

SITE TABULATION

CONTRACT OWNER / DEVELOPER: ATTN: GREG REED  
WESTERN VIRGINIA WATER AUTHORITY  
2012 S. JEFFERSON STREET  
ROANOKE, VA 24014  
PH: (540) 853-5700  
FX: (540) 850-1800

ENGINEER: ENGINEERING CONCEPTS, INC.  
3433 BRAMBLETON AVENUE, SUITE 200B  
ROANOKE, VA 24018  
PH: (540) 776-5715  
FX: (540) 776-8543

TAX PARCEL NO'S. 4060502  
AREA OF DEVELOPMENT (27.7 Ac.)  
CURRENT ZONING RS-3  
CURRENT USE WATER UTILITY COMPANY  
PROPOSED USE ADDITIONAL PARKING

MINIMUM REQUIREMENTS  
MINIMUM LOT AREA 5,000 S.F.  
PLATTED LOT AREA 27.7 AC  
MINIMUM FRONTAGE 50 FEET  
PLATTED FRONTAGE 2,200 FEET

YARDS  
MINIMUM FRONT YARD 30 FEET  
MINIMUM REAR YARD 25 FEET  
MINIMUM SIDE YARD 10' COMBINED, 4' MINIMUM

UTILITIES: WATER: WVWA  
SEWER: WVWA  
ELECTRIC: AMERICAN ELECTRIC POWER  
CABLE: COX CABLE  
GAS: ROANOKE GAS

MINIMUM 5% INTERIOR PARKING LOT AREA TO BE LANDSCAPED = 348 SF  
PROVIDED = 352 SF

PARKING SUMMARY  
21 SPACES + 1 HANDICAP SPACE = 22 SPACES TOTAL

GENERAL SITE NOTES:

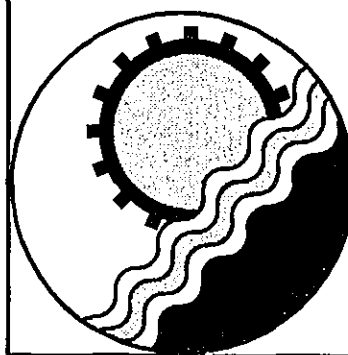
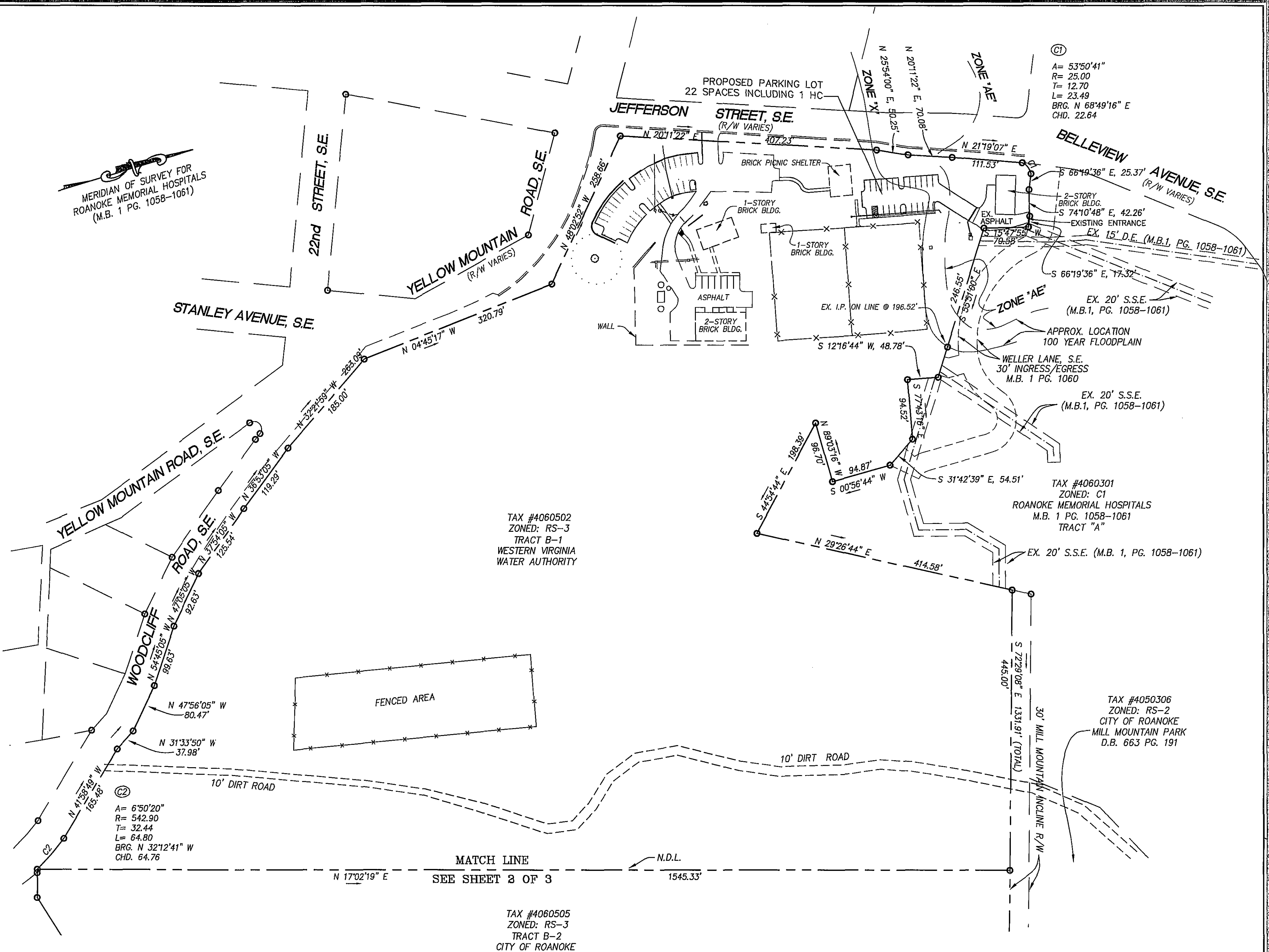
- A PORTION OF THIS SITE LIES WITHIN THE FEMA FLOOD ZONES X AND AE. COMMUNITY PANEL NUMBER 51161C0048D 0130 51770.
- TOPOGRAPHIC INFORMATION FROM ENGINEERING CONCEPTS, INC., JULY 2005. THE BOUNDARY IS FROM A PLAT RECORDED IN MB.1 PG. 1058-1061.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS.
- THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO ELIMINATE THE POSSIBILITY OF ANY DISTURBANCE OR DAMAGE TO PUBLIC OR PRIVATELY OWNED UTILITIES, STRUCTURES, OTHER FACILITIES OR OBSTRUCTION RESULTING FROM HIS ACTIVITIES. TO THIS END, CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, TAKE ALL MEASURES NECESSARY TO PROVIDE, AND SHALL BE SOLELY RESPONSIBLE FOR, TEMPORARY SUPPORT AND SHORING, ADEQUATE PROTECTION, AND MAINTENANCE OF CONTINUOUS OPERATION OF ALL UNDER AND ABOVE GROUND UTILITY SERVICES. THE CONTRACTOR SHALL CALL MISS UTILITY AT 1-800-552-7001 48 HOURS PRIOR TO DIGGING. ALL UTILITY TIE-INS ARE TO BE COORDINATED WITH THE APPROPRIATE PUBLIC OR PRIVATE UTILITY AUTHORITY BEFORE COMMENCING WORK ON EXISTING UTILITIES. THE CONTRACTOR SHALL SUPPLY ALL UTILITY COMPANIES WITH APPROVED PLAN COPIES FOR COORDINATION OF EXTENSION AND TIE-IN EFFORTS.
- SITE CONDITIONS MAY NECESSITATE SLIGHT DEVIATIONS IN ALIGNMENT, GRADE, AND/OR LOCATION OF NEW FACILITIES FROM THE PLAN ALIGNMENT. 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 UNDERTAKING ANY REVISION.
- 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.
- 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.
- THE CONTRACTOR SHALL MAINTAIN LIMITS OF CONSTRUCTION WITHIN THE PROPERTY BOUNDARIES OR EASEMENTS AS INDICATED.
- AN APPROVED SET OF PLANS SHALL BE KEPT ON THE SITE AT ALL TIMES.
- ALL CONSTRUCTION DEBRIS SHALL BE CONTAINERIZED 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.
- TEMPORARY TOILETS SHALL BE PROVIDED ONSITE AT A RATIO OF ONE TOILET PER 30 WORKERS DURING THE CONSTRUCTION PERIOD.
- GRADE STAKES SHALL BE SET FOR ROADWAY, CURB & GUTTER, CULVERTS, AND STORM SEWER.
- THIS LOT IS SERVED BY WVWA SYSTEMS. A PERMIT MAY BE REQUIRED BY WVWA.
- CONTRACTOR SHALL HAVE BENCHMARKS SET ONSITE BY A LICENSED LAND SURVEYOR PRIOR TO CONSTRUCTION.
- ONSITE UTILITY LINES ARE PRIVATELY OWNED AND MAINTAINED.
- THE EXISTING UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE RECORD INFORMATION. UTILITIES MAY EXIST WITHIN THE CONSTRUCTION AREA OF THESE PLANS THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND DEPTH OF ALL UTILITIES BEFORE COMMENCING WORK, AND FOR ANY DAMAGES WHICH OCCUR BY HIS/HER FAILURE TO LOCATE SUCH UTILITIES. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THESE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE CONTINUANCE OF SERVICE. CALL MISS UTILITY AT 1-800-552-7001 (TOLL FREE) 48 HOURS BEFORE DIGGING.
- ADJUST ALL EXISTING STRUCTURE TOPS AND UTILITY COVERS TO FINISHED GRADE. PROVIDE POSITIVE DRAINAGE IN AREAS OF EXISTING STRUCTURE TOPS AND UTILITY COVERS. THE TOPS OF ALL STRUCTURES AND UTILITY COVERS IN PAVED AREAS ARE TO MATCH PAVEMENT SLOPE.

GRADING NOTES:

- THE GRADING CONTRACTOR SHALL OBTAIN ALL NECESSARY LAND DISTURBING PERMITS FROM THE CITY OF ROANOKE PRIOR TO COMMENCING GRADING OPERATIONS.
- NO GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS PROJECT. NO WARRANTIES ARE MADE BY THE OWNER OR ENGINEER FOR ANY SUBSURFACE CONDITIONS ON THE PROPERTY. IT IS NOT KNOWN IF THE OWNER WILL ENGAGE A GEOTECHNICAL ENGINEER FOR TESTING AND INSPECTION.
- FILL SHALL BE PLACED ONLY ON FIRM SUBGRADES APPROVED BY THE GEOTECHNICAL ENGINEER. SUBGRADES SHALL BE SCARIFIED TO A DEPTH OF 4 INCHES PRIOR TO FILL PLACEMENT TO ASSURE BONDING BETWEEN THE TWO SOILS. ALL EMBANKMENT FILL SHALL BE COMPACTED TO A MINIMUM OF 95% MAXIMUM DRY DENSITY (ASTM D698). 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.
- CLEAR SITE WITHIN LIMITS OF DISTURBANCE OR TO THE PROPERTY LINE.
- 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. REMOVE TREES AND STUMPS IN AREAS TO RECEIVE FILL.
- BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND OPERATE WARNING LIGHTS AS RECOMMENDED BY AUTHORITIES HAVING JURISDICTION.
- CUT SURFACE UNDER PAVEMENTS TO COMPLY WITH CROSS SECTIONS, ELEVATIONS, AND GRADES AS INDICATED.
- EXCAVATE TRENCHES TO UNIFORM WIDTH CONFORMING TO VDOT STANDARD PB-1 FOR STORM DRAINAGE PIPING. BACKFILL TRENCHES WITH CONTROLLED FILL.
- 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.
- PROTECT EXCAVATED BOTTOMS OF ALL FOOTINGS AND TRENCHES AGAINST FREEZING WHEN THE TEMPERATURE IS LESS THAN 35° F (1° C).
- 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 AND TO PREVENT PONDING.
- 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.
- 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.
- UNDER SIDEWALKS, AND PAVEMENTS COMPACT EACH LAYER TO 95% MAXIMUM DRY DENSITY ASTM D698 (STANDARD PROCTOR).
- UNDER LAWN OR UNPAVED AREAS, COMPACT SUBGRADE AND EACH LAYER TO 85% MAXIMUM DRY DENSITY (STANDARD PROCTOR).
- 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. STANDARD SB-1.
- ALL ONSITE SURPLUS EXCAVATION, TOPSOIL AND ROOT MATTING SHALL BE DISPOSED OF IN A MANNER AND LOCATION ACCEPTABLE TO THE CITY OF ROANOKE.
- ADHERE TO THE STANDARDS IN THE CITY OF ROANOKE ROCK EXCAVATION AND RESTORATION STANDARDS FOR ALL WORK IN THE RIGHTS-OF-WAYS. CITY OF ROANOKE ENGINEERING 540-853-2953.

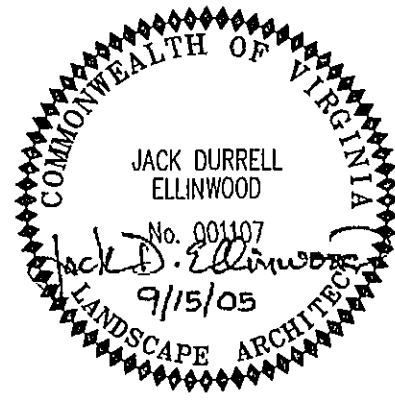
CONSTRUCTION NOTES

- SITE PREPARATION SHALL BE IN ACCORDANCE WITH THE CITY OF ROANOKE DESIGN STANDARDS.
- SLOPES STEEPER THAN 3 TO 1 (HORIZONTAL TO VERTICAL) SHALL BE BENCHED OR STEPPED PRIOR TO PLACING FILL ON THEM.
- ON-SITE FILL MATERIAL OR BORROW FILL MATERIAL MAY BE UTILIZED. FILL MATERIAL SOILS, IN GENERAL:
  - SHALL BE COMPACTABLE
  - SHALL BE WITHIN AN ACCEPTABLE RANGE OF MOISTURE CONTENT WHICH IS READILY CONTROLLED
  - SHALL NOT BE HIGHLY SUSCEPTIBLE TO VOLUME CHANGE (SHRINKAGE OR SWELL) OR SETTLEMENT
- FILL MATERIALS CONTAINING ROCKS LARGER THAN SIX (6) INCHES (15.2 CM) SHALL NOT BE USED. THE UPPERMOST TWO (2) FEET (61CM) SHALL NOT HAVE ANY ROCK LARGER THAN TWO (2) INCHES (5.1CM) IN DIAMETER.
- THE APPROVED FILL SHALL BE PLACED IN EIGHT (8) INCH (20 CM) LOOSE LIFTS. EACH LIFT SHALL BE SPREAD IN UNIFORM LAYERS. FILL SOIL SHALL BE UTILIZED ONLY WITHIN A MOISTURE RANGE OF +/- 5% OF THE OPTIMUM MOISTURE CONTENT. COMPACTION OF THE FILL SHALL BE PERFORMED WITH APPROVED EQUIPMENT. COMPACTION OF THE LAYERS SHALL BE CONTINUOUS AND UNIFORM.
- EMBANKMENT MATERIAL IN FILL AREAS SHALL BE PLACED IN LIFTS NOT EXCEEDING EIGHT (8) INCHES AND SHALL BE COMPACTED TO A MINIMUM 95% DENSITY IN ACCORDANCE WITH SECTION 303 OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS.
- FIELD DENSITY TESTS ARE TO BE CONDUCTED BY AN INDEPENDENT SOILS TESTING LABORATORY UNDER THE DIRECTION OF A QUALIFIED GEOTECHNICAL ENGINEER. THE RESULTS OF THESE TESTS SHALL BE SUBMITTED TO THE CITY OF ROANOKE WITH AS-BUILT PLANS AS A CONDITION OF ACCEPTANCE OF THE FACILITY BY THE CITY. FIELD DENSITY TESTS, AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED PERIODICALLY TO DETERMINE THE DEGREE OF COMPACTION. ANY AREAS FAILING TO MEET THE ABOVE REQUIREMENTS SHALL BE REWORKED AND/OR RECOMPACTIONED UNTIL THE REQUIRED DEGREE OF COMPACTION IS ACHIEVED. OWNER SHALL PROVIDE ALL REQUIRED TESTING. CONTRACTOR SHALL COORDINATE ALL TESTING WITH OWNER AND ENGINEER.
- ALL DISTURBED AREAS SHALL BE COVERED WITH FOUR (4) INCHES OF TOPSOIL AND SEED.



ENGINEERING CONCEPTS, INC.

3433 BRAMBLETON AVENUE, SUITE 200B  
ROANOKE, VIRGINIA 24018  
540.776.5715 FAX: 540.776.8543



No.	Revision	By	Appd.	Date	Drawn
△	REV / COMMENTS OF 9-6-05	DRB	JDE	9/15/05	DRB
					Designed DRB/JDE
					Checked JDE
					Approved JDE

WESTERN VIRGINIA WATER AUTHORITY  
LOWER PARKING LOT EXPANSION

NOTES & OVERALL PLAN  
ROANOKE, VIRGINIA

WWW.ID# 6L6GUJ

SCALE: 1"=100'

AUGUST 18, 2005

PROJECT: 05052

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