

Lasley, Timothy G

From: Lasley, Timothy G
Sent: Wednesday, June 19, 2019 3:57 PM
To: Collins, Scott
Cc: Werner, Jeffrey B
Subject: BAR Action - June 18, 2019 - 605 Preston Place

June 19, 2019

Certificate of Appropriateness Application

BAR 19-06-05

605 Preston Place

Tax Parcel 050111000

Neighborhood Investment – PC, LP, Owner/Collins Engineering, Applicant

Parking Lot Expansion

Dear Applicant,

The above referenced project was discussed before a meeting of the City of Charlottesville Board of Architectural Review (BAR) on June 18, 2019. The following action was taken:

This item was pulled from the consent agenda.

Motion: Mohr moved to accept the applicant's request for deferral. Balut seconded Approved (9-0).

If you would like to hear the specifics of the discussion, the meeting video is on-line at:

http://charlottesville.granicus.com/MediaPlayer.php?view_id=2&clip_id=1370

If you have any questions, please contact either myself, or Jeff Werner at 434-970-3130 or wernerjb@charlottesville.org.

Sincerely yours,
Tim Lasley

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Tim Lasley

Acting Assistant Historic Preservation and Design Planner

City of Charlottesville | Neighborhood Development Services

University of Virginia | Class of 2020

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**CITY OF CHARLOTTESVILLE
BOARD OF ARCHITECTURAL REVIEW
STAFF REPORT
June 18, 2019**



Certificate of Appropriateness Application

BAR 19-06-05

605 Preston Place

Tax Parcel 050111000

Neighborhood Investment – PC, LP, Owner/Collins Engineering, Applicant

Parking Lot Expansion



Background

Built in 1857, 605 Preston Place is an Individually Protected Property located in the Rugby Road-University Circle-Venable Neighborhood ADC District. Known as Wyndhurst, it was the manor house of the 100-acre farm that is now the Preston Heights section of the city. It is a typical two-story, three-bay, double-pile white weatherboard house with Greek Revival details. (Historic survey, photos and drawings of the original building are attached.)

Prior BAR Actions

October 17, 2017 – The BAR moved to find that the proposed renovations satisfy the BAR’s criteria and guidelines and are compatible with this property and other properties in the Rugby Road-University Circle-Venable ADC district, and that the BAR approves the application as submitted. The BAR would encourage zoning to look into the 50 foot setback, because the BAR believes it would be a more successful design with a back porch.

August 14, 2017 – The BAR approved moving [to 506-512 Preston Place] the house, porch, chimneys, and east side additions located at 605 Preston Avenue and demolition of the rear additions.

Application

Applicant submitted:

- Collins Engineering submittal dated May 28, 2019: Project narrative, images of existing historic house on parcel, images of existing site conditions and context, proposed permeable pavers precedent, proposed brick wall with bluestone cap, landscape plan, and paver cut sheet.
- Collins Engineering Preston Apartments Site Plan amendment submittal dated May 29, 2019: Cover (page 1), existing conditions and demolition plan (page 2), layout, grading, and drainage plan (page 3), drainage map, storm profiles, and calculations (page 4), notes and details (page 5), landscaping plan (page 6), erosion and sediment control plan narrative (page 7), erosion and sediment control plan (page 8), and stormwater management plan (page 9).

Request to construct a 25-space, permeable paver, parking lot in the rear yard of the historic structure.

Permeable pavers will match those used for the parking surface at 608 Preston Place, across the street. The color of the proposed ECO paver will be *Harvest Blend*. The parking lot will have a flush, concrete curb that follows the Preston Court Apartment's property line. Near the entrance to Preston Court will be low, brick seating walls capped with bluestone.

New plantings will provide screening, however, six trees will be removed to accommodate the parking lot. Proposed landscaping will mitigate the loss of this tree canopy. One 36 inch Oak tree in the northwest corner will remain.

Discussion

Staff finds the request appropriate since the proposed parking area is appropriately screened and is placed behind the historic structure. Additionally, staff finds the number of trees proposed in the landscape plan appropriate to accommodate for the loss of tree canopy in regard to the removal of the six existing trees.

Regarding the 36 inch oak to remain, staff recommends that the BAR consider a condition of approval that requires the applicant to consult with a licensed arborist to establish—and implement—stringent measures to protect the tree during construction. Such steps might include the installation of rigid fencing to limit—if not preclude—traffic within the entirety of the tree's dripline.

Suggested Motions

Approval: Having considered the standards set forth within the City Code, including City Design Guidelines for Site Design and Elements, I move to find that the parking lot expansion satisfies the BAR's criteria and is compatible with this Individually Protected Property and other properties in the Rugby Road-University Circle-Venable Neighborhood ADC District, and that the BAR approves the application as submitted.

(or with the following modifications...)

Denial: Having considered the standards set forth within the City Code, including City Design Guidelines for Site Design and Elements, I move to find that the parking lot expansion does not satisfy the BAR's criteria and is not compatible with this Individually Protected Property and other properties in the Rugby Road-University Circle-Venable Neighborhood ADC District, and that the BAR approves the application as submitted.

Criteria, Standards, and Guidelines

Review Criteria Generally

Sec. 34-284(b) of the City Code states that, in considering a particular application the BAR shall approve the application unless it finds:

- (1) That the proposal does not meet specific standards set forth within this division or applicable provisions of the Design Guidelines established by the board pursuant to Sec.34-288(6); and
- (2) The proposal is incompatible with the historic, cultural or architectural character of the district in which the property is located or the protected property that is the subject of the application.

Pertinent Standards for Review of Construction and Alterations include:

- (1) Whether the material, texture, color, height, scale, mass and placement of the proposed addition, modification or construction are visually and architecturally compatible with the site and the applicable design control district;
- (2) The harmony of the proposed change in terms of overall proportion and the size and placement of entrances, windows, awnings, exterior stairs and signs;
- (3) The Secretary of the Interior Standards for Rehabilitation set forth within the Code of Federal Regulations (36 C.F.R. §67.7(b)), as may be relevant;
- (4) The effect of the proposed change on the historic district neighborhood;

- (5) The impact of the proposed change on other protected features on the property, such as gardens, landscaping, fences, walls and walks;
- (6) Whether the proposed method of construction, renovation or restoration could have an adverse impact on the structure or site, or adjacent buildings or structures;
- (7) Any applicable provisions of the City's Design Guidelines.

Pertinent Guidelines on Site Design and Elements

B. PLANTINGS

Plantings are a critical part of the historic appearance of the residential sections of Charlottesville's historic districts. The character of the plantings often changes within each district's sub-areas as well as from district to district. Many properties have extensive plantings in the form of trees, foundation plantings, shrub borders, and flowerbeds. Plantings are limited in commercial areas due to minimal setbacks.

- 1) Encourage the maintenance and planting of large trees on private property along the streetfronts, which contribute to the "avenue" effect.
- 2) Generally, use trees and plants that are compatible with the existing plantings in the neighborhood.
- 3) Use trees and plants that are indigenous to the area.
- 4) Retain existing trees and plants that help define the character of the district, especially street trees and hedges.
- 5) Replace diseased or dead plants with like or similar species if appropriate.
- 6) When constructing new buildings, identify and take care to protect significant existing trees and other plantings.
- 7) Choose ground cover plantings that are compatible with adjacent sites, existing site conditions, and the character of the building.
- 8) Select mulching and edging materials carefully and do not use plastic edgings, lava, crushed rock, unnaturally colored mulch or other historically unsuitable materials.

E. WALKWAYS & DRIVEWAYS

Providing circulation and parking for the automobile on private sites can be a challenging task, particularly on smaller lots and on streets that do not accommodate parking. The use of appropriate paving materials in conjunction with strategically placed plantings can help reinforce the character of each district while reducing the visual impact of driveways.

- 1) Use appropriate traditional paving materials like brick, stone, and scored concrete.
- 2) Concrete pavers are appropriate in new construction, and may be appropriate in site renovations, depending on the context of adjacent building materials, and continuity with the surrounding site and district.
- 3) Gravel or stone dust may be appropriate, but must be contained.
- 4) Stamped concrete and stamped asphalt are not appropriate paving materials.
- 5) Limit asphalt use to driveways and parking areas.
- 6) Place driveways through the front yard only when no rear access to parking is available.
- 7) Do not demolish historic structures to provide areas for parking.
- 8) Add separate pedestrian pathways within larger parking lots, and provide crosswalks at vehicular lanes within a site.

F. PARKING AREAS & LOTS

Most of the parking areas in the downtown consist of public or private surface lots or parking decks. Along West Main Street, Wertland Street, and the Corner, some larger lots have parking areas contained within the individual site.

- 1) If new parking areas are necessary, construct them so that they reinforce the street wall of buildings and the grid system of rectangular blocks in commercial areas.
- 2) Locate parking lots behind buildings.
- 3) Screen parking lots from streets, sidewalks, and neighboring sites through the use of walls, trees, and plantings of a height and type appropriate to reduce the visual impact year-round.
- 4) Avoid creating parking areas in the front yards of historic building sites.
- 5) Avoid excessive curb cuts to gain entry to parking areas.
- 6) Avoid large expanses of asphalt.
- 7) On large lots, provide interior plantings and pedestrian walkways.
- 8) Provide screening from adjacent land uses as needed.
- 9) Install adequate lighting in parking areas to provide security in evening hours.
- 10) Select lighting fixtures that are appropriate to a historic setting.

Preston Apartments – Parking Lot Expansion (605 Preston Place)

APPLICANT: COLLINS ENGINEERING

DATE: May 28, 2019

PROJECT NARRATIVE

605 Preston Place is an existing parcel with a Historic House located on the lot. The parcel is adjacent to the Preston Apartments, which is currently under construction for interior renovation and exterior maintenance. The lot has access to Preston Place along the front of the parcel and rear of the parcel. The existing Historic house fronts on the Preston Place, and is consistent to the streetscape along this roadway.

Currently, this lot is being utilized for construction access for the Preston Apartments renovation. Contractor staging areas are currently located on the property, and the house is currently being used as a construction field office. The owners are proposing to construct a permeable paver 25 space parking lot on this parcel in the rear yard, behind the existing historic house for the benefit of the Preston Apartment building. The entrance to the parking lot will be a one-way entrance into the lot from Preston Place along the rear of the property, and the parking lot will exist at the front of the parcel onto Preston Place, see the attached application plan. The proposed parking lot will be constructed of permeable pavers, matching the pavers that were installed on the Sigma Chi property across the street. The pictures and specifications for these pavers are included in this narrative document. The color of the proposed ECO paver (EP Henry) permeable paver product will be Harvest Blend. A concrete sidewalk is proposed along the Preston Apartments property line (on the Preston Apartments property) tying in the parking lot to the apartment building. Concrete steps and brick retaining walls/seating walls will be used to connect the parking lot to the sidewalk and to the access steps to the apartment building. The brick seating walls will match the brick walls on the Preston Apartment building, and will have the same bluestone cap, see attached pictures in this document. The concrete sidewalk and steps will match the required color used for Charlottesville concrete sidewalks and curbing. All handrails shall match the Preston Apartment railings.

Landscaping will be installed for the parking lot expansion to screen the cars from Preston Place and the neighborhood. There is an existing 36" Oak tree in the northwest corner of the parcel that is proposed to remain. Additional trees and shrubs shall be planted along the rear property line and North property line to screen the parking lot from the adjacent properties. Interior trees and landscaping are also proposed in the parking lot, exceeding the minimum interior landscaping requirements of the City of Charlottesville. A 36-inch cedar tree, a 30-inch cedar tree, a 10-inch maple, and (3) other trees will be removed the construction of the parking lot on the property. The proposed landscaping will mitigate the loss of this tree canopy and provide additional tree canopy on the existing lot.

At this time, no review is being requested for the existing historic house. Any modifications or changes to the existing house will be submitted to the BAR as a separate application for review.



Existing Historic house on the parcel



Preston Apartments – Currently under construction / renovation



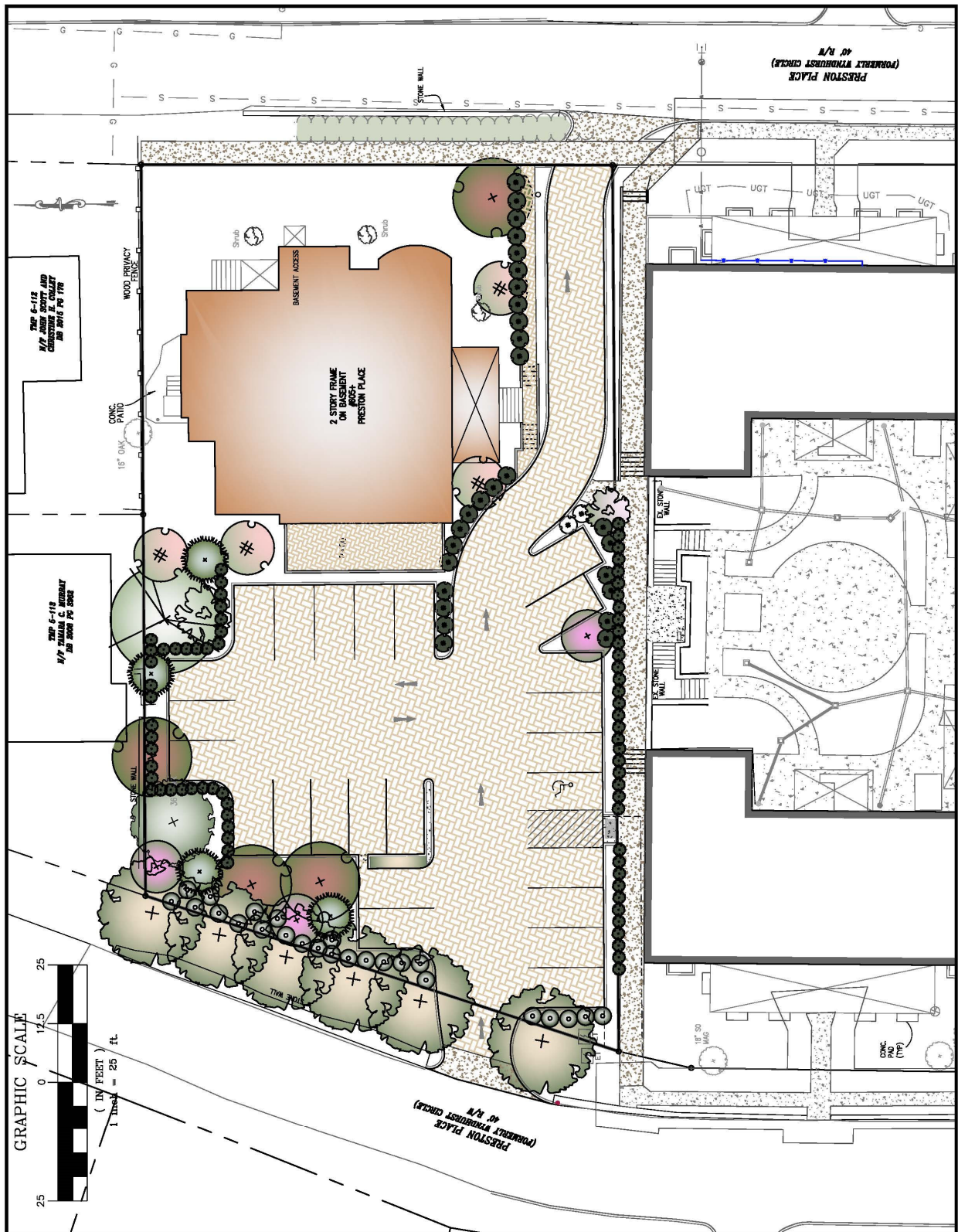
Existing 36" Oak Tree to Remain



Proposed Permeable Pavers – Eco Paver (EP Henry) – Color: Harvest Blend



Proposed brick wall / seating wall with bluestone cap – matching Preston Apartments



Landscape Rendering of the Site Plan

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ECO Paver



Driveway in ECO Paver, Harvest Blend

A hard-working permeable paver with plenty of eye appeal, EP Henry's ECO Paver combines pleasing aesthetics and superb durability in an environmentally-friendly package.

Available in a standard 6" x 9" unit, ECO Paver is an ideal choice for those seeking a sustainable stormwater management solution in compliance with local regulatory requirements.

Color Selections



Autumn Blend



Harvest Blend



Pewter Blend

Because our products are made from natural materials, variations in colors are to be expected. Be sure to see actual samples of the products you are considering, and visit one of over 100 independently owned EP Henry Authorized Hardscaping Distributors®.

Product Dimensions

PRESTON APARTMENTS

SITE PLAN AMENDMENT #2 - PARKING LOT EXPANSION

CITY OF CHARLOTTESVILLE, VIRGINIA

PROJECT DATA:

1. THE OWNER/CLIENT OF THIS PROPERTY IS:
NEIGHBORHOOD INVESTMENT---PC, LP
810 CATALPA COURT
CHARLOTTESVILLE, VA 22903

2. THESE PLANS HAVE BEEN PREPARED BY:
COLLINS ENGINEERING, INC
200 GARRETT STREET, SUITE K
CHARLOTTESVILLE, VA 22902
TELEPHONE: (434) 293-3719

3. SOURCE OF SURVEY: THE BOUNDARY INFORMATION AND TOPOGRAPHY SURVEY WAS PROVIDED BY DOMINION ENGINEERING & SURVEYING IN OCTOBER, 2018, AND FIELD VERIFIED BY COLLINS ENGINEERING IN FEBRUARY, 2019. MISS UTILITY TICKET NUMBER B622801343.

4. ZONING: R-3H (MULTIFAMILY) WITH ARCHITECTURAL DESIGN CONTROL (ADC) DISTRICT OVERLAY - DISTRICT H (RUGBY ROAD - UNIVERSITY CIRCLE - VENABLE NEIGHBORHOOD)

5. BAR APPROVAL: THE PROPOSED PARKING LOT AND SITE LANDSCAPING PLAN WILL BE SUBMITTED IN MAY, 2019 FOR BAR REVIEW AND APPROVAL.

6. TAX MAP AND PARCEL NUMBER: TMP 050111000

7. USGS DATUM: NAD 83 (1994)

8. LOCATION/ADDRESS OF PROJECT: 605 PRESTON PLACE, CHARLOTTESVILLE VA 22902

9. BUILDING HEIGHT: EXISTING STRUCTURE (HOUSE) TO REMAIN

10. PROPOSED USE: EXISTING RESIDENTIAL DWELLING AND A PROPOSED PARKING LOT TO SERVE THE ADJACENT APARTMENT COMPLEX.

11. PROJECT SCOPE: INSTALLATION OF A PERVIOUS PAVEMENT PARKING LOT TO SERVE THE ADJACENT APARTMENT BUILDING, CURRENTLY UNDER CONSTRUCTION. TOTAL PARKING SPACES PROPOSED WITH THIS PROJECT IS 25 SPACES.

12. TOTAL ACREAGE OF SITE: 0.4330 ACRES

13. TOTAL PROPOSED LAND DISTURBANCE: 25,600 SF

14. SITE PHASING: ONE PHASE

15. CRITICAL SLOPES: NONE

16. PUBLIC UTILITIES: THE HOUSE IS CURRENTLY SERVED BY PUBLIC WATER AND SEWER.

17. ACCESS: THE PROPOSED PARKING LOT SHALL HAVE AN ACCESS FROM PRESTON PLACE INTO THE PARKING LOT FROM THE WEST SIDE OF THE PROPERTY AND SEPARATE EXIT OUT OF THE PARKING LOT ALONG PRESTON PLACE ON THE EAST SIDE OF THE PROPERTY

18. STREAM BUFFER: THE DEVELOPMENT OF THIS PROPERTY DOES NOT IMPACT A STREAM BUFFER. NO FLOODPLAIN IS LOCATED ON THE PROPERTY.

19. SIGNAGE: SITE SIGNAGE SHALL BE SUBMITTED UNDER A SEPARATE APPLICATION.

20. AREAS OF DEDICATION FOR PUBLIC USE: NONE ON THIS SITE.

21. STORMWATER MANAGEMENT: SEE SHEET 9 FOR THE PROPOSED STORMWATER MANAGEMENT PLAN. THE PROPOSED PARKING LOT SHALL BE A PERVIOUS PARKING LOT WITH A GRAVEL UNDERDRAIN SYSTEM.

22. LIGHTING PLAN: NO LIGHTING IS CURRENTLY PROPOSED FOR THE PARKING LOT.

23. CONSERVATION PLAN: NOT APPLICABLE

24. TOTAL LOT COVERAGE: 62.8% TOTAL LOT COVERAGE

25. FIRE FLOW: NOT APPLICABLE

26. WATER FLOW: EXISTING RESIDENTIAL HOUSE WITH A RESIDENTIAL WATER METER

27. SANITARY SEWER FLOW: (1) EXISTING RESIDENTIAL HOUSE

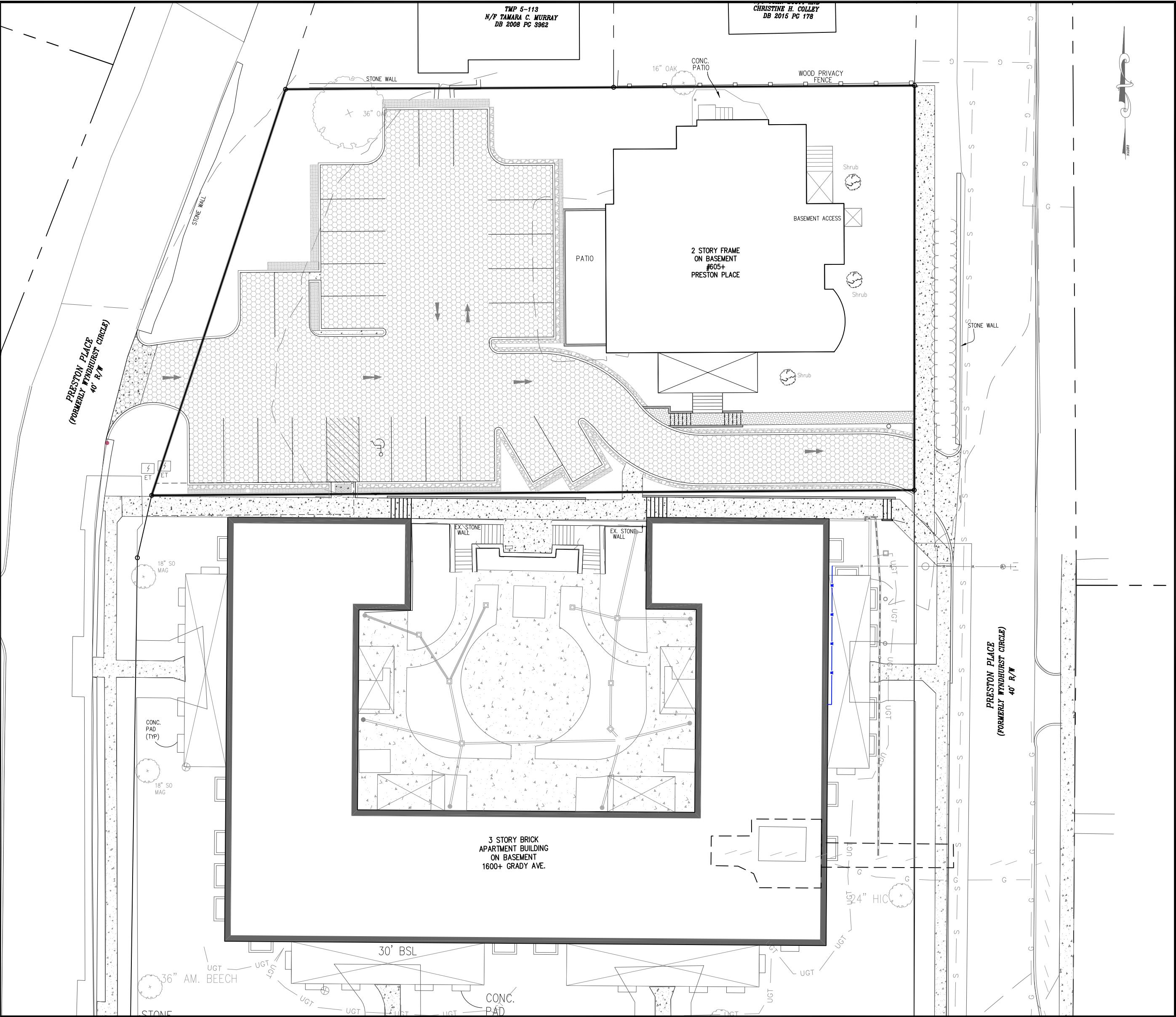
28. STREET CLOSURE: IF A TEMPORARY STREET CLOSURE PERMIT IS REQUIRED FOR CLOSURE OF SIDEWALKS, PARKING SPACES AND ROADWAYS, IT SHALL BE SUBJECT TO APPROVAL BY THE CITY TRAFFIC ENGINEER.

29. IMPERVIOUS AREA:
EXISTING IMPERVIOUS AREA: PROPOSED IMPERVIOUS AREA:
EXISTING HOUSE: 0.085 ACRES HOUSE/STRUCTURES: 0.085 ACRES
EXISTING PATIO/SIDEWALKS: 0.01 ACRES PATIO/SIDEWALK: 0.01 ACRES
PERVIOUS PARKING LOT: 0.177 ACRES

30. BUILDING/LOT SETBACKS: FRONT - 25' MIN
SIDE - 10' MIN
REAR - 25' MIN

NOTES:

1. COLLINS ENGINEERING SHALL NOT HAVE AUTHORITY OVER CONTRACTOR'S WORK, SAFETY PRECAUTIONS, SCHEDULES, OR COMPLIANCE WITH LAWS AND REGULATIONS. WE SHALL NOT ASSUME RESPONSIBILITY FOR ANY CONSTRUCTION BEGUN PRIOR TO PLAN APPROVAL.
2. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, IF THERE APPEARS TO BE A CONFLICT, AND UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS.
3. ANY SIDEWALK AND/OR CURB DAMAGE IDENTIFIED IN THE SITE VICINITY DUE TO PROJECT CONSTRUCTION ACTIVITIES AS DETERMINED BY THE CITY INSPECTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
4. CONTRACTOR TO PROVIDE A MINIMUM OF 12" TO 18" VERTICAL OF SEPARATION BETWEEN EXISTING UTILITIES AND THE PROPOSED UNDERGROUND CONDUIT AND 5' HORIZONTAL SEPARATION FROM ALL UTILITIES AND FIRE HYDRANTS.
5. ALL BACKFILLING OF THE TRENCHES MUST BE PLACED AT 95% COMPACTION. STONE BACKFILL MATERIAL SHALL BE USED AS BACKFILL MATERIAL AT ALL DRIVEWAY AND ROAD CROSSINGS, AND BACKFILLING UNDER ALL UTILITY LINES, STORM LINES, AND CONCRETE CURBS AND DITCHES.
6. ALL BACKFILL MATERIAL SHALL CONSIST PREDOMINATELY OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 8" IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE TRENCH AREA IN ACCORDANCE WITH VDOT 2007 ROAD AND BRIDGE SPECIFICATION 303.04.
7. IN ACCORDANCE WITH VAB11, THE GAS LINES WILL NEED TO BE POTHOLED WITH A CITY GAS UTILITY INSPECTOR PRESENT WHERE THE PROPOSED BORING CROSSES A GAS MAIN. CONTRACTOR SHALL CONTACT KEN VARNER (434-970-3806) WHEN READY TO CROSS THE EXISTING GAS LINES.
8. UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE RECORDS AND FIELD OBSERVATIONS, BUT ARE NOT NECESSARILY EXACT. THEREFORE, UTILITY LOCATIONS WILL BE VERIFIED AT LEAST 100' IN ADVANCE OF TRENCHES, FLOWING, OR BORING, SO THAT CHANGES IN CABLE PLACEMENT CAN BE MADE IN THE EVENT OF A CONFLICT.
9. CALL BEFORE YOU DIG: MISS UTILITY - 1-800-552-7001 OR 811. THE LOCATIONS OF UTILITIES SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. PERSONS WORKING IN THE AREA COVERED BY THIS PLAN MUST CONTACT STATEWIDE "CALL-BEFORE-YOU-DIG" SYSTEM TO ASCERTAIN THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO PERFORMING ANY EXCAVATION.



UTILITIES

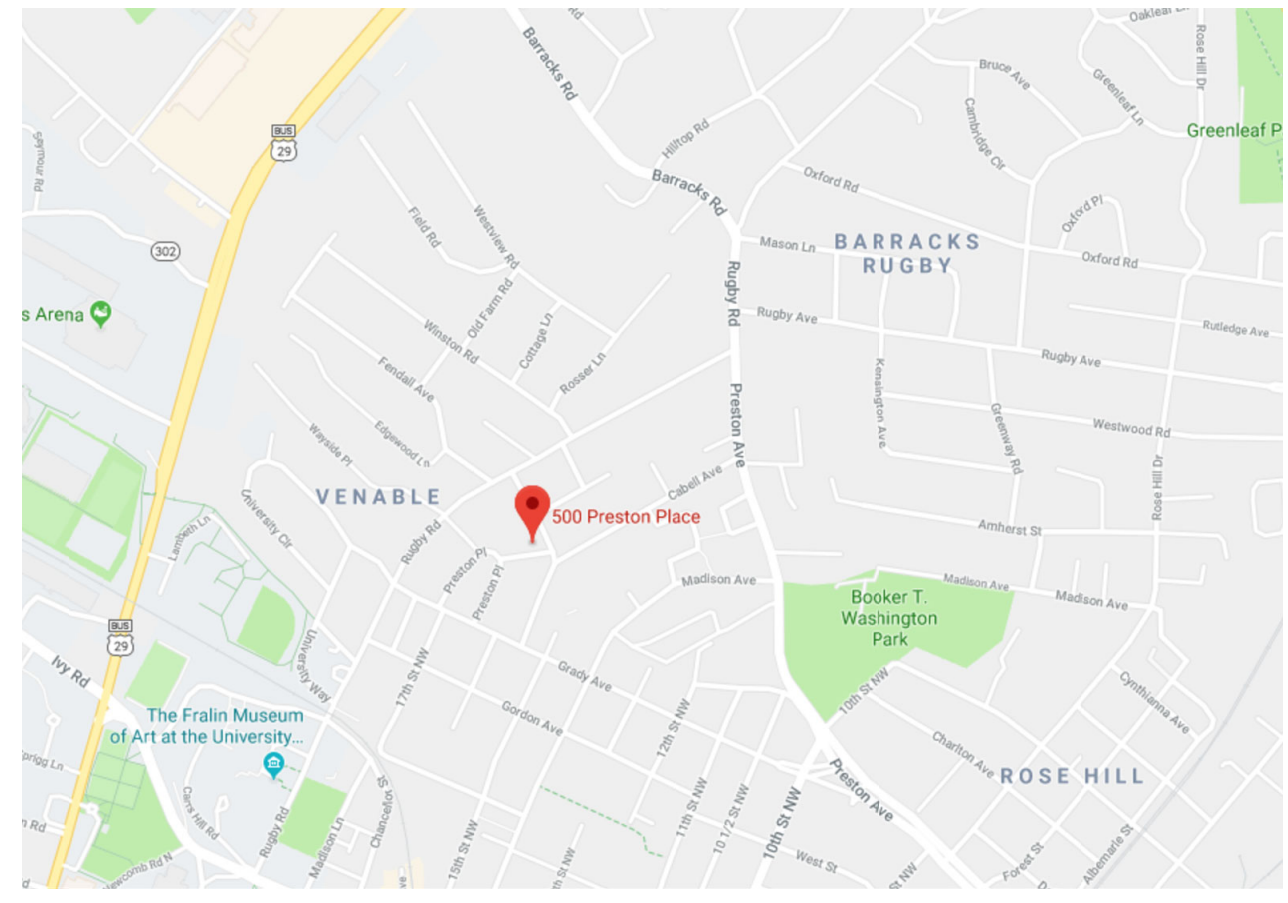
1. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY CONTRACTOR OR ITS SUBCONTRACTORS SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY AND REPAIRED AT CONTRACTOR'S EXPENSE.
2. THESE PLANS DO NOT GUARANTEE THE EXISTENCE, NON-EXISTENCE OR LOCATION OF UTILITIES. CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION, OR THE NON-EXISTENCE, OF UTILITIES. AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION, CONTRACTOR SHALL NOTIFY MISS UTILITY (1-800-552-7001) AND/OR THE RESPECTIVE UTILITY COMPANIES FOR GAS, WATER, SEWER, POWER, PHONE AND CABLE. CONTRACTOR SHALL TIMELY ARRANGE TO HAVE THE VARIOUS UTILITIES LOCATED, AND TO HAVE THEM REMOVED OR RELOCATED, OR TO DETERMINE THE METHOD OF PROTECTION ACCEPTABLE TO THE RESPECTIVE OWNER, IF THE METHOD OF PROTECTION IS NOT OTHERWISE SPECIFIED. CONTRACTOR SHALL CONDUCT ITS WORK IN THE VICINITY OF EXISTING UTILITIES IN ACCORDANCE WITH THE RESPECTIVE UTILITY'S RULES AND REGULATIONS. NO BUILDING OR WALL FOUNDATION SHALL BE CONSTRUCTED WITHIN 10 FEET OF A PUBLIC STORM, SANITARY OR WATER LINE, OR WITHIN 10' OF A GAS LINE. ANY COST INCURRED FOR REMOVING, RELOCATING OR PROTECTING UTILITIES SHALL BE BORNE BY CONTRACTOR UNLESS INDICATED OTHERWISE. CONTRACTOR SHALL EXCAVATE TO LOCATE BURIED UTILITIES FAR ENOUGH IN ADVANCE OF ITS WORK TO ALLOW FOR HORIZONTAL AND /OR VERTICAL ADJUSTMENTS TO ITS WORK AND/OR THE UTILITIES. NO ADJUSTMENT IN COMPENSATION OR SCHEDULE WILL BE ALLOWED FOR DELAYS RESULTING FROM CONTRACTOR'S FAILURE TO CONTACT AND COORDINATE WITH UTILITIES.
3. WHEN THE WORK CROSSES EXISTING UTILITIES, THE EXISTING UTILITIES SHALL BE ADEQUATELY SUPPORTED AND PROTECTED FROM DAMAGE DUE TO THE WORK. ALL METHODS FOR SUPPORTING AND MAINTAINING THE EXISTING UTILITIES SHALL BE APPROVED BY THE RESPECTIVE UTILITY COMPANY AND/OR THE ENGINEER. CONTRACTOR SHALL EXERCISE CARE TO INSURE THAT THE GRADE AND ALIGNMENT OF EXISTING UTILITIES ARE MAINTAINED AND THAT NO JOINTS OR CONNECTIONS ARE DISPLACED. BACKFILL SHALL BE CAREFULLY PLACED AND COMPACTED TO PREVENT FUTURE DAMAGE OR SETTLEMENT TO EXISTING UTILITIES. ANY UTILITIES REMOVED AS PART OF THE WORK, AND NOT INDICATED TO BE REMOVED OR ABANDONED, SHALL BE RESTORED USING MATERIALS AND INSTALLATION EQUAL TO THE UTILITY'S STANDARDS.
4. CONTRACTOR SHALL NOTIFY LANDOWNERS, TENANTS AND THE ENGINEER PRIOR TO THE INTERRUPTION OF ANY SERVICES. SERVICE INTERRUPTIONS SHALL BE KEPT TO A MINIMUM.
5. IF DETERMINED REQUIRED BY THE CITY INSPECTOR, CONTRACTOR SHALL COORDINATE WITH THE CITY TO LOCATE SIGNAL LOOP DETECTORS AND CONDUITS IN ORDER TO AVOID DAMAGE TO THEM. CONTRACTOR SHALL REIMBURSE THE CITY FOR REPAIRING ANY DAMAGE TO SIGNAL LOOP DETECTORS AND CONDUITS CAUSED BY CONTRACTOR'S FAILURE TO SO COORDINATE.
6. ALL RECTANGULAR WATER METER BOXES LOCATED IN SIDEWALKS SHALL BE REPLACED WITH ROUND ONES. THESE WILL BE FURNISHED BY THE CITY UPON ONE FULL WORKING DAY NOTIFICATION. THE ADJUSTMENT OF ALL MANHOLE TOPS, WATER VALVE BOXES, GAS VALVE BOXES AND WATER METER BOXES SHALL BE THE RESPONSIBILITY OF CONTRACTOR.
7. THE CONTRACTOR SHALL NOTIFY THE CITY UTILITIES DIVISION AT LEAST TWO FULL WORKING DAYS IN ADVANCE TO ARRANGE GAS SERVICE LINE ADJUSTMENTS TO BE PERFORMED BY THE CITY.
8. ALL WATER METER, VALVES AND FIRE HYDRANT ADJUSTMENTS/RELOCATIONS SHALL BE PERFORMED BY THE CONTRACTOR.

CONCRETE AND ASPHALT

1. ALL FORMS SHALL BE INSPECTED BY THE ENGINEER BEFORE ANY CONCRETE IS PLACED. THE ENGINEER MAY REQUIRE CONTRACTOR, AT NO ADDITIONAL COST, TO REMOVE AND REPLACE CONCRETE PLACED PRIOR TO OR WITHOUT SUCH INSPECTION.
2. ALL MATERIAL INSIDE FORMS SHALL BE CLEAN AND FREE OF ALL ROCKS AND OTHER LOOSE DEBRIS. SUB-BASE MATERIAL SHALL BE COMPACTED BY MECHANICAL MEANS.
3. CONCRETE SHALL NOT BE PLACED UNLESS THE AIR TEMPERATURE IS AT LEAST 40 DEGREES FAHRENHEIT (F) IN THE SHADE AND RISING.
4. CONCRETE SHALL NOT BE PLACED UNTIL STEEL DOWELS HAVE BEEN INSTALLED IN EXISTING CONCRETE IN ACCORDANCE WITH CITY STANDARDS.
5. 1/2" PREMOLDED EXPANSION JOINT MATERIAL SHALL BE PLACED AT A MAXIMUM OF 30' INTERVALS ON NEW SIDEWALK, CURB, CURB & GUTTER, AT EACH END OF DRIVEWAY ENTRANCES, AT EACH END OF HANDICAP RAMPS, SOME POINT ON ENTRANCE WALKS AND STEPS ADJUSTMENTS, AND ALONG BUILDINGS AND WALLS WHERE NEW CONCRETE SIDEWALKS ARE PLACED AGAINST THEM.
4. ALL EXISTING CURBS, CURB & GUTTER, SIDEWALK AND STEPS TO BE REMOVED SHALL BE TAKEN OUT TO THE NEAREST JOINT.
5. ALL EXISTING GRANITE CURB SHALL REMAIN THE PROPERTY OF THE CITY OF CHARLOTTESVILLE. IT SHALL BE REMOVED AND DELIVERED BY THE CONTRACTOR TO THE CITY'S PUBLIC WORKS COMPLEX.
6. STREET PAVEMENT STRUCTURE AND PATCHING SHALL BE EXTENDED FROM THE FRONT OF NEW CONCRETE TO THE EXISTING PROJECTION OF THE SOUND STREET EDGE AS DIRECTED BY THE ENGINEER WHERE APPLICABLE.
7. ASHPLAT/CONCRETE ADJUSTMENTS ARE TO BE DONE IN GENTLE TRANSITIONS RATHER THAN ABRUPT BREAKS AT THE BACK OF WALKS.
8. EXISTING ASPHALT & CONCRETE PAVEMENT SHALL BE SAW CUT AND REMOVED IN ACCORDANCE WITH CITY REQUIREMENTS. REMOVAL SHALL BE DONE IN SUCH A MANNER AS TO NOT TEAR, BULGE OR DISPLACE ADJACENT PAVEMENT. EDGES SHALL BE CLEAN AND VERTICAL, ALL CUTS SHALL BE PARALLEL OR PERPENDICULAR TO THE DIRECTION OF TRAFFIC.
9. DISPOSAL OF ALL EXCESS MATERIAL IS THE RESPONSIBILITY OF CONTRACTOR.

DRAINAGE

1. CONTRACTOR SHALL EXERCISE CARE, ESPECIALLY AT INTERSECTIONS AND GUTTER LINES, TO PROVIDE POSITIVE DRAINAGE. ANY AREAS WHERE WATER IS IMPOUNDED SHALL BE CORRECTED BY CONTRACTOR AT NO ADDITIONAL COST. POSITIVE DRAINAGE OF ALL PAVED AND GRADED AREAS TO THE STORM DRAIN INLETS OR OTHER ACCEPTABLE DRAINAGE CHANNELS ARE REQUIRED, AS NOTED ON THE PLANS.
2. CONTRACTOR SHALL MAINTAIN EXISTING STREAMS, DITCHES, DRAINAGE STRUCTURES, CULVERTS AND FLOWS AT ALL TIMES DURING THE WORK. CONTRACTOR SHALL PAY FOR ALL PERSONAL INJURY AND PROPERTY DAMAGE WHICH MAY OCCUR AS A RESULT OF FAILING TO MAINTAIN ADEQUATE DRAINAGE.
3. ALL PIPES, D'S AND OTHER STRUCTURES SHALL BE INSPECTED BY THE ENGINEER BEFORE BEING BACKFILLED OR BURIED. THE ENGINEER MAY REQUIRE CONTRACTOR, AT NO ADDITIONAL COST, TO UNCOVER AND RE-COVER SUCH STRUCTURES IF THEY HAVE BEEN BACKFILLED OR BURIED WITHOUT SUCH INSPECTION.
4. ALL CATCH BASINS ENCOMPASSED WITHIN NEW CONSTRUCTION SHALL BE CONVERTED TO DROP INLETS.
5. CLASS 1 RIP RAP MODIFICATIONS ALLOWS FOR A REDUCTION IN STONE DEPTH FROM 2.0' TO A MINIMUM OF 1.0' WHEN DIRECTED BY THE ENGINEER.
6. REMOVED PIPE SHALL BE THE PROPERTY OF CONTRACTOR AND IF NOT SALVAGED FOR RE-USE, SHALL BE DISPOSED OF LAWFULLY.
7. ALL STORM SEWER PIPE AND DROP INLETS SHALL BE CLEARED OF DEBRIS AND ERODED MATERIAL PRIOR TO FINAL ACCEPTANCE.
8. ALL STORM SEWER PIPE JOINTS SHALL BE SEATED AND SEALED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
9. ALL EXISTING ROOF DRAINS AND OTHER DRAINAGE CONDUIT TIED INTO EXISTING STORM SEWER SHALL REMAIN OR BE REROUTED TO PROPOSED STORM SEWER, UNLESS OTHERWISE NOTED ON THE PLANS.



VICINITY MAP
SCALE: 1" = 1,000'

FIRE DEPARTMENT NOTES:

1. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE CONSISTENT WITH THE MUTCD.
2. IFC 505-THE BUILDING STREET NUMBER TO BE PLAINLY VISIBLE FROM THE STREET FOR EMERGENCY RESPONDERS.
3. IFC 506.1-AN APPROVED KEY BOX SHALL BE MOUNTED TO THE SIDE OF THE FRONT OR MAIN ENTRANCE. THE CHARLOTTESVILLE FIRE DEPARTMENT CARRIES THE KNOX BOX MASTER KEY. A KNOX BOX KEY BOX CAN BE ORDERED BY GOING ONLINE TO WWW.KNOXBOX.COM. THE KNOX BOX ALLOWS ENTRY TO THE BUILDING WITHOUT DAMAGING THE LOCK AND DOOR SYSTEM.
4. STRUCTURES WITH FIRE PROTECTION SYSTEMS SHALL INDICATE THE LOCATION OF ANY FIRE LINE TO THE BUILDING(S) AS WELL AS THE LOCATION OF FIRE DEPARTMENT CONNECTIONS.
5. FIRE HYDRANTS, FIRE PUMP TEST HEADER, FIRE DEPARTMENT CONNECTIONS OR FIRE SUPPRESSION SYSTEM CONTROL VALVES SHALL REMAIN CLEAR AND UNOBSTRUCTED BY LANDSCAPING, PARKING OR OTHER OBJECTS. THE FIRE MARSHAL'S OFFICE NO LONGER ALLOWS ANY TYPE OF LANDSCAPING TO BE PLACED IN FRONT OF AND WITHIN 5 FEET OF FIRE HYDRANTS, FIRE PUMP TEST HEADERS, FIRE DEPARTMENT CONNECTIONS OR FIRE SUPPRESSION SYSTEM CONTROL VALVES.
6. AN APPROVED WATER SUPPLY FOR FIRE PROTECTION SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ARRIVES ON THE SITE.
7. ALL PAVEMENT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS WEIGHTING 85,000 LBS.
8. IFC 1404.1-SMOKING TO BE ALLOWED IN ONLY DESIGNATED SPACES WITH PROPER RECEPTACLES."NO SMOKING" SIGNS SHALL BE POSTED AT EACH BUILDING SITE AND WITHIN EACH BUILDING DURING CONSTRUCTION. SPECIFICALLY, SMOKING WILL ONLY BE ALLOWED OUTSIDE THE CONSTRUCTION SITE ENTRANCE.
9. IFC 1404.2-WASTE DISPOSAL OF COMBUSTIBLE DEBRIS SHALL BE REMOVED FROM THE BUILDING AT THE END OF EACH WORKDAY.
10. IFC 1410.1-ACCESS TO THE BUILDING DURING DEMOLITION AND CONSTRUCTION SHALL BE MAINTAINED.
11. IFC 1404.6-CUTTING AND WELDING. OPERATIONS INVOLVING THE USE OF CUTTING AND WELDING SHALL BE DONE IN ACCORDANCE WITH CHAPTER 26, OF THE INTERNATIONAL FIRE CODE, ADDRESSING WELDING AND HOTWORK OPERATIONS.
12. IFC 1414.1-FIRE EXTINGUISHERS SHALL BE PROVIDED WITH NOT LESS THAN ONE APPROVED PORTABLE FIRE EXTINGUISHER AT EACH STAIRWAY ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED.
13. REQUIRED VEHICLE ACCESS FOR FIRE FIGHTING SHALL BE PROVIDED TO ALL CONSTRUCTION OR DEMOLITION SITES. VEHICLE ACCESS SHALL BE PROVIDED TO WITHIN 100 FEET OF TEMPORARY OR PERMANENT FIRE DEPARTMENT CONNECTIONS. VEHICLE ACCESS SHALL BE PROVIDED BY EITHER TEMPORARY OR PERMANENT ROADS, CAPABLE OF SUPPORTING VEHICLE LOADING UNDER ALL WEATHER CONDITIONS. VEHICLE ACCESS SHALL BE MAINTAINED UNTIL PERMANENT FIRE APPARATUS ACCESS ROADS ARE AVAILABLE.
14. OVERHEAD WIRING OR OTHER OBSTRUCTIONS SHALL BE HIGHER THAN 13 FEET 6 INCHES.
15. ALL SIGNS SHALL BE IN ACCORDANCE WITH ARTICLE IX, SECTION 34-1020 CITY CODE.
16. VSPPC 506.1.2- AN ELEVATOR KEY BOX SHALL BE PROVIDED / INSTALLED.
17. VSPPC 905.3.1 - A CLASS I STANDPIPE SYSTEM MUST BE INSTALLED IN ADDITION TO THE SPRINKLER SYSTEM SINCE THE FLOOR LEVEL OF THE HIGHEST STORY IS MORE THAN 30 FEET ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS.
18. VSPPC 903.5.2 - A SECONDARY WATER SUPPLY TO THE BUILDING'S FIRE PUMP IS REQUIRED SINCE THE PROPOSED BUILDING HAS AN OCCUPIED FLOOR LOCATED MORE THAN 75' ABOVE THE LOWEST LEVEL OF THE FIRE DEPARTMENT VEHICLE ACCESS.
19. VSPPC 912.2.1- ALL FIRE DEPARTMENT CONNECTIONS, FDC, SHALL BE LOCATED ON THE STREET SIDE OF THE STRUCTURE UNLESS OTHERWISE APPROVED BY THE FIRE CODE OFFICIAL.
20. VSPPC 331.1.1 - WHERE A BUILDING HAS BEEN CONSTRUCTED TO A HEIGHT GREATER THAN 60 FEET OR FOUR (4) STORIES, AT LEAST ONE TEMPORARY LIGHTED STAIRWAY SHALL BE PROVIDED UNLESS ONE OR MORE OF THE PERMANENT STAIRWAYS ARE ERECTED AS THE CONSTRUCTION PROGRESSES.
21. VSPPC 331.2.1 - AN APPROVED WATER SUPPLY FOR FIRE PROTECTION SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ARRIVES ON THE SITE.
22. VSPPC 331.3.1 - BUILDINGS FOUR OR MORE STORIES IN HEIGHT SHALL BE PROVIDED WITH NOT LESS THAN ONE STANDPIPE FOR USE DURING CONSTRUCTION. SUCH STANDPIPES SHALL BE INSTALLED WHEN THE PROGRESS OF CONSTRUCTION IS NOT MORE THAN 40 FEET IN HEIGHT ABOVE THE LOWEST LEVEL OF FIRE DEPARTMENT ACCESS. SUCH STANDPIPE SHALL BE PROVIDED WITH FIRE DEPARTMENT HOSE CONNECTIONS AT ACCESSIBLE LOCATIONS ADJACENT TO USABLE STAIRS. SUCH STANDPIPES SHALL BE EXTENDED AS CONSTRUCTION PROGRESSES TO WITHIN ONE FLOOR OF THE HIGHEST POINT OF CONSTRUCTION HAVING SECURED DECKING OR FLOORING. GUARDRAILS REQUIRED AT THE TOP OF ALL RETAINING WALLS WITH A GRADE DIFFERENCE EXCEEDING 30".
23. HANDRAILS REQUIRED AT BOTH SIDES OF STAIRS.
25. 5' SIDE SETBACKS HAVE A RESTRICTIVE BUILDING CODE REQUIREMENT FOR % OPENINGS AND EXTERIOR WALL FIRE RATINGS. THESE CALCULATIONS WILL BE SHOWN ON THE BUILDING AND ARCHITECTURAL PLANS.
26. A MINIMUM OF 98" HEIGHT CLEARANCE IS REQUIRED AT PARKING GARAGE DOORS AND CLEARANCE AT HANDICAP PARKING SPACES. THIS CLEARANCE WILL BE SHOWN ON THE BUILDING AND ARCHITECTURAL PLANS.
27. A PERMIT IS REQUIRED FOR FIRE LINE INSTALLATION. A DETAILED DRAWING (2 SETS) SHOWING FITTINGS AND THRUST BLOCKS MUST BE SUBMITTED WITH THE PERMIT APPLICATION. ONCE INSTALLED, THE FIRE LINE REQUIRES A VISUAL INSPECTION AND PRESSURE TEST INSPECTION BY THE FIRE MARSHAL'S OFFICE.
28. AN OUTSIDE STAND-ALONE OR WALL MOUNTED ELECTRICALLY MONITORED POST INDICATOR VALVE IS REQUIRED ON THE FIRE LINE AND ITS LOCATION SHALL BE INDICATED ON THE SITE PLAN.
29. ALL PAVEMENT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS WEIGHING 85,000 LBS.

LEGEND
ROADS

-
- EXISTING CULVERT

DROP INLET & STRUCTURE NO.CURBCURB & GUTTERPROPOSED ASPHALTPROPOSED CONCRETEPROPOSED PAYER (IMPERVIOUS)BENCH MARKVDOT STANDARD STOP SIGNEXISTING CONTOUR

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	LAYOUT, GRADING, AND DRAINAGE PLAN
4	DRAINAGE MAP, STORM PROFILES & CALCULATIONS
5	NOTES & DETAILS
6	LANDSCAPING PLAN
7	EROSION & SEDIMENT CONTROL PLAN NARRATIVE
8	EROSION & SEDIMENT CONTROL PLAN
9	STORMWATER MANAGEMENT PLAN
9	TOTAL NUMBER OF SHEETS

SIGNATURE PANEL

DIRECTOR,
NEIGHBORHOOD DEVELOPMENT

REVISIONS

REVISION DESCRIPTION	INITIAL	DATE	BY	CHECKED BY
		04/02/19		

COLLINS ENGINEERING

200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PRESTON APARTMENTS SITE PLAN AMENDMENT #2

PARKING LOT EXPANSION - COVER SHEET

PROJECT

JOB NO.

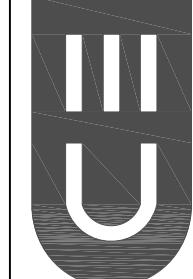
172140

SCALE

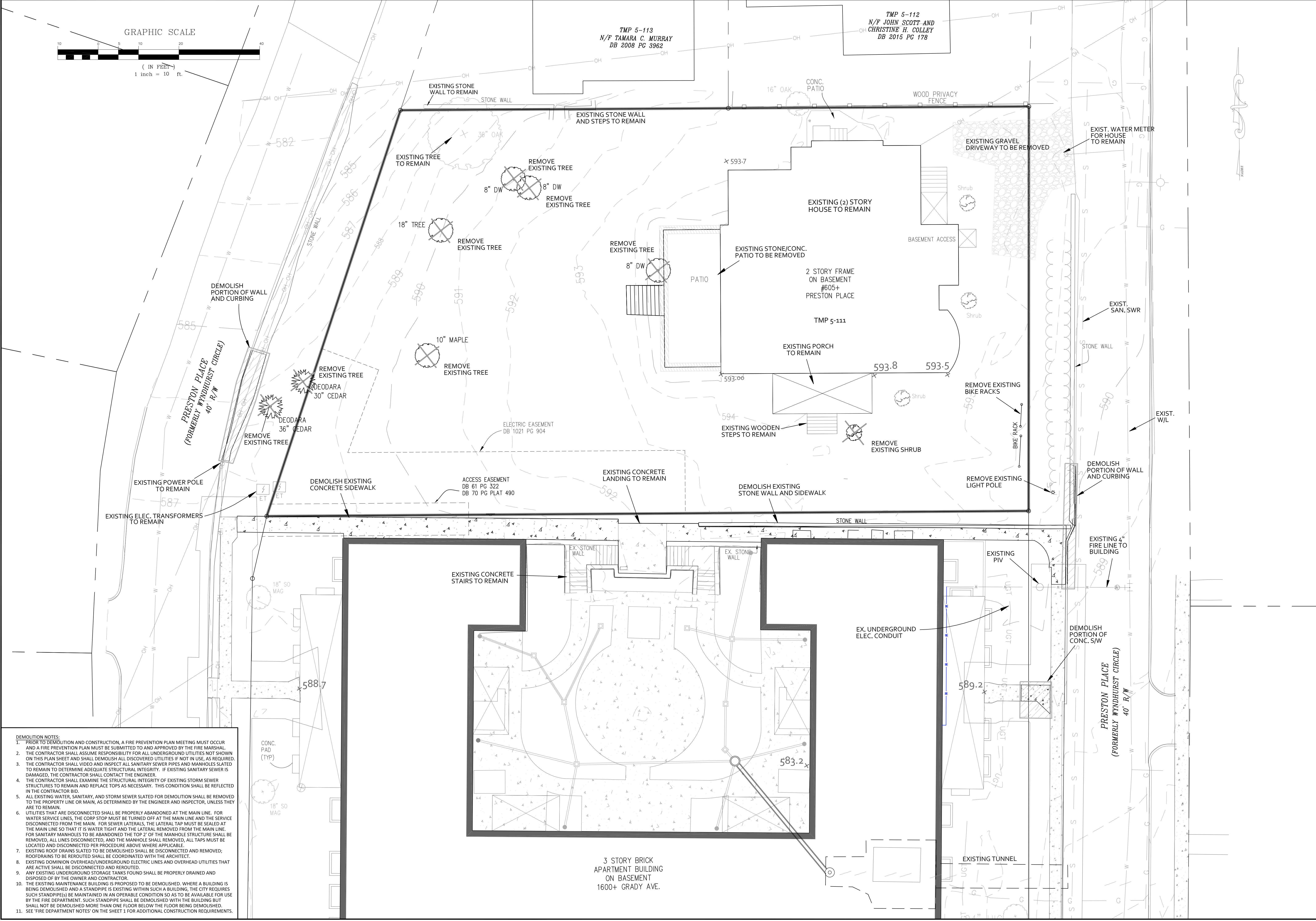
1" = 20'

SHEET NO.

1 OF 9

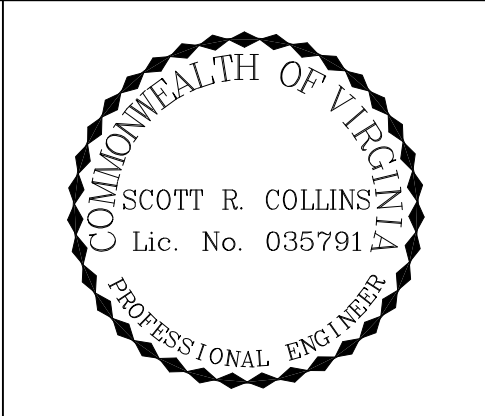


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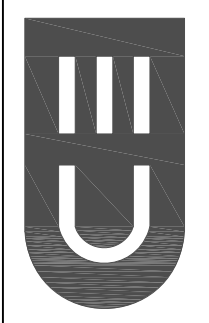


DEMOLITION NOTES:

1. PRIOR TO DEMOLITION AND CONSTRUCTION, A FIRE PREVENTION PLAN MEETING MUST OCCUR AND A FIRE PREVENTION PLAN MUST BE SUBMITTED TO AND APPROVED BY THE FIRE MARSHAL.
2. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL UNDERGROUND UTILITIES NOT SHOWN ON THIS PLAN SHEET AND SHALL DEMOLISH ALL DISCOVERED UTILITIES IF NOT IN USE, AS REQUIRED.
3. THE CONTRACTOR SHALL VIDEO AND INSPECT ALL SANITARY SEWER PIPES AND MANHOLES SLATED TO REMAIN TO DETERMINE ADEQUATE STRUCTURAL INTEGRITY. IF EXISTING SANITARY SEWER IS DAMAGED, THE CONTRACTOR SHALL CONTACT THE ENGINEER.
4. THE CONTRACTOR SHALL EXAMINE THE STRUCTURAL INTEGRITY OF EXISTING STORM SEWER STRUCTURES TO REMAIN AND REPLACE TOPS AS NECESSARY. THIS CONDITION SHALL BE REFLECTED IN THE CONTRACTOR BID.
5. ALL EXISTING WATER, SANITARY, AND STORM SEWER SLATED FOR DEMOLITION SHALL BE REMOVED TO THE PROPERTY LINE OR MAIN, AS DETERMINED BY THE ENGINEER AND INSPECTOR, UNLESS THEY ARE TO REMAIN.
6. UTILITIES THAT ARE DISCONNECTED SHALL BE PROPERLY ABANDONED AT THE MAIN LINE. FOR WATER SERVICE LINES, THE CORP STOP MUST BE TURNED OFF AT THE MAIN LINE AND THE SERVICE DISCONNECTED FROM THE MAIN. FOR SEWER LATERALS, THE LATERAL TAP MUST BE SEALED AT THE MAIN LINE SO THAT IT IS WATER TIGHT AND THE LATERAL REMOVED FROM THE MAIN LINE. FOR SANITARY MANHOLES TO BE ABANDONED THE TOP 2' OF THE MANHOLE STRUCTURE SHALL BE REMOVED, ALL LINES DISCONNECTED, AND THE MANHOLE SHALL REMOVED, ALL TAPS MUST BE LOCATED AND DISCONNECTED PER PROCEDURE ABOVE WHERE APPLICABLE.
7. EXISTING ROOF DRAINS SLATED TO BE DEMOLISHED SHALL BE DISCONNECTED AND REMOVED; ROOFDRAINS TO BE REROUTED SHALL BE COORDINATED WITH THE ARCHITECT.
8. EXISTING DOMINION OVERHEAD/UNDERGROUND ELECTRIC LINES AND OVERHEAD UTILITIES THAT ARE ACTIVE SHALL BE DISCONNECTED AND REROUTED.
9. ANY EXISTING UNDERGROUND STORAGE TANKS FOUND SHALL BE PROPERLY DRAINED AND DISPOSED OF BY THE OWNER AND CONTRACTOR.
10. THE EXISTING MAINTENANCE BUILDING IS PROPOSED TO BE DEMOLISHED, WHERE A BUILDING IS BEING DEMOLISHED AND A STANDPIPE IS EXISTING WITHIN SUCH A BUILDING, THE CITY REQUIRES SUCH STANDPIPE(S) BE MAINTAINED IN AN OPERABLE CONDITION SO AS TO BE AVAILABLE FOR USE BY THE FIRE DEPARTMENT. SUCH STANDPIPE SHALL BE DEMOLISHED WITH THE BUILDING BUT SHALL NOT BE DEMOLISHED MORE THAN ONE FLOOR BELOW THE FLOOR BEING DEMOLISHED.
11. SEE 'FIRE DEPARTMENT NOTES' ON THE SHEET 1 FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.



REVISIONS	
DATE	REVISION DESCRIPTION
04/02/19	INITIAL DESIGN

**COLLINS ENGINEERING**

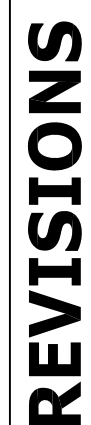
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PRESTON APARTMENTS SITE PLAN AMENDMENT #2

PARKING LOT EXPANSION - EXISTING CONDITIONS & DEMOLITION

PROJECT	JOB NO.
172140	
SCALE	SHEET TITLE
1" = 10'	PARKING LOT EXPANSION - EXISTING CONDITIONS & DEMOLITION
SHEET NO.	
2 OF 9	

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DATE	REVISION DESCRIPTION
10/04/18	INITIAL DESIGN

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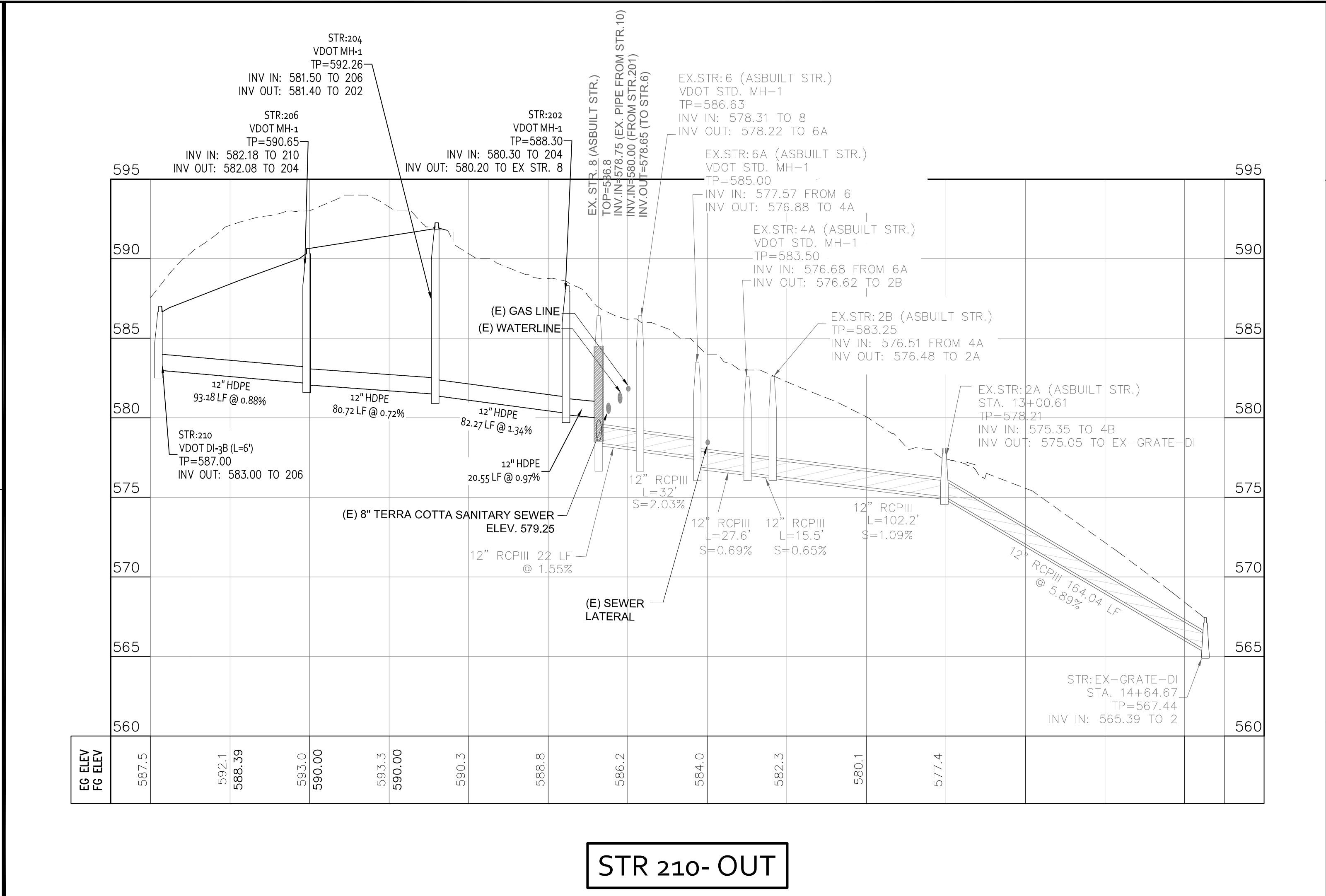
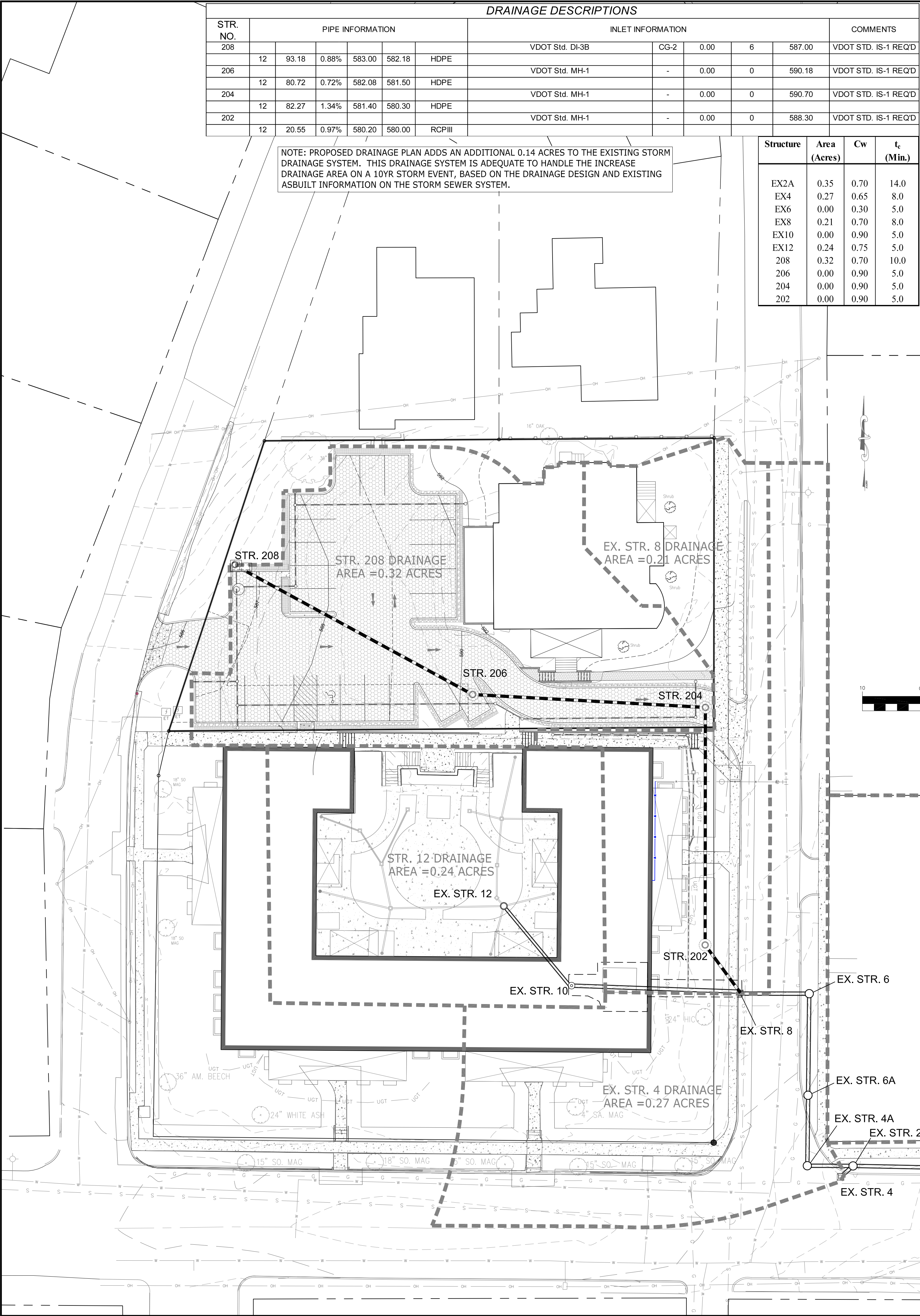
PRESTON APARTMENTS SITE PLAN AMENDMENT #2

PARKING LOT EXPANSION - LAYOUT, GRADING AND DRAINAGE PLAN

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PROJECT	SHEET TITLE
JOB NO. 172140	
SCALE 1" = 10'	
SHEET NO. 3 OF 9	

SHEET NO.
3 OF 9



GRAPHIC SCALE

STR. 2A DRAINAGE
AREA = 0.35 ACRES
(ROUTED THROUGH
UNDERGROUND DETENTION)

EX. STR. 2A

J.N.	PROJECT Preston Parking Lot Expansion
COUNTY Albemarle	DESIGNED BY
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COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER

REVISIONS

REVISION DESCRIPTION
INITIAL DESIGN

DATE
04/02/19

CE COLLINS ENGINEERING

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PROJECT PRESTON APARTMENTS SITE PLAN AMENDMENT #2

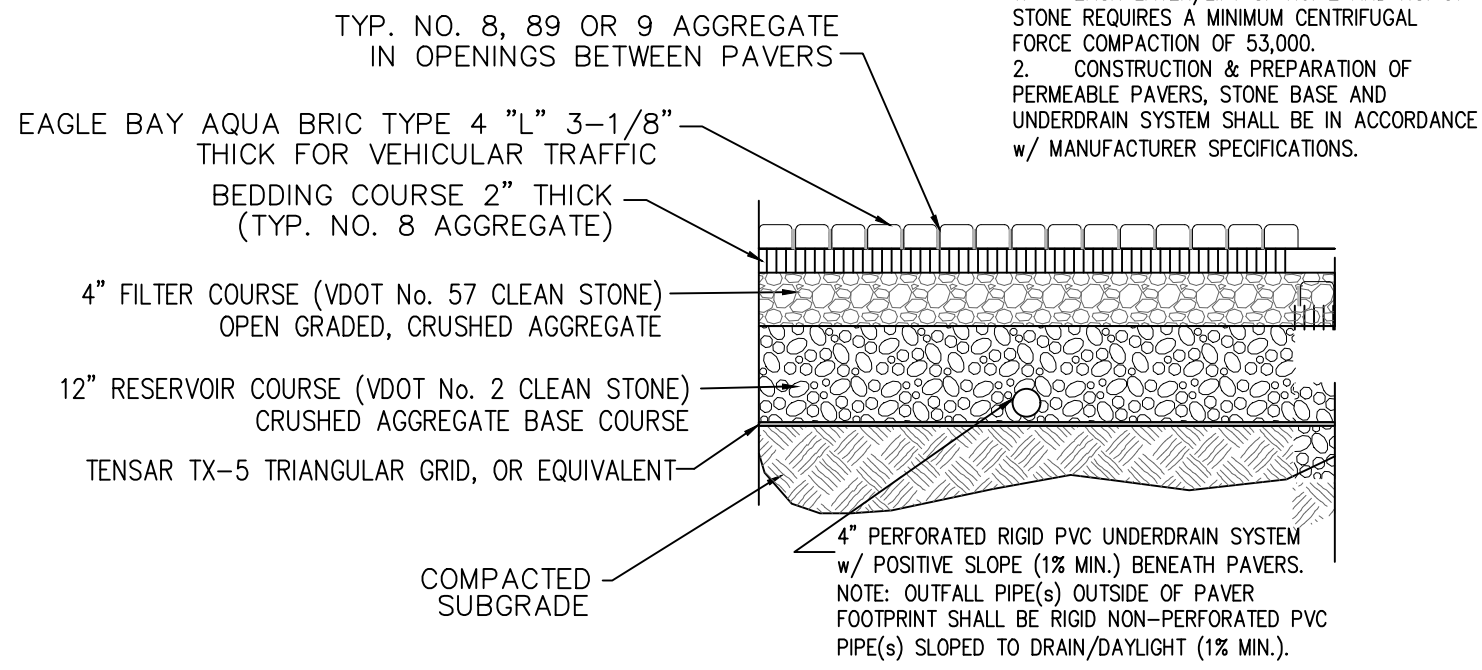
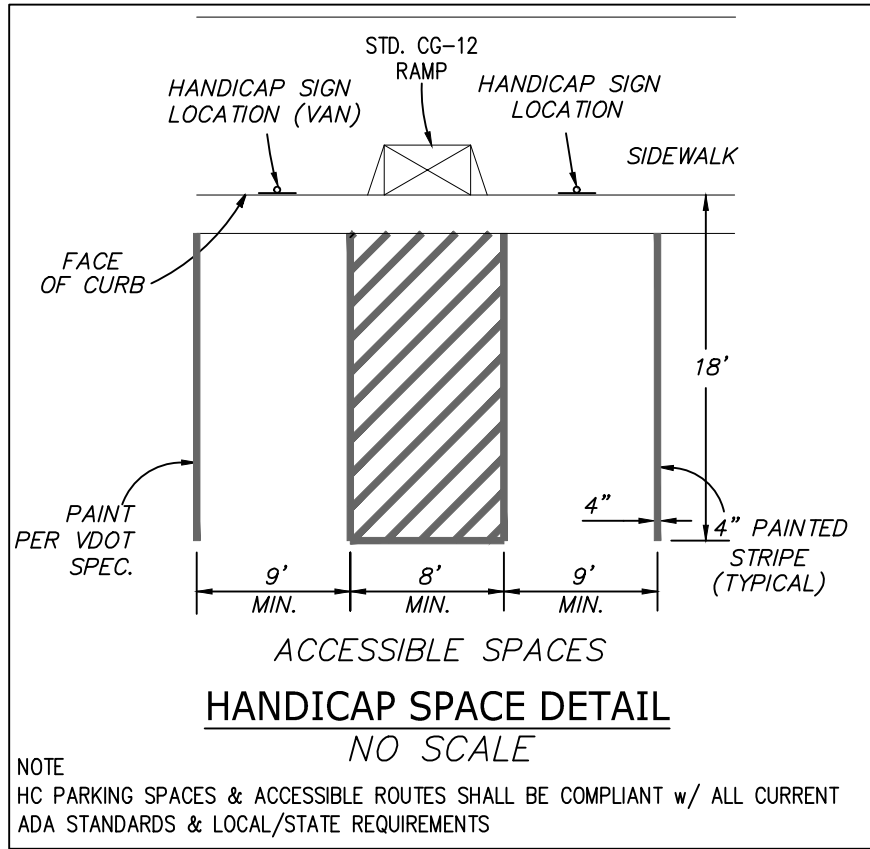
SHEET TITLE PARKING LOT EXPANSION -DRAINAGE MAP, PROFILES, & SWM CALCULATIONS

JOB NO.
172140

SCALE
1" = 10'

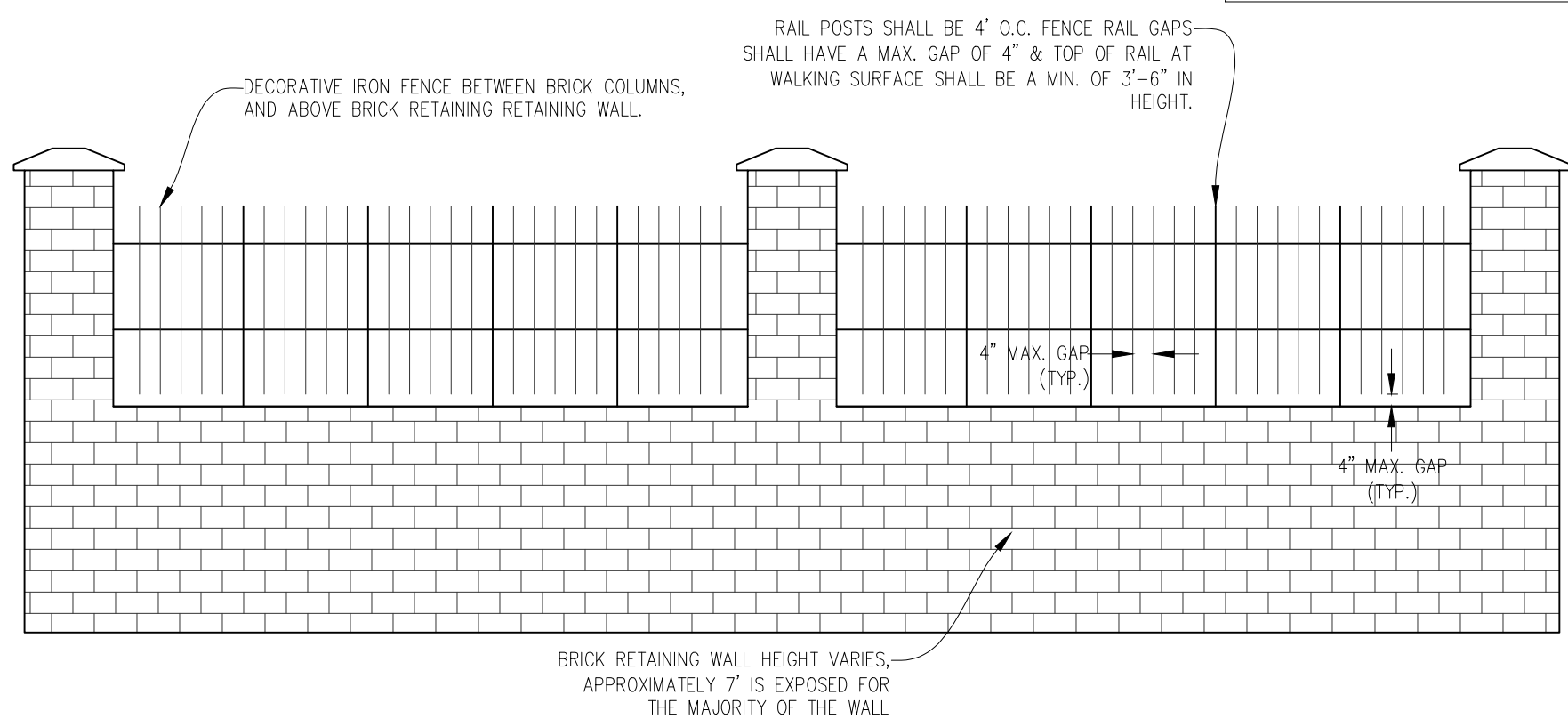
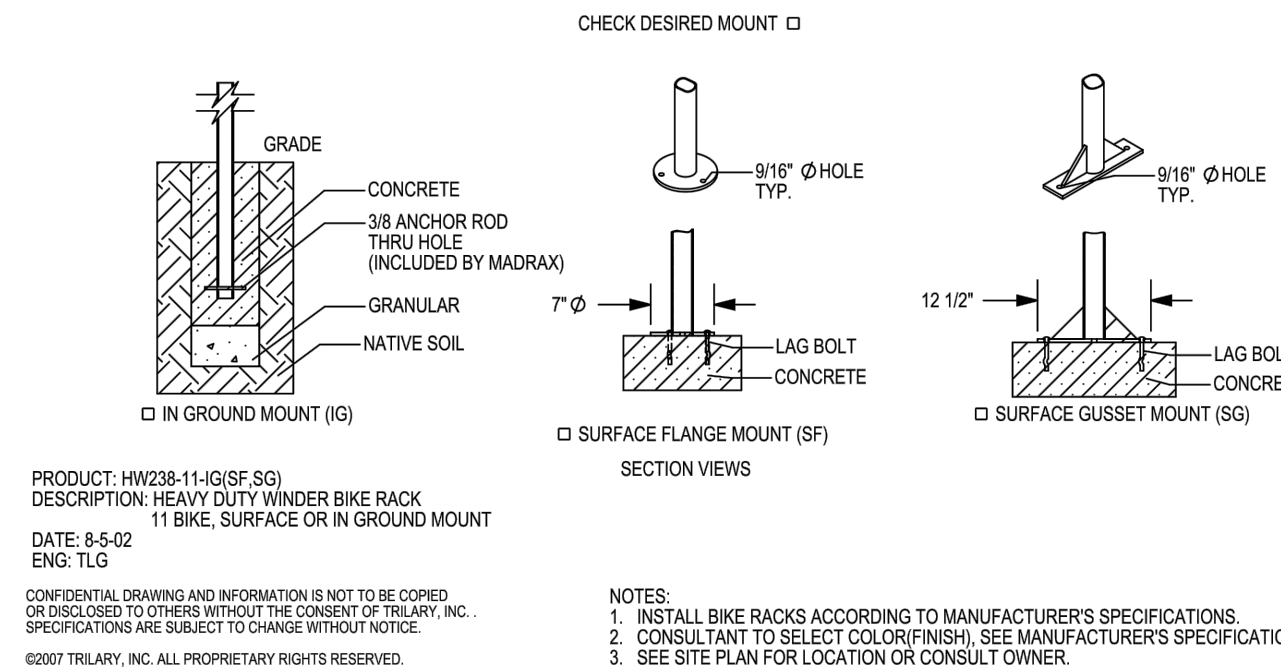
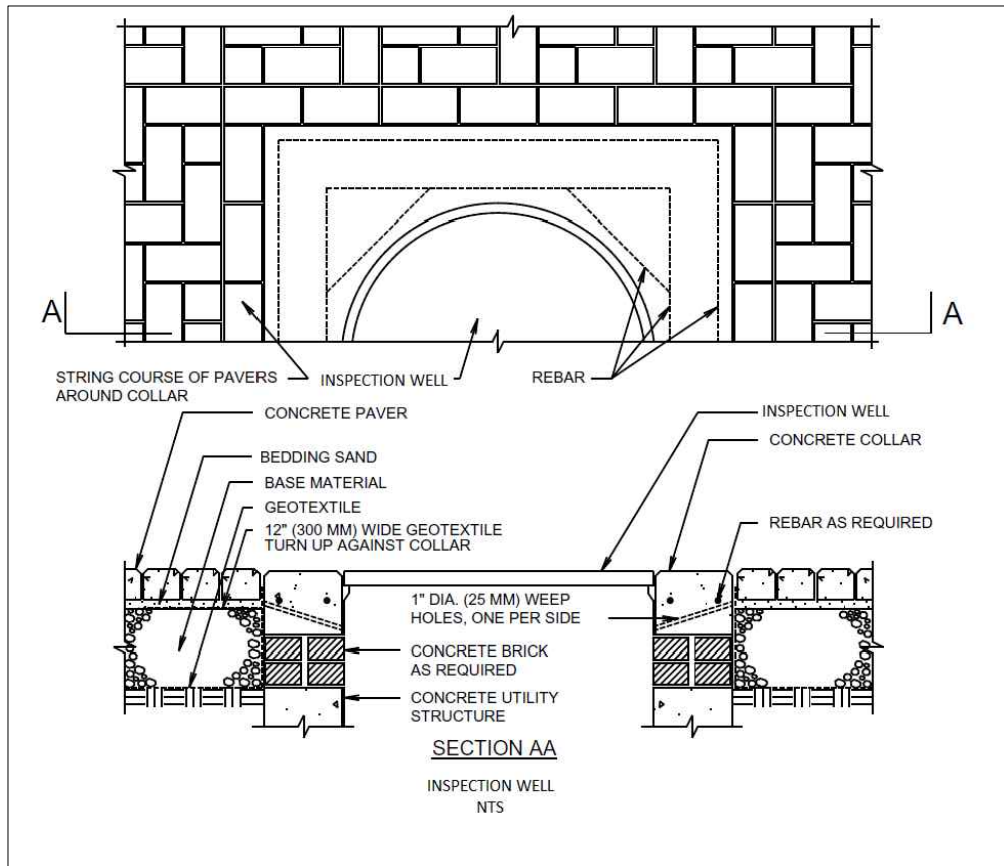
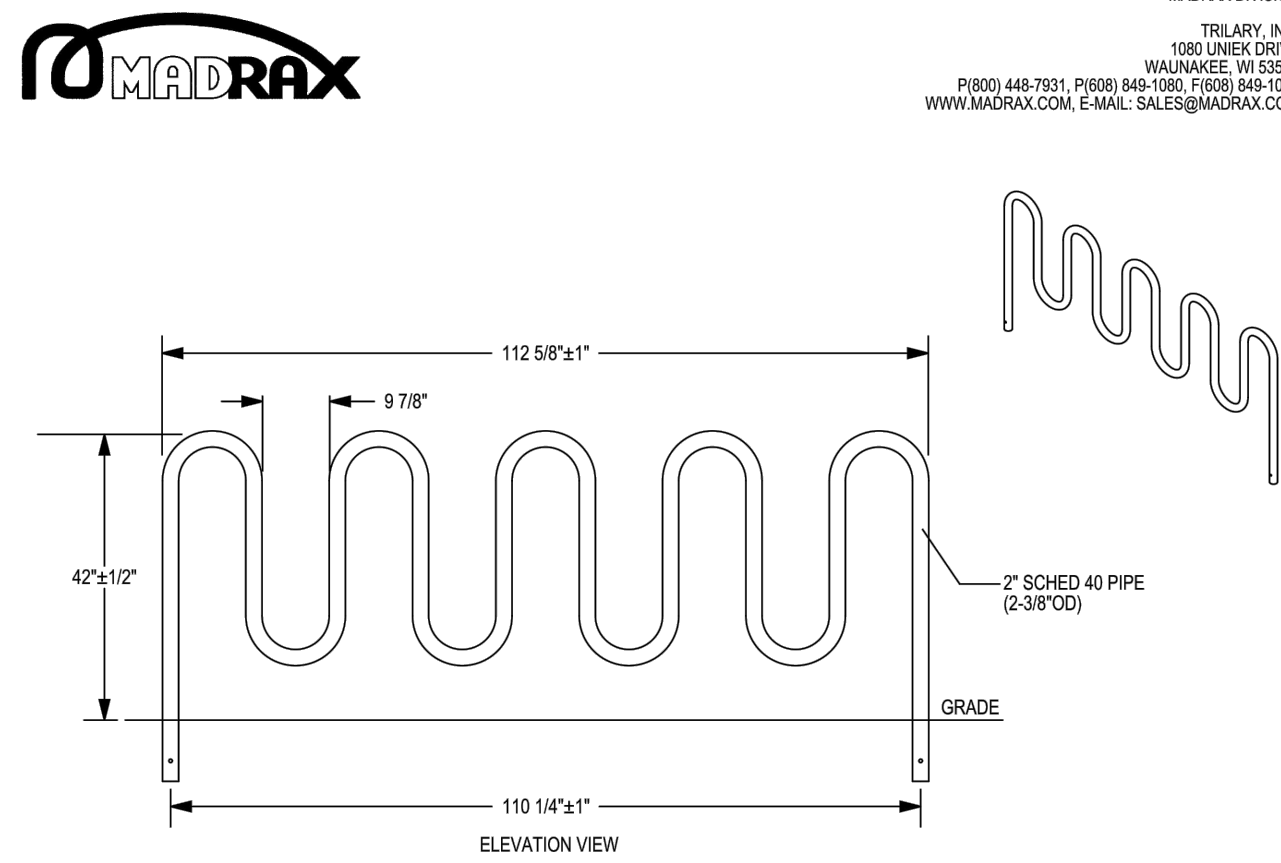
SHEET NO.
4 OF 9

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PERMEABLE PAVERS PAVEMENT DESIGN

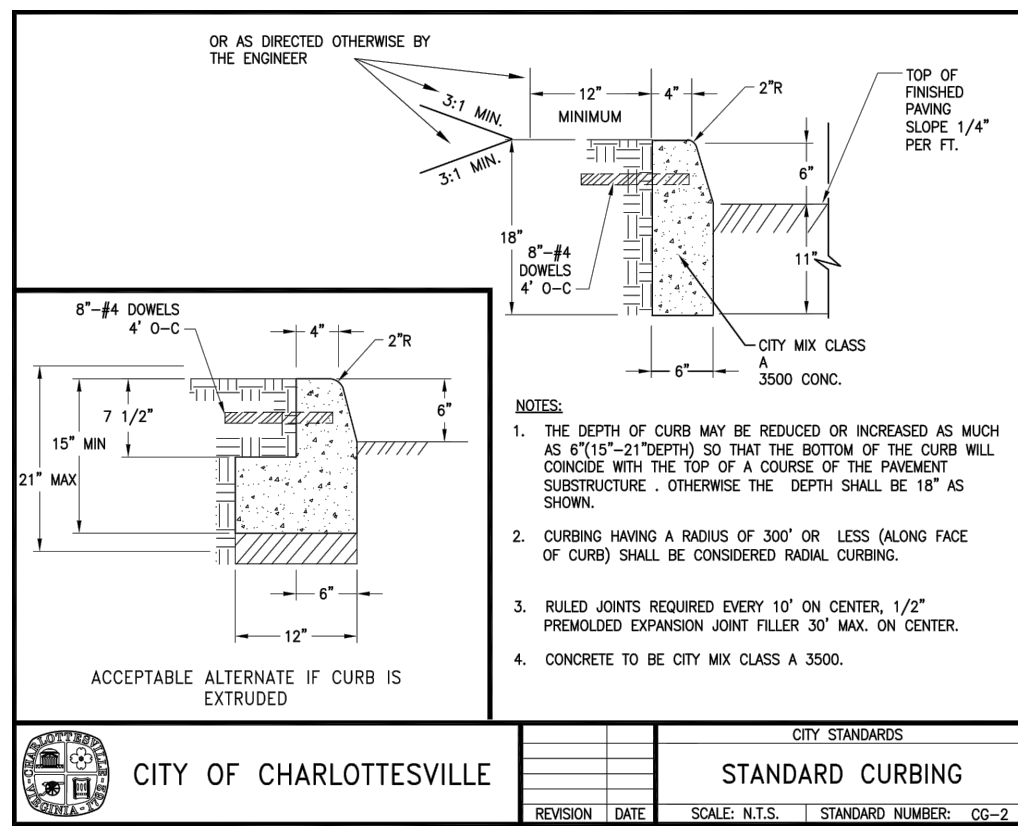
- NOTES:
- BECAUSE THE SOIL UNDERNEATH THE PROPOSED LOCATION OF THE PAVERS IS FROM PREVIOUS CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL CONDUCT A GEOTECHNICAL INVESTIGATION OF THE SOIL UNDERNEATH THE PROPOSED PAVERS AFTER FINAL GRADE HAS BEEN ACHIEVED TO DETERMINE THE INFILTRATION AND CBR RATINGS. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THESE RESULTS PRIOR TO ORDERING AND INSTALLATION OF THE STONE BASE FOR THE PERMEABLE PAVERS TO ENSURE AN ADEQUATE DESIGN.
 - ALL OPEN GRADED STONE LAYERS SHALL BE CLEAN & DOUBLE WASHED IN ACCORDANCE WITH DCR REGULATIONS. "CLEAN" STONE IS SCREENED TO SIZE AND THE BULK OF THE FINES/DUST IS REMOVED, BUT THERE IS STILL DUST ON THE STONE. "WASHED" STONE IS WASHED THROUGH THE SCREENING PROCESS AND/OR MANUALLY WASHED.
 - WHERE UNDERDRAIN CLEANOUTS ARE PROPOSED WITHIN PAVED AREAS & ARE SUBJECT TO VEHICULAR TRAFFIC, CLEANOUTS SHALL BE ENCASED IN #18" CONCRETE FOR THE UPPER 24". THE CLEANOUT FRAME & LID SHALL BE CONSTRUCTED OF CAST IRON, OR A SIMILAR MATERIAL THAT IS STRUCTURALLY FORTIFIED.



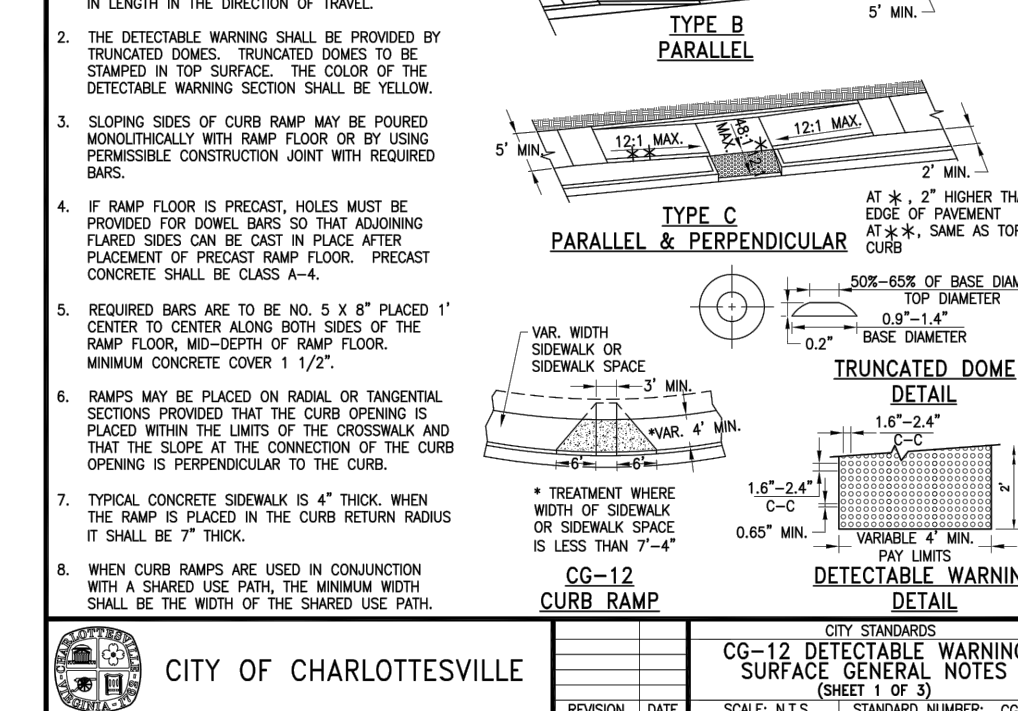
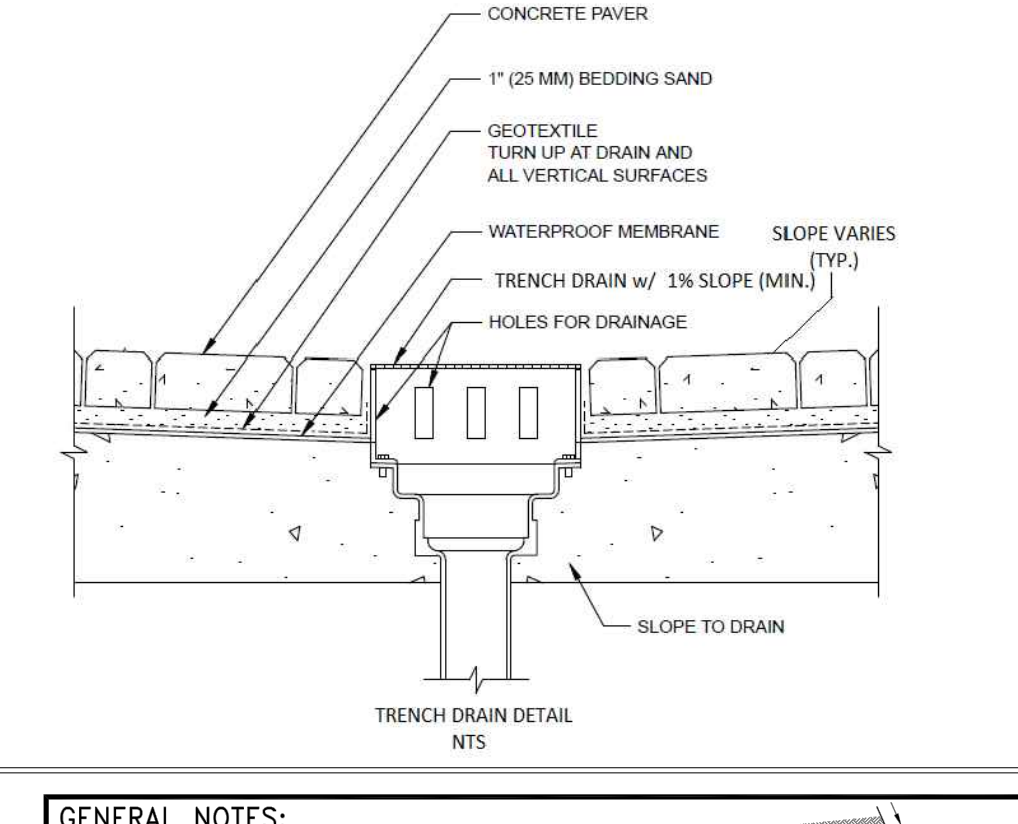
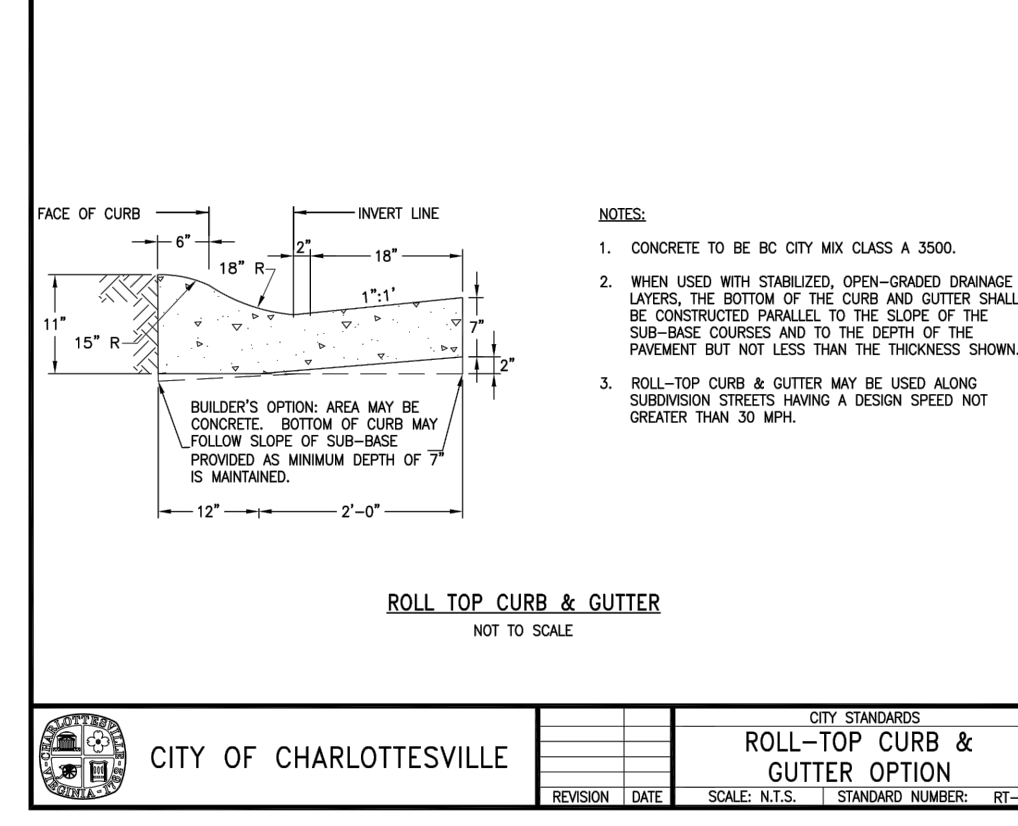
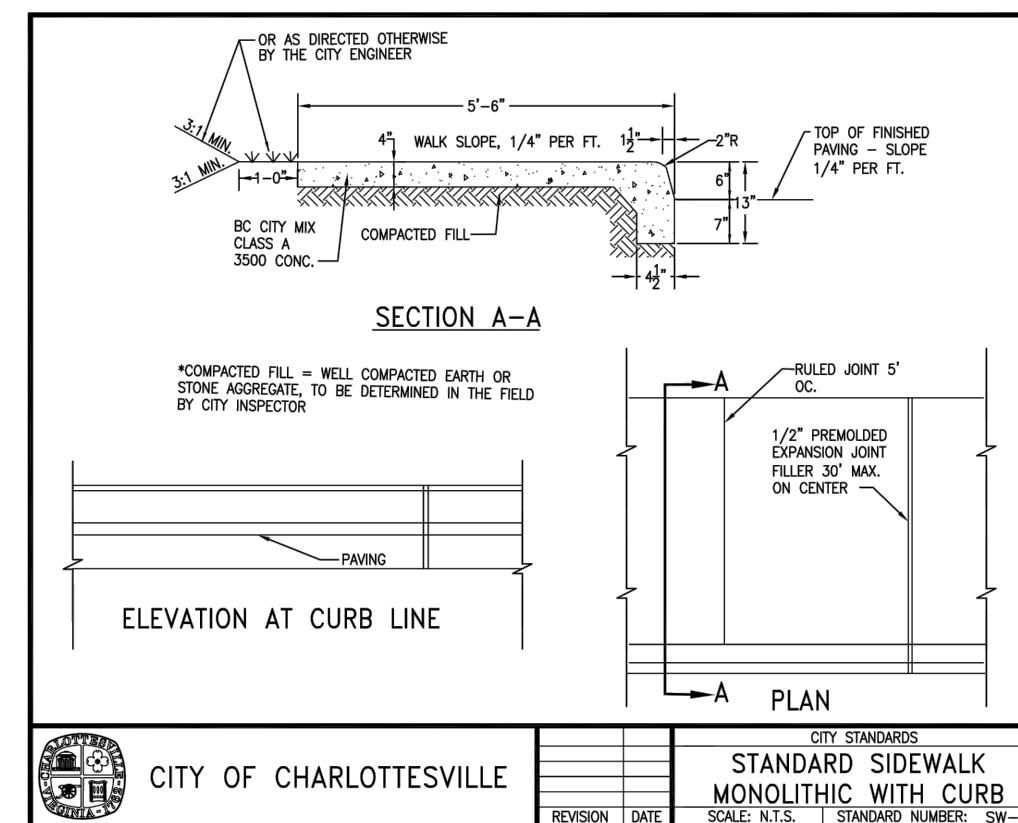
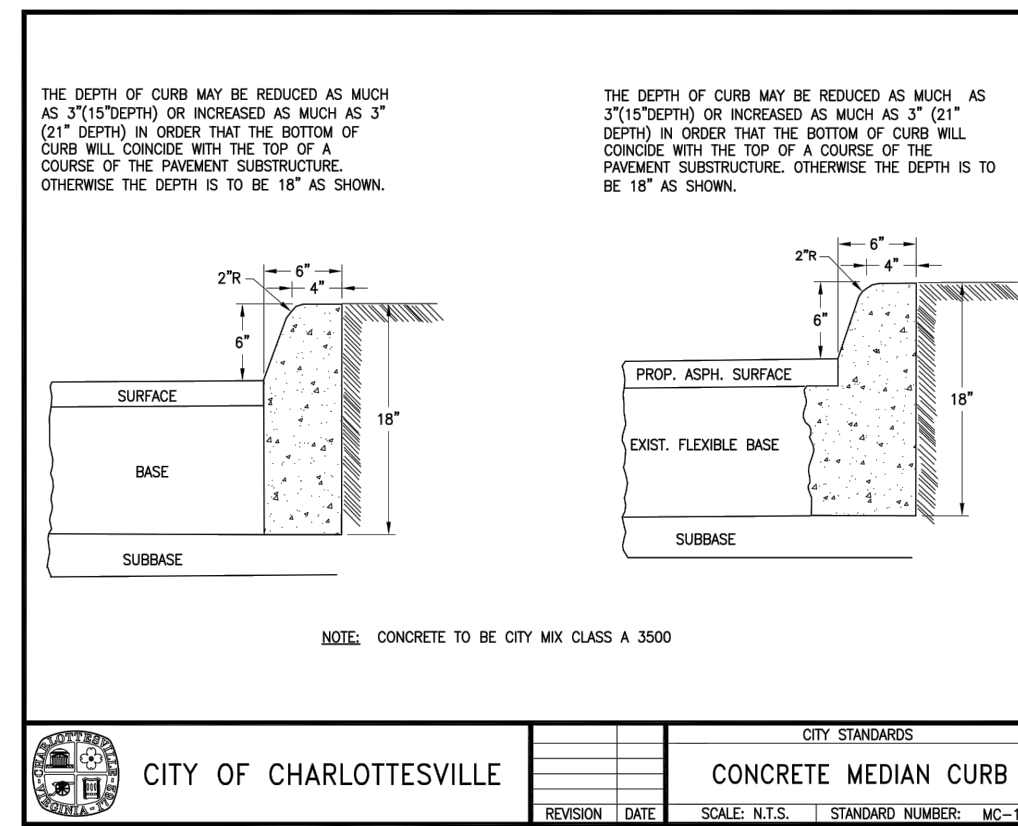
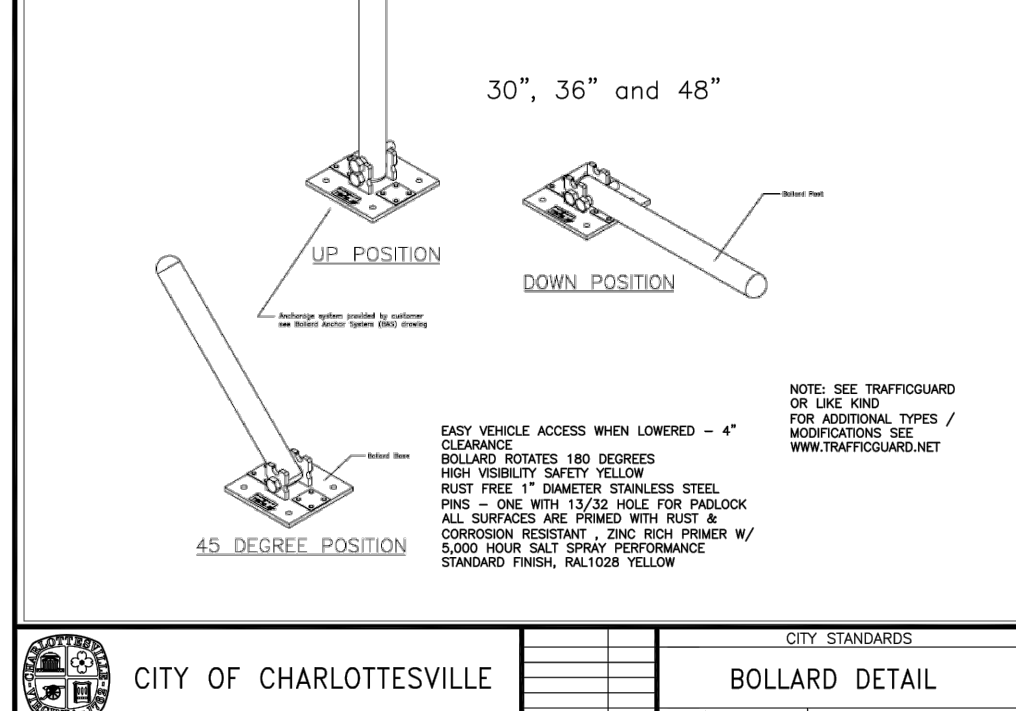
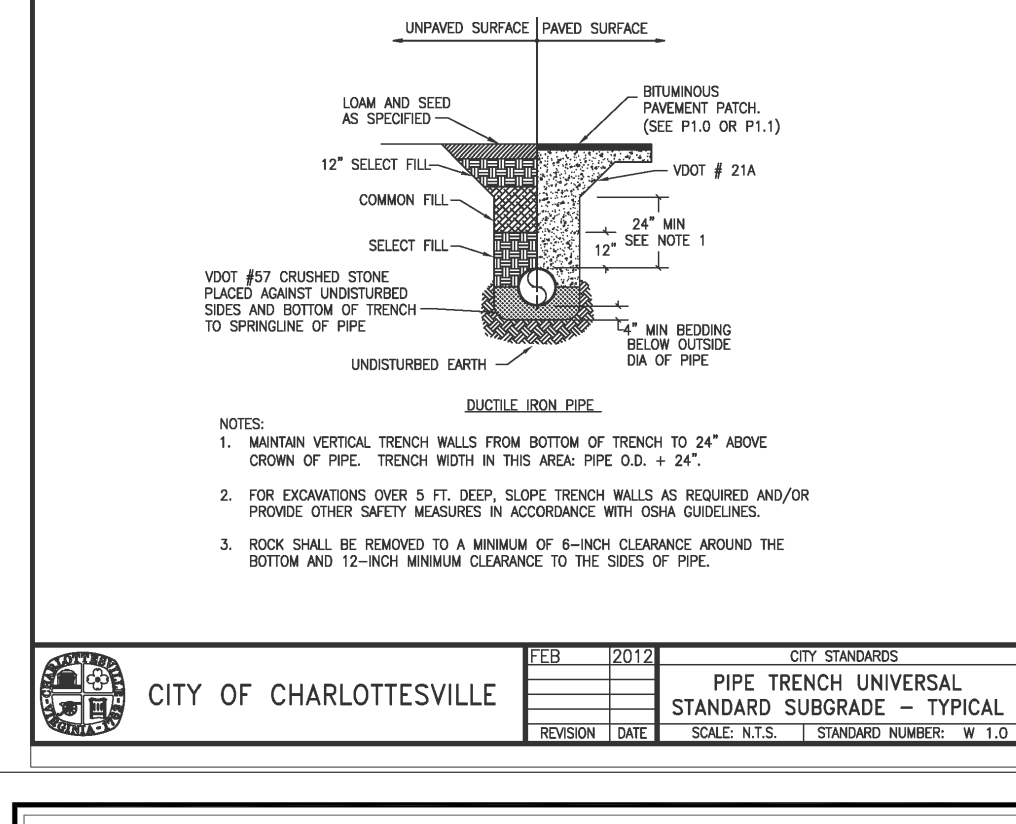
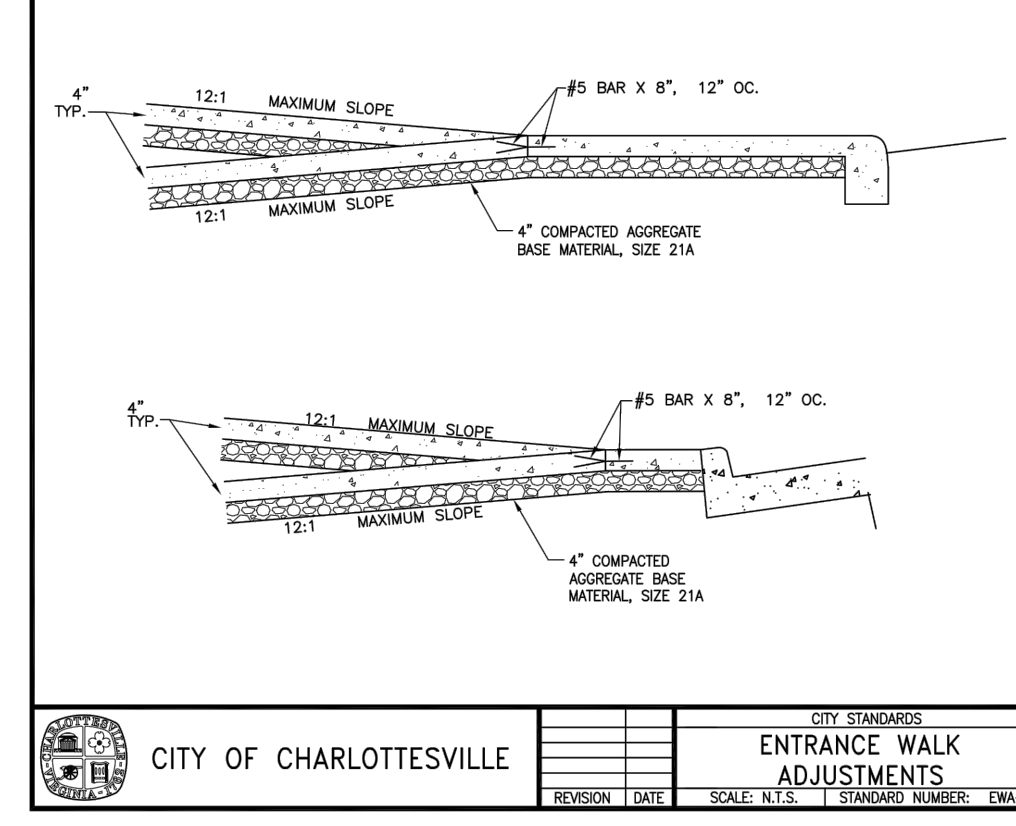
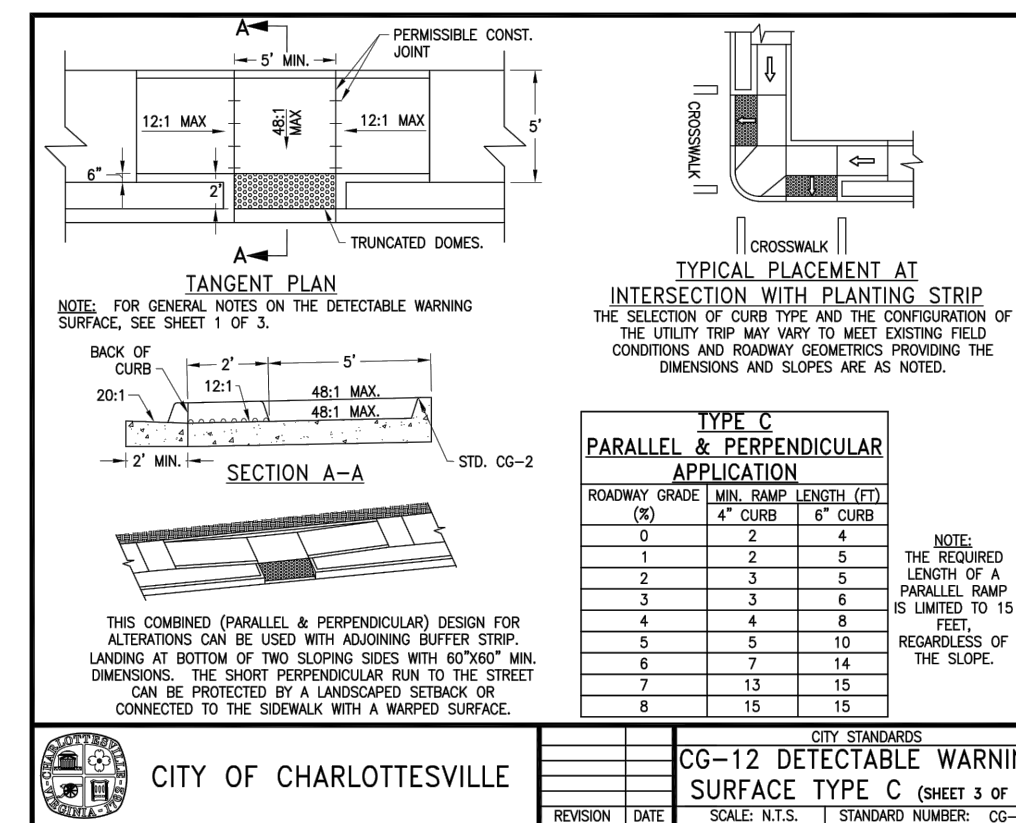
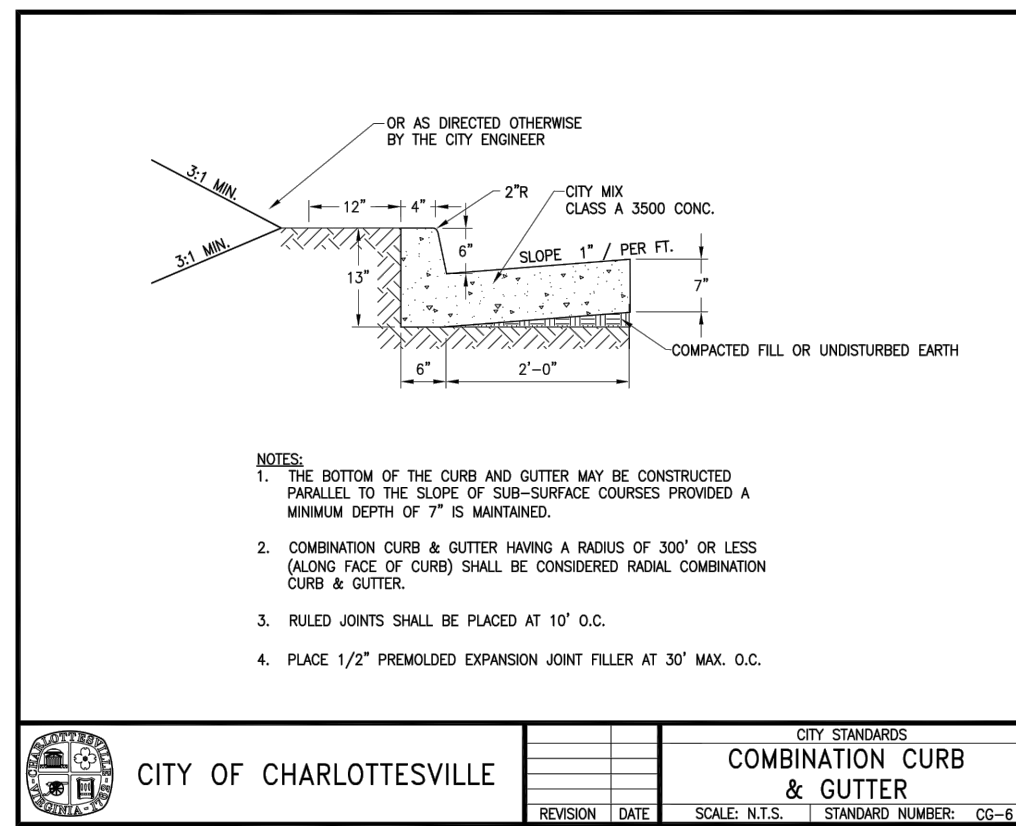
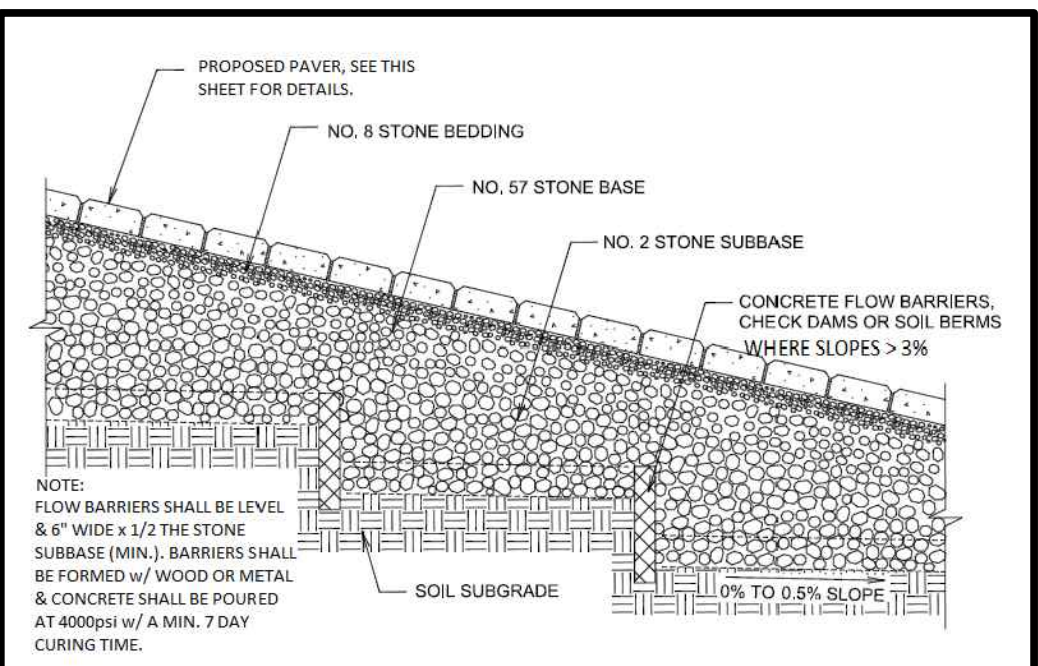
- NOTES:
- GUARDRAILS ARE REQUIRED FOR DECKS, PORCHES & WALLS ELEVATED MORE THAN 30" IN HEIGHT. GUARDRAILS MUST BE A MINIMUM OF 42" TALL.
 - ADJACENT GRADING BELOW COURTYARD RETAINING WALL SHALL SLOPE DOWNWARD w/ POSITIVE DRAINAGE AWAY FROM COURTYARD.
 - ALL HANDRAIL & RETAINING WALL WORK SHALL COMPLY WITH CURRENT VIRGINIA UNIFORM STATEWIDE BUILDING CODE.
 - PLANS APPROVED FOR PERMIT SUBJECT TO APPROVAL OF CONSTRUCTION.
 - RAILINGS SHALL WITHSTAND A CONCENTRATED LOAD OF 350 LBS AT A MINIMUM.
 - IRON SHALL WITHSTAND A MINIMUM PRESSURE OF 35,000 PSI THROUGHOUT.
 - CONTRACTOR MAY ELECT TO INSTALL A SIMILAR FENCE PROVIDED IT MEETS ALL CURRENT CITY, STATE, & INTERNATIONAL BUILDING CODE REGULATIONS AND GUIDELINES.

SCHEMATIC OF BRICK RETAINING WALL & HANDRAILS DETAIL

NOT TO SCALE



PERMEABLE PAVERS CHECK DAM DETAIL



REVISIONS

REVISION DESCRIPTION

DATE

10/04/18

INITIAL DESIGN

COLLINS ENGINEERING

200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PRESTON APARTMENTS SITE PLAN AMENDMENT #2

PARKING LOT EXPANSION - NOTES AND DETAILS

PROJECT
JOB NO.
172140
SCALE
N.T.S.
SHEET NO.
5 OF 9

DATE
10/04/18

REVISION DESCRIPTION

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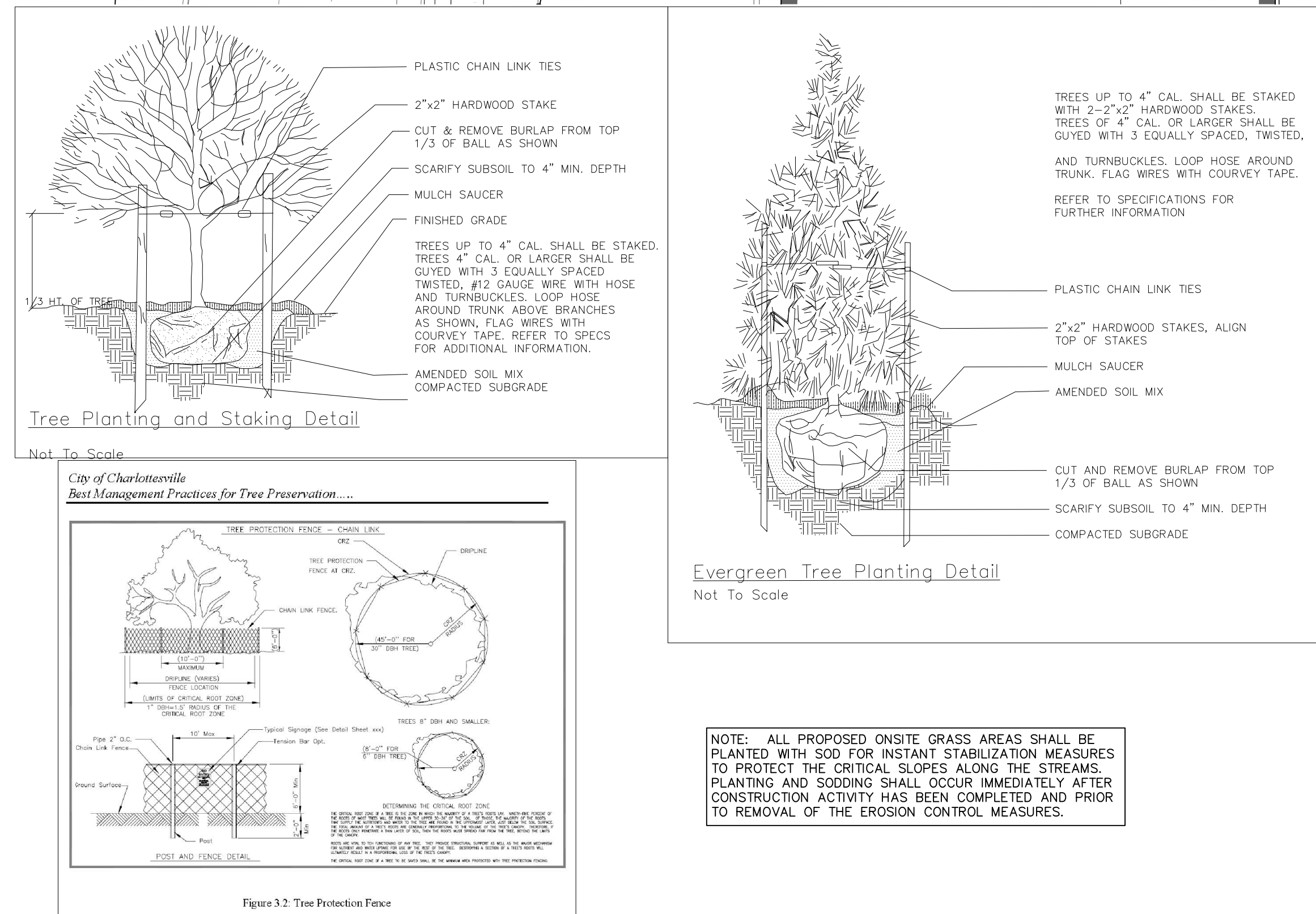
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LANDSCAPING CALCULATIONS:

A. REQUIRED SITE COVERAGE: $10\% \times 17,248 \text{ SF} = 1,725 \text{ SF}$ (7,271 SF PROVIDED)

B. REQUIRED STREETSCAPE TREES ALONG RIGHT-OF-WAY

TOTAL STREETSCAPE: 88 LF (1 LARGE TREE PER 15 LF)

REQUIRED: 6 LARGE TREES

PROVIDED: 6 LARGE TREES

C. REQUIRED STREETSCAPE TREE BUFFER ADJACENT TO THE PARKING LOT

TOTAL S-3 TYPE A SCREENING BUFFER (AT PARKING LOT) = $88 \text{ LF} \times 10' = 880 \text{ SF}$

REQUIRED: 1 LARGE TREE, 1 MEDIUM TREE, 2 UNDERSTORY, 2 EVERGREEN, & 9 SHRUBS

PROVIDED: (6) LARGE TREES (STREET TREES), 1 MEDIUM TREE, 2 UNDERSTORY, 2 EVERGREEN, & 25 SHRUBS

REQUIRED BUFFER ALONG ADJACENT PROPERTIES:

1. NORTHERN BUFFER: 5' MIN. S-2 SCREENING BUFFER (TYPE B): $80' \times 5' = 400 \text{ SF}$

REQUIRED: 1 LARGE TREES, 1 MEDIUM TREE, 1 UNDERSTORY, 1 EVERGREEN, & 4 SHRUBS

PROVIDED: 1 LARGE TREES, 1 MEDIUM TREE, 1 UNDERSTORY, 1 EVERGREEN, & 11 SHRUBS

REQUIRED INTERIOR PARKING LOT: $5\% \times 7,610 \text{ SF} = 380 \text{ SF}$ (2,979 SF PROVIDED)

REQUIRED LANDSCAPING: (1) TREE & (3) SHRUBS/8 SPACES (26 TOTAL SPACES)= (4) TREES & (12) SHRUBS

PROVIDED LANDSCAPING: (4) TREES MEETING THE INTERIOR LANDSCAPING REQUIREMENT & (30) SHRUBS

(NOTE: (1) EXISTING TREE IS PART OF THE (4) INTERIOR PARKING LOT TREES. ALSO, THE SHRUBS ALONG THE SOUTHERN PARKING LOT ARE NOT INCLUDED IN THE PARKING LOT CALCULATIONS, NOR ARE THE NORTHERN PROPERTY LANDSCAPING OR THE S-3 BUFFER LANDSCAPING PLANTS.

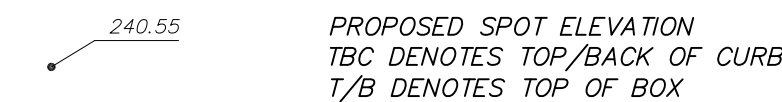
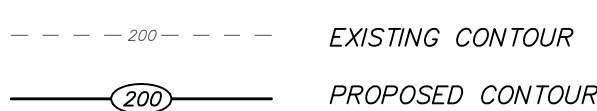
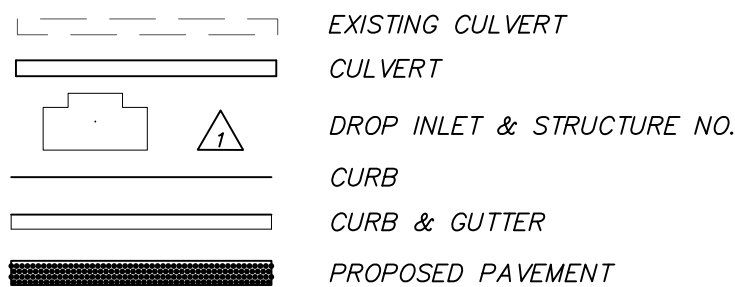
NOTE: PROPOSED LANDSCAPING SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 34, ARTICLE VIII, DIVISION 2 OF THE CITY OF CHARLOTTESVILLE CODE OF DEVELOPMENT.

 COLLINS ENGINEERING 200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719		PROJECT	
		JOB NO. 172140	
PRESTON APARTMENTS SITE PLAN AMENDMENT # 2		SCALE	
		1" = 10'	
PARKING LOT EXPANSION - LAYOUT, GRADING AND DRAINAGE PLAN		SHEET NO.	
		6 OF 9	

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LEGEND

ROADS



EROSION CONTROL

*VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK, SPECIFICATION NUMBER

CE		CONSTRUCTION ENTRANCE	3.02
SF		SILT FENCE	3.05
TS		TEMPORARY SEEDING	3.31
PS		PERMANENT STABILIZATION	3.32
TP		TREE PROTECTION	3.38
DC		DUST CONTROL	3.39

TABLE 3.39-A

ADHESIVES USED FOR DUST CONTROL

Adhesive	Water Dilution (Adhesive: Water)	Type of Nozzle	Application Rate Gallons/Acre
Anionic Asphalt Emulsion	7:1	Coarse Spray	1,200
Latex Emulsion	12.5:1	Fine Spray	235
Resin in Water	4:1	Fine Spray	300
Acrylic Emulsion (Non-Traffic)	7:1	Coarse Spray	450
Acrylic Emulsion (Traffic)	3.5:1	Coarse Spray	350

Source: Va. DSWC

1992

3.35

TABLE 3.35-A

ORGANIC MULCH MATERIALS AND APPLICATION RATES

MULCHES:	RATES:		NOTES:
	Per Acre	Per 1000 sq. ft.	
Straw or Hay	1½ - 2 tons (Minimum 2 tons for 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. Air-dried. 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 12 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.

Source: Va. DSWC

EROSION & SEDIMENT CONTROL MEASURES:

STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. STRUCTURAL PRACTICES USED IN THIS SECTION CONSIST OF THE FOLLOWING:

3.02. CONSTRUCTION ENTRANCE.

A STABILIZED PAVED CONSTRUCTION ENTRANCE WITH A WASH RACK LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE. TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS SHOWN ON THE PLANS TO REDUCE THE AMOUNT SEDIMENT TRANSPORTED ONTO PUBLIC ROADWAYS.

3.05. SILT FENCE.

A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED, TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE, AND TO DECREASE THE VELOCITY OF SHEET FLOWS AND LOW-TO-MODERATE LEVEL CHANNEL FLOWS. THE SILT FENCE BARRIERS SHALL BE INSTALLED DOWN SLOPE OF AREAS WITH MINIMAL GRADES TO FILTER SEDIMENT LADEN RUNOFF FROM SHEET FLOW AS INDICATED. THEY SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND MAINTAINED IN ACCORDANCE WITH THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK (VESCH).

3.07. STORM DRAIN INLET PROTECTION.

A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET. TO PREVENT SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. INLET PROTECTION APPLIES WHERE STORM DRAIN INLETS ARE TO BE MADE OPERATIONAL BEFORE PERMANENT STABILIZATION OF THE CORRESPONDING DISTURBED DRAINAGE AREA.

3.31. TEMPORARY SEEDING.

THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS. TO REDUCE EROSION AND SEDIMENTATION BY STABILIZING DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS. TO REDUCE DAMAGE FROM SEDIMENT AND RUNOFF TO DOWNSTREAM OR OFF-SITE AREAS, AND TO PROVIDE PROTECTION TO BARE SOILS EXPOSED DURING CONSTRUCTION UNTIL PERMANENT VEGETATION OR OTHER EROSION CONTROL MEASURES CAN BE ESTABLISHED.

3.32. PERMANENT STABILIZATION.

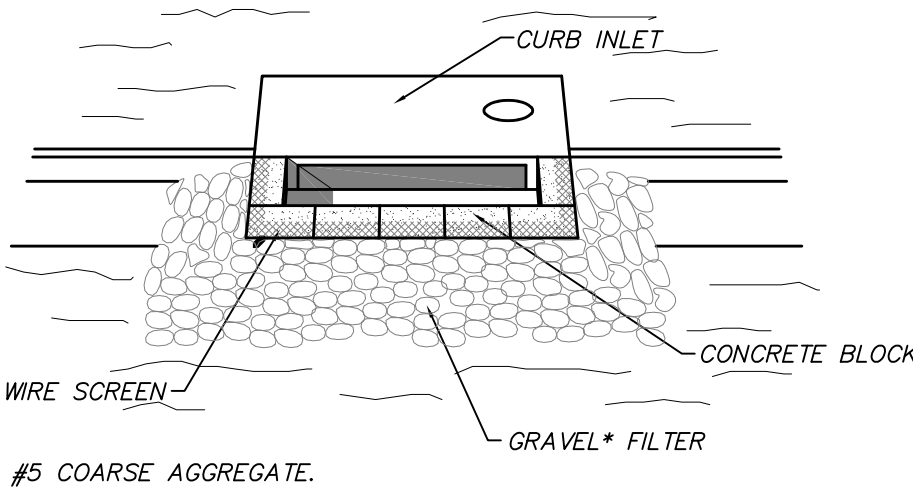
THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS BY PLANTING SEED. TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM DISTURBED AREAS, TO PERMANENTLY STABILIZE DISTURBED AREAS IN A MANNER THAT IS ECONOMICAL, ADAPTABLE TO SITE CONDITIONS, AND ALLOWS SELECTION OF THE MOST APPROPRIATE PLANT MATERIALS. TO IMPROVE WILDLIFE HABITAT. TO ENHANCE NATURAL BEAUTY. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL AREAS WILL RECEIVE A PERMANENT VEGETATIVE COVER.

3.38. TREE PRESERVATION & PROTECTION.

PROTECTION OF DESIRABLE TREES FROM MECHANICAL AND OTHER INJURY DURING LAND DISTURBING AND CONSTRUCTION ACTIVITY. TO ENSURE THE SURVIVAL OF DESIRABLE TREES WHERE THEY WILL BE EFFECTIVE FOR EROSION AND SEDIMENT CONTROL, WATERSHED PROTECTION, LANDSCAPE BEAUTIFICATION, DUST AND POLLUTION CONTROL, NOISE REDUCTION, SHADE AND OTHER ENVIRONMENTAL BENEFITS WHILE THE LAND IS BEING CONVERTED FROM FOREST TO URBAN-TYPE USES.

3.39. DUST CONTROL.

REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES. TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES AND REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE. DUST CONTROL MEASURES SHALL BE EMPLOYED TO PREVENT SURFACE AND AIR MOVEMENT OF DUST DURING CONSTRUCTION. MEASURES EMPLOYED SHALL BE IN ACCORDANCE WITH THE VESCH.



OR #5 COARSE AGGREGATE.

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER (3.07-B) NO SCALE

EROSION CONTROL NOTES

1. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE COMMENCEMENT OF THE CONSTRUCTION. ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REG REGULATIONS.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
4. A STABILIZED PAVED CONSTRUCTION ENTRANCE WITH A WASH RACK LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE. TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PAVED PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS SHOWN ON THE PLANS TO REDUCE THE AMOUNT SEDIMENT TRANSPORTED ONTO PUBLIC ROADWAYS.
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.
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.
7. ALL DISTURBED AREAS ARE TO BE DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
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.
10. ALL FILL MATERIAL TO BE TAKEN FROM AN APPROVED, DESIGNATED BORROW AREA.
11. ALL WASTE MATERIALS SHALL BE TAKEN TO AN APPROVED WASTE AREA. EARTH FILL SHALL BE INERT MATERIALS ONLY, FREE OF ROOTS, STUMPS, WOOD, RUBBISH, AND OTHER DEBRIS.
12. BORROW OR WASTE AREAS ARE TO BE RECLAIMED WITHIN 7 DAYS OF COMPLETION.
13. ALL INERT MATERIALS SHALL BE TRANSPORTED IN COMPLIANCE WITH APPLICABLE REGULATIONS.
14. BORROW, FILL OR WASTE ACTIVITY INVOLVING INDUSTRIAL-TYPE POWER EQUIPMENT SHALL BE LIMITED TO THE HOURS OF 7:00 AM TO 7:00 PM.
15. ALL DISTURBED AREAS SHALL BE CONDUCTED IN A SAFE MANNER THAT MAINTAINS LATERAL SUPPORT, OR ORDER TO MINIMIZE ANY HAZARD TO PERSONS, PHYSICAL DAMAGE TO ADJACENT LAND AND IMPROVEMENTS, AND DAMAGE TO ANY PUBLIC STREET BECAUSE OF SLIDES, SINKING, OR COLLAPSE.
16. THE DEVELOPER SHALL RESERVE THE RIGHT TO INSTALL, MAINTAIN, REMOVE OR CONVERT TO PERMANENT STORMWATER MANAGEMENT FACILITIES WHERE APPLICABLE ALL EROSION CONTROL MEASURES REQUIRED BY THIS PLAN REGARDLESS OF THE SALE OF ANY LOT, UNIT, BUILDING OR OTHER PORTION OF THE PROPERTY.
17. TEMPORARY STABILIZATION SHALL BE TEMPORARY SEEDING AND MULCHING. SEEDING IS TO BE APPLIED AT 50-100 LBS/ACRE FROM SEPTEMBER 1 TO FEBRUARY 15 AND SHALL CONSIST OF A 50/50 MIX OF ANNUAL RYEGRASS AND CEREAL WINTER RYE. FROM FEBRUARY 16 TO APRIL 30 SEEDING SHALL BE APPLIED AT 60-100 LBS/ACRE AND CONSIST OF ANNUAL RYE GRASS FROM MAY 1 TO AUGUST 31 SEEDING SHALL BE APPLIED AT 50 LBS/ACRE AND CONSIST OF GERMAN MILLET. STRAW MULCH IS TO BE APPLIED AT 70-90 LBS PER 1,000 SF. ALTERNATIVES ARE SUBJECT TO APPROVAL BY THE EROSION CONTROL INSPECTOR.
18. PERMANENT STABILIZATION SHALL BE LIME AND FERTILIZER, PERMANENT SEEDING, AND MULCH. AGRICULTURAL GRADE LIMESTONE SHALL BE APPLIED AT 90LBS/1000SF, INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL. FERTILIZER SHALL BE APPLIED AT 100LBS/ACRE AND CONSIST OF A 10-20-10 NUTRIENT MIX. PERMANENT SEEDING SHALL BE APPLIED AT 150LBS/ACRE AND CONSIST OF 128 LBS KENTUCKY 31 FESCUE AND 2 LBS RED TOP GRASS, AND 20 LBS SEASONAL NURSE CROP PER TABLE 3.39-D BELOW. STRAW MULCH IS TO BE APPLIED AT 70-90 LBS PER 1,000SF. ALTERNATIVES ARE SUBJECT TO APPROVAL BY THE EROSION CONTROL INSPECTOR.
19. MAINTENANCE OF ALL MEASURES ARE TO BE INSPECTED WEEKLY AND AFTER EACH RAINFALL, ANY DAMAGE OR LOGGING TO STRUCTURAL MEASURES IS TO BE REPAIRED IMMEDIATELY. ALL SEEDED AREAS ARE TO BE RESEED WHEN NECESSARY TO ACHIEVE A GOOD STAND OF GRASS. SILT FENCE AND DIVERSION DYKES WHICH ARE COLLECTING SEDIMENT TO HALF THEIR HEIGHT MUST BE CLEANED AND REPAIRED IMMEDIATELY.
20. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REMOVED WITHIN 30 DAYS OF FINAL SITE STABILIZATION, WHEN MEASURES ARE NO LONGER NEEDED, SUBJECT TO APPROVAL BY THE EROSION CONTROL INSPECTOR.
21. THE E&S INSPECTOR HAS THE AUTHORITY TO ADD OR DELETE E&S CONTROLS AS NECESSARY IN THE FIELD AS SITE CONDITIONS CHANGE. IN ADDITION, NO SEDIMENT BASIN OR TRAP CAN BE REMOVED WITHOUT WRITTEN AUTHORIZATION.

DESCRIPTION OF EROSION & SEDIMENT CONTROL MEASURES:

EROSION AND SEDIMENT CONTROL MEASURES:

IT IS ANTICIPATED TO USE A CONSTRUCTION ENTRANCE, SILT FENCE, INLET PROTECTION, TEMPORARY AND PERMANENT SEEDING, AND TREE PROTECTION TO CONTROL SURFACE DRAINAGE AND EROSION. TEMPORARY SEEDING WILL BE USED IMMEDIATELY FOLLOWING ALL LAND DISTURBANCE ACTIVITIES. TEMPORARY STOCKPILE AREAS WILL BE MAINTAINED FROM TOPSOIL THAT WILL BE STRIPPED FROM AREAS TO BE GRADED AND STORED FOR LATER SPREADING. STOCKPILE LOCATION(S) SHALL BE ON SITE AND SHALL BE STABILIZED WITH A TEMPORARY VEGETATIVE COVER. PERMANENT SEEDING WILL BE PERFORMED FOR ALL AREAS WHICH WILL NO LONGER BE EXCAVATED AND WHERE CONSTRUCTION ACTIVITIES HAVE CEASED. PERMANENT SEEDING SHALL ALSO BE PERFORMED FOR ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR A YEAR OR MORE. SELECTION OF SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR APPLIED. TEMPORARY SEEDING WILL BE PERFORMED FOR ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR MORE THAN SEVEN DAYS. THESE AREAS SHALL BE SEEDING WITH FAST GERMINATING VEGETATION IMMEDIATELY FOLLOWING GRADING OF THOSE AREAS. SELECTION OF SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR APPLIED.

3.02 CONSTRUCTION ENTRANCE – A CONSTRUCTION ENTRANCE WILL BE INSTALLED AS SHOWN ON THE PLANS, OR AS PRE-APPROVED BY THE CITY INSPECTOR DURING A PRE-CONSTRUCTION MEETING.

3.05 SILT FENCE – SILT FENCE WILL BE INSTALLED ALONG THE DOWNSTREAM BOUNDARIES OF THE SITE AS SHOWN ON THE PLANS.

City of Charlottesville
Best Management Practices for Tree Preservation....

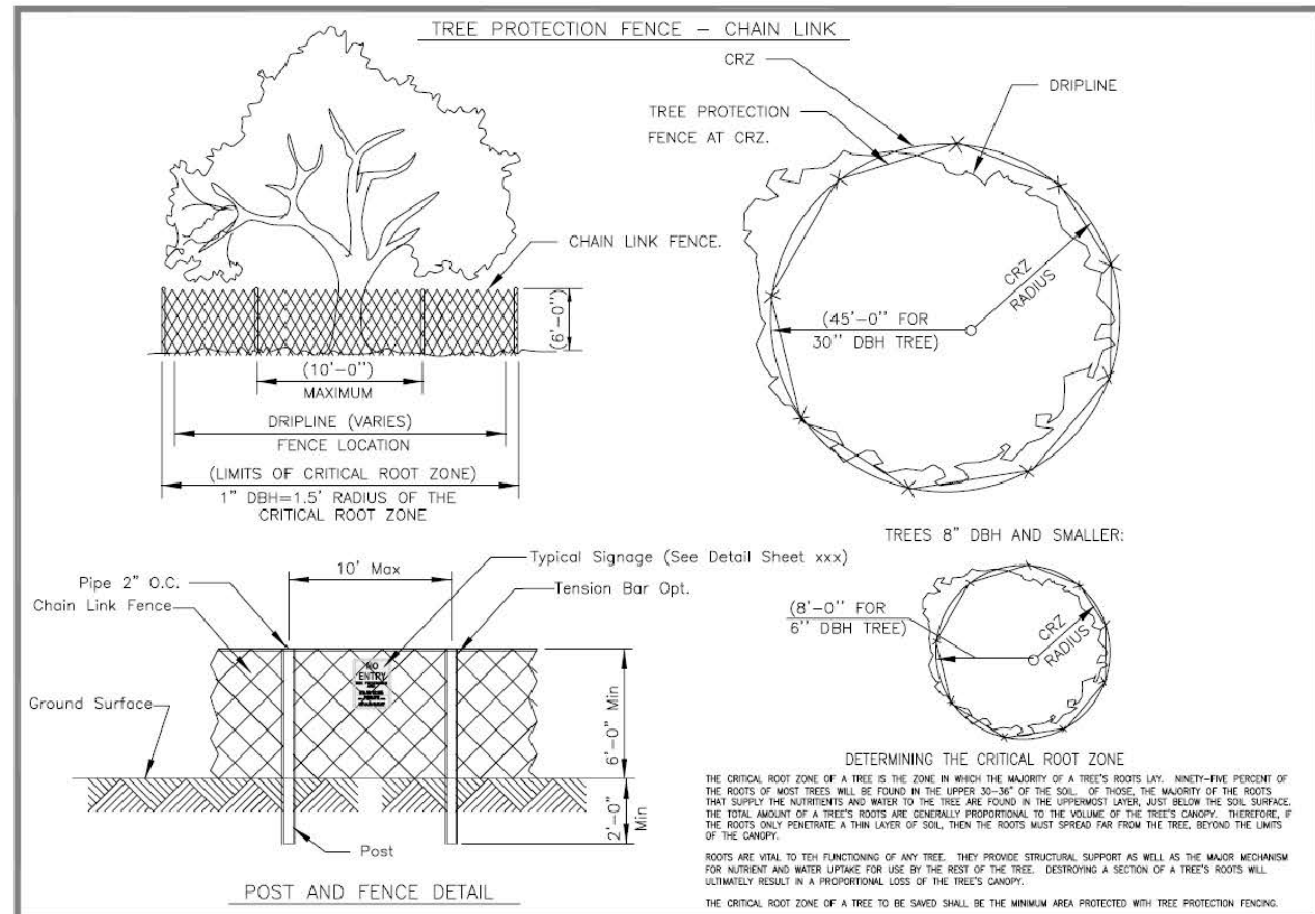


Figure 3.2: Tree Protection Fence

DESCRIPTION OF EROSION & SEDIMENT CONTROL MEASURES:

- 3.07 STORM DRAIN INLET PROTECTION– IP WILL BE INSTALLED ON EACH EXISTING & PROPOSED INLET AS SHOWN ON THE PLANS.
- 3.31 TEMPORARY SEEDING – TEMPORARY SEEDING SHALL BE INSTALLED WHERE SHOWN ON THE PLANS.
- 3.32 PERMANENT SEEDING – PERMANENT SEEDING SHALL BE INSTALLED WHERE SHOWN ON THE PLANS.
- 3.38 TREE PROTECTION – TREE PROTECTION SHALL BE INSTALLED WHERE SHOWN ON THE PLANS.
- 3.39 DUST CONTROL – DUST CONTROL SHALL BE INSTALLED WHERE SHOWN ON THE PLANS.

STORMWATER MANAGEMENT.

THE DEVELOPMENT DRAINS TO AN EXISTING STORM SEWER SYSTEM.

MAINTENANCE:

- IN GENERAL, DURING CONSTRUCTION THE RLD OR CONTRACTOR ON-SITE WILL CHECK ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER EACH SIGNIFICANT RAINFALL. MONITORING REPORTS WILL BE REQUIRED FROM THE RLD IF NEEDED. SPECIFIC ATTENTION WILL BE GIVEN TO THE FOLLOWING ITEMS:
 - a. ALL GRAVEL OULETS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP THAT WILL PREVENT PROPER DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, THE GRAVEL WILL BE REMOVED AND CLEANED, OR IT WILL BE REPLACED.
 - b. ALL SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETRIORATION OF THE FABRIC AND REPAIRED AS REQUIRED. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHED HALF WAY TO THE TOP OF THE BARRIER.
 - c. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEED AS NEEDED.
- IN CASE OF EMERGENCY, THE PRIMARY CONTACT FOR THE PROJECT WILL BE THE RLD OR CONTRACTOR ON-SITE. IN ADDITION, THE ENGINEER, MR. SCOTT COLLINS MAY BE CONTACTED AT 434-293-3719. UPON COMPLETION OF THE PROJECT, THE OWNER WILL BE RESPONSIBLE FOR SITE MAINTENANCE.

EROSION CONTROL NOTES & NARRATIVE

PROJECT DESCRIPTION:

THE PURPOSE OF THIS LAND-DISTURBING ACTIVITY IS TO CONSTRUCT A PARKING LOT FOR THE PRESTON PLACE APARTMENT BUILDING. THE TOTAL ADDITIONAL DISTURBED ACREAGE WITH THIS PLAN AMENDMENT IS 0.08 AC. THE TOTAL DISTURBED AREA FOR THE ENTIRE PROJECT IS 0.79 ACRES. THE PROPOSED PARKING LOT SHALL HAVE A PEROUS PAVR SURFACE WITH A GRAVEL UNDERDRAIN SYSTEM.

EXISTING SITE CONDITIONS:

THE EXISTING SITE IS A HISTORIC RESIDENTIAL HOME, ADJACENT TO AN APARTMENT BUILDING. THE SITE SLOPES DOWNHILL AWAY FROM THE RESIDENTIAL PROPERTY TO PRESTON PLACE.

CRITICAL AREAS:

THE E&S MEASURES WILL LIMIT RUNOFF TO THE ADJACENT ROADWAYS.

ADJACENT AREAS:

THE SITE IS BORDERED BY PRESTON PLACE TO THE EAST AND WEST, PRESTON APARTMENTS TO THE SOUTH, AND RESIDENTIAL HOME TO THE NORTH. THE CONTRACTOR SHALL ENSURE THAT NO RUNOFF REACHES THE ADJACENT ROADWAYS OR ADJACENT RESIDENTIAL PROPERTY. SILT FENCE AND DUST CONTROL SHALL BE APPLIED AS PERIMETER CONTROLS TO AVOID CONTAMINATION OF ADJACENT PROPERTIES.

OFFSITE LAND DISTURBANCE:

NO OFFSITE DISTURBANCE IS PROPOSED OUTSIDE OF THE PROPOSED LIMITS OF DISTURBANCE.

SOILS:

SEE SOIL DESCRIPTION THIS PAGE. ALL SOIL ON SITE IS UNIFORM (CULPEPPER-URBAN LAND COMPLEX).

SOIL DESCRIPTION

121B– CULPEPER – URBAN LAND COMPLEX– 2% TO 7% SLOPES. SOIL IS WELL DRAINED, WITH MORE THAN 80 INCHES TO THE WATER TABLE. MADE FROM RESIDUUM WEATHERED FROM META-ARKOSIC SANDSTONE AND QUARTZITE, THIS SOIL HAS CONVEX DOWN-SLOPE AND CONVEX ACROSS-SLOPE SHAPE. NO FREQUENCY OF PONDING OR FLOODING, MODERATE WATER CAPACITY, AND VERY LOW TO HIGH KSAT.

REFERENCE: WEB SOIL SURVEY ONLINE DATABASE, FOUND AT
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

GENERAL SLOPE (3:1 OR LESS)

	KENTUCKY 31 FESCUE
	128 LBS.
	RED TOP GRASS
	2 LBS.
	SEASONAL NURSE CROP
	20 LBS.
	150 LBS

SEASONAL NURSE CROP
FEBRUARY 16 THROUGH APRIL
MAY 1 THROUGH AUGUST 15
AUGUST 16 THROUGH OCTOBER
ANNUAL RYE
NOVEMBER THROUGH FEBRUARY 15

NOTES:

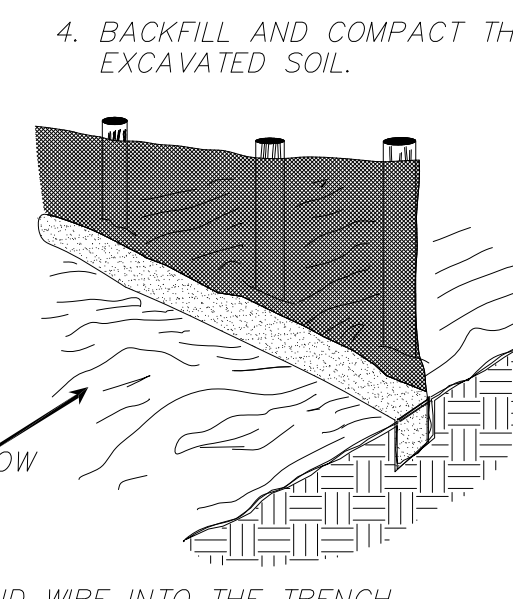
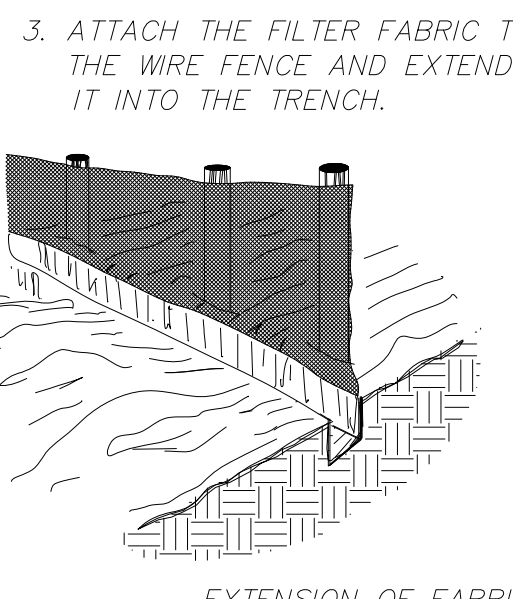
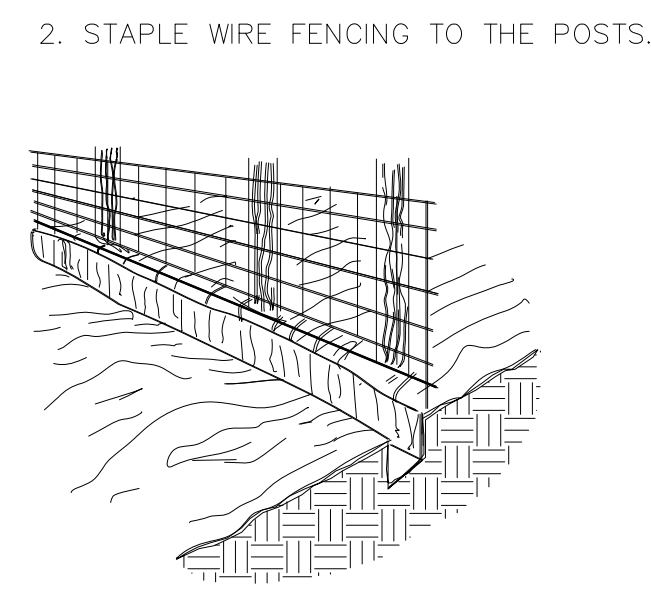
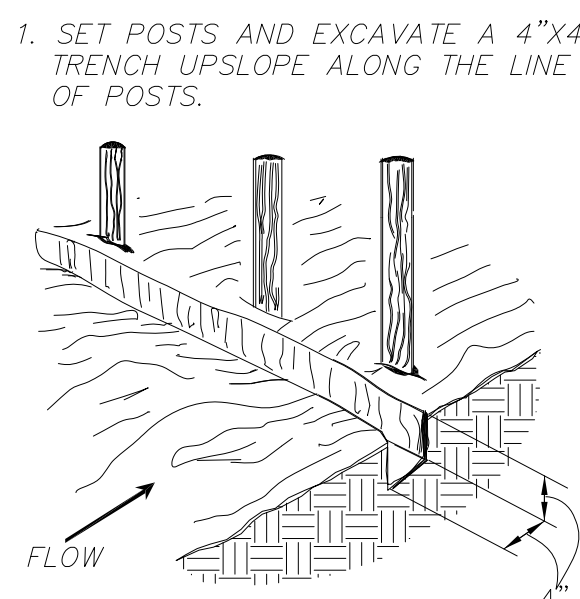
1. LIME AND FERTILIZER NEEDS SHALL BE DETERMINED BY SOIL TESTS AND APPLIED IN ACCORDANCE WITH VESCH STD. 3.32.
2. SEEDINGS TO BE MULCHED IMMEDIATELY UPON COMPLETION OF SEED APPLICATION, IN ACCORDANCE W/ VESCH STD 3.35.

PS

PERMANENT SEEDING SCHEDULE

NO SCALE

(STD. & SPEC. 3.32 OF VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK, 3RD ED.)



SF

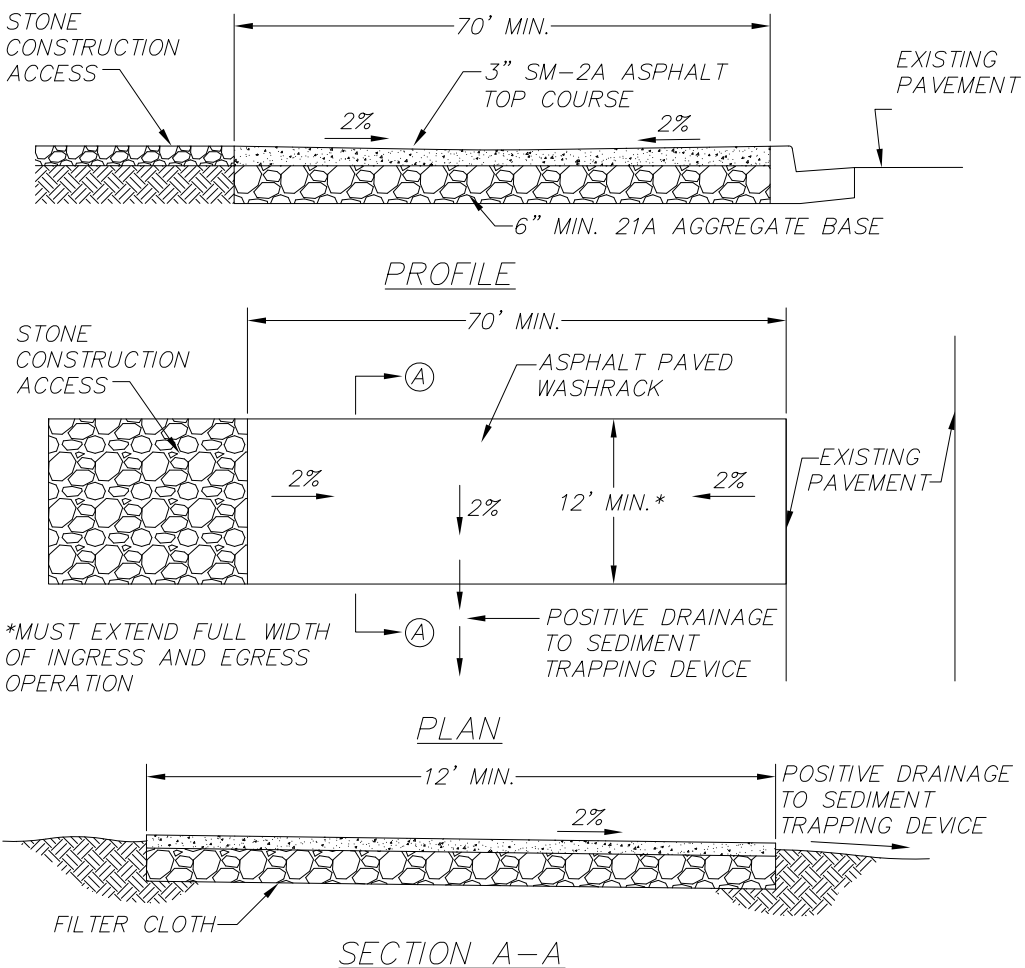
SILT FENCE (WITH WIRE SUPPORT)

NO SCALE
(STD. & SPEC. 3.05 OF VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK, 3RD ED.)

EROSION CONTROL NOTES & NARRATIVE

SEQUENCE OF CONSTRUCTION:

1. NOTIFY THE CITY OF CHARLOTTESVILLE AND PUBLIC WORKS DEPARTMENT TO SCHEDULE A PRE-CONSTRUCTION MEETING AS REQUIRED.
2. FLAG THE ADDITIONAL LIMITS OF DISTURBANCE AND INSTALL TREE PROTECTION FENCING AS LABELED ON THE ESC PLAN.
3. NO EROSION CONTROL MEASURES MAY BE REMOVED DURING THE CONSTRUCTION PROCESS WITHOUT THE APPROVAL FROM THE INSPECTOR ON THE PROJECT.
4. THE EXISTING GRAVEL DRIVEWAY SHALL CONTINUE TO SERVE AS THE CONSTRUCTION ENTRANCE. CONTRACTOR TO IMPROVE GRAVEL DRIVEWAY AS NEEDED TO MEET CONSTRUCTION ENTRANCE SPECIFICATIONS. PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY (VEHICULAR) TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTING TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
5. INSTALL ANY REMAINING E&S CONSTRUCTION MEASURES AS SHOWN ON THE EROSION CONTROL SHEET. THIS INCLUDES SILT FENCE AS SHOWN ON THE PLAN. PERIMETER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP WITH ANY LAND DISTURBANCE ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
6. ONCE THE PERIMETER EROSION CONTROL MEASURES HAVE BEEN INSTALLED AS SHOWN ON THE EROSION CONTROL PHASE PLAN, AND THE CITY INSPECTOR HAS APPROVED THEM, DEMOLITION MAY BEGIN.
7. INSTALL TEMPORARY SEEDING & UTILIZE DUST CONTROL.
8. NO EROSION CONTROL MEASURES MAY BE REMOVED DURING THE CONSTRUCTION PROCESS WITHOUT THE APPROVAL OF THE INSPECTOR ON THE PROJECT.
9. THE CONTRACTOR SHALL BEGIN TO CONSTRUCT THE PROPOSED PARKING LOT. LAND DISTURBANCE SHALL OCCUR SUCH THAT DUST, EROSION, AND CONTAMINATED RUNOFF ARE REDUCED.
10. ONCE THE PROPOSED PARKING LOT IS COMPLETE, THE CONTRACTOR SHALL STABILIZE THE REMAINING DISTURBED AREA ON THE SITE.
11. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED 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 DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
12. MAINTAIN ALL EROSION CONTROL MEASURES AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, REMOVING ONLY WHEN APPROVED BY THE LOCAL PROGRAM ADMINISTRATOR IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
13. 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 ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
14. ONCE THE SITE IS STABILIZED AND THE INSPECTOR HAS GIVEN APPROVAL, THE CONTRACTOR CAN REMOVE THE REMAINING EROSION CONTROL MEASURES.



A minimum water top of 1 inch must be installed with a minimum 1 inch ballcock shutoff valve supplying a wash hose with diameter or 1.5 inches for adequate constant pressure. Wash water must be carried away from the entrance to an approved settling area to remove sediment. All sediment shall be prevented from entering storm drains, ditches or watercourses.

PAVED WASH RACK

NO SCALE

TABLE 3.31-C

TEMPORARY SEEDING PLANT MATERIALS, SEEDING RATES, AND DATES

SPECIES	SEEDING RATE		NORTH*		SOUTH*		PLANT CHARACTERISTICS
	Acres	1000 ft²	3/1 to 4/30	5/1 to 6/15	7/15 to 8/15	9/1 to 10/15	
OATS (Avena sativa)	3 lbs. (up to 100 lbs. ac. not less than 50 lbs.)	2 lbs.	X	-	-	X	Use spring varieties (e.g., Noble).
RYE* (Secale cereale)	2 lbs. (up to 100 lbs. ac. not less than 50 lbs.)	2.5 lbs.	X	X	X	X	Use for late fall seedings, winter cover. Tolerant cold and low moisture.
GERMAN MILLET (Setaria italica)	50 lbs.	approx. 1 lb.	-	X	-	X	Warm-season annual. Dies at first frost. May be added to summer maize.
ANNUAL RYEGRASS* (Lolium multiflorum)	60 lbs.	1½ lbs.	X	-	X	X	May be added to maize. Will grow out of winter weeds.
WHEAT* (Triticum aestivum)	15 lbs.	9½ cu.	-	X	-	X	Warm-season perennial. May be added to maize. Tolerant cold, dry slopes and acid, infertile soils. May be added to maize.
KOREAN LEYSTERIA* (Lespedeza stuebelii)	25 lbs.	approx. 1½ lbs.	X	X	-	X	Warm season annual legume. Tolerant acid soils. May be added to maize.

* Northern Piedmont and Mountain region. See Plates 3.22-1 and 3.22-2.
* Southern Piedmont and Coastal Plain.
* May be used as a cover crop with spring seedings.
* May be used as a cover crop with fall seedings.
* X may be planted between these dates.
* May not be planted between these dates.

REVISIONS

REVISION DESCRIPTION
INITIAL SUBMITTAL

DATE
04/02/19

CE COLLINS ENGINEERING

200 GARRETT STREET, SUITE K - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PRESTON APARTMENTS SITE PLAN AMENDMENT #2

PARKING LOT EXPANSION - EROSION CONTROL NARRATIVE

PROJECT

JOB NO.

172140

SCALE

N.T.S.

SHEET NO.

7 OF 9

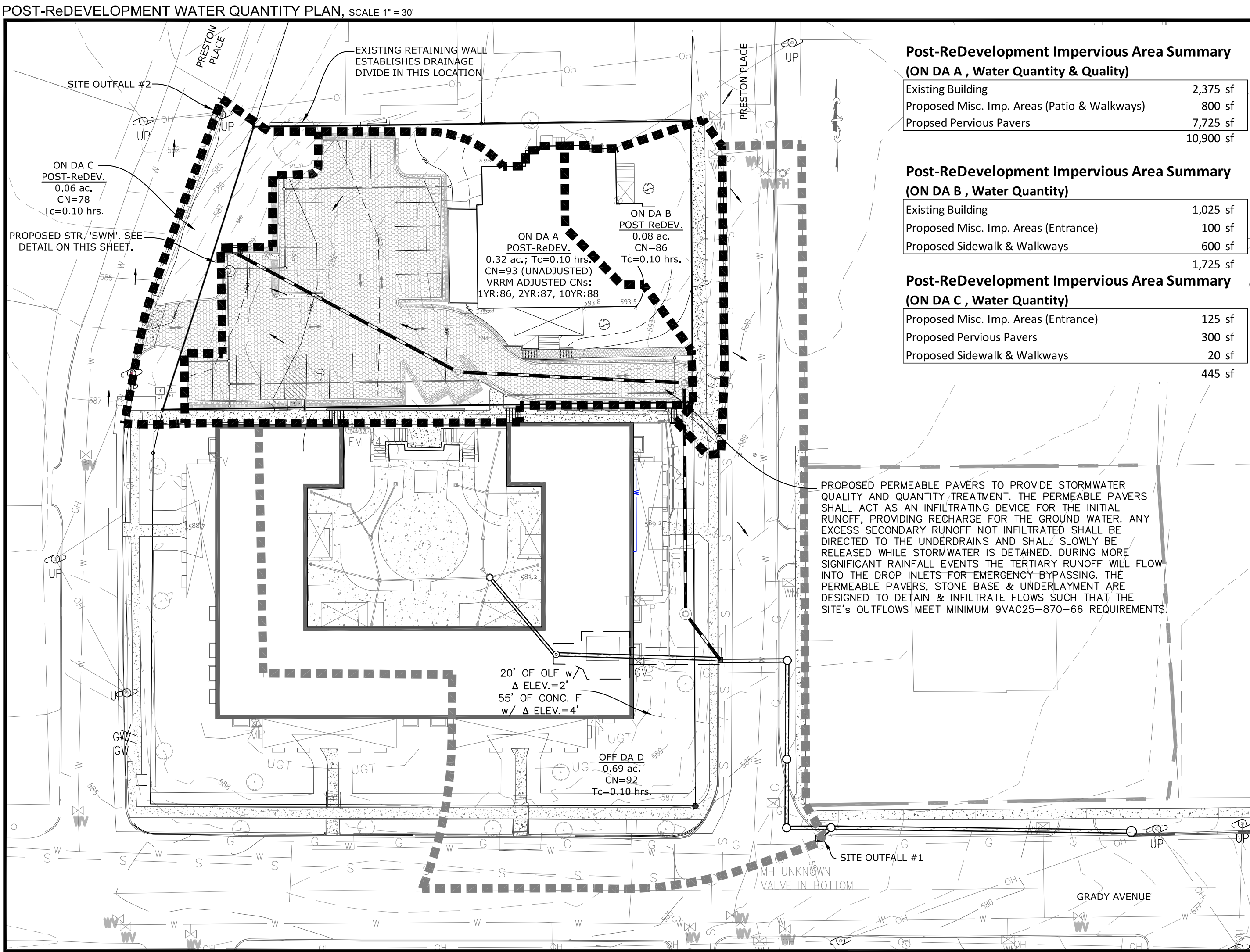
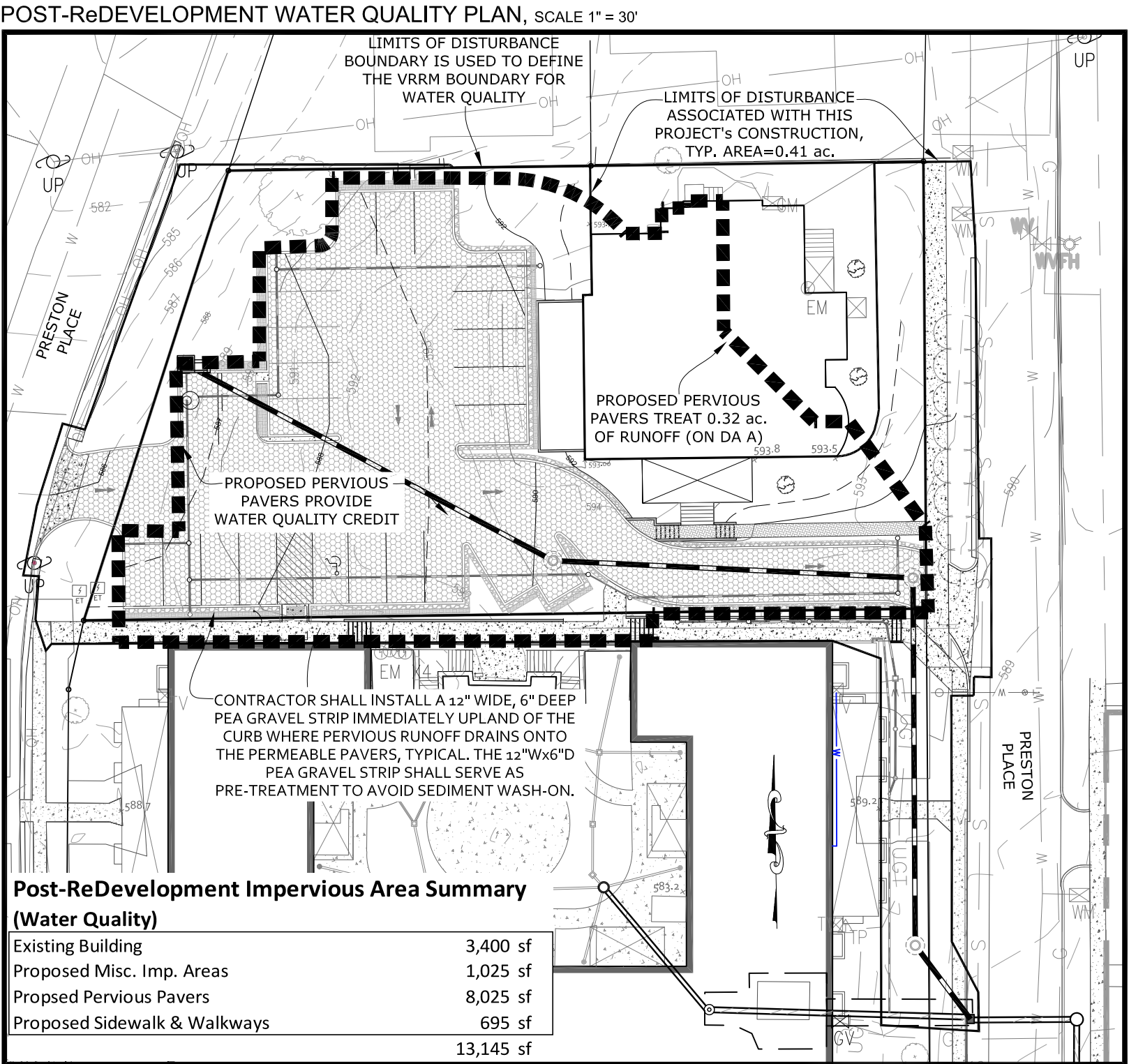
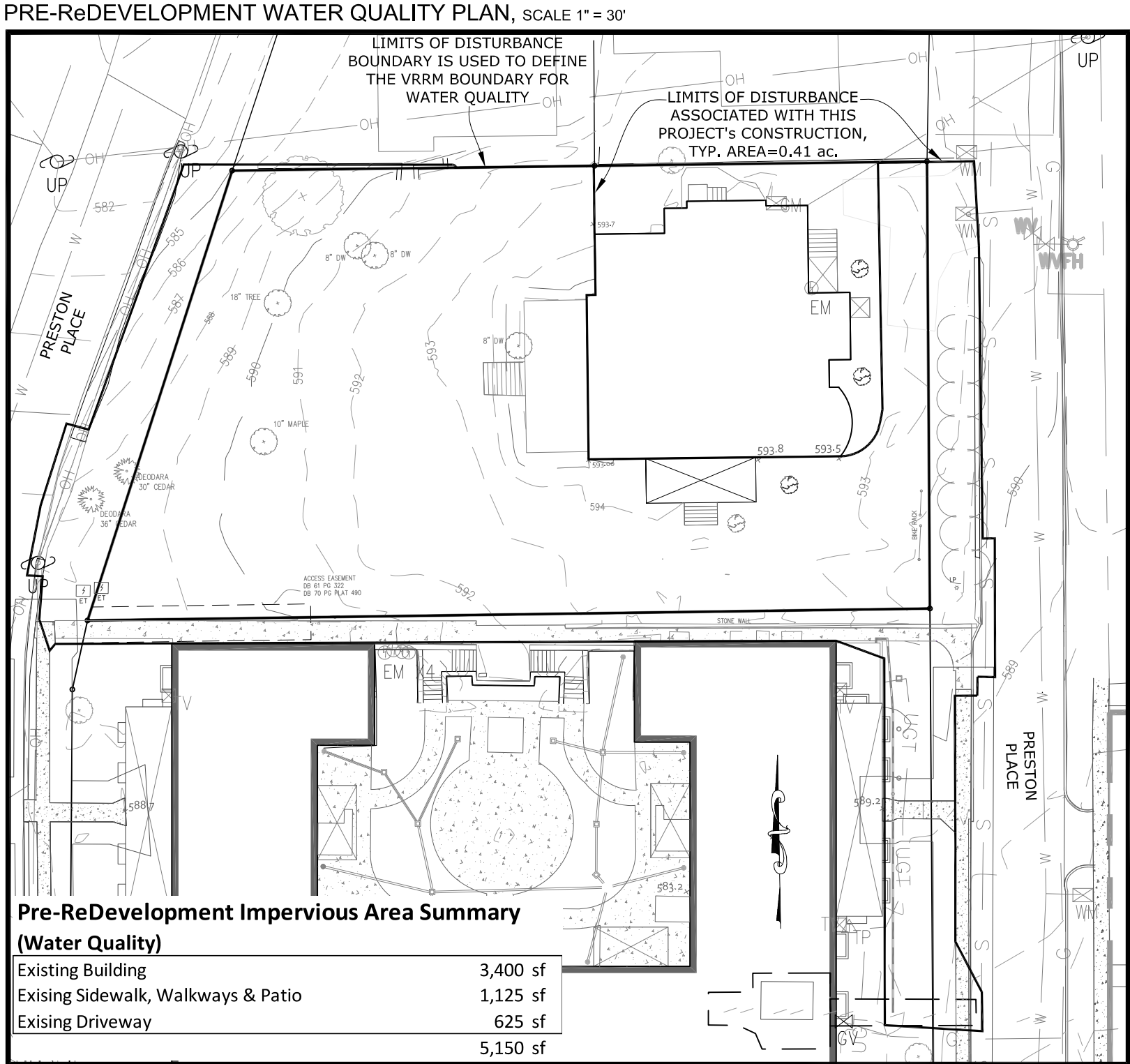


FIGURE 7.4 SITE-SPECIFIC NOTES:

- THE 'PERMEABLE JOINT MATERIAL' SHALL BE VDOT #8, #89 OR #9 AGGREGATE IN THE OPENINGS BETWEEN THE PAVERS.
- THE 'OPEN-GRADED BEDDING COURSE' SHALL BE 2" THICK VDOT #8 AGGREGATE.
- THE 'OPEN-GRADED BASE RESERVOIR' SHALL BE 4" THICK VDOT #57 CLEAN STONE. RESERVOIR TO BE CRUSHED AGGREGATE.
- THE 'OPEN-GRADED SUBBASE RESERVOIR' SHALL BE 9" THICK VDOT #2 CLEAN STONE. RESERVOIR TO BE CRUSHED AGGREGATE.
- THE 'GEOTEXTILE UNDER SUBBASE' SHALL BE TENSAR TX-5 TRIANGULAR GRID, OR EQUIVALENT.
- THE 'UNDERDRAIN' SHALL BE 4" PERFORATED RIGID PVC WITH A MINIMUM 1% SLOPE. NOTE, UNDERDRAINS LOCATED OUTSIDE OF THE PERMEABLE PAVERS SHALL BE RIGID NON-PERFORATED PVC PIPES WITH A MINIMUM 1% SLOPE. THE UNDERDRAINS SHALL HAVE A 12" DEEP x 24" WIDE STONE INFILTRATION SUMP LOCATED BENEATH THE PIPE.

WATERSHED SUMMARY

	CN	Area, ac.	Pre-ReDevelopment			Post-ReDevelopment				
			1-year Flow, cfs	2-year Flow, cfs	10-year Flow, cfs	CN	Area, ac.	1-year Flow, cfs	2-year Flow, cfs	10-year Flow, cfs
Onsite DA A	79	0.12	0.20	0.28	0.53	93	0.32	0.02	0.09	0.24
Onsite DA B	83	0.13	0.26	0.35	0.64	86	0.08	0.18	0.24	0.42
Onsite DA C	79	0.21	0.33	0.47	0.90	78	0.06	0.09	0.13	0.25
Total:	80	0.46	0.79	1.09	2.07	90	0.46	0.29	0.46	0.92

STORMWATER MANAGEMENT NARRATIVE:

OVERALL SUMMARY:
THE PROPOSED STORMWATER MANAGEMENT PLAN COMPLIES WITH PART IIB MINIMUM REQUIREMENTS. THE STORMWATER RUNOFF RATES, VOLUMES, AND VELOCITIES RESULTING FROM THIS REDEVELOPMENT WILL BE IMPROVED PRIOR TO EXITING THE PROJECT. PLEASE SEE THE ATTACHED STORMWATER MANAGEMENT CALCULATIONS PACKET FOR EVIDENCE OF THIS. SUMMARIES OF THIS COMPLIANCE CAN BE VIEWED ON THIS SHEET AS WELL.

STORMWATER QUALITY SUMMARY:
THE VRRM SPREADSHEET FOR REDEVELOPMENTS WAS USED FOR THIS PROJECT AND THE BOUNDARY FOR ITS AREAS IS EQUAL TO THE LIMITS OF DISTURBANCE ASSOCIATED WITH THIS PROJECT. THIS REDEVELOPMENT REQUIRES A TOTAL PHOSPHOROUS REMOVAL OF 0.36 lbs/yr. THE REMOVAL OF THIS REQUIRED PHOSPHOROUS LOADING IS MET THROUGH THE BEST MANAGEMENT PRACTICE OF A LEVEL II PERMEABLE PAVEMENT PARKING LOT. SUBAREA 'ON DA A' IS TREATED VIA THE LEVEL II PERMEABLE PAVEMENT. THE PROPOSED PERMEABLE PAVERS GENERATES A PHOSPHOROUS REMOVAL RATE OF 0.44 lbs/yr.

STORMWATER QUANTITY SUMMARY:
CURRENTLY ALL OF THE EXISTING IMPERVIOUS AREAS ON THIS SITE FLOW OFFSITE UNTREATED. THE PROPOSED PLAN WILL CHANGE THIS AND WILL CAPTURE THE MAJORITY OF THE PROPOSED IMPROVEMENTS. THE PROPOSED PLAN INCREASES THE IMPERVIOUS FOOTPRINT AND THIS WILL BE OFFSET BY THE PROPOSED STORAGE BENEATH THE PERMEABLE PAVEMENT. THIS DESIGN ALLOWS FOR THE VAST MAJORITY OF THE PROPOSED IMPROVEMENTS TO BE TREATED.

CHANNEL AND FLOOD PROTECTION SUMMARY:
THE LIMITS OF ANALYSIS IS THE ADJACENT PUBLIC ROADS. THERE ARE TWO SITE OUTFALLS THAT DRAIN TO THE LIMITS OF ANALYSIS, THESE ARE REPRESENTED BY SITE OUTFALLS #1 & #2. SUMMARIES OF HOW THE DRAINAGE AREAS WERE ANALYZED ARE SHOWN BELOW.

SITE OUTFALL #1:
THERE IS AN EXISTING GRATE INLET LOCATED AT THE EASTERN PRESTON PLACE AND GRADY AVENUE INTERSECTION. SIGNIFICANT PORTIONS OF THE POST-REDEVELOPMENT SCENARIO, AND A SIZEABLE PORTION OF THE PRE-REDEVELOPMENT SCENARIO, DRAIN TO THIS OUTFALL. THIS RUNOFF DRAINS TO THE LIMITS OF ANALYSIS. THIS RUNOFF IS DEFINED IN THE PRE-REDEVELOPMENT STATE BY ON DA B (ONSITE DRAINAGE AREA B) AND OFF DA D (OFFSITE DRAINAGE AREA D). IN THE POST-REDEVELOPMENT STATE THIS RUNOFF IS DEFINED BY ON DA A & ON DA B (ONSITE DRAINAGE AREAS A & B) AND OFF DA D (OFFSITE DRAINAGE AREA D).

SITE OUTFALL #2:
SITE OUTFALL #2 REPRESENTS SHEET FLOW AREAS THAT DRAIN TO THE LIMITS OF ANALYSIS. THESE AREAS DO NOT REPRESENT CONCENTRATED RUNOFF AND ARE PREDOMINATELY COMPOSED OF GRASS GROUND COVERS IN THE PRE- AND POST-REDEVELOPMENT SCENARIOS. THE TOTAL SITE DRAINING TO SITE OUTFALL #2 IS REDUCED IN THE POST-REDEVELOPMENT SCENARIO. THIS RUNOFF IS DEFINED IN THE PRE-REDEVELOPMENT STATE BY ON DA A & ON DA C (ONSITE DRAINAGE AREAS A & C). IN THE POST-REDEVELOPMENT STATE THIS RUNOFF IS DEFINED BY ON DA C (ONSITE DRAINAGE AREA C).

- GENERAL NOTES:
- THE ONSITE DRAINAGE AREAS (ON DA A, ON DA B & ON DA C) WERE USED IN THE 9 VAC 25-870-66 ENERGY BALANCE CALCULATIONS. THE POST-REDEVELOPMENT DRAINAGE AREA TO SITE OUTFALL #2 (ON DA B) IS BEING LARGELY REDUCED BECAUSE IT REDIRECTS RUNOFF FROM ON DA A & ON DA C TO SITE OUTFALL #1. SITE OUTFALL #2 THEREFORE MEETS THE ENERGY BALANCE AND Q10 REDUCTION WITHOUT FURTHER TREATMENT. THE DRAINAGE AREA TO SITE OUTFALL #1 BECOMES NOTICEABLY LARGER, BECAUSE IT INCORPORATES PORTIONS OF PRE-REDEVELOPMENT ON DA A & ON DA C, AND THEREFORE REQUIRES A MORE EXTENSIVE ANALYSIS. THE COMPLIANCE WITH 9 VAC 25-870-66 REQUIREMENTS HAS BEEN COMPLETED FOR SITE OUTFALL #1 AND TAKES INTO CONSIDERATION ON DA A, ON DA B & ON DA C. BECAUSE OF THIS INCLUSIVE ANALYSIS, WHICH CONSIDERS SUBAREAS DRAINING TO SITE OUTFALL #2, ONLY ONE ENERGY BALANCE COMPUTATION IS REQUIRED. THIS COMPUTATION ACCOUNTS FOR ALL ONSITE CONCENTRATED DRAINAGE AND SHEET FLOW DRAINAGE WHICH CONTRIBUTE TO THE DOWNSTREAM LIMITS OF ANALYSIS.
 - PLEASE NOTE, THERE IS A DOWNSTREAM OFFSITE AREA DRAINING TO SITE OUTFALL #1. THIS AREA IS REPRESENTED BY OFF DA D (OFFSITE DRAINAGE AREA D) AND IS NOT MODIFIED WITH THE PROPOSED PLAN. THIS AREA WAS NOT ACCOUNTED FOR IN THE 9 VAC 25-870-66 ENERGY BALANCE CALCULATIONS BECAUSE IT IS NOT PART OF THIS PROJECT, BUT IT IS SHOWN SINCE IT DRAINS TO SITE OUTFALL #1. THE COMPUTATIONS ASSOCIATED WITH THIS SUBAREA ARE FOR INFORMATIONAL PURPOSES ONLY.
 - FOR THE SITES OVERALL 9 VAC 25-870-66 CHANNEL AND FLOOD PROTECTION COMPLIANCE, THE INDIVIDUAL PRE-REDEVELOPMENT SUBAREAS' PEAK FLOWS WERE SUMMED TOGETHER. SIMILARLY, THE POST-REDEVELOPMENT PEAK FLOWS FROM THEIR RESPECTIVE SUBAREAS WERE TOTALED. THE TWO SUMMED PEAK PRE- AND POST-REDEVELOPMENT FLOWS WERE THEN COMPARED TO EACH OTHER FOR COMPLIANCE. THIS IS A CONSERVATIVE DESIGN BECAUSE IT ASSUMES THE PEAK FLOWS FROM THE VARIOUS SUBAREAS OCCUR SIMULTANEOUSLY. WHEN ANALYZING THE COMBINED PEAK PRE-REDEVELOPMENT FLOWS AND THE REDUCED POST-REDEVELOPMENT FLOWS, THE SITE IS IN COMPLIANCE WITH MINIMUM REQUIREMENTS.
 - CHANNEL PROTECTION FOR THE SITE IS MET THROUGH 9 VAC 25-870-66, SUBSECTION B.3.a. FLOOD PROTECTION FOR THE SITE IS MET THROUGH 9 VAC 25-870-66, SUBSECTION C.2.b.

PROPOSED STRUCTURE 'SWM' DETAIL

PROPOSED UPPER 2" LONG, 04" SOLID PVC UNDERDRAIN AT 11.5% TO OUTFALL INTER. 210 (INV. IN=583.33', INV. OUT=583.09', INV. OUT=585.09'). UNDERDRAIN TO OUTFALL STORED RUNOFF ABOVE THE TREATMENT VOLUME WHICH EQUATES TO STORED RUNOFF ABOVE THE SUBBASE'S LOWER 4".

PROPOSED LOWER 2" LONG, 04" SOLID PVC UNDERDRAIN AT 11.5% TO OUTFALL INTER. 210 (INV. IN=583.33', INV. OUT=583.09', INV. OUT=585.09'). UNDERDRAIN TO HAVE A SCREW CAP LOCATED INSIDE THE PROPOSED MANHOLE 'SWM'. SCREW CAP TO HAVE A 01.5" DRILLED OPENING. 01.5" DRILLED OPENING TO SERVE AS THE LOW-FLOW ORIFICE & WILL DRAIN THE TREATMENT VOLUME (LOWER 4" OF THE SUBBASE RESERVOIR) OVER A PERIOD OF 48 HRS.

PROPOSED VDOT STD. MANHOLE WITH IS-1 & ST-1. MANHOLE TO PROVIDE A MEANS FOR ACCESS & INSPECTION OF THE TWO PERMEABLE PAVEMENT UNDERDRAIN PIPES INTO STR. 210.

TWO PROPOSED PERFORATED 04" UNDERDRAIN INLETS FROM THE BOTTOM SUBBASE LAYER OF THE PERMEABLE PAVEMENT PARKING LOT. INVERT INTO MH TO BE FIELD FITTED BY THE CONTRACTOR WITH FINAL ABSOLUTE SUBBASE STONE GRADES. SUBBASE BOTTOM LAYER DESIGN ELEVATION=INVERT IN DESIGN ELEVATION (584.99').

CONTRACTOR SHALL ENSURE IS-1 INLET SHAPING DIRECTS RUNOFF INTO THE NEW CAP'S DRILLED OPENING. MINOR CONCRETE 'BUTTERING' MAY BE APPLIED TO THE INLET SHAPING.

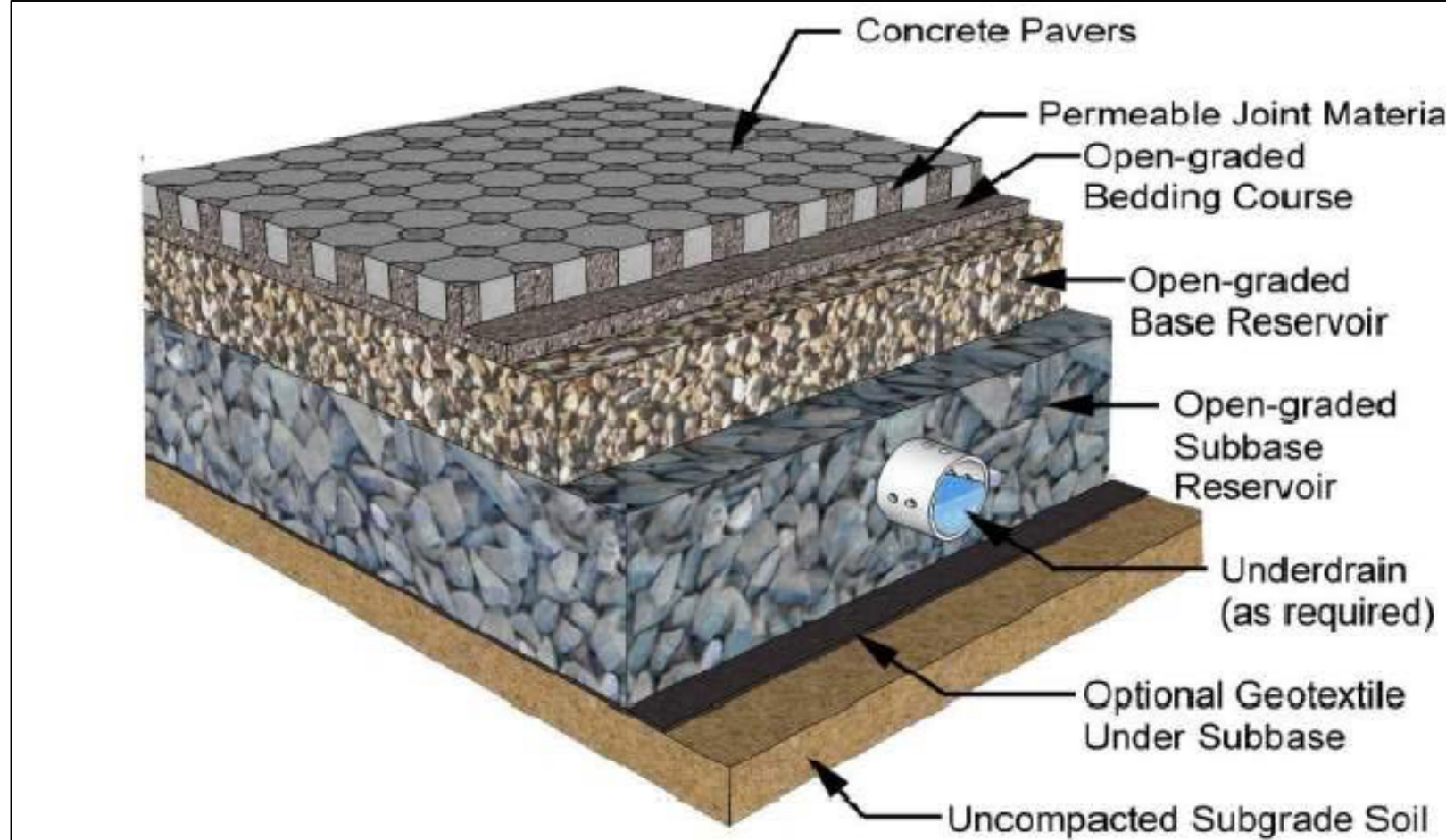


Figure 7.3. Typical Detail (Source: Smith, 2009)

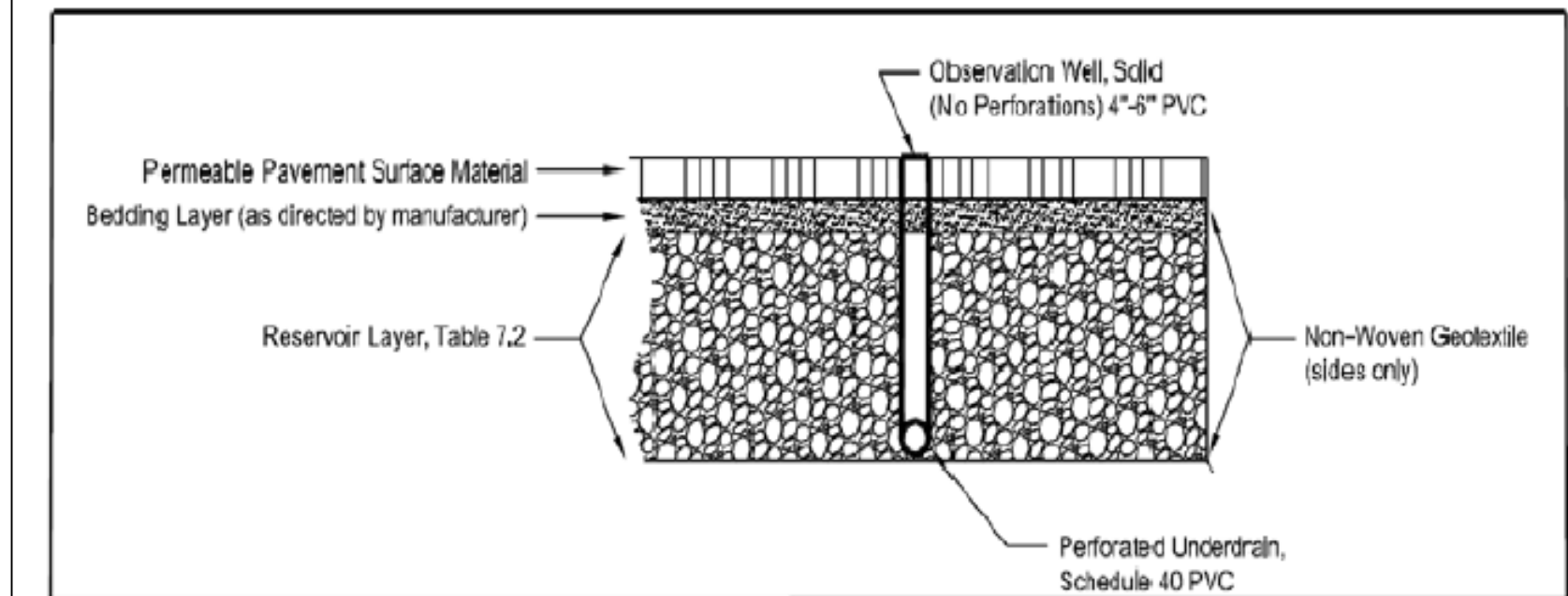


Figure 7.4. Typical Section Permeable Pavement Level 1

PERMEABLE PAVEMENT INSTALLATION GENERAL NOTES:

- EACH LAYER/LIFT OF NO. 2 AND NO. 57 STONE REQUIRES A MINIMUM CENTRIFUGAL FORCE COMPACTION OF 53,000.
- CONSTRUCTION & PREPARATION OF PERMEABLE PAVERS, STONE BASE AND UNDERDRAIN SYSTEM SHALL BE IN ACCORDANCE W/ MANUFACTURER SPECIFICATIONS.
- CONTRACTOR SHALL CONDUCT A GEOTECHNICAL INVESTIGATION OF THE SOIL UNDERNEATH THE PROPOSED PAVERS AFTER FINAL GRADE HAS BEEN ACHIEVED TO DETERMINE THE INFILTRATION AND CBR RATINGS. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THESE RESULTS PRIOR TO ORDERING AND INSTALLATION OF THE STONE BASE FOR THE PERMEABLE PAVERS TO ENSURE AN ADEQUATE DESIGN. IF A CBR RATIO OF THE PAVERS UNDERLYING SOILS IS LESS THAN 4% THEN THE CONTRACTOR SHALL COMPACT THE SOIL TO AT LEAST 95% OF STANDARD PROCTOR DENSITY.
- ALL OPEN GRADED STONE LAYERS SHALL BE CLEAN & DOUBLE WASHED IN ACCORDANCE WITH DEQ REGULATIONS. "CLEAN" STONE IS SCREENED TO SIZE AND THE BULK OF THE FINES/DUST IS REMOVED, BUT THERE IS STILL DUST ON THE STONE. "WASHED" STONE IS WASHED THROUGH THE SCREENING PROCESS AND/OR MANUALLY WASHED.
- WHERE UNDERDRAIN CLEANOUTS ARE PROPOSED WITHIN PAVED AREAS & ARE SUBJECT TO VEHICULAR TRAFFIC, CLEANOUTS SHALL BE ENCASED IN 018" CONCRETE PAD FOR THE UPPER 24". THE CLEANOUT FRAME & LID SHALL BE CONSTRUCTED OF CAST IRON, OR A SIMILAR MATERIAL THAT IS STRUCTURALLY FORTIFIED.
- THE PERMEABLE PAVERS' STONE BASE SHALL HAVE A FILTER FABRIC UNDERLAYMENT BENEATH IT. UNDERLAYMENT SHALL BE CAPABLE OF PASSING RUNOFF THROUGH IT TO ALLOW FOR ADEQUATE INFILTRATION. CONTRACTOR SHALL WORK CLOSELY WITH THE UNDERLAYMENT'S MANUFACTURER ENSURING THE SELECTED MATERIAL IS SUFFICIENT AND ALL CONSTRUCTION REQUIREMENTS ARE MET.
- THE PERMEABLE PAVEMENT STONE BED SHALL INCLUDE 4" UNDERDRAINS, AS SHOWN, WITH 1% MIN. WITH POSITIVE DRAINAGE.



REVISIONS

REVISION DESCRIPTION	DATE
INITIAL DESIGN	04/02/19

CE COLLINS ENGINEERING

200 GARRETT STREET, SUITE K. - CHARLOTTESVILLE, VA 22902 - 434.293.3719

PRESTON APARTMENTS SITE PLAN AMENDMENT #2

PARKING LOT EXPANSION -STORMWATER MANAGEMENT PLAN

PROJECT	JOB NO.
	172140
	SCALE
	1" = 10'
SHEET TITLE	SHEET NO.
	9 OF 9

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