

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	1
			+ 4	
			46	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

**F.A.P. 870: ILLINOIS ROUTE 53
OVER LILY CACHE CREEK**

SECTION: 534 R-1-T

SN: 099-2008

CULVERT REHABILITATION

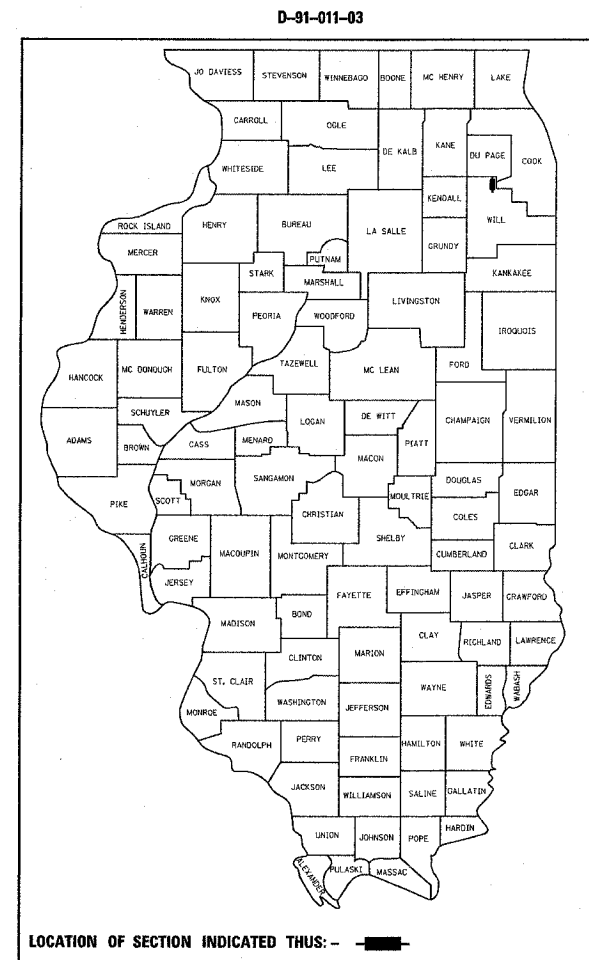
WILL COUNTY

C-91-011-03

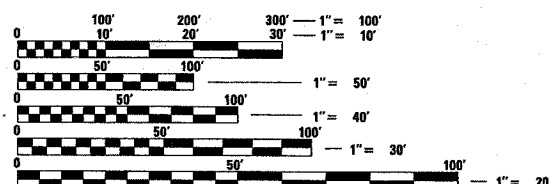
FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS IMPROVEMENT IS LOCATED
IN THE VILLAGE OF BOLINGBROOK

TRAFFIC DATA:
2005 ADT: 32,300
SPEED LIMIT: 40 MPH



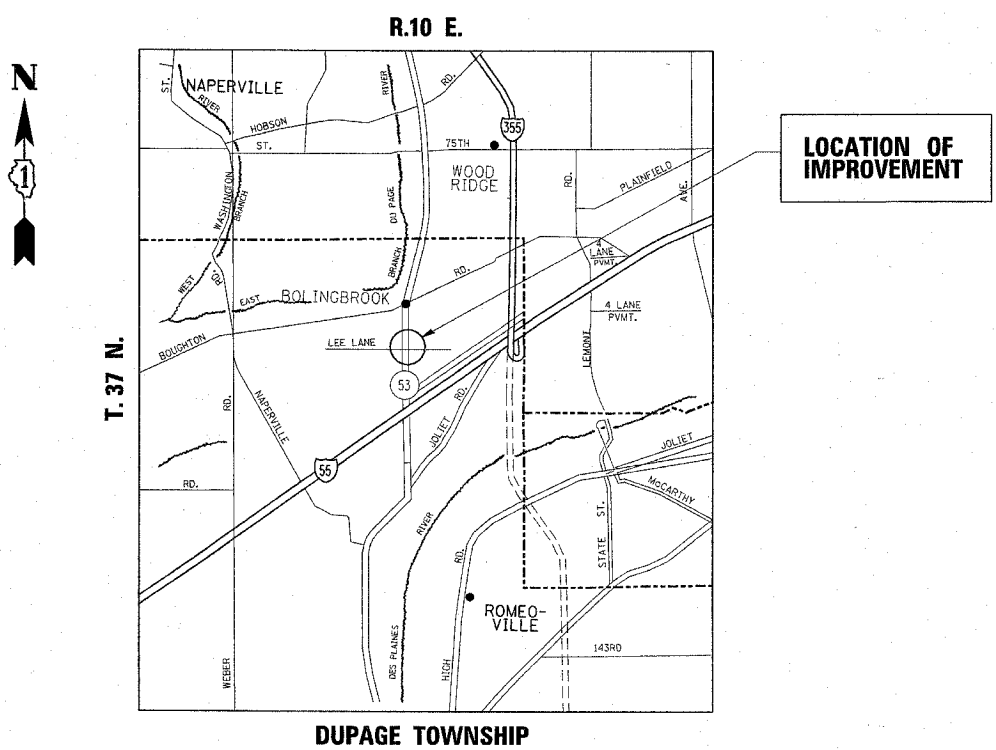
DISTRICT ONE - DESIGN AND PLAN PREPARATION ENGINEER - K. ENG /L. TRAN (847) 705-4240



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

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

CONTRACT NO. 62556



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 30, 2007

Diane O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 12, 2007

Eric E. Harn
INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

October 12, 2007

Milton J. Sear
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	3
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		URBAN I000 100% STATE				
20100310	TREE REMOVAL, SPECIAL (6 TO 15 UNITS DIAMETER)	UNIT	5	5				
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	6	6				
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	6	6				
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	6	6				
25200110	SODDING, SALT TOLERANT	SQ YD	450	450				
25200200	SUPPLEMENTAL WATERING	UNIT	5	5				
31101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	180	180				
35200600	EARTH EXCAVATION	CU YD	400	400				
35501324	HOT-MIX ASPHALT BASE COURSE, 10"	SQ YD	155	155				
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	16	16				
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	28	28				
44000100	PAVEMENT REMOVAL	SQ YD	155	155				
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	950	950				
44003100	MEDIAN REMOVAL	SQ FT	155	155				
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	60	60				
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1				
50200500	COFFERDAMS	EACH	1	1				
50800105	REINFORCEMENT BARS	POUND	44240	44240				
50800515	BAR SPLICERS	EACH	198	198				
51205200	TEMPORARY SHEET PILING	SQ FT	878	878				
54002020	EXPANSION BOLTS 3/4 INCH	EACH	118	118				
54003000	CONCRETE BOX CULVERTS	CU YD	131.7	131.7				
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	950	950				
60624600	CORRUGATED MEDIAN	SQ FT	155	155				
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				
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	6001	6001				

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		URBAN I000 100% STATE				
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	4030	4030				
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1300	1300				
70400100	TEMPORARY CONCRETE BARRIER	FOOT	300	300				
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	160	160				
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2805	2805				
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	530	530				
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	40	40				
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	4	4				
78300400	THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	1200	1200				
* 81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	844	844				
* 81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	112	112				
* 81400100	HANDHOLE	EACH	1	1				
* 81900205	TRENCH AND BACKFILL FOR ELECTRICAL WORK (SPECIAL)	FOOT	844	844				
* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2	2				
* 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	310	310				
* 87900200	DRILL EXISTING HANDHOLE	EACH	7	7				
* 88600100	DETECTOR LOOP, TYPE I	FOOT	72	72				
* 89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1				
* X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1379.5	1379.5				
X0323973	SEDIMENT CONTROL, SILT FENCE	FOOT	60	60				
X0325205	MONODIRECTIONAL REFLECTORS TYPE C	EACH	20	20				
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	48	48				
X0325737	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1				
* X0325737	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1				
X0712400	TEMPORARY PAVEMENT	SQ YD	610	610				

* SPECIALTY ITEMS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

Rev.

PLOT DATE: 9/4/2007

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	4
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT		URBAN 1000 100% STATE					
X7030104	WET TEMPORARY PAVEMENT MARKING TAPE , TYPE III, 4 INCH	FOOT	3800	3800					
* X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	1379.5	1379.5					
Z0014800	CULVERT TO BE CLEANED	FOOT	570	570					
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	2	2					
Z0030240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2					
Z0030340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	1	1					
* Z0049100	RAISED PAVEMENT MARKER REFLECTOR REPLACEMENT	EACH	20	20					
X0325880	COARSE AGGREGATE CA-7	TON	310	310					
A2004820	TRBB, GLEDITSIA TRIACANTHOS INERMIS SKYLINE (SKYLINE THORNLESS COMMON HONEY LOCUST), 3-1/2" CALIPER, BALLED AND BURLAPPED	EACH	5	5					

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT		URBAN 1000 100% STATE					

*SPECIALTY ITEMS

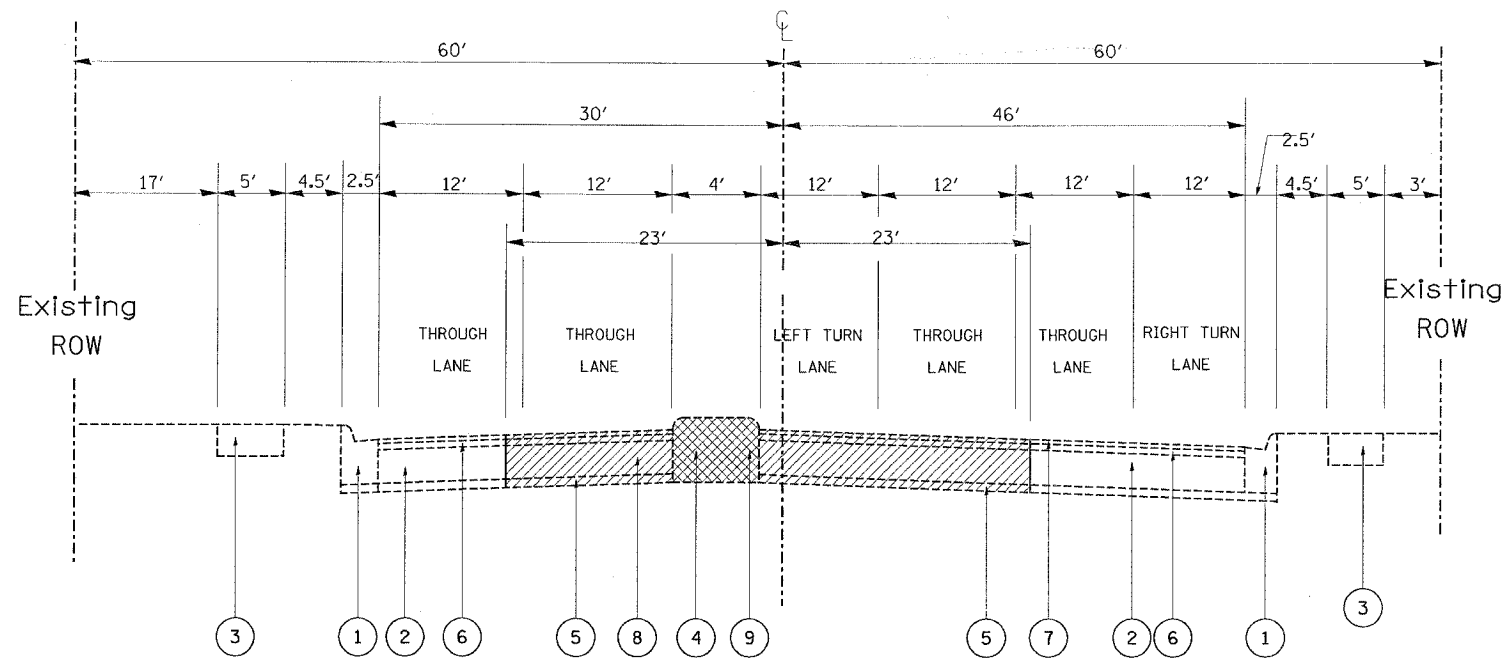
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

PLOT DATE: 9/4/2007

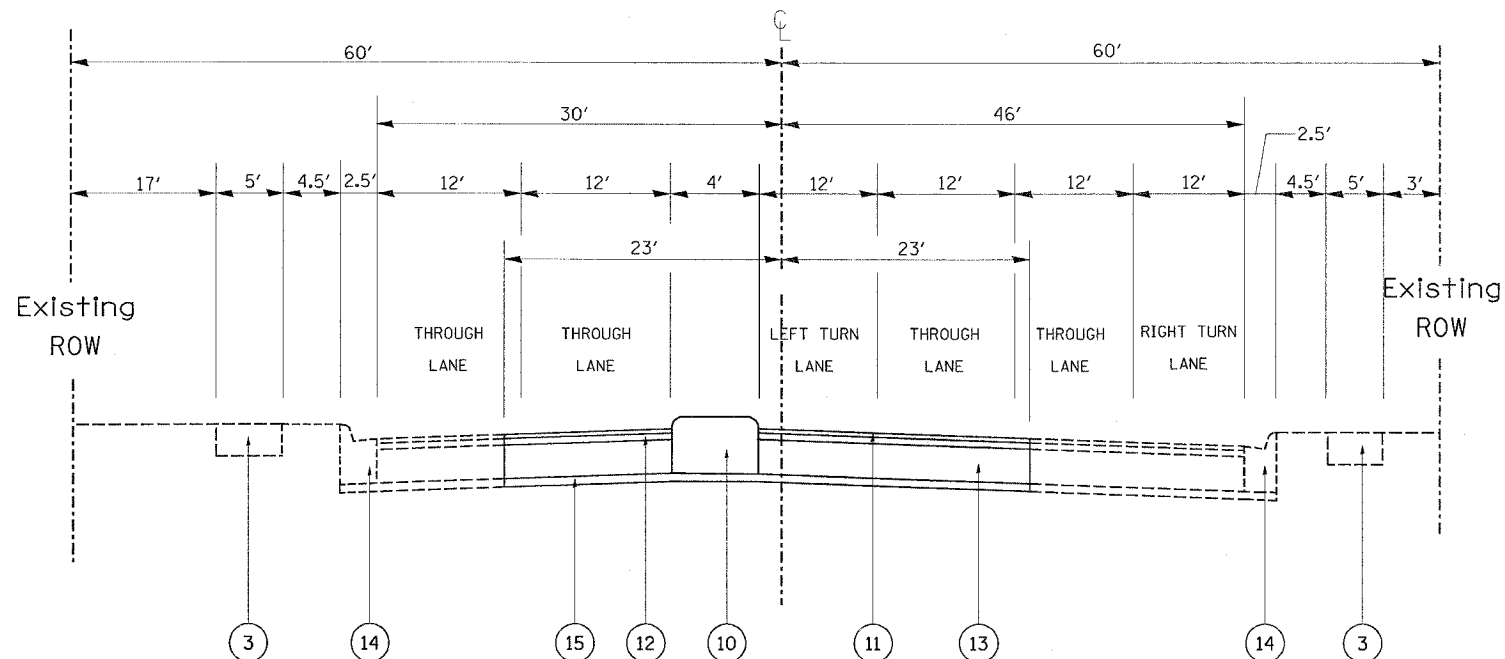
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXISTING TYPICAL SECTION

ILLINOIS ROUTE 53
STA. 26+00 TO STA. 27+00
LOOKING NORTH



PROPOSED TYPICAL SECTION

ILLINOIS ROUTE 53
STA. 26+00 TO STA. 27+00
LOOKING NORTH

LEGEND

- ① EXISTING COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
- ② EXISTING HOT-MIX ASPHALT BASE COURSE, 10"
- ③ EXISTING CONCRETE SIDEWALK 5'
- ④ EXISTING CONCRETE CORRUGATED MEDIAN
- ⑤ EXISTING SUB-BASE GRANULAR MATERIAL, TYPE B 4"
- ⑥ EXISTING HOT-MIX ASPHALT CONCRETE BINDER COURSE, 2 1/2"
- ⑦ EXISTING HOT-MIX ASPHALT CONCRETE SURFACE COURSE, 1 1/2"
- ⑧ PROPOSED PAVEMENT REMOVAL
- ⑨ PROPOSED MEDIAN REMOVAL
- ⑩ PROPOSED CORRUGATED MEDIAN
- ⑪ PROPOSED POLYMERIZED HOT-MIX ASPHALT CONCRETE SURFACE COURSE, MIX "F" N90, 2 1/2"
- ⑫ LEVELING BINDER (MACHINE METHOD), N70
- ⑬ PROPOSED HOT-MIX ASPHALT BASE COURSE, 10"
- ⑭ PROPOSED COMBINATION CONCRETE CURB AND GUTTER, B-6.24
- ⑮ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 4"

MIXTURE REQUIREMENTS

MIXTURE USES	AC TYPE	VOIDS
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	SBS/SBR PG 70-22	4% AT 90 GYR.
HOT-MIX ASPHALT BASE COURSE	PG 64-22/58-22	4% AT 50 GYR.
HOT-MIX ASPHALT LEVELING BINDER (MACHINE METHOD), N 70	PG 64-22/58-22	4% AT 70 GYR.
HOT-MIX ASPHALT BINDER (MACHINE METHOD), N70	PG 64-22 *	4% AT 70 GYR.
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL-9.5 mm)	PG 64-22 *	4% AT 70 GYR.

NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE IS 112 LBS/SQYD/IN

* NOTE 2: WHEN RAP EXCEEDS 20% THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

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8/31/2007
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byunsh

REVISIONS	
NAME	DATE

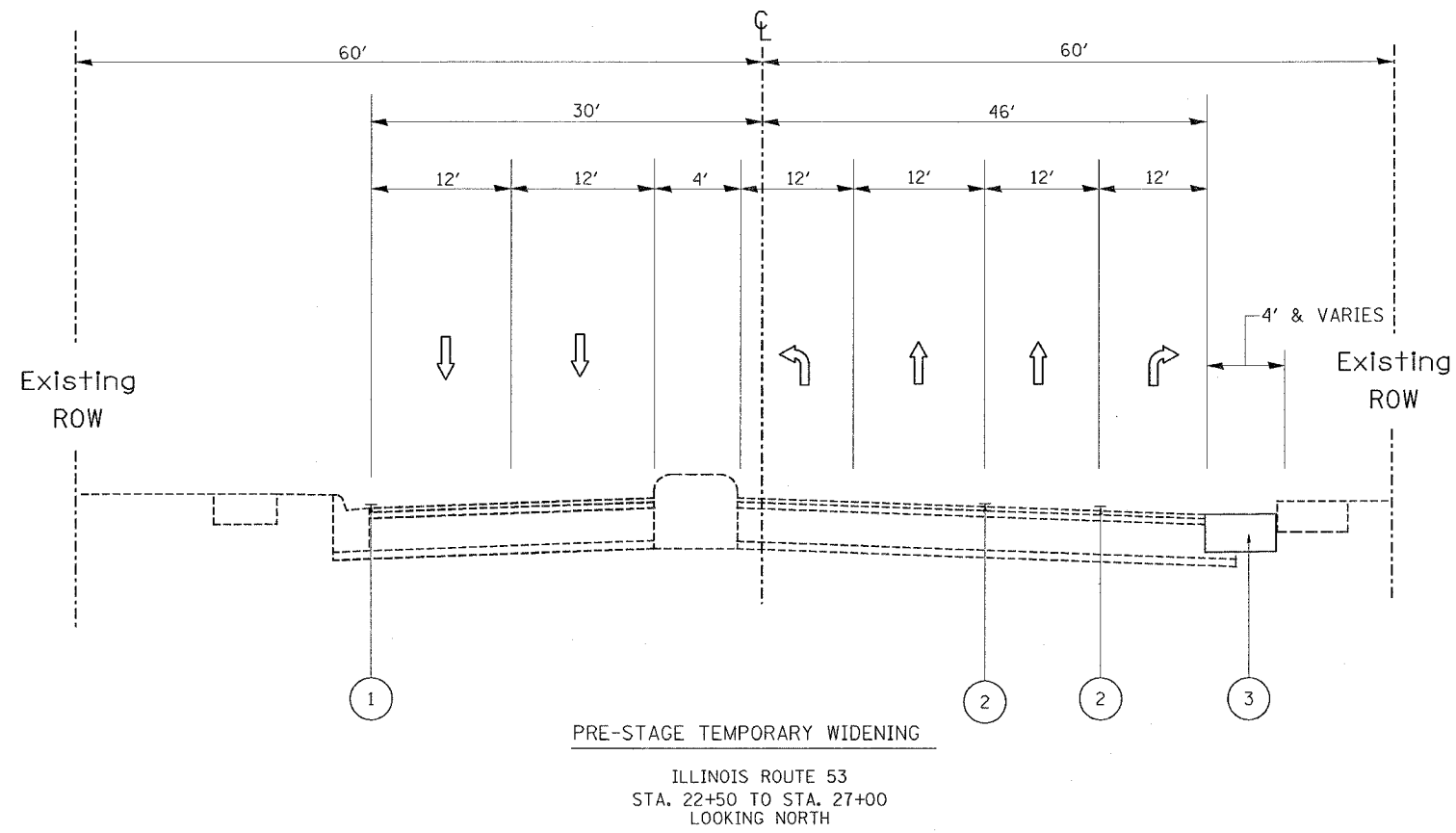
ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53
OVER LILY CACHE CREEK
TYPICAL SECTIONS

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



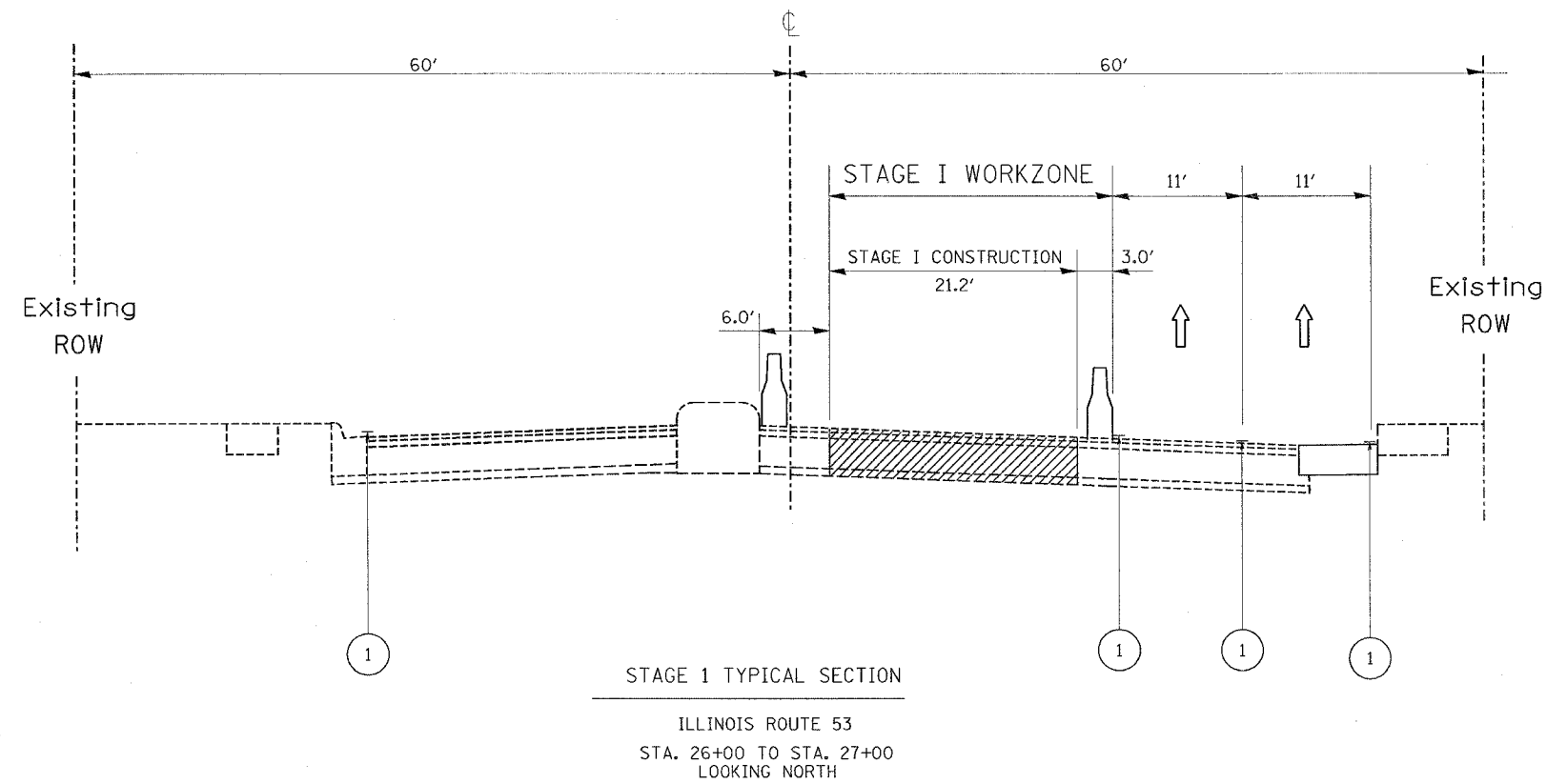
LEGEND

- ① WET TEMPORARY PAVEMENT MARKING TAPE, TYPE III, 4 INCH
- ② EDGELINES OR LANE LINES TO BE REMOVED
- ③ PROPOSED TEMPORARY PAVEMENT**

** NOTE: CURB AND GUTTER SHALL BE REMOVED AS INDICATED ON THE PLANS BEFORE PLACING TEMP. PAVEMENT. (SEE BELOW)

LOCATION OF CURB & GUTTER REMOVAL

STAGE I		STAGE II	
FROM	TO	FROM	TO
STA 22+64	STA 27+10	STA 24+62	STA 27+10
STA 27+90	STA 30+00	STA 27+90	STA 29+48



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53
OVER LILY CACHE CREEK
SUGGESTED STAGING AND TRAFFIC CONTROL

SCALE: VERT. DRAWN BY
DATE HORIZ. CHECKED BY

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REFERENCE = BRESA

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

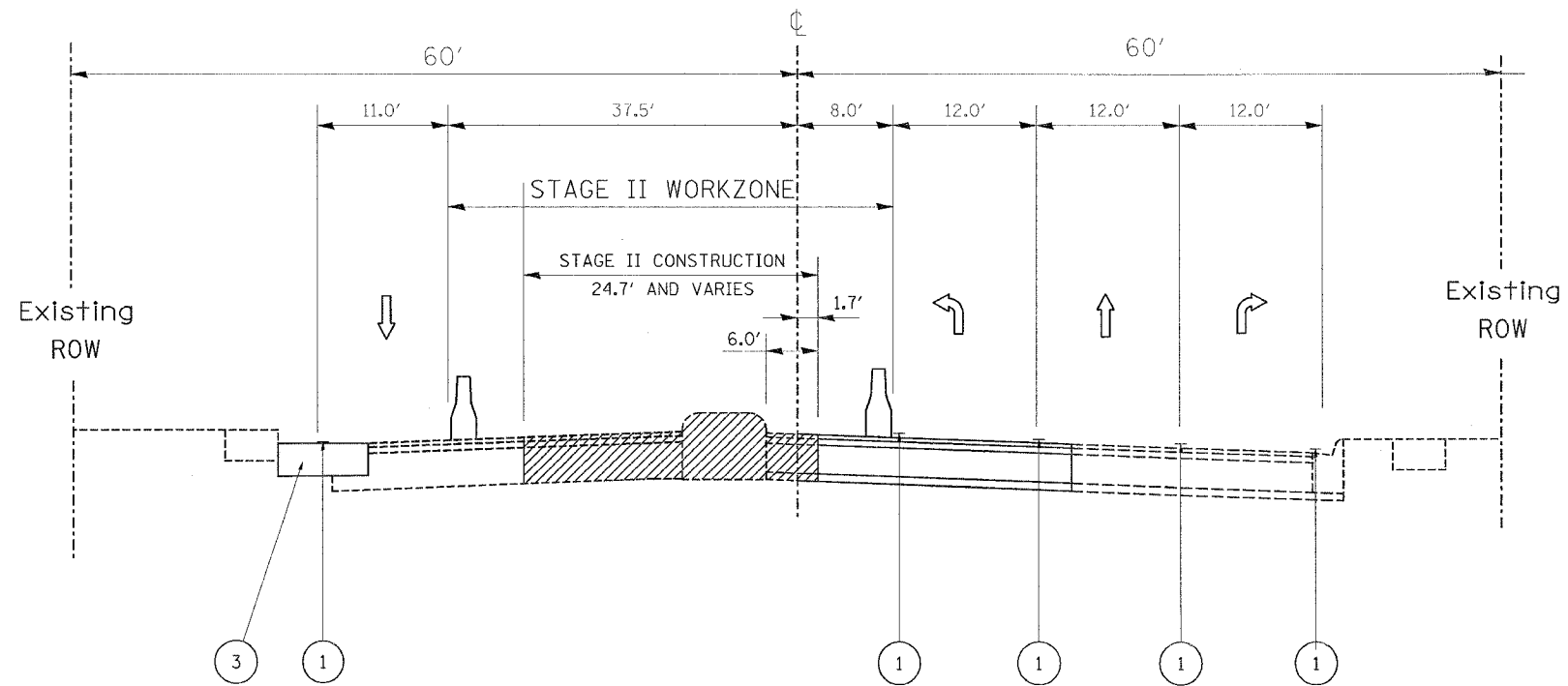
LEGEND

- ① WET TEMPORARY PAVEMENT MARKING TAPE, TYPE III, 4 INCH
- ② EDGELINES OR LANE LINES TO BE REMOVED
- ③ PROPOSED TEMPORARY PAVEMENT **

** NOTE: CURB AND GUTTER SHALL BE REMOVED AS INDICATED ON THE PLANS BEFORE PLACING TEMP. PAVEMENT. (SEE BELOW)

LOCATION OF CURB & GUTTER REMOVAL

STAGE I		STAGE II	
FROM	TO	FROM	TO
STA 22+64	STA 27+10	STA 24+62	STA 27+10
STA 27+90	STA 30+00	STA 27+90	STA 29+48



STAGE 2 TYPICAL SECTION

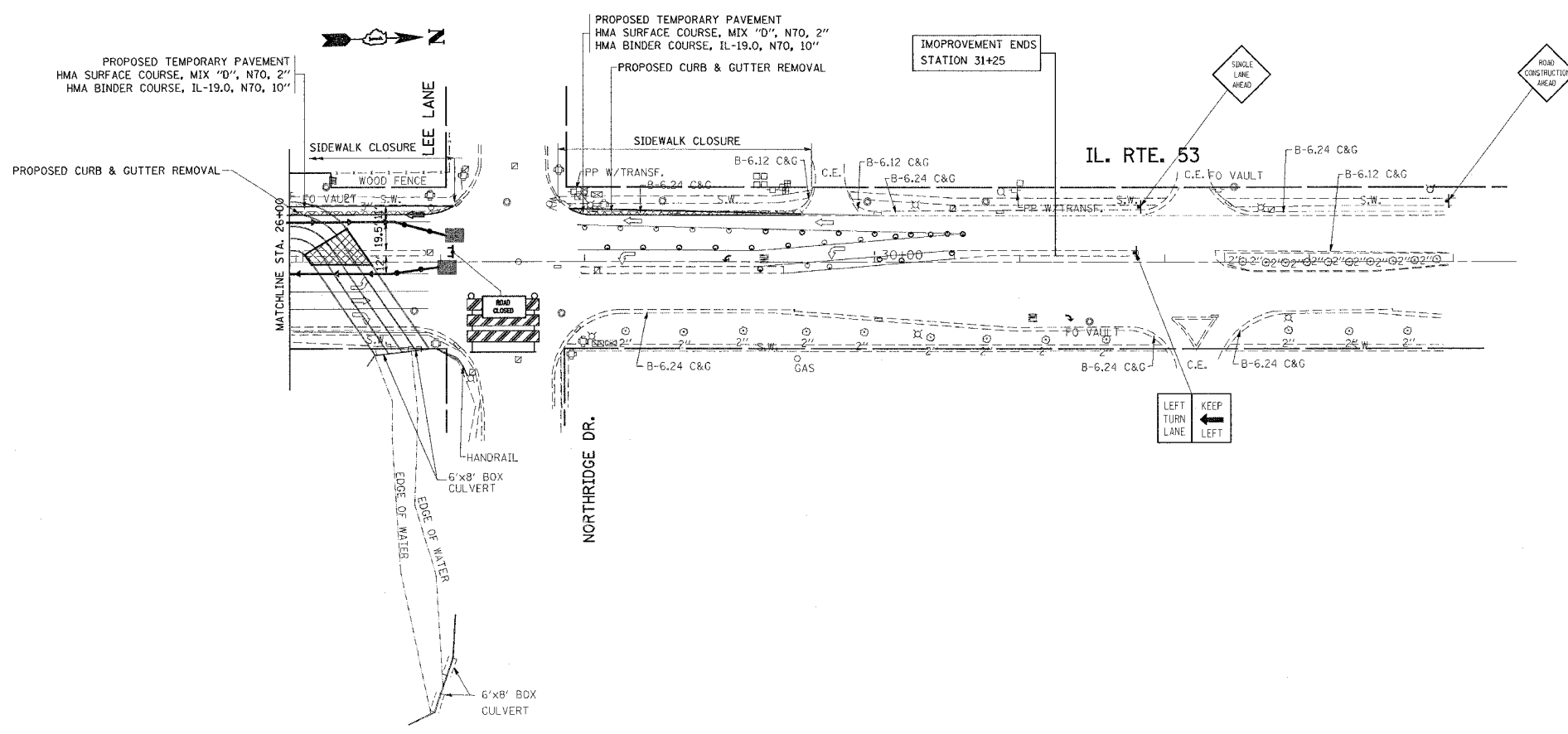
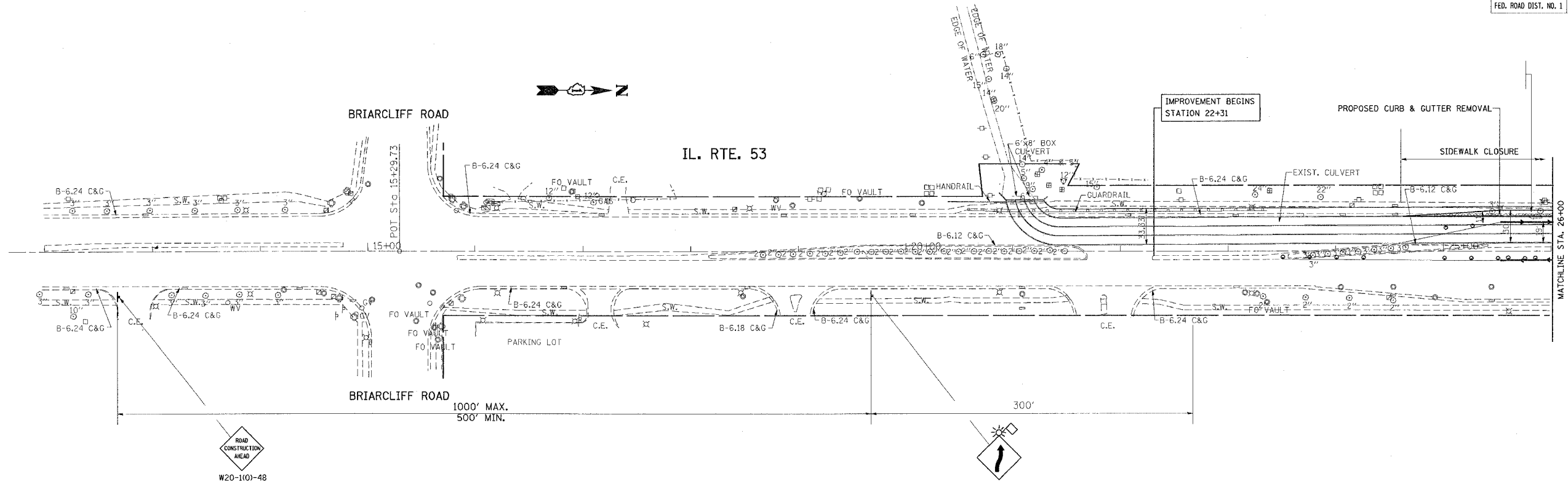
ILLINOIS ROUTE 53
STA. 26+00 TO STA. 27+00
LOOKING NORTH

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REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		ILLINOIS ROUTE 53 OVER LILY CACHE CREEK SUGGESTED STAGING AND TRAFFIC CONTROL
SCALE:	VERT. HORIZ.	DRAWN BY CHECKED BY
DATE		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	8
STA. TO STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



	WORK AREA
	SIGN
	DRUM WITH STEADY BURNING LIGHT, 25' C-C
	TYPE C REFLECTOR, 25' C-C
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
	4" WHITE SOLID LANE LINE, WET TEMP PAVEMENT MARKING TAPE, TYPE III

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53

OVER LILY CACHE CREEK

SUGGESTED STAGING AND TRAFFIC CONTROL

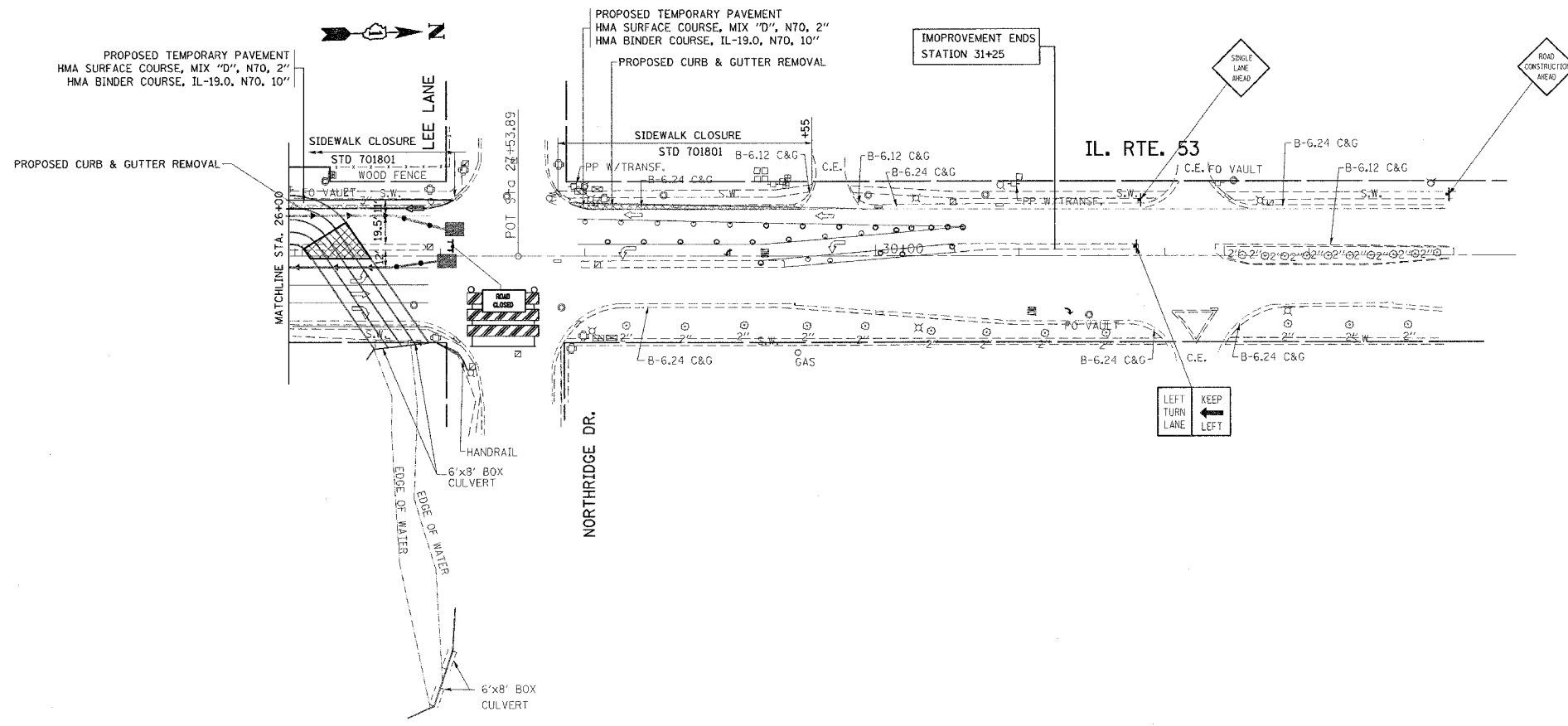
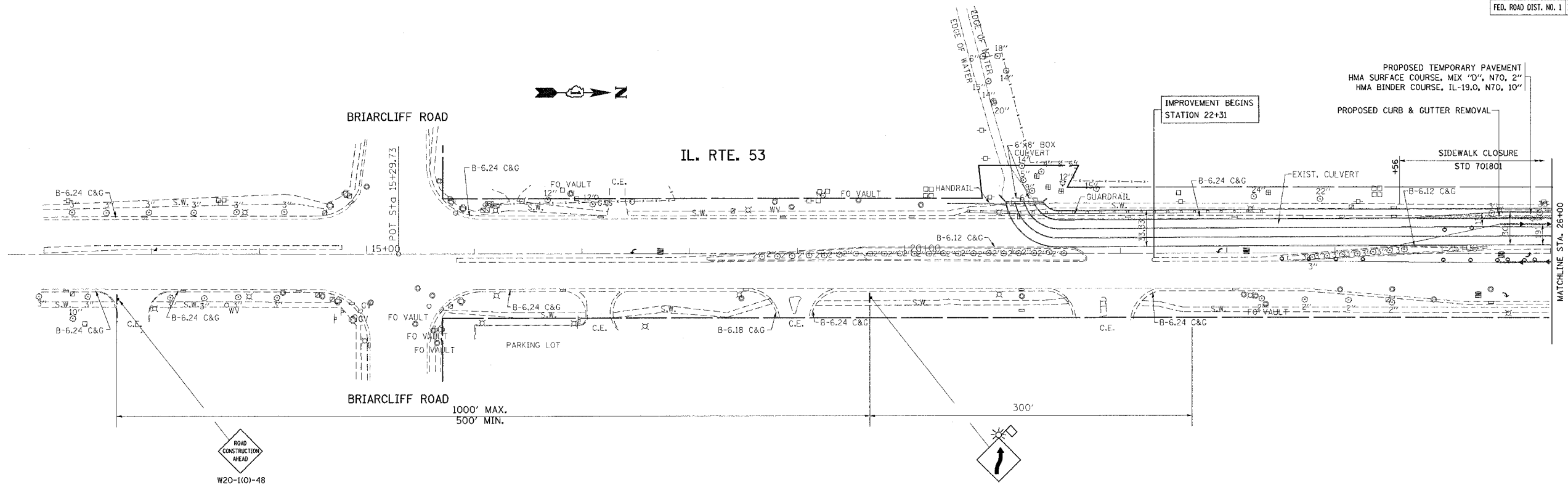
STAGE II

SCALE: VERT. DATE
HORIZ. DATE

DRAWN BY
CHECKED BY

PLOT DATE = 8/31/2007
PLOT SCALE = 50/2000' = 1/40
REFERENCE = BREF9

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	9
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



	WORK AREA
	SIGN
	DRUM WITH STEADY BURNING LIGHT, 25' C-C
	TYPE C REFLECTOR, 25' C-C
	TEMPORARY CONCRETE BARRIER
	IMPACT ATTENUATOR
	STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
	4" WHITE SOLID LANE LINE, WET TEMP PAVEMENT MARKING TAPE, TYPE III

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ILLINOIS ROUTE 53
OVER LILY CACHE CREEK
SUGGESTED STAGING AND TRAFFIC CONTROL
STAGE II

SCALE: VERT. DATE
HORIZ. DATE

DRAWN BY
CHECKED BY

PLOT DATE = DATE
FILE NAME = FILE
SCALE = SCALE
REFERENCE = REF

DATE-TIME
DGN-SPEC
USER

Benchmark: Chiseled square on south end of south wingwall, northeast end of culvert. Elev. 693.33

Existing Structure: SN 099-2008 built in 1930 as a four-barrel, 7.5' x 6' R.C. box culvert. Original length approximately 48' along centerline of culvert, extended 450' to the south and 18' east in 1980, and extended another 24' to the east in 2000. 1930 section to be removed and replaced. Two lanes of traffic in each direction to be maintained utilizing stage construction.

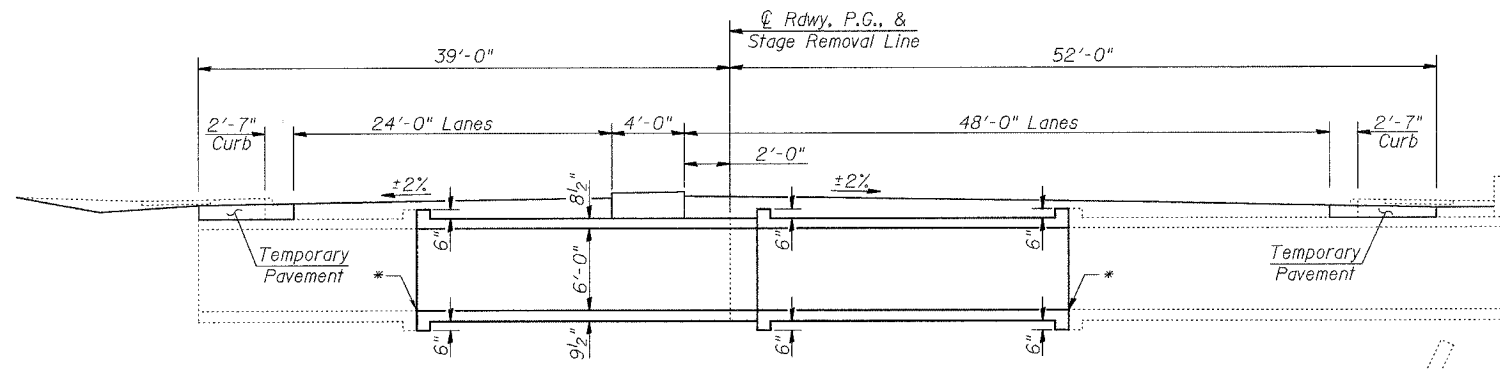
No Salvage.

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R 1	WILL	42	10
FED. ROAD DIST. NO. 1		BALANCE	FED. AID PROJECT-	
Contract No.: 62556				

SHEET NO.
1 of 8

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions
 Plan dimensions and details relative to existing plans are subject to routine 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 based upon the unit price bid for the work.



LONGITUDINAL SECTION

* Match Existing Invert Elevation (+686.0)

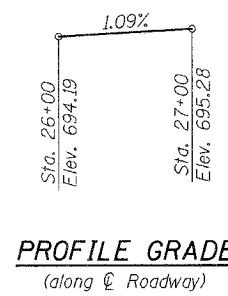
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Removal of Existing Structures	Each	1
Temporary Sheet Piling	Sq. Ft.	878
Concrete Box Culverts	Cu. Yd.	131.7
Reinforcement Bars	Pound	44,240
Bar Splicers	Each	198
Expansion Bolts 3/4 Inch	Each	118
Structural Repair of Concrete (Depth Equal to or Less Than 5 in.)	Sq. Ft.	48
Culvert To be Cleaned	Foot	570

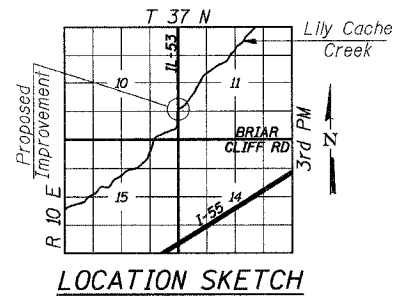
INDEX OF SHEETS

Sheet No.	Description
1	General Plan
2	Stage Construction Details
3	Culvert Details - I
4	Culvert Details - II
5	Culvert Repair Details
6	Bar Splicer Assembly Details
7	Temporary Concrete Barrier For Stage Construction
8	Borings

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
Robert E. Anderson (SE)
 ENGINEER OF BRIDGES AND STRUCTURES



PROFILE GRADE
 (along Centerline Roadway)



LOCATION SKETCH

FINAL PLANS

JUL 5 2007

LOADING HS20-44

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

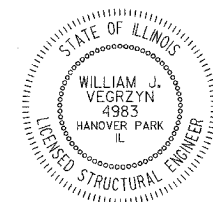
DESIGN SPECIFICATIONS

AASHTO 17th Ed. - 2002

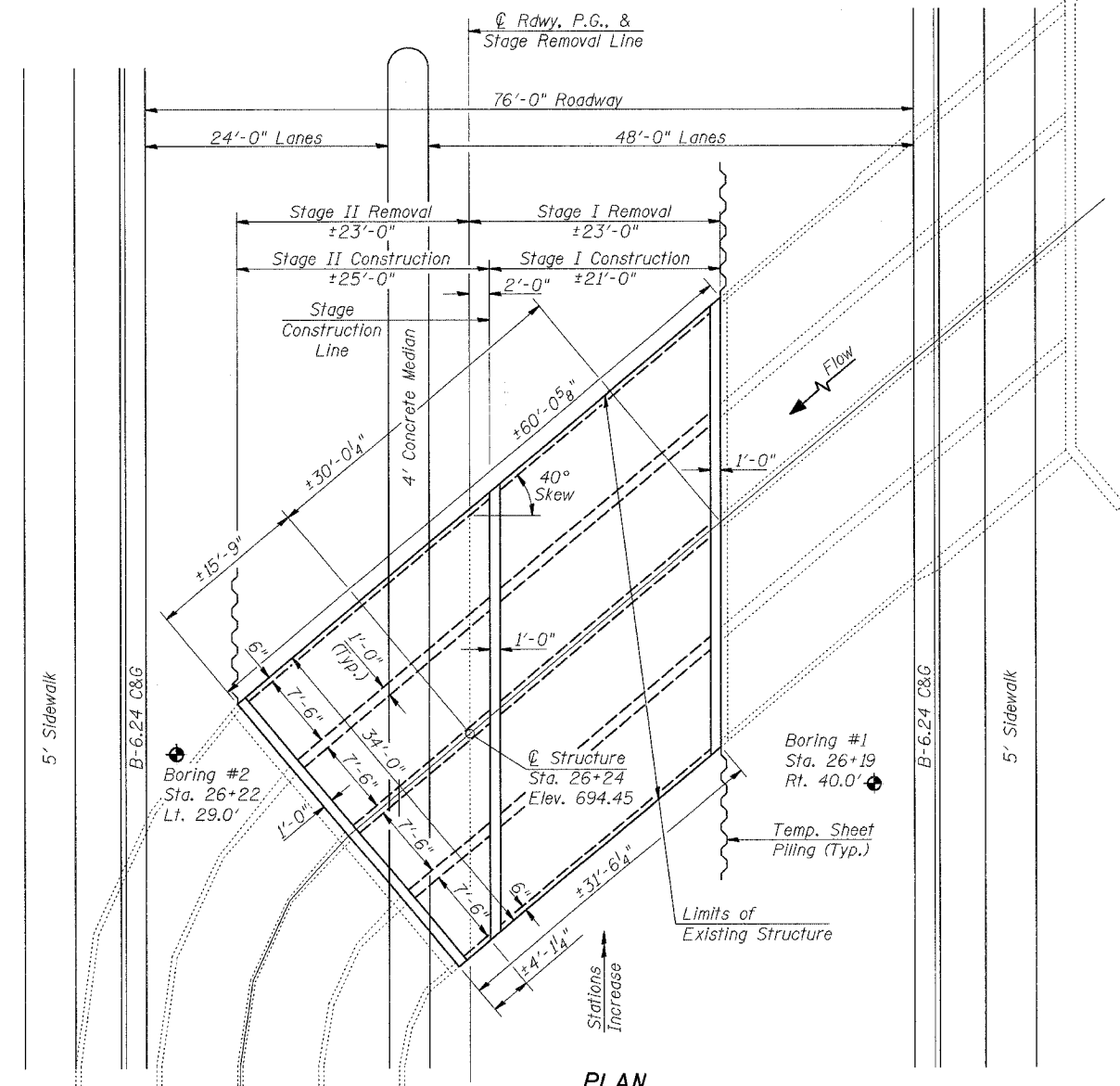
DESIGN STRESSES

FIELD UNITS

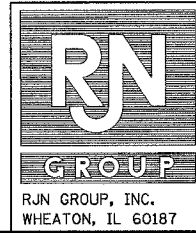
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)



William J. Vegryz 8/31/07
 Expires 11-30-08



PLAN



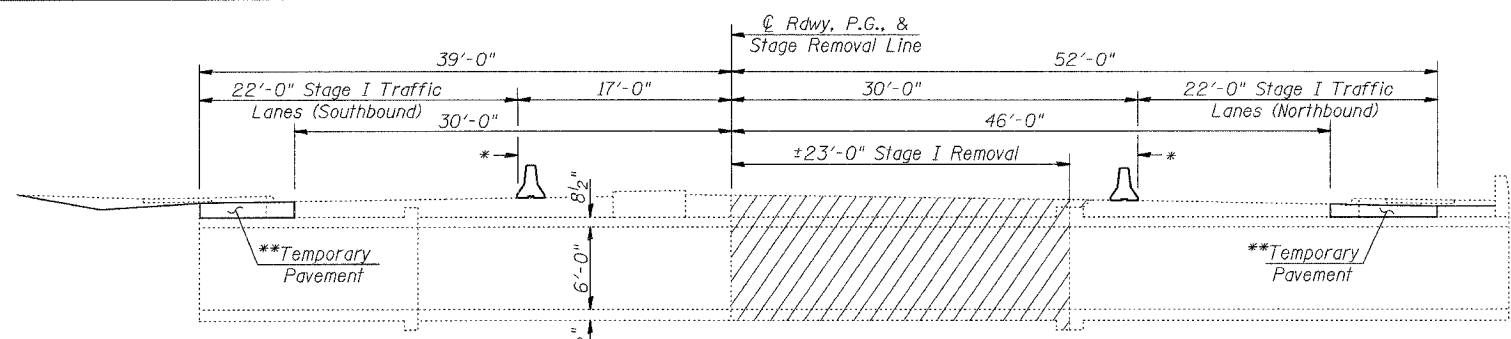
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 GENERAL PLAN
 IL ROUTE 53 OVER LILY CACHE CREEK
 WILL COUNTY
 STATION 26+24
 STRUCTURE NO. 099-2008
 DRAWN BY BLB
 CHECKED BY WJV
 DATE: 6-12-07

F.A.P.	SECTION	COUNTY	SHEET NO.	SHEET
870	534 R 1	WILL	42	11
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

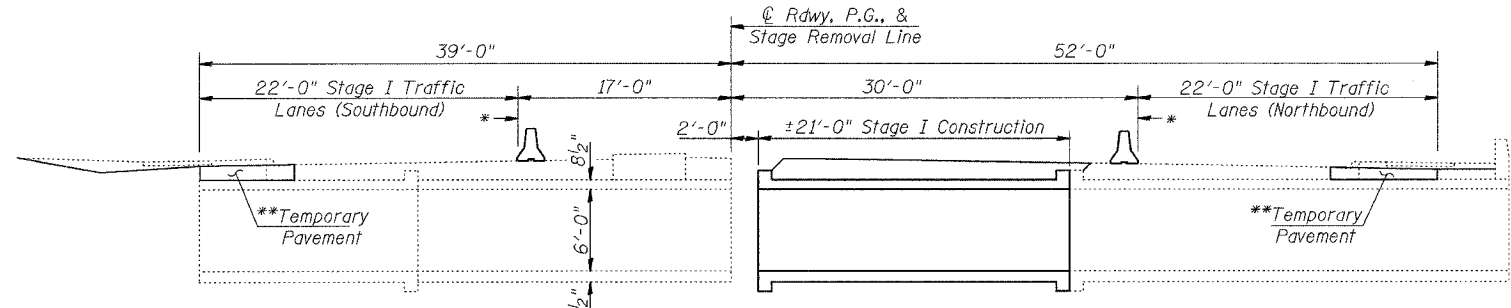
SHEET NO.
2 of 8

Contract No.: 62556



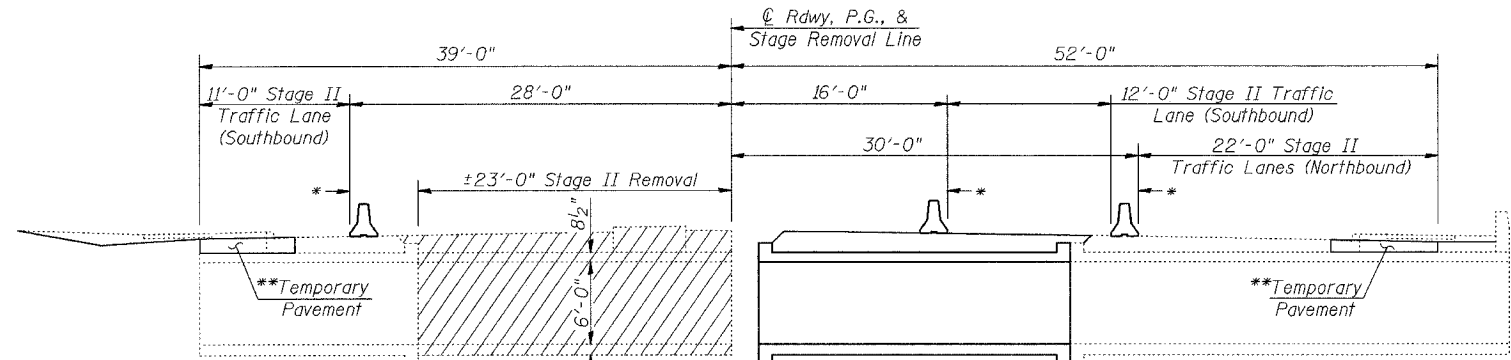
STAGE I REMOVAL

Dimensions perpendicular to roadway \perp



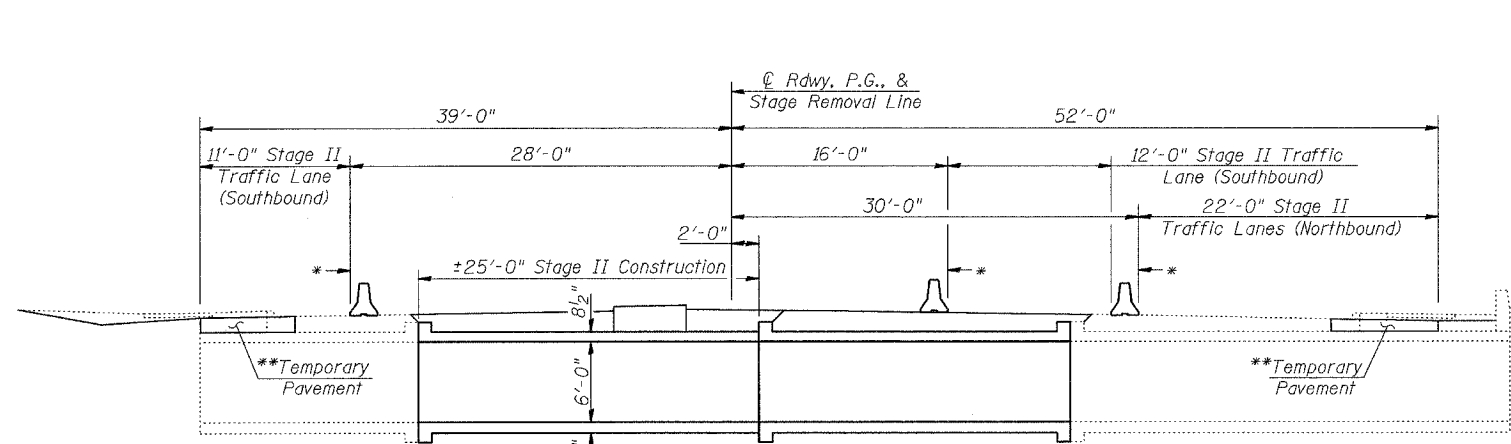
STAGE I CONSTRUCTION

Dimensions perpendicular to roadway \perp



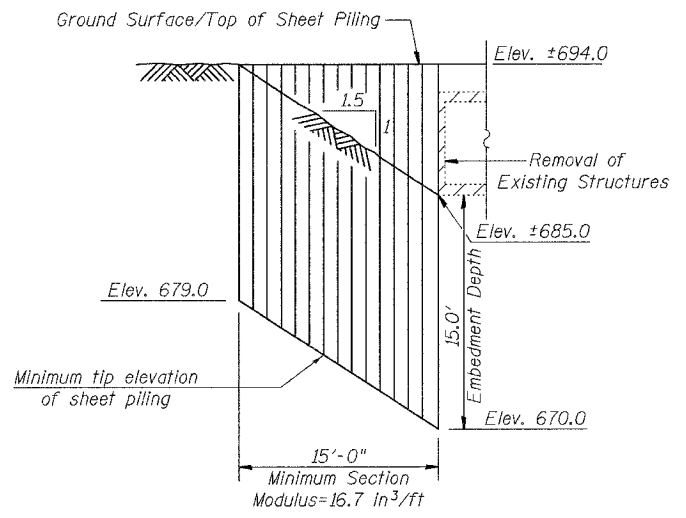
STAGE II REMOVAL

Dimensions perpendicular to roadway \perp

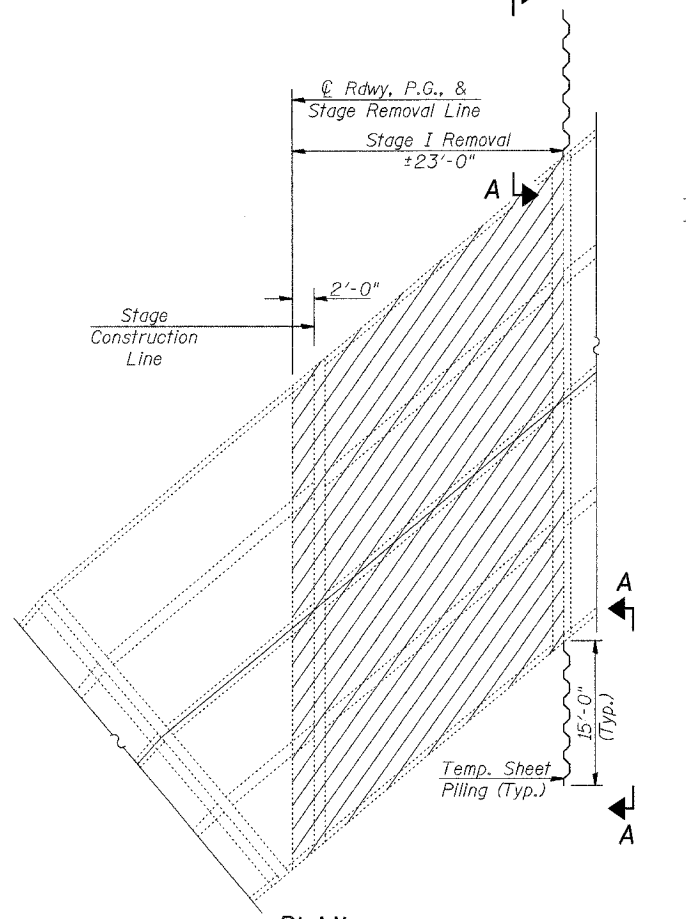


STAGE II CONSTRUCTION

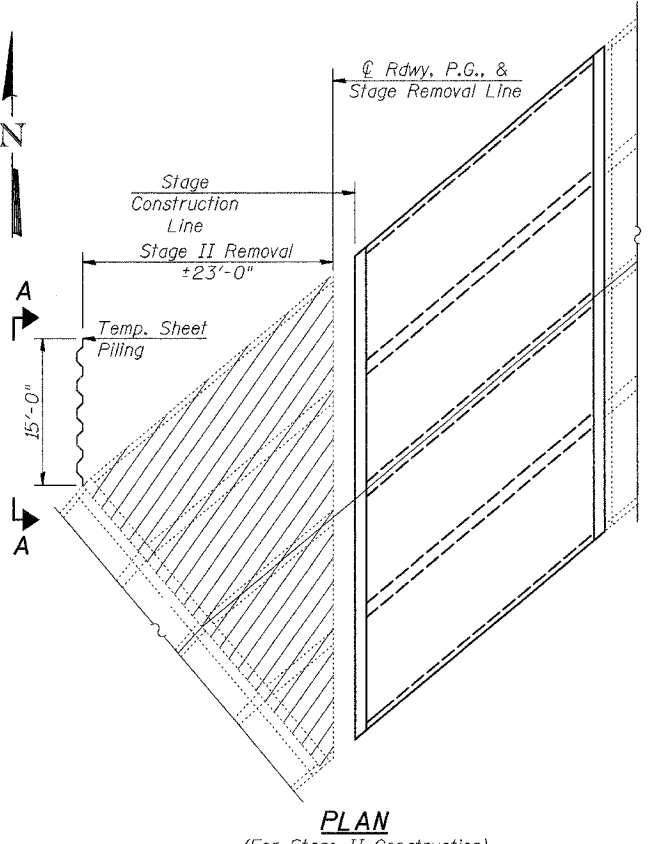
Dimensions perpendicular to roadway \perp



SECTION A-A



PLAN (For Stage I Construction)



PLAN (For Stage II Construction)

- Removal of Existing Structures

* Toe of Temporary Concrete Barrier
**Construct before Stage I Removal begins

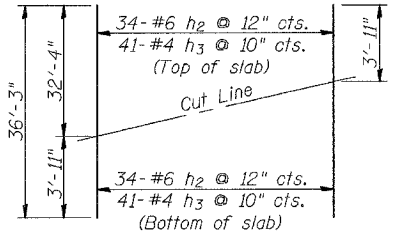
BILL OF MATERIAL

PAY ITEM	UNIT	QUANTITY
Temporary Sheet Piling	Sq. Ft.	878
Removal of Existing Structures	Each	1



REVISIONS	
NAME	DATE

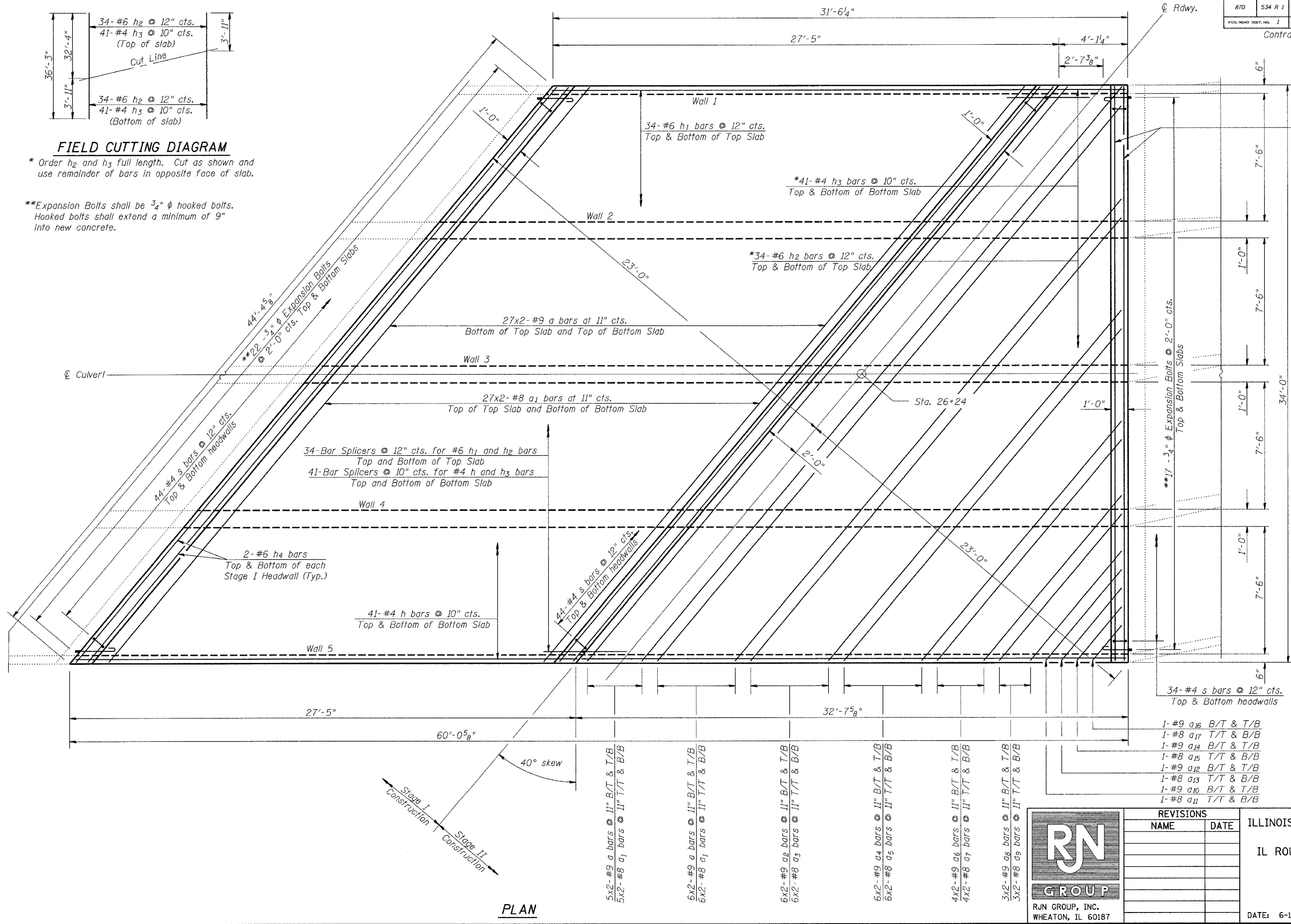
ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE CONSTRUCTION DETAILS
IL ROUTE 53 OVER LILY CACHE CREEK
WILL COUNTY
STATION 26+24
STRUCTURE NO. 099-2008
DRAWN BY BLB
CHECKED BY WJV
DATE: 6-12-07



FIELD CUTTING DIAGRAM

* Order h₂ and h₃ full length. Cut as shown and use remainder of bars in opposite face of slab.

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



2-#6 h₅ bars
Top & Bottom of each
Stage II Headwall

NOTES

See sheet 4 of 8 for Bill of Materials, Section thru Barrel, Wall Elevations, and Bar Details.

Bars indicated thus 27x2-#8 etc. indicates 27 lines of bars with 2 lengths per line.

See sheet 6 of 8 for Bar Splicer Details.

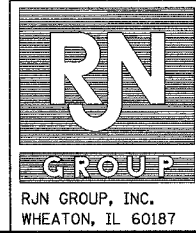
MINIMUM BAR LAP

#6 Bar = 2'-0"
#8 Bar = 3'-8"
#9 Bar = 4'-7"

LEGEND

T/T - Top of Top Slab
B/T - Bottom of Top Slab
T/B - Top of Bottom Slab
B/B - Bottom of Bottom Slab

REVISIONS	
NAME	DATE



ILLINOIS DEPARTMENT OF TRANSPORTATION
CULVERT DETAILS-I
IL ROUTE 53 OVER LILY CACHE CREEK
WILL COUNTY
STATION 26+24
STRUCTURE NO. 099-2008
DRAWN BY BLB
CHECKED BY WJV
DATE: 6-12-07

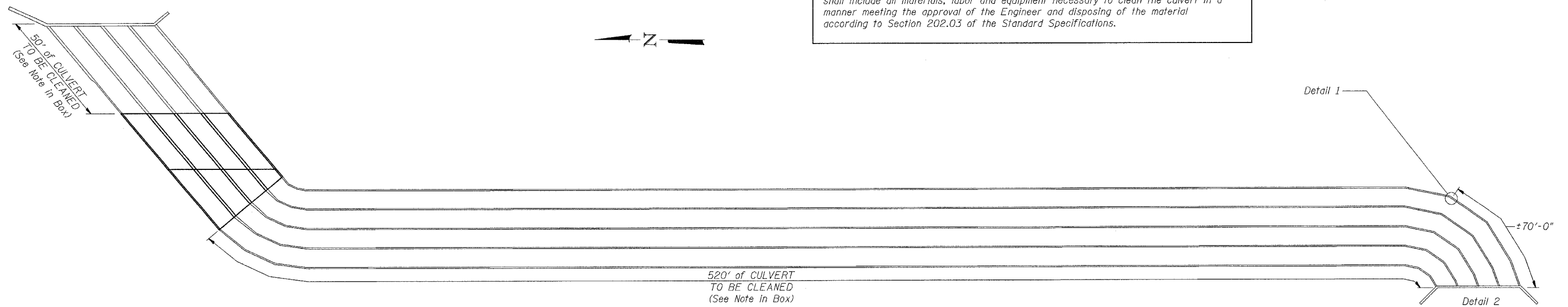
PLAN

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R 1	WILL	42	14
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SHEET NO.
5 of 8

Contract No.: 62556

CULVERT TO BE CLEANED consists of cleaning the existing culvert as directed by the Engineer. The Contractor is required to remove and properly dispose of all debris and sediments that have accumulated in the culvert. This work shall be paid for at the contract unit price per foot for CULVERT TO BE CLEANED. The foot unit is the length of the existing culvert which includes all four cells. This price shall include all materials, labor and equipment necessary to clean the culvert in a manner meeting the approval of the Engineer and disposing of the material according to Section 202.03 of the Standard Specifications.



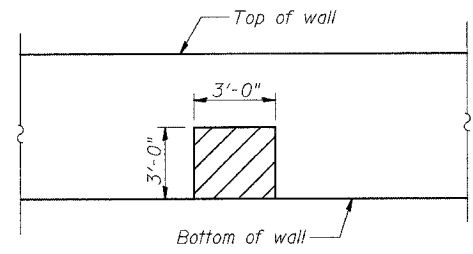
PLAN

LEGEND:

Structural Repair of Concrete

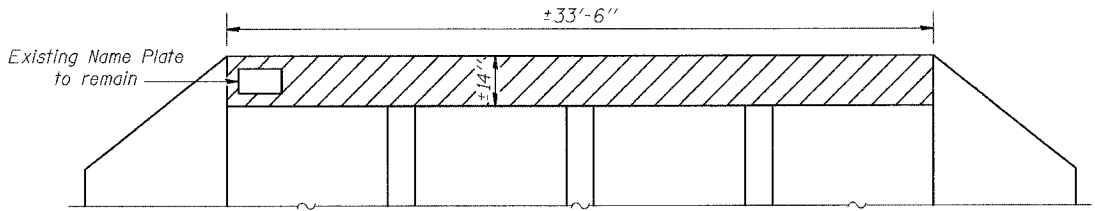
BILL OF MATERIAL

PAY ITEM	UNIT	QUANTITY
Structural Repair of Concrete (Depth Equal to or Less Than 5 in.)	Sq. Ft.	48
Culvert to be Cleaned	Foot	570



DETAIL 1

3'x3' Spall on bottom of the wall of the southern-most cell located 70' from the west headwall (see plan above).



DETAIL 2

West Headwall



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CULVERT REPAIR DETAILS
IL ROUTE 53 OVER LILY CACHE CREEK
WILL COUNTY
STATION 26+24
STRUCTURE NO. 099-2008
DRAWN BY BLB
CHECKED BY WJV
DATE: 6-12-07

Contract No.: 62556

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length. All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

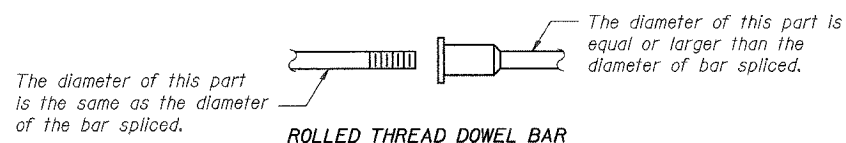
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.

A_t = Tensile stress area of lapped reinforcement bars.

* = 28 day concrete

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

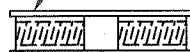


ROLLED THREAD DOWEL BAR



**** ONE PIECE**

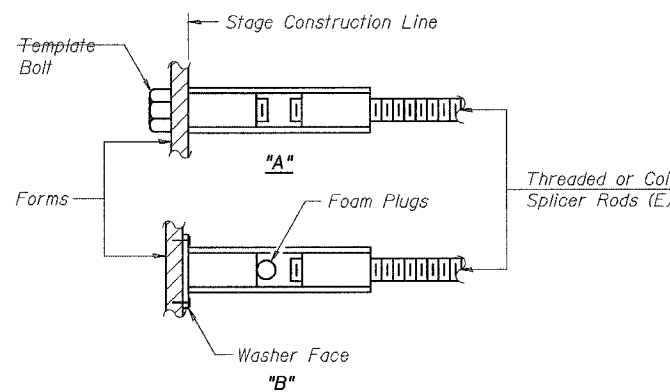
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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

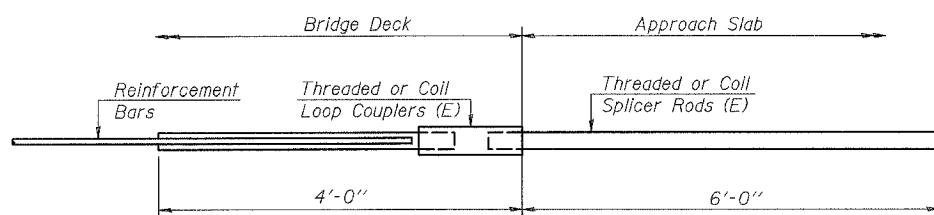


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

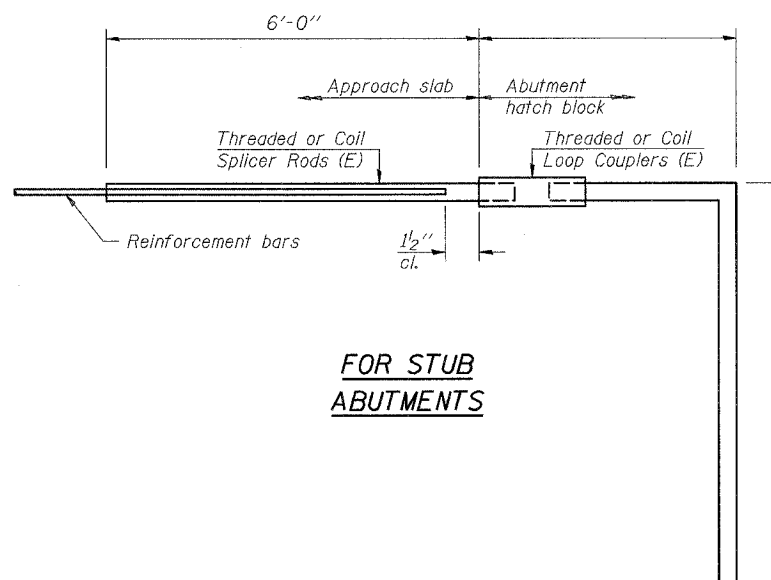
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



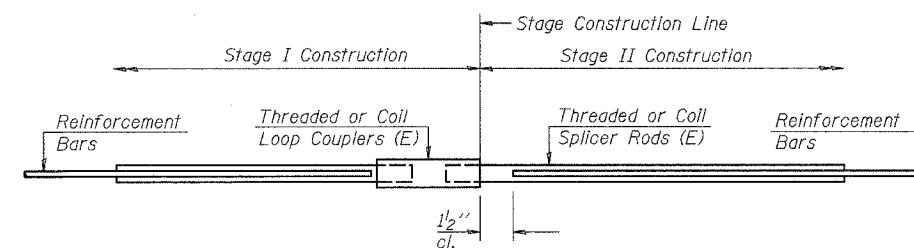
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location
#4	82	Bottom Slab
#5	48	Walls
#6	68	Top Slab



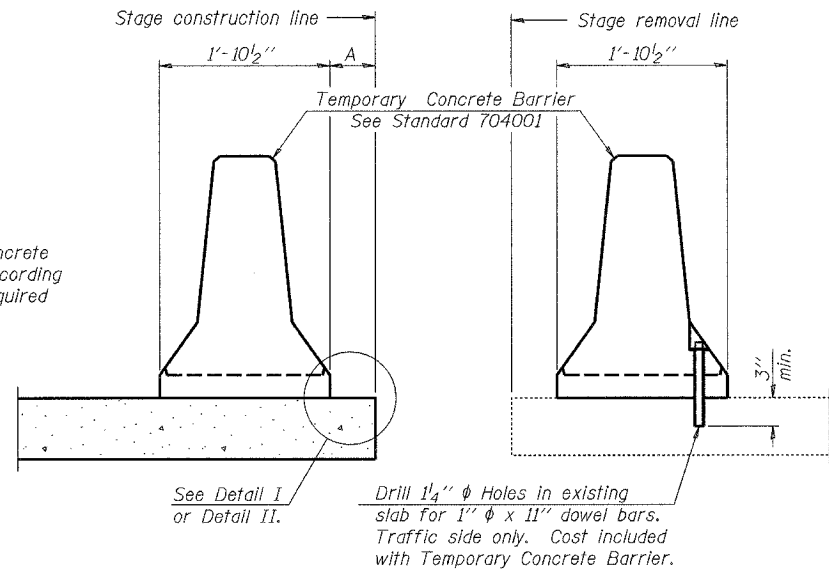
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 BAR SPLICER ASSEMBLY DETAILS
 IL ROUTE 53 OVER LILY CACHE CREEK
 WILL COUNTY
 STATION 26+24
 STRUCTURE NO. 099-2008
 DRAWN BY BLB
 DATE: 6-12-07
 CHECKED BY WJV

F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R 1	WILL	42	16
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-		

SHEET NO.
7 of 8

Contract No.: 62556



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

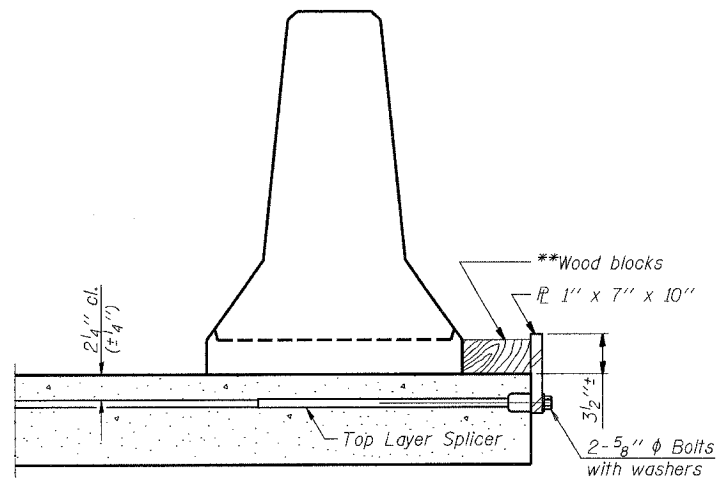
SECTIONS THRU SLAB

NOTES

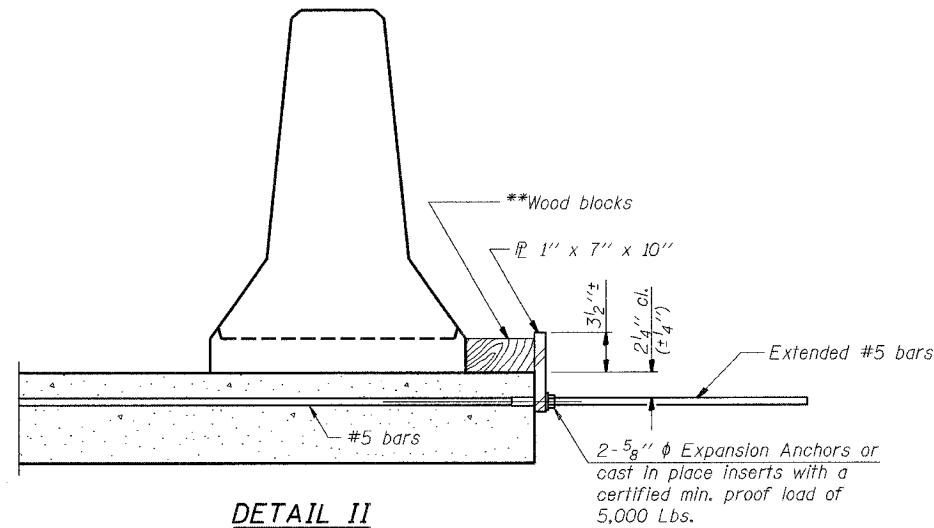
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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

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

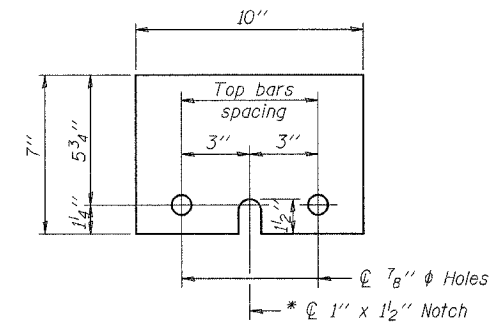


DETAIL I



DETAIL II

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



STEEL RETAINER PL 1" x 7" x 10"

* Required only with Detail II



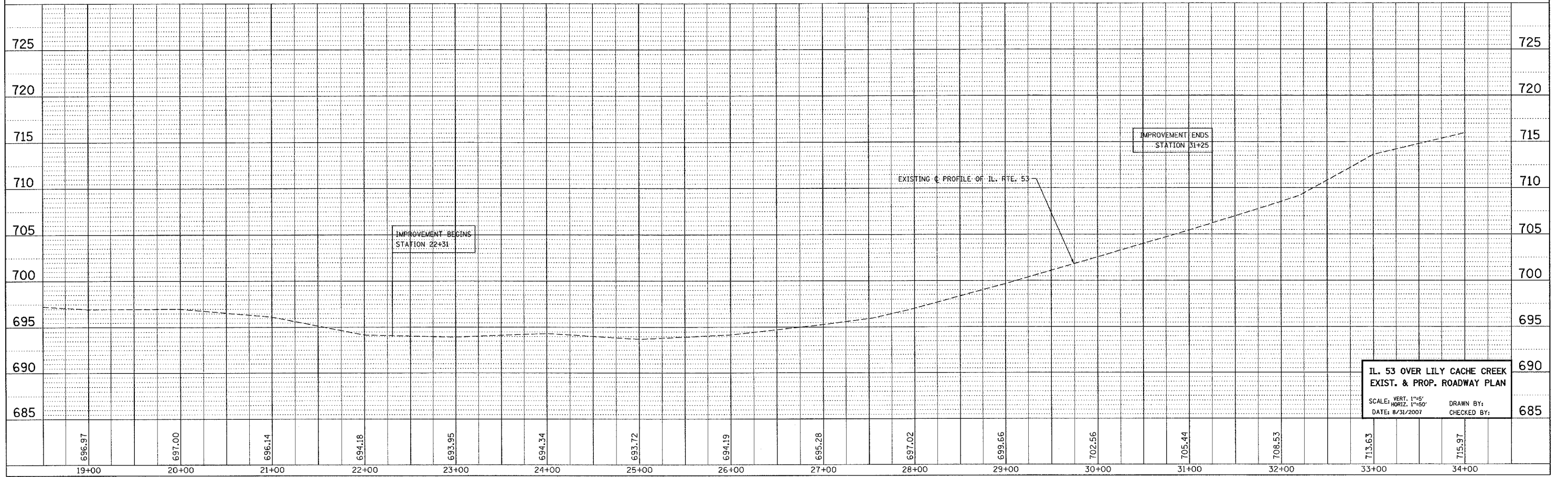
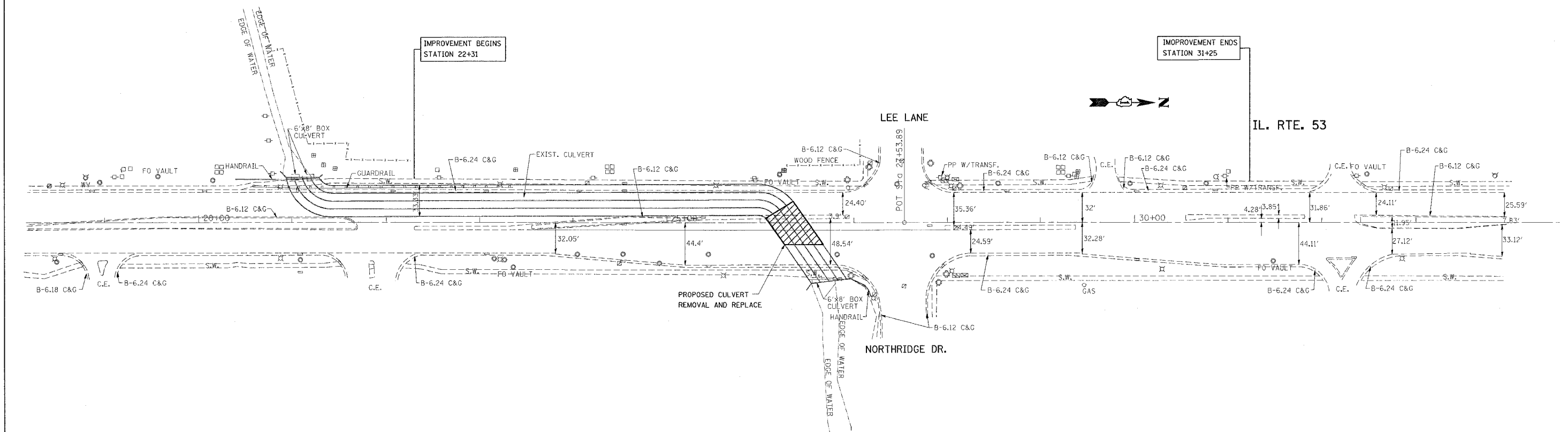
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL ROUTE 53 OVER LILY CACHE CREEK
WILL COUNTY
STATION 26+24
STRUCTURE NO. 099-2008
DATE: 6-12-07
DRAWN BY BLB
CHECKED BY WJV

REF-topo03
REF-pro01

CONTRACT 62556

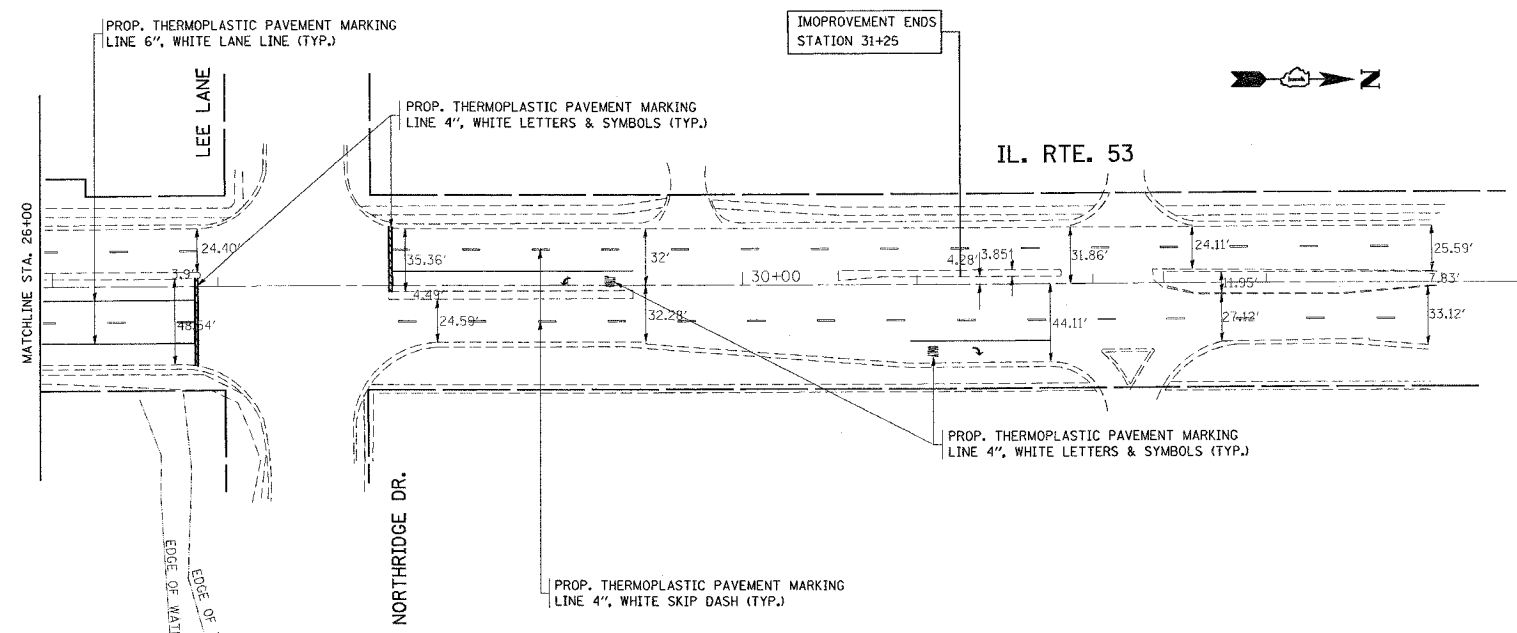
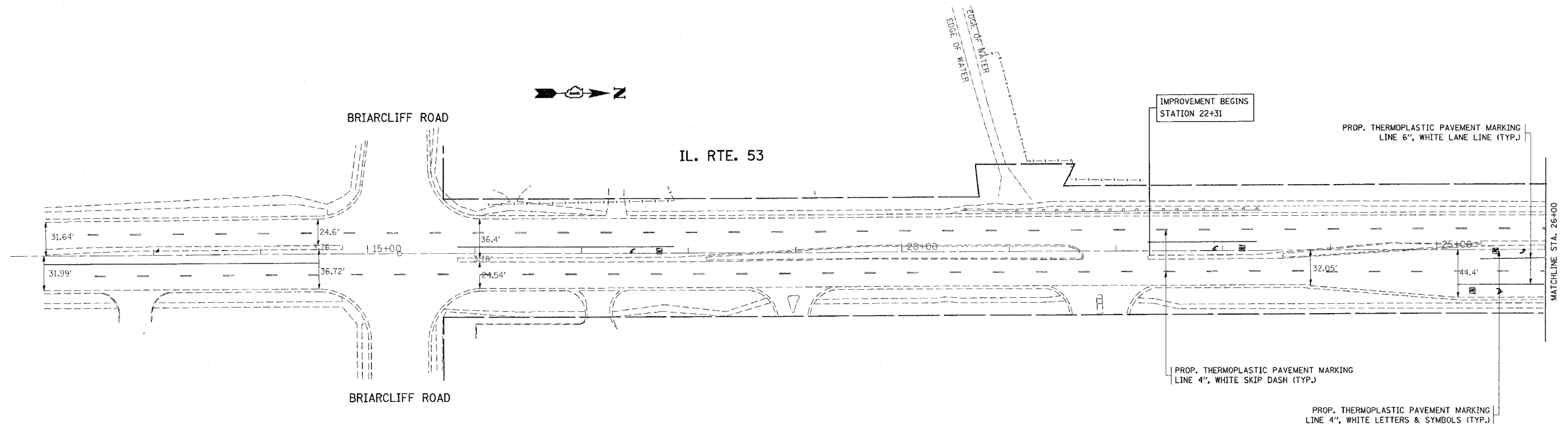
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL.	42	18
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



**IL. 53 OVER LILY CACHE CREEK
EXIST. & PROP. ROADWAY PLAN**
SCALE: VERT. 1"=5'
DATE: 8/31/2007
DRAWN BY:
CHECKED BY:

8/31/2007
c:\proj\534\534\desig\m32
by:unsh

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	19
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTE: ALL FINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OR EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL (TC-13)

ALL RAISED REFLECTIVE PAVEMENT MAKERS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKER DETAIL." (TC-11)

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REFERENCE = REF#

8/31/2007
c:\projects\pl5160\design\m32
byunsh

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53
OVER LILY CACHE CREEK
PAVEMENT MARKING PLAN

SCALE: VERT. DATE: HORIZ. DATE: DRAWN BY: CHECKED BY:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	20
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES IMMEDIATELY AFTER INSTALLATION OF COFFERDAM.

ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM STORM WATER PERMIT.

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT POLLUTION OF STORM WATER AND SHALL FOLLOW IEPA & IDOT CONSTRUCTION MEMORANDUM NO. 95-60.

EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH SEQUENCE OF STAGE CONSTRUCTION.

ALL PERIMETER EROSION BARRIER SHALL BE PLACED IN STAGE I, IF REQUIRED IN STAGE II IT SHALL BE LEFT IN PLACE. IT SHALL ONLY BR REPLACED IF DAMAGED, AT THE DIRECTION OF THE ENGINEER

THE WILL/SOUTH COOK SOIL AND WATER CONSERVATION DISTRICT (WSCSWCD) IS RESPONSIBLE FOR CONDUCTING SITE VISITS AND VERIFYING THAT THE PRACTICES ARE WORKING PROPERLY AND DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE WSCSWCD.

WSCSWCD MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF THE LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO FINAL INSPECTION.

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL REVISED FEBRUARY 2002.

A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING INTO DRAIN TILES IS STRICTLY PROHIBITED. COMPROMISED DRAIN TILES SHOULD BE IMMEDIATELY REPAIRED OR INCORPORATED INTO STORM WATER FACILITIES.

ALL DROP INLETS ON AND ADJACENT TO THE SITE MUST HAVE A SEDIMENT TRAPPING OR CONTAINMENT DEVICE INSTALLED DURING CONSTRUCTION ACTIVITIES.

ALL EROSION CONTROL MEASURES MUST BE INSPECTED WEEKLY AND AFTER EACH 1/2" RAIN EVENT.

EROSION CONTROL BLANKET AND/OR STRAW MULCH WITH NETTING (DEPENDING ON SLOPE, SLOPE LENGTH, AND FLOW RATES) SHALL BE INSTALLED ON ALL SLOPES AND IN CRITICAL AREAS IMMEDIATELY

THE SILT CURTAIN CONSISTS OF A NONWOVEN, SPUNBONDED MATERIAL WITH A BALLAST CHAIN EMBEDDED IN THE BOTTOM OF THE CURTAIN RESTING ON THE STREAM OR LAKE FLOOR APPROPRIATELY SIZED RIP RAP THAT KEEPS THE BOTTOM OF THE CURTAIN IN CONTACT WITH THE BOTTOM OF THE STREAM CAN BE SUBSTITUTED FOR A SEWN-IN CHAIN BALLAST. THE CURTAIN IS TO BE AT LEAST ONE FOOT LONGER THAN THE DEPTH OF THE WATER TO ALLOW FOR MOVEMENT IN THE CURTAIN AND WATER DEPTH CHANGES.

SILT CURTAINS CAN BE ANCHORED WITH ROPES AND WEIGHTS IN STREAMS WITH A VELOCITY LESS THAN 0.5 FT/SEC, LAKES AND PONDS

STREAMS WITH VELOCITIES BETWEEN 0.5 FT/SEC AND 1.0 FT/SEC MAY NEED ADDITIONAL MECHANICALLY DRIVEN PILE ANCHORING. ONE PILE, ANCHORED INTO THE UPSTREAM CORNER, WITH THE OTHER CORNER ANCHORED WITH ROPES AND WEIGHTS. THE PILE SHOULD BE OF ADEQUATE STRENGTH AND MATERIAL.

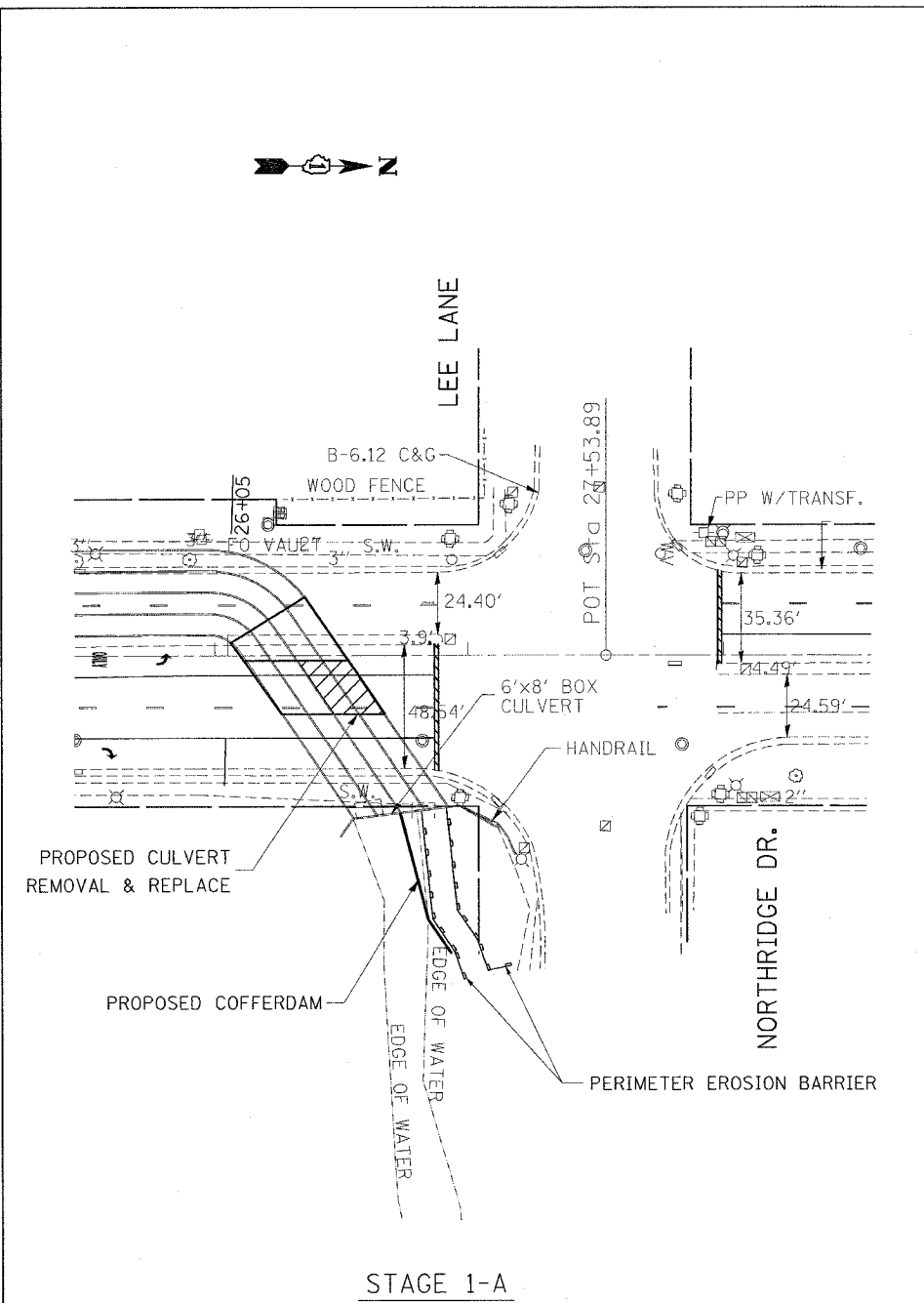
IN STREAMS OF 1.0 FT/SEC TO 3.0 FT/SEC, TWO PILES SHOULD BE USED; ONE IN THE UPSTREAM LOCATION AND ONE IN THE DOWNSTREAM LOCATION. STEEL PILES SHOULD BE USED IN STREAMS EXCEEDING 2.0 FT/SEC, OTHERWISE TIMBER OF SUFFICIENT SIZE CAN BE SUBSTITUTED. STREAMS WITH VELOCITIES EXCEEDING 3.0 FT/SEC, DO NOT REQUIRE SILT CURTAINS. THE SILT CURTAINS WILL CAUSE MORE HARM THAN GOOD IN THESE FAST MOVING STREAMS. THE PERFORMANCE OF THE STRENGTH OF THE TIMBER AND THE OVERALL PERFORMANCE OF THE ANCHORING ARE TO BE EVALUATED BY THE RESIDENT ENGINEER.

A PLAN OF THE ASSMBLY SHOULD BE INCLUDED IN THE CONSTRUCTION DOCUMENTS. IT SHOULD INDICATE AREAS TO PROTECT AND ANY NECESSARY PILES.

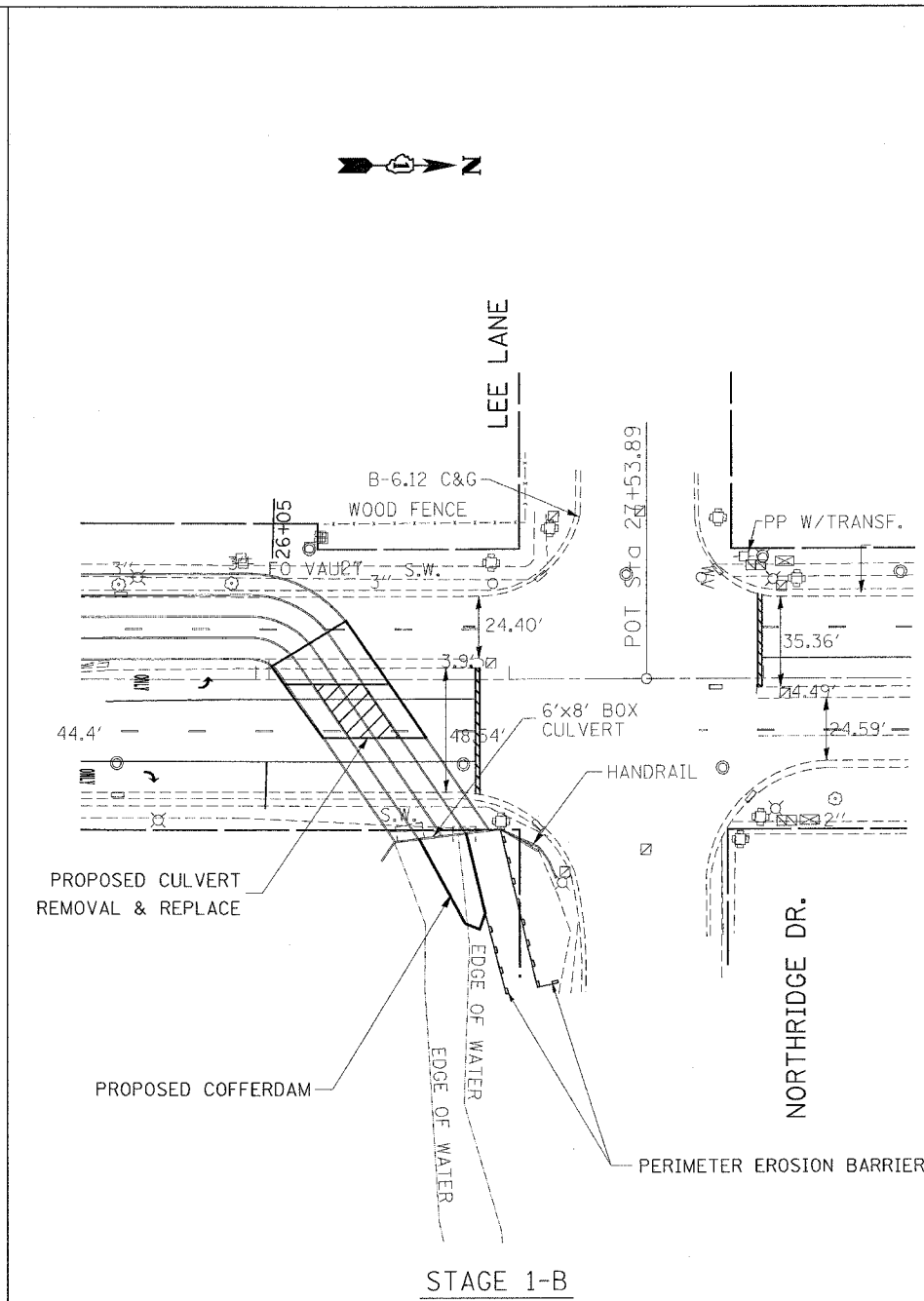
WATER PUMPED FROM BEHIND THE SILT CURTAIN MUST BE DISCHARGED AT LEAST 160 FEET FROM THE STREAM OR LAKE AND INTO A STABLE SPILL PAD OF ROCKFILL, WEIGHTED TIMBERS, OR PLYWOOD, LOCATED IN A WELL-VEGETATED AREA TO PREVENT LOCALIZED EROSION

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION ILLINOIS ROUTE 53 OVER LILY CACHE CREEK EROSION CONTROL GENERAL NOTES
NAME	DATE	
		SCALE: VERT. HORIZ. DATE
DRAWN BY		CHECKED BY

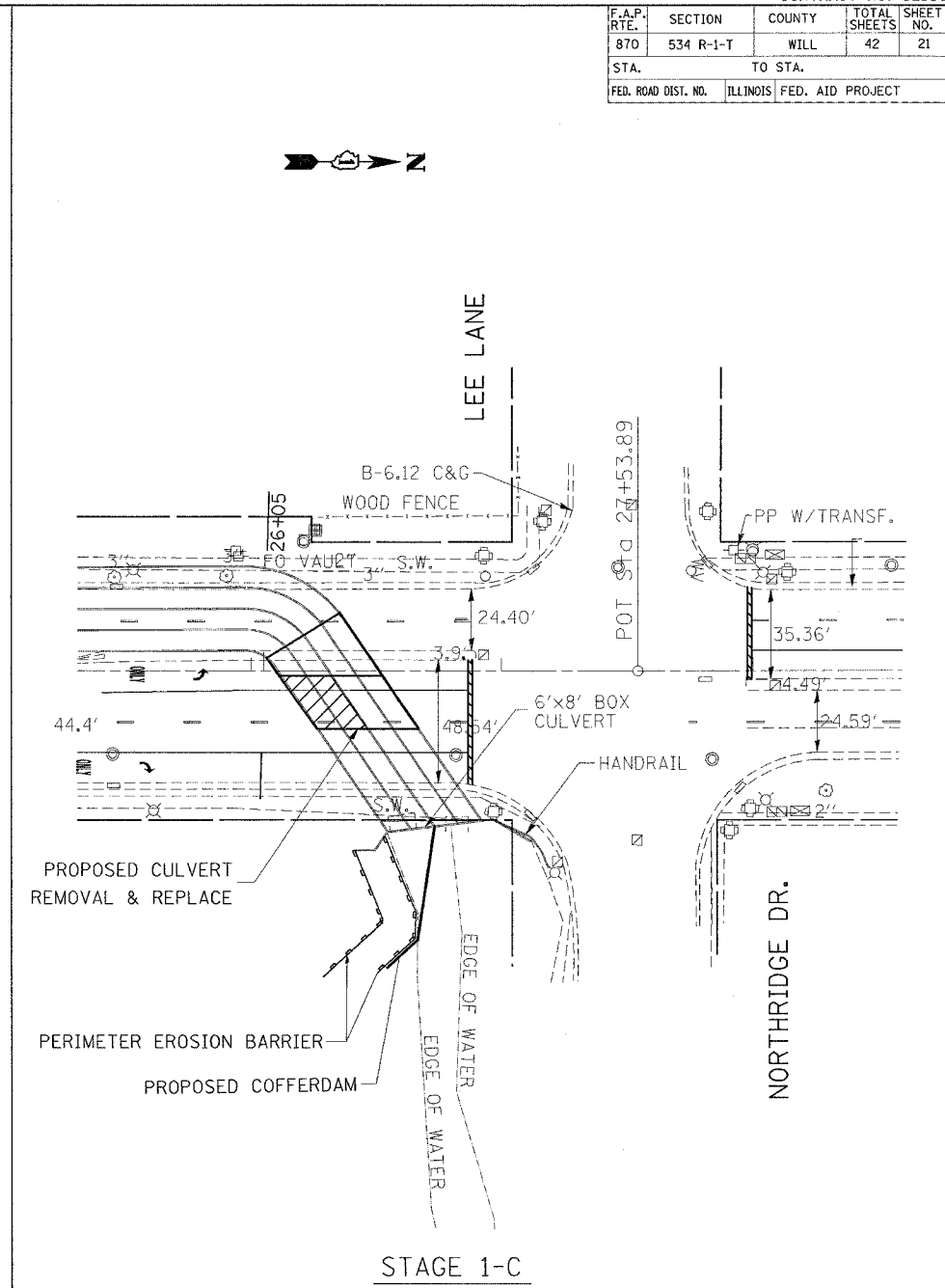
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	21
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE 1-A



STAGE 1-B



STAGE 1-C

NOTES: EACH STAGE (STAGE 1 & STAGE 2) IS DIVIDED INTO THREE SUB-STAGES

THE CONTRACTOR SHALL INSTALL A COFFERDAM AT DIFFERENT LOACTIONS AS SPECIFIED IN THE PLAN FOR EACH STAGE IN ORDER TO KEEP WATER OUT FOR CONSTRUCTION ACTIVITIES AT THE CORRESPONDING AREA IN THE CULVERT.

THE CONTRACTOR SHALL INSTALL SILT FENCE IN THE CREEK AT THE FRONT OF THE WEST END OF THE CULVERT TO PREVENT MIGRATION OF ANY POSSIBLE DEBRIS AND SEDIMENTS INTO THE CREEK FROM ANY CONSTRUCTION OPERATION UPSTREAM

PERIMETER EROSION BARRIER SHALL BE PLACED WHERE AS INDICATED AND/OR DIRECTED BY THE ENGINEER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53
OVER LILY CACHE CREEK
SUGGESTED EROSION CONTROL
STAGE 1

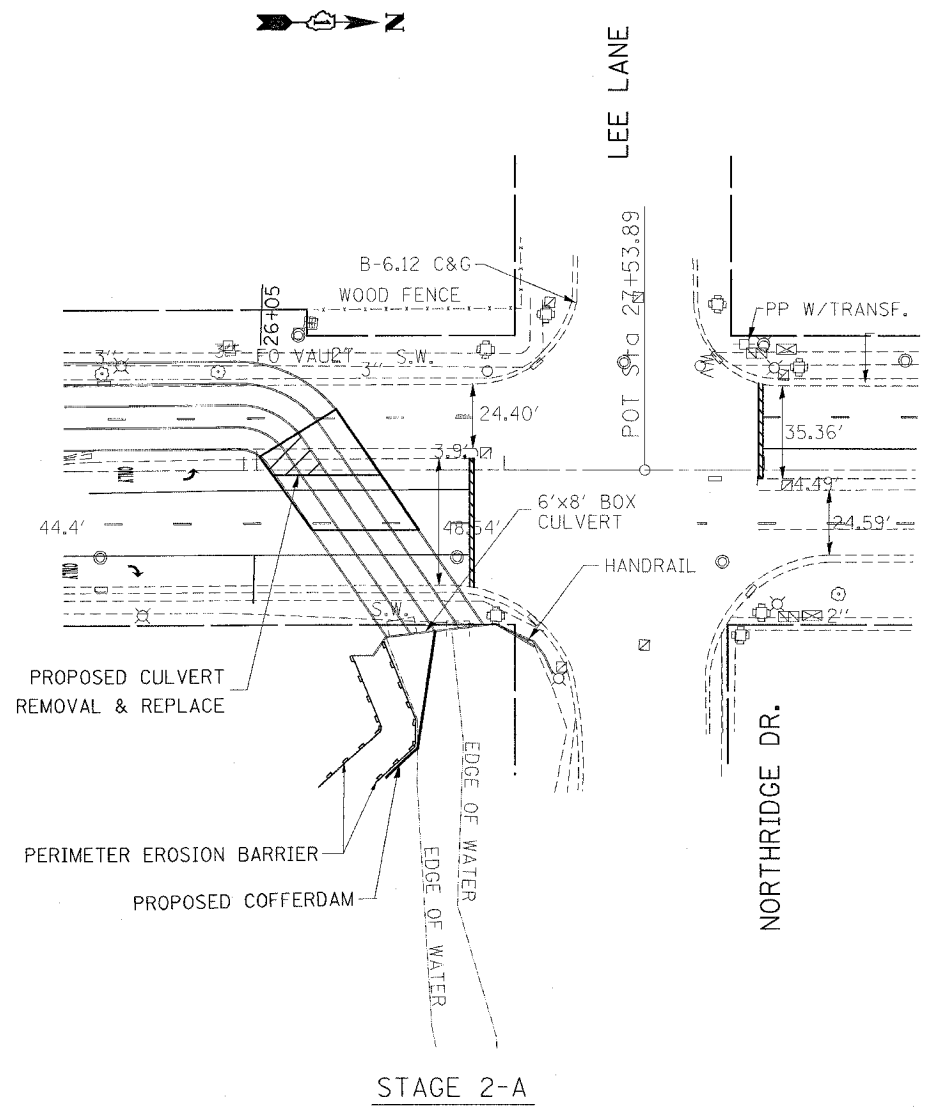
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HORIZ. _____

DATE _____ DRAWN BY _____
CHECKED BY _____

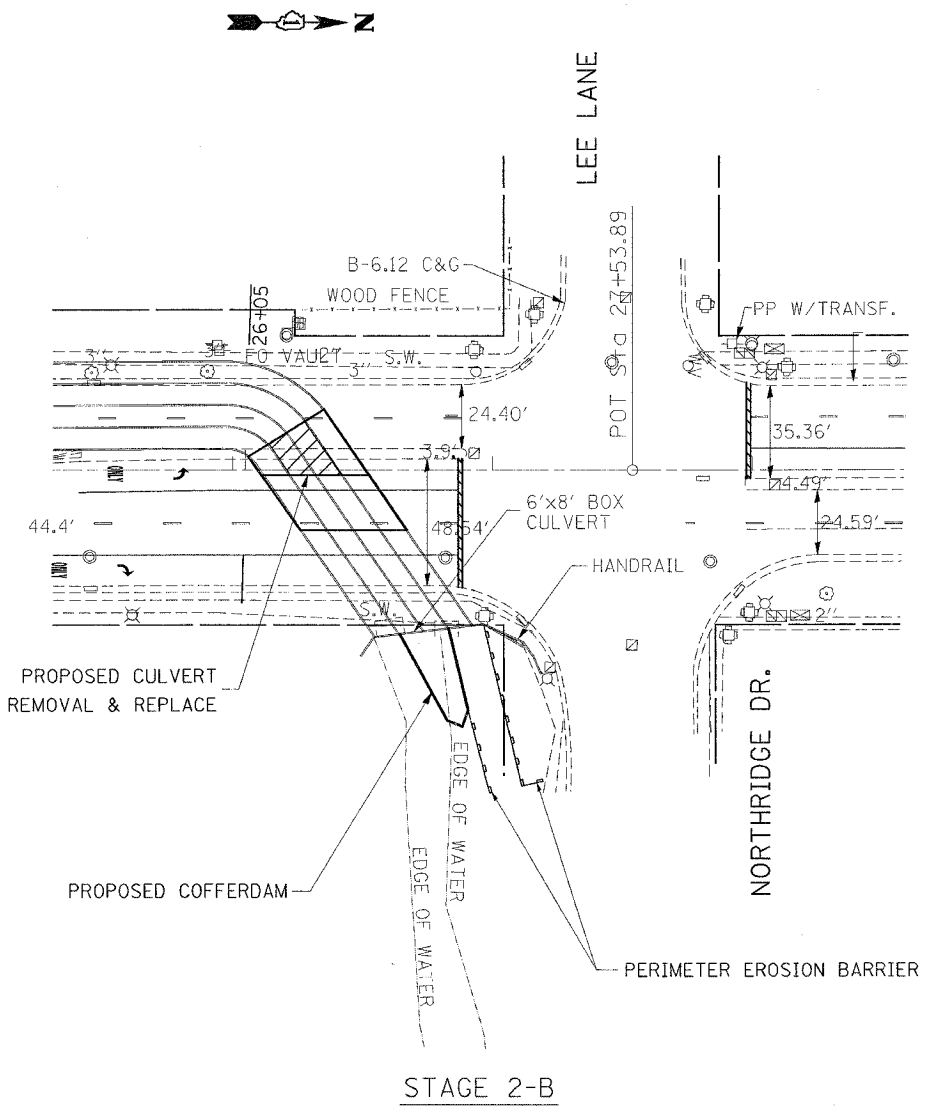
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byunsh

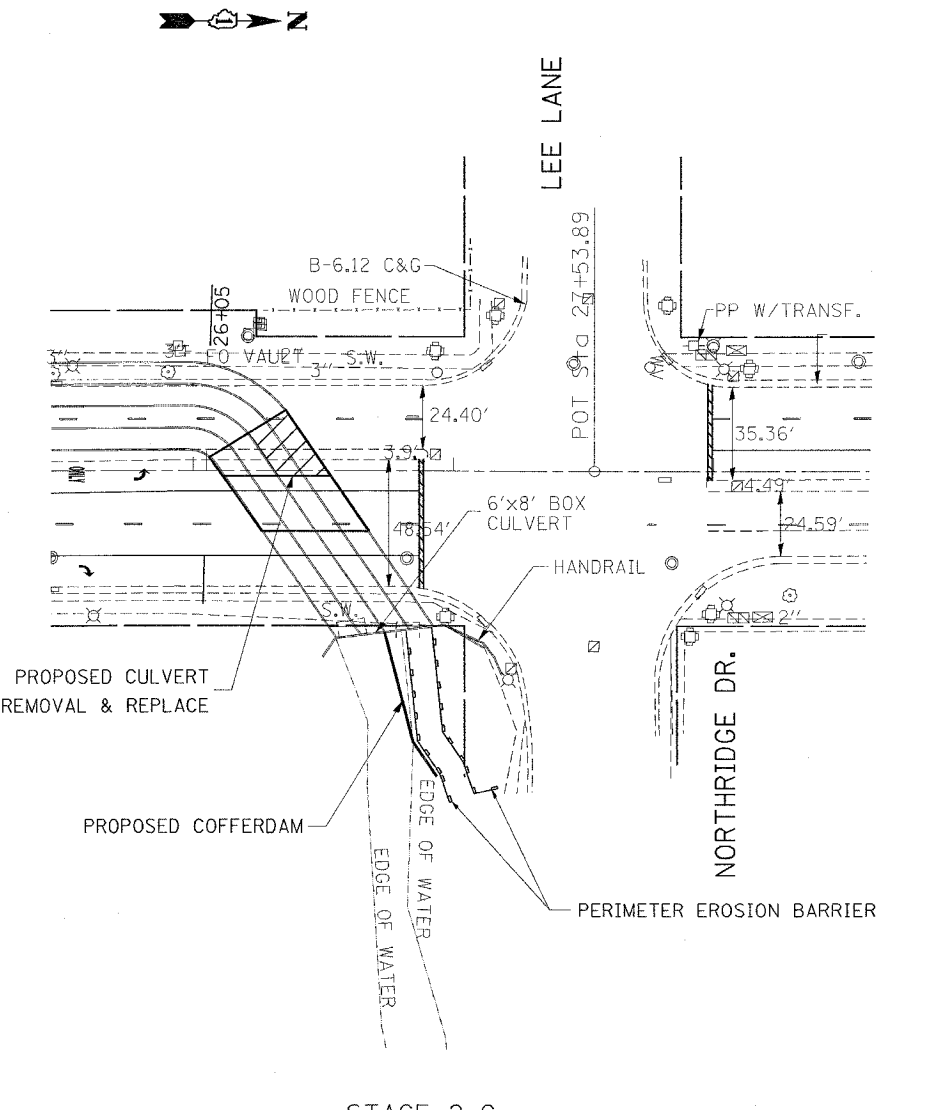
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534 R-1-T	WILL	42	22
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



STAGE 2-A



STAGE 2-B



STAGE 2-C

NOTES: EACH STAGE (STAGE 1 & STAGE 2) IS DIVIDED INTO THREE SUB-STAGES

THE CONTRACTOR SHALL INSTALL A COFFERDAM AT DIFFERENT LOACTIONS AS SPECIFIED IN THE PLAN FOR EACH STAGE IN ORDER TO KEEP WATER OUT FOR CONSTRUCTION ACTIVITIES AT THE CORRESPONDING AREA IN THE CULVERT.

THE CONTRACTOR SHALL INSTALL SILT FENCE IN THE CREEK AT THE FRONT OF THE WEST END OF THE CULVERT TO PREVENT MIGRATION OF ANY POSSIBLE DEBRIS AND SEDIMENTS INTO THE CREEK FROM ANY CONSTRUCTION OPERATION UPSTREAM

PERIMETER EROSION BARRIER SHALL BE PLACED WHERE AS INDICATED AND/OR DIRECTED BY THE ENGINEER

REVISIONS	
NAME	DATE

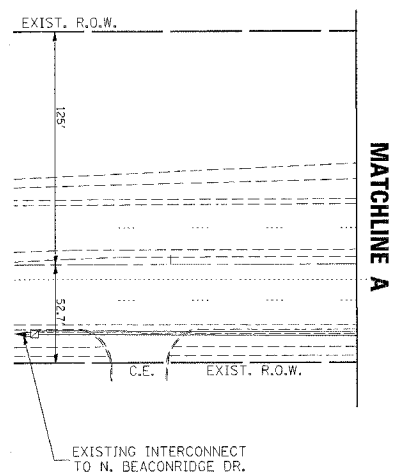
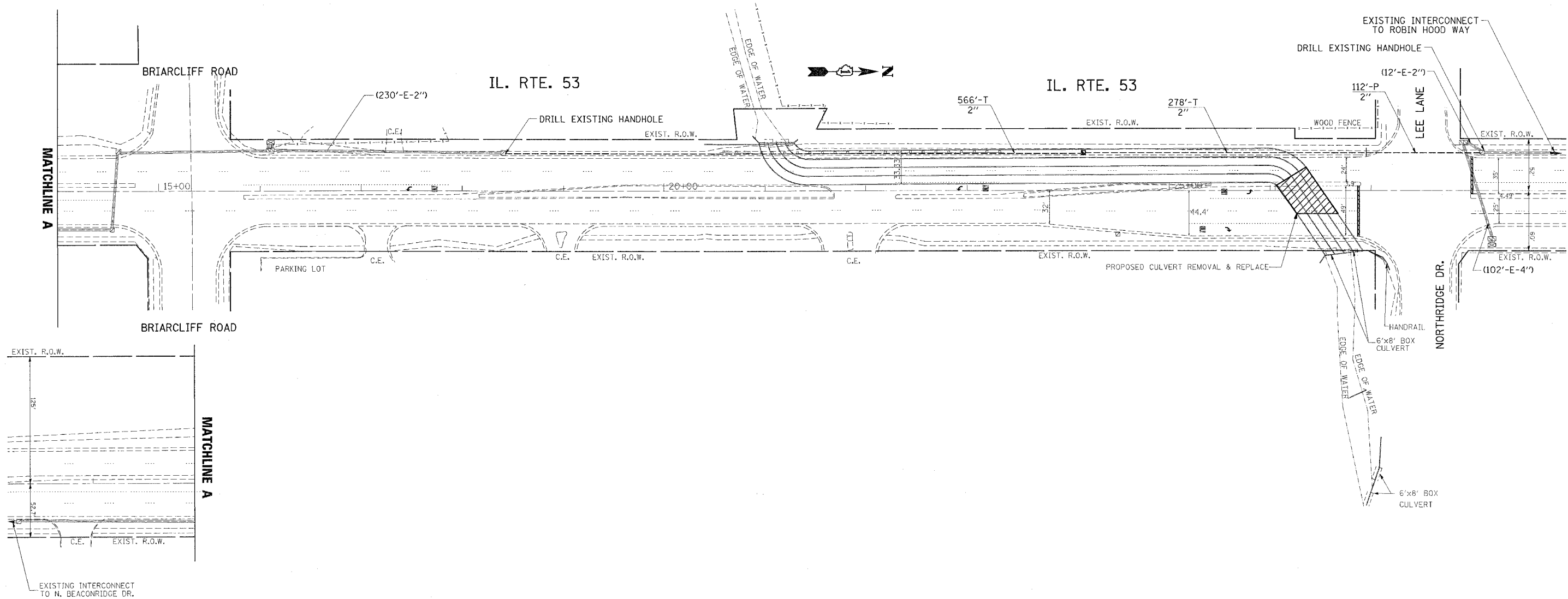
ILLINOIS DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 53
OVER LILY CACHE CREEK
SUGGESTED EROSION CONTROL
STAGE 2

SCALE: VERT. _____
HORIZ. _____

DATE _____ DRAWN BY _____
CHECKED BY _____

DATE = 8/31/2007
 PLOT NAME = C:\proj\5160\des\gnam32
 PLOT SCALE = 50.420' / IN.
 REFERENCE = #REF#



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED. RESTORATION OF THE WORK AREA SHALL BE INCIDENTAL TO THE CONTRACT WITHOUT ANY EXTRA COMPENSATION ALLOWED TO THE CONTRACTOR.

INTERCONNECT PLAN LEGEND

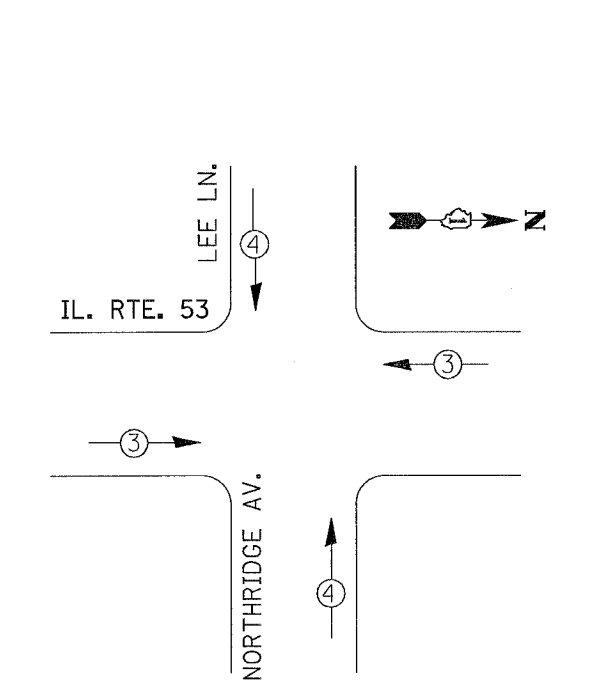
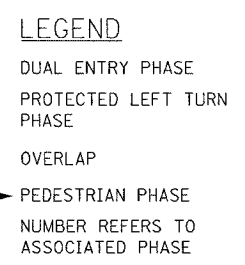
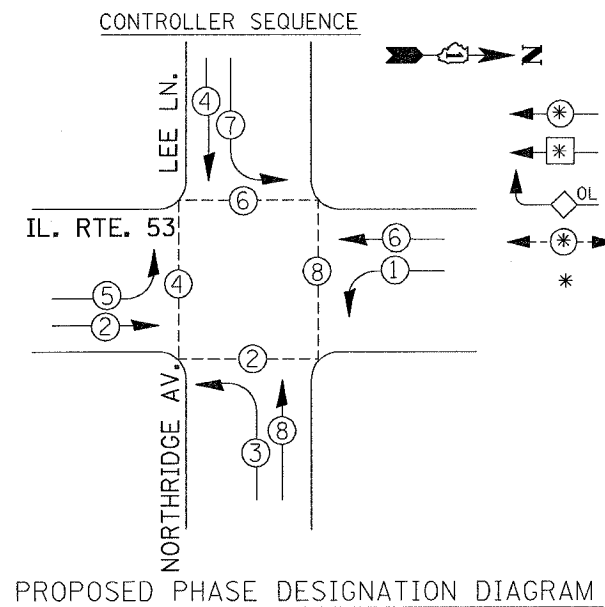
	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			SYSTEM	S	
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			INTERSECTION	IP	I
TELEPHONE CONNECTION			UNIT DUCT	UD	
HANDHOLE			COMMON TRENCH	CT	
HEAVY DUTY HANDHOLE			DETECTOR LOOP, TYPE I		
DOUBLE HANDHOLE			PREFORMED DETECTOR LOOP		
G.S. CONDUIT IN TRENCH OR PUSHED			UNINTERRUPTABLE POWER SUPPLY		

FILE NAME = c:\projects\traffic\870011\1530lee.dgn	USER NAME = kanthaphaybo	DESIGNED - BCK	REVISED -
		DRAWN - BCK	REVISED -
		CHECKED - DAD	REVISED -
		DATE - 8/31/2007	REVISED -

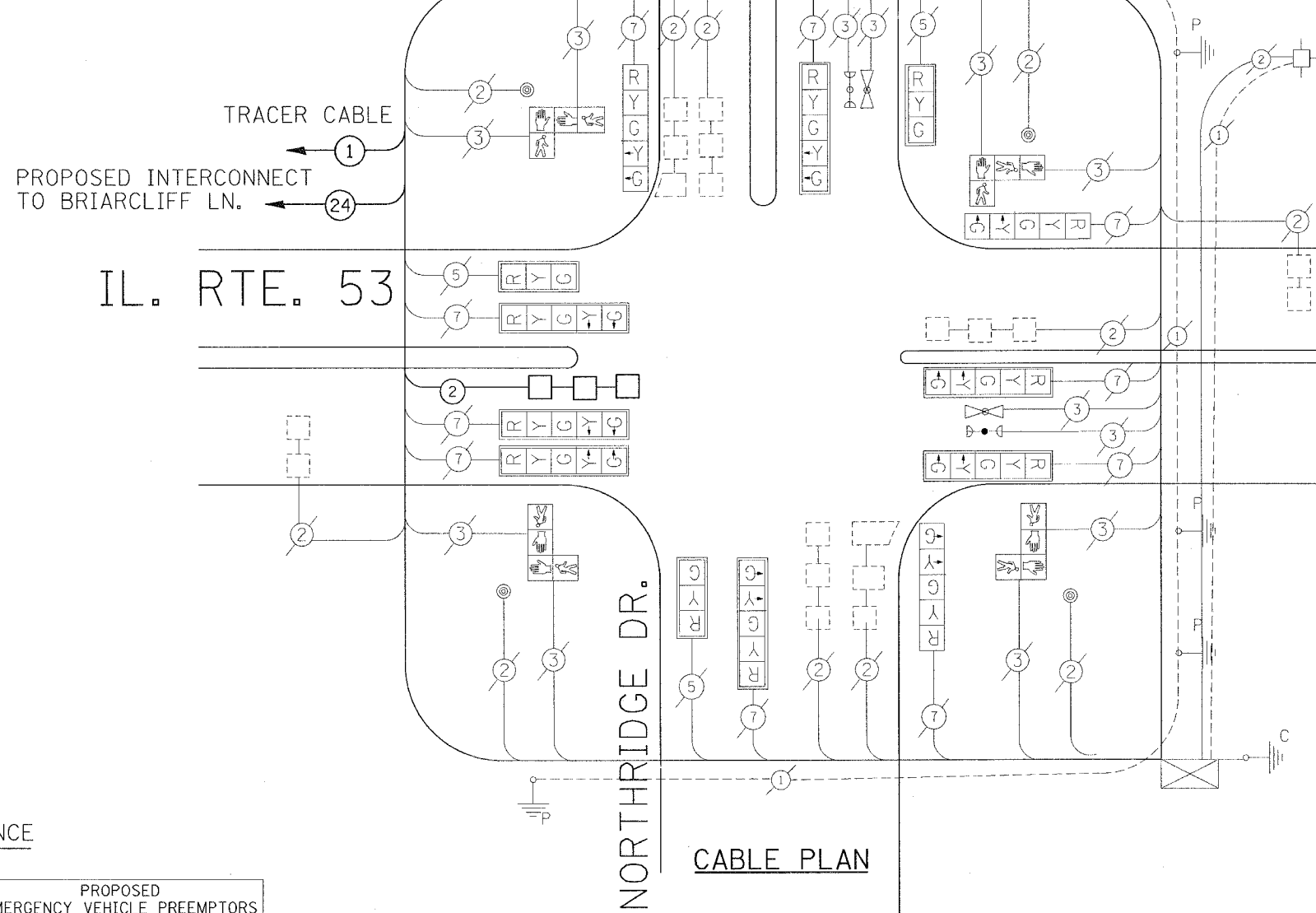
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED INTERCONNECT PLAN IL. RTE. 53 BRIARCLIFF RD. TO LEENORTHBRIDGE			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE. 870	SECTION 534-R-1-T	COUNTY WILL	TOTAL SHEETS 42	SHEET NO. 23
CONTRACT NO. 62556				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



EMERGENCY VEHICLE PREEMPTION SEQUENCE



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED. RESTORATION OF THE WORK AREA SHALL BE INCIDENTAL TO THE CONTRACT WITHOUT ANY EXTRA COMPENSATION ALLOWED TO THE CONTRACTOR.

CABLE PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED		
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)		
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		
12" (300mm) TRAFFIC SIGNAL SECTION		
12" (300mm) PEDESTRIAN SIGNAL SECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
PUSHBUTTON DETECTOR		
DETECTOR LOOP		
PREFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		

CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
DRILL EXISTING HANDHOLE	EACH	3
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	310
DETECTOR LOOP, TYPE I	FOOT	72

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.50
(YELLOW)	13	135	25	0.25	81.25
(GREEN)	13	135	15	0.25	48.75
ARROW	20	135	12	0.10	24.00
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					564.50

PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m±L-0.6m)±	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL = 564.50
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAMBURG, ILLINOIS 60196-1096
 CONTACT: KEA McKENZIE
 PHONE: (630) 437-2495
 COMPANY: COM. EDISON

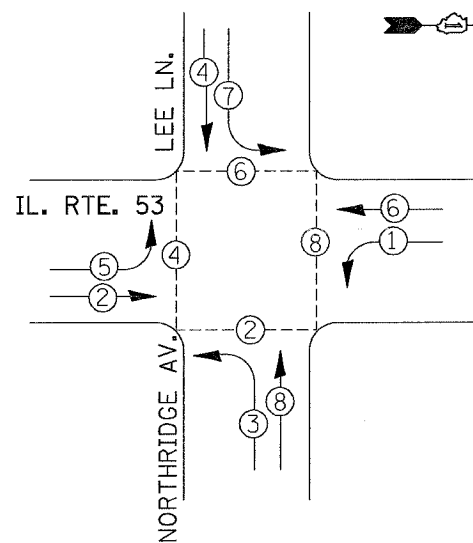
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 DRAWN - BCK
 CHECKED - DAD
 DATE - 8/31/2007
 REVISED -
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 REVISED -
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN, PHASE DESIGNATION
 DIAGRAM, AND SCHEDULE OF QUANTITIES
 IL. RTE. 53 AT BRIARCLIFF RD.
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

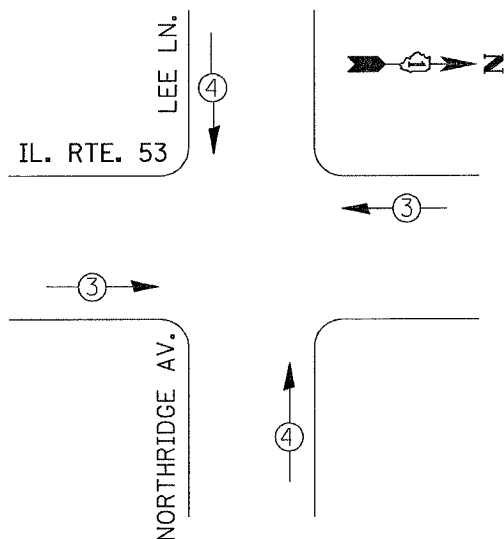
F.A.P. RTE. 870
 SECTION 534- R-1-T
 COUNTY WILL
 TOTAL SHEETS 42
 SHEET NO. 25
 CONTRACT NO. 62556
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

TEMPORARY SIGNAL INSTALLATION
CONTROLLER SEQUENCE

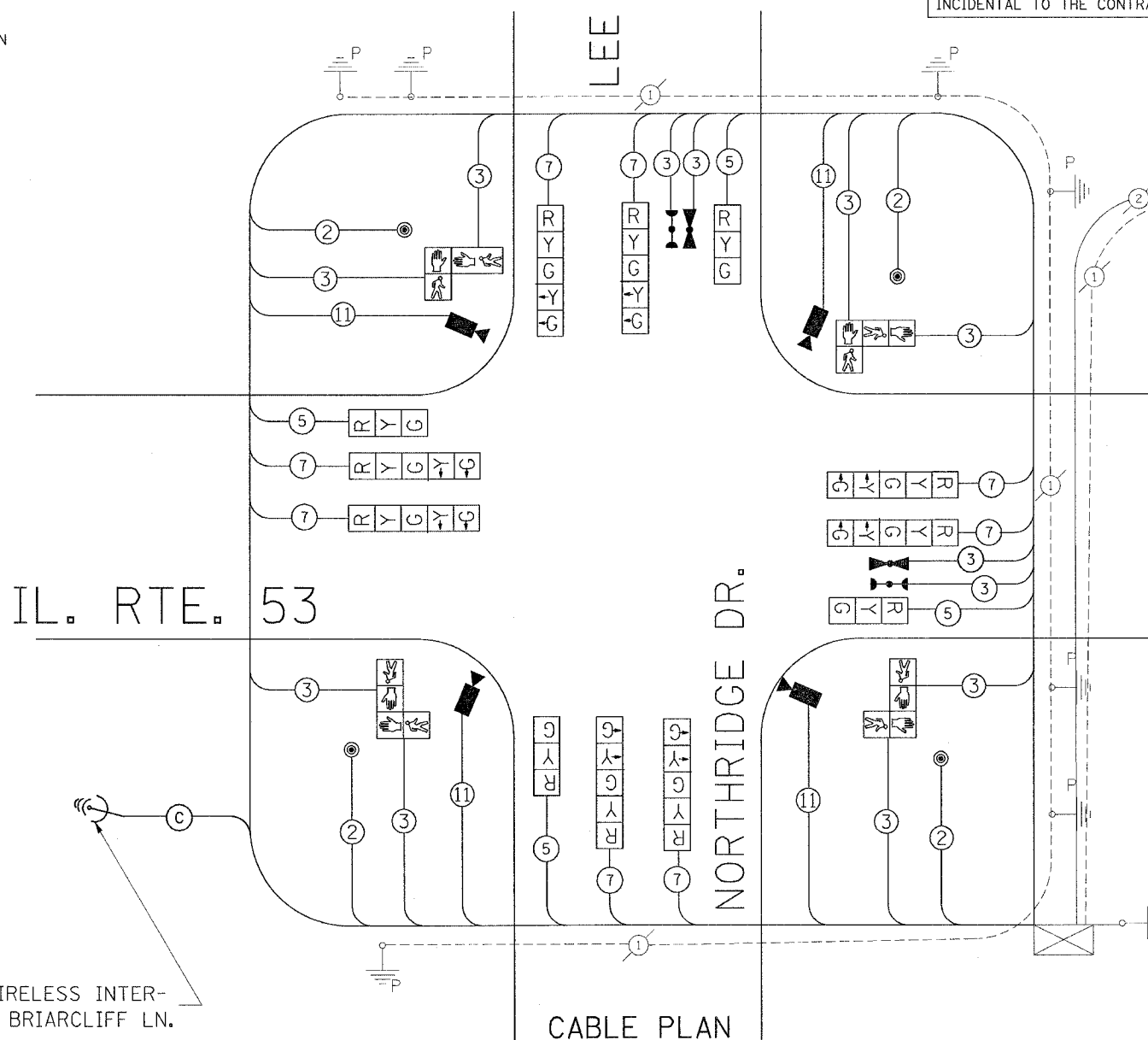


- LEGEND**
- DUAL ENTRY PHASE
 - PROTECTED LEFT TURN PHASE
 - OVERLAP
 - PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY SIGNAL INSTALLATION
EMERGENCY VEHICLE PREEMPTION SEQUENCE



RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED. RESTORATION OF THE WORK AREA SHALL BE INCIDENTAL TO THE CONTRACT WITHOUT ANY EXTRA COMPENSATION ALLOWED TO THE CONTRACTOR.



TEMPORARY CABLE DIAGRAM LEGEND

- | | PROPOSED | EXISTING |
|--|----------|----------|
| TEMPORARY CONTROLLER CABINET | | |
| TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT | | |
| TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm) | | |
| 12" (300 MM) PEDESTRIAN SIGNAL SECTION | | |
| ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | |
| VEHICLE DETECTOR, INDUCTION LOOP | | |
| MICROWAVE VEHICLE SENSOR | | |
| VIDEO DETECTOR | | |
| CLOSED CIRCUIT TV | | |
| EMERGENCY VEHICLE SYSTEM DETECTOR | | |
| CONFIRMATION BEACON | | |
| WIRELESS INTERCONNECT | | |

PROPOSED WIRELESS INTERCONNECT TO BRIARCLIFF LN.

CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	127.50
(YELLOW)	12	135	25	0.25	93.75
(GREEN)	12	135	15	0.25	56.25
ARROW	16	135	12	0.10	14.40
PED. SIGNAL	8	90	25	1.00	100.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	

FLASHER 0.50

ENERGY COSTS TO: TOTAL = 491.90

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAMBURG, ILLINOIS 60196-1096
CONTACT: KEA MCKENZIE
PHONE: (630) 437-2495
COMPANY: COM. EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H.-2' (6m-H.-0.6m)
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

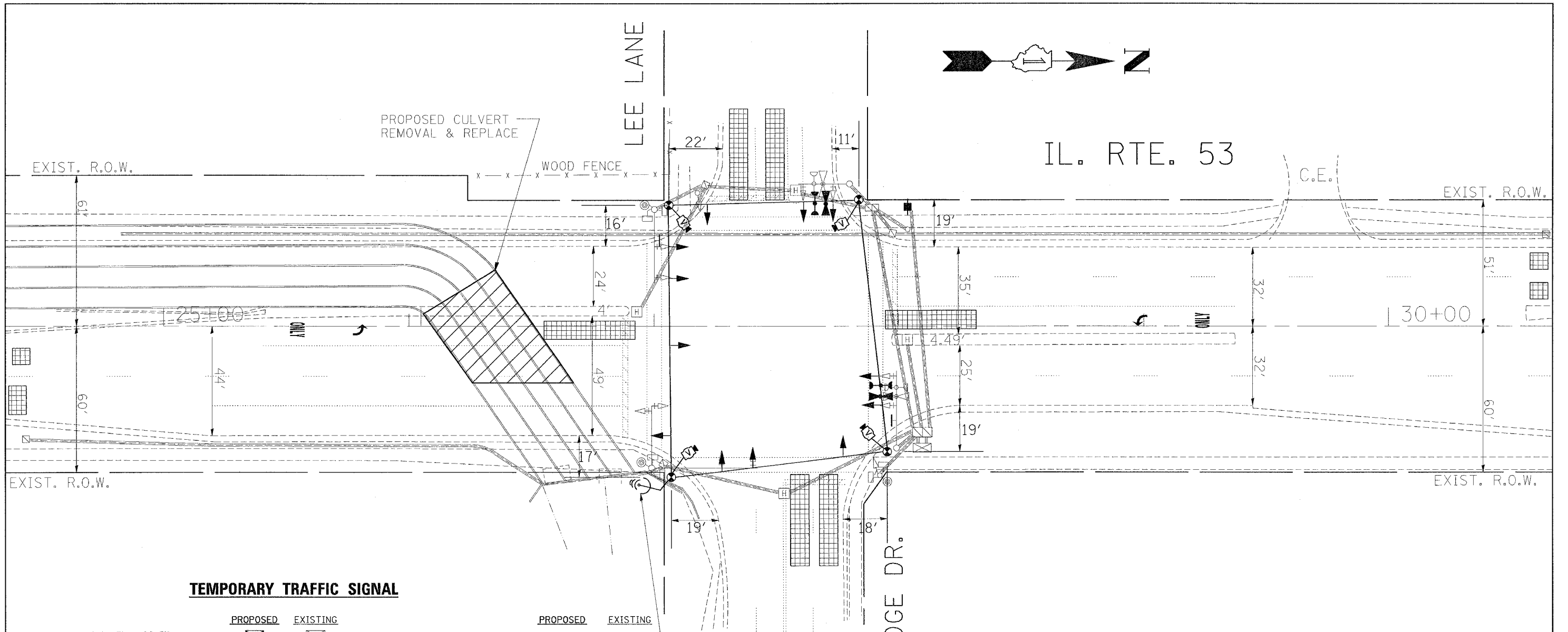
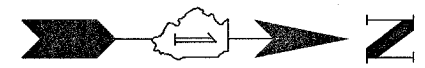
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		CHECKED - DAD	REVISED -
		DATE - 8/31/2007	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND SCHEDULE OF QUANTITIES
IL. RTE. 53 AT BRIARCLIFF RD.

F.A.P. RTE. 870	SECTION 534-R-1-T	COUNTY WILL	TOTAL SHEETS 42	SHEET NO. 26
CONTRACT NO.			ILLINOIS FED. AID PROJECT	

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



TEMPORARY TRAFFIC SIGNAL

	PROPOSED	EXISTING		PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET			HEAVY-DUTY HANDHOLE		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			G.S. CONDUIT IN TRENCH OR PUSHED		
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION			COMMON TRENCH	CT	
TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED			UNIT DUCT	UD	
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM			TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR		
EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED			DETECTOR LOOP, TYPE I		
STEEL MAST ARM ASSEMBLY AND POLE			PREFORMED DETECTOR LOOP		
ALUMINUM MAST ARM ASSEMBLY AND POLE			MICROWAVE VEHICLE SENSOR		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			VIDEO DETECTOR		
EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN			CLOSED CIRCUIT TV		
HANDHOLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
DETECTION ZONE			CONFIRMATION BEACON		
WIRELESS INTERCONNECT			REMOVAL		
			RELOCATE		

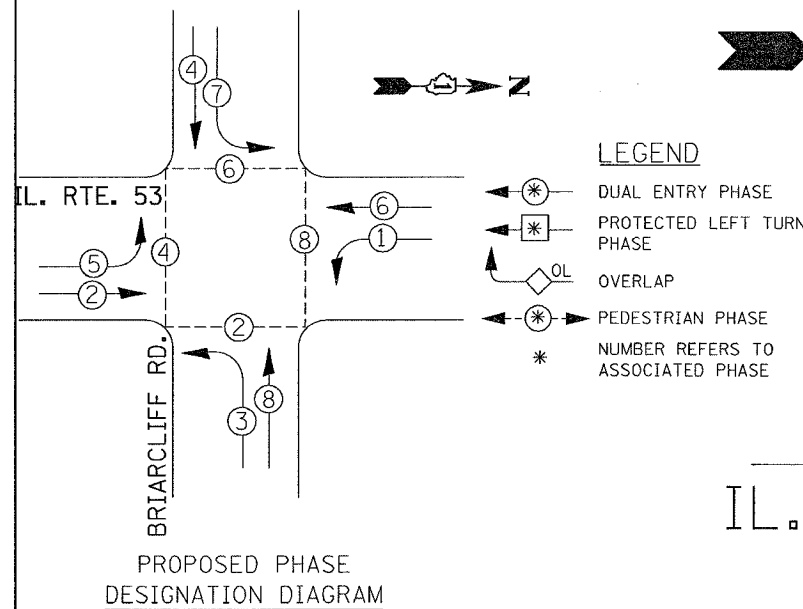
PROPOSED WIRELESS INTERCONNECT TO BRIARCLIFF RD.

NORTHRIDGE DR.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED. RESTORATION OF THE WORK AREA SHALL BE INCIDENTAL TO THE CONTRACT WITHOUT ANY EXTRA COMPENSATION ALLOWED TO THE CONTRACTOR.

FILE NAME =	USER NAME = kanthaphuaybo	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION IL. RTE. 53 AT LEE/NORTHRIDGE AVE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CHECKED - DAD	REVISED -			CONTRACT NO.		ILLINOIS FED. AID PROJECT		
		DATE - 8/31/2007	REVISED -	SCALE:	SHEET NO. OF SHEETS STA. TO STA.					

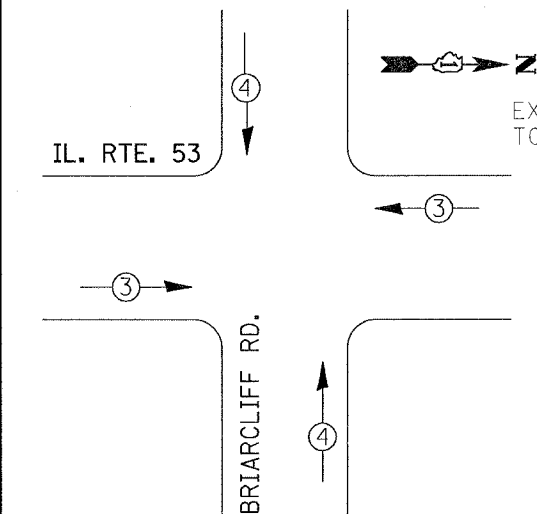
CONTROLLER SEQUENCE



- LEGEND**
- ⊛ DUAL ENTRY PHASE
 - ⊛ PROTECTED LEFT TURN PHASE
 - OL OVERLAP
 - ⊛ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING INTERCONNECT TO N. BEACONRIDGE DR.

TRACER CABLE

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE BOUBLE HANDHOLE CLOSET TO THE CONTROLLER FOUNDATION.

PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	16	135	12	0.10	19.20
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN				0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 615.20

ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096
 CONTACT: KEA MCKENZIE
 PHONE: (630) 437-2495
 COMPANY: COM. EDISON

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m±L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

DESIGNED - BCK	REVISED -
DRAWN - BCK	REVISED -
CHECKED - DAD	REVISED -
DATE - 8/31/2007	REVISED -

SCHEDULE OF QUANTITIES

ITEM

CONDUIT IN PUSH, 2" DIA., GALVANIZED
 DRILL EXISTING HANDHOLE

UNIT QUANTITY

FOOT 230
 EACH 2

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

**PROPOSED CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
 IL. RTE. 53 AT BRIARCLIFF RD.**

F.A.P. RTE. 870	SECTION 534- R-1-T	COUNTY WILL	TOTAL SHEETS 42	SHEET NO. 29
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO.	

NO. 6

THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE BOUBLE HANDHOLE CLOSET TO THE CONTROLLER FOUNDATION.

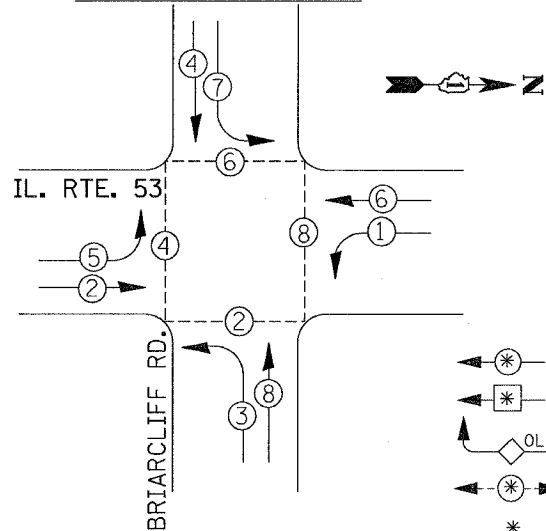
TRACER CABLE

PROPOSED INTERCONNECT TO LEE/NORTHBRIDGE DR.

CABLE PLAN LEGEND

- | | PROPOSED | EXISTING |
|--|----------|----------|
| CONTROLLER CABINET | | |
| RAILROAD CONTROL CABINET | | |
| SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT | | |
| TELEPHONE CONNECTION | | |
| GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE | | |
| FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED | | |
| ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED | | |
| GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN) | | |
| SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD | | |
| 12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE | | |
| 12" (300mm) TRAFFIC SIGNAL SECTION | | |
| 12" (300mm) PEDESTRIAN SIGNAL SECTION | | |
| ILLUMINATED SIGN "NO LEFT TURN" | | |
| ILLUMINATED SIGN "NO RIGHT TURN" | | |
| PUSHBUTTON DETECTOR | | |
| DETECTOR LOOP | | |
| PREFORMED DETECTOR LOOP | | |
| MICROWAVE VEHICLE SENSOR | | |
| VIDEO DETECTOR | | |
| CLOSED CIRCUIT TV | | |
| EMERGENCY VEHICLE SYSTEM DETECTOR | | |
| CONFIRMATION BEACON | | |

TEMPORARY SIGNAL INSTALLATION
CONTROLLER SEQUENCE

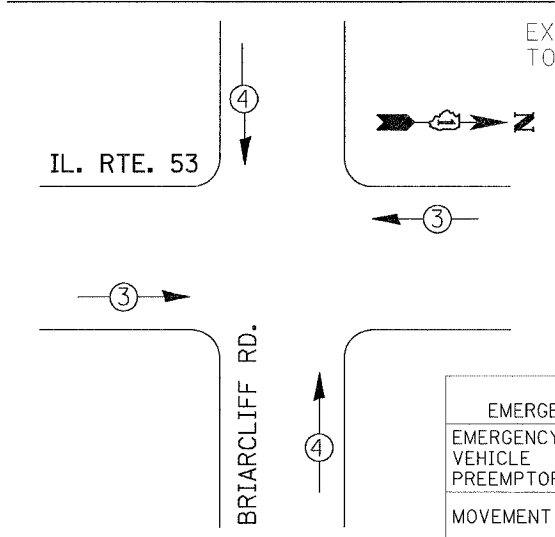


TEMPORARY PHASE
DESIGNATION DIAGRAM

LEGEND

- DUAL ENTRY PHASE
- PROTECTED LEFT TURN PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY SIGNAL INSTALLATION
EMERGENCY VEHICLE PREEMPTION SEQUENCE

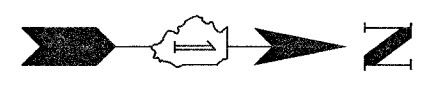


EXISTING INTERCONNECT
TO N. BEACONRIDGE DR.

TRACER CABLE

THE END OF THE TRACER CABLE
SHALL BE TIED TO A CABLE HOOK
IN THE BOUBLE HANDHOLE CLOSET
TO THE CONTROLLER FOUNDATION.

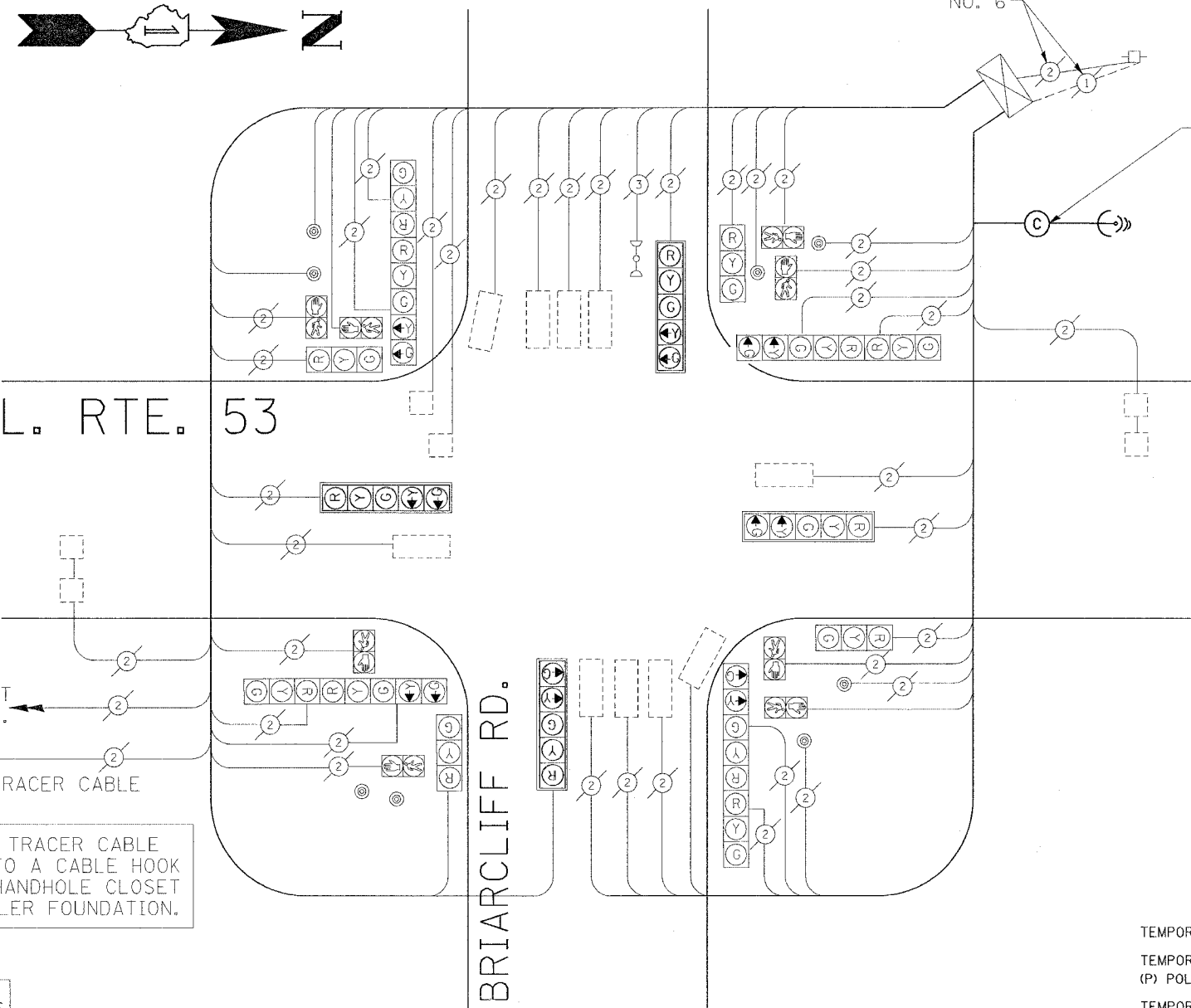
PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	



IL. RTE. 53

BRIARCLIFF RD.

CABLE PLAN



NO. 6

PROPOSED WIRELESS INTER-
CONNECT TO LEE/NORTHRIDGE

TEMPORARY CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)		
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED		
PEDESTRIAN PUSHBUTTON DETECTOR		
VEHICLE DETECTOR, INDUCTION LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
WIRELESS INTERCONNECT		

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m H-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS*	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	1080.00
(YELLOW)	16	135	25	0.25	540.00
(GREEN)	16	135	15	0.25	540.00
ARROW	16	135	12	0.10	216.00
PED. SIGNAL	8	90	25	1.00	720.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 3196.00
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096 CONTACT: KEA MCKENZIE PHONE: (630) 437-2495 COMPANY: COM. EDISON					
FILE NAME =	USER NAME =	DESIGNED -	REVISED -		
at\projects\traffic\11\11531\ee.dgn	kanthapixaybc	BCK			
PLOT SCALE = 1/8" = 1' / IN.	CHECKED -	DAD	REVISED -		
PLOT DATE = 8/31/2007	DATE -	8/31/2007	REVISED -		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND SCHEDULE OF QUANTITIES
IL. RTE. 53 AT BRIARCLIFF RD.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
870	534- R-1-T	WILL	42	31
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

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

CONTRACT NO. 62556

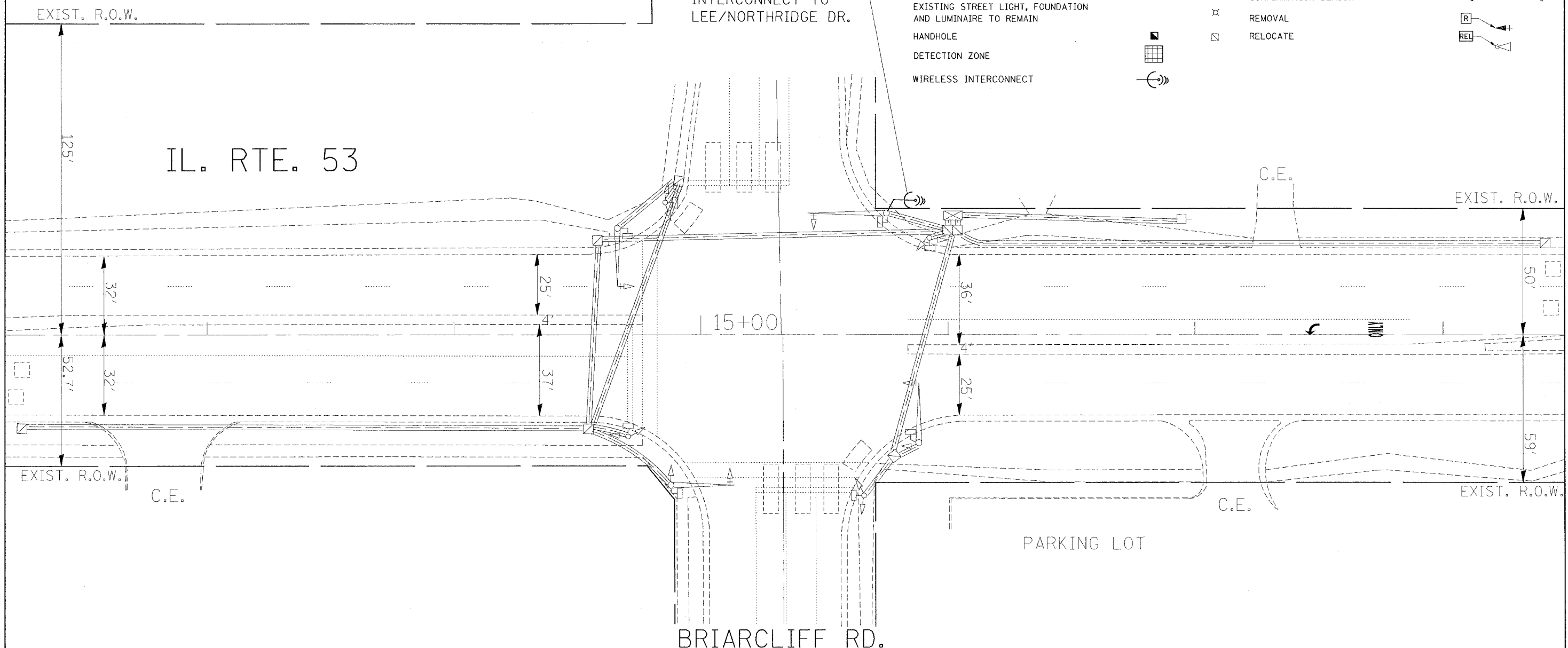
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED. RESTORATION OF THE WORK AREA SHALL BE INCIDENTAL TO THE CONTRACT WITHOUT ANY EXTRA COMPENSATION ALLOWED TO THE CONTRACTOR.

TEMPORARY TRAFFIC SIGNAL

	PROPOSED	EXISTING		PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET			HEAVY-DUTY HANDHOLE		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			G.S. CONDUIT IN TRENCH OR PUSHED		
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION			COMMON TRENCH	CT	
TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED			UNIT DUCT	UD	
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM			TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR		
EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED			DETECTOR LOOP, TYPE I		
STEEL MAST ARM ASSEMBLY AND POLE			PERFORMED DETECTOR LOOP		
ALUMINUM MAST ARM ASSEMBLY AND POLE			MICROWAVE VEHICLE SENSOR		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			VIDEO DETECTOR		
EXISTING STREET LIGHT, FOUNDATION AND LUMINAIRE TO REMAIN			CLOSED CIRCUIT TV		
HANDHOLE			EMERGENCY VEHICLE SYSTEM DETECTOR		
DETECTION ZONE			CONFIRMATION BEACON		
WIRELESS INTERCONNECT			REMOVAL		
			RELOCATE		

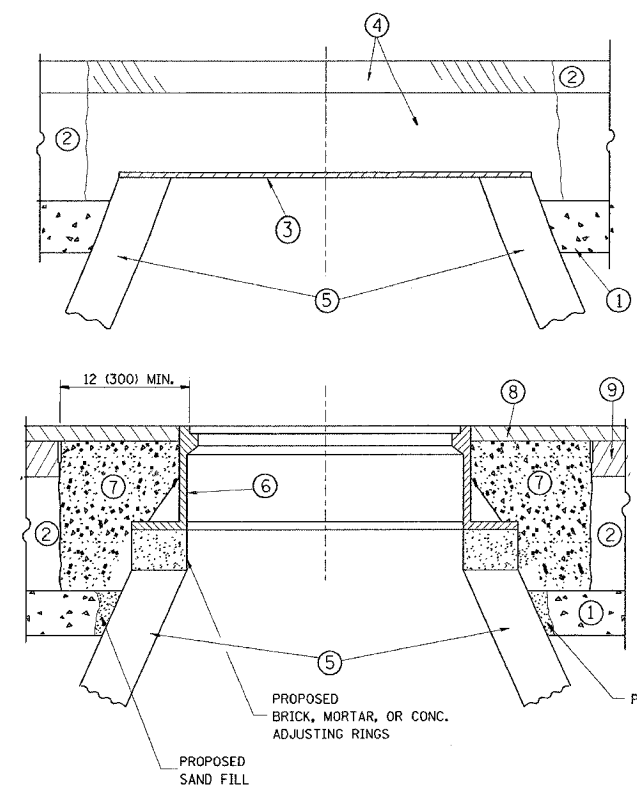


PROPOSED WIRELESS INTERCONNECT TO LEE/NORTHRIDGE DR.



FILE NAME =	USER NAME = kenthaphixojbo	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION IL. RTE. 53 AT BRIARCLIFF RD.	F.A.P. RTE. 870	SECTION 534- R-1-T	COUNTY WILL	TOTAL SHEETS 42	SHEET NO. 32
PROJECT SCALE = 1/8" = 1'	CHECKED - DAD	REVISED -	FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT				
PLOT DATE = 8/31/2007	DATE - 8/31/2007	REVISED -	CONTRACT NO. 62556							

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			42	33
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"
NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/30/95
R. SHAH	03/10/95
A. ABBAS	03/21/97
R. WIEDEMAN	05/14/04
R. BORO	01/01/07

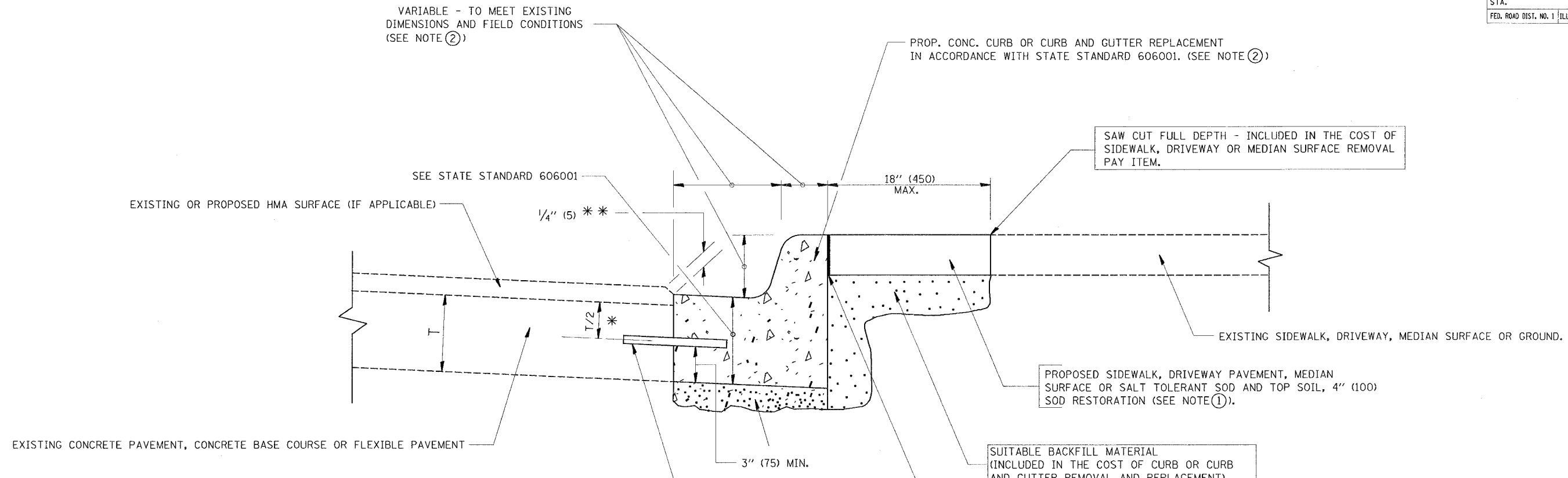
ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

PLOT DATE = 8/31/2007
FILE NAME = W:\projects\62556\bd600.dgn
USER NAME = byannah

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			42	34
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



- * 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
 - * * IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.
- NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.
- SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
 - ③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
 - ④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
 - ⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
 - ⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
 - ⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

- PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)
- UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.
- REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
- PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:
 THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

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

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

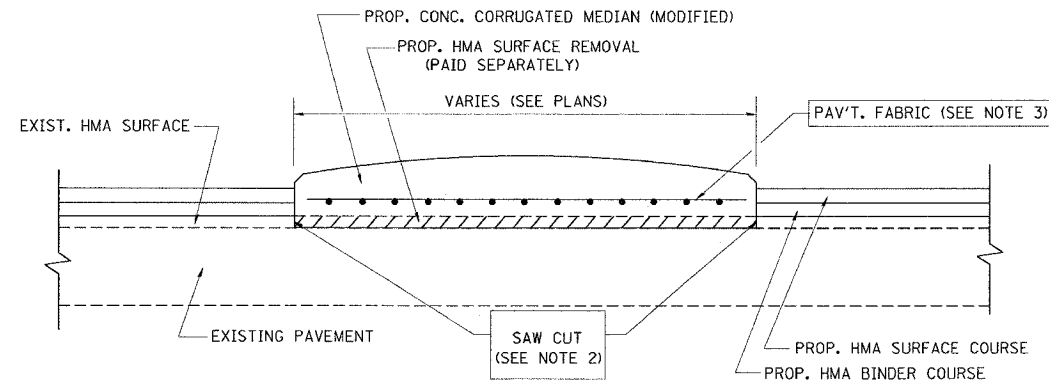
REVISIONS	
NAME	DATE
A. HOUSEH	03/11/94
R. SHAH	02/24/95
R. SHAH	03/02/95
R. SHAH	08/19/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/96
A. ABBAS	03/21/97
M. GOMEZ	01/22/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
 CURB OR CURB AND GUTTER
 REMOVAL AND REPLACEMENT

SCALE: VERT. NONE
 HORIZ. NONE
 DRAWN BY
 CHECKED BY
 BD600-06 (BD-24)

PLOT DATE = 8/21/2007
 PLOT SCALE = 1/8" = 1'-0"
 PLOT USER = Bymah

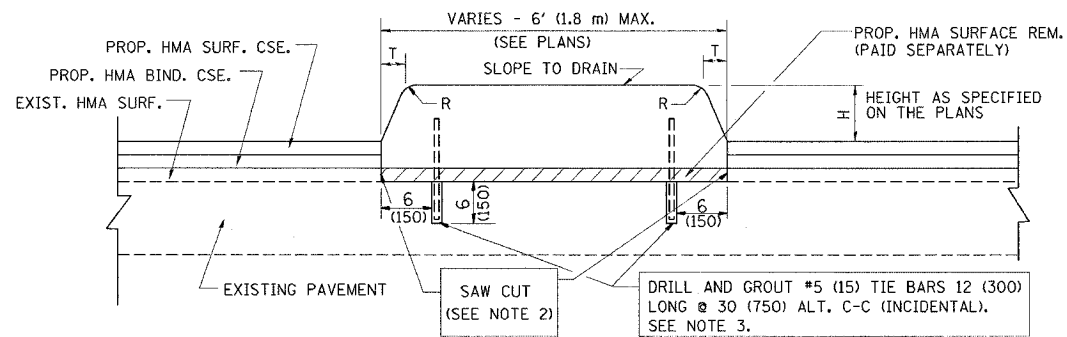
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			42	35
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT



- NOTES:
1. CORRUGATED MEDIAN (MODIFIED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE PORTIONS OF STATE STANDARD 606306.
 2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)
 3. PAVEMENT FABRIC WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)

DETAILS FOR CORRUGATED MEDIAN (MODIFIED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CORRUGATED MEDIAN (MODIFIED)"



- NOTES:
1. CONCRETE MEDIAN TYPE SB (DOWELLED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STATE STANDARD 606301 AND SECTION 606 OF THE STANDARD SPECIFICATIONS.
 2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"
 3. FOR MEDIAN WIDTH LESS THAN 4' (1.2 m) USE ONE ROW OF #5 (15) BARS & 30 (750) C-C ALONG THE MEDIAN CENTERLINE. TIE BARS WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"

H	R	T
6(150)	1(25)	1(25)
9(225)	1(25)	2(50)

DETAILS FOR CONCRETE MEDIAN TYPE SB (DOWELLED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CONCRETE MEDIAN TYPE SB (DOWELLED)"

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

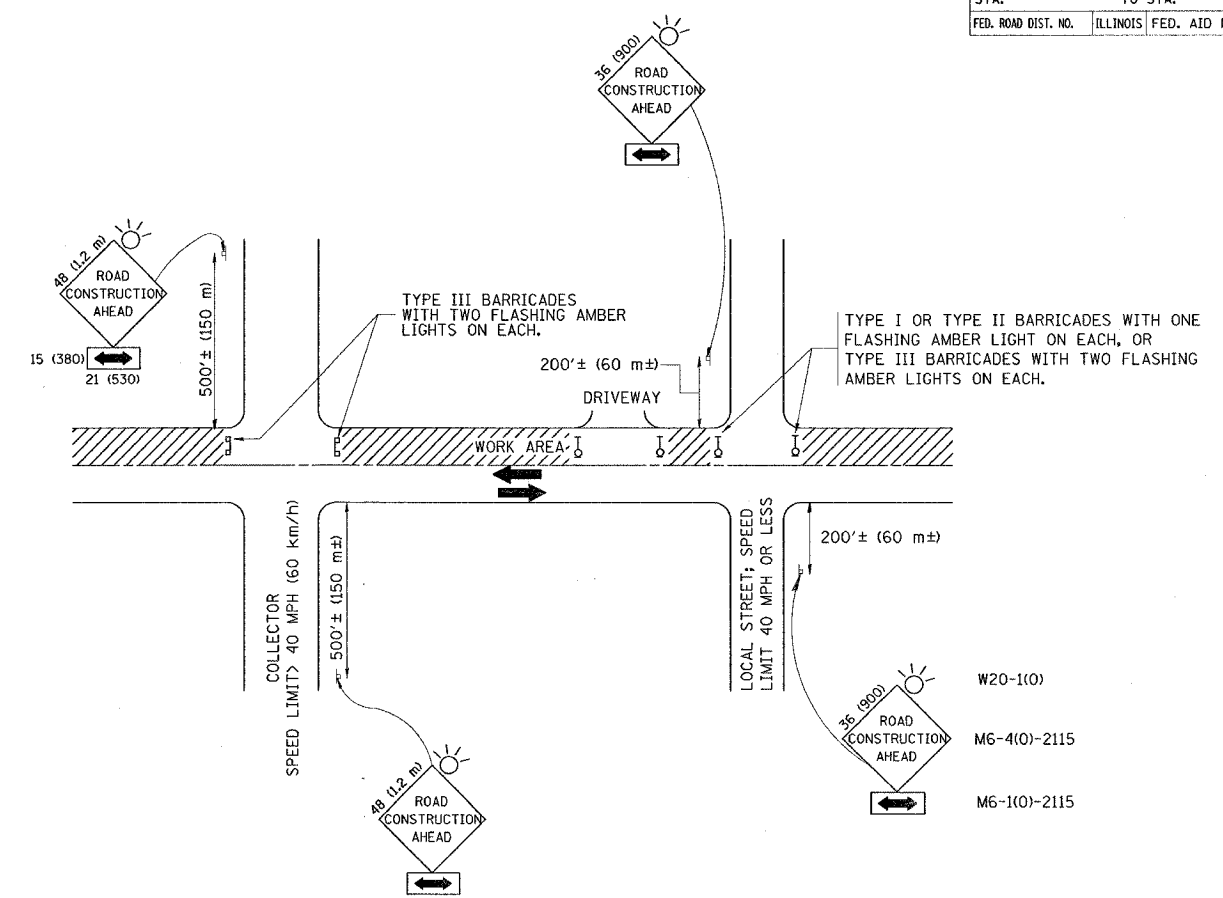
REVISIONS	
NAME	DATE
M. DE YONG	05/14/90
M. DE YONG	06/13/90
M. DE YONG	06/14/90
M. DE YONG	06/20/90
M. DE YONG	09/21/90
M. DE YONG	10/12/90
R. SHAH	09/09/94
R. SHAH	10/25/94
E. GOMEZ	08/28/00
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DETAILS FOR
 CONCRETE MEDIAN TYPE SB (DOWELLED)
 CORRUGATED MEDIAN (MODIFIED)

SCALE: VERT. NONE
 HORIZ.

DRAWN BY
 CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			42	37
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



- W20-10)
- M6-4(0)-2115
- M6-1(0)-2115

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

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 (1.2 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.

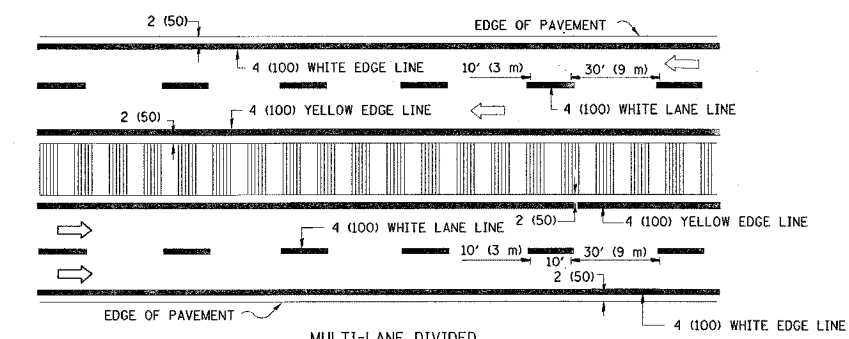
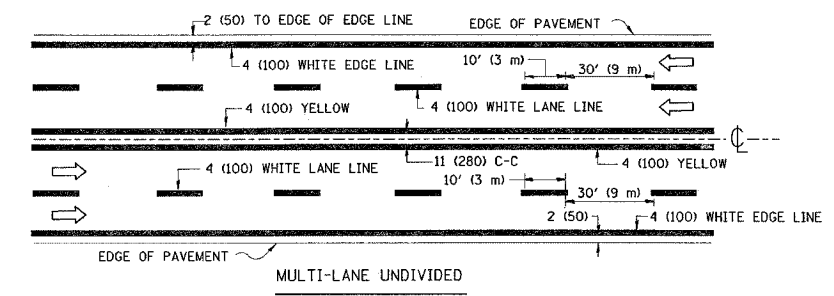
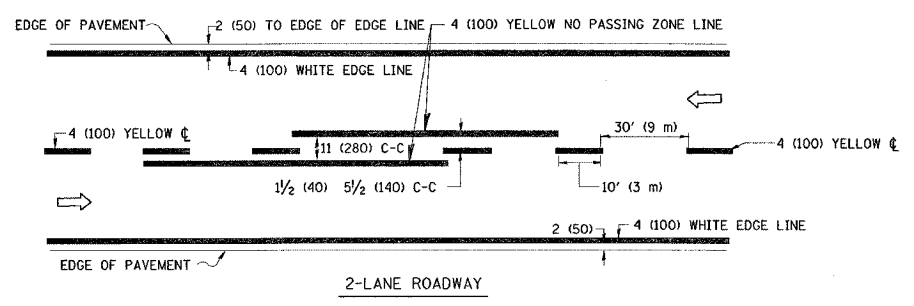
REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL AND PROTECTION
 FOR
 SIDE ROADS, INTERSECTIONS, AND
 DRIVEWAYS

SCALE: NONE

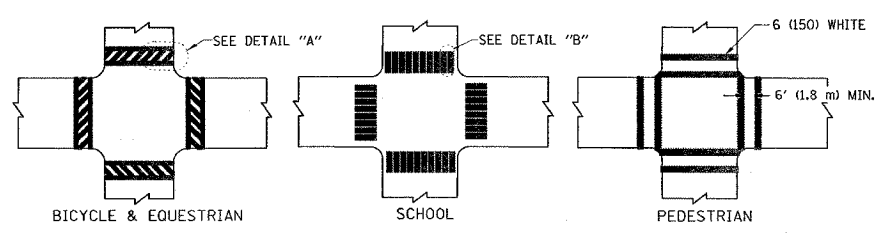
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 CHECKED BY
 TC-10

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			42	38
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

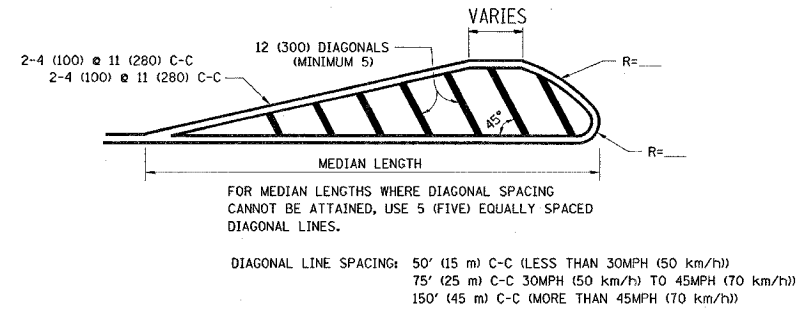
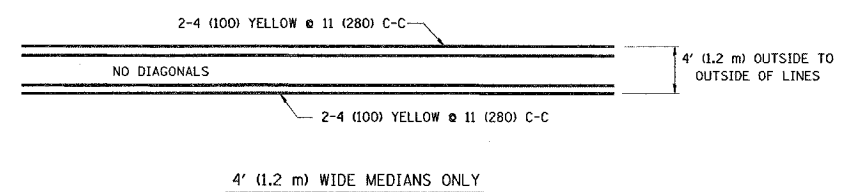


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

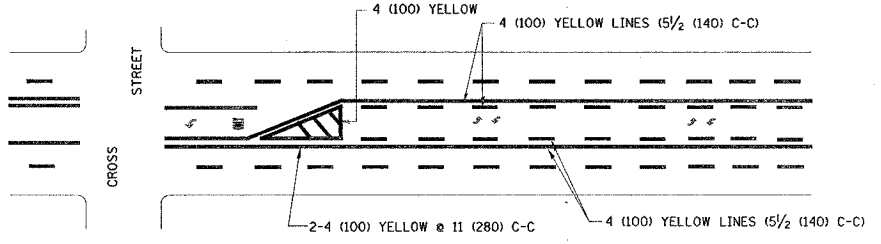
TYPICAL LANE AND EDGE LINE MARKING



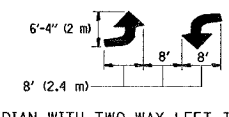
TYPICAL CROSSWALK MARKING



MEDIANS OVER 4' (1.2 m) WIDE

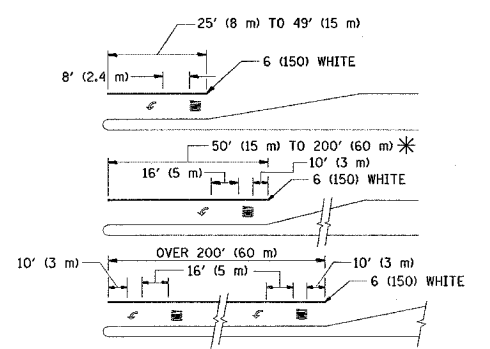


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

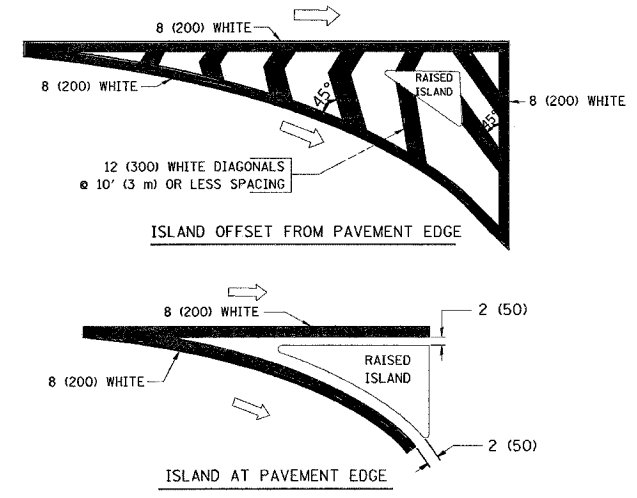


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

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	5/2 (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 (8' (2.4m))	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; 5/2 (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; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 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 780001.

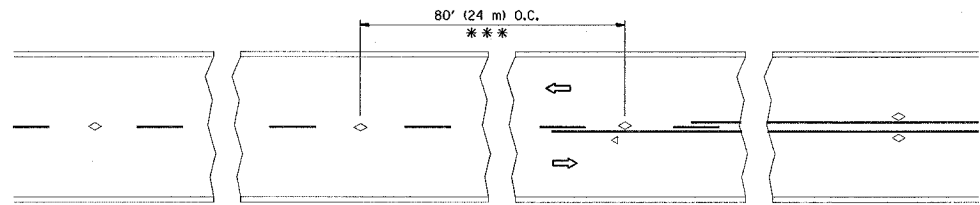
All dimensions are in inches (millimeters) unless otherwise shown.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS
SCALE: NONE
DRAWN BY CADDO
CHECKED BY
TC-13

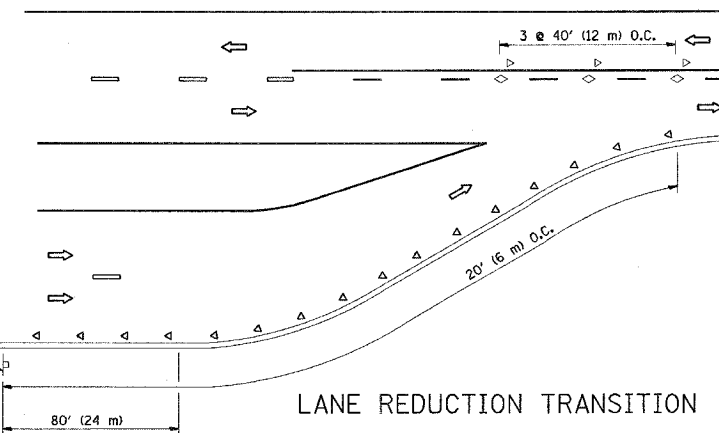
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FILE NAME = m:\asv\asv13.dgn
PLOT SCALE = 1/8" = 1'-0"
USER NAME = bgrahm

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			42	39
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

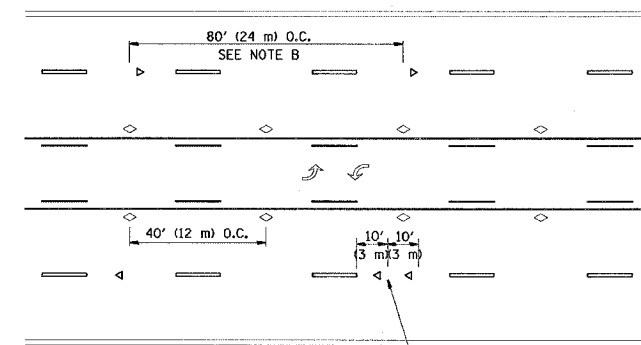


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

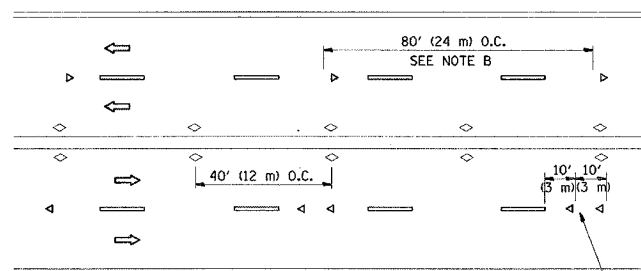
TWO-LANE/TWO-WAY



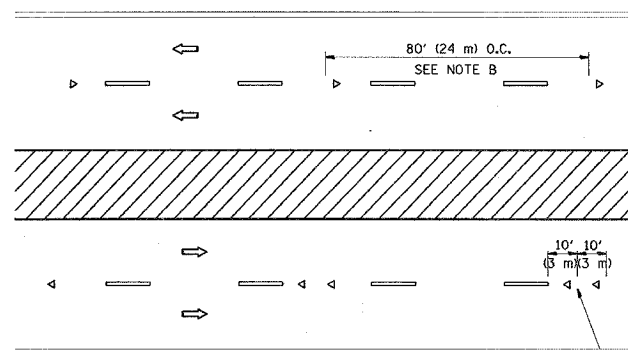
LANE REDUCTION TRANSITION



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

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- 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.

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.

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

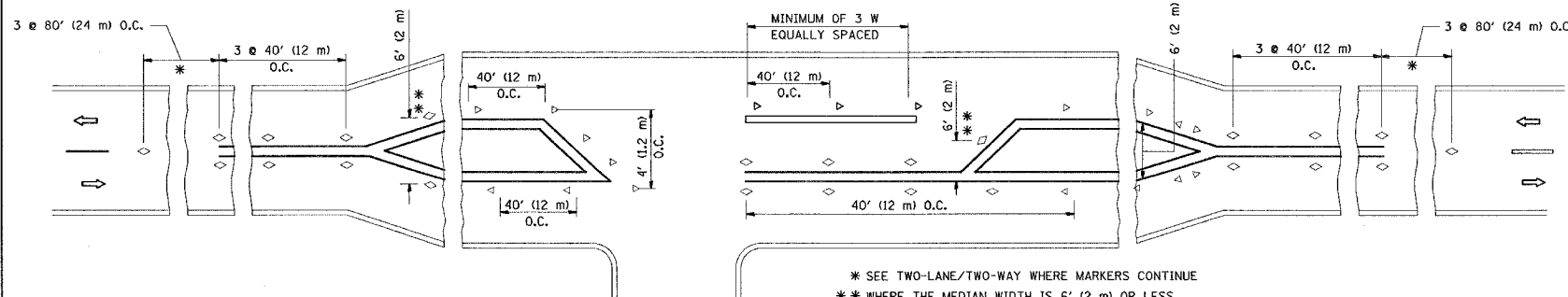
REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT
MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE

DRAWN BY CADD
CHECKED BY

TC-11



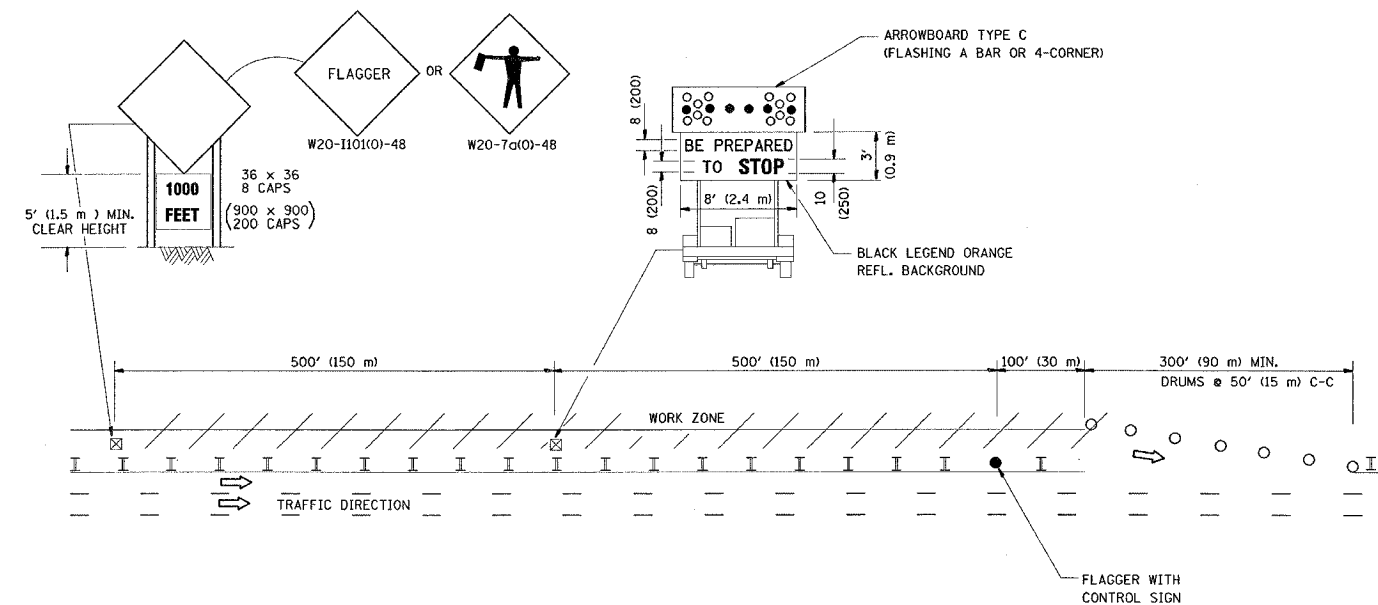
LEFT TURN

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

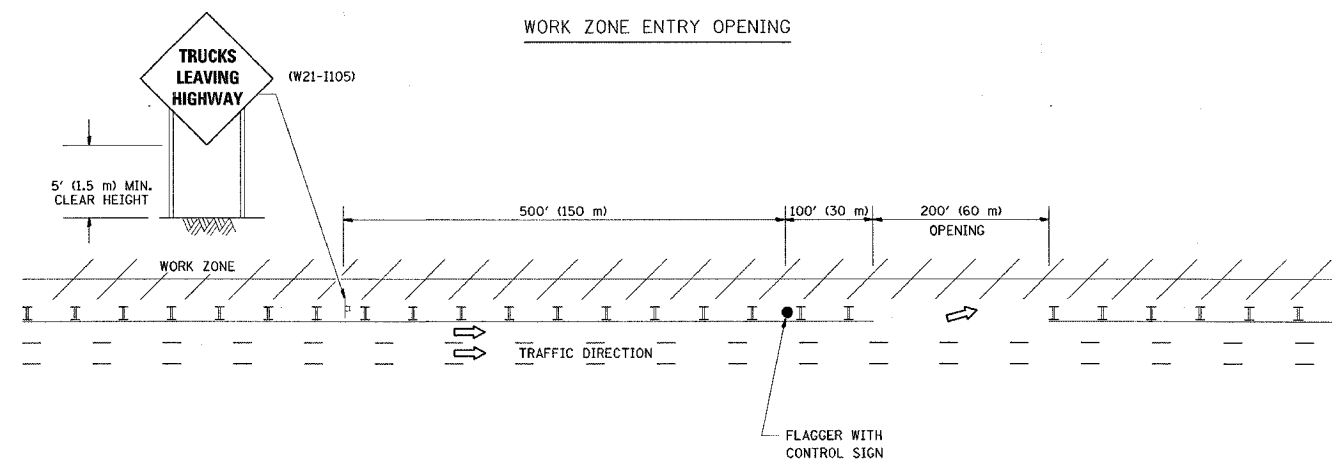
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			42	40
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

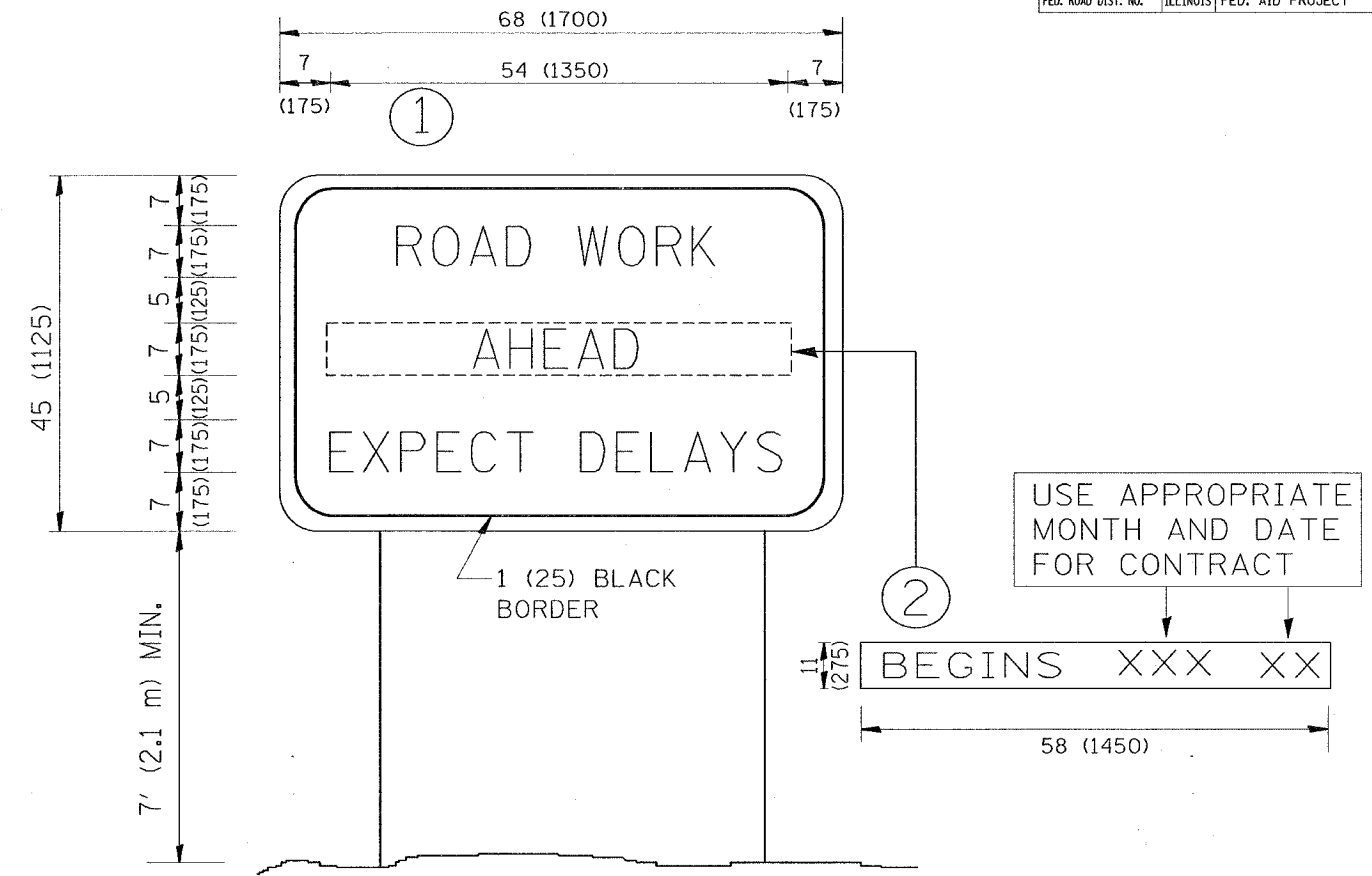
REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS

SCALE: NONE

DRAWN BY CADD
CHECKED BY
TC-18

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			42	41
STA.		TO STA.		
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.

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

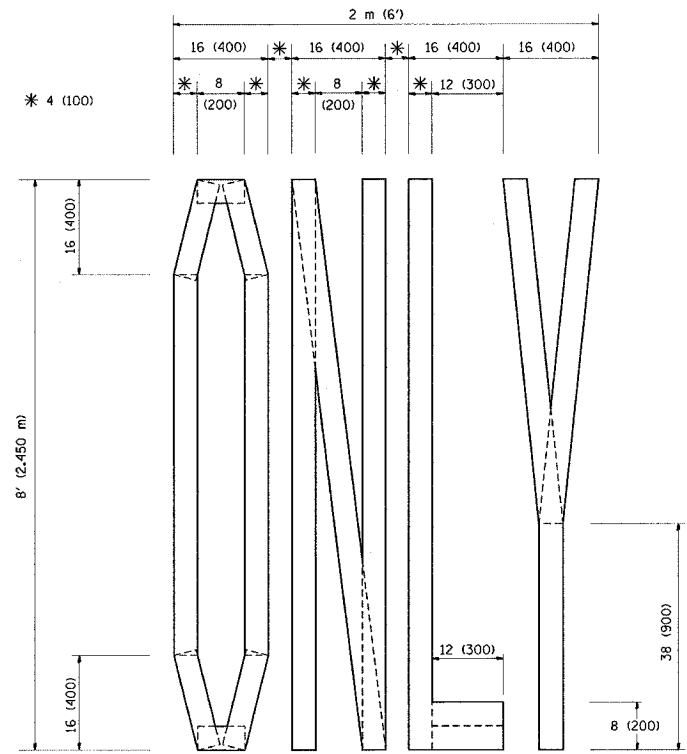
REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCLUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION
**ARTERIAL ROAD
 INFORMATION SIGN**

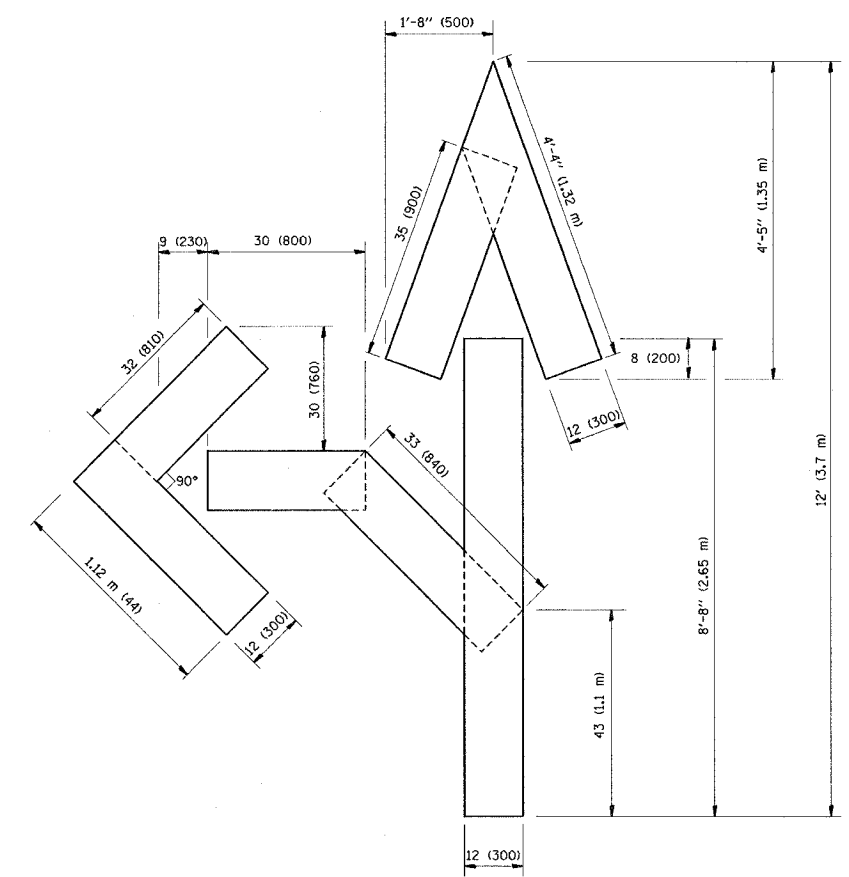
SCALE: NONE

DRAWN BY DESIGN
 CHECKED BY

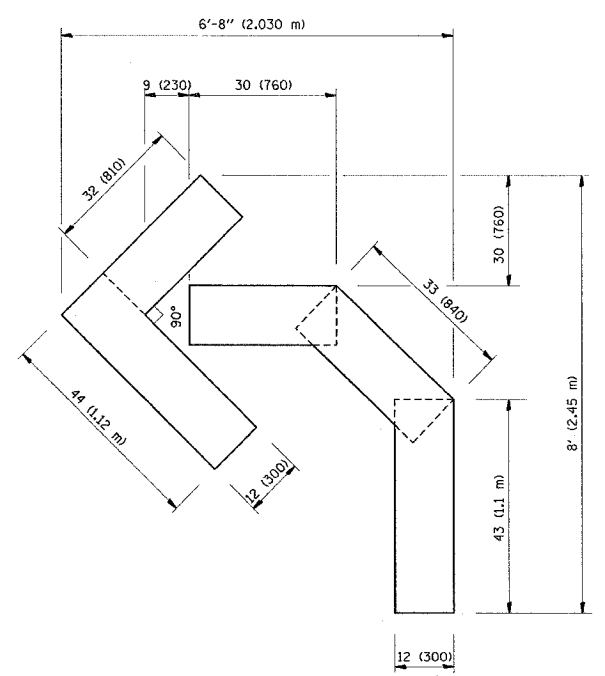
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			42	42
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



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.

REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING
 LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

SCALE: NONE

DRAWN BY CADD

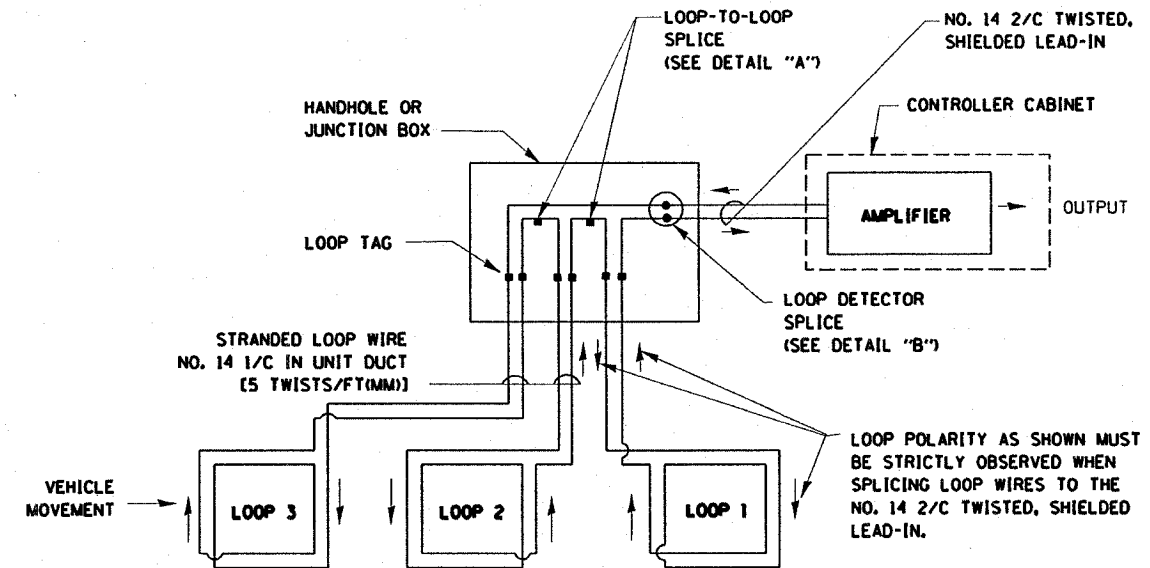
CHECKED BY

TC-16

PLOT DATE = 8/21/2007
 PLOT SCALE = 40,000 / IN.
 USER NAME = Eymah

LOOP DETECTOR NOTES

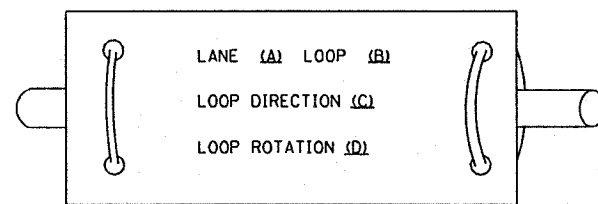
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



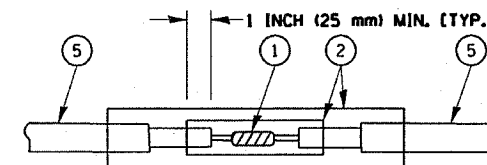
DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm), IF IN CONCRETE. THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

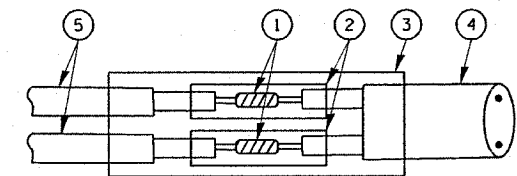
LOOP LEAD-IN CABLE TAG



- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP "1" IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



**DETAIL "A"
LOOP-TO-LOOP SPLICE**



**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

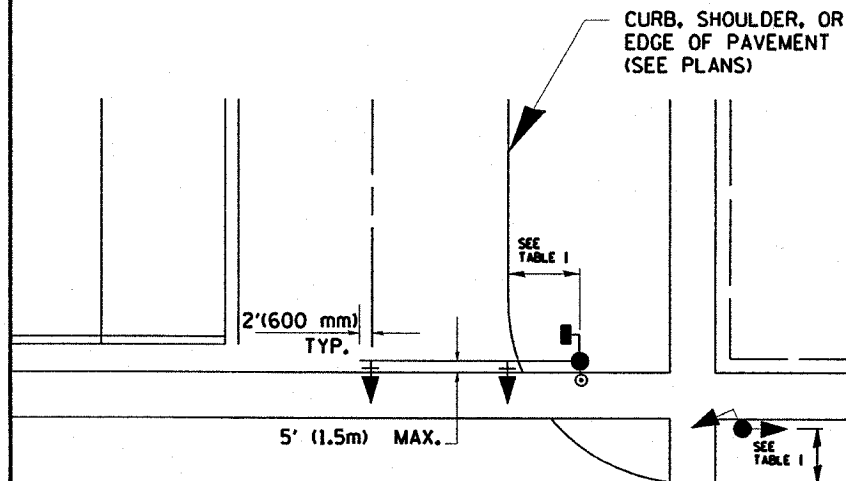
LOOP DETECTOR SPLICE

- ① WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- ② WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- ③ WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- ④ NO. 14 2/C TWISTED, SHIELDED CABLE.
- ⑤ LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

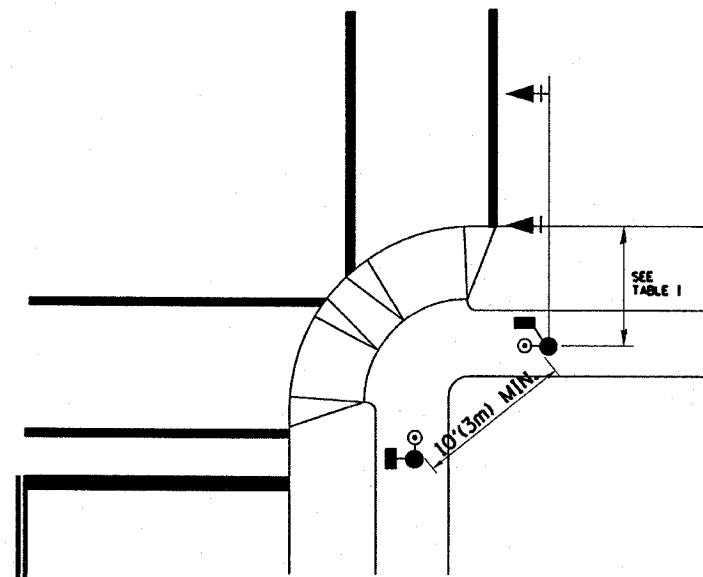
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PLOT SCALE = 48,0000' / IN.	CHECKED -	REVISED -	SCALE:			SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 62556	
PLOT DATE = 9/4/2007	DATE -	REVISED -									

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK.
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

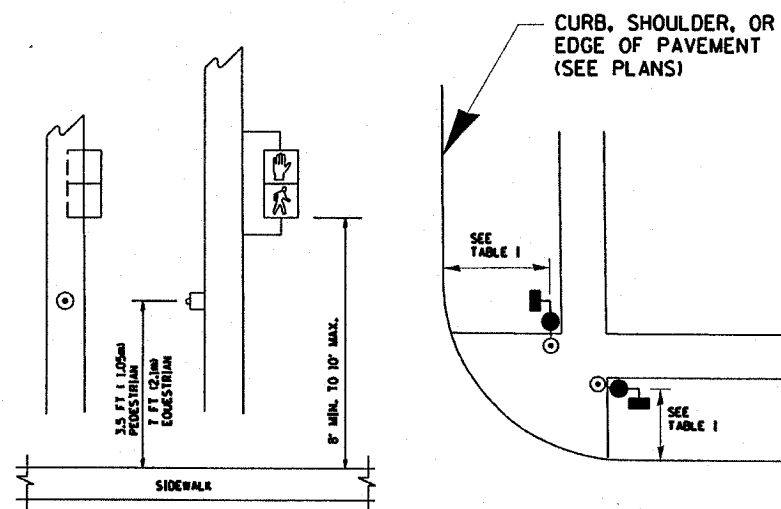


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

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USER NAME = kanthapixoybc

DESIGNED -
DRAWN -

REVISED -
REVISED -

PLOT SCALE = 40.0000' / IN.
PLOT DATE = 9/4/2007

CHECKED -
DATE -

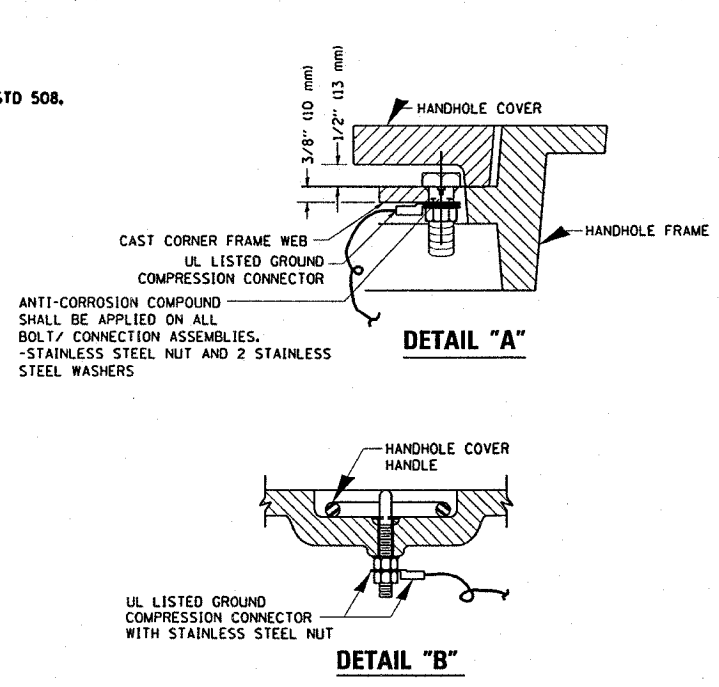
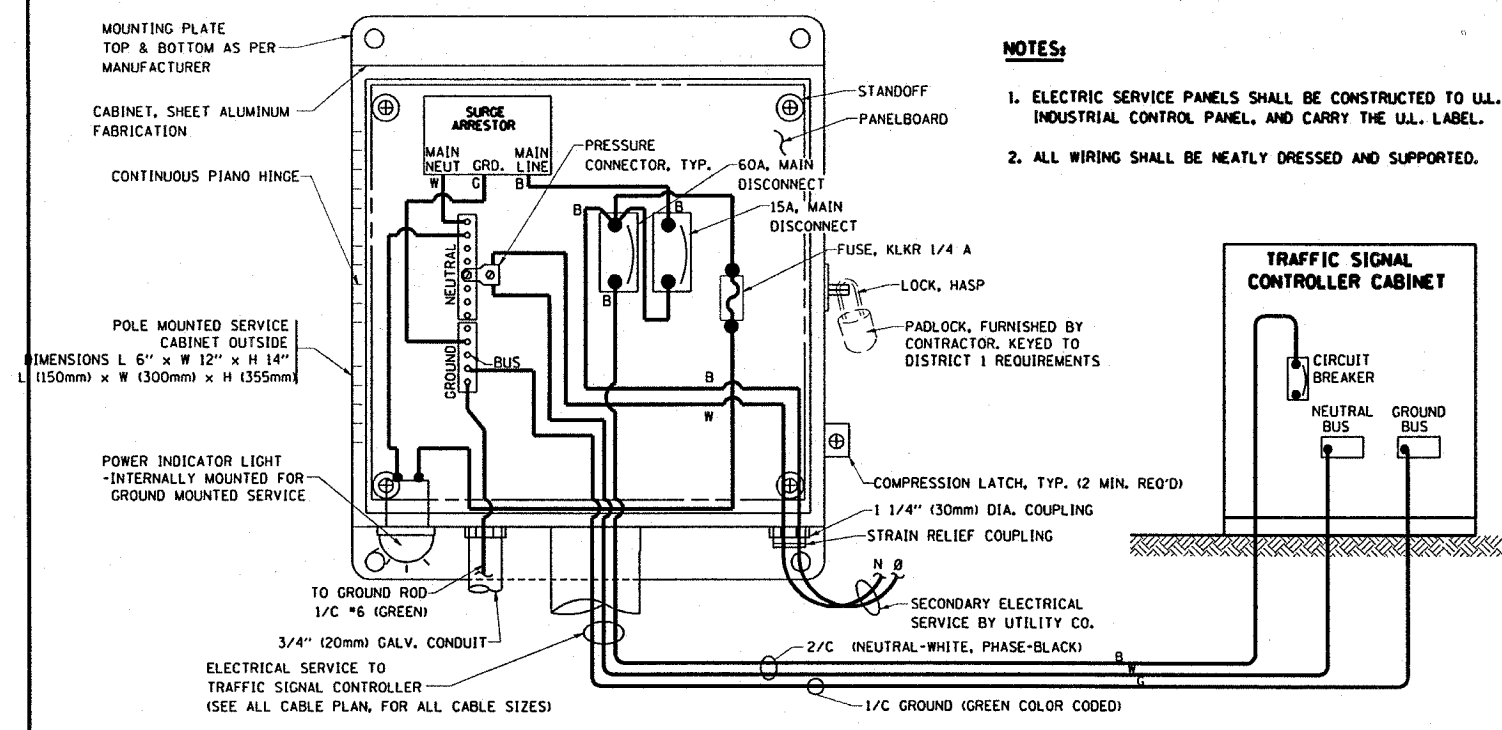
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

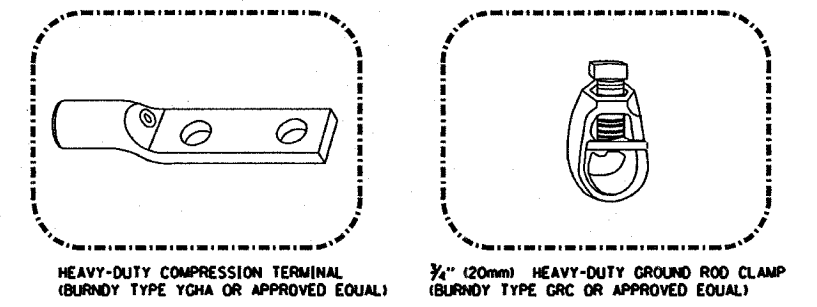
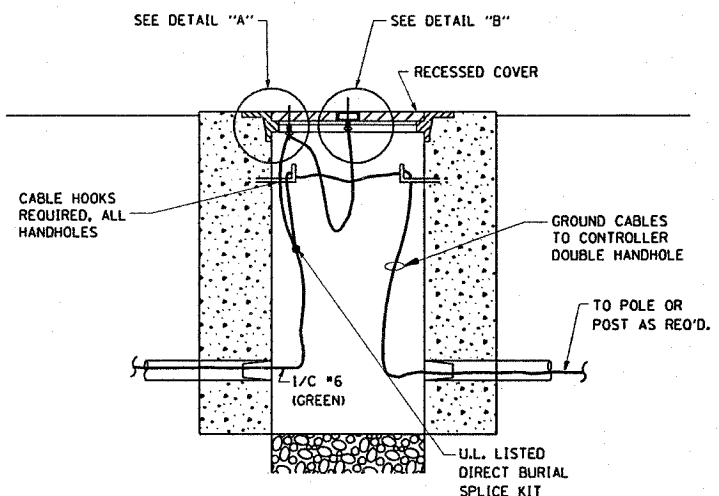
F.A.P. RTE. 870	SECTION 534- R-1-T	COUNTY WILL	TOTAL SHEETS 42 B	SHEET NO. 42 B
CONTRACT NO. 62556			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	

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

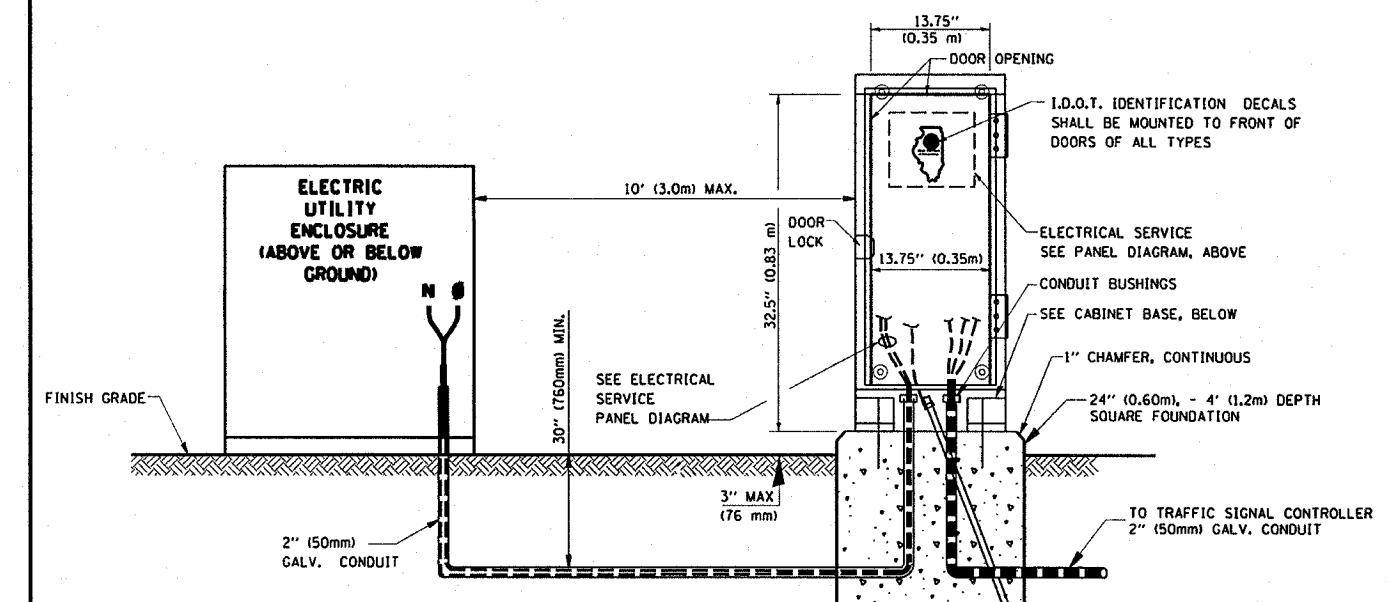


- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
 2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
 3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
 4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)

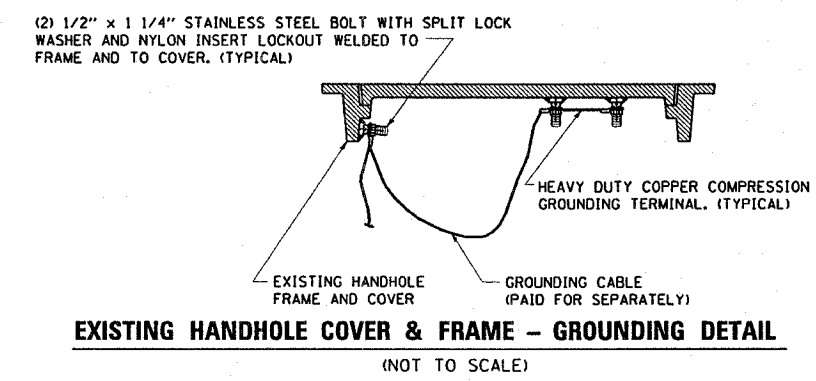


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

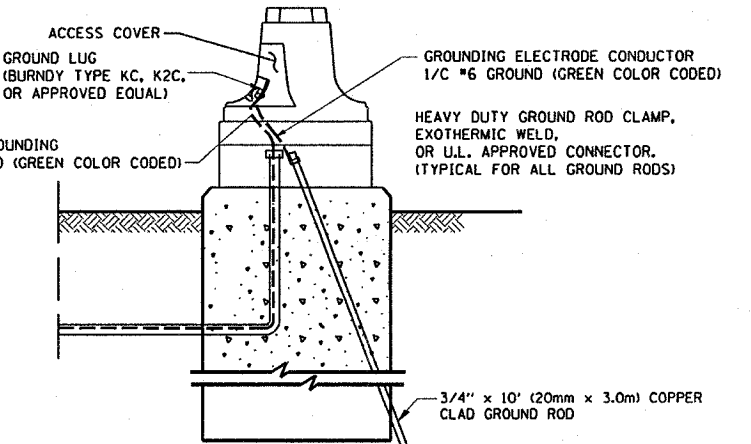


HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)

SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)

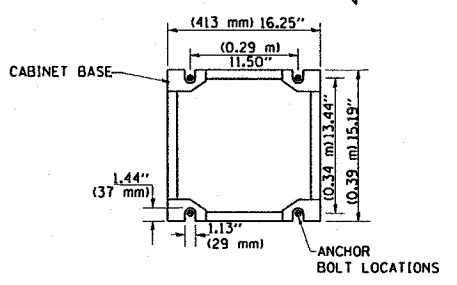


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)

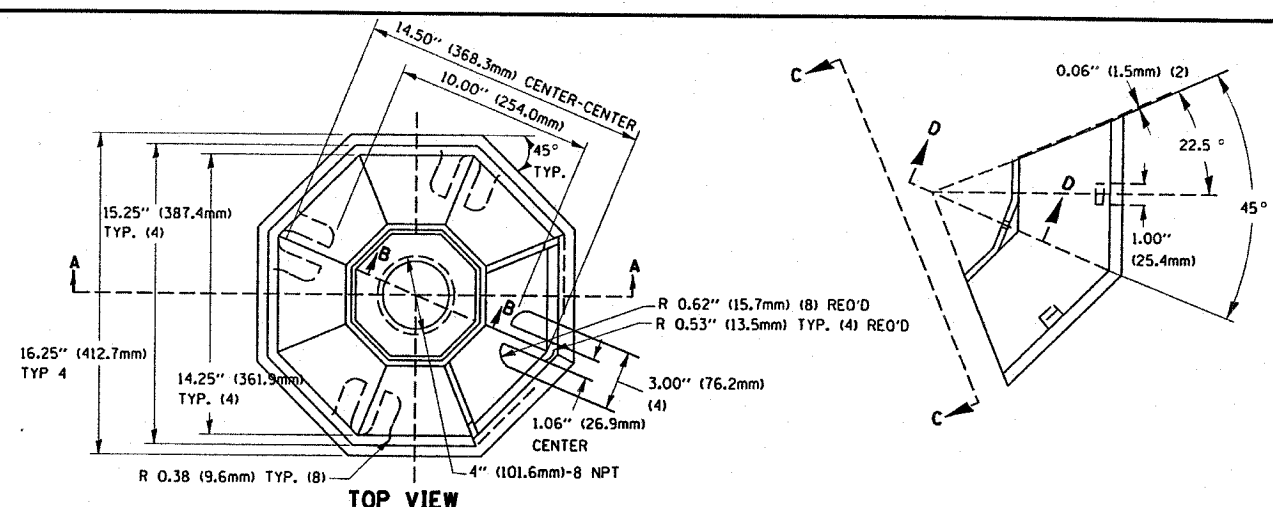


MAST ARM POLE / POST - GROUNDING DETAIL (NOT TO SCALE)

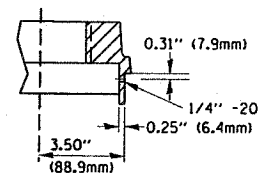
CABINET - BASE BOLT PATTERN (NOT TO SCALE)



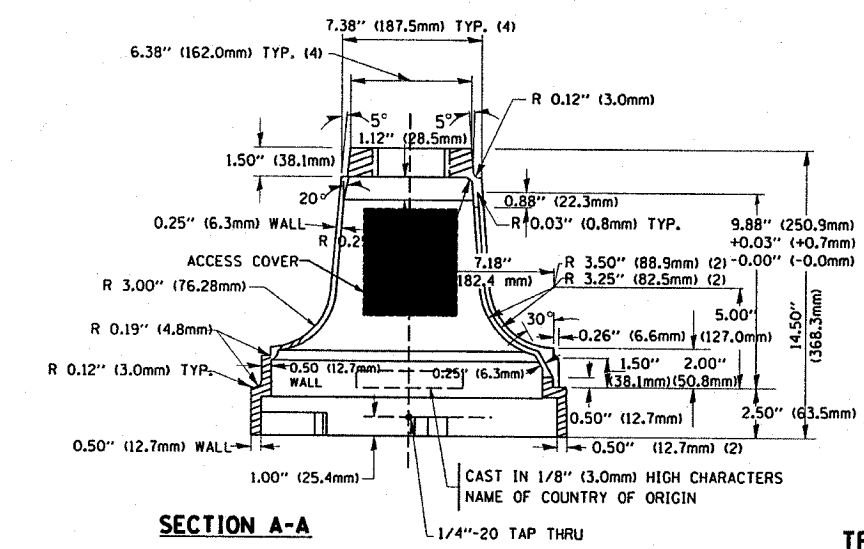
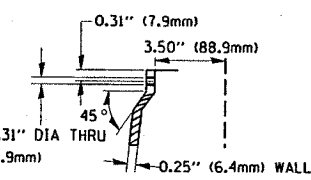
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		CHECKED -	REVISED -			CONTRACT NO. 62556					
		DATE = 9/4/2007	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



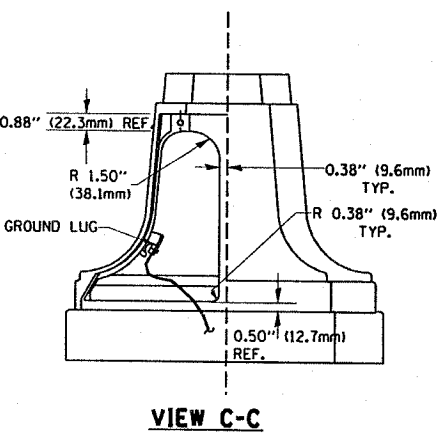
SECTION B-B



SECTION D-D

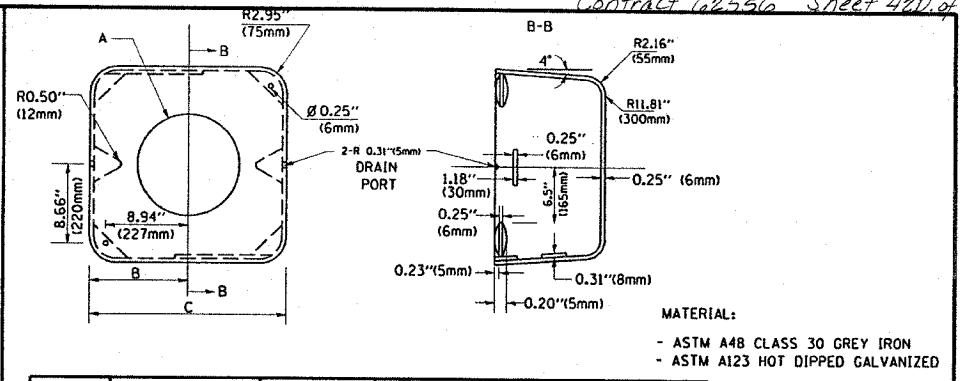
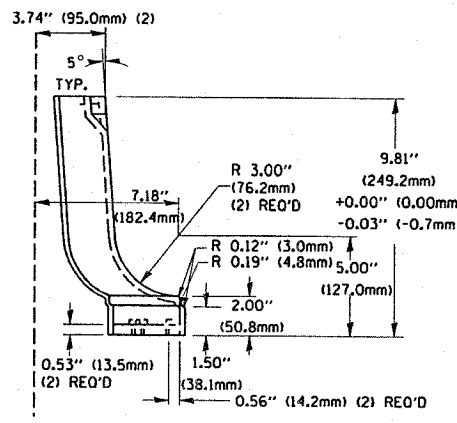


SECTION A-A



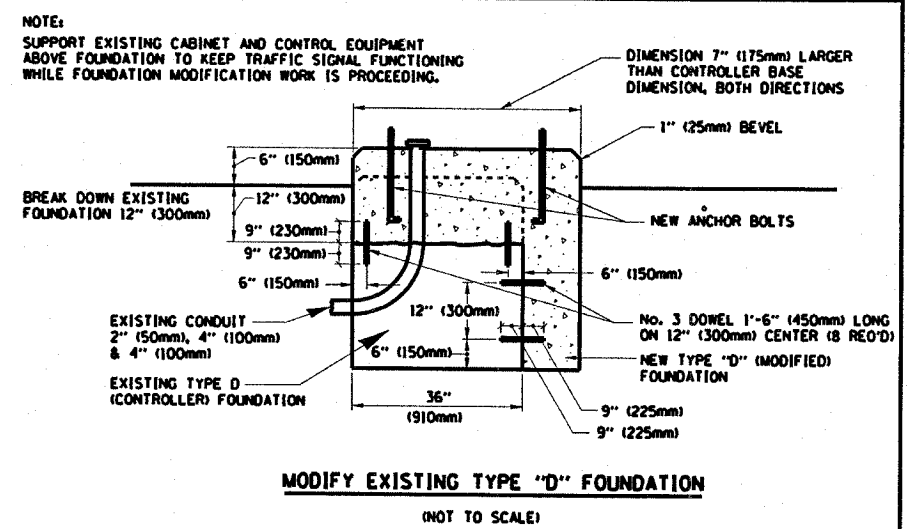
VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

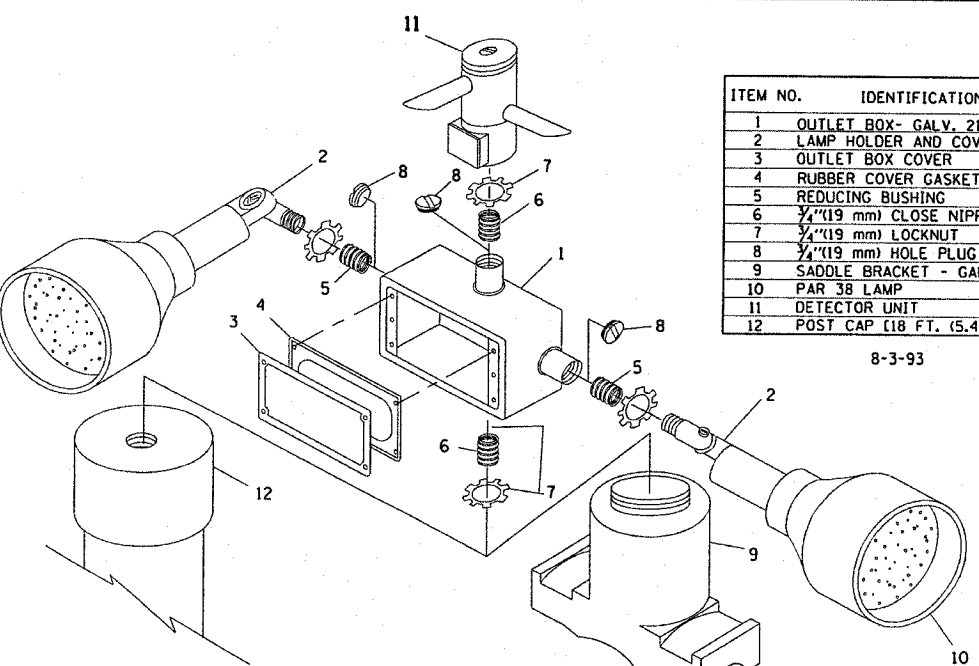


TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125\" (257mm)	9.5\" (241mm)	19\" (483mm)	12\" (300mm)	24kg
II	Ø 11.125\" (283mm)	10.75\" (273mm)	21.5\" (546mm)	12\" (300mm)	26kg

SHROUD DETAIL



MODIFY EXISTING TYPE "D" FOUNDATION

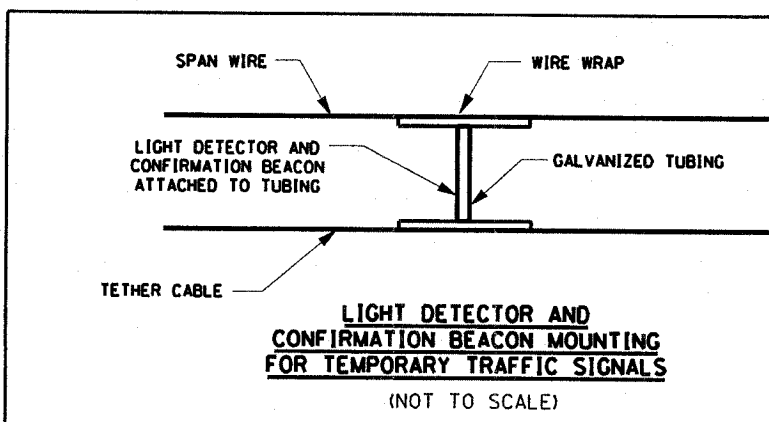


POST CAP MOUNT
MAST ARM MOUNT
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	1/4\" (19 mm) CLOSE NIPPLE
7	1/4\" (19 mm) LOCKNUT
8	1/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

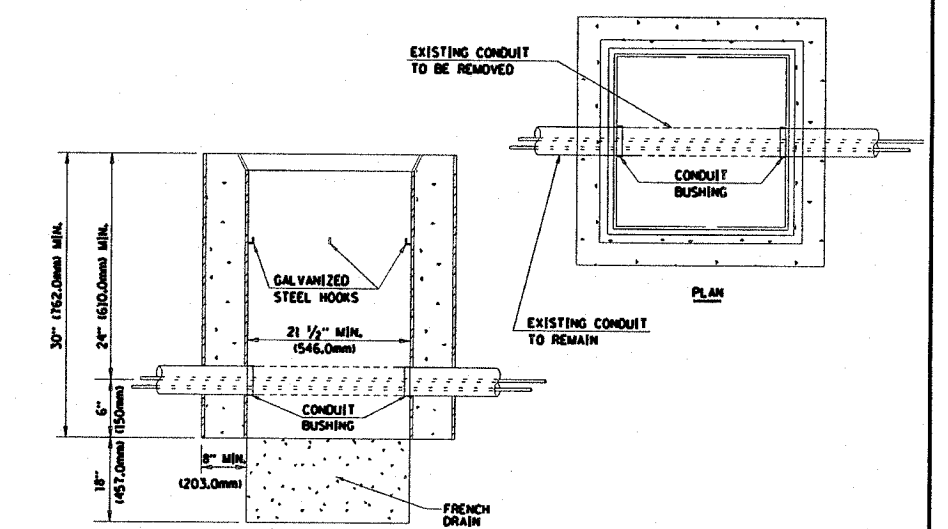
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 1/4\" (19 mm) HOLE WITH PIPE THREADS. THE POST SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS (NOT TO SCALE)

NOTES:

- REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.



HANDHOLE TO INTERCEPT EXISTING CONDUIT (NOT TO SCALE)

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PLOT DATE = 9/4/2007	DATE -	REVISED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

F.A.P. RTE. 870	SECTION 534- R-1-T	COUNTY WILL	TOTAL SHEETS 42	SHEET NO. 42D
SCALE:		SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 62556
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				