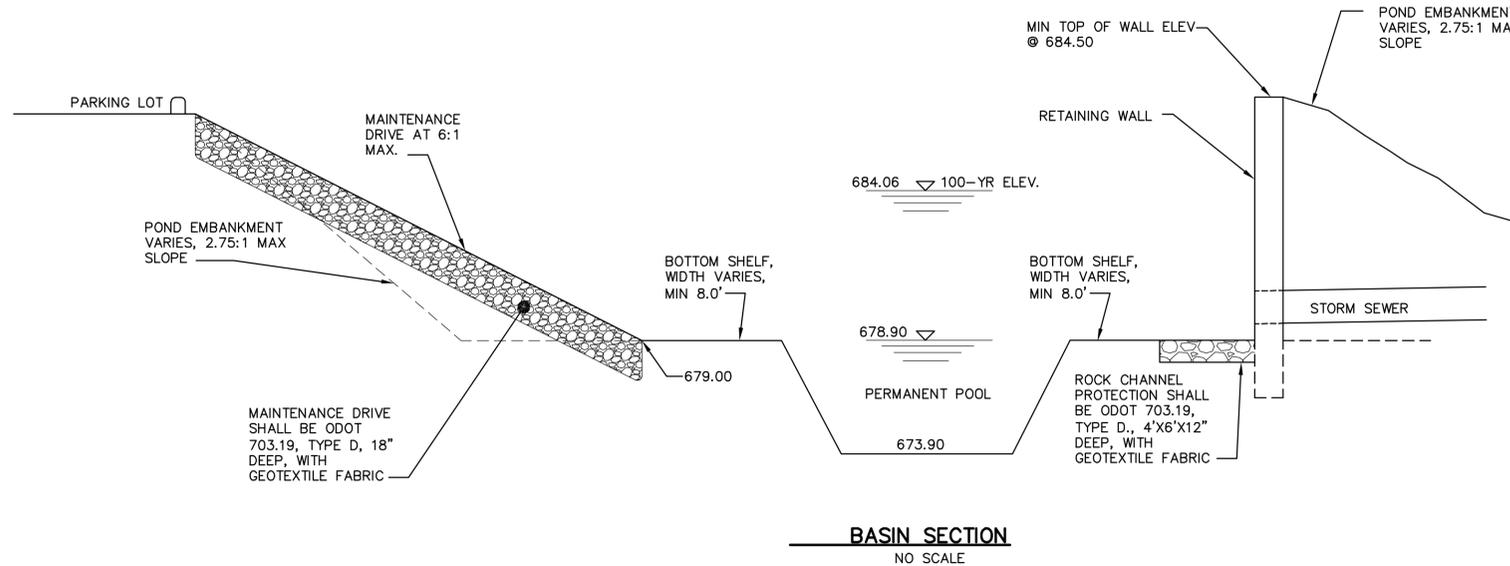


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**DURING CONSTRUCTION (BY PERMITEE HOLDERS)  
INSPECTION AND MAINTENANCE**

**MAINTENANCE**

ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED UNTIL ALL UP-SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZED. THE CONTRACTOR SHALL COMPLY WITH THE MAINTENANCE REQUIREMENTS FOR THE PROPOSED EROSION CONTROLS. A WRITTEN DOCUMENT CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUB-CONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE BMP'S MUST BE MAINTAINED AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWPPP.

**INSPECTION**

TEMPORARY AND PERMANENT SEDIMENTATION AND EROSION CONTROL MEASURES MUST BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF EACH RAIN STORM EVENT THAT PRODUCES 0.5 INCHES OR MORE OF RAIN OVER THE PRECEDING 24 HOUR PERIOD AND LOGGED BY THE OWNER AND CONTRACTOR FOR THE OHIO EPA.

A WRITTEN RECORD DOCUMENTING THE RESULTS OF THESE INSPECTIONS MUST BE MAINTAINED WITH THE SWPPP. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR POLLUTANTS ENTERING THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWPPP. FURTHERMORE, THE CONTRACTOR SHALL ENSURE THAT THE MEASURES ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.

- I. **WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE:**  
IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH EXCEPTION OF A SEDIMENT SETTLING POND, IT MUST BE REPAIRED OR MAINTAINED WITHIN THREE DAYS OF INSPECTION. SEDIMENT SETTLING PONDS MUST BE REPAIRED OR MAINTAINED WITHIN 10 DAYS OF THE INSPECTION.
- II. **WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION:**  
IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3, MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN 10 DAYS OF INSPECTION.
- III. **WHEN PRACTICES DEPICTED ON THE SWP3 ARE NOT INSTALLED:**  
IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SWP3, THE SWP3 MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD MUST CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

**POST CONSTRUCTION WATER QUALITY REQUIREMENTS: (BY OWNER)**  
**BIORETENTION INSPECTION AND MAINTENANCE SCHEDULE:**

THE OWNER'S ASSOCIATION WILL MAINTAIN OWNERSHIP OVER THESE COMMON AREAS OF THE DEVELOPMENT AND SHALL THEREFORE BE THE RESPONSIBLE PARTY TO MAINTAIN THESE FEATURES. THE RECOMMENDED MAINTENANCE SCHEDULE IS LISTED BELOW. IT IS RECOMMENDED THAT A QUALIFIED LANDSCAPER BE CONTRACTED TO PERFORM THE MAINTENANCE FOR THESE AREAS.

THE OWNER'S ASSOCIATION SHALL BE RESPONSIBLE FOR PROVIDING INSPECTION RECORDS TO THE CITY AT THEIR REQUEST, ONCE CONSTRUCTION IS COMPLETE. THE CITY MAY REQUEST INSPECTION AND MAINTENANCE RECORDS AT ANY TIME DURING THE YEAR.

IT IS RECOMMENDED THAT THE FOLLOWING ITEMS BE INCLUDED ON THE STORMWATER SITE INSPECTION FORM:

- 1.) INSPECTION FORM SHALL NOTE THAT THE REVIEW IS FOR THE BIORETENTION SWALES
- 2.) PROJECT NAME AND LOCATION
- 3.) DATE OF INSPECTION, INSPECTOR'S NAME, AFFILIATION, CONTACT INFORMATION AND QUALIFICATIONS
- 4.) WEATHER INFORMATION AT TIME OF INSPECTION INCLUDING PRECIPITATION, TEMPERATURE, ETC.
- 5.) IS THERE DEBRIS IN THIS AREA
- 6.) ARE THE INLETS FREE OF DEBRIS
- 7.) HAS THE SWALE MAINTAINED ITS CONCAVE SHAPE, HAS ANY OF THE EMBANKMENT AREAS BEEN BREACHED (YARD INLET SHOULD BE ACTING AS OVERFLOW DISCHARGE POINT FOR THE SWALE).
- 8.) DO THE PLANTS APPEAR HEALTHY
- 9.) IS MULCH IN GOOD STANDING, DOES IT NEED REDRESSED
- 10.) ARE UPSTREAM DRAINAGE WAYS IN GOOD STANDING AND FREE OF DEBRIS
- 11.) IS MAINTENANCE REQUIRED
- 12.) DATE AND DETAILS OF MAINTENANCE PERFORMED

OVER TIME (2-10 YEARS); CLOGGING OF THE PLANTING SOIL OR FILTER LAYER WITH FINE PARTICLES MAY OCCUR. THIS IS EXPECTED AND CAN BE CORRECTED BY REPLACING A PORTION OF THE PLANTING SOIL OR REPLACING ALL THE PLANTING SOIL AND THE FILTER LAYER UNTIL BETTER PERMEABILITY IS ACHIEVED. TO AID IN PREVENTING CLOGGING DO NOT PILE SNOW IN THE BIORETENTION AREAS. THE FOLLOWING TABLE IS THE SUGGESTED MAINTENANCE SCHEDULE:

ACTIVITY	SCHEDULE
WATER PLANTS	AS NECESSARY DURING FIRST GROWING SEASON
PRUNE AND WEED PLANTS FOR APPEARANCE	AS NEEDED
INSPECT AND REPLACE POORLY SUITED OR DISEASED PLANTS	AS NEEDED
CHECK FOR EROSION OR DEPOSITION IN PRETREATMENT AREAS; CLEAN OUT AND REPAIR DAMAGED AREAS	SEMI-ANNUALLY
INSPECT FACILITY FOR SALT DAMAGES	MONTHLY
REMOVE LITTER AND DEBRIS	MONTHLY
ADD ADDITIONAL MULCH	ANNUALLY
TEST SOIL AND ADJUST AS NECESSARY TO MAINTAIN IN 5.2-7.0 pH RANGE	BIANNUALLY
CHECK PLANTING SOIL AND FILTER LAYER FOR CLOGGING, REPLACING PORTIONS NECESSARY	2 - 10 YEARS

NOTE: THE HEIGHT DIFFERENCE BETWEEN THE GROUND ELEVATION AND THE RIM OF THE YARD DRAIN IS 0.80'. IF SEDIMENT HAS BUILT-UP SCARIFY THE TOP OF SOIL AND REPLACE MULCH TO MAINTAIN 0.80'.

**POND INSPECTION AND MAINTENANCE SCHEDULE**

THE OWNER'S ASSOCIATION SHALL BE RESPONSIBLE TO MAINTAIN THE BASIN AS REQUIRED, AND SHALL ALSO CLEAN OUT THE BOTTOM OF THE OUTLET STRUCTURE WHEN IT BECOMES FILLED WITH DEBRIS AND SHALL DISPOSE OF THE SEDIMENT AT A STABILIZED LOCATION WHERE IT WILL NOT BE CARRIED OFF-SITE OR INTO A STORM SEWER BY RAIN FALL.

THE FOLLOWING INSPECTION AND MAINTENANCE IS REQUIRED BY THE OWNER AFTER ACCEPTANCE:

- A. THE INLETS AND OUTLET SHALL BE INSPECTED MONTHLY, AND AFTER EVERY MAJOR STORM EVENT TO ENSURE THEY ARE FREE FROM CLOGS. SEDIMENT AND DEBRIS SHALL BE REMOVED WHEN FOUND AND DISPOSED OF IN A LOCATION THAT WILL NOT ALLOW IT TO BE TRANSPORTED OFF-SITE VIA RAINFALL OR STORM SEWER.
- B. GROUND COVER OR GRASS AROUND BASIN SHALL BE INSPECTED FOR UNIFORM VEGETATIVE COVERAGE AT LEAST ONCE A YEAR. GRASS OR GROUND COVER SHALL BE MAINTAINED BY REAPPLYING IT IN BARE SPOTS TO PRODUCE UNIFORM COVERAGE FOR THE ENTIRE AREA AROUND THE BASIN.
- C. SIDE SLOPE COVER SHALL BE INSPECTED FOR EROSION AND UNIFORM VEGETATIVE COVERAGE AT LEAST TWICE A YEAR. VEGETATION SHALL BE MAINTAINED BY REAPPLYING IT IN BARE SPOTS TO PRODUCE UNIFORM COVERAGE FOR THE ENTIRE SLOPE.
- D. AS A MINIMUM THE BASIN DEPTH SHALL BE INSPECTED ANNUALLY. BASIN SHALL BE DREDGED TO MAINTAIN A BOTTOM ELEVATION OF 678.90 OR 4.75 FEET DOWN FROM THE RIM OF THE OUTLET STRUCTURE.

**RETENTION BASIN:**

THIS BASIN IS APPROXIMATELY 0.30 ACRES IN SURFACE AREA. THE MAXIMUM AVAILABLE STORAGE DEPTH IN THE BASIN IS 5.6 FEET BASED ON THE TOP OF BANK ELEVATION OF 684.50 AND A NORMAL WATER SURFACE ELEVATION OF 678.90. THIS BASIN ALLOWS FOR APPROXIMATELY 1.66 AC-FT OF STORAGE VOLUME UP TO ELEVATION 684.50. THE BASIN WAS DESIGNED BASED ON THE CITY OF AVON CRITERIA. THE BASIN IS BEING STRUCTURALLY RETAINED BY A RETAINING WALL.

THIS RETENTION BASIN WILL DISCHARGE TO THE NORTH THROUGH AN OUTLET STRUCTURE INTO AN EXISTING BOX CULVERT, WHICH FLOWS NORTH. THE OUTLET STRUCTURE FOR THIS FACILITY WAS MODELED AS A 18" CULVERT PIPE, 2.5"Ø ORIFICE FOR WATER QUALITY, 6.0"Ø ORIFICE FOR THE STAGED STORAGE, AND AN OVERFLOW ELEVATION ON THE OUTLET STRUCTURE AT 683.65. THE OUTLET STRUCTURE WILL OPERATE FOR ALL STORM EVENTS. THE ELEVATION OF THE POND FOR A 10-YEAR STORM EVENT IS 682.92, WHICH PROVIDES 1.120 AC-FT OF STORAGE. THE WATER SURFACE FOR THE 100-YEAR STORM EVENT IS 684.06, WHICH PROVIDES 1.496 AC-FT OF STORAGE.

DATE	DESCRIPTION	BY
1-05-09		CFE
2-02-09		CFE
2-20-09		CFE
3-20-09		CFE
6-17-09		CFE

DATE	DESCRIPTION	BY
1-05-09		CFE
2-02-09		CFE
2-20-09		CFE
3-20-09		CFE
6-17-09		CFE

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**STORMWATER POLLUTION PROTECTION DETAILS**  
**CITY CENTRE**  
**OF AVON - NO. 2**  
CITY OF AVON  
COUNTY OF LORAIN, STATE OF OHIO

SHEET SWP-9	OF 27
JOB NO. 08301	