

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

F.A.P. ROUTE 104 (IL ROUTE 59) AT SQUAW CREEK  
SECTION W-EXT-1  
PROJECT NO. NHF-0104(020)  
BRIDGE DECK OVERLAY  
LAKE COUNTY  
JOB NO. C-91-242-10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
104	W-EXT-1	LAKE	21	1
FED. ROAD DIST. NO. 1		ILLINOIS	CONTRACT NO. 60J52	

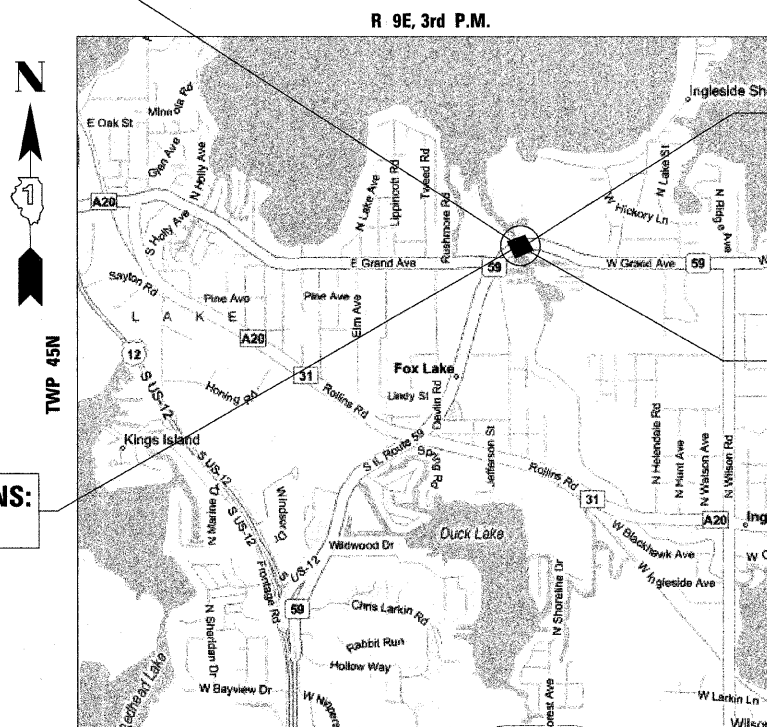
#21 + 11 = 32

FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR LIST OF STANDARDS, SEE SHEET NO. 2

IMPROVEMENT LOCATED IN  
FOX LAKE, IL

S.N. 049-0017  
ADT = 14,000 (2007)  
POSTED SPEED: 40 MPH

PROJECT LOCATION:



R 9E, 3rd P.M.

IMPROVEMENT ENDS:  
STA. 110+50.00

IL 59 OVER SQUAW CREEK  
EXISTING S.N. 049-0017

IMPROVEMENT BEGINS:  
STA. 66+30.00

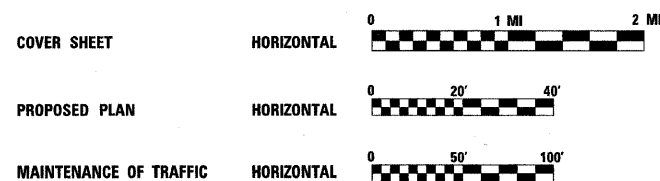
GRANT TOWNSHIP  
LOCATION MAP

GROSS AND NET LENGTH OF IMPROVEMENT = 4,420 FEET = 0.84 MILE



LOCATION OF SECTION INDICATED THIS: -

GRAPHIC SCALES:



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.

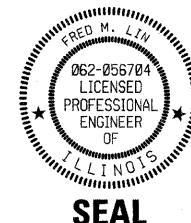
J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER: MICHELLE A. AQUINO - (847) 705-4606  
PROJECT MANAGER: RAJENDRA C. SHAH - (847) 705-4555  
CONTRACT NO.: 60J52

PREPARED BY:  
LIN ENGINEERING, LTD.  
CHATHAM, ILLINOIS 62629  
(217) 483-4168

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
SUBMITTED JANUARY 22, 2010  
Diana M. O'Keefe  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
March 19 2010  
Scott E. Stitt, P.E./e  
ACTING ENGINEER OF DESIGN AND ENVIRONMENT  
March 19 2010  
Christine M. Reed/e  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS



*Fred M. Lin*  
FRED M. LIN, P.E.  
ILLINOIS REGISTERED ENGINEER NO. 062-056704  
REGISTRATION EXPIRES NOV. 30, 2011

**INDEX OF SHEETS**

- 1 COVER SHEET
  - 2 INDEX OF SHEETS, STANDARDS, GENERAL NOTES & COMMITMENTS
  - \*3 SUMMARY OF QUANTITIES
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  - 7 PROPOSED PAVEMENT MARKING PLAN
  - 8-13 STRUCTURAL PLANS
  - 14-21 DISTRICT STANDARDS
- \* 3A-3E TYPICAL SECTIONS
- \*\* 4A-4B RESURFACING AND PAVT. MARKING

**STATE STANDARDS**

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREA OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 285001-02 FABRIC FORMED CONCRETE REVETMENT MATS
- 606001-04 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 630001-08 STEEL PLATE BEAM GUARDRAIL
- 631046-04 TRAFFIC BARRIER TERMINAL, TYPE 10
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 701006-03 OFF-RD OPERATIONS, 2L, 2W, 15'(4.5m) TO 24" (600mm) FROM EOP
- 701101-02 OFF-RD OPERATIONS, MULTILANE 15'(4.5m) TO 24"(600mm) FROM EOP
- 701201-03 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
- 701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
- 701321-10 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-06 TEMPORARY CONCRETE BARRIER
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A&B METAL POSTS (FOR SIGNS & MARKERS)

- 701301-03 701306-02 701336-05 701501-05
- 701601-06 701606-06 701701-06

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- BD03 OUTLET FOR CONCRETE CURB AND GUTTER
- BD32 BUTT JOINT AND HMA TAPER DETAILS
- TC10 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
- TC11 TYPICAL APPLICATIONS RAISED REFLECTIVE PVMT MARKERS (SNOW-PLOW RESISTANT)
- TC13 TYPICAL PAVEMENT MARKINGS
- TC16 PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
- TC22 ARTERIAL ROAD INFORMATION SIGN
- TC25 DRIVEWAY ENTRANCE SIGNING

BE800  
BE805

**COMMITMENTS**

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

**GENERAL NOTES**

1. THESE PLANS HAVE BEEN PREPARED FROM INFORMATION ACQUIRED FROM EXISTING PLANS AND NOTES RECEIVED FROM IDOT FIELD MAINTENANCE ENGINEERS.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO VARIATIONS FOUND IN THE FIELD. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. ANY ADJUSTMENTS PROPOSED BY THE CONTRACTOR MUST BE APPROVED BY THE ENGINEER. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE.
3. QUANTITIES FOR DECK SLAB REPAIR ARE APPROXIMATE. LOCATIONS WILL BE DETERMINED BY THE ENGINEER FOLLOWING REMOVAL OF THE HMA SURFACE COURSE AND HYDRO-SCARIFICATION. ACTUAL REPAIR LOCATIONS SHALL BE SHOWN ON THE AS-BUILT PLANS.
4. FORTY-EIGHT HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) OR 811 FOR LOCATIONS OF THE EXISTING UTILITIES.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
6. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
7. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
8. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
9. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
10. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION.
11. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS INTO THE CREEK. THE COST OF THIS WORK SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.
12. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
13. THE CONTRACTOR SHALL CONTACT DEBBIE HANLON, THE AREA TRAFFIC FIELD TECHNICIAN, AT (847) 438-2300 TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
14. ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
15. ALL RAISED REFLECTIVE PAVEMENT MARKS (BRIDGE) SHALL BE LOW PROFILE.
16. ACCESS SHALL BE PROVIDED AT ALL TIMES TO PROPERTIES ABUTTING THE PROPOSED IMPROVEMENT.

*Gen. Notes (Con't.)*

17. TWO CENTERLINE REFERENCES HAVE BEEN UTILIZED FOR THIS CONTRACT. PROPOSED STRUCTURAL APPROACH ROADWAY AND EROSION CONTROL IMPROVEMENTS SHALL REFERENCE ONE CENTERLINE. ALL OTHER IMPROVEMENTS INCLUDING PROPOSED RESURFACING AND PAVEMENT MARKING IMPROVEMENT SHALL REFERENCE THE OTHER CENTERLINE.
18. CONTRACTOR SHALL COORDINATE WITH ADJACENT CONTRACT AND SHALL BE AWARE THAT CERTAIN OPERATIONS MAY BE PERFORMED WITHIN PROJECT LIMIT OF THIS CONTRACT.
19. THE RESIDENT ENGINEER SHALL VERIFY THE LOCATIONS OF ALL EXISTING PAVEMENT MARKINGS PRIOR TO START OF CONSTRUCTION.
20. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1/8" (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80KPH) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (80KPH) WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3" (75MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
21. BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINTS AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE NOTED.
22. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

*Gen. Notes (Con't.)*

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS
SURFACE COURSE	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5mm) - 1 3/4"	4% @ 70 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/T4.  
 THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.  
 FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

FILE NAME =	USER NAME = #USER#	DESIGNED - DPS	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STANDARDS, GENERAL NOTES &amp; COMMITMENTS IL ROUTE 59 OVER SQUAW CREEK</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN - DPS	REVISED -			104	W-EXT-I	LAKE	21	2	
		CHECKED - FL	REVISED -			CONTRACT NO. 60J52					
		DATE - 1/2010	REVISED -			SCALE: NONE	SHEET NO. OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.

*Rev.*

SUMMARY OF QUANTITIES

URBAN  
801 FED./201 STATE

URBAN  
801 FED./201 STATE

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	X043-2A STRUCTURE	I000-2A ROADWAY	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	6		6	-
20400800	FURNISHED EXCAVATION	CU YD	10		10	-
28500100	FABRIC FORMED CONCRETE REVETMENT MAT	SQ YD	151		151	-
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	40	40		-
<del>40600635</del>	<del>LEVELING BINDER (MACHINE METHOD), N70</del>	<del>TON</del>	<del>9</del>	<del>9</del>		-
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1866	1866		-
42001300	PROTECTIVE COAT	SQ YD	28		28	-
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	196	196		-
44000915	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	201	201		-
50157300	PROTECTIVE SHIELD	SQ YD	199	199		-
50300260	BRIDGE DECK GROOVING	SQ YD	201	201		-
50300300	PROTECTIVE COAT	SQ YD	201	201		-
50300530	FLOOR DRAIN EXTENSION	EACH	4	4		-
60605100	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (ABUTTING EXISTING PAVEMENT)	FOOT	100		100	-
63300115	REMOVAL AND REINSTALLATION OF EXISTING STEEL PLATE BEAM GUARD RAIL, SINGLE RAIL	FOOT	162.5		162.5	-
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6		6	-
67100100	MOBILIZATION	L SUM	1		1	-
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1		1	-
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10		10	-
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1		1	-
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2		2	-
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1600		1600	-
70400100	TEMPORARY CONCRETE BARRIER	FOOT	312.5		312.5	-
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	275		275	-
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	9656		9656	-
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1330		1330	-
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	2		2	-
* 78100300	REPLACEMENT REFLECTOR	EACH	26		26	-
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	100		100	-
78300100	PAVEMENT MARKING REMOVAL	SQ FT	938		938	-
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	94		94	-
X0320887	POLYMER CONCRETE	CU FT	4.2	4.2		-
X0321468	PLUG EXISTING DECK DRAINS	EACH	2	2		-
XZ193500	BRIDGE DECK MICROSILICA CONCRETE OVERLAY, 2 1/4"	SQ YD	201	201		-

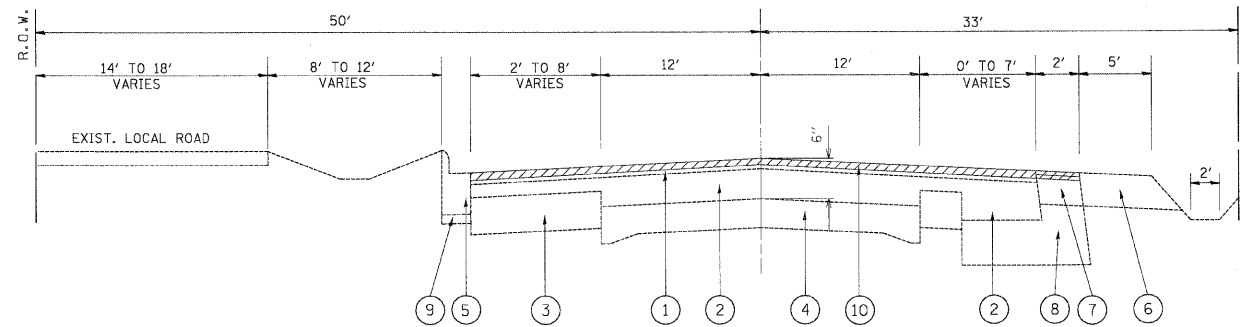
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	X043-2A STRUCTURE	I000-2A ROADWAY	
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	116		116	-
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	49	49		-
X0325775	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT	1962		1962	-
X0325841	WET REFLECTIVE TEMPORARY TAPE, TYPE III, 24 INCH	FOOT	72		72	-
Z0006204	BRIDGE DECK HYDRO-SCARIFICATION 1/2"	SQ YD	201	201		-
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	7.7	7.7		-
Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2		2	-
Z0030330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	2		2	-

Code No.	Description	Unit	URBAN 801 FED. 201 STATE Quantity	I000-2A Roadway
58700300	CONCRETE SEALER	SQ FT	127	127
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	12.50	12.50
28000400	PERIMETER EROSION BARRIER	FOOT	112	112
20201006	GRADING AND SHAPING SHOULDERS	UNIT	40	40
40600826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), JL-4.75, N50	TON	725	725
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	41	41
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2-1/4"	SQ YD	21,976	21,976
44200108	PAVEMENT PATCHING, TYPE II, 9 INCH	SQ YD	220	220
44200112	PAVEMENT PATCHING, TYPE III, 9 INCH	SQ YD	440	440
44200114	PAVEMENT PATCHING, TYPE IV, 9 INCH	SQ YD	220	220
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	190	190
70300100	SHORT TERM PAVEMENT MARKING	FOOT	3000	3000
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	146	146
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	6900	6900
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	400	400
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	160	160
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	720	720
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	48	48
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	146	146
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	400	400
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	160	160
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	48	48
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	92	92
X0326276	TEMPORARY LIGHTING FOR SINGLE LANE STAGING	L SUM	1	1

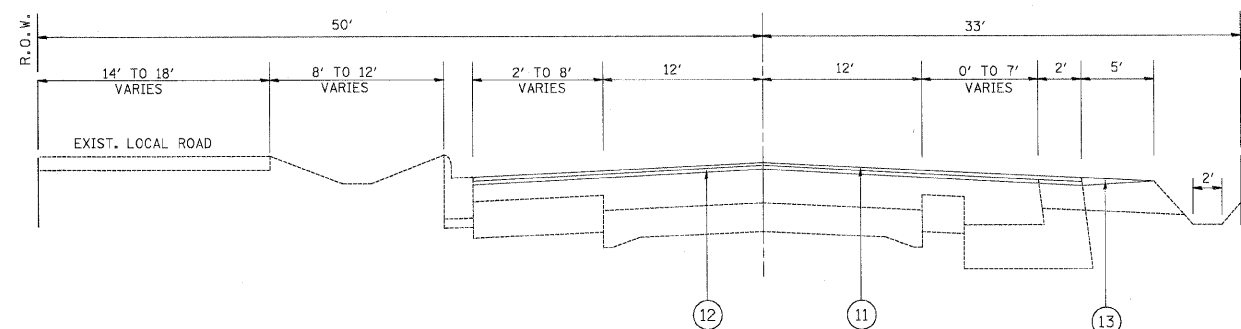
\*Specialty Items

FILE NAME =	USER NAME = @USER@	DESIGNED - SEW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE. 104	SECTION W-EXT-I	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 3
*FILE#	PLOT SCALE = @SCALE@	DRAWN - SEW	REVISED -		IL ROUTE 59 OVER SQUAW CREEK			CONTRACT NO. 60J52		ILLINOIS FED. AID PROJECT		
	PLOT DATE = @DATE@	CHECKED - FML	REVISED -		SCALE:	SHEET NO. OF SHEETS STA.	TO STA.					
		DATE - 1/2010	REVISED -									

Rev



EXISTING TYPICAL SECTION  
ILLINOIS RTE. 59  
FROM STA. 32+68 TO STA. 34+00



PROPOSED TYPICAL SECTION  
ILLINOIS RTE. 59  
FROM STA. 32+68 TO STA. 34+00

SHEET ADDED - 03/24/2010

**LEGEND**

- ① EXIST. HMA SURFACE COURSE 2-1/2"
- ② EXIST. HMA PAVEMENT 3-1/2"
- ③ EXIST. HMA BASE COURSE WIDENING 9"
- ④ EXIST. P.C. CONCRETE PAVEMENT 9"
- ⑤ EXIST. COMB. CURB AND GUTTER, TY B-6.24
- ⑥ EXIST. AGGREGATE SHOULDER TY B
- ⑦ EXIST. HMA SHOULDER 8"
- ⑧ EXIST. AGGREGATE SUBGRADE
- ⑨ EXIST. SUBBASE GRANULAR MATERIAL
- ⑩ PROP. HMA SURFACE REMOVAL 2-1/4"
- ⑪ PROP. HMA SURFACE COURSE, MIX "D" N 70, 1-1/2"
- ⑫ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N 50, 3/4"
- ⑬ PROP. AGGREGATE WEDGE SHOULDER TYPE B

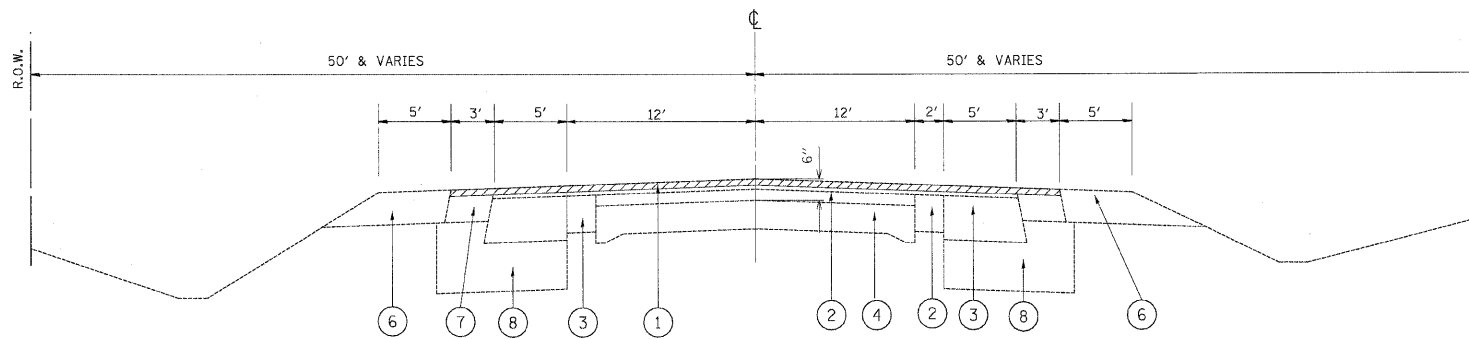
NOTE: CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

FOR USE WITH SHEETS 4A & 4B OF 21.

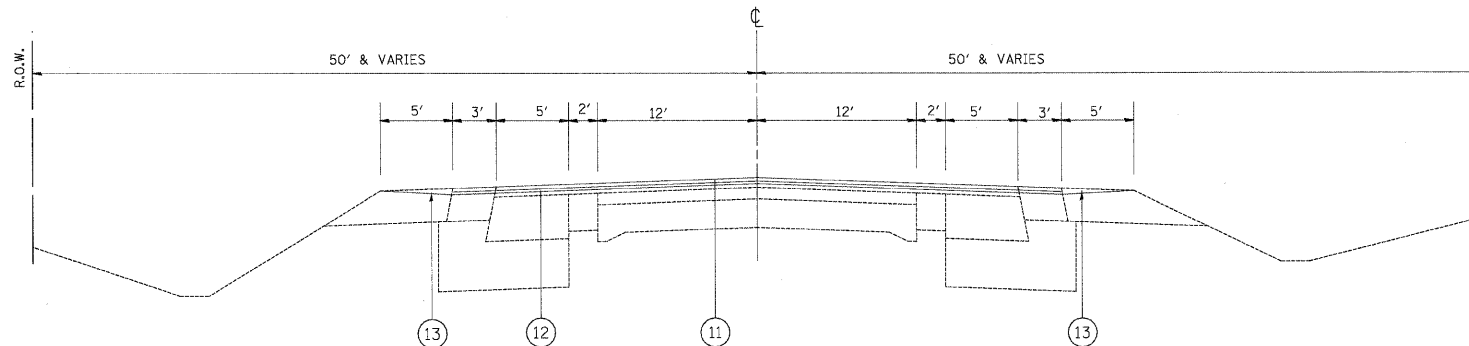
**HOT-MIX ASPHALT MIXTURE REQUIREMENT**

MIXTURE TYPE	AIR VOIDS (%)
POLY. LEVELING BINDER (MACHINE METHOD), IL 4.75, N50	4% @ 50 GYR
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	4% @ 70 GYR
CLASS D PATCHES (HMA BINDER IL-19)	4% @ 70 GYR
HMA REPLACEMENT OVER PATCHES	4% @ 70 GYR

NOTE: THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE IS 112 LBS/SQ. YD./IN.



EXISTING TYPICAL SECTION  
ILLINOIS RTE. 59  
FROM STA. 21+00 TO 29+00  
FROM STA. 60+00 TO 64+00  
FROM STA. 68+00 TO STA. 77+00  
FROM STA. 105+00 TO STA. 120+00



PROPOSED TYPICAL SECTION  
ILLINOIS RTE. 59  
FROM STA. 21+00 TO 29+00  
FROM STA. 60+00 TO 64+00  
FROM STA. 68+00 TO STA. 77+00  
FROM STA. 105+00 TO STA. 120+00

▲ SHEET ADDED - 03/24/2010

**LEGEND**

- ① EXIST. HMA SURFACE COURSE 2-1/2"
- ② EXIST. HMA PAVEMENT 3-1/2"
- ③ EXIST. HMA BASE COURSE WIDENING 9"
- ④ EXIST. P.C. CONCRETE PAVEMENT 9"
- ⑤ EXIST. COMB. CURB AND GUTTER, TY B-6.24
- ⑥ EXIST. AGGREGATE SHOULDER TY B
- ⑦ EXIST. HMA SHOULDER 8"
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- ⑨ EXIST. SUBBASE GRANULAR MATERIAL
- ⑩ PROP. HMA SURFACE REMOVAL 2-1/4"
- ⑪ PROP. HMA SURFACE COURSE, MIX "D" N 70, 1-1/2"
- ⑫ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N 50, 3/4"
- ⑬ PROP. AGGREGATE WEDGE SHOULDER TYPE B

NOTE: CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

FOR USE WITH SHEETS 4A & 4B OF 21.

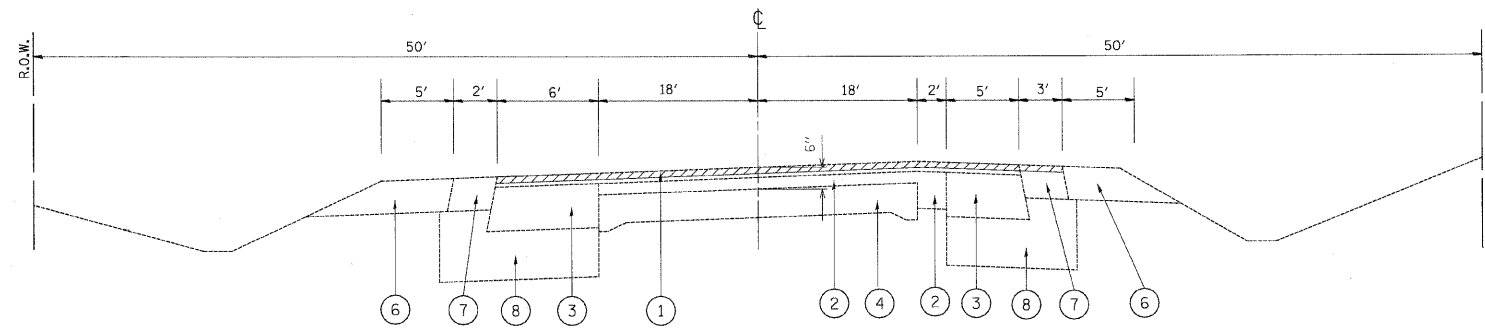
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

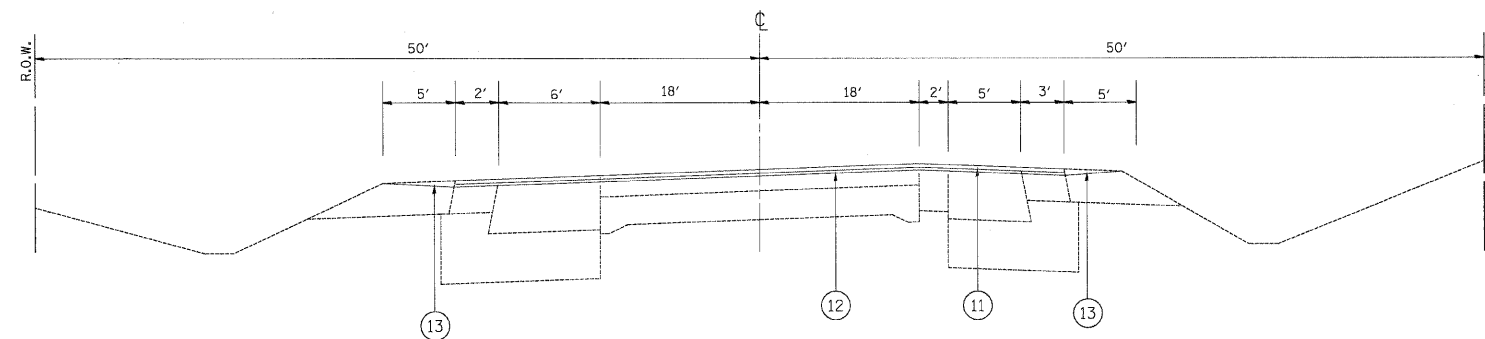
**ILLINOIS ROUTE 59  
EXISTING AND PROPOSED TYPICAL SECTIONS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
104	W-EXT-I	LAKE	21	3B
CONTRACT NO. 60J52				
ILLINOIS FED. AID PROJECT				



EXISTING TYPICAL SECTION  
ILLINOIS RTE. 59  
FROM STA. 79+00 TO STA. 94+00  
FROM STA. 124+00 TO STA. 154+00



PROPOSED TYPICAL SECTION  
ILLINOIS RTE. 59  
FROM STA. 79+00 TO STA. 94+00  
FROM STA. 124+00 TO STA. 154+00

▲ SHEET ADDED - 03/24/2010

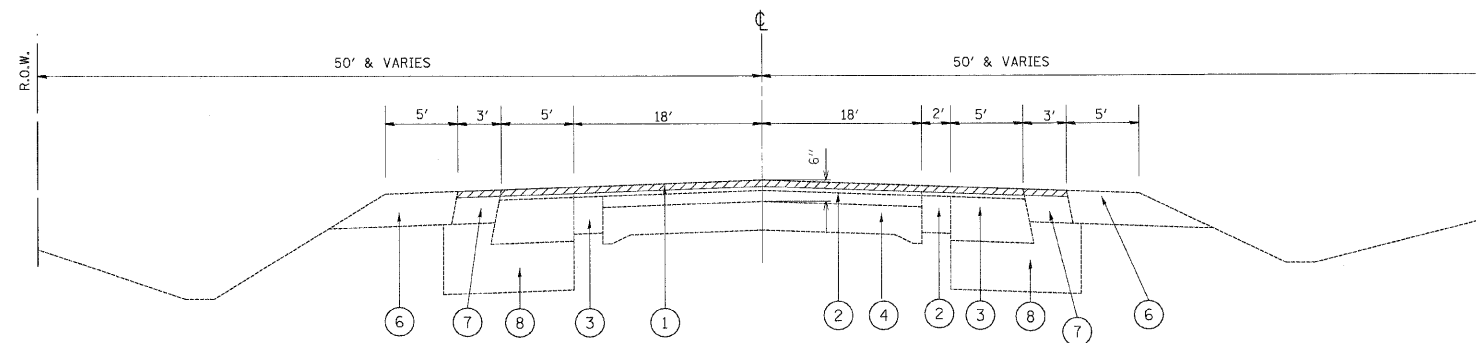
LEGEND

- ① EXIST. HMA SURFACE COURSE 2-1/2"
- ② EXIST. HMA PAVEMENT 3-1/2"
- ③ EXIST. HMA BASE COURSE WIDENING 9"
- ④ EXIST. P.C. CONCRETE PAVEMENT 9"
- ⑤ EXIST. COMB. CURB AND GUTTER, TY B-6.24
- ⑥ EXIST. AGGREGATE SHOULDER TY B
- ⑦ EXIST. HMA SHOULDER 8"
- ⑧ EXIST. AGGREGATE SUBGRADE
- ⑨ EXIST. SUBBASE GRANULAR MATERIAL
- ⑩ PROP. HMA SURFACE REMOVAL 2-1/4"
- ⑪ PROP. HMA SURFACE COURSE, MIX "D" N 70, 1-1/2"
- ⑫ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N 50, 3/4"
- ⑬ PROP. AGGREGATE WEDGE SHOULDER TYPE B

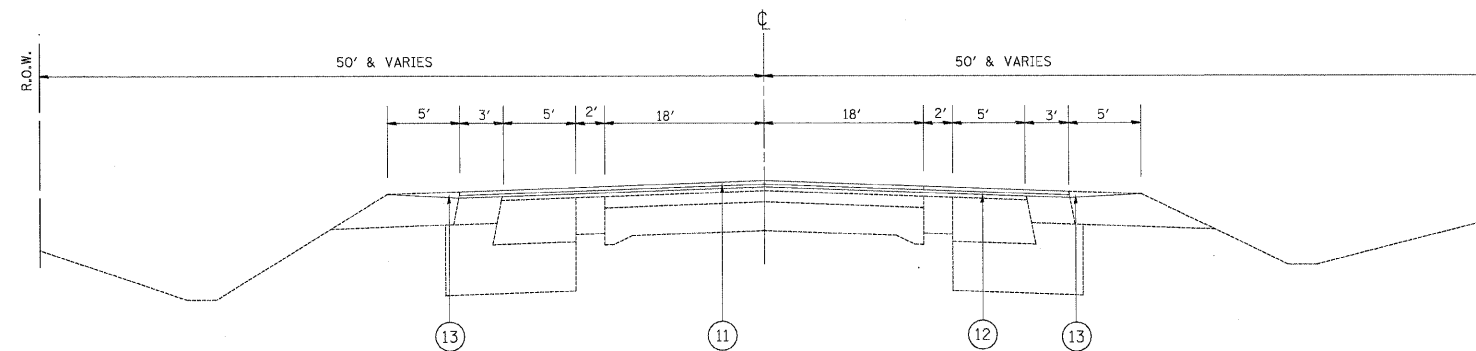
NOTE: CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

FOR USE WITH SHEETS 4A & 4B OF 21.

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED - ^	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 59 EXISTING AND PROPOSED TYPICAL SECTIONS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -			104	W-EXT-I	LAKE	21	3C
PLOT SCALE = #SCALE#		CHECKED -	REVISED -			CONTRACT NO. 60J52				
PLOT DATE = #DATE#		DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
				SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.			



EXISTING TYPICAL SECTION  
ILLINOIS RTE. 59  
FROM STA. 172+00 TO 227+00



PROPOSED TYPICAL SECTION  
ILLINOIS RTE. 59  
FROM STA. 172+00 TO STA. 227+00

**LEGEND**

- ① EXIST. HMA SURFACE COURSE 2-1/2"
- ② EXIST. HMA PAVEMENT 3-1/2"
- ③ EXIST. HMA BASE COURSE WIDENING 9"
- ④ EXIST. P.C. CONCRETE PAVEMENT 9"
- ⑤ EXIST. COMB. CURB AND GUTTER, TY B-6.24
- ⑥ EXIST. AGGREGATE SHOULDER TY B
- ⑦ EXIST. HMA SHOULDER 8"
- ⑧ EXIST. AGGREGATE SUBGRADE
- ⑨ EXIST. SUBBASE GRANULAR MATERIAL
- ⑩ PROP. HMA SURFACE REMOVAL 2-1/4"
- ⑪ PROP. HMA SURFACE COURSE, MIX "D" N 70, 1-1/2"
- ⑫ PROP. POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N 50, 3/4"
- ⑬ PROP. AGGREGATE WEDGE SHOULDER TYPE B

NOTE: CONTRACTOR SHALL MILL FIRST BEFORE PATCHING

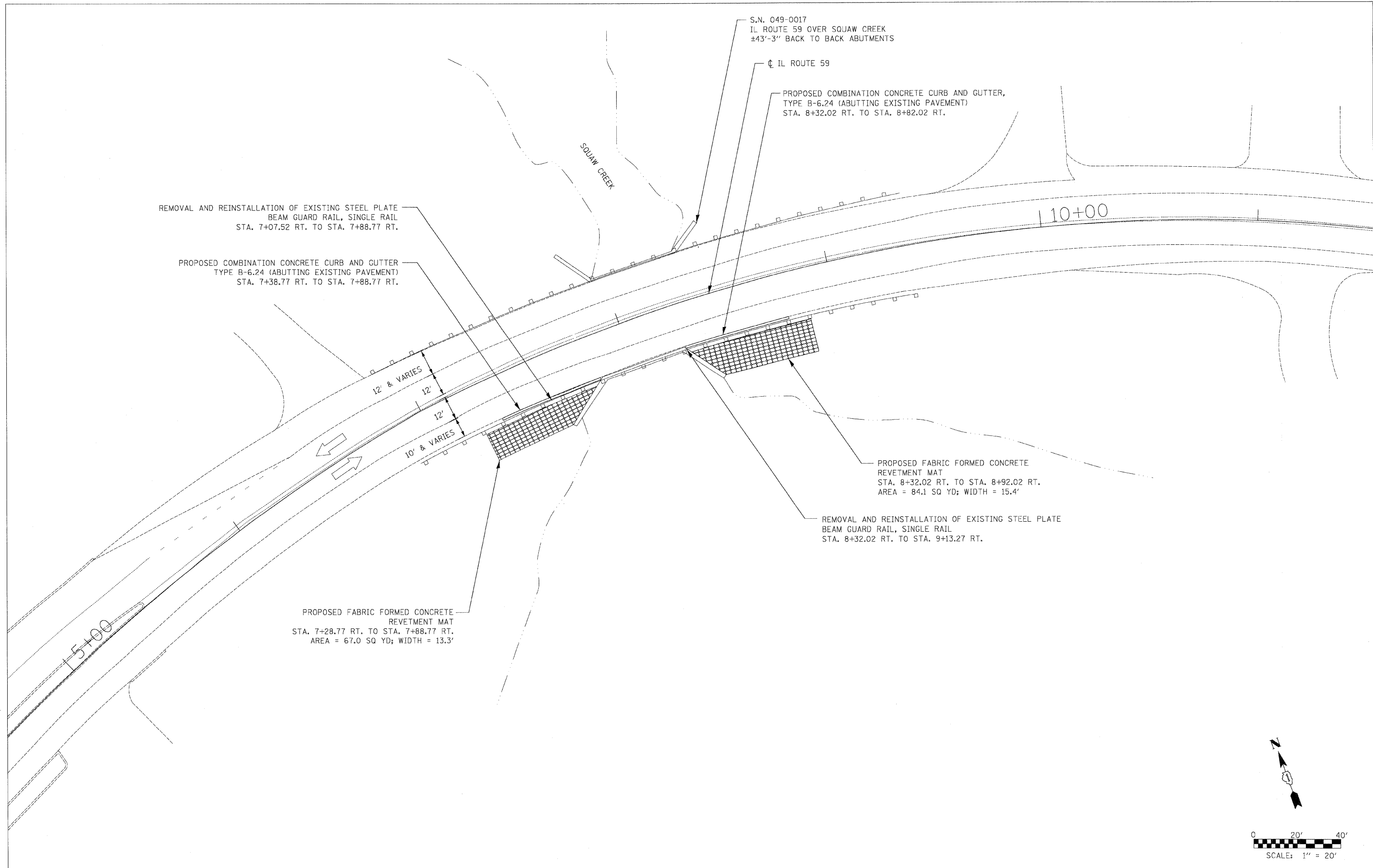
FOR USE WITH SHEETS 4A & 4B OF 21.

⚠ SHEET ADDED - 03/24/2010

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED - *	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ILLINOIS ROUTE 59 EXISTING AND PROPOSED TYPICAL SECTIONS</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	104	W-EXT-I	LAKE	21	3D
		CHECKED -	REVISED -		CONTRACT NO. 60J52							
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							







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	PLOT DATE = #DATE#	DATE - 12/2009	REVISED - ---

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED ROADWAY PLAN  
IL ROUTE 59 OVER SQUAW CREEK**

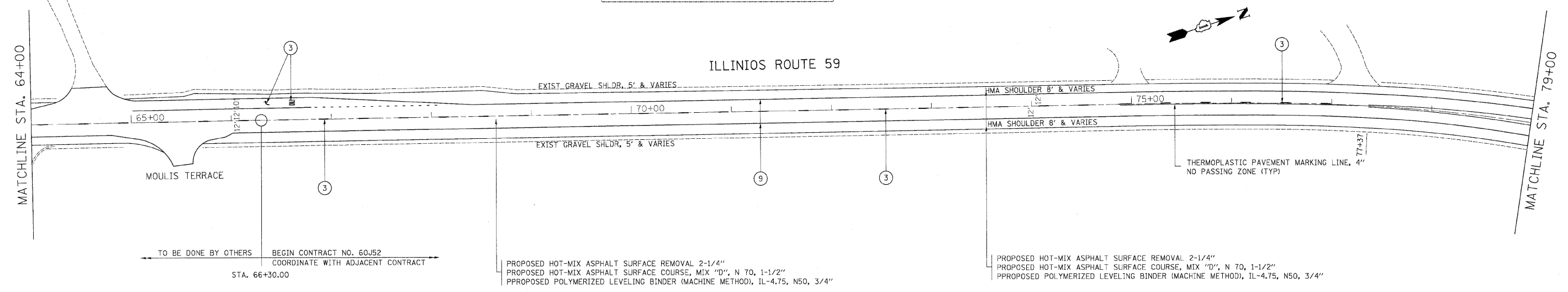
SCALE: 1"=50'    SHEET NO. \_\_\_ OF \_\_\_ SHEETS    STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
104	W-EXT-1	LAKE	21	4
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J52	

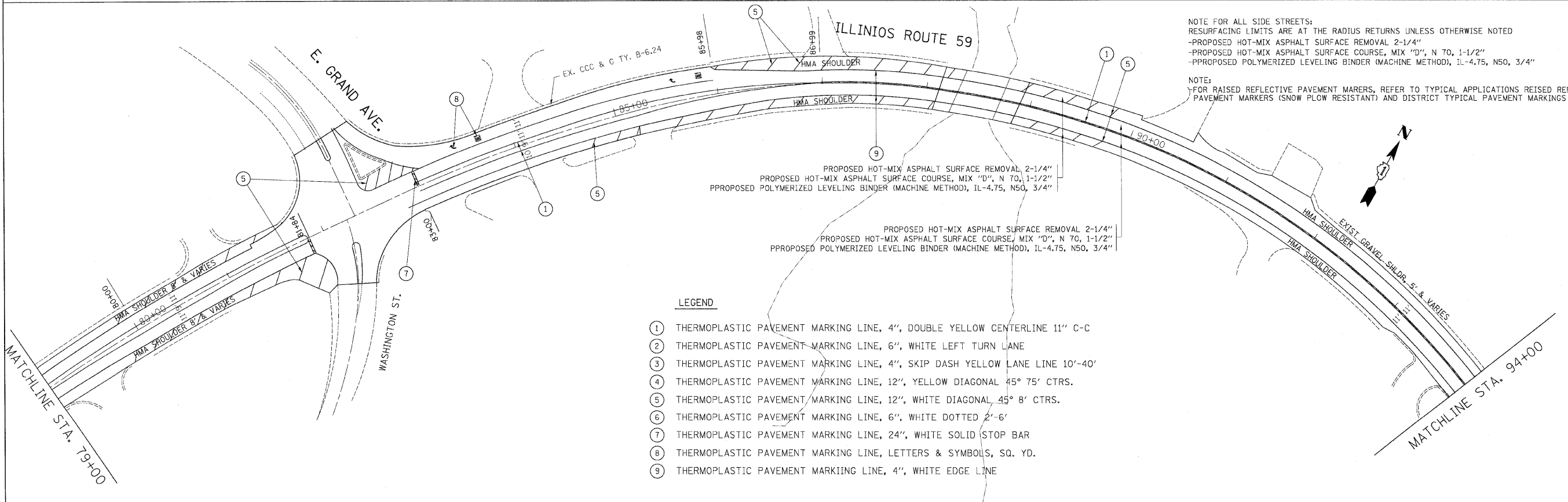
NOTE FOR ALL SIDE STREETS:  
 RESURFACING LIMITS ARE AT THE RADIUS RETURNS UNLESS OTHERWISE NOTED  
 -PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2-1/4"  
 -PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N 70, 1-1/2"  
 -PPROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"

NOTE:  
 -FOR RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO TYPICAL APPLICATIONS REISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) AND DISTRICT TYPICAL PAVEMENT MARKINGS

▲ SHEET ADDED - 03/24/2010



PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2-1/4"  
 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N 70, 1-1/2"  
 PPROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"



NOTE FOR ALL SIDE STREETS:  
 RESURFACING LIMITS ARE AT THE RADIUS RETURNS UNLESS OTHERWISE NOTED  
 -PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2-1/4"  
 -PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N 70, 1-1/2"  
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NOTE:  
 -FOR RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO TYPICAL APPLICATIONS REISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) AND DISTRICT TYPICAL PAVEMENT MARKINGS

- LEGEND**
- ① THERMOPLASTIC PAVEMENT MARKING LINE, 4", DOUBLE YELLOW CENTERLINE 11" C-C
  - ② THERMOPLASTIC PAVEMENT MARKING LINE, 6", WHITE LEFT TURN LANE
  - ③ THERMOPLASTIC PAVEMENT MARKING LINE, 4", SKIP DASH YELLOW LANE LINE 10'-40'
  - ④ THERMOPLASTIC PAVEMENT MARKING LINE, 12", YELLOW DIAGONAL 45° 75' CTRS.
  - ⑤ THERMOPLASTIC PAVEMENT MARKING LINE, 12", WHITE DIAGONAL 45° 8' CTRS.
  - ⑥ THERMOPLASTIC PAVEMENT MARKING LINE, 6", WHITE DOTTED 2'-6"
  - ⑦ THERMOPLASTIC PAVEMENT MARKING LINE, 24", WHITE SOLID STOP BAR
  - ⑧ THERMOPLASTIC PAVEMENT MARKING LINE, LETTERS & SYMBOLS, SQ. YD.
  - ⑨ THERMOPLASTIC PAVEMENT MARKING LINE, 4", WHITE EDGE LINE

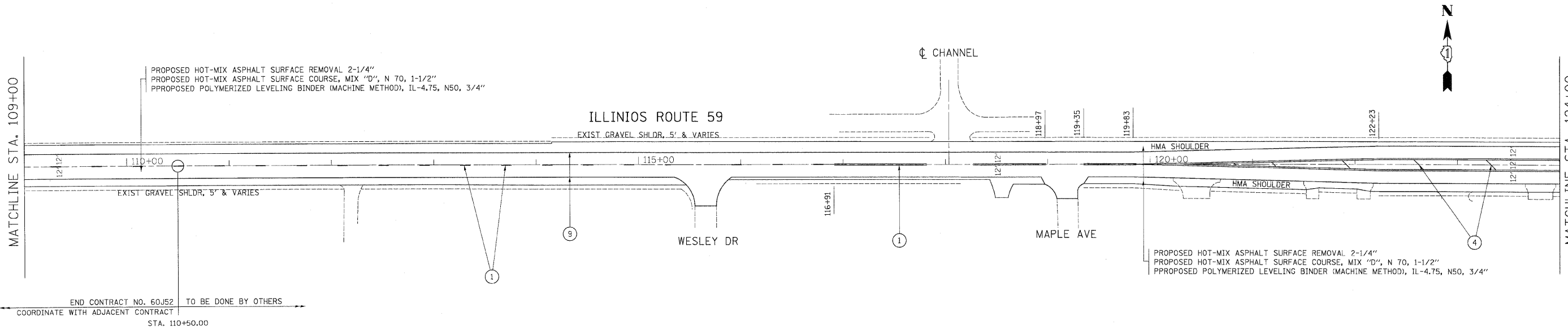
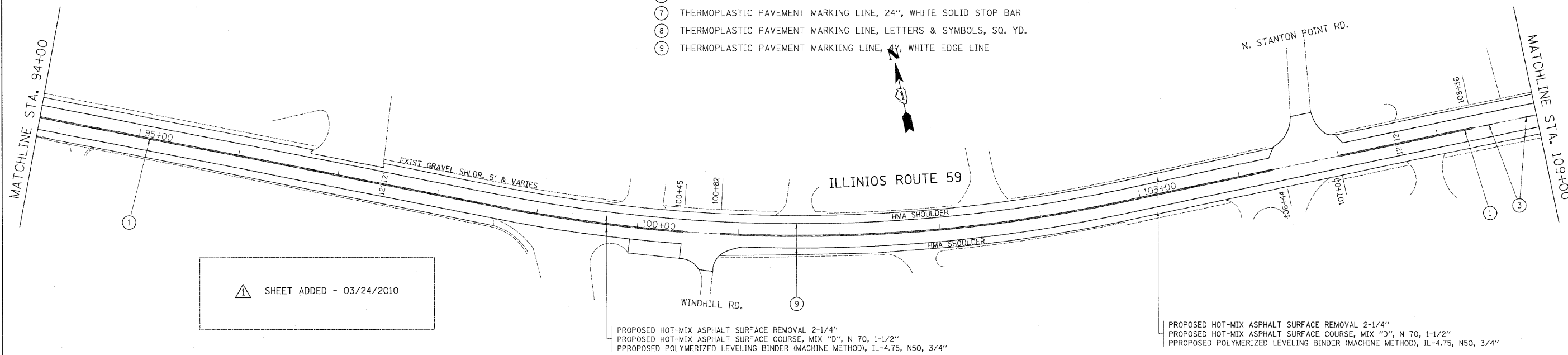
FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL. ROUTE 59 RESURFACING &amp; PAVEMENT MARKING PLANS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	104	W-EXT-1	LAKE	21	4A	
		CHECKED -	REVISED -										
		DATE -	REVISED -										
								CONTRACT NO. 60J52				ILLINOIS FED. AID PROJECT	

NOTE FOR ALL SIDE STREETS:  
RESURFACING LIMITS ARE AT THE RADIUS RETURNS UNLESS OTHERWISE NOTED  
-PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2-1/4"  
-PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N 70, 1-1/2"  
-PPROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"

NOTE:  
-FOR RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO TYPICAL APPLICATIONS REISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT) AND DISTRICT TYPICAL PAVEMENT MARKINGS









LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING LINE, 4", DOUBLE YELLOW CENTERLINE 11" C-C
- ② THERMOPLASTIC PAVEMENT MARKING LINE, 6", WHITE LEFT TURN LANE
- ③ THERMOPLASTIC PAVEMENT MARKING LINE, 4", SKIP DASH YELLOW LANE LINE 10'-40'
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- ⑨ THERMOPLASTIC PAVEMENT MARKING LINE, 4", WHITE EDGE LINE



FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>IL ROUTE 59 RESURFACING &amp; PAVEMENT MARKING PLANS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	104	W-EXT-I	LAKE	21	4B	
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	PLOT DATE = #DATE#	DATE -	REVISED -										
CONTRACT NO. 60J52													
ILLINOIS FED. AID PROJECT													

**LEGEND**

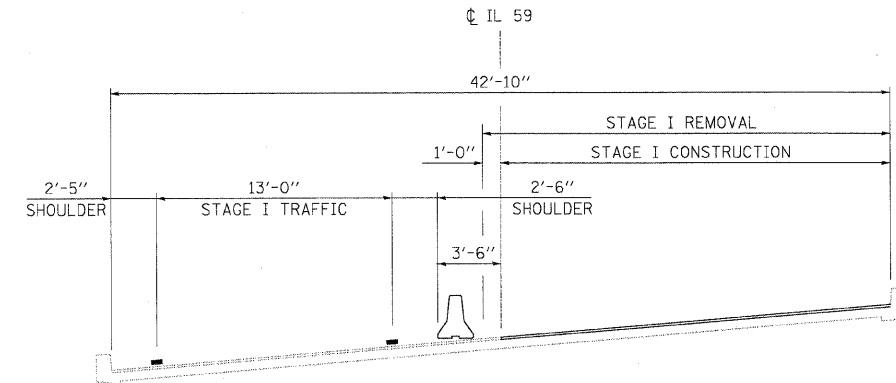
-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT/DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT (PER HWY. STD. 701401-05)
-  SIGN
-  DETECTOR LOOPS
-  TRAFFIC SIGNAL

**STAGE I CONSTRUCTION:**

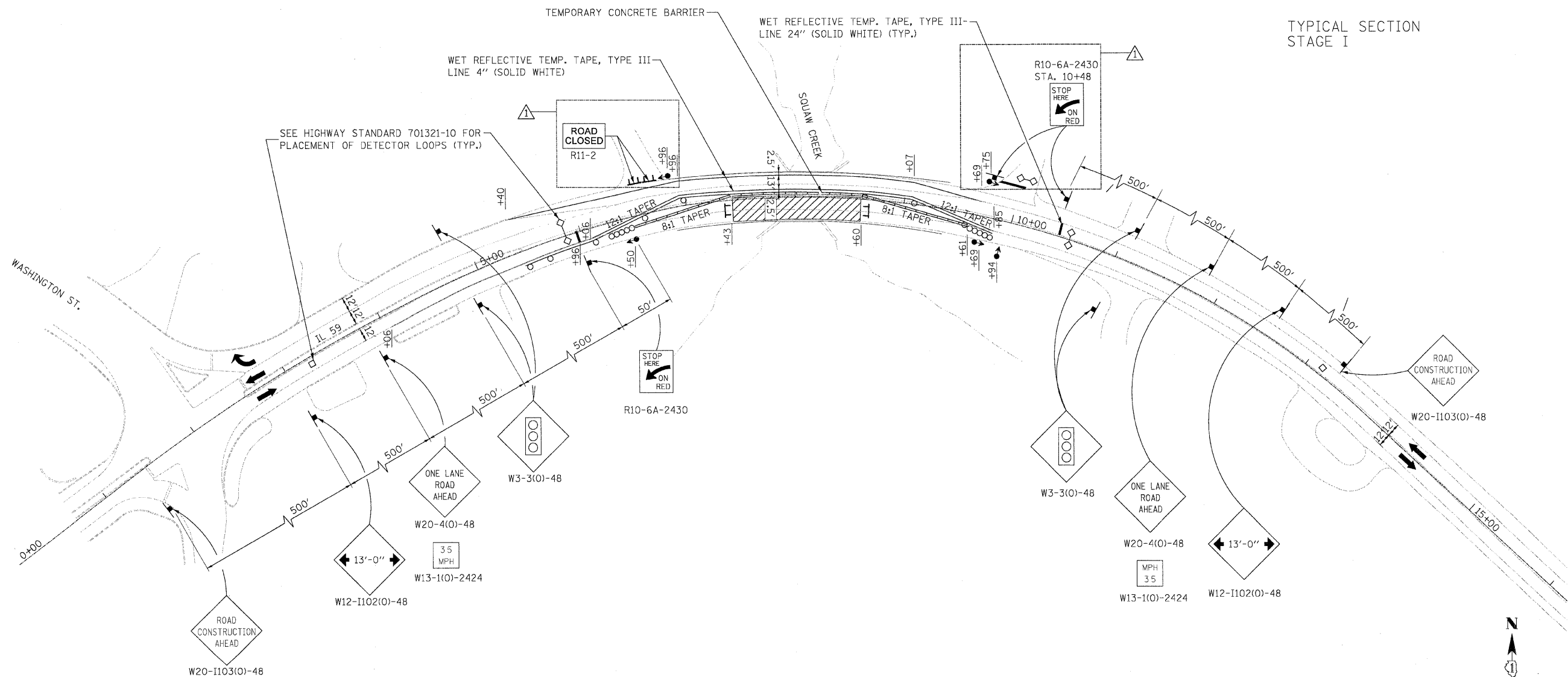
1. REMOVE CONFLICTING EXISTING PAVEMENT MARKING LINES AND REFLECTORS UNDER HIGHWAY STANDARD 701201-03.
2. CLOSE THE DRIVEWAY AT STA. 6+76.68 LT, FOR THE DURATION OF THE PROJECT.
3. CLOSE SOUTH HALF OF IL ROUTE 59 IN ACCORDANCE WITH HIGHWAY STANDARD 701321-10 AND AS SHOWN IN THE PLANS.
4. PERFORM SOUTH HALF STRUCTURAL AND APPROACH ROADWAY REPAIRS AS SHOWN IN THE PLANS.
5. REMOVE AND RELOCATE TEMP. SIGNALS, DETECTOR LOOPS, STOP BARS AND SIGNS PER STAGING PLANS.

**NOTES:**

1. ALL SIGNS SHALL BE MOUNTED WITH STEADY BURN LIGHTS AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION.
2. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT WASHINGTON STREET AT 200' AND 700' FROM THE INTERSECTION WITH IL ROUTE 59 AT BOTH NORTH AND SOUTH APPROACHES.
3. THE COST OF PROVIDING FOR MAINTENANCE OF TRAFFIC AS NOTED ABOVE AND FOR ALL WORK AS SHOWN IN THE PLANS, INCLUDING FROM STA. 66+30 TO STA. 110+50, SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT COST PER LUMP SUM FOR "TRAFFIC CONTROL AND PROTECTION, (SPECIALY)".











**TYPICAL SECTION STAGE I**



FILE NAME =	USER NAME = #USER#	DESIGNED - ST	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAINTENANCE OF TRAFFIC - STAGE I IL ROUTE 59 OVER SQUAW CREEK</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - ST	REVISED -		SCALE: 1"=50'	SHEET NO. OF SHEETS	STA. TO STA.	104	W-EXT-1	LAKE	21	5
		CHECKED - FML	REVISED -					CONTRACT NO. 60J52				
		DATE - 12/2009	REVISED -					ILLINOIS FED. AID PROJECT				

**LEGEND**

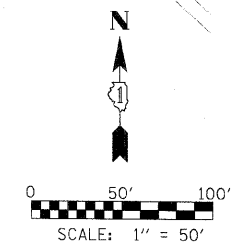
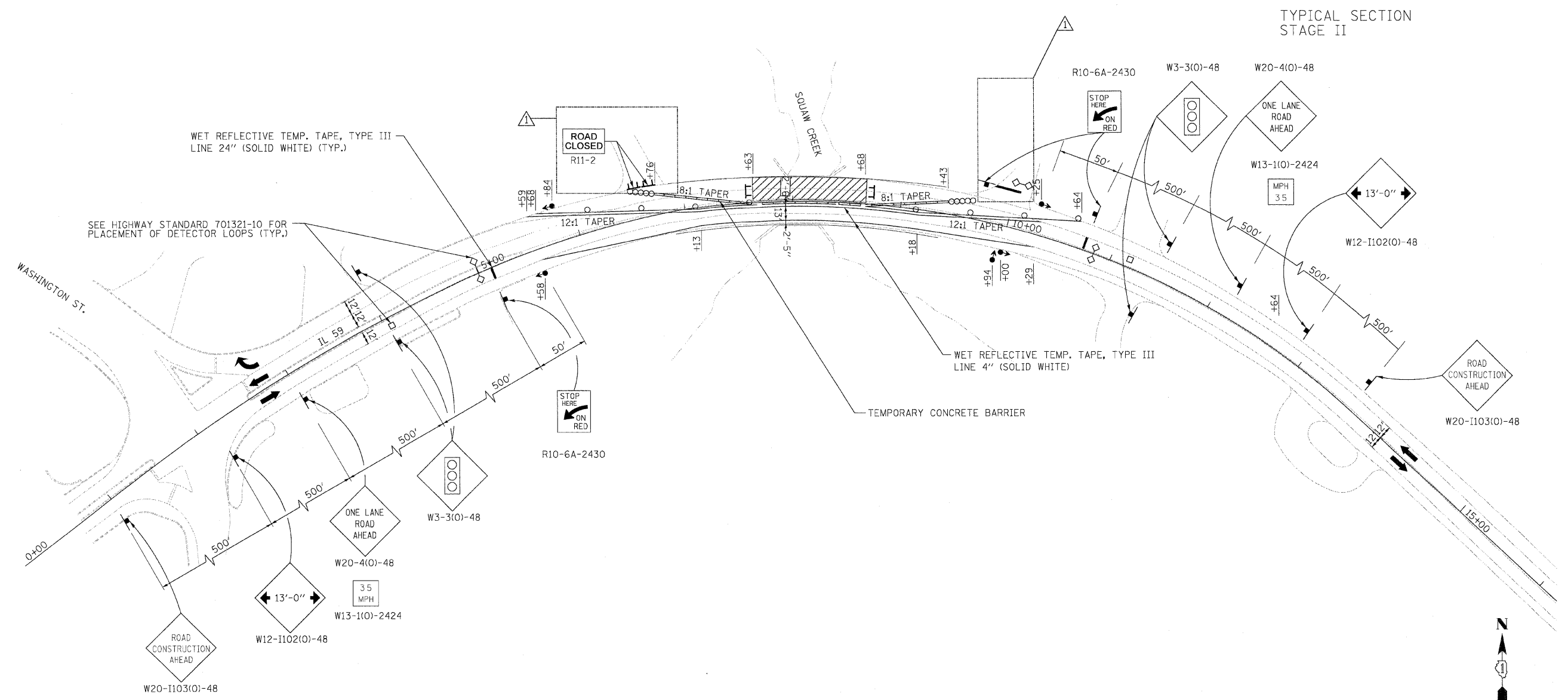
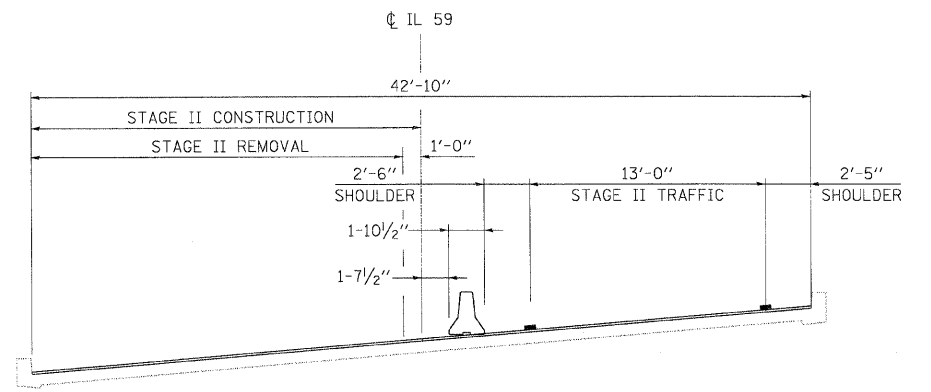
-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3
-  TYPE III BARRICADE
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT / DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT (PER HWY. STD. 701321-10)
-  SIGN
-  DETECTOR LOOPS
-  TRAFFIC SIGNAL

**STAGE II CONSTRUCTION:**

1. CLOSE NORTH HALF OF IL ROUTE 59 IN ACCORDANCE WITH HIGHWAY STANDARD 701321-10 AND AS SHOWN IN THE PLANS.
2. PERFORM NORTH HALF STRUCTURAL AND APPROACH ROADWAY REPAIRS AS SHOWN IN THE PLANS.
3. APPLY PERMANENT PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKER, REPLACEMENT REFLECTORS UNDER HIGHWAY STANDARD 701311-03.

**NOTES:**

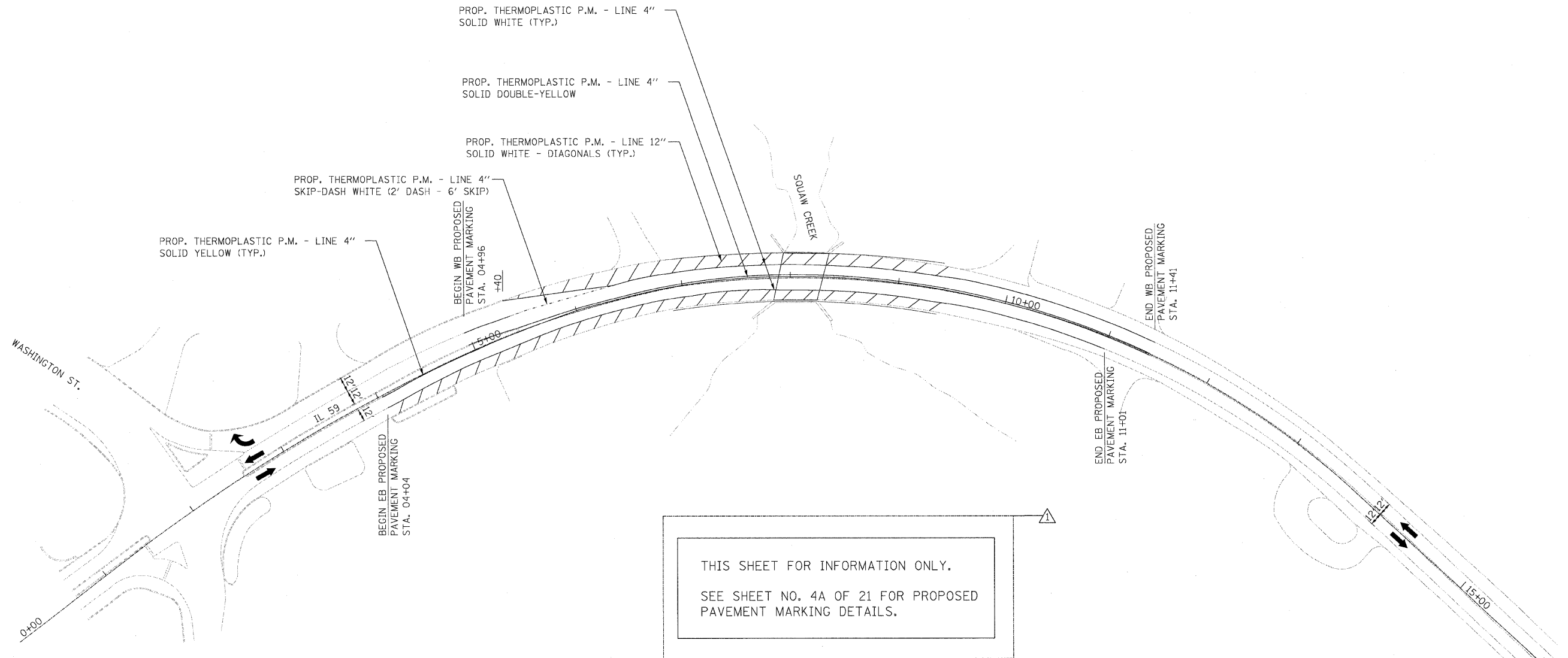
1. ALL SIGNS SHALL BE MOUNTED WITH STEADY BURN LIGHTS AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION.
2. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT WASHINGTON STREET AT 200' AND 700' FROM THE INTERSECTION WITH IL ROUTE 59 AT BOTH NORTH AND SOUTH APPROACHES.
3. THE COST OF PROVIDING FOR MAINTENANCE OF TRAFFIC AS NOTED ABOVE AND FOR ALL WORK AS SHOWN IN THE PLANS, INCLUDING FROM STA. 66+30 TO STA. 110+50, SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT COST PER LUMP SUM FOR "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)".



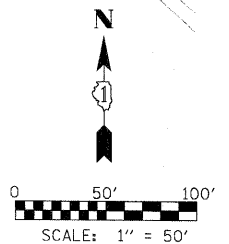
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#FILE#		DRAWN - ST	REVISED -		SCALE: 1"=50'	SHEET NO. OF	SHEETS	STA. TO STA.	CONTRACT NO. 60J52				
		CHECKED - FML	REVISED -						ILLINOIS FED. AID PROJECT				
		DATE - 12/2009	REVISED -										

**NOTES:**

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" (TC-13).
2. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, 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 A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID PRICE FOR THE WORK.



THIS SHEET FOR INFORMATION ONLY.  
SEE SHEET NO. 4A OF 21 FOR PROPOSED PAVEMENT MARKING DETAILS.



FILE NAME =	USER NAME = #USER#	DESIGNED - ST	REVISED -
#FILE#		DRAWN - ST	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - FML	REVISED -
	PLOT DATE = #DATE#	DATE - 01/2010	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED PAVEMENT MARKING PLAN (VOID)  
IL ROUTE 59 OVER SQUAW CREEK**

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
104	W-EXT-1	LAKE	21	7
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J52	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Existing Structure:  
Structure No. 049-0017 was built in 1973 as F.A. 59 Section (W&J06)W&RS-1. Existing structure is a single span steel superstructure with a 7 1/2" reinforced concrete deck supported on closed abutments, 43'-3" bk. to bk. abutments, 44'-6" out to out deck with a left ahead skew of 12°30'. The existing structure has a 1 1/2" bituminous overlay. Stage construction shall be utilized to maintain traffic during construction.

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

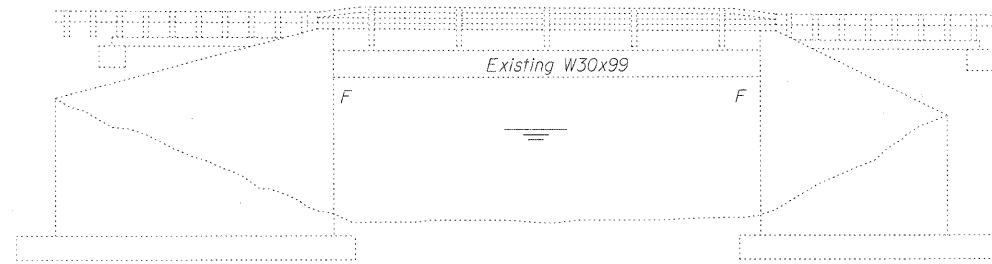
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

INDEX OF SHEETS

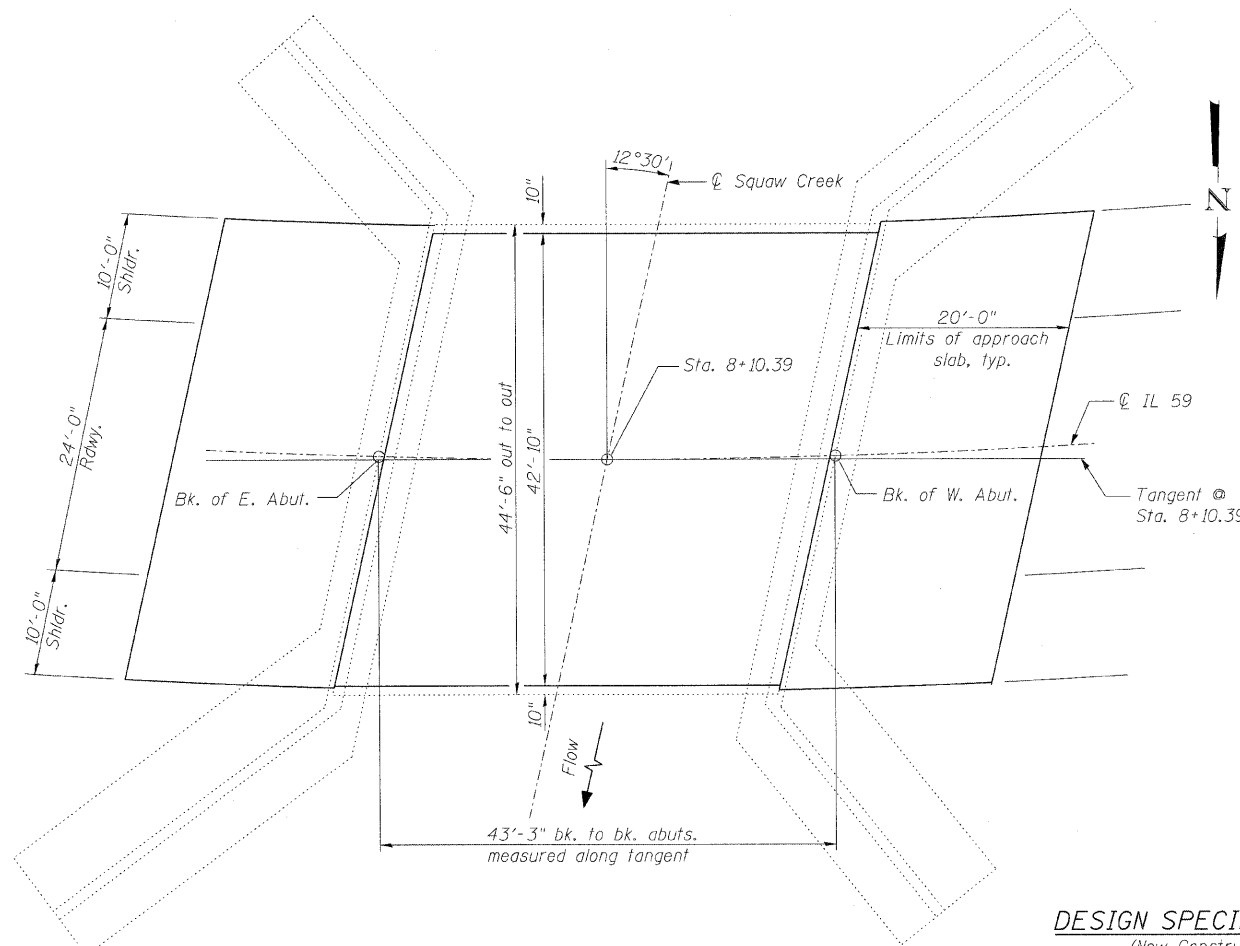
1. General Plan and Elevation
2. Stage Construction Details
3. Temporary Concrete Barrier for Stage Construction
4. Deck Repair and Joint Details
5. Deck Drain Details
6. Abutment Repair

SCOPE OF WORK

1. Remove existing bituminous overlay
2. Hydroscarify 1/2" slab surface
3. Repair deck slab
4. Place overlay on deck and approaches
5. Repair abutment concrete
6. Floor drain modifications
7. Apply Concrete Sealer to top and inside face of existing parapets
8. Apply Protective Coat to top of deck



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Bituminous Materials (Prime Coat)	Gallon	40	-	40
Hot-Mix Asphalt Surface Course, Mix "D", N70, 1 1/4"	Tons	20	-	20
Protective Coat	Sq. Yd.	201	-	201
Hot-Mix Asphalt Surface Removal, 1 1/2"	Sq. Yd.	196	-	196
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	201	-	201
Protective Shield	Sq. Yd.	199	-	199
Bridge Deck Grooving	Sq. Yd.	201	-	201
Floor Drain Extension	Each	4	-	4
Concrete Sealer	Sq. Ft.	127	-	127
Bridge Deck Hydro-Scarification 1/2"	Sq. Yd.	201	-	201
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	177	-	177
Bridge Deck Microsilica Concrete Overlay, 2 1/4"	Sq. Yd.	201	-	201
Plug Existing Deck Drains	Each	2	-	2
Polymer Concrete	Cu. Ft.	4.2	-	4.2
Structural Repair of Concrete (Depth Equal to or less than 5 in.)	Sq. Ft.	-	49	49

DESIGN STRESSES

FIELD UNITS

Existing Construction

- $f_c = 1,200$  psi (Deck)
- $f_c = 1,000$  psi (Substructure)
- $f_s = 20,000$  psi (Reinforcement)
- $f_s = 27,000$  psi (Structural Steel)

New Construction

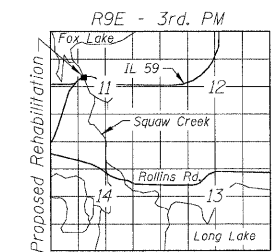
- $f'_c = 3,500$  psi
- $f_y = 60,000$  psi (Reinforcement)

DESIGN SPECIFICATIONS

(New Construction)  
2002 AASHTO "Standard  
Specifications for Highway Bridges"

LOADING HS 20-44

(Original Construction)



LOCATION SKETCH



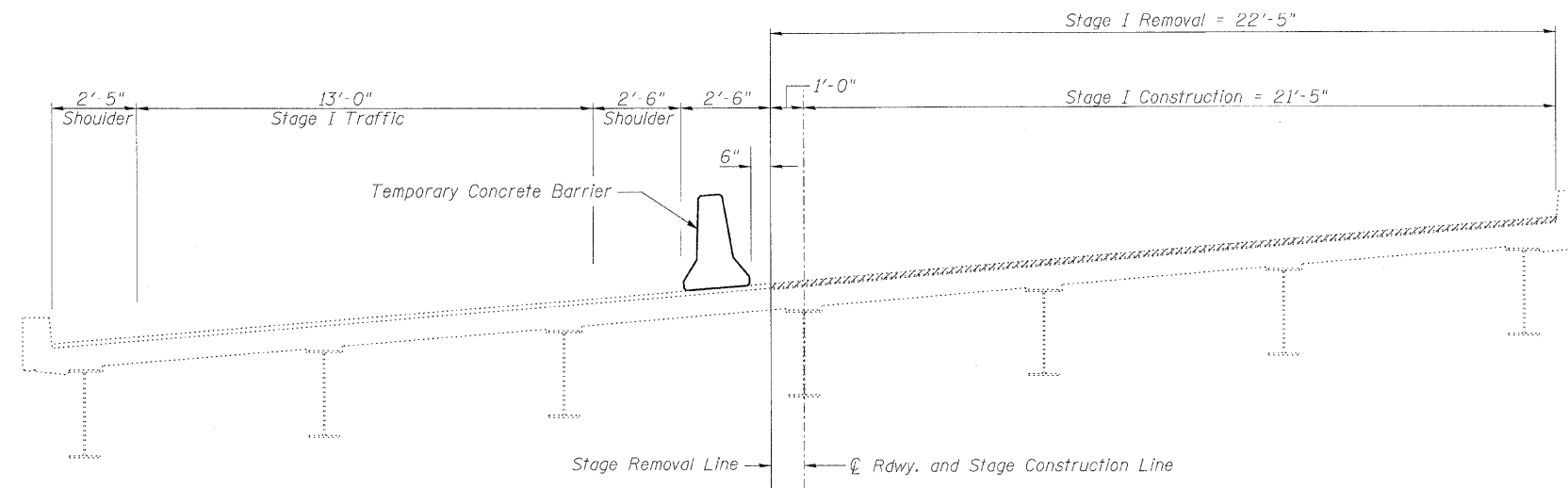
Michael T. Haley 1/27/10

Michael T. Haley  
Licensed Structural Engineer  
State of Illinois No. 81-5991  
Expires 11/30/2010

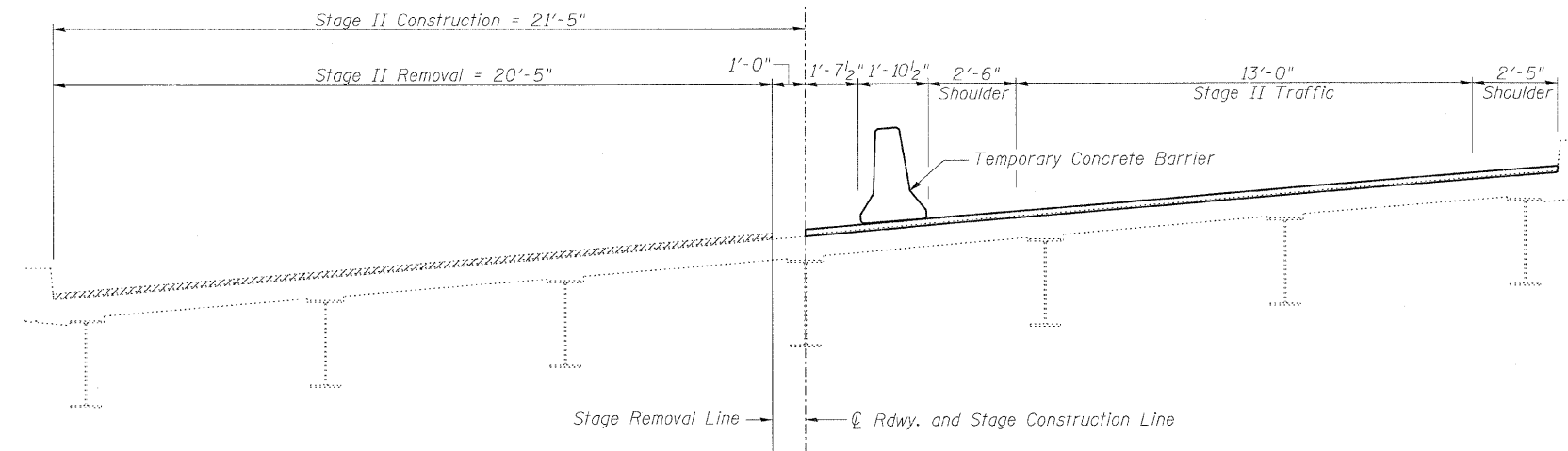
GENERAL PLAN AND ELEVATION  
IL 59 OVER SQUAW CREEK  
F.A.P. RTE 104 - SECTION W-EXT-1  
LAKE COUNTY  
STATION 8+10.39  
STRUCTURE NO. 049-0017

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 1	F.A.P. RTE. 104	SECTION W-EXT-1	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 8
	6 SHEETS	CONTRACT NO. 60J52		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION




**STAGE I REMOVAL & CONSTRUCTION**  
(Looking West)



**STAGE II REMOVAL & CONSTRUCTION**  
(Looking West)

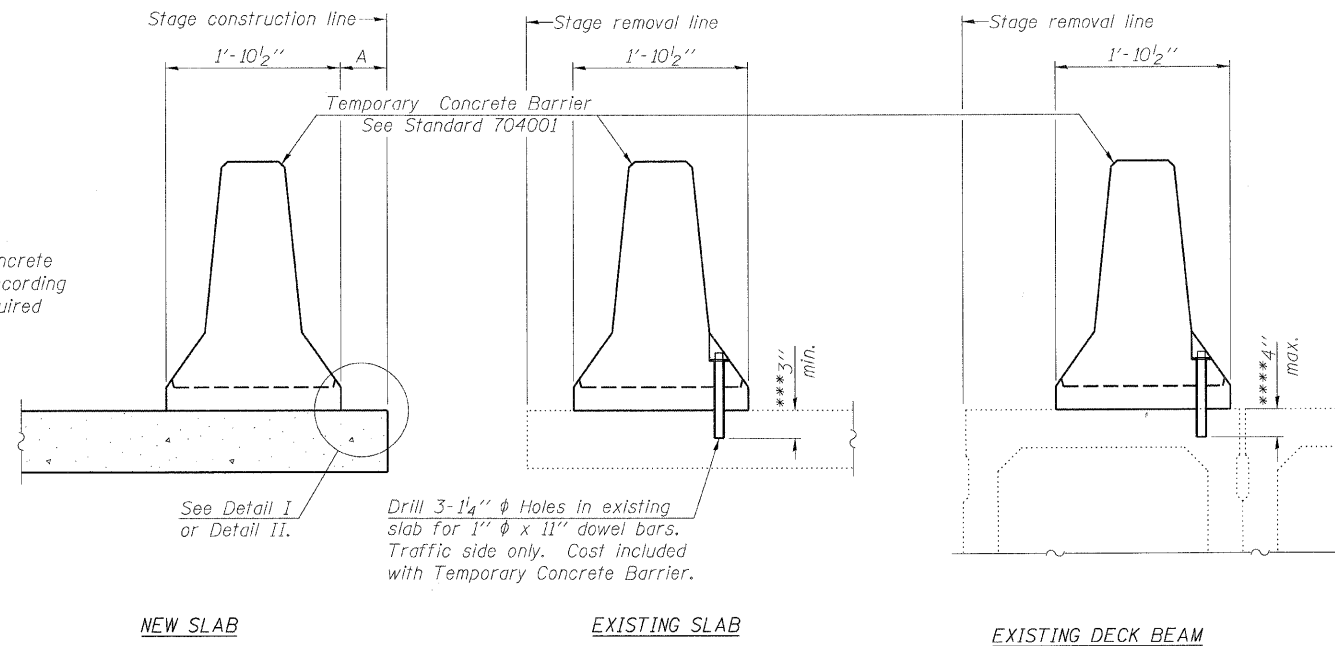
**STAGE CONSTRUCTION DETAILS**  
STRUCTURE NO. 049-0017

 <b>LIN ENGINEERING, LTD.</b> Consulting Engineers Chatham, Illinois	SHEET NO. 2  6 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		104	W-EXT-1	LAKE	21	9
		CONTRACT NO. 60J52				
Designed By: ESH Date: 1/2010		Checked By: MTH File: 049-0017.dgn		FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT		



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

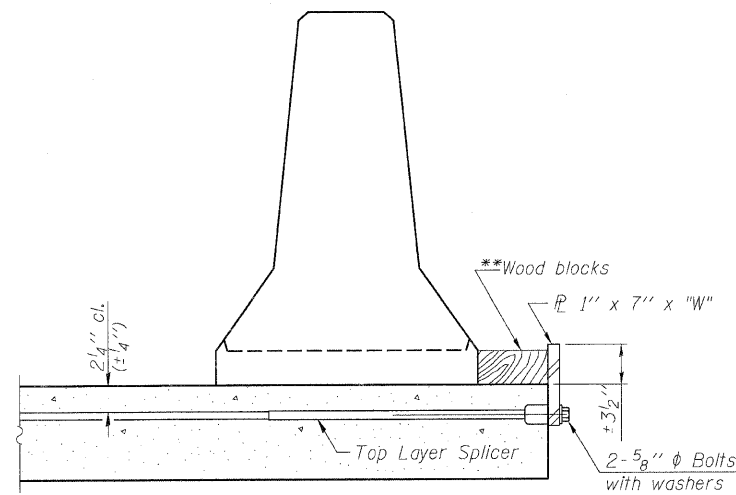
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate CL of each barrier panel.

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 CL of each barrier panel.

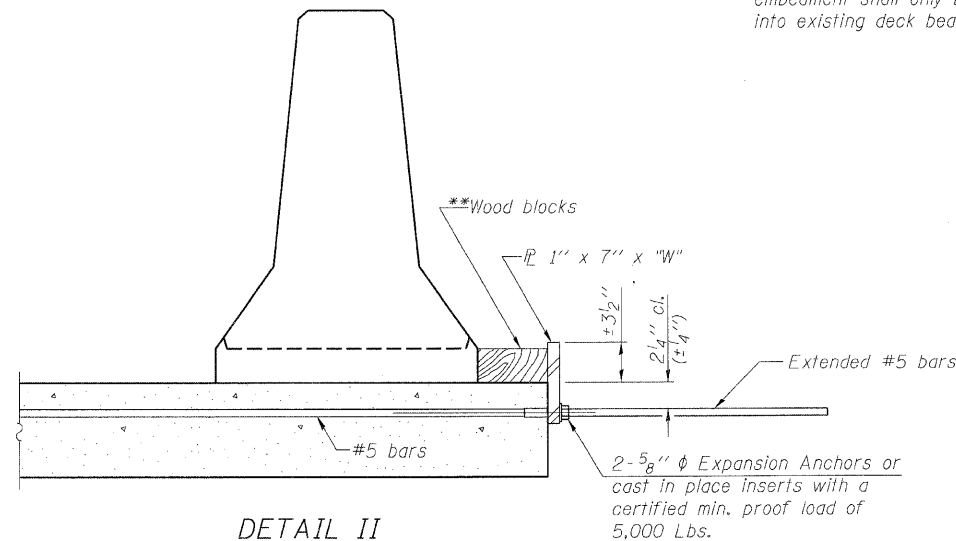
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* 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.

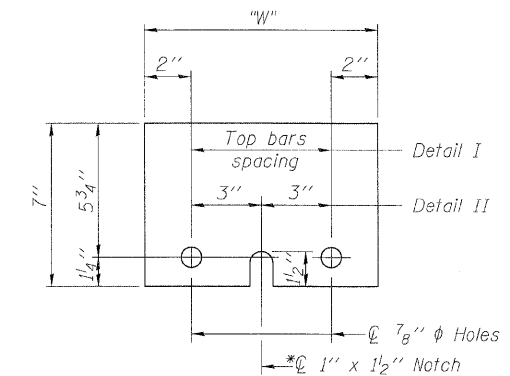
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x 10"

\* Required only with Detail II

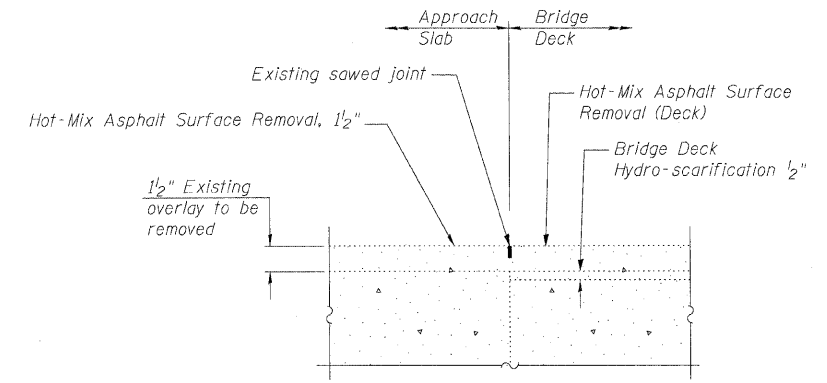
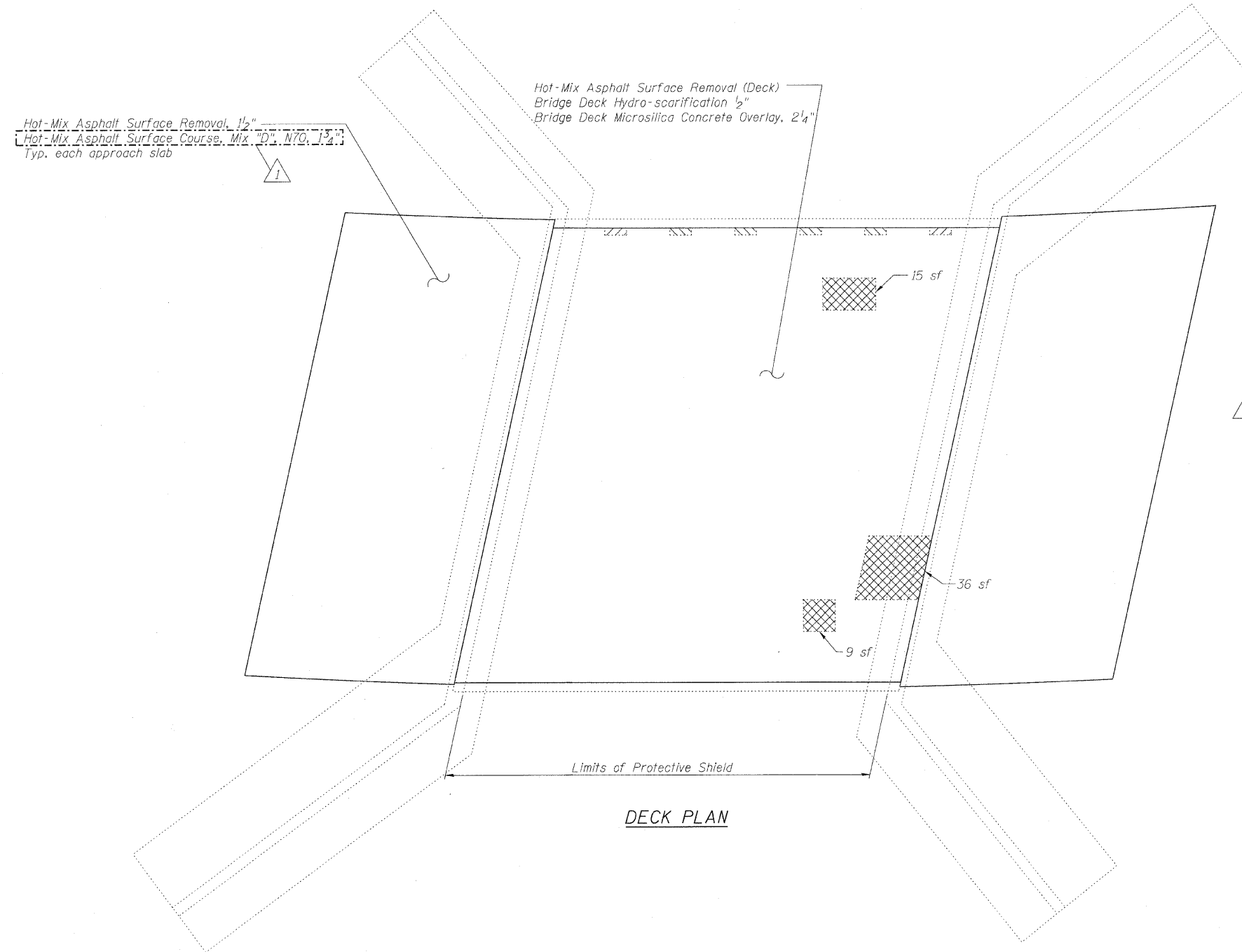
\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

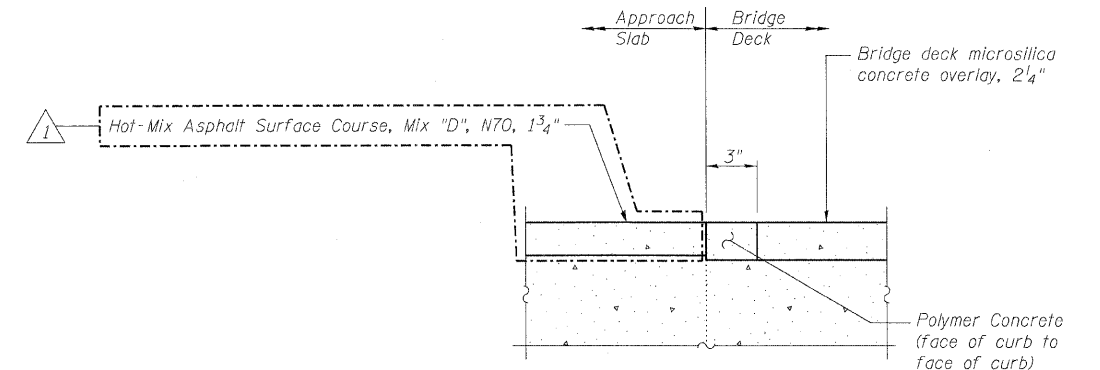
TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
STRUCTURE NO. 049-0017

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	6 SHEETS	104	W-EXT-1	LAKE	21	10
<p>Designed By: ESH Date: 1/2010</p>		<p>Checked By: MTH File: 049-0017.dgn</p>		<p>Drawn By: ESH</p>		<p>CONTRACT NO. 60J52</p>
<p>FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT</p>						

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



EXISTING FIXED JOINT DETAIL



PROPOSED FIXED JOINT DETAIL

BILL OF MATERIAL

Item	Unit	Total
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	7.7
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	201
Bridge Deck Microsilica Concrete Overlay, 2 1/4"	Sq. Yd.	201
Bridge Deck Hydro-scarification 1/2"	Sq. Yd.	201
Hot-Mix Asphalt Surface Removal, 1/2"	Sq. Yd.	196
Hot-Mix Asphalt Surface Course, Mix "D", N70, 1 3/4"	Tons	20
Polymer Concrete	Cu. Ft.	4.2
Protective Shield	Sq. Yd.	199

LEGEND

- Deck Drain Extension  
(See Sheet 5 of 6 for Floor Drain Extension Detail)
- Deck Drain Elimination  
(See Sheet 5 of 6 for Floor Drain Elimination Detail)
- Deck Slab Repair (Full Depth, Type II)
- sf Square Feet

Notes:

Repair of the existing deck slab shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.

Contractor shall verify that the type of concrete selected shall achieve required strength within the time allotted for construction. See Special Provisions, Deck Slab Repair (Special).

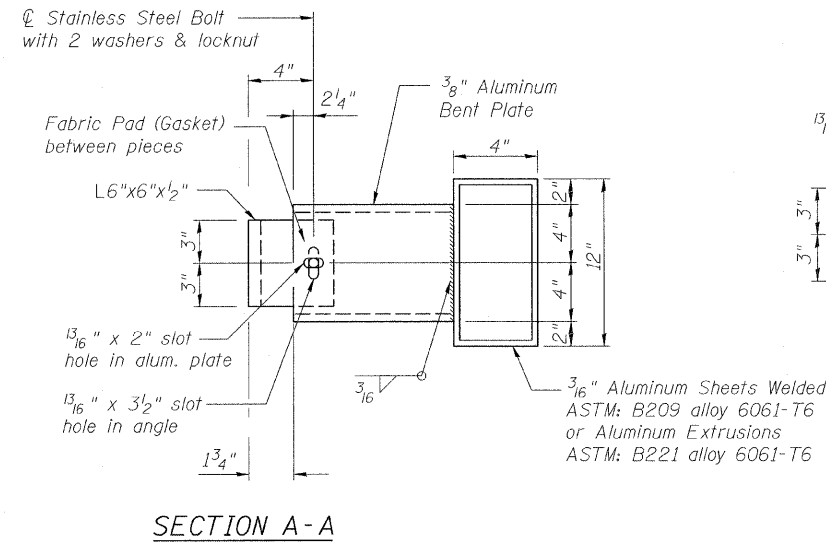
Provide 1:240 taper rate from 1/4" rise in bridge deck elevation down to existing profile grade.

Saw cuts shall be included in the cost for the HMA pay items.

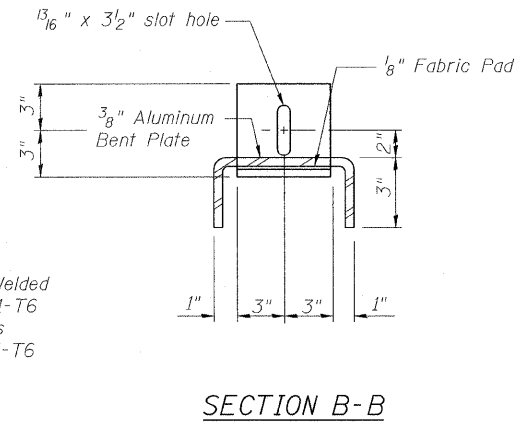
DECK REPAIR AND JOINT DETAILS  
STRUCTURE NO. 049-0017

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	6 SHEETS	104	W-EXT-I	LAKE	21	11
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					CONTRACT NO. 60J52	

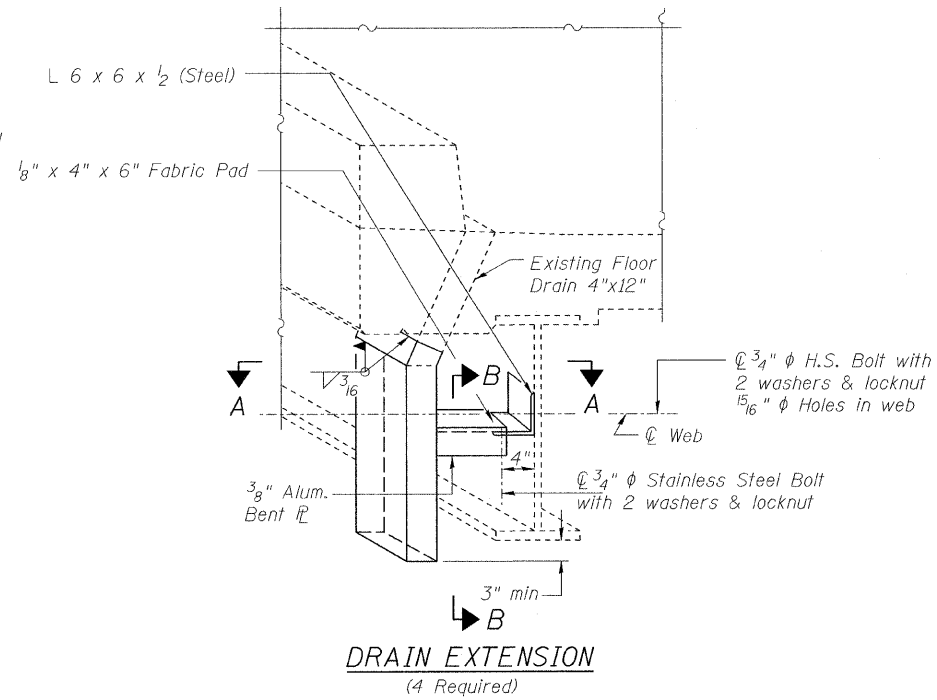
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SECTION A-A



SECTION B-B

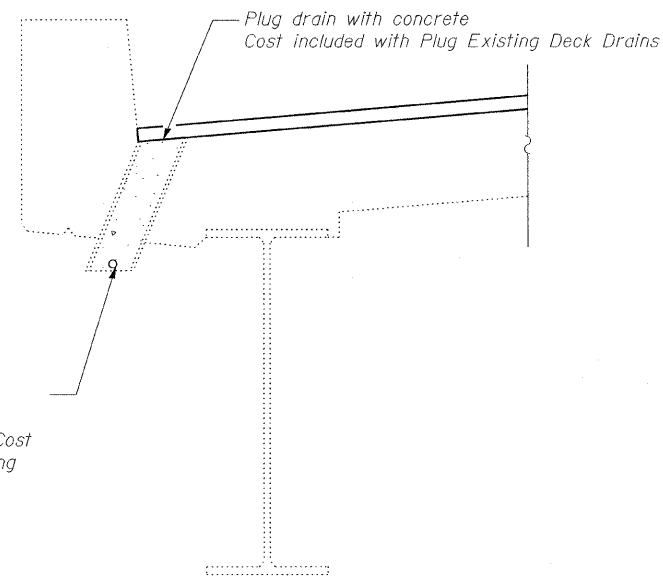


DRAIN EXTENSION  
(4 Required)

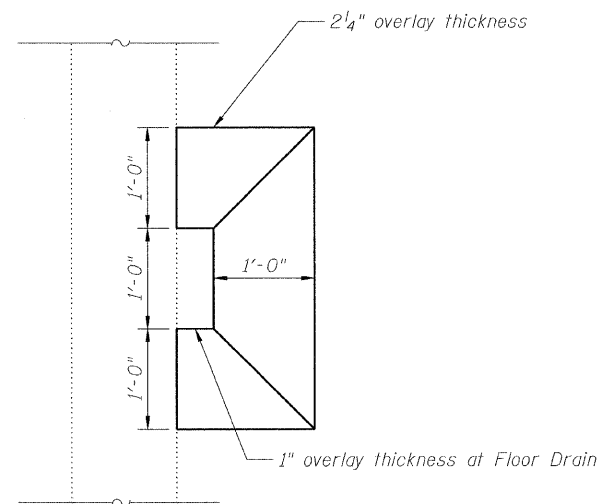
Notes:

1. All plates, angles, nuts, and washers, unless otherwise shown, shall be galvanized according to AASHTO M111 or M232 as applicable.

DRAIN EXTENSION DETAILS  
(4 required)



DRAIN ELIMINATION DETAIL  
(2 Required)



OVERLAY AT DRAIN EXTENSION  
(4 Locations)

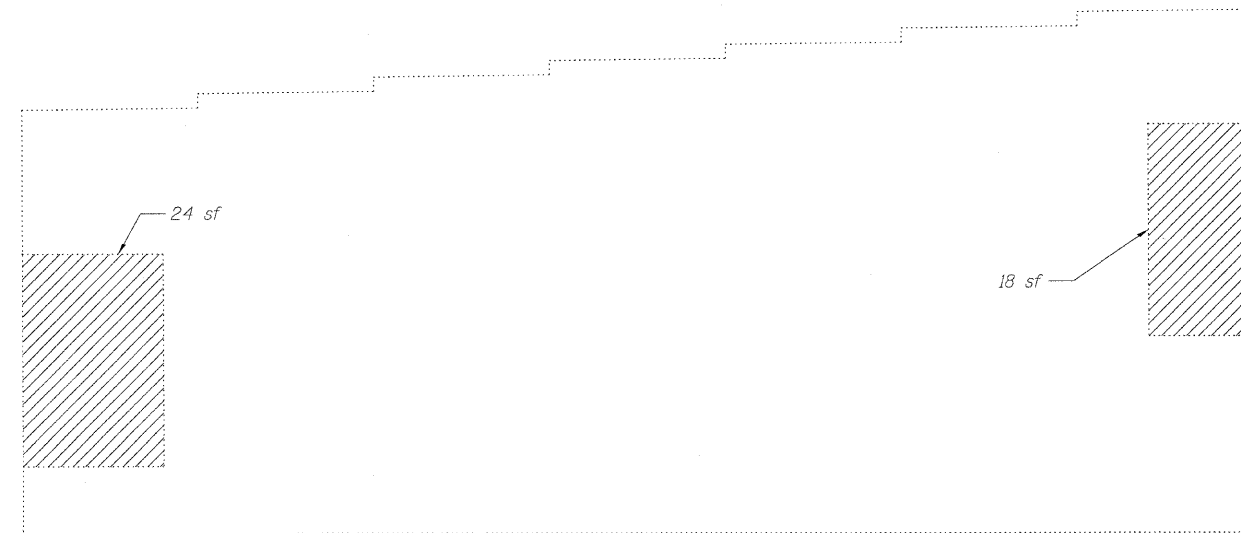
BILL OF MATERIAL

Item	Unit	Total
Floor Drain Extension	Each	4
Plug Existing Deck Drains	Each	2

DECK DRAIN DETAILS  
STRUCTURE NO. 049-0017

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	SHEET NO. 5	F.A.P. RTE. 104	SECTION W-EXT-I	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 12
	6 SHEETS	CONTRACT NO. 60J52		FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



WEST ABUTMENT

(Looking West)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less Than 5 in.)	Sq. Ft.	49



Repair of the existing abutments shall include but may not be limited to the areas shown. The actual areas to be repaired will be determined by the Engineer at the time of construction.

LEGEND

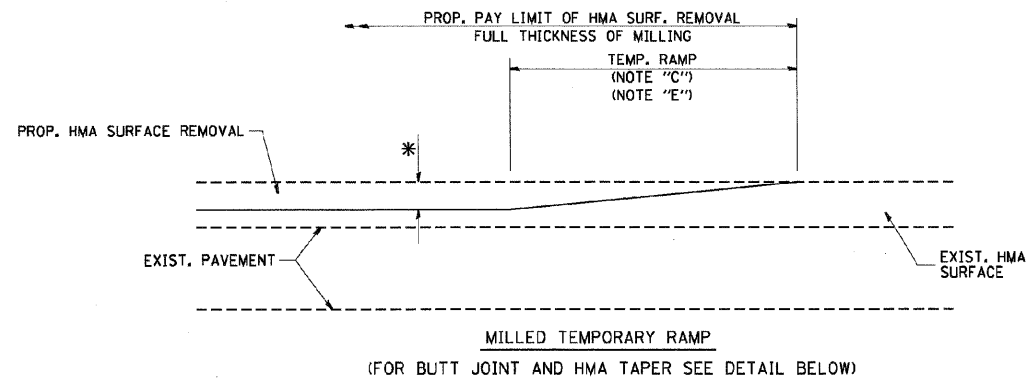
Structural Repair of Concrete (Depth Equal To or Less Than 5 in.)

sf Square Feet

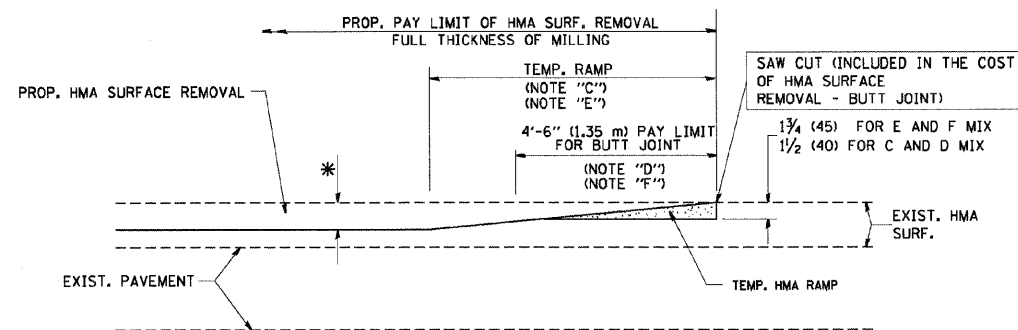
ABUTMENT REPAIR  
STRUCTURE NO. 049-0017

<b>LIN ENGINEERING, LTD.</b> Consulting Engineers Chatham, Illinois	SHEET NO. 6	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	6 SHEETS	104	W-EXT-I	LAKE	21	13
		CONTRACT NO. 60J52				
Designed By: ESH    Checked By: MTH    Drawn By: ESH Date: 1/2010    File: 049-0017.dwg		FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				



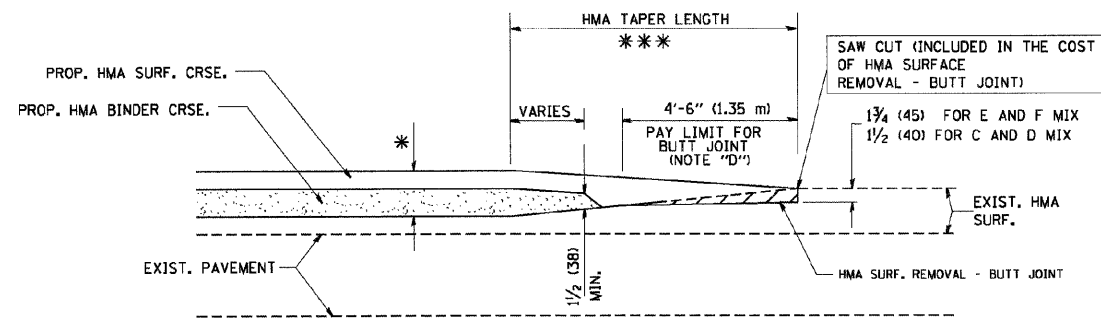


**OPTION 1**

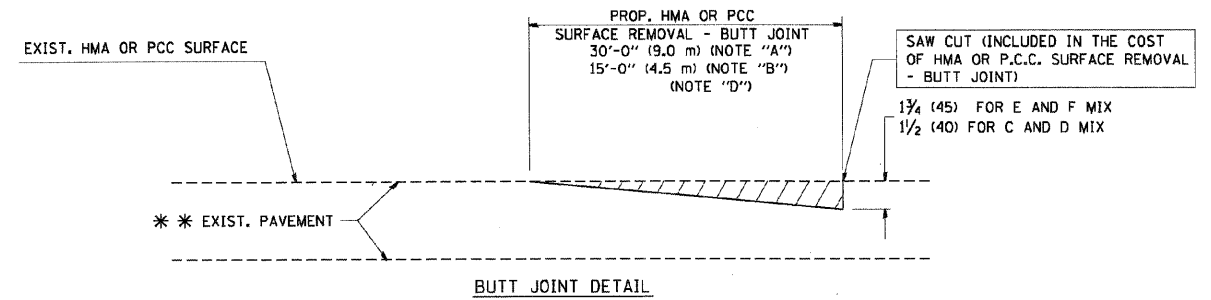


**OPTION 2**  
HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

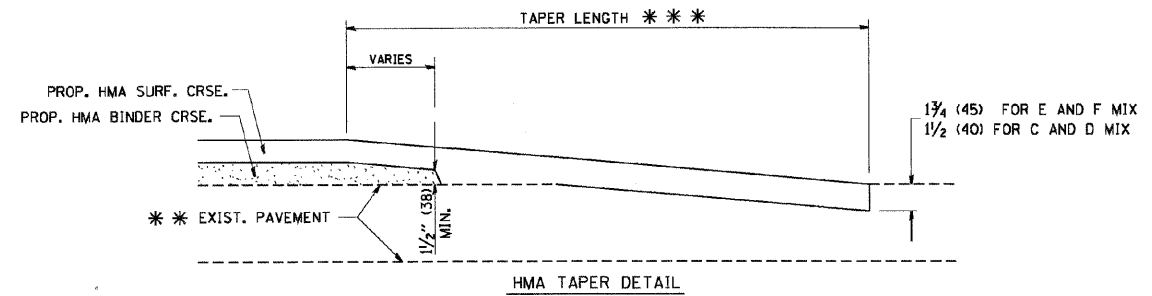
**TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**



**BUTT JOINT DETAIL**



**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

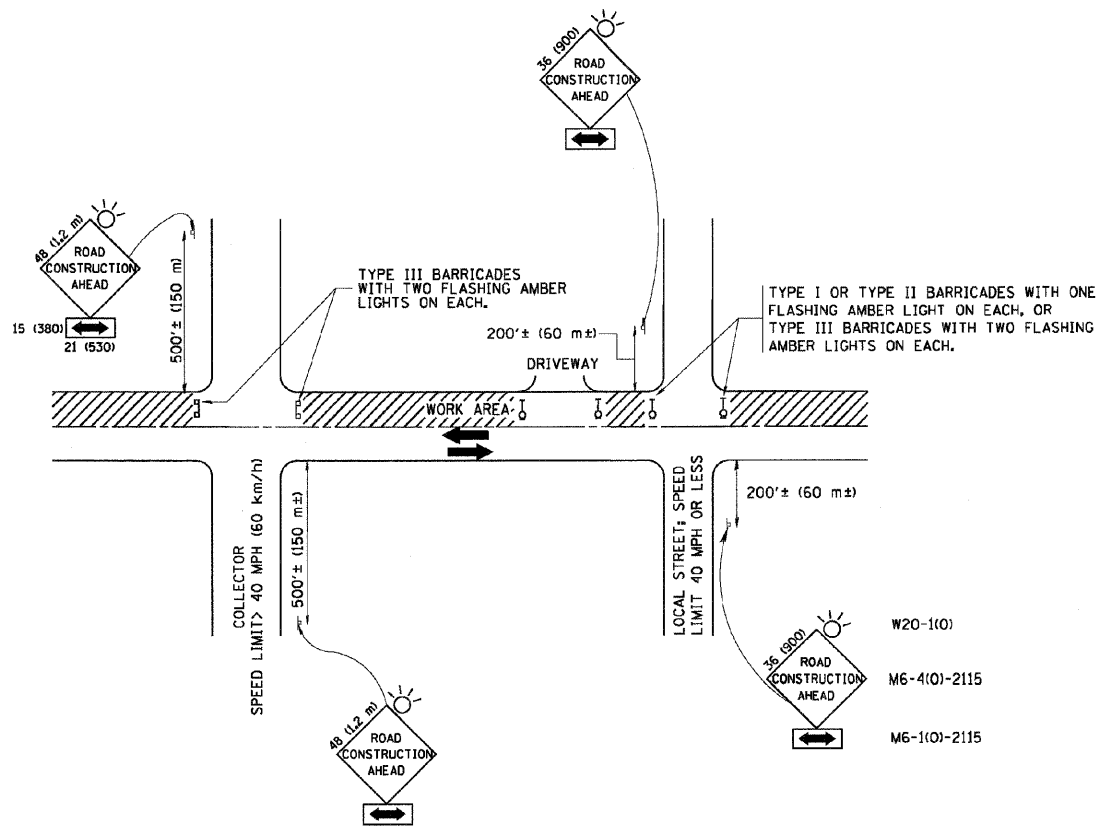
**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

**BUTT JOINT AND HMA TAPER DETAILS**

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS IL ROUTE 59 OVER SQUAW CREEK</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
#FILE#		DRAWN -	REVISED -		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	104	W-EXT-I	LAKE	21	15
		CHECKED -	REVISED -									BD-32	CONTRACT NO. 60J52		
		DATE -	REVISED -									FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			



**NOTES:**

**A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (11.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

**B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:**

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

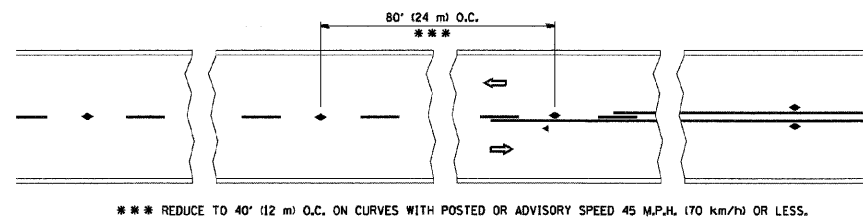
C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

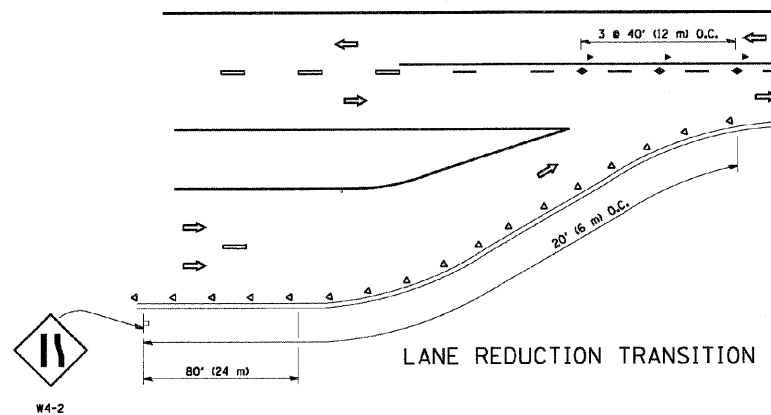
All dimensions are in millimeters (inches) unless otherwise shown.

# TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS

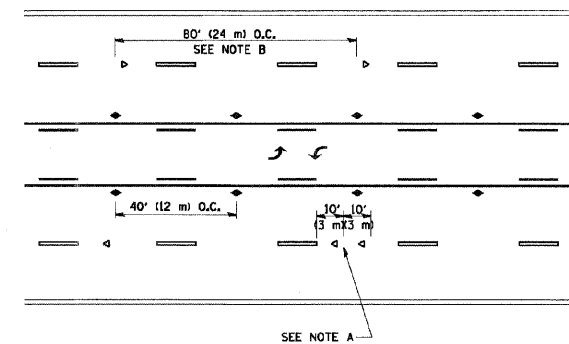
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		DATE -	REVISED -								CONTRACT NO. 60J52				
											FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



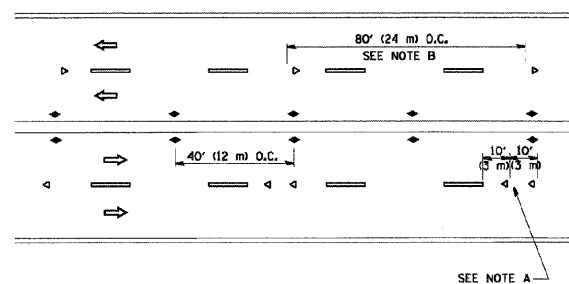
TWO-LANE/TWO-WAY



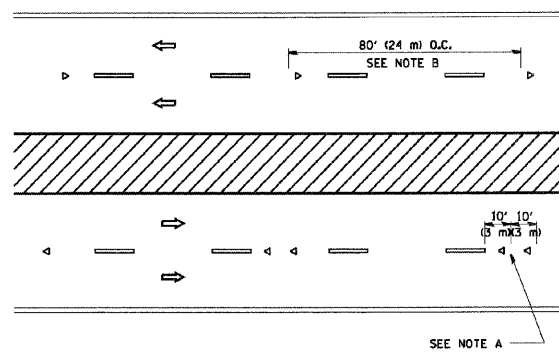
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

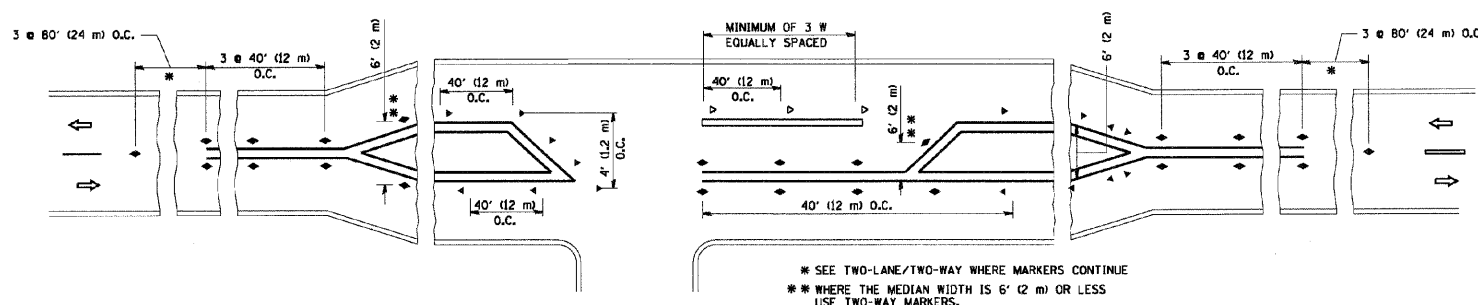
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◀ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

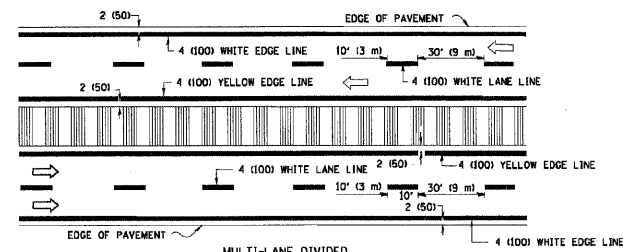
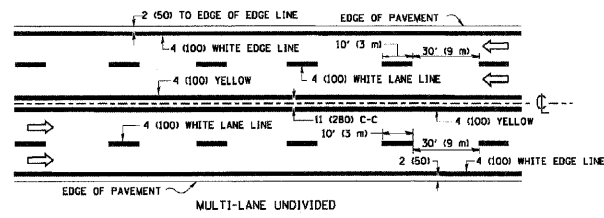
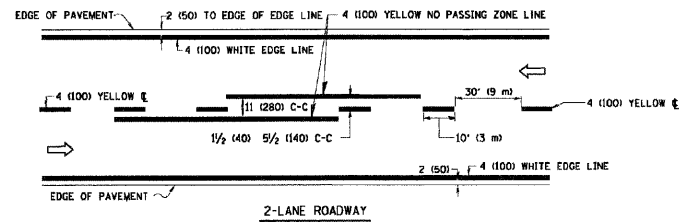
\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

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

# TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

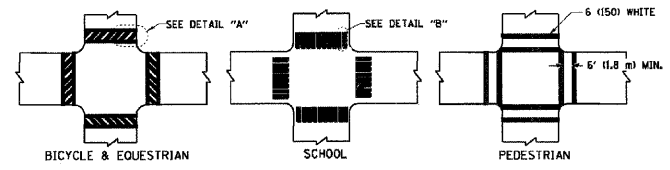
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		CHECKED -	REVISED -								TC-11				
		DATE -	REVISED -								FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 60J52	



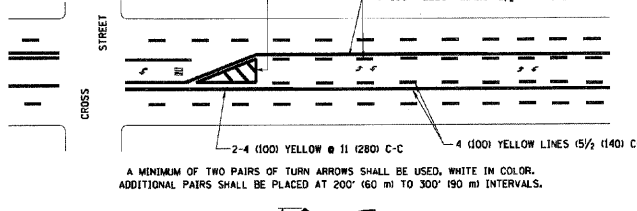
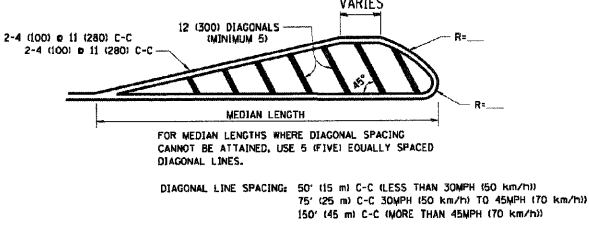
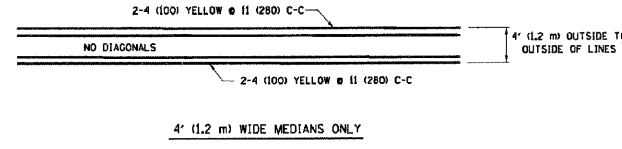


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

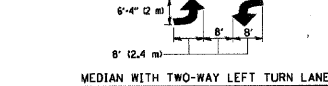
TYPICAL LANE AND EDGE LINE MARKING



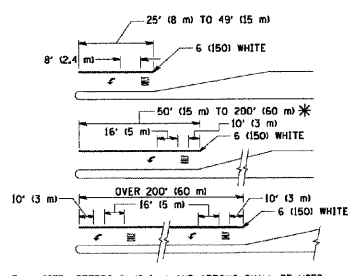
TYPICAL CROSSWALK MARKING



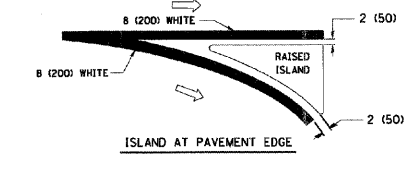
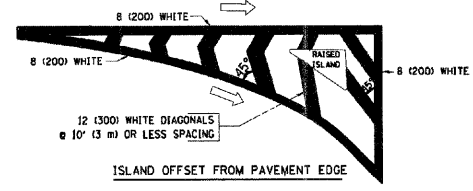
TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE



TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW. EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS 18" (457mm)	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN A. DIAGONALS (BIKE & EQUESTRIAN B. LONGITUDINAL BARS (SCHOOL))	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE.
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C OVER 45MPH (70 km/h)
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS IS 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD T80001 AREA OF: "R"-3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"-54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (23 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD T80001.

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

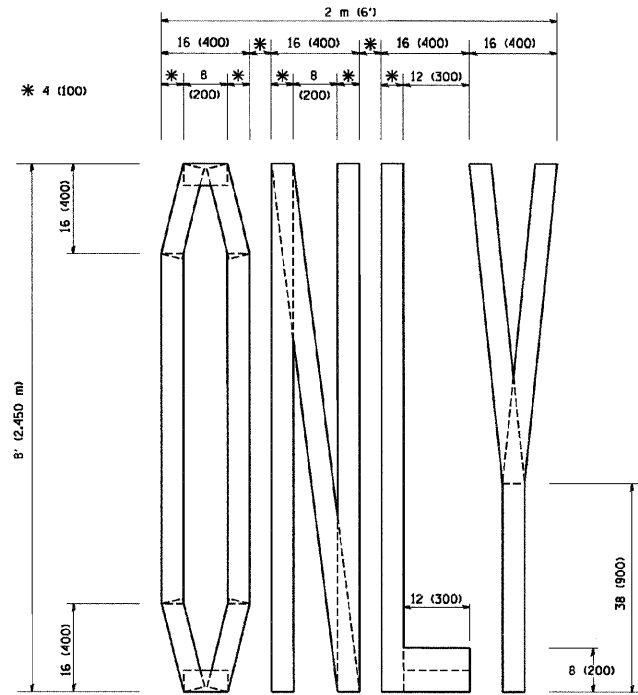
# TYPICAL PAVEMENT MARKINGS

FILE NAME = #FILEL#	USER NAME = #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

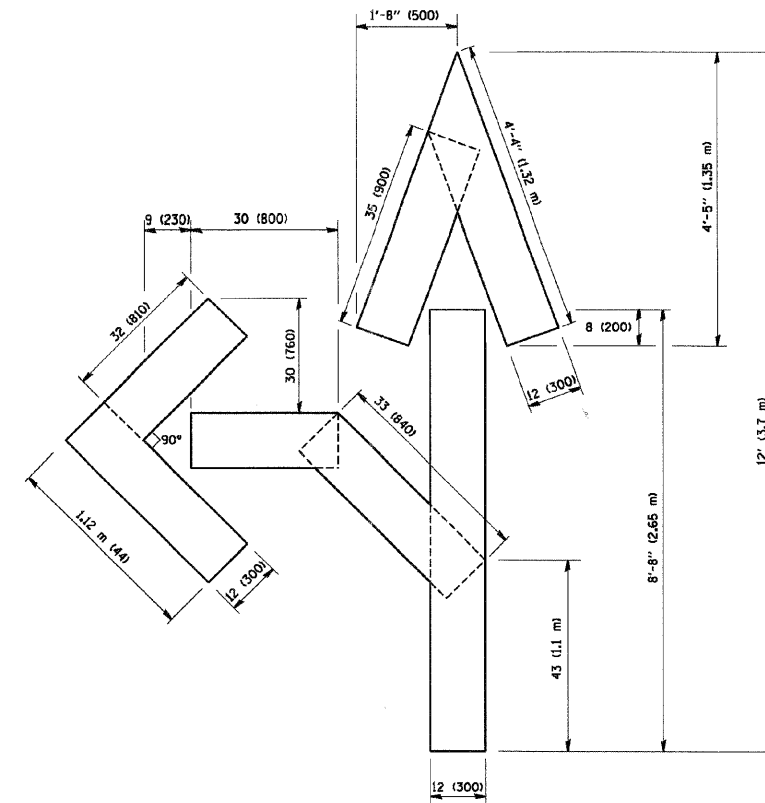
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT STANDARDS IL ROUTE 59 OVER SQUAW CREEK			
SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	

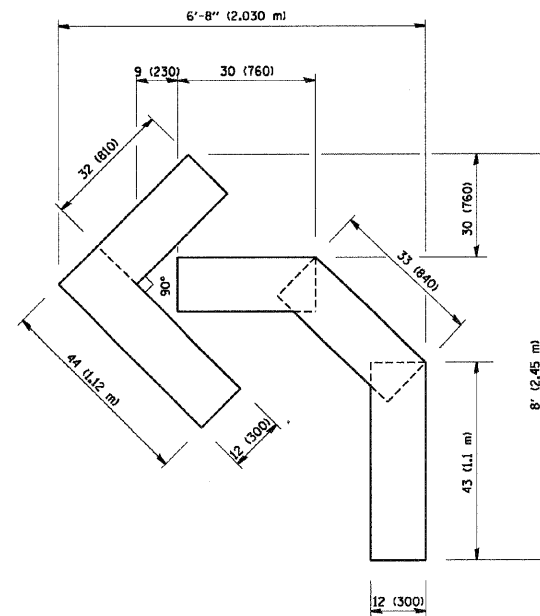
F.A.P. RTE. 104	SECTION W-EXT-I	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 18
TC-13		CONTRACT NO. 60J52		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



QUANTITY  
 4 (100) LINE = 64.1 ft. (19.7 m)  
 21.1 sq. ft. (1.97 sq. m)



QUANTITY  
 4 (100) LINE = 82.5 ft. (25.3 m)  
 27.5 sq. ft. (2.53 sq. m)

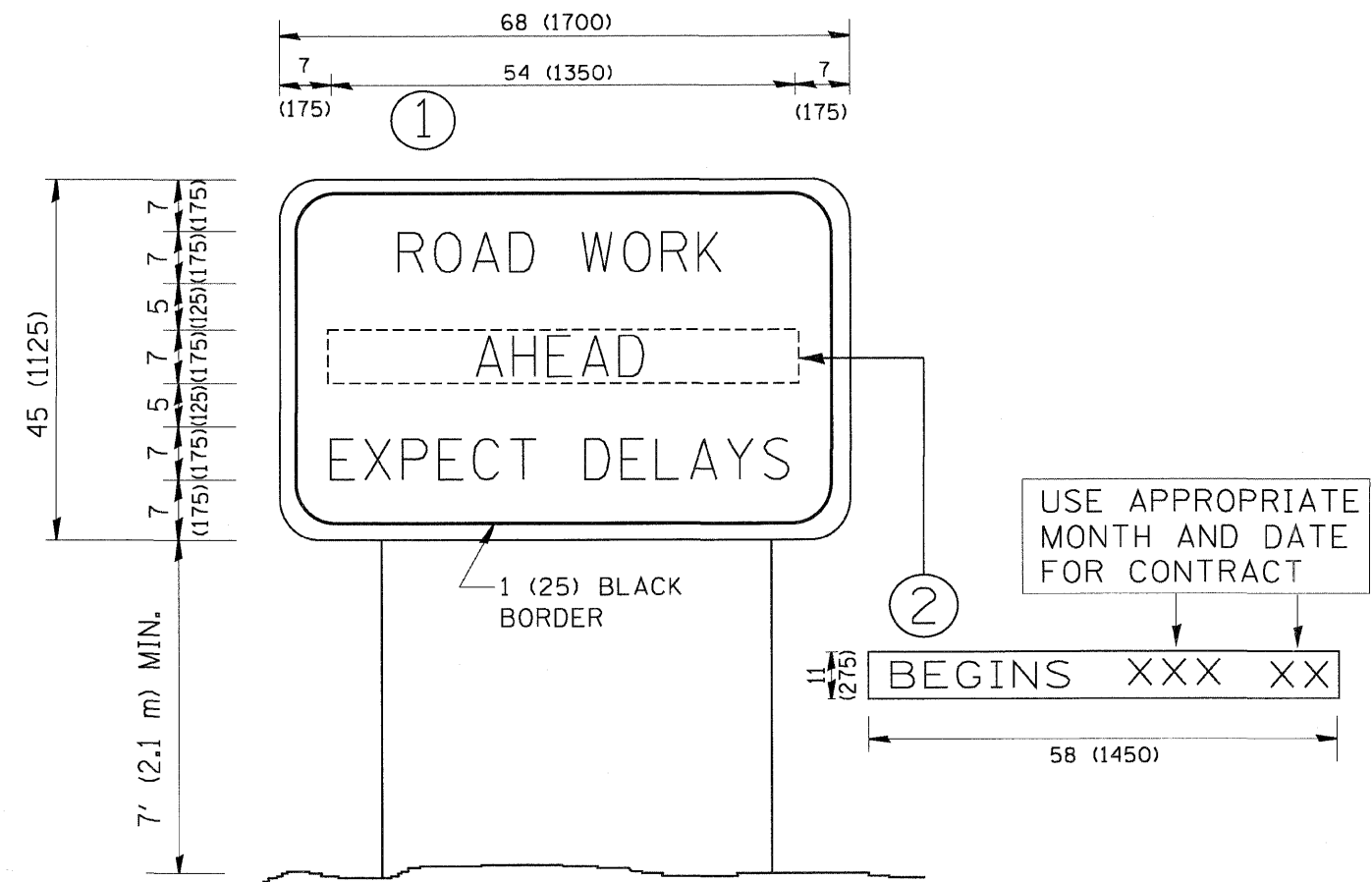


QUANTITY  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.39 sq. m)

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

## PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

FILE NAME =	USER NAME = #USER*	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS IL ROUTE 59 OVER SQUAW CREEK</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
#FILEL*		DRAWN -	REVISED -		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	104	W-EXT-1	LAKE	21	19
		CHECKED -	REVISED -								TC-16	CONTRACT NO. 60J52			
		DATE -	REVISED -								FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

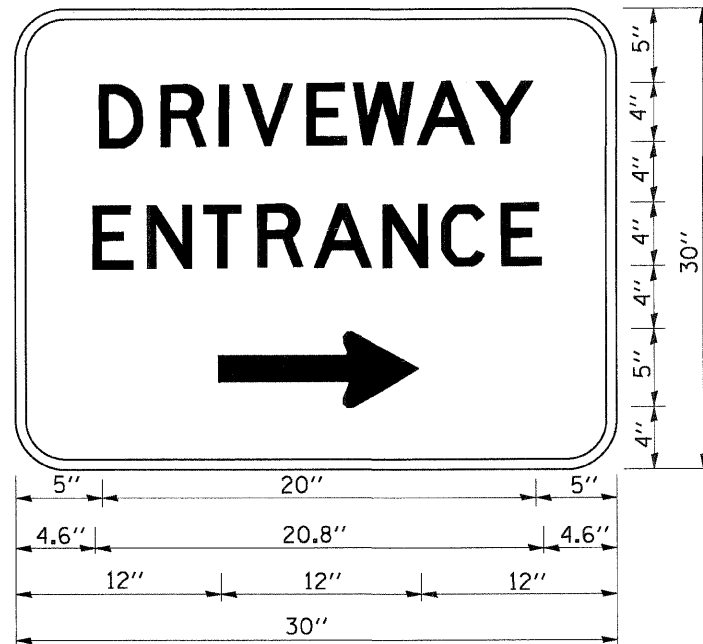


**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

**ARTERIAL ROAD INFORMATION SIGN**

FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS IL ROUTE 59 OVER SQUAW CREEK</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
#FILEL*		DRAWN -	REVISED -		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	104	W-EXT-I	LAKE	21	20
	PLOT SCALE = *SCALE*	CHECKED -	REVISED -								TC-22 CONTRACT NO. 60J52				
	PLOT DATE = *DATE*	DATE -	REVISED -								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

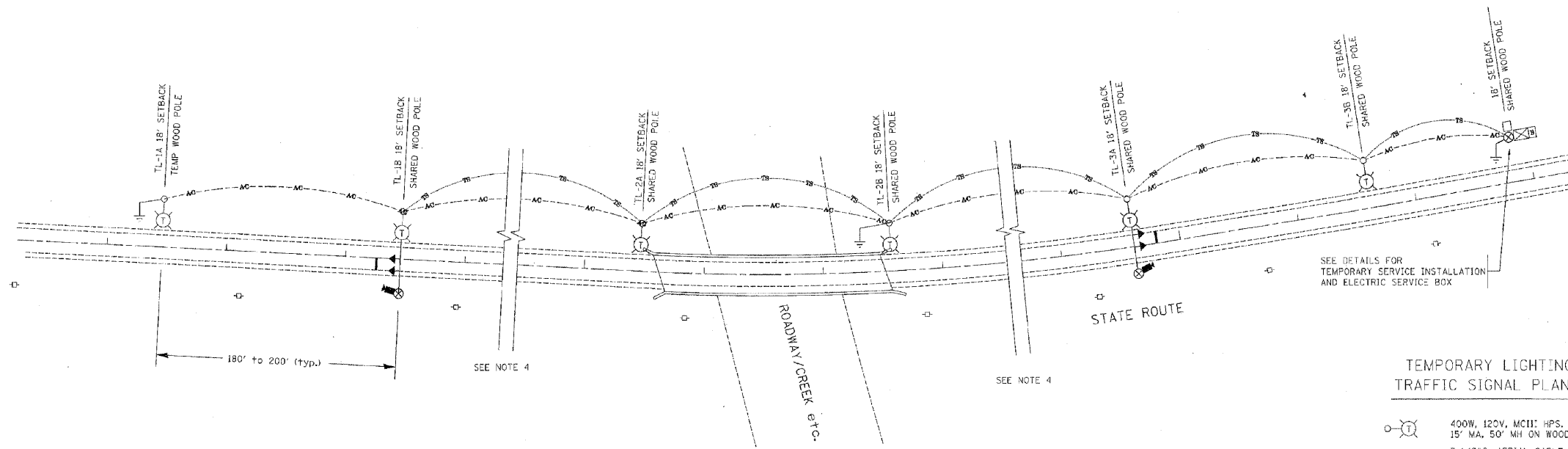
**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE  
 PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN)  
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY  
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE  
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

**DRIVEWAY ENTRANCE SIGNING**

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS IL ROUTE 59 OVER SQUAW CREEK</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
\$FILEL\$	PLOT SCALE = \$SCALE\$	DRAWN -	REVISED -			104	W-EXT-1	LAKE	21	21	
	PLOT DATE = \$DATE\$	CHECKED -	REVISED -			TC-26		CONTRACT NO. 60J52			
		DATE -	REVISED -			SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.





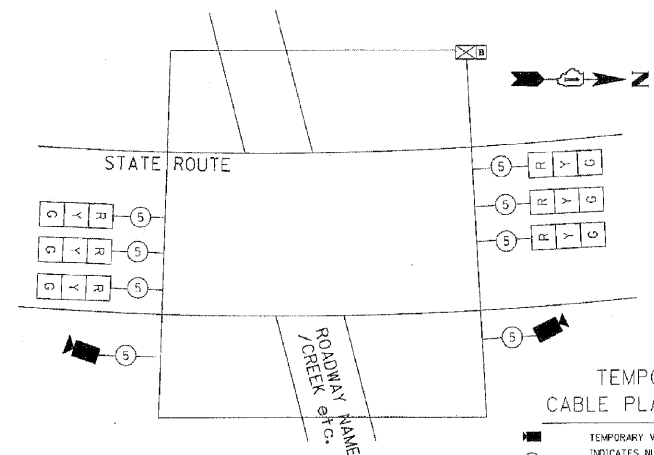
TYPICAL LAYOUT FOR TEMPORARY LIGHTING AND TRAFFIC SIGNALS  
NOT TO SCALE

GENERAL NOTES:

- CONTACT TO THE ELECTRIC UTILITY SHALL BE INITIATED BEFORE THE PRECONSTRUCTION MEETING, AND DOCUMENTATION OF CONTACT SHALL BE PRESENTED AT THAT MEETING. NO PLACEMENT OF POLES WILL BE ALLOWED WITHOUT EVIDENCE OF A SIGNED AGREEMENT WITH THE ELECTRIC UTILITY, FURNISHED TO THE ENGINEER.
- UNLESS OTHERWISE INDICATED, AND EXCEPT AS OTHERWISE NOTED, THIS STANDARDIZED LAYOUT SHALL APPLY FOR BRIDGES NOT EXCEEDING A 250-FOOT SPAN. FOR BRIDGE SPANS IN EXCESS OF 250 FEET, THE POLES IMMEDIATELY ADJACENT TO THE BRIDGE SHALL BE 100-FOOT POLES (90-FOOT MOUNTING HEIGHT), WITH 750-WATT TYPE III HIGH PRESSURE SODIUM HIGH-MAST LUMINAIRES AS APPROVED BY THE ENGINEER.
- THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES, TRAFFIC SIGNALS, AND COMBINED SERVICE. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED.
- THE ELECTRIC SERVICE SHALL BE 240/120V, WHERE 240V SERVICE IS NOT AVAILABLE, THE CONTRACTOR MAY SUBMIT A PROPOSAL FOR 120V SERVICE. DROP CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED AND INCLUDED REGARDLESS OF THE SERVICE VOLTAGE APPLIED.
- THE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATION SHALL SHARE ANY COMMON ELEMENTS SUCH AS WOOD POLES, ELECTRICAL SERVICE, ELECTRIC SERVICE BOX, CABLE, ETC. THE CONTRACTOR SHALL COORDINATE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATIONS.
- THE LIGHT POLE SETBACK FROM THE EDGE OF TRAVEL PAVEMENT SHALL BE 18 FT. UNLESS THE LIGHT POLE IS BEHIND GUARDRAIL, THE LIGHT POLES INSTALLED BEHIND THE GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 8 FT. SETBACK FROM THE BACK OF THE SHOULDER AND OR AS DIRECTED BY THE ENGINEER.
- EACH LIGHTING UNIT SHALL BE CONTROLLED BY A PHOTO CELL MOUNTED ON EACH LUMINAIRE WITH THE LIGHTING CIRCUIT FED FROM THE TEMPORARY SERVICE DISCONNECT BOX. OTHER MEANS OF LUMINAIRE CONTROL CAN BE CONSIDERED IF APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH THE FACTORY APPLIED WATERPROOF SEALANT OR AN APPROVED UL LISTED AERIAL TAP DEVICE.
- ALL AREAS DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ENGINEER.

TEMPORARY LIGHTING AND TRAFFIC SIGNAL PLAN LEGEND

- 400W, 120V, MCII: HPS. WITH PHCTO CELL 15' MA, 50' MH ON WOOD POLE, CLASS 4
- 3-1/2" x 2, AERIAL CABLE WITH MESSENGER WIRE UNLESS OTHERWISE NOTED
- TL-1A TEMPORARY LIGHTING UNIT NUMBER - ONE CIRCUIT A
- GROUND ROD 5/8" DIA. x 10'
- COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRICAL SERVICE BOX
- TEMPORARY WOOD POLE - NOMINAL 60 FT., CLASS 4
- TEMPORARY LED TRAFFIC SIGNAL HEAD, NUMBER OF SECTION AND DISPLAY AS REQUIRED.
- TEMPORARY TRAFFIC SIGNAL SPAN WIRE, NUMBER OF CONDUCTORS AS REQUIRED.
- TEMPORARY TRAFFIC CONTROLLER WITH UPS AND BOTTOM PLATE MOUNTED TO WOOD POLE
- TEMPORARY VIDEO DETECTOR



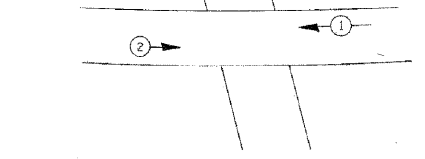
TEMPORARY CABLE PLAN (TYPICAL)  
NOT TO SCALE

TEMPORARY CABLE PLAN LEGEND

- TEMPORARY VIDEO DETECTOR
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)

TEMPORARY PHASE DESIGNATION DIAGRAM LEGEND

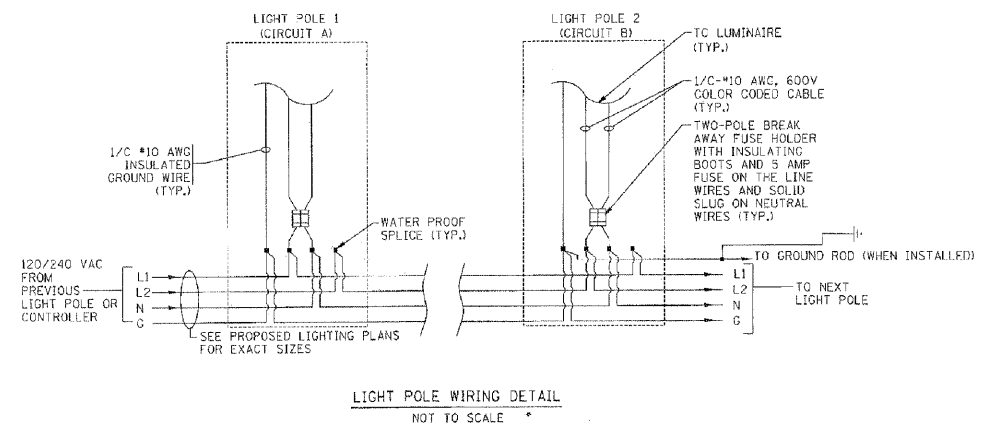
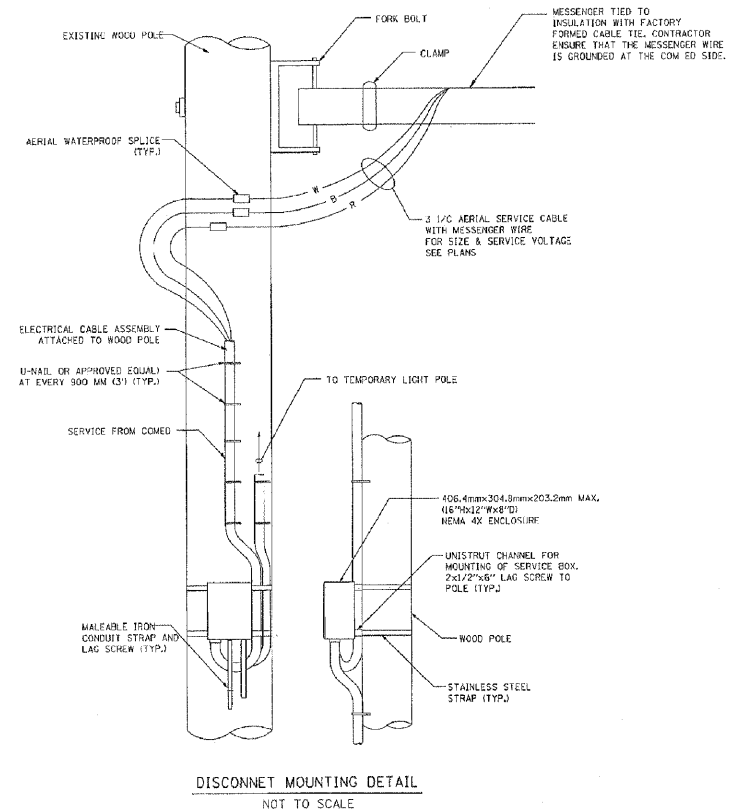
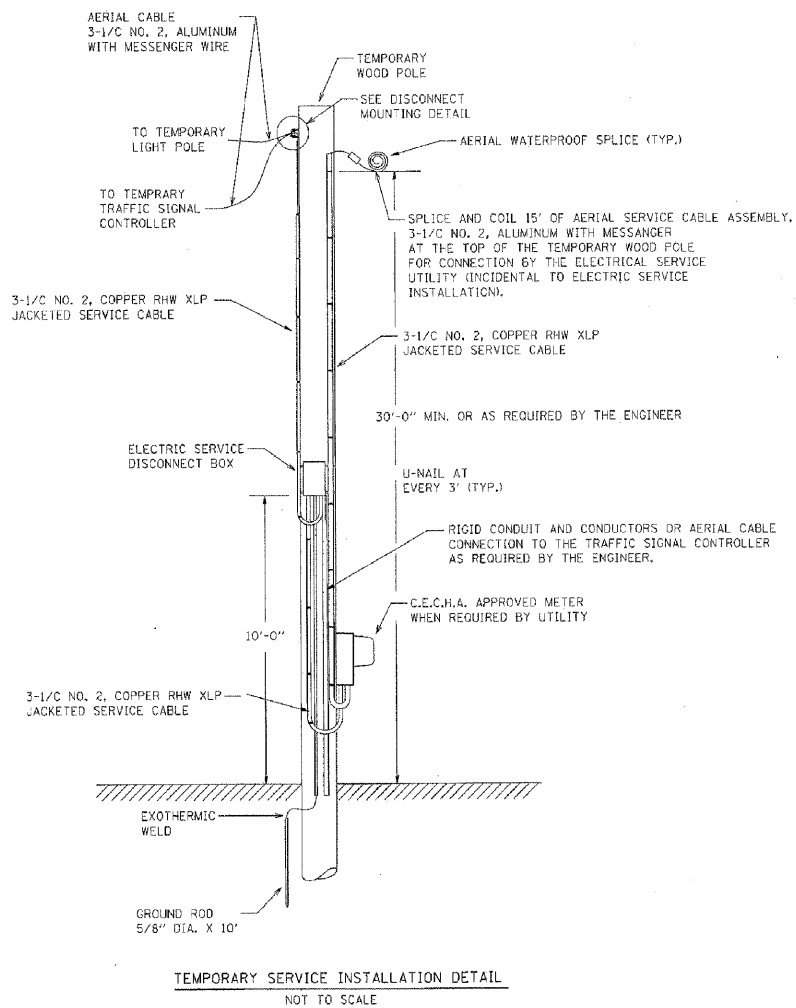
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE



TEMPORARY PHASE DESIGNATION DIAGRAM (TYPICAL)  
NOT TO SCALE

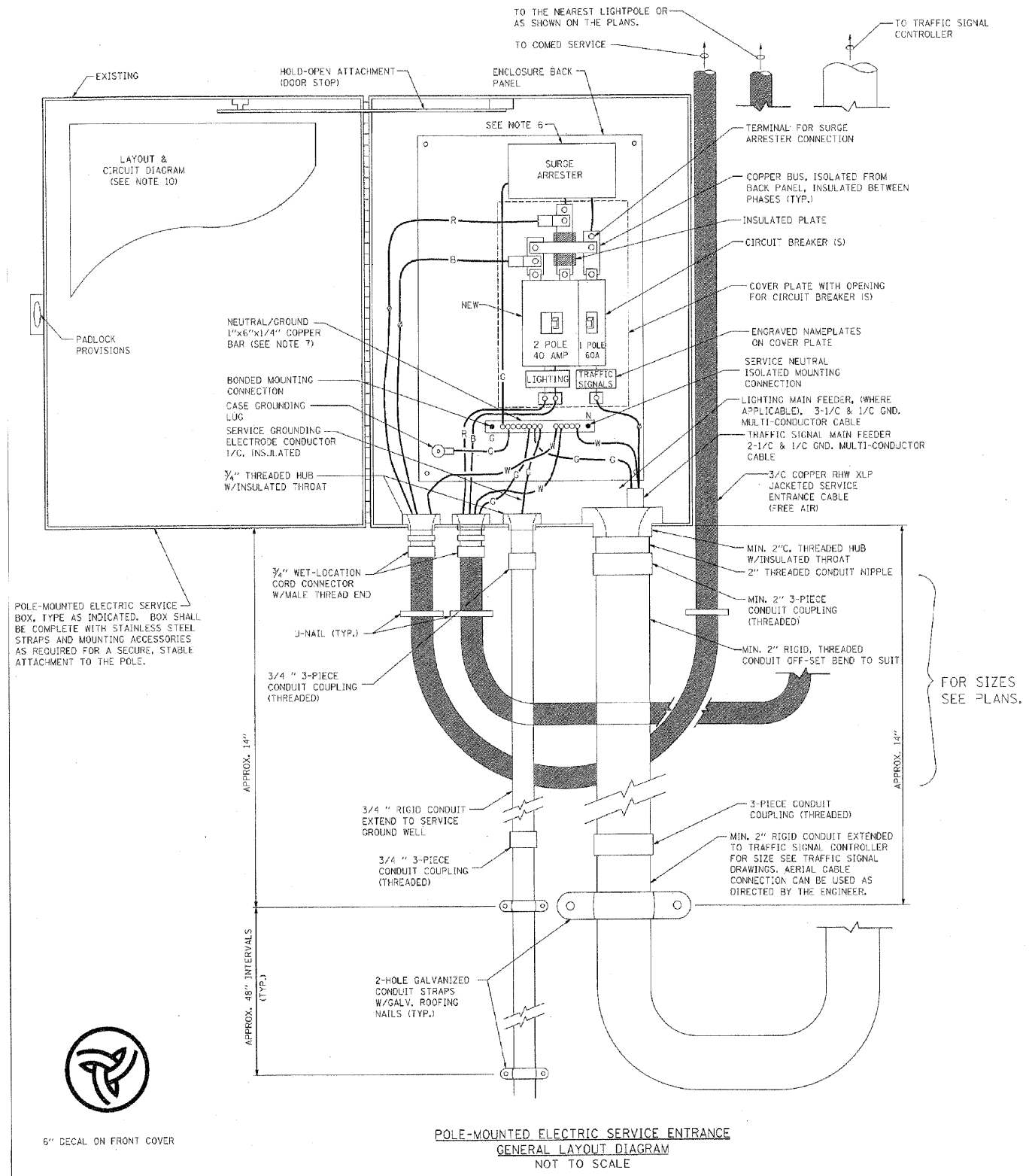
TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING (SHEET I)

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED - ^	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS IL ROUTE 59 OVER SQUAW CREEK</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
#FILE#		DRAWN -	REVISED -		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	104	W-EXT-1	LAKE	21	21B
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -												
	PLOT DATE = #DATE#	DATE -	REVISED -												
											CONTRACT NO. 60J52		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT		

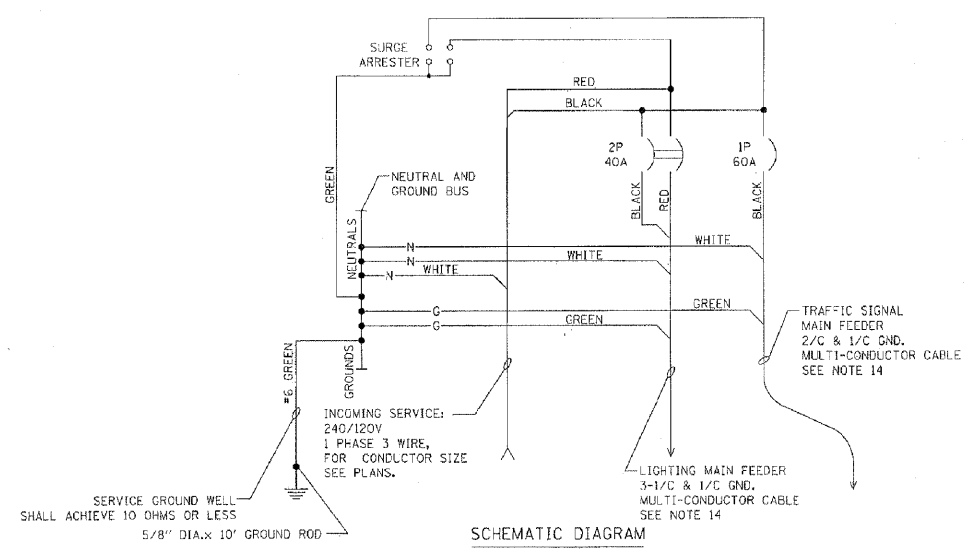


## TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING (SHEET II)

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT STANDARDS IL ROUTE 59 OVER SQUAW CREEK</b>			F.A.P. RTE. 104	SECTION W-EXT-1	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 21C
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 60J52				
	PLOT DATE = #DATE#	DATE -	REVISED -		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT							



- NOTES:
1. ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
  2. THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 240/120V 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER AND TRAFFIC SIGNALS MAIN BREAKER AS REQUIRED.
  3. THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
  4. THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 15"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H208556LP/A-16 P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
  5. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
  6. THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CM0V230L065XST OR APPROVED EQUAL.
  7. BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
  8. THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
  9. THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
  10. A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
  11. A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
  12. LUGS AND CONNECTORS SHALL BE RATED FOR 75 C CONDUCTOR.
  13. THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.



# TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING (SHEET III)

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT STANDARDS IL ROUTE 59 OVER SQUAW CREEK				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	104	W-EXT-1	LAKE	21 21D
		CHECKED -	REVISED -											CONTRACT NO. 60J52
		DATE -	REVISED -								FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	