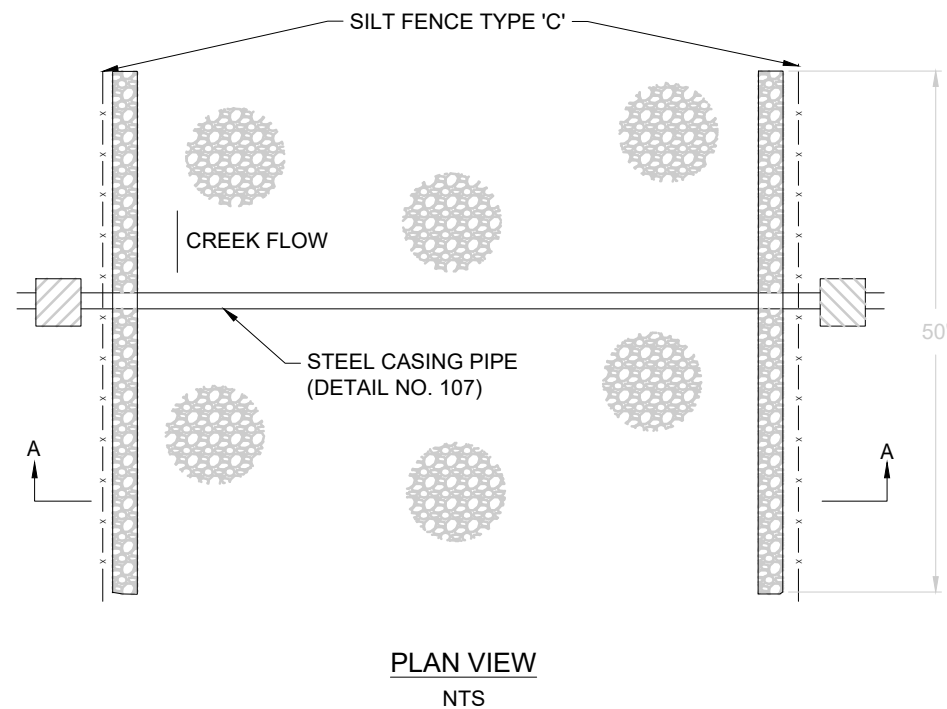


NOTES:

1. MINIMUM STONE SIZE SHALL BE 125 LBS.
2. STONE SIZE SHALL BE PROVIDED BY DESIGN ENGINEER OR FULTON COUNTY PUBLIC WORKS ENGINEER
3. ALL EROSION CONTROL DEVICES MUST BE IN PLACE PRIOR TO ANY GRADING OR CLEARING.
4. ALL EROSION CONTROL SHALL CONFORM TO FULTON COUNTY STANDARDS.
5. RIM OF MANHOLE SHALL BE 2' ABOVE GRADE. IF IN A FLOOD ZONE, RIM SHALL BE ABOVE 25 YEAR STORM ELEVATION. RING AND COVER OF MANHOLE TO BE COMPOSITE WATERTIGHT RING AND COVER PER DETAIL 105.
6. SEE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA FOR MORE INFORMATION.
7. CONCRETE STRENGTH TEST MAY BE REQUIRED FOR ALL POURED IN PLACE CONCRETE.



**TABLE 401-1
GRADED RIP - RAP STONE**

FLOW VELOCITY (FT/SEC.)	NATIONAL STONE, SAND & GRAVEL ASSOCIATION RATING	SIZE IN INCHES (SQ. OPENING)			PARTICLE WEIGHT (LBS)*
		MAX.	AVG.	MIN.	
25	R-1	1 1/2	3/4	NO.8	---
4.5	R-2	3	1 1/2	1	---
6.5	R-3	6	3	2	20
9.0	R-4	12	6	3	60
11.5	R-5	18	9	5	150
13.0	R-6	24	12	7	300
14.5	R-7	30	15	12	700
---	R-8	48	24	15	1500

* AT LEAST 50% OF ALL INDIVIDUAL STONE PARTICLES MUST WEIGH AT LEAST THE LISTED AMOUNT.

**TABLE 401-2
GRADED RIP - RAP STONE**

GEORGIA DOT CLASSIFICATION	SIZE INCHES (SQ. OPENING)			COMMON USES
	MAX.	AVG.	MIN.	
TYPE 3	12	9	5	CREEKS, BANKS, PIPE OUTLETS, LAKES, SHORELINES & RIVERS
TYPE 1	24	12	7	

GRADED RIP - RAP STONE (SEE TABLE 401-2)

TYPE 3: FOR GENERAL USE NORMAL DRAINAGE CONDITIONS: THE LARGEST PIECES OF MATERIAL SHALL HAVE A MAXIMUM APPROXIMATE VOLUME OF ONE CUBIC FOOT. AT LEAST 35% OF THE MASS SHALL BE COMPRISED OF PIECES WHICH WEIGH 15 POUNDS OR MORE.

TYPE 1: FOR SEVERE DRAINAGE CONDITIONS OR MODERATE WAVE ACTION: THE LARGEST PIECES OF MATERIAL SHALL HAVE A MAXIMUM VOLUME OF 4.2 CUBIC FEET. AT LEAST 35% OF THE MASS SHALL BE COMPRISED OF PIECES WHICH WEIGH 125 POUNDS OR MORE.

95% SUBMITTAL

FULTON COUNTY STANDARD DETAIL 401

SANITARY SEWER TYPICAL RIP-RAP CHANNEL PIPE CROSSING

DATE	REVISIONS	DATE	REVISIONS
M/Y	XXX	M/Y	XXX

DGS/DRN/CHKD: XXX
 APPROVED: XXX
 DATE: XX-X-XX



FULTON COUNTY PUBLIC WORKS
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 404-612-7400 FAX: 404-224-0498

DRAWING NO.

401