

#### GRADING AND STORM DRAINAGE KEYNOTES:

- 1 NEW STORM DRAIN SYSTEM. REFER TO STORM DRAINAGE PROFILES SHOWN ON SHEET C-8 FOR STRUCTURE AND STORM DRAINAGE LINE INFORMATION.
- 2 STORM DRAIN ROOF LEADER (RD) AND COLLECTION LINE SHALL BE PVC SDR-35. SITE CONTRACTOR TO INSTALL ROOF LEADER COLLECTION LINES FROM STORM DRAIN MAIN/MANHOLE TO POINT SHOWN OR TO WITHIN 5-FOOT OF BUILDING. BUILDING CONTRACTOR SHALL CONNECT DOWN SPOUT TO STORM DRAIN ROOF LEADER. REFER TO ARCHITECTURAL PLAN FOR LOCATION OF DOWNSPOUTS.
- 3 NEW RETAINING WALL WITH PROPOSED TOP AND BOTTOM OF WALL ELEVATIONS SHOWN. BOTTOM OF WALL REFERS TO FINISHED GROUND ELEVATION AT BOTTOM FACE OF WALL. REFER TO RETAINING WALL DESIGN PLANS PREPARED BY OTHERS. SEE WALL ELEVATION VIEW ON SHEET C-12.
- 4 NEW SANITARY SEWER LINE AND WATER LINE SHOWN FOR INFORMATION AND COORDINATION PURPOSES ONLY. CONTRACTOR SHALL CONFIRM LOCATION & INVERT OF EXISTING AND NEW UTILITY LINES PRIOR TO INSTALLATION OF STORM DRAINAGE. REFER TO SHEETS C-5 AND C-6 FOR ADDITIONAL INFORMATION.
- 5 CONSTRUCT NEW CONCRETE FLUME AND NEW PORTION OF CONCRETE DITCH AS SHOWN. SHAPE FLUME TO DIRECT RUNOFF FROM FLARED END SECTION (SD-30) INTO CONCRETE DITCH. SEE ENLARGED DETAIL ON SHEET C-8 FOR ADDITIONAL INFORMATION.

#### GRADING & STORM DRAINAGE GENERAL NOTES:

1. CONTOUR INTERVAL SHOWN IS 1-FOOT. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION (INCLUDING UTILITY LOCATION AND INVERTS) IS TAKEN FROM A SURVEY PERFORMED BY SLUSHER SURVEYING ASSOCIATES, PC, BEDFORD, VA, DATED SEPTEMBER 2013. SEE BENCHMARK SHOWN HEREON.
2. THE PROJECT PROPERTY IS IN FEMA DEFINED ZONE "UNSHADED X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON FLOOD INSURANCE RATE MAP PANEL 51161C0251G, PANEL 251 OF 310, EFFECTIVE DATE SEPTEMBER 28, 2007. THIS DETERMINATION IS BASED ON SAID MAP AND HAS NOT BEEN VERIFIED BY ACTUAL FIELD ELEVATIONS.
3. THE WORK OF THE PROJECT INVOLVES LAND DISTURBANCES OF MORE THAN ONE (1) ACRE. THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (DCR) SHALL REQUIRE THE WORK BE PERMITTED IN ACCORDANCE WITH THE PROVISIONS OF GENERAL PERMIT FOR DISCHARGES OF STORMWATER FROM CONSTRUCTION ACTIVITIES - AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMMP) AND THE VIRGINIA STORMWATER MANAGEMENT ACT. THE OWNER/DEVELOPER HAS APPLIED FOR COVERAGE UNDER THE "VSMMP GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES (VAR10)." EVIDENCE OF COVERAGE UNDER THE "VSMMP GENERAL PERMIT" MUST BE PROVIDED TO ROANOKE COUNTY PRIOR TO BEGINNING ANY LAND DISTURBANCE ON THE PROPERTY. A COPY OF THE "VSMMP GENERAL PERMIT" AND THE "STORMWATER POLLUTION PREVENTION PLAN (SWPPP)" MUST BE KEPT ON THE JOB SITE AT ALL TIMES AND THE "VSMMP GENERAL PERMIT COVERAGE LETTER" MUST BE POSTED AT THE PROJECT SITE.
4. UNLESS DIRECTED OTHERWISE OR NOTED ON THE PLANS, THE BUILDING PAD SUBGRADE SHALL GRADED TO AN ELEVATION 9-INCHES BELOW THE PUBLISHED ELEVATION. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ADDITIONAL INFORMATION REGARDING SLAB THICKNESS AND OTHER FOOTING EXCAVATIONS.
5. CLEAN-OUTS FOR ROOF DRAIN SYSTEM SHALL BE SET IN 6" DIAMETER CAST IRON VALVE BOX (ITEM #NPN-CW-18 BY CAPITAL FOUNDRY OF VA, INC., OR APPROVED EQUAL) WITH TOP SET FLUSH WITH FINISHED PAVED GRADE.
6. UPON COMPLETION OF THE STORM DRAINAGE SYSTEM, THE CONTRACTOR SHALL FURNISH TO THE OWNER A FIELD SURVEYED FINAL CORRECT SET OF AS-BUILT PLANS OF THE NEWLY CONSTRUCTED STORM DRAIN AND/OR STORMWATER MANAGEMENT FACILITIES. AS-BUILT PLANS SHALL BE PROVIDED IN THE STATE PLANE VIRGINIA SOUTH COORDINATE SYSTEM, NAD 1983, FIPS 4502 FEET, US SURVEY FEET, DATUM NA 83, IN THE FORM OF 1 PAPER COPY AND 1 DIGITAL AUTOCAD FILE.
7. NEW AND EXISTING STORM DRAINAGE PIPES AND OPEN CHANNELS ON THE PROJECT SITE ARE PRIVATELY OWNED, OPERATED, AND MAINTAINED.
8. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE "UNDERGROUND UTILITY DAMAGE PREVENTION ACT" AND SHALL CONTACT THE VIRGINIA UTILITY PROTECTION SERVICE (MISS UTILITY OF VIRGINIA) BY CALLING 811 OR 1-800-552-7001 AT LEAST 72 HOURS PRIOR TO PERFORMING EXCAVATIONS.

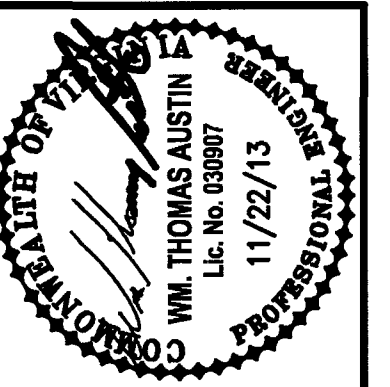
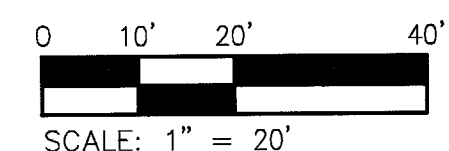
#### LEGEND:

- TW = TOP OF WALL  
BW = BOTTOM OF WALL
- XX.XX NEW "SPOT" ELEVATION (FIRST 2 DIGITS OF ELEVATION NOT SHOWN)  
XXXX.XX EXISTING "SPOT" ELEVATION

#### STORMWATER QUALITY TABULATIONS:

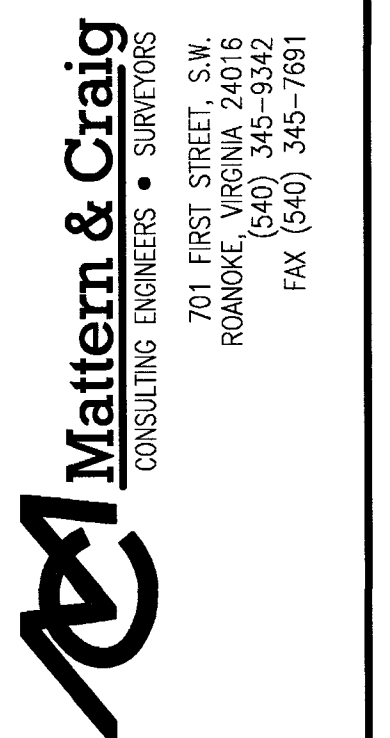
- APPLICABLE AREA = 1.30 ACRES (ENTIRE LOT/PARCEL)
  - PRE-DEVELOPMENT IMPERVIOUS COVER AREA = 1.07 ACRES
  - PRE-DEVELOPMENT IMPERVIOUS COVER PERCENT = 82.3 PERCENT
  - AVERAGE LAND COVER PERCENT = 16.0 PERCENT
  - POST-DEVELOPMENT IMPERVIOUS COVER AREA = 0.93 ACRES
  - POST-DEVELOPMENT IMPERVIOUS COVER PERCENT = 71.5 PERCENT
- THIS PROJECT CONSISTS LAND DEVELOPMENT WHERE THE EXISTING PERCENT IMPERVIOUS COVER (82.3 PERCENT) IS GREATER THAN THE AVERAGE LAND COVER CONDITION (16.0 PERCENT).
- PRE-DEVELOPMENT POLLUTANT LOAD = 2.34 LBS./YEAR
  - POST-DEVELOPMENT POLLUTANT LOAD = 2.06 LBS./YEAR
  - POLLUTANT REMOVAL REQUIREMENT = -0.05 LBS./YEAR

THE BEST MANAGEMENT PRACTICE (BMP) FOR THE PROJECT IS MET DUE TO THE PROPOSED IMPROVEMENTS RESULTING IN A REDUCTION OF THE POST-DEVELOPED IMPERVIOUS SURFACE OF GREATER THAN 10-PERCENT.



Date	Revisions
12/19/13	1 FIRST REVIEW COMMENTS
01/22/14	2 SUBMITTED FOR APPROVAL STAMP

Issue Date: NOV. 22, 2013  
Drawn By: RWA  
Designed By: RWA  
Checked By: WTA  
Date: 11/22/13



SITE DEVELOPMENT PLANS  
NEW WENDY'S - ROANOKE, VIRGINIA  
GRADING & STORM DRAINAGE PLAN  
ROANOKE, VIRGINIA

Vertical Scale:  
Horizontal Scale:  
1" = 20'  
Commission Number:  
3361  
Sheet No.:

C-7