SWM AND SEDIMENT BASIN CONSTRUCTION NOTES

SITE PREPARATION:
Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.
Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface.
All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL:
Material – The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL, and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer.
Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.
Placement – Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8–inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.
Compaction – The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out.
When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T–99 (Standard Proctor).
Cut Off Trench – The cutoff trench shall be excavated into the existing ground, along the center of the embankment as shown on the details. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being eight feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

STRUCTURE BACKFILL:
Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

PIPE CONDUITS:
All pipes shall be circular in cross section.
Plastic Pipe – The following criteria shall apply for plastic pipe:
ø Materials – PVC pipe shall be PVC–1120 or PVC–1220 conforming to ASTM D–1785 or ASTM D–2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" – 10" inch pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" inch shall meet the requirements of AASHTO M294 Type S.
ø Joints and connections to anti–seep collars shall be completely watertight.
ø Bedding –The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
ø Backfilling shall conform to recommendations of the pipe manufacturer.

CONCRETE:
Concrete shall meet the requirements of your local Department of Transportation or State Highway Administration Standard Specifications for Construction and Materials.

ROCK RIPRAP:
Rock riprap shall meet the requirements of the local Department of Transportation or State Materials Testing Agency. Geotextile shall be placed under all riprap and shall meet the requirements of the local Department of Transportation or State Materials Testing Agency.

CARE OF WATER DURING CONSTRUCTION:
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from various parts of the work and for maintaining the excavations, foundations, from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water sumps from which the water shall be pumped.

STABILIZATION:
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with local Erosion and Sediment Regulations.all

EROSION AND SEDIMENT CONTROL:
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Refer to the construction plans for detailed erosion and sediment control measures.

MAINTENANCE:
A 4–inch layer of topsoil shall be placed on all disturbed areas of the dam embankment. Seeding, liming, fertilizing, mulching, etc. shall be in accordance with the standards and specifications noted on Sheet C–3 for Soil Erosion and Sediment Control. The purpose of the topsoil is to establish a good growth of grass, which is not always possible with some of the materials that may be placed for the embankment fill.

GENERAL NOTES

PROVIDE NEW MATERIALS AND WORKMANSHIP IN CONFORMANCE WITH ALL APPLICABLE CODES, STATE AND FEDERAL LAWS, LOCAL ORDINANCES, INDUSTRY STANDARDS, AND OTHER CRITERIA WHICH WOULD NORMALLY APPLY TO WORK OF THIS NATURE. NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERING A CONFLICT IN CODES, ORDINANCES, STANDARDS, OR OTHER CRITERIA. APPLICABLE CODES AND STANDARDS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, THE FOLLOWING:

a. BOCA – BASIC CODES
b. ROANOKE COUNTY
c. VDOT – VIRGINIA DEPARTMENT OF TRANSPORTATION, ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS
d. VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS AND HANDBOOK
e. OSHA – OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
f. ASTM – AMERICAN SOCIETY FOR TESTING AND MATERIALS
g. WVWA – WESTERN VIRGINIA WATER AUTHORITY

MAINTAIN A SET OF APPROVED PLANS ON SITE AT ALL TIMES DURING CONSTRUCTION.

OBTAIN EACH REQUIRED PERMIT PRIOR TO COMMENCING THAT PART OF THE WORK. PAY REQUIRED FEES.

NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF CONDITIONS WHICH DIFFER FROM THOSE SHOWN ON THE PLANS.

COMPLY WITH LOCAL ORDINANCES FOR BURNING OF WASTE. TRANSPORT WASTE MATERIALS AND UNSUITABLE MATERIALS FROM OWNER'S PROPERTY.

COORDINATE BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.

A PRECONSTRUCTION MEETING MUST TAKE PLACE PRIOR TO COMMENCING WORK. AS A MINIMUM, THE CONTRACTOR, OWNER'S AGENT AND COUNTY'S AGENT MUST ATTEND.

VERIFY THE LOCATION AND ELEVATION OF EACH EXISTING UNDERGROUND UTILITY IN AREAS OF CONSTRUCTION PRIOR TO COMMENCEMENT OF WORK. CONTACT ENGINEER IMMEDIATELY IF THERE APPEARS TO BE A CONFLICT, UPON DISCOVERY OF A UTILITY WHICH IS NOT SHOWN, AND UPON DISCOVERY OF A LOCATION OR ELEVATION WHICH DIFFERS FROM THAT SHOWN. TO LOCATE UTILITIES, CALL "MISS UTILITY", 1–800–552–7001. UTILITY LOCATIONS SHOWN ARE THE RESULT OF A COMBINATION OF FIELD LOCATION AND EXISTING INFORMATION. LOCATIONS ARE APPROXIMATE.

REPAIR ALL DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, CAUSED AS A RESULT OF CONSTRUCTION ACTIVITIES, AT NO ADDITIONAL COST TO OWNER.

NOTIFY OWNERS OF UTILITIES IN AREAS OF CONSTRUCTION PRIOR TO COMMENCEMENT OF EXCAVATION.

SIGNAGE SHALL COMPLY WITH THE APPLICABLE REGULATIONS OF THE COUNTY. A SEPARATE PERMIT IS REQUIRED.

ANY SITE DEVELOPMENT OUTSIDE OF THE SCOPE OF THIS PLAN WILL REQUIRE SITE PLAN REVIEW AND APPROVAL.

ADDITIONAL DRAINAGE STRUCTURES AND EASMENTS MAY BE REUIRED BY THE VIRGINA DEPARTMENT OF TRANSPORTATION DUE TO AND DEVIATION BETWEEN THE APPROVED PROPOSED CONTOURS AND THE AS–BUILT CONDITIONS OR ANY OTHER TOPOGRAPHIC CHANGES.

STANDARD VIRGINIA DEPARTMENT OF TRANSPORTATION NOTES

QUALITY CONTROL
STREETS SHALL BE GRADED AND PAVED IN ACCORDANCE WITH THE MOST CURRENT VERSIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION'S ROAD AND BRIDGE SPECIFICATIONS AND ROAD AND BRIDGE STANDARDS. ALL STRUCTURAL COMPONENTS ERECTED WITHIN A PROPOSED VDOT RIGHT OF WAY SHALL BE INSTALLED IN ACCORDANCE WITH THE MOST CURRENT VERSIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION'S ROAD AND BRIDGE SPECIFICATIONS AND ROAD AND BRIDGE STANDARDS. ALL MATERIALS USED WITHIN A PROPOSED VDOT RIGHT OF WAY SHALL BE TESTED IN ACCORDANCE WITH STANDARD POLICIES. THE DEVELOPER MUST CONTACT THE OFFICE OF THE RESIDENT ENGINEER, PRIOR TO BEGINNING ANY CONSTRUCTION TO OBTAIN THE INSPECTION AND TESTING PROCEDURES. THE DEVELOPER SHALL PROVIDE TEST REPORTS, AT THE DEVELOPER'S EXPENSE, FROM INDEPENDENT LABORATORIES. THE RESIDENT ENGINEER MUST APPROVE ALL INDEPENDENT LABORATORIES.

UTILITIES
ALL NECESSARY UTILITY LATERALS ALONG WITH PROVISIONS FOR CONDUIT (i.e. WATER, SEWER, STORM, GAS AND TELEPHONE) SHALL BE CONSTRUCTED PRIOR TO PLACEMENT OF THE BASE MATERIAL.

GAS OR PETROLEUM TRANSMISSION LINES WILL NOT BE PERMITTED WITHIN THE PAVEMENT (BACK OF CURB TO BACK OF CURB) OR THE SHOULDER ELEMENT. SERVICE LATERALS CROSSING THE PAVEMENT, AND PIPE LINES LOCATED OUTSIDE THE PAVEMENT BUT INSIDE THE RIGHT OF WAY SHALL BE CONSTRUCTED IN CONFORMITY WITH ASA B 31.8 SPECIFICATIONS AND SAFETY REGULATIONS. DISTRIBUTION LINES WITH PRESSURES LESS THAN 120 psi ARE UNAFFECTED BY THE ABOVE.

PERMITS ARE REQUIRED FOR ANY UTILITIES WITHIN THE PROPOSED STREET RIGHT OF WAY PRIOR TO ACCEPTANCE OF THE STREET INTO THE SECONDARY HIGHWAY SYSTEM. HOWEVER, ANY RIGHT, TITLE OR INTEREST GRANTED TO A UTILITY COMPANY FOR PLACEMENT OF UTILITIES (e.g. POWER, TELEPHONE, ETC) IN PROPOSED STREETS MUST BE RELEASED PRIOR TO ACCEPTANCE OF THE STREET INTO THE SECONDARY SYSTEM.

DRIVEWAYS
PERMITS SHALL BE REQUIRED FOR ALL PRIVATE ENTRANCES CONSTRUCTED ON THESE STREET RIGHT–OF–WAY AFTER ACCEPTANCE OF THESE STREETS INTO THE SECONDARY HIGHWAY SYSTEM.

ALL PRIVATE ENTRANCES WITHIN THE RIGHT–OF–WAY SHALL NOT EXCEED EIGHT PERCENT (8%) MAXIMUM GRADE.

PARKING REQUIREMENTS FOR THE LOTS CREATED HEREON SHALL CONFORM TO THE COUNTY OF ROANOKE ZONING ORDINANCE AS SPECIFIED IN SEC. 30–91–9. THIS SECTION STATES THAT FOR EACH SINGLE FAMILY DWELLING, TWO (2) OFF–STREET SPACES SHALL BE PROVIDED.

EROSION CONTROL AND LANDSCAPING
CARE SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT EROSION, DUST AND MUD FROM DAMAGING ADJACENT PROPERTY, CLOGGING DITCHED, TRACKING PUBLIC STREETS AND OTHERWISE CREATING A PUBLIC NUISANCE TO SURROUNDING AREAS.

THE ENTIRE CONSTRUCTION AREA INCLUDING DITCHES, CHANNELS, BACK OF CURBS AND/OR PAVEMENT IS TO BE BACKFILLED AND SEEDED AT THE EARLIEST POSSIBLE TIME AFTER FINAL GRADING.

THE ROAD WILL BE REVIEWED DURING CONSTRUCTION FOR THE NEED OF PAVED DITCHES. IF EROSION IS ENCOUNTERED IN ANY DRAINAGE EASEMENT, IT WILL BE THE RESPONSIBILITY OF THE DEVELOPER TO SOD, RIP RAP, GROUT, PAVE OR AS DIRECTED BY THE RESIDENT ENGINEER TO CORRECT THE PROBLEM.

ALL VEGETATION AND OVERBURDEN SHALL BE REMOVED FROM SHOULDER TO SHOULDER PRIOR TO CONDITIONING (CUTTING AND/OR PREPARATION) OF THE SUB–GRADE.

CONNECTIONS TO STATE MAINTAINED ROADS
WHILE THESE PLANS HAVE BEEN APPROVED, SUCH APPROVAL DOES NOT EXEMPT CONNECTIONS WITH EXISTING STATE–MAINTAINED ROADS FROM CRITICAL REVIEW DURING THE LIFETIME OF THE PERMIT. FIELD REVISIONS TO THE PERMIT SHALL BE MADE AS NEEDED IN ORDER TO ACCOMMODATE THE PREVAILING CONDITIONS AND TO ACCOMMODATE SAFETY ACCOMPANIMENTS SUCH AS TURNING LANES.

INSPECTION
AN INSPECTOR WILL NOT BE FURNISHED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION EXCEPT FOR PERIODIC PROGRESS INSPECTIONS. THE ABOVE MENTIONED FIELD REVIEWS AND CHECKING FOR REQUIRED STONE DEPTHS. THE DEVELOPER WILL BE REQUIRED TO POST A SURETY TO GUARANTEE THE ROAD FREE OF DEFECTS FOR ONE YEAR AFTER ACCEPTANCE BY THE DEPARTMENT OF TRANSPORTATION.

STREET MAINTENANCE
THE STREETS MUST BE PROPERLY MAINTAINED UNTIL ACCEPTANCE. WHEN ALL REQUIREMENTS HAVE BEEN MET FOR ACCEPTANCE, A FINAL INSPECTION WILL BE MADE TO DETERMINE THAT THE STREET HAS BEEN PROPERLY MAINTAINED.

UNDERGROUND UTILITIES
THE CONTRACTOR SHALL VERIFY BY CONTACTING "MISS UTILITY", THE LOCATION AND ELEVATION OF ALL *UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK.* CONTACT THE SITE ENGINEER IMMEDIATELY IF LOCATIONS OR ELEVATIONS IS DIFFERENT FROM THAT SHOWN ON THE PLANS. IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLAN, CALL "MISS UTILITY".

REVISIONS OF SPECIFICATIONS AND STANDARDS
APPROVAL OF THESE PLANS IS BASED ON THE ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS IN EFFECT AT THE TIME OF APPROVAL. HOWEVER, UNTIL COMPLETION OF THE ROADWAY AND ACCEPTANCE BY THE DEPARTMENT, THIS DEVELOPMENT IS SUBJECT TO ALL FUTURE REVISIONS OF THE ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS.

TRAFFIC CONTROL DEVICES
THE DEVELOPER SHALL BE RESPONSIBLE FOR INSTALLATION OF ALL TRAFFIC CONTROL DEVICES, STOP SIGNS, YIELD SIGNS, SPEED LIMIT SIGNS, PAVEMENT STRIPING, ETC., REQUIRED BY THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE DEVELOPER SHALL BE RESPONSIBLE OF REINSTALLING AND MAINTAINING ALL TRAFFIC CONTROL DEVICES REQUIRED AS PART OF THIS DEVELOPMENT UNTIL THE STREETS ARE TAKEN INTO THE SECONDARY SYSTEM. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED ACCORDING TO THE "MUTCD".

GUARDRAIL
STANDARD GUARDRAIL WITH SAFETY END SECTIONS MAY BE REQUIRED ON FILLS AS DEEMED NECESSARY BY THE STAFF ENGINEER. AFTER COMPLETION OF ROUGH GRADING OPERATIONS, THE OFFICE OF THE STAFF ENGINEER SHALL BE NOTIFIED SO THAT A FIELD REVIEW CAN BE MADE OF THE PROPOSED LOCATIONS. WHERE GUARDRAILS ARE TO BE INSTALLED THE SHOULDER WIDTH SHALL BE INCREASED IN ACCORDANCE WITH VDOT ROAD AND BRIDGE STANDARDS AND THE VDOT ROAD AND BRIDGE SPECIFICATIONS.

STORM DRAINAGE
INSTALLATION OF ALL STORM PIPES/CULVERTS LOCATED WITHIN VDOT RIGHT–OF–WAY AND EASEMENTS SHALL CONFORM TO THE 2001 VDOT ROAD AND BRIDGE STANDARDS. ALL STORM PIPE SHALL BE CLASS III REINFORCED CONCRETE (RCP) UNLESS OTHERWISE NOTED.

STEPS ARE REQUIRED IN STRUCTURES EXCEEDING 4.0' IN DEPTH (VDOT STD. 106.09) AND SAFETY SLABS ARE REQUIRED IN STRUCTURES EXCEEDING 12.0' IN DEPTH (VDOT STD. 106.14).

INLET SHAPING FOR THOSE STRUCTURES IDENTIFIED ON THE STORM DRAINAGE PROFILES MUST CONFORM TO VDOT STANDARD 106.08 IS–1, INLET SHAPING.

FIELD CHANGES
ALL CHANGES, FIELD OR OTHERWISE, TO THE APPROVED PLANS MUST BE APPROVED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION.

ANY DEVIATIONS BETWEEN THE APPROVED PROPOSED CONTOURS AND THE AS–BUILT CONDITIONS OR ANY TOPOGRAPHIC CHANGES FROM THE APPROVED PLANS MAY REQUIRE ADDITIONAL DRAINAGE STRUCTURES AND EASEMENTS.

ALL DITCHES, SWALES, AND NATURAL WATERCOURSES DOWNSTREAM OF THIS PROJECT TO BE FIELD REVIEWED DURING AND AFTER CONSTRUCTION TO ENSURE COMPLIANCE TO MS–19 (VESCH 1992). IF EROSION OR SCOURING IS OCCURRING, THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL CORRECTIVE MEASURES.

ALL CULVERTS TO BE PLACED IN A LIVE STREAM TO BE COUNTERSUNK 6".

ENGINEERS NOTES

BALZER AND ASSOCIATES, INC. ASSUMES NO RESPONSIBILITY FOR ADEQUACY OF PLANS OR FOR INFORMATION ON PLANS UNTIL SUCH PLANS HAVE BEEN APPROVED BY THE REQUIRED PUBLIC AGENCIES.

ANY WORK COMMENCED ON A PROJECT PRIOR TO PLAN APPROVAL IS AT SOLE RISK OF THE DEVELOPER.

BALZER AND ASSOCIATES, INC. WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE PLANS OR WILL NOT BE RESPONSIBLE FOR ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.

SOURCE OF TOPOGRAPHIC INFORMATION IS ROANOKE COUNTY AERIAL MAPPING.

SUBDIVISION & SITE CONSTRUCTION PLAN GENERAL NOTES

ALL MATERIALS AND CONSTRUCTION WITHIN THE PUBLIC RIGHT–OF–WAY SHALL BE IN ACCORDANCE WITH CURRENT VIRGINIA DEPARTMENT OF TRANSPORTATION'S STANDARDS AND SPECIFICATIONS.

LAND USE PERMITS (CE–7P) MUST BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION PRIOR TO BEGINNING ANY CONSTRUCTION WITHIN THE EXISTING STATE MAINTAINED RIGHT–OF–WAY (INCLUDING ACCESS).
VDOT IS TO RECEIVE WRITTEN NOTIFICATION 48 HOURS PRIOR TO COMMENCING WITH INITIAL CONSTRUCTION ACTIVITIES WITHIN SAID RIGHT–OF–WAYS.

THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF ALL POINTS OF CONNECTION OR PROPOSED WORK TO EXISTING CURBS, SANITARY LINES, WATER LINES, ETC., PRIOR TO CONSTRUCTION.

UPON THE DISCOVERY OF SOILS THAT ARE UNSUITABLE FOR FOUNDATIONS, SUBGRADES, OR OTHER ROADWAY CONSTRUCTION PURPOSES, THE CONTRACTOR SHALL IMMEDIATELY CONTACT A GEOTECHNICAL ENGINEER AND VDOT. THESE AREAS SHALL BE EXCAVATED BELOW PLAN GRADE AS DIRECTED BY THE GEOTECHNICAL ENGINEER, BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED IN ACCORDANCE WITH CURRENT VDOT SPECIFICATIONS.

ALL STORM SEWER DESIGN AND CONSTRUCTION TO BE IN ACCORDANCE WITH VDOT STANDARDS AND SPECIFICATIONS.

IF PRE–CAST DRAINAGE UNITS ARE TO BE USED, VDOT SHALL BE NOTIFIED AND THE MANUFACTURER SHALL SUBMIT DRAWING DETAILS FOR REVIEW. CERTIFICATION AND VDOT STAMP WILL BE REQUIRED ON ALL UNITS.

ALL CONCRETE SHALL BE CLASS A3–AE (AIR ENTRAINED 3,000 PSI).

ALL ENTRANCES ARE TO BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH CURRENT VDOT STANDARDS. RESIDENTIAL LOT ACCESS SHALL BE PROVIDED PER THE FOLLOWING CRITERIA:
a) *ALL DRIVEWAY ENTRANCE CULVERTS ARE TO BE 15" DIAMETER X 20' LONG PIPE AND SHALL CONFORM* TO PE–1 PRIVATE ENTRANCE STANDARDS UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. NO ENTRANCE CULVERTS ARE TO BE INSTALLED WITHIN FIVE (5) FEET OF A PROPERTY CORNER.
b) VDOT STANDARD CG–9D ENTRANCES SHALL BE INSTALLED IN CURB AND GUTTER NEIGHBORHOODS. THE SAWCUTTING REMOVAL OF THE STANDING CURB IS UNACCEPTABLE WHEN INSTALLING AN ENTRANCE ON EXISTING CURB AND GUTTER.

THE DEVELOPER IS RESPONSIBLE FOR FURNISHING AND INSTALLING STOP SIGNS AT STREET INTERSECTIONS.

CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON PLAN. IF THERE APPEARS TO BE A CONFLICT, AND/OR UPON DISCOVERY OF ANY UTILITY SHOWN ON THIS PLAN, CALL MISS UTILITY OF CENTRAL VIRGINIA AT 1–800–552–7001. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE RELOCATION OF ANY UTILITY WITHIN EXISTING AND/OR PROPOSED RIGHT–OF–WAY REQUIRED BY THE DEVELOPMENT.

ALL STREETLIGHTS SHALL BE LOCATED A MINIMUM OF 9.5' FROM THE EDGE OF PAVEMENT ON CURB AND GUTTER STREETS AND/OR LOCATED A MINIMUM OF 5.5' BEHIND THE DITCH LINE ON OPEN DITCH STREETS.

CASING SLEEVES SHALL BE PLACED AT ALL ROAD CROSSINGS FOR GAS, POWER, TELEPHONE AND CABLE TV SERVICES TRUNK LINES.

THE INSTALLATION OF SEWER, WATER, AND GAS MAINS (INCLUDING SERVICES LATERALS AND SLEEVES) SHALL BE COMPLETED PRIOR TO PLACEMENT OF AGGREGATE BASE COURSE. PERMITS ARE REQUIRED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION FOR ALL UTILITIES TO REMAIN IN–PLACE AFTER STREET ACCEPTANCE.

ALL ROADSIDE DITCHES SHOWN AS PAVED ON PLANS ARE TO BE PAVED IN ACCORDANCE WITH THE TYPICAL SECTION AS SHOWN ON THE PLANS. GENERALLY, ALL DITCHES WITH SLOPES EXCEEDING 5% OR LESS THAN 0.75% SHALL BE PAVED UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. ANY ADDITIONAL PAVING OF THE DITCHES, OTHER THAN THOSE SHOWN ON THE ROAD PLANS WILL BE DETERMINED PRIOR TO ACCEPTANCE OF THE ROADS INTO THE VDOT SECONDARY ROAD SYSTEM.

A PRIME COAT SEAL BETWEEN THE AGGREGATE BASE AND BITUMINOUS CONCRETE WILL BE REQUIRED AT A RATE OF 0.30 GALLONS PER SQUARE YARD (REC–250 PRIME COAT) PER VDOT STANDARDS AND SPECIFICATIONS.

THE SCHEDULING OF AGGREGATE BASE INSTALLATION AND SUBSEQUENT PAVING ACTIVITIES SHALL ACCOMMODATE FORECAST WEATHER CONDITIONS PER SECTION 315 OF THE ROAD AND BRIDGE SPECIFICATIONS.

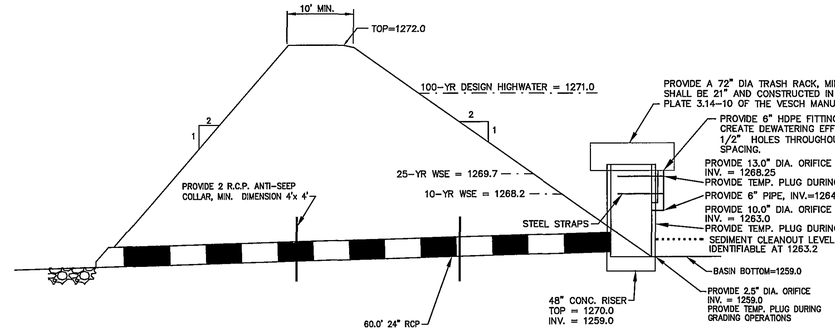
ALL VEGETATION AND ORGANIC MATERIAL IS TO BE REMOVED FROM THE RIGHT–OF–WAY LIMITS PRIOR TO CONDITIONING OF THE SUBGRADE.

CERTIFICATION AND SOURCE OF MATERIALS ARE TO BE SUBMITTED TO VDOT FOR ALL MATERIALS AND BE IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS AND ROAD AND BRIDGE STANDARDS.

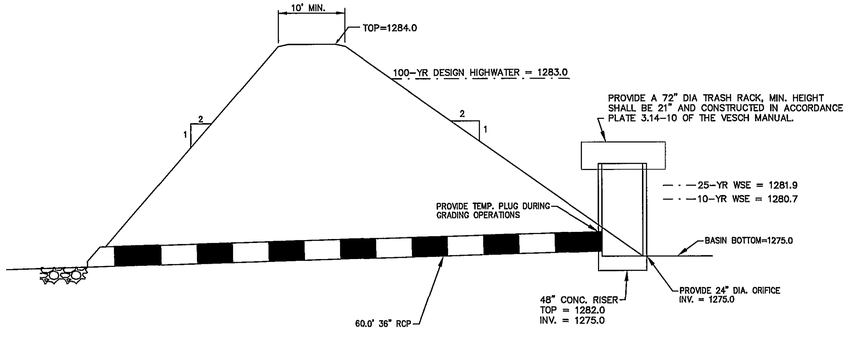
DRY GUTTER IS NOT ALLOWED IN VDOT RIGHT OF WAY.

THE NECESSITY AND LOCATIONS FOR ADDITIONAL VDOT STANDARD UNDERDRAINS TO BE DETERMINED AT TIME OF SUBGRADE INSPECTION.

VDOT SHALL BE PROVIDED DOCUMENTATION THAT ALL IN–PLACE PAVEMENTS MEET OR EXCEED THE APPROVED PAVEMENT DESIGN THICKNESS PRIOR TO STATE ACCEPTANCE.



SWM #1 AND TEMPORARY SEDIMENT BASIN #1



*NOTE: RISER STRUCTURE TO BE INSTALLED AND PLUG TO BE REMOVED FROM OUTLET PIPE UPON COMPLETION OF ALL UPSTREAM GRADING OPERATIONS.

SWM #2 AND TEMPORARY SEDIMENT TRAP #1

FAIRCREST

COMMONWEALTH OF VIRGINIA
ROGER I. STURGILL
No. 033058
PROFESSIONAL ENGINEER

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BELLEVIEW GARDEN

CONSTRUCTION NOTES

ROANOKE COUNTY, VIRGINIA

DRAWN BY: CPB
DESIGNED BY: CPB
CHECKED BY: JVJ
DATE: 10/31/06
REVISIONS:
12/07/06
12/12/06
02/18/08
04/18/08
04/29/08
07/07/08

SCALE: N/A

SHEET NO.
C-13

JOB NO.
R0400130.01