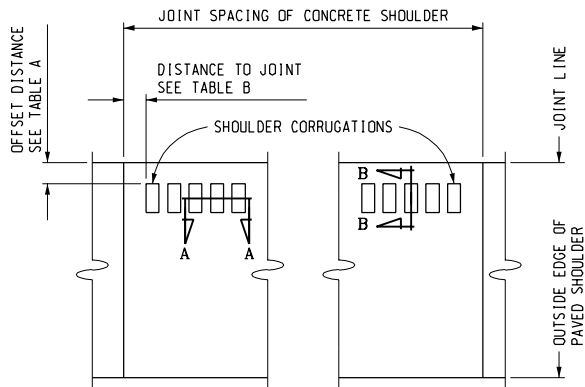


**BITUMINOUS SHOULDER PLAN**  
GROUND OR CUT IN



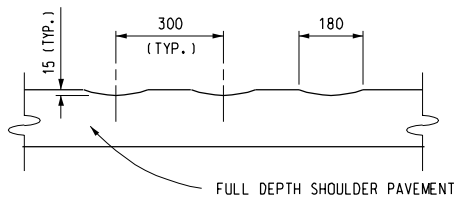
**CONCRETE SHOULDER PLAN**

THE DISTANCE FROM THE CORRUGATIONS TO ANY TRANSVERSE JOINT SHALL BE AS SHOWN IN TABLE B. FOR CONCRETE SHOULDERS WITH JOINT SPACINGS OTHER THAN THOSE SHOWN IN TABLE B, THE DISTANCE FROM THE CORRUGATION TO THE TRANSVERSE JOINT SHALL NOT BE LESS THAN 150 mm OR MORE THAN 450 mm.

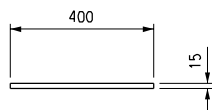
SHOULDER	DISTANCE FROM CORRUGATION TO LONGITUDINAL JOINT (mm)
≥ 3.0 m	600
ADJACENT TO 4.2 m LANE (CONCRETE PAVEMENT)	300
< 3.0 m	300

TRANSVERSE JOINT SPACING (m)	DISTANCE FROM CORRUGATION TO TRANSVERSE JOINT (mm)
4.0	260
4.5	210
5.0	310
* 8.0	310

\* ADJACENT TO REINFORCED CONCRETE PAVEMENT



**SECTION A - A**



**SECTION B - B**

**NOTES:**

SHOULDER CORRUGATION CROSS-SECTIONS AND LOCATION SHALL BE AS DETAILED ON THIS PLAN. CORRUGATIONS SHALL BE IN CONCRETE AND BITUMINOUS SHOULDERS PAVED 1200 mm OR WIDER OR WHERE THE SHOULDER LIES BETWEEN THE PAVEMENT AND VALLEY GUTTER OR CURB AND GUTTER. CORRUGATIONS WILL NOT BE USED IN RAMP SHOULDERS OR WHERE SHOULDERS ARE SEPARATED FROM THE PAVEMENT BY CURB AND GUTTER.

SHOULDER CORRUGATIONS SHALL NOT BE PLACED OVER A TRANSVERSE SHOULDER JOINT.

CORRUGATIONS FORMED IN CONCRETE SHOULDERS RATHER THAN GROUND OR CUT IN WILL NOT BE PAID FOR SEPARATELY.

SHOULDER WIDTHS AND THE RELATIONSHIP OF SHOULDERS TO THE REST OF THE ROADWAY SECTION ARE AS DETAILED ON THE PLANS.

ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

	ENGINEER OF CONSTRUCTION & TECHNOLOGY _____ 	ENGINEER - ROAD DESIGN _____ 	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAY TECHNICAL SERVICES STANDARD PLAN FOR  <b>SHOULDER CORRUGATIONS</b>			
	ENGINEER OF MAINTENANCE _____ 	ENGINEER OF DESIGN DEPARTMENT DIRECTOR James R. DeSana 				
PREPARED BY DESIGN DIVISION 	ENGINEER OF TRAFFIC AND SAFETY _____ 	BY: CHIEF ENGINEER/DEPUTY DIRECTOR BUREAU OF HIGHWAY TECHNICAL SERVICES _____ 	F.H.W.A. APPROVAL _____ 	10-8-98 PLAN DATE 	R-112-C 	SHEET 1 OF 1 
DRAWN BY: <u>B.L.T.</u> 						
CHECKED BY: <u>W.K.P.</u> 						