

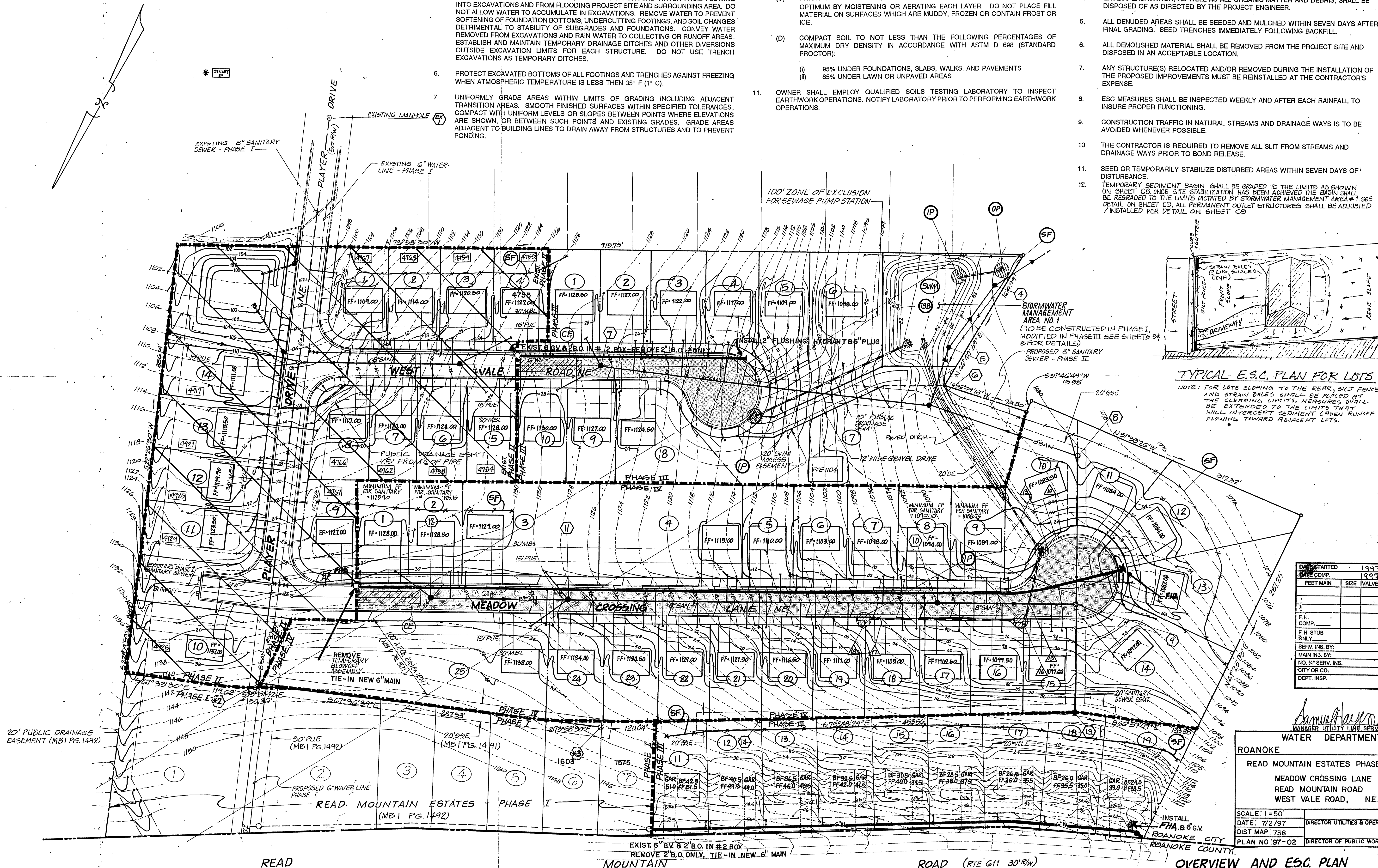
- CONSTRUCTION SEQUENCE**
1. INSTALL CONSTRUCTION ENTRANCE AS FIRST STEP IN CONSTRUCTION.
  2. CONSTRUCT STORMWATER MANAGEMENT AREAS AS SECOND STEP IN CONSTRUCTION.
  3. INSTALL ESC MEASURES AS WORK PROGRESSES TO EACH MEASURE.

**GRADING NOTES**

1. REMOVE TREES, SHRUBS, GRASS, AND OTHER VEGETATION, IMPROVEMENTS OR OBSTRUCTIONS AS REQUIRED TO PERMIT INSTALLATION OF NEW CONSTRUCTION. 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.
2. BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND OPERATE WARNING LIGHTS AS RECOMMENDED BY AUTHORITIES HAVING JURISDICTION.
3. CUT SURFACE UNDER PAVEMENTS TO COMPLY WITH CROSS SECTIONS, ELEVATIONS, AND GRADES AS INDICATED.
4. 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.
5. 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.
6. PROTECT EXCAVATED BOTTOMS OF ALL FOOTINGS AND TRENCHES AGAINST FREEZING WHEN ATMOSPHERIC TEMPERATURE IS LESS THAN 35° F (1° C).
7. 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.
8. 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.
9. 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.
10. PLACE ALL FILL AND BACKFILL AS CONTROLLED FILL AS FOLLOWS:
  - (A) ESTABLISH SUITABLE SUBGRADE CONDITIONS PRIOR TO PLACING FILL BY PROOFROLLING, UNDERCUTTING AND COMPACTING AS NECESSARY.
  - (B) PLACE FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" FOR HAND TAMPERS.
  - (C) PRIOR TO COMPACTION, PROVIDE MOISTURE CONTENT TO WITHIN 3% OF OPTIMUM BY MOISTENING OR AERATING EACH LAYER. DO NOT PLACE FILL MATERIAL ON SURFACES WHICH ARE MUDDY, FROZEN OR CONTAIN FROST OR ICE.
  - (D) COMPACT SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D 698 (STANDARD PROCTOR):
    - (i) 95% UNDER FOUNDATIONS, SLABS, WALKS, AND PAVEMENTS
    - (ii) 85% UNDER LAWN OR UNPAVED AREAS
11. OWNER SHALL EMPLOY QUALIFIED SOILS TESTING LABORATORY TO INSPECT EARTHWORK OPERATIONS. NOTIFY LABORATORY PRIOR TO PERFORMING EARTHWORK OPERATIONS.

**EROSION AND SEDIMENT CONTROL NOTES**

1. ALL CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS, INCLUDING THE STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION. REFER TO THIS HANDBOOK FOR DETAILS AND SPECIFICATIONS OF EROSION CONTROL DEVICES.
2. THE EROSION AND SEDIMENT CONTROL NARRATIVE SHALL BE ADHERED TO AS PART OF THIS CONTRACT. EROSION CONTROL DEVICES SHALL BE INSTALLED AS PER THE NARRATIVE/PLAN.
3. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER WHEN THE LOCAL GOVERNING OFFICIAL HAS INSPECTED AND APPROVED ALL IN-PLACE EROSION AND SEDIMENT CONTROL DEVICES, REQUIRED BY LOCAL ORDINANCES TO BE IN PLACE PRIOR TO LAND DISTURBANCE.
4. EXCESS EXCAVATION, AS WELL AS ALL ORGANIC MATTER AND DEBRIS, SHALL BE DISPOSED OF AS DIRECTED BY THE PROJECT ENGINEER.
5. ALL DENUDE AREAS SHALL BE SEEDING AND MULCHED WITHIN SEVEN DAYS AFTER FINAL GRADING. SEED TRENCHES IMMEDIATELY FOLLOWING BACKFILL.
6. ALL DEMOLISHED MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED IN AN ACCEPTABLE LOCATION.
7. ANY STRUCTURE(S) RELOCATED AND/OR REMOVED DURING THE INSTALLATION OF THE PROPOSED IMPROVEMENTS MUST BE REINSTALLED AT THE CONTRACTOR'S EXPENSE.
8. ESC MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL TO INSURE PROPER FUNCTIONING.
9. CONSTRUCTION TRAFFIC IN NATURAL STREAMS AND DRAINAGE WAYS IS TO BE AVOIDED WHENEVER POSSIBLE.
10. THE CONTRACTOR IS REQUIRED TO REMOVE ALL SLIT FROM STREAMS AND DRAINAGE WAYS PRIOR TO BOND RELEASE.
11. SEED OR TEMPORARILY STABILIZE DISTURBED AREAS WITHIN SEVEN DAYS OF DISTURBANCE.
12. TEMPORARY SEDIMENT BASIN SHALL BE GRADED TO THE LIMITS AS SHOWN ON SHEET C5 AND SITE STABILIZATION HAS BEEN ACHIEVED THE BASIN SHALL BE REGRADED TO THE LIMITS DICTATED BY STORMWATER MANAGEMENT AREA #1. SEE DETAIL ON SHEET C3. ALL PERMANENT OUTLET STRUCTURES SHALL BE ADJUSTED / INSTALLED PER DETAIL ON SHEET C3.



**TYPICAL E.S.C. PLAN FOR LOTS**

NOTE: FOR LOTS SLOPING TO THE REAR, SILT FENCE AND STRAIN DILES SHALL BE PLACED AT THE REAR LIMITS. MEASURES SHALL BE EXTENDED TO THE LIMITS THAT WILL INTERCEPT SEDIMENT LOSEN RUNOFF FLOWING TOWARD ADJACENT LOTS.

DATE STARTED	1997
DATE COMP.	1997
FEET MAIN	SIZE VALVE/VAULT BOX
F.H. COMP.	
F.H. STUB ONLY	
SERV. INS. BY:	
MAIN INS. BY:	
NO. 1/2 SERV. INS.	
CITY OR CO.	
DEPT. INSP.	

**ROANOKE WATER DEPARTMENT**

**READ MOUNTAIN ESTATES PHASES I, II, III, & IV**

**MEADOW CROSSING LANE**

**READ MOUNTAIN ROAD**

**WEST VALE ROAD, NE.**

SCALE: 1"=50'

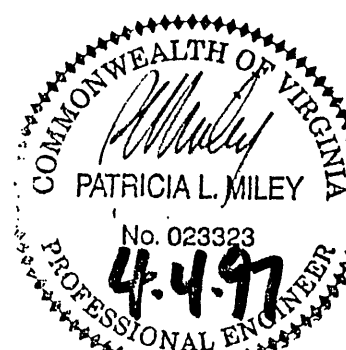
DATE: 7/2/97

DIST. MAP: 738

PLAN NO: 97-02

DIRECTOR UTILITIES & OPERATIONS DATE

DIRECTOR OF PUBLIC WORKS DATE



**BALZER AND ASSOCIATES INC.**

REFLECTING TOMORROW

PLANNERS ARCHITECTS  
ENGINEERS SURVEYORS

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FAX: 703/772-8050

501 Branchway Road  
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Richmond, Virginia 23236  
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FAX: 804/794-2635

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Suite 1  
Ashland, Virginia 23005  
Phone: 804/550-2588  
FAX: 804/550-2057

OVERVIEW & EROSION CONTROL PLAN  
PHASE I & II  
PHASE III & IV  
READ MOUNTAIN ESTATES  
CITY OF ROANOKE, VIRGINIA

DRAWN BY: [Signature]

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

DATE: APRIL 4, 1997

REVISIONS

1. 2-20-97

6-18-97

SCALE: AS SHOWN

SHEET NO.

**C2**

OF 12

JOB NO.

94027-3A