

**IMPERVIOUS DIKE DETAIL**

DIMENSIONS (VALUES TO BE PROVIDED BY DESIGNER)			
VARIABLE	VALUES	TYPICAL UNIT	DESCRIPTION
X1		FT.	SPLASH PAD / STABILIZED OUTLET WIDTH
X2		FT.	SPLASH PAD LENGTH
X3		IN.	SPLASH PAD / STABILIZED OUTLET THICKNESS
X5		FT.	STREAM BED WIDTH
X6		FT.	SEDIMENT BAG PAD LENGTH
X7		FT.	SEDIMENT BAG SETBACK FROM TOP OF BANK
X8		IN.	SEDIMENT BAG PAD THICKNESS
X9		FT.	IMPERVIOUS DIKE LENGTH
X10		FT.	IMPERVIOUS DIKE HEIGHT
X11		FT. OR IN.	APPROXIMATE BASE FLOW WATER LEVEL
X12		IN.	D50 OF STABILIZED OUTLET STONE/IMPERVIOUS DIKE STONE

THIS FIGURE IS ONLY MEANT TO DEFINE THE MINIMUM INFORMATION REQUIRED BY THE CITY OF CHARLOTTE TO BE INCLUDED IN A DETAIL FOR THIS TYPE OF TECHNIQUE.  
 THIS FIGURE IS NOT MEANT TO REPRESENT A STANDARD DESIGN METHOD FOR THIS TYPE OF TECHNIQUE AND SHALL NOT BE USED AS SUCH.

**NOT TO SCALE**



**CHARLOTTE-MECKLENBURG**  
**STORM WATER SERVICES**  
 GENERIC DETAIL REQUIREMENTS

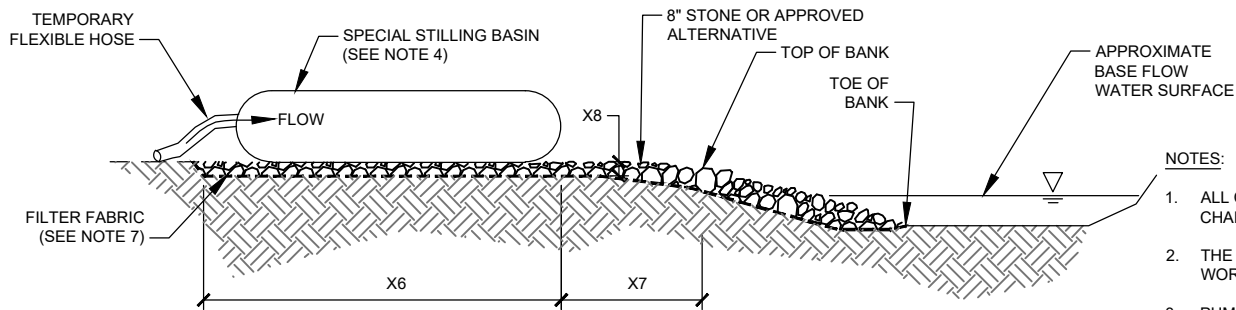
**EXAMPLE PUMP AROUND FLOW DIVERSION  
 AND DEWATERING CONFIGURATION**

DRAFT - NOT TO BE USED FOR CONSTRUCTION

SHEET NUMBER

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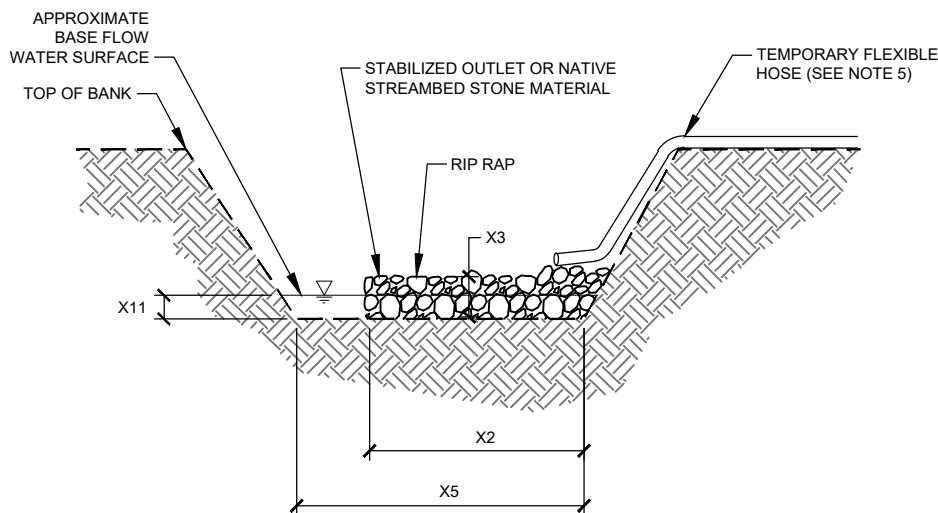
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**SPECIAL STILLING BASIN**

**NOTES:**

1. ALL CHANNEL WORK INVOLVING EXCAVATION SHALL BE PERFORMED IN DRY CONDITIONS OR IN CHANNEL SECTIONS ISOLATED BY IMPERVIOUS DIKES AND KEPT DE-WATERED.
2. THE CONTRACTOR SHALL NOT DISTURB MORE AREA THAN CAN BE STABILIZED THE SAME WORKING DAY.
3. PUMP-AROUND PUMP AND HOSE SHALL ADEQUATELY CONVEY BASEFLOW AROUND WORKING AREA (CLEAN TO CLEAN WATER), WITH PUMPS ADEQUATELY SIZED AS SPECIFIED BY THE DESIGNER. DE-WATERING PUMP SHALL REMOVE WATER WITHIN WORK AREA, BE FILTERED THRU A SPECIAL STILLING BASIN AND DISCHARGE DOWNSTREAM AT A NON-EROSIVE FORCE, AS SPECIFIED BY THE DESIGNER.
4. GRAVITY-BASED GEOTEXTILE BAG FILTERS SHALL BE USED TO COLLECT SILT AND SEDIMENT FROM WORK AREA DEWATERING. THE DESIGNER MAY SPECIFY A SPECIAL STILLING BASIN OR OTHER SEDIMENT CONTROL MEASURE IN LIEU OF A SPECIAL STILLING BASIN IF SITE CONDITIONS ARE FAVORABLE (I.E. - TREES WILL NOT BE IMPACTED FOR BASIN EXCAVATION, ETC.).
5. EFFLUENT FROM CLEAN WATER PUMP AROUND MAY BE DISCHARGED DIRECTLY INTO STABILIZED OUTLET (NO SEDIMENT REMOVAL DEVICE REQUIRED). IF NATIVE STREAMBED STONE MATERIAL IS DEEMED SUITABLE BY DESIGNER AT DISCHARGE LOCATION, NO TEMPORARY STABILIZED OUTLET IS REQUIRED.
6. A STABILIZED OUTLET SHALL BE USED TO CONTROL THE EFFLUENT FROM ALL PUMPING OPERATIONS, UNLESS NATIVE STREAMBED STONE MATERIAL IS DEEMED SUITABLE BY DESIGNER AT DISCHARGE LOCATION. THE DESIGNER SHALL APPROVE ALL MATERIALS AND DIMENSIONS ASSOCIATED WITH STABILIZED OUTLETS.
7. FILTER FABRIC AS SPECIFIED BY THE DESIGNER SHALL BE USED UNDERNEATH ALL STONE/RIP RAP PLACED FOR SEDIMENT BAGS, STABILIZED OUTLETS, SPLASH PADS.
8. IMPERVIOUS DIKES SHALL BE CONSTRUCTED TO ISOLATE THE IN-STREAM WORKING AREA. AN IMPERVIOUS FABRIC MEMBRANE, AS APPROVED BY THE DESIGNER, SHALL BE USED TO CREATE THE DIKES.
9. THE WORK SEQUENCE IN PUMP-AROUND OPERATIONS PROCEEDS TYPICALLY AS FOLLOWS:
  - A. INSTALL SPECIAL STILLING BASIN AND TEMPORARY STABILIZED OUTLETS AT THE DOWNSTREAM END OF WORKING AREA.
  - B. INSTALL PUMP-AROUND PUMP AND FLEXIBLE HOSE.
  - C. INSTALL UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING (CLEAN WATER) DOWNSTREAM TO STABILIZED OUTLET.
  - D. INSTALL DOWNSTREAM IMPERVIOUS DIKE AND DE-WATERING PUMP.
  - E. PERFORM CHANNEL WORK IN ACCORDANCE WITH THE PLANS IN THE WORKING AREA.
  - F. DE-WATER THE WORKING AREA (AS NEEDED) INTO THE SPECIAL STILLING BASIN AND TEMPORARY STABILIZED OUTLET.
  - G. REMOVE DOWNSTREAM AND THEN UPSTREAM DIKES AND ALL PUMPS AND HOSE.
  - H. SEED AND MULCH ALL DISTURBED AREAS PER THE PLANTING PLAN.



**TEMPORARY STABILIZED OUTLET - SECTION A - A'**

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