

GENERAL SITE NOTES:

1. TOPOGRAPHIC INFORMATION FROM FIELD SURVEY BY ENGINEERING CONCEPTS, INC., NOVEMBER 2005. VERTICAL DATUM = NVGD 88, HORIZONTAL DATUM = NAD 83

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED TO CONSTRUCT THE PROJECT AND MAINTAINING COMPLIANCE WITH EXISTING PERMITS INCLUDING, BUT NOT LIMITED TO, THE DEPARTMENT OF ENVIRONMENTAL QUALITY(DEQ), ARMY CORPS OF ENGINEERS(ACE), VIRGINIA DEPARTMENT OF TRANSPORTATION, AND DEPARTMENT OF CONSERVATION AND RECREATION. COPIES OF THE DEQ & ACE PERMITS ARE INCLUDED WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COORDINATE WITH BOTETOURT COUNTY AND ITS AGENT IN A TIMELY FASHION TO MEET TIME REQUIREMENTS FOR REPORTING AS DESCRIBED IN TEH PERMIT.

3. THE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR THE CHARACTER AND ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, STRUCTURES, OTHER FACILITIES, AND OBSTRUCTIONS WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONTACT THE OWNERS/OPERATORS OF ALL UTILITIES AND ARRANGE FOR THE VERIFICATION AND MARKING OF UTILITY LOCATIONS BY SAID OWNERS/OPERATORS. THE CONTRACTOR SHALL ASSIST THE UTILITY OWNERS/OPERATORS BY EVERY MEANS POSSIBLE TO DETERMINE THE LOCATION OF UTILITIES. THE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR ALL DISTURBANCE OF ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S FAILURE TO ARRANGE FOR THE LOCATION OF UTILITIES BY THE OWNERS/ OPERATORS OF THE UTILITIES. CONTACT MISS UTILITY (800) 552-7001.

4. SITE CONDITIONS MAY NECESSITATE SLIGHT DEVIATIONS IN ALIGNMENT, GRADE, AND/OR LOCATION OF NEW FACILITIES FROM THE PLAN ALIGNMENT, GRADE, AND/OR LOCATION. THE CONTRACTOR SHALL CONSTRUCT THE NEW FACILITIES TO SUCH DEVIATIONS AS DIRECTED BY THE ENGINEER WITHOUT ADDITIONAL COST OR FINE TO THE OWNER. SHOULD PLAN DEVIATIONS BE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO UNDER TAKING ANY REVISION.

5. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CURRENT BOCA AND/OR STATE AND LOCAL BUILDING CODES AS WELL AS THE CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION AND ALL APPLICABLE STATE AND FEDERAL OSHA REGULATIONS.

6. THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION AREA IN A SAFE AND ACCEPTABLE MANNER AND SHALL BE RESPONSIBLE FOR REMEDIATING ANY DAMAGES RESULTING FROM HIS FAILURE TO DO SO.

7. THE CONTRACTOR SHALL MAINTAIN LIMITS OF CONSTRUCTION WITHIN THE PROPERTY BOUNDARIES OR EASEMENTS AS INDICATED.

8. AN APPROVED SET OF PLANS SHALL BE KEPT ON THE SITE AT ALL TIMES.

9. ALL CONSTRUCTION DEBRIS SHALL BE CANTERINERIZED IN CONFORMANCE WITH THE VIRGINIA LITTER CONTROL ACT AND DISPOSED OF IN A MANNER AND LOCATION ACCEPTABLE TO THE GOVERNING JURISDICTION. AT LEAST ONE TRASH RECEPTACLE SHALL BE ONSITE DURING CONSTRUCTION.

10. TEMPORARY TOILETS SHALL BE PROVIDED ONSITE AT A RATIO OF ONE TOILET PER 30 WORKERS DURING THE CONSTRUCTION PERIOD.

11. GRADE STAKES SHALL BE SET FOR CURB & GUTTER, WATER LINES, AND STORM SEWER.

12. THE CONTRACTOR SHALL MAINTAIN A CLEAR FLOW PATH TO AND THROUGH ALL SURFACE WATER AND STORM WATER DRAINAGE FACILITIES AT ALL TIMES.

13. THE CONTRACTOR SHALL GRADE, SEED, AND/OR SOD, AND MULCH THE ENTIRE AREA(S) DISTURBED BY CONSTRUCTION ACTIVITIES.

14. CONSTRUCTION AND START-UP OF ALL WORK SHALL NOT INTERFERE WITH THE OPERATION OF WATER AND SEWERAGE FACILITIES. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK WITH THE OWNERS AS REQUIRED.

15. MINIMUM COVER ON ALL PIPE SHALL BE 3.0 FEET, UNLESS OTHERWISE SPECIFICALLY INDICATED ON THESE DRAWINGS. ALL PLASTIC PIPE SHALL BE INSTALLED WITH COATED TRACER WIRE TO FACILITATE FUTURE LOCATION OF PIPE AFTER CONSTRUCTION IS COMPLETED.

16. WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE JOINT DEFLECTION OR BARREL BEND RADIUS SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED DEFLECTION ANGLE OR BEND RADIUS.

17. ALL PIPING SHALL BE PROPERLY SUPPORTED. ALL PIPING WHICH WILL BE PRESSURIZED DURING OPERATION SHALL BE PROPERLY RESTRAINED.

18. CONSTRUCTION TRAFFIC SHALL USE THE PRIMARY ACCESS ROAD CONSTRUCTION ENTRANCE.

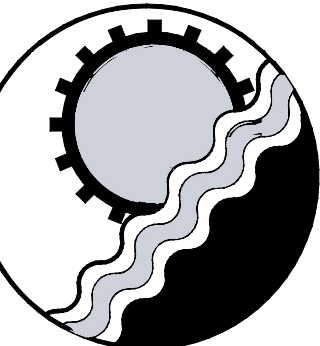
19. NO BUILDING CONSTRUCTION SHALL BEGIN UNTIL THE PRIMARY ACCESS ROAD IMPROVEMENTS HAVE BEEN SUBSTANTIALLY COMPLETE.

20. VDOT SUPERELEVATION STANDARD TC-5 (ULS) IS USED FOR THE ROAD DESIGN AS SHOWN ON THESE PLANS.

21. THE CONTRACTOR WILL BE REQUIRED TO PERFORM WORK UNDER THE REQUIREMENTS OF EXISTING DEQ AND ACE PERMITS FOR THE BOTETOURT CENTER AT GREENFIELD.

22. THERE IS AN EXPECTED EXCESS AMOUNT OF MATERIAL TO BE WASTED ONSITE. THE CONTRACTOR WILL BE REQUIRED TO PLACE THE EXCESS MATERIAL IN A MANNER TO BLEND IN WITH ADJACENT SLOPES. INSTALL ANY NECESSARY EROSION CONTROL MEASURES, AND SEEDED. THE EXACT LOCATION FOR THE PLACEMENT OF THE EXCESS MATERIAL WILL BE ONSITE IN AN AREA TO BE COORDINATED WITH THE OWNER.

23. THE EXISTING WATERLINE TO BE ABANDONED SHALL BE REMOVED AND SALVAGED. THE SALVAGED WATERLINE SHALL BE PLACED AT THE GREENFIELD WATER TANK ON-SITE AT A LOCATION TO BE COORDINATED WITH THE OWNER.



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GRADING NOTES:

1. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY CONSTRUCTION PERMITS.

2. PRIOR TO BEGINNING EARTHWORK OPERATIONS, THE CONTRACTOR SHALL EMPLOY A QUALIFIED, PROFESSIONAL GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF VIRGINIA AND APPROVED BY THE OWNER. AS A RESULT OF CONSTRUCTION TESTING, THE GEOTECHNICAL ENGINEER SHALL MAKE RECOMMENDATIONS REGARDING THE ONSITE PLACEMENT OF FILL MATERIAL AND PROPER COMPACTION METHODS. NO WARRANTIES ARE MADE BY THE OWNER OR ENGINEER FOR ANY SUBSURFACE CONDITIONS ON THE PROPERTY.

3. FILL SHALL BE PLACED ONLY ON FIRM SUBGRADES APPROVED BY THE SOILS ENGINEER. SUBGRADES SHALL BE SCARIFIED TO A DEPTH OF 4 INCHES PRIOR TO FILL PLACEMENT TO ASSURE BONDING BETWEEN THE TWO SOILS. ALL FILL AREAS SHALL BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% DRY DENSITY STANDARD PROCTOR (ASTM D698), UNLESS NOTED OTHERWISE. THE COMPACTION SHALL BE ACCOMPLISHED BY PLACING FILL IN 6 TO 8 INCH LIFTS AND MECHANICALLY COMPACTING EACH LIFT TO THE REQUIRED DENSITY. THE SOILS ENGINEER SHALL PERFORM FIELD DENSITY TEST ON EACH LIFT OR AS NECESSARY TO ASCERTAIN THAT ADEQUATE COMPACTION HAS BEEN ACHIEVED. CALIFORNIA BEARING RATIO TESTS SHALL BE PERFORMED IN MATERIAL PROPOSED FOR USE BENEATH PAVEMENT WHETHER CUT OR FILL. THE UPPER 2 FEET OF MATERIAL BELOW STRUCTURES SHALL BE COMPACTED TO 98% DRY DENSITY (ASTM D698).

4. CLEAR SITE WITHIN LIMITS OF GRADING WORK. DO NOT DISTURB AREAS OUTSIDE OF GRADING LIMITS OR PROPERTY BOUNDARY.

5. REMOVE TREES, SHRUBS, GRASS AND OTHER VEGETATION, IMPROVEMENTS OR OBSTRUCTIONS AS REQUIRED TO PERMIT INSTALLATION OF NEW CONSTRUCTION. ALL UNSUITABLE MATERIAL SHALL BE DISPOSED OF IN A MANNER AND LOCATION ACCEPTABLE TO THE GOVERNING AUTHORITY. REMOVE TREES AND OTHER VEGETATION, INCLUDING STUMPS AND ROOTS, COMPLETELY IN AREAS REQUIRED FOR SUBSEQUENT SEEDING. CUT OFF TREES AND STUMPS IN AREAS TO RECEIVE FILL MORE THAN THREE FEET IN DEPTH TO WITHIN EIGHT INCHES OF THE ORIGINAL GROUND SURFACE.

6. BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND OPERATE WARNING LIGHTS AS RECOMMENDED BY AUTHORITIES HAVING JURISDICTION.

7. EXCAVATION FOR STRUCTURES:
A. CONFORM TO ELEVATIONS AND DIMENSIONS SHOWN WITHIN A TOLERANCE OF PLUS OR MINUS 0.10 FOOT.
B. PROVIDE TRUE AND STRAIGHT FOOTING EXCAVATIONS WITH UNIFORM LEVEL BOTTOMS OF THE WIDTH INDICATED TO ENSURE PROPER PLACEMENT AND COVER OF ALL REINFORCEMENT.
C. REMOVE ALL LOOSE MATERIALS FROM THE EXCAVATION PRIOR TO PLACEMENT OF CONCRETE.
D. PROVIDE A MINIMUM OF 2'-0" FROM THE FINISHED GRADE TO TOP OF ALL EXTERIOR WALL FOOTINGS.
E. FOOTINGS WHICH SUPPORT CONCRETE MASONRY UNITS MAY BE STEPPED PROVIDED THE VERTICAL STEP DOES NOT EXCEED ONE HALF OF THE HORIZONTAL DISTANCE BETWEEN STEPS AND HORIZONTAL DISTANCE BETWEEN STEPS IS NOT LESS THAN TWO FEET.
F. IF ROCK IS ENCOUNTERED IN A FOOTING EXCAVATION, UNDERCUT IT A MINIMUM OF 12" BELOW THE BOTTOM OF THE FOOTINGS AND FILL THE RESULTING OVER-EXCAVATION WITH CONTROLLED FILL.

8. CUT SURFACE UNDER PAVEMENTS TO COMPLY WITH CROSS SECTIONS, ELEVATIONS, AND GRADES AS INDICATED.

9. EXCAVATE TRENCHES TO UNIFORM WIDTH CONFORMING TO VDOT STANDARD PB-1 FOR STORM DRAINAGE PIPING AND UB-1 FOR SANITARY SEWER AND WATER. BACKFILL TRENCHES WITH CONTROLLED FILL.

10. PREVENT SURFACE WATER AND SUBSURFACE OR GROUND WATER FROM FLOWING INTO EXCAVATIONS AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. REMOVE WATER TO PREVENT SOFTENING OF FOUNDATION BOTTOMS, UNDERCUTTING FOOTINGS, AND SOIL CHANGES DETRIMENTAL TO STABILITY OF SUBGRADES AND FOUNDATIONS. CONVEY WATER REMOVED FROM EXCAVATIONS AND RAIN WATER TO COLLECTING OR RUNOFF AREAS. ESTABLISH AND MAINTAIN TEMPORARY DRAINAGE DITCHES AND OTHER DIVERSIONS OUTSIDE EXCAVATION LIMITS FOR EACH STRUCTURE. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DITCHES.

11. PROTECT EXCAVATED BOTTOMS OF ALL FOOTINGS AND TRENCHES AGAINST FREEZING WHEN ATMOSPHERIC TEMPERATURE IS LESS THAN 35 F (1 C).

12. BACKFILLING:
A. COMPACT THE BACKFILL AROUND THE OUTSIDE OF BUILDING TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D 698 STANDARD PROCTOR. DO NOT ALLOW HEAVY COMPACTION EQUIPMENT SUCH AS ROLLERS, ETC., CLOSER TO ANY FOOTING THAN THE HORIZONTAL DISTANCE SUBTENDED BY A 45 ANGLE WITH THE TOP EDGE OF THE FOOTINGS AND THE SURFACE OF THE GROUND.
B. BACKFILL BEHIND WALLS AFTER PERMANENT CONSTRUCTION WHICH BRACES THE WALL IS IN PLACE OR TEMPORARY BRACING OF THE WALL IS PROPERLY INSTALLED, AND AFTER ACCEPTANCE OF CONSTRUCTION BELOW FINISH GRADE INCLUDING DAMP-PROOFING, REMOVAL OF CONCRETE FORMWORK, AND REMOVAL OF TRASH AND DEBRIS.

13. UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING INCLUDING ADJACENT TRANSITION AREAS. SMOOTH FINISHED SURFACES WITHIN SPECIFIED TOLERANCES, COMPACT WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS AND EXISTING GRADES. GRADE AREAS ADJACENT TO BUILDING LINES TO DRAIN AWAY FROM STRUCTURES TO PREVENT PONDING.

14. FINISH LAWN AREAS TO WITHIN ONE INCH ABOVE OR BELOW REQUIRED SUBGRADE ELEVATIONS. SHAPE SURFACE UNDER WALKS AND PAVEMENTS TO LINE, GRADE, AND CROSS SECTION, WITH NOT MORE THAN 1/2" ABOVE OR BELOW REQUIRED SUBGRADE ELEVATION.

15. PROTECT GRADED AREAS FROM TRAFFIC AND EROSION. REPAIR AREAS WHICH HAVE SETTLED, ERODED, OR BECOME DAMAGED DUE TO CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST TO OWNER.

16. UNDER FOUNDATIONS, SIDEWALKS, AND PAVEMENTS COMPACT EACH LAYER TO 95% MAXIMUM DRY DENSITY ASTM D 698 (STANDARD PROCTOR). FOR FURTHER SUPPORT COMPACT 2 FEET BELOW STRUCTURES TO 98% MAXIMUM DRY DENSITY ASTM D 698 (STANDARD PROCTOR).

17. UNDER LAWN OR UNPAVED AREAS, COMPACT SUBGRADE AND EACH LAYER TO 90% MAXIMUM DRY DENSITY ASTM D 698 (STANDARD PROCTOR).

18. ALL SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE CAPPED AND PIPED TO THE NEAREST STORM SEWER SYSTEM OR NATURAL WATERCOURSE. THE PIPE SHALL BE A MINIMUM OF 6" DIAMETER AND CONFORM TO V.D.O.T. STANDARDS AND DETAILS.

CULVERT CONSTRUCTION NOTE:
THE WATER SURFACE ELEVATION IN THE STORMWATER MANAGEMENT POND MAY BE MANIPULATED FOR THE PURPOSE OF CONSTRUCTION OF THE ROAD CULVERT UNDER THE FOLLOWING CONDITIONS: THE WATER LEVEL MAY BE LOWERED IN THE MONTH OF MARCH OR APRIL. BOTETOURT COUNTY STAFF WILL BE SOLEY RESPONSIBLE FOR WATER LEVEL MANIPULATION - THE CONTRACTOR MAY NOT OPEN OR CLOSE VALVE(S) USED TO ADJUST WATER LEVEL. THE CONTRACTOR SHALL COORDINATE WITH COUNTY STAFF AND ITS AGENT TO PROVIDE NOTICE OF INTENT TO MANIPULATE WATER LEVEL TO DEQ AND USACE STAFF AS REQUIRED IN THE PERMITS. THE WATER LEVEL MAY NOT BE LOWER THAN NORMAL IF FREEZING CONDITIONS ARE PREDICTED. THE WATER LEVEL MAY NOT BE LOWERED FOR A PERIOD GREATER THAN TWENTY-ONE DAYS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EXISTING WETLAND PLANTINGS WHILE THE WATER LEVEL IS LOWERED AND SHALL BE RESPONSIBLE FOR REPLACEMENT OF WETLAND PLANTINGS SHOULD THEY DIE AS A RESULT OF THE WATER LEVEL MANIPULATION.

BOTETOURT GENERAL E&S NOTES:

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE ONSITE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN & NARRATIVE, AS WELL AS A COPY OF THE LAND DISTURBING PERMIT, SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. THE EROSION AND SEDIMENT CONTROL ADMINISTRATOR WILL DELIVER THESE MATERIALS AT THE ONSITE PRECONSTRUCTION CONFERENCE.

ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.

ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING THE LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY. AN INSPECTION REPORT MUST BE FILED WITH THE BOTETOURT COUNTY EROSION AND SEDIMENT CONTROL ADMINISTRATOR ONCE EVERY TWO WEEKS, BEGINNING WITH COMMENCEMENT OF THE LAND DISTURBING ACTIVITY, AND WITHIN 48 HOURS OF ANY RUNOFF-PRODUCING RAINFALL EVENT. FAILURE TO SUBMIT A REPORT WILL BE GROUNDS FOR IMMEDIATE REVOCATION OF THE LAND DISTURBING PERMIT. REPORTS MUST BE POSTMARKED WITHIN 24 HOURS OF THE DEADLINE. A STANDARD INSPECTION REPORT FORM WILL BE SUPPLIED, WHICH SHOULD BE COPIED AS NECESSARY. THE PROVISION IN NO WAY WAIVES THE RIGHTS OF BOTETOURT COUNTY PERSONNEL TO CONDUCT SITE INSPECTIONS, NOR DOES IT DENY THE RIGHT OF THE PERMITTEE(S) TO ACCOMPANY THE INSPECTOR(S).

EROSION - SEDIMENT CONTROL PHASING NOTES

1. INSTALL ALL PERIMETER SILT FENCE.

2. INSTALL DIVERSION DIKES TO DIVERT RUNOFF AWAY FROM CONSTRUCTION SITE WHEN POSSIBLE.

4. INSTALL INLET AND OUTLET PROTECTION IMMEDIATELY AFTER STORM SEWER AND INLET PLACEMENT.

5. CONTRACTOR SHALL REMOVE EROSION CONTROL MEASURES ONLY AFTER DISTURBED AREAS ARE STABILIZED AND APPROVAL HAS BEEN OBTAINED FROM THE COUNTY INSPECTOR.

6. SOIL STOCKPILE AREA, IF NEEDED, SHALL BE LOCATED WITHIN OWNER'S PROPERTY. CONTRACTOR MUST COORDINATE EXACT LOCATION OF STOCKPILE AND ADDITIONAL EROSION CONTROL MEASURES WITH THE COUNTY EROSION CONTROL INSPECTOR.

7. ALL STABILIZATION OF EARTHEN STRUCTURES SUCH AS TRAPS, DITCHES, DIKES, AND DIVERSIONS SHALL BE INSTALLED AS A FIRST STEP PRIOR TO UPSLOPE ACTIVITY.

8. ALL CUT AND FILL SLOPES NEED TO BE TEMPORARILY SEEDED IMMEDIATELY AND PERMANENTLY SEED AS SOON AS WORK IN THAT AREA IS COMPLETE.

9. WORK WITHIN THE STREAM SHALL BE COMPLETED IN ACCORDANCE WITH THE DEPARTMENT OF CONSERVATION AND RECREATION'S MINIMUM STANDARDS. DISTURBED AREAS SHALL BE SEEDED IMMEDIATELY. ALL EXCESS MATERIALS, STUMPS AND OTHER POSSIBLE OBSTRUCTIONS SHALL BE DISPOSED OF PROPERLY TO INSURE PROPER STREAM FUNCTION. ALL WORK WITHIN IN THE STREAM SHALL BE EFFICIENT, BEGINNING AND ENDING IN A TIMELY MANNER.

10. ALL UTILITY TRENCHES WILL NEED TO BE STABILIZED AND RESEEDED IMMEDIATELY.

PAVEMENT MARKING NOTE:

1. ALL NEWLY PAVED AND AFFECTED ROADWAYS SHALL BE MARKED IN ACCORDANCE WITH CURRENT VDOT STANDARDS AND THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES.

2. ALL EXISTING PAVEMENT MARKINGS SHALL BE REMOVED FOR INSTALLATION OF NEW PAVEMENT MARKINGS AND FOR A UNIFORM APPEARANCE THROUGHOUT THE PROJECT AREA.

3. CONTRACTOR SHALL COORDINATE MEETING WITH VDOT AFTER COMPLETION OF FINAL PAVEMENT FOR FIELD REVIEW OF REQUIRED PAVEMENT MARKINGS.

4. CONTRACTOR SHALL SUBMIT PROPOSED PAVEMENT MARKING PLAN TO VDOT FOR APPROVAL AFTER FIELD REVIEW. COPY OF PAVEMENT MARKING PLAN SHALL ALSO BE SUBMITTED TO ENGINEER PRIOR TO PROCEEDING WITH WORK.

5. PAVEMENT MARKING SHALL BE IN CONFORMANCE WITH ALL APPLICABLE VDOT STANDARDS AND SPECIFICATIONS FOR LOCATION AND MATERIALS.

6. PAVEMENT MARKING SHALL BE PERFORMED ONLY BY CONTRACTORS APPROVED BY VDOT AND ONLY AFTER VDOT APPROVAL OF PAVEMENT MARKING PLAN.

STORMWATER MANAGEMENT:

1. STORMWATER MANAGEMENT FOR THIS PROJECT IS PROVIDED BY THE GREENFIELD LAKE, REGIONAL STORMWATER MANAGEMENT FACILITY FOR THE BOTETOURT CENTER AT GREENFIELD.

VDOT APPROVAL:

VDOT APPROVAL OF ROAD PLANS DOES NOT PRECLUDE THE RIGHT TO ADD ADDITIONAL FACILITIES SUCH AS SEEDING, PAVING, SEDIMENT CONTROL ITEMS, ETC., AS MAY BE DEEMED NECESSARY BY THE DEPARTMENT PRIOR TO ACCEPTANCE OF ROAD IN ORDER TO LIMIT SILTATION AND POLLUTION OF NEARBY LAKES, PONDS, STREAMS, AND ADJACENT PROPERTY.

DRAINAGE:

1. ALL DITCHES,SWALES, AND NATURAL WATERCOURSES DOWNSTREAM OF THIS PROJECT NEED TO BE FIELD REVIEWED DURING AND AFTER CONSTRUCTION TO ENSURE COMPLIANCE TO MINIMUM STANDARD MS-19 (VE&SCH, 3rd EDITION, 1992).

VDOT GENERAL NOTES

V1. ALL WORK ON THIS PROJECT SHALL CONFORM TO THE CURRENT EDITIONS OF AND LATEST REVISIONS TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS, THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, AND ANY OTHER APPLICABLE STATE, FEDERAL OR LOCAL REGULATIONS. IN CASE OF A DISCREPANCY OR CONFLICT BETWEEN THE STANDARDS OR SPECIFICATIONS AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.

V2. ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND VIRGINIA OCCUPATIONAL SAFETY & HEALTH (VOSH) RULES AND REGULATIONS.

V3. WHEN WORKING WITHIN VDOT RIGHT-OF-WAY, ALL TRAFFIC CONTROL, WHETHER PERMANENT OR TEMPORARY, SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF VDOT'S WORK AREA PROTECTION MANUAL. FURTHERMORE, ALL TRAFFIC CONTROL FLAGGERS MUST BE CERTIFIED IN ACCORDANCE WITH SECTION 104.04(C) OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS.

V4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING, AT HIS EXPENSE, ANY AND ALL UTILITIES, INCLUDING TRAFFIC SIGNAL POLES, JUNCTION BOXES, CONTROLLERS, ETC., OWNED BY VDOT OR PRIVATE/PUBLIC UTILITY COMPANIES. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND IDENTIFY UTILITY FACILITIES OR ITEMS THAT MAY BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION ACTIVITY. VDOT APPROVAL OF THESE PLANS DOES NOT DEMINIFY THE CONTRACTOR FROM THIS RESPONSIBILITY.

V5. DESIGN FEATURES RELATING TO FIELD CONSTRUCTION, REGULATIONS, AND CONTROL OR SAFETY OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY VDOT. ANY ADDITIONAL EXPENSE INCURRED AS A RESULT OF ANY FIELD REVISION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.

V6. PRIOR TO INITIATION OF WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY VDOT LAND USE PERMITS FOR ANY WORK WITHIN VDOT RIGHT-OF-WAY.

V7. IF REQUIRED BY THE LOCAL VDOT RESIDENCY OFFICE, A PRE-CONSTRUCTION CONFERENCE SHALL BE ARRANGED AND HELD BY THE ENGINEER AND/OR OWNER WITH THE ATTENDANCE OF THE CONTRACTOR, VARIOUS COUNTY AGENCIES, UTILITY COMPANIES AND VDOT PRIOR TO INITIATION OF WORK.

V8. THE CONTRACTOR SHALL NOTIFY THE LOCAL VDOT RESIDENCY OFFICE WHEN WORK IS TO BEGIN OR CEASE FOR ANY UNDETERMINED LENGTH OF TIME. VDOT REQUESTS AND SHALL RECEIVE 48 HOURS ADVANCE NOTICE PRIOR TO ANY REQUIRED OR REQUESTED INSPECTION.

V9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE ACCESS TO THE PROJECT FROM THE ADJACENT PUBLIC ROADWAY VIA A CONSTRUCTION ENTRANCE THAT IS CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH SECTION 3.02 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. FURTHERMORE, ACCESS TO OTHER PROPERTIES AFFECTED BY THIS PROJECT SHALL BE MAINTAINED THROUGH CONSTRUCTION. THE DEVELOPER SHALL HAVE, WITHIN THE LIMITS OF THE PROJECT, AN EMPLOYEE CERTIFIED BY THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (VDGR) IN EROSION AND SEDIMENT CONTROL WHO SHALL INSPECT EROSION AND SILTATION CONTROL DEVICES AND MEASURES ON A CONTINUOUS BASIS FOR PROPER INSTALLATION AND OPERATION. DEFICIENCIES SHALL BE PROMPTLY RECTIFIED.

V10. CONTRACTOR SHALL ENSURE ADEQUATE DRAINAGE IS ACHIEVED AND MAINTAINED ON THE SITE DURING AND AT THE END OF CONSTRUCTION.

V11. ALL WATER AND SEWER LINES WITHIN EXISTING OR PROPOSED VDOT RIGHT-OF-WAY SHALL HAVE A MINIMUM THIRTY-SIX (36) INCHES COVER AND WHEN POSSIBLE SHALL BE INSTALLED UNDER ROADWAY DRAINAGE FACILITIES AT CONFLICT POINTS.

V12. ANY UNUSUAL SUBSURFACE CONDITIONS (E.G., UNSUITABLE SOILS, SPRINGS, SINKHOLES, VOIDS, CAVES, ETC.) ENCOUNTERED DURING THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER AND VDOT. WORK SHALL CEASE IN THAT VICINITY UNTIL AN ADEQUATE DESIGN CAN BE DETERMINED BY THE ENGINEER AND APPROVED BY VDOT.

V13. ALL FILL AREAS, BORROW MATERIAL AND UNDERCUT AREAS SHALL BE INSPECTED AND APPROVED BY A VDOT REPRESENTATIVE PRIOR TO PLACEMENT AND FILL. WHERE CBR TESTING IS REQUIRED, A VDOT REPRESENTATIVE SHALL BE PRESENT TO INSURE THE SAMPLE OBTAINED IS REPRESENTATIVE OF THE LOCATION. WHEN SOIL SAMPLES ARE SUBMITTED TO PRIVATE LABORATORIES FOR TESTING, THE SAMPLES SHALL BE CLEARLY IDENTIFIED AND LABELED AS BELONGING TO A PROJECT TO BE ACCEPTED BY VDOT AND THAT TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE VDOT STANDARDS AND PROCEDURES.

V14. ALL ROADWAY FILL, BASE, SUBGRADE MATERIAL, AND BACKFILL IN UTILITY/STORM SEWER TRENCHES SHALL BE COMPACTED IN SIX (6) INCH LIFTS TO 95% OF THEORETICAL MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99 METHOD A, WITHIN PLUS OR MINUS 2% OF OPTIMUM MOISTURE FOR THE FULL WIDTH OF ANY DEDICATED STREET RIGHT-OF-WAY. AT THE DIRECTION OF VDOT, DENSITY TESTS SHALL BE PERFORMED BY A QUALIFIED INDEPENDENT AGENCY IN ACCORDANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS. CERTIFIED COPIES OF TEST REPORTS SHALL BE SUBMITTED TO VDOT DAILY, UNLESS SPECIFIED OTHERWISE.

V15. VDOT STANDARD CD AND UD UNDERDRAINS SHALL BE INSTALLED WHERE INDICATED ON THESE PLANS AND/OR AS SPECIFIED BY VDOT.

V16. THE INSTALLATION OF ANY ENTRANCES AND MAILBOXES WITHIN ANY DEDICATED STREET RIGHT-OF-WAY SHALL MEET VDOT MINIMUM DESIGN STANDARDS AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

V17. PRIOR TO VDOT ACCEPTANCE OF ANY STREETS, ALL REQUIRED STREET SIGNAGE AND/OR PAVEMENT MARKINGS SHALL BE INSTALLED BY THE CONTRACTOR OR, AT VDOT'S DISCRETION, BY VDOT ON AN ACCOUNT RECEIVABLE BASIS FOLLOWING THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

V18. THE CONTRACTOR SHALL PROVIDE THE VDOT RESIDENCY OFFICE WITH A LIST OF ALL MATERIAL SOURCES PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL INVOICES FOR MATERIALS UTILIZED WITHIN ANY DEDICATED STREET RIGHT-OF-WAY MUST BE PROVIDED TO THE LOCAL VDOT RESIDENCY OFFICE PRIOR TO ACCEPTANCE OF THE WORK. UNIT AND TOTAL PRICES MAY BE OBTAINED.

V19. AGGREGATE BASE AND SUBBASE MATERIALS SHALL BE PLACED ON SUBGRADE BY MEANS OF A MECHANICAL SPREADER. DENSITY WILL BE DETERMINED USING THE DENSITY CONTROL STRIP IN ACCORDANCE WITH SECTION 304 OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS AND VTM-10. A CERTIFIED COMPACTION TECHNICIAN SHALL PERFORM THESE TESTS. CERTIFIED COPIES OF TEST REPORTS SHALL BE SUBMITTED TO VDOT DAILY, UNLESS SPECIFIED OTHERWISE.

V20. ASPHALT CONCRETE PAVEMENTS SHALL BE PLACED IN ACCORDANCE WITH SECTION 315 OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS. DENSITY SHALL BE DETERMINED USING THE DENSITY CONTROL STRIP AS SPECIFIED IN SECTION 315 AND VTM-76. A CERTIFIED COMPACTION TECHNICIAN SHALL PERFORM THESE TESTS. CERTIFIED COPIES OF TEST REPORTS SHALL BE SUBMITTED TO VDOT DAILY, UNLESS SPECIFIED OTHERWISE. A VDOT REPRESENTATIVE SHALL BE NOTIFIED AND GIVEN THE OPPORTUNITY TO BE PRESENT DURING THE CONSTRUCTION AND TESTING OF THE DENSITY CONTROL STRIP.

V21. IN ACCORDANCE WITH SECTION 302.03, THE FOUNDATIONS FOR PIPE CULVERTS THIRTY-SIX (36) INCHES AND LARGER SHALL BE EXPLORED BELOW THE BOTTOM OF THE EXCAVATION TO DETERMINE THE TYPE AND CONDITION OF THE FOUNDATION. THE CONTRACTOR SHALL REPORT FINDINGS OF FOUNDATION EXPLORATION TO THE ENGINEER AND VDOT FOR APPROVAL PRIOR TO PLACING PIPE. FOUNDATION DESIGNS SHALL COMPLY WITH VDOT ROAD AND BRIDGE STANDARD PB-1. WHERE SOFT, YIELDING, OR OTHERWISE UNSUITABLE FOUNDATION IS ENCOUNTERED, THE FOUNDATION DESIGN AND/OR NEED FOR FOUNDATION STABILIZATION SHALL BE DETERMINED BY THE ENGINEER AND APPROVED BY VDOT.

V22. APPROVAL OF THESE PLANS SHALL EXPIRE THREE (3) YEARS FROM THE DATE OF THE APPROVAL LETTER.

V23. VDOT STANDARD CG-12 CURB RAMPS SHALL BE INSTALLED WHERE INDICATED ON THESE PLANS AND/OR AS SPECIFIED BY VDOT. ALL CG-12 CURB RAMPS ARE TO HAVE TRUNCATED WARNING DOMES.

V24. VDOT STANDARD GUARDRAIL SHALL BE INSTALLED WHERE WARRANTED AND/OR AS PROPOSED ON THESE PLANS IN ACCORDANCE WITH VDOT'S INSTALLATION CRITERIA. FINAL APPROVAL OF THE GUARDRAIL LAYOUT TO BE GIVEN BY VDOT AFTER GRADING IS MOSTLY COMPLETE.

VDOT NOTES:

1. QUALITY CONTROL
- ALL WORK DONE IN THE PROPOSED, OR EXISTING RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO STREET GRADING, STREET PAVING AND ALL CONSTRUCTION OF ALL STRUCTURAL COMPONENTS, SHALL BE DONE IN ACCORDANCE WITH CURRENT VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS. ALL MATERIALS USED SHALL BE TESTED IN ACCORDANCE WITH VDOT STANDARD POLICIES. THE CONTRACTOR SHALL CONTACT THE OFFICE OF THE RESIDENT ENGINEER, PRIOR TO BEGINNING CONSTRUCTION WITHIN THE PROPOSED OR EXISTING RIGHT OF WAY. AT THAT TIME, THE RESIDENT ENGINEER SHALL PREPARE AN INSPECTION AND TESTING SCHEDULE.

- THE CONTRACTOR WILL PRODUCE TEST REPORTS FROM APPROVED INDEPENDENT LABORATORIES AT THE CONTRACTOR'S EXPENSE.

- THE PAVEMENT DESIGNS SHOWN ARE BASED ON A SUB-GRADE CBR VALUE OF 6 OR GREATER. THE SUB-GRADE SOIL IS TO BE TESTED BY AN INDEPENDENT LABORATORY AND THE RESULTS SUBMITTED TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION PRIOR TO BASE CONSTRUCTION. SHOULD THE SUB-GRADE CBR VALUES BE LESS THAN 6, ADDITIONAL BASE MATERIAL WILL BE REQUIRED IN ACCORDANCE WITH DEPARTMENTAL SPECIFICATIONS. THE SUBGRADE SHALL BE APPROVED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION PRIOR TO PLACEMENT OF THE BASE MATERIAL. BASE SHALL BE APPROVED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION FOR DEPTH, TEMPLATE, AND COMPACTION BEFORE SURFACE IS APPLIED.

2. UTILITIES

- ALL NECESSARY LATERALS ALONG WITH PROVISIONS FOR CONDUITS (I.E. WATER, SEWER, STORM, GAS AND TELEPHONE) WILL BE CONSTRUCTED PRIOR TO PAVEMENT BASE MATERIAL.

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

- PERMITS WILL BE REQUIRED FOR ALL UTILITIES WITHIN THE STREET RIGHT-OF-WAY PRIOR TO ACCEPTANCE INTO THE SECONDARY HIGHWAY SYSTEM. ANY EASEMENT GRANTED TO A UTILITY COMPANY FOR PLACEMENT OF POWER, TELEPHONE, WATER, SEWER, ETC.,, SHALL BE RELEASED PRIOR TO ACCEPTANCE.

3. PRIVATE ENTRANCES

- MODIFIED CG-9D GUTTER WILL BE PROVIDED AT ALL ENTRANCES TO PRIVATE LOTS WHERE STANDARD CG-6 CURB AND GUTTER IS APPROVED FOR USE. DRIVEWAYS CONNECTING TO ROADS WITHOUT CURB AND GUTTER SHALL CONFORM TO THE PAVEMENT, SHOULDER AND SLOPE.

- PERMITS WILL BE REQUIRED FOR ALL PRIVATE ENTRANCES CONSTRUCTED ON STREETS RIGHTS OF WAY AFTER ACCEPTANCE INTO THE SECONDARY HIGHWAY SYSTEM.

4. EROSION CONTROL AND LANDSCAPING

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

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

- DRAINAGE EASEMENTS MUST BE DEFINED BY EXCAVATED DITCHES OR CHANNELS FOR THEIR FULL LENGTH TO WELL DEFINED EXISTING NATURAL WATERCOURSES.

- ALL VEGETATION AND OVERBURDEN TO BE REMOVED FROM SHOULDER TO SHOULDER PRIOR TO CONDITIONING (CUTTING AND/OR PREPARATION) OF THE SUBGRADE.

5. INTERSECTION PAVEMENT RADIUS

- MINIMUM PAVEMENT RADIUS OF 25 FEET REQUIRED AT ALL STREET INTERSECTIONS.

6. 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 AT THE TIME PERMIT APPLICATIONS ARE MADE. HIS IS NECESSARY IN ORDER THAT THE PREVAILING CONDITIONS BE TAKEN INTO CONSIDERATION REGARDING SAFETY ACCOMPANIMENTS SUCH AS TURNING LANES.

7. GUARDRAILS

- STANDARD GUARDRAIL WITH SAFETY END SECTIONS MAY BE REQUIRED ON FILLS AS DEEMED NECESSARY BY THE RESIDENT ENGINEER. AFTER COMPLETION OF ROUGH GRADING OPERATIONS, THE OFFICE OF THE RESIDENT ENGINEER, SHALL BE NOTIFIED SO THAT A FIELD REVIEW MAY 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.