

**STORMWATER COMPLIANCE NARRATIVE**  
 THE STORM SEWER SYSTEM WILL DISCHARGE INTO AN ON-SITE RETENTION BASIN. THE RETENTION BASIN IS DESIGNED TO MEET THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK MINIMUM STANDARD 3.06 (RETENTION BASIN II). THE RETENTION BASIN PROVIDES WATER QUALITY TREATMENT FOR A PORTION OF THE SITE AND ATTENUATES THE 2-YR, 10-YR, 25-YR, 50-YR AND 100-YR STORM EVENTS. BOTH THE PRINCIPAL SPILLWAY AND EMERGENCY SPILLWAY DISCHARGE INTO AN EXISTING 30" RCP UNDER INTERSTATE 581 AND CONTINUES ON TO LICK RUN.

THE STORMWATER MANAGEMENT FACILITY IS DESIGNED TO CONTROL THE WATER QUANTITY FROM THE DEVELOPED SITE AS FOLLOWS:

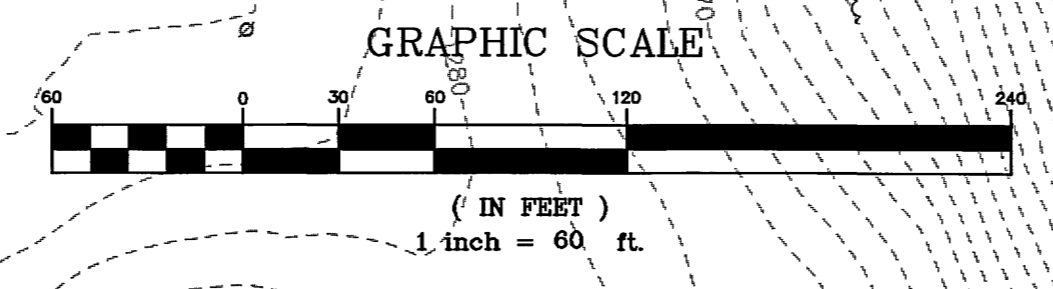
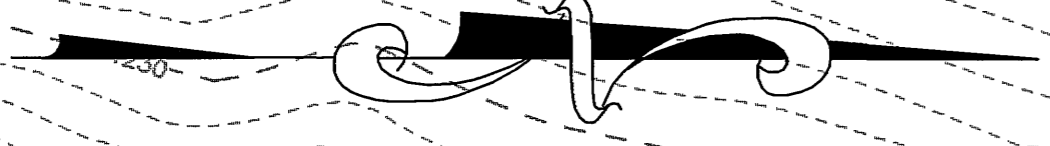
- 100 YEAR POST DEVELOPED PEAK RATE OF RUNOFF DOES NOT EXCEED THE 100 YEAR PRE-DEVELOPED PEAK RATE OF RUNOFF.
- 50 YEAR POST DEVELOPED PEAK RATE OF RUNOFF DOES NOT EXCEED THE 50 YEAR PRE-DEVELOPED PEAK RATE OF RUNOFF.
- 25 YEAR POST DEVELOPED PEAK RATE OF RUNOFF DOES NOT EXCEED THE 10 YEAR PRE-DEVELOPED PEAK RATE OF RUNOFF.
- 10 YEAR POST DEVELOPED PEAK RATE OF RUNOFF DOES NOT EXCEED THE 2 YEAR PRE-DEVELOPED PEAK RATE OF RUNOFF.

**QUITALL A**

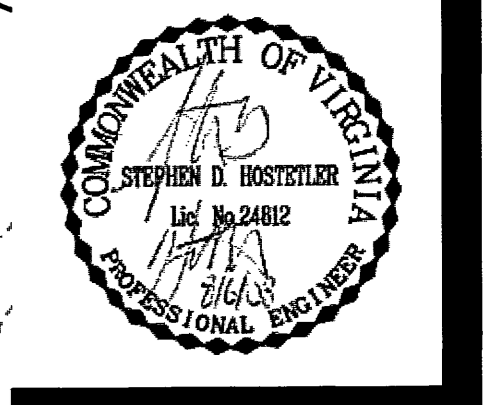
PRE DA = 8.65AC	POST DA = 14.83AC
2YR = 7.2cfs	2YR = 4.04cfs
10YR = 9.9cfs	10YR = 5.51cfs
25YR = 11.3cfs	25YR = 6.21cfs
100YR = 17.6cfs	100YR = 17.05cfs

**LANDCOVER SUMMARY**  
 BUILDING = 1.29± ACRES  
 PARKING LOT = 2.07± ACRES  
 ROADWAY = 2.34± ACRES  
 CONCRETE = 0.80± ACRES  
 TOTAL IMPERVIOUS = 6.50± ACRES

**WATER QUALITY SUMMARY**  
 APPLICABLE AREA = 14.80 AC  
 PRE DEVELOPMENT LOAD = 6.50 LBS/YEAR  
 POST DEVELOPMENT LOAD = 15.00 LBS/YEAR  
 PHOSPHORUS REMOVAL REQUIREMENT = 8.50 LBS/YEAR  
 DRAINAGE AREA TO BIORETENTION FILTERS (65% REMOVAL) = 4.33 ACRES  
 DRAINAGE AREA TO POND (65% REMOVAL) = 10.50 ACRES  
 BIORETENTION FILTER REMOVAL LOAD = 4.50 LBS/YEAR  
 RETENTION BASIN REMOVAL LOAD = 5.1 LBS/YEAR  
 TOTAL REMOVAL = 9.60 LBS/YEAR > 8.50 LBS/YEAR



**MOSELEYARCHITECTS**  
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**TIMMONS GROUP**  
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**NEW MULTIGENERATIONAL  
 RECREATION CENTER**  
 HOLLINS MAGISTERIAL DISTRICT  
 ROANOKE COUNTY, VIRGINIA

PROJECT NO: 461920  
 DATE: 8/3/2008  
 REVISION: AUGUST 4, 2008  
 DRAWN BY: WJP  
 REVIEWED BY: SED

**STORMWATER  
 COMPLIANCE  
 PLAN**

**C1.2**

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