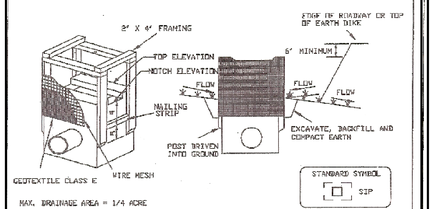
DETAIL 6A - STANDARD INLET PROTECTION



MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

1. Excavate completely around the inlet to a depth of 18" below the notch elevation.

2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 6A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.

3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.

4. Stretch the Geotextile Class E tightly over the wire mesh with the geotextile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.

5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.

6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.

7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

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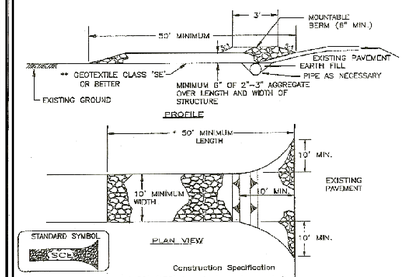
DETAIL 1 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).

2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.

4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.

5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required. The mountable berm is required on all SCEs not located at a high spot.

6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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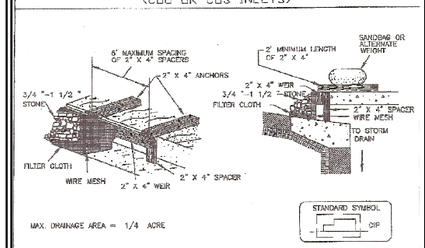
DETAIL 6C - CURB INLET PROTECTION (CDG OR CDS INLETS)



MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

1. Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.

2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.

3. Securely nail the 2" X 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4' apart).

4. Place the assembly against the inlet throat and nail (minimum 3" lengths of 2" x 4" to the top of the weir at spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.

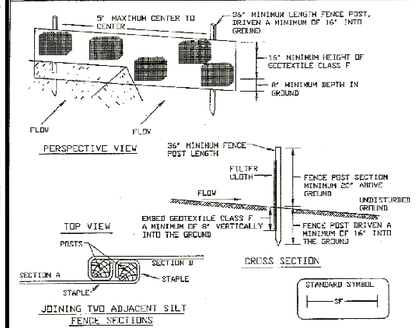
5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.

6. Form the 1/2" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4" - 1 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.

7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.

8. Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

DETAIL 4 - SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min.)	Test: ASTM D-4595
Tensile Modulus	20 lbs/in (min.)	Test: ASTM D 4595
Flow Rate	0.3 gal/ft²/minute (max.)	Test: ASTM D 5141
Filtering Efficiency	72% (min.)	Test: ASTM D-5141

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

CHECKLIST FOR EROSION AND SEDIMENT CONTROL PLAN (X-DENOTES USAGE)

X **MINIMUM STANDARDS** - ALL APPLICABLE MINIMUM STANDARDS ARE ADDRESSED.

X **PROJECT DESCRIPTION/NARRATIVE**

THE PURPOSE OF THIS PROJECT IS TO REDEVELOP AN EXISTING ZONED R-1 LOT. TOTAL DISTURBED AREA IS 0.20 ACRES. THE PROJECT WILL BE COMPLETED IN TWO PHASES PHASE I CONSTRUCTION WILL CONSIST OF SITE STABILIZATION DURING SITE WORK PREPARATION AND TRENCHING OPERATIONS. PHASE II CONSTRUCTION WILL BE THE CONSTRUCTION OF A MATCHING ELEVATION STRUCTURE, REQUIRED ASPHALT PARKING AREA, CURB AND GUTTER IN R.O.W., POROUS PAVEMENT FOR STORMWATER MANAGEMENT AND UTILITY RECONNECTIONS IN SUPPORT OF THIS DEVELOPMENT.

X **EXISTING SITE CONDITIONS:**

THE CURRENT LOT HAS AN EXISTING BUILDING AND GARAGE WITH THREE LARGE OAK TREES THAT APPEAR TO BE DEAD. THE SITE SITS APPROXIMATELY 3.5' ABOUT THE SIDEWALK GRADE IN THE R.O.W. A RETAINING WALL SURROUNDS THE PROPERTY TO HOLD THE GRADE BACK. VEGETATION AND SIDEWALK MAKES UP THE REST OF THE AREA. AN EXISTING STORM MANHOLE IS AT THE REAR OF THE SITE THAT APPEARS TO BE THE OUTFALL FOR THE ROOF DRAINS WHICH ARE TIED. THERE IS ADEQUATE STORM CONVEYANCE ON 16TH STREET N.W AND CRITTENDEN STREET INTERSECTION.

X **ADJACENT PROPERTY**

THIS SITE IS BOUNDED BY 16TH STREET N.W TO THE EAST; BY CRITTENDEN STREET, TO THE SOUTH; THERE IS ANOTHER PLACE OF WORSHIP TO THE NORTH AND RESIDENTIAL HOUSE TO THE WEST.

X **OFF-SITE AREAS**

MINIMUM VEHICLE INGRESS/EGRESS ENTRANCE INSTALLATION IN THE R.O.W. ON THE SOUTHERN PORTION OF THE LOT AND PEDESTRIAN INGRESS/EGRESS ACCESS IN THE FRONT OF THE PROPERY (EAST).

X **SOILS**

EXISTING SOIL ON SITE IS CLASSIFIED AS SASSAFRAS-URBAN LAND COMPLEX, WITH 0 TO 8 PERCENT SLOPES. THE ASSIGNED Kw ERODIBILITY FACTOR IS .28. THE SOIL IS WELL DRAINED. THE SLOWEST PERMEABILITY WITHIN 60" IS MODERATELY SLOW. AVAILABLE WATER CAPACITY IS VERY HIGH AND SHRINK SWELL POTENTIAL IS LOW. THIS SPECIFIC SOIL IS NOT FLOODED AND IS NOT PONDED. THE WATER TABLE IS DEEPER THAN 6-FEET. THERE ARE NO SALINE HORIZONS. IT IS IN NONIRRIGATED LAND CAPABILITY CLASS 2e. THIS COMPONENT IS NOT A HYDRIC SOIL.

_ **CRITICAL AREAS**

THERE ARE NO CRITICAL AREAS WITHIN THIS SITE AREA. A RETAINING WALL IS REQUIRED FOR THE INSTALLATION OF THE TYPE "C" ENTRANCE TO HOLD BACK GRADE FROM THE ABUTTING LOT.

X **EROSION AND SEDIMENT CONTROL MEASURES:**

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE HANDBOOK. THE MINIMUM STANDARDS OF THE VESCR SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

X **PERMANENT STABILIZATION**

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISHED GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STD. & SPEC. DC DOH, PERMANENT SEEDING, OF THE HANDBOOK. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND TO ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING.

X **STORMWATER RUNOFF CONSIDERATIONS**

CALCULATIONS OF RUNOFF PREDEVELOPMENT AND POST DEVELOPMENT INDICATE THAT THERE WILL BE A NET INCREASE IN PEAK RUNOFF AS A RESULT OF PROJECT DEVELOPMENT. WE INTEND TO TREAT THE ENTIRE SITE AREA WITH POROUS PAVEMENT. EXISTING ROOF DRAINS ARE CURRENTLY TIED AND THE BUILDING ADDITION WILL TIE INTO THE SAME SYSTEM. A COMPARISON BETWEEN THE Q_{me2} (0.62 CFS) AND THE POST DEVELOPMENT Q_{me2} (1.62 CFS) HAS A NET INCREASE OF 1 CFS. THIS IS A MINIMUM INCREASE AND CAN BE HANDLE BY THE USE OF THE POROUS PAVEMENT WHICH HAS BEEN TESTED TO HAVE 62-90% EFFICIENCY RATE FOR THE REMOVAL OF POLLUTANTS.

X **VICINITY MAP**

A VICINITY MAP IS LOCATED ON SHEET C-1.00

X **INDICATED NORTH**

NORTH ARROWS ARE LOCATED ON ALL PLAN SHEETS WHERE VIEW OF THE PROPOSED AND EXISTING CONDITIONS ARE CONCERNED WITH VA DC GRID NORTH INDICATION.

X **LIMITS OF CLEARING AND GRADING**

LIMITS OF CLEARING AND GRADING ARE REPRESENTED ON EACH PLAN SHEET WITH SITE VIEWS. THE LIMITS OF CLEARING AND GRADING ARE 8,703 S.F OR 0.20 AC.

X **EXISTING CONTOURS**

EXISTING 2' CONTOURS ARE LOCATED ON THE EXISTING CONDITION, SHEET C-3.00, SITE PLAN C-4.00 AND THE E&SC PH I&II PLANS.

X **FINAL CONTOURS**

FINAL CONTOURS ARE REPRESENTED AS PROPOSED ELEMENTS AND CAN BE VIEWED ON THE SITE PLAN SHEET C-4.00.

X **EXISTING VEGETATION**

EXISTING VEGETATION IS PREVALENT THROUGHOUT THE SITE. EXISTING TREES ARE DENOTED WITH A TREELINE SYMBOL ILLUSTRATED ON SHEET C-1.02. THREE EXISTING ON-SITE OAK TREES ARE DEAD AND ARE EXPECTED TO BE REMOVED.

X **SOILS**

SOIL INFORMATION HAS BEEN DERIVED FROM NRCSWEB, THE DISTRICT OF COLUMBIA SOIL MAP.

X **EXISTING DRAINAGE PATTTERNS**

THERE ARE DRAINAGE DIVIDES LOCATED ON E&SC PHASE I PLAN FOR EXISTING CONDITIONS. THERE ARE ALSO DRAINAGE AREAS AND APPROPRIATE RUNOFF COEFFICIENTS FOR EACH DRAINAGE AREA.

_ **CRITICAL EROSIVE AREAS**

THERE ARE NO CRITICAL EROSIVE AREAS ON SITE.

X **SITE DEVELOPMENT**

ALL SITE IMPROVEMENTS ARE SHOWN ON SHEETS C-3.00.

X **LOCATION OF PRACTICES**

THE LOCATION OF THE E?SC PRACTICES UTILIZED UNDER APPLICABLE THE WATERSHED PROTECTION DIVISION OF THE E&S SECTION CAN BE SEEN ON SHEETS C-5.00/C-5.01/C-5.02. ADDITIONALLY, THE FOLLOWING PRACTICES HAVE BEEN PUT IN PLACE:

STRUCTURAL PRACTICES:

DETAIL 6C **CULVERT INLET PROTECTION:**
A SEDIMENT FILTER IN THE FORM OF SILT FENCING IS TO BE LOCATED AT THE INLET TO STORM SEWER TO PREVENT SEDIMENT FROM ENTERING, ACCUMULATING IN A BEING TRANSFERRED BY THE CULVERT.

DETAIL 1 **STONE CONSTRUCTION ENTRANCE PG A-1-3:**
A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED WHERE THE ACCESS AREA INTERSECTS WITH CRITTENDEN STREET. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE ENTERING THE TRAVELWAY.

DETAIL 4 **SILT FENCE W/O WIRE:**
SILT FENCE SEDIMENT BARRIERS WILL BE INSTALLED DOWNSLOPE OF AREAS TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS AND TO DECREASE VELOCITY OF SHEET FLOW ON PHASE-I AND PHASE-II EROSION AND SEDIMENT CONTROL PLANS.

DETAIL 6A **STORM DRAIN INLET PROTECTION PG B-7-5:**
ALL STORM SEWER INLETS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.

_ **DETAILED DRAWINGS**

THERE ARE NO ILLUSTRATION OF PRACTICE OUTSIDE OF THE E&S HANDBOOK.

X **MAINTENANCE**

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

1. THE GRAVEL OUTLET WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.

2. THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.

3. THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.

X **MANAGEMENT STRATEGIES**

1. CONSTUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
2. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING AND WILL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
3. TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
4. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.
5. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
6. AFTER ACHIEVING ADEQUIATE STABILIZATION, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED UPON APPROVAL OF THE CITY INSPECTOR.

VEGETATIVE PRACTICES:

1. **TOPSOILING (STOCKPILING)**
   TOPSOIL WILL BE STRIPPED FROM AREAS AND REMOVED FROM THE SITE IMMEDIATELY. THERE WILL BE NO STOCKPILING ON THIS SITE. PRIOR TO LAND-DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY E&S PLAN TO THE OWNER COVERING AREA IN WHICH HE WOULD DESIRE TO HAVE A STOCKPILE. THIS AREA WOULD REQUIRE THE PLAN APPROVAL BEFORE ANY STOCKPILING COULD OCCUR.
2. **TEMPORARY SEEDING**
   ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.
3. **EROSION CONTROL BLANKETS - 3.36 OR MULCH**
   EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND TO ALLOW SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS AND WILL BE APPLIED AS A SECOND STEP IN SEEDING OPERATION.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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EROSION AND SEDIMENT CONTROL DETAILS

WASHINGTON SEVENTH DAY BAPTIST CHURCH

WASHINGTON

DISTRICT OF COLUMBIA

PLAN STATUS	
7/15/08	REV. PER DOT
	COMMENTS
DATE	DESCRIPTION

PAP	PAP	ACM
DESIGN	DRAWN	CHKD

SCALE H: 1"=20' V: 1"=2'

JOB No. PAP-700125

DATE : AUGUST, 2007

FILE No. 2007-02-WBC-DC

SHEET C-5.02

Cad file name : C:\Land Projects 2005\Washington Seventh Day Baptist Church\Concept\pud\ZDP-ES-0113.dwg