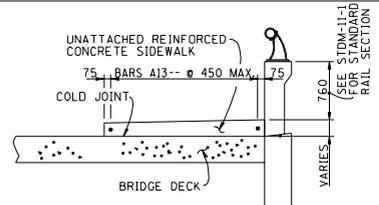
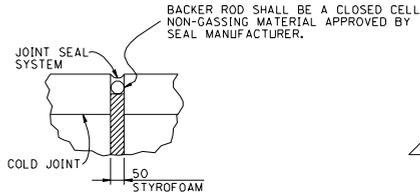


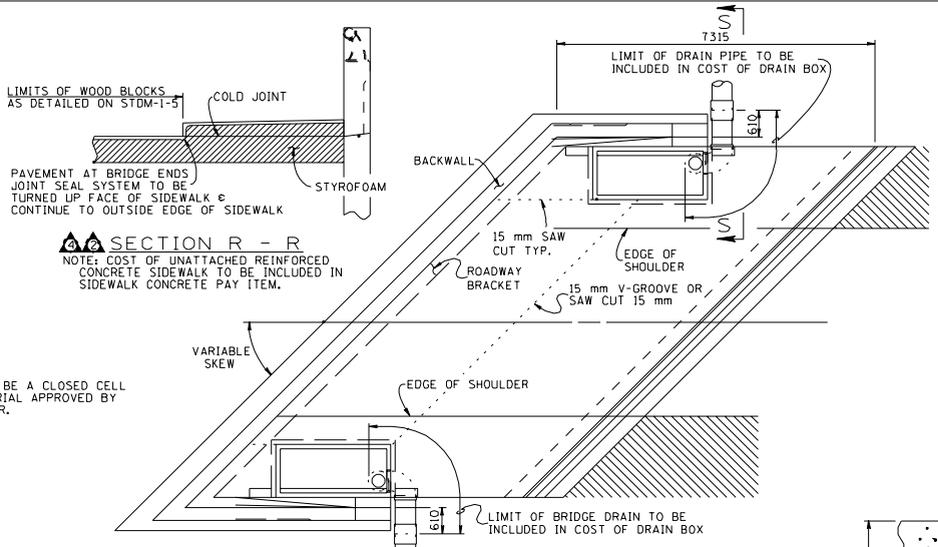
**PLAN**  
(SHOWING DRAIN PIPE LOCATION)  
(150 mm PERFORATED PIPE NOT SHOWN)



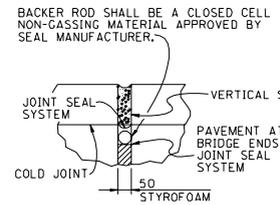
**SECTION R1 - R1**  
NOTE: COST OF UNATTACHED REINFORCED CONCRETE SIDEWALK TO BE INCLUDED IN SIDEWALK CONCRETE PAY ITEM.



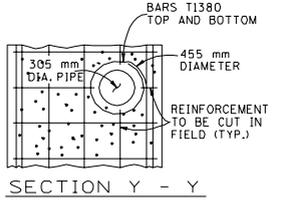
**TYPICAL SECTION THRU SIDEWALK**



**PLAN**  
(SHOWING DRAIN PIPE LOCATION)  
(150 mm PERFORATED PIPE NOT SHOWN)



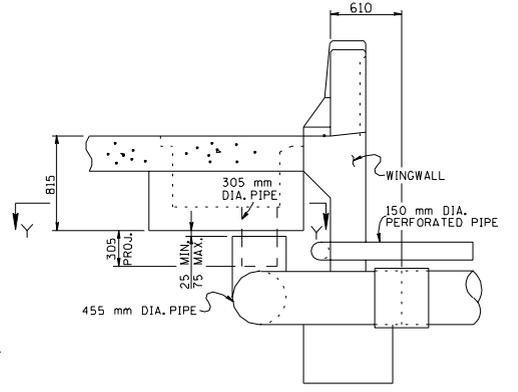
**TYPICAL SECTION @ CURB FACE**



**SECTION Y - Y**

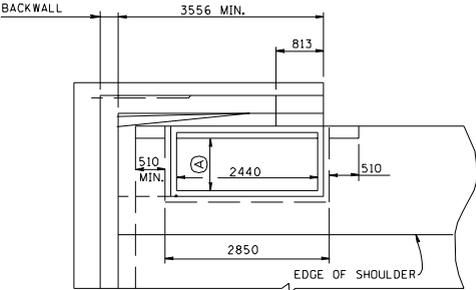
PROJECT NO.	YEAR	SHEET NO.	
	1996		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	6-10-96	BRB	NEW METRIC STANDARD
2	4-28-97	CMH	REVISED SECTION R-R & ADDED DETAIL
3	5-21-99	CMH	DELETED WINGWALL DIMENSIONS AND ADDED SECTION R1-R1 & SECTION THRU SIDEWALK & EXPANSION JOINT
4	7-31-00	CMH	REVISED SECTIONS R-R, R1-R1 & SECTION THRU SIDEWALK & CURB FACE

NOTE: FOR ADDITIONAL DETAILS SEE STD-M-1-1 THRU 5 AND 6, 8 OR 9.

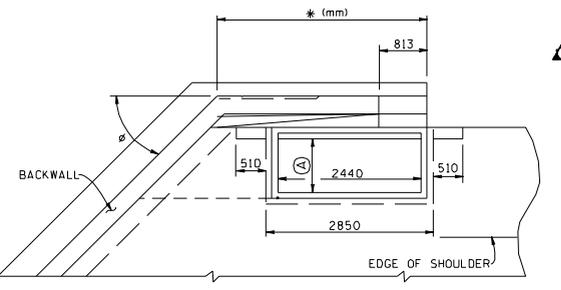


**SECTION S - S**  
(SHOWING STUB ABUTMENT)

NOTE: LOCATE 305 mm DIA. PIPE AT LOW END OF DRAIN BOX.

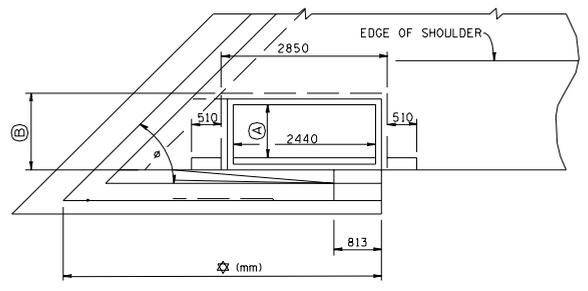


**PART PLAN**  
A 305 mm FOR 610 x 2620 DRAIN BOX  
915 mm FOR 1220 x 2620 DRAIN BOX



**PART PLAN**  
A 305 mm FOR 610 x 2620 DRAIN BOX  
915 mm FOR 1220 x 2620 DRAIN BOX

$$[\text{BACKWALL (mm)} + \text{ROADWAY BRACKET (mm)} / \text{SIN } \theta] - [535 / \text{TAN } \theta] + 3255 = *$$



LESS THAN 66 DEGREES (610 x 2620)  

$$[1245 / \text{TAN } \theta] + 2743 + [(\text{ROADWAY BRACKET (mm)} + \text{BACKWALL (mm)}) / \text{SIN } \theta] = *$$

LESS THAN 66 DEGREES (1220 x 2620)  

$$[1855 / \text{TAN } \theta] + 2743 + [(\text{ROADWAY BRACKET (mm)} + \text{BACKWALL (mm)}) / \text{SIN } \theta] = *$$

EQUAL TO OR GREATER THAN 66 DEGREES  

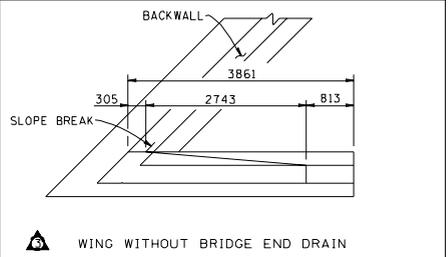
$$3255 + [(\text{ROADWAY BRACKET (mm)} + \text{BACKWALL (mm)}) / \text{SIN } \theta] + [740 / \text{TAN } \theta] = *$$

**PART PLAN**

- A 305 mm FOR 610 x 2620 DRAIN BOX  
915 mm FOR 1220 x 2620 DRAIN BOX
- B 710 mm FOR 610 x 2620 DRAIN BOX  
1320 mm FOR 1220 x 2620 DRAIN BOX

NOTE TO DETAILER:  
FOR FIGURING WING LENGTHS USE THE GREATER VALUE PRODUCED BY THE METHOD FOUND IN STRUCTURES MEMORANDUM MISCELLANEOUS ABUTMENT DETAILS OR THE MINIMUM WING LENGTH FOR DRAIN PLACEMENT FORMULAS FOUND ON THIS SHEET.

NOTE: WINGWALLS PER ABUTMENT SHOULD BE THE SAME LENGTH.



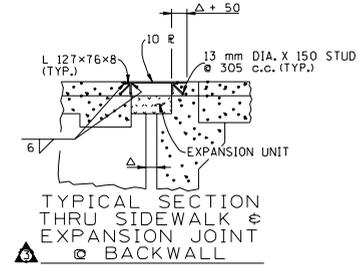
NOTE: SPREAD WIDTH NOT TO EXCEED 1830 mm.

ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

MINOR REVISION - FHWA APPROVAL NOT REQUIRED

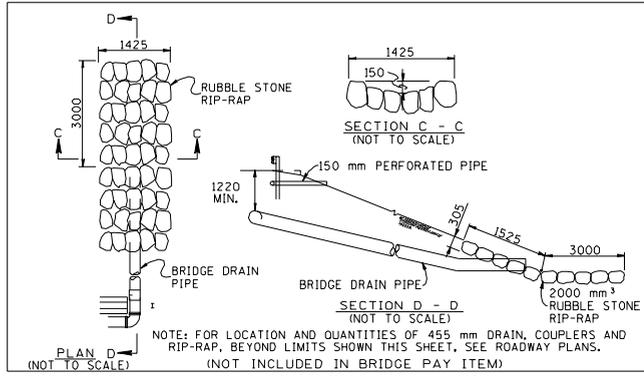
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

BRIDGE END DRAIN DETAILS  
610 x 2620  
1220 x 2620 WITH PAVEMENT AT BRIDGE ENDS  
1996



DESIGNED BY C.M. HILES  
DRAWN BY S.M. FRANKENFELD  
SUPERVISED BY C.M. HILES  
CHECKED BY

DATE 12-89  
DATE 12-89  
DATE



CORRECT Edward P. Wasserman ENGINEER OF STRUCTURES

