

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.		VARIOUS	9	1

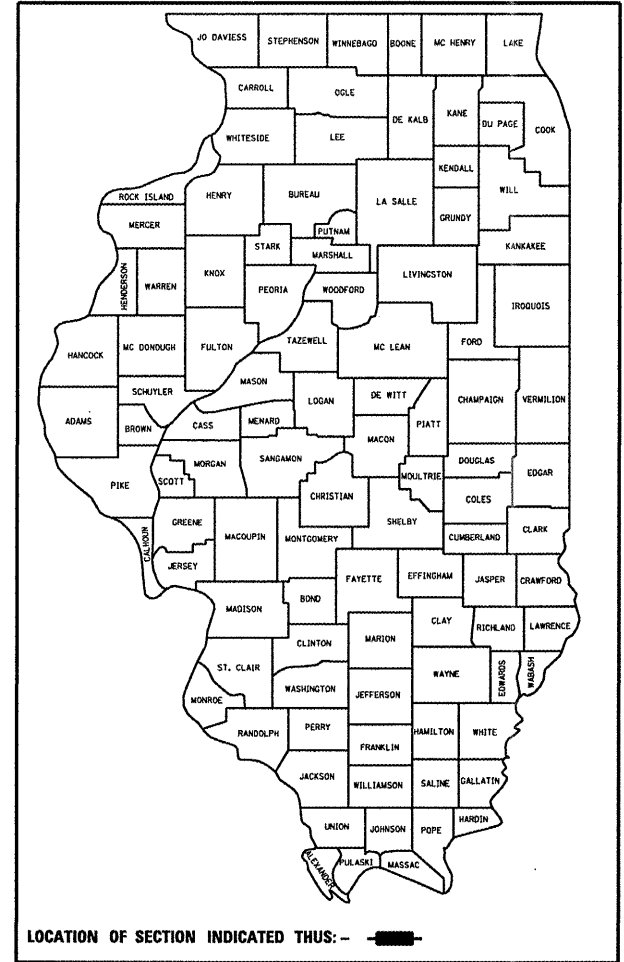
D4 PROTECTIVE SHIELDING 2008

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

VARIOUS ROUTES
SECTION D4 Protective Shielding 2008
C-94-077-08
VARIOUS COUNTIES

D-94-058-08



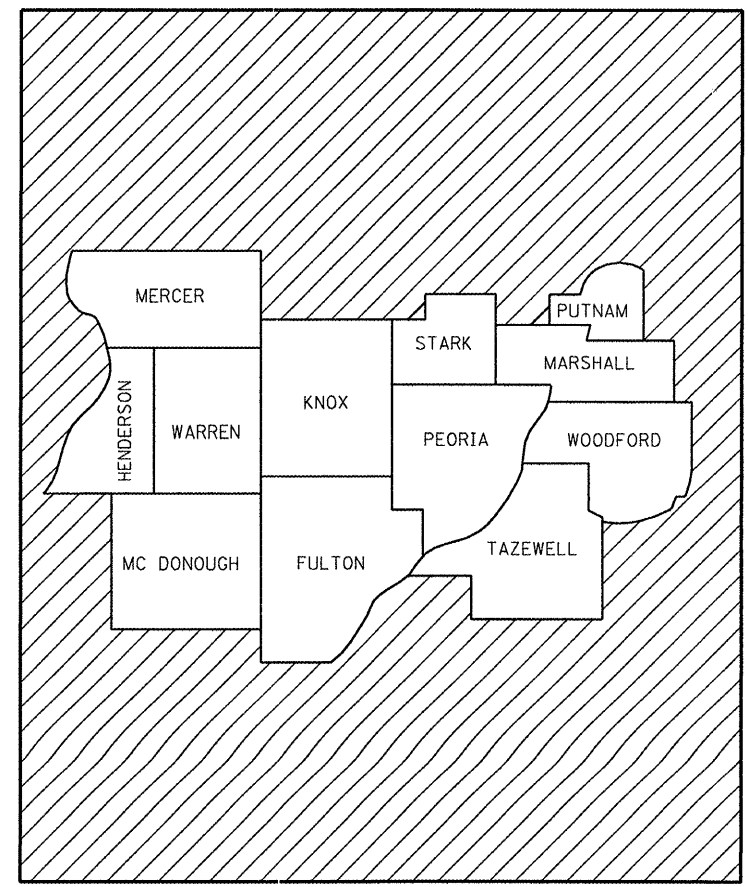
LOCATION OF SECTION INDICATED THUS: —

INDEX OF SHEETS:

1. COVER SHEET
2. COMMITMENTS & GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. CROSS SECTIONS
5. SCHEDULE OF QUANTITIES
- 6-8. TRAFFIC CONTROL PLAN
9. PERMANENT PROTECTIVE SHIELD

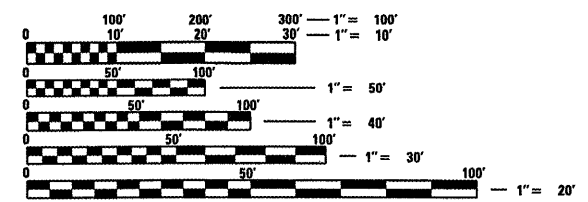
STANDARDS:

- 701001-01 701201-02 701901
701006-02 701406-04
701400-02 701601-05



LOCATION MAP

PERMANENT PROTECTIVE SHIELDING FOR VARIOUS STRUCTURES IN VARIOUS COUNTIES IN DISTRICT 4.



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *MARCH 2008*

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
May 9, 2008
Eric E. Harau

ENGINEER OF DESIGN AND ENVIRONMENT
May 9, 2008
Christine M. Reed

DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

DESIGNER: CLARK JONES
PHONE: (309) 671-3452

PROJECT ENGINEER: JIM MILLER
PHONE: (309) 671-3451

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	VARIOUS	VARIOUS	9	2
STA.		TO STA.		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

COMMITMENTS

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

GENERAL NOTES

THE SECOND PARAGRAPH OF ARTICLE 501.03 OF THE STANDARD SPECIFICATIONS SHALL NOT APPLY; RELIEVING THE CONTRACTOR OF RESPONSIBILITY FOR SUBMITTING ADDITIONAL WORKING DRAWINGS OF THE PROPOSED PROJECT. ALL OTHER ASPECTS OF THIS ARTICLE SHALL APPLY.

PLOT DATE * DATE
FILE NAME * FILEL1
USER NAME * USER1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**COMMITMENTS AND
GENERAL NOTES**

SCALE: VERT.
HORIZ.
DATE: 03-06-2008

DRAWN BY CEJ
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	VARIOUS	VARIOUS	9	3
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

100% STATE SAFETY-2A VARIOUS COUNTIES

CODE NO.	ITEM	UNIT		TOTAL
50157301	PROTECTIVE SHIELD (PERMANENT)	SQ YD	4502	4502
67100100	MOBILIZATION	L SUM	1.0	1.0
70100450	TRAFFIC CONTROL <i>AND</i> PROTECTION, STANDARD 701201	L SUM	1.0	1.0
70100700	TRAFFIC CONTROL <i>AND</i> PROTECTION, STANDARD 701406	L SUM	1.0	1.0
70101800	TRAFFIC CONTROL <i>AND</i> PROTECTION STANDARD,(SPECIAL)	L SUM	1.0	1.0
70102630	TRAFFIC CONTROL <i>AND</i> PROTECTION STANDARD, 701601	L SUM	1.0	1.0

PLOT DATE * DWTES
PLOT SCALE * SSCALS
REFERENCE * REF#

REVISIONS	
NAME	DATE

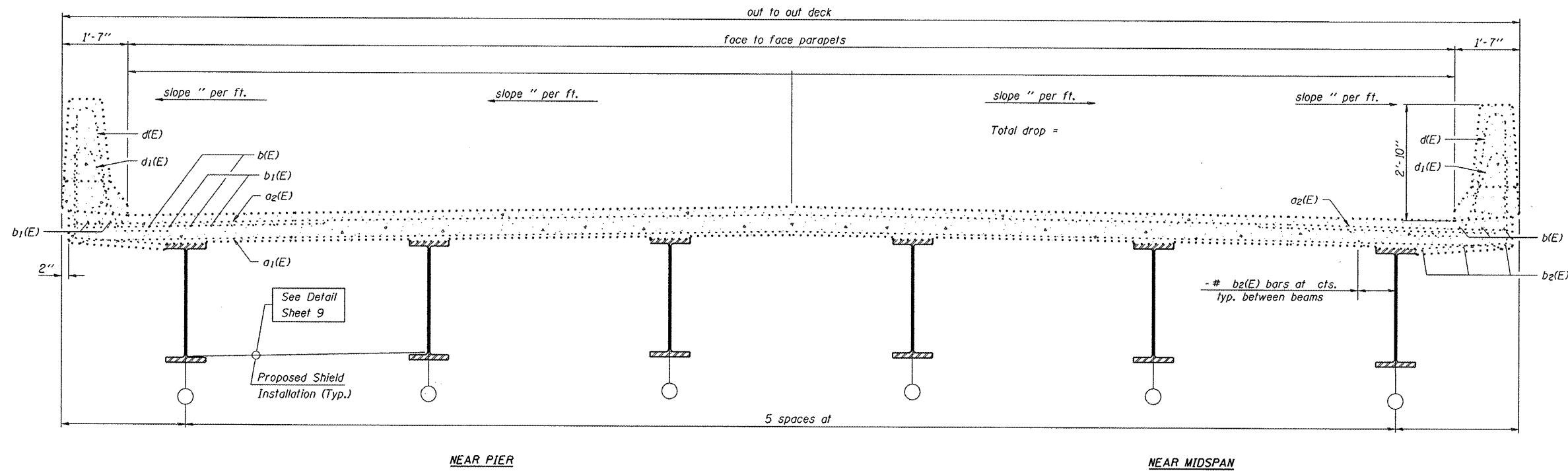
ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: VERT.
HORIZ.
DATE 03-06-2008

DRAWN BY CEJ
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	VARIOUS	VARIOUS	9	4
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	



CROSS SECTION
(Looking)

FOR INFORMATION ONLY

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: VERT. _____
HORIZ. _____

DATE: 03-06-2008

DRAWN BY CEJ
CHECKED BY _____

PLOT DATE = \$DATE\$
FILE NAME = \$FILEL\$
USER NAME = \$USER\$

P. A. - INTL.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	VARIOUS	VARIOUS	9	5
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	

SCHEDULE OF QUANTITIES

PERMANENT PROTECTIVE SHIELD				DESCRIPTION OF PROTECTED ROADWAY WIDTH (FT)	COUNTY	STRUCTURE SPECIFICS				
ITEM	STRUCTURE	ROADWAY CARRIED	FEATURE CROSSED			SHIELD AREA COVERAGE	BEAM SPACING (FT)	AVERAGE BRIDGE WIDTH (FT)	SKEW ANGLE (DEGREES)	SHIELD SIZE (SQ YD)
1.	037-0020	I-74 WB	IL 17 at Woodhull	(2' shldr.+ 14' lanes + 2' med.) x 2	HENRY	36 - all bays	6	45.8	13.15	195
2.	048-0019	US 34 WB	I-74	(2' shldr.+ 40' lanes + 2' shldr.) x 2	KNOX	88 - all bays	6.5	47.5	2	466
3.	048-0020	US 34 EB	I-74	(2' shldr.+ 40' lanes + 2' shldr.) x 2	KNOX	88 - all bays	6.5	47.5	2	466
4.	048-0035	CH 18	I-74	(2' shldr.+ 24' lanes + 2' shldr.) x 2	KNOX	56 - fascia bays only	7	14	16.65	94
5.	048-0037	Rio Road	I-74	(2' shldr.+ 24' lanes + 2' shldr.) x 2	KNOX	56 - all bays	6.4	25.7	1.5	160
6.	048-0044	CH 9	I-74 WB	(2' shldr.+ 24' lanes + 2' shldr.)	KNOX	28 - all bays	6.6	32.9	31.6	135
7.	048-0045	CH 9	I-74 EB	(2' shldr.+ 24' lanes + 2' shldr.)	KNOX	28 - all bays	6.6	32.9	31.6	135
8.	048-0047	CH 21	I-74	(2' shldr.+ 24' lanes + 2' shldr.) x 2	KNOX	56 - fascia bays only	6.5	13	0	81
9.	048-0061	Henderson Road	I-74	(2' shldr.+ 24' lanes + 2' shldr.) x 2	KNOX	56 - all bays	6.75	27	0	168
10.	072-0073	Bell School Road	I-74	(2' shldr.+ 24' lanes + 2' shldr.) x 2	PEORIA	56 - all bays	6.75	54	13.72	356
11.	072-0076	Maher Road	I-74 at Brimfield	(2' shldr.+ 24' lanes + 2' shldr.) x 2	PEORIA	56 - all bays	6.75	54	26.47	396
12.	090-0012	I-74 WB	I-155 Terminus	(2' shldr.+ 16' ramp + 2' shldr.) x 2	TAZEWELL	20 - all bays	6.4	31.9	21.4	85
13.	090-0013	I-74 EB	I-155 Terminus	(2' shldr.+ 16' ramp + 2' shldr.) x 2	TAZEWELL	20 - all bays	6.4	31.9	21.4	85
14.	090-0017	I-74 WB	US 150	(2' shldr.+ 24' lanes + 2' shldr.)	TAZEWELL	28 - all bays	6.2	31	37	137
15.	090-0018	I-74 EB	US 150	(2' shldr.+ 24' lanes + 2' shldr.)	TAZEWELL	28 - all bays	6.2	31	37	137
16.	090-0091	Pinecrest Drive	I-74	(2' shldr.+ 24' lanes + 2' shldr.) x 2	TAZEWELL	56 - all bays	5.8	29.1	16.62	195
17.	090-0107	I-474 WB	IL 29	(2'+36'+2') + (2'+36'+16'+2')	TAZEWELL	96 - SW fascia bay only	7.8	7.8	17.9	90
18.	090-0117	Mueller Road	I-74	(2' shldr.+ 36' lanes + 2' shldr.) x 2	TAZEWELL	80 - all bays	7.4	37.1	58.3	677
19.	090-0119	I-474 to I-74 WB ramp	I-74	(2'+24'+2') + (2'+16'+24'+2')	TAZEWELL	72 - all bays	6.75	27	13.3	227
20.	102-0009	US 150	I-74	(2' shldr.+ 24' lanes + 2' shldr.) x 2	WOODFORD	56 - all bays	6.6	32.9	15	218
									Total	4502

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	VARIOUS	VARIOUS	9	6
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		

TRAFFIC CONTROL PLAN

PROPOSED STRUCTURE T,C,& P STANDARDS				TRAFFIC CONTROL & PROTECTION STANDARD	
ITEM	STRUCTURE	ROADWAY CARRIED	FEATURE CROSSED		
1.	037-0020	I-74 WB	IL 17 at Woodhull	SPECIAL	(See T.C. Sheet 8)
2.	048-0019	US 34 WB	I-74	701406	
3.	048-0020	US 34 EB	I-74	701406	
4.	048-0035	CH 18	I-74	701406	
5.	048-0037	Rio Road	I-74	701406	
6.	048-0044	CH 9	I-74 WB	701406	
7.	048-0045	CH 9	I-74 EB	701406	
8.	048-0047	CH 21	I-74	701406	
9.	048-0061	Henderson Road	I-74	701406	
10.	072-0073	Bell School Road	I-74	701406	
11.	072-0076	Maier Road	I-74 at Brimfield	701406	
12.	090-0012	I-74 WB	I-155 Terminus	SPECIAL	No earlier than 8:30AM start time. (See T.C. Sheet 7)
13.	090-0013	I-74 EB	I-155 Terminus	SPECIAL	No earlier than 8:30AM start time. (See T.C. Sheet 7)
14.	090-0017	I-74 WB	US 150	701201	8:30AM to 3:30 PM daily.
15.	090-0018	I-74 EB	US 150	701201	8:30AM to 3:30 PM daily.
16.	090-0091	Pinecrest Drive	I-74	701406	8:30AM to 3:30PM daily.
17.	090-0107	I-474 WB	IL 29	701601	8:30AM to 3:30PM daily.
18.	090-0117	Mueller Road	I-74	701406	
19.	090-0119	I-474 to I-74 WB ramp	I-74	701406	8:30AM to 3:30PM daily.
20.	102-0009	US 150	I-74	701406	

Notes:

Refer to Highway Design Standards for Traffic Control as prescribed per project location for exact placement of traffic management devices and other clarifications as construction staging symbols and dimensioning are to be duplicated off of those standards.

PLOT DATE * * * * *
 FILE NAME * * * * *
 PLOT SCALE * * * * *
 USER NAME * * * * *

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

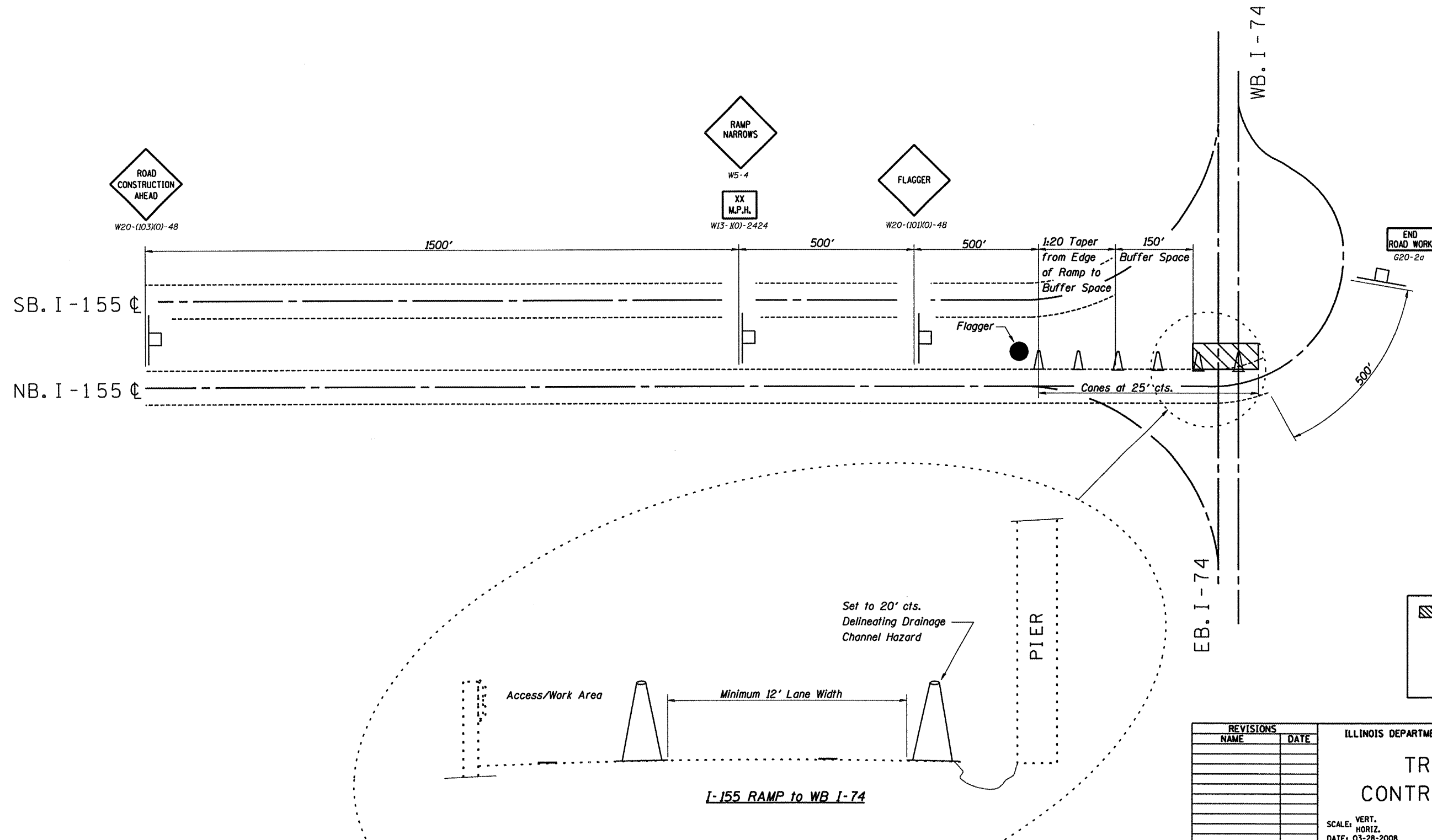
SCALE: VERT. DRAWN BY: CEJ
 HORIZ. CHECKED BY
 DATE: 03-06-2008

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	VARIOUS	VARIOUS	9	7
STA.		TO STA.		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

**TYPICAL PARTIAL RAMP
CLOSURE-DAYTIME ONLY**

General Notes:

1. The advisory speed sign shall be 10 mph lower than the posted speed limit.
2. All cones shall be a minimum height of 28".
3. No parking or material storage shall be allowed in the taper or buffer space.
4. Existing posted speed limit signs shall be completely covered during working hours.



LEGEND

	WORK AREA
	CONE
	BARREL

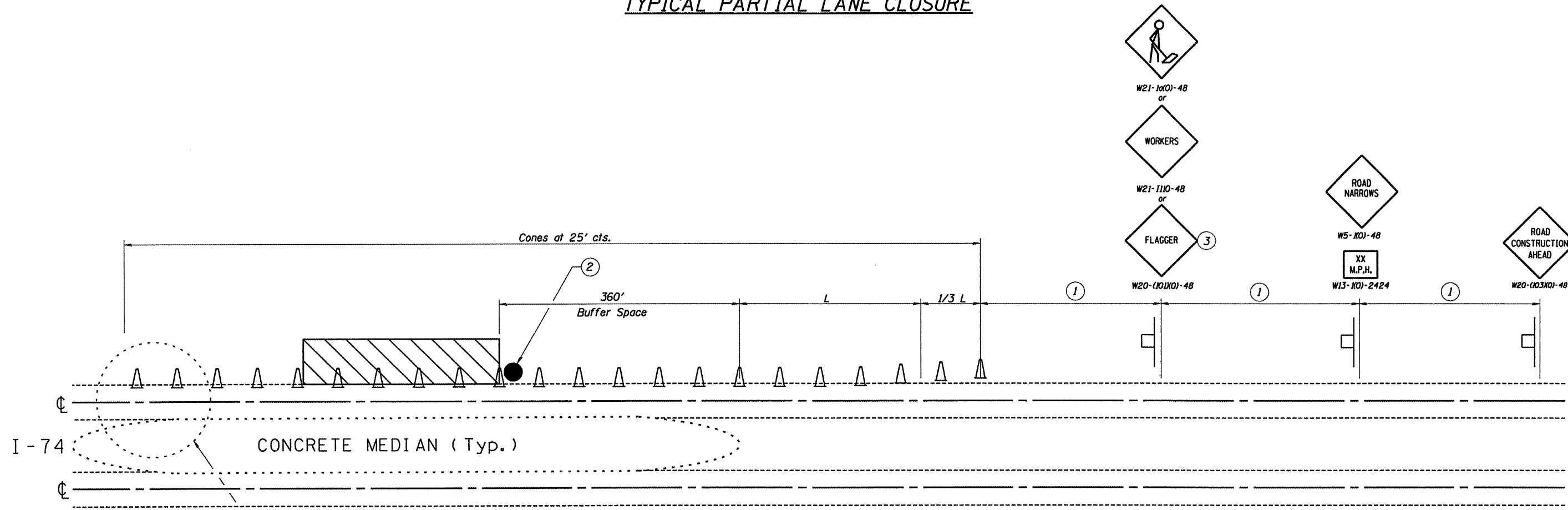
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLAN
SCALE: VERT. _____
HORIZ. _____
DATE: 03-28-2008
DRAWN BY: CEJ
CHECKED BY: _____

PLOT DATE: _____
SCALE: _____
FILE NAME: _____
USER NAME: _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	VARIOUS	VARIOUS	9	8
STA.		TO STA.		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

TYPICAL PARTIAL LANE CLOSURE



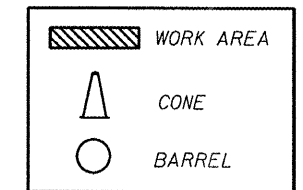
I-74 CONCRETE MEDIAN (Typ.)

SIGN SPACING

Posted Speed	Sign Spacing
55	500'
50-45	350'
<45	200'

- General Notes:**
1. The advisory speed sign shall be 10 mph lower than the posted speed limit.
 2. All cones shall be a minimum height of 28".
 3. No parking or material storage shall be allowed in the taper or buffer space.
 4. Existing posted speed limit signs shall be completely covered during working hours.
 5. This Special shall be replaced with Traffic Control Standard 701006 when encroachment is no longer needed.

LEGEND



- ① Refer to SIGN SPACING table for distances.
- ② Required for speeds > 40 mph (posted).
- ③ Use flagger sign only when flagger is present.
- = Flagger (used while working in lane encroachment)
- $L = (W)(S)$
- $S =$ Normal posted speed mph.
- $W =$ Width of offset in feet.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLAN
 SCALE: VERT. DATE: 03-28-2008
 DRAWN BY: CEJ
 CHECKED BY:

PLOT DATE = DATE
 FILE NAME = FILE
 USER NAME = USER

I-74 at IL.17
 (Woodhull)

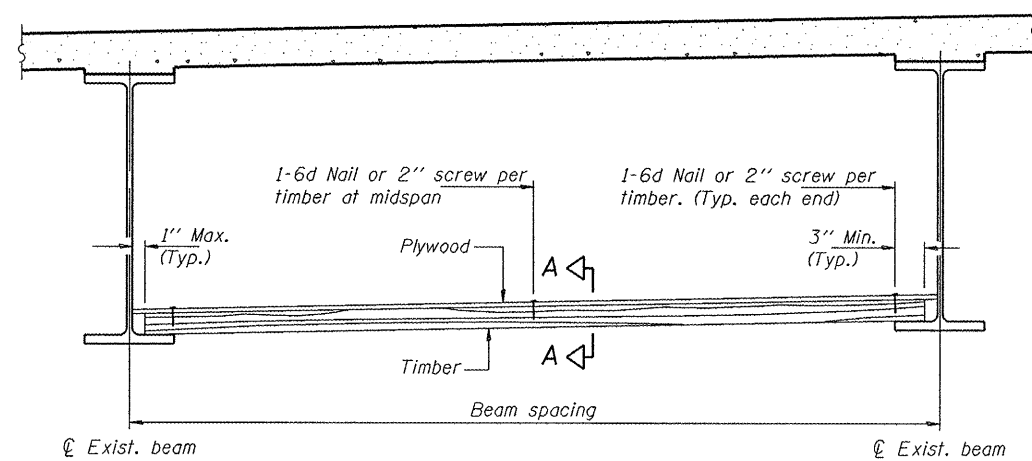
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	VARIOUS	VARIOUS	9	9
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	

Notes:

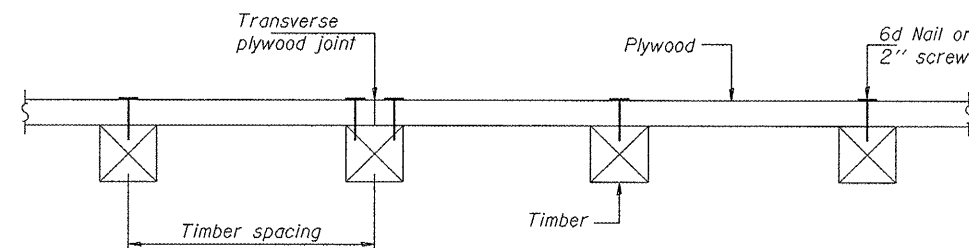
Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
 The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
 The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
 All timber shall be treated.
 Plywood shall be 5/8" Exterior type plywood.
 Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
 Transverse plywood joints shall be supported by timbers.
 When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
 Design load = 200 psf.

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12



STEEL BEAMS



SECTION A-A

BILL OF MATERIAL

Item	Unit	Total
Protective Shield (Permanent)	Sq. Yd.	4502

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**PERMANENT
 PROTECTIVE SHIELD**

SCALE: VERT.
 HORIZ.
 DATE: 03-06-2008

DRAWN BY: CEJ
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