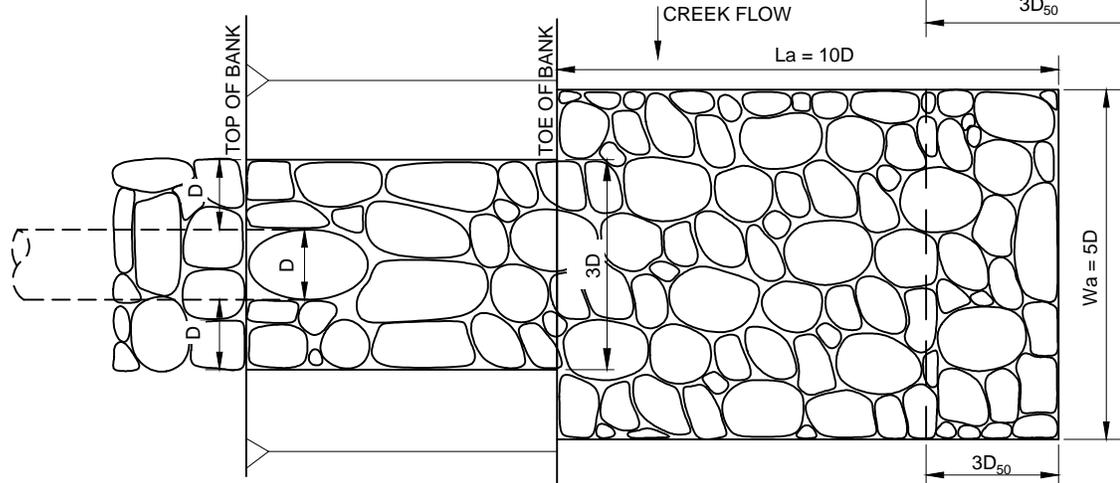


D = PIPE DIAMETER
 D_{50} = MEDIAN ROCK DIAMETER
 L_a = APRON LENGTH
 W_a = APRON WIDTH
 Y = OUTFALL HEIGHT

*IF OUTFALL HEIGHT IS GREATER THAN 6 FT. USE A DROP MANHOLE (SEE 508S-18)

SECTION VIEW



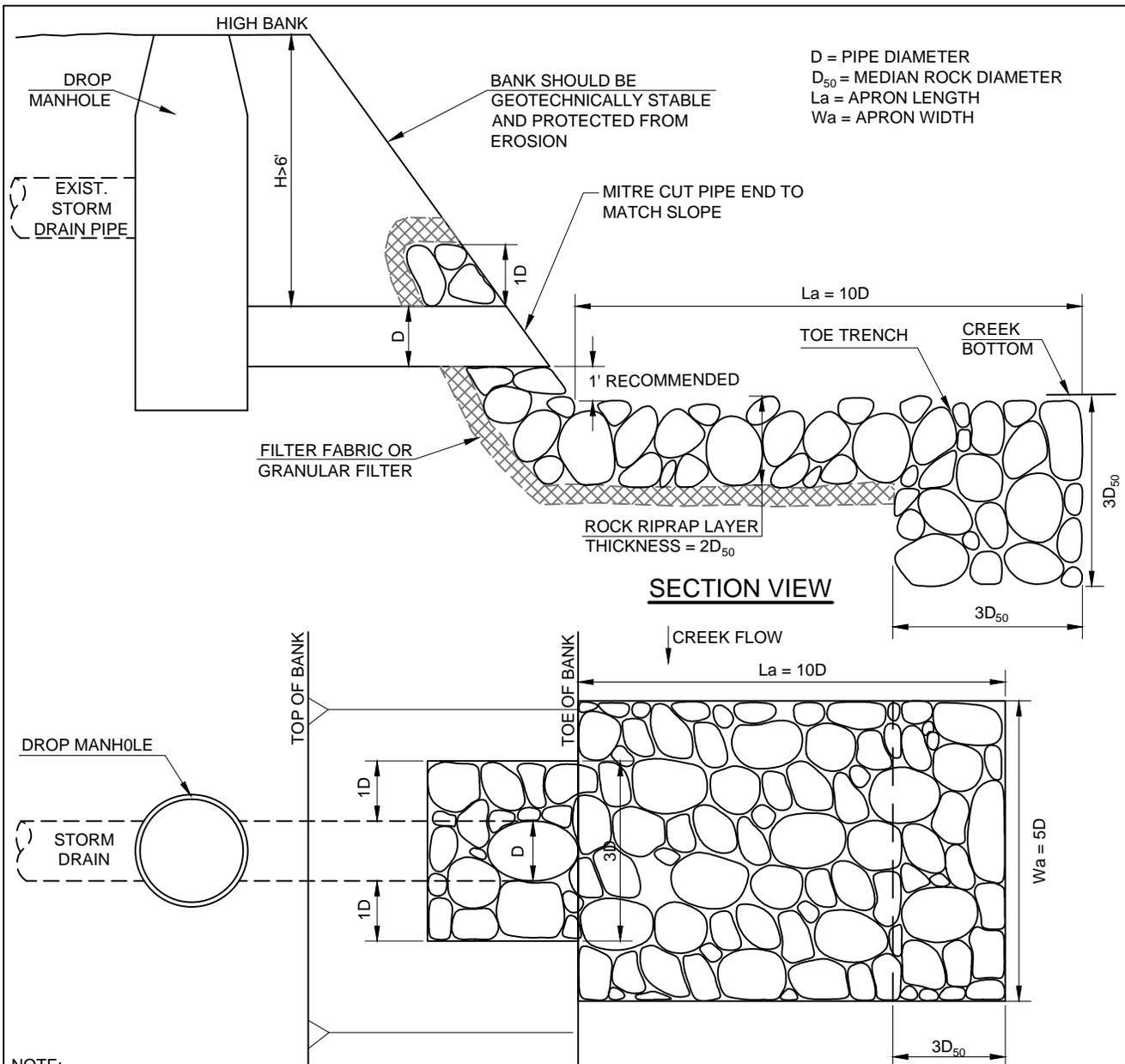
PLAN VIEW

*EXTEND ROCK RIPRAP ARMOR LAYER TO OPPOSITE CREEK BANK UP TO AN ELEVATION EQUAL TO THE TOP OF PIPE FOR CHANNEL WIDTHS LESS THAN 10D.

NOTE:

1. ROCK RIPRAP SHALL BE SOUND MATERIAL AND GRADED PER REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 591S.
2. ROCK SIZE (D_{50}) AND GRADATION SHALL BE STABLE FOR THE DESIGN HYDRAULIC CONDITIONS AND IN ACCORDANCE WITH THE ECM 1.4.6.D PERMANENT STRUCTURAL PRACTICES, STONE RIPRAP OR OTHER ENGINEERING STANDARD OF PRACTICE FOR SIZING ROCK RIPRAP. ROCK RIPRAP D_{50} AND FILTER TYPE SHALL BE NOTED ON PLANS.
3. GEOTEXTILE FILTER FABRIC SHALL MEET THE REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 620S.
4. AGGREGATE FOR GRANULAR FILTER SHALL MEET THE REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 403, AGGREGATE SIZE CLASSIFICATION/GRADE, NUMBER OF LAYERS AND LAYER THICKNESS SHOULD BE NOTED ON THE PLANS.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STORMDRAIN OUTFALL PROTECTION PIPE DISCHARGE ON SLOPE—LOW BANK	
_____ ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-16



D = PIPE DIAMETER
 D₅₀ = MEDIAN ROCK DIAMETER
 La = APRON LENGTH
 Wa = APRON WIDTH

SECTION VIEW

PLAN VIEW

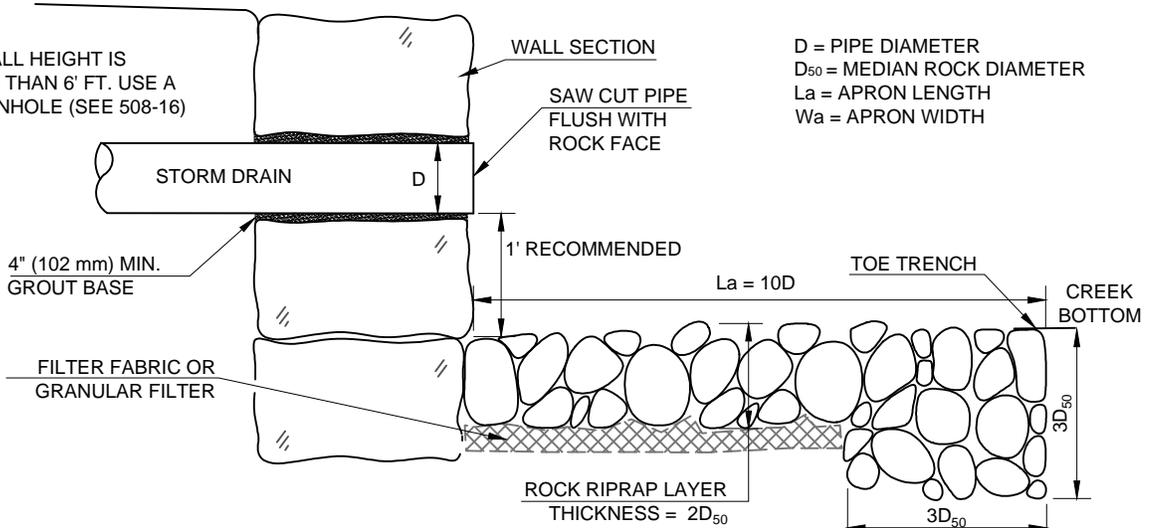
NOTE:

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*EXTEND ROCK RIPRAP ARMOR LAYER TO OPPOSITE CREEK BANK UP TO AN ELEVATION EQUAL TO THE TOP OF PIPE FOR CHANNEL WIDTHS LESS THAN 10D.

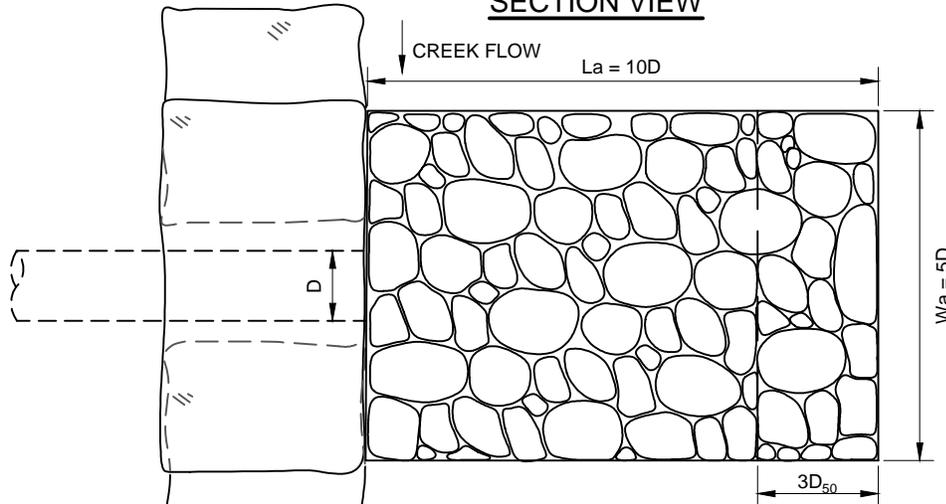
<p>CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT</p>	<p>STORMDRAIN OUTFALL PROTECTION PIPE ON SIDE SLOPE – HIGH BANK</p>	
<p>_____ ADOPTED</p>	<p>THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.</p>	<p>STANDARD NO. 508S-18</p>

*IF OUTFALL HEIGHT IS GREATER THAN 6' FT. USE A DROP MANHOLE (SEE 508-16)



D = PIPE DIAMETER
 D₅₀ = MEDIAN ROCK DIAMETER
 La = APRON LENGTH
 Wa = APRON WIDTH

SECTION VIEW

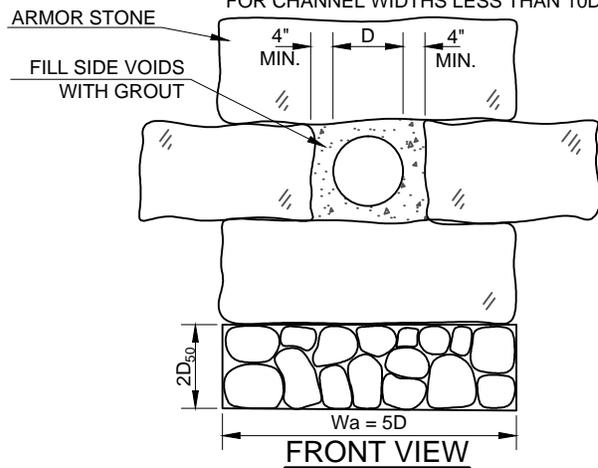


PLAN VIEW

*EXTEND ROCK RIPRAP ARMOR LAYER TO OPPOSITE CREEK BANK UP TO AN ELEVATION EQUAL TO THE TOP OF PIPE FOR CHANNEL WIDTHS LESS THAN 10D.

NOTE:

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FRONT VIEW

CITY OF AUSTIN
 WATERSHED PROTECTION DEPARTMENT

**STORMDRAIN OUTFALL PROTECTION
 WALL PENETRATION**

_____ ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO.
508S-19

REMOVE STANDARD 628S-2

NOTES:

1. MATERIAL - THE FABRIC MUST CORRESPOND TO THE FOLLOWING REQUIREMENTS:

PROPERTY	ASTM TEST METHOD	REQUIREMENTS
FABRIC WEIGHT	D 3776	≥ 3.0 OUNCES/SQUARE YARD
ULTRAVIOLET (UV) RADIATION STABILITY	D 4355	70% STRENGTH RETAINED MIN., AFTER 500 HOURS IN XENON ARC DEVICE
MULLEN BURST STRENGTH	D 3786	≥ 120 POUND PER SQUARE INCH
WATER FLOW RATE	D 4491	≥ 275 GALLONS/MINUTE/SQUARE FEET

2. THIS MATERIAL SHOULD HAVE A MAXIMUM EXPECTED USEFUL LIFE OF APPROXIMATELY EIGHTEEN (18) MONTHS. THE INLET PROTECTION DEVICES SHOULD BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN OUT AND DISPOSAL OF TRAPPED SEDIMENT WHILE MINIMIZING INTERFERENCE WITH CONSTRUCTION ACTIVITIES. THEY SHOULD ALSO BE CONSTRUCTED SUCH THAT ANY PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE R.O.W. FLOODING (I.E. ≤ 4 INCHES OF STANDING WATER) OR DAMAGE TO THE STRUCTURE OR ADJACENT AREAS.

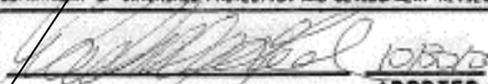
3. COVERAGE - THE FABRIC/MRE SHOULD COMPLETELY COVER THE OPENING OF THE INLET AND DEVICES SHOULD BE INSTALLED WITHOUT PROTRUDING PARTS THAT COULD BE A TRAFFIC, WORKER, OR PEDESTRIAN HAZARD. WHERE SECTIONS OF THE FABRIC OVERLAP, THEY SHALL OVERLAP AT LEAST THREE (3) INCHES.

4. THE INLET FILTER SHALL BE ATTACHED IN A WAY THAT THEY CAN EASILY BE REMOVED AND ARE NOT SECURED OR ATTACHED BY THE USE OF SAND BAGS. THE INLET FILTER MUST BE REMOVED UPON COMPLETION OF WORK. IF REMOVAL DAMAGES THE CONCRETE CURB, THE CURB MUST BE REPAIRED IMMEDIATELY.

5. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN THE DEPTH REACHES 60 MM (2 INCHES) INCHES OR ONE-THIRD THE HEIGHT OF THE INLET THROAT, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.

6. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.

7. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT HAS ACHIEVED FINAL STABILIZATION CONDITIONS.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		FILTER DIKE CURB INLET PROTECTION	
 ADOPTED		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	
		STANDARD NO. 628S-2	