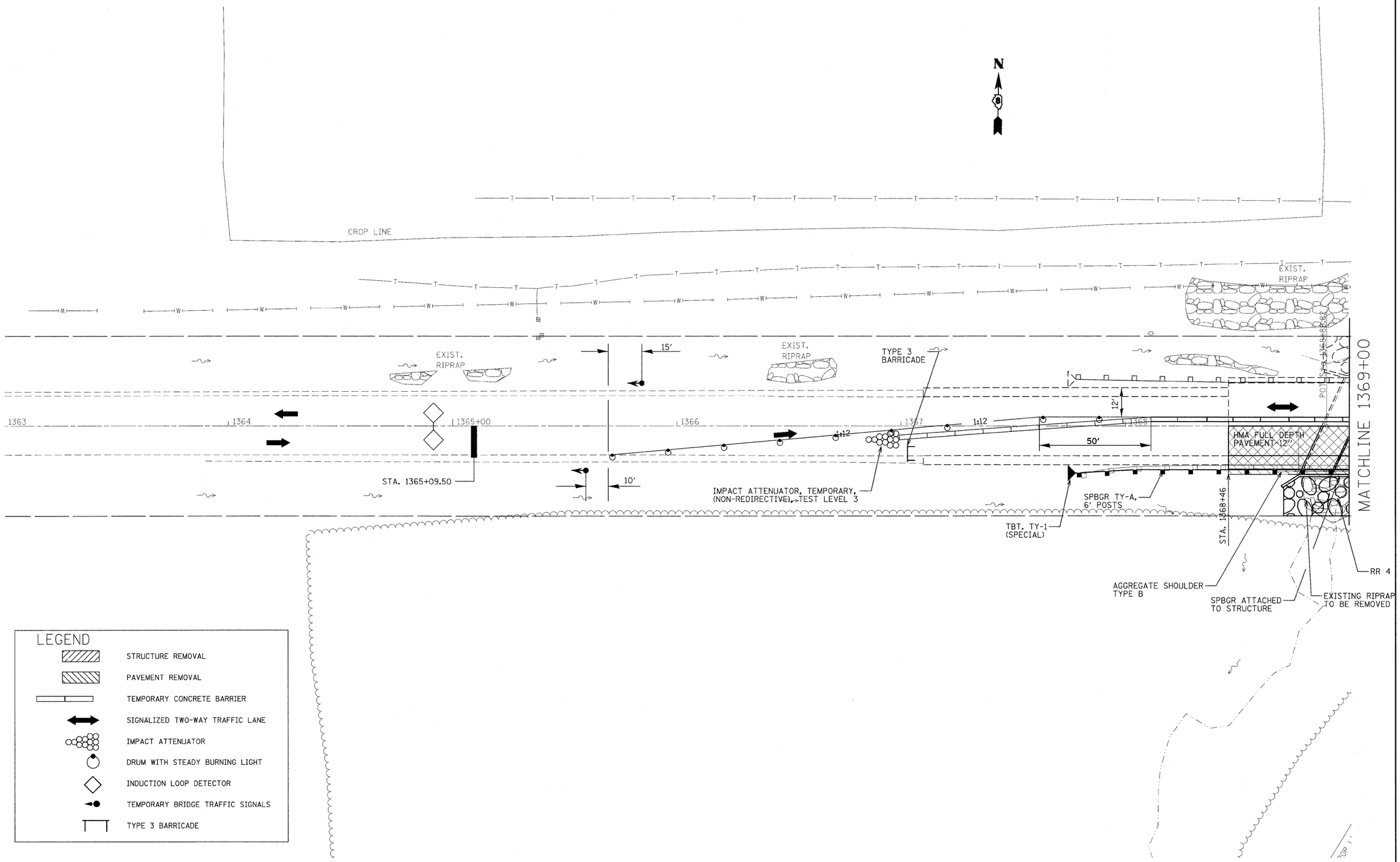
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION PLAN SHEETS
STAGE 1

SCALE: | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	11
			CONTRACT NO. 76390	
		ILLINOIS	FED. AID PROJECT	



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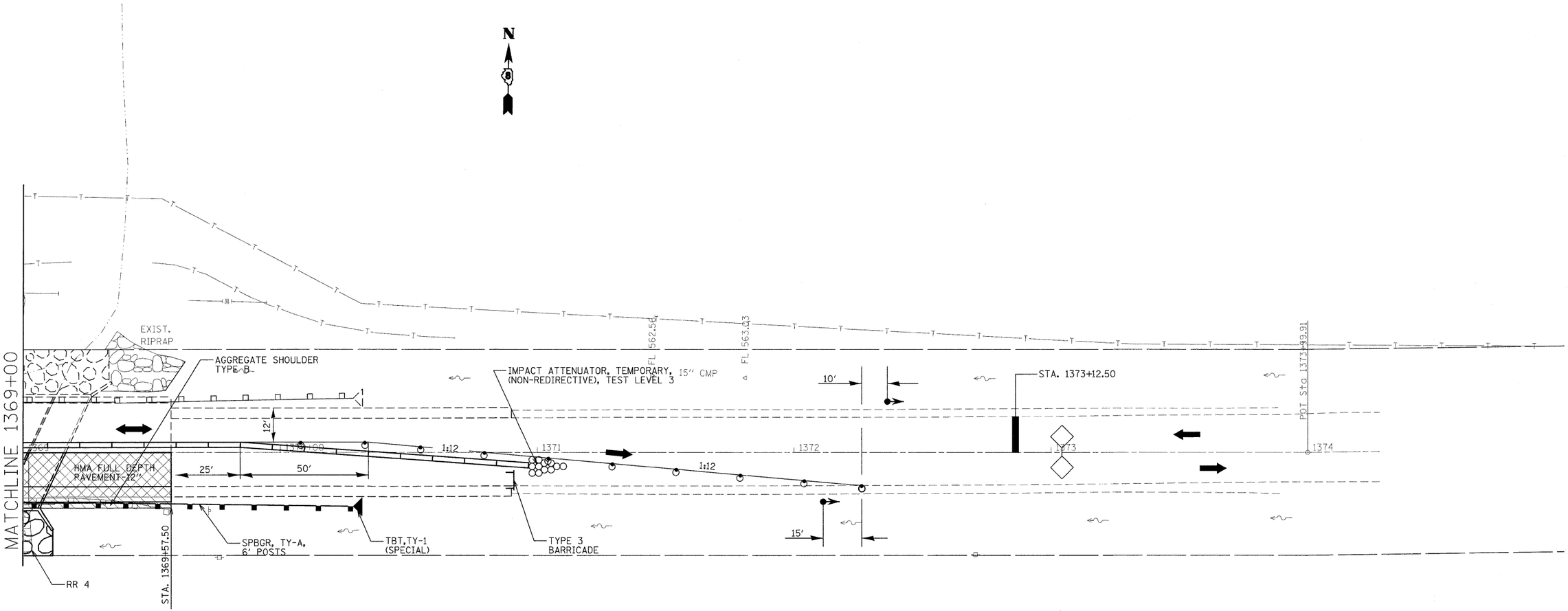
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION PLAN SHEETS
STAGE 2

SCALE: | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	12
		CONTRACT NO. 76390		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- STRUCTURE REMOVAL
- PAVEMENT REMOVAL
- TEMPORARY CONCRETE BARRIER
- SIGNALIZED TWO-WAY TRAFFIC LANE
- IMPACT ATTENUATOR
- DRUM WITH STEADY BURNING LIGHT
- INDUCTION LOOP DETECTOR
- TEMPORARY BRIDGE TRAFFIC SIGNALS
- TYPE 3 BARRICADE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

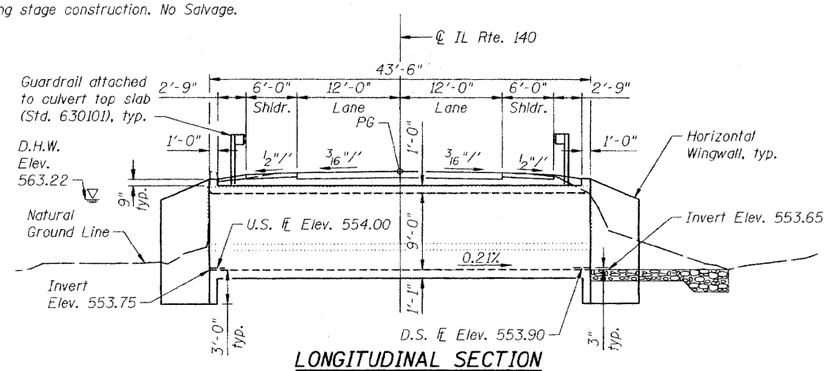
STAGE CONSTRUCTION PLAN SHEETS
STAGE 2

SCALE: | SHEET NO. 7 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	13
		CONTRACT NO. 76390		
	ILLINOIS	FED. AID PROJECT		

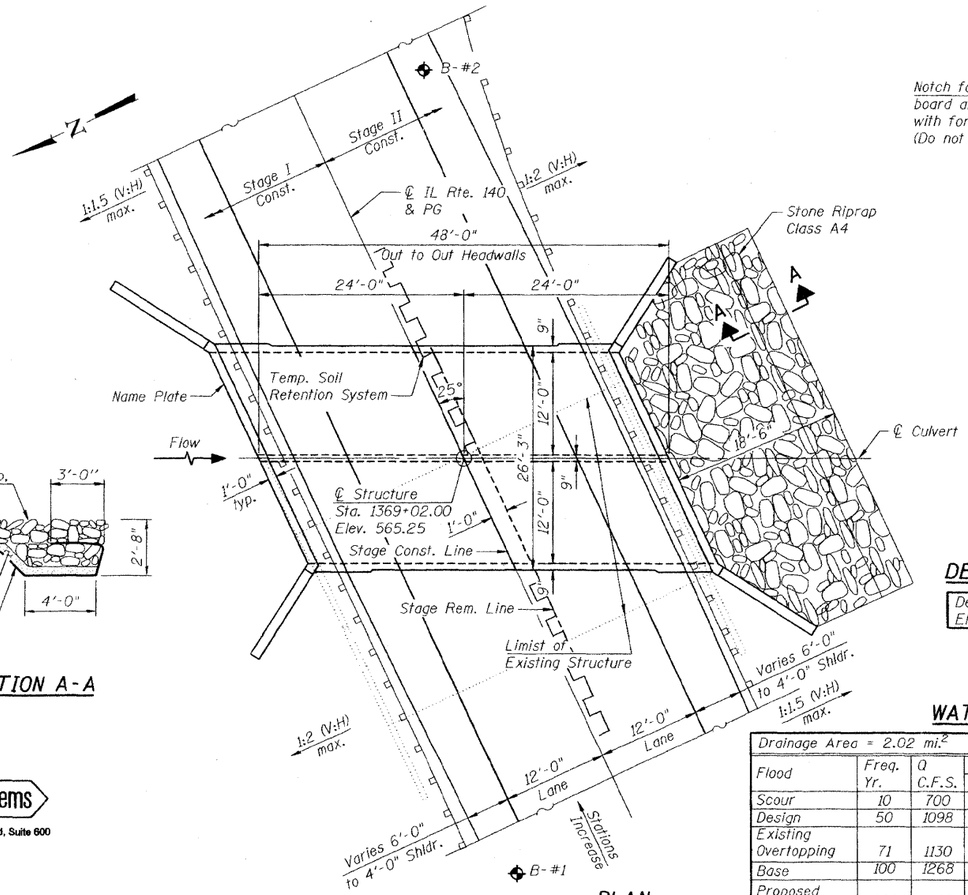
Bench Mark: Cut square on East end of North headwall of twin box culvert under IL Route 140 at the East Fork of Little Silver Creek. Elev. 565.11

Existing Structure: Structure No. 060-2008 was originally built in 1930 as a double 12' x 6' box culvert on a 0° skew. 26'-0" length along ℄ roadway and 41'-8" width out to out. Structure to be removed and replaced. Traffic to be maintained utilizing stage construction. No Salvage.



LONGITUDINAL SECTION

(Horizontal Dimensions at Rt. L's to Roadway)



PLAN

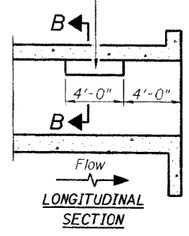
SECTION A-A

GENERAL NOTES

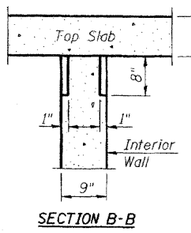
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provision.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
4. For backfilling and embankment, see Standard Specifications.
5. Exposed edges shall have standard 3/4" chamfer unless otherwise noted.
6. Layout of the slope protection may be varied to suit ground conditions in field as directed by the Engineer.

INDEX OF SHEETS

Notch formed by rough finished board attached to and removed with formwork, each interior wall. (Do not chamfer).



LONGITUDINAL SECTION



SECTION B-B

PHOEBE NESTING SITE DETAILS

(Downstream End Only)

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	550.75	550.65

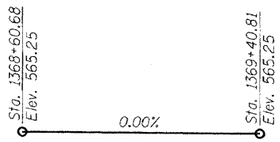
WATERWAY INFORMATION

Drainage Area = 2.02 mi.² Low Grade Elev. 565.21 at Sta. 1368+94.50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Scour	10	700	132	204	562.50	0.80	0.51	563.30	563.01
Design	50	1098	144	216	563.22	1.85	1.10	565.07	564.32
Existing Overtopping	71	1130	144 144		563.26	1.95		565.75	
Base	100	1268		216	563.44	2.31	1.39	565.21	564.83
Proposed Overtopping	200	1403		216	563.57		1.64		565.21

TOTAL BILL OF MATERIAL

Item	Unit	Total
Stone RipRap, Class A4	Sq. Yd.	93
Removal of Existing Structures	Each	1
Reinforcement Bars, Epoxy Coated	Pound	29,900
Concrete Box Culverts	Cu. Yd.	163.2
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	430
Bar Splicers	Each	159
Filter Fabric	Sq. Yd.	93



PROFILE GRADE

(Along ℄ IL Rte. 140)

STATION 1369+02.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT 785 SEC. 137-1BR
LOADING HS20-44
STRUCTURE NO. 060-2047

NAME PLATE

See Std. 515001

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges 17th Edition

DESIGN STRESSES

FIELD UNITS

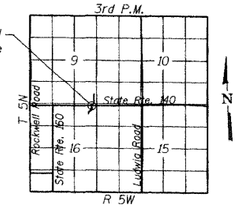
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
D. Carl Puzey (JJD)
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
SARAH L. CZAPLICKI
81-006191
SCHAUMBURG, IL
LICENSED STRUCTURAL ENGINEER

Sarah L. Czaplicki 7/7/11

SARAH L. CZAPLICKI, P.E., S.E.
NO. 81-006191
EXP. DATE 11/30/2012



LOCATION SKETCH

GENERAL PLAN
IL ROUTE 140 OVER
E. FORK LITTLE SILVER CREEK
F.A.P. ROUTE 785 - SECTION 137-1BR
MADISON COUNTY
STATION 1369+02.00
STRUCTURE NO. 060-2047

TranSystems
1475 East Woodfield Road, Suite 600
Schaumburg, IL 60173
Phone: (847) 605-9600
Fax: (847) 605-9610

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	14
		CONTRACT NO. 76390		
		ILLINOIS FED. AID PROJECT		

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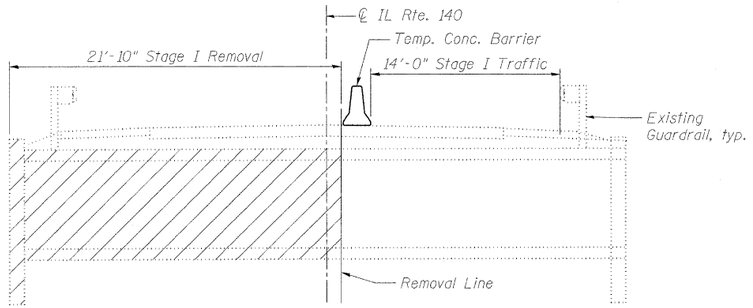
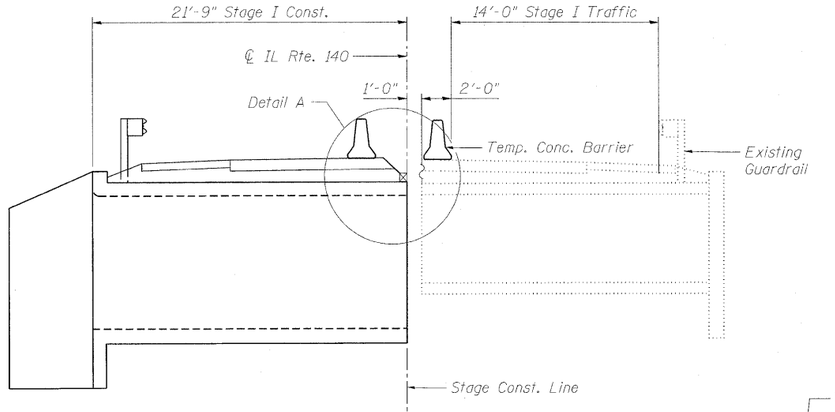
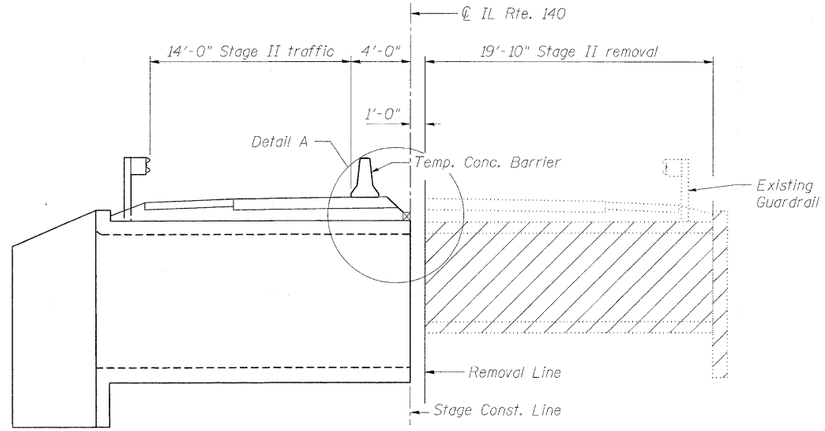
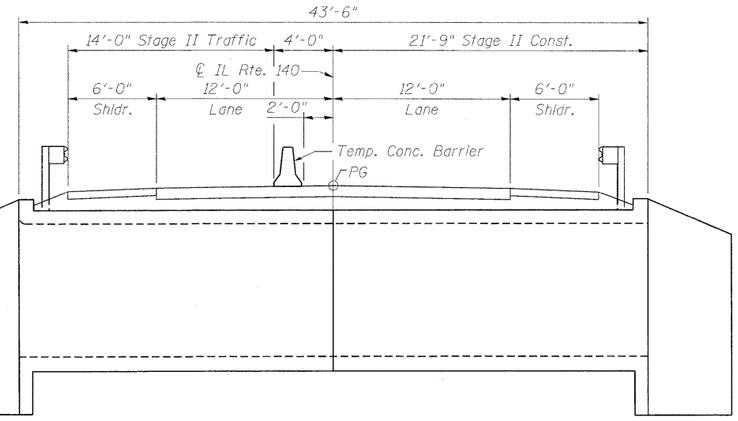


STAGE I REMOVAL





STAGE II REMOVAL

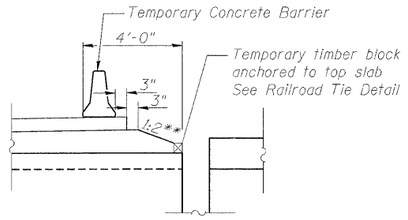


STAGE II CONSTRUCTION

NOTES

1. All staging cross sections are looking East.
2. Removal of the guardrail, bituminous wearing surface and fill above the culvert is included in "Removal of Existing Structures".
3. A cantilevered sheet piling design 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.
4. For Details of Temporary Concrete Barrier, see sheet 3 of 7.
5. For quantity of Temporary Concrete Barrier, see roadway plans.

STAGE I CONSTRUCTION

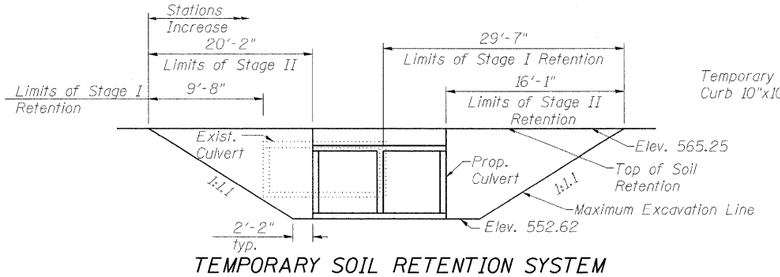


DETAIL A

*(V:H)

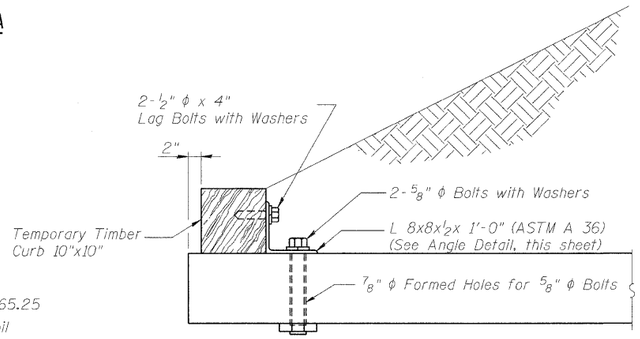
LEGEND

Removal of Existing Structures



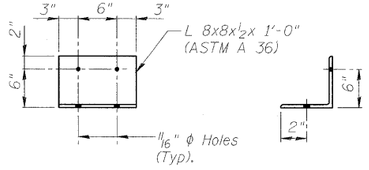
TEMPORARY SOIL RETENTION SYSTEM

Along ℄ of Rdwy.



RAILROAD TIE DETAIL

The L 8x8x½x 1'-0" and Temporary Timber shall not be removed until Stage II Construction has been completed.
Connect one (1) L 8x8x½x 1'-0" to the top of Stage I culvert with two (2) bolts placed in two (2) holes. Angles to be positioned near each end of all timber curbs, but the outside lag bolt shall be at least 6" from end of timber. Cost included with Concrete Box Culverts.



ANGLE DETAIL

Tran Systems
1475 East Woodfield Road, Suite 600
Schaumburg, IL 60173
Phone: (847) 605-9600
Fax: (847) 605-9610

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	PLOT DATE = 7/7/2011	CHECKED - SDG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING
STRUCTURE NO. 060-2047
SHEET NO. 2 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	15
		CONTRACT NO. 76390		
		ILLINOIS FED. AID PROJECT		

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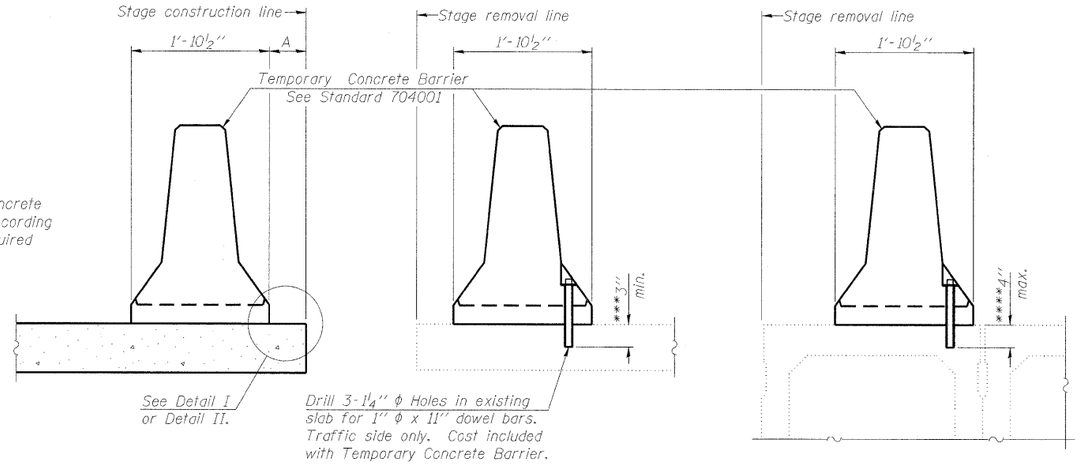
7/7/2011

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

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel ℄ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel ℄ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

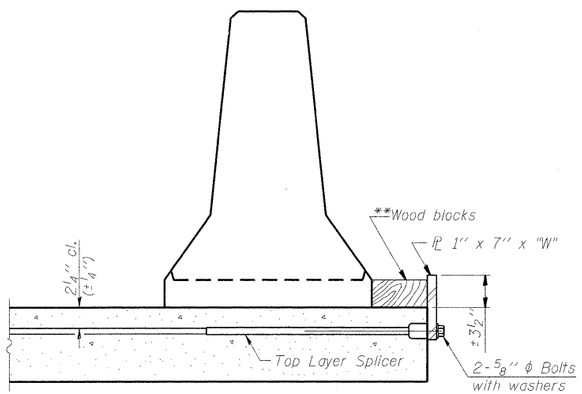
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x "W" 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.

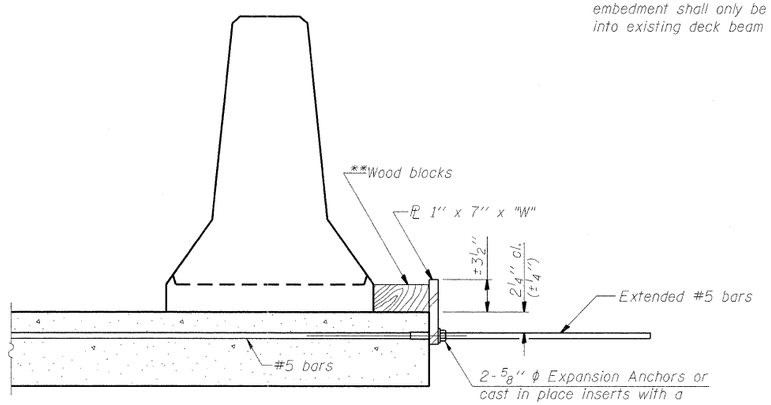
SECTIONS THRU SLAB OR DECK BEAM

*** 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.

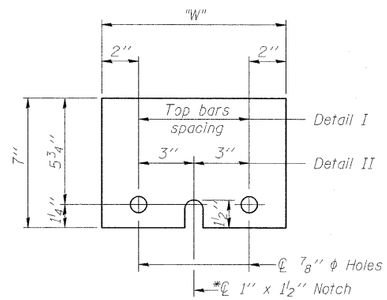
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℄ 1" x 7" x "W"

* Required only with 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.

"W" = Top bars spacing + 4"

TranSystems
1475 East Woodfield Road, Suite 600
Schaumburg, IL 60173
Phone: (847) 605-9600
Fax: (847) 605-9610

R-27

7-1-10

FILE NAME = 0602047-76390-003-TempConcBarrier.dgn	USER NAME = jmtobergte	DESIGNED - JMT	REVISED -
		CHECKED - SDG	REVISED -
	PLOT SCALE =	DRAWN - AJP	REVISED -
	PLOT DATE = 7/7/2011	CHECKED - SDG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 060-2047
SHEET NO. 3 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	16
		CONTRACT NO. 76390		
	ILLINOIS FED. AID PROJECT			

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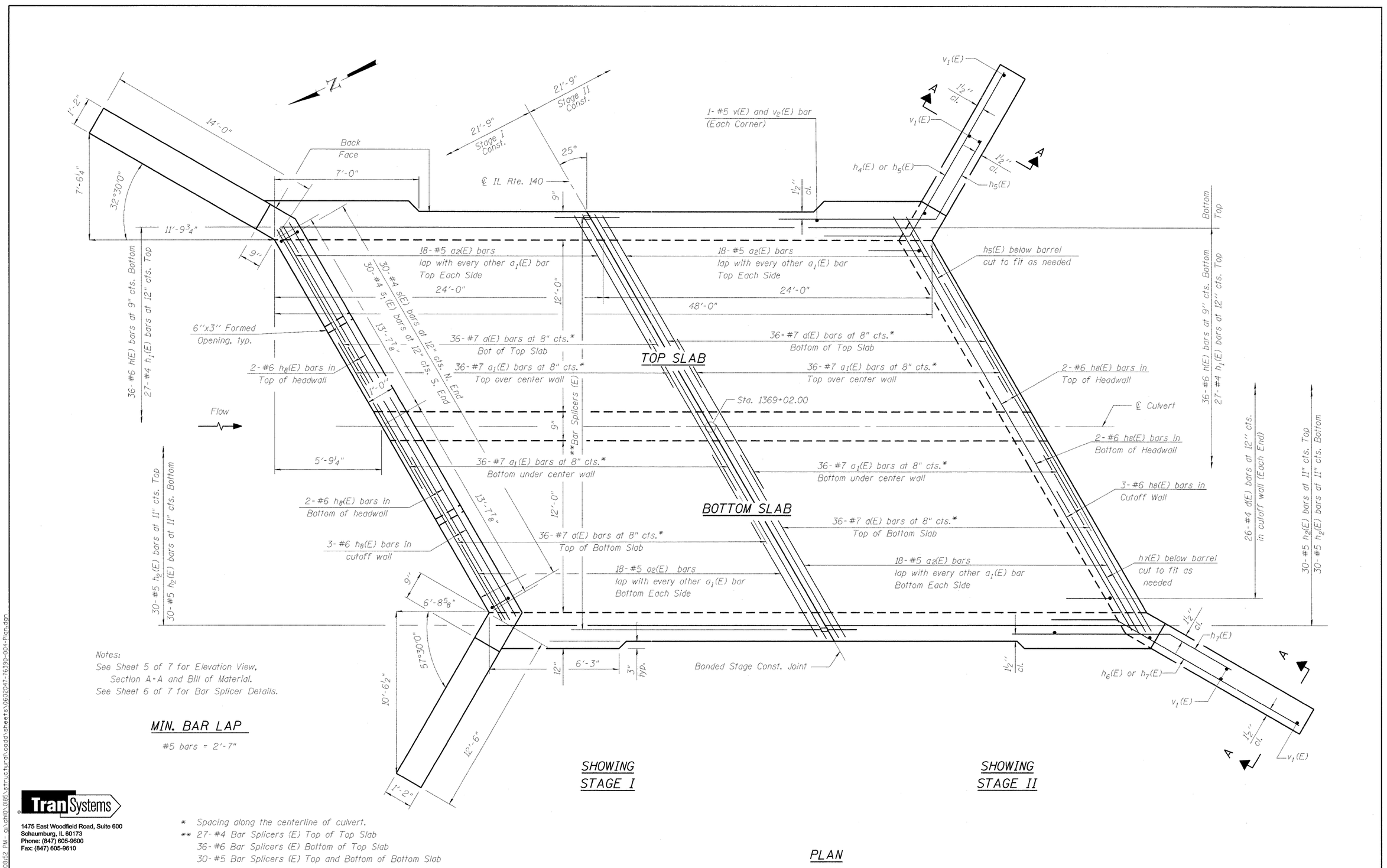

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* Spacing along the centerline of culvert.
** 27-#4 Bar Splicers (E) Top of Top Slab
36-#6 Bar Splicers (E) Bottom of Top Slab
30-#5 Bar Splicers (E) Top and Bottom of Bottom Slab

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7/7/2011

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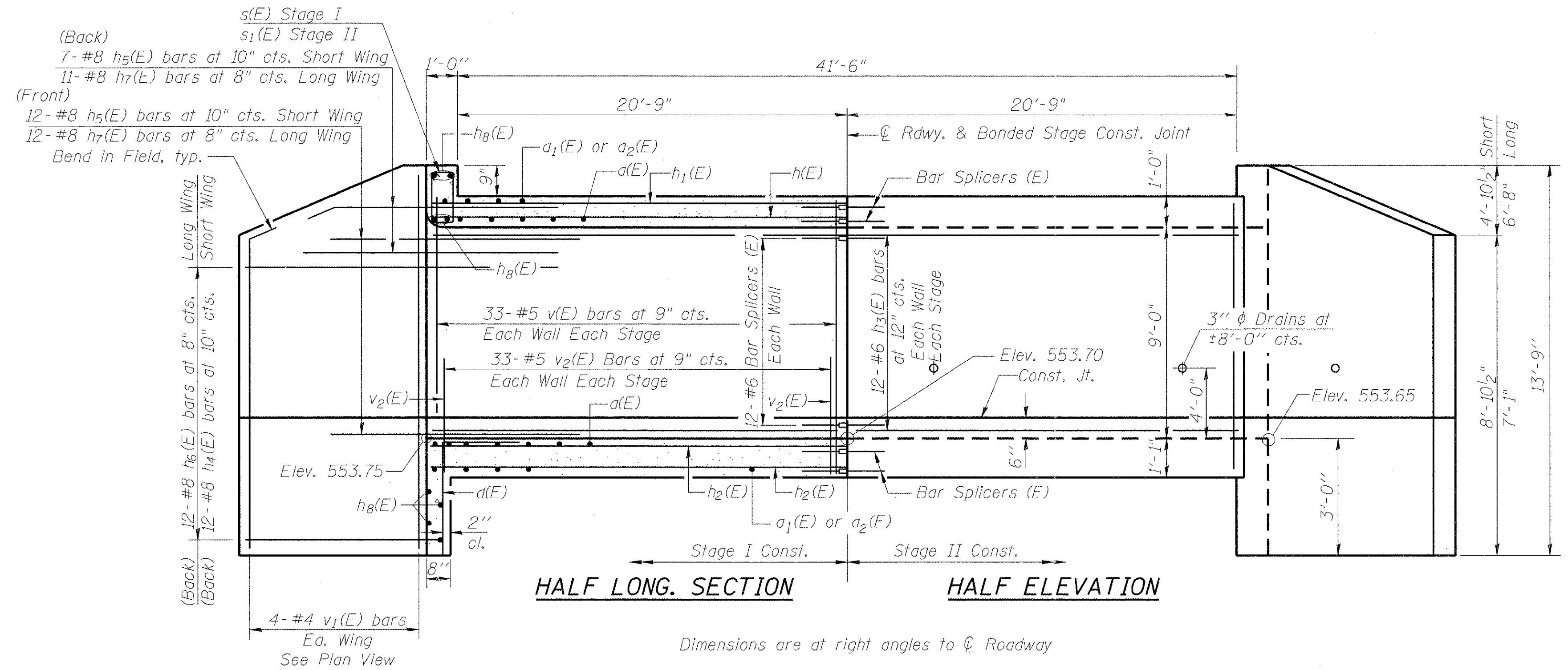
		CHECKED - SDG	REVISED -
	PLOT SCALE =	DRAWN - AJP	REVISED -
	PLOT DATE = 7/7/2011	CHECKED - SDG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

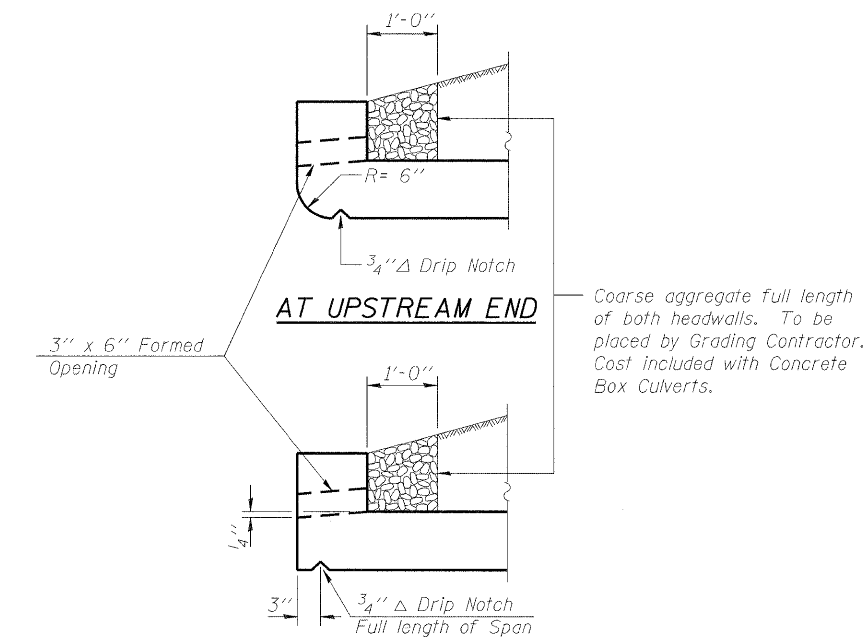
CULVERT PLAN
STRUCTURE NO. 060-2047
SHEET NO. 4 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	17
		CONTRACT NO. 76390		
	ILLINOIS	FED. AID PROJECT		



HALF LONG. SECTION | HALF ELEVATION

Dimensions are at right angles to ℄ Roadway



AT UPSTREAM END

AT DOWNSTREAM END

DRAIN DETAIL

MIN. BAR LAP

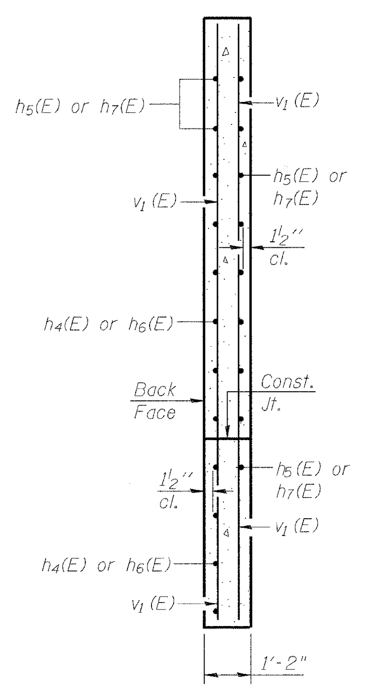
#5 bars = 2'-7"

Notes:

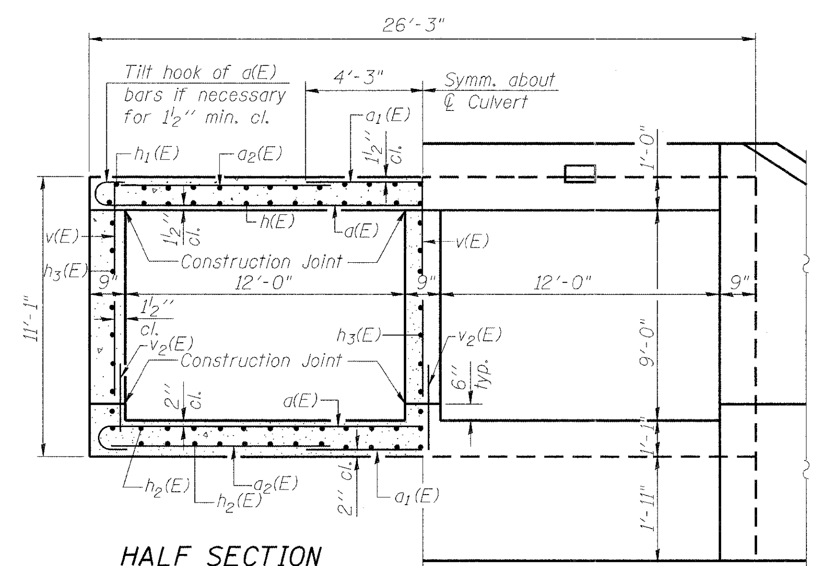
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.

See Sheet 4 of 7 for Plan View.

See Sheet 6 of 7 for Bar Splicer Details.

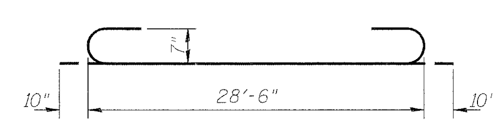


SECTION A-A

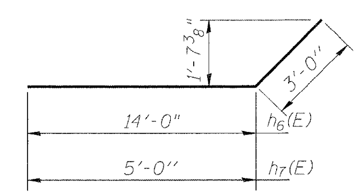


HALF SECTION THRU BARREL

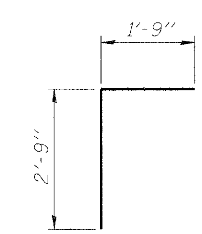
HALF END ELEVATION



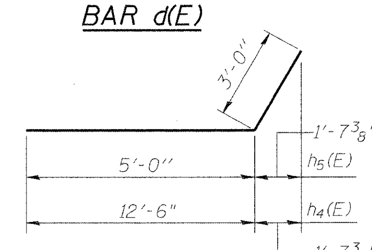
BARS a(E)



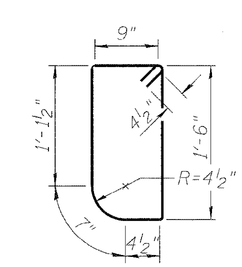
BARS $h_6(E)$ & $h_7(E)$



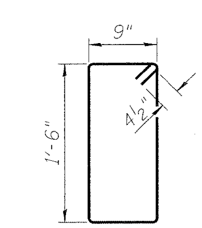
BAR d(E)



BARS $h_4(E)$ & $h_5(E)$



BAR s(E)

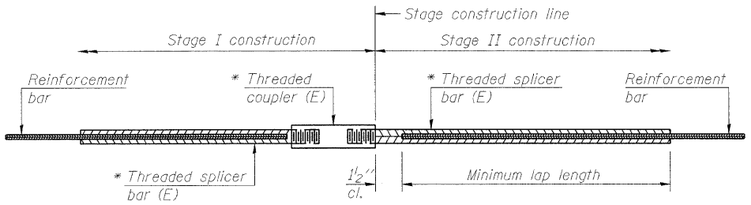


BAR $s_1(E)$

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	144	#7	30'-4"	⊂⊃
$a_1(E)$	144	#7	8'-6"	—
$a_2(E)$	144	#5	11'-4"	—
d(E)	52	#4	4'-6"	⌐
h(E)	72	#6	23'-9"	—
$h_1(E)$	54	#4	23'-9"	—
$h_2(E)$	120	#5	23'-9"	—
$h_3(E)$	72	#6	23'-9"	—
$h_4(E)$	24	#8	15'-6"	_/
$h_5(E)$	38	#8	8'-0"	_/
$h_6(E)$	24	#8	17'-0"	_/
$h_7(E)$	46	#8	8'-0"	_/
$h_8(E)$	14	#6	28'-7"	—
s(E)	30	#4	5'-1"	▯
$s_1(E)$	30	#4	5'-3"	▯
v(E)	202	#5	9'-2"	—
$v_1(E)$	16	#4	13'-5"	—
$v_2(E)$	202	#5	4'-2"	—
Concrete Box Culverts			Cu. Yd.	163.2
Reinforcement Bars, Epoxy Coated			Pound	29,900
Bar Splicers			Each	159

TranSystems
1475 East Woodfield Road, Suite 600
Schaumburg, IL 60173
Phone: (847) 605-9600
Fax: (847) 605-9610



STANDARD BAR SPLICER ASSEMBLY

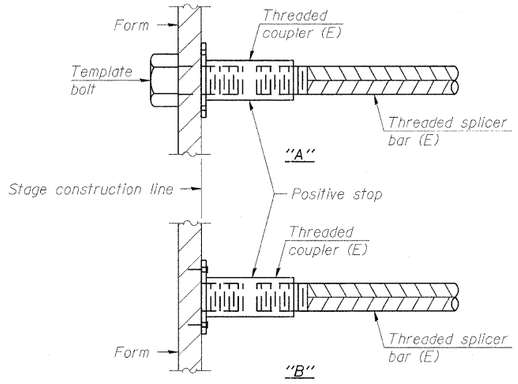
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

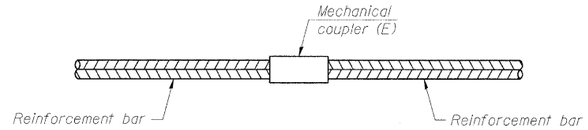
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top Slab	#4	27	Table 3
Top Slab	#6	36	Table 3
Bottom slab	#5	60	Table 3
Sidewalls	#6	36	Table 3



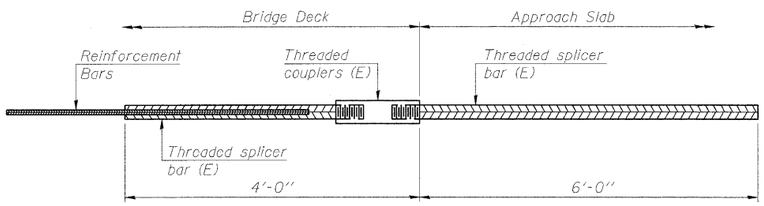
INSTALLATION AND SETTING METHODS

"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.



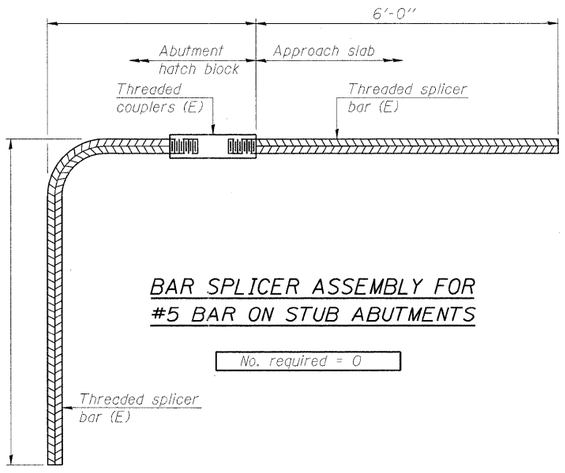
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 0



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 0

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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BSD-1 7-1-10

FILE NAME = 0602047-76390-006-BarSplicers.dgn	USER NAME = jmtoberg†e	DESIGNED - JMT	REVISED -
		CHECKED - SDG	REVISED -
	PLOT SCALE =	DRAWN - AJP	REVISED -
	PLOT DATE = 7/7/2011	CHECKED - SDG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 060-2047
SHEET NO. 6 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	19
		CONTRACT NO. 76390		
	ILLINOIS	FED. AID PROJECT		

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7/7/2011

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Date 2/6/02

ROUTE FAP 785 DESCRIPTION IL 140 over Creek LOGGED BY Larry Ford

SECTION 137-1BR LOCATION SE 1/4, SEC. 9, TWP. 5N, RNG. 5W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-2008
Station 1368+90

BORING NO. #1 W. Side
Station 1368+55
Offset 15.00ft LT CL
Ground Surface Elev. 564.69 ft

Surface Water Elev. 555.2 ft
Stream Bed Elev. 553.4 ft

Groundwater Elev.:
First Encounter Dry Hole ft
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown and Gray Silty Clay LOAM (Fill)			
	2		
	3	0.7	
	4	S/10	26
-5	2		
	2	0.7	
	1	S/5	25
558.2			
Gray Silty Clay LOAM with Organics	0		
	2	0.4	
556.2	1	S/10	30
Brown and Gray Clay LOAM			
-10	3		
	4	1.8	
	5	S/10	19
	3		
	4	1.4	
	4	S/10	22
-15	2		
	2	0.9	
	2	S/15	26
548.2			
Gray Loamy SAND See Gradation @ 17.5 ft	4		
546.7	9		14
	15	NC / 4.3 S/5	10
Gray Clay LOAM			
-20	12		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Clay LOAM *(continued)*	20	5.8	
	25	S/5	9
	16		
	22	7.3	
	23	S/10	10
-25	14		
	20	5.7	
	29	S/10	9
	14		
	20	6.4	
	28	S/15	9
-30	7		
	13	5.4	
533.7	21	S/15	10
End of Boring			
-40			

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)

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Date 3/18/02

ROUTE FAP 785 DESCRIPTION IL 140 over Creek LOGGED BY Larry Ford

SECTION 137-1BR LOCATION SE 1/4, SEC. 9, TWP. 5N, RNG. 5W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-2008
Station 1368+90

BORING NO. #2 E. End
Station 1369+45
Offset 15.00ft RT CL
Ground Surface Elev. 565.2 ft

Surface Water Elev. 555.2 ft
Stream Bed Elev. 553.4 ft

Groundwater Elev.:
First Encounter 550.2 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Gray Silty Clay LOAM (Fill)			
	2		
	1	0.8	
	3	S/10	26
-5	6		
	3	0.9	
	5	S/15	25
558.2	3		
Gray Silty CLAY	4	1.7	
	6	S/15	22
-10	1		
	3	1.8	
554.2	5	S/10	23
Brown and Gray Clay LOAM	3		
	3	1.6	
	4	S/10	21
550.2 ▼ -15	0		
Gray Sandy GRAVEL 549.7	2		22
	1	NC / 0.8 S/15	23
Brown and Gray Clay LOAM	6		
	8	3.7	
	13	S/10	11
-20	10		

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown and Gray Clay LOAM *(continued)*	15	6.2	
	28	S/15	9
	10		
	17	5.9	
	22	S/15	9
-25	7		
	9	5.7	
	21	S/15	9
	10		
	14	5.2	
	20	S/15	11
-30	10		
	13	4.8	
534.2	17	S/15	10
End of Boring			
-40			

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)

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FILE NAME = 0602047-76390-007-Borings.dgn	USER NAME = jmtobergte	DESIGNED - JMT	REVISED -
		CHECKED - SDG	REVISED -
	PLOT SCALE =	DRAWN - AJP	REVISED -
	PLOT DATE = 7/7/2011	CHECKED - SDG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 060-2047
SHEET NO. 7 OF 7 SHEETS

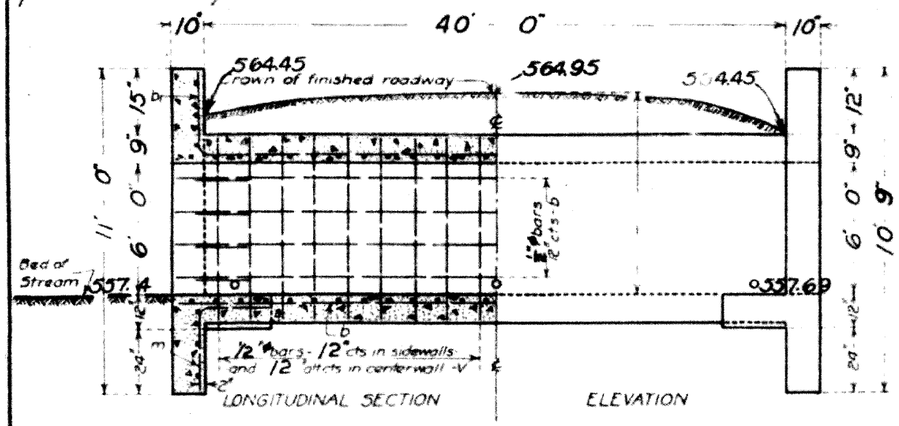
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	20
		CONTRACT NO. 76390		
		ILLINOIS FED. AID PROJECT		

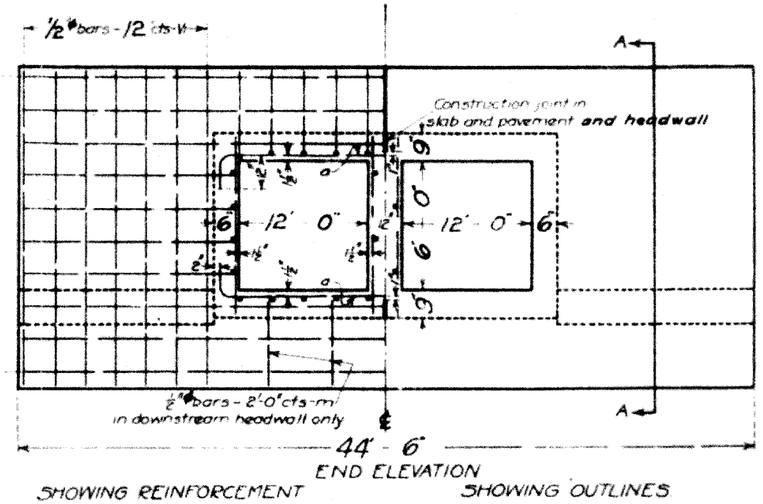
Adjust height of headwalls to be 12" above shoulder elevation. Build tops of headwalls parallel to grade line.

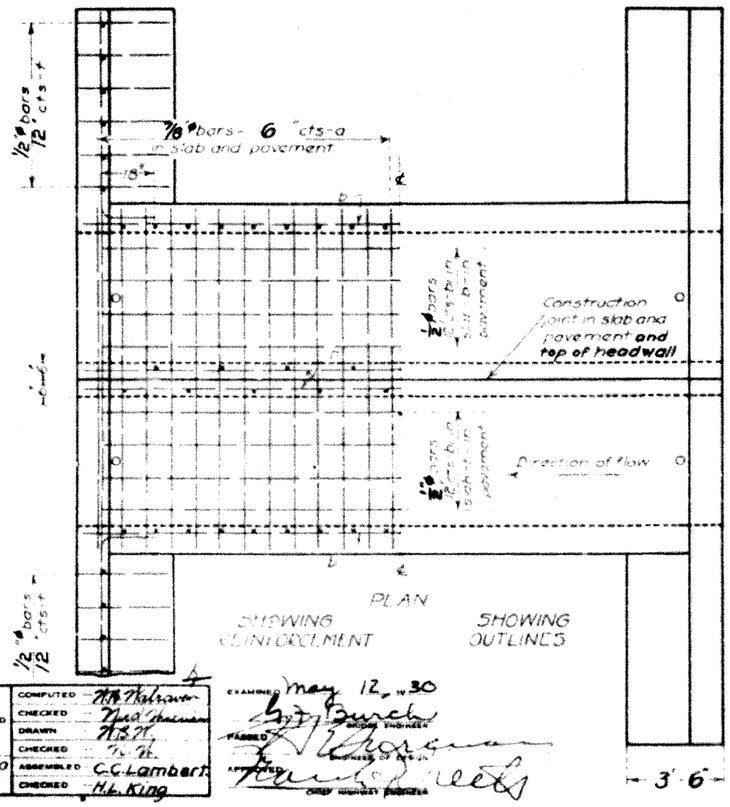
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

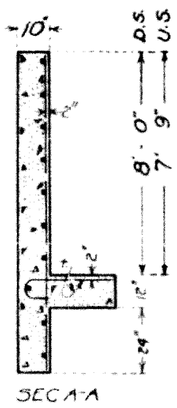
R.C. DOUBLE BOX CULVERT

BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
160	F 137	Madison-Bond	52	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	15C	









BILL OF MATERIAL

BARS	NO.	SIZE	LENGTH
v	120	1/2"	7'-3"
vi	40	1/2"	10'-6"
h	12	1/2"	23'-0"
hi	8	1/2"	22'-0"
ha	24	1/2"	11'-0"
a	168	7/8"	27'-9"
b	82	1/2"	21'-6"
bi	52	1/2"	22'-6"
t	40	1/2"	4'-0"
m	12	1/2"	5'-0"
Reinforcing Steel-Lbs			12960
Concrete-Cu Yds			100.2

Class X Concrete to be used throughout

STANDARD		
	COMPUTED	H.K. Nahrwold
	CHECKED	Thad Jackson
	DRAWN	H.K.N.
	CHECKED	T.J.
2-14-30 SPECIAL	ASSEMBLED	C.C. Lambert
	CHECKED	H.L. King

EXAMINED May 12, 1930
F. H. Burch
PASSED
APPROVED
Chief Highway Engineer

S.B.I. Route 160 Const. Sec. 137
Madison-Bond Co.
Sta. 1369+03

1113

FILE NAME =	USER NAME = manntm	DESIGNED -	REVISED -
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	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/6/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
785	137-1BR	MADISON	21	21
		CONTRACT NO. 76390		
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT		