

# CITY OF CHARLOTTESVILLE NEIGHBORHOOD DEVELOPMENT SERVICES

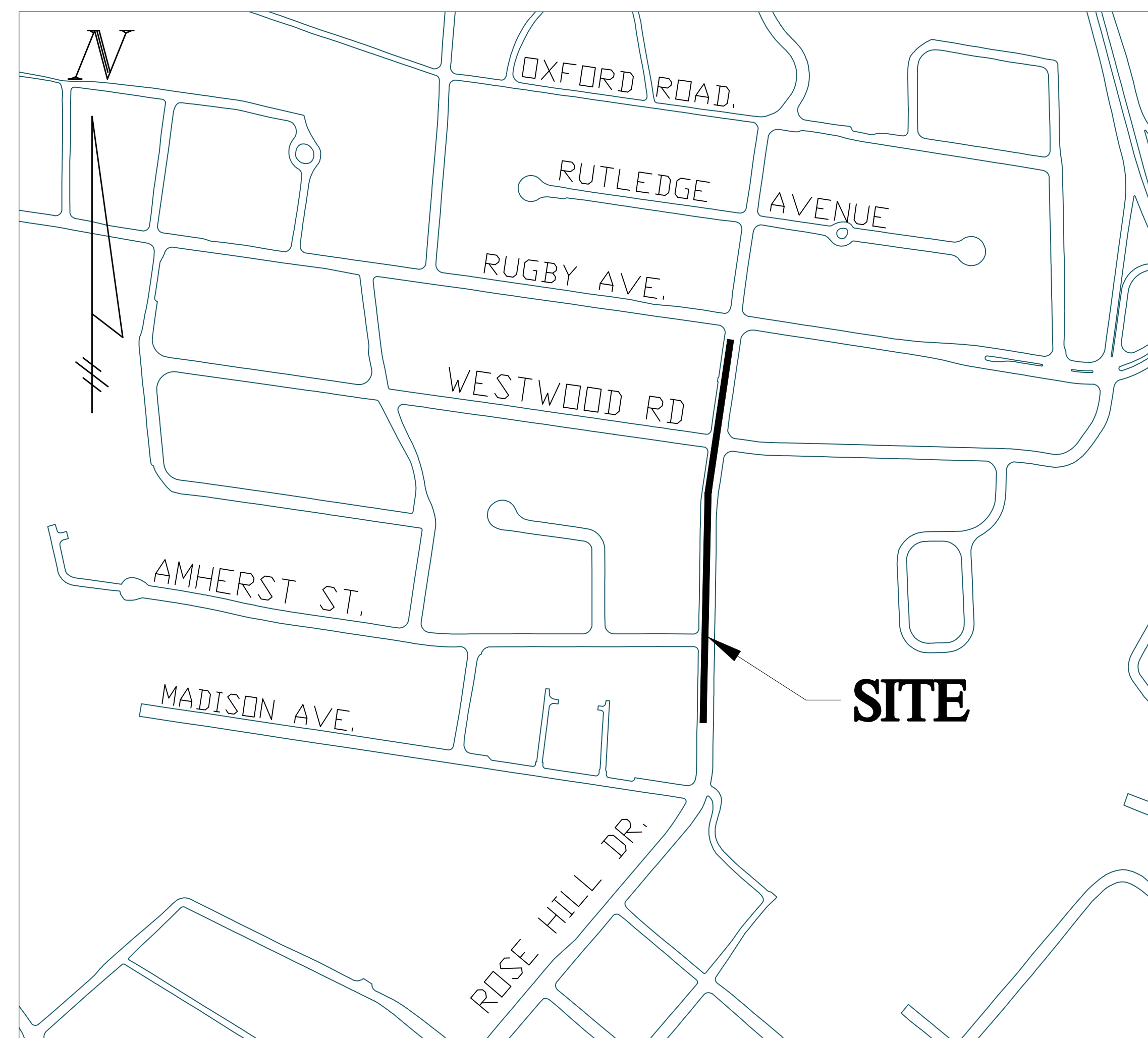


## ROSE HILL DRIVE SIDEWALK PROJECT VDOT REVENUE SHARING PROJECT (UPC 108757) FINAL PLANS MARCH 18, 2022

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE 2020 VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, STANDARDS AND SPECIFICATIONS PRESCRIBED BY THE CITY OF CHARLOTTESVILLE STANDARDS AND DESIGN MANUAL, 2016 ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

APPROVED FOR CONSTRUCTION	
DATE	LOCAL PROGRAM ADMINISTRATOR

APPROVED FOR CONSTRUCTION	
DATE	CITY ENGINEER      DEPT. OF PUBLIC WORKS



VICINITY MAP  
SCALE: 1" = 300'

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OWNER / DEVELOPER  
CITY OF CHARLOTTESVILLE  
NEIGHBORHOOD DEVELOPMENT SERVICES  
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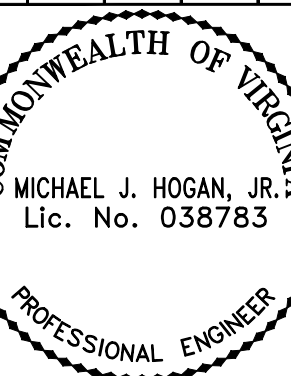
PLAN REVISIONS -

SHEET  
1 OF 13

SCALE  
N.T.S.

ROSE HILL DRIVE  
SIDEWALK PROJECT  
CHARLOTTESVILLE, VIRGINIA  
COVER SHEET

DATE: 3/18/2022  
ENGINEER: NFE  
CHECKED: MUH  
CAD: NFE  
JOB#: 17018-02



2100 EAST CARY STREET, SUITE 309  
RICHMOND, VIRGINIA 23223  
(P) 804 782-1903 (F) 804 782-2142



**GENERAL NOTES**

**1. AFFECTED PROPERTY OWNERS MEETINGS**

THE CONTRACTOR SHALL MEET TO DISCUSS ACTIVITIES WITH ALL AFFECTED OWNERS BEFORE START OF ANY WORK ON THE PROJECT. THE MEETINGS SHALL INCLUDE THE CITY INSPECTOR.

**2. EXISTING UTILITIES**

THE LOCATION OF EXISTING SEWER, WATER, POWER, GAS, TELEPHONE, AND OTHER UTILITIES AND STRUCTURES WHICH ARE LOCATED ACROSS, UNDERNEATH, ALONG AND WITHIN THE LIMITS OF THE PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS AND WHERE SHOWN ARE ONLY APPROXIMATELY CORRECT. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UNDERGROUND PROTECTION CENTER ("MISS UTILITY") AT 1-800-552-7001 AND, AT HIS OWN COST, VERIFY THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION. HE SHALL NOTIFY THE ENGINEER IMMEDIATELY IF THERE APPEARS TO BE A CONSTRUCTION CONFLICT OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLAN. THE CONTRACTOR SHALL BE LIABLE FOR ALL DAMAGE DONE TO ANY STRUCTURES OR PROPERTY THROUGH HIS CARELESSNESS OR NEGLIGENCE. ANY DRAINAGE STAKES, HUBS, ETC. DESTROYED WILL BE REPLACED AT THE CONTRACTORS EXPENSE.

THE CONTRACTOR SHALL NOTIFY THE APPLICABLE GOVERNMENTAL PUBLIC WORKS AND PUBLIC UTILITY DEPARTMENT AT LEAST 24 HOURS PRIOR TO START OF WORK ON THE PROJECT.

**3. MATERIALS AND WORKMANSHIP**

ALL MATERIALS AND WORKMANSHIP SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF:

- (A) VIRGINIA DEPARTMENT OF TRANSPORTATION "ROAD DESIGN MANUAL" AND "ROAD AND BRIDGE SPECIFICATIONS".
- (B) APPLICABLE CITY OF CHARLOTTESVILLE ORDINANCES AND REGULATIONS
- (C) THE LATEST RULES AND REGULATIONS GOVERNING CONSTRUCTION DEMOLITION AND EXCAVATION AS ADOPTED BY THE SAFETY CODES COMMISSION OF THE COMMONWEALTH OF VIRGINIA AND OSHA.

**4. DEVIATION FROM PLANS**

NO DEVIATION FROM THESE PLANS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE OWNER, ENGINEER AND AFFECTED GOVERNMENTAL AGENCIES.

**5. CLEARING AND GRUBBING**

A. ALL GROWTH OF TREES, OTHER VEGETATION AND OBJECTIONABLE DEBRIS SHALL BE CLEARED AND GRUBBED FROM THE PROPOSED PAVED AND BUILDING AREAS AS WELL AS AREAS INDICATED TO BE GRADED ON THE PLANS.

B. ALL CLEARING AND GRUBBING WITHIN THE UTILITY EASEMENTS AND SPECIAL FILL AREAS SHALL BE TO THE LENGTH AND WIDTH NECESSARY TO CONSTRUCT IMPROVEMENTS SHOWN ON THE PLANS.

C. ALL TREES, BRANCHES, VEGETATION AND DEBRIS SHALL BE DISPOSED OF IN A LEGAL MANNER ACCEPTABLE TO THE OWNER AND ENGINEER. BURNING PERMITS WILL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE.

D. ALL TREES AND VEGETATION WHICH OBSTRUCT SIGHT DISTANCES AT ROAD INTERSECTIONS SHALL BE REMOVED SO AS TO OBTAIN THE MAXIMUM SIGHT DISTANCE AT EACH INTERSECTION.

**6. TOPSOIL STRIPPING**

CONTRACTOR SHALL REMOVE TOPSOIL TO ITS ENTIRE DEPTH FROM ALL AREAS TO BE GRADED AND OR FILLED. HE SHALL STOCKPILE OR REMOVE THE TOPSOIL FROM THE SITE AT OWNERS DIRECTION.

**7. GRADING**

A. ROADWAYS, EASEMENTS, AND SPECIAL FILL AREAS TO BE GRADED AND COMPACTED TO THE FINISHED SUBGRADE, OR GRADES AS SHOWN ON THE PLANS. CONTRACTOR OR OWNER SHALL HAVE REPRESENTATIVE SUBGRADE CBR TEST RUN AND SHALL REPORT TO THE OWNER, ENGINEER, AND ANY AFFECTED GOVERNMENTAL AGENCIES ANY TEST WHICH SHOW A CBR OF LESS THAN 10. IN SUCH CASE ROAD PAVEMENT DESIGN MAY HAVE TO BE RE-DESIGNED TO MEET WITH THE ACTUAL SOIL CONDITIONS ENCOUNTERED.

B. IF UNSUITABLE MATERIAL IS ENCOUNTERED WITHIN THE ROADWAY, PARKING AREA OR ANY OTHER AREA, IT SHALL BE THOROUGHLY AND CAREFULLY REMOVED FROM THE ENTIRE PROPOSED PAVED AREA OR FILL AREA AND REPLACED WITH SELECT BACKFILL WHICH IS SUITABLE FOR ROADWAY (OR BUILDING SITE) CONSTRUCTION AS PER "VDOT" REQUIREMENTS AND ANY SPECIAL REQUIREMENTS OF THE CITY OWNER, ENGINEER, AND ANY AFFECTED GOVERNMENTAL AGENCIES.

C. FILL AND BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STD. PROCTOR DENSITY AT OPTIMUM MOISTURE +2% UNLESS SPECIFIED OTHERWISE ON THE PLANS.

D. ALL GRADING OPERATIONS SHALL BE DONE IN SUCH A MANNER SO AS TO PROVIDE POSITIVE DRAINAGE AT ALL TIMES.

E. AT ALL ROAD INTERSECTIONS IN A CUT SECTION, THE BACK SLOPES AND VEGETATION SHALL BE CUT BACK WITH AT LEAST 3:1 BACK SLOPES SO AS TO PROVIDE THE BEST POSSIBLE SIGHT DISTANCE.

F. STANDARD SPRING BOXES (SB-1) AND UNDERDRAIN SYSTEM (UD-1 UD-2) WILL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS AND WHEREVER FIELD CONDITIONS WARRANT.

**8. DRAINAGE STRUCTURES AND MINOR EXCAVATION**

A. ALL PIPE CULVERTS AND STORM SEWER SYSTEMS SHALL HAVE A MINIMUM COVER OF 1 FOOT AND BE MADE OF THE MATERIAL SPECIFIED ON THE PLANS. IF THIS PROJECT IS LOCATED IN THE CITY OF CHARLOTTESVILLE, ALL STORM SEWER SHALL HAVE A MINIMUM 4" INCHES AGGREGATE BEDDING MATERIAL.

B. BACKFILL FOR ALL UTILITIES WITHIN PROPOSED STREETS SHALL BE PLACED GENERALLY IN ACCORDANCE WITH CITY OF CHARLOTTESVILLE UTILITY SPECIFICATIONS AND THE FOLLOWING CRITERIA:

- 1) NO TRENCH SHALL BE BACKFILLED UNTIL AUTHORIZED BY THE INSPECTOR OR OWNER OR HIS AUTHORIZED REPRESENTATIVE. MATERIALS USED FOR BACKFILL FROM THE TRENCH BOTTOM TO 12 INCHES ABOVE THE PIPE SHALL BE SELECT MATERIAL, FREE FROM FROST, LARGE CLODS, STONES, AND DEBRIS. IT SHALL BE THOROUGHLY AND CAREFULLY COMPACTED TO INSURE A SOUND BACKFILL AROUND AND OVER THE PIPE.
- 2) BACKFILL SHALL BE COMPACTED BY MECHANICAL TAMPING THROUGHOUT THE DEPTH OF THE TRENCH TO OBTAIN 95% DENSITY AT OPTIMUM MOISTURE+2%. THIS IS TO INSURE A SUITABLE SUBBASE ACCEPTABLE FOR PROPOSED STREETS AND PARKING AREAS.
- 3) IF IN THE OPINION OF THE OWNER, THE ENGINEER OR ANY AFFECTED GOVERNMENTAL AGENCY THE MATERIAL TAKEN FROM THE DITCH IS NOT SUITABLE FOR BACKFILL, IT SHALL BE REMOVED AND ACCEPTABLE MATERIAL USED FOR BACKFILLING SHALL BE OBTAINED.

C. TRENCHES SHALL BE EXCAVATED TO A MINIMUM OF 4 INCHES BELOW THE BOTTOM OF THE BARREL OF THE PIPE AND A BEDDING SHALL BE PROVIDED AND INSTALLED OF SELECT MATERIAL SUITABLE TO MEET VDOT PB-1 PIPE INSTALLATION REQUIREMENTS. TRENCHES SHALL NOT BE CUT OVER 16 INCHES WIDER THAN THE OUTSIDE DIAMETER OF THE PIPE UNLESS AN UNSUITABLE FOUNDATION MATERIAL IS ENCOUNTERED.

**9. BASE AND PAVEMENT ITEMS**

A. SUBGRADE MUST BE CHECKED BY AFFECTED GOVERNMENTAL OFFICIALS, AND OWNER FOR GRADE, TEMPLATE AND COMPACTION BEFORE BASE IS APPLIED.

B. BASE AND PAVEMENT MATERIAL SHALL MEET ALL "VDOT" SPECIFICATIONS AND SHALL BE APPLIED IN ACCORDANCE WITH THE CURRENT "VDOT" SPECIFICATIONS. ALL MATERIALS MUST BE TESTED AND APPROVED BY "VDOT" OR APPLICABLE GOVERNMENTAL AGENCY OFFICIALS PRIOR TO EMPLOYMENT.

C. PAVING OPERATIONS SHALL NOT BE STARTED BETWEEN NOVEMBER 15 AND APRIL 1 WITHOUT WRITTEN AUTHORIZATION OF CITY OF CHARLOTTESVILLE OFFICIALS AND THE OWNER.

D. WHEN USING PUG MILLED AGGREGATE BASE MATERIAL WHICH IS TESTED BY "VDOT" OFFICIALS AT THE PLANT, THE TEST WILL BE GOOD FOR 90 DAYS ONLY. ADDITIONAL "IN PLACE" TEST SHALL BE MADE AFTER 90 DAYS.

E. WHEN LOCAL BASE MATERIAL (TYPE II) IS PROPOSED FOR ROAD BASE, IT SHALL BE TESTED AND APPROVED BY "VDOT" OFFICIALS PRIOR TO BEING USED. OWNER AND AFFECTED GOVERNMENTAL OFFICIALS SHALL ALSO CHECK AND APPROVED LOCAL BASE MATERIALS FOR DEPTH, COMPACTION, AND CONSISTENCY ONCE IT HAS BEEN PLACED IN ROADWAYS.

10. ALL ENTRANCE PERMITS TO PUBLIC ROADS MUST BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE PRIOR TO CONSTRUCTION. ALL OTHER PERMITS NECESSARY TO UNDERTAKE THIS PROJECT MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (AT THE CONTRACTORS EXPENSE).

11. ELEVATIONS ON THE PLANS ARE TO DATUM ESTABLISHED BY THE N.G.S. OF THE N.O.A.A.
12. ALL CURB AND GUTTER AND STORM SEWER TO BE LOCATED IN ANY CHARLOTTESVILLE RIGHT-OF-WAY SHALL BE STAKED BY THE CITY, UPON WRITTEN REQUEST BEING MADE TO THE CITY OF CHARLOTTESVILLE ENGINEER.
13. A LONGITUDINAL DRAINLET (ON GRADE) SHALL BE POURED WITH THE THROAT ON THE SAME GRADE AS THE ADJOINING CURB AND GUTTER UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS.
14. ALL CONSTRUCTION STAKING WILL BE AT THE CONTRACTOR'S EXPENSE UTILIZING A VIRGINIA CERTIFIED PROFESSIONAL ENGINEER OR LAND SURVEYOR UNLESS AGREED UPON BY THE OWNER IN WRITING. COPIES OF ALL SITE WORK CUT SHEETS ARE TO BE FURNISHED TO ENGINEER FOR HIS REVIEW PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE LIABLE FOR ANY ADVERSE CONSEQUENCES IF CUT SHEETS ARE NOT PROVIDED TO ENGINEER FOR HIS REVIEW PRIOR TO CONSTRUCTION. COST OF THIS REVIEW TO BE BORNE BY CONTRACTOR.
15. ALL CONCRETE TO BE CITY OF CHARLOTTESVILLE MIX CLASS A 3500 CONC.
16. ACCESS TO PRIVATE PROPERTY FOR CONSTRUCTION PURPOSES WILL BE SECURED BY THE CITY OF CHARLOTTESVILLE.

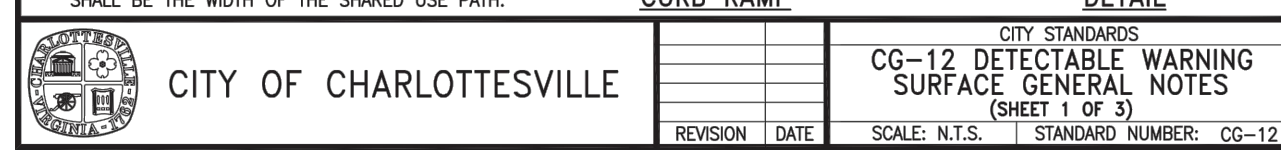
**STANDARD NOTES**

1. ALL CONSTRUCTION MATERIALS SHALL CONFORM WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPT. OF HIGHWAYS AND TRANSPORTATION, EXCEPT WHERE CITY OF CHARLOTTESVILLE STANDARDS ARE APPLICABLE.
2. ALL STORM SEWER SHALL BE ASTM, C-76, CLASS III, EXCEPT AS NOTED.
3. THE CONTRACTOR SHALL NOTIFY THE DEPT. OF PUBLIC UTILITIES PRIOR TO MAKING ANY ADJUSTMENTS TO THE WATER OR SEWERAGE SYSTEMS.
4. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST 48 HOURS PRIOR TO STARTING WORK ON THE PROJECT.
5. ALL STORM SEWER LOCATED WITHIN AN EASEMENT OR RIGHT OF WAY SHALL HAVE A MINIMUM OF 4" AGGREGATE BEDDING MATERIAL.
6. A PERMIT MUST BE OBTAINED FROM THE OFFICE OF THE CITY ENGINEER PRIOR TO DOING ANY WORK WITHIN EXISTING CITY RIGHT OF WAY.
7. ALL CURB AND GUTTER AND STORM SEWER LOCATED WITHIN EXISTING CITY RIGHT OF WAY SHALL BE STAKED/ COORDINATED BY THE CITY, UPON WRITTEN REQUEST BEING MADE TO THE CITY ENGINEER.
8. ALL CURB AND GUTTER SHALL BE VDOT STANDARD EXCEPT AS NOTED.
9. A D.I. ON GRADE SHALL BE POURED WITH THE THROAT ON THE SAME GRADE AS THE ADJOINING CURB AND GUTTER.
10. THE PAVEMENT DESIGN IN PUBLIC R/W IS SUBJECT TO CHANGE DUE TO SOIL CONDITIONS AT THE TIME OF CONSTRUCTION, AS DETERMINED BY THE CITY.
11. THE APPROVAL OF THIS PLAN DOES NOT ESTABLISH THE CURB AND GUTTER ELEVATIONS ALONG THE PUBLIC RIGHT OF WAY. THE ELEVATIONS/ LAYOUT WILL BE REVIEWED BY CITY INSPECTIONS.
12. ANY NECESSARY PAVEMENT WIDENING BETWEEN THE EXISTING PAVEMENT AND PROPOSED IMPROVEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
13. ALL UTILITY POLES WITHIN THE PUBLIC RIGHT OF WAY WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS TO THE RIGHT OF WAY, SUCH AS, CURB AND GUTTER, DRAINAGE ITEMS, OR PAVEMENT WIDENING, SHALL BE RELOCATED AT THE OWNER'S EXPENSE PRIOR TO STAKING OF ANY OF THE IMPROVEMENTS.
14. ADEQUATE SIGHT DISTANCE, AS REQUIRED BY THE CITY TRAFFIC ENGINEER, SHALL BE REQUIRED AT ALL INTERSECTIONS AND ON ALL ROADWAYS.
15. ALL CONSTRUCTION WORK AND PROPOSED SIDEWALK SHALL BE WITHIN CITY OF CHARLOTTESVILLE RIGHT-OF-WAY, OR AS DIRECTED BY THE CITY ENGINEER.

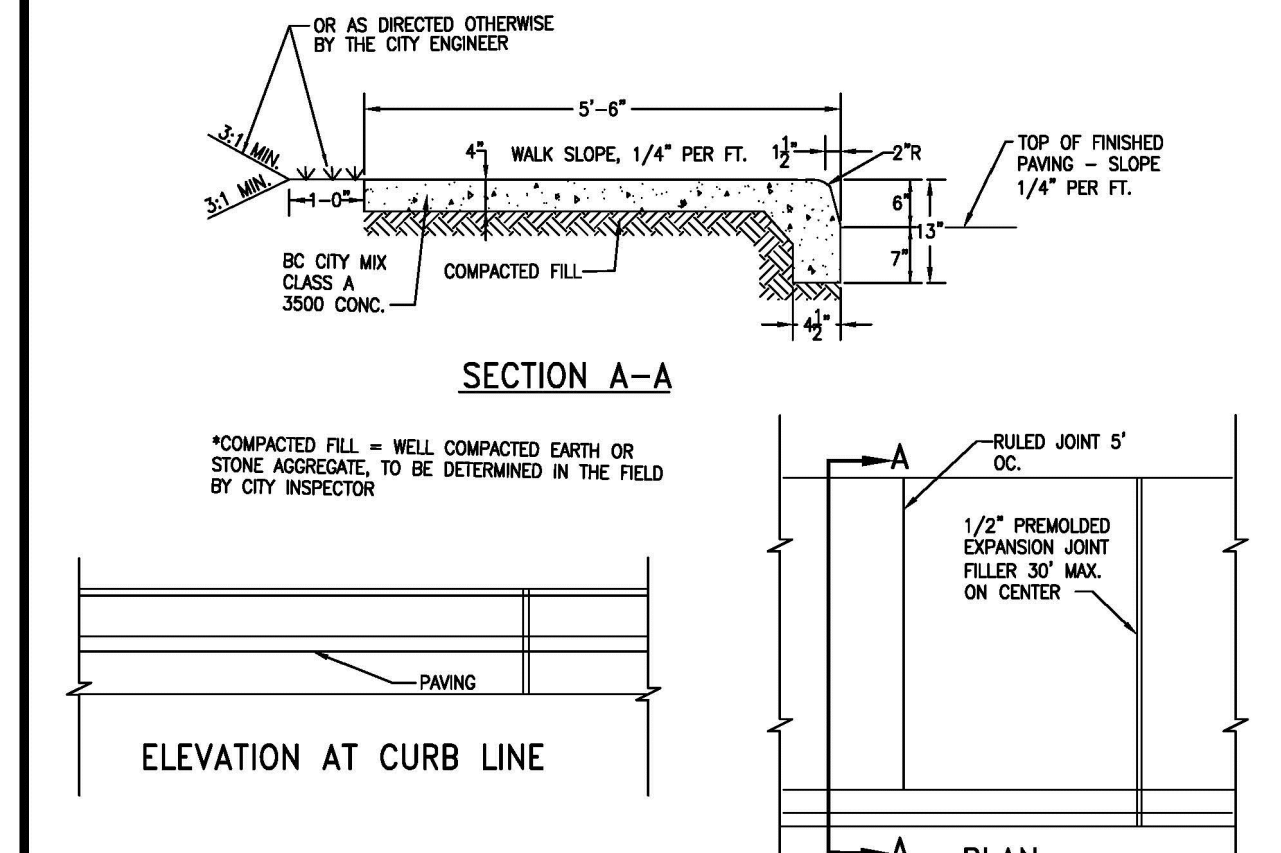
NOTE: CG-12 RAMPS SHALL BE PAID FOR AS EACH, COMPLETE IN PLACE TO INCLUDE DETECTABLE WARNING SURFACE, ALL SIDEWALK RAMPS AND LANDING AREAS, CURBS AND CURB TRANSITIONS, AND GRADING.

**GENERAL NOTES:**

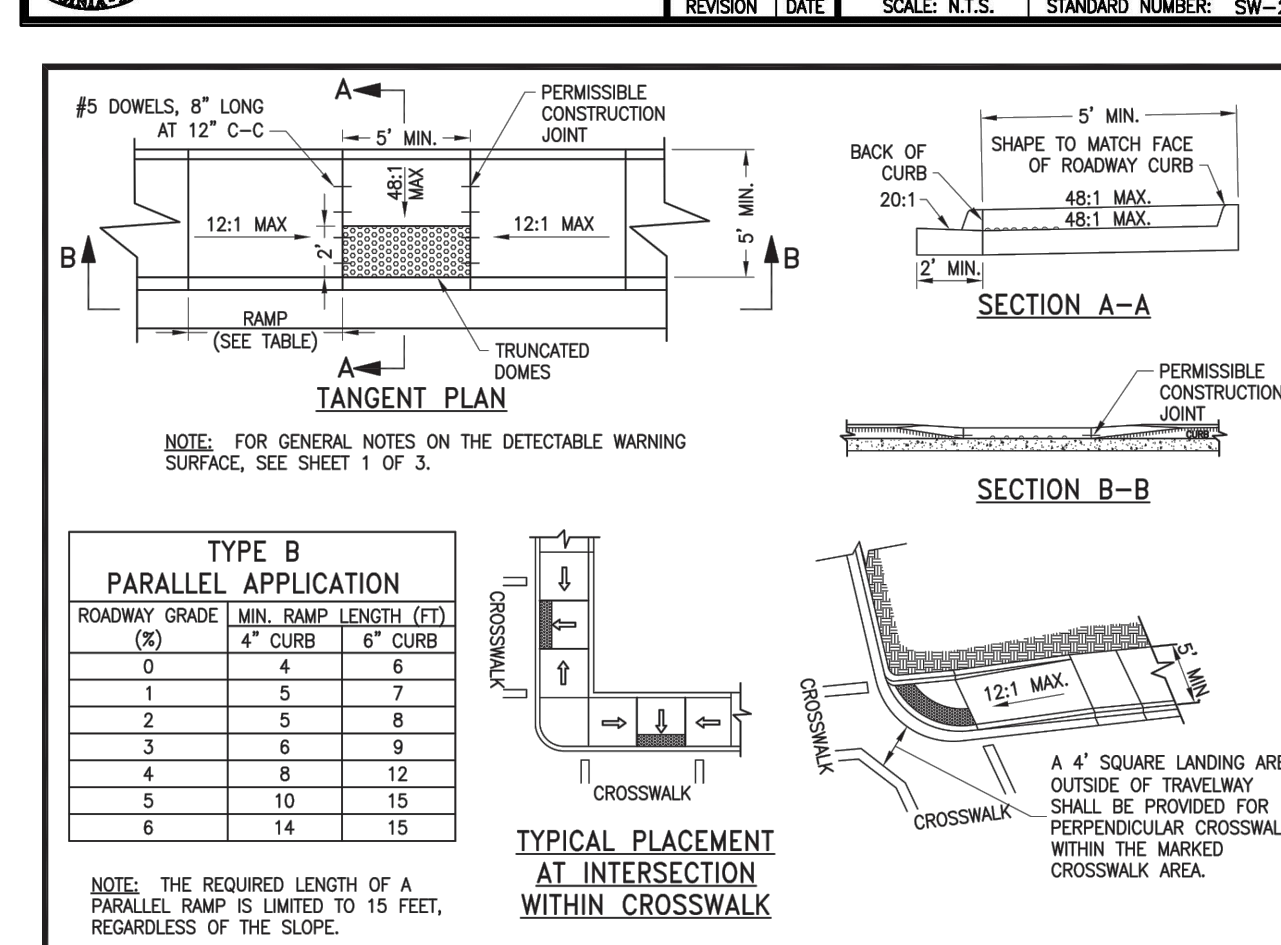
1. DETECTABLE WARNING TO BE PRE-FORMED PLASTIC INSERT WITH SLIP RESISTANT SURFACE COVERING THE FULL WIDTH OF THE RAMP FLOOR BY 2 FOOT IN LENGTH IN THE DIRECTION OF TRAVEL.
2. THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES. TRUNCATED DOMES TO BE STAMPED IN TOP SURFACE. THE COLOR OF THE DETECTABLE WARNING SURFACE SHALL BE YELLOW.
3. SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.
4. IF RAMP FLOOR IS PRECAST, HOLES MUST BE PROVIDED FOR DOWEL BARS SO THAT ADJOINING FLARED SIDES CAN BE CAST IN PLACE AFTER PLACEMENT OF PRECAST RAMP FLOOR. PRECAST CONCRETE SHALL BE CLASS A-4.
5. REQUIRED BARS ARE TO BE NO. 5 X 8" PLACED 1' CENTER TO CENTER ALONG BOTH SIDES OF THE RAMP FLOOR. MIN-DEPTH OF RAMP FLOOR: MINIMUM CONCRETE COVER 1 1/2".
6. RAMPS MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB OPENING IS PLACED WITHIN THE LIMITS OF THE CROSSWALK AND THAT THE SLOPE AT THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO THE CURB.
7. TYPICAL CONCRETE SIDEWALK IS 4" THICK. WHEN THE RAMP IS PLACED IN THE CURB RETURN RADIUS IT SHALL BE 7" THICK.
8. WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH.



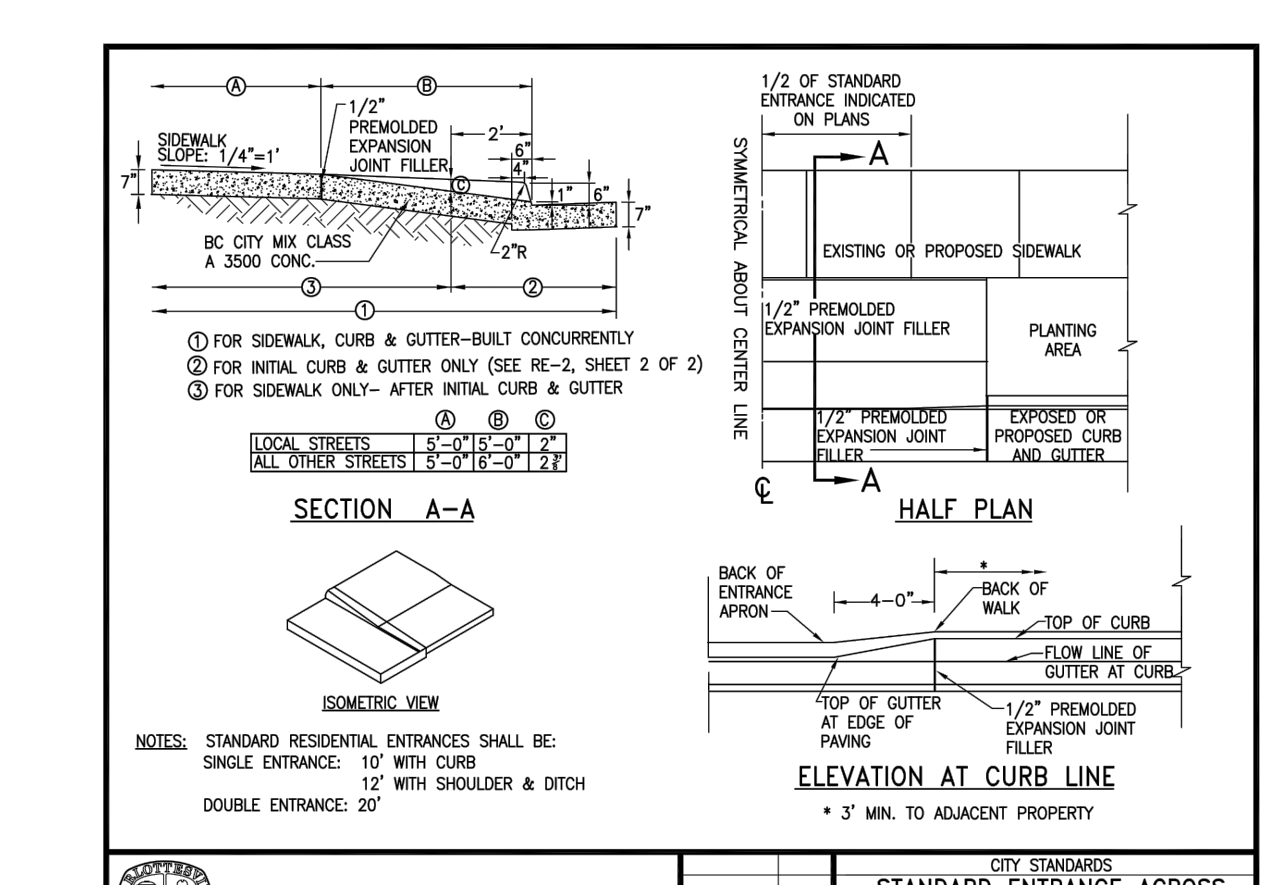
CITY STANDARDS  
CG-12 DETECTABLE WARNING SURFACE GENERAL NOTES (SHEET 1 OF 3)



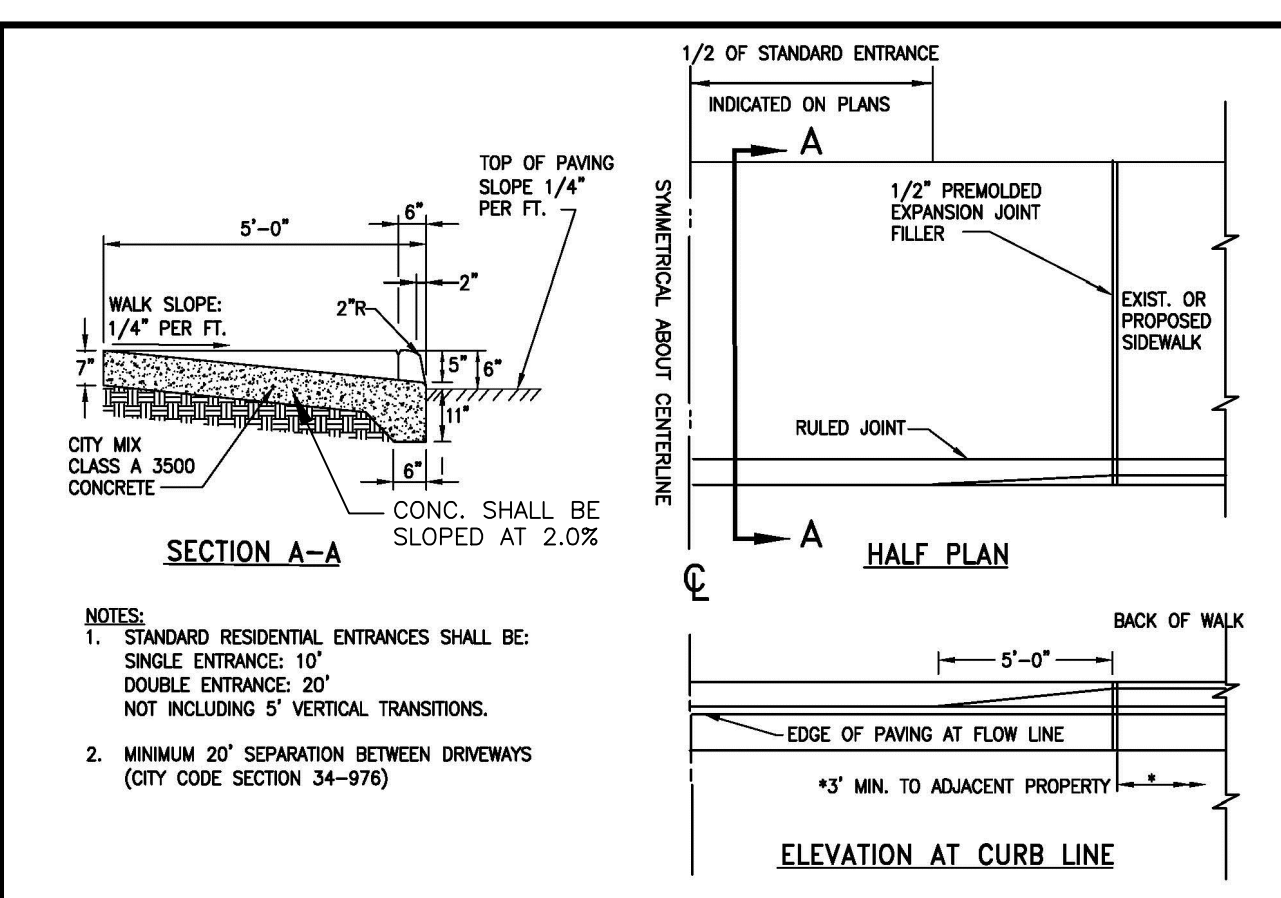
CITY STANDARDS  
STANDARD SIDEWALK MONOLITHIC WITH CURB (SHEET 1 OF 3)



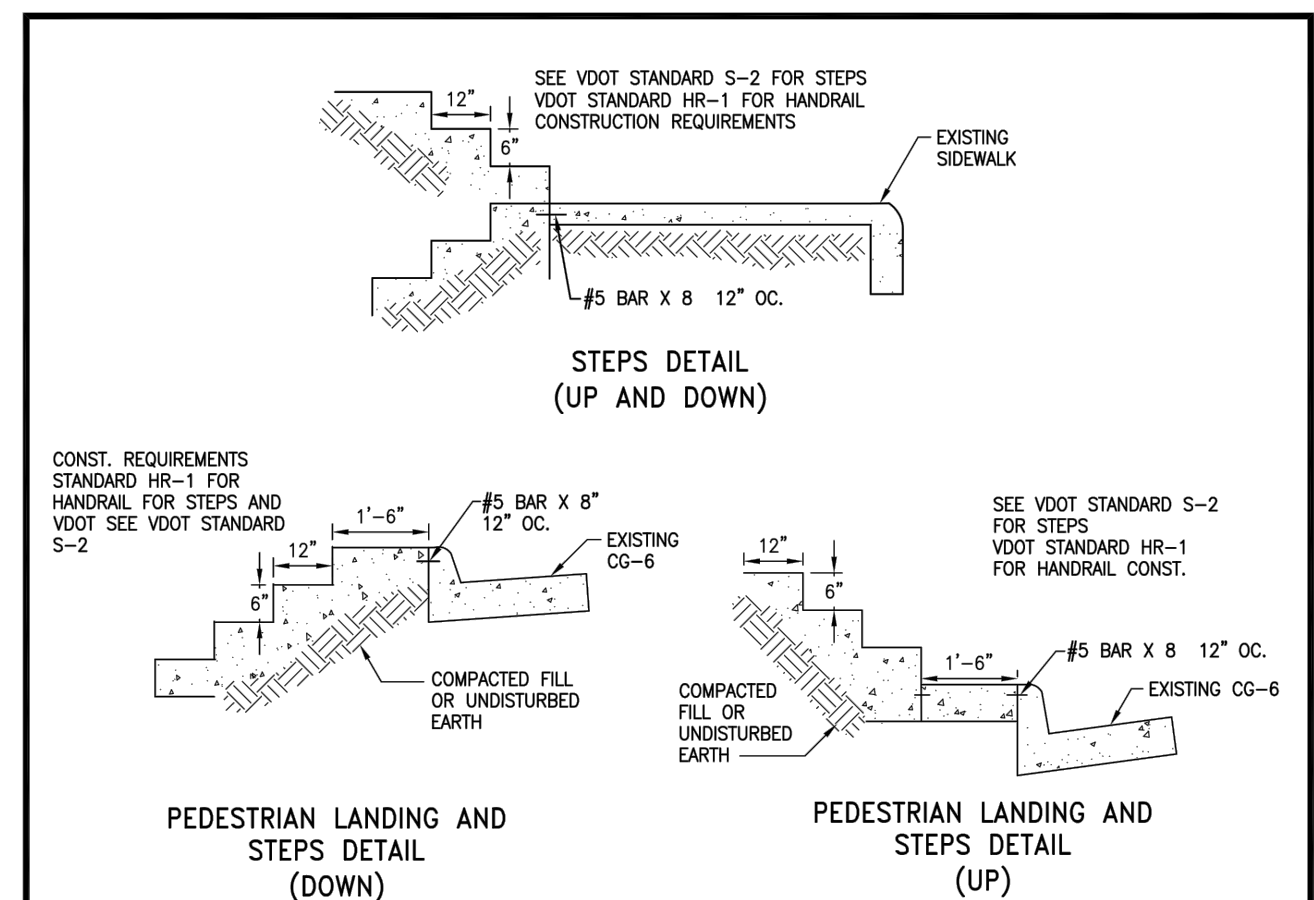
CITY STANDARDS  
CG-12 DETECTABLE WARNING SURFACE TYPE B (SHEET 2 OF 3)



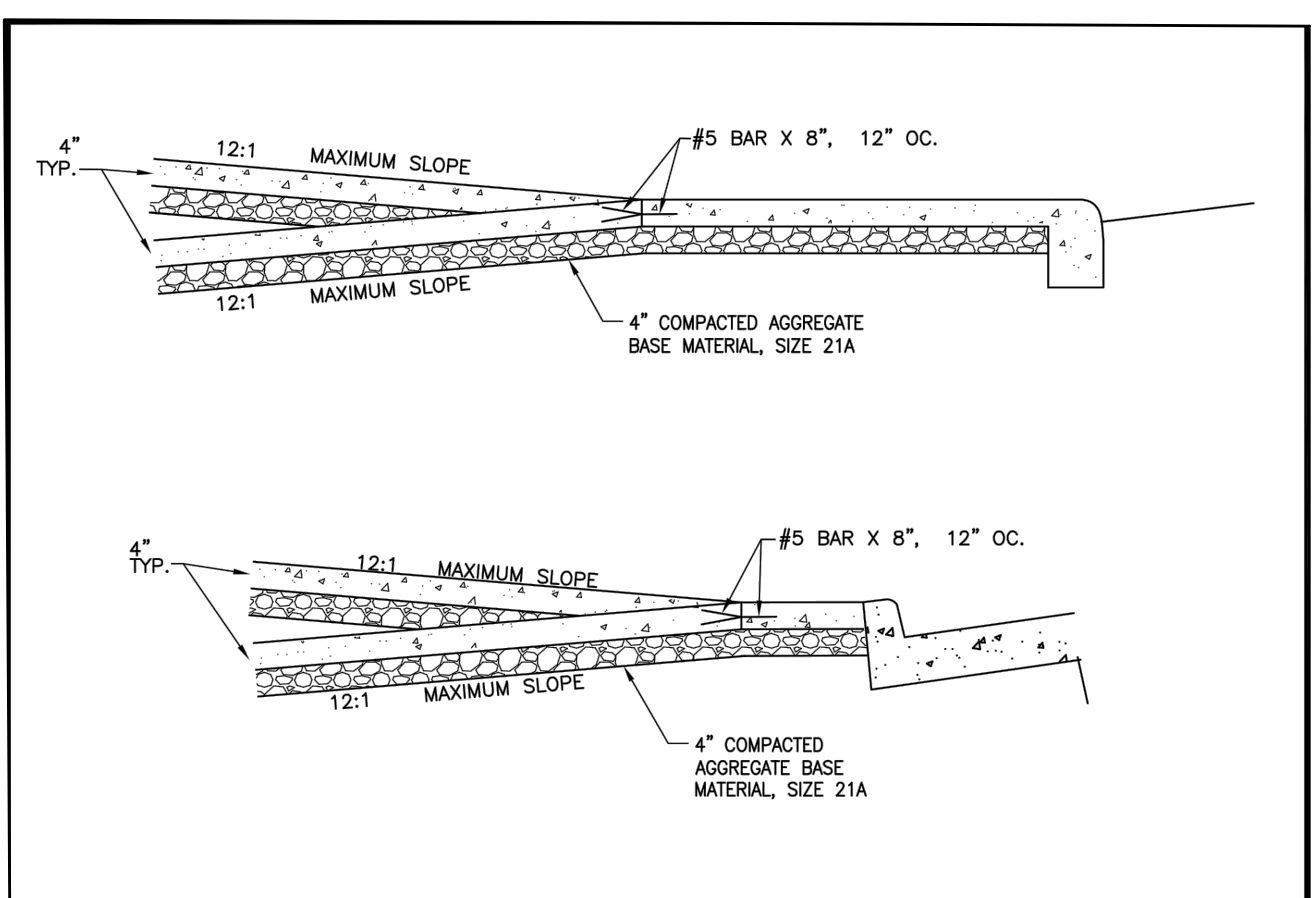
CITY STANDARDS  
STANDARD ENTRANCE WITH 5' MONOLITHIC SIDEWALK & CURB (SHEET 1 OF 3)



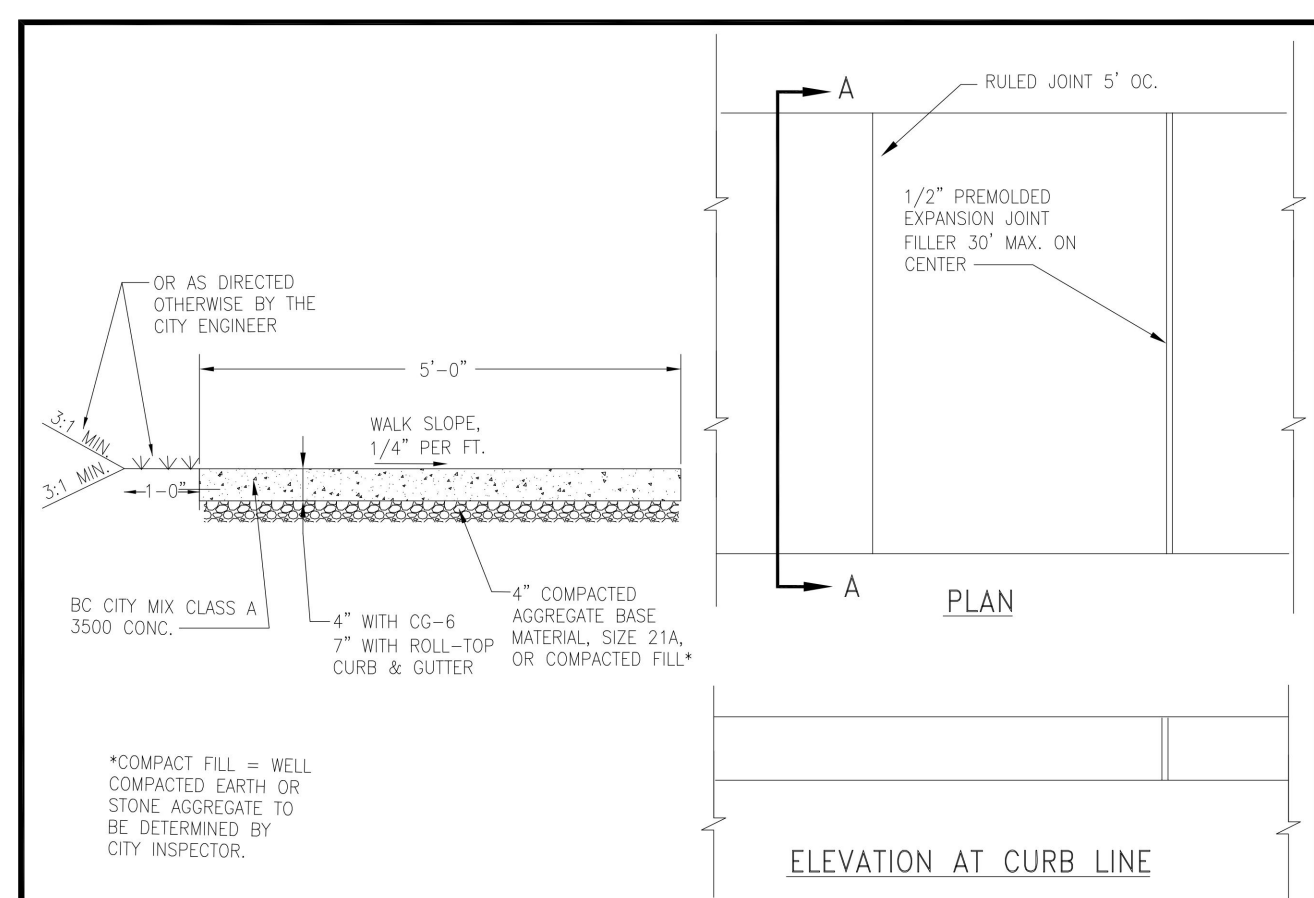
CITY STANDARDS  
STANDARD ENTRANCE WITH 5' MONOLITHIC SIDEWALK & CURB (SHEET 1 OF 3)



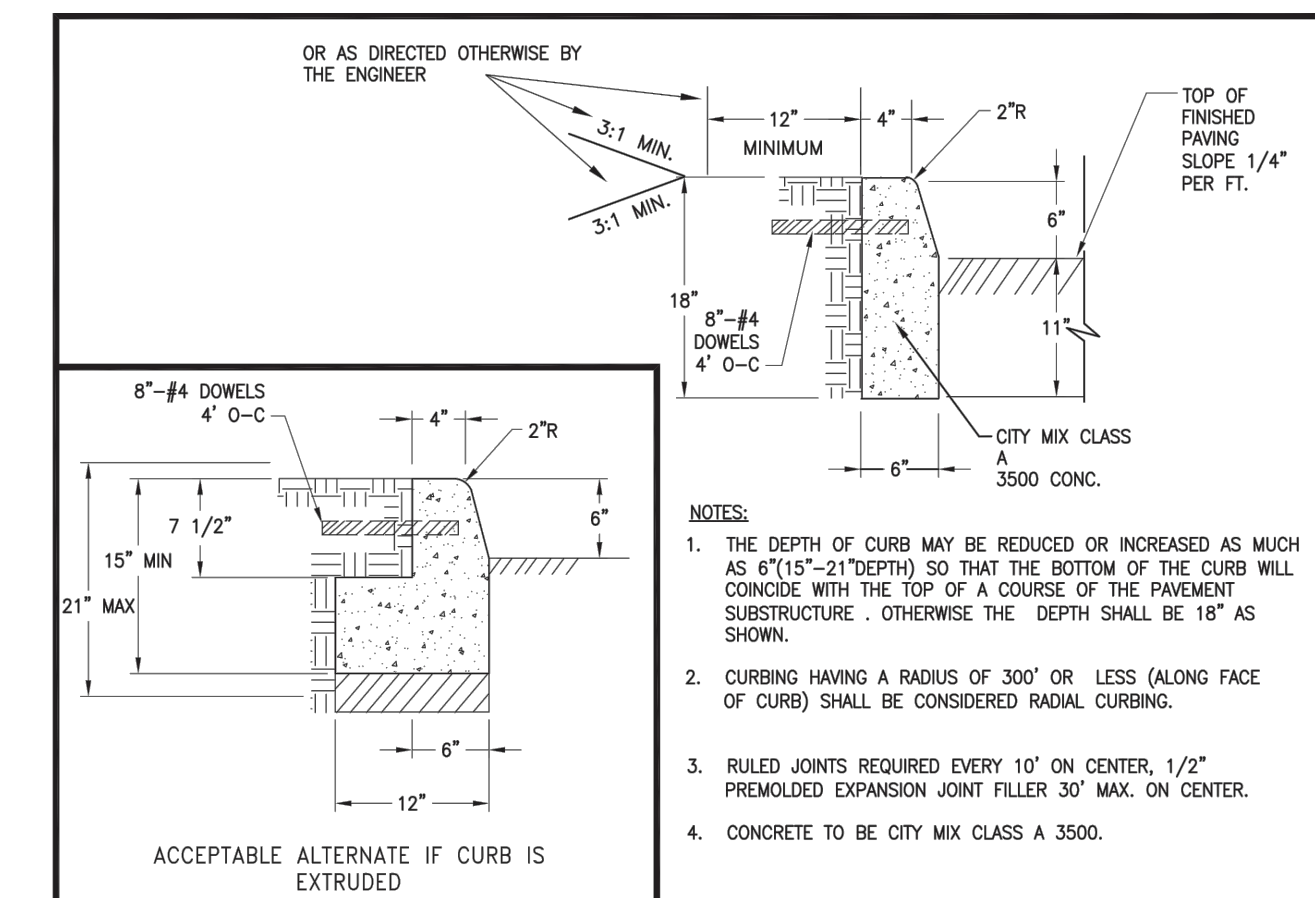
CITY STANDARDS  
STEP CONNECTIONS (SHEET 1 OF 1)



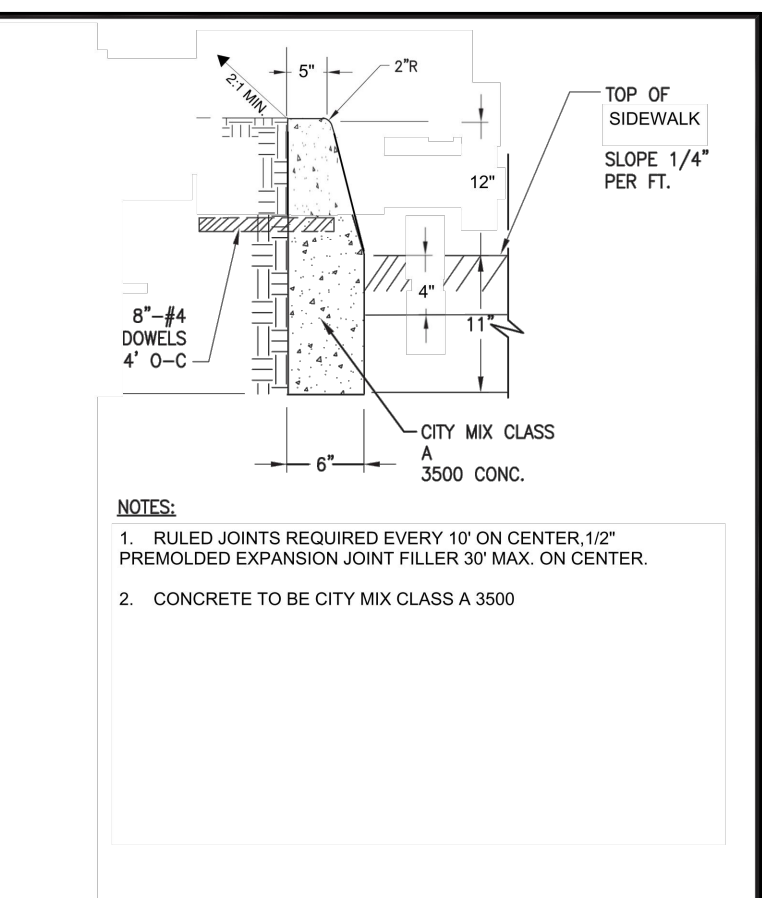
CITY STANDARDS  
ENTRANCE WALK ADJUSTMENTS (SHEET 1 OF 1)



CITY STANDARDS  
STANDARD SIDEWALK WITHOUT CURB (SHEET 1 OF 1)



CITY STANDARDS  
STANDARD CURBING (SHEET 1 OF 1)



CITY STANDARDS  
MODIFIED 12" TALL CURBING (SHEET 1 OF 1)

DATE: 3/18/2022  
ENGINEER: NFE  
CHECKED: MJH  
CAD: NFE  
JOB#: 17018-02

COMMONWEALTH OF VIRGINIA  
MICHAEL J. HOGAN, JR.  
Lic. No. 038783  
PROFESSIONAL ENGINEER

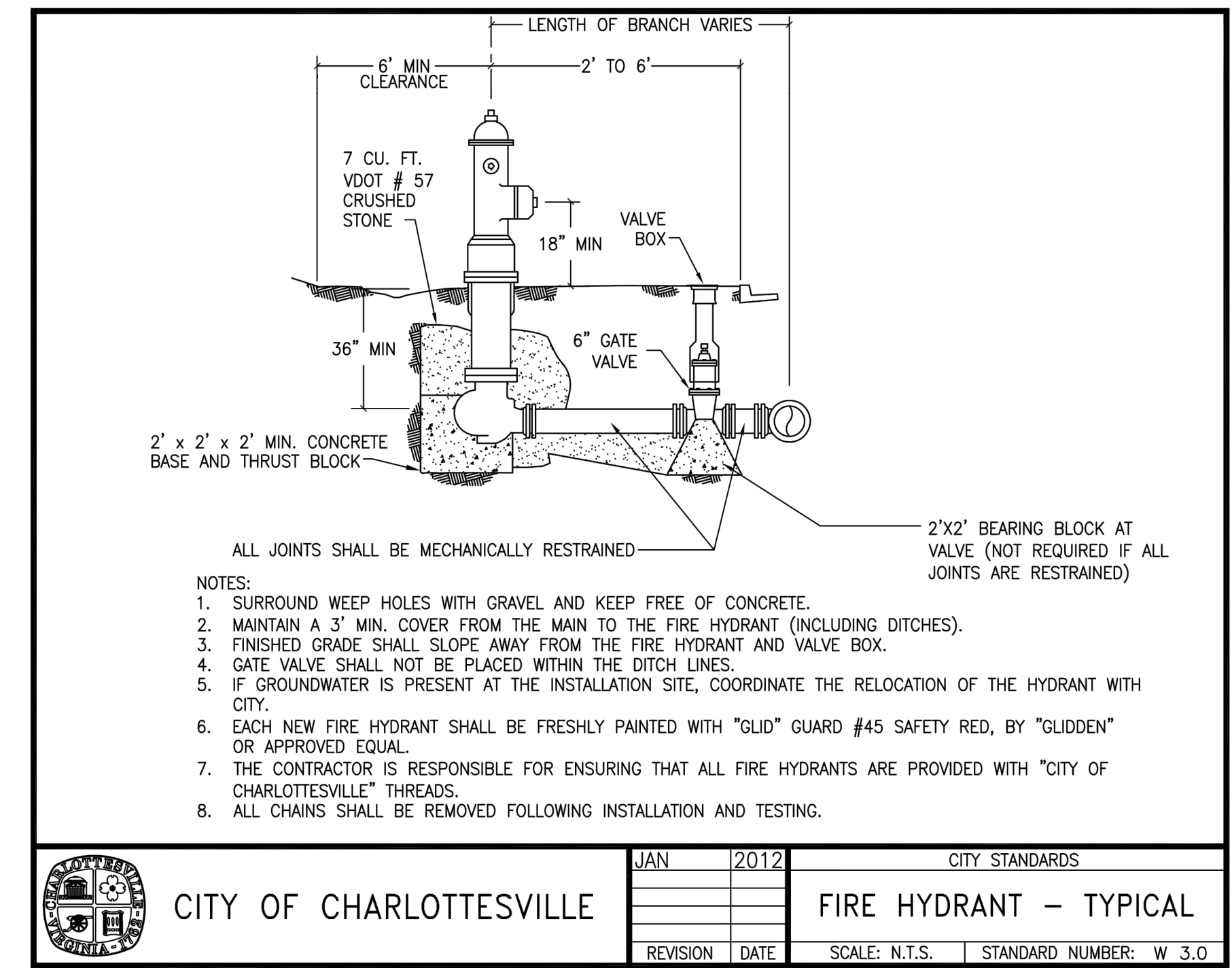
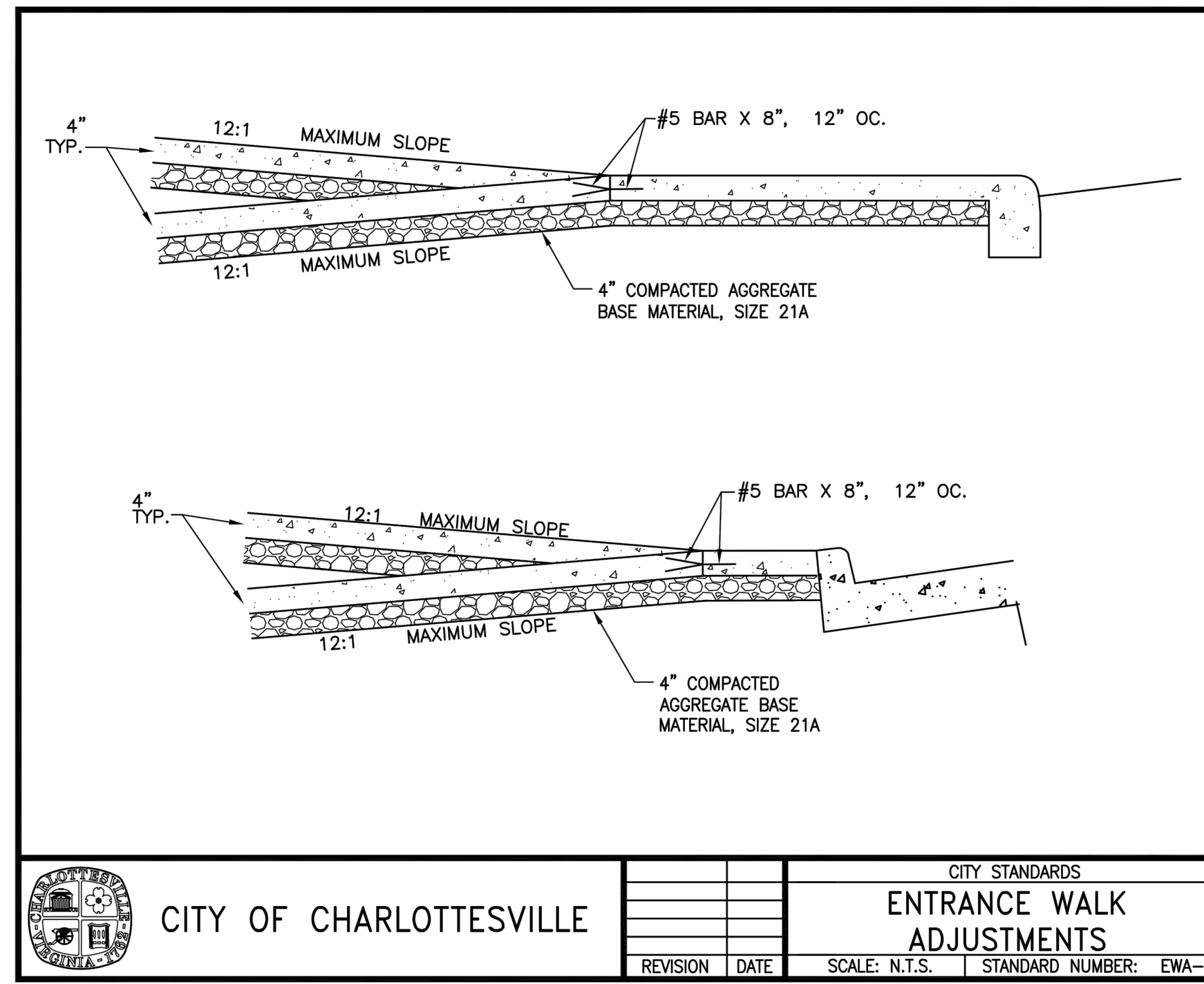
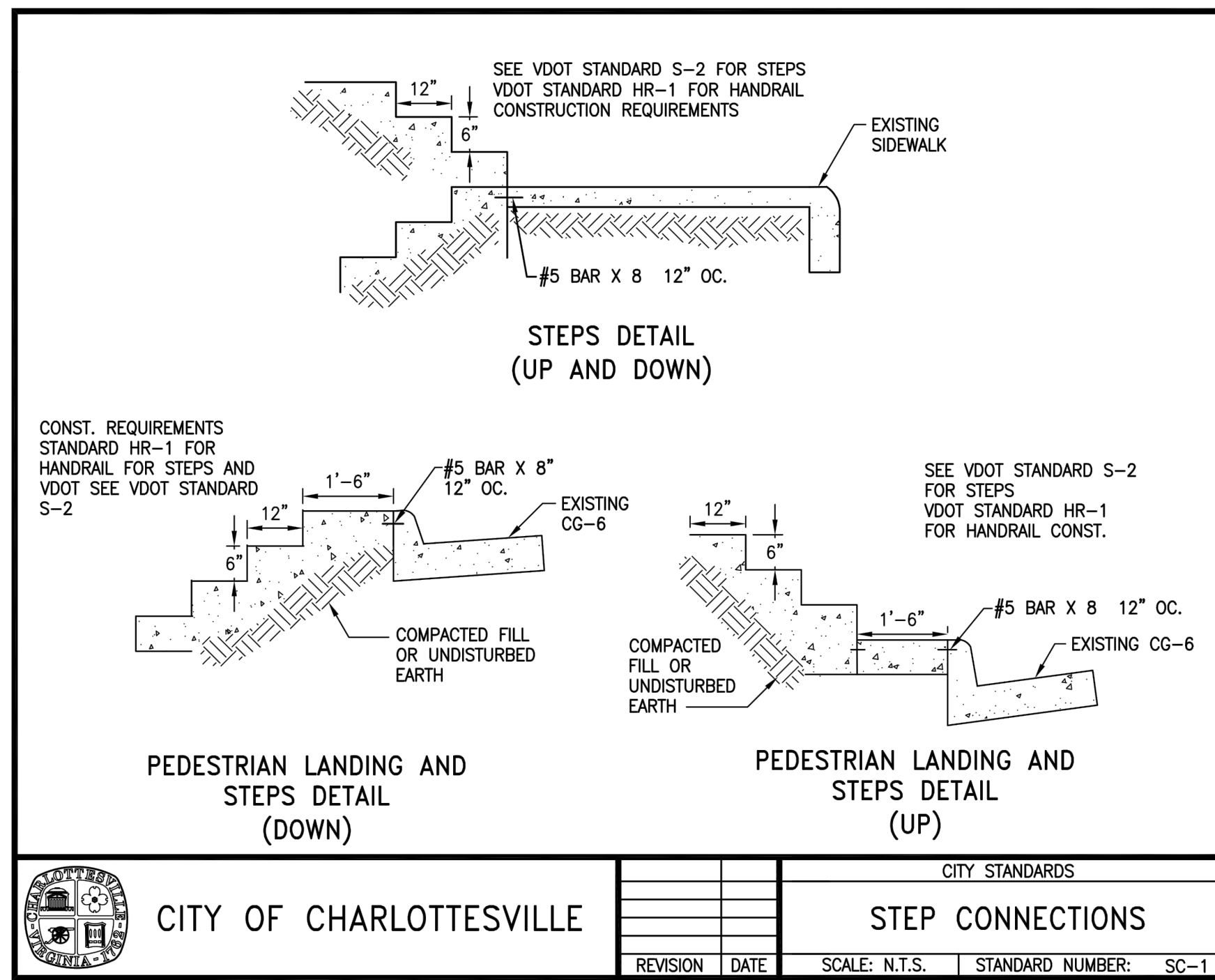
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RUMMEL, KLEPPER & KAHL, LLP  
Engineers | Planners | Scientists

ROSE HILL DRIVE  
SIDEWALK PROJECT  
CHARLOTTESVILLE, VIRGINIA

GENERAL NOTES AND DETAILS

PLAN REVISIONS -  
SHEET 2A OF 13  
SCALE N.T.S.



### 10" x 15" FRP FLARED BOX ASSEMBLY

#### 12" & 18" DEPTHS

**FIBERGLASS** ARMORCAST PRODUCTS COMPANY A6001923

**Specify Depth Below**

DESCRIPTION	NOMINAL SIZE W x L x D	LOAD RATING	ANSI TIER	PART NUMBER	APPROX. WEIGHT	PALLET QTY.
Box & Cover Assembly	10" x 15" x 12"	10K	8	A6001923AX12	36 lbs.	40
Box & Cover Assembly	10" x 15" x 18"	10K	8	A6001923AX18	44 lbs.	20
Replacement Covers	10" x 15"	10K	8	A6001922	11 lbs.	50
Replacement Boxes	10" x 15" x 12"	10K / 20K	8 / 15	A6001923X12	25 lbs.	40
Replacement Boxes	10" x 15" x 18"	10K / 20K	8 / 15	A6001923X18	33 lbs.	20

ARMORCAST PRODUCTS COMPANY

Tel: (818) 982-3600 Fax: (818) 982-7742

### 10" x 15" FRP FLARED BOX ASSEMBLY

#### STANDARD DIMENSIONS

**FIBERGLASS** ARMORCAST PRODUCTS COMPANY A6001923

ARMORCAST PRODUCTS COMPANY

Tel: (818) 982-3600 Fax: (818) 982-7742

### PRIVATE AND COMMERCIAL ENTRANCES

TYPE I  
Crusher Run Aggr.  
6" Crusher Run Aggr. 25 or 26

TYPE II  
Concrete  
Concrete Entrance Pavement  
7" HES  
4" Aggr. Base Mat'l. Ty. I No. 2/B

TYPE III  
Asphalt  
Asphalt Conc. Type SM-12.5E @ 220 Lbs. per S. Y.  
4" Aggr. Base Mat'l. Ty. I No. 2/B

TYPE IV  
Asphalt Commercial  
Asphalt Conc. Type SM-12.5E @ 165 Lbs. per S. Y.  
3" Asphalt Conc. Base Course BM-25.0A  
6" Aggr. Base Mat'l. Ty. I No. 2/B

NOT TO SCALE

The type of entrance (I, II, III, IV) to be constructed will be determined by the existing condition at the time of construction.

PLAN REVISIONS -

SHEET 2B OF 14

SCALE N.T.S.

ROSE HILL DRIVE  
SIDEWALK PROJECT  
CHARLOTTESVILLE, VIRGINIA

GENERAL NOTES AND DETAILS

DATE: 3/18/2022  
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COMMONWEALTH OF VIRGINIA  
MICHAEL J. HOGAN, JR.  
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RICHMOND, VIRGINIA 23223  
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RUMMEL, KLEPPER & KAHL, LLP

**GENERAL EROSION AND SEDIMENT CONTROL 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 PRE-CONSTRUCTION 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 SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- 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 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.

**EROSION CONTROL NOTES**

- 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.
- 2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING. IF DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL DEVICES ARE FOUND NECESSARY, THEY SHALL BE INSTALLED AS DIRECTED BY THE DEPARTMENT OF COMMUNITY DEVELOPMENT.
- 3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- 4. NO DISTURBED AREA WILL BE DENUEDED FOR MORE THAN 30 CALENDAR DAYS
- 5. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED IMMEDIATELY AFTER BACKFILL. NO MORE THAN FIVE HUNDRED (500) FEET ARE TO BE OPEN AT ONE TIME.
- 6. ELECTRIC POWER, TELEPHONE, AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED IMMEDIATELY AFTER BACKFILL
- 7. ALL TEMPORARY EARTH BERMS, DIVERSIONS, AND SILT DAMS ARE TO BE MULCHED AND SEEDED FOR VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
- 8. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY SILT TRAPS, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
- 9. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON BY NOVEMBER 1ST, IS TO BE SEEDED ON THAT DATE WITH OATS, ABRUZZI, RYE OR EQUIVALENT AND MULCHED WITH HAY OR STRAW MULCH. MODIFY AS APPLICABLE DEPENDING ON PROPOSED TIME OF CONSTRUCTION.
- 10. 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.
- 11. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- 12. 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 DEPARTMENT OF COMMUNITY DEVELOPMENT.

**APPLICABLE MINIMUM STANDARDS (EROSION AND SEDIMENT CONTROL LAW AND REGULATIONS)**

- MS-1: PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUEDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUEDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- MS-2: DURING CONSTRUCTION, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. TEMPORARY PROTECTION AND PERMANENT STABILIZATION SHALL BE APPLIED TO ALL SOIL STOCKPILES ON SITE AND BORROW AREAS OR SOIL INTENTIONALLY TRANSFERRED OFF SITE.
- MS-3: A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUEDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- MS-7: CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
- MS-10: ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- MS-11: BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
- MS-16: UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS IN ADDITION TO OTHER APPLICABLE CRITERIA.
- MS-17: WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ON THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
- MS-18: ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- MS-19: PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUN-OFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. (REFER TO SITE PLAN FOR FULL STORMWATER MANAGEMENT PLAN AS IT APPLIES TO MS-19.)
  - MS-4, 5, AND 6: NO SILT TRAPS OR BASINS ARE REQUIRED FOR THIS LIMITED LAND DISTURBANCE ACTIVITY.
  - MS-8, 9, 12, 13, 14, AND 15: STEEP SLOPED CUT/FILL AREAS ARE NOT PREVALENT WITH IN THE PROJECT, NO SEEPS APPEAR TO BE ON THE PROJECT AND NO "LIVE" STREAMS OR "WATERCOURSES" EXIST ON THE SITE; THEREFORE NONE WILL BE IMPACTED.

**LIME AND FERTILIZER**

LIME AND FERTILIZER NEED SHOULD BE DETERMINED BY SOIL TEST. SOIL TESTS MAY BE PERFORMED BY COOPERATIVE EXTENSION SERVICE SOIL TESTING LABORATORY AT VPI&SU, OR BY A REPUTABLE COMMERCIAL LABORATORY. INFORMATION CONCERNING THE STATE SOIL TESTING LABORATORY IS AVAILABLE FROM COUNTY EXTENSION AGENTS. REFERENCE APPENDIX 3.32-D FOR LIMING APPLICATIONS (IN LBS.) NEEDED TO CORRECT UNDESIRABLE PH FOR VARIOUS SOIL TYPES.

UNDER UNUSAL CONDITIONS WHERE IT IS NOT POSSIBLE TO OBTAIN A SOIL TEST, THE FOLLOWING SOIL AMENDMENTS WILL BE APPLIED:

**LIME:**  
 COASTAL PLAIN:  
 2 TONS/ACRE PULVERIZED AGRICULTURAL GRADE LIMESTONE (90 LBS./1000SQ.FT.)  
 PIEDMONT AND APPALACHIAN REGION:  
 2 TONS/ACRE PULVERIZED AGRICULTURAL GRADE LIMESTONE (90 LBS./1000 SQ.FT.)

NOTE: AN AGRICULTURAL GRADE OF LIMESTONE SHOULD ALWAYS BE USED.

**FERTILIZER:**  
 MIXED GRASSES AND LEGUMES:  
 1000 LBS./ACRE 5-20-10 (23 LBS./1000 SQ. FT.) IS PREFERRED; HOWEVER, 1000 LBS./ACRE OF 10-20-10 OR EQUIVALENT MAY BE USED.

GRASS STANDS ONLY:  
 1000 LBS./ACRE 10-20-10 OR EQUIVALENT NUTRIENTS, (23 LBS./1000 SQ.FT.)

OTHER FERTILIZER FORMULATIONS, INCLUDING SLOW-RELEASE SOURCES OF NITROGEN (PREFERRED FROM A WAER QUALITY STANDPOINT), MAY BE USED PROVIDED THEY CAN SUPPLY THE SAME AMOUNTS AND PROPORTIONS OF PLANT NUTRIENTS.

INCORPORATION: LIME AND FERTILIZER SHALL BE INCORPORATED INTO THE TOP 4-6 INCHES OF THE SOIL BY DISCHG OR OTHERS MEANS WHENEVER POSSIBLE. FOR EROSION CONTROL, WHEN APPLYING LIME AND FERTILIZER WITH A HYDROSEEDER, APPLY TO A ROUGH, LOOSE SURFACE.

NOTE:  
 SEEDING, MULCHING, LIMING, AND FERTILIZER PER VIRGINIA EROSION AND SEDIMENT MANUAL. FINAL DETAILS FOR FINISHED LANDSCAPING SPECIFICATIONS TO APPLY IF EQUAL OR GREATER.

SPECIES	SEEDING RATE		NORTH <sup>a</sup>		SOUTH <sup>b</sup>		PLANT CHARACTERISTICS		
			3/1 to 4/30	5/1 to 8/15	8/15 to 11/1	2/15 to 4/30		5/1 to 9/1	9/1 to 11/15
OATS (Avena sativa)	3 bu. (up to 100 lbs. not less than 50 lbs.)	2 lbs.	X	-	-	X	-	-	Use spring varieties (e.g., Noble).
Rye <sup>c</sup> (Secale cereale)	2 bu. (up to 110 lbs. not less than 50 lbs.)	2.5 lbs.	X	-	X	X	-	X	Use for late fall seedings, winter cover. Tolerates cold and low moisture.
GERMAN MILLET (Setaria italica)	50 lbs.	approx. 1 lb.	-	X	-	-	X	-	May be added in mixes. Will mow out of most stands.
ANNUAL RYEGRASS <sup>c</sup> (Lolium multi-florum)	60 lbs.	1 1/2 lbs.	X	-	X	X	-	X	ANNUAL RYEGRASS <sup>c</sup> (Lolium multi-florum)
WEEPING LOVEGRASS (Eragrostis curvula)	15 lbs.	5/2 ozs.	-	X	-	-	X	-	Warm-season perennial. May bunch. Tolerates hot, dry slopes and acid, infertile soils. May be added to mixes.
KOREAN LESPEDEZA <sup>c</sup> (Lespedeza stipulacea)	25 lbs.	approx. 1 1/2 lbs.	X	X	-	X	X	-	Warm season annual legume. Tolerates acid soils. May be added to mixes.

<sup>a</sup> Northern Piedmont and Mountain region. See Plates 3.22-1 and 3.22-2.  
<sup>b</sup> Southern Piedmont and Coastal Plain.  
<sup>c</sup> May be used as a cover crop with spring seeding.  
<sup>d</sup> May be used as a cover crop with fall seeding.  
<sup>x</sup> May be planted between these dates.  
 - May not be planted between these dates.

SITE CONDITIONS	SEEDING MIXTURES	RATES		DATES		
		PER ACRE	PER 1000 ft <sup>2</sup>	3/1 to 4/15	4/15 to 8/1	8/1 to 10/15
High Maintenance Lawns	1. Tall fescue-90% Kentucky bluegrass-10%	250 lbs.	6 lbs.	X	no	X
Low Maintenance General Use	2. Tall fescue-50% Ladino clover-10% Red clover-10% Korean lespedeza-15% Annual ryegrass-15%	80 lbs.	2 lbs.	X	(a,b) X	X
Droughty Area, Sandy Soils	3. Tall fescue-50% Sericea lespedeza-30% Annual ryegrass-20%	70 lbs.	1 1/2 lbs.	X	(a) X	X
Poorly Drained Areas	4. Tall fescue-50% Sericea lespedeza-20% Korean lespedeza-15% Annual ryegrass-15%	80 lbs.	2 lbs.	X	(a,b) X	X
	5. Tall fescue-60% Korean lespedeza-20% Annual ryegrass-10% Redtop-5%	80 lbs.	2 lbs.	X	(a,b) X	X

<sup>a</sup> After May 1, use 10 lb/A german millet or 2 lb/A weeping lovegrass in place of annual ryegrass.  
<sup>b</sup> After May 1, Korean lespedeza will not reseed itself. You may increase the amount of other legume accordingly.  
 Source: VA SWCC

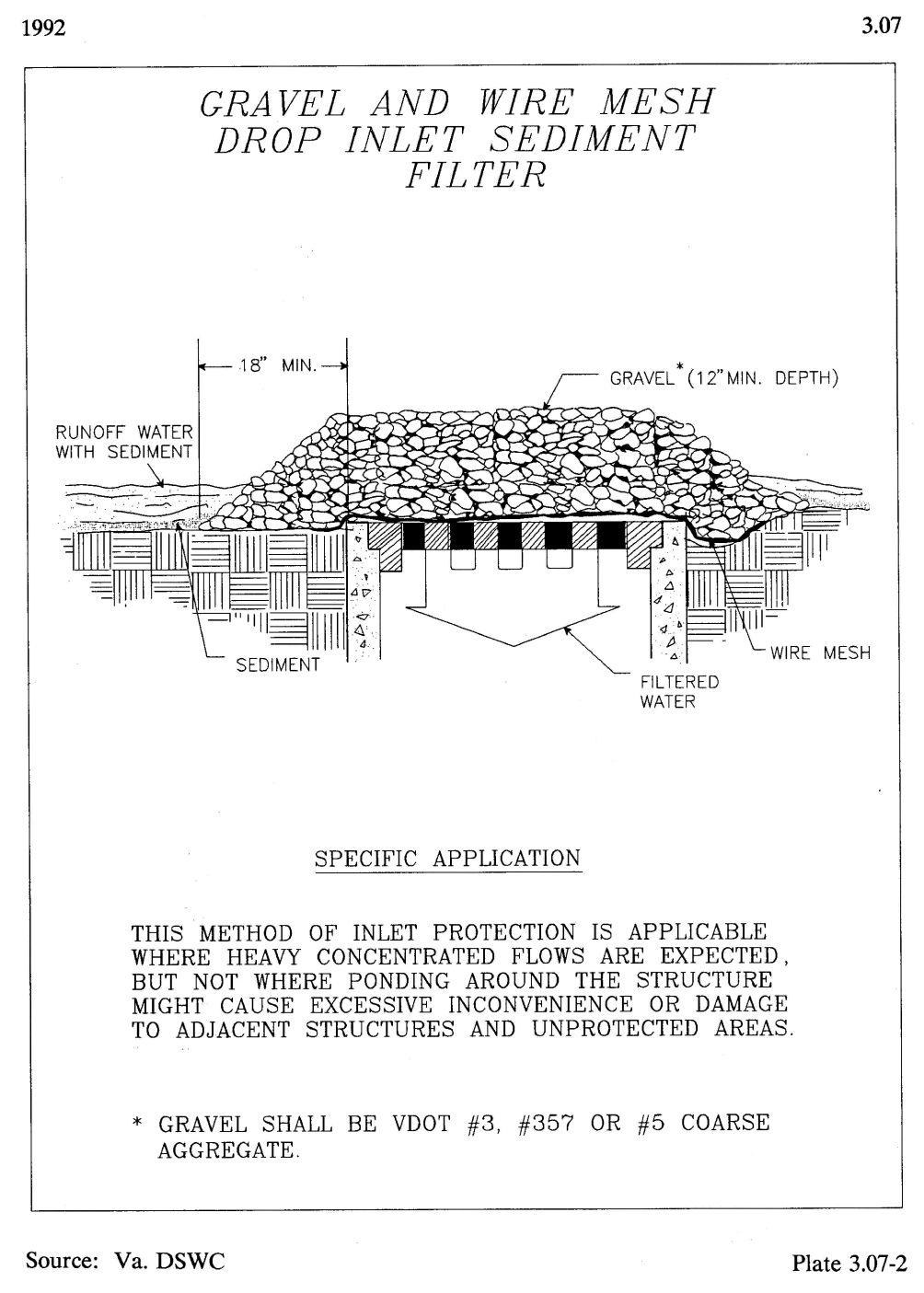
ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS "QUICK REFERENCE FOR ALL REGIONS"		
Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Lolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (Lolium multi-florum)	60 - 100
May 1 - Aug. 31	German Millet (Setaria italica)	50

ORGANIC MULCH MATERIALS AND APPLICATION RATES		
MULCHES	RATES	NOTES
Straw or Hay	1 1/2 - 2 tons (Minimum 2 tons for over winter cover)	70-90 lbs. Free from weeds and coarse matter. Must be anchored. Spread with mulch blower or by hand.
Fiber Mulch	Minimum 1500 lbs	35 lbs. Do not use as mulch for winter cover or during hot, dry periods. * Apply as slurry
Corn Stalks	4-6 tons	185-275 lbs. Cut or shredded in 4-6" lengths. Do not use in fine turf areas. Apply with mulch blower or by hand.
Wood Chips	4-6 tons	185-275 lbs. Free of coarse matter. Air-dried. Treat with 1/2 lbs nitrogen per ton. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.
Bark Chips Or Shredded Bark	50-70 cu. Yds. 1-2 cu. Yds.	Free of coarse matter. Air-dried. Do not use in fine turf areas. Apply with mulch blower, chip handler, or by hand.

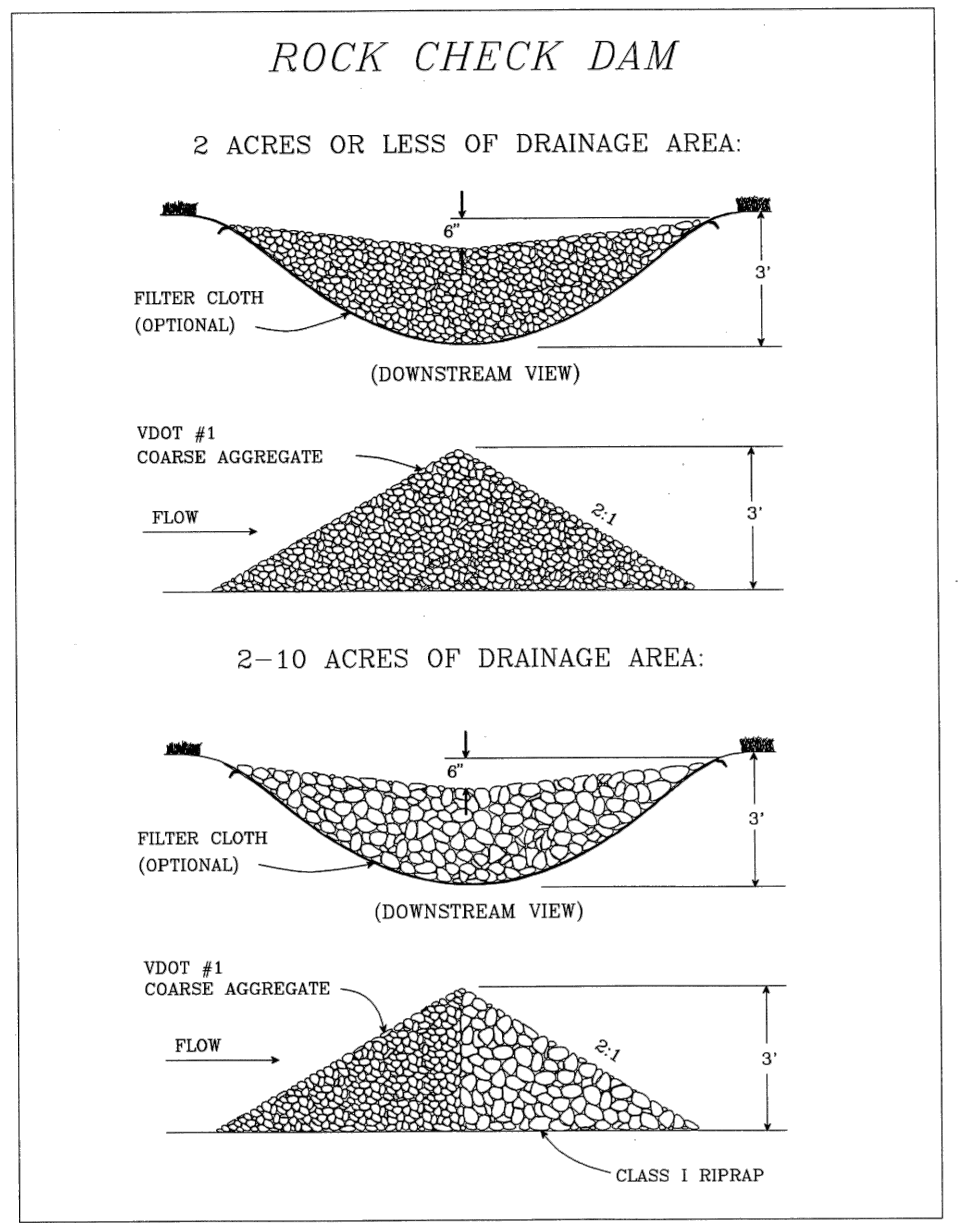
\* When fiber mulch is the only available mulch during periods when straw should be used, apply at a minimum rate of 2000 lbs./ac. Or 45 lbs./1000 sq. ft.

LIMING REQUIREMENTS FOR TEMPORARY SITES	
Agricultural Limestone	Recommended Application of Agricultural Limestone
Below 4.2	3 tons per acre
4.2 to 5.2	2 tons per acre
5.2 to 6	1 ton per acre

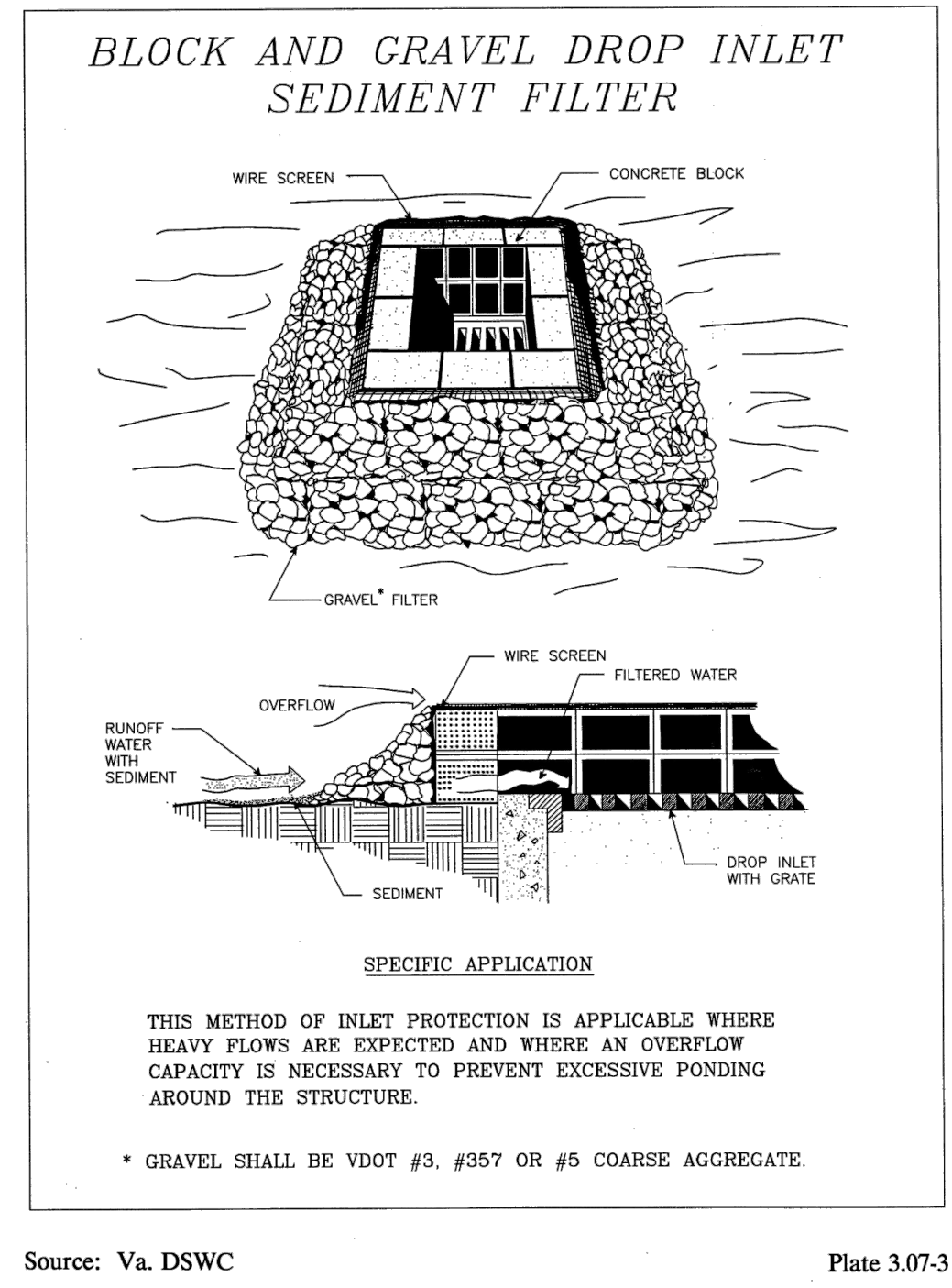
Source: VA SWCC



Source: Va. DSWC Plate 3.07-2

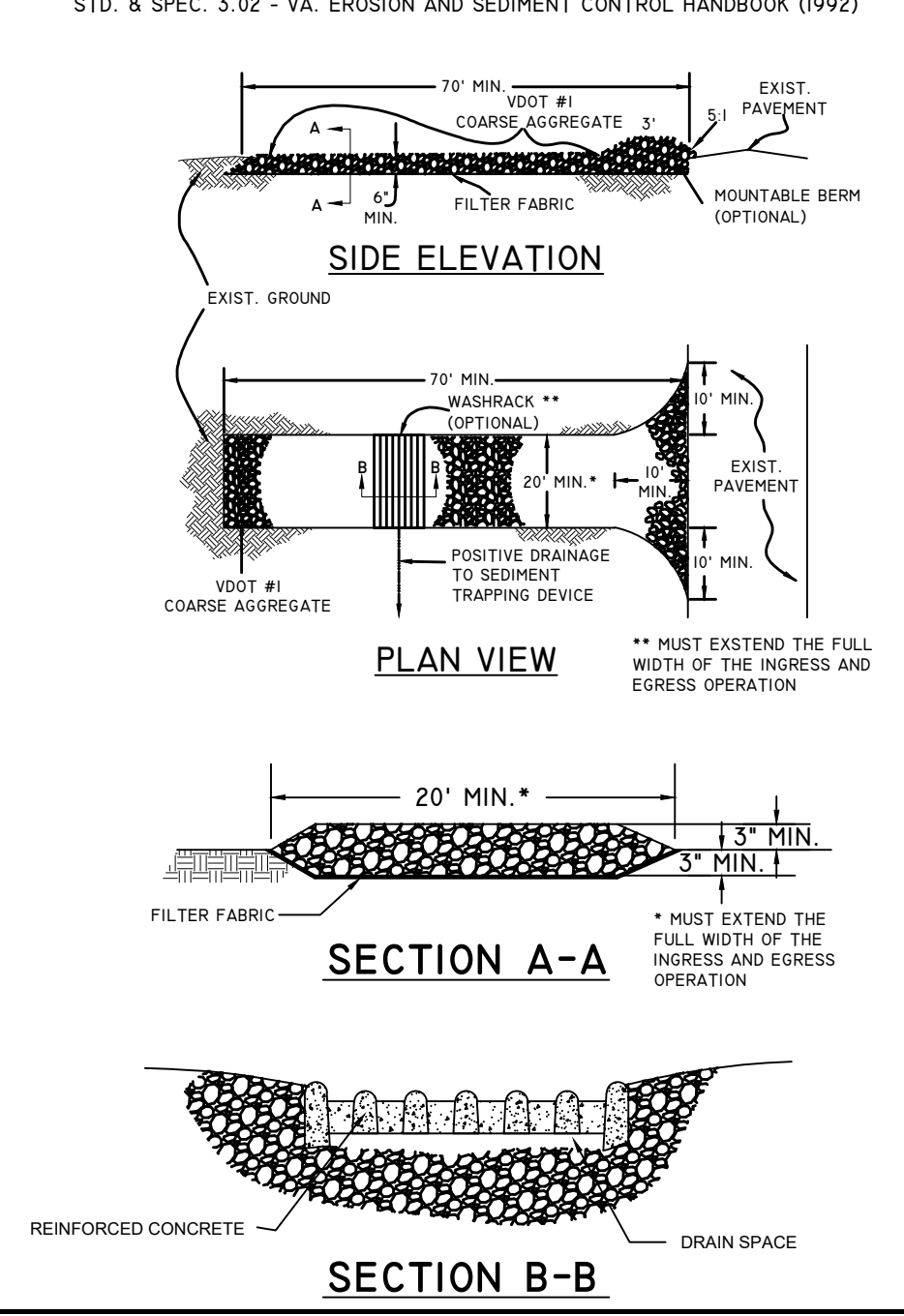


Source: Va. DSWC Plate 3.20-1



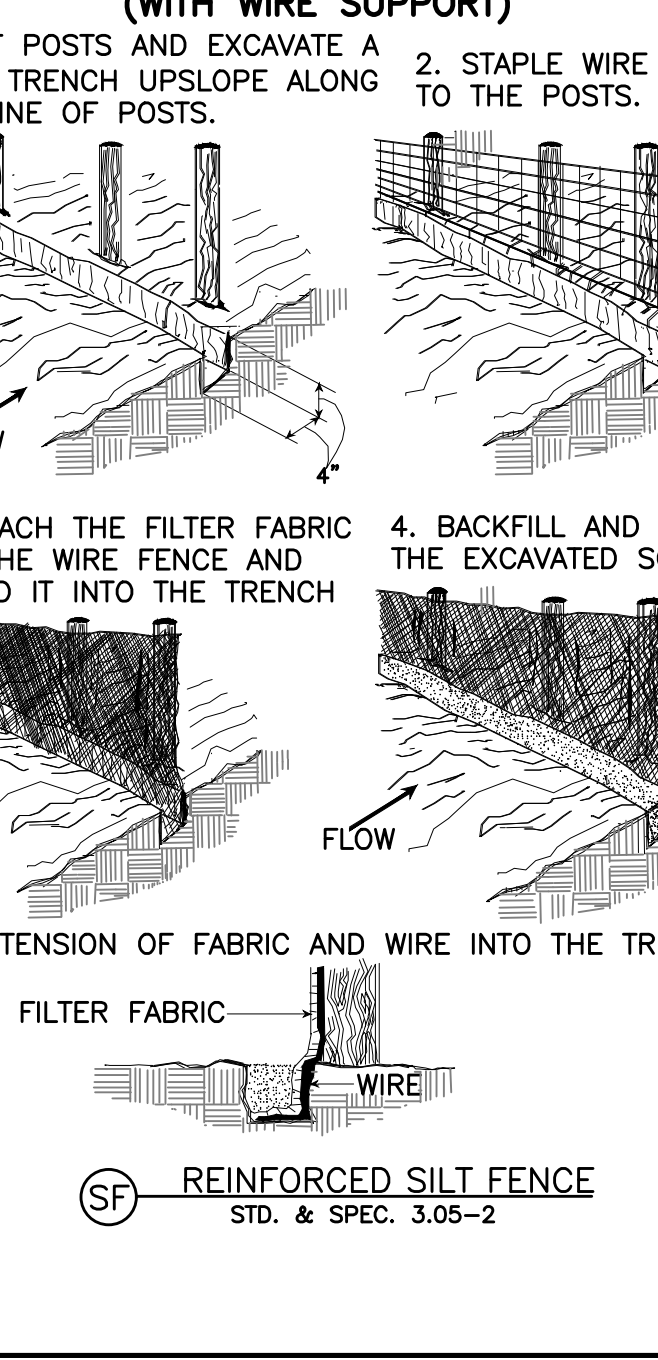
Source: Va. DSWC Plate 3.07-3

**STONE CONSTRUCTION ENTRANCE**



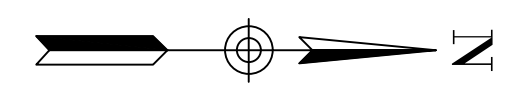
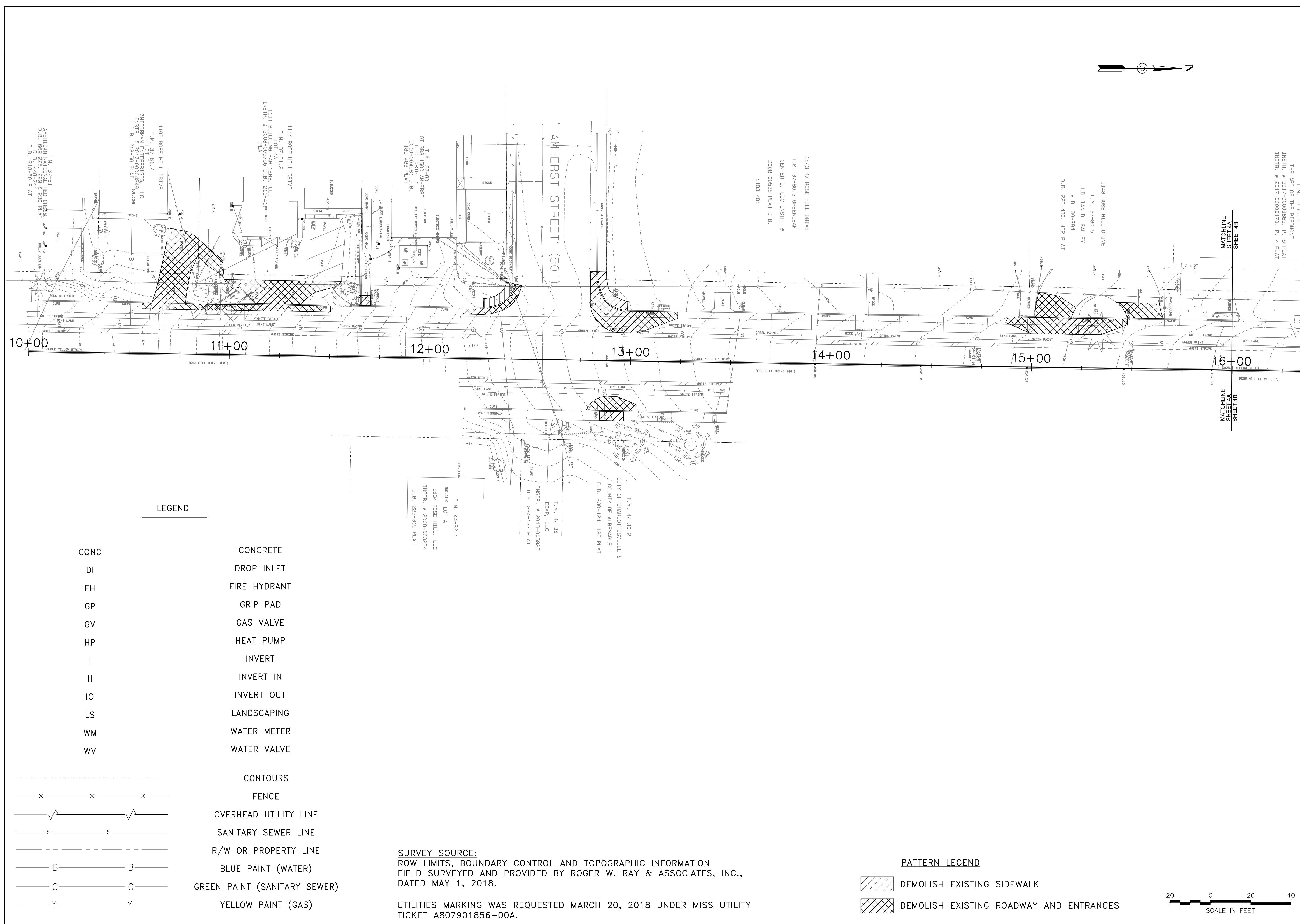
Source: Va. DSWC Plate 3.05-2

**CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)**



Source: Va. DSWC Plate 3.07-1

PLAN REVISIONS -  
 SHEET 3 OF 13  
 SCALE N.T.S.  
 ROSE HILL DRIVE  
 SIDEWALK PROJECT  
 CHARLOTTESVILLE, VIRGINIA  
 EROSION & SEDIMENT CONTROL NOTES & DETAILS  
 DATE: 3/18/2022  
 ENGINEER: NFE  
 CHECKED: MUJ  
 CAD: NFE  
 JOB#: 17018-02  
 COMMONWEALTH OF VIRGINIA  
 MICHAEL J. HOGAN, JR.  
 Lic. No. 038783  
 PROFESSIONAL ENGINEER  
 2100 EAST CARY STREET, SUITE 309  
 RICHMOND, VIRGINIA 23223  
 (P) 804 782-1903 (F) 804 782-2142  
 RUMMEL, KLEPPER & KAHL, LLP  
 Engineering Construction Management | Environmental



T.M. 37-80.1  
THE ARC OF THE PIEDMONT  
INSTR. # 2017-00001855, P. 5 PLAT  
INSTR. # 2017-00000170, P. 4 PLAT

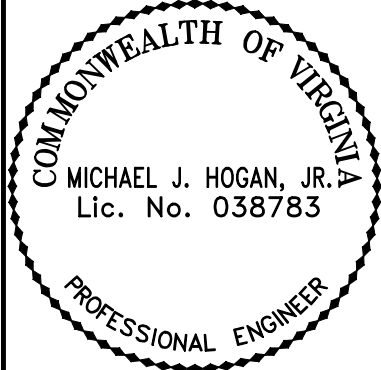
PLAN REVISIONS -

SHEET  
**4A OF 13**

SCALE  
1" = 20'

**ROSE HILL DRIVE  
SIDEWALK PROJECT**  
CHARLOTTESVILLE, VIRGINIA  
**EXISTING CONDITIONS  
& DEMOLITION PLAN**

DATE: 3/18/2022  
ENGINEER: NFE  
CHECKED: MJH  
CAD: NFE  
JOB#: 17018-02



2100 EAST CARY STREET, SUITE 309  
RICHMOND, VIRGINIA 23223  
(P) 804 782-1903 (F) 804 782-2142



**LEGEND**

- |               |                              |
|---------------|------------------------------|
| CONC          | CONCRETE                     |
| DI            | DROP INLET                   |
| FH            | FIRE HYDRANT                 |
| GP            | GRIP PAD                     |
| GV            | GAS VALVE                    |
| HP            | HEAT PUMP                    |
| I             | INVERT                       |
| II            | INVERT IN                    |
| IO            | INVERT OUT                   |
| LS            | LANDSCAPING                  |
| WM            | WATER METER                  |
| WV            | WATER VALVE                  |
| - - - - -     | CONTOURS                     |
| - x - x - x - | FENCE                        |
| - √ - √ -     | OVERHEAD UTILITY LINE        |
| - S - S -     | SANITARY SEWER LINE          |
| - - - - -     | R/W OR PROPERTY LINE         |
| - B - B -     | BLUE PAINT (WATER)           |
| - G - G -     | GREEN PAINT (SANITARY SEWER) |
| - Y - Y -     | YELLOW PAINT (GAS)           |

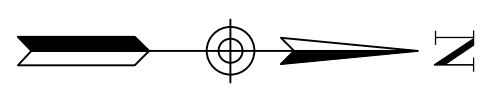
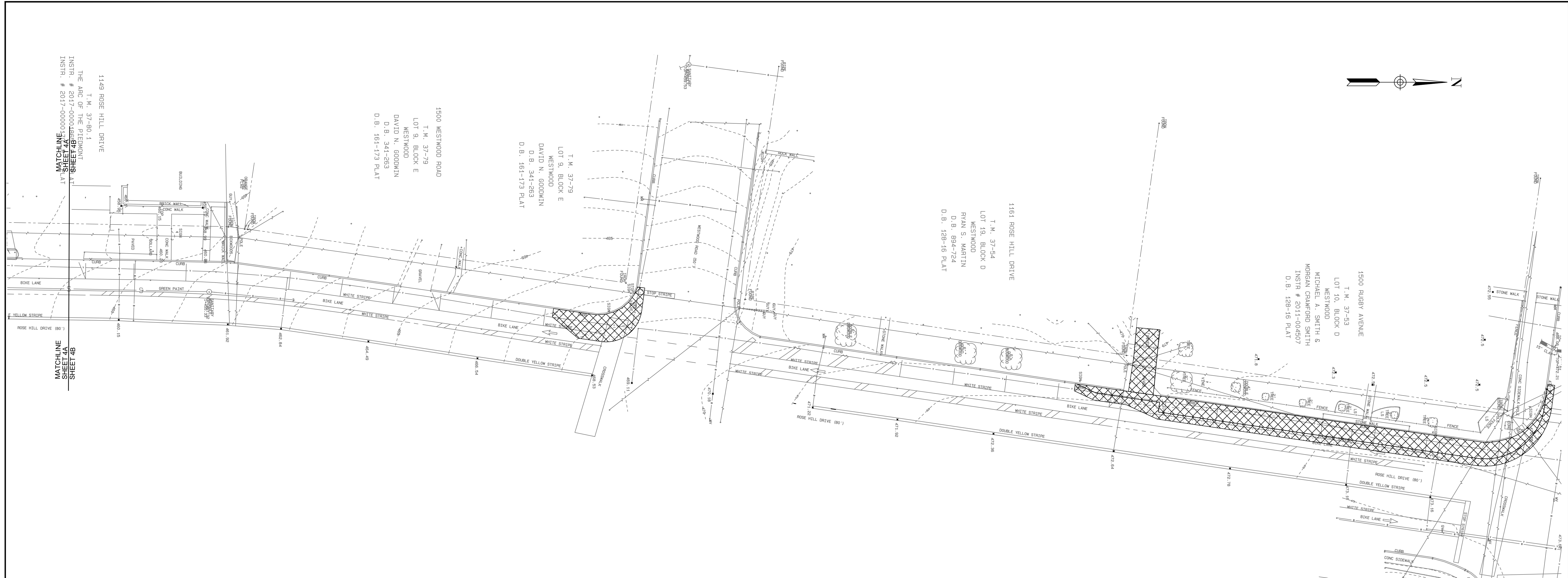
**SURVEY SOURCE:**  
ROW LIMITS, BOUNDARY CONTROL AND TOPOGRAPHIC INFORMATION  
FIELD SURVEYED AND PROVIDED BY ROGER W. RAY & ASSOCIATES, INC.,  
DATED MAY 1, 2018.

UTILITIES MARKING WAS REQUESTED MARCH 20, 2018 UNDER MISS UTILITY  
TICKET A807901856-00A.

**PATTERN LEGEND**

- DEMOLISH EXISTING SIDEWALK
- DEMOLISH EXISTING ROADWAY AND ENTRANCES





1149 ROSE HILL DRIVE  
 T.M. 37-80.1  
 THE ARC OF THE PIEDMONT  
 INSTR. # 2017-00000  
 INSTR. # 2017-00000  
 MATCHLINE SHEET 4A  
 SHEET 4B

1504 WESTWOOD ROAD  
 T.M. 37-79  
 LOT 9, BLOCK E  
 WESTWOOD  
 DAVID N. GOODMAN  
 D.B. 341-283  
 D.B. 161-173 PLAT

T.M. 37-79  
 LOT 9, BLOCK E  
 WESTWOOD  
 DAVID N. GOODMAN  
 D.B. 341-283  
 D.B. 161-173 PLAT

1161 ROSE HILL DRIVE  
 T.M. 37-54  
 LOT 19, BLOCK D  
 WESTWOOD  
 RYAN S. MARTIN  
 D.B. 894-724  
 D.B. 128-16 PLAT

1500 RUGBY AVENUE  
 T.M. 37-53  
 LOT 10, BLOCK D  
 WESTWOOD  
 MICHAEL A. SMITH &  
 MORGAN CRANFORD SMITH  
 INSTR. # 2011-004507  
 D.B. 128-16 PLAT

LEGEND

CONC	CONCRETE
DI	DROP INLET
FH	FIRE HYDRANT
GP	GRIP PAD
GV	GAS VALVE
HP	HEAT PUMP
I	INVERT
II	INVERT IN
IO	INVERT OUT
LS	LANDSCAPING
WM	WATER METER
WV	WATER VALVE

--- ---	CONTOURS
- x - x - x -	FENCE
- / - / - / - /	OVERHEAD UTILITY LINE
- S - S -	SANITARY SEWER LINE
- - - -	R/W OR PROPERTY LINE
- B - B -	BLUE PAINT (WATER)
- G - G -	GREEN PAINT (SANITARY SEWER)
- Y - Y -	YELLOW PAINT (GAS)

**SURVEY SOURCE:**  
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 TICKET A807901856-00A.

**PATTERN LEGEND**

	DEMOLISH EXISTING SIDEWALK
	DEMOLISH EXISTING ROADWAY AND ENTRANCES



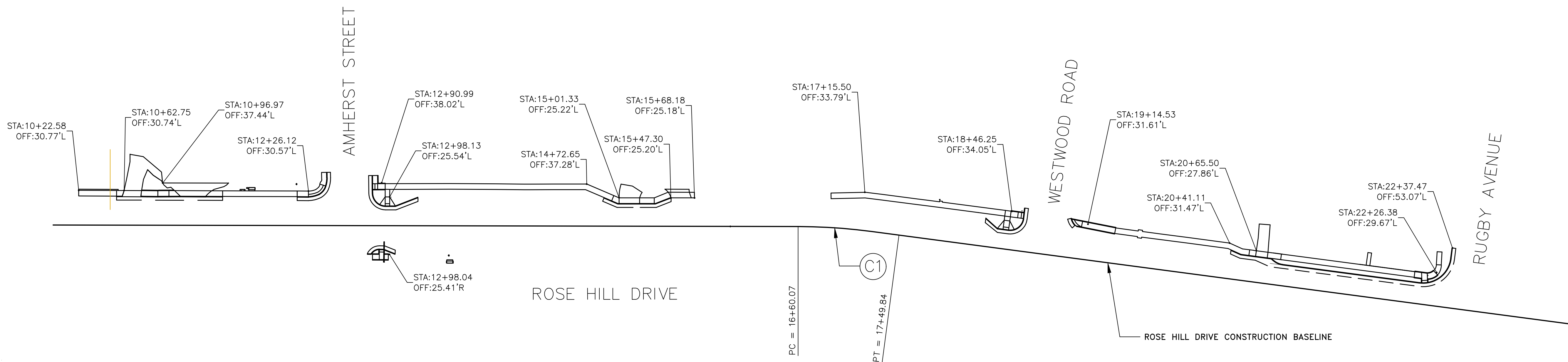
PLAN REVISIONS -		ROSE HILL DRIVE SIDEWALK PROJECT CHARLOTTEVILLE, VIRGINIA	DATE: 3/18/2022 ENGINEER: NFE CHECKED: MJH CAD: NFE	SHEET 4B OF 13 SCALE 1" = 20'
EXISTING CONDITIONS & DEMOLITION PLAN			JOB#: 17018-02	
<b>RUMMEL, KLEPPER &amp; KAHL, LLP</b>				

ROSE HILL DRIVE CONSTRUCTION BASELINE INFO

	STATION	NORTHING	EASTING
P.T.=	10+00.00	3902932.91	11487518.38
P.C.=	17+49.84	3903580.82	11487528.38
P.T.=	17+49.84	3903682.60	11487537.41
P.T.=	23+51.83	3904277.82	11487624.31

CURVE C1 DATA

R=	500.00'
L=	64.809°
TAN=	32.45
DELTA=	7°25'36.54"
CHORD=	64.96'



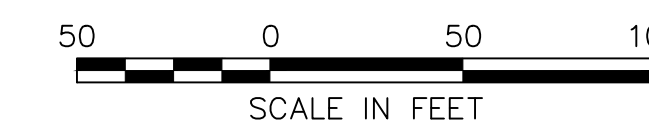
LEGEND

21+45.5  
16.9  
211.35

DENOTES STATION, OFFSET, AND ELEVATION AT BACK OF PROPOSED SIDEWALK

SURVEY NOTES:

1. THE MERIDIAN SOURCE OF THIS TOPOGRAPHIC SURVEY IS BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NORTH AMERICAN DATUM 1983 (1992). THE PROJECT MERIDIAN WAS ESTABLISHED USING GPS METHODS.



PLAN REVISIONS -

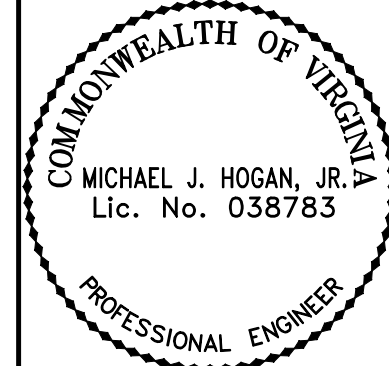
SHEET  
40 OF 13

SCALE  
1" = 50'

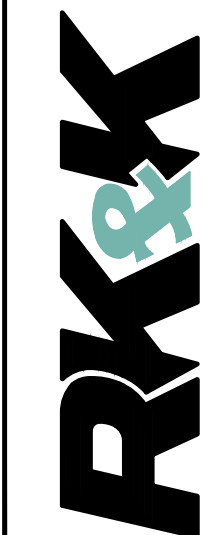
ROSE HILL DRIVE  
SIDEWALK PROJECT  
CHARLOTTESVILLE, VIRGINIA

CONSTRUCTION BASELINE SHEET

DATE: 3/18/2022  
ENGINEER: NFE  
CHECKED: MJH  
CAD: NFE  
JOB#: 17018-02



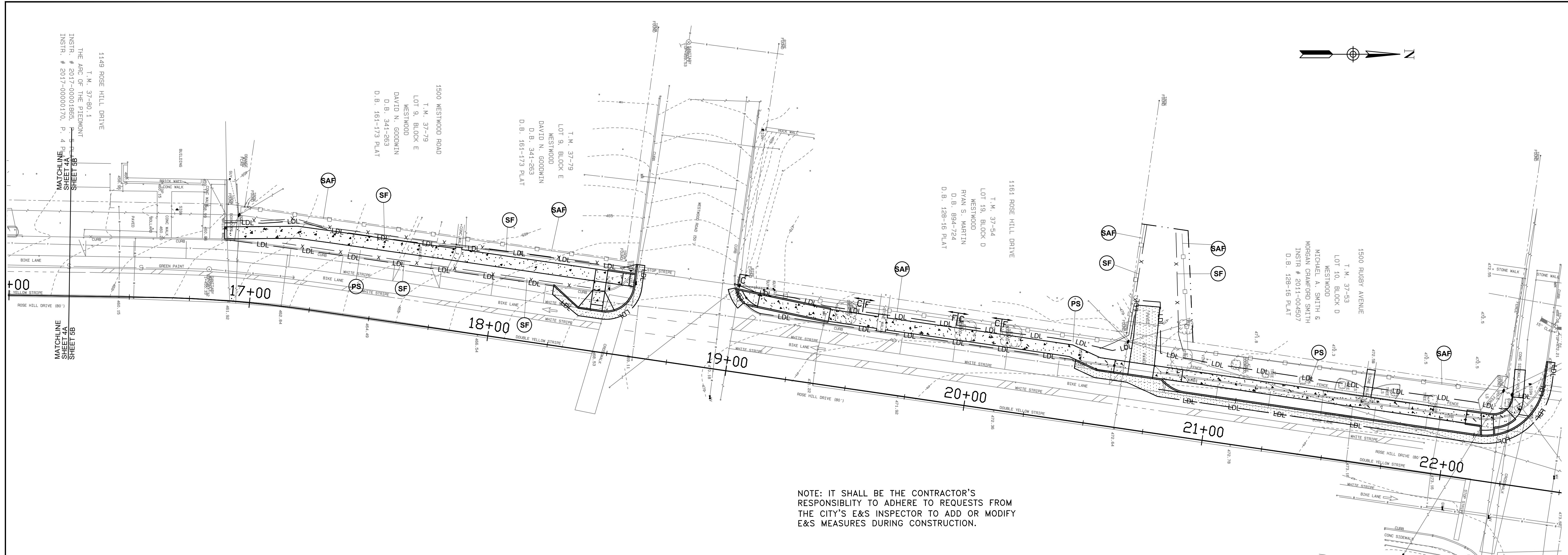
2100 EAST CARY STREET, SUITE 309  
RICHMOND, VIRGINIA 23223  
(P) 804 782-1903 (F) 804 782-2142



RUMMEL, KLEPPER & KAHL, LLP



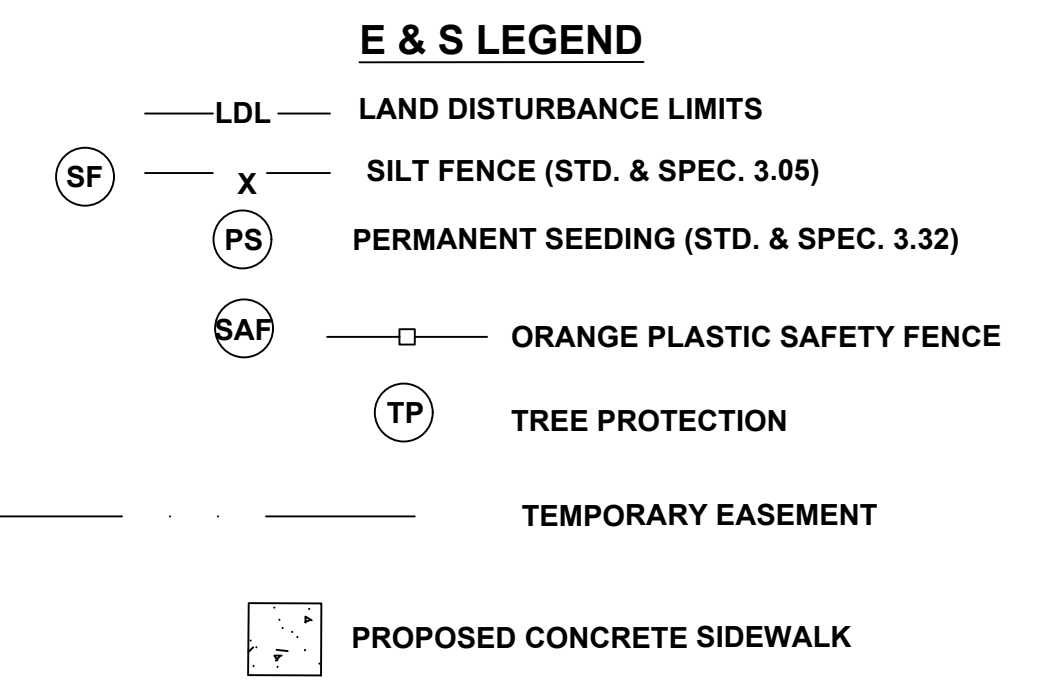




NOTE: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ADHERE TO REQUESTS FROM THE CITY'S E&S INSPECTOR TO ADD OR MODIFY E&S MEASURES DURING CONSTRUCTION.

**OVERALL EROSION CONTROL SEQUENCE**

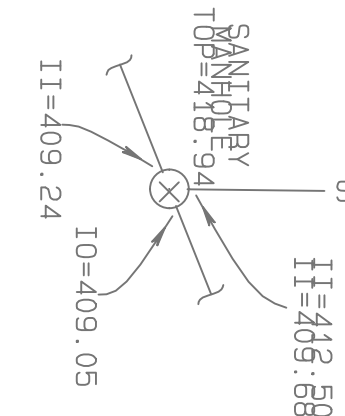
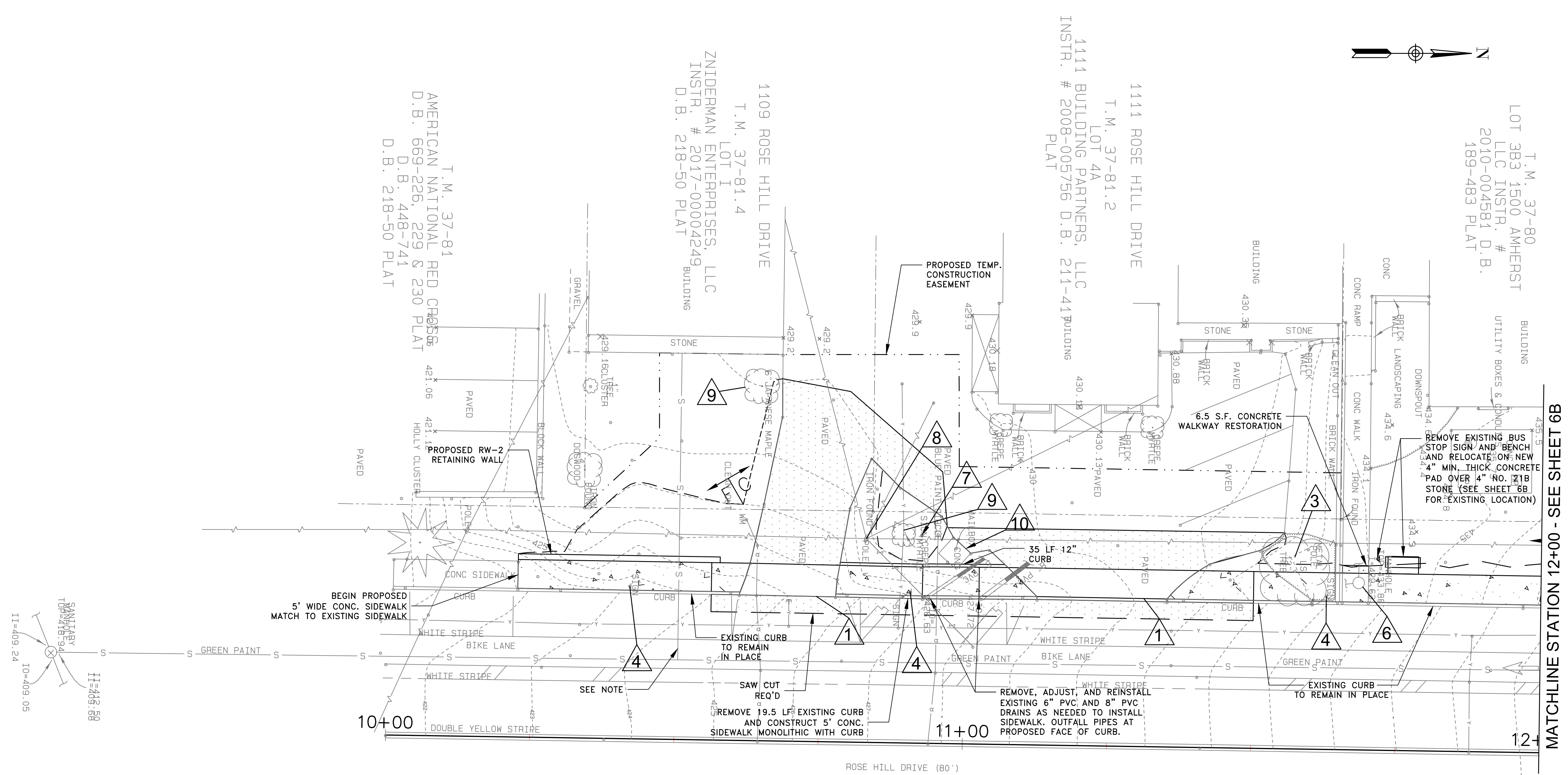
1. ONCE RELEASED BY THE CITY OF CHARLOTTESVILLE FOR ASSOCIATED EROSION & SEDIMENT CONTROL PERMITS, STORMWATER MANAGEMENT PERMITS, LAND DISTURBANCE AND WORK IN STREETS PERMITS, CONTRACTOR SHALL NOTIFY CITY OF CHARLOTTESVILLE INSPECTOR A MINIMUM OF 48 HOURS PRIOR TO ANY LAND DISTURBANCE.
2. LAND DISTURBANCE MAY NOT OCCUR UNTIL THE INITIAL ESC MEASURES INSTALLATION HAS BEEN APPROVED BY THE ENVIRONMENTAL INSPECTOR.
3. INSTALL SAFETY FENCE, SILT FENCE, AND TREE PROTECTION PRIOR TO COMMENCING CLEARING OPERATIONS OR DEMOLITION.
4. ONCE INITIAL EROSION CONTROL MEASURES ARE COMPLETED, AND THE CONTRACTOR IS RELEASED BY THE ENVIRONMENTAL INSPECTOR, SITE DEMOLITION MAY BEGIN.
5. IF DUST BECOMES A PROBLEM DURING CONSTRUCTION, A WATER TRUCK WILL BE REQUIRED ON-SITE AT ALL TIMES. DUST MUST BE CONTROLLED IN ACCORDANCE WITH STD. & SPEC. DUST CONTROL, IN THE LATEST VERSION OF THE VA EROSION AND SEDIMENT CONTROL HANDBOOK.
6. COMMENCE WITH GRADING AND CONSTRUCTION OF SITE WORK, SIDEWALK, AND ENTRANCES.
7. COMPLETE BACKFILL AND FINE GRADING ALONG WITH ALL SITE IMPROVEMENTS.
8. COMPLETE SEEDING ONCE TOPSOIL IS PLACED ON GRADED SURFACES. STABILIZE ANY REMAINING DISTURBED AREAS.
9. EXISTING STORM SYSTEM TO BE INSPECTED AND CLEANED OF ALL SEDIMENT RESULTING FROM CONSTRUCTION.
10. ANY REMAINING PERMANENT SEEDING SHALL BE COMPLETED.
11. ALL EROSION CONTROL MEASURES MUST BE INSTALLED AND MAINTAINED PER THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL MANUAL.
12. EROSION & SEDIMENT CONTROL MEASURES MAY BE REMOVED ONLY UPON THE APPROVAL OF THE ENVIRONMENTAL INSPECTOR. ONCE APPROVED, CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.



0.03 AC PERMANENT SEEDING  
 420 LF. SILT FENCE  
 552 LF. ORANGE PLASTIC SAFETY FENCE



PLAN REVISIONS - SHEET 5B OF 13 SCALE 1" = 20'	<b>ROSE HILL DRIVE          SIDEWALK PROJECT</b> CHARLOTTESVILLE, VIRGINIA	<b>EROSION &amp; SEDIMENT CONTROL PLAN</b>
DATE: 3/18/2022 ENGINEER: NFE CHECKED: MJH CAD: NFE JOB#: 17018-02		2100 EAST CARY STREET, SUITE 309 RICHMOND, VIRGINIA 23223 (P) 804 782-1903 (F) 804 782-2142 <b>RUMMEL, KLEPPER &amp; KAHL, LLP</b> <small>Engineering Construction Management Planning   Scientists</small>



**LEGEND**

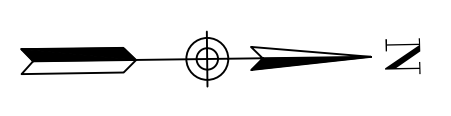
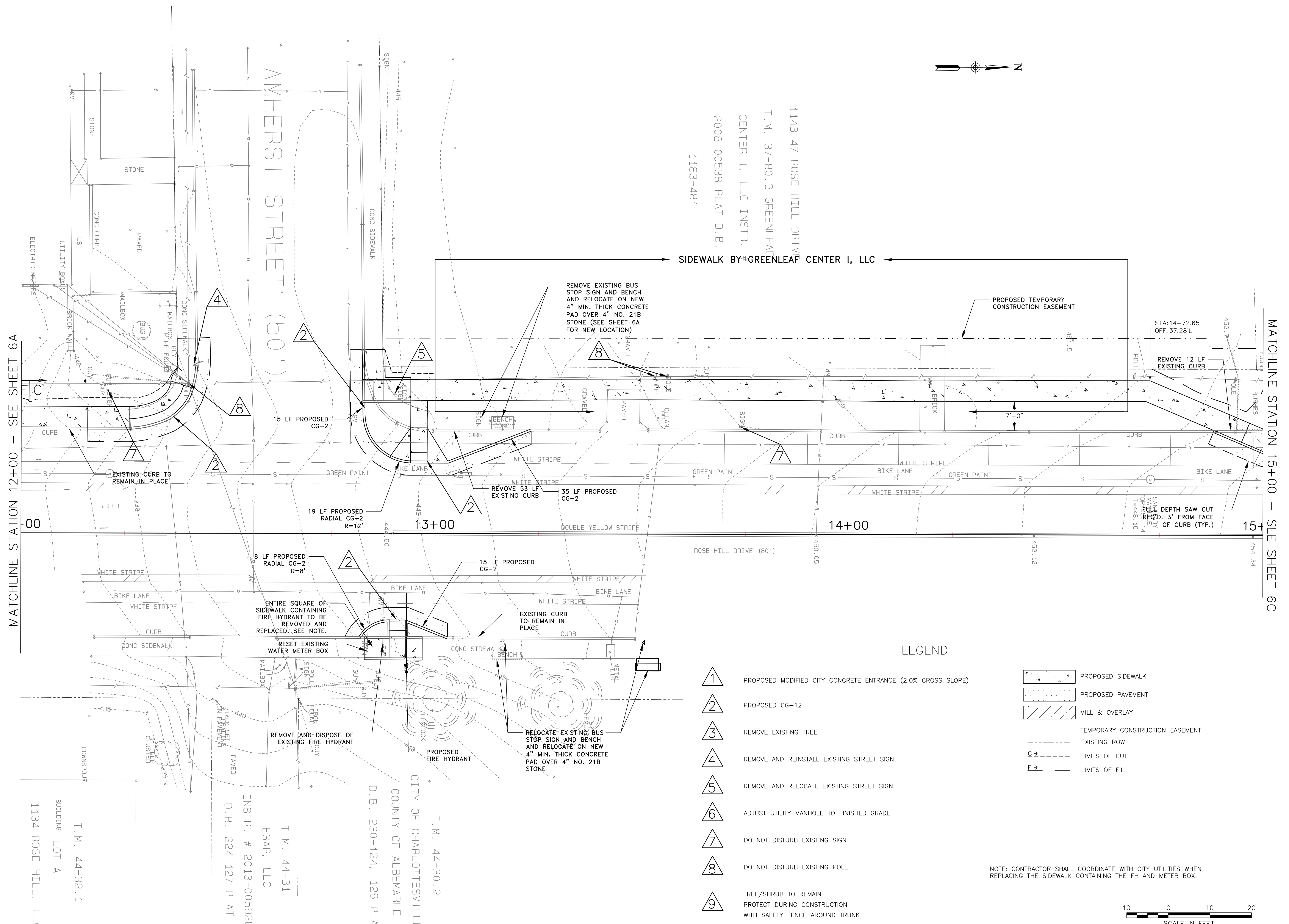
- 1 PROPOSED MODIFIED CITY CONCRETE ENTRANCE (2.0% CROSS SLOPE) (TRUNCATED DOMES NOT SHOWN FOR CLARITY. SEE ENTRANCE DETAILS)
- 2 PROPOSED CG-12
- 3 REMOVE EXISTING TREE AND REPLACE WITH SAME 1 1/2" - 2" CALIPER SPECIES
- 4 REMOVE AND REINSTALL EXISTING STREET SIGN
- 5 REMOVE AND RELOCATE EXISTING STREET SIGN
- 6 ADJUST UTILITY MANHOLE TO FINISHED GRADE
- 7 DO NOT DISTURB EXISTING SIGN
- 8 DO NOT DISTURB EXISTING POLE
- 9 TREE/SHRUB TO REMAIN PROTECT DURING CONSTRUCTION WITH SAFETY FENCE AROUND TRUNK
- 10 REMOVE AND REINSTALL EXISTING MAILBOX/CONCRETE PAD

- PROPOSED SIDEWALK
- PROPOSED PAVEMENT
- MILL & OVERLAY
- TEMPORARY CONSTRUCTION EASEMENT
- EXISTING ROW
- LIMITS OF CUT
- LIMITS OF FILL

NOTE: APPROXIMATE LOCATION OF EXISTING SANITARY SEWER LATERAL. CONTRACTOR SHALL EXCAVATE AND LOCATE LATERAL PRIOR TO CONSTRUCTING PROPOSED RETAINING WALL. CONTRACTOR SHALL REMOVE AND REPLACE SECTION OF LATERAL WITHIN LIMITS OF CONSTRUCTION WITH NEW DUCTILE IRON LATERAL. ENCASE LATERAL UNDERNEATH THE RETAINING WALL IN 12" DIAMETER, 0.5" THICK STEEL SLEEVE. STEEL SLEEVE SHALL EXTEND TO RIGHT OF WAY LINE AND MINIMUM 5' FROM EACH SIDE OF WALL. PROVIDE NEW LATERAL CLEAN OUT OUTSIDE OF THE RIGHT OF WAY LIMIT.



PLAN REVISIONS -		ROSE HILL DRIVE SIDEWALK PROJECT CHARLOTTESVILLE, VIRGINIA	LAYOUT PLAN
SHEET	6A OF 13		
	SCALE	1" = 10'	
DATE: 3/18/2022	ENGINEER: NFE	CHECKED: MUJ	JOB#: 17018-02
		<b>RUMMEL, KLEPPER &amp; KAHL, LLP</b>	
2100 EAST CARY STREET, SUITE 309 RICHMOND, VIRGINIA 23223 (P) 804 782-1903 (F) 804 782-2142			



1143-47 ROSE HILL DRIVE  
 T.M. 37-80.3 GREENLEAF  
 CENTER I, LLC INSTR.  
 2008-00538 PLAT D.B.  
 1183-481

MATCHLINE STATION 00+00 - SEE SHEET 6A

MATCHLINE STATION 15+00 - SEE SHEET 6C

**LEGEND**

- |   |   |  |                                 |
|---|---|--|---------------------------------|
| ① | PROPOSED MODIFIED CITY CONCRETE ENTRANCE (2.0% CROSS SLOPE)                           |  | PROPOSED SIDEWALK               |
| ② | PROPOSED CG-12  |  | PROPOSED PAVEMENT               |
| ③ | REMOVE EXISTING TREE  |  | MILL & OVERLAY                  |
| ④ | REMOVE AND REINSTALL EXISTING STREET SIGN   |  | TEMPORARY CONSTRUCTION EASEMENT |
| ⑤ | REMOVE AND RELOCATE EXISTING STREET SIGN  |  | EXISTING ROW                    |
| ⑥ | ADJUST UTILITY MANHOLE TO FINISHED GRADE  |  | LIMITS OF CUT                   |
| ⑦ | DO NOT DISTURB EXISTING SIGN  |  | LIMITS OF FILL                  |
| ⑧ | DO NOT DISTURB EXISTING POLE  |  |                                 |
| ⑨ | TREE/SHRUB TO REMAIN<br>PROTECT DURING CONSTRUCTION<br>WITH SAFETY FENCE AROUND TRUNK |  |                                 |

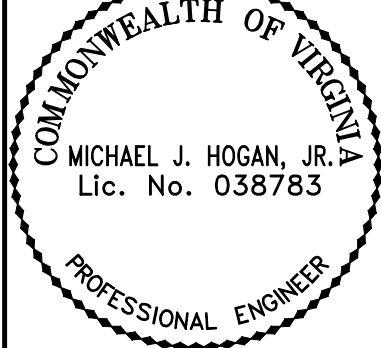
NOTE: CONTRACTOR SHALL COORDINATE WITH CITY UTILITIES WHEN REPLACING THE SIDEWALK CONTAINING THE FH AND METER BOX.



PLAN REVISIONS -
SHEET
<b>6B</b> OF <b>13</b>
SCALE
1" = 10'

**ROSE HILL DRIVE  
 SIDEWALK PROJECT**  
 CHARLOTTEVILLE, VIRGINIA  
**LAYOUT PLAN**

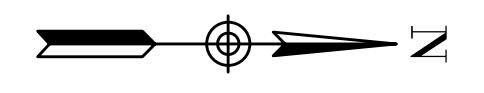
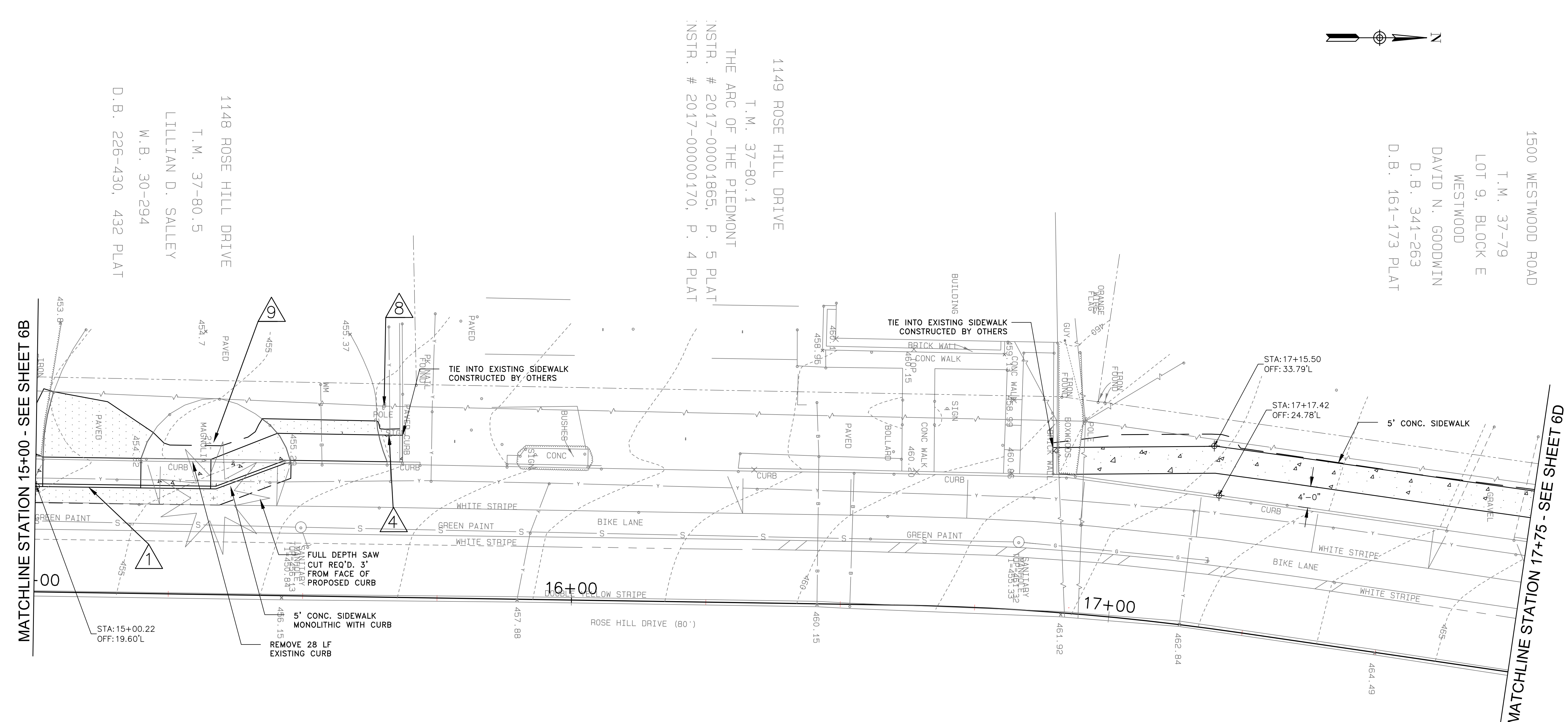
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2100 EAST CARY STREET, SUITE 309  
 RICHMOND, VIRGINIA 23223  
 (P) 804 782-1903 (F) 804 782-2142



AMHERST STREET (50')  
 ROSE HILL DRIVE (80')  
 CITY OF CHARLOTTEVILLE  
 COUNTY OF ALBEMARLE  
 D.B. 230-124, 126 PLA  
 T.M. 44-30.2  
 T.M. 44-32.1  
 ESAP, LLC  
 INSTR. # 2013-00592E  
 D.B. 224-127 PLAT  
 T.M. 44-32.1  
 BUILDING LOT A  
 1134 ROSE HILL, LLC



1149 ROSE HILL DRIVE  
 T.M. 37-80.1  
 THE ARC OF THE PIEDMONT  
 INSTR. # 2017-00001865, P. 5 PLAT  
 INSTR. # 2017-00000170, P. 4 PLAT

1500 WESTWOOD ROAD  
 T.M. 37-79  
 LOT 9, BLOCK E  
 WESTWOOD  
 DAVID N. GOODWIN  
 D.B. 341-263  
 D.B. 161-173 PLAT

1148 ROSE HILL DRIVE  
 T.M. 37-80.5  
 LILLIAN D. SALLEY  
 W.B. 30-294  
 D.B. 226-430, 432 PLAT

**LEGEND**

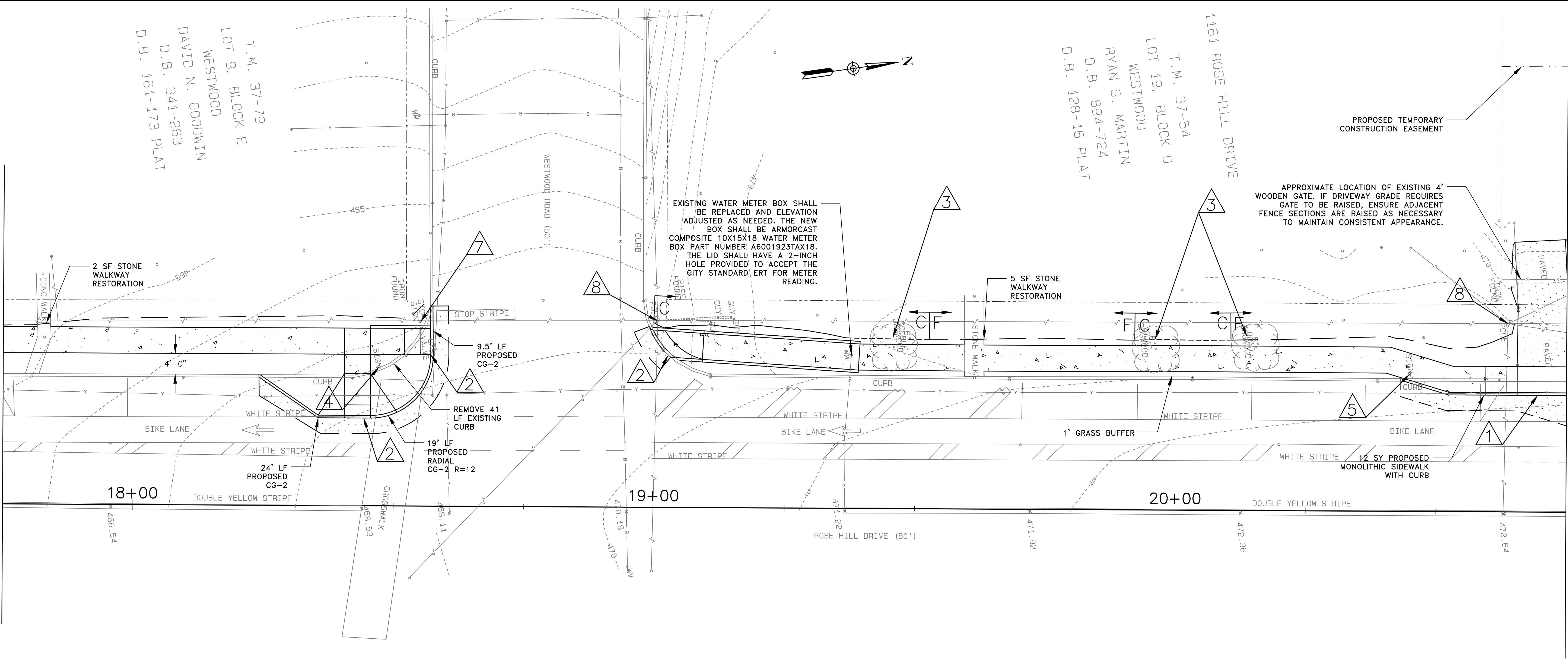
- |  |   |  |                                 |
|--|---|--|---------------------------------|
|  | PROPOSED MODIFIED CITY CONCRETE ENTRANCE (2.0% CROSS SLOPE)                           |  | PROPOSED SIDEWALK               |
|  | PROPOSED CG-12  |  | PROPOSED PAVEMENT               |
|  | REMOVE EXISTING TREE  |  | MILL & OVERLAY                  |
|  | REMOVE AND REINSTALL EXISTING STREET SIGN   |  | TEMPORARY CONSTRUCTION EASEMENT |
|  | REMOVE AND RELOCATE EXISTING STREET SIGN  |  | EXISTING ROW                    |
|  | ADJUST UTILITY MANHOLE TO FINISHED GRADE  |  | LIMITS OF CUT                   |
|  | DO NOT DISTURB EXISTING SIGN  |  | LIMITS OF FILL                  |
|  | DO NOT DISTURB EXISTING POLE  |  |                                 |
|  | TREE/SHRUB TO REMAIN<br>PROTECT DURING CONSTRUCTION<br>WITH SAFETY FENCE AROUND TRUNK |  |                                 |



PLAN REVISIONS -		<b>ROSE HILL DRIVE SIDEWALK PROJECT</b> CHARLOTTEVILLE, VIRGINIA	<b>LAYOUT PLAN</b>
SHEET <b>13</b> OF <b>60</b>	SCALE <b>1" = 10'</b>	DATE: 3/18/2022	JOB#: 17018-02
		ENGINEER: NFE	CAD: NFE
		CHECKED: MUJ	
		<b>2100 EAST CARY STREET, SUITE 309</b> <b>RICHMOND, VIRGINIA 23223</b> <b>(P) 804 782-1903 (F) 804 782-2142</b> <b>RUMMEL, KLEPPER &amp; KAHL, LLP</b>	

MATCHLINE STATION 17+75 - SEE SHEET 6C

MATCHLINE STATION 20+75 - SEE SHEET 6E



T.M. 37-79  
 LOT 9, BLOCK E  
 WESTWOOD  
 DAVID N. GOODWIN  
 D.B. 341-263  
 D.B. 161-173 PLAT

1161 ROSE HILL DRIVE  
 T.M. 37-54  
 LOT 19, BLOCK D  
 WESTWOOD  
 RYAN S. MARTIN  
 D.B. 894-724  
 D.B. 128-16 PLAT

EXISTING WATER METER BOX SHALL BE REPLACED AND ELEVATION ADJUSTED AS NEEDED. THE NEW BOX SHALL BE ARMORCAST COMPOSITE 10X15X18" WATER METER BOX PART NUMBER A6001923TAX18. THE LID SHALL HAVE A 2-INCH HOLE PROVIDED TO ACCEPT THE CITY STANDARD ERT FOR METER READING.

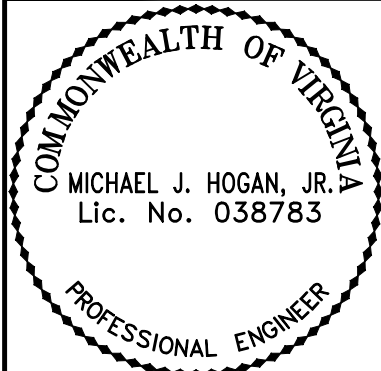
APPROXIMATE LOCATION OF EXISTING 4' WOODEN GATE. IF DRIVEWAY GRADE REQUIRES GATE TO BE RAISED, ENSURE ADJACENT FENCE SECTIONS ARE RAISED AS NECESSARY TO MAINTAIN CONSISTENT APPEARANCE.

PLAN REVISIONS -
SHEET
6D OF 13
SCALE
1" = 10'

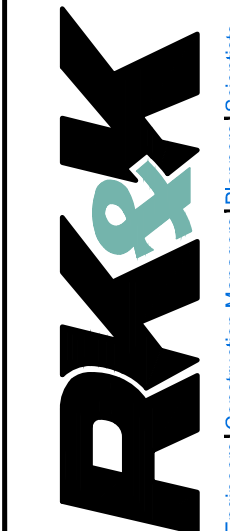
**ROSE HILL DRIVE  
 SIDEWALK PROJECT**  
 CHARLOTTESVILLE, VIRGINIA

**LAYOUT PLAN**

DATE: 3/18/2022
ENGINEER: NFE
CHECKED: MJH
CAD: NFE
JOB#: 17018-02



2100 EAST CARY STREET, SUITE 309  
 RICHMOND, VIRGINIA 23223  
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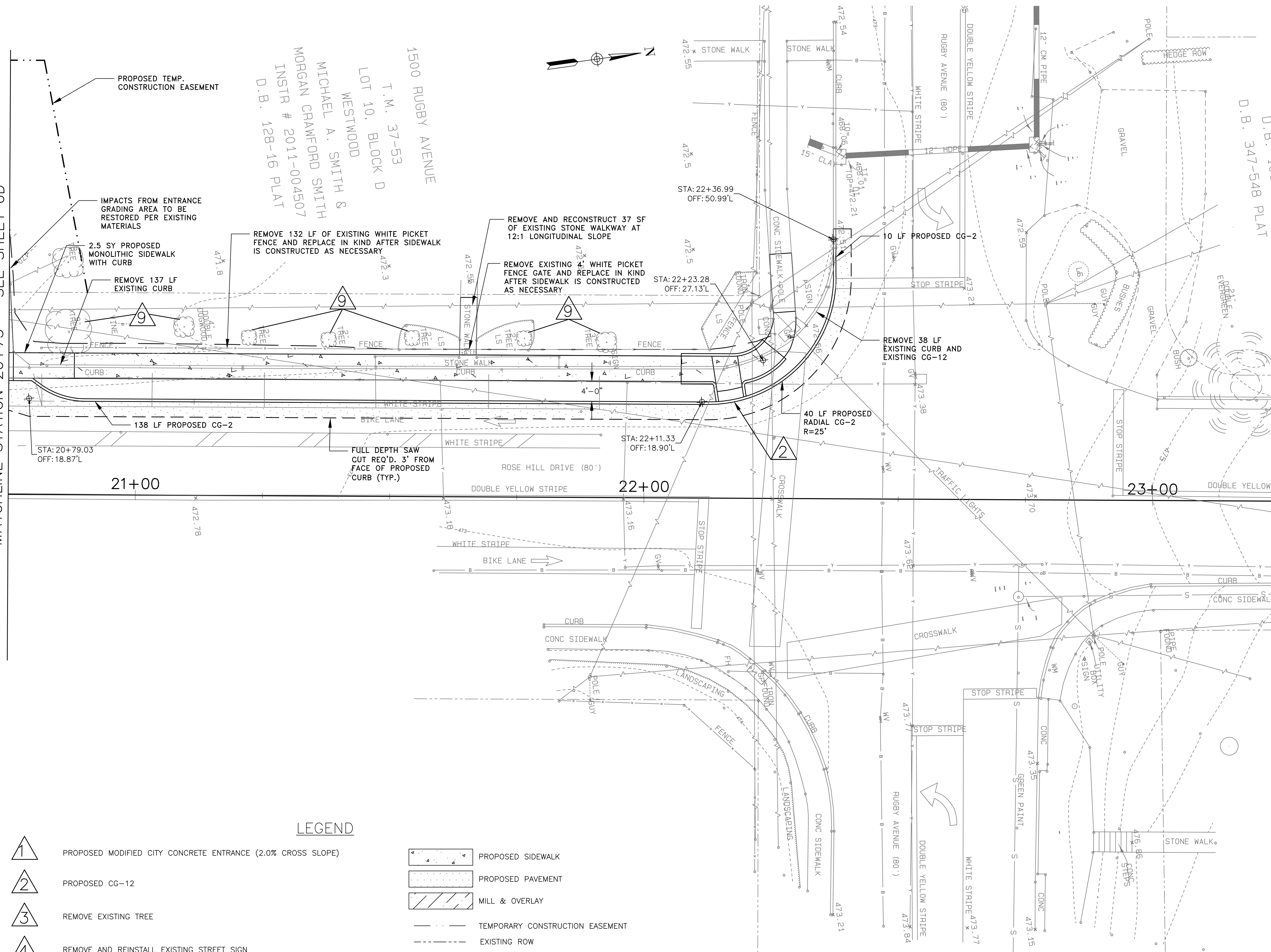
**RUMMEL, KLEPPER & KAHL, LLP**

**LEGEND**

- |   |   |           |                                 |
|---|---|-----------|---------------------------------|
| ① | PROPOSED MODIFIED CITY CONCRETE ENTRANCE (2.0% CROSS SLOPE)                           | [Pattern] | PROPOSED SIDEWALK               |
| ② | PROPOSED CG-12  | [Pattern] | PROPOSED PAVEMENT               |
| ③ | REMOVE EXISTING TREE AND REPLACE WITH SAME 1 1/2" - 2" CALIPER SPECIES                | [Pattern] | MILL & OVERLAY                  |
| ④ | REMOVE AND REINSTALL EXISTING STREET SIGN   | [Line]    | TEMPORARY CONSTRUCTION EASEMENT |
| ⑤ | REMOVE AND RELOCATE EXISTING STREET SIGN  | [Line]    | EXISTING ROW                    |
| ⑥ | ADJUST UTILITY MANHOLE TO FINISHED GRADE  | [Line]    | LIMITS OF CUT                   |
| ⑦ | DO NOT DISTURB EXISTING SIGN  | [Line]    | LIMITS OF FILL                  |
| ⑧ | DO NOT DISTURB EXISTING POLE  |           |                                 |
| ⑨ | TREE/SHRUB TO REMAIN<br>PROTECT DURING CONSTRUCTION<br>WITH SAFETY FENCE AROUND TRUNK |           |                                 |



MATCHLINE STATION 20+75 - SEE SHEET 6D



**LEGEND**

- |   |   |  |                                 |
|---|---|--|---------------------------------|
| ① | PROPOSED MODIFIED CITY CONCRETE ENTRANCE (2.0% CROSS SLOPE) |  | PROPOSED SIDEWALK               |
| ② | PROPOSED CG-12  |  | PROPOSED PAVEMENT               |
| ③ | REMOVE EXISTING TREE  |  | MILL & OVERLAY                  |
| ④ | REMOVE AND REINSTALL EXISTING STREET SIGN                   |  | TEMPORARY CONSTRUCTION EASEMENT |
| ⑤ | REMOVE AND RELOCATE EXISTING STREET SIGN                    |  | EXISTING ROW                    |
| ⑥ | ADJUST UTILITY MANHOLE TO FINISHED GRADE                    |  | LIMITS OF CUT                   |
| ⑦ | DO NOT DISTURB EXISTING SIGN                                |  | LIMITS OF FILL                  |
| ⑧ | DO NOT DISTURB EXISTING POLE                                |  |                                 |
| ⑨ | TREE/SHRUB TO REMAIN  |  |                                 |



PLAN REVISIONS -

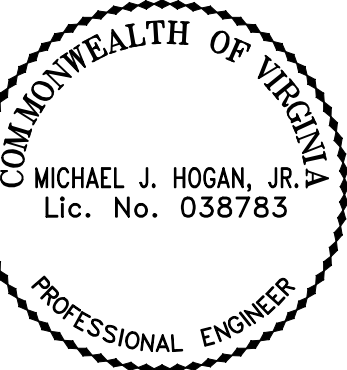
SHEET 6E OF 13

SCALE 1" = 10'

**ROSE HILL DRIVE  
SIDEWALK PROJECT**  
CHARLOTTESVILLE, VIRGINIA

**LAYOUT PLAN**

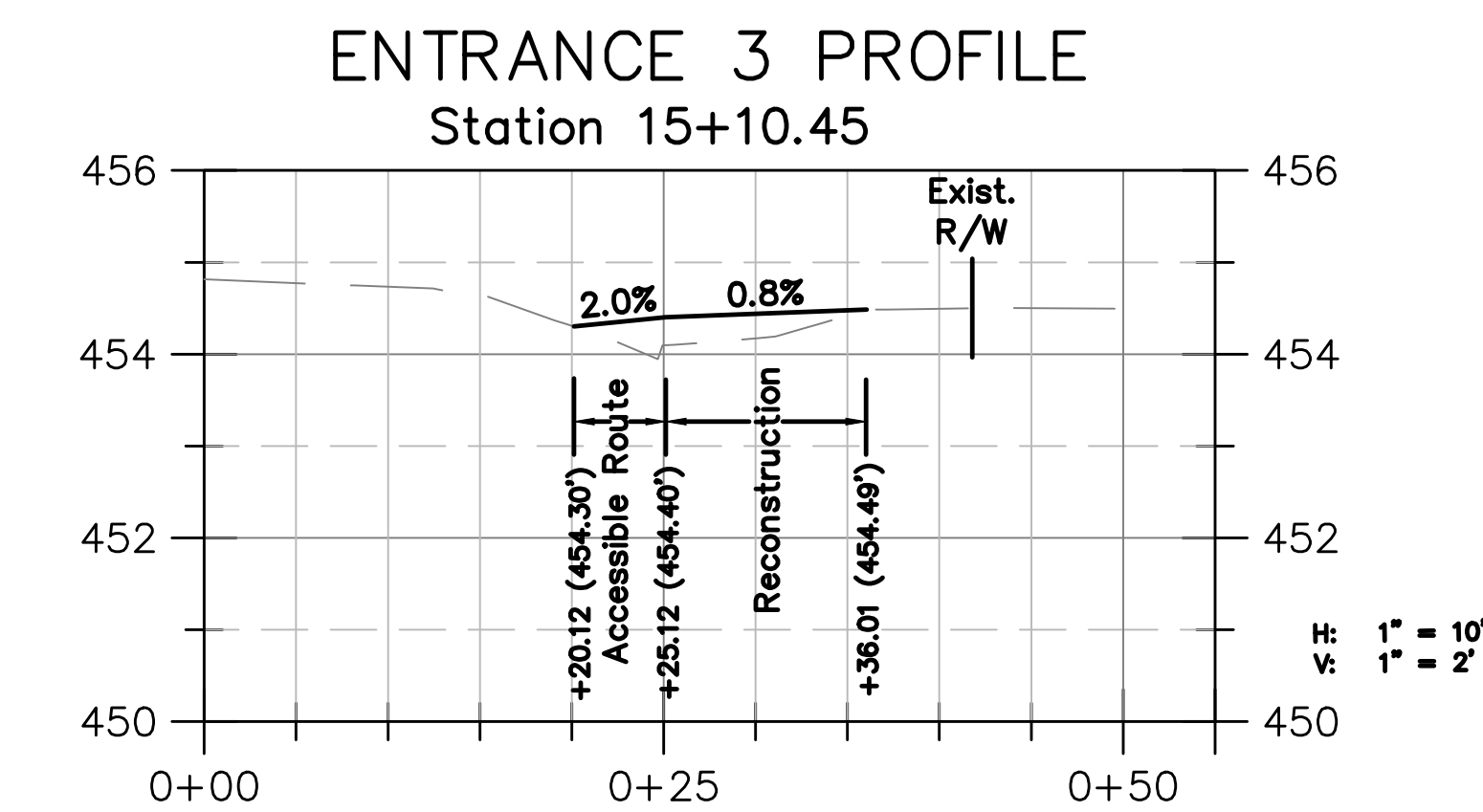
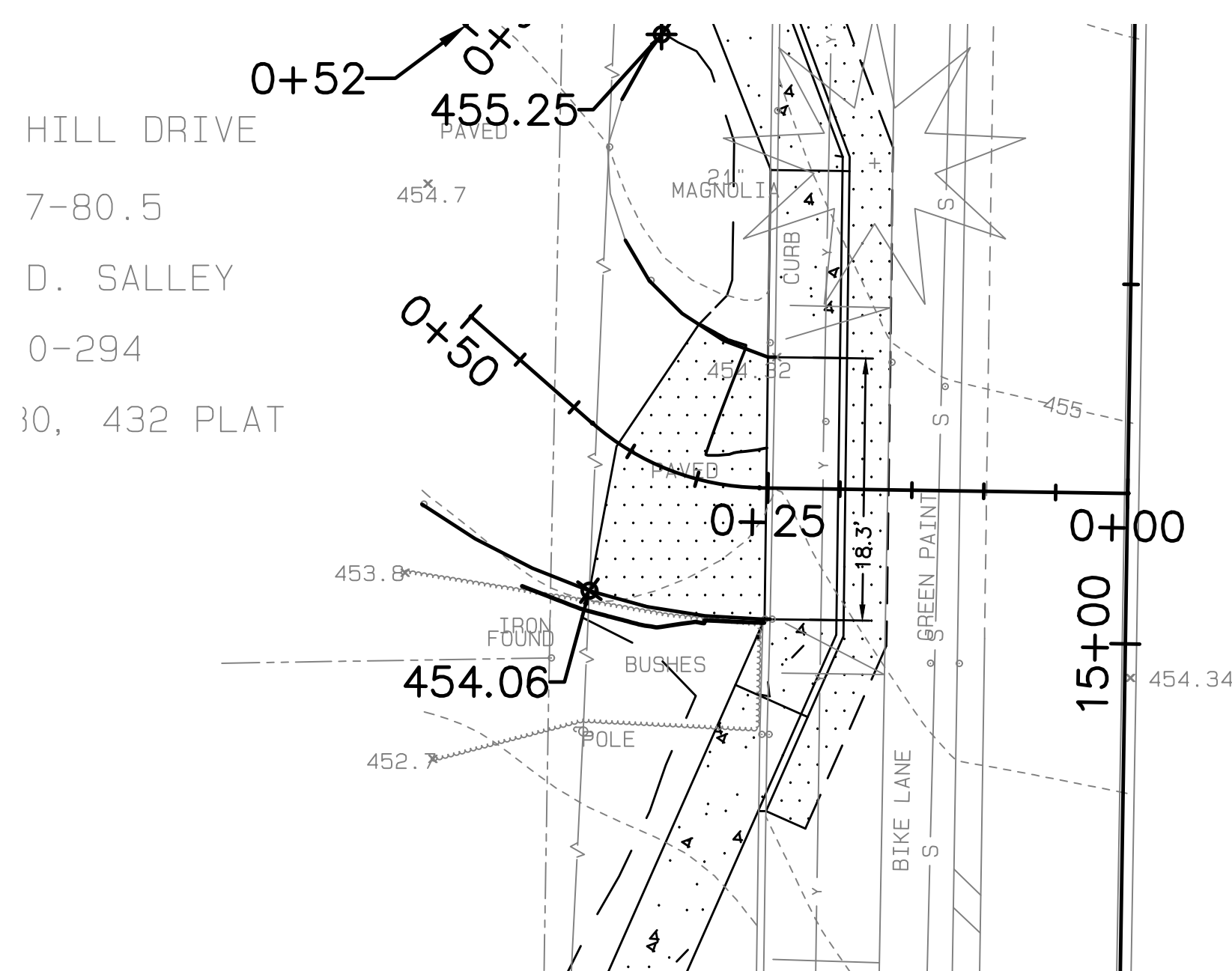
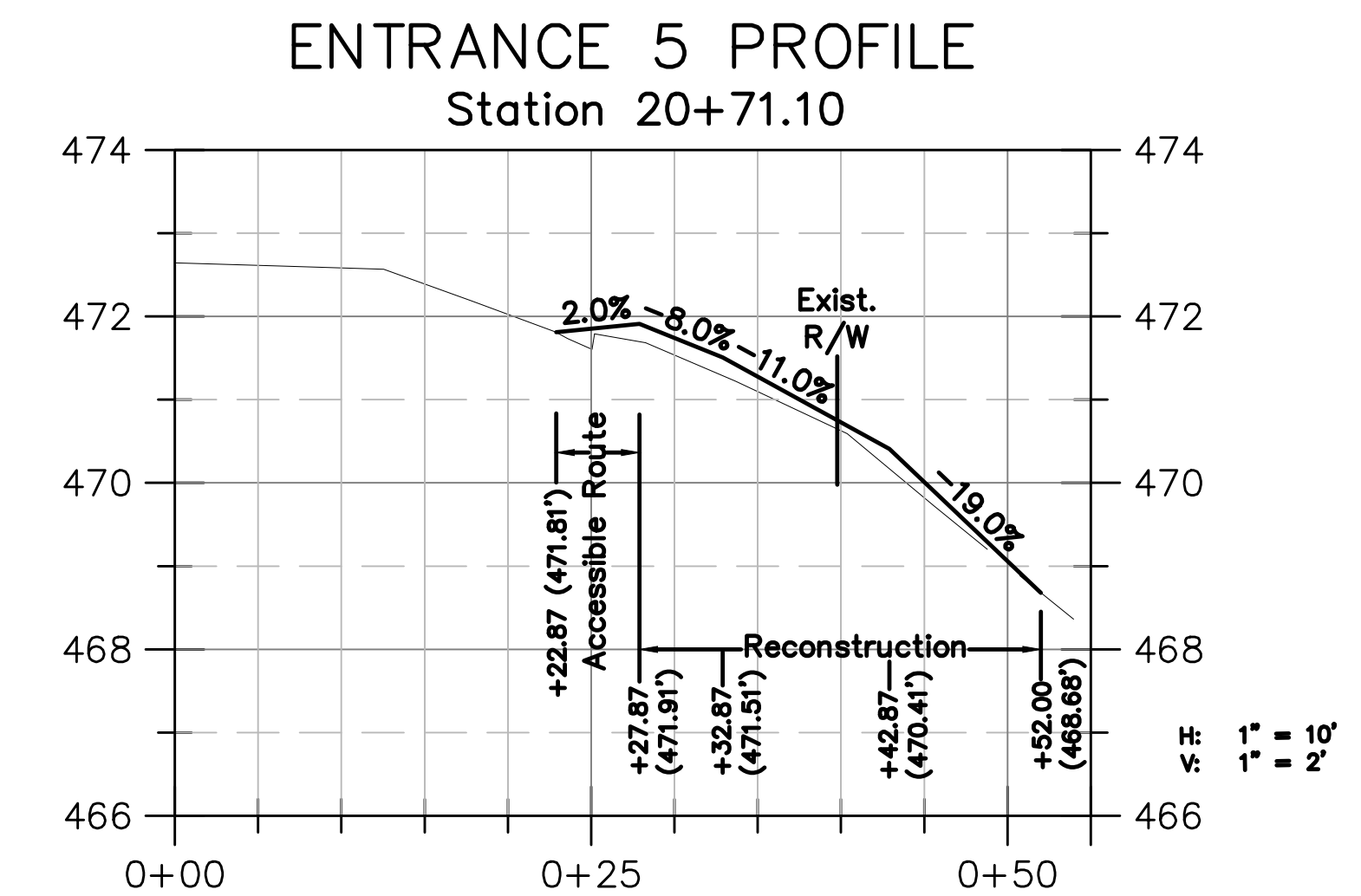
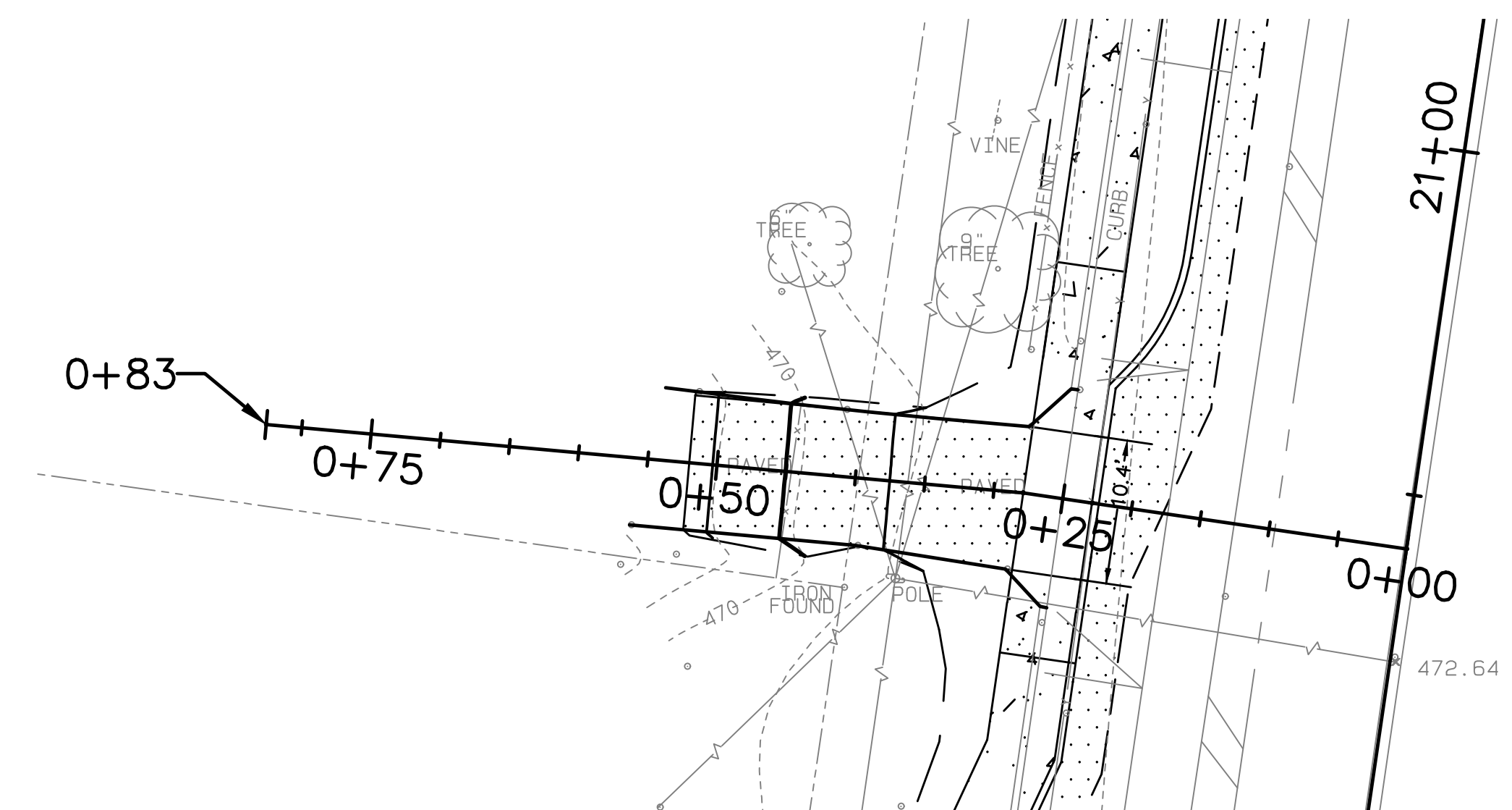
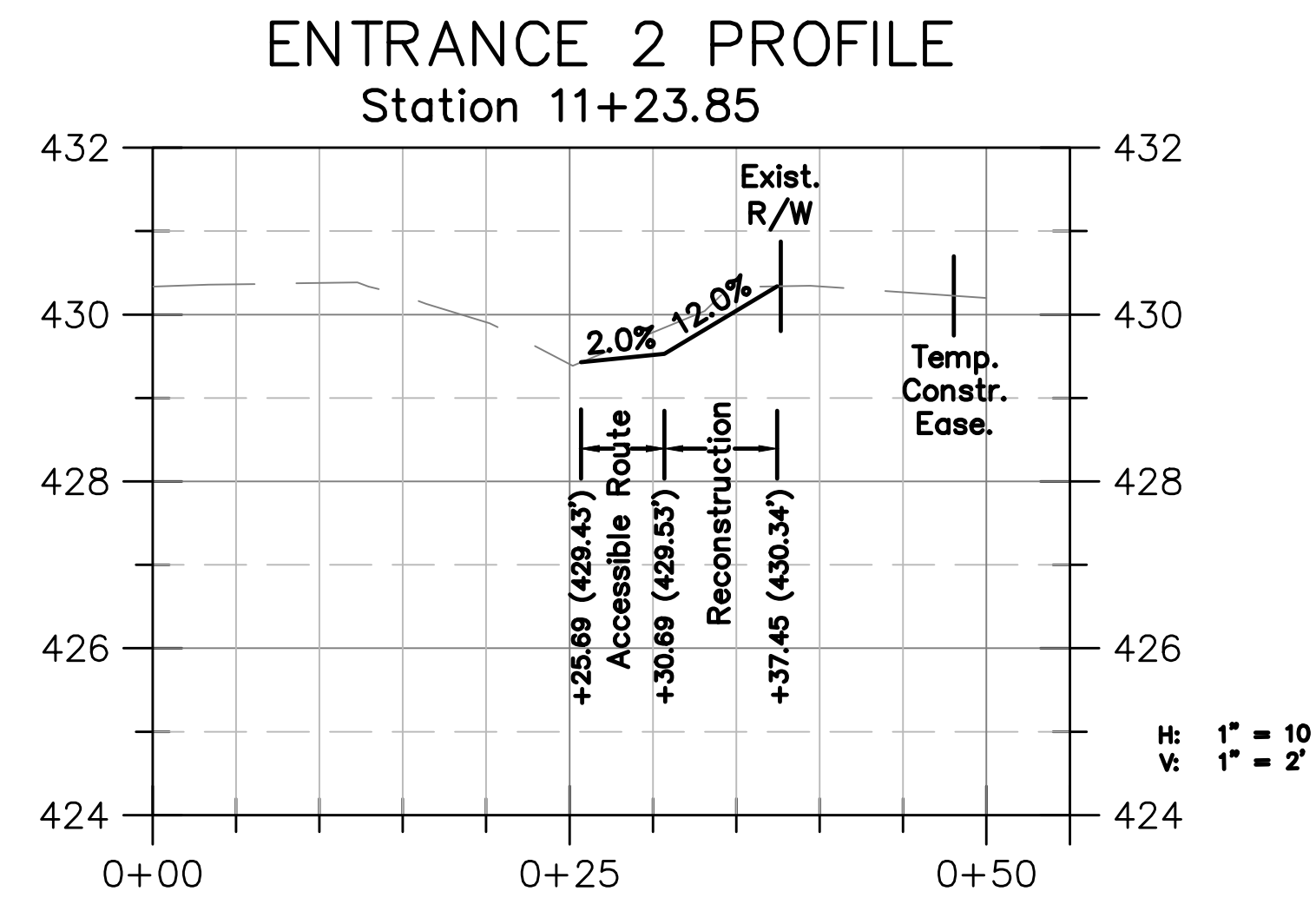
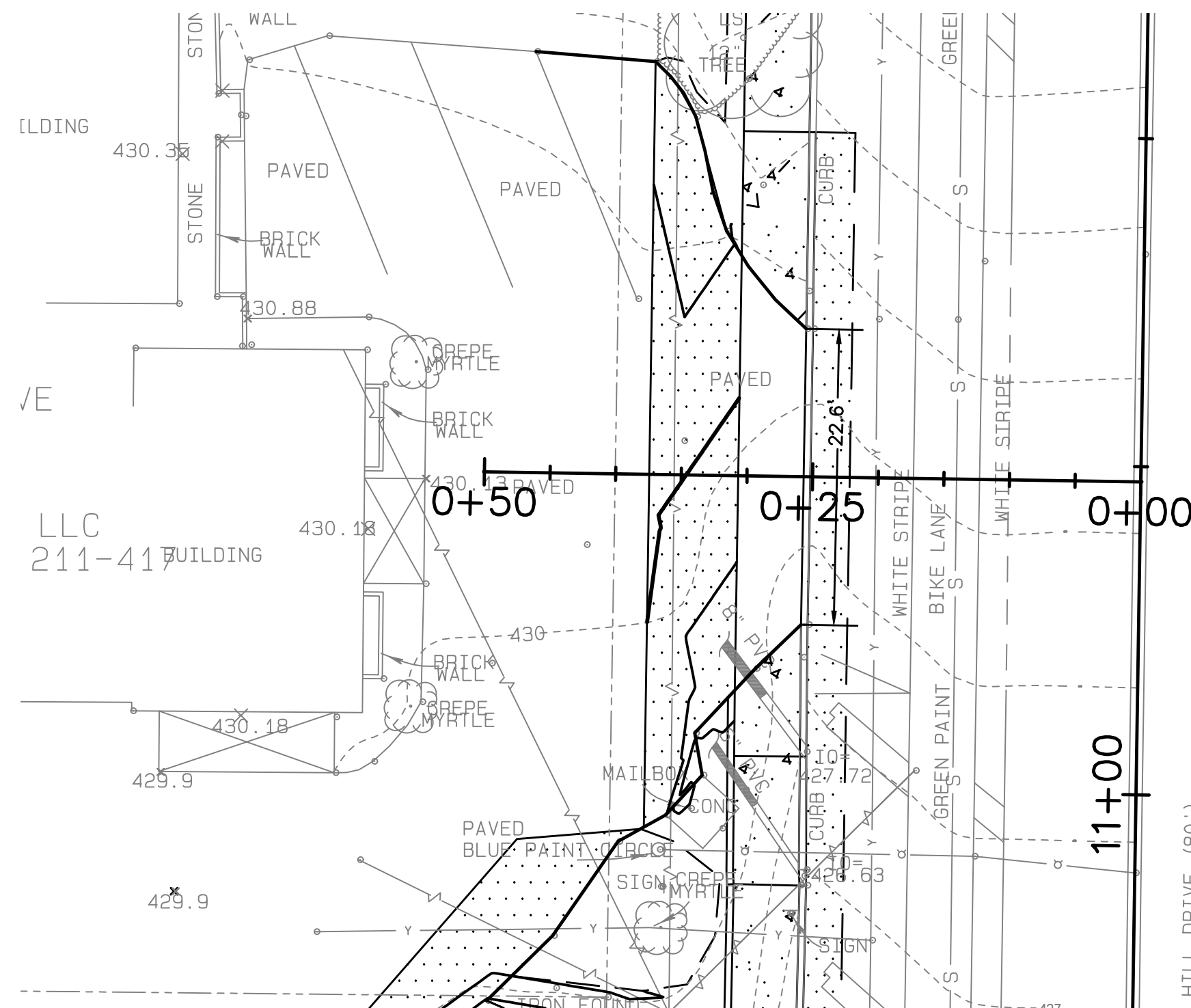
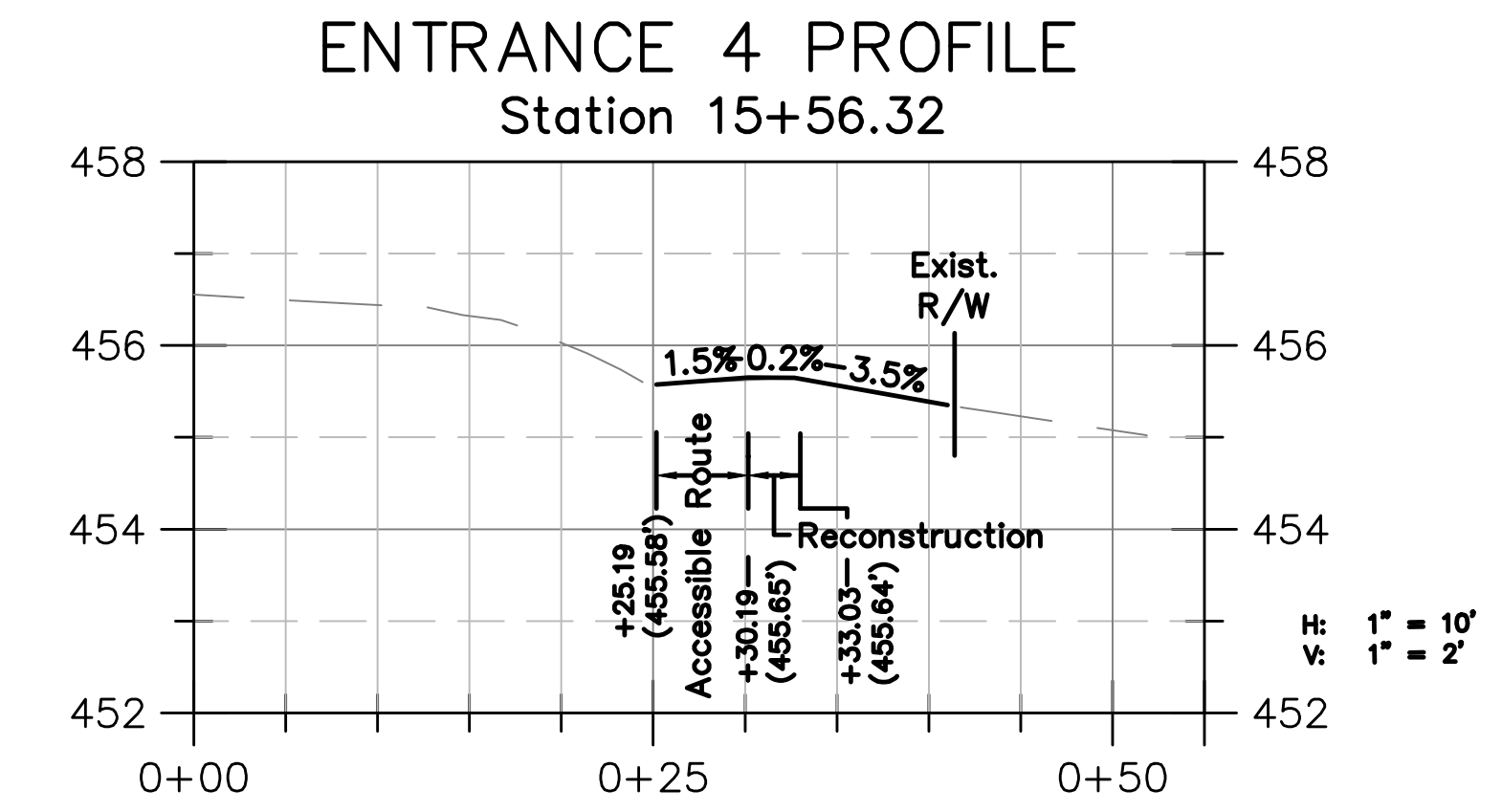
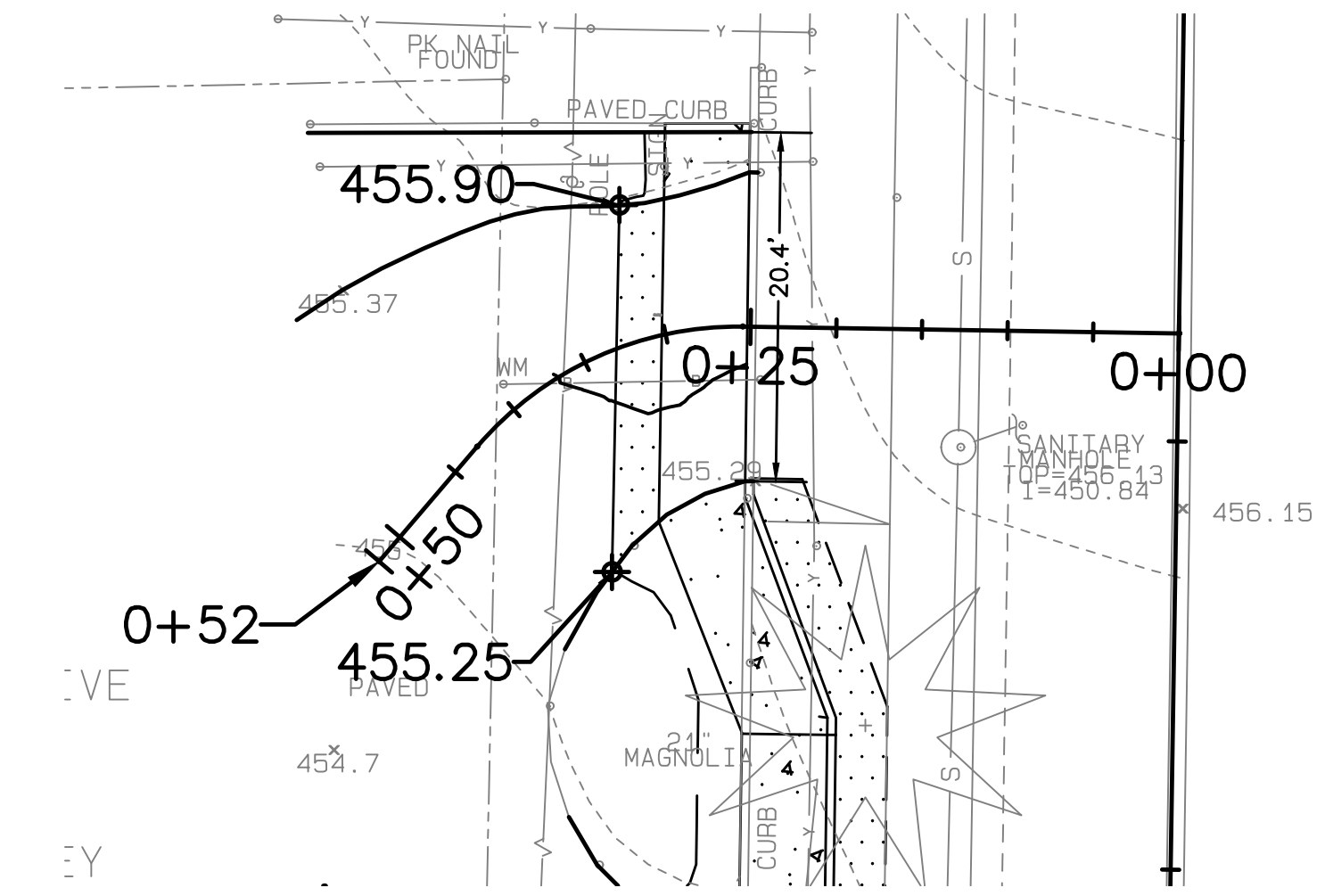
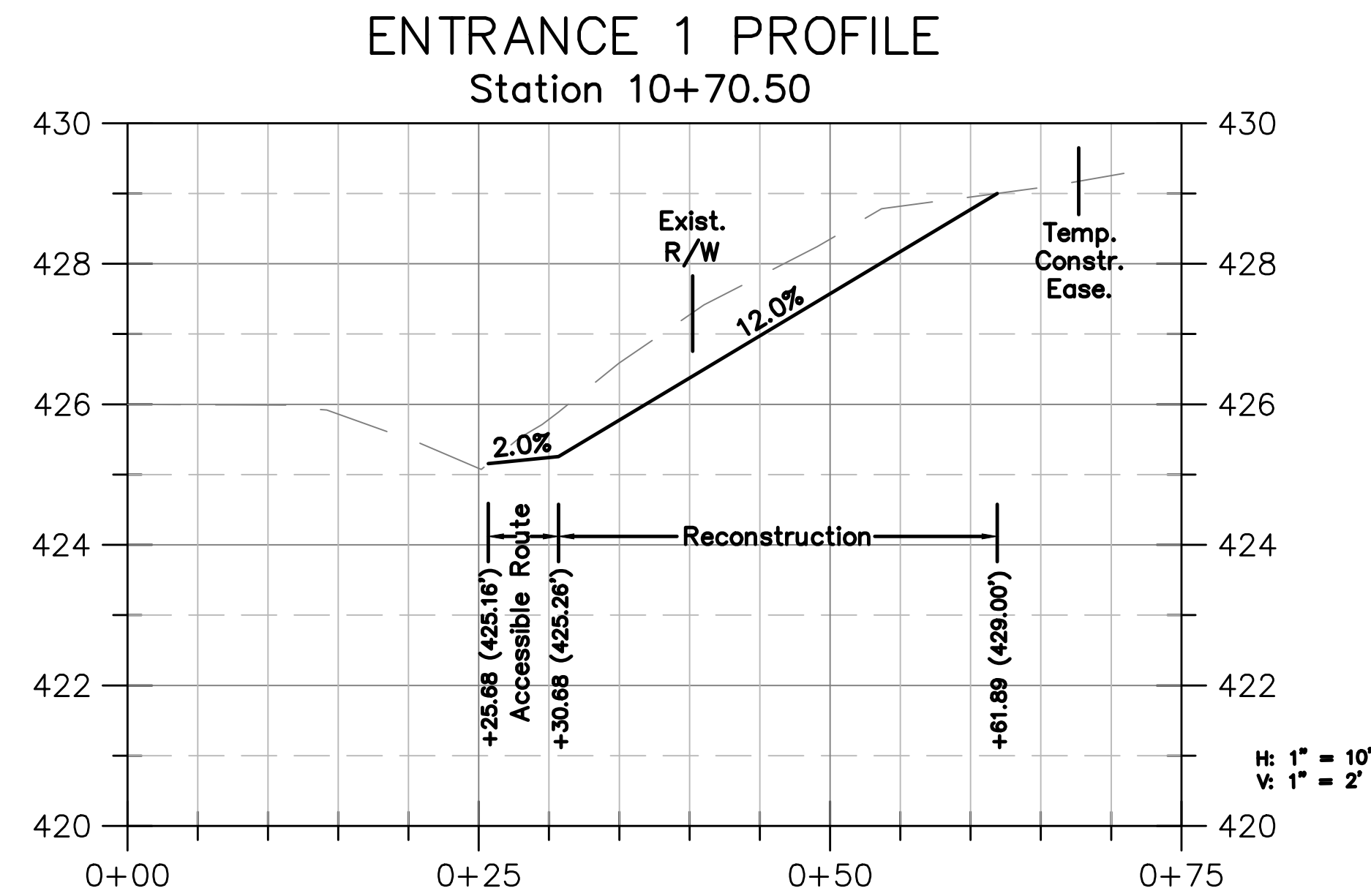
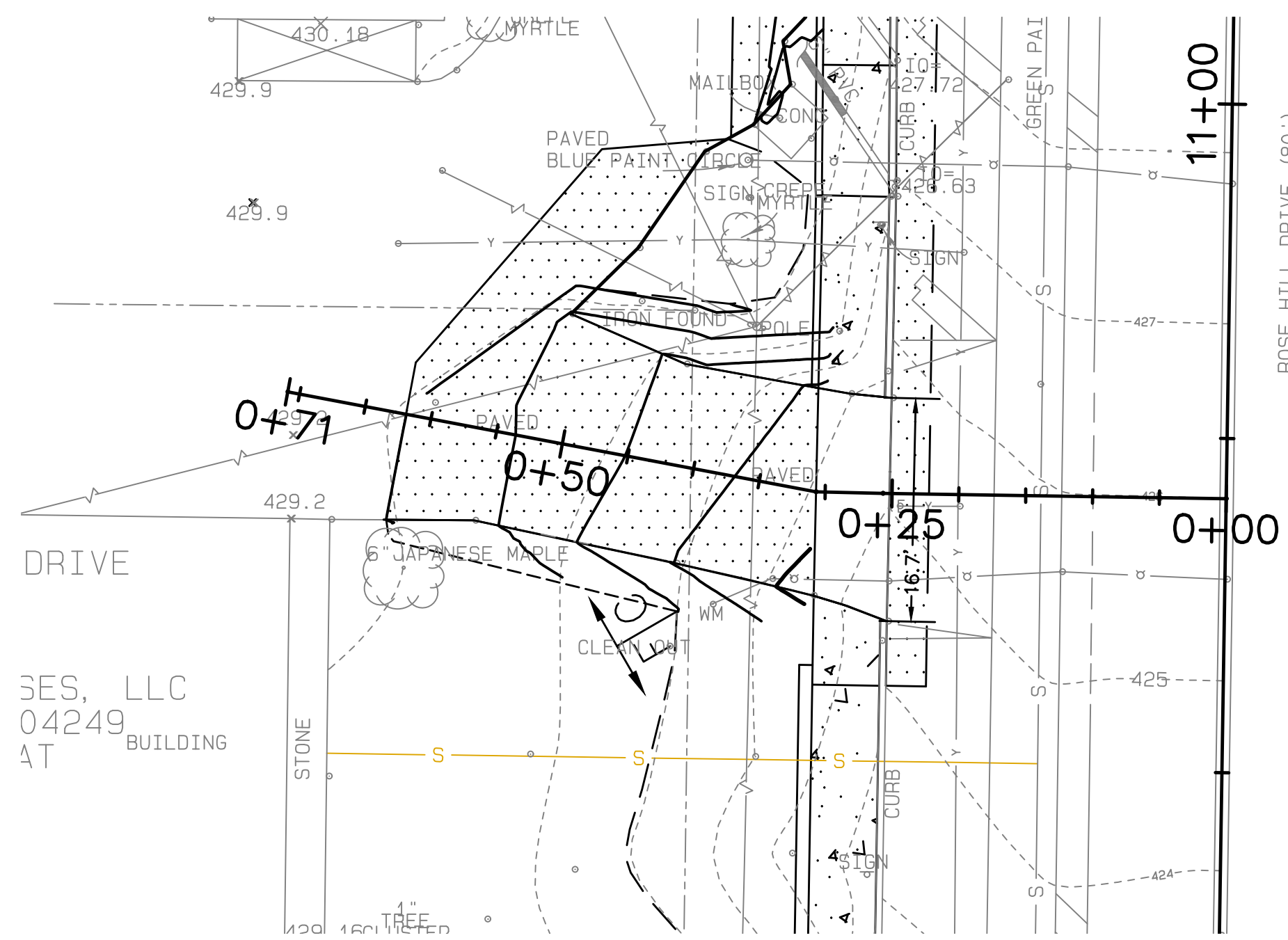
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2100 EAST CARY STREET, SUITE 309  
RICHMOND, VIRGINIA 23223  
(P) 804 782-1903 (F) 804 782-2142



**RUMMEL, KLEPPER & KAHL, LLP**



PLAN REVISIONS -

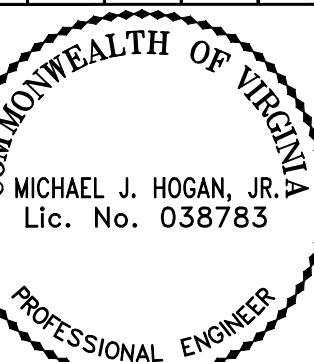
SHEET  
2A OF 13

SCALE  
1" = 10'

ROSE HILL DRIVE  
SIDEWALK PROJECT  
CHARLOTTESVILLE, VIRGINIA

ENTRANCE PROFILES

DATE: 3/18/2022  
ENGINEER: NFE  
CHECKED: MUJ  
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JOB#: 17018-02



2100 EAST CARY STREET, SUITE 309  
RICHMOND, VIRGINIA 23223  
(P) 804 782-1903 (F) 804 782-2142



2011 BMP Standards and Specifications

2013 Draft BMP Standards and Specifications

Project Name: **Rose Hill Avenue - Charlottesville**  
 Date: **10/15/2019**

**CLEAR ALL**  
 (Ctrl+Shift+R)

- data input cells
- constant values
- calculation cells
- final results

BMP Design Specifications List: 2013 Draft Stds & Specs

**Site Information**

**Post-Development Project (Treatment Volume and Loads)**

**Land Cover (acres)**

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed		0.12			0.12
Impervious Cover (acres)		0.20			0.20
					0.32

**Constants**

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
Pj (unitless correction factor)	0.90

**Runoff Coefficients (Rv)**

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

**Post-Development Requirement for Site Area**

TP Load Reduction Required (lb/yr) **0.36**

**LAND COVER SUMMARY -- POST DEVELOPMENT**

Land Cover Summary		Treatment Volume and Nutrient Loads	
Forest/Open Space Cover (acres)	0.00	Treatment Volume (acre-ft)	0.0178
Weighted Rv (forest)	0.00	Treatment Volume (cubic feet)	775
% Forest	0%	TP Load (lb/yr)	0.49
Managed Turf Cover (acres)	0.12	TN Load (lb/yr) (Informational Purposes Only)	3.49
Weighted Rv (turf)	0.20		
% Managed Turf	37%		
Impervious Cover (acres)	0.20		
Rv (impervious)	0.95		
% Impervious	63%		
Site Area (acres)	<b>0.32</b>		
Site Rv	<b>0.67</b>		

**NOTES:**

THIS PROJECT DISTURBS GREATER THAN 6,000 SQUARE FEET AND THEREFORE A STORMWATER MANAGEMENT PLAN IS REQUIRED BY CITY ORDINANCE.

IN COORDINATION WITH THE CITY, IT HAS BEEN DETERMINED THAT THEY WILL PURCHASE NUTRIENT CREDITS FOR THE PHOSPHORUS REMOVAL REQUIRED.

NO ON-SITE BMP FACILITIES ARE REQUIRED FOR WATER QUALITY OR QUANTITY TREATMENT. SEE RK&K PROJECT STORMWATER MEMORANDUM DATED 2/5/2021 FOR STORMWATER QUANTITY CALCULATIONS FOR CHANNEL AND OUTFALL PROTECTION.

PLAN REVISIONS -

SHEET 8 OF 13

SCALE N.T.S.

ROSE HILL DRIVE  
 SIDEWALK PROJECT  
 CHARLOTTESVILLE, VIRGINIA

STORMWATER QUALITY CALCULATIONS

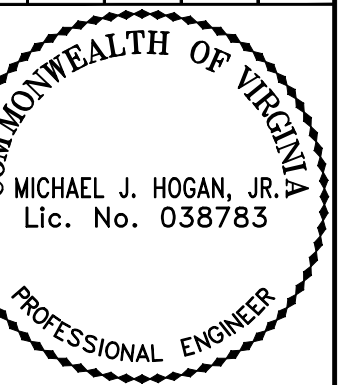
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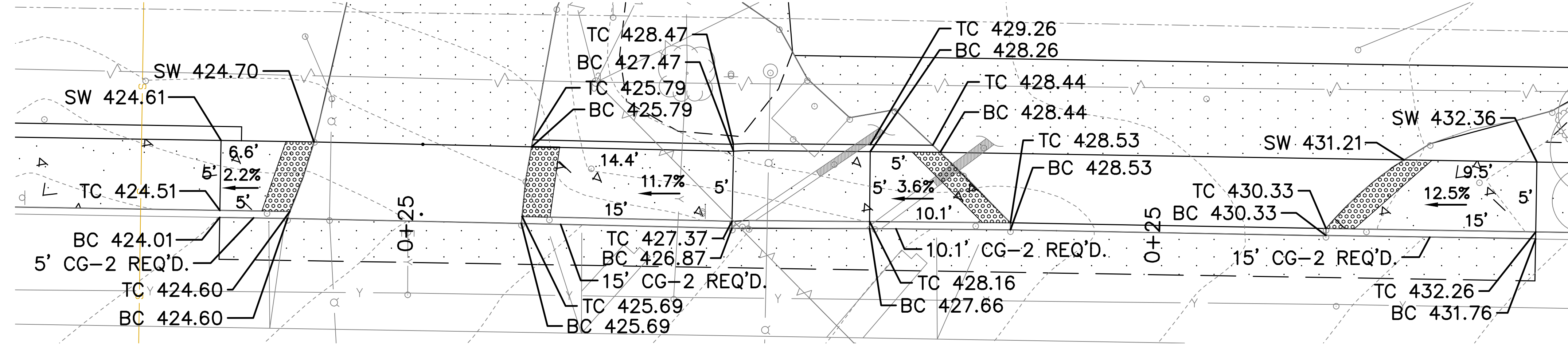
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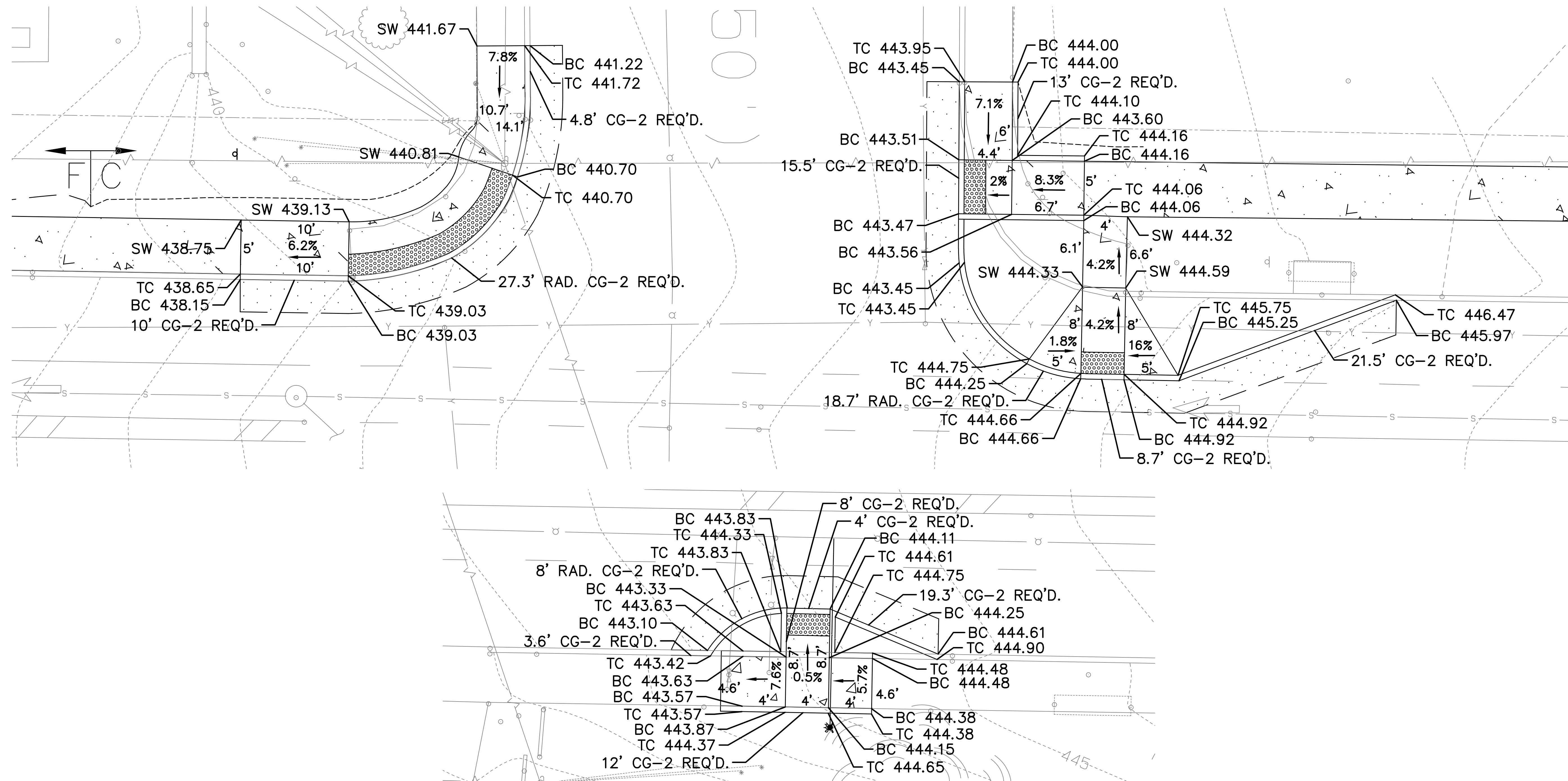
RUMMEL, KLEPPER & KAHL, LLP



# ENTRANCE 1 (STA. 10+70.50) & ENTRANCE 2 (STA. 11+23.85)



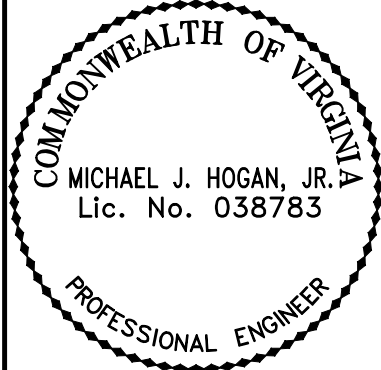
# AMHERST STREET CG-12 RAMPS



PLAN REVISIONS
SHEET 9A OF 13
SCALE 1" = 5'

ROSE HILL DRIVE  
SIDEWALK PROJECT  
CHARLOTTESVILLE, VIRGINIA  
CG-12 & ENTRANCE  
GRADING DETAILS

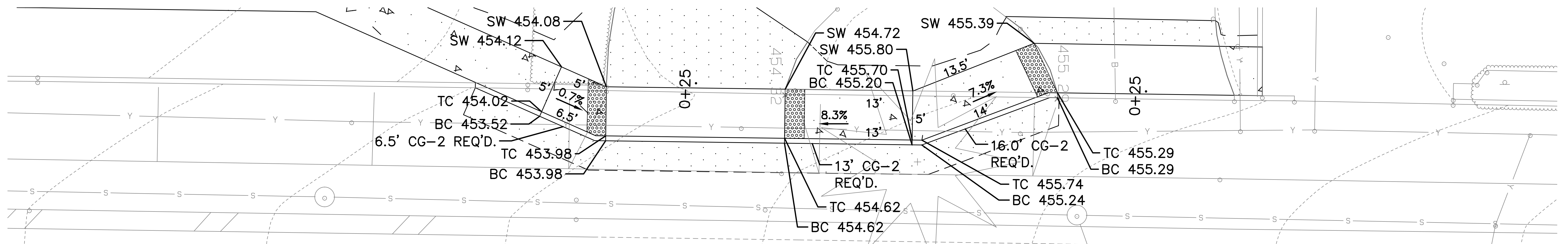
DATE: 3/18/2022	ENGINEER: NFE	CHECKED: MUJ	CAD: NFE	JOB#: 17018-02
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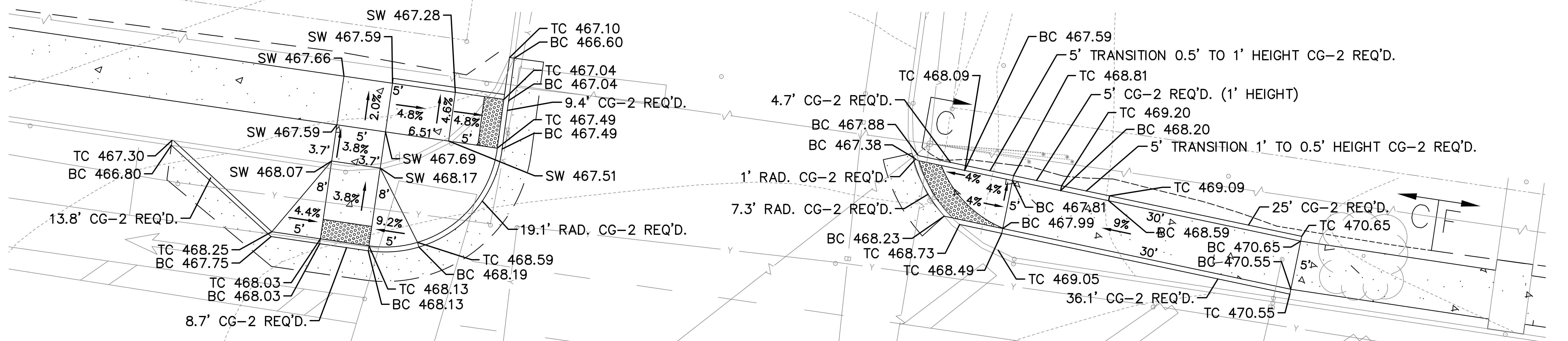
2100 EAST CARY STREET, SUITE 309  
RICHMOND, VIRGINIA 23223  
(P) 804 782-1903 (F) 804 782-2142



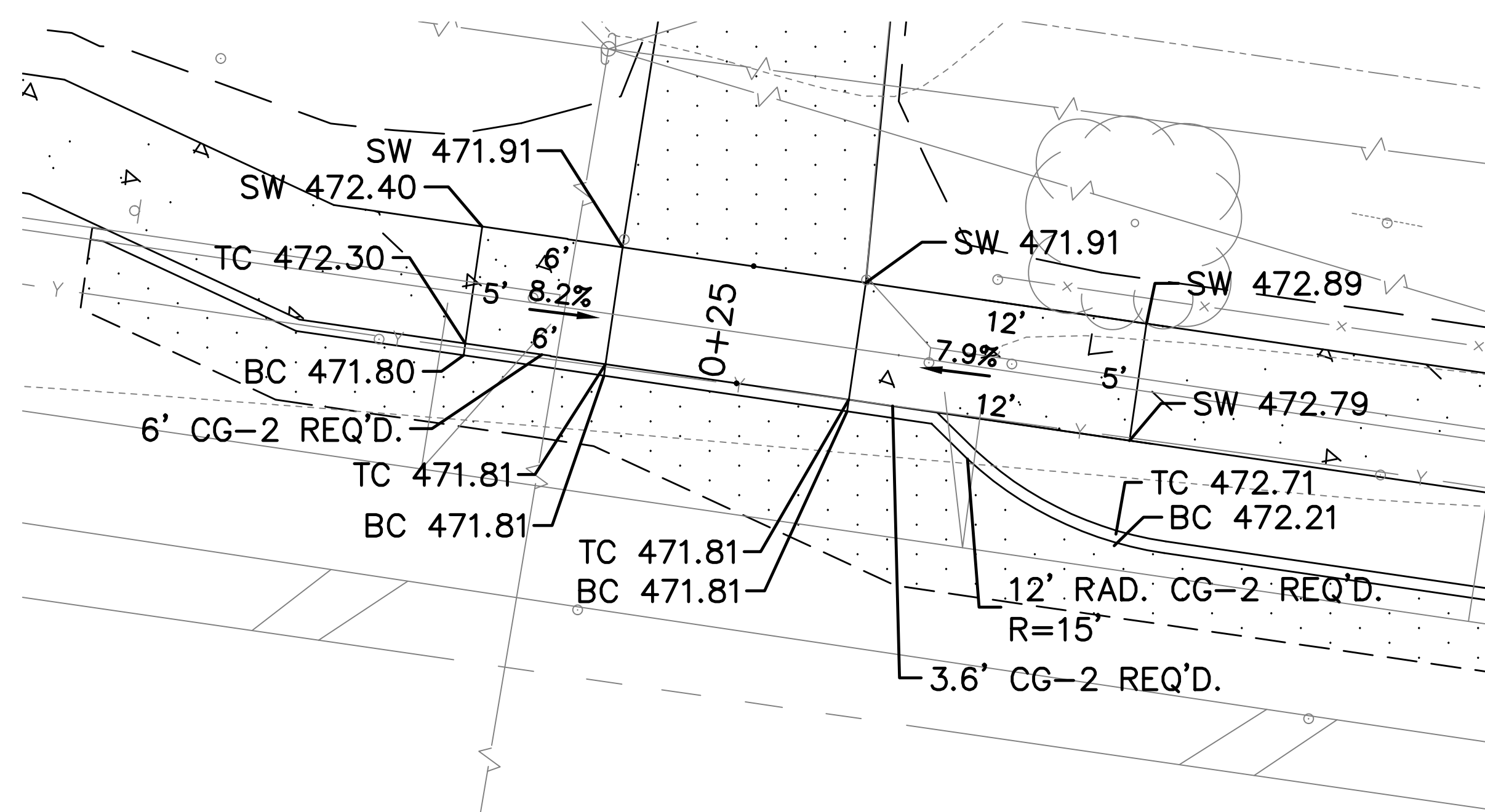
# ENTRANCE 3 (STA. 15+10.45) & ENTRANCE 4 (STA. 15+56.32)



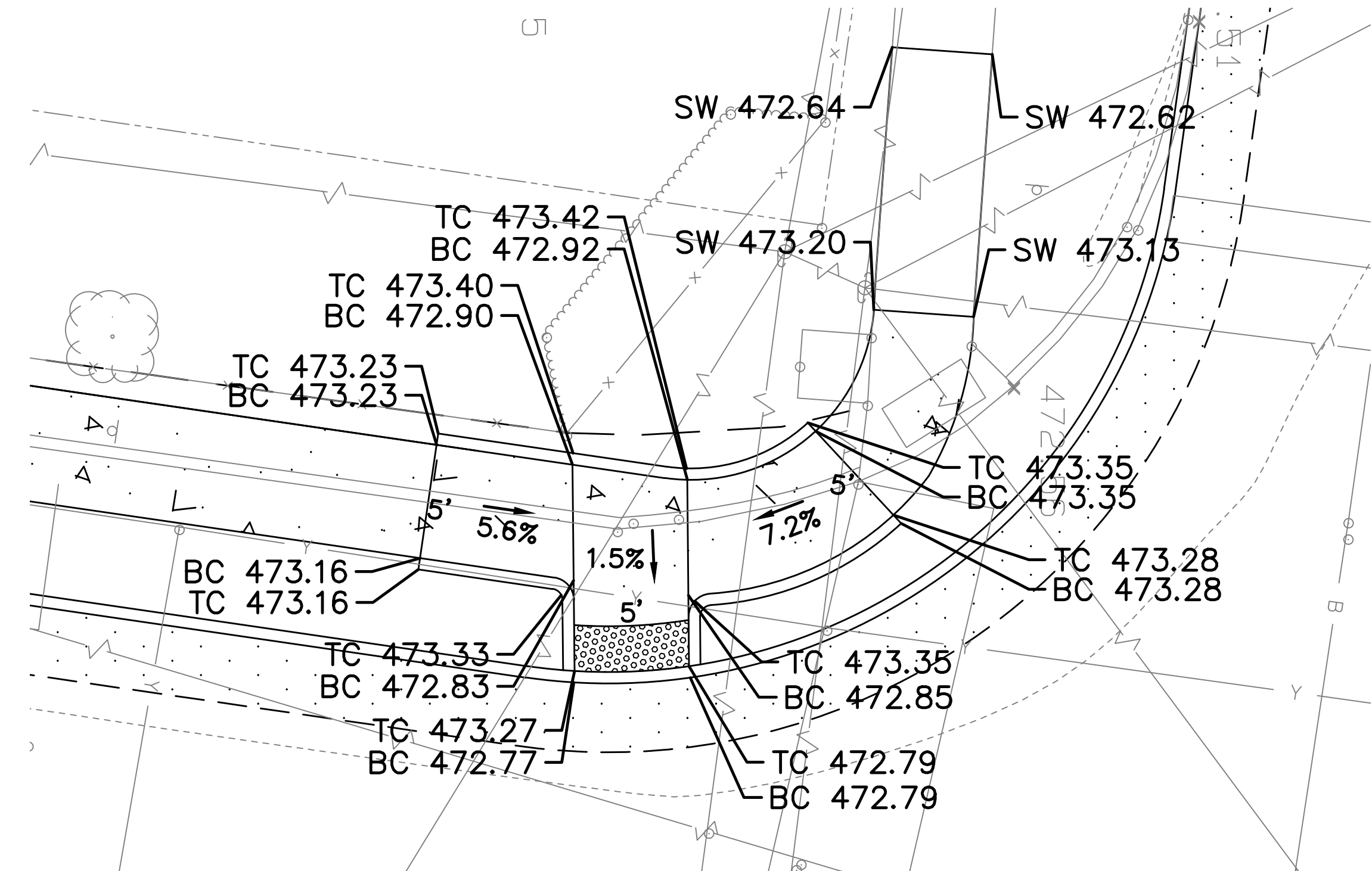
# WESTWOOD ROAD CG-12 RAMPS



# ENTRANCE 7 (STA. 20+71.10)



# RUGBY ROAD CG-12 RAMP



PLAN REVISIONS -

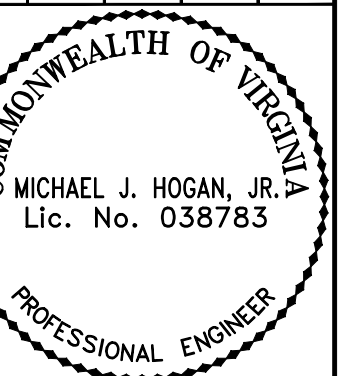
SHEET 9B OF 13

SCALE 1" = 5'

ROSE HILL DRIVE  
SIDEWALK PROJECT  
CHARLOTTEVILLE, VIRGINIA

CG-12 & ENTRANCE  
GRADING DETAILS

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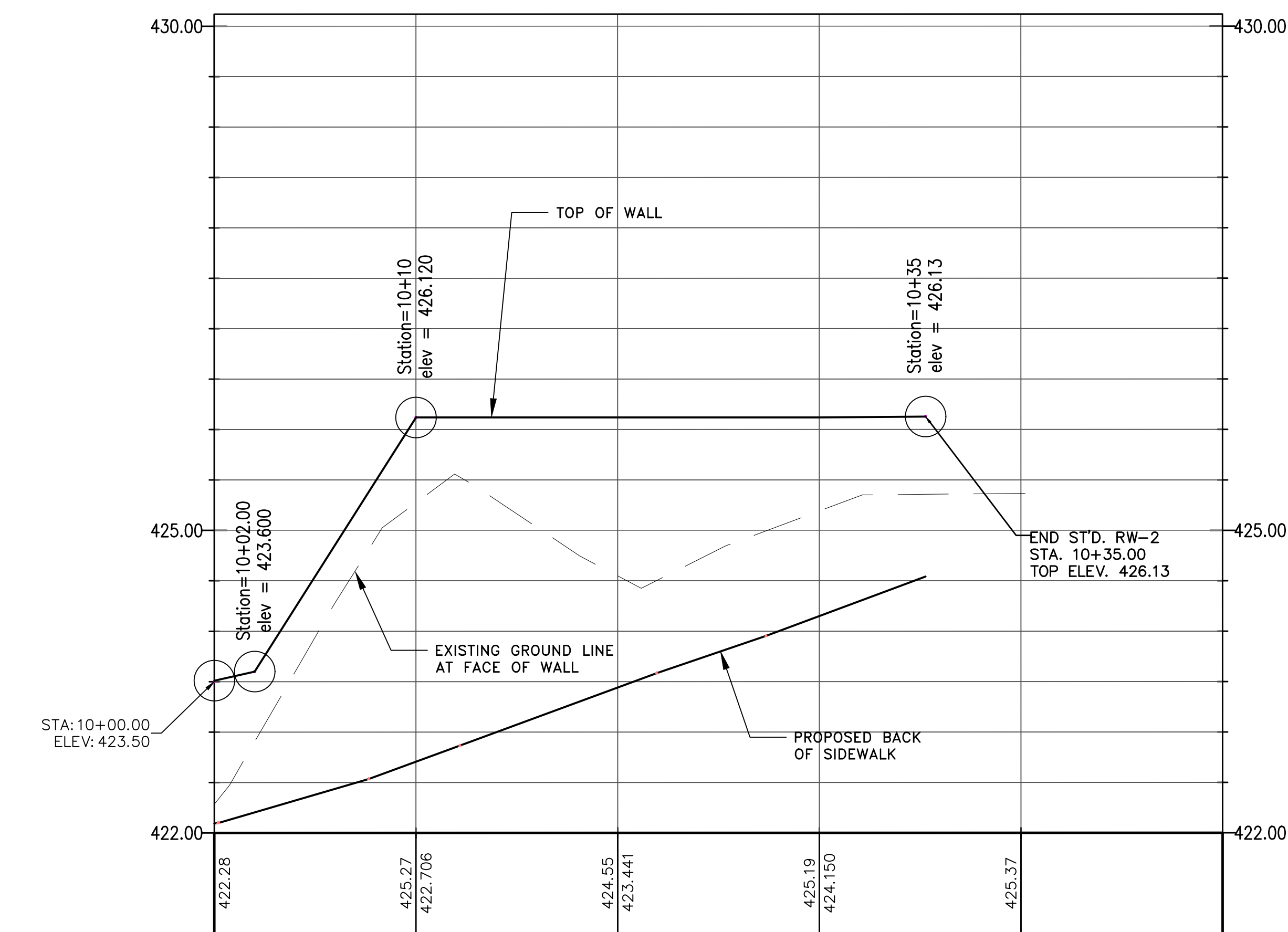
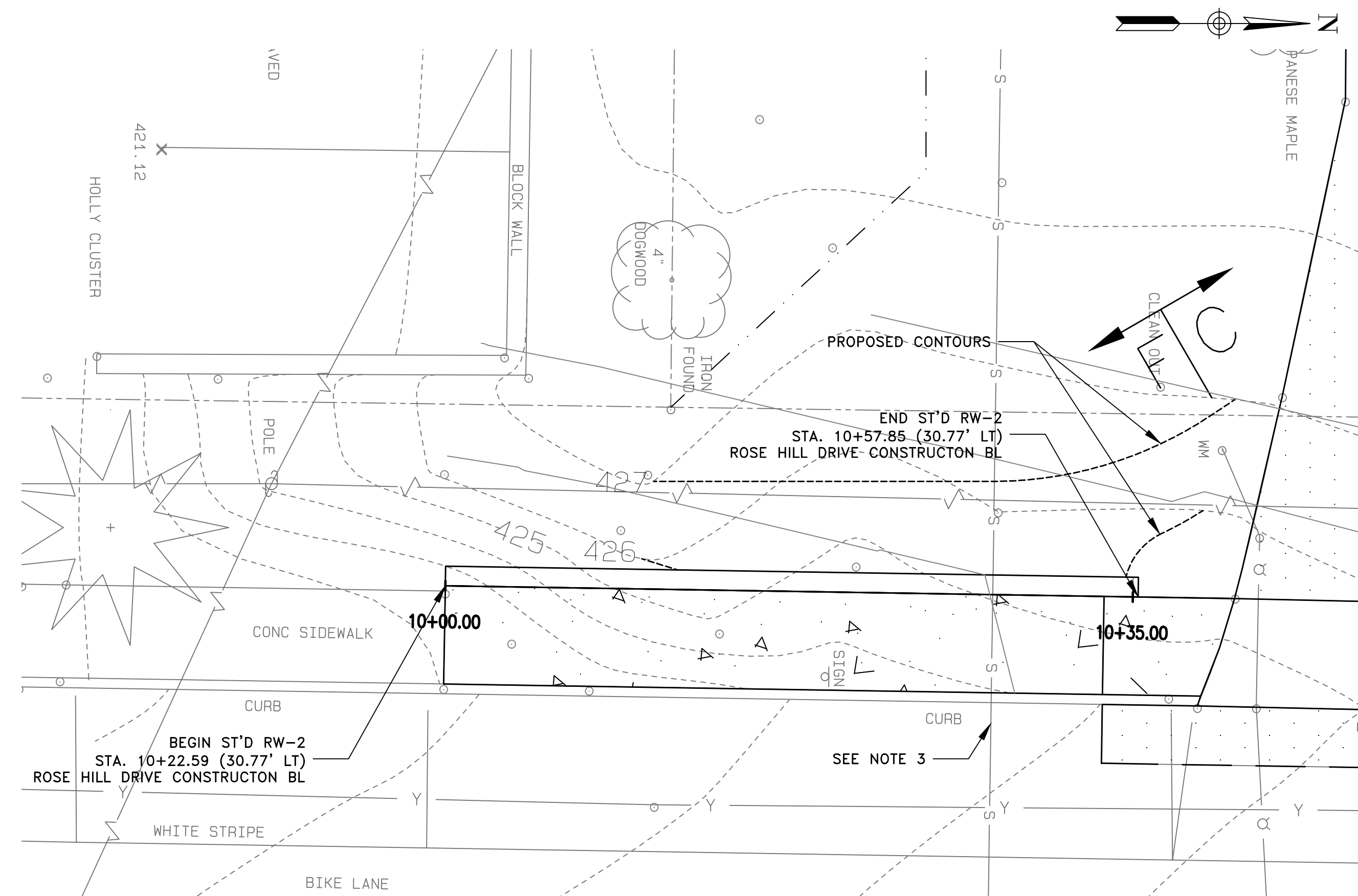


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RUMMEL, KLEPPER & KAHL, LLP

# RETAINING WALL DETAIL SHEET



10+00

10+35

Front of Wall Profile

2016 ROAD & BRIDGE STANDARDS

**WATERSTOP DETAIL**

\* WATER STOPS TO BE ELASTOMERIC OR OTHER APPROVED MATERIAL. DIMENSIONS SHOWN ARE ABSOLUTE MINIMUM. EXPANSION JOINTS AT INTERVALS NOT EXCEEDING 90'.

**CONCRETE GRAVITY RETAINING WALL - LEVEL BACKFILL**

VDOT ROAD AND BRIDGE STANDARDS SHEET 1 OF 1 401.01

HEIGHT OF WALL "H" IN FEET	THICKNESS AT TOP "A" IN FEET	THICKNESS AT BASE B=4H	COMPRESSION AT TOE LBS. PER SQ. FT.	AREA OF SECTION SQ. FT.
2	1'-0"	1'-0"	627	2.63
3	"	1'-2 3/8"	1009	3.93
4	"	1'-7 1/4"	1369	5.83
5	"	2'-0"	1709	8.13
6	"	2'-4 3/4"	2049	10.83
7	"	2'-9 5/8"	2385	13.93
8	"	3'-2 3/8"	2720	17.43
9	"	3'-7 1/4"	3054	21.33
10	"	4'-0"	3386	25.63
11	"	4'-4 3/4"	3718	30.33
12	"	4'-9 5/8"	4050	35.43
13	"	5'-2 3/8"	4381	40.93
14	"	5'-7 1/4"	4712	46.83
15	"	6'-0"	5043	53.13

**SAFE BEARING CAPACITY OF SOIL**

ROCK MINIMUM.....	10,000 - 20,000 LBS. PER SQ. FT.
GRAVEL AND COARSE SAND, WELL CEMENTED.....	16,000 - 20,000 LBS. PER SQ. FT.
CLAY IN THICK BEDS, ALWAYS DRY.....	12,000 - 16,000 LBS. PER SQ. FT.
CLAY IN THICK BEDS, MODERATELY DRY.....	8,000 - 12,000 LBS. PER SQ. FT.
CLAY, SOFT.....	2,000 - 4,000 LBS. PER SQ. FT.
SAND, DRY, COMPACT, AND WELL CEMENTED.....	8,000 - 12,000 LBS. PER SQ. FT.
SAND, CLEAN, DRY.....	4,000 - 8,000 LBS. PER SQ. FT.
ALLUVIAL SOILS, ETC.....	1,000 - 2,000 LBS. PER SQ. FT.

**NOTES:**

- CONTRACTOR SHALL PERFORM AN ANALYSIS OF THE EXISTING SOILS TO VERIFY SOIL BEARING CAPACITIES AT THE LOCATION OF THE PROPOSED RW-2. A REPORT OF THE RESULTS THAT INCLUDES ANY REMEDIAL RECOMMENDATIONS INCLUDING BUT NOT LIMITED TO SPECIAL BEDDING MATERIAL REQUIREMENTS NECESSARY TO MEET REQUIRED SOIL BEARING CAPACITIES FOR THE PROPOSED RW-2 SHALL BE SIGNED AND SEALED BY A VIRGINIA LICENSED PROFESSIONAL GEOTECHNICAL ENGINEER AND SUBMITTED TO THE ENGINEER AND OWNER FOR REVIEW AND APPROVAL PRIOR TO PERFORMING ANY CONSTRUCTION ASSOCIATED WITH THE PROPOSED RW-2. COST OF THE ANALYSIS SHALL BE INCIDENTAL TO THE RW-2. SHOULD THE GEOTECHNICAL REPORT REQUIRE MODIFICATION OF THE WALL DESIGN, THE CONTRACTOR AND THE CITY SHALL NEGOTIATE AN INCREASE OR DECREASE IN THE COST OF THE WALL AS REQUIRED TO COMPLY WITH THE GEOTECHNICAL RECOMMENDATIONS. ANY CHANGES WOULD RESULT IN A RATIFIED CONTRACT MODIFICATION.
- ANY SHEETING OR SHORING NECESSARY TO CONSTRUCT THE RW-2 SHALL BE CONSIDERED INCIDENTAL.
- APPROXIMATE LOCATION OF EXISTING SANITARY SEWER LATERAL. CONTRACTOR SHALL EXCAVATE AND LOCATE LATERAL PRIOR TO CONSTRUCTING PROPOSED RETAINING WALL. CONTRACTOR SHALL REMOVE AND REPLACE SECTION OF LATERAL WITHIN LIMITS OF CONSTRUCTION WITH NEW DUCTILE IRON LATERAL. ENCASE LATERAL UNDERNEATH THE RETAINING WALL IN 12" DIAMETER, 0.5" THICK STEEL SLEEVE. STEEL SLEEVE SHALL EXTEND TO RIGHT OF WAY LINE AND MINIMUM 5' FROM EACH SIDE OF WALL. PROVIDE NEW LATERAL CLEAN OUT OUTSIDE OF THE RIGHT OF WAY LIMIT.

**NOTES:**

- CONTRACTOR SHALL PERFORM AN ANALYSIS OF THE EXISTING SOILS TO VERIFY SOIL BEARING CAPACITIES AT THE LOCATION OF THE PROPOSED RW-2. A REPORT OF THE RESULTS THAT INCLUDES ANY REMEDIAL RECOMMENDATIONS INCLUDING BUT NOT LIMITED TO SPECIAL BEDDING MATERIAL REQUIREMENTS NECESSARY TO MEET REQUIRED SOIL BEARING CAPACITIES FOR THE PROPOSED RW-2 SHALL BE SIGNED AND SEALED BY A VIRGINIA LICENSED PROFESSIONAL GEOTECHNICAL ENGINEER AND SUBMITTED TO THE ENGINEER AND OWNER FOR REVIEW AND APPROVAL PRIOR TO PERFORMING ANY CONSTRUCTION ASSOCIATED WITH THE PROPOSED RW-2. COST OF THE ANALYSIS SHALL BE INCIDENTAL TO THE RW-2. SHOULD THE GEOTECHNICAL REPORT REQUIRE MODIFICATION OF THE WALL DESIGN, THE CONTRACTOR AND THE CITY SHALL NEGOTIATE AN INCREASE OR DECREASE IN THE COST OF THE WALL AS REQUIRED TO COMPLY WITH THE GEOTECHNICAL RECOMMENDATIONS. ANY CHANGES WOULD RESULT IN A RATIFIED CONTRACT MODIFICATION.
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PLAN REVISIONS -

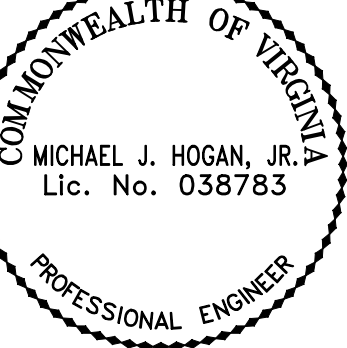
SHEET 10 OF 13

SCALE 1" = 5'

**ROSE HILL DRIVE  
SIDEWALK PROJECT**  
CHARLOTTESVILLE, VIRGINIA

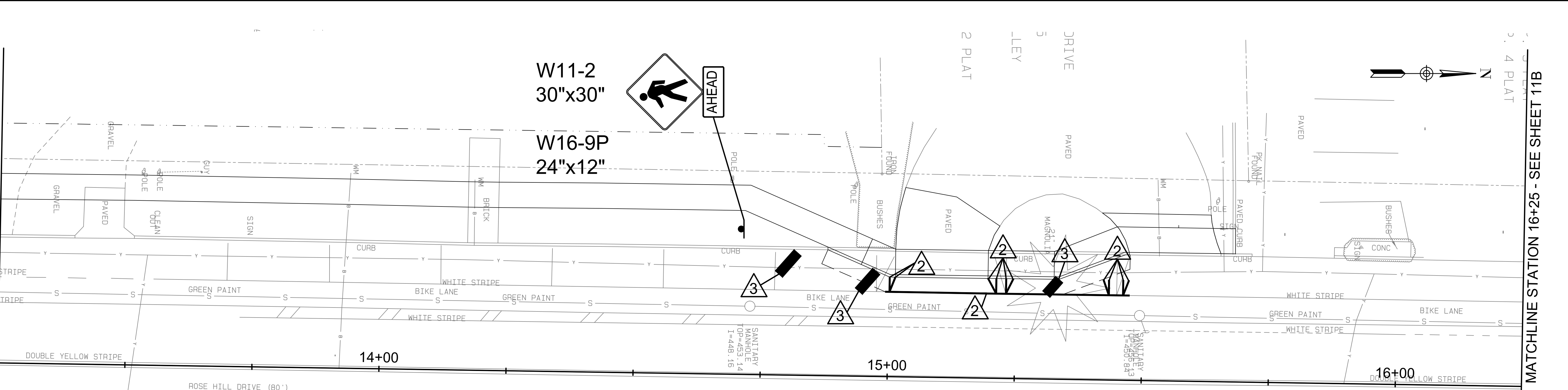
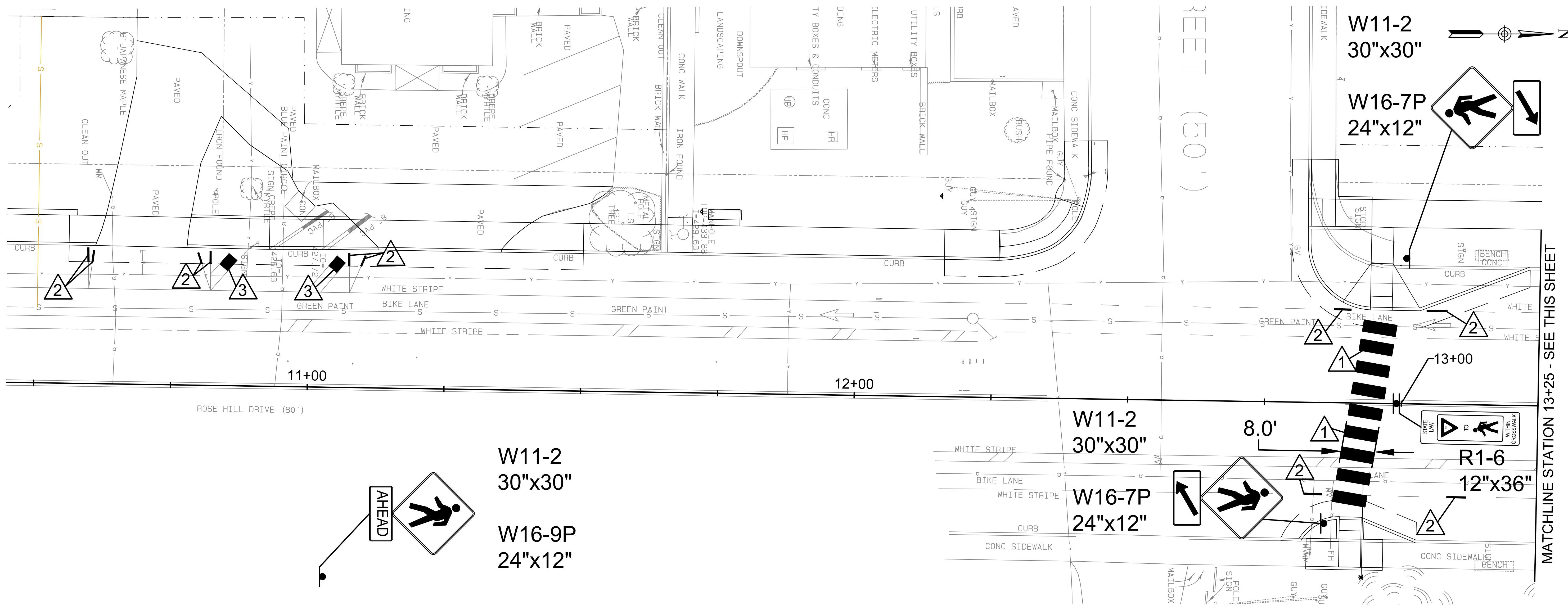
RETAINING WALL DETAIL SHEET

DATE: 3/18/2022  
ENGINEER: NFE  
CHECKED: MJH  
CAD: NFE  
JOB#: 17018-02



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- LEGEND**
- 24" SOLID WHITE PAVEMENT LINE WITH 24" SPACING
  - 4" SOLID WHITE PAVEMENT LINE
  - 24" SOLID WHITE PAVEMENT LINE AT 45 DEGREE ANGLE WITH 12" SPACING



MATCHLINE STATION 13+25 - SEE THIS SHEET

MATCHLINE STATION 16+25 - SEE SHEET 11B

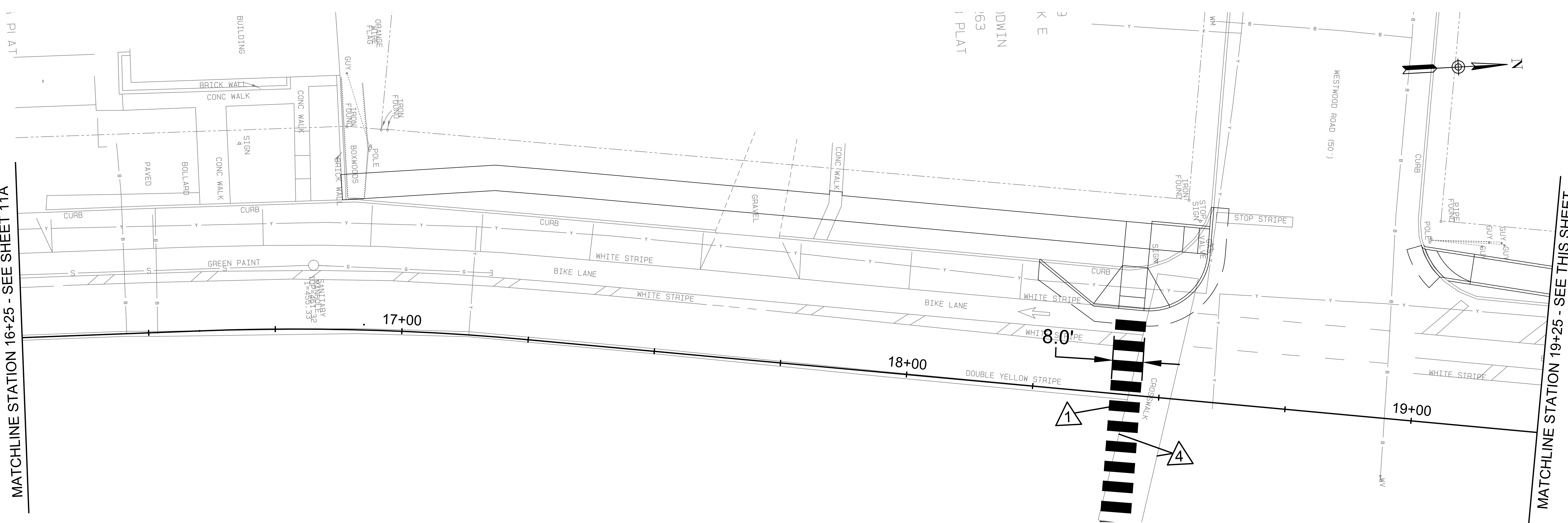
PLAN REVISIONS -	SHEET	ROSE HILL DRIVE SIDEWALK PROJECT CHARLOTTEVILLE, VIRGINIA	DATE: 3/18/2022
	11A OF 13	SIGNING & PAVEMENT MARKING PLAN	ENGINEER: NFE
	SCALE 1" = 10'		CHECKED: MUJ
			CAD: NFE
			JOB#: 17018-02

COMMONWEALTH OF VIRGINIA  
MICHAEL J. HOGAN, JR.  
Lic. No. 038783  
PROFESSIONAL ENGINEER

**RK&K**  
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MATCHLINE STATION 16+25 - SEE SHEET 11A



MATCHLINE STATION 19+25 - SEE THIS SHEET

PLAN REVISIONS -

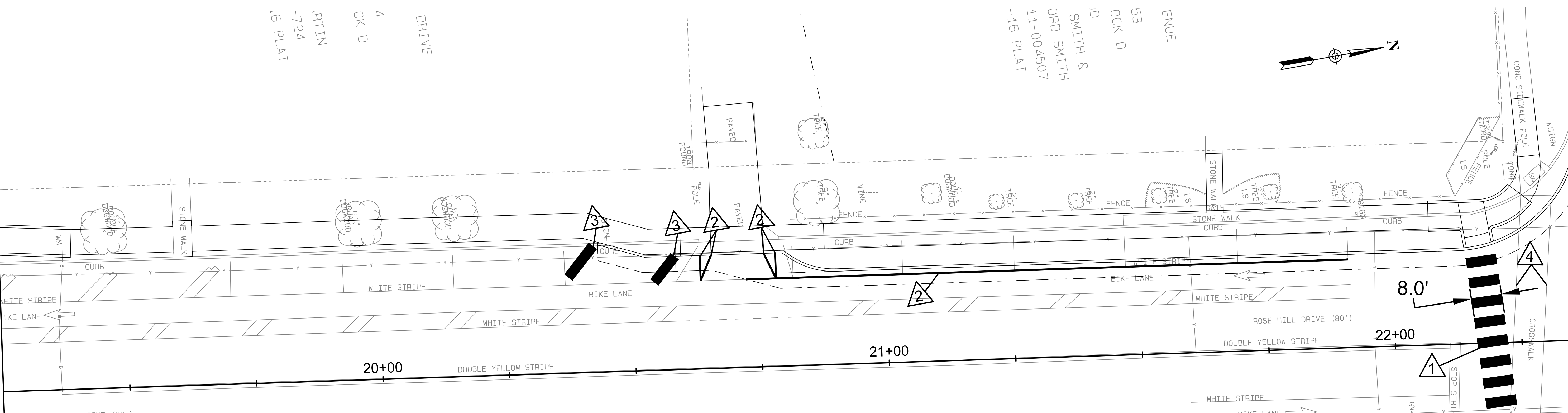
SHEET 11B OF 13

SCALE 1" = 10'





**ROSE HILL DRIVE  
SIDEWALK PROJECT**  
CHARLOTTESVILLE, VIRGINIA

**SIGNING & PAVEMENT  
MARKING PLAN**

MATCHLINE STATION 19+25 - SEE THIS SHEET



**LEGEND**

-  24" SOLID WHITE PAVEMENT LINE WITH 24" SPACING
-  4" SOLID WHITE PAVEMENT LINE
-  24" SOLID WHITE PAVEMENT LINE AT 45 DEGREE ANGLE WITH 12" SPACING
-  ERADICATE EXISTING CROSSWALK

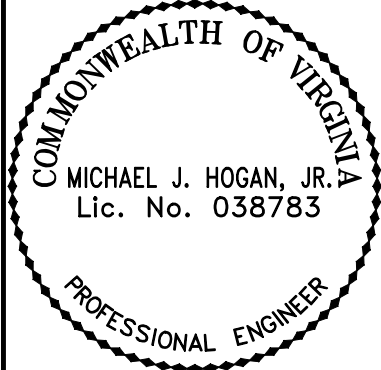
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**GENERAL NOTES**

TMP TYPE: TYPE A CATEGORY I  
 WORK ZONE LOCATION: STA. 10+23 TO STA. 22+41  
 LENGTH OF WORKZONE: APPROX. 1218'  
 AVERAGE WIDTH OF WORK ZONE BASED ON LIMITS OF CONSTRUCTION = 30'

BOTH TRAVEL LANES WILL BE AFFECTED BY PROJECT WORK.

NOT TO EXCLUDE OTHER VIRGINIA WORK AREA PROTECTION MANUAL STANDARD LAYOUTS OR MODIFICATIONS THEREOF, THE FOLLOWING TYPICAL TRAFFIC CONTROL FIGURES APPLY TO THE DAILY SAFETY FEATURES EMPLOYED BY THE CONTRACTOR:

- TTC-4.1 STATIONARY OPERATION ON A SHOULDER
- TTC-5.1 SHOULDER OPERATION WITH MINOR ENCROACHMENT
- TTC-23.1 LANE CLOSURE ON A TWO-LANE ROADWAY USING FLAGGERS
- TTC-28.1 LANE CLOSURE OPERATION IN AN INTERSECTION
- TTC-35.1 SIDEWALK CLOSURE AND BYPASS SIDEWALK OPERATION
- TTC-53.0 SIGNING FOR PROJECT LIMITS

ACCESS TO ADJACENT RESIDENTIAL AND COMMERCIAL PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY EACH AFFECTED PROPERTY OWNER AT LEAST 48 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS.

TRAFFIC CONTROL DEVICES WHICH CONFLICT WITH PRIVATE ENTRANCES WILL BE PLACED IN A MANNER TO ELIMINATE THAT CONFLICT.

THE MAJOR TYPES OF TRAVELERS IMPACTED BY THE CONSTRUCTION OF ROSE HILL DRIVE SIDEWALK ARE RESIDENTS AND COMMUTERS.

EXISTING PEDESTRIAN ACCESS SHALL BE MAINTAINED DURING CONSTRUCTION. IF EXISTING CONDITION CANNOT BE MAINTAINED A PEDESTRIAN DIVERSION OR DETOUR SHALL BE INSTALLED MEETING 2010 ADA DESIGN GUIDELINES FOR ACCESSIBLE DESIGN.

WHERE TRANSIT STOPS ARE AFFECTED OR RELOCATED BECAUSE OF WORK ACTIVITY, BOTH PEDESTRIAN AND VEHICULAR ACCESS TO THE AFFECTED OR RELOCATED TRANSIT STOPS SHALL BE PROVIDED.

BICYCLISTS AND PEDESTRIANS SHOULD NOT BE EXPOSED TO UNPROTECTED EXCAVATIONS, OPEN UTILITY ACCESS, OVERHANGING EQUIPMENT, OR OTHER SUCH CONDITIONS.

IT IS NOT THE INTENT OF THIS PLAN TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE, BUT ONLY TO SHOW THE GENERAL FEATURES NECESSARY TO PROVIDE THE PROPER HANDLING OF TRAFFIC.

THE CLEAR ZONE (OR LATERAL OFFSET) IS TO BE FREE OF STORED MATERIALS AND PARKED EQUIPMENT.

HORIZONTAL AND VERTICAL SIGHT DISTANCES SHALL NOT BE IMPACTED BY PARKED CONSTRUCTION EQUIPMENT.

ALL AREAS EXCAVATED MORE THAN 2" BELOW PAVEMENT SURFACE WHICH PUBLIC TRAFFIC IS ON AND WITHIN THE CLEAR ZONE (OR LATERAL OFFSET) AND NOT PROTECTED BY A POSITIVE BARRIER AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED TO FORM AN APPROXIMATE 6:1 SAFETY WEDGE DESIRABLE, 4:1 MINIMUM, AGAINST THE PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF THE PUBLIC TRAFFIC. ALL COSTS FOR PLACING, MAINTAINING AND REMOVING THE 6:1 DESIRABLE, 4:1 MINIMUM SAFETY WEDGE SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. SEE DETAIL THIS SHEET.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ANY EXISTING SIGNS, UNLESS OTHERWISE ADVISED BY THE ENGINEER TO REMOVE OR RELOCATE.

CONCURRENT CONSTRUCTION LEFT AND RIGHT OF ANY LANE CARRYING TRAFFIC WILL NOT BE ALLOWED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

TRAFFIC IS TO BE MAINTAINED THROUGHOUT THE PROJECT WITHIN THE EXISTING TRAVELWAY. ONE-LANE, TWO WAY FLAGGING OPERATIONS ARE ONLY PERMITTED BETWEEN 9:00 A.M. AND 3:00 P.M. MONDAY – FRIDAY. AT ALL OTHER TIMES TWO LANES MUST BE OPEN TO TRAFFIC UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

BICYCLE TRAFFIC IS TO BE MAINTAINED WITHIN THE EXISTING BICYCLE LANES THROUGHOUT THE PROJECT. BICYCLE LANE CLOSURES SHALL BE AT THE DISCRETION OF THE ENGINEER TO AFFORD ADDITIONAL WORK SPACE. IF PERMITTED, THE CONTRACTOR SHALL SUBMIT A BIKE LANE CLOSURE PLAN COMPLIANT WITH VDOT'S WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE DOCUMENT.

A TEMPORARY STREET CLOSURE PERMIT IS REQUIRED FOR CLOSURE OF SIDEWALKS, PARKING SPACES, AND ROADWAYS AND IS SUBJECT TO APPROVAL BY THE CITY TRAFFIC ENGINEER.

ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE CURRENT MUTCD, THE 2016 VDOT ROAD AND BRIDGE SPECIFICATIONS, THE 2016 VDOT ROAD AND BRIDGE STANDARDS, THE 2011 VIRGINIA WORK AREA PROTECTION MANUAL REV. 1, 2011 SUPPLEMENT TO THE MUTCD INCLUDING EACH MANUAL'S SUBSEQUENT REVISIONS AND AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE TEMPORARY DRAINAGE, IF REQUIRED, TO PREVENT PONDING OF WATER ON THE ROADWAY AND ADJACENT PROPERTIES. TEMPORARY DRAINAGE ON THE PROJECT IS THE CONTRACTOR'S RESPONSIBILITY. THE COST OF THE TEMPORARY DRAINAGE, OTHER THAN THE ITEMS THAT HAVE BEEN QUANTIFIED IN THESE PLANS, IS INCLUDED IN THE PRICE BID FOR OTHER DRAINAGE ITEMS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ALL PROPOSED FULL DEPTH ASPHALT PAVEMENT AND BUILD-UP WILL BE CONSTRUCTED UP TO THE FINAL SURFACE COURSE.

THE FINAL SURFACE COURSE WILL BE APPLIED IN THE FINAL PHASE OR CONSTRUCTION WHEN APPROVED BY THE ENGINEER.

ALL SIGNING FOR THE PROJECT LIMITS SHALL BE DONE IN ACCORDANCE WITH THE 2011 VIRGINIA WORK AREA PROTECTION MANUAL REV. 1. THESE SIGNS SHALL BE INSTALLED ON ALL STATE MAINTAINED ROADWAYS AND REMAIN IN PLACE FOR THE DURATION OF THE PROJECT.

SIGN SPACING SHALL BE ADJUSTED TO FIT FIELD CONDITIONS WITH APPROVAL OF THE ENGINEER.

**TRANSPORTATION OPERATIONS PLAN**

- A). THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:
  1. NOTIFY THE CITY AND REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) TWO (2) WEEKS IN ADVANCE TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA -TRAFFIC.
  2. POST A LIST OF LOCAL EMERGENCY RESPONSE AGENCIES INSIDE THE PROJECT'S CONSTRUCTION OFFICE/TRAILER.
  3. THE CONTRACTOR IS REQUIRED TO IMMEDIATELY REPORT ANY TRAFFIC INCIDENTS THAT OCCUR IN THE WORK ZONE AND EXPECTED TRAFFIC DELAYS.
  4. WITHIN 24 HRS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE A REVIEW OF THE TRAFFIC CONTROLS SHALL BE COMPLETED, AND NECESSARY ADJUSTMENTS MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE INCIDENTS.
- B). A CONTACT LIST OF LOCAL AGENCIES FOR NOTIFICATION OF CONSTRUCTION DELAYS, INCIDENTS OR UNSCHEDULED TRAFFIC DELAYS MAY BE PRESENTED IN NARRATIVE FORMAT AS PART OF THE TEMPORARY TRAFFIC CONTROL (TTC).
- C). PERIODIC REVIEWS WITH CITY PROJECT STAFF AND CONTRACTOR STAFF SHALL BE CONDUCTED THROUGHOUT THE LIFE OF THE PROJECT TO IDENTIFY POTENTIAL PROBLEMS.
- D). EMERGENCY CONTACT FOR THIS PROJECT SHALL BE 911.

**SEQUENCE OF CONSTRUCTION**

THE CONTRACTOR SHALL SUBMIT A PROPOSED SEQUENCE OF CONSTRUCTION AT THE PRECONSTRUCTION MEETING. THE CONTRACTOR SHALL PLAN AND EXECUTE THE WORK IN ACCORDANCE WITH THEIR SEQUENCE OF CONSTRUCTION PLAN UNLESS A CHANGE IS APPROVED OR DIRECTED BY THE ENGINEER. THE SEQUENCE OF CONSTRUCTION SHALL INCLUDE THE CONTRACTOR'S PLAN FOR:

- CLOSURE AND/OR MAINTENANCE OF ON-STREET PARKING DURING CONSTRUCTION
- TEMPORARY RELOCATION OF BUS STOPS IN THE PROJECT LIMITS
- MAINTENANCE OF AUTOMOTIVE AND BICYCLE TRAFFIC THROUGH THE PROJECT AREA

**PUBLIC COMMUNICATIONS PLAN**

A). CITY OF CHARLOTTESVILLE

POINTS OF CONTACT	CONTACT	PHONE NUMBER	EMAIL
A).	CITY DEPUTY PROJECT MANAGER	TIM MOTSCH	434-970-3395
B).	CITY PROJECT MANAGER	TIM MOTSCH	434-970-3395 motscht@charlottesville.org
C).	CITY TRAFFIC ENGINEER	BRENNEN DUNCAN	434-970-3720
D).	CITY PUBLIC SERVICE MANAGER		434-970-3895
E).	CITY COMMUNICATIONS COORDINATOR	JOE RICE	434-970-3129
F).	CITY POLICE		434-970-3280
G).	CITY FIRE		434-970-3240
H).	E-911 NON-EMERGENCY COMMUNICATIONS		434-977-9041
I).	UNIVERSITY OF VIRGINIA		434-982-5834 dsundgren@virginia.edu
J).	VDOT DISTRICT PUBLIC AFFAIRS		540-717-2890
K).	CITY TRANSPORTATION DIVISION		434-970-3319
L).	CITY PUBLIC WORKS	PAUL OBERDORFER	434-970-3301
M).	CITY PUBLIC INFORMATION		434-970-3707
N).	CITY ENGINEER	MARTY SILMAN	434-970-3991

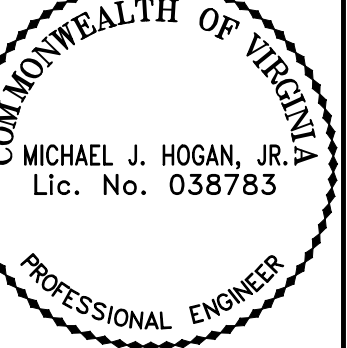
PLAN REVISIONS -

SHEET 12 OF 13

SCALE N.T.S.

ROSE HILL DRIVE  
 SIDEWALK PROJECT  
 CHARLOTTESVILLE, VIRGINIA

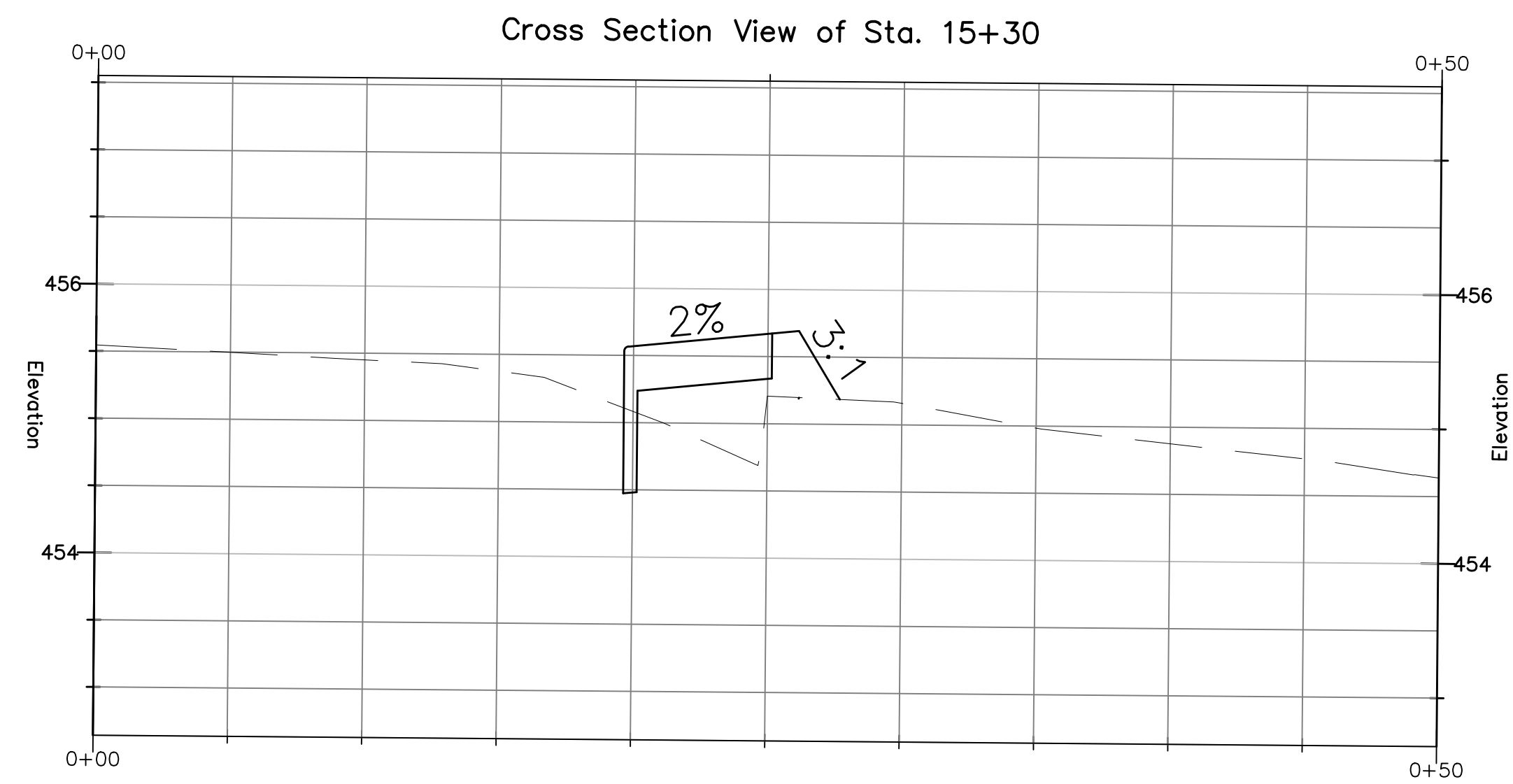
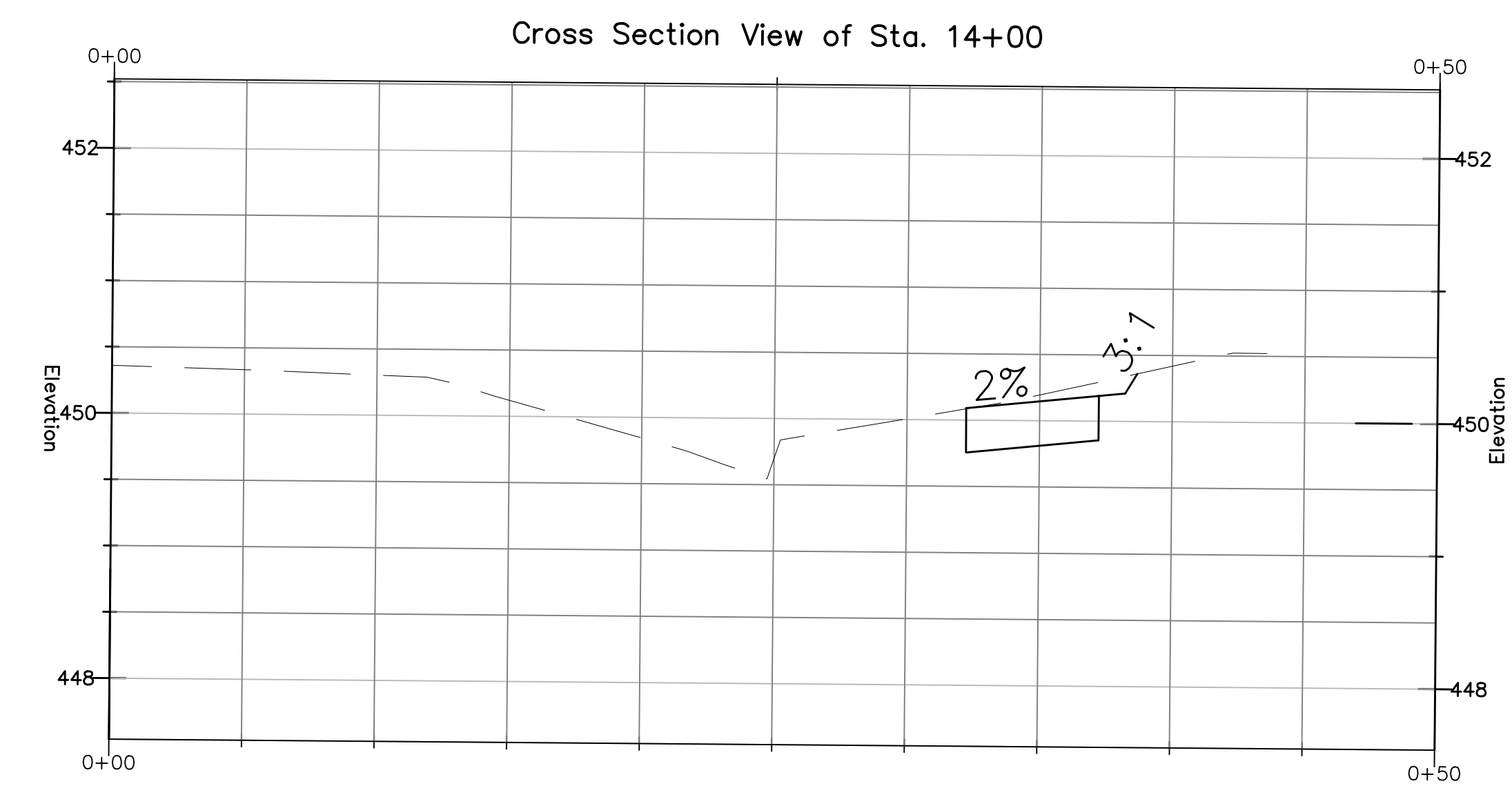
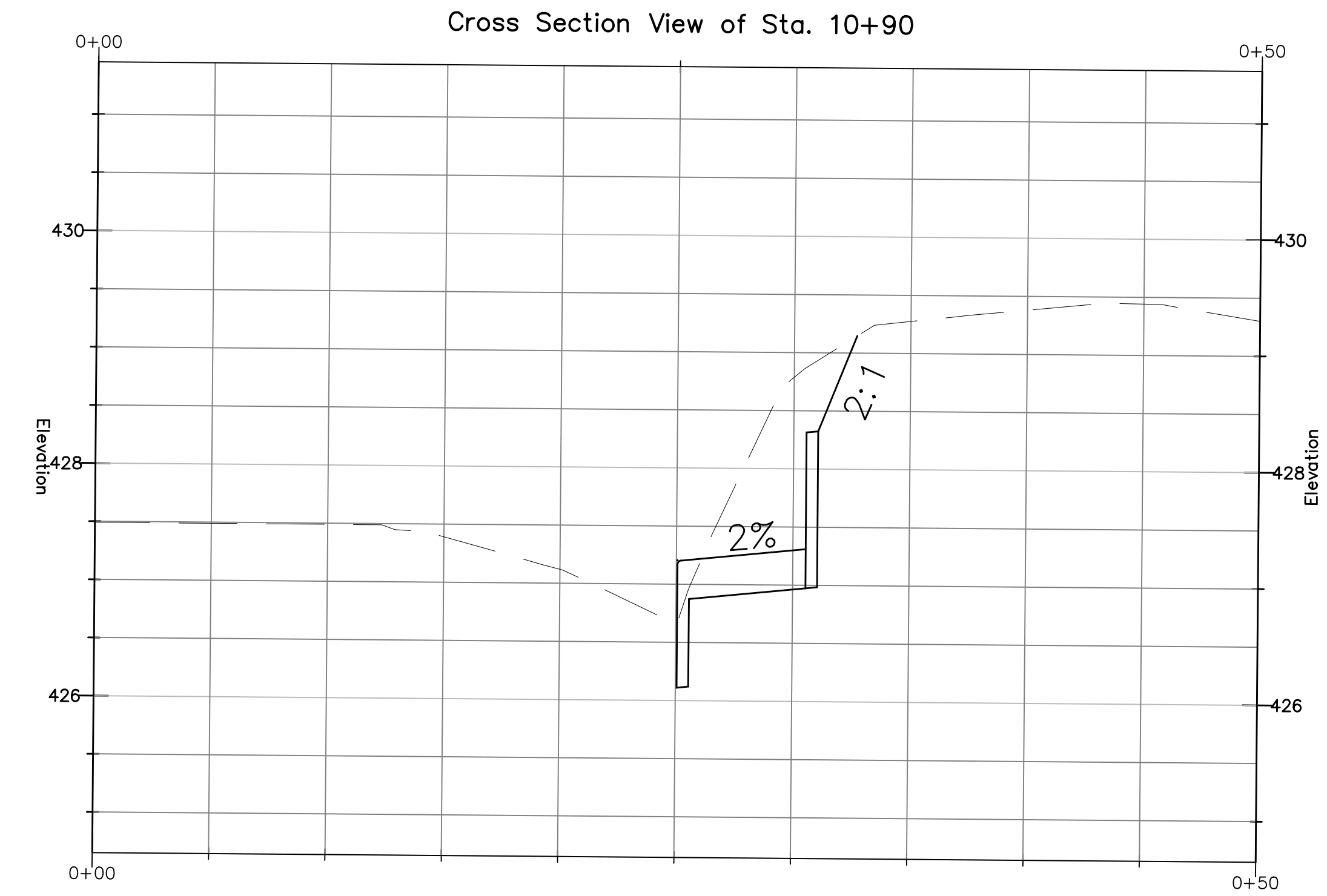
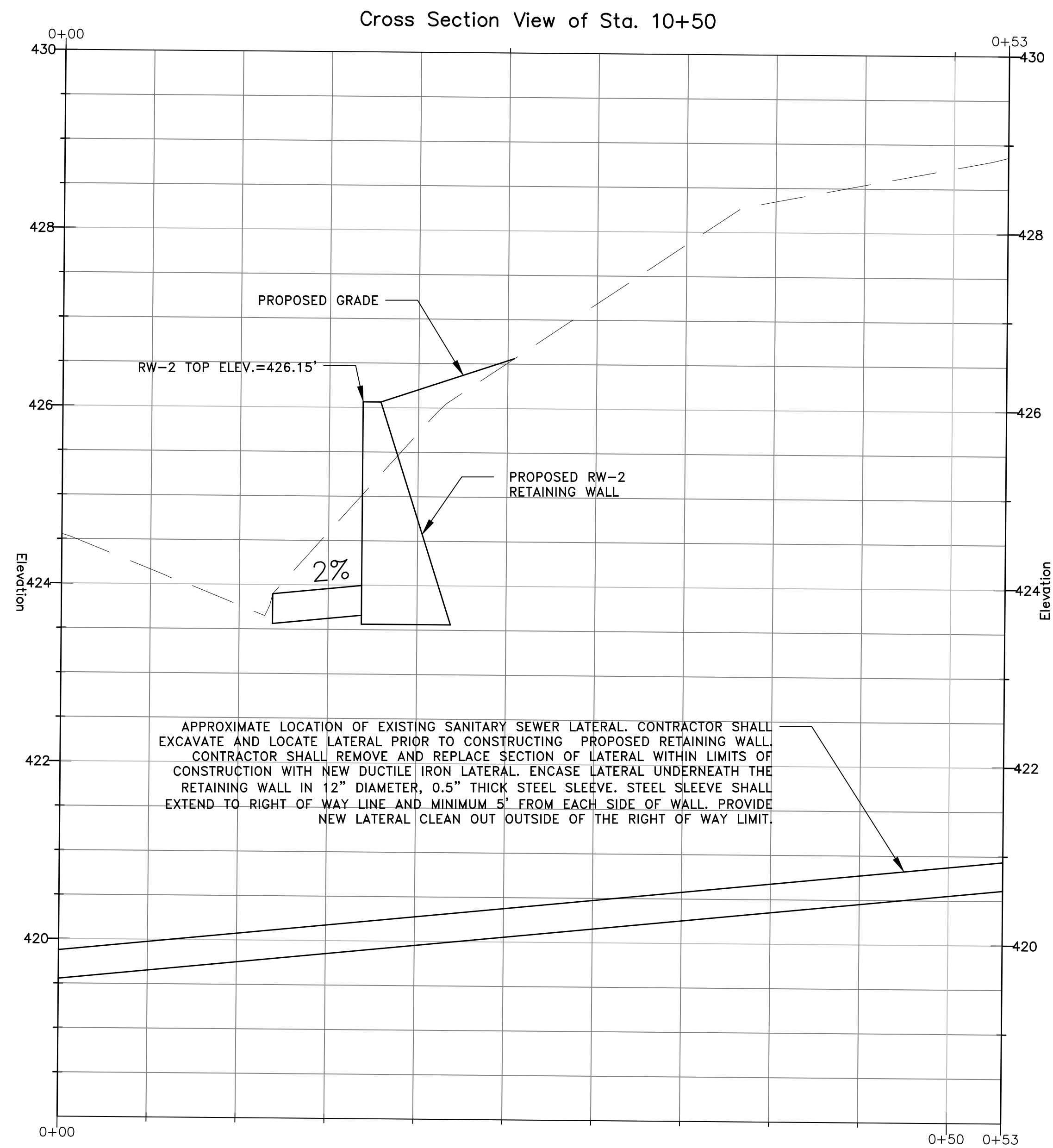
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# KEY CROSS SECTIONS SHEET



SCALE: HORIZONTAL: 1"=5'  
VERTICAL: 1"=1'



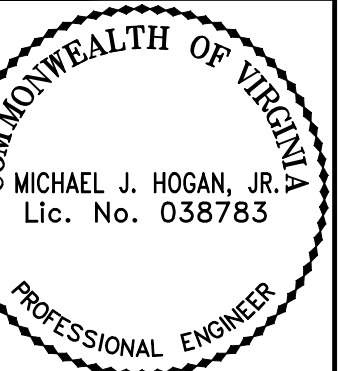
PLAN REVISIONS -

SHEET  
13A OF 13

SCALE  
1" = 5'

ROSE HILL DRIVE  
SIDEWALK PROJECT  
CHARLOTTESVILLE, VIRGINIA  
CROSS SECTIONS

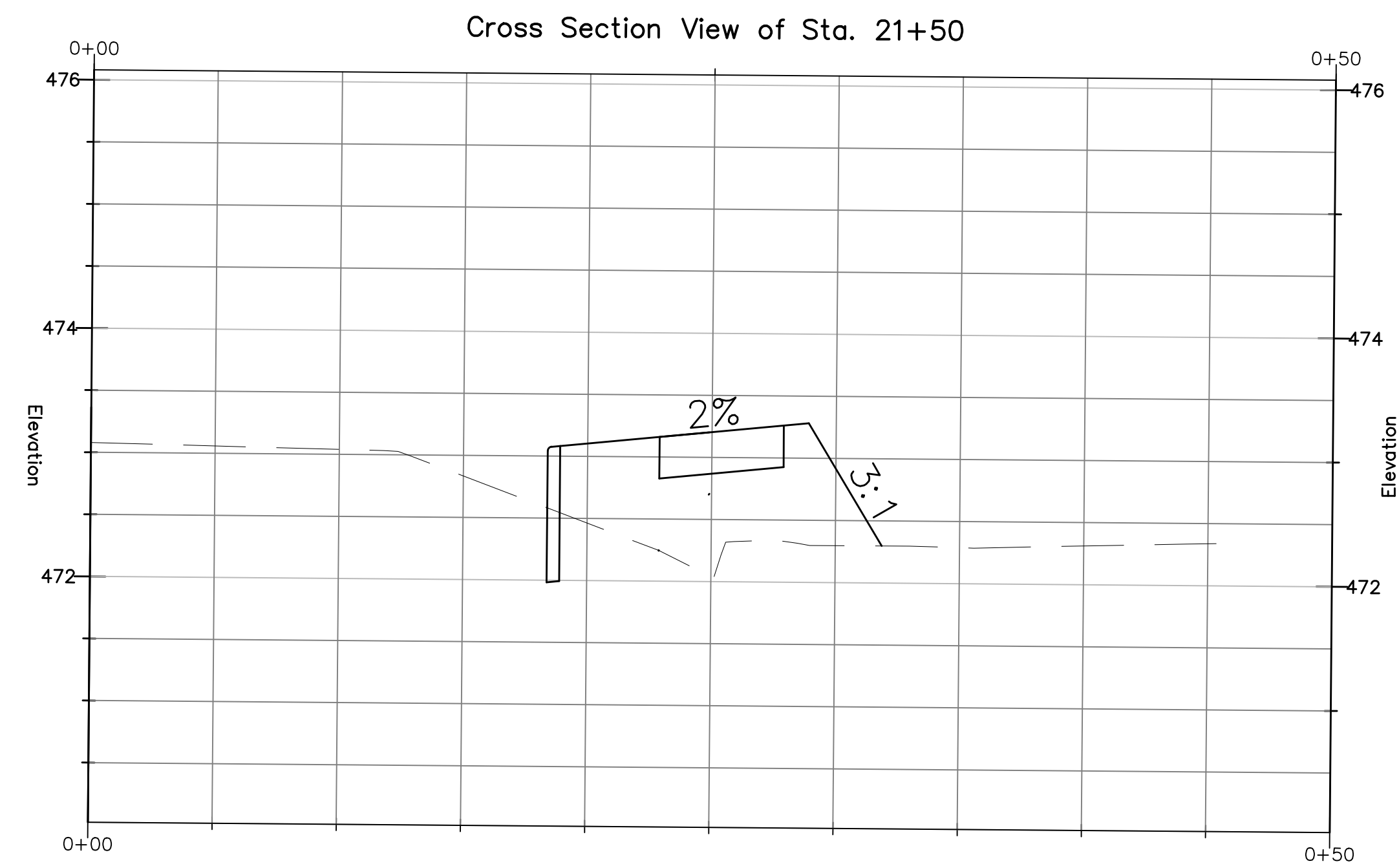
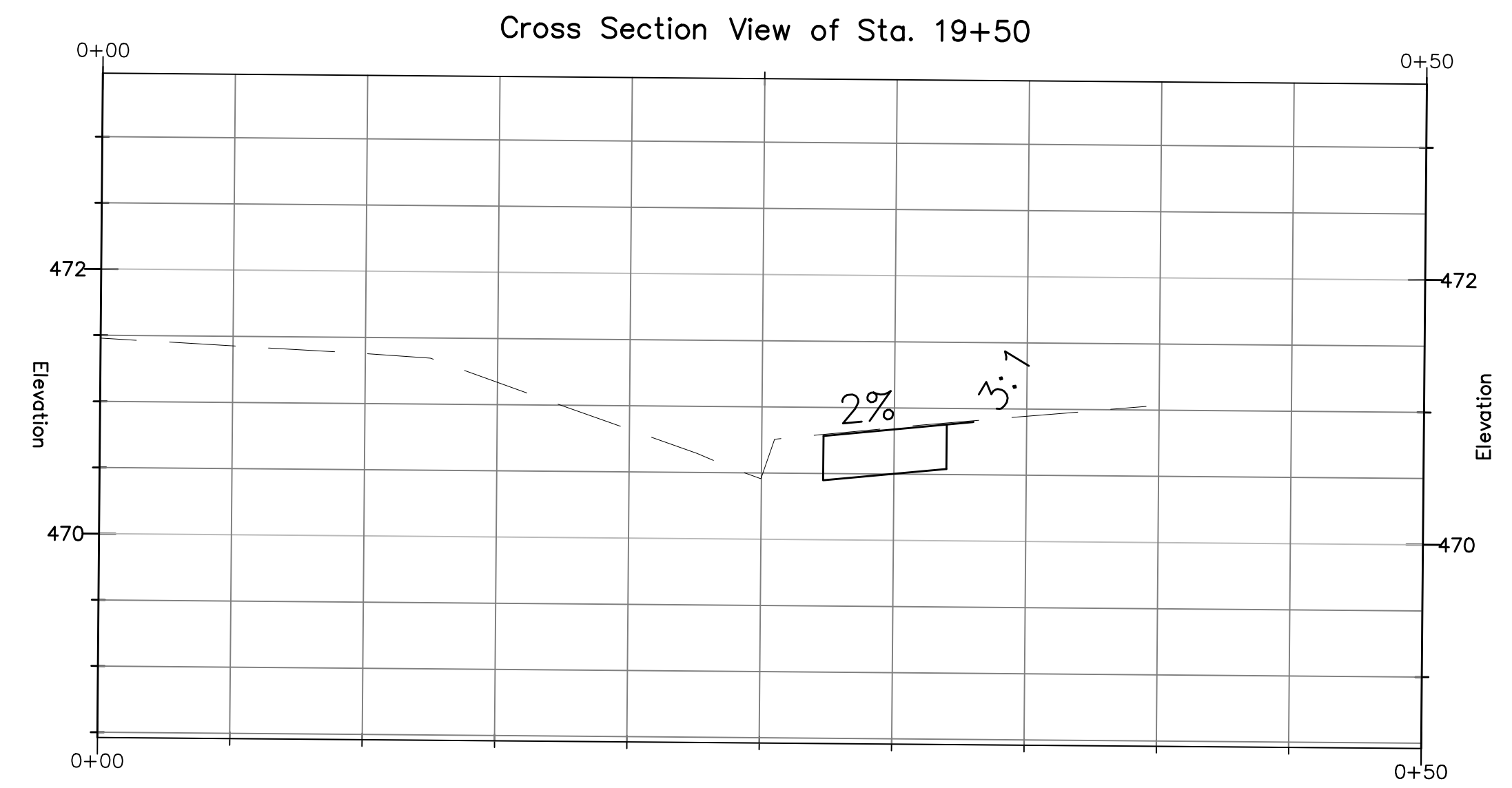
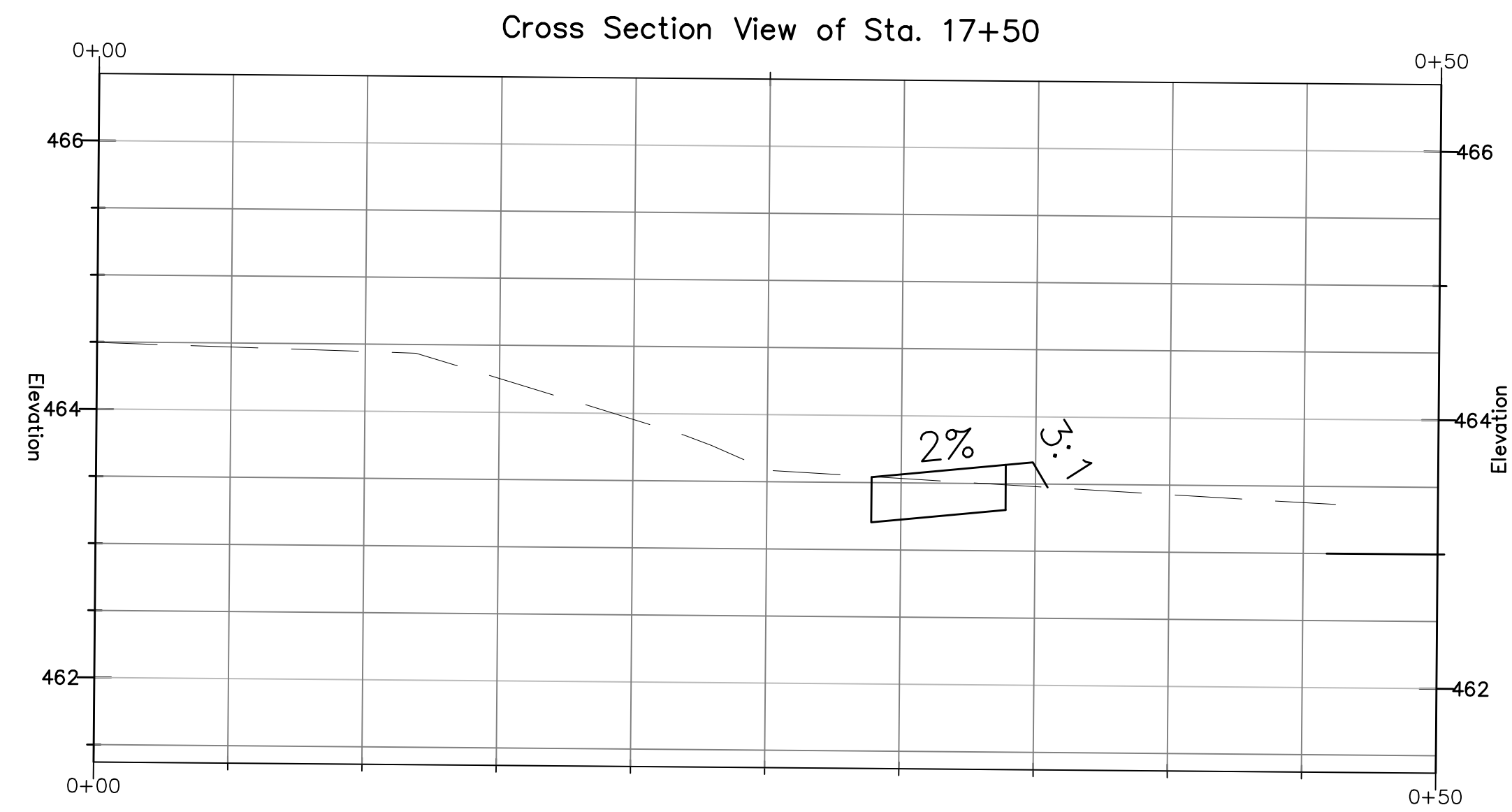
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# KEY CROSS SECTIONS SHEET



SCALE: HORIZONTAL: 1"=5'  
VERTICAL: 1"=1'



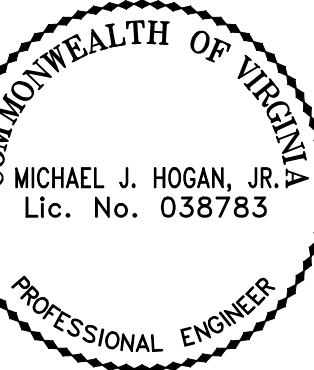
PLAN REVISIONS -

SHEET  
13B OF 13

SCALE  
1" = 5'

ROSE HILL DRIVE  
SIDEWALK PROJECT  
CHARLOTTESVILLE, VIRGINIA  
CROSS SECTIONS

DATE: 3/18/2022  
ENGINEER: NFE  
CHECKED: MUJ  
CAD: NFE  
JOB#: 17018-02



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