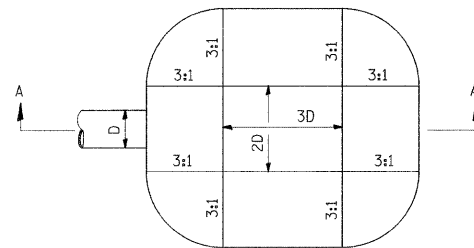


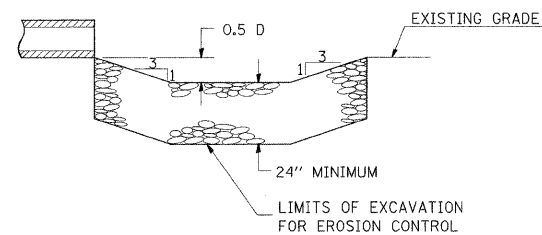
## ENERGY DISSIPATOR

### EARTH EXCAVATION FOR ENERGY DISSIPATOR



D = INSIDE DIAMETER OF PIPE CULVERT OR CLEAR HEIGHT OF BOX CULVERT

PLAN



SECTION A-A

THIS WORK INVOLVES THE EXCAVATION OF EARTH AS SHOWN IN THE SKETCH TO THE LENGTH, WIDTH, AND DEPTH AS SPECIFIED. THE EARTH EXCAVATION WILL BE UTILIZED IN THE ROADWAY EMBANKMENT OR WASTED AS DIRECTED BY THE ENGINEER. THE EXCAVATION SHALL BE PERFORMED AT THE SAME TIME AS THE CULVERT OR DITCH IS CONSTRUCTED TO SERVE AS A TEMPORARY SEDIMENT TRAP.

EARTHWORK WILL BE CONSIDERED INCLUDED IN THE COST OF THE RIPRAP.

ENERGY DISSIPATOR IS TO BE CONSTRUCTED AT THE LOCATION INDICATED ON THE PLAN AND PROFILE SHEETS.

### RIPRAP FOR ENERGY DISSIPATOR

RIPRAP FOR ENERGY DISSIPATOR SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 281 OF THE STANDARD SPECIFICATIONS EXCEPT AS REVISED HEREIN.

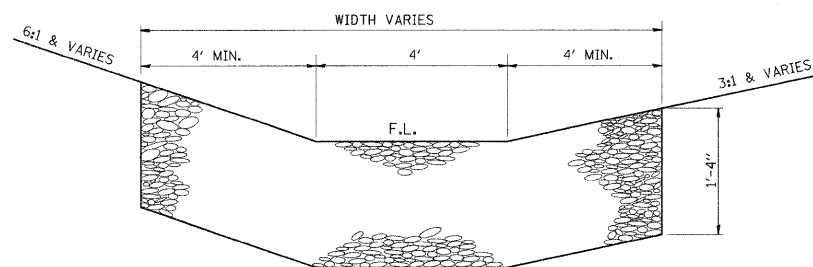
THE LENGTH, WIDTH, AND DEPTH FOR RIPRAP PLACEMENT SHALL BE AS SPECIFIED IN THESE DETAILS UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE RIPRAP FOR THE ENERGY DISSIPATOR SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR **STONE RIPRAP, CLASS A4**.

THE STONE DUMPED RIPRAP SHALL CONFORM TO THE QUALITY AND GRADATION REQUIREMENTS OF STONE RIPRAP, CLASS A4.

BEDDING MATERIAL AS SPECIFIED IN SECTION 281 OF THE STANDARD SPECIFICATIONS WILL NOT BE REQUIRED.

## TYPICAL DETAIL OF STONE RIPRAP DITCH LINING



### NOTES

THIS WORK INCLUDES THE EARTH EXCAVATION REQUIRED TO PLACE THE RIPRAP AS SHOWN. THE MATERIAL RESULTING FROM THE EARTH EXCAVATION SHALL BE PLACED IN THE ROADWAY EMBANKMENT, OR WASTED AS DIRECTED BY THE ENGINEER. THE EARTHWORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THE DITCH.

THE RIPRAP DITCH SHALL BE CONSTRUCTED AT THE LOCATIONS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. CONSTRUCTION OF THE STONE RIPRAP DITCH SHALL CONFORM TO THE REQUIREMENTS FOR CLASS A4 RIPRAP AS INDICATED IN SECTION 281 OF STANDARD SPECIFICATIONS.

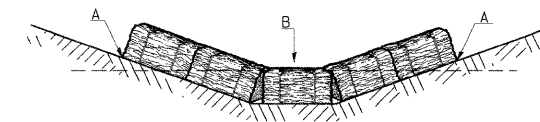
THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQ YD FOR **STONE RIPRAP, CLASS A4**, WHICH PRICE SHALL INCLUDE ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK IN PLACE AS SHOWN.

BEDDING MATERIAL AND FILTER FABRIC AS SPECIFIED IN SECTION 281 OF THE STANDARD SPECIFICATIONS WILL NOT BE REQUIRED.

THE WIDTH OF THE RIPRAP DITCH WILL BE AS SPECIFIED IN THE RIPRAP SCHEDULE OR AS DIRECTED BY THE ENGINEER.

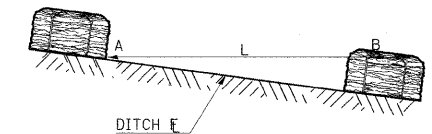
## TEMPORARY DITCH CHECKS

### PLACEMENT OF TEMPORARY STRAW BALE DITCH CHECK IN DRAINAGEWAY



POINTS A SHOULD BE HIGHER THAN POINT B

### SPACING BETWEEN TEMPORARY DITCH CHECKS

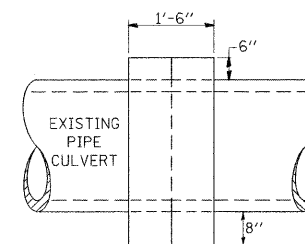


L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION

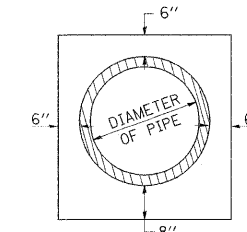
B = THE LOW POINT IN CENTER OF CHECK

## DETAILS OF CONCRETE COLLAR

PIPE TO PIPE



SIDE VIEW



END VIEW

### TABULATION

DIAMETER OF PIPE	CL SI CONC CU YDS EST
12"	0.24
15"	0.29
18"	0.32
24"	0.44
30"	0.56
36"	0.66
42"	0.80
48"	0.93
54"	1.07
60"	1.22
72"	1.55

THE CONCRETE COLLAR SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR **CONCRETE COLLAR**, AS SHOWN ON THE PLANS, WHICH PRICE SHALL INCLUDE THE REMOVAL OF SUCH PORTIONS THE EXISTING HEADWALLS AS MAY BE REQUIRED.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

FILE NAME =	USER NAME = sheperdgd	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROJECT DETAILS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
6:\pw_work\NPWIDOT\SHEPARDGD\dms47338\fdstml3-shrstandards.dgn		DRAWN -	REVISED -			331	(1-2)N-2,R(1X-1)N-3,R-2	WILLIAMSON	202	113	
PLOT SCALE = 50,0000' / IN.		CHECKED -	REVISED -			CONTRACT NO. 98857					
PLOT DATE = 10/14/2009		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					