

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	0312-708W-1	COOK	9	1
		ILLINOIS	CONTRACT NO. 60N81	

9+6=15

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

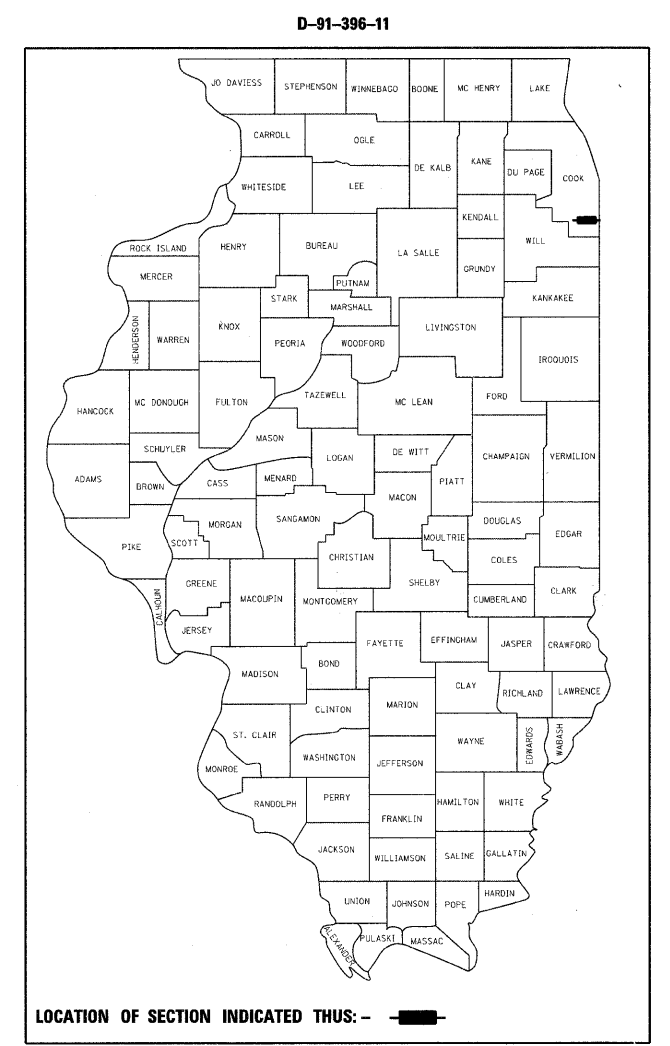
FAP 332 / ILLINOIS ROUTE 394
SECTION 0312-708W-1
OVER EQUESTRIAN TRAIL (2.2 MI. S. OF I-80)
WING WALL REPAIR
COOK COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION

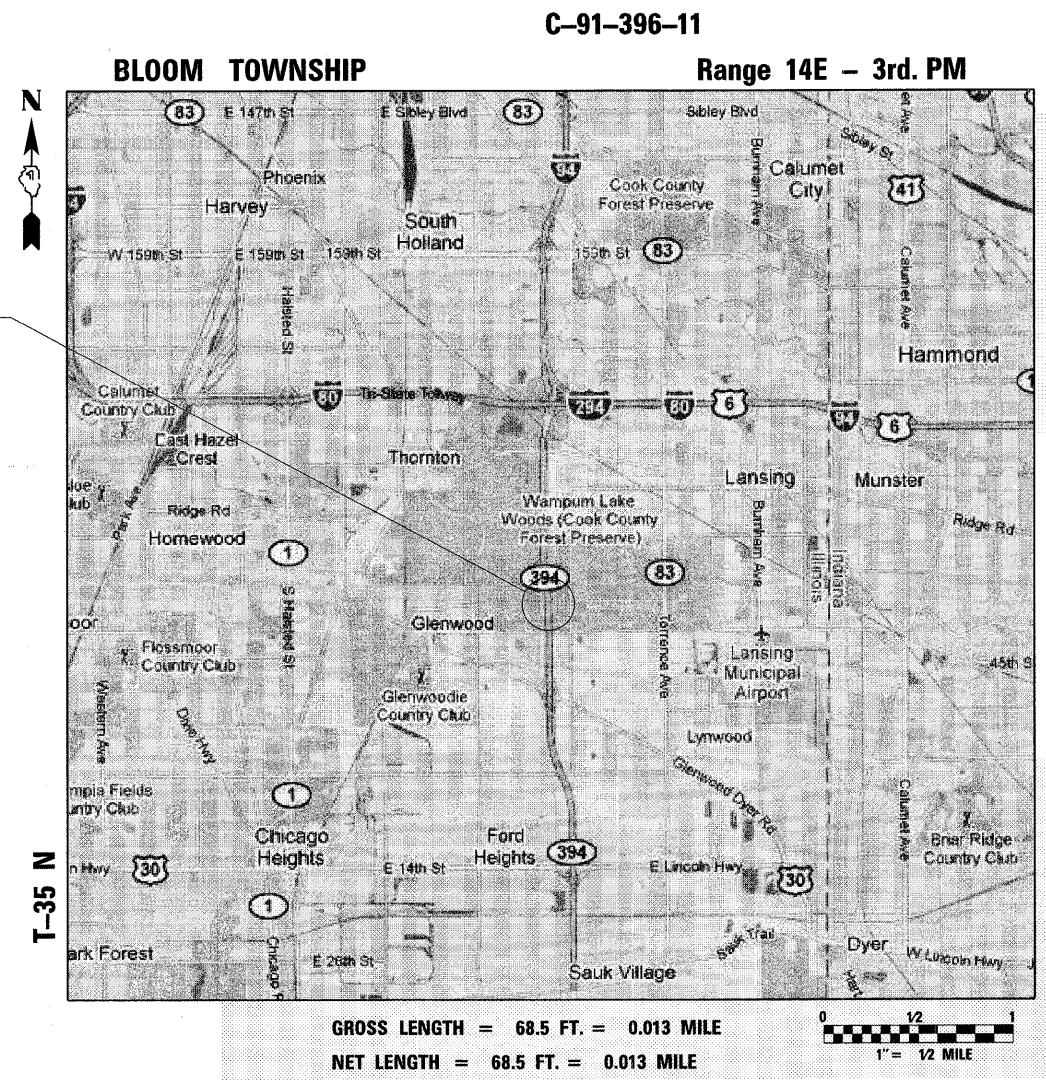
MINOR FREEWAY AND EXPRESSWAY (URBAN)
ADT 64900 (2009)
SPEED LIMIT 55

**IMPROVEMENT LOCATED
IN THE BLOOM TOWNSHIP**

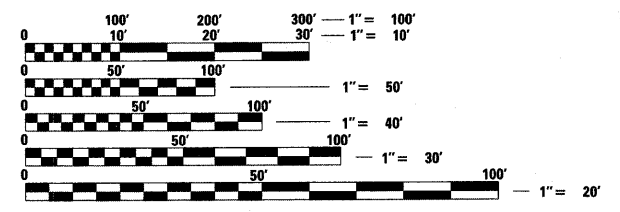


LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

**IMPROVEMENT LOCATION
ILLINOIS ROUTE 394
OVER EQUESTRIAN TRAIL
STRUCTURE NO: 016-1211**



GROSS LENGTH = 68.5 FT. = 0.013 MILE
NET LENGTH = 68.5 FT. = 0.013 MILE

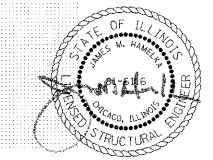


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

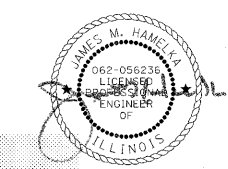
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT MANAGER: MR. ISSAM RAYYAN, P.E. (847) 705-4550
PROJECT ENGINEER: MR. ROBERT T. BORO, P.E. (847) 705-4178

CONTRACT NO. 60N81



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 81-6116
EXPIRES 11-30-2012



COLLINS ENGINEERS, INC.
JAMES M. HAMELKA
NO. 062-056236
EXPIRES 11-30-2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED MARCH 2, 20 11

Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 4 20 11

Scott E. Still, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

March 4 20 11

Christine M. Readler
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

COLLINS ENGINEERS, INC.
123 N. WACKER DR., SUITE 300
CHICAGO, IL 60606
(312) 704-9300
ILLINOIS PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-000993

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

- 1 Title Sheet
- 2 Index of Sheets, General Notes and Highway Standards
- 3 Summary of Quantities
- 4-8 Structure Plans S1-S5
- 9a-9d Remove and Reerect Steel Plate Beam Guardrail
- 9e District One Typical Pavement Markings
- 9f Traffic Control Details for Freeway Shoulder Closures and Partial Ramp Closures
- 9g Arterial Road Information Sign

INDEX OF HIGHWAY STANDARDS

- | Standard No. | Description |
|--------------|---|
| 442201-03 | Class C and D Patches |
| 515001-03 | At-grade Bridge |
| 63001-09 | Steel Plate Beam Guardrail |
| 635011-02 | Reflector Marker and Mounting Details |
| 701401-05 | Approach to Lane Closure, Freeway/Expressway |
| 701401-06 | Lane Closure, Freeway/Expressway |
| 701402-08 | Lane Closure, Freeway/Expressway, with Barrier |
| 701406-06 | Lane Closure, Freeway/Expressway, Day Operations Only |
| 701301-01 | Traffic Control Devices |
| 704001-06 | Temporary Concrete Barrier |
| 780001-02 | Typical Pavement Markings |

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. 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.
4. The Resident Engineer shall contact the Area Traffic Field Engineer, Patrice Harris at 708-597-9800 at least two (2) weeks prior to the placement of permanent pavement markings.
5. The Contractor will not be allowed to set up a yard or field office on State property without written permission from the Department.
6. Do not scale these plans for construction purposes.
7. 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.
8. 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.
9. The plans do not represent a complete depiction of all utilities that may be impacted by the proposed work. The Contractor shall conduct his or her own investigation to determine the ownership of impacted utilities. The Contractor shall coordinate with the utility owners and may be required to provide temporary support, adjust, relocate or remove utilities that are impacted by the proposed improvement. This work shall be considered incidental to the project.
10. Temporary Information Signing shall be provided on the Equestrian Trail to alert users that the trail will be closed during construction. Coordination with the Forest Preserve District (or other appropriate party) is required. The signing shown in TC-22 (Sheet 9g) shall be modified from "Expect Delays" to "Trail Closed." This work shall be included in the pay item for Temporary Information Signing.

FILE NAME =	USER NAME = #USER#	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, INDEX OF SHEETS, AND STATE STANDARDS STRUCTURE NO. 016-1211				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = #SCALE#	DRAWN - DR	REVISED -		332	0312-708W-I	COOK	9	2				
	PLOT DATE = #DATE#	CHECKED - JMH	REVISED -	SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	CONTRACT NO. 60N81 ILLINOIS FED. AID PROJECT					
		DATE - MARCH, 2011	REVISED -										

				URBAN	
				CONSTR. TYPE CODE	
				STRUCTURE 0040	
CODE	ITEM DESCRIPTION	UNIT	QUANTITY	STATE 100%	
20100110	Tree Removal (6 to 15 Units Diameter)	Unit	39	39	
20100210	Tree Removal (Over 15 Units Diameter)	Unit	16	16	
20700220	Porous Granular Embankment	Cu. Yd.	81.2	81.2	
28100107	Stone Riprap, Class A4	Sq. Yd.	39	39	
28200200	Filter Fabric	Sq. Yd.	39	39	
42001300	Protective Coat	Sq. Yd.	86	86	
44201670	Class D Patches, Type 1, 2 Inch	Sq. Yd.	9	9	
50200100	Structure Excavation	Cu. Yd.	6	6	
50300225	Concrete Structures	Cu. Yd.	14	14	
50500505	Stud Shear Connectors	Each	48	48	
50800205	Reinforcement Bars, Epoxy Coated	Pound	1460	1460	
59100100	Geocomposite Wall Drain	Sq. Yd.	615	615	
* 63301210	Remove and Reerect Steel Plate Beam Guardrail, Type A	Foot	232	232	
67000400	Engineer's Field Office, Type A	Cal. Mo.	6	6	
67100100	Mobilization	L. Sum	1	1	
70300240	Temporary Pavement Marking-Line 6"	Foot	165	165	
70301000	Work Zone Pavement Marking Removal	Sq. Ft.	1144	1144	
70400100	Temporary Concrete Barrier	Foot	165	165	
70400200	Relocate Temporary Concrete Barrier	Foot	165	165	
78200530	Barrier Wall Markers, Type C	Each	14	14	
X5121800	Permanent Steel Sheet Piling	Sq. Ft.	2931	2931	
X7011015	Traffic Control and Protection, (Expressways)	L. Sum	1	1	
X7030035	Wet Reflective Temporary Tape Type III, 5 Inch	Foot	3430	3430	
Z0030250	Impact Attenuators, Temporary (Non-Redirective), Test Level 3	Each	1	1	
Z0030350	Impact Attenuators, Relocate (Non-Redirective), Test Level 3	Each	1	1	
Z0030850	Temporary Information Signing	Sq. Ft.	41	41	
Z0046304	Pipe Underdrains for Structures 4"	Foot	145	145	

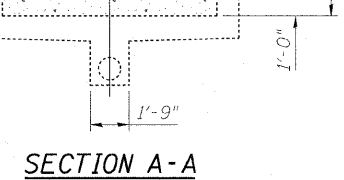
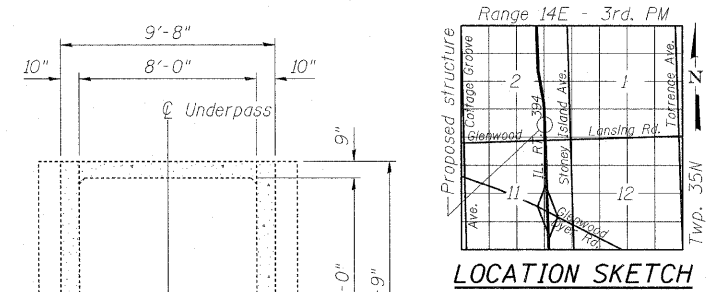
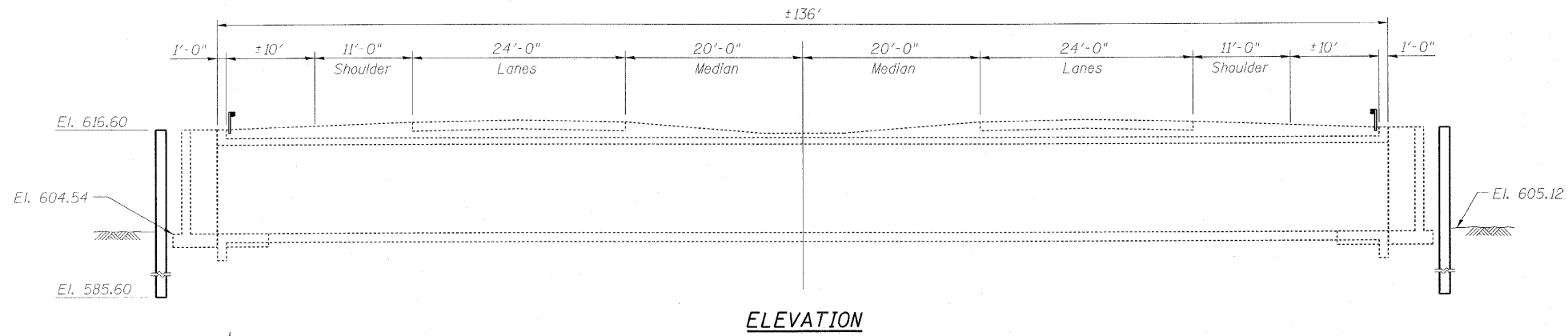
*Specialty Item

FILE NAME =	USER NAME = #USERS#	DESIGNED - AMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES STRUCTURE NO. 016-1211				F.A.P. RTE. 332	SECTION 0312-708W-1	COUNTY COOK	TOTAL SHEETS 9	SHEET NO. 3
	PLOT SCALE = #SCALE#	CHECKED - JMH	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60N81 <small>ILLINOIS FED. AID PROJECT</small>		
PLOT DATE = #DATE#	DATE - FEBRUARY, 2011	REVISED -											

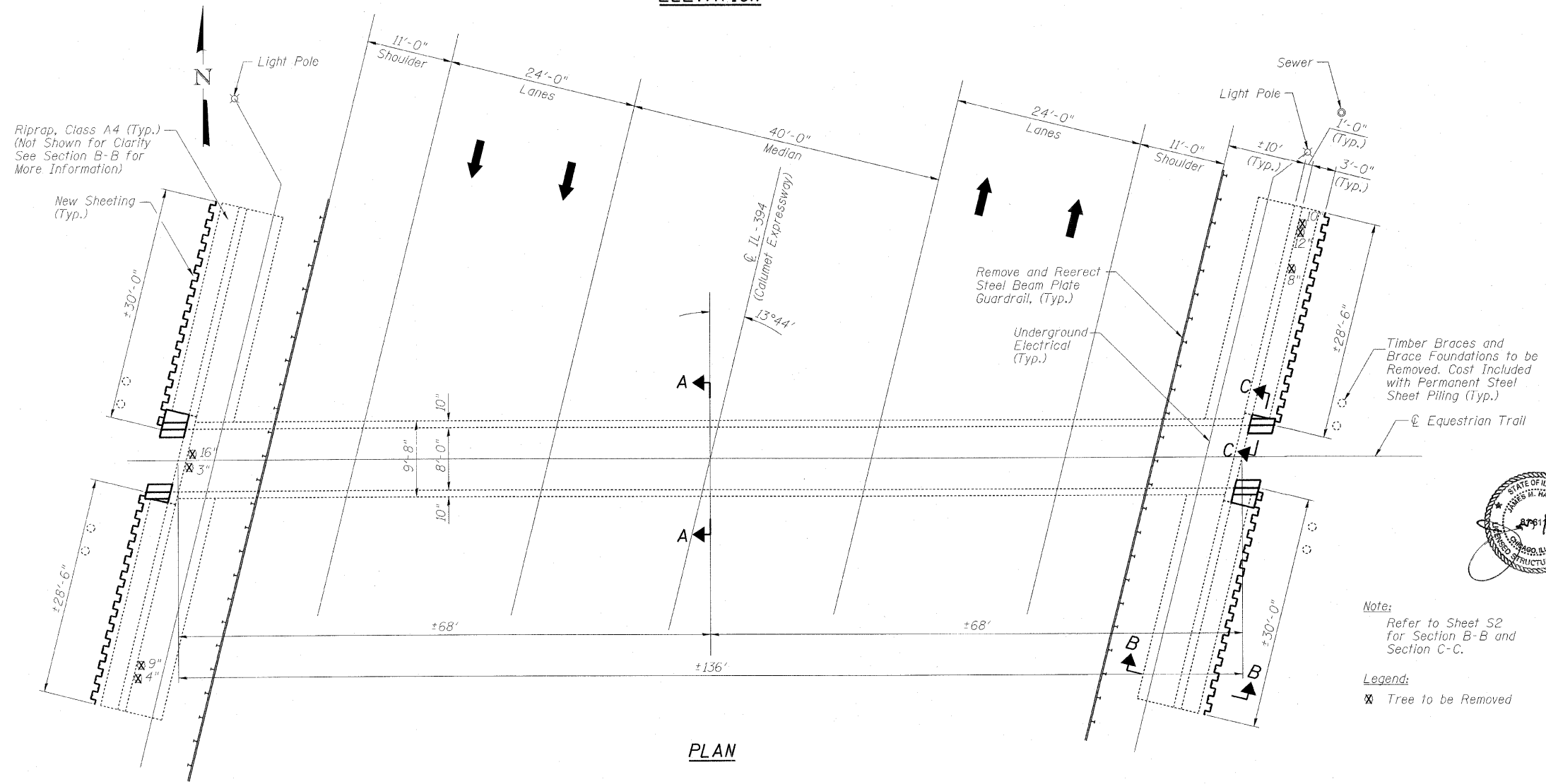
Rev.

Existing Structure: S.N. 016-1211 was built in 1950 as Section No. 066-102.2.

No Salvage.



SCOPE OF WORK
I. Wingwall Repair.

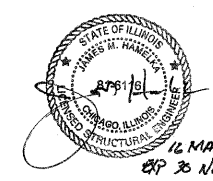


DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications for Highway Bridges (17th Edition)

LOADING HS20-44

DESIGN STRESSES

FIELD UNITS
 $f_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)



Note:
Refer to Sheet S2 for Section B-B and Section C-C.

Legend:
⊗ Tree to be Removed

GENERAL PLAN AND ELEVATION
IL. RT. 394 OVER EQUESTRIAN TRAIL
F.A.P. RT. 332 - SEC. 0312-708W-1
WILL COUNTY
STRUCTURE NO. 016-1211

FILE NAME =	USER NAME =	DESIGNED - AMS	REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NO. 016-1211	F.A.P. RTE. 332	SECTION 0312-708W-1	COUNTY COOK	TOTAL SHEETS 9	SHEET NO. 4	
PLOT SCALE =	DRAWN - DR	CHECKED - AMS	REVISIONS			CONTRACT NO. 60N81					
PLOT DATE =	CHECKED - JMH	DRAWN - DR	REVISIONS			ILLINOIS FED. AID PROJECT					

INDEX OF SHEETS

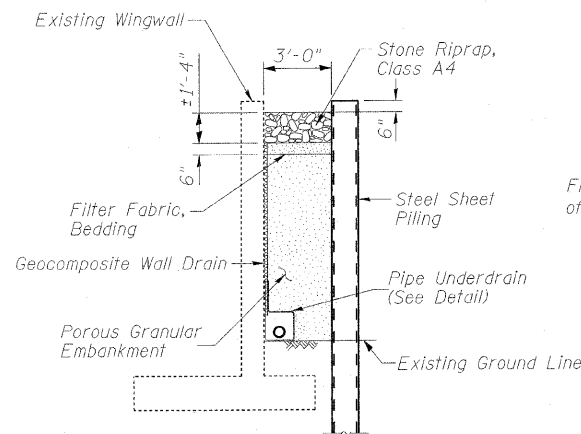
- S1. General Plan and Elevation
- S2. General Notes, Bill of Materials and Index of Sheets
- S3. Steel Sheet Pile Wall Details
- S4. Culvert Wall Extension Details
- S5. Soil Boring Logs

GENERAL NOTES:

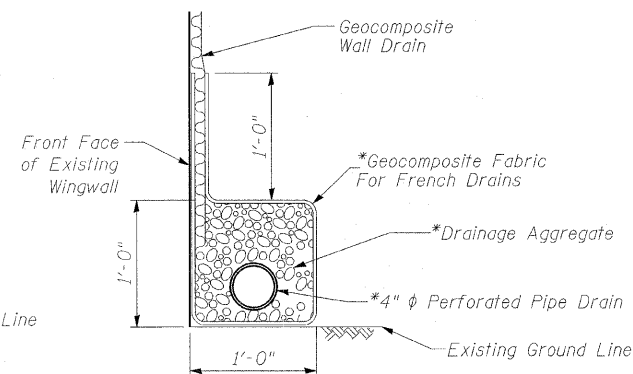
1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
2. All reinforcement bars shall be epoxy coated.
3. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing 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.
4. The Contractor shall make his own investigation to determine the existence, nature, and exact location of all utility lines and appurtenances within the limits of the work. The cost of this work shall be incidental to the contract.
5. The Contractor shall exercise caution during excavation around the existing culvert and wingwalls to avoid undermining the foundation.
6. The Contractor shall contact IDOT electrical maintenance contractor to field locate electrical conduit for street lighting.
7. Contractor shall core weep holes at 5 foot centers in all four existing wingwalls 2 feet above the ground level prior to placing steel sheet piling. Cost is included with Porous Granular Embankment.

TOTAL BILL OF MATERIAL

ITEM DESCRIPTION	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	81.2
Stone Rip Rap, Class A4	Sq. Yd.	39
Filter Fabric	Sq. Yd.	39
Protective Coat	Sq. Yd.	86
Concrete Structures	Cu. Yd.	14.0
Reinforcing Bars, Epoxy Coated	Pound	1,460
Remove and Reerect Steel Plate Beam Guardrail, Type A	Foot	232
Permanent Steel Sheet Piling	Sq. Ft.	2,931
Structure Excavation	Cu. Yd.	6.0
Stud Shear Connectors	Each	48
Geocomposite Wall Drain	Sq. Yd.	615
Class D Patches, Type I, 2"	Sq. Yd.	9
Pipe Underdrain for Structures, 4"	Foot	145
Tree Removal (6 to 15 Units Diameter)	Unit	39
Tree Removal (Over 15 Units Diameter)	Unit	16



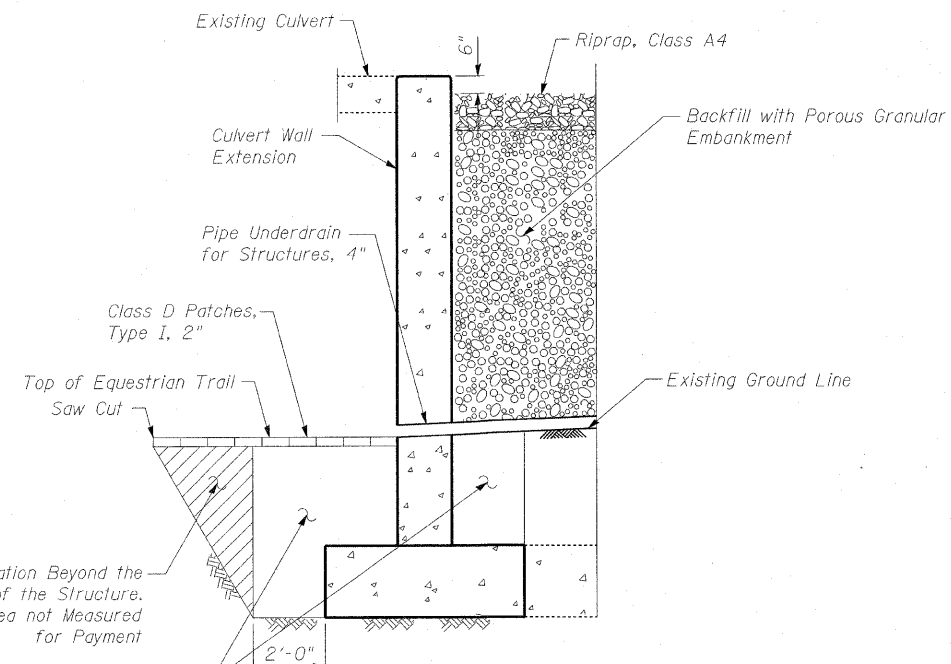
SECTION B-B



PIPE UNDERDRAIN DETAIL

* Cost Included With "Pipe Underdrain for Structures 4"

** Backfill Remainder of Structure excavation and over excavation with Porous Granular Embankment.

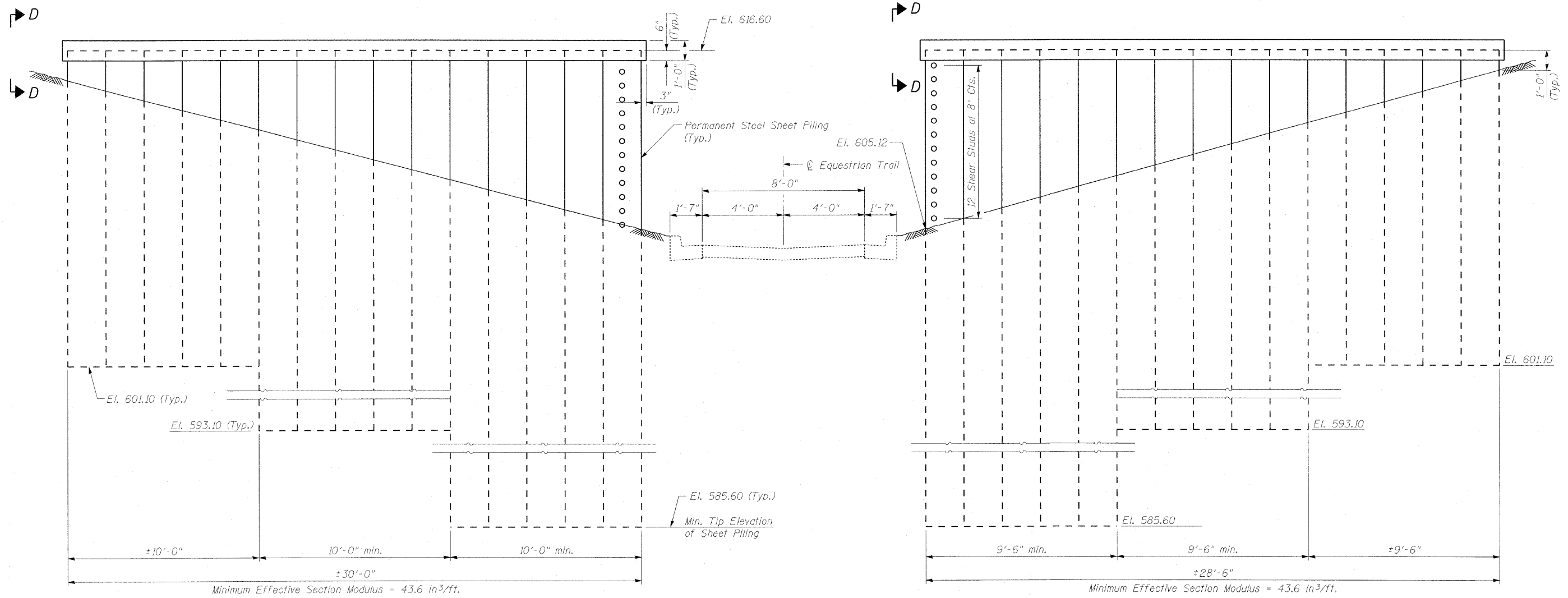


SECTION C-C

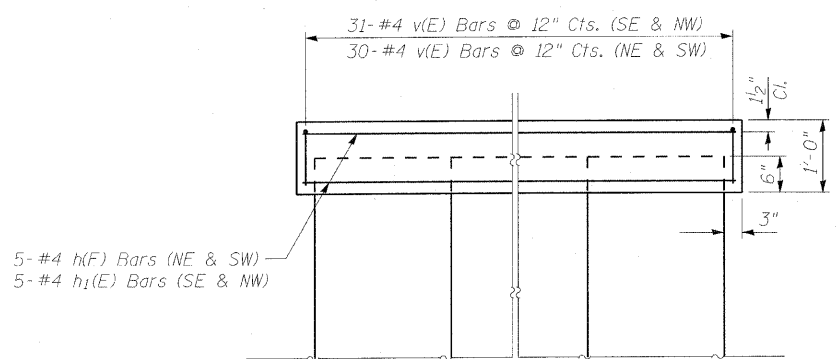
** Over Excavation Beyond the Limits of the Structure. This Area not Measured for Payment

** Structure Excavation See Section 502 of Standard Specifications

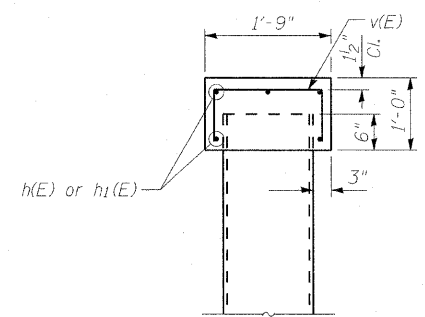
FILE NAME =	USER NAME =	DESIGNED - AMS	REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, BILL OF MATERIALS AND INDEX OF SHEETS STRUCTURE NO. 016-1211	F.A.P. RTE. 332	SECTION 0312-708W-1	COUNTY COOK	TOTAL SHEETS 9	SHEET NO. 5
PLOT SCALE =	CHECKED - AMS	REVISIONS -	CONTRACT NO. 60N81							
DRAWN - DR	CHECKED - JM	REVISIONS -	ILLINOIS FED. AID PROJECT							
PLOT DATE =	CHECKED - JM	REVISIONS -								



TYPICAL WING WALL SHEETING
 (East Wing Walls Sheeting Shown, West Wing Walls Sheeting Opposite Hand)

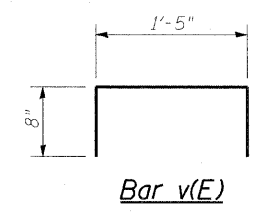


CAP DETAIL



SECTION D-D

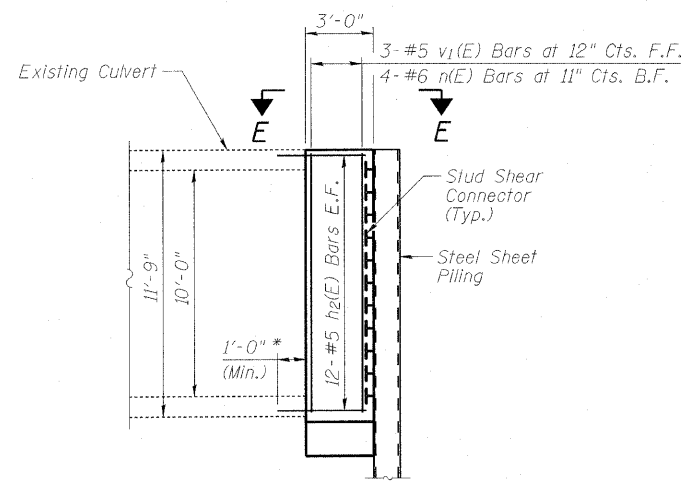
Note:
 Maximum Surcharge = 250 psf.
 Protective Coat Shall be Applied to the Concrete Cap.
 Contractor shall begin driving sheets at the ends of the wingwalls away from the Equestrian underpass. Porous granular embankment shall be backfilled behind the proposed wall as the sheeting installation progress to provide additional support to the existing leaning wingwalls. Contractor shall leave existing wingwall bracing in place as long as possible, until prohibited by the driving of sheeting at the bracing locations.



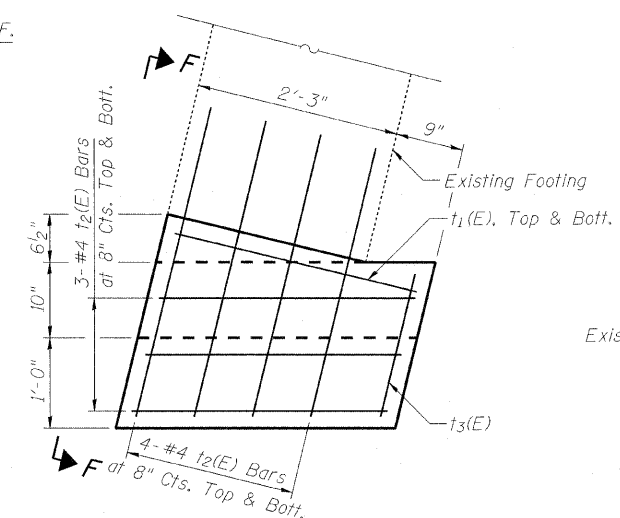
Bar v(E)

BILL OF MATERIAL

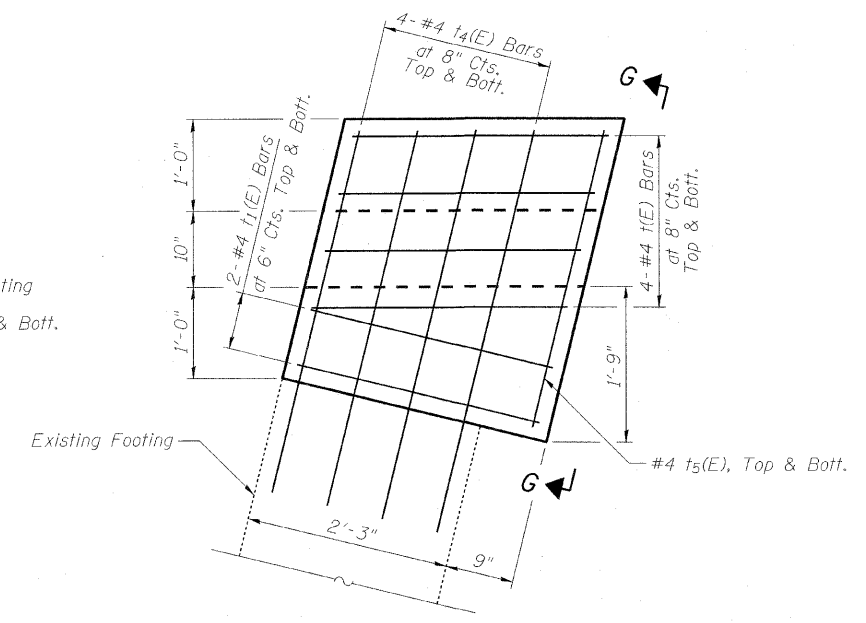
Bar	No.	Size	Length	Shape
h(E)	10	#4	28'-8"	—
h1(E)	10	#4	30'-2"	—
v(E)	122	#4	2'-1"	┌
Concrete Structures			Cu. Yd.	7.8
Permanent Steel Sheet Piling			Sq. Ft.	2931
Reinforcement Bars, Epoxy Coated			Pound	620
Stud Shear Connector			Each	48
Protective Coat			Sq. Yd.	52
Porous Granular Embankment			Cu. Yd.	81.2



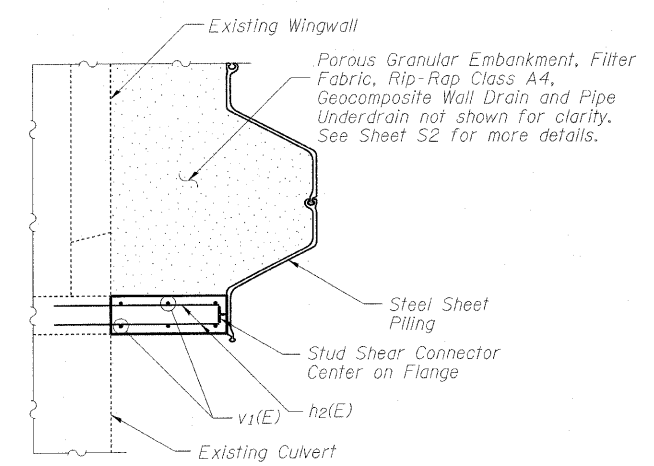
CULVERT WALL EXTENSION



NORTHEAST AND SOUTHWEST FOOTING PLAN

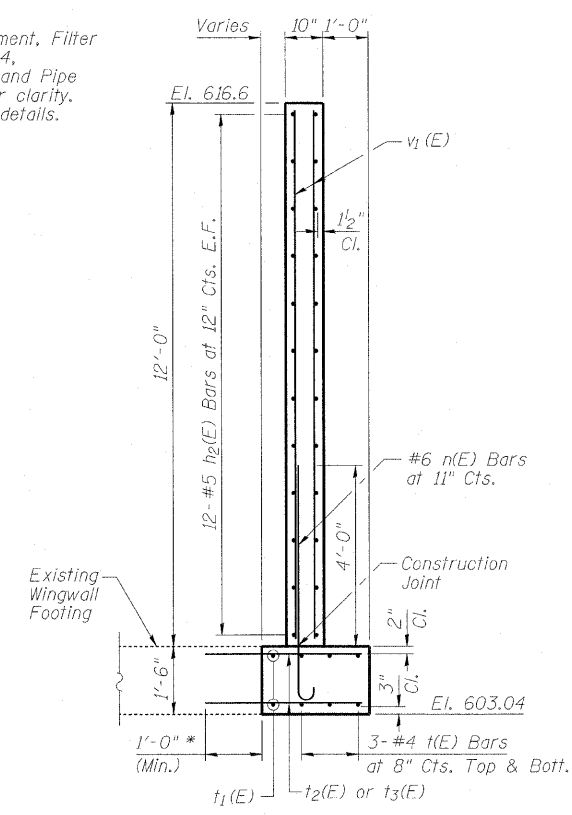


SOUTHEAST AND NORTHWEST FOOTING PLAN

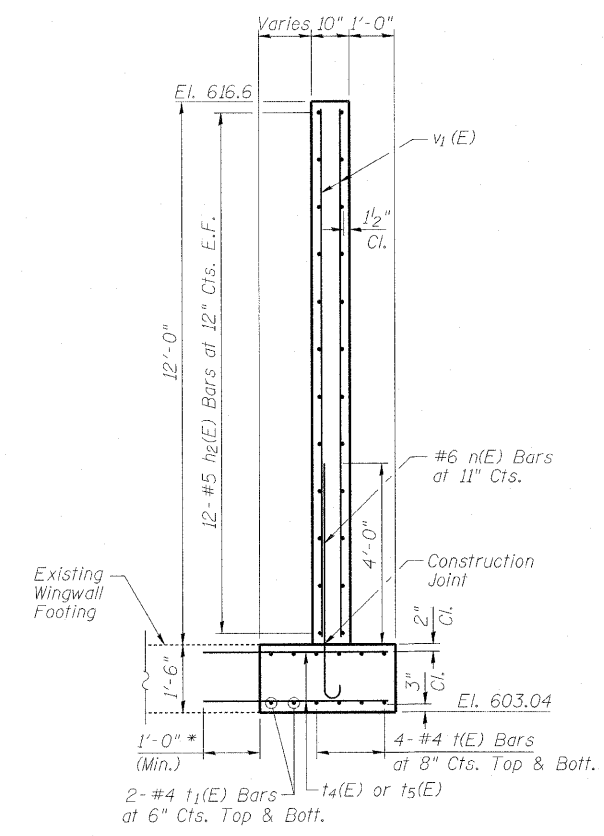


SECTION E-E

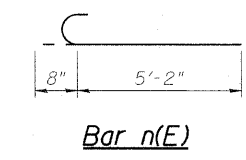
* Bars shall be drilled and grouted into the existing concrete according to Section 584 of the Standard Specifications. This work shall be included in the cost of Reinforcement Bars, Epoxy Coated. Contractor shall adjust spacing as required to miss existing reinforcement.



SECTION F-F



SECTION G-G



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2(E)	96	#5	3'-10"	—
n(E)	16	#6	5'-10"	C
t(E)	28	#4	2'-10"	—
t1(E)	12	#4	2'-8"	—
t2(E)	16	#4	3'-3"	—
t3(E)	4	#4	1'-7"	—
t4(E)	16	#4	3'-9"	—
t5(E)	4	#4	3'-3"	—
v1(E)	24	#5	11'-8"	—
Concrete Structures			Cu. Yd.	6.2
Reinforcement Bars, Epoxy Coated			Pound	840
Structure Excavation			Cu. Yd.	6.0
Protective Coat			Sq. Yd.	34

Notes:
 Protective coat shall be applied to both side and top faces of the culvert extension wall.
 Excavated soil shall be stored on-site and used to fill void from brace foundation removal. Cost shall be included in the item for Permanent Steel Sheet Piling.

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION			SOIL AND ROCK DESCRIPTION			Depth (ft)	Sample No.	SPT Value (blows ft)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Soil Classification
	Sample No.	Depth (ft)	Moisture Content (%)	Sample No.	Depth (ft)	Moisture Content (%)							
628.2	1	5	NP	1	5	NP	19						
628.2	2	4	NP	2	4	NP	19						
628.2	3	5	NP	3	5	NP	19						
628.2	4	5	NP	4	5	NP	19						
628.2	5	5	NP	5	5	NP	19						
628.2	6	5	NP	6	5	NP	19						
628.2	7	5	NP	7	5	NP	19						
628.2	8	5	NP	8	5	NP	19						
628.2	9	5	NP	9	5	NP	19						
628.2	10	5	NP	10	5	NP	19						
628.2	11	5	NP	11	5	NP	19						
628.2	12	5	NP	12	5	NP	19						
628.2	13	5	NP	13	5	NP	19						
628.2	14	5	NP	14	5	NP	19						
628.2	15	5	NP	15	5	NP	19						
628.2	16	5	NP	16	5	NP	19						
628.2	17	5	NP	17	5	NP	19						
628.2	18	5	NP	18	5	NP	19						
628.2	19	5	NP	19	5	NP	19						
628.2	20	5	NP	20	5	NP	19						
628.2	21	5	NP	21	5	NP	19						
628.2	22	5	NP	22	5	NP	19						
628.2	23	5	NP	23	5	NP	19						
628.2	24	5	NP	24	5	NP	19						
628.2	25	5	NP	25	5	NP	19						
628.2	26	5	NP	26	5	NP	19						
628.2	27	5	NP	27	5	NP	19						
628.2	28	5	NP	28	5	NP	19						
628.2	29	5	NP	29	5	NP	19						
628.2	30	5	NP	30	5	NP	19						

GENERAL NOTES
 Begin Drilling: 02-28-2011 Complete Drilling: 02-28-2011
 Drilling Contractor: GSG Drill Rig: Dietrich D-50
 Driller: Jerry Logger: F. Borzaga Checked by: M. Snyder
 Drilling Method: 3.25-inch Diameter HSA; Boring backfilled with bentonite upon completion.

WATER LEVEL DATA
 While Drilling: 49.50 ft
 At Completion of Drilling: 46.00 ft
 Time After Drilling: NA
 Depth to Water: NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION			SOIL AND ROCK DESCRIPTION			Depth (ft)	Sample No.	SPT Value (blows ft)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Soil Classification
	Sample No.	Depth (ft)	Moisture Content (%)	Sample No.	Depth (ft)	Moisture Content (%)							
628.2	1	5	NP	1	5	NP	19						
628.2	2	4	NP	2	4	NP	19						
628.2	3	5	NP	3	5	NP	19						
628.2	4	5	NP	4	5	NP	19						
628.2	5	5	NP	5	5	NP	19						
628.2	6	5	NP	6	5	NP	19						
628.2	7	5	NP	7	5	NP	19						
628.2	8	5	NP	8	5	NP	19						
628.2	9	5	NP	9	5	NP	19						
628.2	10	5	NP	10	5	NP	19						
628.2	11	5	NP	11	5	NP	19						
628.2	12	5	NP	12	5	NP	19						
628.2	13	5	NP	13	5	NP	19						
628.2	14	5	NP	14	5	NP	19						
628.2	15	5	NP	15	5	NP	19						
628.2	16	5	NP	16	5	NP	19						
628.2	17	5	NP	17	5	NP	19						
628.2	18	5	NP	18	5	NP	19						
628.2	19	5	NP	19	5	NP	19						
628.2	20	5	NP	20	5	NP	19						
628.2	21	5	NP	21	5	NP	19						
628.2	22	5	NP	22	5	NP	19						
628.2	23	5	NP	23	5	NP	19						
628.2	24	5	NP	24	5	NP	19						
628.2	25	5	NP	25	5	NP	19						
628.2	26	5	NP	26	5	NP	19						
628.2	27	5	NP	27	5	NP	19						
628.2	28	5	NP	28	5	NP	19						
628.2	29	5	NP	29	5	NP	19						
628.2	30	5	NP	30	5	NP	19						

GENERAL NOTES
 Begin Drilling: 02-28-2011 Complete Drilling: 02-28-2011
 Drilling Contractor: GSG Drill Rig: Dietrich D-50
 Driller: Jerry Logger: F. Borzaga Checked by: M. Snyder
 Drilling Method: 3.25-inch Diameter HSA; Boring backfilled with bentonite upon completion.

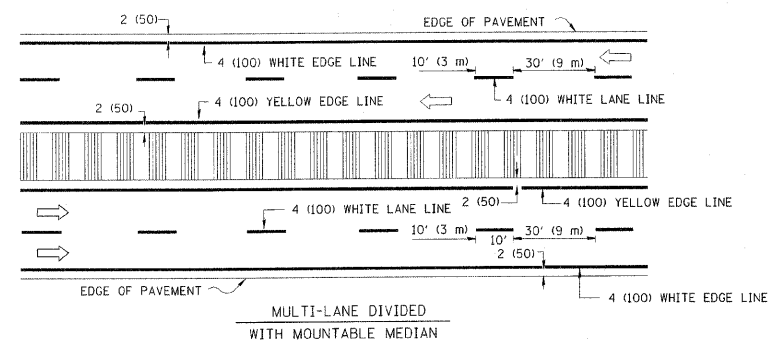
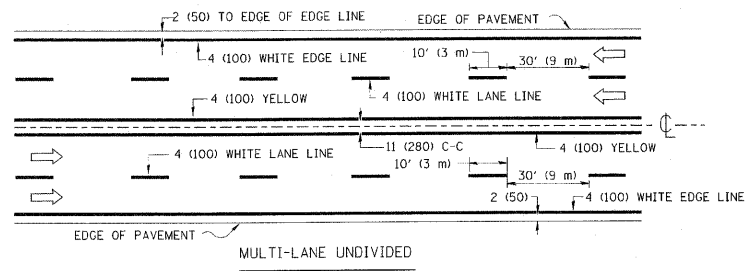
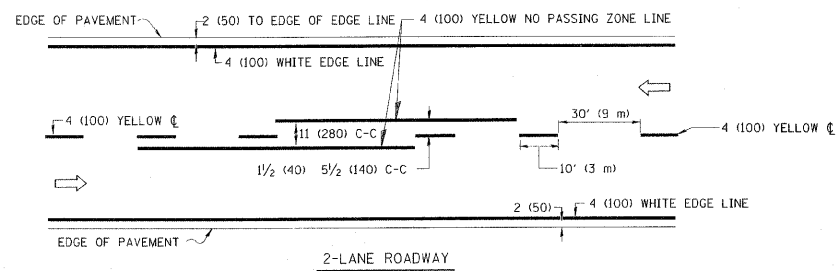
WATER LEVEL DATA
 While Drilling: 49.50 ft
 At Completion of Drilling: 46.00 ft
 Time After Drilling: NA
 Depth to Water: NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION			SOIL AND ROCK DESCRIPTION			Depth (ft)	Sample No.	SPT Value (blows ft)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Soil Classification
	Sample No.	Depth (ft)	Moisture Content (%)	Sample No.	Depth (ft)	Moisture Content (%)							
628.2	1	4	NP	1	4	NP	26						
628.2	2	3	NP	2	3	NP	15						
628.2	3	4	NP	3	4	NP	11						
628.2	4	5	NP	4	5	NP	7						
628.2	5	7	NP	5	7	NP	17						
628.2	6	4	NP	6	4	NP	22						
628.2	7	5	NP	7	5	NP	16						
628.2	8	2	NP	8	2	NP	21						
628.2	9	4	NP	9	4	NP	10						
628.2	10	4	NP	10	4	NP	7						
628.2	11	3	NP	11	3	NP	11						
628.2	12	4	NP	12	4	NP	8						
628.2	13	5	NP	13	5	NP	13						
628.2	14	4	NP	14	4	NP	10						
628.2	15	4	NP	15	4	NP	10						
628.2	16	4	NP	16	4	NP	10						
628.2	17	4	NP	17	4	NP	10						
628.2	18	4	NP	18	4	NP	10						
628.2	19	4	NP	19	4	NP	10						
628.2	20	4	NP	20	4	NP	10						
628.2	21	4	NP	21	4	NP	10						
628.2	22	4	NP	22	4	NP	10						
628.2	23	4	NP	23	4	NP	10						
628.2	24	4	NP	24	4	NP	10						
628.2	25	4	NP	25	4	NP	10						
628.2	26	4	NP	26	4	NP	10						
628.2	27	4	NP	27	4	NP	10						
628.2	28	4	NP	28	4	NP	10						
628.2	29	4	NP	29	4	NP	10						
628.2	30	4	NP	30	4	NP	10						

GENERAL NOTES
 Begin Drilling: 03-01-2011 Complete Drilling: 03-01-2011
 Drilling Contractor: GSG Drill Rig: Dietrich D-50
 Driller: Jerry Logger: F. Borzaga Checked by: M. Snyder
 Drilling Method: 3.25-inch Diameter HSA; Boring backfilled with bentonite upon completion.

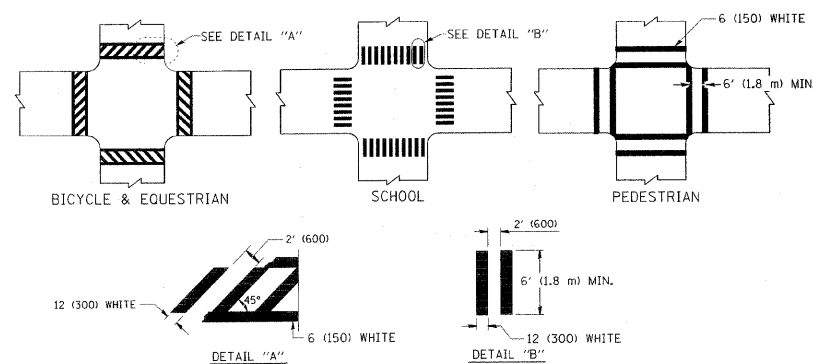
WATER LEVEL DATA
 While Drilling: 39.00 ft
 At Completion of Drilling: WASHED
 Time After Drilling: NA
 Depth to Water: NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION			SOIL AND ROCK DESCRIPTION			Depth (ft)	Sample No.	SPT Value (blows ft)	Moisture Content (%)	Liquid Limit (%)	Plasticity Index (%)	Soil Classification
	Sample No.	Depth (ft)	Moisture Content (%)	Sample No.	Depth (ft)	Moisture Content (%)							
628.2	1	5	NP	1	5	NP	18						
628.2	2	5	NP	2	5	NP	18						
628.2	3	5	NP	3	5	NP	18						
628.2	4	5	NP	4	5	NP	18						
628.2	5	5	NP	5	5	NP	18						
628.2	6	5	NP	6	5	NP	18						
628.2	7	5	NP										

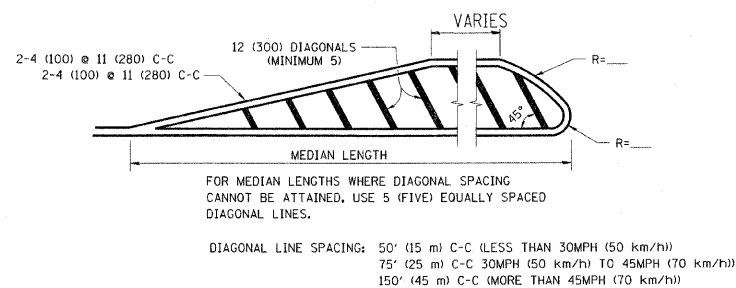
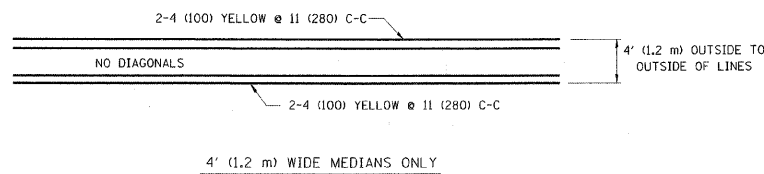


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

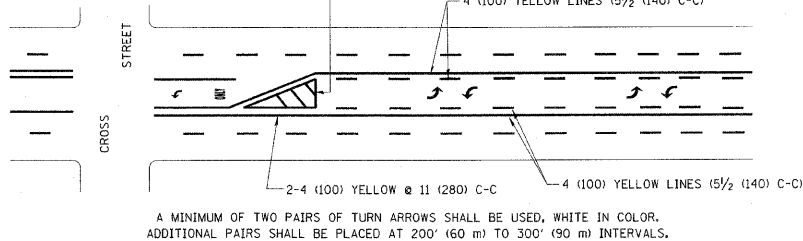
TYPICAL LANE AND EDGE LINE MARKING



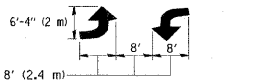
TYPICAL CROSSWALK MARKING



MEDIANS OVER 4' (1.2 m) WIDE

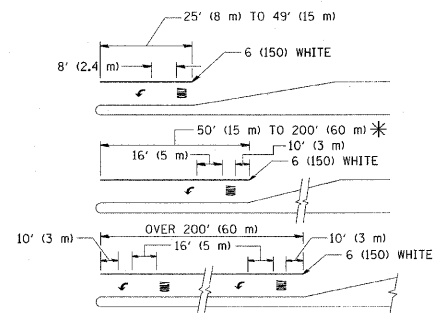


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

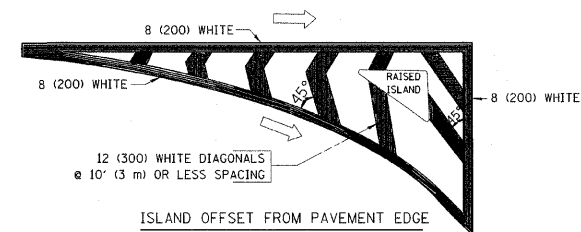


FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

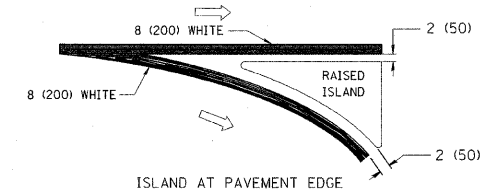
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

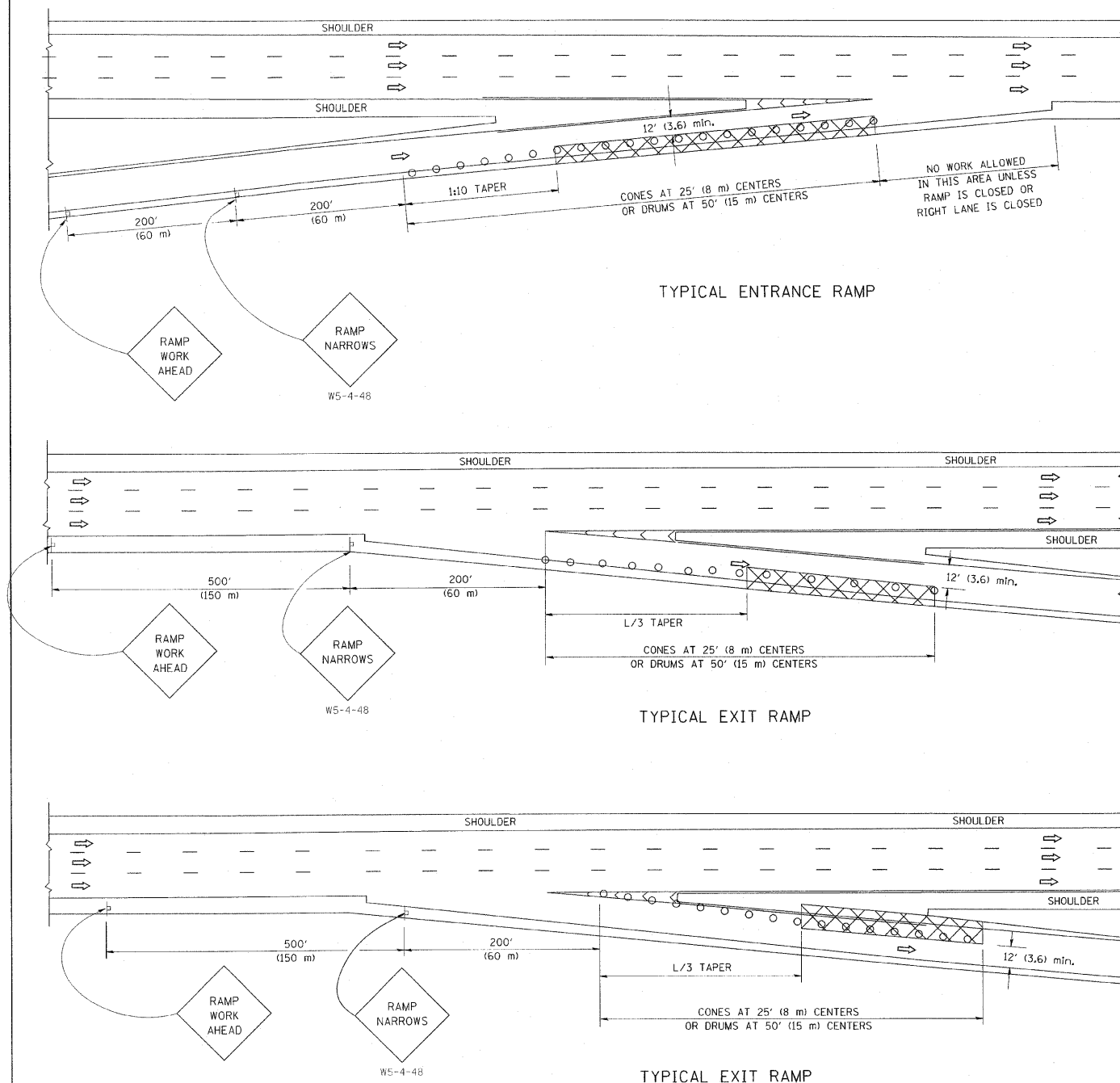
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE, OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINES; FULL SIZE LETTERS & SYMBOLS (8" (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "RR"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME =	USER NAME = drvakosgn	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE TYPICAL PAVEMENT MARKINGS			F.A.P. RTE. 332	SECTION 0312-708W-I	COUNTY Cook	TOTAL SHEETS 9	SHEET NO. 9e
es:\pw\work\pav\dot\drvakosgn\10108315\to3.dgn		DRAWN -	REVISED -C. JUCIUS 09-09-09		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	TC-13		CONTRACT NO. 60N81		
PLOT SCALE = 50,000 1" / IN.		CHECKED -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
PLOT DATE = 9/9/2009		DATE - 03-19-90	REVISED -									

PARTIAL RAMP CLOSURE DETAILS



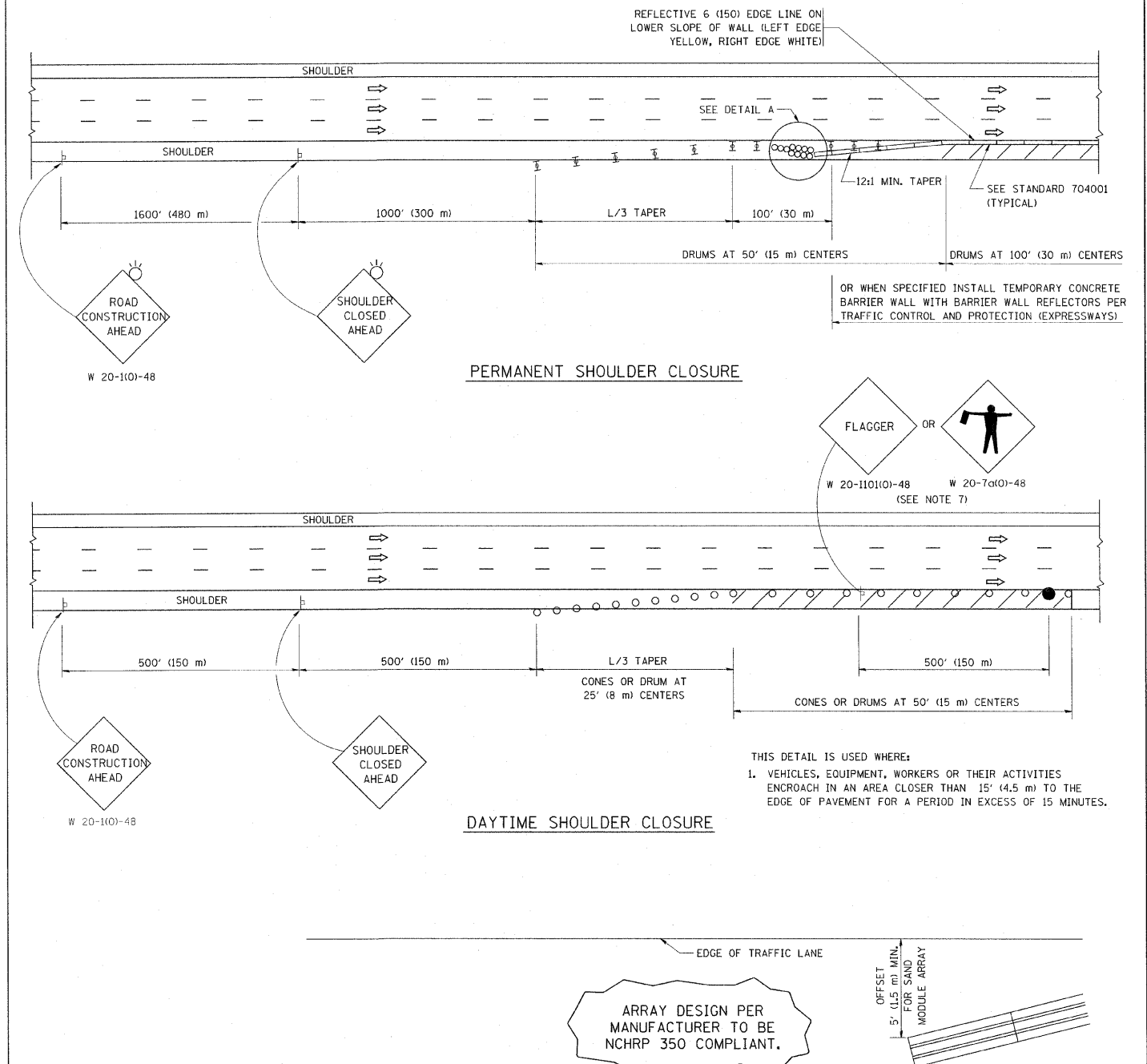
SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

- THE "L" DISTANCE EQUALS:
 SPEED LIMIT FORMULAS
 45 mph (80 km/h) METRIC ENGLISH
 OR GREATER: $L = 0.65(WXS)$ $L = (WXS)$
 W = WIDTH OF OFFSET IN FEET (METERS)
 S = NORMAL POSTED SPEED MPH (KM/H)
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS

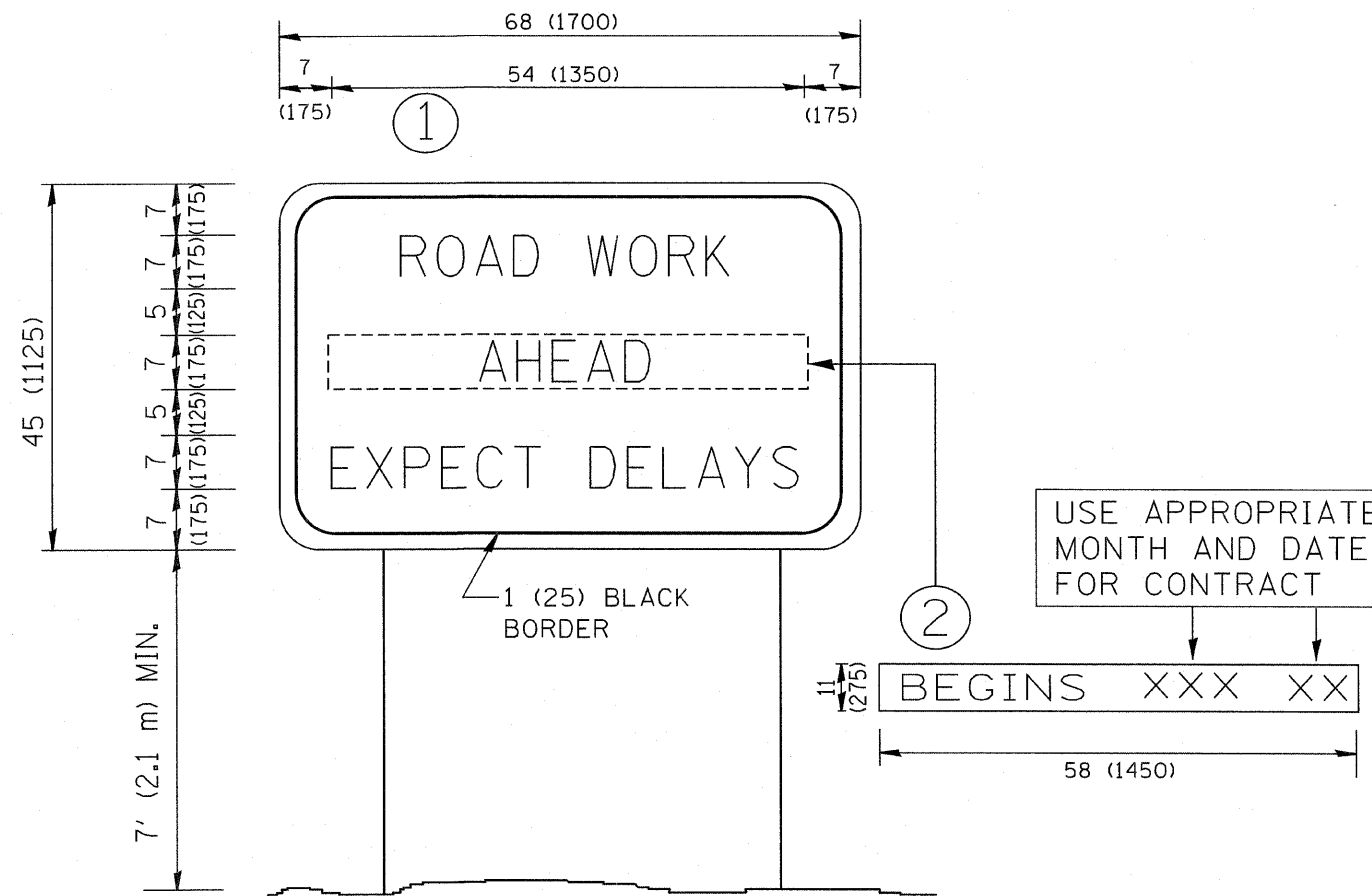


ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT.

DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

THIS DETAIL IS USED WHERE:
 1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

FILE NAME = W:\distatd\22x34\1c17.dgn	USER NAME = lveys	DESIGNED -	REVISED - 04-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES			F.A.P. RTE. 332	SECTION 0312-708W-I	COUNTY Cook	TOTAL SHEETS 9	SHEET NO. 9F
PLOT SCALE = 50,0000' / IN.	CHECKED -	DRAWN - D.W.S.	REVISED - J.A.F. 12-06		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60N81		FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT	
PLOT DATE = 1/26/2010	DATE - 11-96	REVISI O - S.P.B. 01-07	REVISED - S.P.B. 12-09									



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\sc22.dgn	USER NAME = geglennobt	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN			F.A.P. RTE. 332	SECTION 0312-708W-I	COUNTY Cook	TOTAL SHEETS 9g	SHEET NO. 9g
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	TC-22	CONTRACT NO. 60N81
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - T. RAMMACHER 02-02-99		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		DATE -	REVISED - C. JUCIUS 01-31-07									