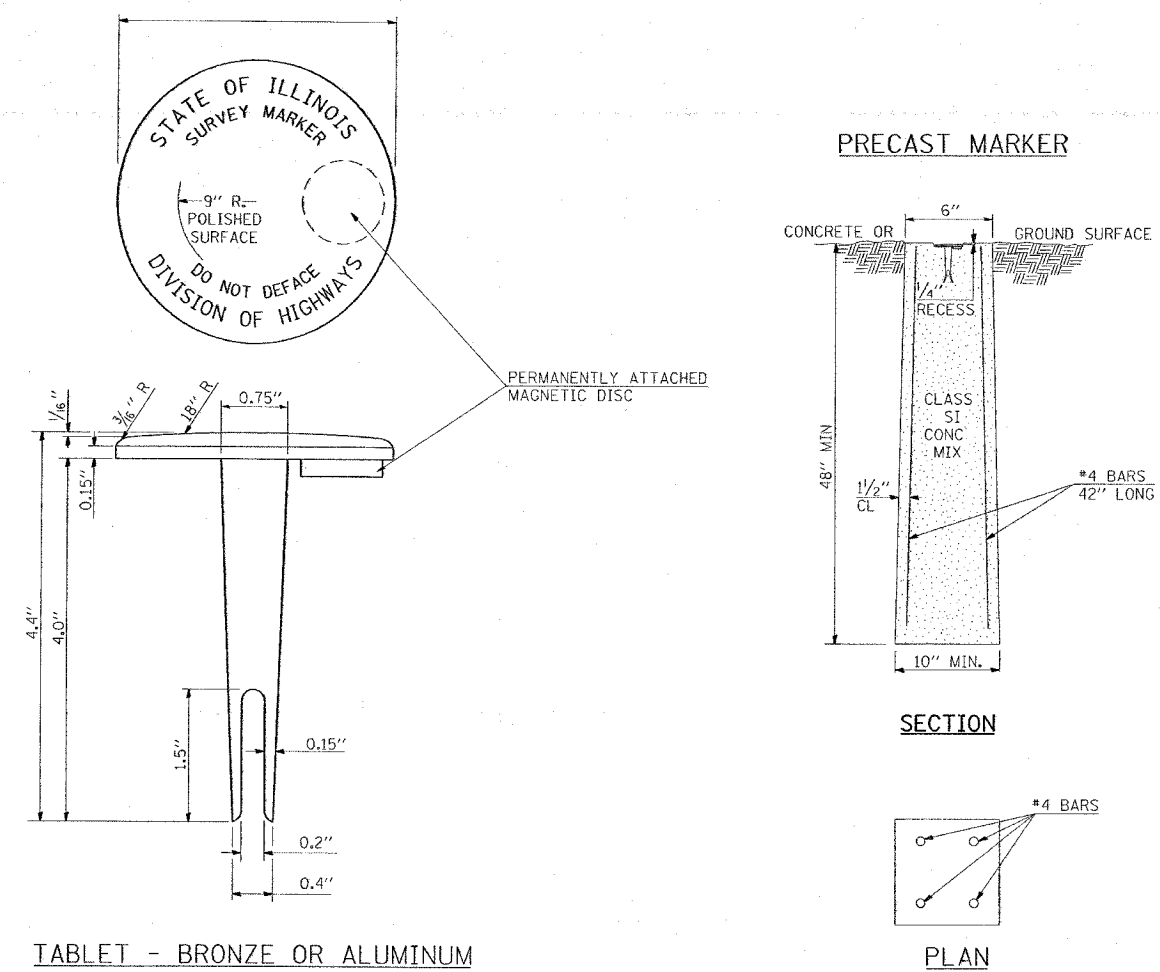


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	WILLIAMSON	917	827
STA. TO STA.				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
* I-57, & OLD IL 13 (FAU 9629)				
* (X1-6-2)VB-2,(X1-6)HBK-2				

DETAILS OF PERMANENT SURVEY MARKERS



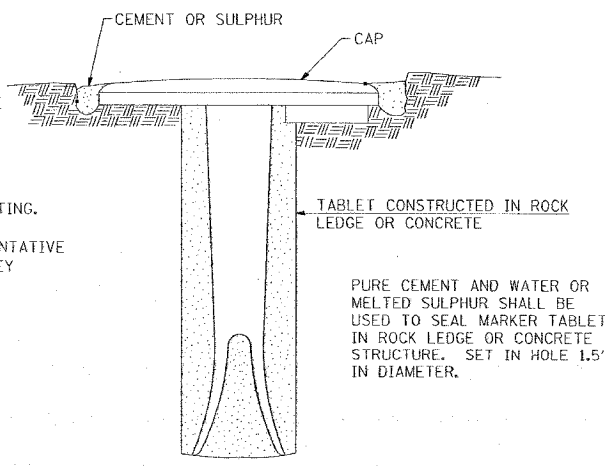
TABLET - BRONZE OR ALUMINUM

NOTES

- ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AND A REPRESENTATIVE FROM THE BUREAU OF DESIGN AFTER GRADING IS COMPLETE AND SIGHT DISTANCE CAN BE DETERMINED BETWEEN SURVEY MARKER LOCATIONS.
- THE MARKERS SHALL BE PRECAST AND SHALL BE INSTALLED IN A WORKMANLIKE MANNER IN ORDER THAT THERE BE NO FUTURE SETTLEMENT OR HORIZONTAL SHIFTING. THE MONUMENT SHALL BE PLACED IN A WAY THAT THE SURVEY POINT WILL FALL WITHIN THE PORTION OF THE PLAQUE PROVIDED FOR THAT PURPOSE. A REPRESENTATIVE FROM THE BUREAU OF PROGRAM DEVELOPMENT WILL LOCATE AND ETCH THE SURVEY POINT ON THE TABLET.
- THE CONTRACT UNIT PRICE FOR PERMANENT SURVEY MARKERS WILL BE PAYMENT IN FULL FOR FURNISHING AND INSTALLING THE MARKER.

TOTAL QUANTITY FOR PERMANENT SURVEY MARKERS=

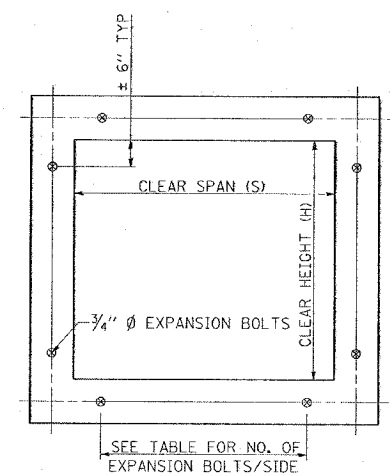
DESIGN NOTE: 2000' SPACING DESIRABLE FOR RURAL
1000' SPACING DESIRABLE FOR URBAN



REVISIONS
DRAWN 2-15-89
REVISED 5-11-89
REVISED 8-18-94
REVISED 10-3-94

STD. 9-10

EXPANSION BOLTS REQUIRED FOR CULVERT EXTENSIONS



EXPANSION BOLTS SHALL CONSIST OF SELF DRILLING EXPANSION SHIELDS AND 3/4" Ø HOOKED BOLTS. HOOKED BOLTS SHALL EXTEND A MINIMUM OF 9" INTO NEW CONCRETE.

MINIMUM CERTIFIED PROOF LOAD=7500 LBS.

BOLTS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR EXPANSION BOLTS, 3/4" INCH.

H OR S	EXTENSION ≤ 15'		EXTENSION > 15'	
	NO.	SPACING	NO.	SPACING
2.0	*	*	*	*
2.5	2	18"	2	18"
3.0	2	24"	2	24"
4.0	3	18"	3	18"
5.0	4	16"	3	24"
6.0	5	15"	4	20"
7.0	5	18"	4	24"
8.0	6	17"	5	21"
9.0	6	19"	5	24"
10.0	7	18"	6	21"
11.0	8	17"	6	24"
12.0	8	19"	7	22"

* NOTE: USE MINIMUM OF 1 EXPANSION BOLT AT EACH CORNER.

CROSS SECTION THRU BARREL

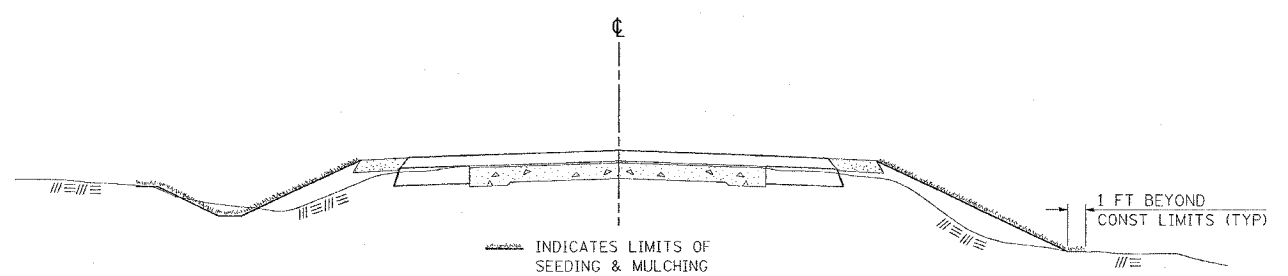
FOR ANCHOR BOLT REQUIREMENTS, SEE ARTICLE 1006.09 OF THE STANDARD SPECIFICATIONS.

EXAMPLE:
6' X 4' BOX CULVERT TO BE EXTENDED 18' AT ONE END ONLY.
FROM TABLE FIND:
6' SIDE REQUIRES (4)-3/4" Ø EXPANSION BOLTS AT 20" CENTERS
4' SIDE REQUIRES (3)-3/4" Ø EXPANSION BOLTS AT 18" CENTERS
TOTAL NO. REQUIRED (4+3)2 = (14)-3/4" Ø EXPAN. BOLTS

REVISIONS
DRAWN 2-15-89
REVISED 8-15-94
REVISED 12-14-01
REVISED

STD. 9-9

SEEDING & MULCHING



GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

REVISIONS
DRAWN 2-15-89
REVISED 8-15-94
REVISED 6-3-99
REVISED

STD. 9-12

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS:
PERMANENT SURVEY MARKERS; EXPANSION BOLTS REQUIRED FOR CULVERT EXTENSIONS; SEEDING AND MULCHING

SCALE: VERT. NO SCALE
HORIZ. DATE
DRAWN BY
CHECKED BY

DATE: 10/14/2006
 FILE: \\s01\proj\98950\98950.dwg
 PLOT SCALE: 50/2000
 USER: hns