03-04-2016 LETTING ITEM 004

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42*	1
	ILLINOIS	CONTRACT NO. 60M77		

42 + 14 = 56 TOTAL SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAU 3887 /ILLINOIS ROUTE 31 (MAIN STREET)
SECTION 2010–122–I
OVER EDGEWOOD RAVINE (0.5 MI. S. OF IL 62)
BRIDGE DECK OVERLAY, BRIDGE JOINT REPAIR
McHENRY COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION

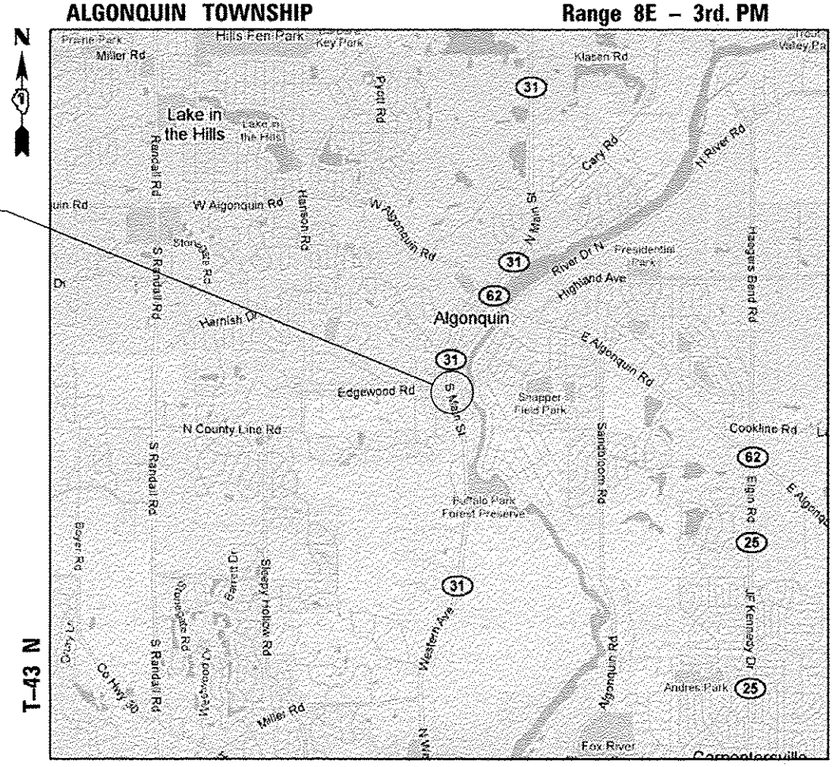
MINOR ARTERIAL (URBAN)
ADT 13900 (2013)
SPEED LIMIT 35 MPH

IMPROVEMENT LOCATED IN THE VILLAGE OF ALGONQUIN

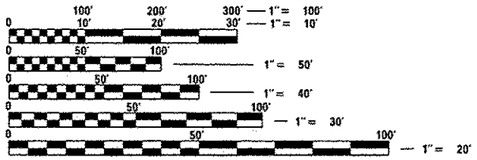
C–91–162–11

ALGONQUIN TOWNSHIP — Range 8E – 3rd. PM

T–43 N



IMPROVEMENT LOCATION
IL 31 (MAIN STREET)
AT EDGEWOOD RAVINE
STRUCTURE NO: 056–0016



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

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

PROJECT MANAGER: MR. ISSAM RAYYAN, P.E. (847) 705–4178
PROJECT ENGINEER: MR. ROBERT T. BORO, P.E. (847) 705–4237

CONTRACT NO. 60M77

GROSS LENGTH = 150.0 FT. = 0.028 MILE
NET LENGTH = 150.0 FT. = 0.028 MILE

D–91–162–11

LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
EWA K. MROCZEK
081-006067
LICENSED STRUCTURAL ENGINEER
12/22/15

COLLINS ENGINEERS, INC.
EWA MROCZEK, P.E., S.E.
NO. 081-006067
EXP.: 11/30/2016

STATE OF ILLINOIS
RYAN GALL
062-064397
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
12/22/15

COLLINS ENGINEERS, INC.
RYAN GALL
NO. 062-064397
EXPIRES 11-30-2017

COLLINS ENGINEERS INC
123 N. WACKER DR., SUITE 900
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED DECEMBER 30, 20 15

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Jan 29 20 16

Maureen M. Addis, P.E. by acting
ENGINEER OF DESIGN AND ENVIRONMENT

Jan 29 20 16

Omer Osman, P.E. by
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		OMP
MIXTURE TYPE	AIR VOIDS @ Ndes	
Overlay		
Hot-Mix Asphalt Surface Course, Mix "D", N70 (IL 9.5mm), $2\frac{1}{4}$"	4% @ 70 Gyr.	QC/QA
Driveway Pavement		
Hot-Mix Asphalt Surface Course, Mix "D", N50, 2"	4% @ 50 Gyr.	QC/QA
Hot-Mix Asphalt Base Course, 8"	4% @ 50 Gyr.	QC/QA
OMP Designation: Quality Control/Quality Assurance (QC/QA)		

The unit weight used to calculate all HMA Surface mixture quantities is 112 Lbs./Sq. Yd./In.

For Non- Polymerized HMA the "AC Type" shall be "PG 64-22" unless modified by the District One special provisions.

For use of recycled materials, see special provisions.

Quality Management Program (QMP) identifies the particular quality control specification that applies to the HMA mixture.

INDEX OF HIGHWAY STANDARDS

Standard No.	Description
424026-01	Entrance / Alley Pedestrian Crossings
515001-03	Name Plate For Bridge
606001-06	Concrete Curb Type B and Combination Concrete Curb and Gutter
635011-02	Reflector and Terminal Marker Placement
701011-04	Off-Rd Moving Operations, 2L, 2W, Day Only
701301-04	Lane Closure, 2L, 2W, Short Time Operations
701311-03	Lane Closure 2L, 2W Moving Operations-Day Only
701321-14	Lane Closure, 2L, 2W, Bridge Repair with Barrier
701501-06	Urban Lane Closure, 2L, 2W, Undivided
701502-06	Urban Lane Closure, 2L, 2W, with Bidirectional Left Turn Lane
701701-09	Urban Lane Closure, Multilane Intersection
701801-05	Lane Closure, Multilane IW or 2W Crosswalk or Sidewalk Closure
701901-04	Traffic Control Devices
704001-07	Temporary Concrete Barrier
780001-05	Typical Pavement Markings
805001-01	Electrical Service Installation Details
814001-03	Handholes
857001-01	Standard Phase Designation Diagrams and Phase Sequences
862001-01	Uninterruptable Power Supply (UPS)
873001-02	Traffic Signal Grounding & Bonding
880001-01	Span Wire Mounted Signals and Flashing Beacon Installation
886001-01	Detector Loop Installations
886006-01	Typical Layouts for Detection Loops

GENERAL NOTES

1. These plans have been prepared from notes received from IDOT Field Maintenance Engineers.
2. 10 ft (3 m) transitions shall be used to match proposed items of work to existing items in the field, unless otherwise shown. The transitions shall be paid for at the contract unit price for the proposed item of work specified.
3. Where artificial lighting is utilized in night operations, the Contractor shall exercise the utmost precautions in preventing adverse visibility to the motoring public and adjoining residential areas.
4. For stabilization, all Type III barricades shall require a minimum of four (4) sandbags per barricade.
5. The Resident Engineer must contact the Traffic Control Supervisor at (847) 705-4470 at least 72 hours prior to installation of the temporary control devices.
6. The Resident Engineer shall contact the Area Traffic Field Engineer (Walter Czarny) at walter.czarny@illinois.gov or at (847) 715-8419, at least two (2) weeks prior to the placement of permanent pavement markings.
7. All pavement markings and raised reflectors affected by the bridge repairs shall be replaced. Nominal quantities have been included in the contract for this work.
8. The Contractor will not be allowed to set up a yard or field office on State property without written permission from the Department.
9. Do not scale these plans for construction purposes.
10. 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.
11. During construction operations, loose material deposits that obstruct the flow of water in draining the area shall be removed before the end of each work day. At the conclusion of construction operations, all drainage structures (new and existing) shall be free from all dirt and debris. This work will not be paid for separately but shall be considered incidental to the contract.
12. All raised reflective pavement markers (bridge) shall be low profile.
13. Before beginning any work, the Contractor shall retain and record for future reference, all existing pavement marking lines, symbols and letters (and raised reflective markers) in order that these locations can be re-established for striping. Exact locations of all pavement markings and raised reflective pavement markers shall be as directed by the Engineer.
14. Detector loops are located in the approach slab. The traffic signal detector loops shall be replaced as required.

FILE NAME = I:\8274 - IDOT PTB 168 - 07 Various\8274_19 IL 31 over Edgewood Rayne overlay\TOOD\D168M77-sht-general-notes.dgn

COLLINS ENGINEERS 303 N. Main St., Suite 310, Glen Ellyn, IL 60137, Phone: (331) 704-1500, Fax: (331) 704-1520, www.collinsengr.com, ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

USER NAME = tshaht	DESIGNED - DSH	REVISED -	
	DRAWN - DSH	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - RAC	REVISED -	
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS, AND HIGHWAY STANDARDS
STRUCTURE NO. 056-0016

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	2
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE URBAN 100% STATE ROADWAY 0004	BRIDGE 0014 S.N. 056-0016	TRAFFIC SIGNALS 0021
20200100	EARTH EXCAVATION	CU YD	2	2		
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	17	17		
25200110	SODDING, SALT TOLERANT	SQ YD	17	17		
25200200	SUPPLEMENTAL WATERING	UNIT	1	1		
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	196	123	73	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	2	2		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	273	273		
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	44	23	21	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	65	65		
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	4	4		
44000600	SIDEWALK REMOVAL	SQ FT	65	65		
50102400	CONCRETE REMOVAL	CU YD	11.4		11.4	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	12.5		12.5	
50300260	BRIDGE DECK GROOVING	SQ YD	161		161	

14

* - SPECIALTY ITEM

COLLINS ENGINEERS

USER NAME : sshahs	DESIGNED - DSH	REVISED -
	DRAWN - DSH	REVISED -
PLOT SCALE : 2.0000 ' / in.	CHECKED - RAG	REVISED -
PLOT DATE : 12/31/2015	DATE - DECEMBER, 2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
STRUCTURE NO. 056-0016

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	3

CONTRACT NO. 60M77

ILLINOIS FED. AID PROJECT

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE URBAN 100% STATE		
				ROADWAY 0004	BRIDGE 0014 S.N. 056-0016	TRAFFIC SIGNALS 0021
50300300	PROTECTIVE COAT	SQ YD	335	57	278	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1850		1850	
50800515	BAR SPLICERS	EACH	24		24	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	95		95	
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	4	4		
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	1	1		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6		
67100100	MOBILIZATION	L SUM	1	1		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	654	654		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	383	383		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	150	150		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	150	150		
70600255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2		
70600322	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2		

14

* - SPECIALTY ITEM

COLLINS ENGINEERS
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE #0.184-000990

USER NAME = tahahi	DESIGNED - DSH	REVISED -
	DRAWN - DSH	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - RAC	REVISED -
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
STRUCTURE NO. 056-0016

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	4
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

FILE NAME = 16-8274 - 100T PTB 168 - 07 Various\18274.19_IL31 over Edgewood Ravine overlay\EGDN\0169477-sht-Sq0.dgn

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE URBAN 100% STATE ROADWAY 0004	BRIDGE 0014 S.N. 056-0016	TRAFFIC SIGNALS 0021
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	218	218		
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1518	1518		
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1275	1275		
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	50	50		
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	94	94		
*	78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS	SQ FT	16	16		
*	78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	54	54		
*	78008230	POLYUREA PAVEMENT MARKING TYPE I - LINE 6"	FOOT	27	27		
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	15	15		
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4		4	
*	78100300	REPLACEMENT REFLECTOR	EACH	45	45		
*	78200530	BARRIER WALL MARKERS, TYPE C	EACH	12	12		
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	1485	1485		
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	19	19		

* - SPECIALTY ITEM

COLLINS ENGINEERS
123 N. Wacker Dr. Suite 900 Chicago, IL 60606
Tel: (312) 704-9200 Fax: (312) 704-9203
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000990

USER NAME = tshah1	DESIGNED - DSH	REVISED -
	DRAWN - DSH	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - RAC	REVISED -
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
STRUCTURE NO. 056-0016

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	5
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE URBAN 100% STATE		
					ROADWAY 0004	BRIDGE 0014 S.N. 056-0016	TRAFFIC SIGNALS 0021
*	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	5			5
*	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	65			65
*	81400200	HEAVY-DUTY HANDHOLE	EACH	1			1
*	87900200	DRILL EXISTING HANDHOLE	EACH	2			2
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	102			102
	89000050	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1			1
*	89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	770			770
*	89502380	REMOVE EXISTING HANDHOLE	EACH	1			1
*	X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	35			35
*	X0326276	TEMPORARY LIGHTING FOR SINGLE LANE STAGING	LSUM	1			1
	X0326766	CLEAN & RESEAL RELIEF JOINT	FOOT	96		96	
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		
	X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	3035	3035		
	X7030040	WET REFLECTIVE TEMPORARY TAPE TYPE III, 6 INCH	FOOT	1073	1073		

14

* - SPECIALTY ITEM

FILE NAME = I:\8274 - IDOT PTB 169 - 87 Various\8274.19 IL31 over Edgewood Ravine overlay\C600\D0168427-sht-Sq0.dgn

COLLINS ENGINEERS 123 N. Wacker Dr. Suite 800 Chicago, IL 60606 Tel: (312) 704-9300 Fax: (312) 704-9320 www.collinsengr.com ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000970

USER NAME = tshahi	DESIGNED - DSH	REVISED -	
	DRAWN - DSH	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - RAC	REVISED -	
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
STRUCTURE NO. 056-0016

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	6
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE URBAN 100% STATE		
					ROADWAY 0004	BRIDGE 0014 S.N. 056-0016	TRAFFIC SIGNALS 0021
*	X7030055	WET REFLECTIVE TEMPORARY TAPE TYPE III, 24 INCH	FOOT	12	12		
*	X8100105	CONDUIT SPLICE	EACH	1			1
	Z0001700	APPROACH SLAB REPAIR (FULL DEPTH)	SQ YD	4		4	
	Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	8		8	
	Z0004538	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 10"	SQ YD	4	4		
	Z0004562	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	171	171		
	Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	152		152	
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	83	83		
	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1			1
		BRIDGE DECK CONCRETE OVERLAY (SPECIAL), 3"	SQ YD	152		152	

* - SPECIALTY ITEM

FILE NAME = I:\9274 - IDOT PTB 168 - 07 Various\9274.19 IL31 over Edgewood Ravine overlay\CADD\D1680M77-sht-Sod.dgn

COLLINS ENGINEERS 123 N. Wacker Dr. Suite 900 Chicago, IL. 60606 Main: (312) 704-9300 Fax: (312) 704-9320 www.collinseng.com ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

USER NAME = tsheh1	DESIGNED - DSH	REVISED -
	DRAWN - DSH	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - RAG	REVISED -
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
STRUCTURE NO. 056-0016

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	7
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

MAINTENANCE OF TRAFFIC – GENERAL NOTES

1. SEE SPECIAL PROVISIONS TITLED TRAFFIC CONTROL AND PROTECTION ARTERIAL.

2. THE CONTRACTOR SHALL REMOVE AND SAFELY STORE (FREE FROM THEFT OR DAMAGE) OR COVER ALL CONFLICTING EXISTING SIGNS FOR THE DURATION OF THE CONSTRUCTION. ALL SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE END OF CONSTRUCTION.

3. THE FOLLOWING APPLY TO CONSTRUCTION SIGNS:

   A) THE CONTRACTOR SHALL FURNISH ALL SIGNS.

   B) THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND REPLACE ANY SIGNS THAT ARE SUPPLIED BY OTHERS AND DAMAGED BY THE CONTRACTOR'S WORK FORCE OR SUBCONTRACTORS DURING RELOCATION OR CONSTRUCTION OPERATIONS.

   C) ALL SIGNS AND ASSEMBLIES SHALL BE CERTIFIED BY THE CONTRACTOR AS MEETING THE APPLICABLE REQUIREMENTS OF NCHRP REPORT 350. TEST LEVEL 3.

   D) ALL SIGNS SHALL BE CONSIDERED INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION (SPECIAL) PAY ITEM, EXCEPT FOR TEMPORARY INFORMATIONAL SIGNING AS NOTED ON THE PLANS.

4. ANY RAISED REFLECTIVE PAVEMENT MARKERS THAT CONFLICT WITH THE TEMPORARY TRAFFIC LANES MUST HAVE THE REFLECTIVE LENSES REMOVED AS DIRECTED BY THE ENGINEER.

5. ALL TEMPORARY PAVEMENT MARKINGS ALONG IL ROUTE 31 DURING STAGED CONSTRUCTION SHALL BE WET REFLECTIVE TAPE, TYPE III OF THE WIDTH AND COLOR SPECIFIED ON THE PLAN SHEETS.

6. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO ALL COMMERCIAL AND RESIDENTIAL ENTRANCES FOR THE ENTIRE DURATION OF THE PROJECT UNLESS OTHERWISE SHOWN ON THE PLANS.

7. SIDE ROAD, INTERSECTIONS, AND DRIVEWAY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE TYPICAL ENTRANCE SIGNING DETAIL, DISTRICT DETAILS TC-10 AND TC-26, AND AS SHOWN ON THE PLANS.

8. PLACE MAX WIDTH SIGN (8'-6") FOR STAGE I AND (9'-6") FOR STAGE II AT SOUTHWEST CORNER OF IL ROUTE 31 AND IL ROUTE 62 LOCATED 1 MILE OF SN 056-0016 ALONG IL ROUTE 31 AND AT NORTHEAST CORNER OF IL ROUTE 31 AND IL ROUTE 72 LOCATED 4.5 MILES SOUTH OF SN 056-0016.

STAGING NOTES

STAGE I (IL 31)

INSTALL TEMPORARY TRAFFIC SIGNALS AND ADJUST PHASING AS SHOWN IN THE TRAFFIC SIGNAL PLANS.

DETOUR BEACH DR AS SHOWN IN THE DETOUR PLAN.

ESTABLISH TRAFFIC CONTROL PER STD. 701321 AND AS DETAILED IN THE TRAFFIC CONTROL PLAN.

SCARIFY BRIDGE DECK.

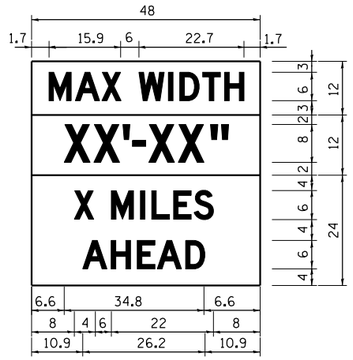
PERFORM DECK SLAB REPAIR, APPROACH SLAB REPAIR AND REPLACE BRIDGE JOINTS.

PLACE OVERLAY ON STRUCTURE AND PAVE APPROACHES.

STAGE II (IL 31)

RELOCATE STAGE TRAFFIC CONTROL PER STD. 701321 AND AS DETAILED IN THE TRAFFIC CONTROL PLAN.

PERFORM BRIDGE REPAIRS USING THE SAME SEQUENCE AS STAGE I.



W12-1103 (WIDTH IS 8D)
NO BORDER, BLACK ON WHITE
[MAX WIDTH] D:

NO BORDER, BLACK ON ORANGE
[XX'-XX"] D:

NO BORDER, BLACK ON WHITE
[X MILES] D; [AHEAD] D;

ALL SIGN DIMENSIONS IN INCHES

COLLINS ENGINEERS
123 N. Wacker Dr. Suite 900 Chicago, IL 60606
Tele: (312) 704-9300 Fax (312) 704-9320 www.collinsengr.com
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

USER NAME = tsheh1	DESIGNED - DSH	REVISED -
	DRAWN - DSH	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - RAG	REVISED -
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 31 (MAIN STREET)
STAGING NOTES AND DETAILS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	8
		CONTRACT NO. 60M77		
	ILLINOIS	FED. AID PROJECT		

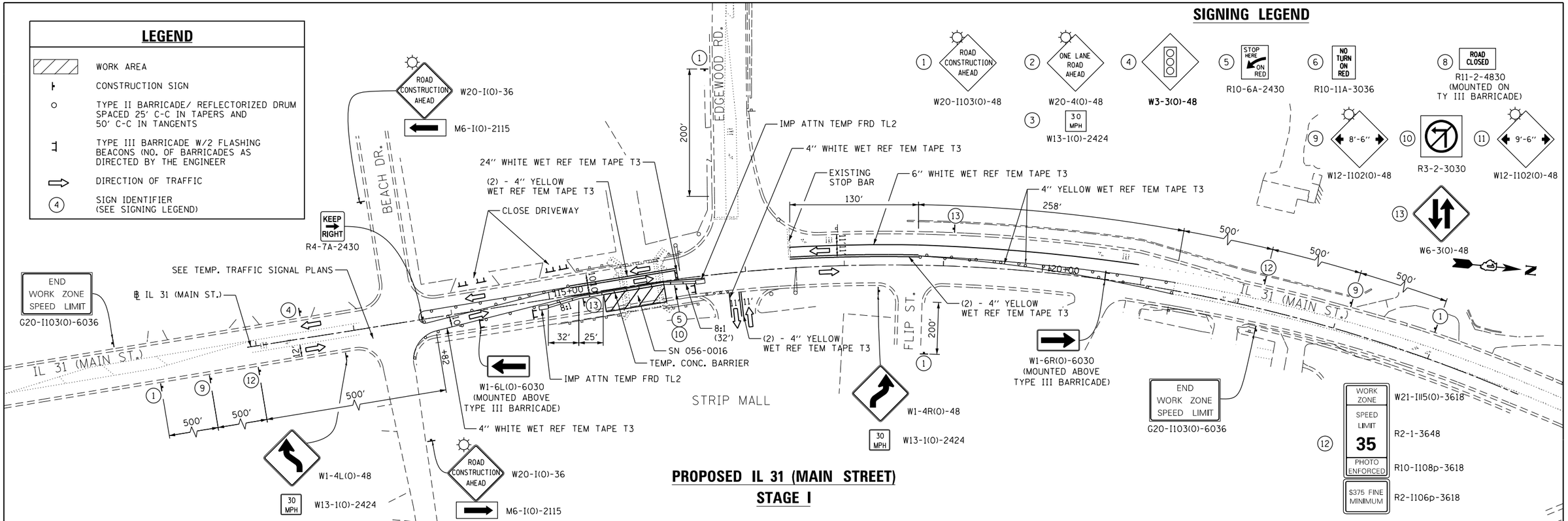
FILE NAME = i:\8274 - IDOT PTB 168 - 07 Various\8274.19 IL31 over Edgewood Ravine overlay\CADD\0160M77-sht-MOT.dgn

LEGEND

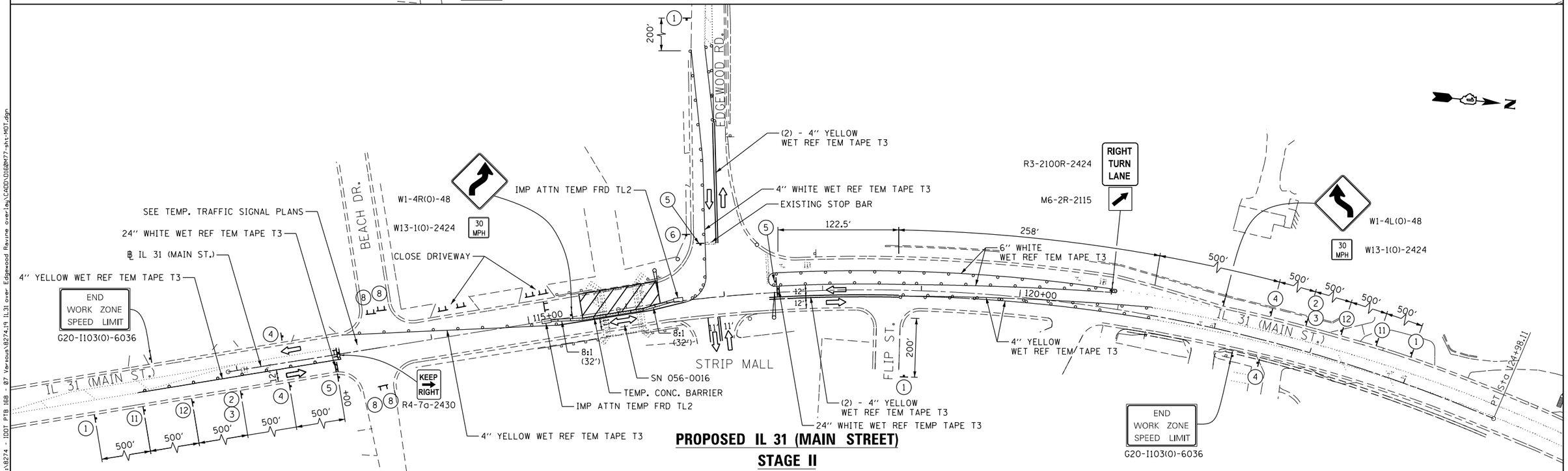
- WORK AREA
- CONSTRUCTION SIGN
- TYPE II BARRICADE/ REFLECTORIZED DRUM SPACED 25' C-C IN TAPERS AND 50' C-C IN TANGENTS
- TYPE III BARRICADE W/2 FLASHING BEACONS (NO. OF BARRICADES AS DIRECTED BY THE ENGINEER
- DIRECTION OF TRAFFIC
- (4) SIGN IDENTIFIER (SEE SIGNING LEGEND)

SIGNING LEGEND

1. ROAD CONSTRUCTION AHEAD — W20-I103(0)-48
2. ONE LANE ROAD AHEAD — W20-4(0)-48
3. 30 MPH — W13-1(0)-2424
4. **W3-3(0)-48**
5. STOP HERE ON RED — R10-6A-2430
6. NO TURN ON RED — R10-11A-3036
8. ROAD CLOSED — R11-2-4830 (MOUNTED ON TY III BARRICADE)
9. 8'-6" — W12-I102(0)-48
10. R3-2-3030
11. 9'-6" — W12-I102(0)-48
13. W6-3(0)-48



PROPOSED IL 31 (MAIN STREET) STAGE I



PROPOSED IL 31 (MAIN STREET) STAGE II

FILE NAME = I:\9274 - IDOT PTB 168 - 07 Various\9274.19 IL31 over Edgewood Ravine overlay\CADD\D1E8M77-sht-MOT.dgn

COLLINS ENGINEERS — 123 N. Wacker Dr. Suite 900, Chicago, IL 60606, Tele. (312) 704-9300, Fax (312) 704-9320, www.collinsengr.com, ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

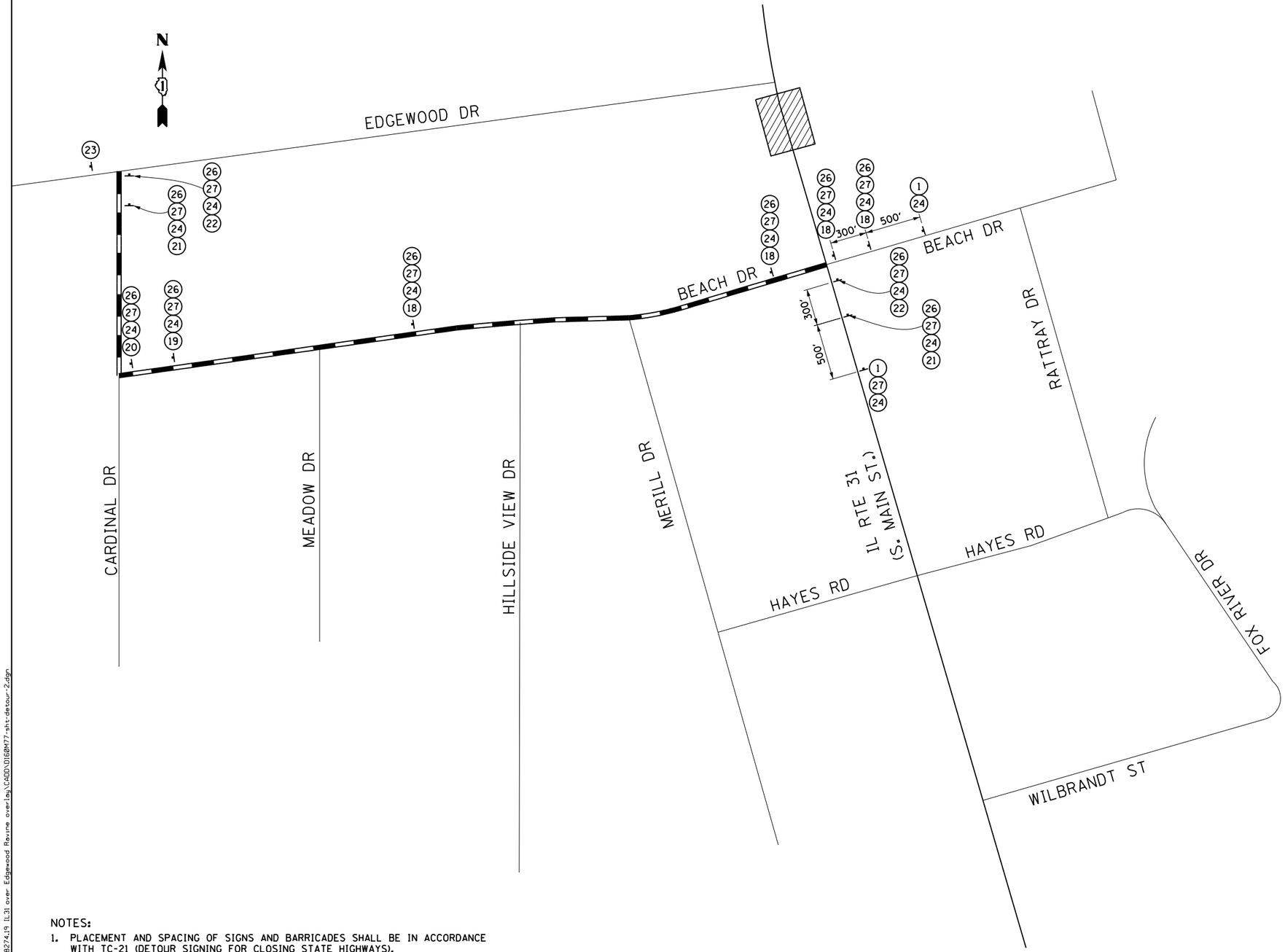
USER NAME = tsheh1	DESIGNED - DSH	REVISED -	
	DRAWN - DSH	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - RAG	REVISED -	
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -	

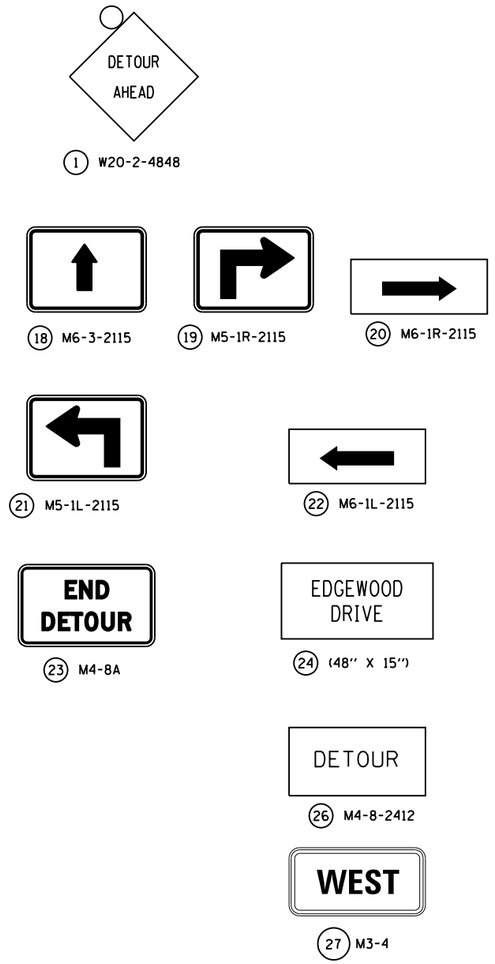
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 31 (MAIN STREET)
MAINTENANCE OF TRAFFIC

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	9
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			





NOTES:

1. PLACEMENT AND SPACING OF SIGNS AND BARRICADES SHALL BE IN ACCORDANCE WITH TC-21 (DETOUR SIGNING FOR CLOSING STATE HIGHWAYS).
2. THE COST OF SUPPLYING, ERECTING AND MAINTAINING BARRICADES, WARNING LIGHTS AND SIGNS SHALL BE INCLUDED IN THE CONTRACT COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL).
3. ALL DETOUR SIGNS SHALL HAVE AN ORANGE BACKGROUND WITH BLACK LETTERS.

LEGEND:

- DETOUR ROUTE
- CONSTRUCTION ZONE
- TYPE III BARICADE WITH 2 FLASHING LIGHTS
- AMBER FLASHING LIGHT

FILE NAME = i:\8274 - IDOT PTB 168 - 07 Various\8274.19 IL31 over Edgewood Ravine overlay\CADD\D16M77-sht-detour-2.dgn

COLLINS ENGINEERS
123 N. Wacker Dr. Suite 900 Chicago, Il. 60606 Tele. (312) 704-9300 Fax (312) 704-9320 www.collinsengr.com
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

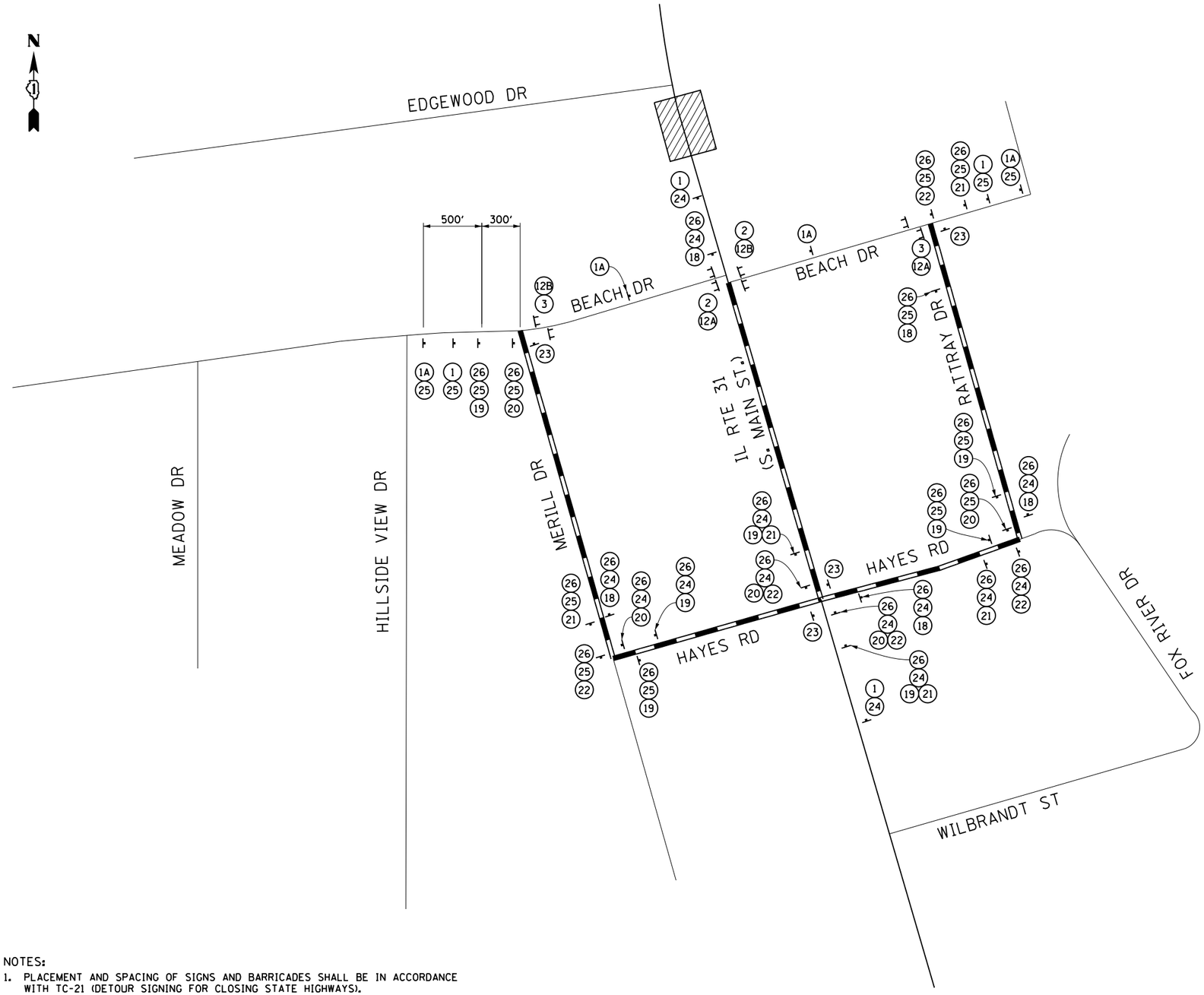
USER NAME = tsheh1	DESIGNED - DSH	REVISED -
	DRAWN - DSH	REVISED -
PLOT SCALE = 100.00 ' / in.	CHECKED - RAG	REVISED -
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -

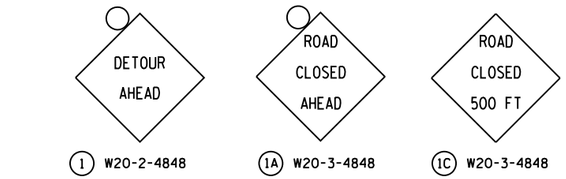
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 31 (MAIN STREET)
EDGEWOOD DR. DETOUR – STAGE I

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

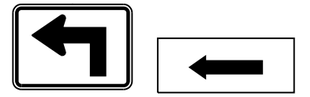
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	10
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			



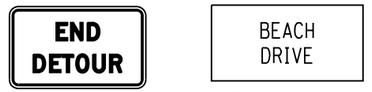


(1) W20-2-4848 (1A) W20-3-4848 (1C) W20-3-4848

(18) M6-3-2115 (19) M5-1R-2115 (20) M6-1R-2115



(21) M5-1L-2115 (22) M6-1L-2115



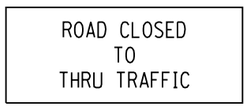
(23) M4-8A

(24) (48" X 15")

(25) (48" X 15")

(26) M4-8-2412

(2) R11-2 (48" X 30")



(3) R11-3a (60" x 30")

(12B) M4-10R (48"x18")

(12A) M4-10L (48"x18")

NOTES:

1. PLACEMENT AND SPACING OF SIGNS AND BARRICADES SHALL BE IN ACCORDANCE WITH TC-21 (DETOUR SIGNING FOR CLOSING STATE HIGHWAYS).
2. THE COST OF SUPPLYING, ERECTING AND MAINTAINING BARRICADES, WARNING LIGHTS AND SIGNS SHALL BE INCLUDED IN THE CONTRACT COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL).
3. ALL DETOUR SIGNS SHALL HAVE AN ORANGE BACKGROUND WITH BLACK LETTERS.

LEGEND:

- DETOUR ROUTE
- CONSTRUCTION ZONE
- TYPE III BARICADE WITH 2 FLASHING LIGHTS
- AMBER FLASHING LIGHT

FILE NAME = i:\8274 - IDOT PTB 168 - 07 Various\8274.19 IL31 over Edgewood Ravine overlay\CADD\D1E60M77-sht-detour.dgn

COLLINS ENGINEERS 123 N. Wacker Dr. Suite 900 Chicago, Il. 60606 Tele. (312) 704-9300 Fax (312) 704-9320 www.collinsengr.com
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

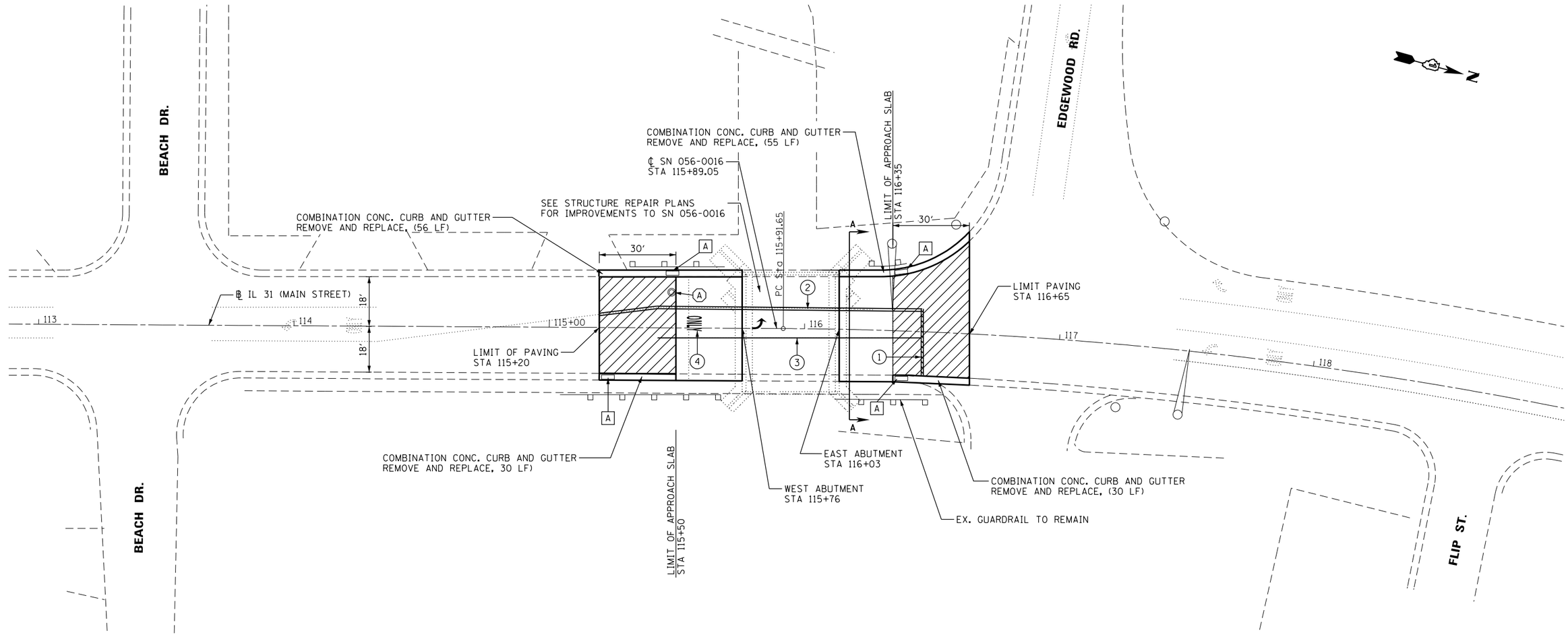
USER NAME = tsheh1	DESIGNED - DSH	REVISED -
	DRAWN - DSH	REVISED -
PLOT SCALE = 100.00 ' / in.	CHECKED - RAG	REVISED -
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -

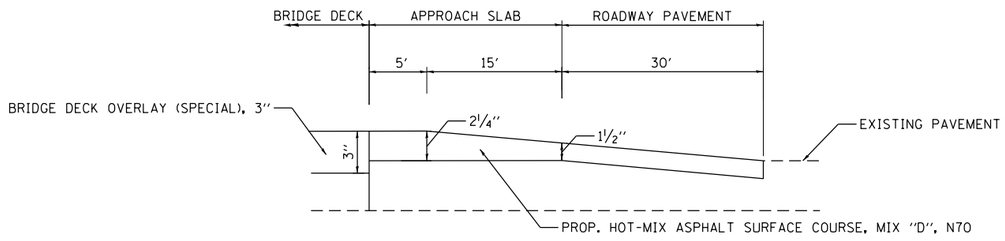
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 31 (MAIN STREET)
BEACH DR. DETOUR – STAGE II

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	10A
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			





SECTION A–A
NORTH TRANSITION

NOTE: SOUTH TRANSITION SIMILAR

PAVEMENT MARKING LEGEND:

1. 24" STOP BAR
2. 4" DOUBLE YELLOW CENTERLINE (11" C-C)
3. 6" WHITE SOLID LINE
4. LETTERS AND SYMBOLS

NOTES:

POLYUREA PAVEMENT MARKING TO BE USED ON PCC PAVEMENT SURFACES

THERMOPLASTIC PAVEMENT MARKINGS TO BE USED ON HMA SURFACES

NOTES:

1. SEE DETAIL BD-24 FOR COMBINATION CONCRETE CURB AND GUTTER DETAILS
2. SEE DETAIL BD-32 FOR BUTT JOINT AND BITUMINOUS TAPER DETAIL

LEGEND

- [A] – ADJUST FRAME AND GRATE
- (A) – ADJUST FRAME AND LID
- ▨ – HMA SURFACE REMOVAL-BUTT JOINT (30') & PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 SEE DETAIL A FOR DETAILS

COLLINS ENGINEERS
123 N. Wacker Dr.
Suite 900
Chicago, IL 60606
Tel: (312) 704-9300
Fax: (312) 704-9320
www.collinsengr.com
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-002993

USER NAME = tsheh1	DESIGNED - DSH	REVISED -	
	DRAWN - DSH	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED - RAG	REVISED -	
PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 31 (MAIN STREET)
ROADWAY PLAN

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	11
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

FILE NAME = i:\8274 - IDOT PTB 168 - 07 Various\8274\19 IL31 over Edgewood Ravine overlay\CADD\D160M77-sht-Rdw.dgn

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		RR	RR
COMMUNICATIONS CABINET	R CC	CC	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTABLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G ◄Y ◄G	R Y G ◄Y ◄G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD "RB" INDICATES REFLECTIVE BACKPLATE		R Y G ◄Y ◄G "P"	R Y G ◄Y ◄G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		1	1
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F		36F	36F
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RPF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
QUEUE DETECTOR		Q	Q
PREFORMED QUEUE DETECTOR		PQ	PQ
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET	RR	RR
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

TS SHT NO. 1

25\DGN\CADD Sheets\D160M77-TS-Sht 01.dgn

FILE NAME = S:\WP\Design\Iovan\SamplePlans\DGNFiles\TSExample01-sht-ts.dgn	USER NAME = plascenciai	DESIGNED - DAG/BCK	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	PLOT SCALE = 100.0000 ' / in.	DRAWN - BCK	REVISED -	
Default	PLOT DATE = 10/7/2015	CHECKED - DAD	REVISED -	
		DATE - 10-28-09	REVISED -	

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	12
	TS-05	CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

TSExample01-sht-ts.dgn 10/7/2015 3:53:00 PM User=plascenciai

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT 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.

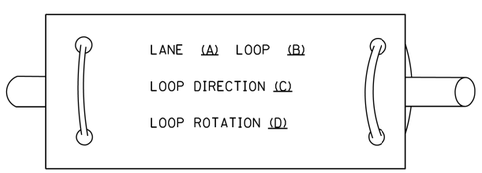
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES 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.

LOOP LEAD-IN CABLE TAG

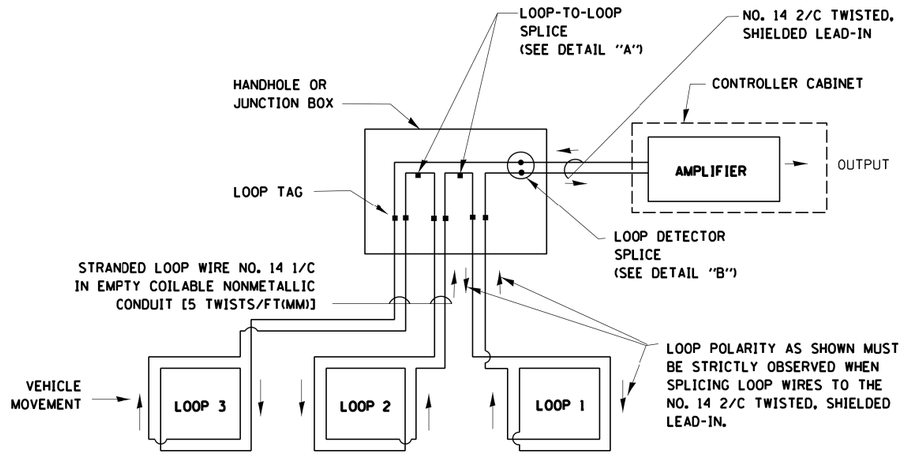


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

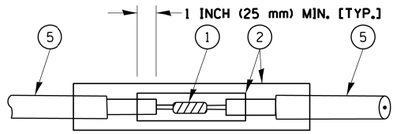
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

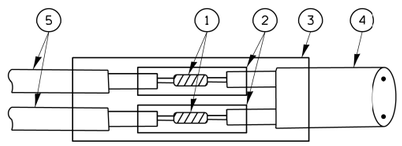


DETECTOR LOOP WIRING SCHEMATIC

- 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.

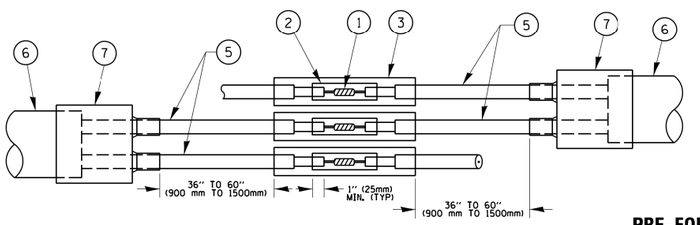


DETAIL "A"
LOOP-TO-LOOP SPLICE



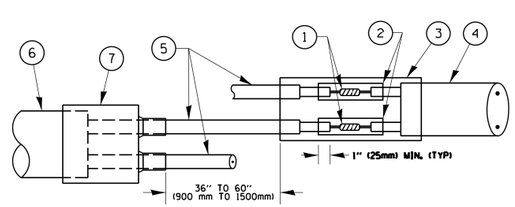
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



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. THE WESTERN UNION SPLICES SHALL BE STAGGERED.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

TS SHT NO. 2

25\DGN\CADD Sheets\D160M77-TS-Sht 02.dgn

FILE NAME = S:\WP\Design\Jovan\SamplePlans\DGNFiles\TSExample01-sht-ts.dgn Default	USER NAME = plasencia	DESIGNED -	REVISED -
	PLOT SCALE = 100.0000 '/ in.	DRAWN -	REVISED -
	PLOT DATE = 10/7/2015	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

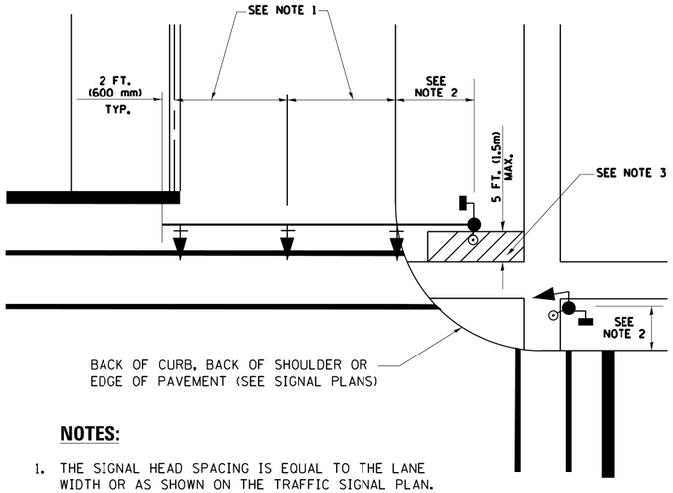
SCALE: NONE | SHEET 2 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	13
	TS-05	CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

TSExample01-sht-ts.dgn 10/7/2015 3:54:27 PM User=plasenciai

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

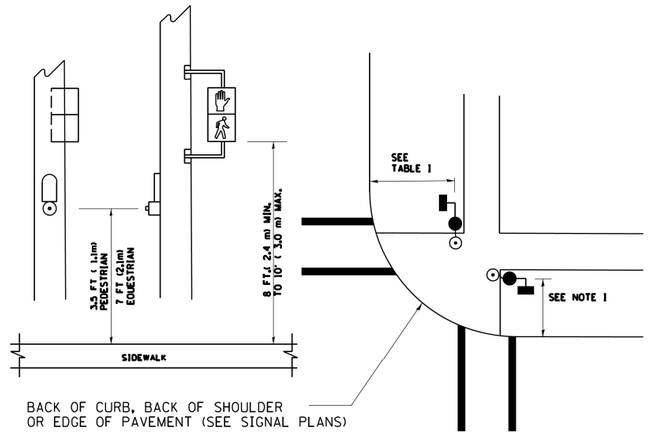
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MJTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

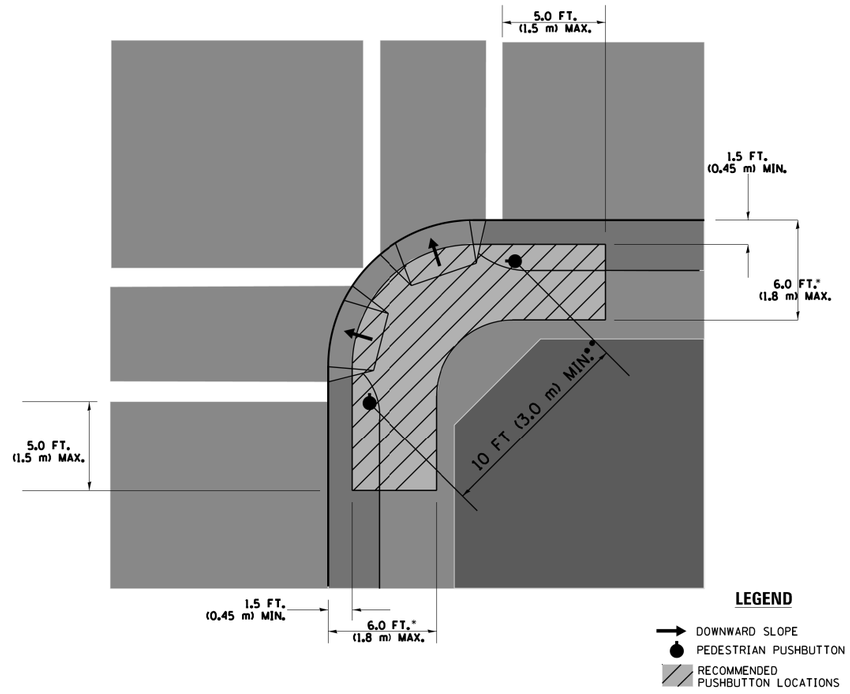
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

TS SHT NO. 3

.DGN\CADD Sheets\D60M77-TS-Sht 03.dgn

FILE NAME = S:\WP\Design\Jovan\SamplePlans\DGNFiles\TSExample01-sht-ts.dgn	USER NAME = plascenciai	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 10/7/2015	DATE -	REVISED -

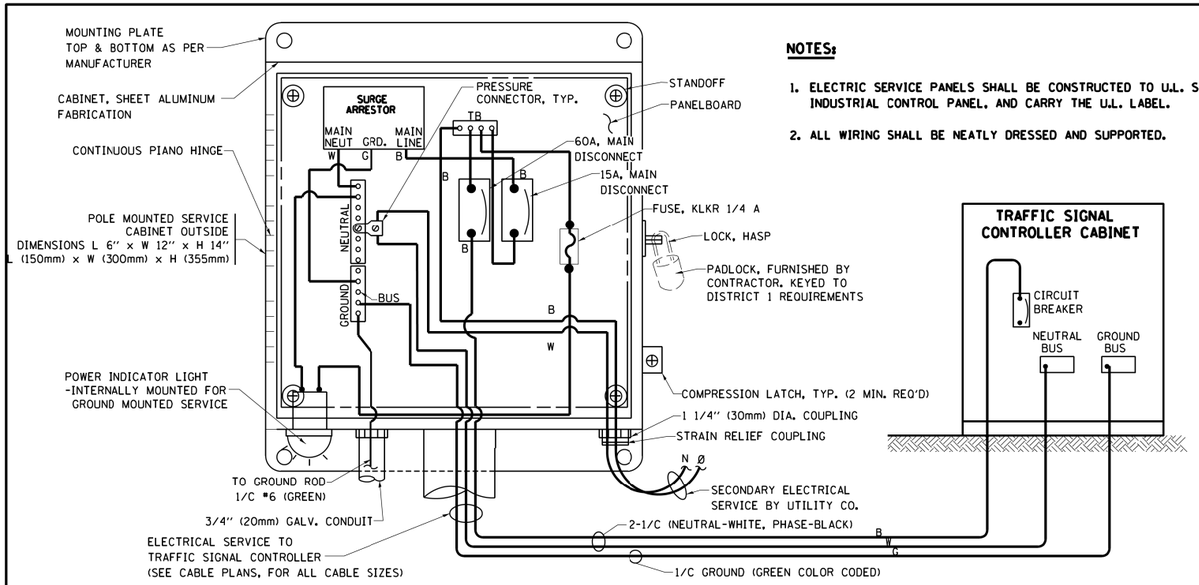
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 3 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	14
	TS-05	CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

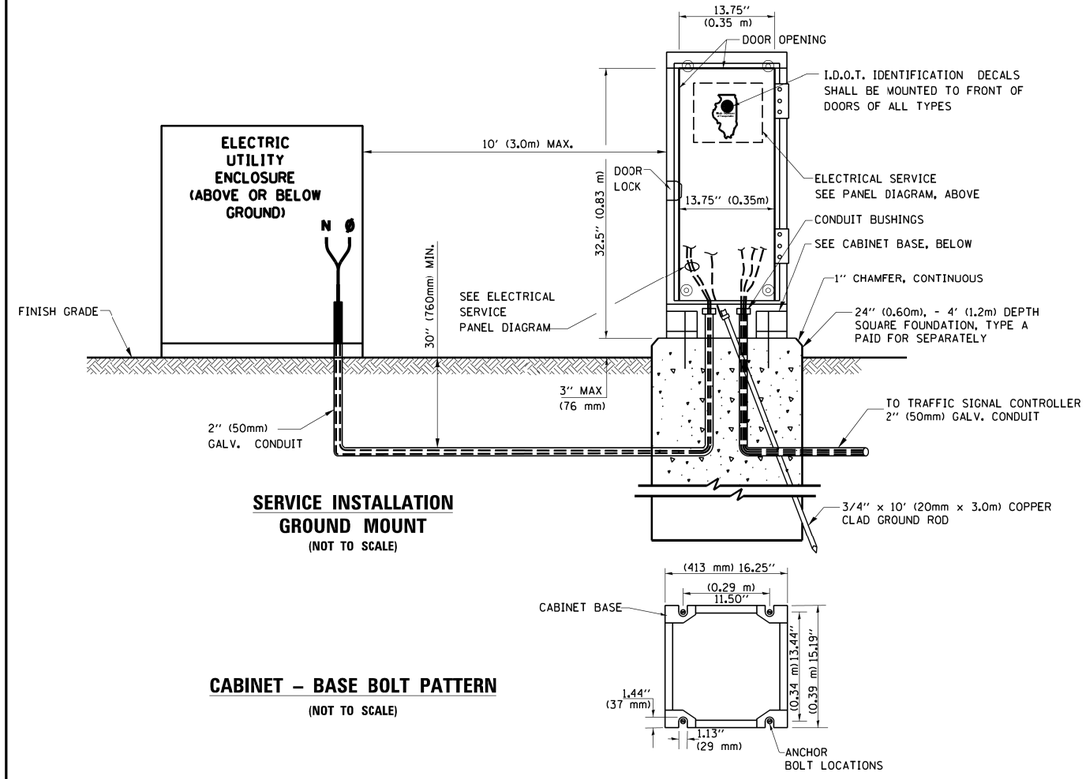
TSExample01-sht-ts.dgn 10/7/2015 3:54:40 PM User=plascenciai



NOTES:

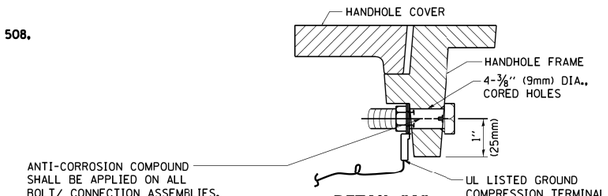
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

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

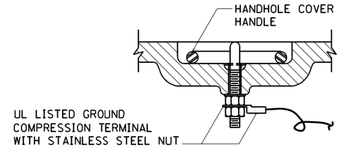


SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)

CABINET – BASE BOLT PATTERN
(NOT TO SCALE)



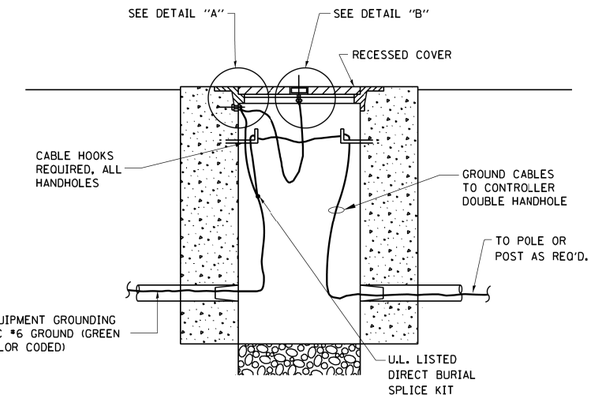
DETAIL "A"



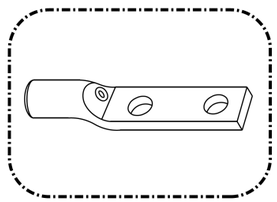
DETAIL "B"

NOTES:
GROUNDING SYSTEM

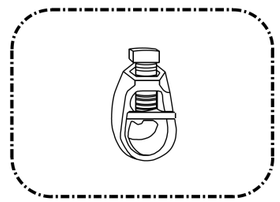
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, 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.



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



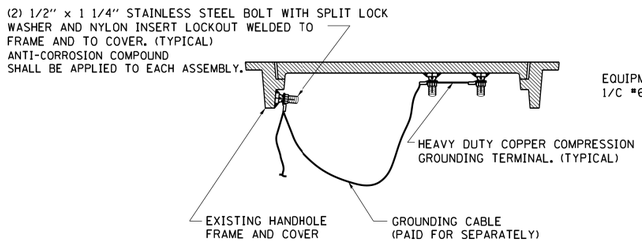
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



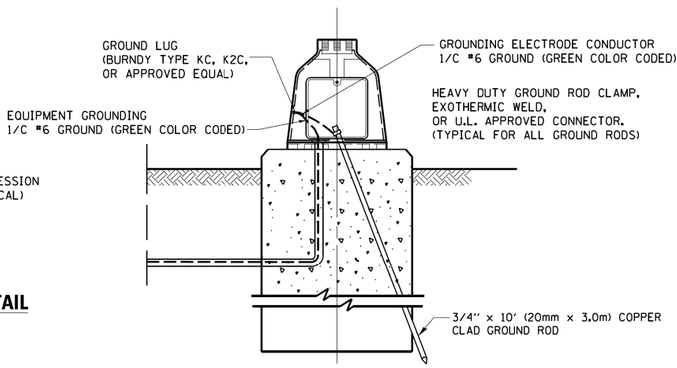
¾" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

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.



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



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

TS SHT NO. 4

\DGN\CADD Sheets\D160M77-TS-Sht 04.dgn

FILE NAME = S:\WP\Design\Iovan\SamplePlans\DGNFiles\TSExample01-sht-ts.dgn	USER NAME = plascenciai	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 10/7/2015	DATE -	REVISED -

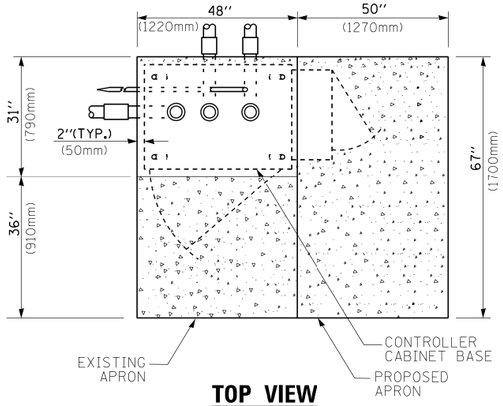
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

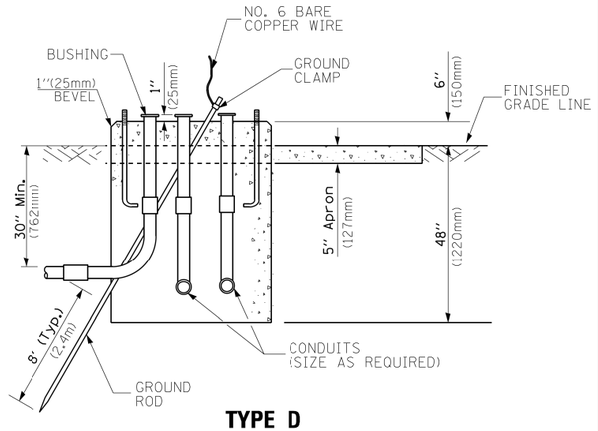
SCALE: NONE | SHEET 4 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	15
	TS-05	CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

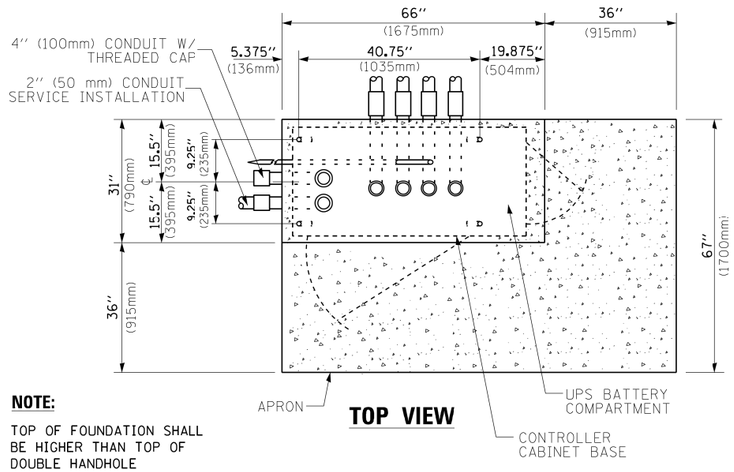
TSExample01-sht-ts.dgn 10/7/2015 3:54:53 PM User=plascenciai



TOP VIEW



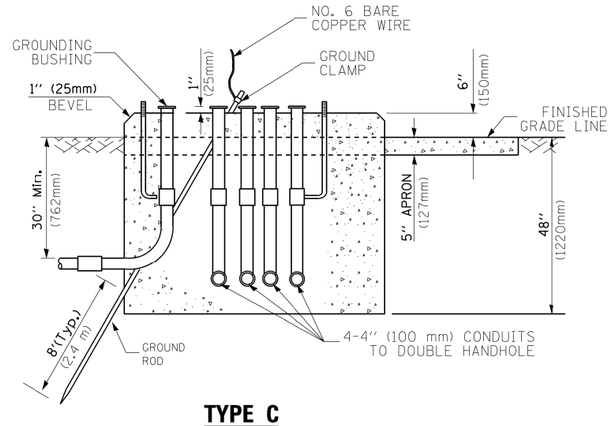
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



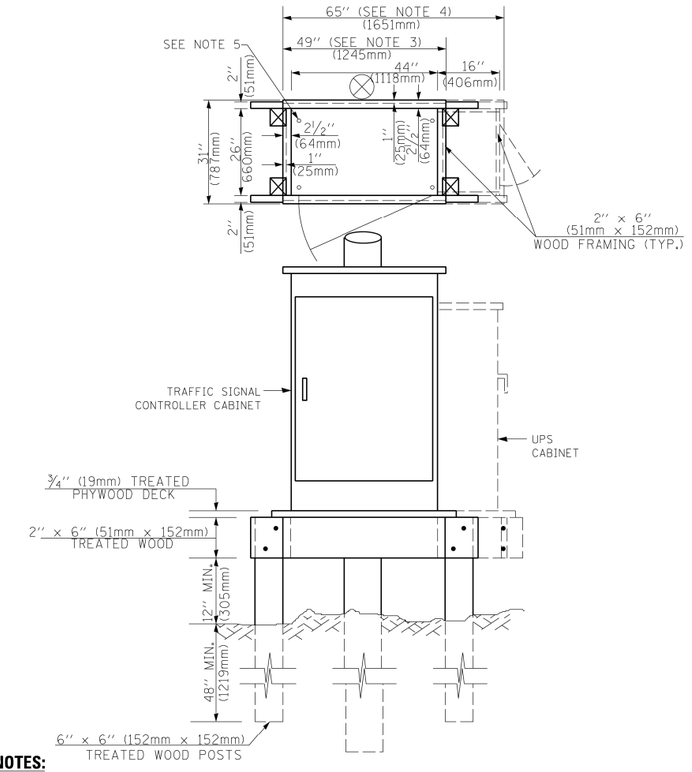
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

TOP VIEW



TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26'' x 44'' (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16'' x 25'' (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0'' (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0'' (1.2m)
TYPE D - CONTROLLER	4'-0'' (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0'' (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0'' (3.0 m)	30'' (750mm)	24'' (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6'' (4.1 m)	30'' (750mm)	24'' (600mm)	8	6(19)
	11'-0'' (3.4 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4.0 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4.6 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0'' (6.4 m)	42'' (1060mm)	36'' (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0'' (7.6 m)	42'' (1060mm)	36'' (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36'' (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42'' (1060 mm) diameter foundations
4. For mast arm assemblies with dual arms refer to state standard 878001..

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

TS SHT NO. 5

D:\DGN\CADD Sheets\D160M77-TS-Sht 05.dgn

FILE NAME = S:\WP\Design\Iovan\SamplePlans\DGNFiles\TSExample01-sht-ts.dgn	USER NAME = plasceniai	DESIGNED -	REVISED -
	PLOT SCALE = 100.0000 '/ in.	DRAWN -	REVISED -
Default	PLOT DATE = 10/7/2015	CHECKED -	REVISED -
		DATE -	REVISED -

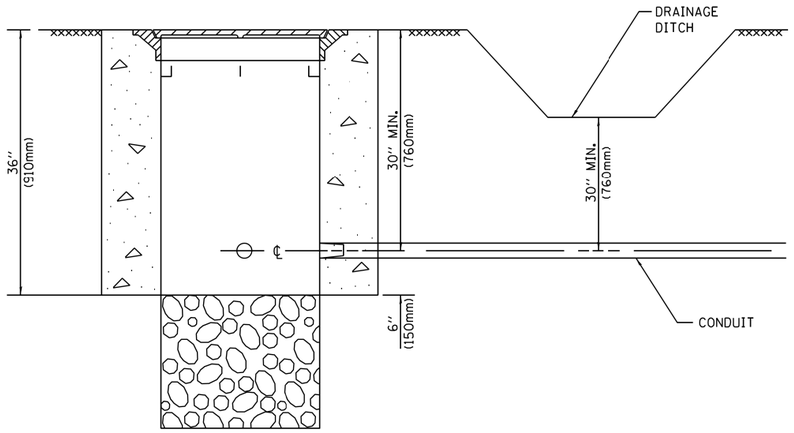
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	16
	TS-05	CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

TSExample01-sht-ts.dgn 10/7/2015 3:55:04 PM User=plasceniai

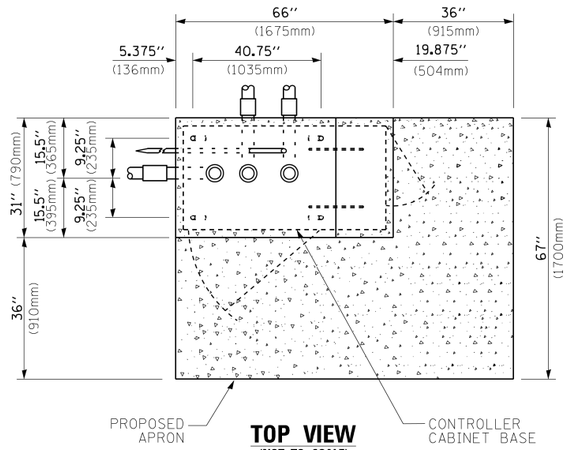


NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

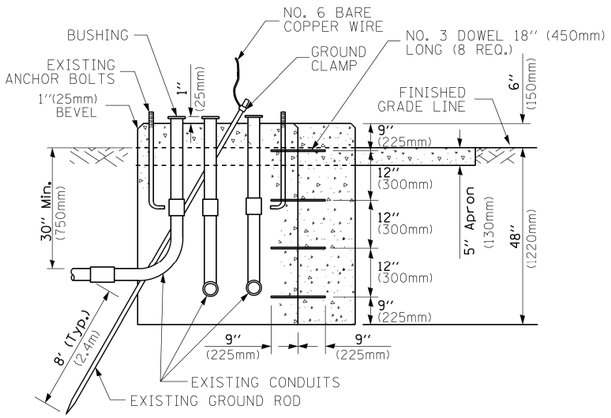
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



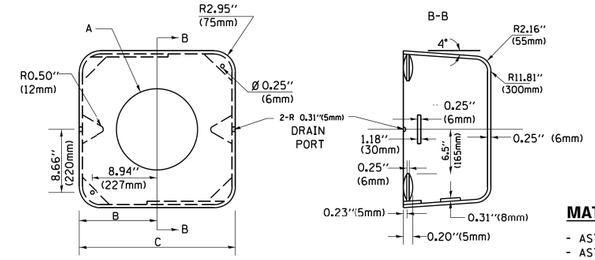
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



MATERIAL:

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

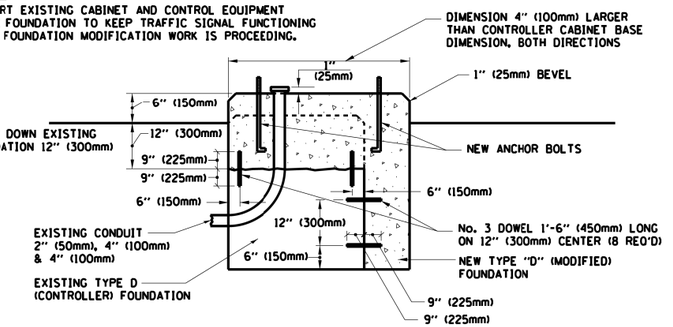
SHROUD

NOTES:

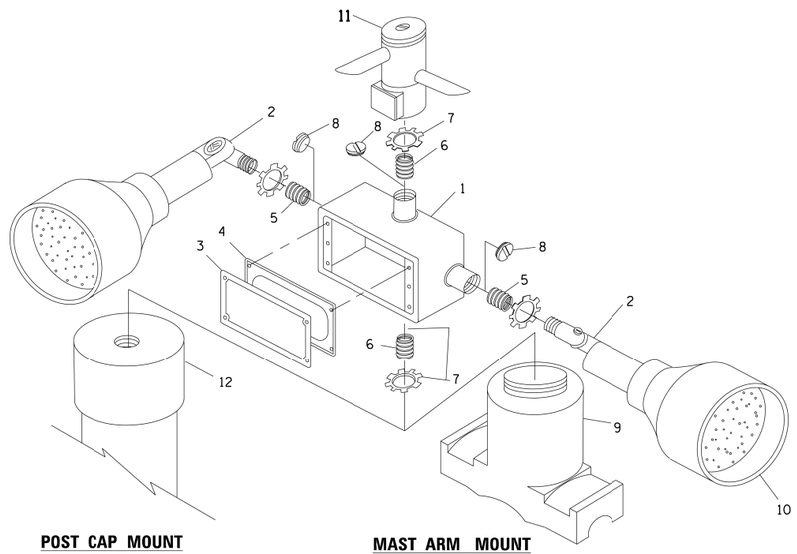
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



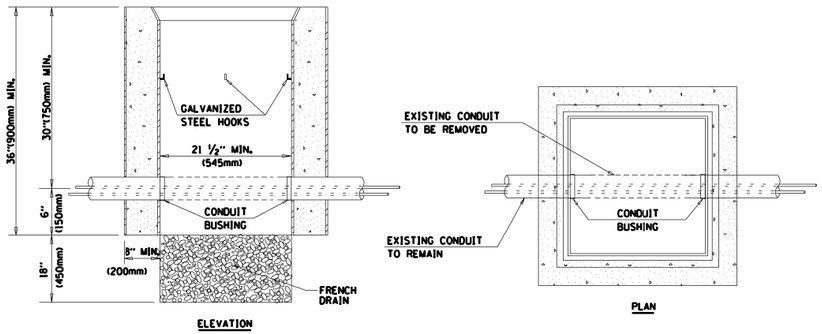
POST CAP MOUNT **MAST ARM MOUNT**

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	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. 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
3. 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 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

TS SHT NO. 6

25\DGN\CADD Sheets\D160M77-TS-Sht 06.dgn

FILE NAME =	USER NAME = plascenciai	DESIGNED -	REVISED -
S:\WP\Design\Iovan\SamplePlans\DGNFiles\TSExample01-sht-ts.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED -
Default	PLOT DATE = 10/7/2015	DATE -	REVISED -

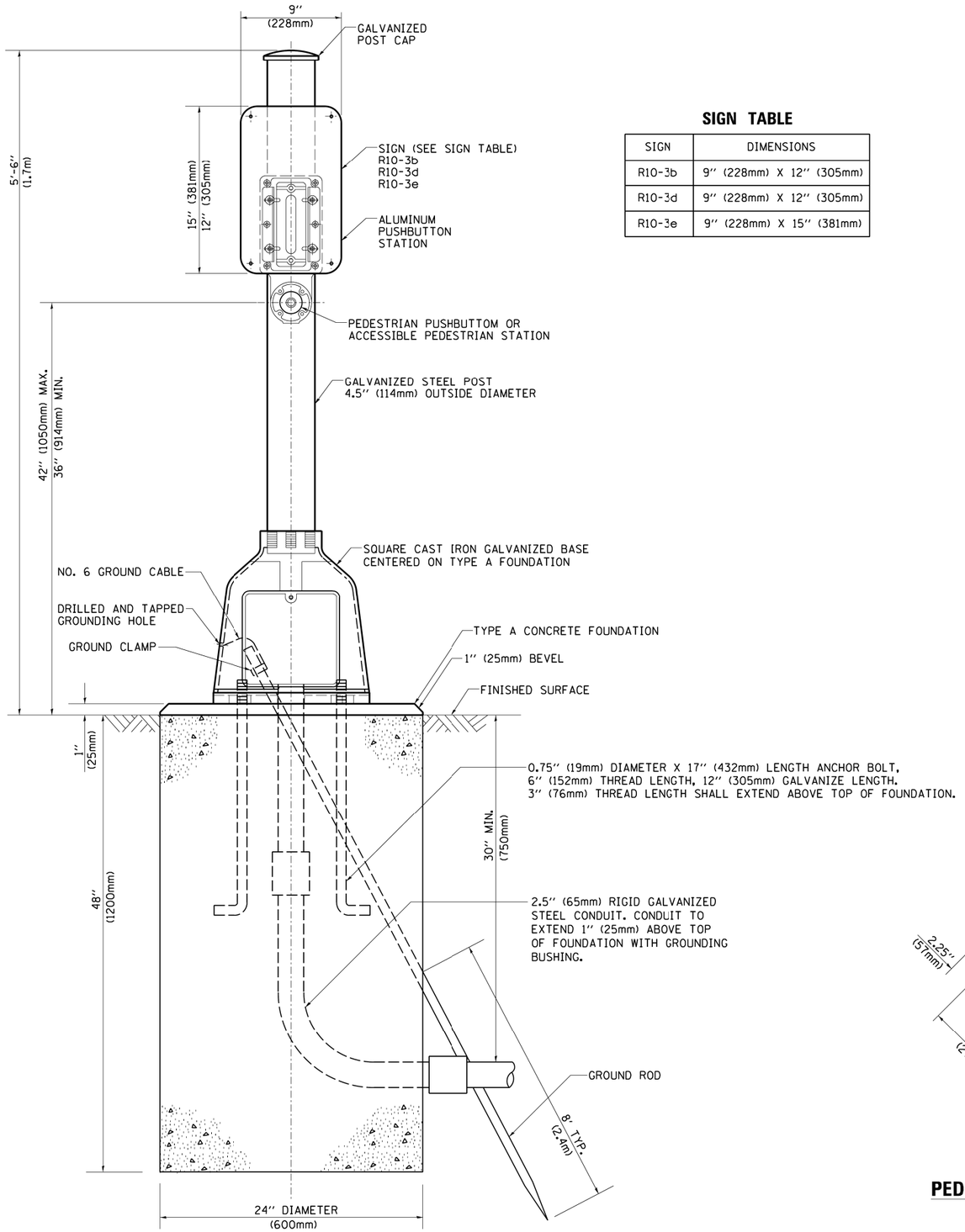
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 6 OF 7 SHEETS | STA. | TO STA.

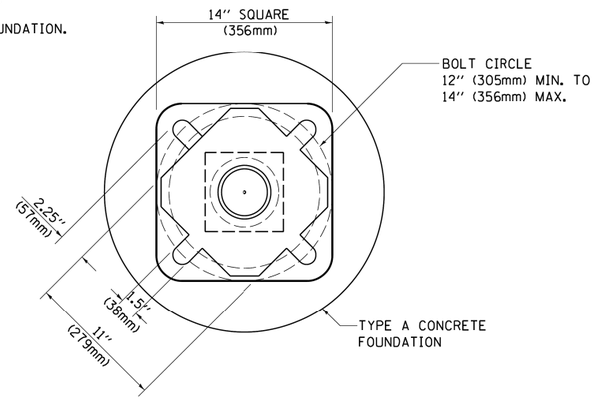
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	17
	TS-05-1	CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

TSExample01-sht-ts.dgn 10/7/2015 3:55:17 PM User=plascenciai



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9'' (228mm) X 12'' (305mm)
R10-3d	9'' (228mm) X 12'' (305mm)
R10-3e	9'' (228mm) X 15'' (381mm)



BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

TS SHT NO. 7

25\DGN\CADD Sheets\D160M77-TS-Sht 07.dgn

FILE NAME = S:\WP\Design\Iovan\SamplePlans\DGNFiles\Default	USER NAME = plascenciai	DESIGNED -	REVISED -
	TSExample01-sht-ts.dgn	DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 10/7/2015	DATE -	REVISED -

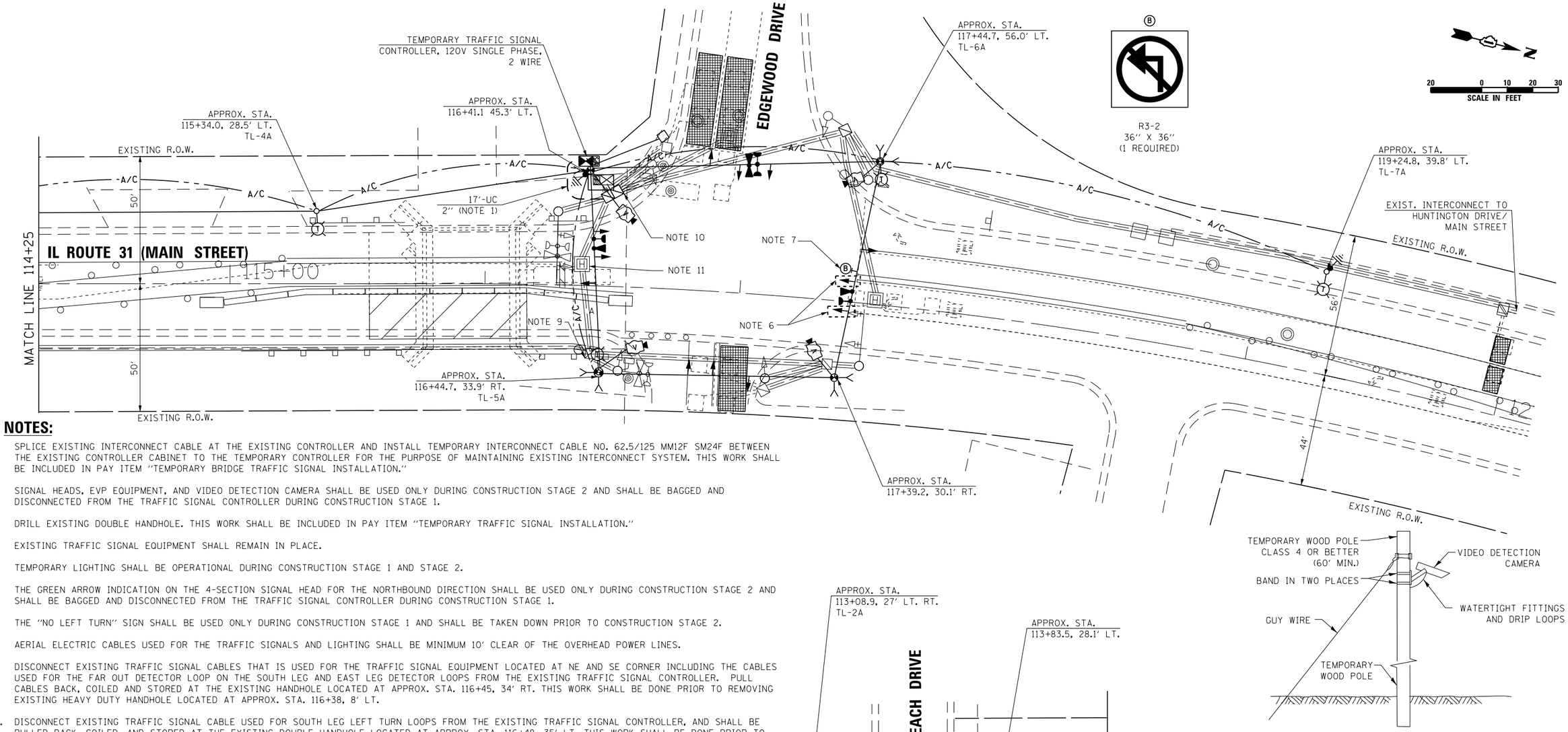
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 7 OF 7 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	18
	TS-05	CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

TSExample01-sht-ts.dgn 10/7/2015 3:55:37 PM User=plascenciai



NOTES:

1. SPLICE EXISTING INTERCONNECT CABLE AT THE EXISTING CONTROLLER AND INSTALL TEMPORARY INTERCONNECT CABLE NO. 62.5/125 MM12F SM24F BETWEEN THE EXISTING CONTROLLER CABINET TO THE TEMPORARY CONTROLLER FOR THE PURPOSE OF MAINTAINING EXISTING INTERCONNECT SYSTEM. THIS WORK SHALL BE INCLUDED IN PAY ITEM "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION."
2. SIGNAL HEADS, EVP EQUIPMENT, AND VIDEO DETECTION CAMERA SHALL BE USED ONLY DURING CONSTRUCTION STAGE 2 AND SHALL BE BAGGED AND DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLER DURING CONSTRUCTION STAGE 1.
3. DRILL EXISTING DOUBLE HANDHOLE. THIS WORK SHALL BE INCLUDED IN PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION."
4. EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL REMAIN IN PLACE.
5. TEMPORARY LIGHTING SHALL BE OPERATIONAL DURING CONSTRUCTION STAGE 1 AND STAGE 2.
6. THE GREEN ARROW INDICATION ON THE 4-SECTION SIGNAL HEAD FOR THE NORTHBOUND DIRECTION SHALL BE USED ONLY DURING CONSTRUCTION STAGE 2 AND SHALL BE BAGGED AND DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLER DURING CONSTRUCTION STAGE 1.
7. THE "NO LEFT TURN" SIGN SHALL BE USED ONLY DURING CONSTRUCTION STAGE 1 AND SHALL BE TAKEN DOWN PRIOR TO CONSTRUCTION STAGE 2.
8. AERIAL ELECTRIC CABLES USED FOR THE TRAFFIC SIGNALS AND LIGHTING SHALL BE MINIMUM 10' CLEAR OF THE OVERHEAD POWER LINES.
9. DISCONNECT EXISTING TRAFFIC SIGNAL CABLES THAT IS USED FOR THE TRAFFIC SIGNAL EQUIPMENT LOCATED AT NE AND SE CORNER INCLUDING THE CABLES USED FOR THE FAR OUT DETECTOR LOOP ON THE SOUTH LEG AND EAST LEG DETECTOR LOOPS FROM THE EXISTING TRAFFIC SIGNAL CONTROLLER. PULL CABLES BACK, COILED AND STORED AT THE EXISTING HANDHOLE LOCATED AT APPROX. STA. 116+45, 34' RT. THIS WORK SHALL BE DONE PRIOR TO REMOVING EXISTING HEAVY DUTY HANDHOLE LOCATED AT APPROX. STA. 116+38, 8' LT.
10. DISCONNECT EXISTING TRAFFIC SIGNAL CABLE USED FOR SOUTH LEG LEFT TURN LOOPS FROM THE EXISTING TRAFFIC SIGNAL CONTROLLER, AND SHALL BE PULLED BACK, COILED, AND STORED AT THE EXISTING DOUBLE HANDHOLE LOCATED AT APPROX. STA. 116+48, 35' LT. THIS WORK SHALL BE DONE PRIOR TO REMOVING EXISTING HEAVY DUTY HANDHOLE LOCATED AT APPROX. STA. 116+38, 8' LT.
11. REMOVE EXISTING HEAVY DUTY HANDHOLE.

TEMPORARY VIDEO DETECTION MOUNTING DETAIL

NOT TO SCALE

LIGHTING LEGEND:

- 400W, 120V, ML III HPS WITH PHOTOCELL, 15' MA, 50' M.H ON WOOD POLE, CLASS 4 TEMPORARY WOOD POLE, NOMINAL 60', CLASS 4
- TEMPORARY WOOD POLE, NOMINAL 60', CLASS 4
- A/C — PROPOSED AERIAL LIGHTING CABLE 2-1/C #2, WITH MESSENGER WIRE
- TEMPORARY SERVICE DISCONNECT BOX. FOR LIGHTING & TRAFFIC SIGNAL, 1-P, 60A FOR LIGHTING, 1-P, 60A FOR TRAFFIC SIGNALS

TS 4660
ECONOLITE

TS SHT NO. 8

J:\3159.25\DGN\CADD Sheets\DI60M77-TS-Sht 08.dgn
30-DEC-2015 14:41

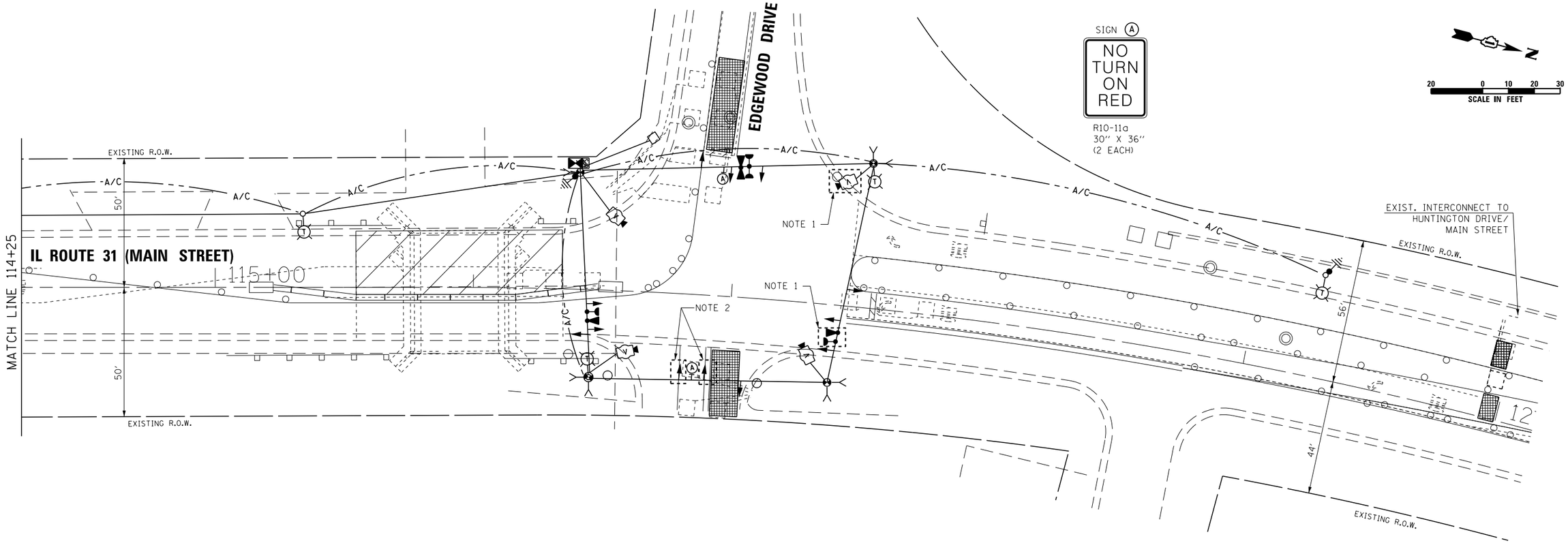
SINGH + ASSOCIATES, INC CONSULTING ENGINEERS	USER NAME = mgarvida	DESIGNED - MG	REVISED -
		DRAWN - JA	REVISED -
	PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -
	PLOT DATE = 30-DEC-2015 14:41	DATE - 12/30/2015	REVISED -

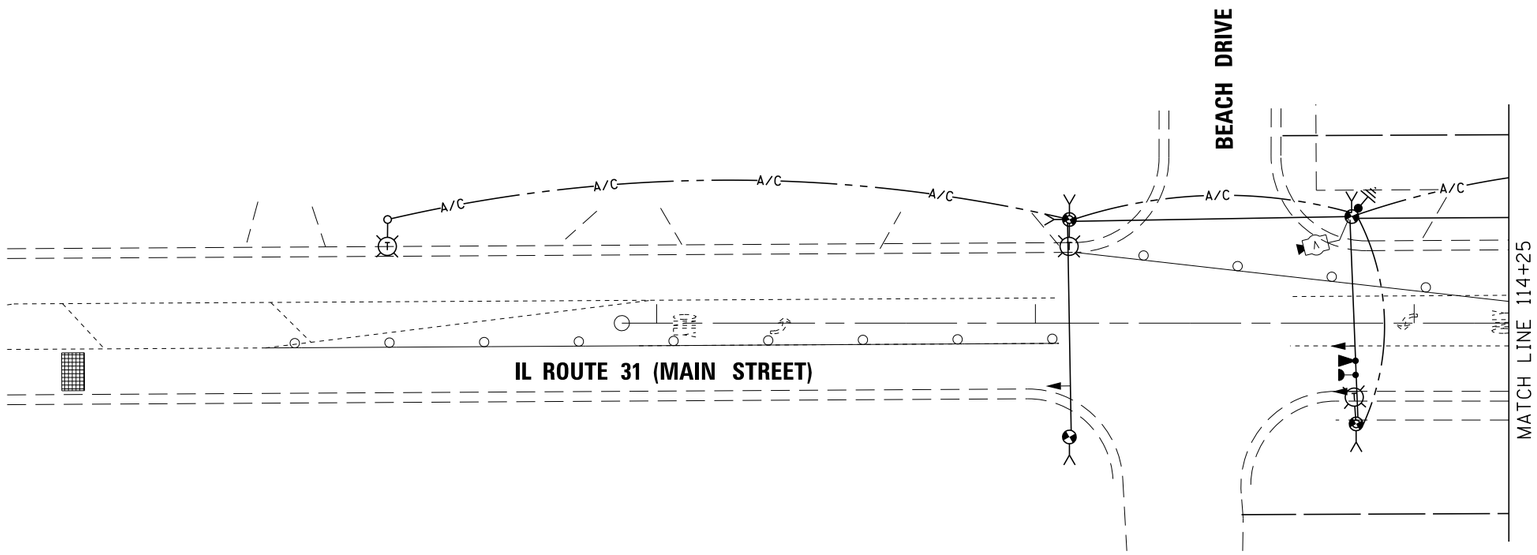
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVAL PLAN
IL ROUTE 31 (MAIN STREET) AT EDGEWOOD DRIVE
STAGE 1

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	19
		CONTRACT NO. 60M77		
		ILLINOIS	FED. AID PROJECT	





NOTE:

1. EVP EQUIPMENT AND VIDEO DETECTION CAMERA SHALL BE USED ONLY DURING CONSTRUCTION STAGE 1 AND SHALL BE BAGGED AND DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLER DURING CONSTRUCTION STAGE 2.

2. YELLOW ARROW AND GREEN ARROW INDICATION SHALL BE USED ONLY DURING CONSTRUCTION STAGE 1 AND SHALL BAGGED AND DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLER DURING CONSTRUCTION STAGE 2.

TS SHT NO. 9

J:\13159.25\DGN\CADD Sheets\DI60M77-TS-Sht 09.dgn
30-DEC-2015 14:41

TS 4660
ECONOLITE

SINGH + ASSOCIATES, INC CONSULTING ENGINEERS

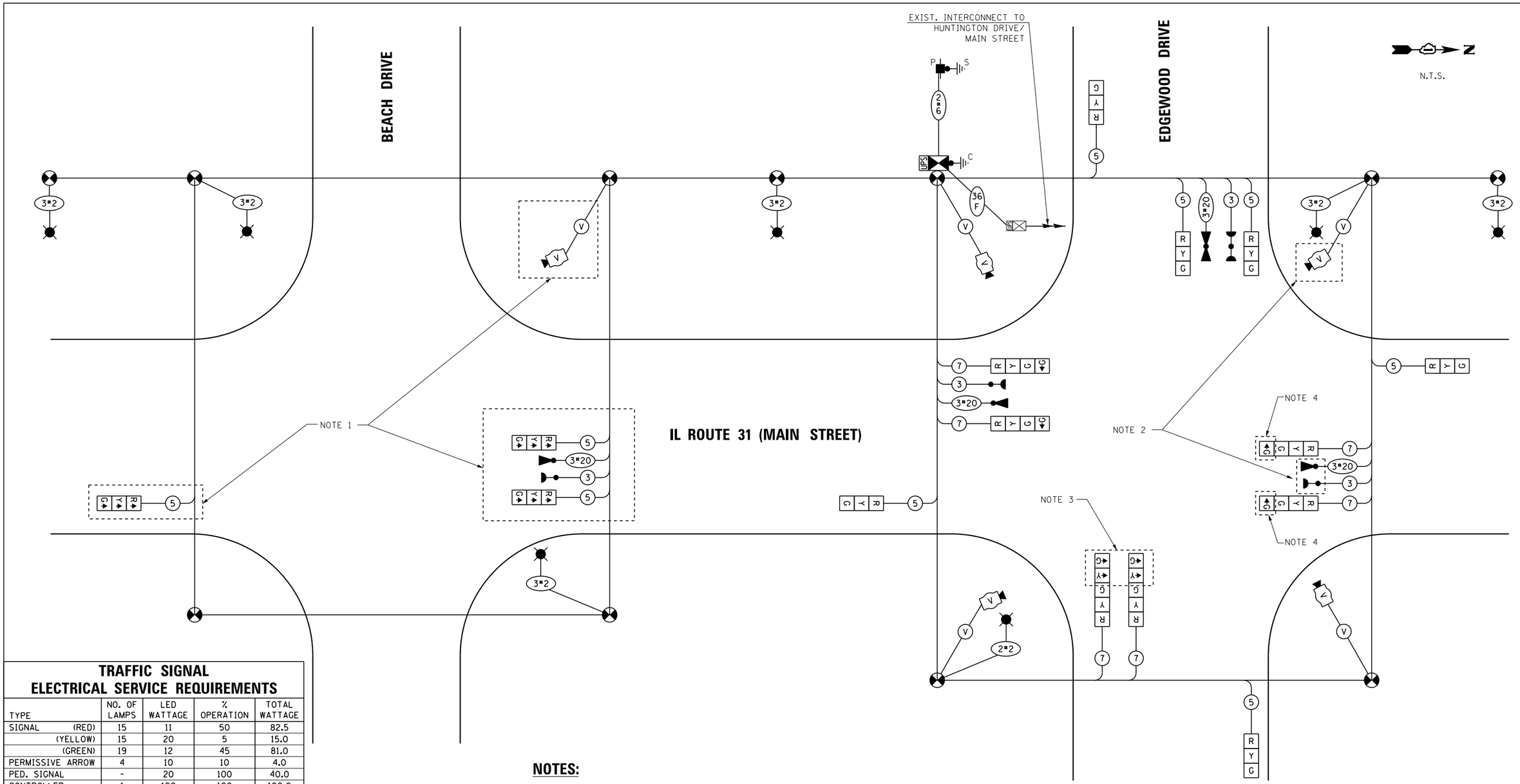
USER NAME = mgarvida	DESIGNED - MG	REVISED -
	DRAWN - JA	REVISED -
PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -
PLOT DATE = 30-DEC-2015 14:41	DATE - 12/30/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
IL ROUTE 31 (MAIN STREET) AT EDGEWOOD DRIVE
STAGE 2

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	20
		CONTRACT NO. 60M77		
		ILLINOIS FED. AID PROJECT		



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	15	11	50	82.5
(YELLOW)	15	20	5	15.0
(GREEN)	19	12	45	81.0
PERMISSIVE ARROW	4	10	10	4.0
PED. SIGNAL	-	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	7	480	50	1680
			TOTAL =	2177.5

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MIKE LENOX
PHONE: (815) 490-2869
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---

NOTES:

1. SIGNAL HEADS, EVP EQUIPMENT, AND VIDEO DETECTION CAMERA SHALL BE USED ONLY DURING CONSTRUCTION STAGE 2 AND SHALL BE BAGGED AND DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLER DURING CONSTRUCTION STAGE 1.

2. EVP EQUIPMENT AND VIDEO DETECTION CAMERA SHALL BE USED ONLY DURING CONSTRUCTION STAGE 1 AND SHALL BE BAGGED, AND DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLER DURING CONSTRUCTION STAGE 2.

3. YELLOW ARROW AND GREEN ARROW INDICATION ON THE 5-SECTION SIGNAL HEAD SHALL BE USED ONLY DURING CONSTRUCTION STAGE 1 AND SHALL BE BAGGED AND DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLER DURING STAGE 2.

4. GREEN ARROW INDICATION ON THE 4-SECTION SIGNAL HEAD SHALL BE USED ONLY DURING CONSTRUCTION STAGE 2 AND SHALL BE DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLER DURING CONSTRUCTION STAGE 1.

TS 4660
ECONOLITE

TS SHT NO. 10

J:\3159.25\DGN\CADD Sheets\DI60M77-TS-Sht 10.dgn
30-DEC-2015 14:41

SINGH + ASSOCIATES, INC. CONSULTING ENGINEERS

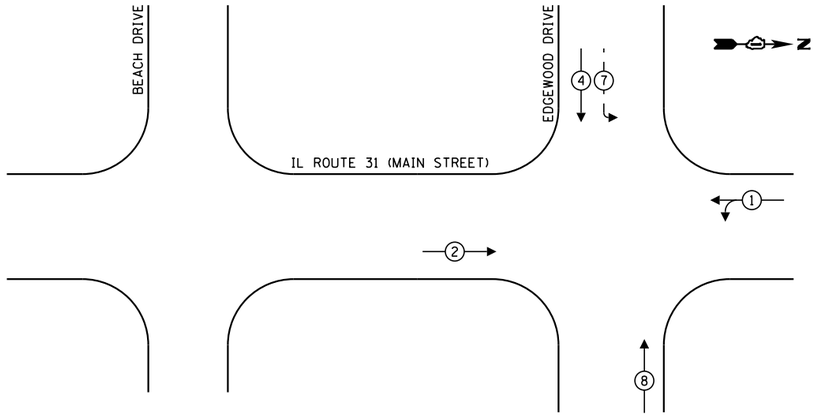
USER NAME = mgarvida	DESIGNED - MG	REVISED -	
	DRAWN - JA	REVISED -	
PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -	
PLOT DATE = 30-DEC-2015 14:41	DATE - 12/30/2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
IL ROUTE 31 (MAIN STREET) AT EDGEWOOD DRIVE

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

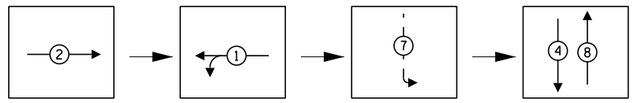


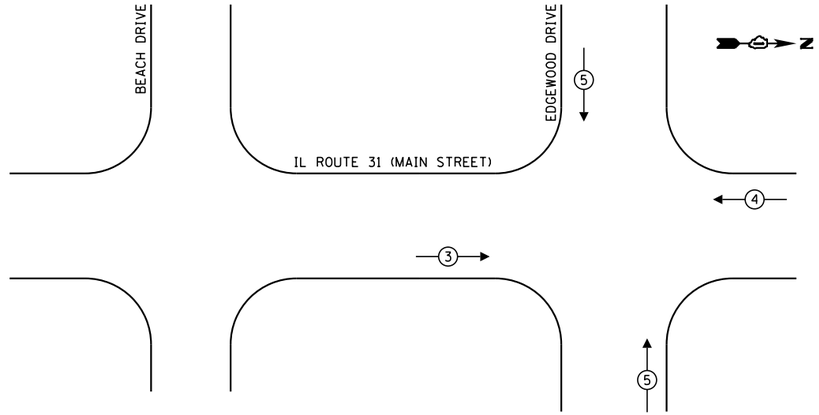
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OVERLAP (OL)
- SPLIT PHASE

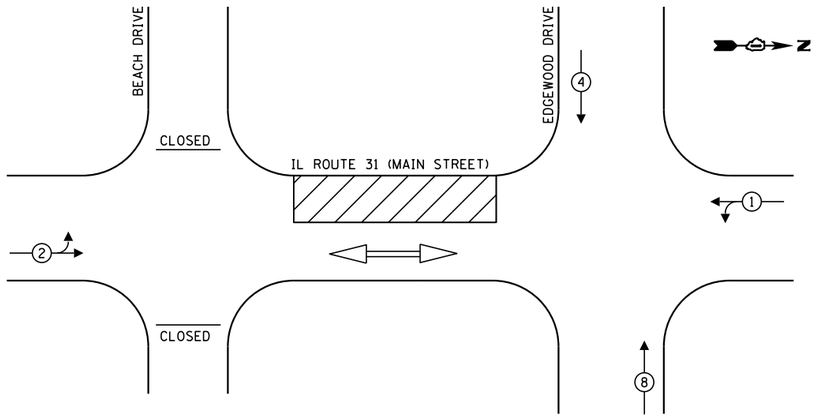
TEMPORARY CONTROLLER SEQUENCE–STAGE 1

FOR PHASES 1, 2, 4, 7, 8 IN THE PHASE DESIGNATION DIAGRAM SHOWN ABOVE, THE FOLLOWING SEQUENCE SHALL BE FOLLOWED.





TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE–STAGE 1

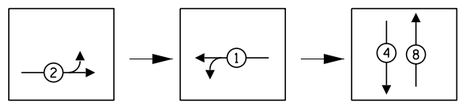


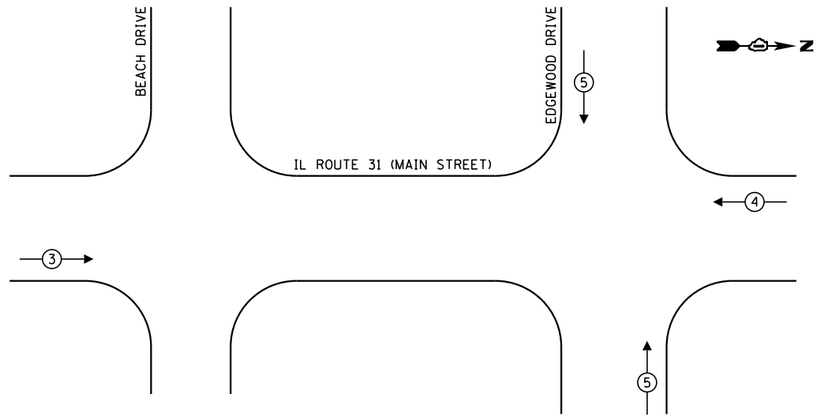
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OVERLAP (OL)
- SPLIT PHASE

TEMPORARY CONTROLLER SEQUENCE–STAGE 2

FOR PHASES 1, 2, 4, 8 IN THE PHASE DESIGNATION DIAGRAM SHOWN ABOVE, THE FOLLOWING SEQUENCE SHALL BE FOLLOWED.





TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE–STAGE 2

TS SHT NO. 11

J:\3159.25\DGN\CADD Sheets\D160M77-TS-Sht 11.dgn
30-DEC-2015 14:41

TS 4660
ECONOLITE

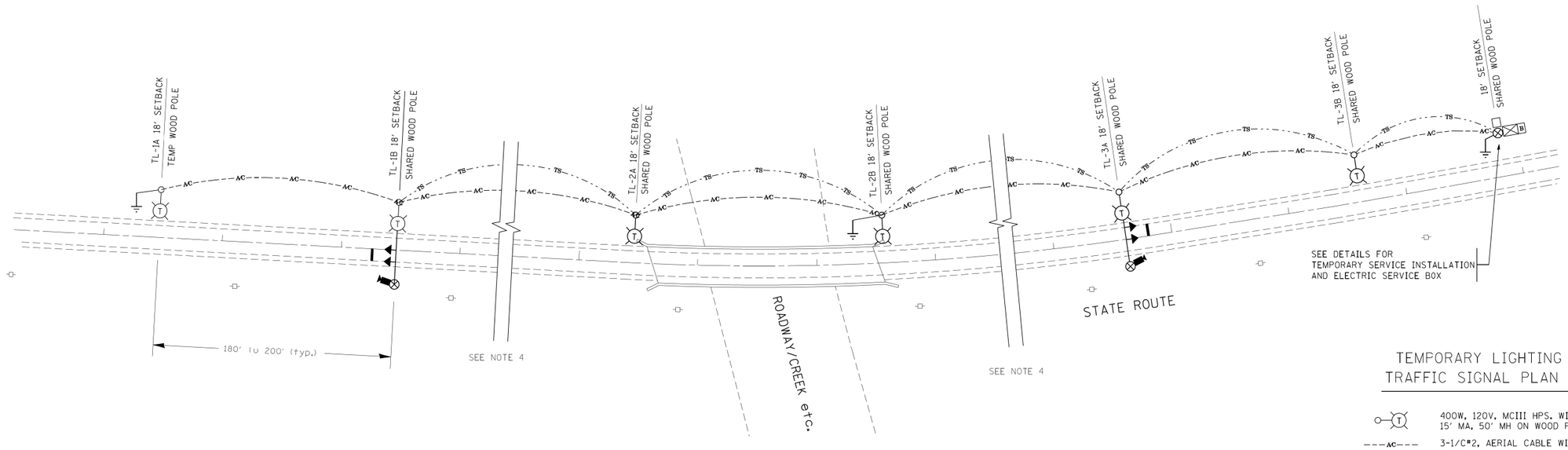
SINGH + ASSOCIATES, INC. CONSULTING ENGINEERS	USER NAME = mgarvida	DESIGNED - MG	REVISED -
		DRAWN - JA	REVISED -
	PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -
	PLOT DATE = 30-DEC-2015 14:41	DATE - 12/30/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
IL ROUTE 31 (MAIN STREET) AT EDGEWOOD DRIVE

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21A
		CONTRACT NO. 60M77		
	ILLINOIS	FED. AID PROJECT		



TYPICAL LAYOUT FOR TEMPORARY LIGHTING AND TRAFFIC SIGNALS

NOT TO SCALE

TEMPORARY LIGHTING AND TRAFFIC SIGNAL PLAN LEGEND

T	400W, 120V, MCIII HPS, WITH PHOTO CELL 15' MA, 50' MH ON WOOD POLE, CLASS 4
AC	3-1/C#2, AERIAL CABLE WITH MESSENGER WIRE UNLESS OTHERWISE NOTED
TL-1A	TEMPORARY LIGHTING UNIT NUMBER - ONE CIRCUIT A
	GROUND ROD 5/8" DIA. x 10'
	COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRICAL SERVICE BOX
	TEMPORARY WOOD POLE - NOMINAL 60 FT., CLASS 4
	TEMPORARY LED TRAFFIC SIGNAL HEAD, NUMBER OF SECTION AND DISPLAY AS REQUIRED.
TS	TEMPORARY TRAFFIC SIGNAL SPAN WIRE, NUMBER OF CONDUCTORS AS REQUIRED.
B	TEMPORARY TRAFFIC CONTROLLER WITH UPS AND BOTTOM PLATE MOUNTED TO WOOD POLE
	TEMPORARY VIDEO DETECTOR

GENERAL NOTES:

1. CONTACT TO THE ELECTRIC UTILITY SHALL BE INITIATED BEFORE THE PRECONSTRUCTION MEETING, AND DOCUMENTATION OF CONTACT SHALL BE PRESENTED AT THAT MEETING. NO PLACEMENT OF POLES WILL BE ALLOWED WITHOUT EVIDENSE OF A SIGNED AGREEMENT WITH THE ELECTRIC UTILITY, FURNISHED TO THE ENGINEER.

2. UNLESS OTHERWISE INDICATED, AND EXCEPT AS OTHERWISE NOTED, THIS STANDARDIZED LAYOUT SHALL APPLY FOR BRIDGES NOT EXCEEDING A 250-FOOT SPAN. FOR BRIDGE SPANS IN EXCESS OF 250 FEET, THE POLES IMMEDIATELY ADJACENT TO THE BRIDGE SHALL BE 100-FOOT POLES (90-FOOT MOUNTING HEIGHT), WITH 750-WATT TYPE III HIGH PRESSURE SODIUM HIGH-MAST LUMINAIRES AS APPROVED BY THE ENGINEER.

3. THE LAYOUT OF THE TEMPCRARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES, TRAFFIC SIGNALS, AND COMBINED SERVICE. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED

4. THE ELECTRIC SERVICE SHALL BE 240/120V. WHERE 240V SERVICE IS NOT AVAILABLE, THE CONTRACTOR MAY SUBMIT A PROPOSAL FOR 120V SERVICE. DROP CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED AND INCLUDED REGARDLESS OF THE SERVICE VOLTAGE APPLIED

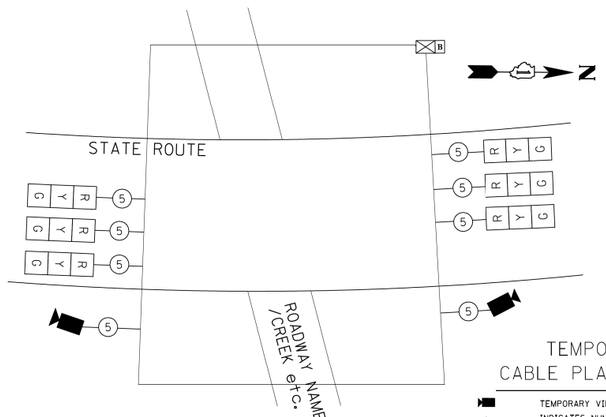
5. THE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATION SHALL SHARE ANY COMMON ELEMENTS SUCH AS WOOD POLES, ELECTRICAL SERVICE, ELECTRIC SERVICE BOX, CABLE, ETC. THE CONTRACTOR SHALL COORDINATE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATIONS.

6. THE LIGHT POLE SETBACK FROM THE EDGE OF TRAVEL PAVEMENT SHALL BE 18 FT. UNLESS THE LIGHT POLE IS BEHIND GUARDRAIL. THE LIGHT POLES INSTALLED BEHIND THE GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 8 FT. SETBACK FROM THE BACK OF THE SHOULDER AND OR AS DIRECTED BY THE ENGINEER.

7. EACH LIGHTING UNIT SHALL BE CONTROLLED BY A PHOTO CELL MOUNTED ON EACH LUMINAIRE WITH THE LIGHTING CIRCUIT FED FROM THE TEMPORARY SERVICE DISCONNECT BOX. OTHER MEANS OF LUMINAIRE CONTROL CAN BE CONSIDERED IF APPROVED BY THE ENGINEER.

8. THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH THE FACTORY APPLIED WATERPROOF SEALENT OR AN APPROVED UL LISTED AERIAL TAP DEVICE.

9. ALL AREAS DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ENGINEER.

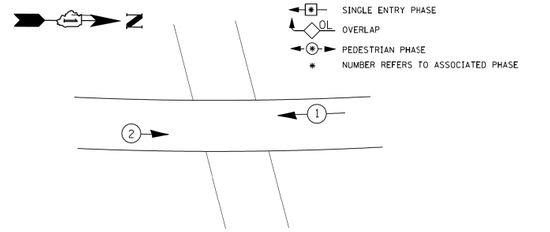


TEMPORARY CABLE PLAN (TYPICAL)

NOT TO SCALE

TEMPORARY CABLE PLAN LEGEND

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



TEMPORARY PHASE DESIGNATION DIAGRAM LEGEND

	DUAL ENTRY PHASE
	SINGLE ENTRY PHASE
OL	OVERLAP
	PEDESTRIAN PHASE
*	NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM (TYPICAL)

NOT TO SCALE

J:\CADD Sheets\D160M77-TS-Sht 20.dgn

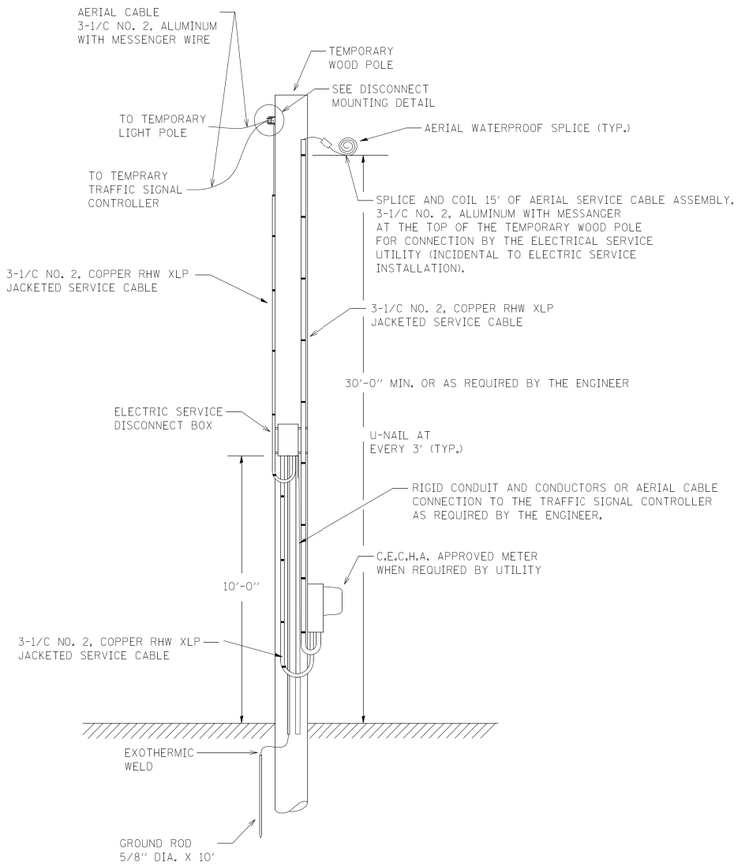
FILE NAME = c:\pw_work\PWIDOT\BAUERDL\d0108315\be805.dgn	USER NAME = bauerdl	DESIGNED - MP	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/14/2010	DATE - 01/14/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING

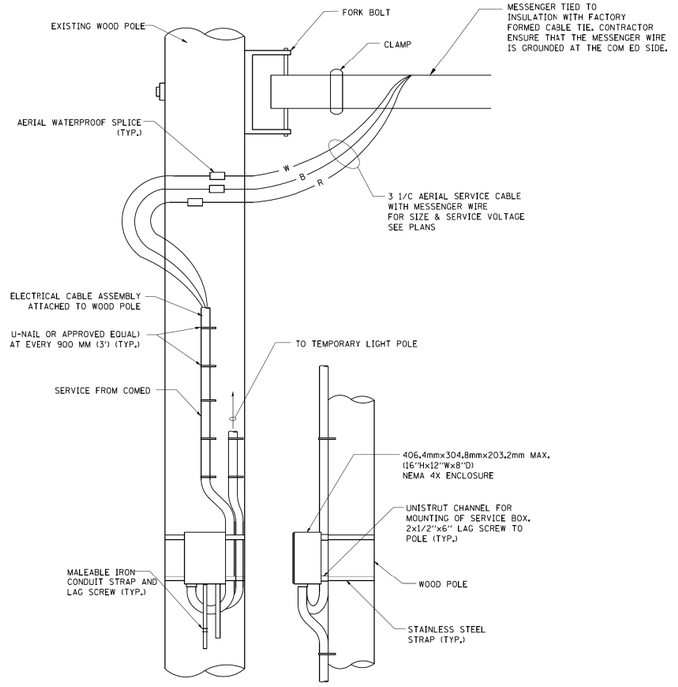
SCALE: NONE | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21J
	BE-805	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



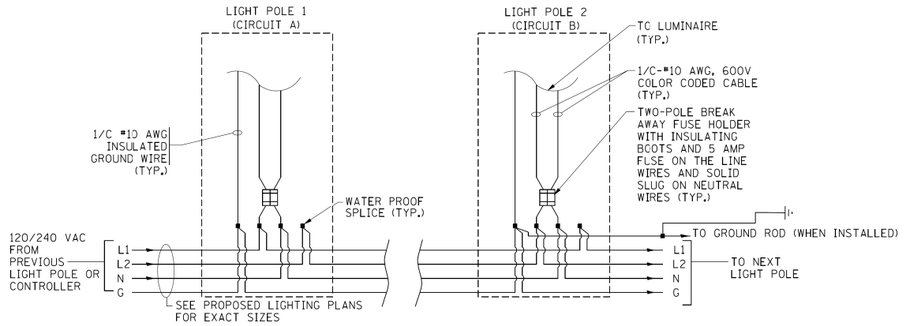
TEMPORARY SERVICE INSTALLATION DETAIL

NOT TO SCALE



DISCONNET MOUNTING DETAIL

NOT TO SCALE



LIGHT POLE WIRING DETAIL

NOT TO SCALE

2N:\CADD Sheets\D160M77-TS-Sht 2.dgn

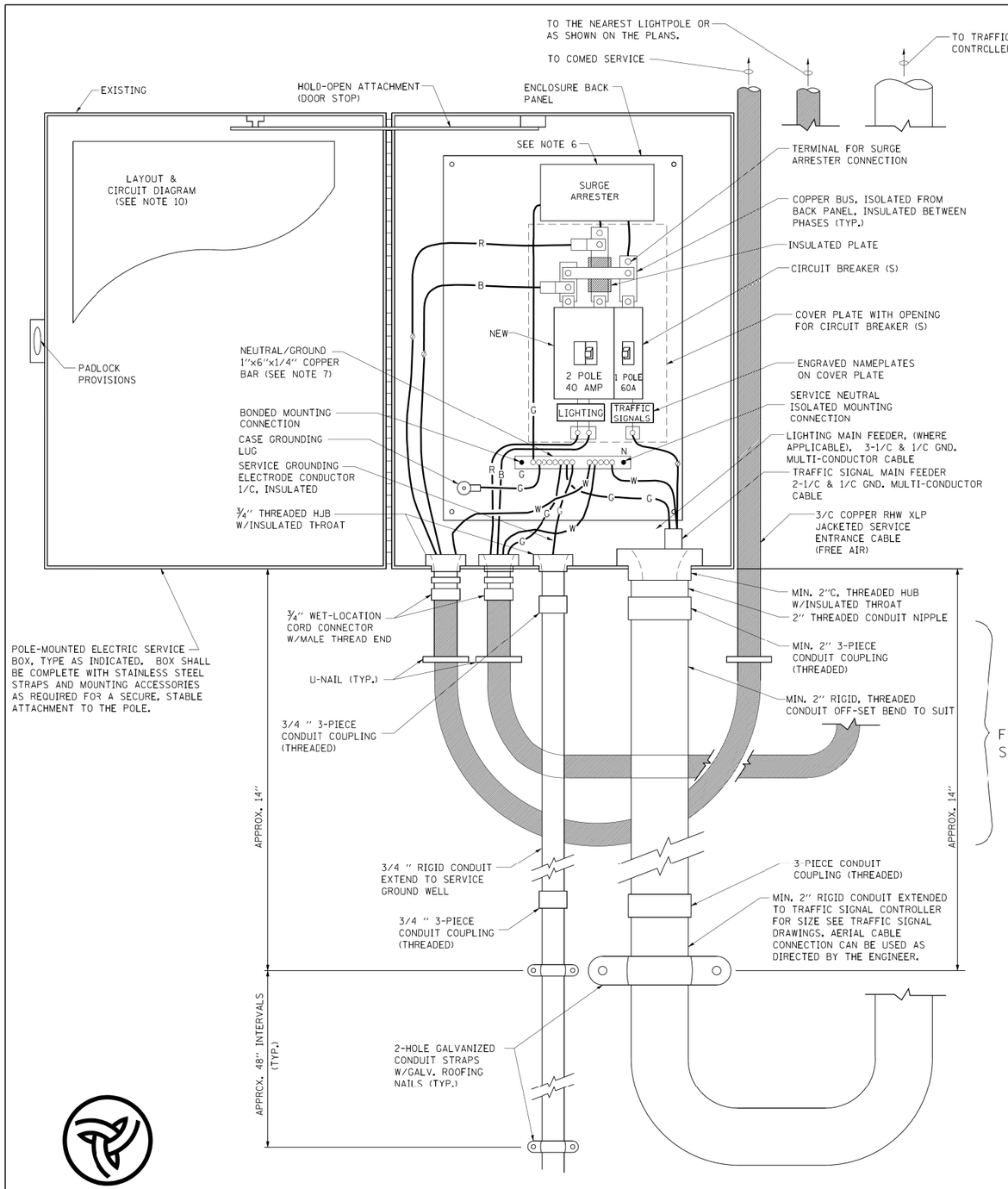
FILE NAME = c:\pw_work\PWIDOT\BAUERDL\d0108315\be805.dgn	USER NAME = bauerdl	DESIGNED - MP	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/14/2010	DATE - 01/14/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING

SCALE: NONE | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21K
	BE-805	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

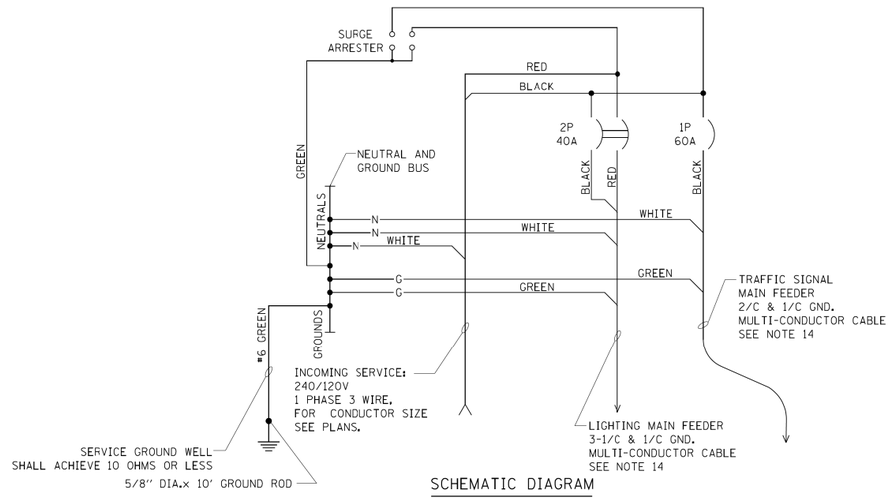


POLE-MOUNTED ELECTRIC SERVICE ENTRANCE
GENERAL LAYOUT DIAGRAM
NOT TO SCALE

6" DECAL ON FRONT COVER

NOTES:

1. ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED 3Y THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
2. THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 240/120V 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER AND TRAFFIC SIGNALS MAIN BREAKER AS REQUIRED.
3. THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
4. THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H1208SS6LP/A-16 P12/A-DSTOPX/C-PMK12, OR APPROVED EQUAL.
5. CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/ TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
6. THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CMOV230LO65XST OR APPROVED EQUAL.
7. BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
8. THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
9. THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
10. A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
11. A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
12. LUGS AND CONNECTORS SHALL BE RATED FOR 75 C CONDUCTOR.
13. THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.



SCHEMATIC DIAGRAM

FILE NAME = c:\pw_work\PWIDOT\BAUERDL\d0108315\be805.dgn	USER NAME = bauerdl	DESIGNED - MP	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/14/2010	DATE - 01/14/10	REVISED -

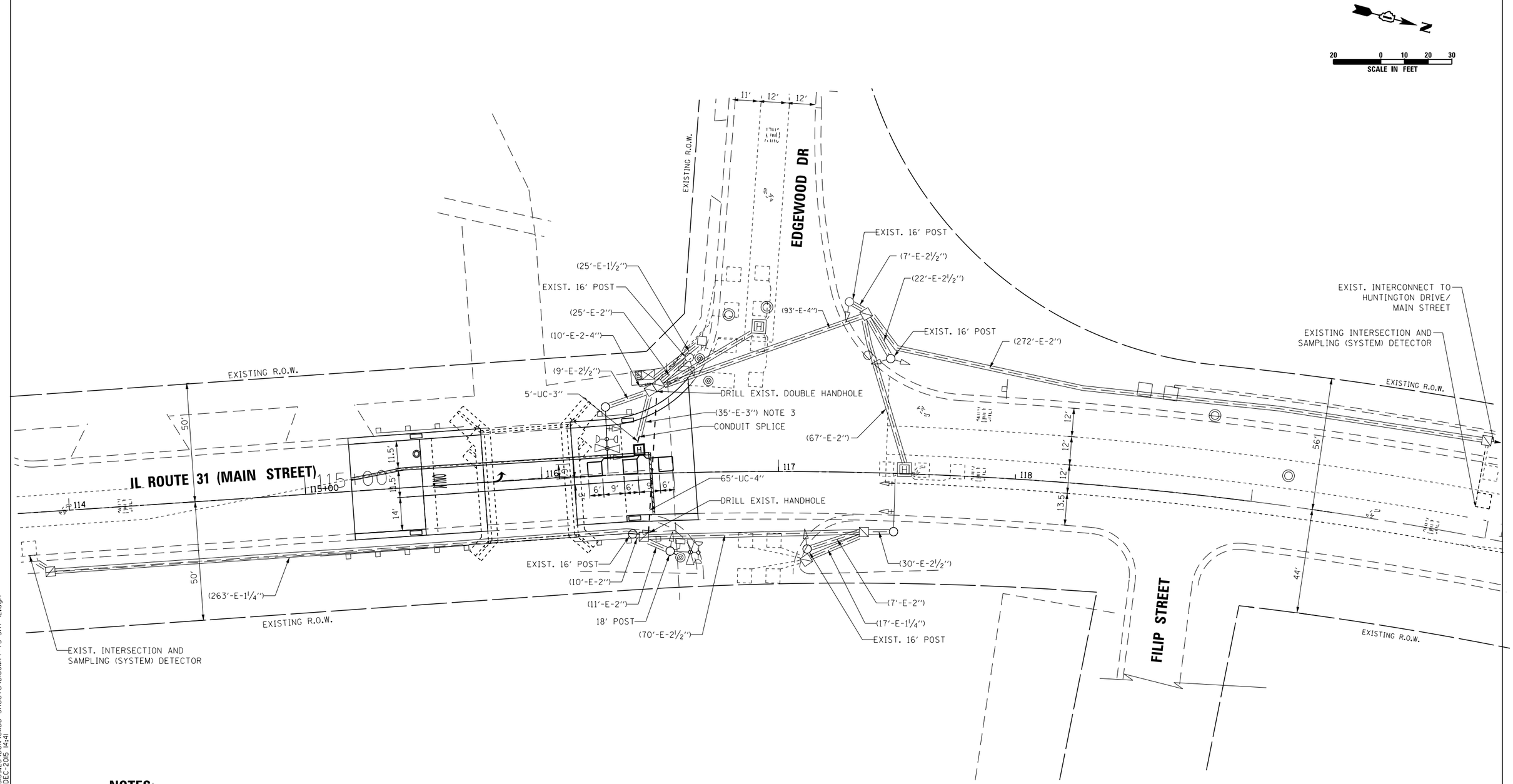
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21L
	BE-805	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

J:\CADD Sheets\D160M77-TS-Sht 22.dgn



NOTES:

1. RECONNECT EXISTING TRAFFIC SIGNAL CABLES WHICH ARE STORED AT THE EXISTING HANDHOLE LOCATED AT APPROX. STA. 116+45, 34′ RT. WHICH IS FOR THE TRAFFIC SIGNAL EQUIPMENT LOCATED AT NE AND SE CORNER INCLUDING THE CABLES USED FOR THE FAR OUT DETECTOR LOOP ON THE SOUTH LEG AND EAST LEG DETECTOR LOOPS TO THE EXISTING TRAFFIC SIGNAL CONTROLLER. ROUTE CABLES TO THE NEW 4″ CONDUIT.

2. RECONNECT EXISTING TRAFFIC SIGNAL CABLE WHICH IS STORED AT THE EXISTING DOUBLE HANDHOLE LOCATED AT APPROX. STA. 116+48, 35′ LT. USED FOR SOUTH LEG LEFT TURN LOOPS TO THE PROPOSED LEFT TURN LANE LOOPS THRU NEW HEAVY DUTY HANDHOLE.

3. ROD AND CLEAN EXISTING CONDUIT.

TS 4660
ECONOLITE

TS SHT NO. 12

J:\3159-25\DGN\CADD Sheets\D160M77-TS-Sht 12.dgn
30-DEC-2015 14:41

SINGH + ASSOCIATES, INC
CONSULTING ENGINEERS

USER NAME = mgarvida	DESIGNED - MG	REVISED -
	DRAWN - JA	REVISED -
PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -
PLOT DATE = 30-DEC-2015 14:41	DATE - 12/30/2015	REVISED -

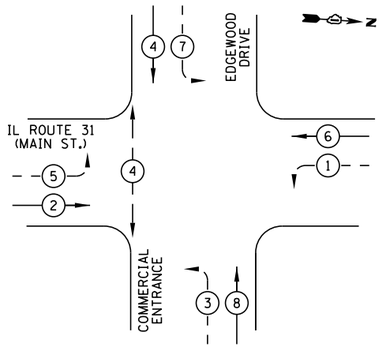
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODIFIED TRAFFIC SIGNAL PLAN
IL ROUTE 31 (MAIN STREET) AT EDGEWOOD DRIVE

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21B
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

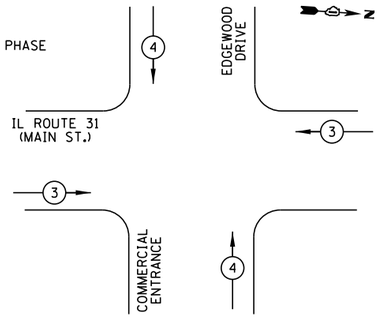
EXISTING CONTROLLER SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL OVERLAP

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

SCHEDULE OF QUANTITIES

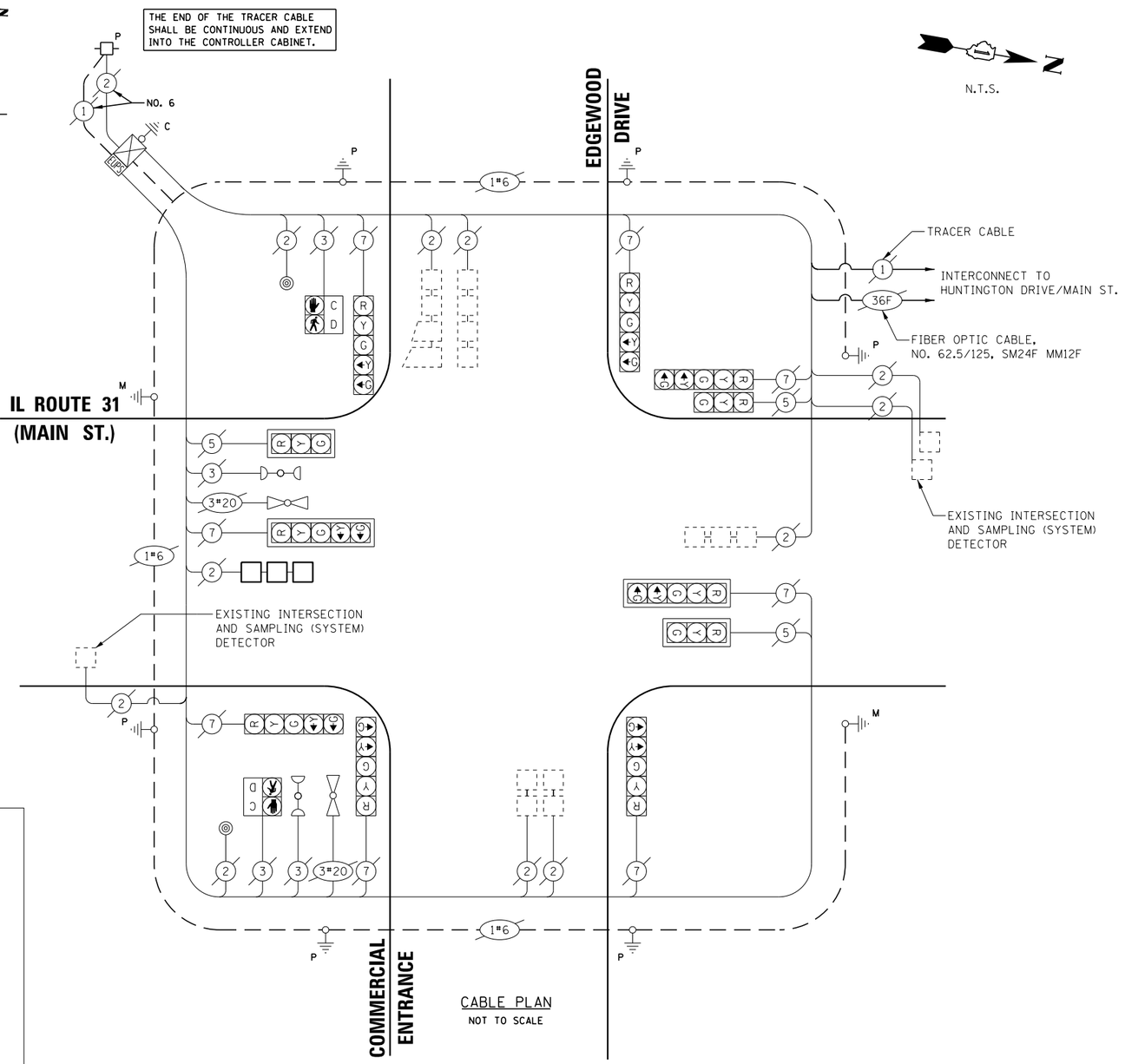
QUANTITY	UNIT	ITEM
5	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
65	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
1	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DRILL EXISTING HANDHOLE
102	FOOT	DETECTOR LOOP REPLACEMENT
1	EACH	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION
770	FOOT	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING HANDHOLE
35	FOOT	ROD AND CLEAN EXISTING CONDUIT
1	LSUM	TEMPORARY LIGHTING FOR SINGLE LANE STAGING
1	EACH	CONDUIT SPLICE
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING

SCHEDULE OF QUANTITIES FOR TEMPORARY LIGHTING

QUANTITY	UNIT	ITEM
1000	FOOT	AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE
7	EACH	REMOVAL OF TEMPORARY LIGHTING UNITS
1	EACH	REMOVAL OF ELECTRIC SERVICE INSTALLATION
1	EACH	TEMPORARY ELECTRIC SERVICE CONNECTION
1	EACH	TEMPORARY ELECTRIC SERVICE INSTALLATION
7	EACH	TEMPORARY WOOD POLE, 60 FT. CLASS 4, 15 FT. MAST ARM
1	EACH	COMBINATION POLE MOUNTED ELECTRIC SERVICE BOX
7	EACH	TEMPORARY LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 W. TYPE III DISTRIBUTION
3	EACH	GROUND ROD, " DIA. X 10 FEET

NOTE:
THESE QUANTITIES ARE FOR ESTIMATING PURPOSE ONLY.THESE ITEMS WILL BE PAID UNDER "TEMPORARY LIGHTING FOR SINGLE LANE STAGING". THE TEMPORARY TRAFFIC SIGNAL ITEMS NOT INCLUDED IN THE PAY ITEM "TEMPORARY LIGHTING FOR SINGLE LANE STAGING" SHALL BE PART OF PAY ITEM "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION".

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.



CABLE PLAN
NOT TO SCALE

TS 4660
ECONOLITE

TS SHT NO. 13

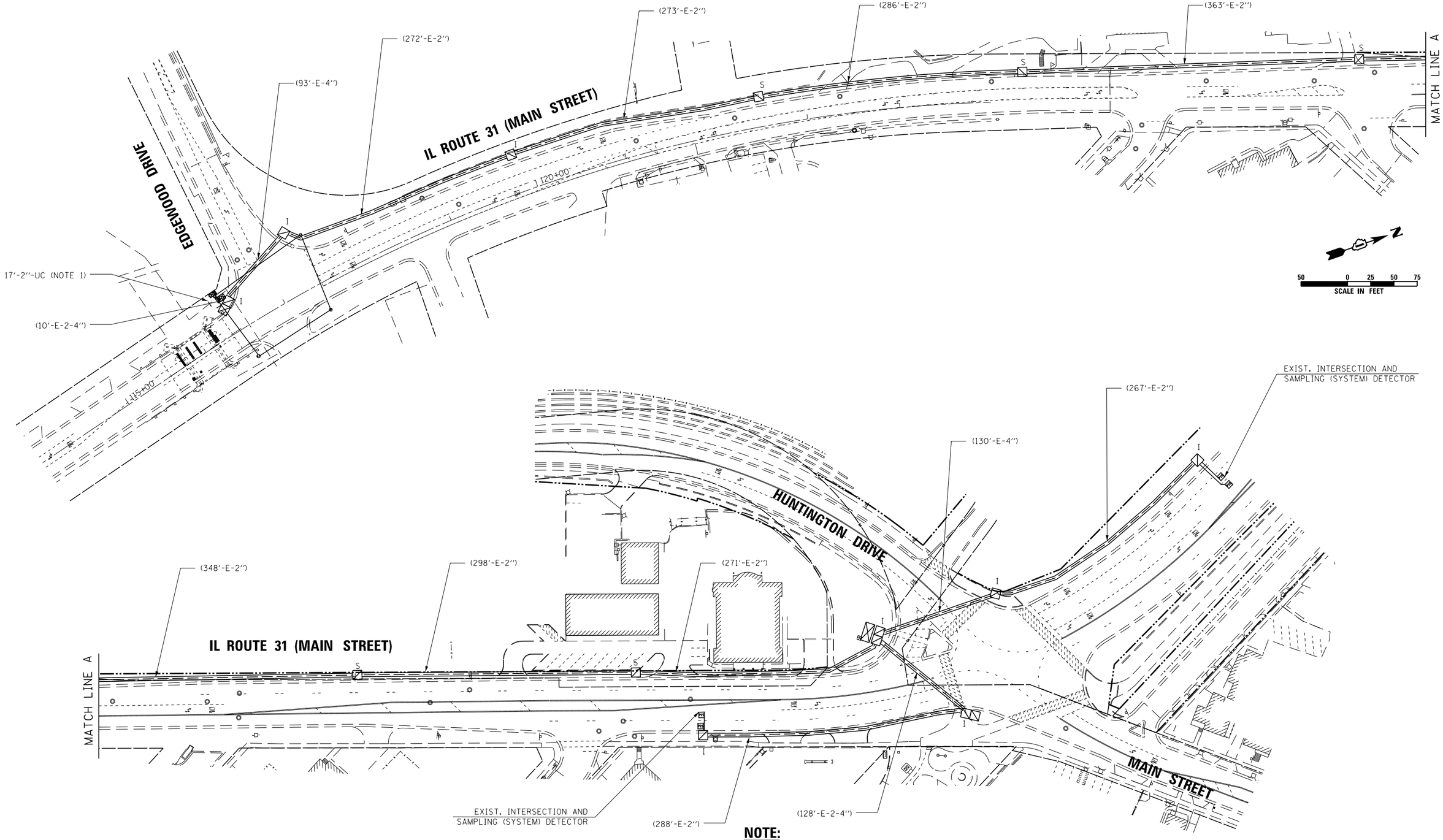
J:\3159.25\DGN\CADD Sheets\D160M77-TS-Sht 13.dgn
30-DEC-2015 14:41

SINGH + ASSOCIATES, INC CONSULTING ENGINEERS	USER NAME = mgarvida	DESIGNED - MG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - JA	REVISED -	
	PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -	
	PLOT DATE = 30-DEC-2015 14:41	DATE - 12/30/2015	REVISED -	

MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES
IL ROUTE 31 (MAIN ST.) AT EDGEWOOD DRIVE

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21C
		CONTRACT NO. 60M77		
		ILLINOIS	FED. AID PROJECT	



NOTE:

1. SPLICE EXISTING INTERCONNECT CABLE AT THE EXISTING CONTROLLER AND INSTALL TEMPORARY INTERCONNECT CABLE NO. 62.5/125 MM12F SM24F BETWEEN THE EXISTING CONTROLLER CABINET TO THE TEMPORARY CONTROLLER FOR THE PURPOSE OF MAINTAINING EXISTING INTERCONNECT SYSTEM. THIS WORK SHALL BE INCLUDED IN PAY ITEM "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION."

ECONOLITE

TS SHT NO. 14

J:\3159.25\DGN\CADD Sheets\D160M77-TS-Sht 14.dgn
30-DEC-2015 14:41

SINGH + ASSOCIATES, INC. CONSULTING ENGINEERS

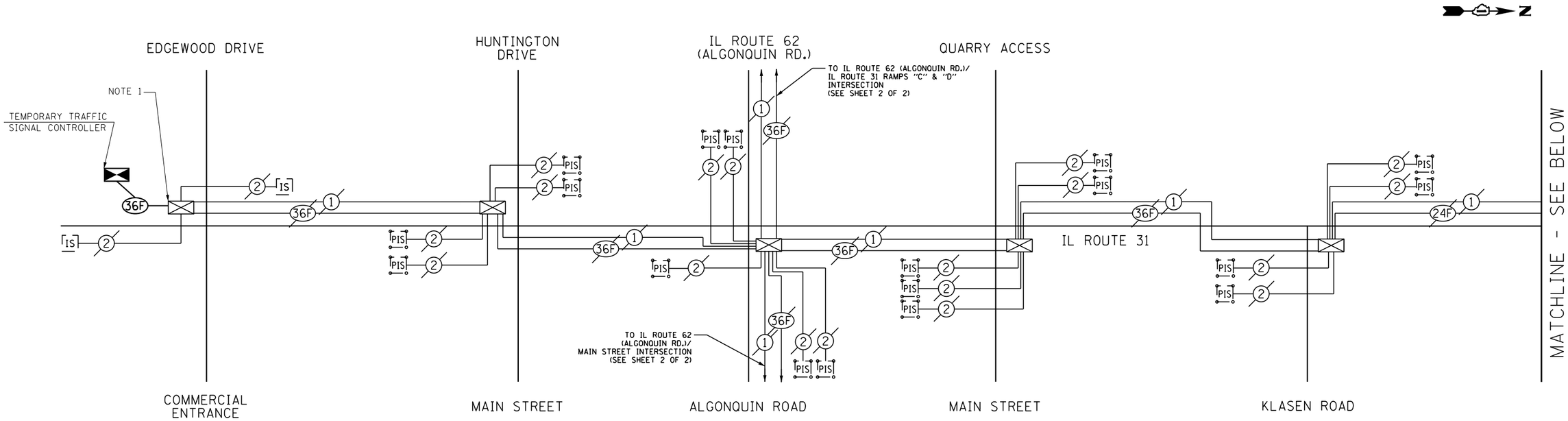
USER NAME = mgarvida	DESIGNED - MG	REVISED -	
	DRAWN - JA	REVISED -	
PLOT SCALE = 100.000000:1.000000	CHECKED - KGP	REVISED -	
PLOT DATE = 30-DEC-2015 14:41	DATE - 12/30/2015	REVISED -	

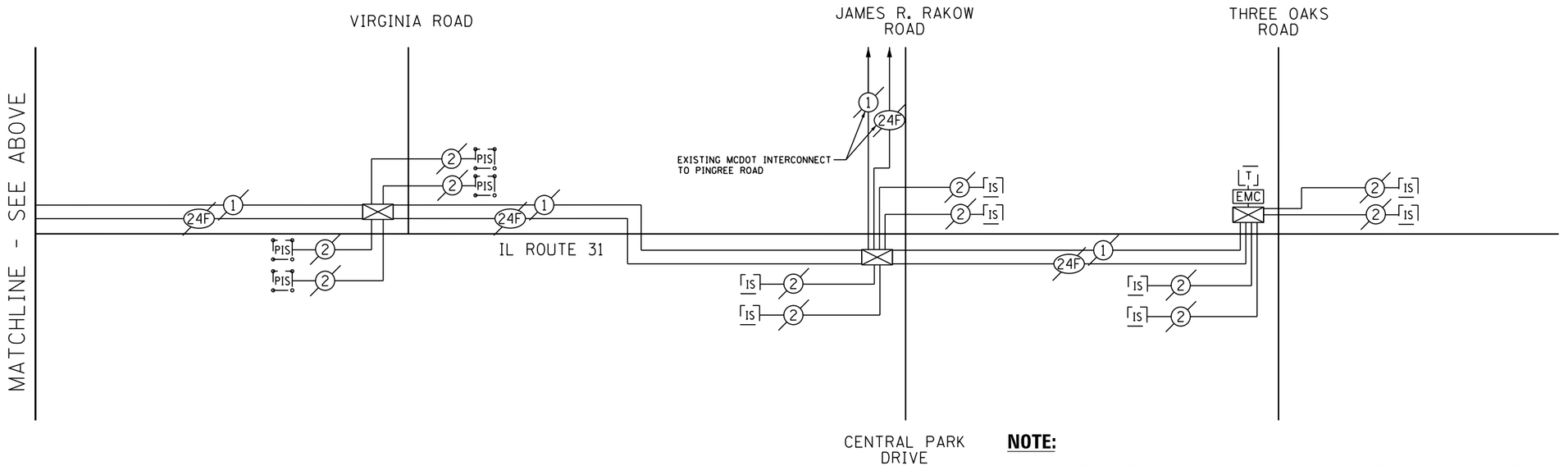
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN
IL ROUTE 31
EDGEWOOD DRIVE TO HUNTINGTON DR /MAIN ST

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21D
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			





NOTE:

1. SPLICE EXISTING INTERCONNECT CABLE AT THE EXISTING CONTROLLER AND INSTALL TEMPORARY INTERCONNECT CABLE NO. 62.5/125 MM12F SM24F BETWEEN THE EXISTING CONTROLLER CABINET TO THE TEMPORARY CONTROLLER FOR THE PURPOSE OF MAINTAINING EXISTING INTERCONNECT SYSTEM. THIS WORK SHALL BE INCLUDED IN PAY ITEM "TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION."

ECONOLITE

TS SHT NO. 15

J:\1359.25\DGN\CADD Sheets\D160M77-TS-Sht 15.dgn
30-DEC-2015 14:41

SINGH + ASSOCIATES, INC. CONSULTING ENGINEERS	USER NAME = mgarvida	DESIGNED - MG	REVISED -
		DRAWN - JA	REVISED -
	PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -
	PLOT DATE = 30-DEC-2015 14:41	DATE - 12/30/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

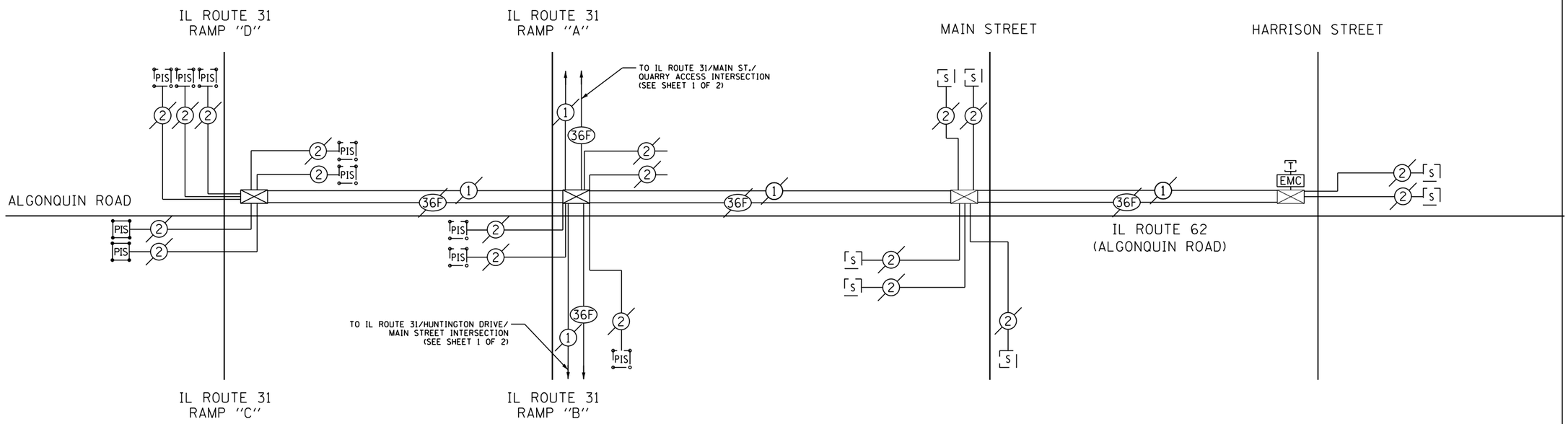
TEMPORARY INTERCONNECT SCHEMATIC
IL ROUTE 31
EDGEWOOD DRIVE TO KLASEN ROAD

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21E
		CONTRACT NO. 60M77		
	ILLINOIS	FED. AID PROJECT		

N

N.T.S.



TS SHT NO. 16

J:\3159.25\DGN\CADD Sheets\D160M77-TS-Sht 16.dgn
30-DEC-2015 14:42

ECONOLITE

SINGH + ASSOCIATES, INC
CONSULTING ENGINEERS

USER NAME = mgarvida	DESIGNED - MG	REVISED -	
	DRAWN - JA	REVISED -	
PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -	
PLOT DATE = 30-DEC-2015 14:42	DATE - 12/30/2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT SCHEMATIC
IL ROUTE 62 (ALGONQUIN RD.)
IL ROUTE 31 RAMPS "C" & "D" TO HARRISON STREET

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21F
		CONTRACT NO. 60M77		
		ILLINOIS FED. AID PROJECT		

EXIST. INTERSECTION AND
SAMPLING (SYSTEM) DETECTOR

(273'-E-2")

(286'-E-2")

(363'-E-2")

(272'-E-2")

(93'-E-4")

EDGEWOOD DRIVE

IL ROUTE 31 (MAIN STREET)

120+00

MATCH LINE A

(10'-E-2-4")

(65'-E-4")

115+00

(263'-E-2")

EXIST. INTERSECTION AND
SAMPLING (SYSTEM) DETECTOR

50 0 25 50 75
SCALE IN FEET

(267'-E-2")

EXIST. INTERSECTION AND
SAMPLING (SYSTEM) DETECTOR

(130'-E-4")

HUNTINGTON DRIVE

(348'-E-2")

(298'-E-2")

(271'-E-2")

IL ROUTE 31 (MAIN STREET)

MATCH LINE A

MAIN STREET

EXIST. INTERSECTION AND
SAMPLING (SYSTEM) DETECTOR

(288'-E-2")

(128'-E-2-4")

TS SHT NO. 17

J:\3159.25\DGN\CADD Sheets\D160M77-TS-Sht 17.dgn
30-DEC-2015 14:42

ECONOLITE

SINGH + ASSOCIATES, INC.
CONSULTING ENGINEERS

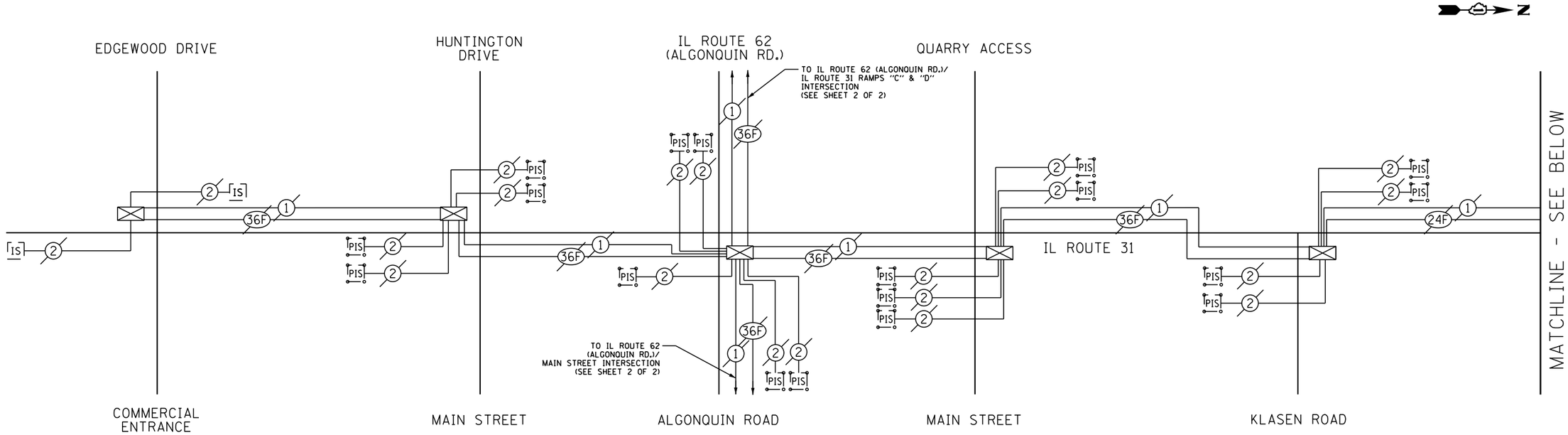
USER NAME = mgarvida	DESIGNED - MG	REVISED -
	DRAWN - JA	REVISED -
PLOT SCALE = 100.000000:1.000000	CHECKED - KGP	REVISED -
PLOT DATE = 30-DEC-2015 14:42	DATE - 12/30/2015	REVISED -

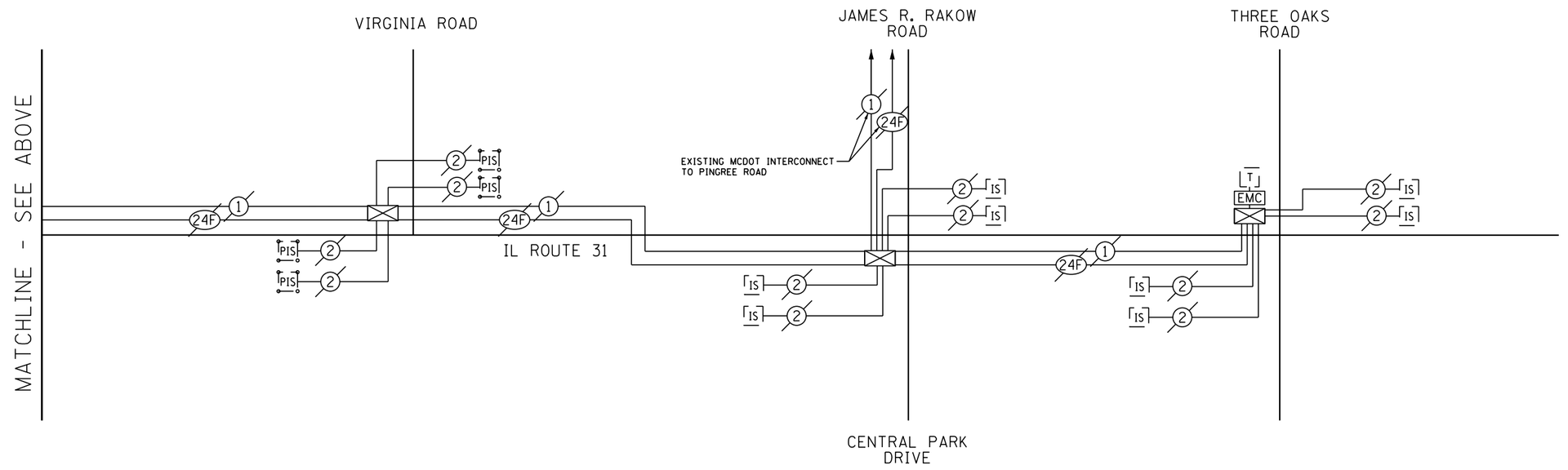
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN
IL ROUTE 31
EDGEWOOD DRIVE TO HUNTINGTON DR /MAIN ST

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21G
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			





TS SHT NO. 18

J:\1359.25\DGN\CADD Sheets\D160M77-TS-Sht 18.dgn
30-DEC-2015 14:42

ECONOLITE

SINGH + ASSOCIATES, INC. CONSULTING ENGINEERS	USER NAME = mgarvida	DESIGNED - MG	REVISED -
		DRAWN - JA	REVISED -
	PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -
	PLOT DATE = 30-DEC-2015 14:42	DATE - 12/30/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

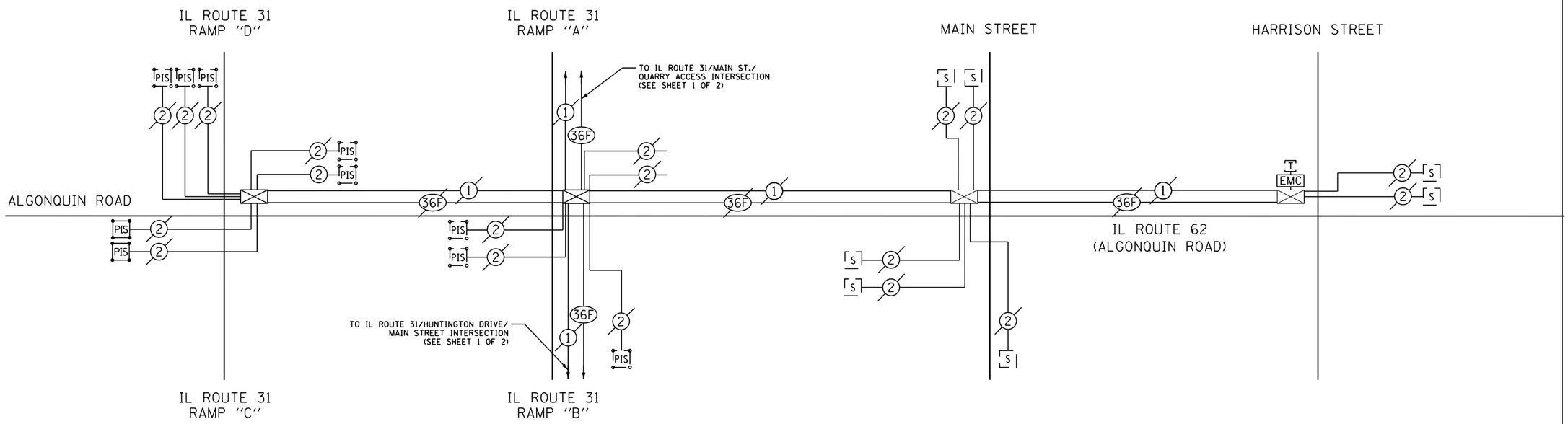
EXISTING INTERCONNECT SCHEMATIC
IL ROUTE 31
EDGEWOOD DRIVE TO KLASEN ROAD

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	21H
		CONTRACT NO. 60M77		
		ILLINOIS FED. AID PROJECT		

N

N.T.S.



TS SHT NO. 19

J:\3159.25\DGN\CADD Sheets\D160M77-TS-Sht 19.dgn
30-DEC-2015 14:42

ECONOLITE

SINGH + ASSOCIATES, INC
CONSULTING ENGINEERS

USER NAME = mgarvida	DESIGNED - MG	REVISED -	
	DRAWN - JA	REVISED -	
PLOT SCALE = 40.000000:1.000000	CHECKED - KGP	REVISED -	
PLOT DATE = 30-DEC-2015 14:42	DATE - 12/30/2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING INTERCONNECT SCHEMATIC
IL ROUTE 62 (ALGONQUIN RD.)
IL ROUTE 31 RAMPS "C" & "D" TO HARRISON STREET

SCALE: AS NOTED | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	211
		CONTRACT NO. 60M77		
		ILLINOIS FED. AID PROJECT		

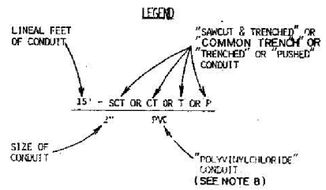
FA RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	McHENRY	83	38
STA.		TO STA.		
FED. ROAD DIST. NO.7	ILLINOIS	FED. AID PROJECT		

* FA-850(31)
** IS WRS-3 & IBB-R (83)

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST—WITH HEIGHT	16'	
MAST ARM ASSEMBLY AND POLE, STEEL		
HANDHOLE		"E"
HEAVY DUTY HANDHOLE		"E"
DOUBLE HANDHOLE		"E"
G. S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR	PB	
DETECTOR LOOP		
CONCRETE JUNCTION BOX		"E"
CAST IRON JUNCTION BOX		"E"
COMMON TRENCH	CT	
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
EMERGENCY VEHICLE SYSTEM DETECTOR		
TRAFFIC POLE WITH ARM (G.S.), WITH STREET LIGHT UNIT		
STREET LIGHTING CONTROL PANEL		"E"

LEGEND



REPLACE ALL DETECTOR LOOPS AS SHOWN
(WITHIN RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
88600600	102	FOOT	DETECTOR LOOP, REPLACEMENT

GENERAL NOTES

1. ALL DETECTOR LOOPS SHALL CONSIST OF THE NUMBER OF TURNS REQUIRED AND SHALL BE INSTALLED IN STRICT CONFORMITY WITH THE LOOP DETECTOR AMPLIFIER MANUFACTURERS RECOMMENDATIONS. THE DETECTOR LOOP SHALL BE MEASURED FOR THAT PORTION OF SAW CUT BEYOND THE SPLICE AS SPECIFIED IN SECTION T 418.04 OF THE SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
2. LEAD-IN WIRING SHALL BE INSTALLED IN STRICT CONFORMITY WITH THE MANUFACTURERS RECOMMENDATIONS. THE 2/C SHIELDED CABLE TO BE USED FOR THE DETECTOR LOOP LEAD-IN SHALL BE MEASURED FROM THE SPLICE TO THE CONTROLLER AS SPECIFIED IN SECTION T 421.04 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS. FLAT CABLE WILL NOT BE PERMITTED.
3. ALL ELECTRIC CABLE THAT IS FURNISHED BY THE CONTRACTOR SHALL BE PROTECTED BY POLYETHYLENE INSULATION WITH A POLYVINYLCHLORIDE JACKET, UNLESS OTHERWISE SPECIFIED.
4. THE REMOVAL AND REPLACEMENT OF SIDEWALK, DRIVEWAY, MEDIAN AND ISLAND SURFACE PAVING AT HANDHOLES, JACKING PITS, INSPECTION OPENINGS AND CONCRETE JUNCTION BOXES SHALL BE SAW CUT AROUND THE AREA TO BE REMOVED. THE REMOVAL AND REPLACEMENT OF SIDEWALK, DRIVEWAY, MEDIAN AND ISLAND SURFACE PAVING WILL BE PAID FOR SEPARATELY.
5. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE TRAFFIC SIGNAL SYSTEM. FOR LOCATION OF UTILITIES CALL J.U.L.I.E. TOLL FREE NUMBER 800-892-0123 AND STATE MAINTAINED TRAFFIC SIGNALS 312-378-2800
6. ALL SIGNAL POST AND MAST ARM POLES SHALL BE LOCATED WITH THEIR CENTERLINES A MINIMUM OF FOUR (4) AND SIX (6) FEET RESPECTIVELY FROM THE BACK OF CURB UNLESS NOTED OR DIMENSIONED TO THE CONTRARY ON THE DRAWINGS. IN NON-CURBED AREAS THE MAST ARM POLE SHALL BE LOCATED A MINIMUM OF TEN (10) FEET BEHIND THE EDGE OF PAVEMENT OR TWO (2) FEET BEHIND THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER. SIGNAL POSTS SHOULD BE PLACED AT A MINIMUM OF TWO (2) FEET BEHIND THE EDGE OF THE SHOULDER.
7. THE RESIDENT ENGINEER SHALL LAYOUT DETECTION LOOPS AND CONTACT THE AREA TRAFFIC ENGINEER AT 312-884-4424 FOR APPROVAL.
8. ALL CONDUIT SHALL BE GALVANIZED STEEL, UNLESS OTHERWISE NOTED.

D'ONOFRIO-SMYTHE AND ASSOCIATES, INC.
551 TOLLGATE ROAD
SUITE 'D'
ELGIN, ILLINOIS 60120
312-888-1510

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION

EDGEWOOD ROAD & ILLINOIS 31

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

FILE NAME = I:\8274 - IDOT PTB 168 - 07 Various\8274.19 IL31 over Edgewood Ravine overlay\CADD\D168M77-sht-Det-Loop.dgn

COLLINS ENGINEERS 123 N. Wacker Dr. Suite 900 Chicago, IL. 60606 Tele. (312) 704-9300 Fax (312) 704-9320 www.collinsengr.com ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-002993	USER NAME = tsheh	DESIGNED - DSH	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
		DRAWN - DSH	REVISED -	
	PLOT SCALE = 2.0000 ' / in.	CHECKED - RAG	REVISED -	
	PLOT DATE = 12/31/2015	DATE - DECEMBER, 2015	REVISED -	

DISTRICT ONE – DETECTOR LOOP REPLACEMENT
IL ROUTE 31 AT EDGEWOOD RD.

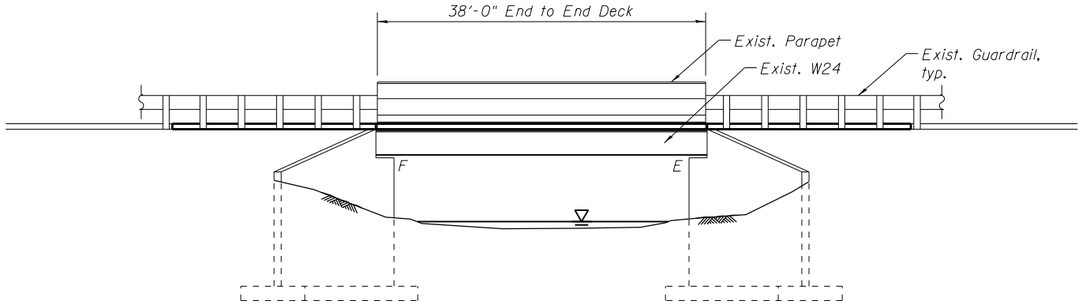
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	22
		CONTRACT NO. 60M77		
	ILLINOIS	FED. AID PROJECT		

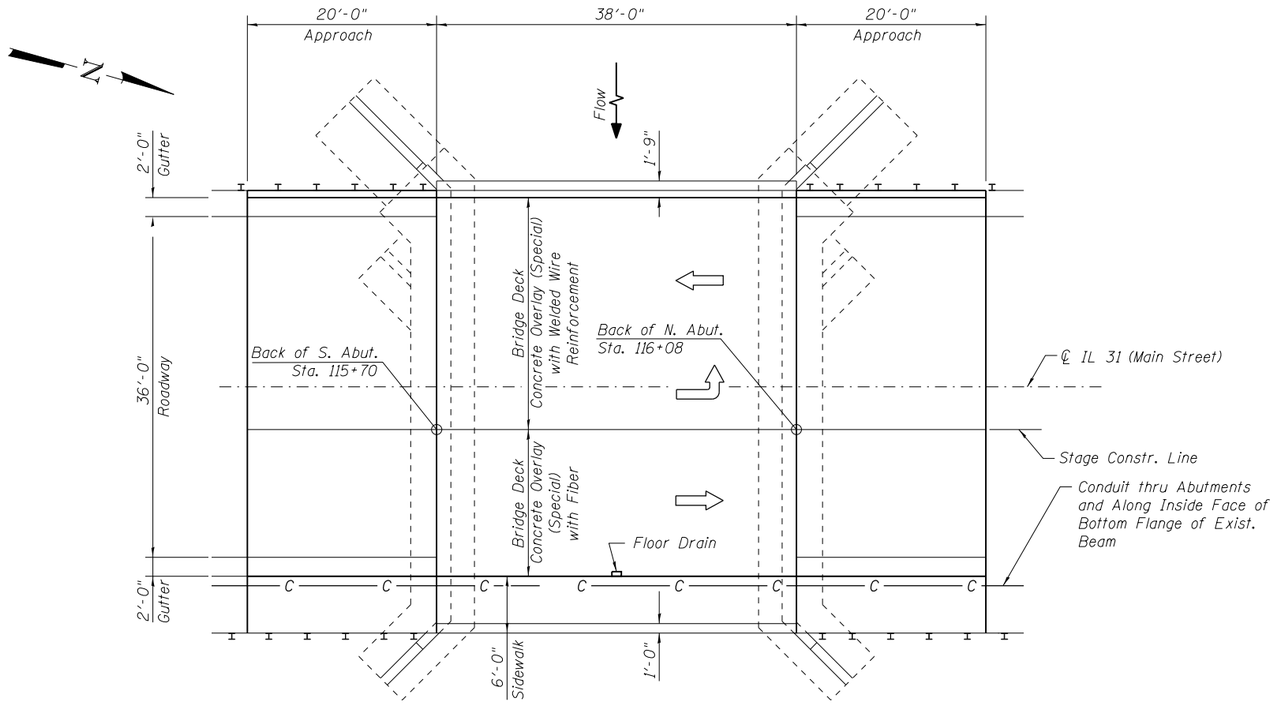
Existing Structure: *The existing structure is a single span steel beam bridge with a 7½" inch reinforced concrete deck. The original structure was built in 1925 and reconstructed in 1986. Staged construction shall be utilized to maintain traffic during construction.*

One lane of traffic in each direction to be maintained using temporary traffic signals.

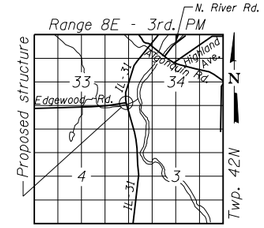
No Salvage.



ELEVATION



PLAN



LOCATION SKETCH

SCOPE OF WORK

1. *Bridge deck scarification.*
2. *Repair approach pavement.*
3. *Remove and replace concrete curb and gutter. See Roadway Plans.*
4. *Reconstruct deck joints at each abutment with preformed strip seal. Clean and reseal relief joints.*
5. *Place new concrete overlay (Special) on bridge deck and HMA on approaches. See Special Provision "Bridge Deck Fiber and Wire Reinforcement Concrete Overlay".*

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges (17th Edition)

LOADING HS20-44

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi

f_y = 60,000 psi (reinforcement)

STATE OF ILLINOIS
EWA K. MROCZEK
081-006067
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

COLLINS ENGINEERS, INC.
EWA MROCZEK, P.E., S.E.
NO. 081–006067
EXP.: 11/30/2016

GENERAL PLAN AND ELEVATION
IL. RT. 31 OVER EDGEWOOD RAVINE
F.A.U. RT. 3887 - SEC. 2010-1221
McHENRY COUNTY
STATION 115+89
STRUCTURE NO. 056-0016

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -
		CHECKED - AMS	REVISED -
	PLOT SCALE =	DRAWN - DR	REVISED -
	PLOT DATE =	CHECKED - AMS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 056–0016
SHEET NO. S1 OF S10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	23
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

INDEX OF SHEETS

GENERAL NOTES:

1. All reinforcement bars designated (E) shall be epoxy coated.

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

3. Stage construction shall be utilized to maintain traffic during construction. See roadway plans.

4. The Contractor shall exercise care during removal of existing joints to ensure that the slab, beams and diaphragms' integrity will not be detrimentally impacted. The Contractor shall repair any damage(s) to the slab, beams and diaphragms caused by his operation as directed by the engineer at no additional cost to the Department.

5. Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.

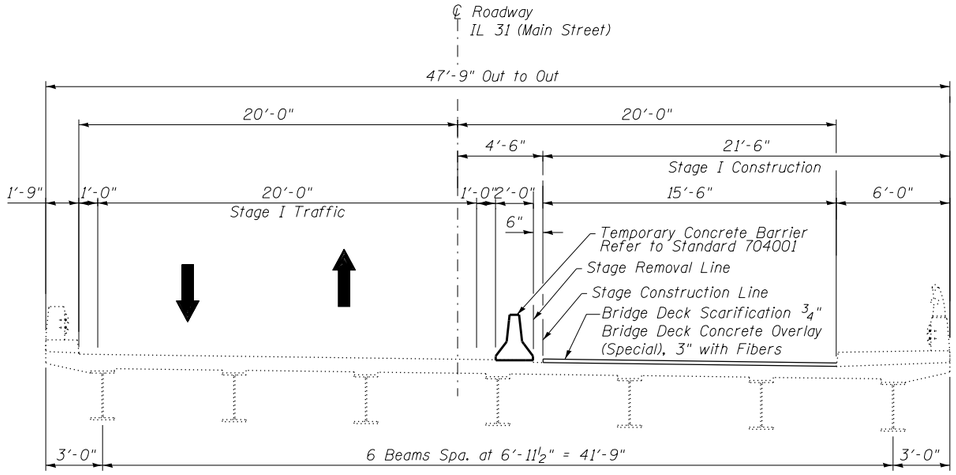
6. The removal and reattachment of the guardrail, hand rail, steel railings, traffic barrier terminal, etc. required for repair work (e.g. transverse joint replacement) shall be included in the contract unit price of the work item being performed.

7. Cost for removal and disposal of existing expansion joints is included in cost of Concrete Removal.

TOTAL BILL OF MATERIAL

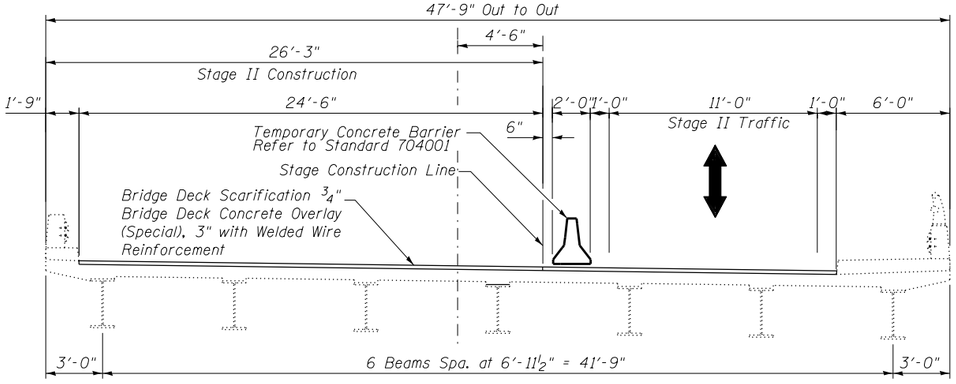
ITEM DESCRIPTION	UNIT	QUANTITY
Bituminous Materials (Prime Coat)	Pound	73
Hot-Mix Asphalt Surface Course Mix "D", N70	Ton	21
Concrete Removal	Cu. Yd.	11.4
Concrete Superstructure	Cu. Yd.	12.5
Bridge Deck Grooving	Sq. Yd.	161
Protective Coat	Sq. Yd.	278
Reinforcement Bars, Epoxy Coated	Pound	1,850
Bar Splicers	Each	24
Preformed Joint Strip Seal	Foot	95
Raised Reflective Pavement Marker (Bridge)	Each	4
Clean and Reseal Relief Joints	Foot	96
Approach Slab Repair (Full Depth)	Sq. Yd.	4
Approach Slab Repair (Partial Depth)	Sq. Yd.	8
Bridge Deck Concrete Overlay, (Special), 3"	Sq. Yd.	152
Bridge Deck Scarification, $\frac{3}{4}$"	Sq. Yd.	152

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, BILL OF MATERIALS AND INDEX OF SHEETS STRUCTURE NO. 056-0016	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - AMS	REVISED -			3887	2010-1221	McHENRY	42	24
	PLOT SCALE =	DRAWN - DR	REVISED -						CONTRACT NO. 60M77	
	PLOT DATE =	CHECKED - AMS	REVISED -		SHEET NO. S2 OF S10 SHEETS			ILLINOIS	FED. AID PROJECT	



STAGE I CROSS SECTION

Looking North



STAGE II CROSS SECTION

Looking North

Notes:

Strain gauges shall be installed by others prior to placement of the overlay. See Special Provisions.

The exact number, location, and spacing of all signs and traffic control devices may be adjusted to fit field conditions as directed by the Engineer.

The Contractor will be required to provide and maintain access to all private drives and commercial property during the construction period. Signing shall be provided for all driveway entrances per District Detail TC-26.

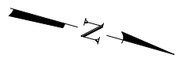
One lane of traffic in each direction to be maintained using temporary traffic signals.

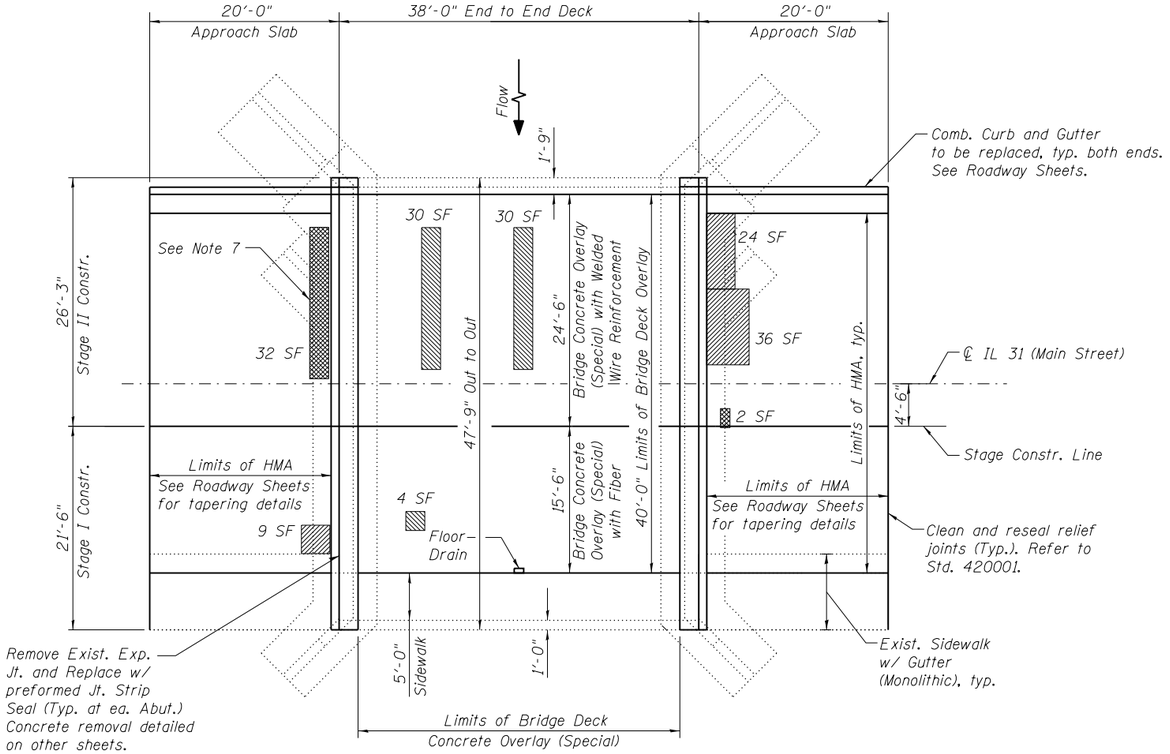
FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -
		CHECKED - AMS	REVISED -
	PLOT SCALE =	DRAWN - DR	REVISED -
	PLOT DATE =	CHECKED - AMS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

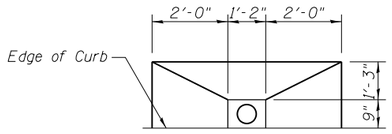
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 056-0016
SHEET NO. S3 OF S10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	25
		CONTRACT NO. 60M77		
	ILLINOIS	FED. AID PROJECT		

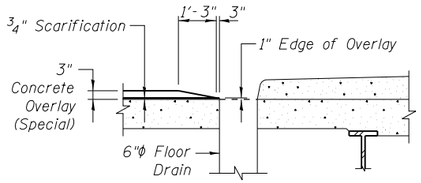




PLAN



PLAN AT FLOOR DRAIN



SECTION AT FLOOR DRAIN

BILL OF MATERIAL

SYMBOL	ITEM	UNIT	QUANTITY
	Deck Slab Repair (Partial Depth) Δ	Sq. Yd.	8 Δ
	Approach Slab Repair (Full Depth)	Sq. Yd.	4
	Approach Slab Repair (Partial Depth)	Sq. Yd.	8
	Protective Coat	Sq. Yd.	278
	Bridge Deck Grooving	Sq. Yd.	161
	Bridge Deck Concrete Overlay, (Special) 3" *	Sq. Yd.	152
	Bridge Deck Scarification, 3/4"	Sq. Yd.	152
	Bituminous Materials (Prime Coat)	Pound	73
	Hot-Mix Asphalt Surface Course Mix "D", N70	Ton	21
	Clean and Reseal Relief Joints	Foot	96

Δ For information only to assist the Contractor in bidding. See Special Provision for "Bridge deck fiber and wire fabric concrete overlay."

* Two types of concrete overlays to be used, see Plan for limits. See Special Provision for "Bridge deck fiber and wire reinforcement concrete overlay." The cost of fiber and wire reinforcement is included in the cost of Bridge Deck Concrete Overlay (Special), 3"

Bridge Deck Concrete Overlay (Special) with Fiber - 59 Sq. Yd.
Bridge Deck Concrete Overlay (Special) with Welded Wire Reinforcement - 93 Sq. Yd.

Notes:

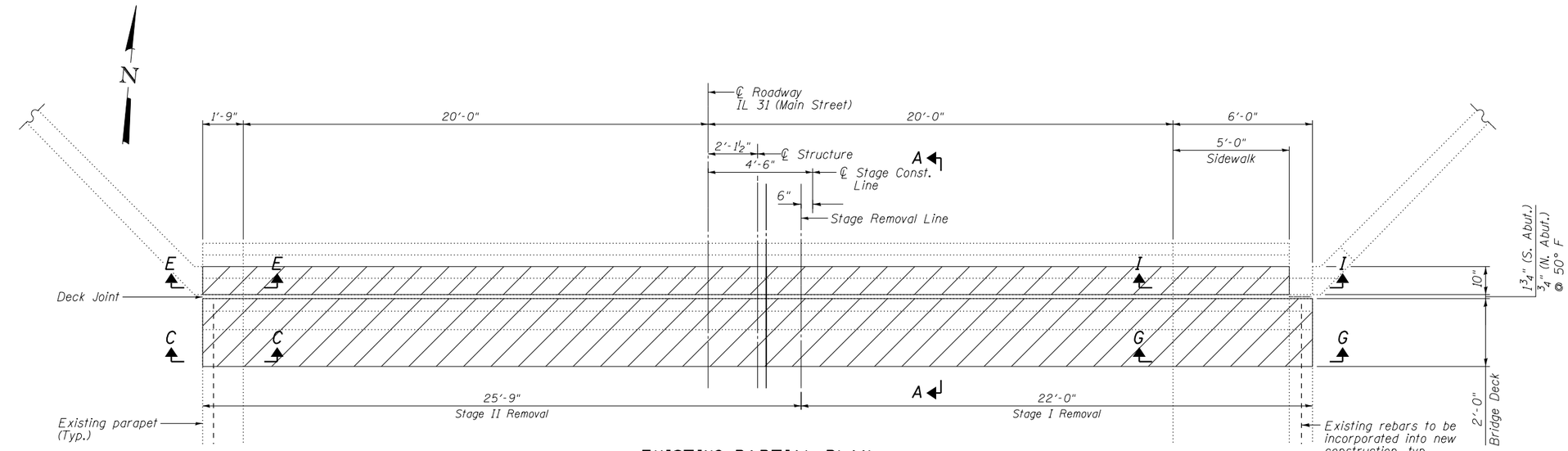
1. Deck and approach slab repair areas are estimated based on visual inspection. Actual repair areas and locations shall be determined by the Engineer and shown on As-Built plans.
2. Deck drains (downspouts, floor drains, and scuppers) shall be cleaned prior to placement of the Concrete Overlay. Cost of cleaning the deck drains shall be included in Bridge Deck Scarification, 3/4".
3. Gaps caused by distress around floor drains shall be filled with epoxy as specified in Section 590 of the Standard Specification. Cost included with Bridge Deck Scarification, 3/4".
4. Bridge Deck Scarification, Bridge Deck Concrete Overlay, (Special), and Bridge Deck Grooving shall be performed over the limits of the bridge deck.
5. The Protective Coat shall be applied to new and existing concrete of overlay, bridge sidewalk, front and top faces of parapets, all concrete superstructure associated with transverse joint replacement, abutments top seat and abutment cap front and end faces.
6. Detector loop present in existing approach slab.
7. Full depth Approach Slab repairs shall be done in stages with 4 ft. long (max.) sections removed at a time and a 4 ft. section (min.) between removed sections or as directed by the Engineer, to ensure the approach slab stability and strength.
   a) At least 72 hours shall have elapsed from the end of the previous pour and
   b) The concrete shall have attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3500 psi.
8. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in the pay item for the work being performed.

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -
		CHECKED - AMS	REVISED -
	PLOT SCALE =	DRAWN - DR	REVISED -
	PLOT DATE =	CHECKED - AMS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

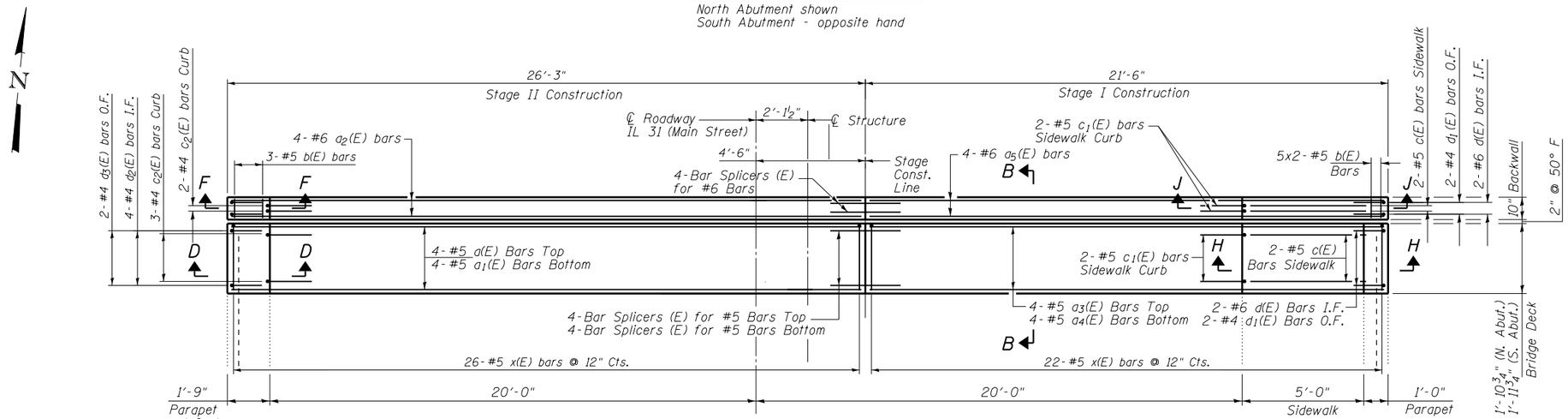
BRIDGE DECK AND APPROACH SLAB REPAIRS
STRUCTURE NO. 056-0016
SHEET NO. S4 OF S10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	26
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			



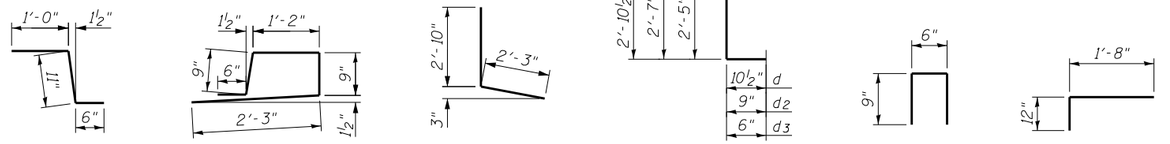
EXISTING PARTIAL PLAN

North Abutment shown
South Abutment - opposite hand



PROPOSED PARTIAL PLAN

North Abutment Shown, South Abutment
Opposite Hand.



BAR $c_1(E)$ BAR $c_2(E)$ BAR $d_1(E)$ BAR d, d_2, d_3 (E) BAR $d_4(E)$ BAR $x(E)$

Notes:

I.F. denotes inside face.

O.F. denotes outside face.

Work this sheet in conjunction with Expansion Joint Details I & II and Bar Splicer Assembly Details sheet.

Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

BILL OF MATERIAL

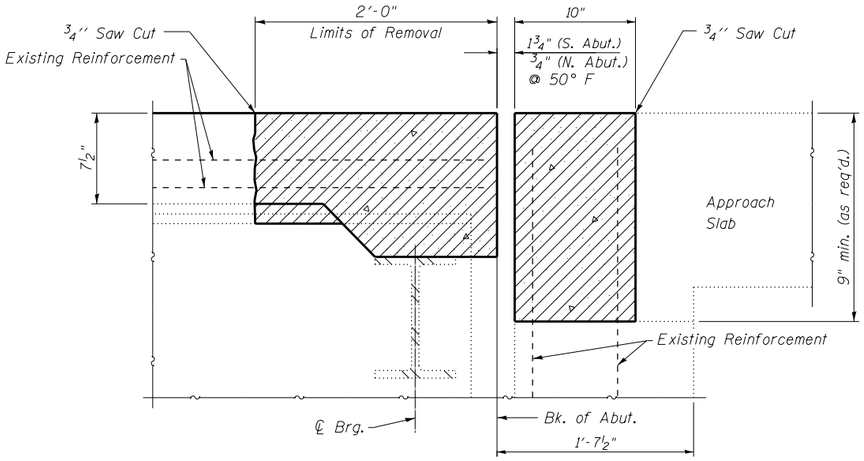
Bar	No.	Size	Length	Shape
d(E)	8	#5	25'-11"	
$d_1(E)$	8	#5	25'-6"	
$d_2(E)$	8	#6	25'-11"	
$d_3(E)$	8	#5	21'-2"	
$d_4(E)$	8	#5	20'-9"	
$d_5(E)$	8	#6	21'-2"	
b(E)	26	#5	0'-9"	
c(E)	8	#5	5'-8"	
$c_1(E)$	8	#5	2'-5"	
$c_2(E)$	10	#4	5'-5"	
d(E)	8	#6	3'-9"	
$d_1(E)$	8	#4	5'-1"	
$d_2(E)$	8	#4	3'-4"	
$d_3(E)$	4	#4	2'-11"	
$d_4(E)$	8	#4	2'-0"	
x(E)	96	#5	2'-8"	
Concrete Removal			Cu. Yd.	11.4
Concrete Superstructure			Cu. Yd.	12.5
Reinforcement Bars, Epoxy Coated			Pound	1,850

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -
		CHECKED - AMS	REVISED -
	PLOT SCALE =	DRAWN - DR	REVISED -
	PLOT DATE =	CHECKED - AMS	REVISED -

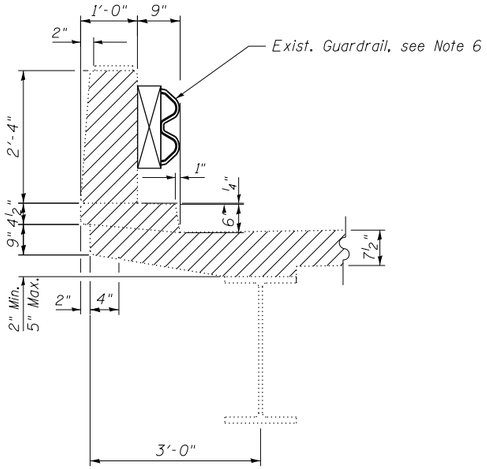
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT REPAIRS
STRUCTURE NO. 056-0016
SHEET NO. 55 OF 510 SHEETS

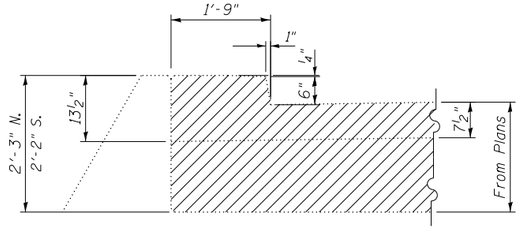
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	27
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			



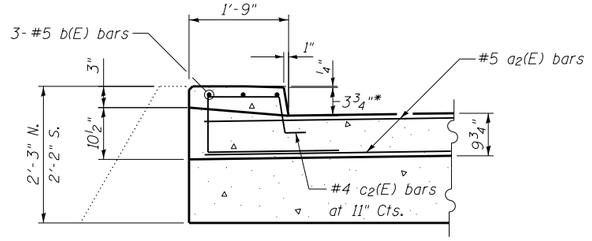
SECTION A-A



SECTION C-C

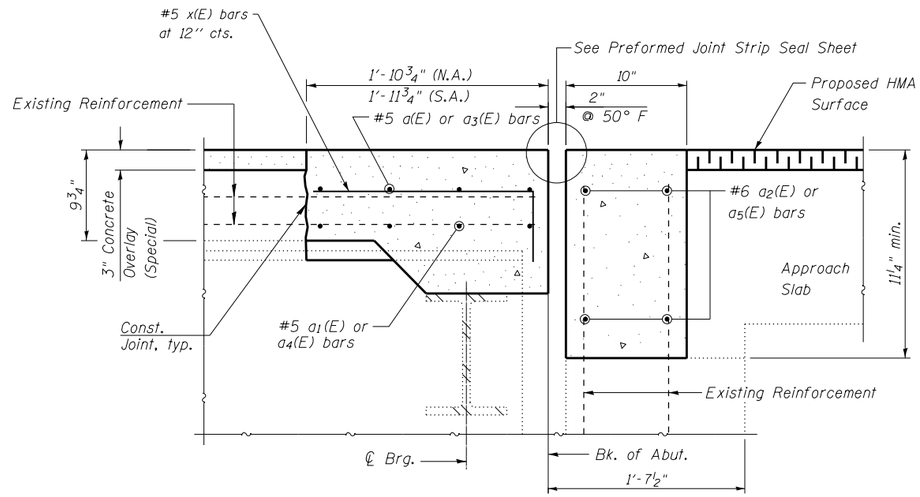


SECTION E-E

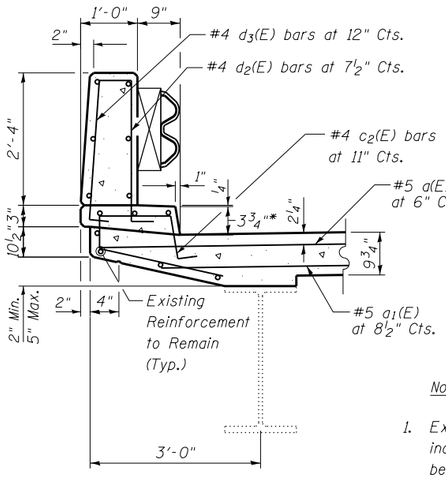


SECTION F-F

* Match existing top of curb



SECTION B-B



SECTION D-D

Notes:

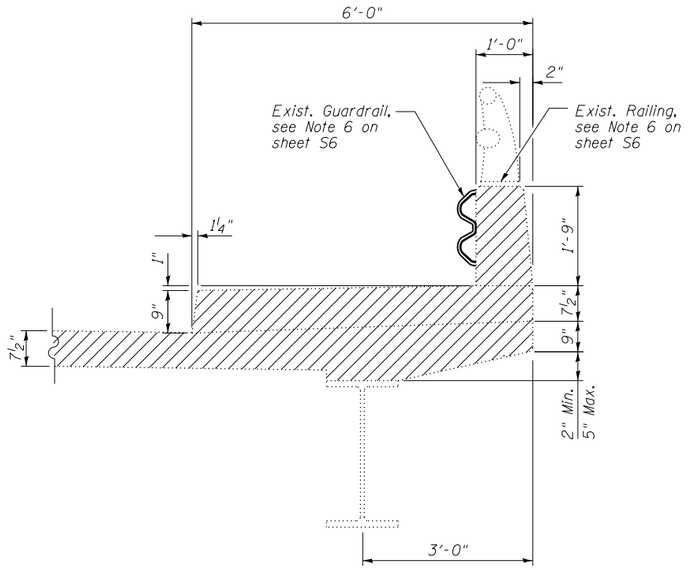
1. Existing reinforcement bars extending into the concrete removal area shall be cleaned straightened and incorporated into the new construction. Any reinforcement bars damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
2. Existing reinforcement bars in the concrete removal area parallel to the expansion joints shall be removed.
3. Removal and disposal of the existing expansion joints will not be paid for separately, but shall be included with the cost of Concrete Removal.
4. If existing name plate falls within the limits of Concrete Removal, it shall be removed and reinstalled in its original location in accordance with IDOT Std. 515001. Cost included with Concrete Removal.
5. Utility information is unknown. The Contractor shall exercise extreme care if existing conduits are encountered in sections of the parapet to be removed and to protect and support the conduit. The Contractor will be required to repair any damage done to the conduit to the satisfaction of the Engineer. No splicing will be allowed to any cable damage resulting from this work, instead the Contractor will be required to repair the entire span of any damaged cable at no additional cost to the Department.
6. Cost of removal and storage of guardrail and terminal rail section shall be included with the cost of Concrete Removal. Cost of reinstallation and new anchorage shall be included with the cost of concrete superstructure. Refer to sheets S7 and S10 for more details.

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -
		CHECKED - AMS	REVISED -
	PLOT SCALE =	DRAWN - DR	REVISED -
	PLOT DATE =	CHECKED - AMS	REVISED -

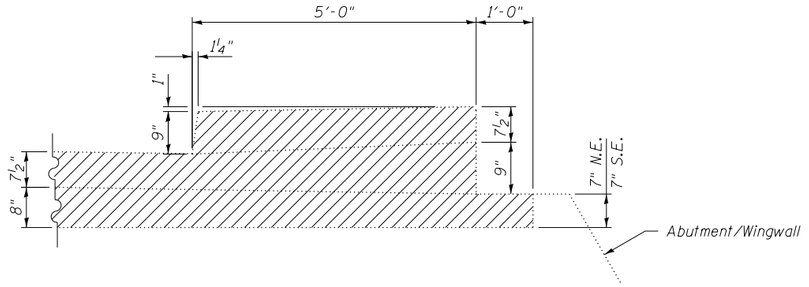
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT DETAILS I
STRUCTURE NO. 056-0016
SHEET NO. S6 OF S10 SHEETS

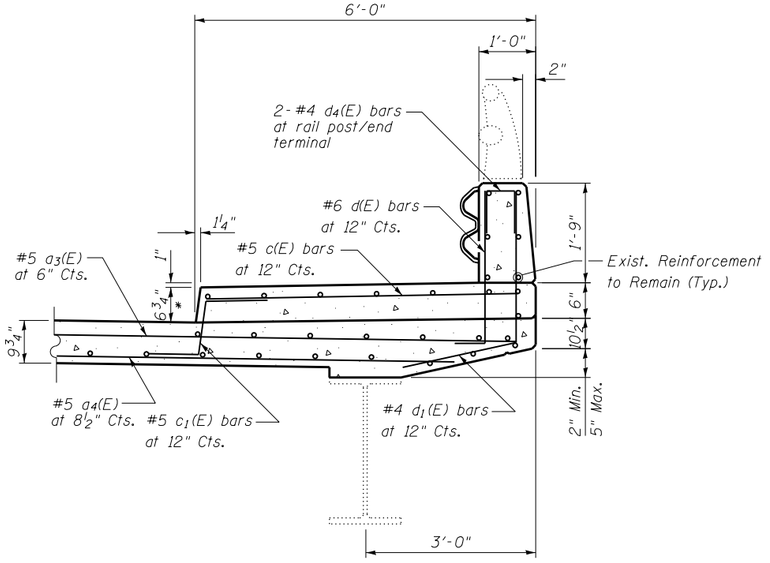
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	28
		CONTRACT NO. 60M77		
	ILLINOIS	FED. AID PROJECT		



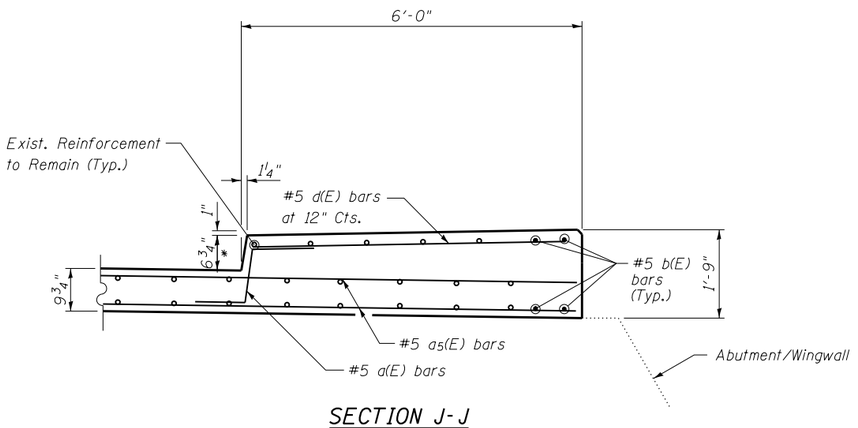
SECTION G-G



SECTION I-I



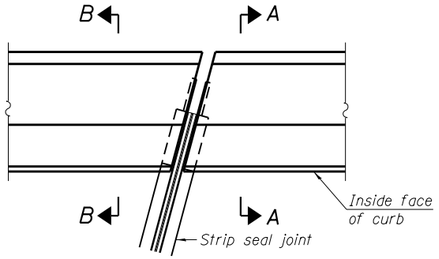
SECTION H-H



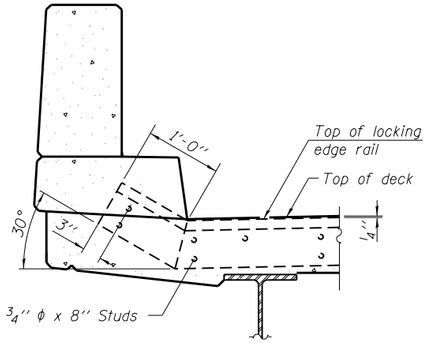
SECTION J-J

* Match existing top of sidewalk

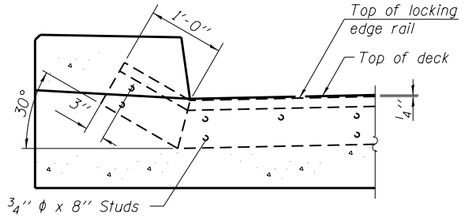
FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXPANSION JOINT DETAILS II STRUCTURE NO. 056-0016	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - AMS	REVISED -			3887	2010-1221	McHENRY	42	29
	PLOT SCALE =	DRAWN - DR	REVISED -					CONTRACT NO. 60M77		
	PLOT DATE =	CHECKED - AMS	REVISED -		SHEET NO. S7 OF S10 SHEETS			ILLINOIS FED. AID PROJECT		



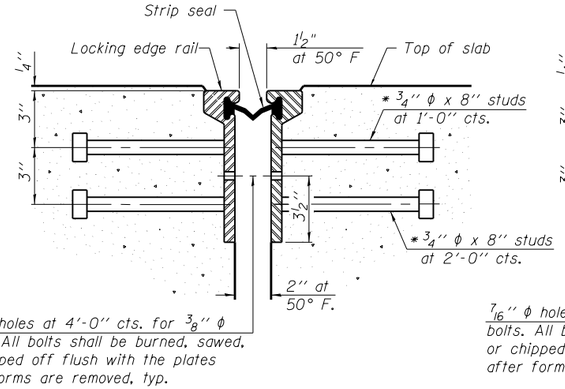
PLAN
(For skews ≤ 30°)



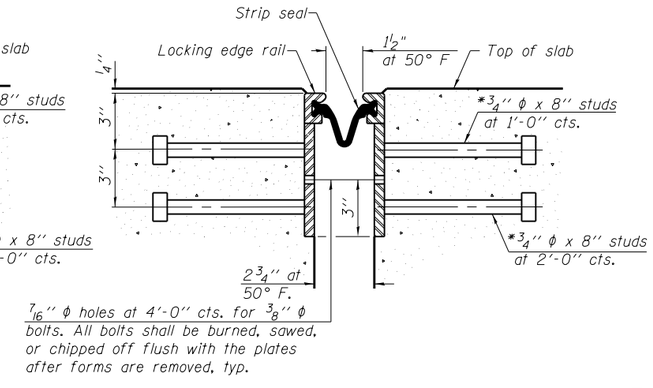
SECTION A-A



SECTION B-B

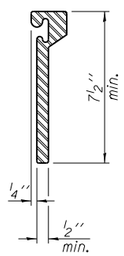


SECTION THRU
ROLLED RAIL JOINT

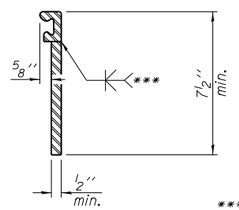


SECTION THRU
WELDED RAIL JOINT

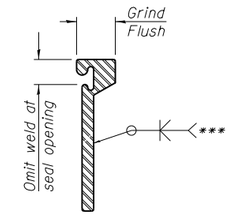
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED
EXTRUDED RAIL



WELDED RAIL



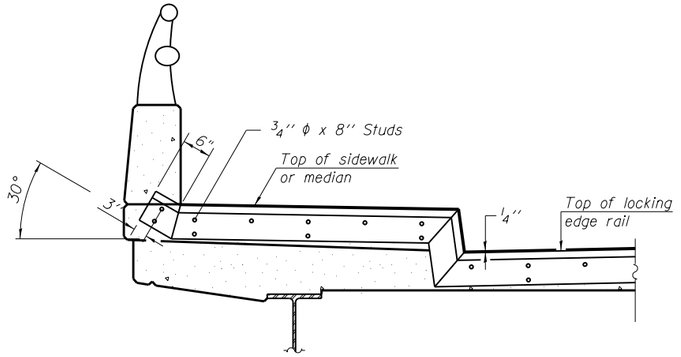
*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE
RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS



TYPICAL END TREATMENT
AT SIDEWALK

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

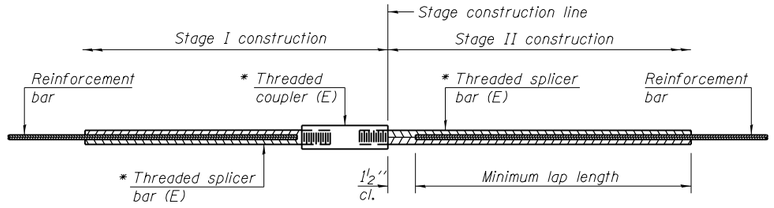
Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	95

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PREFORMED JOINT STRIP SEAL STRUCTURE NO. 056-0016	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - AMS	REVISED -			3887	2010-1221	McHENRY	42	30
	PLOT SCALE =	DRAWN - DR	REVISED -						CONTRACT NO. 60M77	
	PLOT DATE =	CHECKED - AMS	REVISED -		SHEET NO. 58 OF 510 SHEETS			ILLINOIS	FED. AID PROJECT	

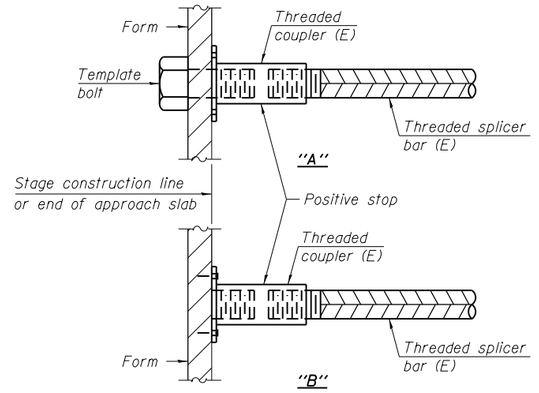


STANDARD BAR SPLICER ASSEMBLY

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

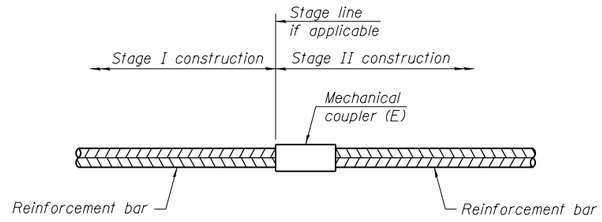
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	16	3'-6"
Backwall	#6	8	4'-0"



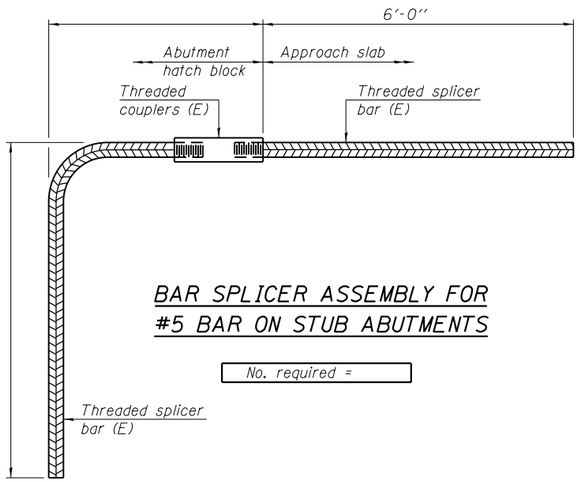
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

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

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

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

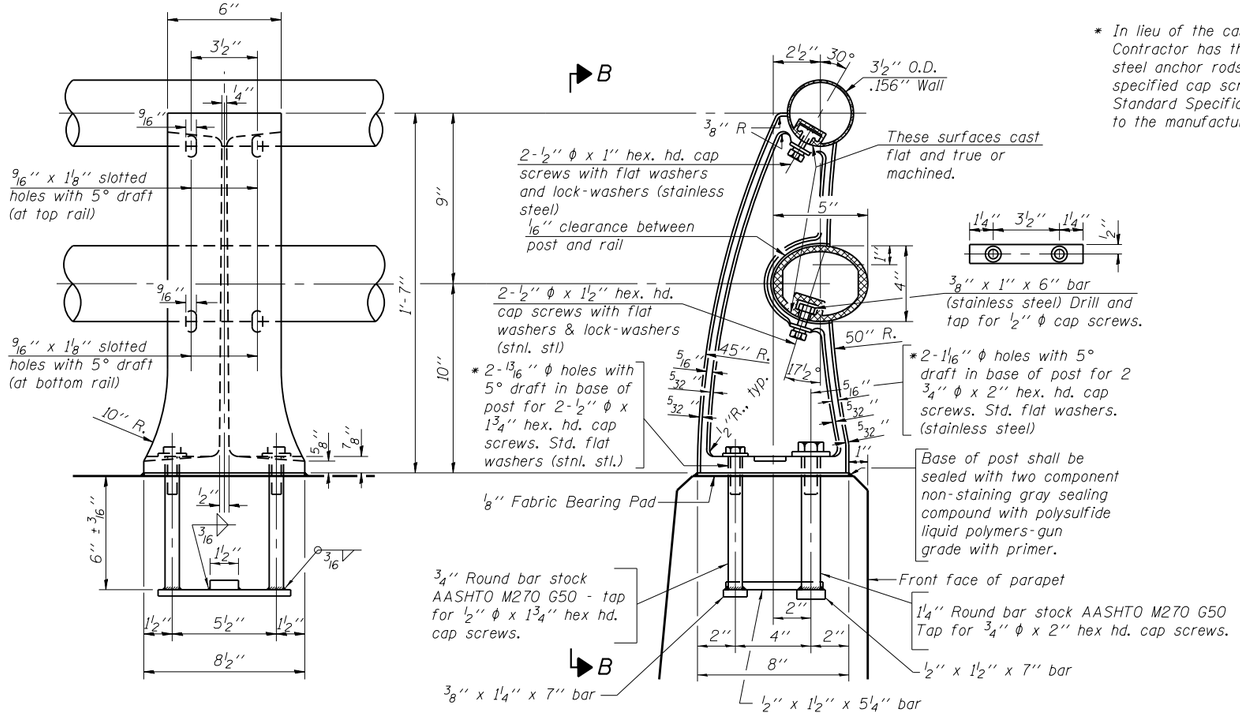
BSD-1 6-8-15

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -
		CHECKED - AMS	REVISED -
	PLOT SCALE =	DRAWN - DR	REVISED -
	PLOT DATE =	CHECKED - AMS	REVISED -

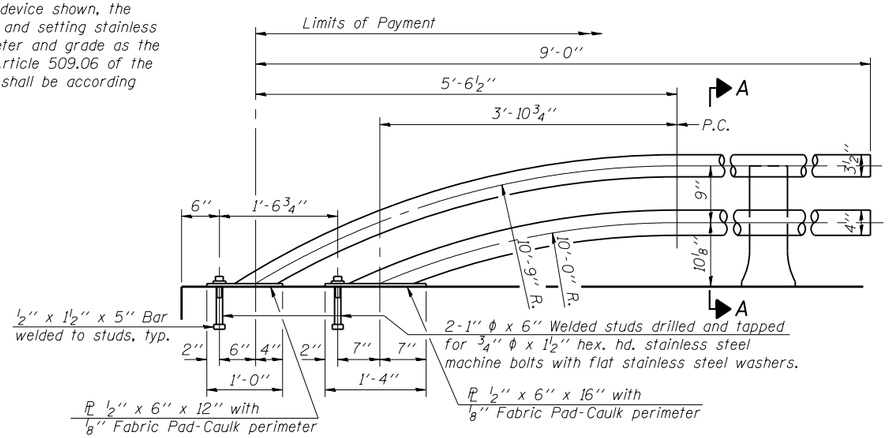
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

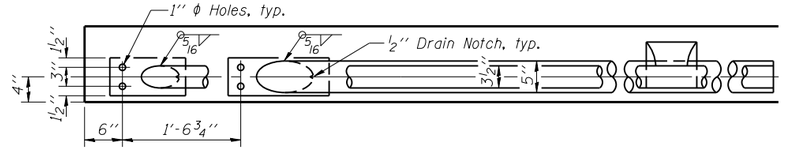
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 056-0016
SHEET NO. 9 OF 10 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	31
		CONTRACT NO. 60M77		
	ILLINOIS	FED. AID PROJECT		



* *In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.*



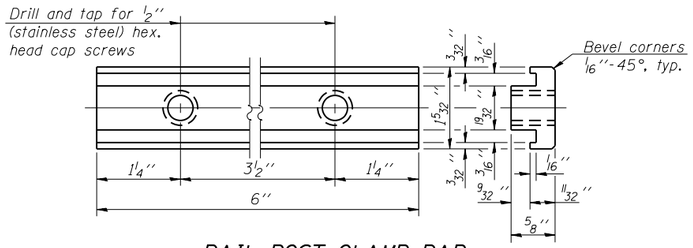


RAIL TERMINAL SECTION

VIEW B-B

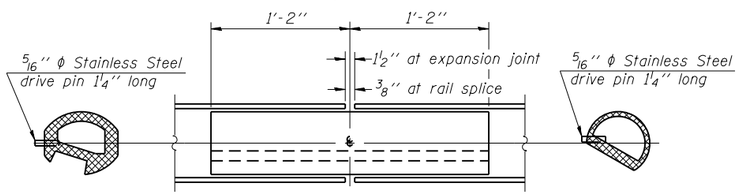
SECTION A-A

RAIL POST DETAILS

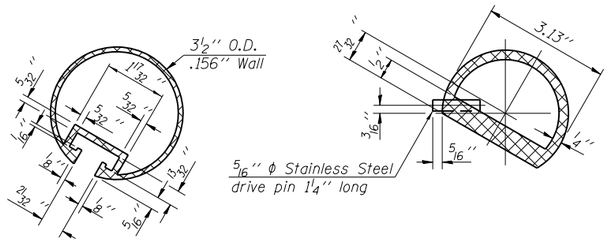


RAIL POST CLAMP BAR

For Top Rail



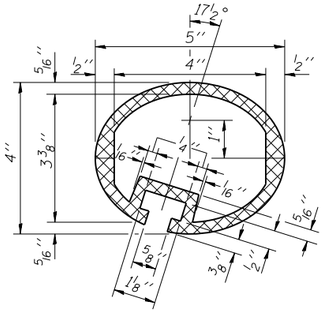
RAIL SPLICE



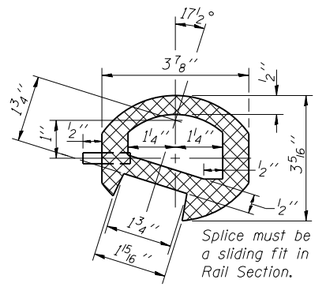
SECTION THRU TOP RAIL

SECTION THRU SPLICE

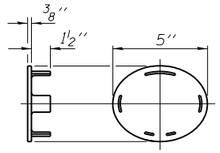
For Top Rail



SEC. THRU ELLIPTICAL RAIL SECTION

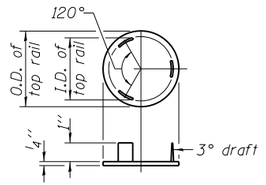


SEC. THRU SPLICE



CAST END CAP

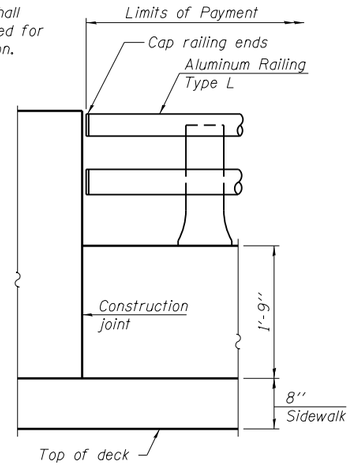
For bottom rail
DRIVE FIT TYPE



CAST END CAP

For top rail

Note:
The end rail post shall be set back as required for the terminal rail section.



RAIL END TREATMENT FOR TYPE 5 AND 6 TERMINAL

Notes:
All Posts shall be normal to parapet.
All joints in rail shall be spliced per detail.
All exposed rail ends shall be capped per detail.
Provide 1-⅛'' and 2-1/16'' Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
See sheet of for rail post spacing.

FOR INFORMATION ONLY

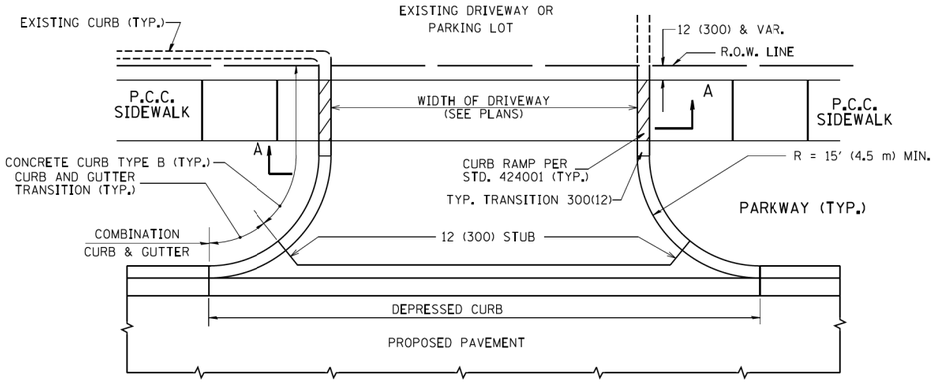
R-20

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISED -
		CHECKED - AMS	REVISED -
	PLOT SCALE =	DRAWN - DR	REVISED -
	PLOT DATE =	CHECKED - AMS	REVISED -

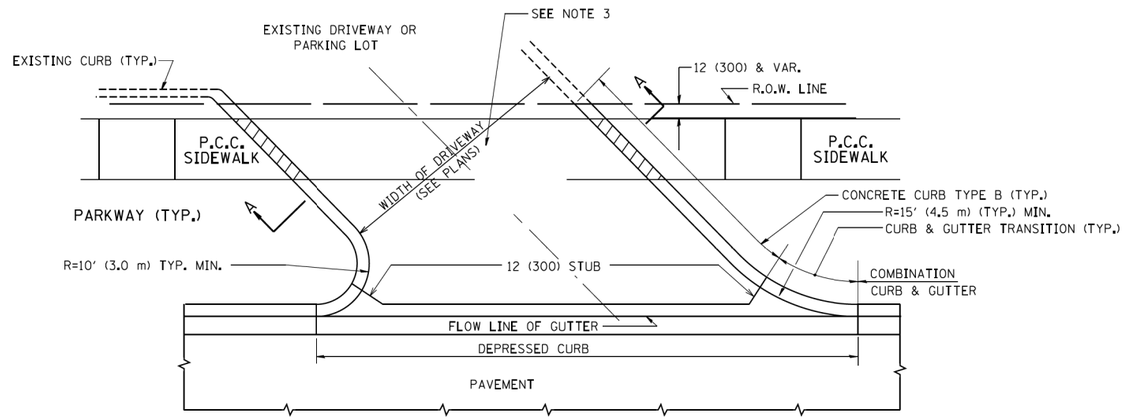
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALUMNINUM RAILING, TYPE L
STRUCTURE NO. 056-0016
SHEET NO. S10 OF S10 SHEETS

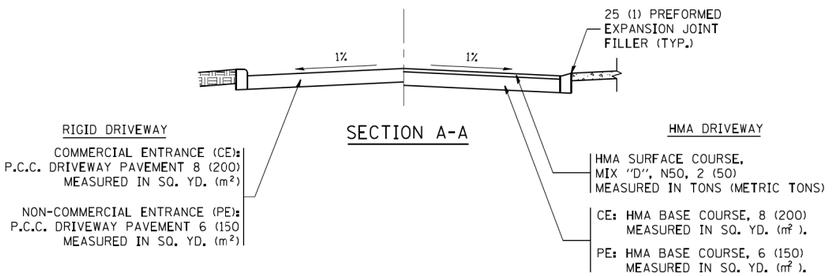
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	32
		CONTRACT NO. 60M77		
	ILLINOIS FED. AID PROJECT			

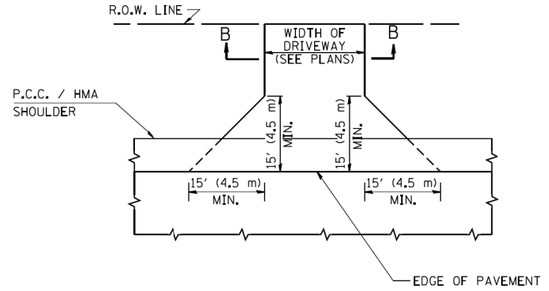


WITH CONCRETE CURB, TYPE B

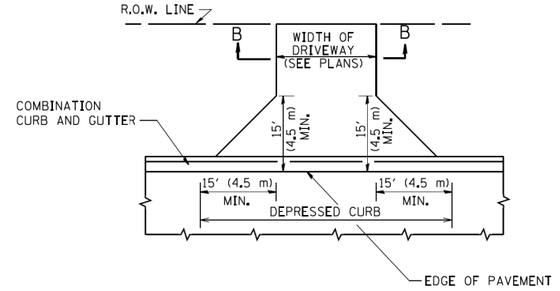


WITH CONCRETE CURB, TYPE B

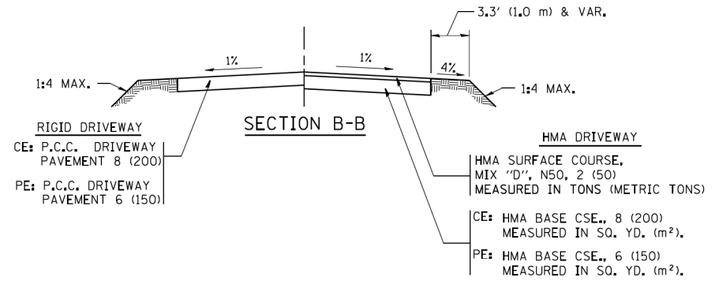




ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX "D", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m^2).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

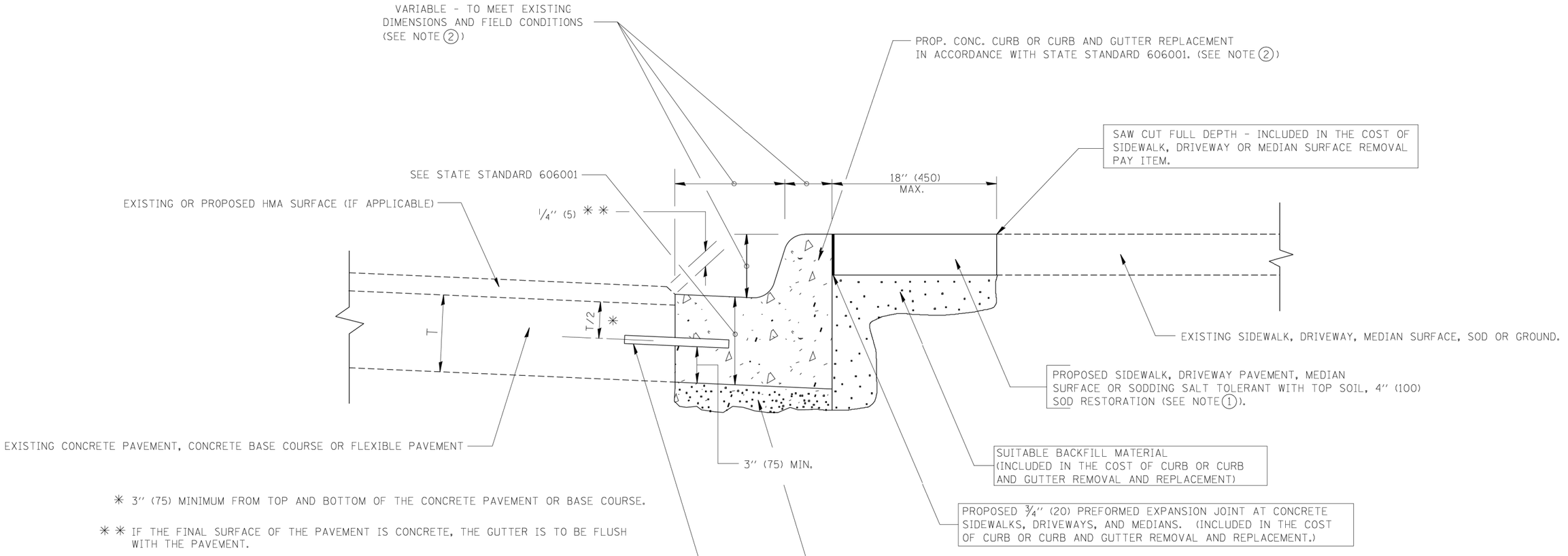
COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

FILE NAME = c:\pw_work\pwidot\leysa\d0108315\bd01.dgn	USER NAME = leysa	DESIGNED - R. SHAH	REVISED - P. LaFLUER 04-15-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DRIVEWAY DETAILS – DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. BORO 01-01-07			3887	2010-1221	McHENRY	42	33
	PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - R. BORO 06-11-08				BD0156-07 (BD-01)		CONTRACT NO. 60M77	
	PLOT DATE = 9/6/2011	DATE - 11-04-95	REVISED - R. BORO 09-06-11		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

bd01.dgn 9/6/2011 11:50:24 AM User:leysa



* 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.

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY,

(2) FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

(3) CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

(4) FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

(5) 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.

(6) 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.

(7) 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.

(8) 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.

BASIS OF PAYMENT:

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

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

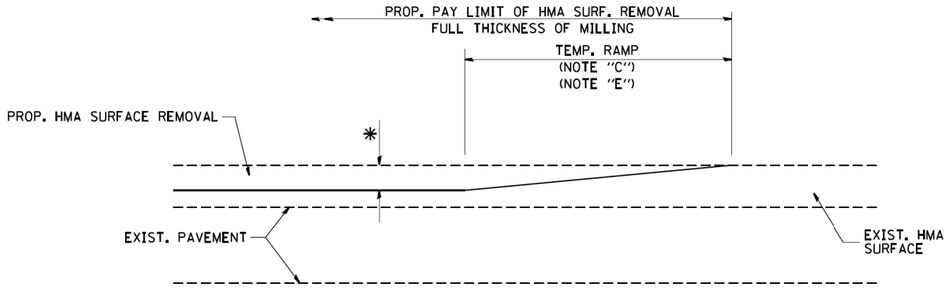
FILE NAME = c:\pw_work\pwidot\drivakosgn\d0108315\bd24.dgn	USER NAME = drivakosgn	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01
	PLOT DATE = 12/15/2009	DATE - 03-11-94	REVISED - R. BORO 12-15-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

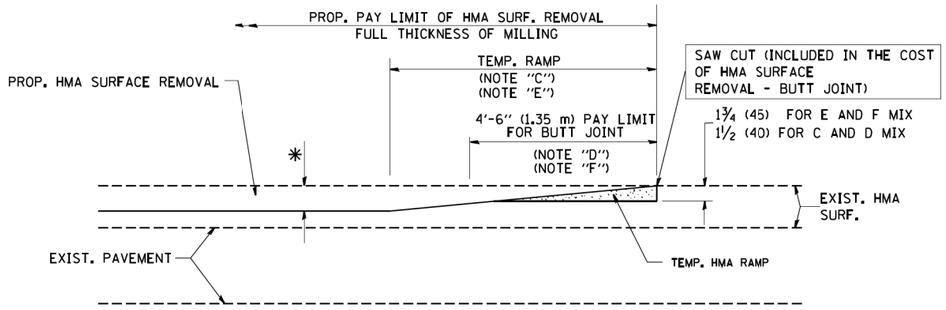
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	34
	BD600-06 (BD-24)	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

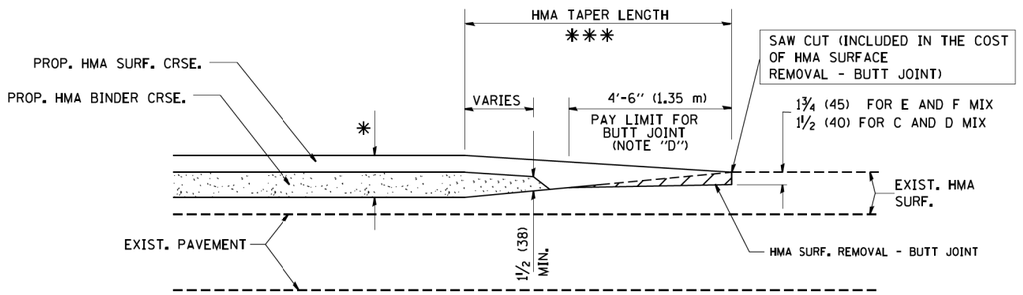


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

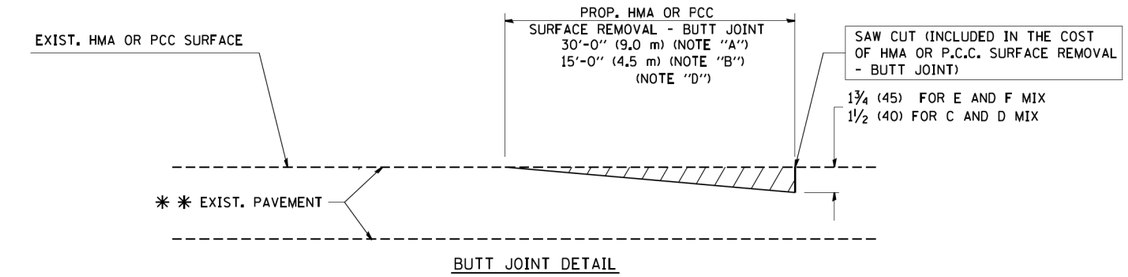
OPTION 2

TYPICAL TEMPORARY RAMP

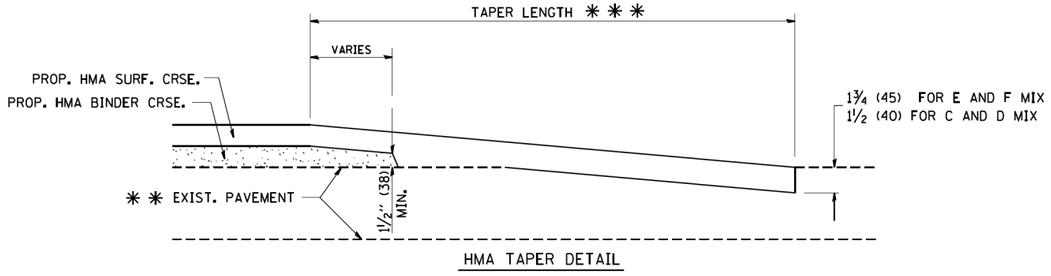


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

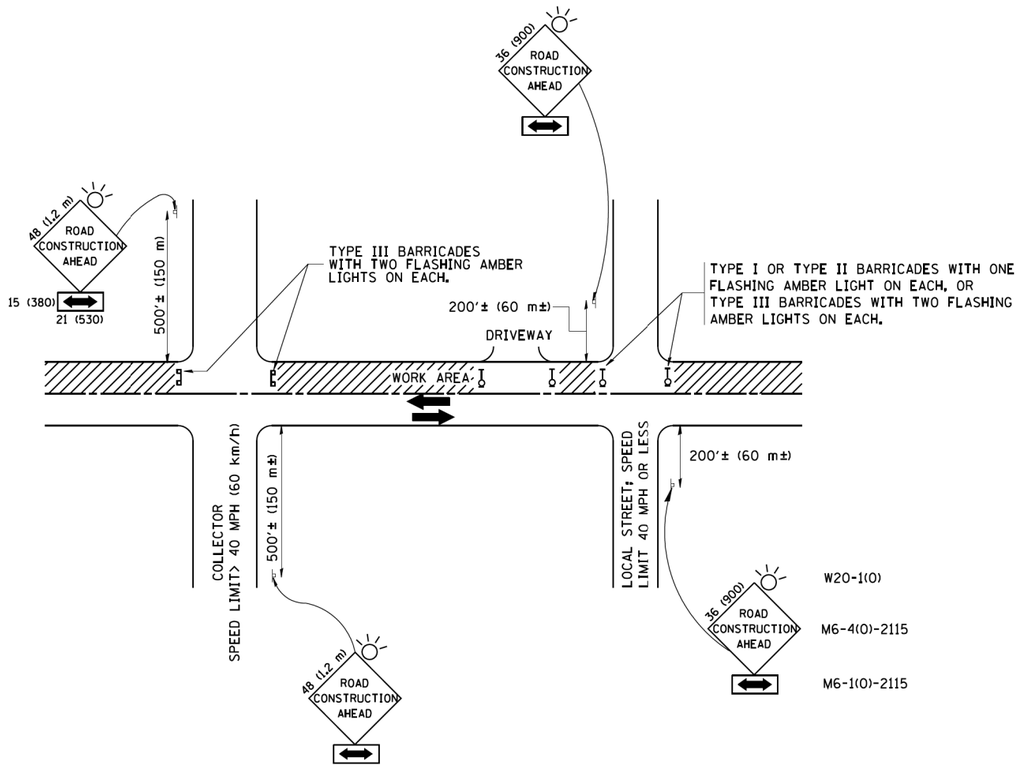
BASIS OF PAYMENT:

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

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

FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = geglienobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS
		DRAWN -	REVISED - A. ABBAS 03-21-97		
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01		
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	35
	BD400-05 BD32	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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.

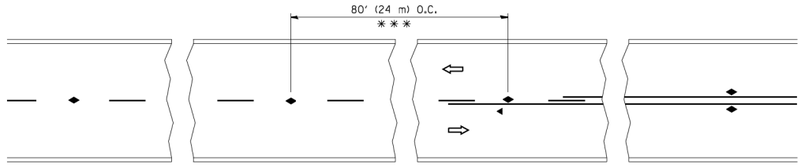
FILE NAME = W:\diststd\22x34\tc10.dgn	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

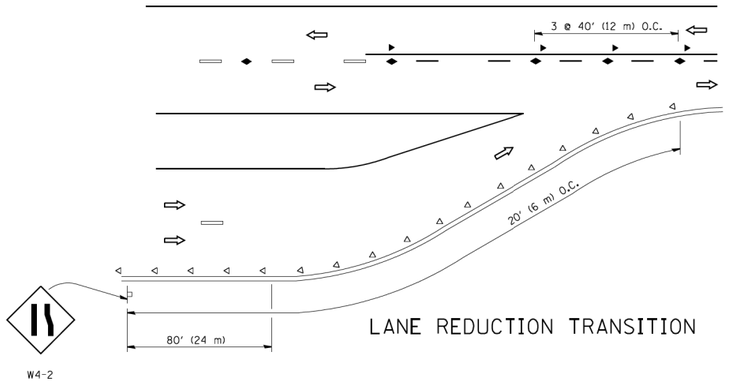
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	36
	TC-10	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

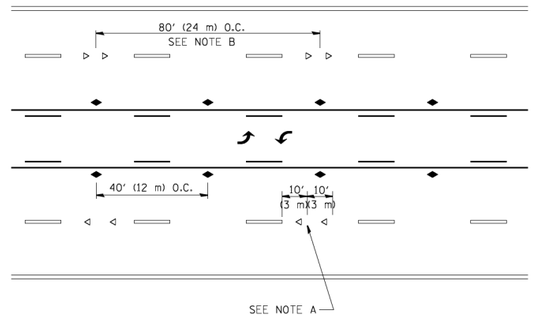


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

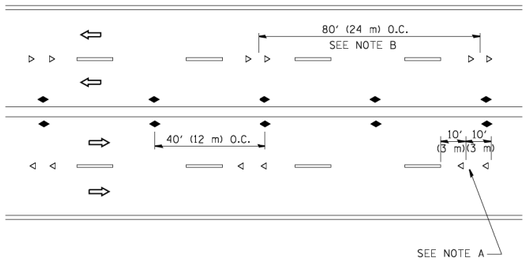
TWO-LANE/TWO-WAY



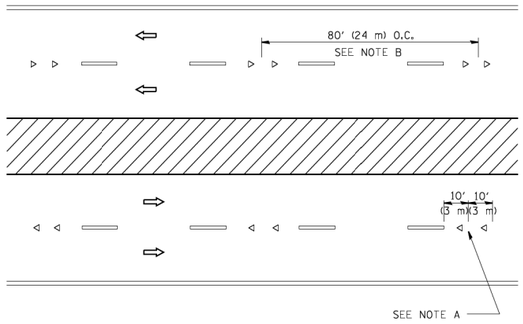
LANE REDUCTION TRANSITION



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

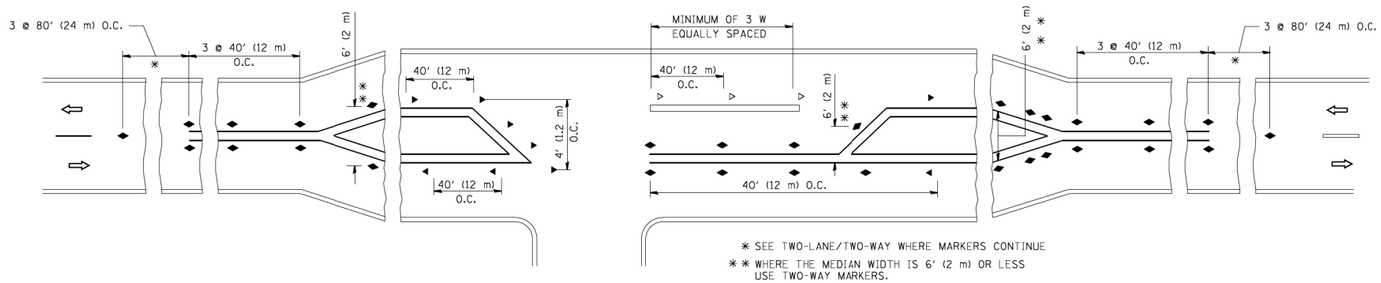
LANE MARKER NOTES

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 SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

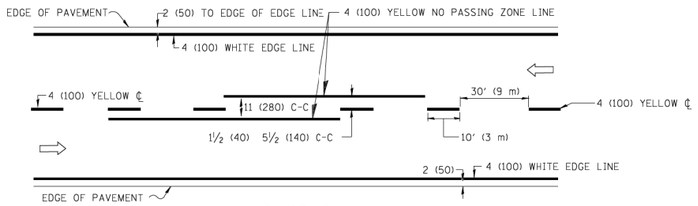
* * WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

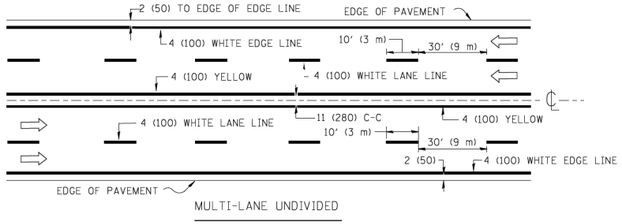
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = c:\pw_work\pwidot\leysa\d0108315\tell.dgn	USER NAME = leysa	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
		DRAWN -	REVISED - T. RAMMACHER 03-12-99		
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.
	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09		

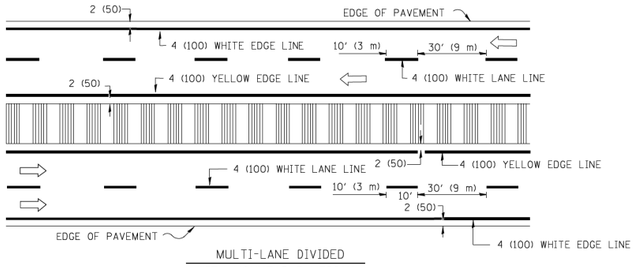
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	37
	TC-11	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT				



2-LANE ROADWAY



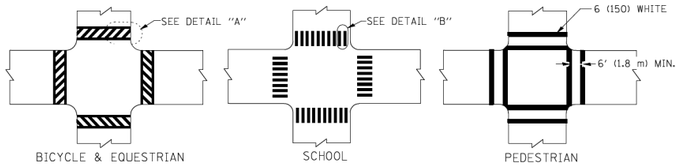
MULTI-LANE UNDIVIDED

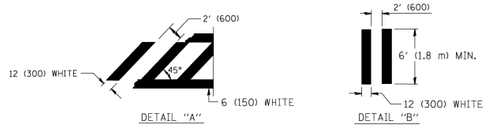


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

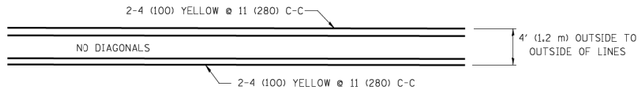
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

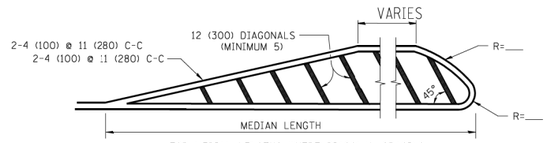




TYPICAL CROSSWALK MARKING



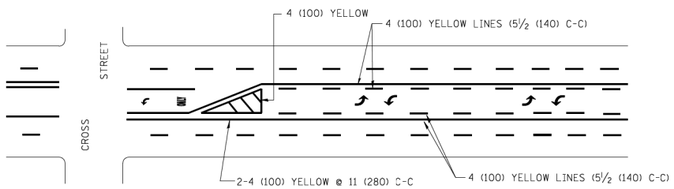
4' (1.2 m) WIDE MEDIANS ONLY



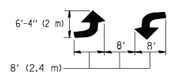
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

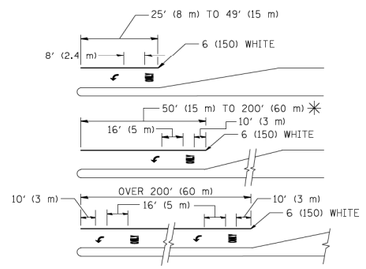


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

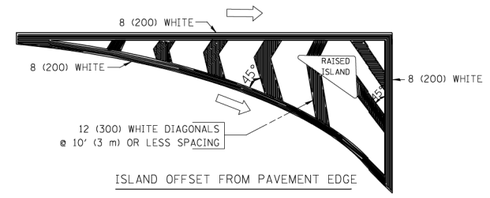


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

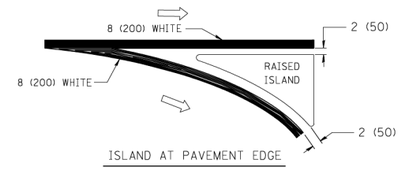
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

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 ø 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ø 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (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 ø 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; 5½ (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 ø 6 (150) 12 (300) ø 45° 12 (300) ø 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) 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 ø 4 (100) WITH 12 (300) DIAGONALS ø 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 ø 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 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) ø 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.

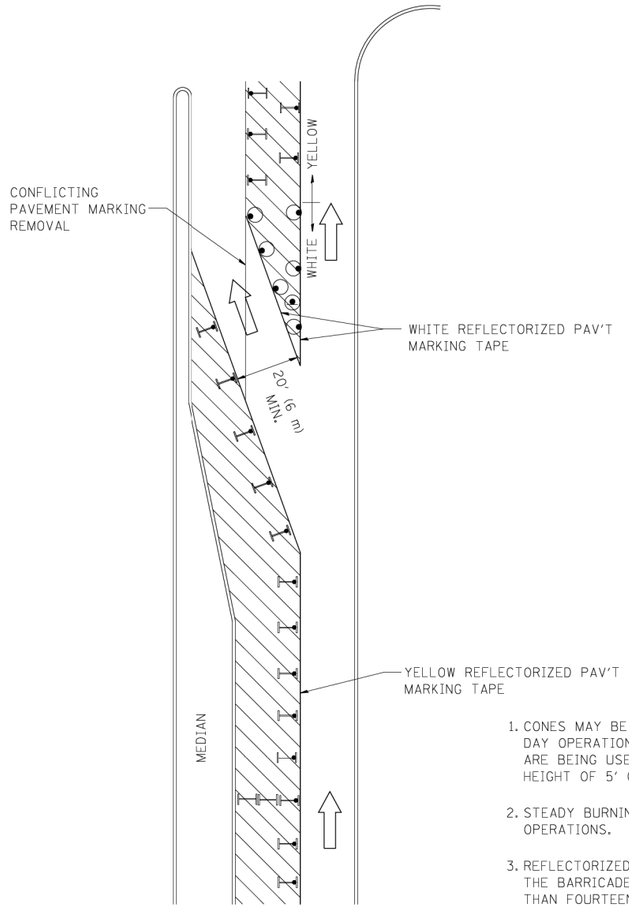
FILE NAME = c:\pw_work\pwidot\drivakosgn\d0108315\tc13.dgn	USER NAME = drivakosgn	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
		DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

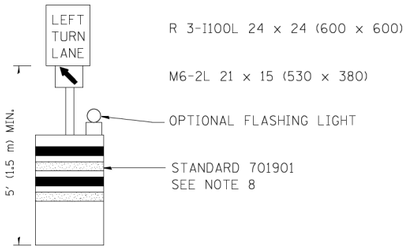
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	38
	TC-13	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHR 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

FILE NAME = c:\pw_work\PWIDOT\DRIVAKOSGN\d0108315\tc14.dgn	USER NAME = drivakosgn	REVISED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
	PLOT SCALE = 49.9999 ' / IN.	REVISED - A. HOUSEH 11-07-95	REVISED -
	PLOT DATE = 9/14/2009	REVISED - A. HOUSEH 10-12-96	REVISED -
		REVISED -T. RAMMACHER 01-06-00	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	39
	TC-14	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

ROUTE MARKERS

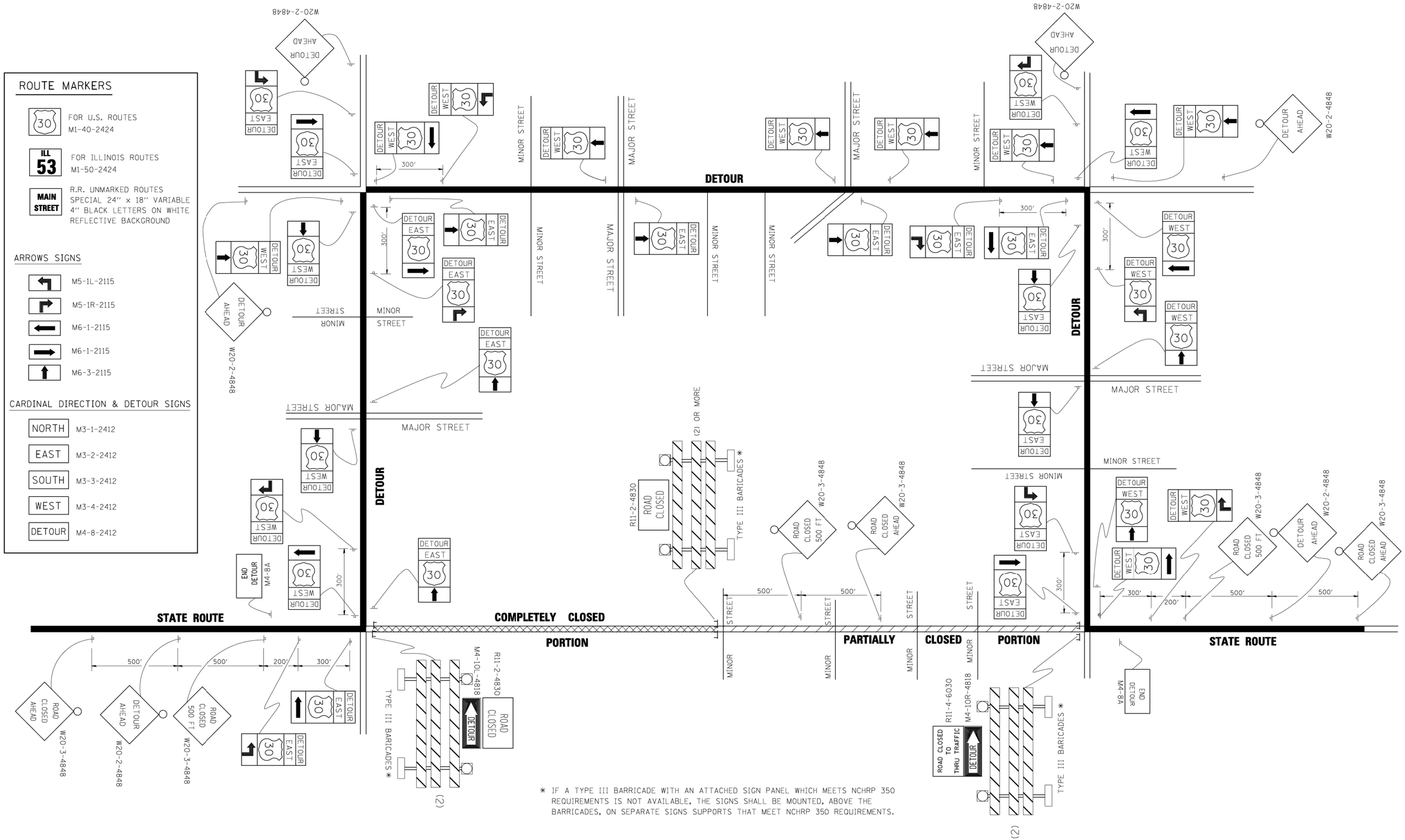
- 30 — FOR U.S. ROUTES M1-40-2424
- ILL 53 — FOR ILLINOIS ROUTES M1-50-2424
- MAIN STREET — R.R. UNMARKED ROUTES SPECIAL 24" x 18" VARIABLE 4" BLACK LETTERS ON WHITE REFLECTIVE BACKGROUND

ARROWS SIGNS

- M5-1L-2115
- M5-1R-2115
- M6-1-2115
- M6-1-2115
- M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

- NORTH M3-1-2412
- EAST M3-2-2412
- SOUTH M3-3-2412
- WEST M3-4-2412
- DETOUR M4-8-2412



* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

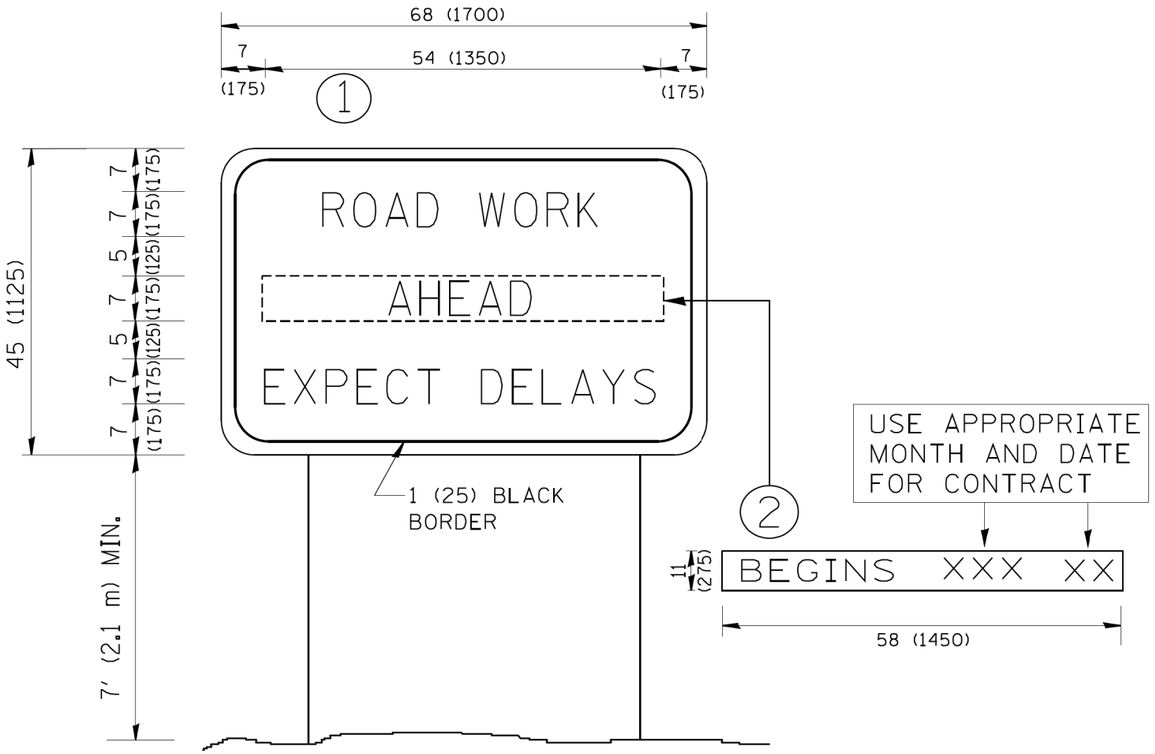
FILE NAME = c:\pw_work\PWIDOT\DRIVAKOSGN\d0108315\tc21.dgn	USER NAME = drivakosgn	DESIGNED -	REVISED - 10-18-02
		DRAWN -	REVISED - R. BORO 09-14-09
	PLOT SCALE = 49.9999 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/14/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING FOR CLOSING STATE HIGHWAYS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	40
	TC-21	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	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.

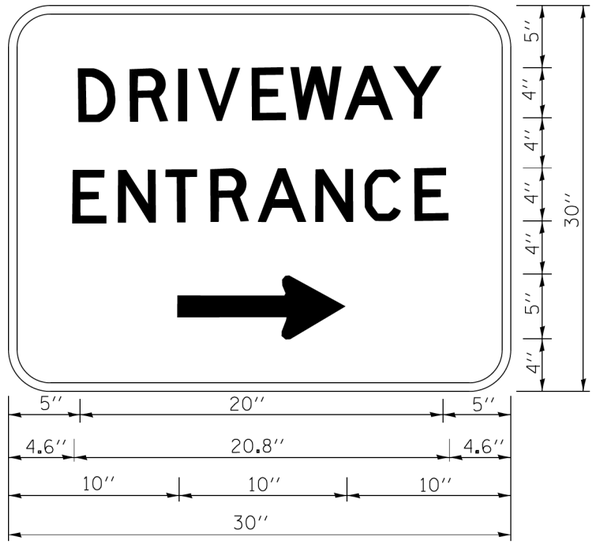
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	41
	TC-22	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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

NOTES:

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

FILE NAME = c:\pw_work\pwidot\gaglianobt\d0108315\tc26.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED -
	PLOT DATE = 12/13/2012	DATE -	REVISED -

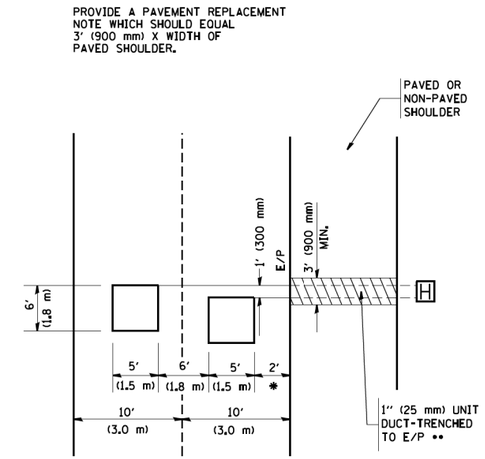
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENTRANCE SIGNING

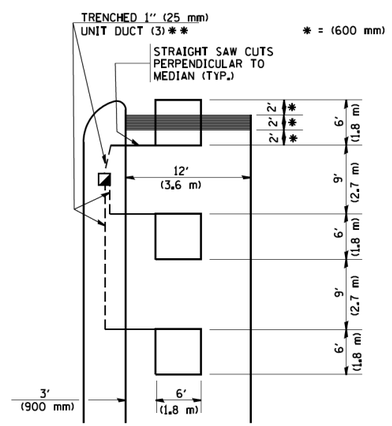
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	42
	TC-26	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOOPS NEXT TO SHOULDERS

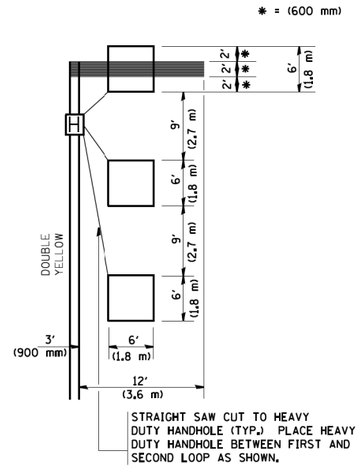


LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)



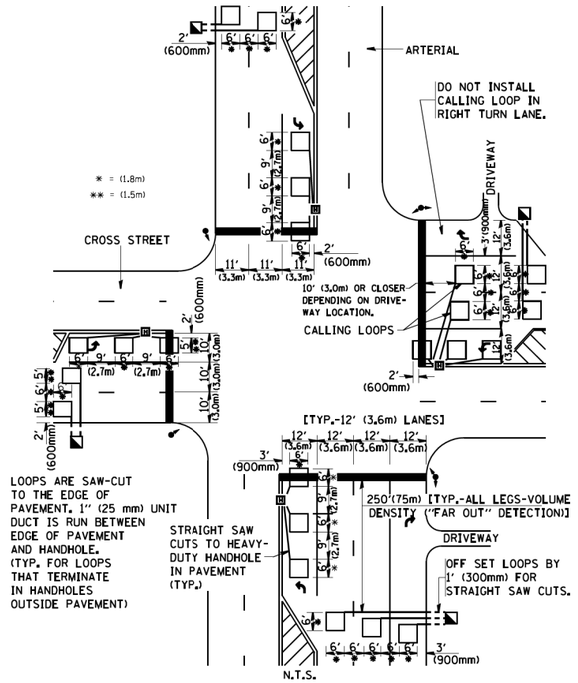
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)



NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)

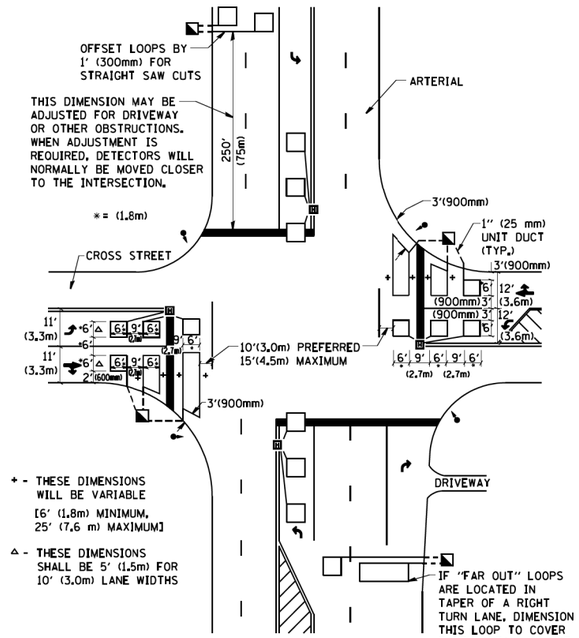


LOOPS ARE SAW-CUT TO THE EDGE OF PAVEMENT. 1" (25 mm) UNIT DUCT IS RUN BETWEEN EDGE OF PAVEMENT AND HANDHOLE. (TYP. FOR LOOPS THAT TERMINATE IN HANDHOLES OUTSIDE PAVEMENT)

STRAIGHT SAW CUTS TO HEAVY-DUTY HANDHOLE IN PAVEMENT (TYP.)

DETAIL 1
N.T.S.

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

FILE NAME = W:\diststd\22x34\ts07.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 – DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	2010-1221	McHENRY	42	42A
	TS-07	CONTRACT NO. 60M77		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		