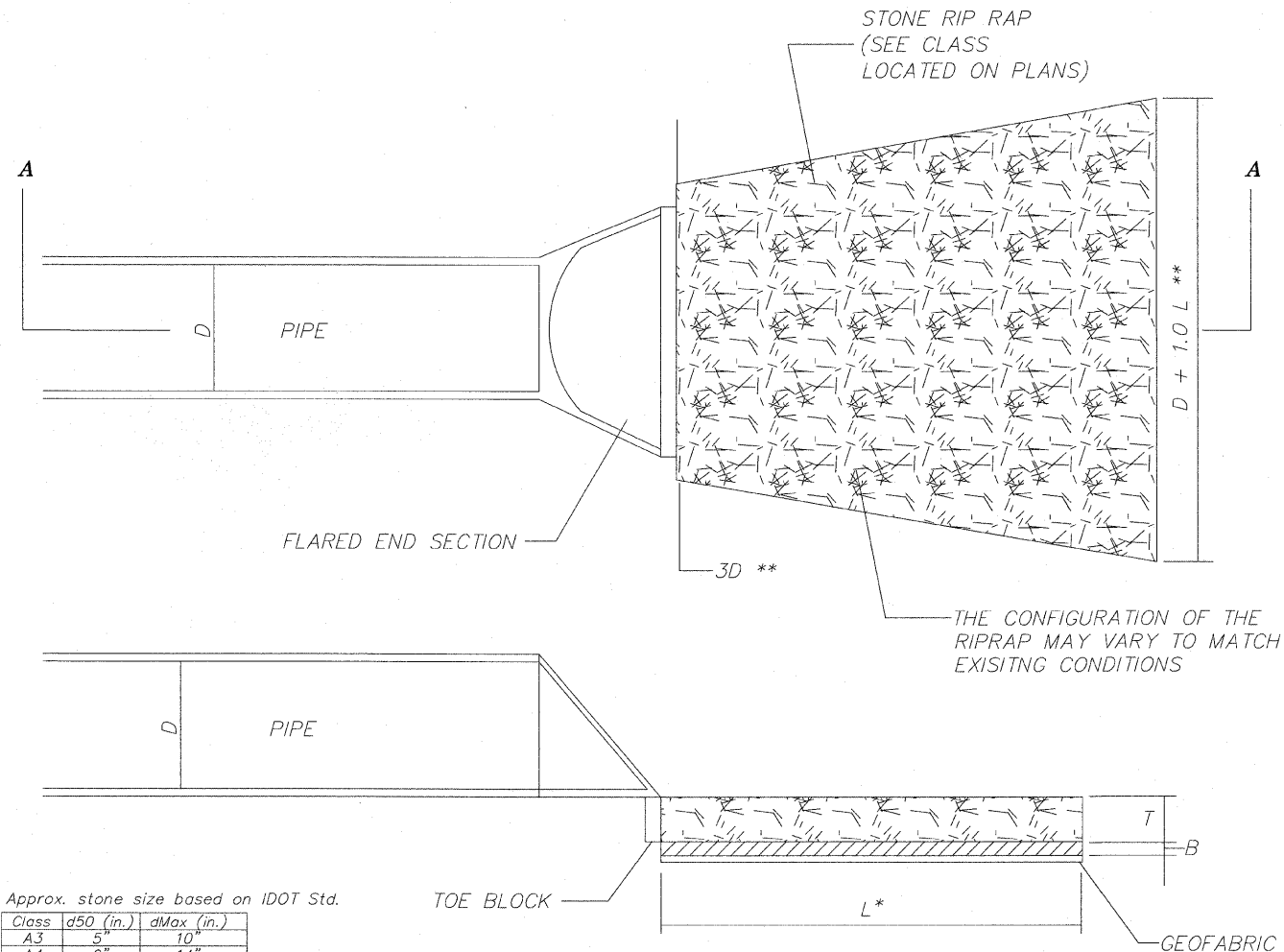


STONE RIP RAP DETAIL
FOR ANY TAILWATER CONDITION



Approx. stone size based on IDOT Std.

Class	d50 (in.)	dMax (in.)
A3	5"	10"
A4	9"	14"
A5	12"	19"
A6	15"	22"

SECTION A-A

- * WHEN "L" EXTENDS BEYOND BACK OF DITCH, RIPRAP SHALL TERMINATE AT BACK EDGE OF THE DITCH, THE PROPOSED QUANTITY SHALL NOT CHANGE.
- ** NOTE: WHEN OUTLETING TO A DEFINED CHANNEL, WIDTH AND AREA OF APRON SHALL CONFORM TO TOP OF CHANNEL BANK

LOW VELOCITY (<5fps)					HIGH VELOCITY (5-10fps)				
D	T	L	B	-	D	T	L	B	-
Pipe Size in.	Rock Class (Min. Thickness)	Length of Apron	Bedding Class (Thickness)	Quantity SY. **	Pipe Size in.	Rock Class (Min. Thickness)	Length of Apron	Bedding Class (Thickness)	Quantity SY. **
10"	A2 (6")	10'	-	8	10"	A2 (6")	10'	-	8
12"	A3 (15")	12'	-	11	12"	A3 (15")	15'	-	16
15"	A3 (15")	13'	-	13	15"	A3 (15")	15'	-	17
18"	A3 (15")	14'	-	16	18"	A4 (16")	16'	A1 (6")	20
21"	A3 (15")	15'	-	18	21"	A4 (16")	18'	A1 (6")	25
24"	A3 (15")	16'	-	21	24"	A4 (16")	20'	A1 (6")	31
27"	A3 (15")	17'	-	25	27"	A4 (16")	21'	A1 (6")	35
30"	A3 (15")	18'	-	28	30"	A4 (16")	22'	A1 (6")	39
33"	A4 (16")	19'	A1 (6")	32	33"	A5 (22")	23'	A1 (8")	44
36"	A4 (16")	20'	A1 (6")	36	36"	A5 (22")	24'	A1 (8")	48
42"	A4 (16")	22'	A1 (6")	44	42"	A6 (26")	26'	A2 (10")	58
48"	A4 (16")	24'	A1 (6")	53	48"	A6 (26")	28'	A2 (10")	68

Note See current Illinois Department of Transportation Standard Specification to verify rock size and bedding thickness.

RIPRAP

COMPANY NAME: SEC GROUP, INC.
 PROJECT CONTACT: T. HAMILTON
 CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION
 DATE PLOTTED: 3/17/2010 10:27:36 AM
 FILE NAME: PL_PP_De tails-RipRap.dgn
 PLOT DRIVER: PLOT.DET-T11.drv
 PLOT TABLE: Standard-Trans.tbl

SEC Group, Inc.
 An ISO 9001 Certified Company
 401 N. First Street
 Suite 200, St. Louis, MO 63102-2138
 P: 314.386.5779 F: 314.386.1761
 www.secgroup.com
 Chicago, IL • St. Louis, MO • New Lenox, IL • Chicago, IL

USER NAME = JAttana	DESIGNED - J. ATTANASEO	REVISED -
FILE NAME = PL_PP_Details-RipRap.dgn	DRAWN - J. ATTANASEO	REVISED -
PLOT SCALE = N.T.S.	CHECKED -	REVISED -
PLOT DATE = 3/17/2010	DATE = 3/17/10	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**I-294 AT I-57 INTERCHANGE PROJECT DRAINAGE DETAILS
STONE RIPRAP DETAIL**

SCALE: *SCALE1* SHEET NO. 3 OF 5 SHEETS STA. TO STA.

F.A.I. RTE. 57	SECTION 1414.2B	COUNTY COOK	TOTAL SHEETS 516	SHEET NO. 159
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT	
CONTRACT NO. 60J27				