GLENBROOK AT FOOTHILLS - PHASE IV

FINAL SITE PLAN

WHITEHALL MAGISTERIAL DISTRICT
ALBEMARLE COUNTY, VIRGINIA

GENERAL NOTES

OWNER: GLENBROOK LLC
PO BOX 1467
CHARLOTTESVILLE, VA 22902

DEVELOPER: RIVERBEND DEVELOPMENT, INC.
455 SECOND STREET, SE SUITE 200
CHARLOTTESVILLE, VA 22902
ATTN: ALAN TAYLOR

ENGINEER: COLLINS ENGINEERING
200 GARRETT ST, SUITE K
CHARLOTTESVILLE, VA 22902
(434) 293-3719

TAX MAP NO.: 1. 056A2-01-00-062RO (INST. #:202200012613) - 2.162 ACRES
2. 056K0-00-03-11800 THROUGH 056K0-00-03-12000 (INST. #:202200012613) - 0.09 ACRES
3. EXISTING RIGHT-OF-WAY (PLATTED/ NOT YET DEDICATED) - 0.03 ACRES

TOTAL AREA: 2.162 AC. (PHASE IV) + 0.167 AC. (LOTS 116,117,&118)
2.329 ACRES

ZONING: R-6 ZONING (CLUSTER DEVELOPMENT); ENTRANCE CORRIDOR OVERLAY DISTRICT
TMP 56A2-1-62R IS SUBJECT TO THE APPLICATION PLAN AND PROFFERS ASSOCIATED WITH ZMA2016-00005 AND ZMA2021-00015.
IN ADDITION, A SPECIAL EXCEPTION (SP2023-00049) WAS APPROVED ON 2/7/24 BY THE BOS, REDUCING THE REAR MINIMUM SETBACK ON LOTS 118 AND 122-133 TO A 10' REAR YARD SETBACK.

PROPOSED USE: PHASE IV (THIS PHASE)
SINGLE FAMILY ATTACHED TOWNHOUSE UNITS = 13 UNITS
TWO FAMILY ATTACHED DWELLING UNITS WITH FEE SIMPLE LOT = 14 LOTS (28 UNITS)
TOTAL UNITS: 41 UNITS (WITHIN THE PHASE IV PORTION OF THIS SITE PLAN)
(NOTE#1: THE TWO FAMILY ATTACHED DWELLING UNITS INCLUDE (27) AFFORDABLE UNITS)
(NOTE#2: TYPICAL NUMBER OF BEDROOMS FOR EACH TWO FAMILY ATTACHED DWELLING UNITS SHALL BE (2) OR (3) BEDROOMS, EXCEPT FOR THE (14) 1-BEDROOM RENTAL UNITS WITHIN THE BASEMENT UNIT OF THE TWO FAMILY ATTACHED UNIT)
PHASE III (PORTION OF PHASE III WITHIN THIS SITE PLAN) - LOTS 116, 117, & 118
SINGLE FAMILY ATTACHED TOWNHOUSE UNIT = 1 UNIT
TWO FAMILY ATTACHED DWELLING UNITS WITH FEE SIMPLE LOT = 2 LOTS (4 UNITS)
TOTAL UNITS: 5 UNITS (WITHIN THE PHASE III PORTION OF THIS SITE PLAN)
(NOTE#1: TYPICAL NUMBER OF BEDROOMS FOR EACH TWO FAMILY ATTACHED DWELLING UNITS SHALL BE (2) OR (3) BEDROOMS, EXCEPT FOR THE (14) 1-BEDROOM RENTAL UNITS WITHIN THE BASEMENT UNIT OF THE TWO FAMILY ATTACHED UNIT)

DENSITY: PHASE IV DEVELOPMENT: 41 UNITS / 2.162 ACRES = 19.0 DUA
OVERALL ALLOWABLE DENSITY FOR REZONING PARCELS = 180 UNITS
PHASE I = 84 UNITS WITHIN REZONING AREA (23.887 ACRES)
PHASE IIA = 7 UNITS WITHIN REZONING AREA (0.875 ACRES)
PHASE IIB = 48 UNITS WITHIN REZONING AREA (12.88 ACRES)
PHASE IV = 41 UNITS WITHIN REZONING AREA (2.162 ACRES)
TOTAL DENSITY: 180 UNITS / 39.804 ACRES = 4.52 DUA

BUILDING TYPE: PHASE IV IS EXEMPT TO THE BUILDING TYPES REQUIRED BY THE REZONING APPLICATION PLAN.
PHASE IV PROPOSES 41 SINGLE FAMILY ATTACHED AND TWO-FAMILY SINGLE FAMILY ATTACHED UNITS.
NOTE: ALL UNITS WITHIN PHASE IV SHALL BE ORIENTED TOWARD THE PUBLIC STREETS. THE SINGLE FAMILY ATTACHED UNITS AND TOWNHOUSE UNITS IN PHASE IV SHALL HAVE THE FRONT DOORS OF THE MAIN UNITS FRONTING ON EITHER PARK RIDGE DRIVE OR LEEHAM STREET.

OPEN SPACE: OVERALL REQUIRED OPEN SPACE FOR REZONING (25%) = 39.804 ACRES x 25% = 9.951 ACRES
TOTAL OPEN SPACE PROVIDED
PHASE I: 5.715 ACRES
PHASE IIA: 0.0 ACRES
PHASE IIB: 3.934 ACRES (INCLUDES 2.663 ACRES OF GREENWAY DEDICATION
PHASE III: 6.087 ACRES (INCLUDES 2.289 ACRES OF GREENWAY DEDICATION)
PHASE IV: 0.304 ACRES - THIS PHASE (13.1%)
OPEN SPACE G: 0.201 ACRES
OPEN SPACE H: 0.073 ACRES
OPEN SPACE I: 0.030 ACRES
TOTAL OPEN SPACE PROVIDED: 15.939 ACRES (40%)
TOTAL OPEN SPACE OF REZONED AREA (PHASE I, IIA, IIB & IV): 9.953 ACRES (25.01%)

OPEN SPACE TO BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION, WITH EXCEPTION OF THE GREENWAY OPEN SPACE, WHICH IS DEDICATED TO ALBEMARLE COUNTY.

RECREATION AREA: NO CIVIC OR RECREATION SPACE IS REQUIRED OR PROPOSED WITHIN THIS PHASE OF THE PROJECT.

PRESERVED/MANAGED SLOPES: NO PRESERVED SLOPES OR MANAGED SLOPES ARE SHOWN WITHIN THE LIMITS OF THIS PHASE ON THE PROPERTY.

BUILDING HEIGHTS: MAXIMUM BUILDING HEIGHTS SHALL NOT EXCEED 35 FEET (PER ZONING ORDINANCE)
TOWNHOUSE UNITS: 3 STORIES (EAVE MAX. HEIGHT = 30 FEET)- POPLAR UNITS (800 SF FOOTPRINT)
TWO FAMILY ATTACHED UNITS: 3 STORIES (EAVE MAX. HEIGHT = 30 FEET) -2 OVER 1 UNIT (925 SF FOOTPRINT)

SETBACKS: FRONT: MIN. 5' (18' MINIMUM FROM R/W OR EDGE OF SIDEWALK TO GARAGE)
MAXIMUM - 25' MAXIMUM SETBACK
SIDE: MINIMUM - 5 FEET, UNLESS THE BUILDING SHARES A COMMON WALL
MAXIMUM - NONE
BUILDING SEPARATION: 10 FEET, UNLESS THE BUILDING SHARES A COMMON WALL
REAR: 20' MINIMUM AND NO MAXIMUM (LOTS 118 AND LOTS 121-133 HAS A MINIMUM REAR YARD SETBACK OF 10')
NOTE: A SPECIAL EXCEPTION REQUEST (SE2024-00040) HAS BEEN APPROVED BY THE BOS ON 2/7/24 TO REDUCE THE REAR YARD SETBACK FOR LOTS 118 AND LOTS 121-133 FROM THE 20 FEET MINIMUM TO A MINIMUM OF 10 FEET.

SUBDIVISION STREETS: CURB & GUTTER

UTILITIES: COUNTY WATER & SEWER

WATERSHED: LICKINGHOLE CREEK WATER SUPPLY WATERSHED

AGRICULTURAL/ FORESTAL DISTRICT: NONE

TOPO & SURVEY: TOPOGRAPHY PROVIDED BY A COMBINATION OF ROUDABUSH, GALE AND ASSOCIATES AND LOUISA AERIAL SURVEYS INC., JANUARY 2007. GRADED AREAS WERE FIELD SURVEYED IN 2023. THE UPDATED BOUNDARY LINE INFORMATION WAS SURVEYED AND PROVIDED BY ROUDABUSH, GALE AND ASSOCIATES IN OCTOBER 2023. INFORMATION FIELD VERIFIED BY COLLINS ENGINEERING IN OCTOBER OF 2023.

DATUM: NAD 83

EXISTING VEGETATION: PARTIALLY CLEARED AND GRADED UNDER PREVIOUS LAND DISTURBANCE PERMIT.

LIGHTING: NO LIGHTING IS PROPOSED

PARKING: REQUIRED PARKING:
1. (2) OFF-STREET PARKING REQUIRED FOR EACH UNIT SFA UNIT:
14 UNITS x 2 SPACES = 28 SPACES
2. (2) PARKING SPACES REQUIRED FOR EACH 2-BEDROOM SFA TWO-FAMILY UNIT:
16 UNITS x 2 SPACES = 32 SPACES
3. (1.5) PARKING SPACES REQUIRED FOR EACH 1-BEDROOM TWO-FAMILY UNIT:
16 UNITS x 1.5 SPACES = 24 SPACES
3. GUEST PARKING (1 SPACE / 4 SFA/MULTI-FAMILY UNITS):
46 UNITS x 1 SPACE/4 UNITS = 12 SPACES
TOTAL REQUIRED PARKING: 96 SPACES

TOTAL PARKING PROVIDED (SFA & TWO-FAMILY ATTACHED UNITS):
48 GARAGE/DRIVEWAY PARKING SPACES
23 OFF-STREET PARKING SPACES (INCLUDING 1 ADA HANDICAP SPACE)
25 ADDITIONAL OVERFLOW SPACES FROM PHASE III DEVELOPMENT
TOTAL PROVIDED: 96 SPACES
NOTE #1: NO PARKING SIGNS WILL BE SHOWN ON THE FINAL SITE PLAN DESIGNATING AREAS WHERE ON-STREET PARKING IS PROHIBITED.
NOTE #2: BETWEEN PHASE III & PHASE IV, THERE ARE 61 OFF-STREET PARKING SPACES, REQUIRING A TOTAL OF (3) ADA HANDICAP PARKING SPACES. (2) HANDICAP SPACES ARE PROVIDED IN PHASE III AND (1) HANDICAP SPACE IS PROVIDED IN PHASE IV.

AFFORDABLE HOUSING: TO BE ACCOMMODATED AS NOTED IN THE PROFFERS. SEE SHEET 2 FOR ADDITIONAL DETAILS. SEE SHEET 4 FOR LOCATION OF PROPOSED 27 AFFORDABLE HOUSING UNITS.

PHASING: THIS PROJECT IS PART OF THE OVERALL GLENBROOK PROJECT, WHICH IS BEING DEVELOPED IN PHASES TOTAL, INCLUDING PHASE I, IIA, IIB, III, IV & V.

BURIAL SITES: NO CEMETERIES WERE FOUND DURING A FIELD INVESTIGATION OF THE SITE.

RETAINING WALLS: THERE ARE NO RETAINING WALLS PROPOSED WITH THIS PHASE OF THE DEVELOPMENT.

LANDSCAPING: STREET TREES ARE PROPOSED ALONG THE NEIGHBORHOOD STREETS IN ACCORDANCE WITH ALBEMARLE COUNTY LANDSCAPING REQUIREMENTS WITHIN SECTION 32.7.9 OF THE COUNTY CODE AND IN ACCORDANCE WITH CHAPTER 14. THE FINAL SITE PLAN SHALL INCLUDE A LANDSCAPING PLAN FOR THIS PHASE OF THE DEVELOPMENT.

BUILDING SITES: EACH PARCEL CONTAINS A BUILDING SITE THAT COMPLIES WITH SECTION 4.2.1. OF THE ALBEMARLE COUNTY ZONING ORDINANCE.

STREAM BUFFERS/FLOODPLAIN: THIS SUBJECT PROPERTY IS LOCATED IN ZONE X. THERE IS NO 100-YEAR FLOODPLAIN LIMITS ON THE SUBJECT PARCELS, PER FEMA MAPS 51003C0228D & 51003C0229D; FEBRUARY 4, 2005. THERE ARE NO STREAM BUFFERS LOCATED WITHIN THIS PHASE OF THE DEVELOPMENT. THIS PROJECT IS NOT LOCATED WITHIN A DAM INUNDATION ZONE.

OFFSITE DISTURBANCE: NO OFFSITE DISTURBANCE IS PROPOSED WITH THIS PLAN.

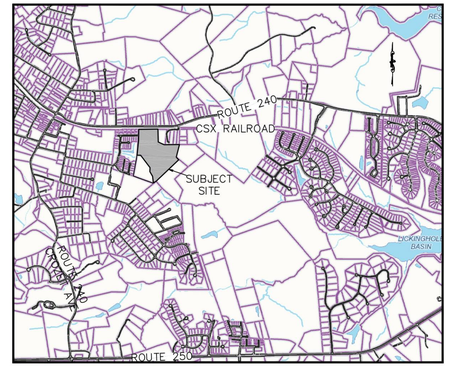
TRASH: EACH LOT & UNIT ON THE LOT SHALL HAVE AN INDIVIDUAL TRASH CONTAINER FOR COLLECTION SERVICE.

PAVED PARKING AND CIRCULATION: 13,305 SF



SHEET LAYOUT
SCALE: 1" = 100'

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.



VICINITY MAP
SCALE: 1" = 2,000'

Sheet List Table

Sheet Number	Sheet Title
1	COVER
2	PROFFERS
3	EXISTING CONDITIONS
4	OVERALL DEVELOPMENT PLAN
5	SITE PLAN
6	UTILITY PLAN
7	GRADING & DRAINAGE PLAN
8	LANDSCAPING PLAN
9	LANDSCAPING NOTES & DETAILS
10	SITE NOTES & DETAILS
11	UTILITY NOTES & DETAILS
12	ROAD, UTILITY & DRAINAGE PROFILES
13	DRAINAGE MAP
14	DRAINAGE CALCULATIONS
15	SIGHT DISTANCE PROFILES
15	TOTAL SHEETS

LEGEND:
- EDGE OF PAVEMENT
- CURB
- PROPOSED ASPHALT PAVEMENT
- EXISTING VEGETATIVE/LANDSCAPE BUFFER
- GREENWAY BUFFER
- PROPOSED EASEMENT
- DROP INLET & STRUCTURE NO.
- DRAINAGE PIPE
- BENCH MARK
- 200 EXISTING CONTOUR
- 200 PROPOSED CONTOUR
- 506.71 TC / 506.21 EP PROPOSED SPOT ELEVATION
  - TBC DENOTES TOP/BACK OF CURB
  - T/B DENOTES TOP OF BOX
- 506.71 TW / 506.21 BW PROPOSED SPOT ELEVEATION
  - TW DENOTES TOP OF WALL
  - BW DENOTES BOTTOM OF WALL
- PRESERVED STEEP SLOPES
- MANAGED STEEP SLOPES
- PEDESTRIAN AND VEHICLE ACCESS
- PROPOSED CONCRETE
- PROPOSED & EXISTING GUARDRAIL
- PROPOSED FENCE
- 100 YR. FLOODPLAIN

APPROVALS	DATE
DEPARTMENT OF COMMUNITY DEVELOPMENT	
PLANNER/ZONING	
ENGINEER	
INSPECTIONS	
ARB	
DEPARTMENT OF FIRE RESCUE	
ALBEMARLE COUNTY SERVICE AUTHORITY	
VIRGINIA DEPARMENT OF TRANSPORTATION	
HEALTH DEPARTMENT	

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT: GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN
SHEET: COVER
JOB NO. 112066
SCALE AS SHOWN
SHEET NO. 1

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PROFFER STATEMENT

FOOTHILLS CROSSING

Date: February 6, 2017

ZMA #: 2016-05

Tax Map Parcel #: 056A2-01-00-06200, 05600-00-00-057C0, 05600-00-00-057B2, 056A2-01-00-06100, and 056K0-00-00-000A2 (the "Property")

Owner(s) of Record: Route 240 Holdings, LLC; Edmund J. Daily, Christopher Daily & Cynthia Daily DiCanio; Route 240, LLC; and Foothills Crossing, INC.

Rezone parcel 056A2-01-00-06200 totaling approximately 2.13 acres from R2 Residential (R2) to R6 Residential (R6), and rezone three parcels (05600-00-00-57C0, 05600-00-00-057B2, and 056K0-00-00-000A2) totaling approximately 32.56 acres from R1 Residential (R1) to R6, and a portion of parcel 056A2-01-00-6100, containing 3.24 acres from Light Industrial (LI) to R6.

Total Land Area: 37.93 acres

Pursuant to Sections 33.4 and 33.7 of the Albemarle County Zoning Ordinance, the Owner hereby voluntarily proffers the conditions listed herein below which shall be applied to Foothills Crossing (hereinafter the "Property") if the Zoning Map Amendment (hereinafter the "ZMA") is approved by the County of Albemarle (the "County"). These conditions are proffered as a part of the requested ZMA and it is agreed that: (1) the ZMA itself gives rise to the need for the conditions, and (2) such conditions have a reasonable relation to the rezoning requested.

The term "Owner" as referenced herein shall mean the owner(s) of record and successors in interest of parcels 056A2-01-00-06200, 05600-00-00-057C0, 05600-00-00-057B2, 056K0-00-00-000A2, and a portion of 056A2-01-00-06100.

The Application Plan shall refer to that certain Application Plan prepared by Collins Engineering February 16, 2016 last revised January 9, 2017 (the "Application Plan"). Future development of the Property shall be in general accord with the Application Plan. To be in general accord with the Application Plan, the development and use shall reflect the major elements shown on the Application Plan and listed below, as determined the Director of Planning or his designee:

a) Streets shall be interconnected, except where described in Note 13 of the Application Plan.
b) There shall be a mixture of housing types and maximum number of units as described in building type and density in the General Notes section of the Application Plan.
c) Buildings shall be oriented towards public streets as described in Note 9 of the Application Plan. A strip of open space shall be provided along the Eastern Avenue Connector Road and Park Ridge Street, where necessary, to provide additional landscape buffering of any rear yards abutting the open space where backs of buildings are visible from the street.

d) The Greenway trail system shall include a connection to this phase of the Foothill Crossings Neighborhood and a connection to Crozet Park.

The headings of the proffers and conditions set forth below have been prepared for convenience or reference only and shall not control or affect the meaning or be taken as an interpretation of any provisions of the proffers.

1. Park Ridge Street Road Construction and Dedication.

The Owner shall cause to be constructed a two lane road in the general location of the road identified as Park Ridge Street ("Park Ridge") on the Application Plan. Park Ridge will be an "avenue section" in design, with bike lanes, parking, sidewalks, street trees, and curb and gutter. Park Ridge shall be constructed, bonded and ready to be recommended by the Albemarle County Board of Supervisors for acceptance into the public system, and the County Engineer shall have determined that the roadway is safe and convenient for traffic (hereinafter, "completed") prior to issuance of the tenth (10th) certificate of occupancy (herein after "CO") within the Property. Once the Owner completes Park Ridge and within sixty (60) days after the written request of the County, the Owner shall dedicate Park Ridge as a public road.

2. Eastern Avenue Connector Road Construction and Dedication.

The Owner shall cause to be constructed a two lane road in the general location of the road identified as Eastern Avenue Connector Roadway ("Eastern Avenue") on the Application Plan. Eastern Avenue will be an "avenue section" in design, with bike lanes, parking, sidewalks, street trees, and curb and gutter. Eastern Avenue shall be constructed, bonded and ready to be recommended by the Albemarle County Board of Supervisors for acceptance into the public system, and the County Engineer shall have determined that the roadway is safe and convenient for traffic (hereinafter, "completed") prior to issuance of the fiftieth (50th) CO within the Property. Once the Owner completes Eastern Avenue and within sixty (60) days after the written request of the County, the Owner shall dedicate Eastern Avenue as a public road.

3. Greenway Trails.

A. Construction and Dedication of Greenway Trails.
A primitive trail network, consistent with the County's design standards for a Class B-type 1 primitive nature trail, shall be established within the Greenway. The installation of the trail shall not preclude the future conversion, by others, of the trail to Class A-paved trail standards. The general location of the trail network is shown on the Application Plan, however exact trail locations shall be determined based on site conditions. Installation of the trail network shall be completed prior to issuance of approval of the tenth (10th) CO for a single family dwelling within the Project.

Upon the request of the County, but not prior to the issuance of the tenth (10th) CO within the Project, the Owner shall dedicate to the County an easement for public use over the Greenway area, as shown on the Application Plan. Prior to the County's request to dedicate such easement, the Owner may dedicate portions of the Greenway by easement concurrently with one or more subdivision plats for areas lying adjacent to the Greenway; provided however, that Owner may reserve in such easements, rights of access for utilities and maintenance. Each subdivision plat shall depict the Greenway area to be dedicated and shall bear a notation that the Greenway area is dedicated for public use. If, at the time the County requests dedication of the Greenway, any part of the Greenway that has not been dedicated by subdivision plat, shall be (within six (6) months of such request) at Owner's cost, surveyed, platted and recorded with one or more deeds of easement dedication.

B. Bike and Pedestrian Tunnel
Pursuant to approval by VDOT and the County, the Owner shall construct a bike and pedestrian tunnel (herein after the "Pedestrian Tunnel") along the trail network as it passes underneath Eastern Avenue. The Tunnel design shall be submitted for review with the roadway plans for Eastern Avenue. Installation of the Tunnel shall be completed prior to issuance of approval of the tenth (10th) CO for a single family dwelling within the Project.

4. Community Civic Space.

The Owner shall provide not less than 20,000 square feet of land within the Project for a Civic Space in the general location identified on the Application Plan. The Civic Space shall be substantially completed prior to the issuance of approval of the tenth (10th) CO within the Project. Parks and Civic Spaces shall be conveyed to, and maintained by the Owner's Association. The Owner shall pay the cost of subdividing and conveying the Parks and Civic Spaces to the Owner's Association.

5. Cash Proffer for Capital Improvements Projects.

The Owner shall contribute cash on a per "market-rate" dwelling unit basis in excess of the number of units that are allowed by right under the zoning in existence at the time of this zoning amendment for the purposes of addressing the fiscal impacts of development on the County's public facilities and infrastructure, i.e., schools, public safety, libraries, parks and transportation For the purposes of this Proffer 5, the number of units allowed by right under the R-1 Residential zoning is thirty five (35) single-family detached units. A "market rate" unit is any single-family detached unit in the Project that is not either a For-Sale Affordable Housing Unit or For -Rent Affordable Unit as described in Proffer 6. The cash contributions shall be Seven Thousand Three Hundred Thirty Three Dollars and Eighteen Cents ($7,333.18) for each single family detached dwelling unit, other than a constructed For-Sale Affordable Dwelling Unit within the Project qualifying as such under Proffer 6. In other words, the cash contribution for market rate single family units shall begin after a building permit for the 35th market rate single family unit is issued and prior to the Owner obtaining a building permit for the 36th market rate single family unit. The cash contributions shall be Five Thousand Four Hundred Forty Seven Dollars and Fifty Seven Cents ($5,447.57) for each single family attached dwelling unit, other than a constructed For-Sale Affordable Housing Unit or a For Rent Affordable Housing Unit within the Project qualifying as such under Proffer 6. The cash contributions shall be Seven Thousand Four Hundred Nineteen Dollars and Ninety One Cents ($7,419.91) for each multifamily dwelling unit, other than a constructed For Sale Affordable Housing Unit or For Rent Affordable Housing Unit within the Project qualifying as such under Proffer 6.

6. Affordable Housing.

The Owner shall provide affordable housing equal to fifteen percent (15%) of the total number residential units constructed on the Property. For example, if one hundred (100) total units are constructed in the Project, fifteen (15) units, or their equivalent, are required to satisfy this Proffer 6. The Owner or its successors in interest reserve the right to meet the affordable housing objective through a variety of housing types, or through cash contributions, as more particularly described in sections 6A, 6B and 6C below.

A. For-Sale Affordable Housing Units. All purchasers of the For-Sale Affordable Housing Units,(defined below) shall be approved by the Albemarle County Housing Office or its designee. "For-Sale Affordable Housing Units" shall be dwelling units offered for sale at no more than sixty five percent (65%) of Virginia Housing and Development Authority's ("VHDA") maximum sales price for first time home-buyer program. The Owner shall provide the County or its designee a period of one hundred twenty (120) days to identify and prequalify an eligible purchaser For-Sale Affordable housing Units. The one hundred twenty (120) day period shall commence upon written notice from the Owner that the unit(s) shall be available for sale. This notice shall not be given more than ninety (90) days prior to receipt of the Certificate of Occupancy for the applicable For-Sale Affordable Housing Unit; the County or its designee may then have thirty (30) days within which to provide a qualified purchaser for such For-Sale Affordable Housing Unit. If the County or its designee does not provide a qualified purchaser during the one hundred twenty (120) day period, the Owner shall have the right to sell the unit(s) without any restriction on sales price or income of the purchaser(s).

B. For-Rent Affordable Housing Units.

(1) Rental Rates. The initial net rent for each rental housing unit for which Owner seeks qualification for the purposes of this proffer 6, ("For-Rent Affordable Housing Unit")shall not exceed the then-current and applicable maximum net rent rate approved by the Albemarle County Housing Office. In each subsequent calendar year, the monthly net rent for each For-Rent Affordable Housing Unit may be increased up to three percent (3%). For purpose of this proffer 6B, the term "net rent" means that the rent does not include tenant-paid utilities. The requirement that the rents for such for-rents for such For-Rent Affordable Housing Units may not exceed the maximum rents established in this paragraph 6B shall apply for a period of ten (10) years following the date the certificate of occupancy is issued by the County for each For-Rent Affordable Housing Unit, or until the units are sold as low or moderate cost units qualifying as such under either the Virginia Housing Development Authority, Farmers Home Administration, or Housing and Urban Development, Section 8, whichever comes first (the "Affordable Term").

(2) Conveyance of Interest. All deeds conveying any interest in the For-Rent Affordable Housing Units during the Affordable Term shall contain language reciting that such unit is subject to the terms of this subparagraph (2). In addition, all contracts pertaining to a conveyance of any For-Rent Affordable Housing Unit, or any part thereof, during the Affordable Term shall contain a complete and full disclosure of the restrictions and

controls established by this paragraph 6B. At least thirty (30) days prior to the conveyance of any interest in any For-Rent Affordable Housing Unit during the Affordable Term, the then-current Owner shall notify the County in writing of the conveyance and provide the name, address and telephone number of the potential grantee, and state that the requirements of this paragraph 6B(2) have been satisfied.

(3) Reporting Rental Rates. During the Affordable Term, within thirty (30) days of each rental or lease term for each For-Rent Affordable Housing Unit, the then-current Owner shall provide to the Albemarle County Housing Office a copy of the rental or lease agreement for each such unit rented that shows the rental rate for such unit and the term of the rental or lease agreement. In addition, during the Affordable Term, the then-current Owner shall provide to the County, if requested, any reports, copies of rental or lease agreements, or other data pertaining to rental rates as the County may reasonably require.

C. Cash in lieu of Constructing Affordable Dwelling Units. In lieu of constructing For-Sale, or For-Rent Affordable Dwelling Units for fifteen percent (15%) of the total number of Units, the Owner has the option to make a cash contribution to Albemarle County for the affordable housing program in the amount of Twenty-Four Thousand and Three Hundred Seventy Five Dollars ($24,375.00) (the "Affordable Housing Cash Proffer") for each such unit. The total cash contribution due to Albemarle County as noted above shall be based on the total number of affordable units built in the Project.

7. Cost Index.

Beginning January 1 of each year following the approval of this rezoning, the amount of each cash contribution required by Proffers 5 and 6 shall be adjusted annually until paid, to reflect any increase or decrease for the preceeding calendar year in the Marshall and Swift Building Cost Index ("MSI") for masonry walls in the Mid-Atlantic. The annual adjustment shall be made by multiplying the proffered cash contribution amount due for the preceding year by a fraction, the numerator of which shall be the MSI as of December 1 in the preceding calendar year, the denominator of which shall be the MSI as of December 1 in the year preceding the calendar year most recently ended (the "Annual Percentage Change"). By way of example, the first annual adjustment shall be Seven Thousand Three Hundred and Thirty Three Dollars and Eighteen Cents ($7,333.18) x 2018 MSI/2017 MSI. Each annual adjustment shall be based on the amount of the proffered cash contribution due for the immediately preceding year based on the formula contained in this Proffer 7 (the amount derived from such formula shall be referred to hereinafter as the "Cash Contribution Due"), provided, however, in no event shall the cash contribution amount paid by the Owner be less than Seven Thousand Three Hundred and Thirty Three Dollars and Eighteen Cents ($7,333.18) per single family detached dwelling unit and Five Thousand Four Hundred and Forty Seven Dollars and Fifty Seven Cents ($5,447.57) per single family attached dwelling unit and Seven Thousand Four Hundred and Nineteen Dollars and Ninety One Cents ($7,419.91) per multifamily dwelling unit under Proffer 5 or Twenty-Four Thousand and Three Hundred Seventy Five Dollars ($24,375.00) per affordable dwelling unit under Proffer 6 (the "Minimum Cash Contribution"). The Annual Percentage Change shall be calculated each year using the Cash Contribution Due, even though it may be less than the Minimum Cash Contribution, HOWEVER, the amount paid by the Owner shall not be less than the Minimum Cash Contribution. For each cash contribution that is being paid in increments, the unpaid incremental payments shall be correspondingly adjusted each year.

8. Credit For In-Kind Contributions.

Notwithstanding the provisions of these Proffers to the contrary, the Owner's obligation to pay Cash Contributions shall not commence until the number of units, to which such Cash Contributions apply have been completed that results in what would have been a total Cash Contribution equal to the value of: i) Eastern Avenue, and related improvements to be completed by Owner, ii) the Pedestrian Tunnel and iii) the Greenway Trail improvements, (collectively referred to as the "In-kind Contribution"). The In-Kind Contribution shall be One Million Two Hundred Thousand Dollars ($1,200,000.00). The In-kind Contribution reflects the value of the improvements that the Owner has committed to make pursuant to these proffers that are for the benefit of the public. The Owner shall not be required to pay any per unit Cash Contributions until the time of the issuance of the building permit for a new unit completed after applying the aforementioned credits for the In-kind Contribution. In the event that the Project is completed prior to the balance of the In-kind Contribution being exhausted, any remaining balance of the In-kind Contribution may not be applied for any other project or development.

The undersigned Owner(s) hereby proffer that the use and development of the Property shall be in conformance with the proffers and conditions herein above. This Proffer Statement may be executed in any number of counterparts, each of which shall be an original and all of which together shall constitute but one and the same instrument.

WITNESS the following signature:

OWNERS of Tax Map Parcel 05600-00-00-057B2:

By: _____
CHRISTOPHER DAILY

By: _____
EDMUND J. DAILY

By: _____
CYNTHIA L. DAILY DICANIO

Date: Feb 6 2017

OWNER of Tax Map Parcel 05600-00-00-057C0 & 056A2-01-00-06200:
ROUTE 240 HOLDINGS, LLC, a Virginia limited liability company

By: _____
ALAN TAYLOR, MANAGER AUTHORIZED OFFICER

Date: Feb 8, 2017

OWNER of Tax Map Parcel 056A2-01-00-06100:
ROUTE 240, LLC, a Virginia limited liability company

By: _____
ALAN TAYLOR, MANAGER AUTHORIZED OFFICER

Date: Feb 8, 2017

OWNER of Tax Map Parcel 056K0-00-00-0000A2:
FOOTHILLS CROSSING, INC., a Virginia corporation

By: _____
ALAN TAYLOR, MANAGER AUTHORIZED OFFICER

Date: Feb 8, 2017

21617007_5

Amended PROFFER STATEMENT

FOOTHILLS CROSSING

Date: March 28, 2022

ZMA#: 2021-0015

Parcel ID #: 056A2-01-00-06200

Owner of Record: Glenbrook LLC

Rezone Parcel ID # 056A2-01-00-06200, totaling approximately 1.89 acres, from R-6 Residential to R-6 Residential.

Total Land Area: 1.89 acres

The owner and applicant specifically deem the following proffers reasonable and appropriate, as conclusively evidenced by the signature(s) on this document.

The Proffer Statement for Foothills Crossing, ZMA 2016-05, dated February 6, 2017, and approved by the Albemarle County Board of Supervisors on February 8, 2017, shall remain in full effect, except that the development of Parcel ID # 056A2-01-00-06200 (the "Property") shall be in accord with the Application Plan prepared by Collins Engineering dated February 16, 2016 and last revised on February 18, 2022, exempting the Property from the Building Type requirements of ZMA 2016-05.

[Signature page follows]

The undersigned Owner(s) hereby proffer that the use and development of the Property shall be in conformance with the proffers and conditions herein above. This Proffer Statement may be executed in any number of counterparts, each of which shall be an original and all of which together shall constitute but one and the same instrument

WITNESS the following signature:

OWNER of Parcel ID # 056A2-01-00-06200:

Glenbrook, LLC, a Virginia limited liability company

By: Riverbend Development, Inc.

Its: President

By: _____

Alan R. Taylor

Its: President

Date: 3/29/2022

County of Albemarle
Community Development Department - Planning

Mariah Gleason
mgleason@albemarle.org
Telephone: (434) 296-5832 ext. 3097

February 12, 2024

Scott Collins
Collins Engineering
200 Garrett Street, Suite K
Charlottesville VA 22902
scott@collins-engineering.com

RE: SE202300040 Glenbrook at Foothills Phase IV Action Letter

Dear Mr. Collins,

On February 7, 2024 the Board of Supervisors took action on your Special Exception on Tax Map Parcel Number 056A2-01-00-062R0 in the White Hall District.

The Special Exception was approved by the Board's adoption of the attached Resolution.

Please be advised that although the Albemarle County Board of Supervisors took action on the project noted above, no uses on the property may lawfully begin until all applicable approvals have been received and conditions have been met. This includes:

- **compliance with the approved SPECIAL EXCEPTION**
- **approval of and compliance with a SITE PLAN; and**
- **approval of a ZONING COMPLIANCE CLEARANCE.**

Should you have questions regarding the above-noted action, please contact me.

Sincerely,
Mariah Gleason
Senior Planner II
Planning Division

CC: Glenbrook LLC
PO Box 1467
Charlottesville VA 22902

RESOLUTION TO APPROVE
SE 2023-00040 GLENBROOK AT FOOTHILLS
PHASE IV

WHEREAS, upon consideration of the staff reports prepared for SE2023-00040 Glenbrook at Foothills Phase IV and the attachments thereto, including staff's supporting analysis, any comments received, and all relevant factors in Albemarle County Code §§ 18-4.19 and 18-33.9, the Albemarle County Board of Supervisors hereby finds that the proposed special exception:

(i) would be consistent with the intent and purposes of the R-6 Residential district under the particular circumstances and satisfy all other applicable requirements of Albemarle County Code § 18-4.19;
(ii) would be consistent with R-6 Residential district design principles; and
(iii) would not adversely affect the public health, safety, or general welfare.

NOW, THEREFORE, BE IT RESOLVED that the Albemarle County Board of Supervisors hereby approves a special exception to modify the 20-foot minimum rear setback requirement of County Code § 18-4.19 to 10 feet on existing Parcel 056A2-01-00-062R0 for proposed Lots 118 and 121-133, as shown on the "Glenbrook at Foothills Phase IV – Initial Site Plan & Prelim. Plat" by Collins Engineering, dated October 16, 2023.

I, Claudette K. Borgersen, do hereby certify that the foregoing writing is a true, correct copy of a Resolution duly adopted by the Board of Supervisors of Albemarle County, Virginia, by a vote of six to zero, as recorded below, at a regular meeting held on February 7, 2024.

Claudette K. Borgersen
Clerk, Board of County Supervisors

	Aye	Nay
Mr. Andrews	Y	
Mr. Gallaway	Y	
Ms. LaPisto-Kirtley	Y	
Ms. Mallek	Y	
Ms. McKeel	Y	
Mr. Pruitt	Y	

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT
GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

SHEET
PROFFERS

JOB NO.
112066

SCALE
N/A

SHEET NO.
2

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THREE NOTCH'D
ROAD-ROUTE 240

CSX RAILROAD

MANAGED STEEP SLOPES

20' PRIVATE DRAINAGE EASEMENT
INST. #: 202200012613 TO BE VACATED

20' WATERLINE EASEMENT
D.B. 611, PG. 440
D.B. 692, PG. 148

EXISTING LOT LINES FOR LOTS 116-120
(INST. #: 202200012613) TO BE VACATED

10' PRIVATE DRAINAGE EASEMENT
INST. #: 202200012613 TO BE VACATED

S89° 59' 55.10"W
59.850'

216.074'
S89° 59' 59.00"W

S3° 39' 13.00"W
29.857'

0.12 AC. PORTION OF GLENBROOK PHASE III
TO BE DEDICATED TO TMP-56A2-01-62R
SEE GLENBROOK AT FOOTHILLS
PHASE III SITE PLAN AMENDMENT
#1

10' PRIVATE DRAINAGE EASEMENT
INST. #: 202200012613

10' PRIVATE DRAINAGE EASEMENT
INST. #: 202200012613

20' ACSA UTILITY EASEMENT
INST. #: 202200012613 TO BE VACATED

LEEHAM COURT

20' ACSA UTILITY EASEMENT
INST. #: 202200012613 TO BE VACATED

S27° 46' 16.96"W
23.042'

LOT 120
LOT 119
LOT 118
LOT 117
LOT 116

S25° 50' 28.40"E
108.476'

PORTION OF 20' ACSA UTILITY EASEMENT
INST. #: 202200012613 TO BE VACATED

OVERHEAD
ELECTRIC LINE
TO BE
RELOCATED

ANLEE ROAD

EXISTING LOTS (TYP.)
INST. #: 202200012613

LOT 115 LOT 114 LOT 113 LOT 112 LOT 111
LOT 110 LOT 109 LOT 108 LOT 107 LOT 106 LOT 105 LOT 104 LOT 103 LOT 102 LOT 101 LOT 100 LOT 99 LOT 98

EXISTING R/W
INST. #: 202200012613
TO BE VACATED

GLENBROOK AT FOOTHILLS, PHASE III

10' PRIVATE DRAINAGE EASEMENT
INST. #: 202200012613

L=16.348, R=85.500
Δ=10.955°

TMP: 056A2-01-00-062R0
OWNER: GLENBROOK, LLC
ACREAGE: 2.162 AC.
ZONING: R-6 RESIDENTIAL
INSTRUMENT #: 202200012613
USE: VACANT RESIDENTIAL

056A2-01-00-06300
UNION MISSION
BAPTIST
CHURCH
0.40 ACRES
ZONING: R-2
RESIDENTIAL
D.B. 371 PG. 553

EXISTING SANITARY
SEWER TO REMAIN

EX. PARK RIDGE DRIVE R/W
DB. 4972 PG.726

PARK RIDGE DRIVE

EXISTING WATER
SERVICES
TO REMAIN.

S3° 39' 13.08"W
45.631'

VAR. WIDTH UTILITY,
DRAINAGE, & ACCESS EASEMENT
INST. #: 202200012613 TO BE
VACATED

LEEHAM STREET

0.12 AC. PORTION OF TMP-56A2-01-62R TO
BE DEDICATED TO GLENBROOK PHASE III
SEE GLENBROOK AT FOOTHILLS
PHASE III SITE PLAN AMENDMENT #1

S37° 37' 18.63"W
115.139'

EXISTING
STORM SEWER
TO BE REMOVED

EXISTING FIRE
HYDRANT TO REMAIN

GLENBROOK AT FOOTHILLS, PHASE IV

N24° 08' 09.96"E
433.792'

056A2-01-00-06400
UNION MISSION
BAPTIST
CHURCH
1.00 ACRES
ZONING: R-2
RESIDENTIAL
D.B. 159 PG. 294

TMP: 056K0-00-03-000B0
OWNER: GLENBROOK, LLC
ACREAGE: 0.429 AC.
ZONING: R-6 RESIDENTIAL
INSTRUMENT #: 202200012613
USE: OPEN SPACE

EXISTING CURBING AT
ROADWAY
INTERSECTION TO BE
REMOVED

S51° 06' 21.08"E
89.255'

EXISTING STORM
SEWER
TO REMAIN

GLENBROOK AT FOOTHILLS, PHASE III

20' ACSA UTILITY EASEMENT
TO BE VACATED
INST.
#: 202200012613

L=208.701, R=519.500
Δ=23.0177°
EXISTING MANHOLE
TO BE REMOVED

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.

S89° 53' 07.00"E
13.583'

GLENBROOK AT
FOOTHILLS - PHASE III
UNDER CONSTRUCTION

EXISTING 20' ACSA
SANITARY SEWER
EASEMENT
D.B. 5075, PG. 664

HUMBOLDT STREET

MEYERS COURT

MARBOLEDA DRIVE

N02° 44' 13"E
730.07'

537.48'

LOT 121 LOT 122 LOT 123 LOT 124 LOT 125 LOT 126 LOT 127 LOT 128 LOT 129 LOT 130 LOT 131 LOT 132 LOT 55

LOT 97 LOT 96 LOT 95 LOT 94 LOT 93 LOT 92 LOT 91 LOT 90 LOT 89 LOT 88 LOT 87 LOT 86 LOT 85 LOT 84 LOT 83 LOT 82 LOT 81 LOT 80 LOT 79 LOT 78 LOT 77 LOT 76 LOT 56 LOT 57 LOT 58 LOT 59 LOT 60 LOT 61 LOT 62 LOT 63 LOT 64 LOT 65 LOT 66 LOT 67 LOT 68 LOT 69 LOT 70 LOT 71 LOT 72 LOT 21 LOT 22 LOT 23 LOT 24 LOT 20 LOT 19

NOTES:
1. THIS PROJECT IS NOT LOCATED WITHIN FLOODPLAIN LIMITS, BASED ON FEMA MAP NUMBER 51003C0229D ADOPTED FEBRUARY 4, 2005.
2. TOPOGRAPHY PROVIDED BY A COMBINATION OF ROUDABUSH & GALE AND LOUISA AERIAL SURVEYS. THE BOUNDARY LINE INFORMATION IS PROVIDED BY ROUDABUSH, GALE & ASSOCIATES IN OCTOBER 2023. TOPOGRAPHY WAS UPDATED IN OCTOBER 2023 WITH FIELD SURVEY AND HAS BEEN FIELD VERIFIED IN OCTOBER 2023.
3. NO PRESERVED STEEP SLOPES ARE LOCATED ON THE PROPERTY. THE MANAGED STEEP SLOPE IS LABELED.
4. 100' WPO STREAM BUFFER IS SHOWN. THE 100' WPO STREAM BUFFER IS BASED ON THE FIELD SURVEY OF THE EXISTING STREAM. THE STREAM WAS LOCATED BY ROUDABUSH, GALE & ASSOCIATES.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT: GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

SHEET: EXISTING CONDITIONS

JOB NO. 112066
SCALE 1" = 30'
SHEET NO. 3

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COLLINS ENGINEERING

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

REVISIONS	
DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

COMMONWEALTH OF VIRGINIA
SCOTT A. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

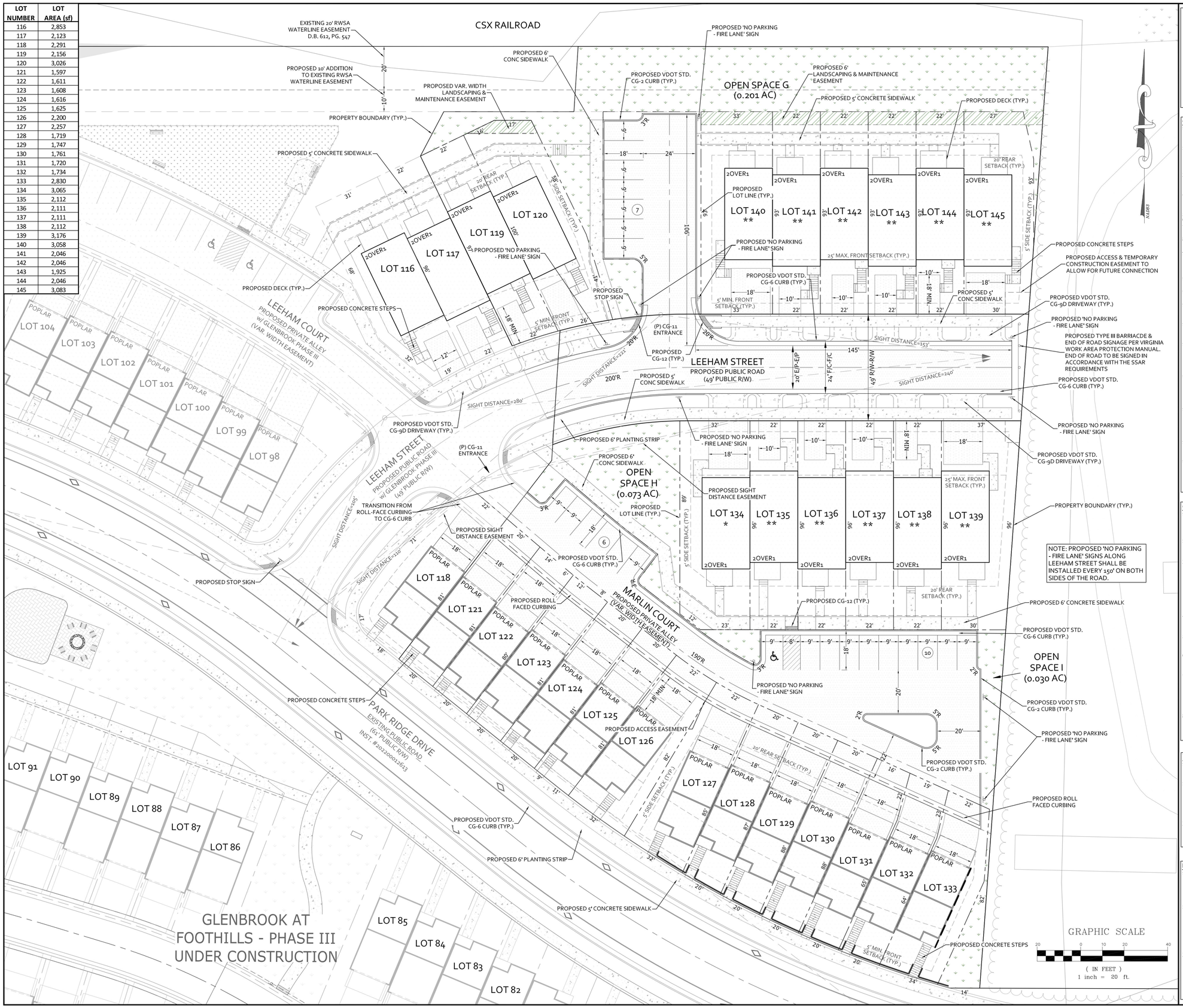
PROJECT
GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

SHEET
OVERALL DEVELOPMENT PLAN

JOB NO. 112066
SCALE 1" = 60'
SHEET NO. 4

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LOT NUMBER	LOT AREA (sf)
116	2,853
117	2,123
118	2,291
119	2,156
120	3,026
121	1,597
122	1,611
123	1,608
124	1,616
125	1,625
126	2,200
127	2,257
128	1,719
129	1,747
130	1,761
131	1,720
132	1,734
133	2,830
134	3,065
135	2,112
136	2,111
137	2,111
138	2,112
139	3,176
140	3,058
141	2,046
142	2,046
143	1,925
144	2,046
145	3,083



AFFORDABLE HOUSING NOTE:

* THE ASTERISK SYMBOL DENOTES THE BASEMENT UNIT WITHIN THE TWO-FAMILY ATTACHED UNIT THAT WILL BE AN AFFORDABLE UNIT (FOR SALE OR FOR RENT AFFORDABLE UNIT). THE DEVELOPER WILL COMPLY WITH THE ALBEMARLE COUNTY AFFORDABLE HOUSING REQUIREMENTS FOR THE FOR RENT OR FOR SALE UNIT.

** THE DOUBLE ASTERISK SYMBOL DENOTES BOTH THE BASEMENT UNIT AND UPPER UNIT WITHIN THE TWO-FAMILY ATTACHED UNIT WILL BE AFFORDABLE UNITS (FOR SALE OR FOR RENT AFFORDABLE UNIT). THE DEVELOPER WILL COMPLY WITH THE ALBEMARLE COUNTY AFFORDABLE HOUSING REQUIREMENTS FOR THE FOR RENT OR FOR SALE UNIT.

GENERAL CONSTRUCTION NOTES:

1. THE STREAM BUFFER(S) SHOWN HERON SHALL BE MANAGED IN ACCORDANCE WITH THE ALBEMARLE COUNTY WATER PROTECTION ORDINANCE.
2. CONTRACTOR SHALL VERIFY ALL ROAD CONNECTIONS, INCLUDING RECENTLY CONSTRUCTED AREAS, VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.
3. CONTRACTOR SHALL CONFIRM ALL UTILITY, DRAINAGE, AND ROAD CONNECTIONS, AND SHALL NOTIFY ENGINEER OF ANY TIE-IN ISSUES OR DISCREPANCIES.
4. ALL WATERLINE, SEWER LINES, AND FIRE LINES FROM THE MAIN TO THE STRUCTURE MUST HAVE A VISUAL INSPECTION PERFORMED BY THE BUILDING DEPARTMENT.
5. 1 REPRESENTS ONE PROPOSED PARKING SPACE.
6. (*) REPRESENTS ONE LOWER LEVEL AFFORDABLE UNIT.
7. OVERHEAD WIRING OR OTHER OBSTRUCTIONS SHALL BE HIGHER THAN 13'-6".
8. ALL PAVEMENT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS WEIGHING 85,000 LBS.
9. CONTRACTOR SHALL ENSURE ALL ON-SITE UTILITIES, ABOVE AND BELOW GROUND, SERVICING ADJACENT PROPERTIES SHALL CONTINUE TO SERVICE THE ADJACENT PROPERTIES THROUGHOUT CONSTRUCTION AND UPON COMPLETION OF THE PROJECT TO THE FULLEST EXTENT POSSIBLE.
10. SEE SHEET 3 FOR COMPLETE PROJECT BOUNDARY DIMENSIONS AND METES AND BOUNDS.
11. CURB RADII SHOWN, REPRESENTED WITH AN 'R', DIMENSION THE FACE OF CURB.
12. VISIBILITY OF ALL MECHANICAL EQUIPMENT FROM THE ENTRANCE CORRIDOR SHALL BE ELIMINATED. ALL MECHANICAL EQUIPMENT SHALL BE SCREENED FROM THE ENTRANCE CORRIDOR.
13. ALL RETAINING WALLS GREATER THAN 3 FEET IN HEIGHT REQUIRE A SEPARATE BUILDING PERMIT. WALLS EXCEEDING 4 FEET IN HEIGHT REQUIRE A STAMPED ENGINEERED DESIGN FOR THE WALLS SYSTEM.
14. BUILDINGS OR STRUCTURES BUILT BEFORE JANUARY 1, 1985 MUST HAVE AN ASBESTOS SURVEY PERFORMED IN ORDER TO APPLY FOR A DEMOLITION PERMIT. ASBESTOS REMOVAL PERMITS ARE REQUIRED IF POSITIVE FOR SUCH. CONTACT VDOLI FOR ADDITIONAL REQUIREMENTS AND PERMITS FOR DEMOLITION PROJECTS.
15. ALL PRIVATE TRAVELWAYS SHALL BE OWNED AND MAINTAINED BY THE APARTMENT COMPLEX OR HOMEOWNERS ASSOCIATION. NO PUBLIC AGENCY, INCLUDING VDOT AND THE COUNTY OF ALBEMARLE WILL BE RESPONSIBLE FOR MAINTAINING THE TRAVELWAYS WITHIN THE APARTMENT COMPLEX.
16. ALL PUBLIC WATER AND SANITARY SEWER FACILITIES SHALL BE DEDICATED TO PUBLIC USE AND THE EASEMENTS FOR THOSE FACILITIES, AS IDENTIFIED ON THIS PLAN, SHALL BE DEDICATED TO THE ALBEMARLE COUNTY SERVICE AUTHORITY. THE ONSITE SANITARY SEWER IS A PRIVATE UTILITY AND NO EASEMENTS ARE REQUIRED.
17. ALL PRIVATE YARD DRAIN DESIGN INFORMATION (INCLUDING INVERTS OF THE SYSTEM) SHALL BE PROVIDED BY THE CIVIL ENGINEER DURING CONSTRUCTION.
18. IN ACCORDANCE WITH CURRENT COUNTY CODE, IF THE DEMARCATED AREA FOR THE CONCRETE BACKYARD PATIOS FOR EACH SINGLE FAMILY UNIT FALLS WITHIN THE REAR YARD SETBACK, IT MAY ONLY BE DEVELOPED AS A PATIO. NOTE: DECKS AND COVERED PORCHES MAY EXTEND 4' INTO THE REAR YARD SETBACK.

CONSTRUCTION FIRE PREVENTION NOTES:

1. SMOKING SHALL BE PROHIBITED IN AREAS WHERE SMOKING MAKES CONDITIONS SUCH AS TO MAKE SMOKING A HAZARD AND THESE AREAS SHALL BE DESIGNATED WITH NO SMOKING SIGNS PER VIRGINIA STATEWIDE FIRE PREVENTION CODE.
2. AREAS WHERE SMOKING CAN OCCUR, SHALL HAVE APPROPRIATE RECEPTACLES FOR DISCARDED SMOKING MATERIALS PER VIRGINIA STATEWIDE FIRE PREVENTION CODE.
3. PER THE VIRGINIA STATEWIDE FIRE PREVENTION CODE, VEHICULAR ACCESS FOR FIREFIGHTING SHALL BE PROVIDED AT ALL CONSTRUCTION AND DEMOLITION SITES, PROVIDE ACCESS TO WITHIN 100 FT. OF TEMPORARY OR PERMANENT FIRE DEPARTMENT CONNECTIONS, AND HAVE NO OVERHEAD WIRING OR OTHER OVERHEAD OBSTRUCTIONS LOWER THAN 13FT 6 INCHES; THIS ACCESS MAY BE VIA PERMANENT OR TEMPORARY ROAD, BUT SHALL BE CAPABLE OF SUPPORTING FIRE APPARATUS IN ALL WEATHER CONDITIONS.
4. CONTRACTOR SHALL ENSURE THE STREET NUMBERS ARE ALWAYS VISIBLE FROM THE FRONTAGE STREET DURING CONSTRUCTION PER THE VIRGINIA STATEWIDE FIRE CODE.
5. AN APPROVED WATER SUPPLY FOR FIREFIGHTING OPERATIONS SHALL BE IN PLACE AND AVAILABLE AS SOON AS COMBUSTIBLE MATERIALS ARRIVE ON SITE.
6. WASTE AND COMBUSTIBLE DEBRIS SHALL BE REMOVED FROM THE BUILDING AT THE END OF EACH DAY AND DISPOSED OF IN ACCORDANCE WITH THE VIRGINIA STATEWIDE FIRE CODE.
7. FIRE EXTINGUISHERS SHALL BE PROVIDED, WITH NOT LESS THAN ONE APPROVED FIRE EXTINGUISHER AT EACH STAIRWELL, ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED, IN EVERY STORAGE AND CONSTRUCTION SHED AND IN ARES OF SPECIAL; HAZARD, SUCH AS WHERE FLAMMABLE AND COMBUSTIBLE LIQUIDS ARE STORED OR USED, IN ACCORDANCE WITH THE VIRGINIA STATEWIDE FIRE CODE.
8. OPERATIONS INVOLVING THE USE OF CUTTING AND WELDING SHALL COMPLY WITH THE VIRGINIA STATEWIDE FIRE PREVENTION CODE AND SHALL REQUIRE A PERMIT FROM THE ALBEMARLE COUNTY FIRE MARSHAL'S OFFICE.

VDOT NOTES:

1. VDOT WILL ONLY MAINTAIN WITHIN DRAINAGE EASEMENTS TO THE EXTENT NECESSARY TO PROTECT THE ROADWAY FROM FLOODING OR DAMAGE.
2. A MOT PLAN SHALL BE PROVIDED PRIOR TO THE START OF CONSTRUCTION FOR ANY WORK ON EXISTING ROADWAYS THAT HAVE BEEN ACCEPTED BY VDOT. CURRENTLY, THE EXISTING ROADWAY INTERSECTIONS FOR THIS DEVELOPMENT ARE UNDER CONSTRUCTION AND HAVE NOT YET BEEN ACCEPTED BY VDOT. NO MOT PLAN IS REQUIRED AT THIS TIME FOR THE IMPROVEMENTS AT THE ENTRANCES.
3. IF A TRAFFIC MAINTENANCE PLAN (TMP) IS REQUIRED, THEN IT SHALL BE PREPARED BY AN ADVANCED WORK ZONE CERTIFIED PERSON, CERTIFICATION CARD AND VERIFICATION NUMBER IS REQUIRED ON THE TMP SUBMITTAL.

LIGHTING NOTES:

1. THE PROPOSED UNITS SHALL HAVE A WALL MOUNTED OUTDOOR LIGHTING FIXTURE ON EITHER SIDE OF THE ENTRANCE DOOR TO THE BUILDING AND ON EITHER SIDE OF THE GARAGE. WALL MOUNTED LIGHTING FIXTURE SHALL BE EQUIVALENT TO THE FIXTURE SHOWN ON SHEET 6. THE COLOR OF THE LIGHTING FIXTURE SHALL BE BLACK.
2. THE PROPOSED LUMENS FROM THE WALL MOUNTED LIGHTING FIXTURE SHALL BE BETWEEN 1100 LUMENS AND 2500 LUMENS. THE TOTAL LUMENS WILL NOT EXCEED 3000 LUMENS. IF THE WALL MOUNTED FIXTURES EXCEED 3000 LUMENS OR IF ADDITIONAL SITE LIGHTING IS INSTALLED IN THE FUTURE, THE LIGHTING SHALL COMPLY WITH ALBEMARLE COUNTY LIGHTING REQUIREMENTS AND SHALL BE A FULL CUT-OFF FIXTURE IS THE LUMENS EXCEED 3,000 LUMENS.
3. EACH OUTDOOR LUMINAIRE EQUIPPED WITH A LAMP THAT EMITS 3,000 OR MORE INITIAL LUMENS SHALL BE A FULL CUT-OFF LUMINAIRE AND SHALL BE ARRANGED OR SHIELDED TO REFLECT LIGHT AWAY FROM ADJOINING RESIDENTIAL DISTRICTS AND ADJACENT ROADS. THE SPILLOVER OF LIGHTING FROM LUMINAIRES ONTO PUBLIC ROADS AND PROPERTY IN RESIDENTIAL OR RURAL AREAS ZONING DISTRICTS SHALL NOT EXCEED ONE-HALF FOOTCANDLE.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

REVISION DESCRIPTION	DATE
FINAL SITE PLAN - 1ST SUBMISSION	2/16/24

CE COLLINS ENGINEERING
200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902 -434.293.3719

PROJECT: GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN
SHEET: SITE PLAN

JOB NO. 112066
SCALE 1" = 20'
SHEET NO. 5

20' RWSA WATER EASEMENT
D.B.612, PG.547

PROPOSED 10' ADDITION TO
EXISTING RWSA WATERLINE EASEMENT

CSX RAILROAD

OPEN SPACE A
0.422 ACRES

OPEN SPACE G
(0.201 AC)

DOG PARK
AMENITY AREA
PHASE III

LOT 104
LOT 103
LOT 102
LOT 101
LOT 100
LOT 99
LOT 98

LOT 120
LOT 119
LOT 117
LOT 116

LOT 140
LOT 141
LOT 142
LOT 143
LOT 144
LOT 145

LOT 134
LOT 135
LOT 136
LOT 137
LOT 138
LOT 139

LOT 118
LOT 121
LOT 122
LOT 123
LOT 124
LOT 125
LOT 126
LOT 127
LOT 128
LOT 129
LOT 130
LOT 131
LOT 132
LOT 133

LEEHAM COURT
PRIVATE ALLEY (VAR. WIDTH EASEMENT)
GLENBROOK - PHASE III

LEEHAM STREET
PUBLIC ROAD (49' R/W)

LEEHAM STREET
PUBLIC ROAD (49' R/W)
GLENBROOK - PHASE III

OPEN
SPACE H
(0.073 AC)

MARLIN COURT
PRIVATE ALLEY (VAR. WIDTH
EASEMENT)

OPEN
SPACE I
(0.030 AC)

PARK RIDGE DRIVE
PUBLIC ROAD (61' R/W)
INST. #20220001263

HUMBOLDT STREET
PRIVATE ROAD (30' R/W)

GLENBROOK AT
FOOTHILLS - PHASE III
UNDER CONSTRUCTION

13+00
24+00
25+00
MH-43
11+00
12+00
10+00
MH-44
TIE-IN TO MH INSTALLED w/
PHASE III DEVELOPMENT
8" PVC SANITARY SEWER PROPOSED w/ PHASE III DEVELOPMENT
PROPOSED SANITARY SEWER SERVICE LATERAL (TYP.)
PROPOSED WATER SERVICE LATERAL (TYP.)
ACSA SANITARY SEWER EASEMENT -
20' CENTERED ON AS-BUILT LOCATION -
HEREBY DEDICATED TO THE ACSA
INST. NO.
8" DI WATERLINE PROPOSED
WITH PHASE III DEVELOPMENT
REMOVE PHASE III TYPE A
BLOW-OFF ASSEMBLY &
TIE-IN TO 8" DI WATERLINE
PROPOSED FIRE HYDRANT
ASSEMBLY w/ 8"x6" TEE
PROPOSED 8" CL. 52 DI WATERLINE
PROPOSED WATER SERVICE LATERAL (TYP.)
PROPOSED 8" 11.25° BEND
PROPOSED TYPE A
BLOW-OFF ASSEMBLY
PROPOSED 8" PVC SANITARY SEWER
NEW ACSA SANITARY SEWER EASEMENT -
20' CENTERED ON AS-BUILT LOCATION -
HEREBY DEDICATED TO THE ACSA
INST. NO.
MH-46
13+00
16+00
MH-47
TIE-IN TO MH INSTALLED w/
PHASE III DEVELOPMENT
PROPOSED SANITARY SEWER SERVICE LATERAL (TYP.)
EXISTING FIRE HYDRANT
17+00
18+00
MH-48
EXISTING 8" DI WATERLINE
PROPOSED SANITARY SEWER SERVICE LATERAL (TYP.)
PROPOSED WATER SERVICE LATERAL (TYP.)
EX-MH-45 TO BE REMOVED
PROPOSED SANITARY SEWER SERVICE LATERAL (TYP.)
EXISTING FIRE HYDRANT LOCATED
137' AWAY ALONG PARK RIDGE DRIVE
NEW PRIVATE SANITARY SEWER EASEMENT -
10' CENTERED ON AS-BUILT LOCATION -
INST. NO.
MH-45
TIE-IN PROPOSED MANHOLE TO
EXISTING 8" PVC SANITARY SEWER

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

Rivanna Water & Sewer Authority (RWSA)
General Water & Sanitary Sewer Notes
Last Revised: April 2016

1. All materials and methods of construction shall comply with the latest version of the General Water and Sewer Design and Construction Standards - Version 1.0, adopted in December 2015, except as modified below or modified in special notes.
2. RWSA shall approve all construction materials and methods of construction. A preconstruction conference shall be held with RWSA prior to the start of any work.
3. The contractor shall be responsible for notifying Miss Utility (1-800-552-7001).
4. RWSA Engineer (Dyon Vega at (434) 977-2970 ext. 170) shall be notified three business days prior to the start of construction.
5. All work is subject to inspection by RWSA staff. No tie-ins to the existing system shall be made without coordination with and the presence of RWSA staff. No work shall be conducted on RWSA facilities on weekends or holidays without special written permission from RWSA.
6. For sanitary sewer line construction: RWSA may require bypass pumping for tie-ins to the existing system. All doghouse manholes must be pressure-tested before a connection is made to the system.
7. The location of existing utilities as shown on the plans is from data available at the time of design and is not necessarily complete or accurate. The Contractor shall be responsible for the verification of the location, size and depth of all existing utilities, both surface and subsurface. The Contractor shall immediately notify the Engineer of any discrepancies between the plans and field conditions. The Contractor shall use due diligence to protect all utilities and structures from damage at all times, whether shown on the plans or not. Damage to any existing utilities shall be repaired by the Contractor to the original condition at no additional cost to the Owner.
8. Erosion and sediment control facilities shall not be permitted in the RWSA easement without special written permission from RWSA. No grading shall be permitted in the RWSA easement unless permitted otherwise by RWSA in writing.
9. No blasting shall be permitted within 100 feet of RWSA facilities without written permission and RWSA approval of the blasting plan. Ground monitoring during blasting and a pre-blast survey may be required. For blasting within 100 feet of any operative RWSA sewerlines, bypass pumping and/or pre- and post-CCTV may be required. RWSA may also require certification from a licensed professional engineer stating that the proposed blasting will not damage any RWSA facilities. Damage to any utilities due to blasting shall be repaired by the Contractor to the original condition at no additional cost to the Owner.
10. The contractor shall observe minimum separation requirements for utility crossings. When a crossing is made under an existing facility, adequate structural support shall be provided for the existing pipe. The area of the crossing shall be backfilled with compacted 57 stone to the springline of the existing pipe.
11. New water main installations shall be pressure tested, chlorinated, flushed and have water samples approved prior to making any permanent connection to the public water system. Approved methods of filling and flushing new water mains will be required to prevent any contamination of the public water system.
12. All easements for new RWSA facilities shall be recorded prior to placing the new facilities into service.
13. No permanent structural facilities will be permitted in the RWSA easement. This includes building overhangs, retaining walls, footers for any structure, drainage structures, etc.
14. Trees are not permitted in the RWSA easement.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT: GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN
SHEET: UTILITY PLAN

JOB NO. 112066
SCALE 1" = 20'
SHEET NO. 6

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20' RWSA WATER EASEMENT
D.B.612, PG.547

PROPOSED 10' ADDITION TO
EXISTING RWSA WATERLINE EASEMENT

PROPOSED TEMPORARY ORANGE
TREE PROTECTION FENCING

12" HDPE YARD DRAIN SYSTEM w/
10' PRIVATE DRAINAGE EASEMENT
INST. # _____

OPEN SPACE G
(0.201 AC)

PROPOSED STEPS (TYP.)

DOG PARK AMENITY
AREA
PHASE III

LOT 140
698.50 FFE
688.67 BSMT

LOT 141
699.17 FFE
689.33 BSMT

LOT 142
699.84 FFE
690.00 BSMT

LOT 143
700.50 FFE
690.67 BSMT

LOT 144
701.18 FFE
691.33 BSMT

LOT 145
701.82 FFE
692.00 BSMT

8" HDPE ROOF DRAIN SYSTEM w/
10' PRIVATE DRAINAGE EASEMENT
INST. # _____

20' PRIVATE DRAINAGE EASEMENT
INST. # _____

8" HDPE ROOF DRAIN SYSTEM w/
10' PRIVATE DRAINAGE EASEMENT
INST. # _____

LOT 116
689.33 FFE
679.50 BSMT

LOT 117
690.67 FFE
680.84 BSMT

LOT 119
692.00 FFE
682.18 BSMT

LOT 120
693.33 FFE
683.50 BSMT

PROPOSED STEPS (TYP.)

LEEHAM COURT
PRIVATE ALLEY (VAR. WIDTH EASEMENT)
GLENBROOK - PHASE III

LEEHAM STREET
PUBLIC ROAD (49' R/W)

PROPOSED ROAD DRAINAGE SYSTEM

TIE-IN TO PHASE III
STUB PIPE

LOT 104
LOT 103
LOT 102
LOT 101
LOT 100
LOT 99
LOT 98

20' PUBLIC DRAINAGE EASEMENT
INST. # _____

LEEHAM STREET
PUBLIC ROAD (49' R/W)
GLENBROOK - PHASE III

TIE-IN TO PHASE III
STUB PIPE

20' PUBLIC DRAINAGE EASEMENT
INST. #: _____

OPEN
SPACE H
(0.073 AC)

LOT 134
691.67 FFE
681.84 BSMT

LOT 135
692.33 FFE
682.50 BSMT

LOT 136
693.00 FFE
683.17 BSMT

LOT 137
693.67 FFE
683.84 BSMT

LOT 138
694.33 FFE
684.50 BSMT

LOT 139
694.33 FFE
684.50 BSMT

20' PRIVATE DRAINAGE EASEMENT
INST. # _____

LOT 118
681.67 GAR
682.33 FFE

LOT 121
681.67 GAR
682.33 FFE

LOT 122
681.67 GAR
682.33 FFE

LOT 123
681.00 GAR
681.67 FFE

LOT 124
681.00 GAR
681.67 FFE

LOT 125
681.00 GAR
681.67 FFE

LOT 126
681.00 GAR
681.67 FFE

8" HDPE ROOF DRAIN SYSTEM w/
10' PRIVATE DRAINAGE EASEMENT
INST. # _____

8" HDPE ROOF DRAIN SYSTEM w/
10' PRIVATE DRAINAGE EASEMENT
INST. # _____

OPEN
SPACE I
(0.030 AC)

MARLIN COURT
PRIVATE ALLEY (VAR. WIDTH EASEMENT)

LOT 127
681.83 GAR
682.50 FFE

LOT 128
681.83 GAR
682.50 FFE

LOT 129
681.83 GAR
682.50 FFE

LOT 130
682.50 GAR
683.17 FFE

LOT 131
683.17 GAR
683.83 FFE

LOT 132
683.17 GAR
683.83 FFE

LOT 133
683.17 GAR
683.83 FFE

8" HDPE ROOF DRAIN SYSTEM w/
10' PRIVATE DRAINAGE EASEMENT
INST. # _____

PROPOSED STEPS (TYP.)

PARK RIDGE DRIVE
PUBLIC ROAD (62' R/W)
INST. #202200031623

8" HDPE ROOF DRAIN SYSTEM w/
10' PRIVATE DRAINAGE EASEMENT
INST. # _____

PROPOSED WALL
(MAX. HT.=3')

HUMBOLDT STREET
PRIVATE ROAD (30' R/W)

GLENBROOK AT
FOOTHILLS - PHASE III
UNDER CONSTRUCTION

VDOT WILL ONLY MAINTAIN WITHIN DRAINAGE EASEMENTS TO THE EXTENT NECESSARY TO PROTECT THE ROADWAY FROM FLOODING OR DAMAGE.

NOTE: SLOPES GREATER THAN 3:1 SHALL BE PLANTED WITH NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS BY ERNST CONSERVATION SEEDS AT A RATE OF 60 LBS. PER ACRE, OR 1 LB. PER 1,000 SF.

NOTE: DRAINAGE INLETS SHALL BE INSTALLED A MINIMUM OF 2' FROM DRIVEWAY ENTRANCES TO ALLOW FOR ADEQUATE CURB TIE-IN.

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT
GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

SHEET
GRADING & DRAINAGE PLAN

JOB NO. 112066
SCALE 1" = 20'
SHEET NO. 7

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GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

County of Albemarle
Conservation Plan Checklist – To be placed on Landscape Plans
(Handbook, pp III-284-111-297 for complete specifications)

1. **The following items shall be shown on the plan:**
   - ☑ Trees to be saved;
   - ☑ Limits of clearing (outside dripline of trees to be saved);
   - ☑ Location and type of protective fencing;
   - ☑ Grade changes requiring tree wells or walls;
   - ☑ Proposed trenching or tunneling beyond the limits of clearing.
2. **Markings:**
   - ☑ All trees to be saved shall be marked with print or ribbon at a height clearly visible to equipment operators.
   - ☑ No grading shall begin until the tree marking has been inspected and approved by a County Inspector.
3. **Pre-Construction Conference:**
   - ☑ Tree preservation and protection measures shall be reviewed with the contractor on site.
4. **Equipment Operation and Storage:**
   - ☑ Heavy equipment, vehicular traffic and storage of construction materials including soil shall not be permitted within the driplines of trees to be saved.
5. **Soil Erosion and Stormwater Detention Devices:**
   - ☒ Such devices shall not adversely affect trees to be saved.
6. **Fires:**
   - ☑ Fires are not permitted within 100 feet of the dripline of trees to be saved.
7. **Toxic Materials:**
   - ☒ Toxic materials shall not be stored within 100 feet of the dripline of trees to be saved.
8. **Protective Fencing:**
   - ☒ Trees to be retained within 40 feet of a proposed building or grading activity shall be protected by fencing.
   - ☐ Fencing shall be in place and shall be inspected and approved by a County Inspector prior to grading or construction.
9. **Tree Wells:**
   - ☒ When the ground level must be raised within the dripline of a tree to be saved, a tree well shall be provided and a construction detail submitted for approval.
10. **Tree Walls:**
    - ☒ When the ground level must be lowered within the dripline a tree to be saved, a tree wall shall be provided; and a construction detail submitted for approval.
11. **Trenching and Tunneling:**
    - ☒ When trenching is required within the limits of clearing, it shall be done as far away from the trunks of trees as possible. Tunneling under a large tree shall be considered as an alternative when it is anticipated that necessary trenching will destroy feeder roots.
12. **Cleanup:**
    - ☒ Protective fencing shall be the last items removed during the final cleanup.
13. **Damaged Trees:**
    - ☒ Damaged trees shall be treated immediately by pruning, fertilization or other methods recommended by a tree specialist.

NOTE: IT IS THE DEVELOPER'S RESPONSIBILITY TO CONFER WITH THE CONTRACTOR ON TREE CONSERVATION REQUIREMENTS.

OWNER SIGNATURE **(DATE)**

CONTRACT PURCHASER SIGNATURE **(DATE)**

5/1/06 Page 1 of 1

LANDSCAPE TABULATION

PARKING

REQUIRED LANDSCAPING:	5% OF TOTAL PARKING AND VEHICLE CIRCULATION AREA
PARKING AREAS :	PARKING AREA #1 - 3,745 SQ. FT. PARKING AREA #2 - 1,230 SQ. FT. PARKING AREA #3 - 2,105 SQ. FT. TOTAL PARKING AREA - 7,080
	5% = 354 SQ. FT. REQUIRED
PARKING AREA LANDSCAPING:	933 SQ. FT. PROVIDED
REQUIRED LANDSCAPING:	1 LARGE OR MEDIUM SHADE TREE PER 10 PARKING SPACES
TOTAL PROPOSED EXTERIOR SPACES:	23 SPACES
REQUIRED PARKING AREA LANDSCAPING:	3 LARGE OR MEDIUM SHADE TREES
TOTAL PARKING AREA LANDSCAPING:	4 LARGE SHADE TREES 1 MEDIUM SHADE TREES 40 SHRUBS

STREETS

REQUIRED STREET TREES:	1 LARGE SHADE TREE EVERY 50' OF FRONTAGE OR 1 MEDIUM SHADE TREE EVERY 40 ' OF FRONTAGE
LEEHAM STREET:	220 LINEAR FEET 5 LARGE OR 6 MEDIUM SHADE TREES REQUIRED 9 MEDIUM SHADE TREES PROVIDED

CANOPY

15% CANOPY REQUIREMENT FOR PROJECT	
TOTAL SITE AREA OF PHASE IV:	2.16 ACRES (94,089 SQ. FT.)
PHASE IV OPEN SPACE:	0.19 ACRES (8,276 SQ. FT.)
SITE AREA MINUS OPEN SPACE:	1.97 ACRES (85,813 SQ. FT.)
15% CANOPY REQUIREMENT:	0.29 ACRES (12,632 SQ. FT.)
CANOPY TO BE PLANTED:	0.30 ACRES (13,103 SQ. FT.)

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

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2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT: GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

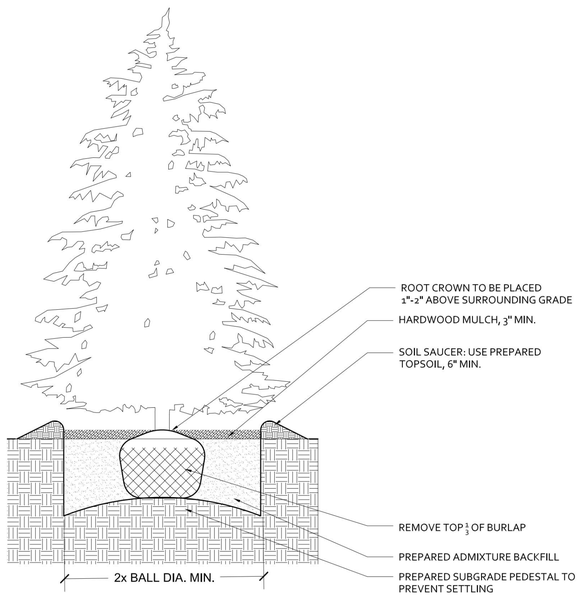
SHEET: LANDSCAPE PLAN

JOB NO. 112066
SCALE 1" = 20'
SHEET NO. 8

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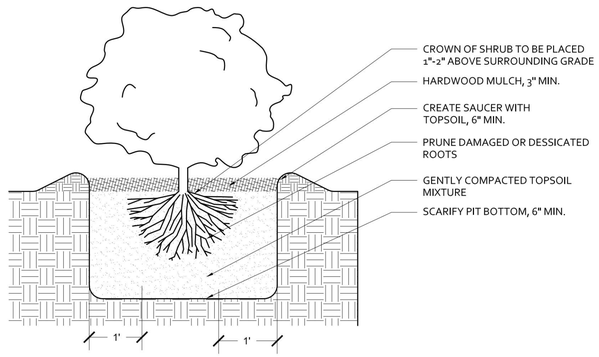
PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS	CANOPY	TOTALS
TREES								
CB	9	CARPINUS BETULUS 'FASTIGIATA'	EUROPEAN HORNBEAM	2" CAL.	B&B		234	2106
TH	5	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER'	SHADEMASTER HONEY LOCUST	2" CAL.	B&B		481	2405
AB	20	AMELANCHIER X GRANDIFLORA ' AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	6'-8' HT.	B&B	SINGLE STEM	130	2600
TC	10	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	2" CAL.	B&B		322	3220
EVERGREEN TREES								
IA	6	ILEX X ATTENUATA 'SAVANNAH'	SAVANNAH HOLLY	6' HT.			16	96
JC	19	JUNIPERUS CHINENSIS 'HETZII COLUMNARIS'	GREEN COLUMNAR JUNIPER	6' HT.			50	950
TO	18	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6' HT.			10	180
SHRUBS								
AG	34	ABELIA GRANDIFLORA 'ROSE CREEK'	ROSE CREEK ABELIA	3 GAL.			14	476
IG	19	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	3 GAL.			23	437
JV	7	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL JUNIPER	3 GAL.			79	553
PL	8	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL	3 GAL.			10	80
								13,103



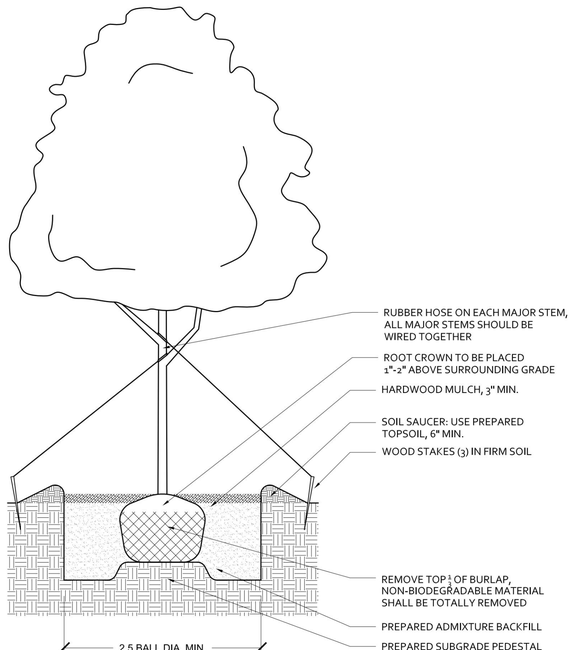
1. EVERGREEN TREE PLANTING

SCALE: NTS



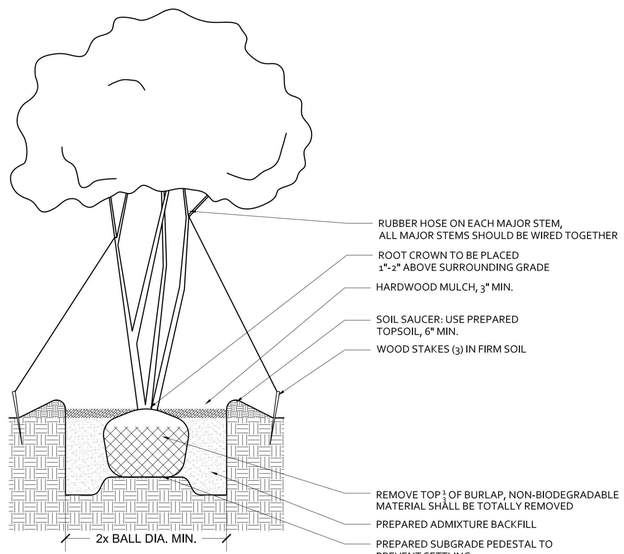
3. SHRUB PLANTING

SCALE: NTS



2. MULTI-STEM TREE PLANTING

SCALE: NTS



4. MULTI-STEM TREE PLANTING

SCALE: NTS

LANDSCAPING NOTES:

APPLICABLE STANDARDS
AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1

AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE: STANDARDIZED PLANT NAMES

ALL PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED. PLANTS SHALL HAVE A HABIT OF GROWTH THAT IS NORMAL FOR THE SPECIES AND SHALL BE HEALTHY, VIGOROUS AND EQUAL OR EXCEED THE MEASUREMENTS SPECIFIED IN THE PLANT LIST, WHICH ARE THE MINIMUM ACCEPTABLE SIZES. PLANTS SHALL BE MEASURED BEFORE PRUNING WITH BRANCHES IN NORMAL POSITION. ANY NECESSARY PRUNING SHALL BE DONE AT THE TIME OF PLANTING. REQUIREMENTS FOR MEASUREMENTS, BRANCHING, GRADING, QUALITY, BALL AND BURLAPPING OF PLANTS IN THE PLANT LIST GENERALLY FOLLOW THE CODE OF STANDARDS CURRENTLY RECOMMEND BY THE AMERICAN STANDARD FOR NURSERY STOCK. PLANTS THAT MEET THE REQUIREMENTS SPECIFIED, BUT DO NOT HAVE THE NORMAL BALANCE OF HEIGHT AND SPREAD TYPICAL FOR THE RESPECTIVE PLANT, SHALL NOT BE ACCEPTED. ALL PLANTS SHALL BE FREE OF WEEDS AND OTHER OBJECTIONABLE VEGETATION.

PLANTS (GENERAL)
PLANTS SHALL BE NURSERY GROWN, HEALTHY, VIGOROUS, BUSHY, WELL-BALANCED, OF NORMAL HABIT OF GROWTH FOR THE SPECIES, AND SHALL BE FREE FROM DISEASE, INSECT EGGS AND LARVAE. THEY SHALL HAVE CROWN AND ROOT BALL SIZES THAT MEET OR EXCEED THE STANDARDS SET FORTH IN "AMERICAN ASSOCIATION OF NURSERYMEN, INC." THE SPECIFIED SIZES SHALL BE BEFORE PRUNING, AND PLANTS SHALL BE MEASURED WITH THEIR BRANCHES IN NORMAL POSITION. PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY, EXCEPT UPON SPECIAL APPROVAL.

SHADE TREES SHALL BE HEALTHY, VIGOROUS, FULL-BRANCHED, WELL-SHAPED, AND SHALL MEET THE TRUNK DIAMETER, HEIGHT, AND SPREAD REQUIREMENTS OF THE PLANT LIST, AND MEET THE STANDARDS OF "THE AMERICAN ASSOCIATION OF NURSERYMEN." BALLS SHALL BE FIRM, NEAT, SLIGHTLY TAPERED AND WELL BURLAPPED. ANY TREE LOOSE IN THE BALL OR WITH BROKEN BALL A TIME OF PLANTING WILL BE REJECTED. BALLS SHALL BE SIZED IN ACCORDANCE WITH THE AAN STANDARDS.

TREE AND SHRUB PLANTING
PLANT TREES IN TREE-PITS GREATER IN DIAMETER THAN BALL AND AT A HEIGHT WHICH ASSURES PROPER DRAINAGE AND VIGOROUS GROWTH. FILL BOTTOM OF PIT (TO DEPTH OF ROOT BALL) WITH A MIXTURE OF SOIL. AFTER SETTLING THE TREE, THE PIT SHALL BE BACKFILLED WITH SOIL MIX, THEN CAREFULLY SETTLED BY WATERING TO PREVENT AIR POCKETS.

ALL PLANT BEDS PLUS AN AREA THREE FEET GREATER IN DIAMETER THAN THE BALL AROUND EACH TREE SHALL BE MULCHED WITH 3" OF CLEAN, HARDWOOD MULCH.

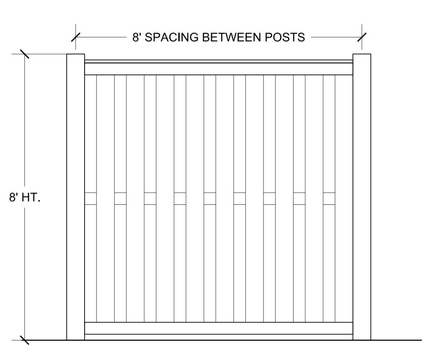
SHOULD THE CONTRACTOR ENCOUNTER SOIL CONDITIONS WHICH ARE INHOSPITABLE TO NORMAL PLANTING, IT IS HIS RESPONSIBILITY TO MODIFY THE SOIL SO THAT THE PLANTS WILL THRIVE. THESE MODIFICATIONS MAY INCLUDE PROVIDING DRAINAGE FOR TREES OR SHRUB BEDS AND PROVIDING ANY EXTRA SOIL AS MAY BE REQUIRED FOR PLANTING.

ALL SITE PLANTINGS OF TREES AND SHRUBS SHALL BE ALLOWED TO REACH, AND BE MAINTAINED AT, MATURE HEIGHT. THE TOPPING OF TREES IS PROHIBITED. SHRUBS AND TREES SHALL BE PRUNED MINIMALLY AND ONLY TO SUPPORT THE OVERALL HEALTH OF THE PLANT.

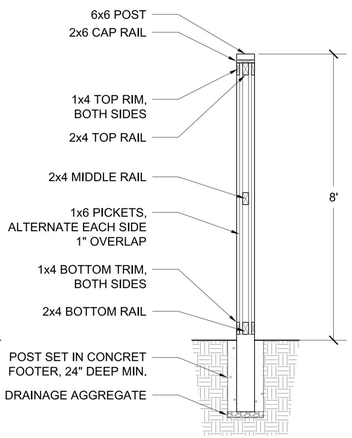
PRE-CONSTRUCTION
1. CONTRACTOR IS RESPONSIBLE FOR CONTACTING "MISS UTILITY" AT 1.800.552.7001 FOR LOCATION OF ALL UTILITY LINES.TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS. NOTIFY LANDSCAPE ARCHITECT OF CONFLICTS.
2. VERIFY ALL PLANT MATERIAL QUANTITIES ON THE PLAN PRIOR TO BIDDING, PLANT LIST TOTALS ARE FOR CONVENIENCE ONLY AND SHALL BE VERIFIED PRIOR TO BIDDING.
3. PROVIDE PLANT MATERIALS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY INDICATED ON PLANS. ALL PLANT MATERIALS AND INSTALLATION SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK". IF SPECIFIED PLANT MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF ON-AVAILABILITY TO THE LANDSCAPE ARCHITECT, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL.
4. PROVIDE AND INSTALL ALL PLANTS AS IN ACCORDANCE WITH DETAILS AND CONTRACT SPECIFICATIONS.
5. SOIL TESTS SHALL BE PERFORMED TO DETERMINE SOIL CHARACTER AND QUALITY. NECESSARY SOIL AMENDMENTS SHALL BE PERFORMED PER TEST RESULTS TO ENSURE PLANT HEALTH.

CONSTRUCTION/INSTALLATION
1. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS AND MATERIALS THAT ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION, AS WELL AS PLANTS AND MATERIALS THAT DO NOT CONFORM TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" LABEL AT LEAST ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING THE DESIGNATION OF BOTANICAL AND COMMON NAME.
2. INSTALL LANDSCAPE PLANTINGS AT ENTRANCES/EXITS AND PARKING AREAS ACCORDING TO PLANS SO THAT MATERIALS WILL NOT INTERFERE WITH SIGHT DISTANCES.
3. CONTRACTOR IS RESPONSIBLE FOR WATERING ALL PLANT MATERIAL DURING INSTALLATION AND UNTIL FINAL INSPECTION AND ACCEPTANCE BY OWNER. CONTRACTOR SHALL NOTIFY OWNER OF CONDITIONS WHICH AFFECTS THE GUARANTEE.

INSPECTIONS/GUARANTEE
1. UPON COMPLETION OF LANDSCAPE INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR WHO WILL VERIFY COMPLETENESS, INCLUDING THE REPLACEMENT OF ALL DEAD PLANT MATERIAL. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A FINAL INSPECTION BY THE LANDSCAPE ARCHITECT.
2. ALL EXTERIOR PLANT MATERIALS SHALL BE GUARANTEED FOR ONE FULL YEAR AFTER DATE OF FINAL INSPECTION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. DEFECTS RESULTING FROM NEGLECT BY THE OWNER, ABUSE OR DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS WHICH ARE BEYOND THE CONTRACTORS CONTROL ARE NOT THE RESPONSIBILITY OF THE CONTRACTOR.
3. REMOVE ALL GUY WIRES AND STAKES 12 MONTHS AFTER INSTALLATION.



FENCE PANEL ELEVATION



FENCE POST SECTION

5. PRIVACY FENCE

SCALE: 1/2" = 1'-0"

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT
GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

SHEET
LANDSCAPE NOTES AND DETAILS

JOB NO. 112066
SCALE 1" = 20'
SHEET NO. 9

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GENERAL CONSTRUCTION NOTES FOR STREETS:

1. CONSTRUCTION INSPECTION OF ALL PROPOSED ROADS WITHIN THE DEVELOPMENT WILL BE MADE BY THE COUNTY. THE CONTRACTOR MUST NOTIFY THE DEPARTMENT OF COMMUNITY DEVELOPMENT (296-5832) 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION.
2. UPON COMPLETION OF FINE GRADING AND PREPARATION OF THE ROADBED SUBGRADE, THE CONTRACTOR SHALL HAVE CBR TESTS PERFORMED ON THE SUBGRADE SOIL. THREE (3) COPIES OF THE TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY. IF A SUBGRADE SOIL CBR OF 10 OR GREATER IS NOT OBTAINABLE, A REVISED PAVEMENT DESIGN SHALL BE MADE BY THE DESIGN ENGINEER AND SUBMITTED WITH THE TEST RESULTS FOR APPROVAL.
3. SURFACE DRAINAGE AND PIPE DISCHARGE MUST BE RETAINED WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN EASEMENTS PRIOR TO ACCEPTANCE BY THE COUNTY. ALL DRAINAGE OUTFALL EASEMENTS ARE TO BE EXTENDED TO A BOUNDARY LINE OR A NATURAL WATERCOURSE.
4. GUARDRAIL LOCATIONS ARE APPROXIMATE. EXACT LENGTH, LOCATION AND APPROPRIATE END TREATMENTS WILL BE FIELD VERIFIED AT THE TIME OF CONSTRUCTION. ADDITIONAL GUARDRAIL MAY BE REQUIRED AT LOCATIONS NOT SHOWN WHEN, IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, IT IS DEEMED NECESSARY. WHEN GUARDRAIL IS REQUIRED, IT SHALL BE INSTALLED FOUR (4) FEET OFFSET FROM THE EDGE OF PAVEMENT TO THE FACE OF GUARDRAIL, AND ROADWAY SHOULDER WIDTHS SHALL BE INCREASED TO SEVEN (7) FEET.
5. ALL RESIDENTIAL DRIVEWAY ENTRANCES SHALL CONFORM TO VDOT CG-9D.
6. WHERE RURAL CROSS SECTIONS ARE INSTALLED, ALL RESIDENTIAL DRIVEWAY ENTRANCES SHALL CONFORM TO VDOT STANDARD PE-1.
7. COMPLIANCE WITH THE MINIMUM PAVEMENT WIDTH, SHOULDER WIDTH AND DITCH SECTIONS, AS SHOWN ON THE TYPICAL PAVEMENT SECTION DETAIL, SHALL BE STRICTLY ADHERED TO.
8. ROAD PLAN APPROVAL FOR SUBDIVISIONS IS SUBJECT TO FINAL SUBDIVISION PLAT VALIDATION. SHOULD THE FINAL PLAT FOR THIS PROJECT EXPIRE PRIOR TO SIGNING AND RECORDATION, THEN APPROVAL OF THESE PLANS SHALL BE NULL AND VOID.
9. ALL SIGNS OR OTHER REGULATORY DEVICES SHALL CONFORM WITH THE VIRGINIA MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES AND THE ALBEMARLE COUNTY ROAD NAMING AND PROPERTY NUMBERING ORDINANCE AND MANUAL.
10. TRAFFIC CONTROL OR OTHER REGULATORY SIGNS OR BARRICADES SHALL BE INSTALLED BY THE DEVELOPER WHEN, IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, THEY ARE DEEMED NECESSARY IN ORDER TO PROVIDE SAFE AND CONVENIENT ACCESS.
11. THE SPEED LIMITS TO BE POSTED ON SPEED LIMIT SIGNS ARE 5 MPH BELOW THE DESIGN SPEED, OR AS DETERMINED BY VDOT FOR PUBLIC ROADS.
12. VDOT STANDARD CD-1 OR CD-2 CROSS-DRAINS UNDER TO BE INSTALLED UNDER THE SUBBASE MATERIAL AT ALL CUT AND FILL TRANSITIONS AND GRADE SAG POINTS AS SHOWN ON THE ROAD PROFILES.
13. A VIDEO CAMERA INSPECTION IS REQUIRED FOR ALL STORM SEWERS AND CULVERTS THAT ARE DEEMED INACCESSIBLE TO VDOT OR COUNTY INSPECTIONS. THE VIDEO INSPECTION SHALL BE CONDUCTED IN ACCORDANCE WITH VDOT'S VIDEO CAMERA INSPECTION PROCEDURE AND WITH A VDOT OR COUNTY INSPECTOR PRESENT.

ROAD NOTES:

GRADING

1. THE LATEST EDITION OF THE ROAD & BRIDGE SPECIFICATIONS, THE ROAD & BRIDGE STANDARDS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS SHALL GOVERN THE MATERIAL AND CONSTRUCTION METHODS OF THIS PROJECT.
2. WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN THE ROADWAY, IT SHALL BE REMOVED FROM THE ENTIRE ROAD RIGHT OF WAY WIDTH AND REPLACED WHERE NECESSARY WITH SUITABLE MATERIAL TO THE SATISFACTION OF THE ENGINEER.
3. ALL GROWTH OF TREES AND VEGETATION SHALL BE CLEARED AND GRUBBED FOR THE ENTIRE EASEMENT. OTHER TREES AND VEGETATION WHICH OBSTRUCT SIGHT DISTANCES AT ROAD INTERSECTIONS SHALL BE REMOVED.
4. ALL VEGETATION AND OVERBURDEN TO BE REMOVED FROM SHOULDER TO SHOULDER PRIOR TO THE CONSTRUCTION OF THE SUBGRADE.

DRAINAGE

1. ALL PIPE CULVERTS, EXCEPT PRIVATE ENTRANCES, SHOWN HEREON ARE TO BE RCP WITH A MINIMUM COVER OF ONE (1) FOOT.
2. STANDARD UNDERDRAINS (CD-1 OR CD-2 OR UD-4'S) TO BE PROVIDED AS INDICATED ON THE PLANS, OR WHERE FIELD CONDITIONS INDICATE.
3. ALL DRIVEWAY ENTRANCE PIPES SHALL BE A MINIMUM OF TWENTY (20) FEET IN LENGTH AND HAVE A MINIMUM DIAMETER OF FIFTEEN (15) INCHES AND SHALL BE PLACED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTAION SPECIFICATIONS UNLESS OTHERWISE NOTED ON PLANS.
4. ALL DRAINAGE EASEMENT SHALL BE CLEARED AND GRADED TO THE SATISFACTION OF THE ENGINEER. DRAINAGE EASEMENTS SHALL EXTEND TO A POINT DEEMED AS NATURAL WATER COURSE.

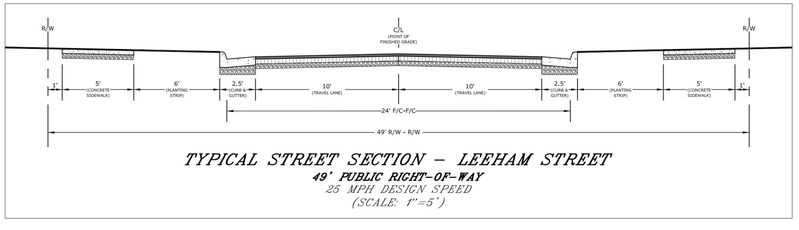
PAVEMENT

1. AN ACTUAL COPY OF THE CBR REPORT IS TO BE SUBMITTED PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE MATERIAL. IF THE SSV VALUES ARE LESS THAN 10, THE DEVELOPER WILL BE REQUIRED TO SUBMIT FOR ENGINEERS APPROVAL THE PROPOSED METHOD OF CORRECTION.
2. SUBGRADE MUST BE APPROVED BY THE ENGINEER FOR GRADE, TEMPLATE AND COMPACTION BEFORE BASE IS PLACED.
3. TEST REPORTS ON SELECT MATERIALS MUST BE SUBMITTED SHOWING THE MATERIAL MEETS REQUIRED GRADATION FOR TYPE I, II, OR III PRIOR TO PLACING AGGREGATE BASE.
4. THE REQUIREMENTS TO PUGMILL AGGREGATE BASE WILL BE WAIVED IN THE EVENT THAT THE SURFACE COURSE IS BEGINNING AT THE COMPLETION OF THE INSTALLATION OF THE AGGREGATE BASE. IN THE EVENT THAT THE SURFACE COURSE IS APPLIED PRIOR TO 60 DAYS, THE PUGMILL REQUIREMENT WILL APPLY.
5. THE USE OF AN AGGREGATE SPREADER IS REQUIRED WHEN PLACING AGGREGATE BASE.
6. BASE MUST BE APPROVED BY ENGINEER FOR DEPTH, TEMPLATE, AND COMPACTION BEFORE SURFACE TREATMENT IS APPLIED.
7. PRIME COAT MUST BE APPLIED TO BASE MATERIAL PRIOR TO PLACEMENT OF ASPHALT (PRIME COAT RC-250 @ 0.3 GAL./SQ. YD.).
8. BITUMINOUS SURFACE TO BE APPLIED IN ACCORDANCE WITH CURRENT VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
9. ENCROACHMENT: POSTS, WALLS, SIGNS, OR SIMILAR ORNAMENTAL STRUCTURES THAT DO NOT ENHANCE A ROADWAY'S CAPACITY OR TRAFFIC SAFETY, SHALL NOT BE PERMITTED WITHIN THE RIGHT OF WAY. ONLY THOSE STRUCTURES SPECIFICALLY AUTHORIZED BY PERMIT ISSUED BY VIRGINIA DEPARTMENT OF TRANSPORTATION MAY BE LOCATED WITHIN THE STREETS RIGHT OF WAY.

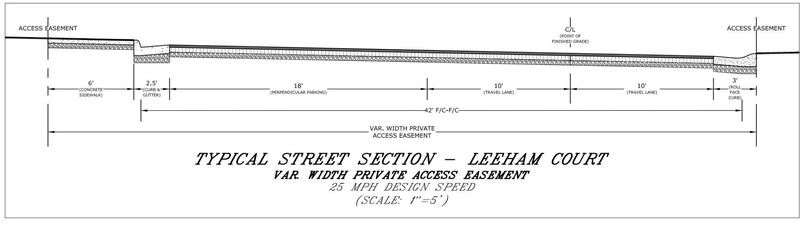
ALBEMARLE COUNTY
GENERAL CONSTRUCTION NOTES

1. PRIOR TO ANY CONSTRUCTION WITHIN ANY EXISTING PUBLIC RIGHT-OF-WAY, INCLUDING CONNECTION TO ANY EXISTING ROAD, A PERMIT SHALL BE OBTAINED FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT). THIS PLAN AS DRAWN MAY NOT ACCURATELY REFLECT THE REQUIREMENTS OF THE PERMIT. WHERE ANY DISCREPANCIES OCCUR THE REQUIREMENTS OF THE PERMIT SHALL GOVERN.
2. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO CURRENT SPECIFICATIONS AND STANDARDS OF VDOT UNLESS OTHERWISE NOTED.
3. EROSION AND SILTATION CONTROL MEASURES SHALL BE PROVIDED IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN AND SHALL BE INSTALLED PRIOR TO ANY CLEARING, GRADING OR OTHER CONSTRUCTION.
4. ALL SLOPES AND DISTURBED AREAS ARE TO BE FERTILIZED, SEEDED, AND MULCHED.
5. THE MAXIMUM ALLOWABLE SLOPE IS 2:1 (HORIZONTAL:VERTICAL). WHERE REASONABLY OBTAINABLE, LESSER SLOPES OF 3:1 OR BETTER ARE TO BE ACHIEVED.
6. PAVED, RIP-RAP OR STABILIZATION MAT LINED DITCH MAY BE REQUIRED WHEN IN THE OPINION OF THE COUNTY ENGINEER, OR DESIGNEE, IT IS DEEMED NECESSARY IN ORDER TO STABILIZE A DRAINAGE CHANNEL.
7. ALL TRAFFIC CONTROL SIGNS SHALL CONFORM WITH THE VIRGINIA MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES.
8. UNLESS OTHERWISE NOTED, ALL CONCRETE PIPE SHALL BE REINFORCED CONCRETE PIPE-CLASS III.
9. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).

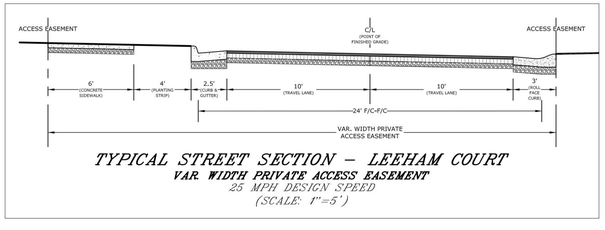
TRIP GENERATION CALCULATIONS		
TRIP GENERATION BASED ON ITE TRIP GENERATION MANUAL (10TH EDITION)		
PROPOSED: 46 MULTI-FAMILY HOUSING (LOW-RISE) UNITS (CODE 220)		
ADT:	336 VPD	(168 ENTER / 168 EXIT)
AM PEAK:	21 VPH	(15 ENTER / 16 EXIT)
PM PEAK:	26 VPH	(17 ENTER / 9 EXIT)



TYPICAL STREET SECTION - LEEHAM STREET
49' PUBLIC RIGHT-OF-WAY
25 MPH DESIGN SPEED
(SCALE: 1"=5')



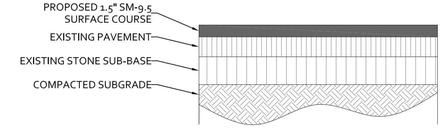
TYPICAL STREET SECTION - LEEHAM COURT
VAR. WIDTH PRIVATE ACCESS EASEMENT
25 MPH DESIGN SPEED
(SCALE: 1"=5')



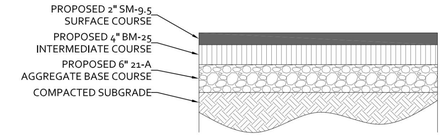
TYPICAL STREET SECTION - LEEHAM COURT
VAR. WIDTH PRIVATE ACCESS EASEMENT
25 MPH DESIGN SPEED
(SCALE: 1"=5')

PAVEMENT DESIGN

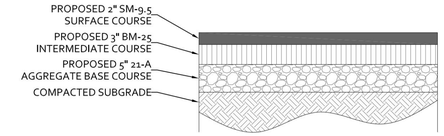
MILL/OVERLAY OF EXISTING PAVEMENT



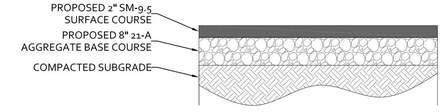
PROPOSED PUBLIC ROADS



PROPOSED PRIVATE ALLEY

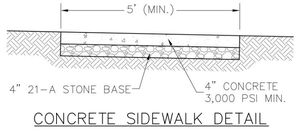


PROPOSED DRIVEWAYS

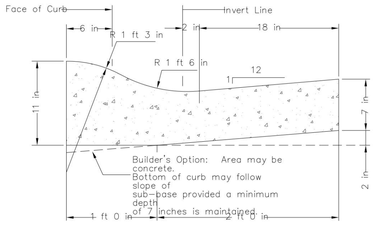


NOTE: MANDATORY INSPECTIONS AT THE FOLLOWING PHASES ARE REQUIRED FOR ROADS THAT ARE PROPOSED TO BE STATE MAINTAINED:

i. INSTALLATION OF ANY ENCLOSED DRAINAGE SYSTEM BEFORE IT IS COVERED.
ii. INSTALLATION OF ANY ENCLOSED UTILITY PLACEMENTS WITHIN THE RIGHT-OF-WAY BEFORE BEING COVERED.
iii. CONSTRUCTION OF THE CUTS AND FILLS, INCLUDING FIELD DENSITY TESTS, BEFORE PLACEMENT OF ROADBED BASE MATERIALS.
iv. A FINAL PAVEMENT DESIGN, BASED ON ACTUAL SOIL CHARACTERISTICS AND CERTIFIED TESTS, SHALL BE COMPLETED AND APPROVED BEFORE THE PAVEMENT STRUCTURE IS PLACED.
v. PLACEMENT OF BASE MATERIALS, INCLUDING STONE DEPTHS, CONSISTENT WITH THE APPROVED PAVEMENT DESIGN, PRIOR TO PLACEMENT OF THE PAVING COURSE OR COURSES, FOLLOWED BY FIELD DENSITY AND MOISTURE TESTS AND THE PLACEMENT OF A PAVING COURSE AS SOON AS POSSIBLE.
vi. CONSTRUCTION OF PAVEMENT, INCLUDING DEPTH AND DENSITY, UPON COMPLETION AS PART OF THE FINAL INSPECTION.
vii. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING VDOT A MINIMUM OF ONE WEEK PRIOR TO EACH OF THE ABOVE PHASES OF CONSTRUCTION TO SCHEDULE AN INSPECTION.
viii. FAILURE OF THE CONTRACTOR TO SCHEDULE THESE INSPECTIONS WILL REQUIRE ADDITIONAL TESTING OF THE ROADS AT THE DISCRETION OF VDOT OR MAY LEAD TO THE ROADS NOT BEING ELIGIBLE FOR STATE MAINTENANCE.



CONCRETE SIDEWALK DETAIL
NOT TO SCALE
NOTE: CONCRETE SHALL BE 3000 PSI AT 28 DAYS OR STRONGER.



ROLLTOP CURB

DEVELOPMENT PLAN
SCALE: 1" = 100'



Table 4: Pavement Design (VDOT Pavement Design Guide)

Pavement Design RF= 1.0

Location	ADT	HCV	Design ADT	CBR	SSV	Dr	Surface	h	a	Base	b	a	Sub-base	h	a	Dp
Park Ridge Drive	4000	0	4000	5	5	19.25	SM-12.5	3	2.25	BM-25	5	2.15	21B	9	0.6	22.90
Arboleda Drive	1000	0	1000	5	5	14.43	SM-9.5	2	2.25	BM-25	3	2.15	21A	8	0.6	15.75
Barkley View Court	57	0	57	5	5	4.46	SM-9.5	1.5	2.25	BM-25	3	2.15	21A	6	0.6	13.43
Meyers Way	103	0	103	5	5	6.52	SM-9.5	1.5	2.25	BM-25	3	2.15	21A	6	0.6	13.43
Humboldt Street	308	0	308	5	5	10.33	SM-9.5	2	2.25	BM-25	1	2.15	21A	7	0.6	10.85
Anlee Road	469	0	469	5	5	11.79	SM-9.5	2	2.25	BM-25	3	2.15	21A	6	0.6	14.55
Leeham Street	350	0	350	5	5	10.77	SM-9.5	2	2.25	BM-25	3	2.15	21A	6	0.6	14.55
Leeham Court	132	0	132	5	5	7.38	SM-9.5	2	2.25	BM-25	1	2.15	21A	7	0.6	10.85
Hastings Court	133	0	133	5	5	7.41	SM-9.5	2	2.25	BM-25	1	2.15	21A	7	0.6	10.85

Note: Contractor to bore any existing pavement being utilized and coordinate with VDOT on upgrades to geometric design standards to ensure the above specifications are met and are in accordance with their standards.

PAVEMENT DESIGN NOTES:
1. PAVEMENT DESIGN FOR NEW SUBDIVISION STREETS SHALL BE DEVELOPED USING THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA AND MUST BE BASED ON IN PLACE MATERIAL AT THE TIME OF CONSTRUCTION.
2. A 1" BINDER COAT WILL BE PLACED OVER THE STONE TO HANDLE CONSTRUCTION TRAFFIC.
3. THE SM-12.5A MAX LIFT THICKNESS IS 2", THE ADDITIONAL LIFTS MUST BE PLACED 1 YEAR APART PER APPENDIX III OF THE 2018 VDOT PAVEMENT DESIGN GUIDE.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
2/16/24
PROFESSIONAL ENGINEER

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT: GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

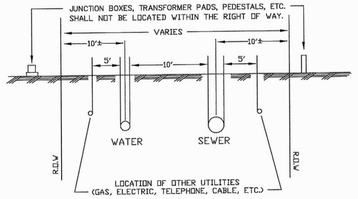
SHEET: NOTES & DETAILS

JOB NO. 112066

SCALE: AS SHOWN

SHEET NO. 10

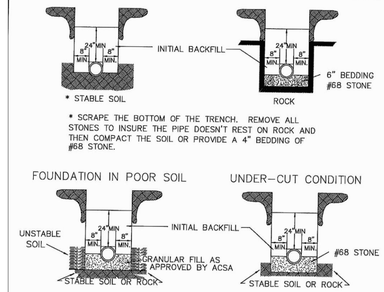
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UTILITY LOCATIONS & EASEMENT WIDTHS

NTS
FIG. W-1

TD-1



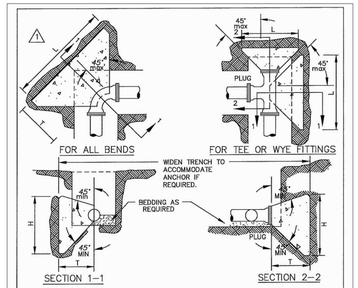
NOTE :

1. NO ROCKS SHALL BE ALLOWED WITHIN 24" OF THE WATER LINES.
2. NO ROCKS LARGER THAN 6" IN ANY DIMENSION SHALL BE ALLOWED ABOVE THE INITIAL BACKFILL.
3. THE INITIAL BACKFILL SHALL BE PLACED AND COMPACTED IN 6" LIFTS.
4. NO ORGANIC OR FROZEN MATERIAL OR DEBRIS SHALL BE ALLOWED IN THE TRENCH.
5. BELL HOLES SHALL BE DUG OUT IN ALL CASES.

DUCTILE IRON WATER PIPE INSTALLATION & BEDDING

NTS
FIG. W-2

TD-2



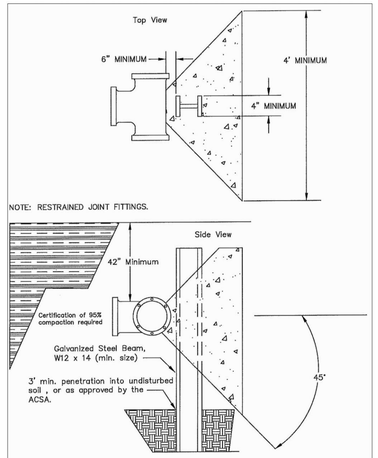
PIPE SIZE	DEGREE OF BEND	BEND DIMENSIONS (FEET) L	H	T	VOL. CU.YD.	TEE AND PLUGS (FEET) L	H	T	VOL. CU.YD.
4" & 6"	90	2.50	2.50	3.01	0.24	2.00	2.25	2.50	0.15
	45	2.00	2.25	2.60	0.15				
	22 1/2	1.50	2.00	2.52	0.10				
	11 1/4	1.50	2.00	2.50	0.10				
8"	90	3.68	3.16	3.21	0.48	3.16	2.91	2.66	0.32
	45	2.66	2.66	2.77	0.26				
	22 1/2	1.66	2.16	2.69	0.13				
	11 1/4	1.66	2.16	2.67	0.13				
10" & 12"	90	4.83	3.83	3.42	0.83	3.83	4.00	2.83	0.52
	45	3.33	3.58	2.95	0.43				
	22 1/2	2.33	2.58	2.86	0.24				
	11 1/4	1.83	2.33	2.84	0.18				

1. THRUST BLOCKS ARE REQUIRED WHENEVER THE PIPELINE : CHANGES DIRECTION, CHANGES SIZE, DEAD ENDS AND AT VALVES.
2. USE 2500 P.S.I. CONCRETE.
3. NO CONCRETE SHALL BE POURED ON ANY PART OF THE JOINT.
4. THE CONSULTING ENGINEER SHALL BE RESPONSIBLE TO THE VERIFY THE TYPE & SIZE OF ALL THRUST BLOCKS.

CONCRETE THRUST BLOCKS

NTS
FIG. W-3

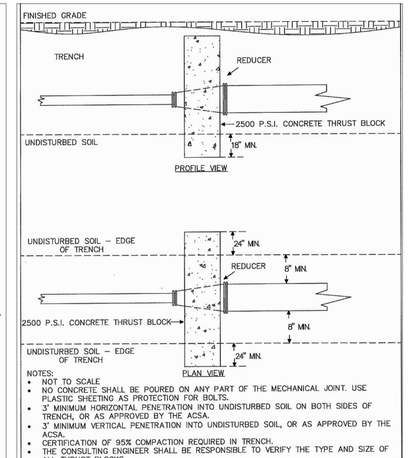
TD-3



TYPICAL THRUST BLOCK IN FILL AREA

NTS
FIG. W-3B

TD-5



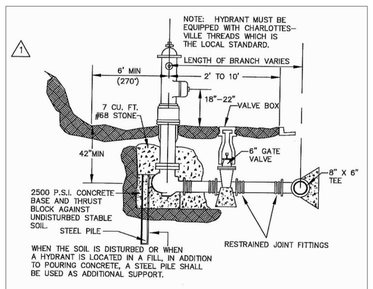
NOTES:

- NOT TO SCALE
- NO CONCRETE SHALL BE POURED ON ANY PART OF THE MECHANICAL JOINT. USE PLASTIC SHEETING AS PROTECTION FOR BOLTS.
- 3' MINIMUM HORIZONTAL PENETRATION INTO UNDISTURBED SOIL ON BOTH SIDES OF TRENCH, OR AS APPROVED BY THE ACSA.
- 3' MINIMUM VERTICAL PENETRATION INTO UNDISTURBED SOIL, OR AS APPROVED BY THE ACSA.
- CERTIFICATION OF 95% COMPACTION REQUIRED IN TRENCH.
- THE CONSULTING ENGINEER SHALL BE RESPONSIBLE TO VERIFY THE TYPE AND SIZE OF ALL THRUST BLOCKS.

TYPICAL REDUCER THRUST BLOCK

NTS
FIG. W-3D

TD-7



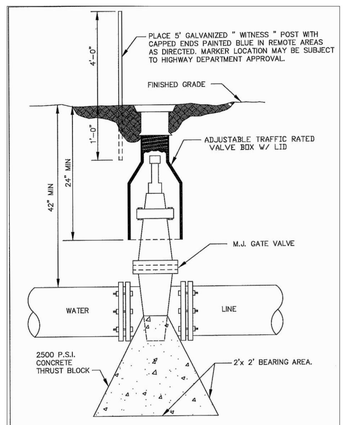
NOTE :

1. SURROUND WEEP HOLES WITH GRAVEL AND KEEP FREE OF CONCRETE.
2. MAINTAIN A 3 1/2' MIN. COVER FROM THE MAIN TO THE FIRE HYDRANT (INCLUDING DITCHES).
3. FINISHED GRADE SHALL SLOPE AWAY FROM THE FIRE HYDRANT AND VALVE BOX.
4. THE GATE VALVE IS ALLOWED IN SHOULDER OR BEHIND THE DITCH. IT IS NOT ALLOWED IN THE DITCH.
5. FIRE HYDRANTS SHALL BE INSTALLED AT LOCATIONS WHERE WEEP HOLES ARE ABOVE THE PREVAILING GROUNDWATER ELEVATION. IF REQUIRED TO BE IN WET AREAS, THE WEEP HOLES SHALL BE PLUGGED AND THE HYDRANT SHALL BE PUMPED DRY.

TYPICAL FIRE HYDRANT ASSEMBLY DETAIL

N.T.S.
FIG. W-4

TD-8

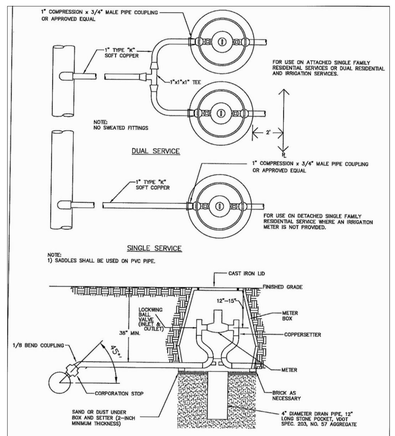


NOTE : IN REMOTE AREAS, VALVE BOXES SHALL EXTEND SIX (6) INCHES ABOVE GRADE.

TYPICAL GATE VALVE

NTS
FIG. W-5

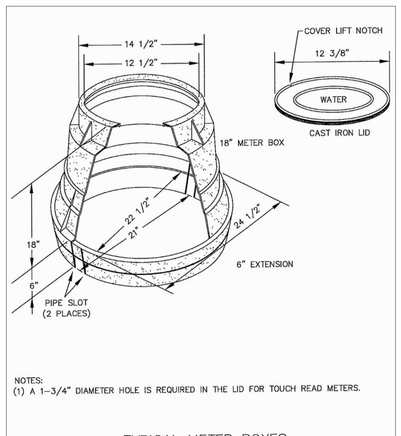
TD-9



TYPICAL SERVICE LATERAL INSTALLATION (5/8" & 1" METERS)

NTS
FIG. W-6A

TD-10

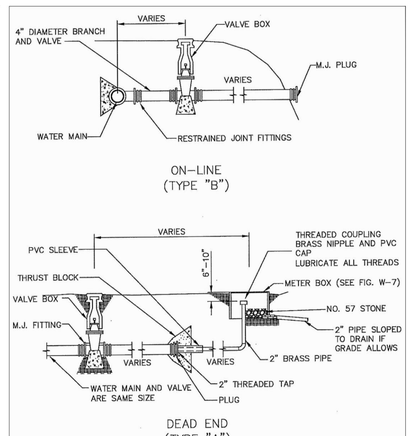


NOTES:
(1) A 1-3/4" DIAMETER HOLE IS REQUIRED IN THE LID FOR TOUCH READ METERS.

TYPICAL METER BOXES (5/8"-1" METERS)

NTS
FIG. W-7

TD-13



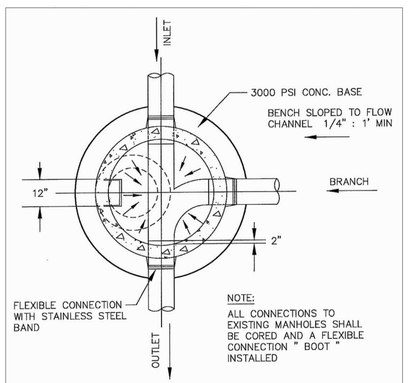
TYPICAL BLOW-OFF ASSEMBLY

NTS
FIG. W-8

TD-19

ACSA GENERAL WATER & SEWER CONDITIONS (September 14, 2021)

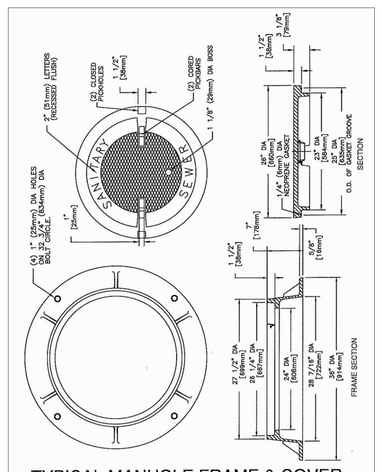
1. WORK SHALL BE SUBJECT TO INSPECTION BY ALBEMARLE COUNTY SERVICE AUTHORITY (ACSA) INSPECTORS. THE CONTRACTOR WILL BE RESPONSIBLE FOR NOTIFYING THE PROPER ACSA OFFICIALS AT THE START OF THE WORK.
2. THE ALBEMARLE COUNTY SERVICE AUTHORITY SHALL HAVE ACCESS TO USE THE AIRSPACE ABOVE THE LOCATIONS OF CONSTRUCTION FOR THE FLIGHT OF UNMANNED AERIAL VEHICLES FOR THE PURPOSE OF IMAGERY COLLECTION.
3. THE LOCATION OF EXISTING UTILITIES ACROSS THE LINE OF THE PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS AND WHERE SHOWN ARE ONLY APPROXIMATELY CORRECT. THE CONTRACTOR SHALL, ON HIS OWN INITIATIVE, LOCATE ALL UNDERGROUND LINES AND STRUCTURES, AS NECESSARY.
4. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE CURRENT EDITION OF THE GENERAL WATER AND SEWER CONSTRUCTION SPECIFICATIONS, AS ADOPTED BY THE ACSA.
5. DATUM FOR ALL ELEVATIONS SHOWN IN NATIONAL GEODETIC SURVEY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY (1-800-552-7001).
7. ALL WATER AND SEWER PIPES SHALL HAVE A MINIMUM OF THREE AND A HALF (3.5) FEET OF COVER MEASURED FROM THE TOP OF PIPE, OVER THE CENTERLINE OF PIPE. THIS INCLUDES ALL FIRE HYDRANT LINES, SERVICE LATERALS AND WATER LINES, ETC.
8. ALL WATER AND SEWER APPURTENANCES ARE TO BE LOCATED OUTSIDE OF ROADSIDE DITCHES.
9. VALVES ON DEADEND LINES SHALL BE RODDED TO PROVIDE ADEQUATE RESTRAINT FOR THE VALVE DURING A FUTURE EXTENSION OF THE LINE.
10. TREES ARE NOT PERMITTED IN THE ACSA EASEMENT.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH THE NO-LEAD REGULATION REGARDING BRASS FITTINGS EFFECTIVE JANUARY 4, 2014 (SENATE BILL 3874 WHICH AMENDS THE SAFE DRINKING WATER ACT).
12. THE SEWER LATERAL BEYOND THE CONNECTION AT THE SEWER MAIN SHALL BE PRIVATE. THE SEWER LATERAL STUB-OUT SHALL UNDERGO THE ACSA LOW-PRESSURE AIR TEST TO SATISFY COUNTY TESTING REQUIREMENTS. VISUAL INSPECTION OF THE SEWER LATERAL STUB-OUT SHALL BE WITNESSED BY THE COUNTY BUILDING INSPECTIONS DEPARTMENT. THIS INSPECTION SHALL OCCUR UNDER AN "OTHER PLUMBING" PERMIT WHICH MUST BE OBTAINED BY THE CONTRACTOR.
13. THE SEWER LATERAL BEYOND THE CONNECTION AT A MANHOLE SHALL BE PRIVATE. VISUAL INSPECTION AND PRESSURE TESTING OF THE SEWER LATERAL SHALL BE WITNESSED BY THE COUNTY BUILDING INSPECTIONS DEPARTMENT. THIS INSPECTION SHALL OCCUR UNDER AN "OTHER PLUMBING" PERMIT WHICH MUST BE OBTAINED BY THE CONTRACTOR.
14. THE FIRE SPRINKLER MAIN DOWNSTREAM OF THE GATE VALVE IS PRIVATE. VISUAL INSPECTION AND TESTING OF THE FIRE SPRINKLER MAIN DOWNSTREAM OF THE GATE VALVE SHALL BE WITNESSED BY THE COUNTY BUILDING INSPECTIONS DEPARTMENT. THIS INSPECTION SHALL OCCUR UNDER AN "OTHER PLUMBING" PERMIT WHICH MUST BE OBTAINED BY THE CONTRACTOR.
15. ALL FLUSHING OF FIRE SPRINKLER MAINS SHALL NOT OCCUR UNTIL APPROVAL IS GIVEN BY THE ACSA.
16. PRIOR TO BACKFLOW PREVENTION DEVICE TESTING AND THE ESTABLISHMENT OF WATER SERVICE, ALL BACKFLOW PREVENTION DEVICE INSTALLATIONS SHALL MEET THE ACSA BACKFLOW REQUIREMENTS AS DETAILED IN SECTION 8 OF THE MOST RECENT REVISION OF THE ACSA RULES AND REGAULTIONS.
17. A DEED OF EASEMENT AND EASEMENT PLAT FOR THE UTILITY EASEMENTS, APPROVED BY THE ACSA, SHALL BE RECORDED PRIOR TO ANY WATER AND/OR SEWER SERVICE BEING ESTABLISHED.



TYPICAL MANHOLE PLAN SHOWING BRANCH TIE - IN

NTS
FIG. S-1-B

TD-27



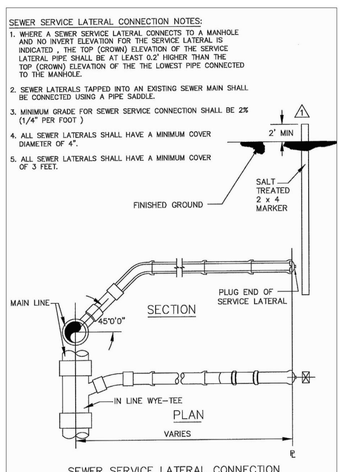
TYPICAL MANHOLE FRAME & COVER

N.T.S
FIG S-1-D

TD-31

SEWER SERVICE LATERAL CONNECTION NOTES:

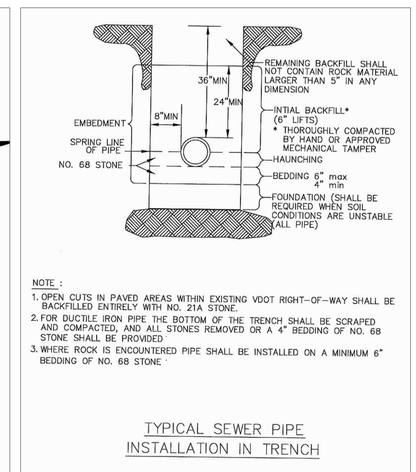
1. WHERE A SEWER SERVICE LATERAL CONNECTS TO A MANHOLE AND NO INVERT ELEVATION FOR THE SERVICE LATERAL IS INDICATED , THE TOP (CROWN) ELEVATION OF THE SERVICE LATERAL PIPE SHALL BE AT LEAST 0.2' HIGHER THAN THE TOP (CROWN) ELEVATION OF THE THE LOWEST PIPE CONNECTED TO THE MANHOLE.
2. SEWER LATERALS TAPPED INTO AN EXISTING SEWER MAIN SHALL BE CONNECTED USING A PIPE SADDLE.
3. MINIMUM GRADE FOR SEWER SERVICE CONNECTION SHALL BE 2% (1/4" PER FOOT)
4. ALL SEWER LATERALS SHALL HAVE A MINIMUM COVER DIAMETER OF 4".
5. ALL SEWER LATERALS SHALL HAVE A MINIMUM COVER OF 3 FEET.



SEWER SERVICE LATERAL CONNECTION

N.T.S.
FIG. S-2

TD-33



NOTE :

1. OPEN CUTS IN PAVED AREAS WITHIN EXISTING VDOT RIGHT-OF-WAY SHALL BE BACKFILLED ENTIRELY WITH NO. 21A STONE.
2. FOR DUCTILE IRON PIPE THE BOTTOM OF THE TRENCH SHALL BE SCRAPED AND COMPACTED, AND ALL STONES REMOVED OR A 4" BEDDING OF NO. 68 STONE SHALL BE PROVIDED
3. WHERE ROCK IS ENCOUNTERED PIPE SHALL BE INSTALLED ON A MINIMUM 6" BEDDING OF NO. 68 STONE

TYPICAL SEWER PIPE INSTALLATION IN TRENCH

NTS
FIG. S-3

TD-34

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 0357791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

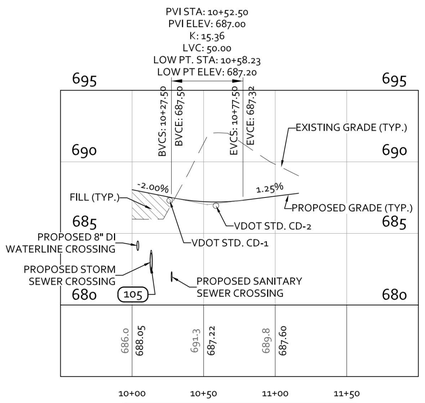
CE COLLINS ENGINEERING
200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902 -434.293.3719

PROJECT: GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

SHEET: NOTES & DETAILS

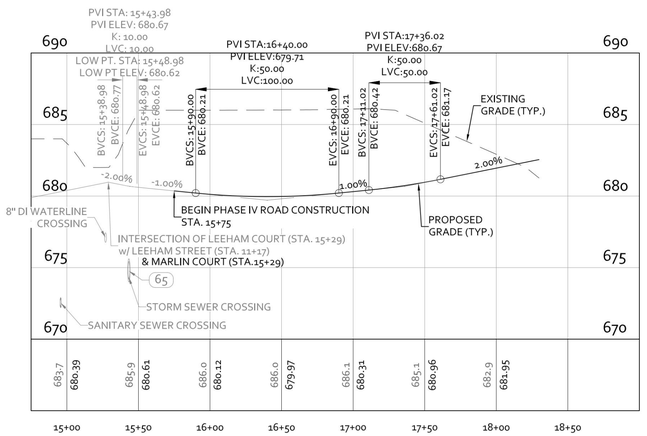
JOB NO. 112066
SCALE N/A
SHEET NO. 11

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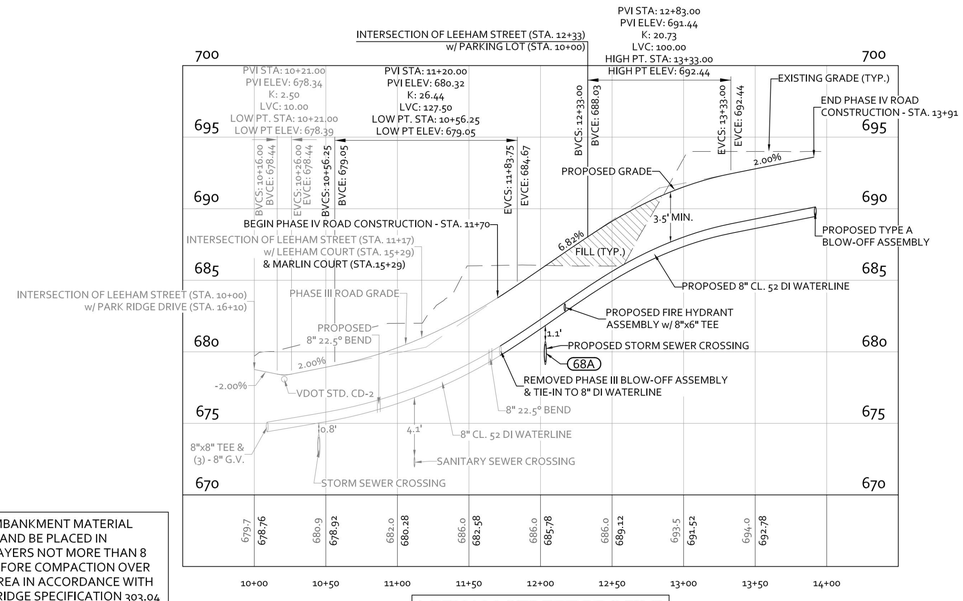
PARKING LOT PROFILE

(DESIGN SPEED=15 MPH)



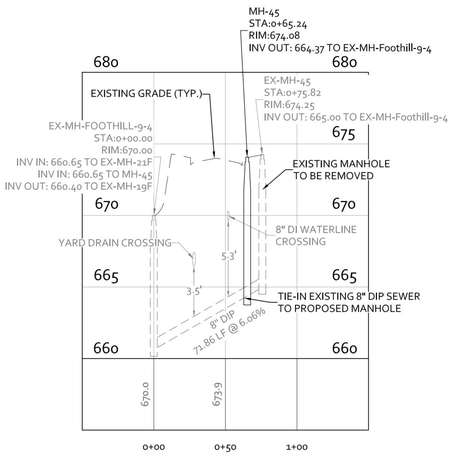
MARLIN COURT PROFILE

(DESIGN SPEED=15 MPH)

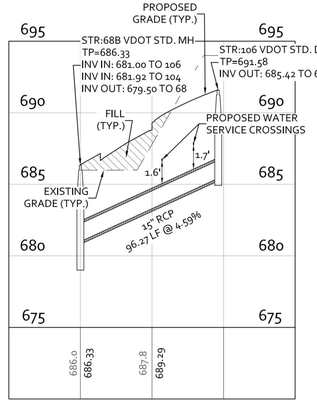


LEEHAM STREET PROFILE

(DESIGN SPEED=25 MPH)

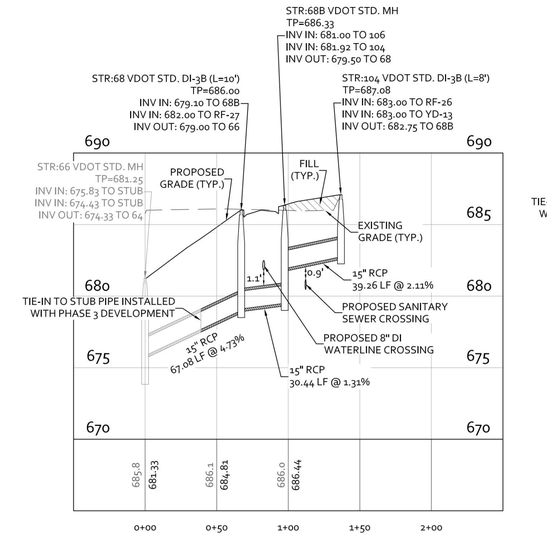


MH-45 - EX-MH-Foothill-9-4 PROFILE

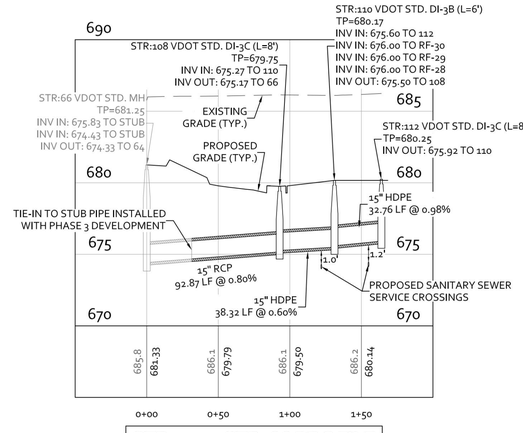


STR-106 - STR-60B PROFILE

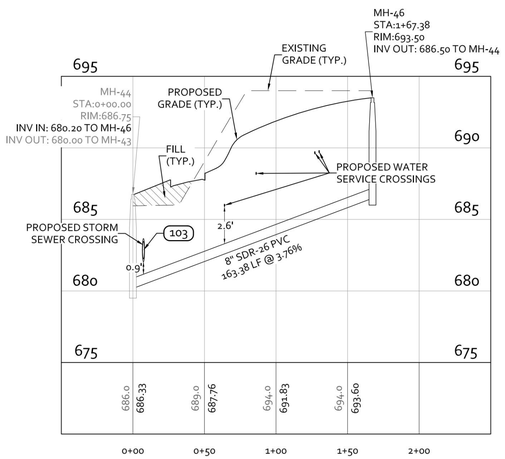
NOTE: ALL ROADWAY EMBANKMENT MATERIAL SHALL CONSIST OF SOIL AND BE PLACED IN SUCCESSIVE UNIFORM LAYERS NOT MORE THAN 8 INCHES IN THICKNESS BEFORE COMPACTION OVER THE ENTIRE ROADBED AREA IN ACCORDANCE WITH VDOT 2007 ROAD AND BRIDGE SPECIFICATION 303.04



STR-104 - STR-66 PROFILE



STR-112 - STR-66 PROFILE



MH-46 - MH-44 PROFILE

VERTICAL GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

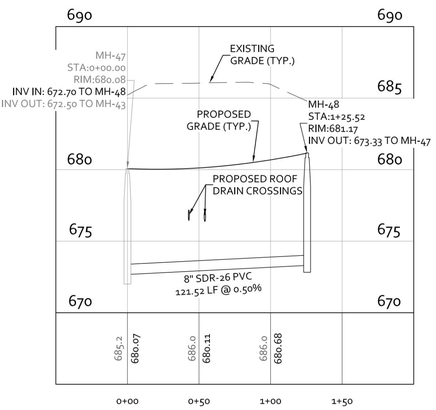
50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

NOTE: ALL DRAINAGE STRUCTURES WITH A DEPTH OF 4' OR GREATER SHALL HAVE STEPS IN ACCORDANCE WITH STANDARD ST-1 AS FOUND IN THE 2008 ROAD AND BRIDGE STANDARDS.

NOTE: CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN AGGREGATE SIZE NO. 25 OR 26, AGGREGATE BASE MATERIAL SIZE 21A OR 21B, FLOWABLE FILL, OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 25 AND 26, PER VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 302.03G.

NOTES:
1. ALL FILL TO BE PLACED AT 95% COMPACTION.
2. MINIMUM 3.5' OF COVER MUST BE MAINTAINED OVER W/L.
3. MINIMUM OF 1' OF VERTICAL SEPARATION FROM STORM SEWER & W/L AND 1.5' OF SEPARATION BETWEEN W/L & SANITARY SEWER MUST BE PROVIDED.



MH-48 - MH-47 PROFILE

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT: GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

SHEET: ROAD, UTILITY, & DRAINAGE PROFILES

JOB NO. 112066
SCALE 1" = 50'
SHEET NO. 12

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DRAINAGE DESCRIPTIONS

STR. NO.	PIPE INFORMATION DIA. (in.)	LENGTH* (ft.)	SLOPE (%)	INVERT IN	INVERT OUT	MATERIAL	INLET INFORMATION INLET TYPE	Curb Type	SLOT LENGTH	RIM ELEVATION
38D							DI-3B	CG-6	14	666.92
38C	15	32.69	0.70%	660.25	660.02	RCP				
38B							DI-3B	CG-6	12	666.92
38A	15	41.07	0.58%	659.92	659.68	RCP				
38							DI-3C	CG-6	6	665.67
37	15	41.02	0.56%	659.58	659.35	RCP				
36							DI-3B	CG-6	10	668.08
35	15	45.15	0.55%	659.25	659.00	RCP				
34B							DI-3B	CG-6	10	657.25
34A	15	33.01	0.70%	650.58	650.35	RCP				
34							DI-3B	CG-6	10	657.33
33	15	146.79	0.50%	650.25	649.52	RCP				
32							DI-3B	CG-6	12	664.00
31	18	62.95	0.64%	649.42	649.02	RCP				
30B							MH	CG-6	-	667.33
30A	24	118.08	0.57%	648.92	648.25	RCP				
30							MH	CG-6	-	654.50
29	24	82.16	4.56%	646.00	642.25	RCP				
54D							DI-7	-	-	666.83
54C	15	20.53	2.43%	662.50	662.00	RCP				
54B							DI-3C	CG-6	10	667.58
54A	18	39.66	0.60%	660.67	660.43	RCP				
54							DI-3C	CG-6	10	667.58
53	24	197.83	0.54%	660.33	659.27	RCP				
52D							MH	-	-	670.33
52C	24	75.76	0.53%	659.17	658.77	RCP				
52							DI-3B	CG-6	6	669.33
51	30	64.36	0.50%	658.67	658.35	RCP				
50B							DI-3C	CG-6	8	668.92
50A	30	32.68	0.70%	658.25	658.02	RCP				
50							DI-3C	CG-6	8	668.92
49	30	64.49	0.50%	657.92	657.60	RCP				
48							DI-3B	CG-6	6	669.33
47	30	105.46	0.55%	657.50	656.92	RCP				
46							DI-3B	CG-6	4	666.92
45	30	44.40	0.52%	654.33	654.10	RCP				
44							DI-3B	CG-6	6	665.75
43	30	19.13	0.78%	654.00	653.85	RCP				
42							MH	-	-	664.58
41	36	58.78	1.28%	653.75	653.00	RCP				
40							MH	-	-	664.00
39	36	42.46	1.77%	648.75	648.00	RCP				
44F							DI-3C	CG-6	8	666.42
44E	15	27.81	0.54%	658.92	658.77	RCP				
44D							DI-3C	CG-6	8	666.42
44C	15	118.77	0.55%	658.67	658.02	RCP				
44B							MH	-	-	667.08
44A	18	76.58	0.55%	657.92	657.50	RCP				
52B							DI-3B	CG-6	6	669.33
52A	15	32.68	1.00%	662.50	662.17	RCP				
68B							MH	CG-6	-	686.33
68A	15	30.44	1.31%	679.50	679.10	RCP				
68							DI-3B	CG-6	10	686.00
67	15	67.08	4.73%	679.00	675.83	RCP				
66							MH	-	-	681.25
65	15	79.69	1.88%	674.33	672.83	RCP				
64							DI-3C	CG-6	6	678.75
63	18	30.30	0.99%	672.40	672.10	RCP				
62							MH	-	-	678.67
62A	18	94.61	1.30%	672.00	670.77	RCP				
60B							EX-DI-3B	CG-6	8	678.42
60A	18	40.17	1.50%	670.67	670.27	RCP				
60							EX-DI-3B	CG-6	6	678.33
59	18	141.23	1.52%	670.17	668.02	RCP				
58							EX-DI-3B	CG-6	6	675.50
57	18	138.00	1.86%	667.92	665.35	RCP				
56							EX-DI-3B	CG-6	8	672.50
55	18	30.35	2.47%	665.25	664.50	RCP				
56B							EX-DI-3B	CG-6	16	672.50
56A	15	39.70	1.00%	665.75	665.35	RCP				
64B							DI-3B	CG-6	4	678.83
64A	15	27.99	2.07%	673.08	672.50	RCP				
76D							DI-3C	CG-6	8	658.50
76C	15	85.23	0.56%	654.00	653.52	RCP				
76B							DI-3B	CG-6	8	662.58
76A	15	29.42	0.50%	653.42	653.27	RCP				
76							DI-3B	CG-6	4	662.67
75	15	78.29	0.51%	653.17	652.77	RCP				
74							DI-3B	CG-6	4	663.75
73	30	55.96	0.57%	652.67	652.35	RCP				
72B							DI-3B	CG-6	6	663.00
72A	30	50.84	0.63%	652.25	651.93	RCP				
72							DI-3B	CG-6	6	663.50
71	30	172.96	0.52%	651.83	650.93	RCP				
70F							DI-3B	CG-6	6	663.75
70E	30	32.89	0.70%	650.83	650.60	RCP				
70D							DI-3B	CG-6	6	663.67
70C	30	79.94	0.50%	650.50	650.10	RCP				
70							DI-3C	CG-6	6	662.83
69	30	47.27	0.68%	650.00	649.68	RCP				
40B							DI-3B	CG-6	8	663.17
40A	30	59.85	0.97%	649.58	649.00	RCP				
70B							DI-3C	CG-6	10	662.83
70A	15	32.68	2.05%	656.50	655.83	RCP				
72D							DI-3B	CG-6	6	663.42
72C	15	32.81	1.28%	656.75	656.33	RCP				
72F							DI-3C	CG-6	6	663.08
72E	15	32.69	1.01%	656.33	656.00	RCP				
88B							DI-3C	CG-6	8	671.33
88A	15	39.67	1.00%	664.67	664.27	RCP				
88							DI-3C	CG-6	6	671.33
87	15	131.33	0.56%	664.17	663.43	RCP				
86							MH	-	-	673.00
85	24	144.68	2.07%	663.33	660.33	RCP				
84							DI-3B	CG-6	8	667.08
83	24	47.03	0.68%	655.75	655.43	RCP				
82							DI-3B	CG-6	8	666.17
81	24	26.73	0.86%	655.33	655.10	RCP				
80							DI-3B	CG-6	4	665.92
79	30	69.19	0.58%	655.00	654.60	RCP				
78							DI-3B	CG-6	4	665.17
77	30	33.26	0.75%	654.50	654.25	RCP				
80D							DI-3B	CG-6	8	663.50
80C	15	26.02	0.58%	658.75	658.60	RCP				
80B							DI-3C	CG-6	8	662.92
80A	15	118.69	0.56%	658.50	657.83	RCP				
82D							DI-3B	CG-6	6	667.42
82C	15	27.66	0.54%	657.75	657.60	RCP				
82B							DI-3B	CG-6	6	667.42
82A	15	118.48	0.70%	657.50	656.67	RCP				
102							DI-3B	CG-6	14	676.25
101	15	97.98	0.57%	671.33	670.77	RCP				
100							DI-3C	CG-6	8	674.50
99	15	11.65	0.60%	670.67	670.60	RCP				
98							DI-3C	CG-6	6	674.75
97	18	37.02	0.62%	670.50	670.27	RCP				
96							DI-3B	CG-6	8	674.92
95	18	92.97	0.53%	670.17	669.68	RCP				
94							MH	-	-	675.25
93	18	71.24	0.56%	669.58	669.18	RCP				
92B							DI-3B	CG-6	6	674.08
92A	18	23.91	0.96%	669.08	668.85	RCP				
92							DI-3C	CG-6	6	674.00
91	18	36.45	1.15%	668.75	668.33	RCP				
90B							EX-DI-3B	CG-6	12	674.75
90A	18	39.80	1.26%	667.75	667.25	RCP				
90							EX-DI-3B	CG-6	10	674.75
89	24	27.97	1.18%	667.00	666.67	RCP				
104							DI-3B	CG-6	8	687.08
103	15	39.26	2.11%	683.00	681.92	RCP				
106							DI-3B	CG-6	6	691.58
105	15	96.27	4.59%	685.42	681.00	RCP				
112							DI-3C	CG-6	8	680.25
111	15	32.76	0.98%	675.92	675.60	HDPE				
110							DI-3B	CG-6	6	680.17
109	15	38.32	0.60%	675.50	675.27	HDPE				
108							DI-3C	CG-6	8	679.75
107	15	92.87	0.80%	675.17	674.43	RCP				

YARD DRAINAGE DESCRIPTIONS

STR. NO.	PIPE INFORMATION DIA. (in.)	LENGTH* (ft.)	SLOPE (%)	INVERT IN	INVERT OUT	MATERIAL	INLET INFORMATION INLET TYPE	RIM ELEVATION
YD-6E							18" Yard Inlet	671.33
	12	92.75	1.08%	668.50	667.50	HDPE		
YD-6D							18" Yard Inlet	670.33
	12	79.25	1.89%	667.50	666.00	HDPE		
YD-6C							18" Yard Inlet	669.50
	12	94.67	8.45%	666.00	658.00	HDPE		
YD-6B							18" Yard Inlet	662.00
	12	59.08	6.48%	658.00	654.17	HDPE		
YD-6A							18" Yard Inlet	658.67
	12	73.42	1.59%	654.17	653.00	HDPE		
YD-6							12" Cleanout	658.67
	12	28.67	1.74%	653.00	652.50	HDPE		
YD-6F							18" Yard Inlet	657.67
	12	46.00	1.09%	654.67	654.17	HDPE		
YD-7B							18" Yard Inlet	670.67
	12	97.04	1.03%	667.67	666.67	HDPE		
YD-7A							18" Yard Inlet	669.67
	12	94.83	2.11%	666.67	664.67	HDPE		
YD-7							12" Cleanout	669.17
	12	12.92	2.63%	664.67	664.33	HDPE		
YD-7C							18" Yard Inlet	671.00
	12	107.11	1.24%	668.00	666.67	HDPE		
YD-8B							18" Yard Inlet	677.00
	12	48.77	4.10%	674.00	672.00	HDPE		
YD-8A							18" Yard Inlet	676.00
	12	65.30	14.55%	672.00	662.50	HDPE		
YD-8							12" Cleanout	666.50
	12	5.21	9.60%	662.50	662.00	HDPE		
YD-9A							18" Yard Inlet	660.50
	12	112.06	2.68%	657.50	654.50	HDPE		
YD-9							18" Yard Inlet	657.75
	12	12.53	1.36%	654.50	654.33	HDPE		
YD-10A							18" Yard Inlet	664.83
	12	67.95	2.69%	660.83	659.00	HDPE		
YD-10							18" Yard Inlet	663.17
	12	17.88	0.84%	659.00	658.85	HDPE		
YD-11C							18" Yard Inlet	676.00
	12	72.32	1.38%	673.00	672.00	HDPE		
YD-11B							18" Yard Inlet	676.00
	12	62.79	1.07%	672.00	671.33	HDPE		
YD-11A							18" Yard Inlet	675.00
	12	62.79	0.92%	671.33	670.75	HDPE		
YD-11							18" Yard Inlet	674.00
	12	74.22	1.01%	670.75	670.00	HDPE		
YD-12A							18" Yard Inlet	683.50
	12	35.75	15.38%	680.00	674.50	HDPE		
YD-12							18" Yard Inlet	677.00
	12	30.33	8.24%	674.50	672.00	HDPE		
YD-13A							18" Yard Inlet	689.33
	12	66.24	3.02%	686.33	684.33	HDPE		
YD-13							18" Yard Inlet	687.33
	12	82.38	1.61%	684.33	683.00	HDPE		

Structure	Area (Acres)	Cw	t_c (Min.)
30	0.00	0.90	5.0
30B	0.00	0.90	5.0
32	0.22	0.75	6.0
34	0.21	0.70	6.0
34B	0.25	0.70	6.0
36	0.16	0.70	6.0
38	0.12	0.60	6.0
38B	0.42	0.70	6.0
38D	0.33	0.70	6.0
40	0.21	0.75	6.0
40B	0.20	0.75	6.0
44	0.11	0.75	6.0
44D	0.22	0.70	6.0
44F	0.30	0.55	6.0
46	0.06	0.70	5.0
48	0.16	0.70	6.0
50	0.17	0.75	6.0
50B	0.13	0.75	6.0
52	0.12	0.70	6.0
52B	0.10	0.70	6.0
54	0.50	0.60	6.0
54B	0.36	0.80	6.0
54D	2.66	0.35	10.0
56	0.12	0.70	6.0
56B	0.27	0.70	6.0
58	0.09	0.75	6.0
60	0.06	0.75	6.0
60B	0.07	0.70	6.0
64	0.09	0.70	6.0
64B	0.04	0.65	6.0
70	0.14	0.75	6.0
70B	0.26	0.70	6.0
70D	0.08	0.75	6.0
70F	0.18	0.50	6.0
72	0.15	0.60	6.0
72B	0.22	0.60	6.0
72D	0.10	0.70	6.0
72F	0.14	0.75	6.0
74	0.04	0.70	6.0
76	0.03	0.80	5.0
76B	0.19	0.85	6.0
76D	0.12	0.80	6.0
78	0.05	0.60	5.0
80	0.06	0.80	5.0
80B	0.09	0.85	6.0
80D	0.21	0.80	6.0
82	0.21	0.75	6.0
82B	0.10	0.75	6.0
82D	0.19	0.60	6.0
84	0.17	0.65	6.0
88	0.12	0.70	6.0
88B	0.35	0.60	6.0
90	0.21	0.75	7.0
90B	0.29	0.65	7.0
92	0.09	0.65	6.0
92B	0.06	0.60	6.0
96	0.42	0.50	6.0
98	0.15	0.60	6.0
100	0.40	0.60	6.0
102	0.46	0.65	6.0
68	0.17	0.80	6.0
104	0.19	0.80	6.0
106	0.10	0.75	6.0
108	0.28	0.75	6.0
110	0.09	0.75	6.0
112	0.36	0.70	6.0

YARD DRAINS			
YD-6	0.00	0.90	5.0
YD-6A	0.15	0.45	6.0
YD-6B	0.14	0.45	6.0
YD-6C	0.11	0.45	6.0
YD-6D	0.09	0.30	6.0
YD-6E	0.29	0.40	7.0
YD-6F	0.23	0.45	6.0
YD-7A	0.18	0.60	6.0
YD-7B	0.12	0.50	6.0
YD-7C	0.22	0.45	6.0
YD-8A	0.04	0.60	5.0
YD-8B	0.07	0.60	5.0
YD-9	0.11	0.60	6.0
YD-9A	0.11	0.60	6.0
YD-10	0.08	0.60	6.0
YD-10A	0.08	0.60	6.0
YD-11	0.20	0.50	6.0
YD-11A	0.12	0.50	6.0
YD-11B	0.14	0.50	6.0
YD-11C	0.10	0.50	6.0
YD-12	0.28	0.40	6.0
YD-12A	0.06	0.60	6.0
YD-13	0.09	0.65	6.0
YD-13A	0.08	0.70	6.0

ROOF DRAINS			
RF-1	0.00	0.90	5.0
RF-1A	0.11	0.90	5.0
RF-2	0.09	0.90	5.0
RF-3	0.06	0.90	5.0
RF-4A	0.05	0.90	5.0
RF-4B	0.03	0.90	5.0
RF-5A	0.07	0.90	5.0
RF-6A	0.05	0.90	5.0
RF-6B	0.05	0.90	5.0
RF-7	0.05	0.90	5.0
RF-8	0.05	0.90	5.0
RF-9	0.05	0.90	5.0
RF-10A	0.05	0.90	5.0
RF-10B	0.05	0.90	5.0
RF-11A	0.05	0.90	5.0
RF-12A	0.09	0.90	5.0
RF-13A	0.09	0.90	5.0
RF-14A	0.05	0.90	5.0
RF-14B	0.05	0.90	5.0
RF-15A	0.06	0.90	5.0
RF-16A	0.06	0.90	5.0
RF-17A	0.05	0.90	5.0
RF-18A	0.05	0.90	5.0
RF-19A	0.06	0.90	5.0
RF-20A	0.06	0.90	5.0
RF-21A	0.05	0.90	5.0
RF-22A	0.06	0.90	5.0
RF-22B	0.07	0.90	5.0
RF-23A	0.05	0.90	5.0
RF-24A	0.06	0.90	5.0
RF-24B	0.07	0.90	5.0
RF-25A	0.04	0.90	5.0
RF-26A	0.06	0.90	5.0
RF-27A	0.06	0.90	5.0
RF-28A	0.06	0.90	5.0
RF-29A	0.06	0.90	5.0
RF-30A	0.06	0.90	5.0
RF-31A	0.06	0.90	5.0
RF-32A	0.06	0.90	5.0

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

COMMONWEALTH OF VIRGINIA
SCOTT R. COLLINS
Lic. No. 035791
PROFESSIONAL ENGINEER
2/16/24

REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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

PROJECT: GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

SHEET: DRAINAGE MAP

JOB NO. 112066
SCALE 1" = 80'
SHEET NO. 13

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Design Storm Year = 10

POINT	DOWNSTREAM STRUCTURE	DRAIN AREA ACRES	RUNOFF COEFF. C	CA INCR	CA ACCUM	INLET TIME MIN	RAIN FALL MIN	RUNOFF Q C.F.S.	INVERT ELEVATIONS UPPER	INVERT ELEVATIONS LOWER	LENGTH FEET	SLOPE FT./FT.	DIA INCHES	CAPA-CITY C.F.S.	VEL F.P.S.	FLOW TIME SEC
38D	38B	0.33	0.70	0.23	0.23	6.00	6.35	1.5	660.25	660.02	32.69	0.0070	15	5.4	3.7	8.8
38B	38	0.42	0.70	0.29	0.53	6.15	6.31	3.3	659.92	659.68	41.07	0.0058	15	4.9	4.3	9.6
38	36	0.12	0.60	0.07	0.60	6.31	6.26	3.7	659.58	659.35	41.02	0.0056	15	4.8	4.3	9.4
36	30B	0.16	0.70	0.11	0.71	6.46	6.22	4.4	659.25	659.00	45.15	0.0055	15	4.8	4.4	10.2
34B	34	0.25	0.70	0.18	0.60	8.23	5.76	3.5	650.58	650.35	33.01	0.0070	15	5.4	4.7	7.1
34	32	0.21	0.70	0.15	0.75	8.35	5.73	4.3	650.25	649.52	146.79	0.0050	15	4.6	4.2	34.7
32	30B	0.22	0.75	0.17	1.01	8.92	5.60	5.7	649.42	649.02	62.95	0.0064	18	8.4	5.1	12.3
30B	30	0.00	0.90	0.00	1.72	9.13	5.55	9.6	648.92	648.25	118.08	0.0057	24	17.1	5.6	21.2
30	SWM	0.00	0.90	0.00	1.72	9.48	5.48	9.6	646.00	642.25	82.16	0.0456	24	48.3	11.9	6.9
YD-6E	YD-6D	0.29	0.40	0.12	0.12	7.00	6.07	0.7	668.50	667.50	92.75	0.0108	12	4.0	3.8	24.3
YD-6D	YD-6C	0.09	0.30	0.03	0.14	7.41	5.96	0.9	667.50	666.00	79.25	0.0189	12	5.3	4.9	16.0
YD-6C	YD-6B	0.11	0.45	0.05	0.19	7.67	5.89	1.1	666.00	658.00	94.67	0.0845	12	11.2	9.0	10.5
YD-6B	YD-6A	0.14	0.45	0.06	0.26	7.85	5.85	1.5	658.00	654.17	59.08	0.0648	12	9.8	9.0	6.6
YD-6A	YD-6	0.15	0.45	0.07	0.43	7.96	5.82	2.5	654.17	653.00	73.42	0.0159	12	4.9	6.2	11.8
YD-6	34B	0.00	0.90	0.00	0.43	8.15	5.77	2.5	653.00	652.50	28.67	0.0174	12	5.1	6.4	4.5
YD-6F	YD-6A	0.23	0.45	0.10	0.10	6.00	6.35	0.7	654.67	654.17	46.00	0.0109	12	4.0	3.8	12.3
54D	54B	2.66	0.35	0.93	0.93	10.00	5.37	5.0	662.50	662.00	20.53	0.0243	15	10.1	8.1	2.5
54B	54	0.36	0.80	0.29	1.22	10.04	5.36	6.5	660.67	660.43	39.66	0.0060	18	8.1	5.1	7.8
54	52D	0.50	0.60	0.30	1.52	10.17	5.34	8.1	660.33	659.27	197.83	0.0054	24	16.6	5.2	37.7
52D	52	0.00	0.90	0.00	3.37	10.80	5.22	17.6	659.17	658.77	75.76	0.0053	24	LOW	5.6	13.5
52	50B	0.12	0.70	0.08	3.53	11.03	5.17	18.2	658.67	658.35	64.36	0.0050	30	29.0	6.2	10.3
50B	50	0.13	0.75	0.10	3.70	11.20	5.14	19.0	658.25	658.02	32.68	0.0070	30	34.3	7.2	4.6
50	48	0.17	0.75	0.13	4.23	11.27	5.13	21.7	657.92	657.60	64.49	0.0050	30	29.0	6.5	10.0
48	46	0.16	0.70	0.11	4.34	11.44	5.10	22.1	657.50	656.92	105.46	0.0055	30	30.4	6.8	15.6
46	44	0.06	0.70	0.04	4.38	11.70	5.05	22.1	654.33	654.10	44.40	0.0052	30	29.6	6.6	6.7
44	42	0.11	0.75	0.08	5.43	11.81	5.03	27.3	654.00	653.85	19.13	0.0078	30	36.2	8.1	2.4
42	40	0.00	0.90	0.00	10.59	11.85	5.03	53.2	653.75	653.00	58.78	0.0128	36	75.5	11.5	5.1
40	SWM	0.21	0.75	0.16	16.11	11.94	5.01	80.7	648.75	648.00	42.46	0.0177	36	88.7	14.2	3.0
44F	44D	0.30	0.55	0.17	0.37	6.00	6.35	2.3	658.92	658.77	27.81	0.0054	15	4.7	3.8	7.3
44D	44B	0.22	0.70	0.15	0.71	6.37	6.24	4.4	658.67	658.02	118.77	0.0055	15	4.8	4.4	26.8
44B	44	0.00	0.90	0.00	0.91	6.82	6.12	5.5	657.92	657.50	76.58	0.0055	18	7.8	4.8	16.0
52B	52	0.10	0.70	0.07	0.07	6.00	6.35	0.4	662.50	662.17	32.68	0.0100	15	6.5	2.9	11.1
66	64	0.00	0.90	0.00	1.28	6.88	6.10	7.8	674.33	672.83	79.69	0.0188	15	8.9	8.1	9.8
64	62	0.09	0.70	0.06	1.37	7.05	6.05	8.3	672.40	672.10	30.30	0.0099	18	10.5	6.6	4.6
62	60B	0.00	0.90	0.00	1.37	7.13	6.03	8.3	672.00	670.77	94.61	0.0130	18	12.0	7.3	12.9
60B	60	0.07	0.70	0.05	1.47	7.34	5.98	8.8	670.67	670.27	40.17	0.0150	18	12.9	7.8	5.1
60	58	0.06	0.75	0.05	1.51	7.43	5.96	9.0	670.17	668.02	141.23	0.0152	18	13.0	7.9	17.9
58	56	0.09	0.75	0.07	1.58	7.72	5.88	9.3	667.92	665.35	138.00	0.0186	18	14.3	8.6	16.1
56	52D	0.12	0.70	0.08	1.85	7.99	5.81	10.8	665.25	664.50	30.35	0.0247	18	16.5	9.9	3.1
56B	56	0.27	0.70	0.19	0.19	6.00	6.35	1.2	665.75	665.35	39.70	0.0100	15	6.5	4.0	9.9
64B	64	0.04	0.65	0.03	0.03	6.00	6.35	0.2	673.08	672.50	27.99	0.0207	15	9.3	2.8	9.9
76D	76B	0.12	0.80	0.10	0.23	6.47	6.22	1.4	654.00	653.52	85.23	0.0056	15	4.8	3.4	24.9
76B	76	0.19	0.85	0.16	0.44	6.88	6.10	2.7	653.42	653.27	29.42	0.0050	15	4.6	3.9	7.6
76	74	0.03	0.80	0.02	0.47	7.01	6.06	2.8	653.17	652.77	78.29	0.0051	15	4.6	3.9	19.9
74	72B	0.04	0.70	0.03	3.98	8.22	5.76	22.9	652.67	652.35	55.96	0.0057	30	31.0	6.9	8.1
72B	72	0.22	0.60	0.13	4.22	8.36	5.73	24.2	652.25	651.93	50.84	0.0063	30	32.6	7.3	7.0
72	70F	0.15	0.60	0.09	4.55	8.48	5.70	26.0	651.83	650.93	172.96	0.0052	30	29.6	6.8	25.5
70F	70D	0.18	0.50	0.09	4.64	8.90	5.60	26.0	650.83	650.60	32.89	0.0070	30	34.3	7.7	4.3
70D	70	0.08	0.75	0.06	4.78	8.97	5.59	26.7	650.50	650.10	79.94	0.0050	30	29.0	6.7	11.9
70	40B	0.14	0.75	0.11	5.16	9.17	5.54	28.6	650.00	649.68	47.27	0.0068	30	33.8	7.7	6.1
40B	40	0.20	0.75	0.15	5.36	9.27	5.52	29.6	649.58	649.00	59.85	0.0097	30	40.4	9.0	6.7
70B	70	0.26	0.70	0.18	0.27	6.00	6.35	1.7	656.50	655.83	32.68	0.0205	15	9.2	5.7	5.7
72D	72	0.10	0.70	0.07	0.15	6.00	6.35	1.0	656.75	656.33	32.81	0.0128	15	7.3	4.1	8.0
72F	72B	0.14	0.75	0.11	0.11	6.00	6.35	0.7	656.33	656.00	32.69	0.0101	15	6.5	3.3	9.8
88B	88	0.35	0.60	0.21	0.21	6.00	6.35	1.3	664.67	664.27	39.67	0.0100	15	6.5	4.1	9.7
88	86	0.12	0.70	0.08	0.29	6.16	6.30	1.9	664.17	663.43	131.33	0.0056	15	4.8	3.6	36.1
86	84	0.00	0.90	0.00	2.36	7.56	5.92	14.0	663.33	660.33	144.68	0.0207	24	32.5	9.9	14.6
84	82	0.17	0.65	0.11	2.53	7.80	5.86	14.8	655.75	655.43	47.03	0.0068	24	18.7	6.6	7.1
82	80	0.21	0.75	0.16	3.02	7.92	5.83	17.6	655.33	655.10	26.73	0.0086	24	21.0	7.5	3.6
80	78	0.06	0.80	0.05	3.46	7.98	5.82	20.1	655.00	654.60	69.19	0.0058	30	31.2	6.7	10.3
78	74	0.05	0.60	0.03	3.49	8.15	5.78	20.2	654.50	654.25	33.26	0.0075	30	35.5	7.4	4.5
80D	80B	0.21	0.80	0.17	0.32	6.37	6.24	2.0	658.75	658.60	26.02	0.0058	15	4.9	3.8	6.9
80B	80	0.09	0.85	0.08	0.39	6.49	6.21	2.5	658.50	657.83	118.69	0.0056	15	4.8	3.9	30.1
82D	82B	0.19	0.60	0.11	0.17	6.00	6.35	1.1	657.75	657.60	27.66	0.0054	15	4.7	3.1	8.9
82B	82	0.10	0.75	0.08	0.29	6.15	6.31	1.8	657.50	656.67	118.48	0.0070	15	5.4	3.9	30.2
102	100	0.46	0.65	0.30	0.48	6.15	6.31	3.0	671.33	670.77	97.98	0.0057	15	4.9	4.2	23.4
100	98	0.40	0.60	0.24	0.72	6.54	6.20	4.5	670.67	670.60	11.65	0.0060	15	5.0	4.6	2.5
98	96	0.15	0.60	0.09	0.93	6.58	6.18	5.8	670.50	670.27	37.02	0.0062	18	8.3	5.0	7.3
96	94	0.42	0.50	0.21	1.14	6.70	6.15	7.0	670.17	669.68	92.97	0.0053	18	7.6	4.9	19.0
94	92B	0.00	0.90	0.00	1.19	7.02	6.06	7.2	669.58	669.18	71.24	0.0056	18	7.9	5.0	14.1
92B	92	0.06	0.60	0.04	1.27	7.25	6.00	7.6	669.08	668.85	23.91	0.0096	18	10.3	6.3	3.8
92	90B	0.09	0.65	0.06	1.32	7.32	5.98	7.9	668.75	668.33	36.45	0.0115	18	11.3	6.9	5.3
90B	90	0.29	0.65	0.19	1.63	7.41	5.96	9.7	667.75	667.25	39.80	0.0126	18	11.8	7.4	5.3
90	86	0.21	0.75	0.16	2.07	7.50	5.94	12.3	667.00	666.67	27.97	0.0118	24	24.6	7.8	3.6
YD-7B	YD-7A	0.12	0.50	0.06	0.06	6.00	6.35	0.4	667.67	666.67	97.04	0.0103	12	3.9	3.2	30.7
YD-7A	YD-7	0.18	0.60	0.11	0.27	6.51	6.20	1.7	666.67	664.67	94.83	0.0211	12	5.6	6.2	15.3
YD-7	50	0.00	0.90	0.00	0.40	6.77	6.13	2.5	664.67	664.33	12.92	0.0263	12	6.3	7.4	1.7
YD-7C	YD-7A	0.22	0.45	0.10	0.10	6.00	6.35	0.6	668.00	666.67	107.11	0.0124	12	4.3	3.8	27.9
YD-8B	YD-8A	0.07	0.60	0.04	0.04	5.00	6.67	0.3	674.00	672.00	48.77	0.0410	12	7.8	4.5	10.9
YD-8A	YD-8	0.04	0.60	0.02	0.11	5.59	6.48	0.7	672.00	662.50	65.30	0.1455	12	14.7	9.7	6.7
YD-8	44F	0.00	0.90	0.00	0.20	5.70	6.44	1.3	662.50	662.00	5.21	0.0960	12	12.0	9.9	0.5
YD-9A	YD-9	0.11	0.60	0.07	0.07	6.00	6.35	0.4	657.50	654.50	112.06	0.0268	12	6.3	4.5	25.0
YD-9	76D	0.11	0.60	0.07	0.13	6.42	6.23	0.8	654.50	654.33	12.53	0.0136	12	4.5	4.3	2.9
YD-10A	YD-10	0.08	0.60	0.05	0.05	6.00	6.35	0.3	660.83	659.00	67.95	0.0269	12	6.3	4.0	17.0
YD-10	80D	0.08	0.60	0.05	0.10	6.28	6.27	0.6	659.00	658.85	17.88	0.0084	12	3.5	3.3	5.4
YD-11C	YD-11B	0.10	0.50	0.05	0.05	6.00	6.35	0.3	673.00	672.00	72.32	0.0138	12	4.5	3.2	22.4
YD-11B	YD-11A	0.14	0.50	0.07	0.12	6.37	6.24	0.7	672.00	671.33	62.79	0.0107	12	4.0	3.9	16.2
YD-11A	YD-11	0.12	0.50	0.06	0.18	6.64	6.17	1.1	671.33	670.75	62.79	0.0092	12	3.7	4.1	15.3
YD-11	90	0.20	0.50	0.10	0.28	6.90	6.09	1.7	670.75	670.00	74.22	0.0101	12	3.9	4.8	15.6
YD-12A	YD-12	0.06	0.60	0.04	0.04	6.00	6.35	0.2	680.00	674.50	35.75	0.1538	12	15.1	6.7	5.3
YD-12	102	0.28	0.40	0.11	0.15	6.09	6.32	0.9	674.50	672.00	30.33	0.0824	12	11.1	8.4	3.6
104	68B	0.19	0.80	0.15	0.32	6.56	6.19	2.0	683.00	681.92	39.26	0.0211	15	9.4	6.0	6.5
106	68B	0.10	0.75	0.08	0.08	6.00	6.35	0.5	685.42	681.00	96.27	0.0459	15	13.8	5.1	19.0
112	110	0.36	0.70	0.25	0.25	6.00	6.35	1.6	675.92	675.60	32.76	0.0098	15	6.9	4.5	7.2
110	108	0.09	0.75	0.07	0.48	6.12	6.31	3.0	675.50	675.27	38.32	0.0060	15	5.4	4.5	8.5
108	66	0.28	0.75	0.21	0.69	6.26	6.27	4.3	675.17	674.43	92.87	0.0080	15	5.8	5.2	18.0
YD-13A	YD-13	0.08	0.70	0.06	0.06	6.00	6.35	0.4	686.33	684.33	66.24	0.0302	12	6.7	4.4	15.0
YD-13	104	0.09	0.65	0.06	0.11	6.25	6.28	0.7	684.33	683.00	82.38	0.0161	12	4.9	4.4	18.9

Design Year: 10 Project: Glenbrook 2B Job #: 112066 Prepared by: AML, PE

INLET STATION	OUTLET WATER SURFACE ELEV	L_o	D_o	Q_o ZW	S_{fo}	H_f	V_o	H_o	Q_{IN}	V_{IN}	Q_i*V_i	$V_i^2/2g$	H_i	ANGLE	H_Δ	H_t	$1.3H_t$	$.5H_t$	FINAL H	INLET WATER SURFACE ELEV.	RIM ELEV
30	643.85	82.16	24	9.56	0.002	0.15	3.0	0.0	9.6	3.0	29.08	0.1	0.05	74	0.08768	0.17	N/A	N/A	0.32	644.17	654.50
30B	649.85	118.08	24	9.56	0.002	0.21	3.0	0.0	4.4	4.4	19.51	0.3	0.11	40	0.11553	0.26	N/A	N/A	0.47	650.32	667.33
32	650.32	62.95	18	5.67	0.003	0.18	3.2	0.0	4.3	3.5	14.99	0.2	0.07	6	0	0.11	NA	N/A	0.29	650.61	664.00
34	650.61	146.79	15	4.29	0.004	0.65	3.5	0.0	3.5	2.8	9.774	0.1	0.04	90	0.08658	0.18	N/A	N/A	0.82	651.43	657.33
34B	651.43	33.01	15	3.46	0.003	0.09	2.8	0.0	2.5	6.4	15.97	0.6	0.22	0	0	0.26	NA	N/A	0.35	651.78	657.25
36	660.00	45.15	15	4.41	0.005	0.21	3.6	0.1	3.7	3.0	11.39	0.1	0.05	49	0.05476	0.16	NA	N/A	0.37	660.37	668.08
38	660.37	41.02	15	3.74	0.003	0.14	3.0	0.0	3.3	2.7	8.935	0.1	0.04	53	0.05314	0.13	NA	N/A	0.27	660.63	665.67
38B	660.68	41.07	15	3.31	0.003	0.11	2.7	0.0	1.5	1.2	1.753	0.0	0.01	90	0.01552	0.05	NA	N/A	0.16	660.84	666.92
38D	661.02	32.69	15	1.47	0.001	0.02	1.2	0.0					0.00	0	0	0.01	NA	N/A	0.02	661.04	666.92
108	675.64	92.87	15	4.34	0.005	0.42	3.5	0.0	3.0	2.5	7.53	0.1	0.03	0	0	0.08	NA	N/A	0.50	676.14	679.75
110	676.27	38.32	15	3.04	0.002	0.07	2.5	0.0	1.6	1.3	2.09	0.0	0.01	0	0	0.03	NA	N/A	0.11	676.38	680.17
112	676.60	32.76	15	1.60	0.001	0.02	1.3	0.0					0.00	0	0	0.01	NA	N/A	0.02	676.62	680.25
106	682.00	96.27	15	0.48	0.000	0.01	0.4	0.0					0.00	0	0	0.00	NA	N/A	0.01	682.01	691.58
104	682.92	39.26	15	1.98	0.001	0.04	1.6	0.0	0.7	4.4	3.14	0.3	0.10	0	0	0.11	NA	N/A	0.15	683.07	687.08
90	668.27	27.97	24	12.28	0.003	0.08	3.9	0.1	9.7	5.5	53.4	0.5	0.16	75	0.286	0.51	NA	N/A	0.59	668.86	674.75
90B	668.86	39.80	18	9.72	0.009	0.34	5.5	0.1	7.9	4.5	35.6	0.3	0.11	42	0.119	0.35	NA	N/A	0.69	669.55	674.75
92	669.55	36.45	18	7.93	0.006	0.21	4.5	0.1	7.6	4.3	32.7	0.3	0.10	36	0.08	0.26	NA	N/A	0.47	670.02	674.00
92B	670.05	23.91	18	7.60	0.005	0.13	4.3	0.1	7.2	4.1	29.2	0.3	0.09	83	0.169	0.33	NA	N/A	0.46	670.51	674.08
94	670.51	71.24	18	7.18	0.005	0.33	4.1	0.1	7.0	4.0	27.8	0.2	0.09	74	0.149	0.30	N/A	N/A	0.63	671.14	675.25
96	671.14	92.97	18	7.01	0.004	0.41	4.0	0.1	5.8	3.3	18.7	0.2	0.06	20	0.026	0.14	NA	N/A	0.56	671.70	674.92
98	671.70	37.02	18	5.75	0.003	0.11	3.3	0.0	4.5	3.7	16.4	0.2	0.07	52	0.097	0.21	NA	N/A	0.32	672.02	674.75
100	672.02	11.65	15	4.48	0.005	0.06	3.7	0.1	3.0	2.5	7.56	0.1	0.03	55	0.045	0.13	NA	N/A	0.19	672.20	674.50
102	672.20	97.98	15	3.05	0.002	0.22	2.5	0.0	0.9	8.4	7.88	1.1	0.38	0	0	0.41	NA	N/A	0.63	672.83	676.25
82B	658.91	118.48	15	1.82	0.001	0.09	1.5	0.0	0.3	4.4	1.32	0.3	0.11	88	0.198	0.31	NA	N/A	0.41	659.31	667.42
82D	659.31	27.66	15	1.07	0.000	0.01	0.9	0.0	0.4	5.8	2.09	0.5	0.18	0	0	0.19	NA	N/A	0.19	659.51	667.42
80B	658.83	118.69	15	2.45	0.001	0.17	2.0	0.0	2.0	1.6	3.21	0.0	0.01	78	0.025	0.05	NA	N/A	0.23	659.06	662.92
80D	659.60	26.02	15	1.99	0.001	0.02	1.6	0.0	0.6	3.3	1.98	0.2	0.06	0	0	0.07	NA	N/A	0.09	659.69	663.50
78	657.39	33.26	30	20.15	0.002	0.08	4.1	0.1	20.1	4.1	82.5	0.3	0.09	41	0.099	0.26	NA	N/A	0.34	657.73	665.17
80	657.73	69.19	30	20.12	0.002	0.17	4.1	0.1	17.6	5.6	98.5	0.5	0.17	41	0.185	0.42	NA	N/A	0.59	658.31	665.92
82	658.31	26.73	24	17.59	0.006	0.16	5.6	0.1	14.8	4.7	69.8	0.3	0.12	64	0.19	0.43	NA	N/A	0.59	658.91	666.17
84	658.91	47.03	24	14.81	0.004	0.20	4.7	0.1	14.0	4.5	62.3	0.3	0.11	22	0.049	0.24	NA	N/A	0.44	659.35	667.08
86	661.93	144.68	24	13.99	0.004	0.55	4.5	0.1	12.3	7.8	95.2	0.9	0.33	90	0.654	1.06	N/A	N/A	1.61	663.54	673.00
88	664.43	131.33	15	1.85	0.001	0.11	1.5	0.0	1.3	1.1	1.45	0.0	0.01	86	0.012	0.03	NA	N/A	0.14	664.57	671.33
88B	665.27	39.67	15	1.33	0.000	0.02	1.1	0.0					0.00	0	0	0.00	NA	N/A	0.02	665.29	671.33
72F	657.00	32.69	15	0.67	0.000	0.00	0.5	0.0					0.00	0	0	0.00	NA	N/A	0.00	657.00	663.08
72D	657.33	32.81	15	0.96	0.000	0.01	0.8	0.0	0.5	4.8	2.6	0.4	0.13	0	0	0.13	NA	N/A	0.14	657.47	663.42
70B	656.83	32.68	15	1.73	0.001	0.02	1.4	0.0	0.6	6.7	3.96	0.7	0.25	0	0	0.25	NA	N/A	0.28	657.11	662.83
40B	651.84	59.85	30	29.57	0.005	0.31	6.0	0.1	28.6	5.8	167	0.5	0.18	61	0.29	0.62	NA	N/A	0.93	652.76	663.17
70	652.76	47.27	30	28.61	0.005	0.23	5.8	0.1	26.7	5.4	145	0.5	0.16	31	0.129	0.42	NA	N/A	0.65	653.41	662.83
70D	653.41	79.94	30	26.72	0.004	0.34	5.4	0.1	26.0	5.3	138	0.4	0.15	83	0.288	0.56	NA	N/A	0.89	654.31	663.67
70F	654.31	32.89	30	26.01	0.004	0.13	5.3	0.1	26.0	5.3	137	0.4	0.15	89	0.286	0.55	NA	N/A	0.68	654.99	663.75
72	654.99	172.96	30	25.95	0.004	0.69	5.3	0.1	24.2	4.9	119	0.4	0.13	5	0	0.24	NA	N/A	0.93	655.92	663.50
72B	655.92	50.84	30	24.18	0.003	0.18	4.9	0.1	22.9	4.7	107	0.3	0.12	0	0	0.21	NA	N/A	0.39	656.31	663.00
74	656.31	55.96	30	22.95	0.003	0.18	4.7	0.1	20.2	7.4	149	0.9	0.30	73	0.52	0.90	NA	N/A	1.08	657.39	663.75
76	657.39	78.29	15	2.83	0.002	0.15	2.3	0.0	2.7	2.2	5.96	0.1	0.03	72	0.046	0.09	NA	N/A	0.24	657.63	662.67
76B	657.63	29.42	15	2.71	0.002	0.05	2.2	0.0	1.4	1.2	1.64	0.0	0.01	31	0.006	0.03	NA	N/A	0.08	657.72	662.58
76D	657.72	85.23	15	1.42	0.000	0.04	1.2	0.0	0.8	4.3	3.52	0.3	0.10	0	0	0.10	NA	N/A	0.15	657.86	658.50
64B	674.09	27.99	15	0.17	0.000	0.00	0.1	0.0					0.00	0	0	0.00	NA	N/A	0.00	674.09	678.83
56B	666.35	39.70	15	1.20	0.000	0.01	1.0	0.0					0.00	0	0	0.00	NA	N/A	0.02	666.37	672.50
56	665.70	30.35	18	10.78	0.011	0.32	6.1	0.1	9.3	5.3	48.9	0.4	0.15	5	0	0.29	NA	N/A	0.61	666.31	672.50
58	666.55	138.00	18	9.30	0.008	1.08	5.3	0.1	9.0	5.1	46	0.4	0.14	14	0	0.25	NA	N/A	1.33	667.88	675.50
60	669.22	141.23	18	9.02	0.007	1.04	5.1	0.1	8.8	5.0	43.6	0.4	0.13	87	0.253	0.49	NA	N/A	1.53	670.75	678.33
60B	671.47	40.17	18	8.78	0.007	0.28	5.0	0.1	8.3	4.7	38.7	0.3	0.12	71	0.207	0.42	NA	N/A	0.70	672.17	678.42
62	672.17	94.61	18	8.27	0.006	0.59	4.7	0.1	8.3	4.7	38.7	0.3	0.12	10	0	0.20	N/A	N/A	0.79	672.96	678.67
64	673.30	30.30	18	8.27	0.006	0.19	4.7	0.1	7.8	6.3	49.4	0.6	0.22	57	0.294	0.60	NA	N/A	0.79	674.09	678.75
66	674.09	79.69	15	7.79	0.015	1.16	6.3	0.2	4.3	5.2	22.4	0.4	0.14	25	0.091	0.39	N/A	N/A	1.55	675.64	681.25
68	676.83	67.08	15	3.59	0.003	0.21	2.9	0.0	2.4	2.0	4.83	0.1	0.02	75	0.037	0.09	NA	N/A	0.30	677.13	686.00
68B	680.10	30.44	15	2.44	0.001	0.04	2.0	0.0	2.0	6.0	12	0.6	0.20	0	0	0.21	N/A	N/A	0.26	680.36	686.33
52B	663.17	32.68	15	0.44	0.000	0.00	0.4	0.0					0.00	0	0	0.00	NA	N/A	0.00	663.17	669.33
44B	658.70	76.58	18	5.55	0.003	0.21	3.1	0.0	4.4	3.6	15.8	0.2	0.07	89	0.132	0.24	N/A	N/A	0.45	659.15	667.08
44D	659.15	118.77	15	4.41	0.005	0.55	3.6	0.1	0.6	8.3	4.84	1.1	0.38	88	0.708	1.13	N/A	N/A	1.69	660.84	666.42
44F	660.84	27.81	15	2.32	0.001	0.04	1.9	0.0	1.3	9.9	12.8	1.5	0.53	0	0	0.55	N/A	N/A	0.58	661.42	666.42
40	650.40	42.46	36	80.71	0.015	0.62	11.4	0.5	53.2	7.5	401	0.9	0.31	6	0	0.81	N/A	N/A	1.44	651.84	664.00
42	655.40	58.78	36	53.24	0.006	0.37	7.5	0.2	28.6	7.7	221	0.9	0.32	35	0.259	0.80	N/A	N/A	1.18	656.58	664.58
44	656.58	19.13	30	27.34	0.004	0.09	5.6	0.1	22.1	4.5	99.8	0.3	0.11	68	0.174	0.40	N/A	N/A	0.49	657.07	665.75
46	657.07	44.40	30	22.13	0.003	0.13	4.5	0.1	22.1	4.5	99.7	0.3	0.11	31	0.088	0.28	N/A	N/A	0.41	657.47	666.92
48	658.92	105.46	30	22.12	0.003	0.31	4.5	0.1	21.7	4.4	95.7	0.3	0.11	88	0.2	0.38	N/A	N/A	0.69	659.61	669.33
50	659.61	64.49	30	21.67	0.003	0.18	4.4	0.1	19.0	3.9	73.6	0.2	0.08	87	0.154	0.31	N/A	N/A	0.49	660.10	668.92
50B	660.10	32.68	30	19.01	0.002	0.07	3.9	0.1	18.2	3.7	67.8	0.2	0.08	90	0.15	0.28	N/A	N/A	0.35	660.46	668.92
52	660.46	64.36	30	18.24	0.002	0.13	3.7	0.1	17.6	5.6	98.5	0.5	0.17	2	0	0.22	N/A	N/A	0.35	660.81	669.33
52D	660.81	75.76	24	17.59	0.006	0.46	5.6	0.1	10.8	9.9	107	1.5	0.53	69	0.837	1.49	N/A	N/A	1.95	662.76	670.33
54	662.76	197.83	24	8.11	0.001	0.25	2.6	0.0	6.5	3.7	24.2	0.2	0.07	90	0.149	0.25	N/A	N/A	0.50	663.26	667.58
54B	663.26	39.66	18	6.54	0.004	0.15	3.7	0.1	5.0	4.1	20.4	0.3	0.09	41	0.098	0.24	N/A	N/A	0.39	663.66	667.58
54D	663.66	20.53	15	5.00	0.006	0.12	4.1	0.1					0.00	0	0	0.06	NA	N/A	0.19	663.84	666.83

STRUCTURE INLET	TYPE	AREA (FT^2)	PERIMETER (FT)	DRAINAGE A (ACRES)	C	I (IN/HR)	Q (CFS)	D (IN)	FLOW TYPE
54D	DI-7	6.00	12.80	2.66	0.35	4.00	3.72	2.5	WEIR FLOW
54D	DI-7	6.00	12.80	2.66	0.35	6.50	6.05	3.5	WEIR FLOW
54D	DI-7 - 50% clogged	3.00	6.40	2.66	0.35	4.00	3.72	4.0	ORIFICE FLOW
54D	DI-7 - 50% clogged	3.00	6.40	2.66	0.35	6.50	6.05	4.0	ORIFICE FLOW

INLETS ON GRADE, DESIGN (CURB SPREAD AND INLET CAPTURE)

Intensity 4.00 (Intensity is 4 in/hr for spread, and 6.5 in/hr for capacity and depth)
Mannings Coefficient, n is 0.013

Plan Label	VDOT DI type	L, throat length (ft)	A, Drainage area (acres)	C, rational coeff.	CA	Q, flow incr. (cfs)	Qb, carry-over (cfs)	Qt, total flow	S, gutter longitudinal slope (ft/ft)	Sx, lane cross slope (ft/ft)	W, gutter width (ft)	Sw, gutter cross-slope (ft/ft)	Sw/Sx	T, spread at curb (ft)	Eo, frontal flow ratio in gutter W	a, 12W(Sw-Sx)+2"local depr. (in)	Sw = a/(12W)	Se = Sx+Sw(Eo)	Lt, require throat length (ft)	L/Lt	E, inlet efficiency	Qi, flow intercepted	Qb, carry-over	carry-over to inlet	Maximum allowable spread
32	3B	12.0	0.22	0.75	0.165	0.66	0.00	0.66	0.0573	0.0200	2.0	0.0833	4.1650	4.11	0.94	3.5192	0.1466	0.1578	8.18	1.47	1.00	0.66	0.00		
34	3B	10.0	0.21	0.70	0.147	0.59	0.00	0.59	0.0270	0.0200	2.0	0.0833	4.1650	4.54	0.90	3.5192	0.1466	0.1520	6.36	1.57	1.00	0.59	0.00		
34B	3B	10.0	0.25	0.70	0.175	0.70	0.00	0.70	0.0270	0.0200	2.0	0.0833	4.1650	4.84	0.88	3.5192	0.1466	0.1490	6.92	1.44	1.00	0.70	0.00		
36	3B	10.0	0.16	0.70	0.112	0.45	0.00	0.45	0.0411	0.0200	2.0	0.0833	4.1650	3.79	0.96	3.5192	0.1466	0.1608	6.22	1.61	1.00	0.45	0.00		
38B	3B	12.0	0.42	0.70	0.294	1.18	0.00	1.18	0.0200	0.0200	2.0	0.0833	4.1650	6.22	0.80	3.5192	0.1466	0.1373	8.26	1.45	1.00	1.18	0.00		
38D	3B	14.0	0.33	0.70	0.231	0.92	0.00	0.92	0.0573	0.0200	2.0	0.0833	4.1650	4.67	0.90	3.5192	0.1466	0.1520	9.63	1.45	1.00	0.92	0.00		
40	3B	8.0	0.21	0.75	0.158	0.63	0.00	0.63	0.0100	0.0200	2.0	0.0833	4.1650	5.61	0.85	3.5192	0.1466	0.1446	5.00	1.60	1.00	0.63	0.00		
40B	3B	8.0	0.20	0.75	0.150	0.60	0.00	0.60	0.0145	0.0200	2.0	0.0833	4.1650	5.14	0.88	3.5192	0.1466	0.1490	5.38	1.49	1.00	0.60	0.00		
44	3B	6.0	0.11	0.75	0.083	0.33	0.00	0.33	0.0200	0.0200	2.0	0.0833	4.1650	3.86	0.96	3.5192	0.1466	0.1608	4.41	1.36	1.00	0.33	0.00		
46	3B	4.0	0.06	0.70	0.042	0.17	0.00	0.17	0.0100	0.0200	2.0	0.0833	4.1650	3.42	0.98	3.5192	0.1466	0.1637	2.67	1.50	1.00	0.17	0.00		
48	3B	6.0	0.16	0.70	0.112	0.45	0.00	0.45	0.0125	0.0200	2.0	0.0833	4.1650	4.73	0.90	3.5192	0.1466	0.1520	4.50	1.33	1.00	0.45	0.00		
52	3B	6.0	0.12	0.70	0.084	0.34	0.00	0.34	0.0125	0.0200	2.0	0.0833	4.1650	4.25	0.93	3.5192	0.1466	0.1564	3.92	1.53	1.00	0.34	0.00		
52B	3B	6.0	0.10	0.70	0.070	0.28	0.00	0.28	0.0125	0.0200	2.0	0.0833	4.1650	3.97	0.95	3.5192	0.1466	0.1593	3.59	1.67	1.00	0.28	0.00		
56	3B	8.0	0.12	0.70	0.084	0.34	0.00	0.34	0.0315	0.0200	2.0	0.0833	4.1650	3.57	0.97	3.5192	0.1466	0.1622	5.06	1.58	1.00	0.34	0.00		
56B	3B	16.0	0.27	0.70	0.189	0.76	0.00	0.76	0.0315	0.0200	2.0	0.0833	4.1650	4.84	0.86	3.5192	0.1466	0.1461	7.58	2.11	1.00	0.76	0.00		
58	3B	6.0	0.09	0.75	0.068	0.27	0.00	0.27	0.0315	0.0200	2.0	0.0833	4.1650	3.29	0.98	3.5192	0.1466	0.1637	4.59	1.31	1.00	0.27	0.00		
60	3B	6.0	0.06	0.75	0.045	0.18	0.00	0.18	0.0200	0.0200	2.0	0.0833	4.1650	3.08	0.99	3.5192	0.1466	0.1652	3.36	1.78	1.00	0.18	0.00		
60B	3B	6.0	0.07	0.70	0.049	0.20	0.00	0.20	0.0200	0.0200	2.0	0.0833	4.1650	3.18	0.98	3.5192	0.1466	0.1637	3.50	1.71	1.00	0.20	0.00		
64B	3B	4.0	0.04	0.65	0.026	0.10	0.00	0.10	0.0200	0.0200	2.0	0.0833	4.1650	2.51	0.99	3.5192	0.1466	0.1652	2.67	1.50	1.00	0.10	0.00		
68	3B	10.0	0.17	0.80	0.136	0.54	0.00	0.54	0.0682	0.0200	2.0	0.0833	4.1650	3.70	0.98	3.5192	0.1466	0.1637	7.77	1.29	1.00	0.54	0.00		
70D	3B	6.0	0.08	0.75	0.060	0.24	0.00	0.24	0.0141	0.0200	2.0	0.0833	4.1650	3.66	0.97	3.5192	0.1466	0.1622	3.45	1.74	1.00	0.24	0.00		
70F	3B	6.0	0.18	0.50	0.090	0.36	0.00	0.36	0.0141	0.0200	2.0	0.0833	4.1650	4.26	0.93	3.5192	0.1466	0.1564	4.19	1.43	1.00	0.36	0.00		
72	3B	6.0	0.15	0.60	0.090	0.36	0.00	0.36	0.0112	0.0200	2.0	0.0833	4.1650	4.45	0.92	3.5192	0.1466	0.1549	3.93	1.53	1.00	0.36	0.00		
72D	3B	6.0	0.10	0.70	0.070	0.28	0.00	0.28	0.0112	0.0200	2.0	0.0833	4.1650	4.05	0.95	3.5192	0.1466	0.1593	3.48	1.73	1.00	0.28	0.00		
74	3B	4.0	0.04	0.70	0.028	0.11	0.00	0.11	0.0200	0.0200	2.0	0.0833	4.1650	2.58	0.99	3.5192	0.1466	0.1652	2.75	1.45	1.00	0.11	0.00		
76	3B	4.0	0.03	0.80	0.024	0.10	0.00	0.10	0.0310	0.0200	2.0	0.0833	4.1650	2.24	1.00	3.5192	0.1466	0.1666	2.93	1.37	1.00	0.10	0.00		
76B	3B	8.0	0.19	0.85	0.162	0.65	0.00	0.65	0.0310	0.0200	2.0	0.0833	4.1650	4.58	0.91	3.5192	0.1466	0.1534	6.85	1.17	1.00	0.65	0.00		
78	3B	4.0	0.05	0.60	0.030	0.12	0.00	0.12	0.0100	0.0200	2.0	0.0833	4.1650	3.01	0.99	3.5192	0.1466	0.1652	2.30	1.74	1.00	0.12	0.00		
80	3B	4.0	0.06	0.80	0.048	0.19	0.00	0.19	0.0100	0.0200	2.0	0.0833	4.1650	3.59	0.97	3.5192	0.1466	0.1622	2.84	1.41	1.00	0.19	0.00		
80D	3B	8.0	0.21	0.80	0.168	0.67	0.00	0.67	0.0200	0.0200	2.0	0.0833	4.1650	5.05	0.88	3.5192	0.1466	0.1490	6.22	1.29	1.00	0.67	0.00		
82	3B	8.0	0.21	0.75	0.158	0.63	0.00	0.63	0.0100	0.0200	2.0	0.0833	4.1650	5.61	0.85	3.5192	0.1466	0.1446	5.00	1.60	1.00	0.63	0.00		
82B	3B	6.0	0.10	0.75	0.075	0.30	0.00	0.30	0.0100	0.0200	2.0	0.0833	4.1650	4.25	0.93	3.5192	0.1466	0.1564	3.50	1.72	1.00	0.30	0.00		
82D	3B	6.0	0.19	0.60	0.114	0.46	0.00	0.46	0.0100	0.0200	2.0	0.0833	4.1650	4.97	0.88	3.5192	0.1466	0.1490	4.29	1.40	1.00	0.46	0.00		
84	3B	8.0	0.17	0.65	0.111	0.44	0.00	0.44	0.0310	0.0200	2.0	0.0833	4.1650	3.97	0.95	3.5192	0.1466	0.1593	5.71	1.40	1.00	0.44	0.00		
90	3B	10.0	0.21	0.75	0.158	0.63	0.00	0.63	0.0281	0.0200	2.0	0.0833	4.1650	4.62	0.90	3.5192	0.1466	0.1505	6.62	1.51	1.00	0.63	0.00		
90B	3B	12.0	0.29	0.65	0.189	0.75	0.00	0.75	0.0281	0.0200	2.0	0.0833	4.1650	4.94	0.89	3.5192	0.1466	0.1476	7.18	1.67	1.00	0.75	0.00		
92B	3B	6.0	0.06	0.60	0.036	0.14	0.00	0.14	0.0200	0.0200	2.0	0.0200	1.0000	2.83	0.99	2.0000	0.0833	0.1025	4.08	1.47	1.00	0.14	0.00		
96	3B	8.0	0.42	0.50	0.210	0.84	0.00	0.84	0.0075	0.0200	2.0	0.0833	4.1650	6.59	0.77	3.5192	0.1466	0.1329	5.45	1.47	1.00	0.84	0.00		
102	3B	14.0	0.46	0.65	0.299	1.20	0.00	1.20	0.0332	0.0200	2.0	0.0833	4.1650	5.69	0.84	3.5192	0.1466	0.1432	9.45	1.48	1.00	1.20	0.00		
104	3B	8.0	0.19	0.80	0.152	0.61	0.00	0.61	0.0125	0.0200	2.0	0.0833	4.1650	5.31	0.87	3.5192	0.1466	0.1476	5.21	1.54	1.00	0.61	0.00		
106	3B	6.0	0.10	0.75	0.075	0.30	0.00	0.30	0.0310	0.0200	2.0	0.0833	4.1650	3.43	0.98	3.5192	0.1466	0.1637	4.78	1.26	1.00	0.30	0.00		
110	3B	6.0	0.09	0.75	0.068	0.27	0.00	0.27	0.0100	0.0200	2.0	0.0833	4.1650	4.08	0.95	3.5192	0.1466	0.1593	3.31	1.81	1.00	0.27	0.00		

INLETS ON GRADE, DESIGN (CURB SPREAD AND INLET CAPTURE)

Intensity 6.50 (Intensity is 4 in/hr for spread, and 6.5 in/hr for capacity and depth)
Mannings Coefficient, n is 0.013

Plan Label	VDOT DI type	L, throat length (ft)	A, Drainage area (acres)	C, rational coeff.	CA	Q, flow incr. (cfs)	Qb, carry-over (cfs)	Qt, total flow	S, gutter longitudinal slope (ft/ft)	Sx, lane cross slope (ft/ft)	W, gutter width (ft)	Sw, gutter cross-slope (ft/ft)	Sw/Sx	T, spread at curb (ft)	Eo, frontal flow ratio in gutter W	a, 12W(Sw-Sx)+2"local depr. (in)	Sw = a/(12W)	Se = Sx+Sw(Eo)	Lt, require throat length (ft)	L/Lt	E, inlet efficiency	Qi, flow intercepted	Qb, carry-over	carry-over to inlet	Remarks
32	3B	12.0	0.22	0.75	0.165	1.07	0.00	1.07	0.0573	0.0200	2.0	0.0833	4.1650	4.94	0.88	3.5192	0.1466	0.1490	10.38	1.16	1.00	1.07	0.00		
34B	3B	10.0	0.25	0.70	0.175	1.14	0.00	1.14	0.0270	0.0200	2.0	0.0833	4.1650	5.81	0.81	3.5192	0.1466	0.1388	8.86	1.13	1.00	1.14	0.00		
34	3B	10.0	0.21	0.70	0.147	0.96	0.00	0.96	0.0270	0.0200	2.0	0.0833	4.1650	5.44	0.84	3.5192	0.1466	0.1432	8.08	1.24	1.00	0.96	0.00		
34B	3B	10.0	0.25	0.70	0.175	1.14	0.00	1.14	0.0270	0.0200	2.0	0.0833	4.1650	5.81	0.81	3.5192	0.1466	0.1388	8.86	1.13	1.00	1.14	0.00		
36	3B	10.0	0.16	0.70	0.112	0.73	0.00	0.73	0.0411	0.0200	2.0	0.0833	4.1650	4.54	0.90	3.5192	0.1466	0.1520	7.89	1.27	1.00	0.73	0.00		
38B	3B	12.0	0.42	0.70	0.294	1.91	0.00	1.91	0.0200	0.0200	2.0	0.0833	4.1650	7.47	0.71	3.5192	0.1466	0.1241	10.76	1.11	1.00	1.91	0.00		
38D	3B	14.0	0.33	0.70	0.231	1.50	0.00	1.50	0.0573	0.0200	2.0	0.0833	4.1650	5.60	0.84	3.5192	0.1466	0.1432	12.24	1.14	1.00	1.50	0.00		
40	3B	8.0	0.21	0.75	0.158	1.02	0.00	1.02	0.0100	0.0200	2.0	0.0833	4.1650	6.73	0.77	3.5192	0.1466	0.1329	6.46	1.24	1.00	1.02	0.00		
40B	3B	8.0	0.20	0.75	0.150	0.98	0.00	0.98	0.0145	0.0200	2.0	0.0833	4.1650	6.16	0.81	3.5192	0.1466	0.1388	6.89	1.16	1.00	0.98	0.00		
44	3B	6.0	0.11	0.75	0.083	0.54	0.00	0.54	0.0200	0.0200	2.0	0.0833	4.1650	4.64	0.90	3.5192	0.1466	0.1520	5.59	1.07	1.00	0.54	0.00		
46	3B	4.0	0.06	0.70	0.042	0.27	0.00	0.27	0.0100	0.0200	2.0	0.0833	4.1650	4.10	0.94	3.5192	0.1466	0.1578	3.34	1.20	1.00	0.27	0.00		
48	3B	6.0	0.16	0.70	0.112	0.73	0.00	0.73	0.0125	0.0200	2.0	0.0833	4.1650	5.68	0.84	3.5192	0.1466	0.1432	5.72	1.05	1.00	0.73	0.00		
52	3B	6.0	0.12	0.70	0.084	0.55	0.00	0.55	0.0125	0.0200	2.0	0.0833	4.1650	5.10	0.88	3.5192	0.1466	0.1490	4.95	1.21	1.00	0.55	0.00		
52B	3B	6.0	0.10	0.70	0.070	0.46	0.00	0.46	0.0125	0.0200	2.0	0.0833	4.1650	4.76	0.90	3.5192	0.1466	0.1520	4.53	1.32	1.00	0.46	0.00		
56	3B	8.0	0.12	0.70	0.084	0.55	0.00	0.55	0.0315	0.0200	2.0	0.0833	4.1650	4.29	0.82	3.5192	0.1466	0.1402	6.77	1.18	1.00	0.55	0.00		
56	3B	16.0	0.12	0.70	0.084	0.55	0.00	0.55	0.0315	0.0200	2.0	0.0833	4.1650	4.29	0.78	3.5192	0.1466	0.1344	6.95	2.30	1.00	0.55	0.00		
58	3B	6.0	0.09	0.75	0.068	0.44	0.00	0.44	0.0315	0.0200	2.0	0.0833	4.1650	3.95	0.95	3.5192	0.1466	0.1593	5.72	1.05	1.00	0.44	0.00		
60	3B	6.0	0.06	0.75	0.045	0.29	0.00	0.29	0.0200	0.0200	2.0	0.0833	4.1650	3.69	0.96	3.5192	0.1466	0.1608	4.19	1.43	1.00	0.29	0.00		
60	3B	6.0	0.06	0.75	0.045	0.29	0.00	0.29	0.0200	0.0200	2.0	0.0833	4.1650	3.69	0.94	3.5192	0.1466	0.1578	4.24	1.42	1.00	0.29	0.00		
64B	3B	4.0	0.04	0.65	0.026	0.17	0.00	0.17	0.0200	0.0200	2.0	0.0833	4.1650	3.01	0.99	3.5192	0.1466	0.1652	3.27	1.22	1.00	0.17	0.00		
68	3B	10.0	0.17	0.80	0.136	0.88	0.00	0.88	0.0682	0.0200	2.0	0.0833	4.1650	4.44	0.94	3.5192	0.1466	0.1578	9.74	1.03	1.00	0.88	0.00		
70D	3B	6.0	0.08	0.75	0.060	0.39	0.00	0.39	0.0141	0.0200	2.0	0.0833	4.1650	4.39	0.93	3.5192	0.1466	0.1564	4.33	1.39	1.00	0.39	0.00		
70F	3B	6.0	0.18	0.50	0.090	0.59	0.00	0.59	0.0141	0.0200	2.0	0.0833	4.1650	5.11	0.88	3.5192	0.1466	0.1490	5.28	1.14	1.00	0.59	0.00		
72	3B	6.0	0.15	0.60	0.090	0.59	0.00	0.59	0.0112	0.0200	2.0	0.0833	4.1650	5.34	0.87	3.5192	0.1466	0.1476	4.96	1.21	1.00	0.59	0.00		
72D	3B	6.0	0.10	0.70	0.070	0.46	0.00	0.46	0.0112	0.0200	2.0	0.0833	4.1650	4.86	0.89	3.5192	0.1466	0.1505	4.41	1.36	1.00	0.46	0.00		
74	3B	4.0	0.04	0.70	0.028	0.18	0.00	0.18	0.0200	0.0200	2.0	0.0833	4.1650	3.09	0.99	3.5192	0.1466	0.1652	3.38	1.18	1.00	0.18	0.00		
76	3B	4.0	0.03	0.80	0.024	0.16	0.00	0.16	0.0310	0.0200	2.0	0.0833	4.1650	2.69	0.99	3.5192	0.1466	0.1652	3.61	1.11	1.00	0.16	0.00		
76B	3B	8.0	0.19	0.85	0.162	1.05	0.00	1.05	0.0310	0.0200	2.0	0.0833	4.1650	5.49	0.85	3.5192	0.1466	0.1446	8.71	0.92	1.00	0.96	0.09	76D	
78	3B	4.0	0.05	0.60	0.030	0.20	0.00	0.20	0.0100	0.0200	2.0	0.0833	4.1650	3.61	0.97	3.5192	0.1466	0.1622	2.85	1.40	1.00	0.20	0.00		
80	3B	4.0	0.06	0.80	0.048	0.31	0.00	0.31	0.0100	0.0200	2.0	0.0833	4.1650	4.31	0.93	3.5192	0.1466	0.1564	3.56	1.13	1.00	0.31	0.00		
80D	3B	8.0	0.21	0.80	0.168	1.09	0.00	1.09	0.0200	0.0200	2.0	0.0833	4.1650	6.05	0.81	3.5192	0.1466	0.1388	7.96	1.01	1.00	1.09	0.00		
82	3B	8.0	0.21	0.75	0.158	1.02	0.00	1.02	0.0100	0.0200	2.0	0.0833	4.1650	6.73	0.77	3.5192	0.1466	0.1329	6.46	1.24	1.00	1.02	0.00		
82B	3B	6.0	0.10	0.75	0.075	0.49	0.00	0.49	0.0100	0.0200	2.0	0.0833	4.1650	5.09	0.88	3.5192	0.1466	0.1490	4.41	1.36	1.00	0.49	0.00		
82D	3B	6.0	0.19	0.60	0.114	0.74	0.00	0.74	0.0100	0.0200	2.0	0.0833	4.1650	5.96	0.81	3.5192	0.1466	0.1388	5.49	1.09	1.00	0.74	0.00		
84	3B	8.0	0.17	0.65	0.111	0.72	0.00	0.72	0.0310	0.0200	2.0	0.0833	4.1650	4.76	0.90	3.5192	0.1466	0.1520	7.21	1.11	1.00	0.72	0.00		
90	3B	10.0	0.21	0.75	0.158	1.02	0.00	1.02	0.0281	0.0200	2.0	0.0833	4.1650	5.54	0.85	3.5192	0.1466	0.1446	8.37	1.20	1.00	1.02	0.00		
90	3B	12.0	0.21	0.75	0.158	1.02	0.00	1.02	0.0281	0.0200	2.0	0.0833	4.1650	5.54	0.83	3.5192	0.1466	0.1417	8.47	1.42	1.00	1.02	0.00		
92B	3B	6.0	0.06	0.60	0.036	0.23	0.00	0.23	0.0200	0.0200	2.0	0.0200	1.0000	3.40	0.98	2.0000	0.0833	0.1017	5.02	1.19	1.00	0.23	0.00		
96	3B	8.0	0.42	0.50	0.210	1.37	0.00	1.37	0.0075	0.0200	2.0	0.0833	4.1650	7.91	0.68	3.5192	0.1466	0.1197	7.12	1.12	1.00	1.37	0.00		
102	3B	14.0	0.46	0.65	0.299	1.94	0.00	1.94	0.0332	0.0200	2.0	0.0833	4.1650	6.83	0.75	3.5192	0.1466	0.1300	12.28	1.14	1.00	1.94	0.00		
104	3B	8.0	0.19	0.80	0.152	0.99	0.00	0.99	0.0125	0.0200	2.0	0.0833	4.1650	6.37	0.78	3.5192	0.1466	0.1344	6.76	1.18	1.00	0.99	0.00		
106	3B	6.0	0.10	0.75	0.075	0.49	0.00	0.49	0.0310	0.0200	2.0	0.0833	4.1650	4.12	0.95	3.5192	0.1466	0.1593	5.95	1.01	1.00	0.49	0.00		
110	3B	6.0	0.09	0.75	0.068	0.44	0.00	0.44	0.0100	0.0200	2.0	0.0833	4.1650	4.90	0.89	3.5192	0.1466	0.1505	4.20	1.43	1.00	0.44	0.00		

INLETS IN SUMP, DESIGN (CURB SPREAD AND INLET SPREAD AND DEPTH)

Intensity 4.00 (Intensity is 4 in/hr for spread, and 6.5 in/hr for capacity and depth)
Mannings Coefficient, n is 0.013

Plan Label	VDOT DI type	L, throat length (ft)		A, Drainage area (acres)	C, rational coeff.	CA	Q, flow incr. (cfs)	Qb, carry-over (cfs)	Qt, total flow	S, gutter longitudinal slope (ft/ft)	Sx, lane cross slope (ft/ft)	W, gutter width (ft)	Sw, gutter cross-slope (ft/ft)	Sw/Sx	T, spread at curb (ft)	d, flow depth (ft)	d / h (height of opening, 5.5")	T, spread at inlet (ft)	Maximum allowable spread
			left	0.05	0.60	0.030	0.12	0.00	0.12	0.0010	0.0200	2.0	0.0833	4.1650	4.64				
			right	0.07	0.60	0.042	0.17	0.00	0.17	0.0010	0.0200	2.0	0.0833	4.1650	5.26				
38	3C	6.0	combined flow						0.3							0.06	0.121	2.77	
			left	0.11	0.70	0.077	0.31	0.00	0.31	0.0010	0.0200	2.0	0.0833	4.1650	6.60				
			right	0.11	0.70	0.077	0.31	0.00	0.31	0.0010	0.0200	2.0	0.0833	4.1650	6.60				
44D	3C	8.0	combined flow						0.6							0.08	0.177	4.05	Maximum allowable spead = 7'
			left	0.16	0.55	0.088	0.35	0.00	0.35	0.0010	0.0200	2.0	0.0833	4.1650	6.94				
			right	0.14	0.55	0.077	0.31	0.00	0.31	0.0010	0.0200	2.0	0.0833	4.1650	6.60				
44F	3C	8.0	combined flow						0.7							0.08	0.185	4.24	Maximum allowable spead = 7'
			left	0.09	0.75	0.068	0.27	0.00	0.27	0.0010	0.0200	2.0	0.0833	4.1650	6.29				
			right	0.08	0.75	0.060	0.24	0.00	0.24	0.0010	0.0200	2.0	0.0833	4.1650	6.01				
50	3C	8.0	combined flow						0.5							0.07	0.156	3.57	Maximum allowable spead = 8.25'
			left	0.06	0.75	0.045	0.18	0.00	0.18	0.0010	0.0200	2.0	0.0833	4.1650	5.40				
			right	0.07	0.75	0.053	0.21	0.00	0.21	0.0010	0.0200	2.0	0.0833	4.1650	5.72				
50B	3C	8.0	combined flow						0.4							0.06	0.130	2.99	Maximum allowable spead = 8.25'
			left	0.20	0.60	0.120	0.48	0.00	0.48	0.0010	0.0200	2.0	0.0833	4.1650	7.80				
			right	0.30	0.60	0.180	0.72	0.00	0.72	0.0010	0.0200	2.0	0.0833	4.1650	9.08				
54	3C	10.0	combined flow						1.2							0.11	0.248	5.69	Maximum allowable spead = 12'
			left	0.19	0.80	0.152	0.61	0.00	0.61	0.0010	0.0200	2.0	0.0833	4.1650	8.52				
			right	0.17	0.80	0.136	0.54	0.00	0.54	0.0010	0.0200	2.0	0.0833	4.1650	8.17				
54B	3C	10.0	combined flow						1.2							0.11	0.242	5.53	Maximum allowable spead = 12'
			left	0.04	0.70	0.028	0.11	0.00	0.11	0.0075	0.0200	2.0	0.0833	4.1650	3.10				
			right	0.05	0.70	0.035	0.14	0.00	0.14	0.0200	0.0200	2.0	0.0833	4.1650	2.80				
64	3C	6.0	combined flow						0.3							0.05	0.111	2.53	Maximum allowable spead = 7'
			left	0.09	0.75	0.068	0.27	0.00	0.27	0.0010	0.0200	2.0	0.0833	4.1650	6.29				
			right	0.05	0.75	0.038	0.15	0.00	0.15	0.0010	0.0200	2.0	0.0833	4.1650	5.04				
70	3C	6.0	combined flow						0.4							0.07	0.155	3.56	Maximum allowable spead = 8.25'
			left	0.16	0.70	0.112	0.45	0.00	0.45	0.0010	0.0200	2.0	0.0833	4.1650	7.60				
			right	0.10	0.70	0.070	0.28	0.00	0.28	0.0010	0.0200	2.0	0.0833	4.1650	6.37				
70B	3C	10.0	combined flow						0.7							0.08	0.178	4.08	Maximum allowable spead = 8.25'
			left	0.11	0.60	0.066	0.26	0.00	0.26	0.0010	0.0200	2.0	0.0833	4.1650	6.23				
			right	0.11	0.60	0.066	0.26	0.00	0.26	0.0010	0.0200	2.0	0.0833	4.1650	6.23				
72B	3C	6.0	combined flow						0.5							0.08	0.181	4.15	Maximum allowable spead = 8.25'
			left	0.08	0.75	0.060	0.24	0.00	0.24	0.0010	0.0200	2.0	0.0833	4.1650	6.01				
			right	0.06	0.75	0.045	0.18	0.00	0.18	0.0010	0.0200	2.0	0.0833	4.1650	5.40				
72F	3C	6.0	combined flow						0.4							0.07	0.155	3.56	Maximum allowable spead = 8.25'
			left	0.06	0.80	0.048	0.19	0.00	0.19	0.0200	0.0200	2.0	0.0833	4.1650	3.15				
			right	0.06	0.80	0.048	0.19	0.00	0.19	0.0200	0.0200	2.0	0.0833	4.1650	3.15				
76D	3C	8.0	combined flow						0.4							0.06	0.129	2.96	Maximum allowable spead = 12'
			left	0.02	0.85	0.017	0.07	0.00	0.07	0.0010	0.0200	2.0	0.0833	4.1650	3.75				
			right	0.07	0.85	0.060	0.24	0.00	0.24	0.0010	0.0200	2.0	0.0833	4.1650	5.99				
80B	3C	8.0	combined flow						0.3							0.05	0.111	2.54	Maximum allowable spead = 12'
			left	0.02	0.70	0.014	0.06	0.00	0.06	0.0010	0.0200	2.0	0.0833	4.1650	3.48				
			right	0.10	0.70	0.070	0.28	0.00	0.28	0.0010	0.0200	2.0	0.0833	4.1650	6.37				
88	3C	6.0	combined flow						0.3							0.06	0.134	3.07	Maximum allowable spead = 12'
			left	0.19	0.60	0.114	0.46	0.00	0.46	0.0010	0.0200	2.0	0.0833	4.1650	7.65				
			right	0.16	0.60	0.096	0.38	0.00	0.38	0.0010	0.0200	2.0	0.0833	4.1650	7.17				
88B	3C	8.0	combined flow						0.8							0.10	0.218	4.99	Maximum allowable spead = 12'
			left	0.04	0.65	0.026	0.10	0.00	0.10	0.0200	0.0200	2.0	0.0200	1.0000	2.51				
			right	0.05	0.65	0.033	0.13	0.00	0.13	0.0200	0.0200	2.0	0.0200	1.0000	2.72				
92	3C	6.0	combined flow						0.2							0.05	0.105	2.41	Maximum allowable spead = 5'
			left	0.03	0.60	0.018	0.07	0.00	0.07	0.0010	0.0200	2.0	0.0833	4.1650	3.83				
			right	0.12	0.60	0.072	0.29	0.00	0.29	0.0010	0.0200	2.0	0.0833	4.1650	6.44				
98	3C	6.0	combined flow						0.4							0.06	0.140	3.21	Maximum allowable spead = 7'
			left	0.25	0.60	0.150	0.60	0.00	0.60	0.0010	0.0200	2.0	0.0833	4.1650	8.48				
			right	0.15	0.60	0.090	0.36	0.00	0.36	0.0010	0.0200	2.0	0.0833	4.1650	7.00				
100	3C	8.0	combined flow						1.0							0.11	0.238	5.45	Maximum allowable spead = 18'
			left	0.08	0.75	0.060	0.24	0.00	0.24	0.0010	0.0200	2.0	0.0833	4.1650	6.01				
			right	0.20	0.75	0.150	0.60	0.00	0.60	0.0010	0.0200	2.0	0.0833	4.1650	8.48				
108	3C	8.0	combined flow						0.8							0.10	0.218	4.99	Maximum allowable spead = 18'
			left	0.22	0.70	0.154	0.62	0.00	0.62	0.0125	0.0200	2.0	0.0833	4.1650	5.33				
			right	0.14	0.70	0.098	0.39	0.00	0.39	0.0200	0.0200	2.0	0.0833	4.1650	4.12				
112	3C	8.0	combined flow						1.0							0.11	0.246	5.63	Maximum allowable spead = 18'

INLETS IN SUMP, DESIGN (CURB SPREAD AND INLET SPREAD AND DEPTH)

Intensity 6.50 (Intensity is 4 in/hr for spread, and 6.5 in/hr for capacity and depth)
Mannings Coefficient, n is 0.013

Plan Label	VDOT DI type	L, throat length (ft)		A, Drainage area (acres)	C, rational coeff.	CA	Q, flow incr. (cfs)	Qb, carry-over (cfs)	Qt, total flow	S, gutter longitudinal slope (ft/ft)	Sx, lane cross slope (ft/ft)	W, gutter width (ft)	Sw, gutter cross-slope (ft/ft)	Sw/Sx	T, spread at curb (ft)	d, flow depth (ft)	d / h (height of opening, 5.5")	T, spread at inlet (ft)	Remarks
			left	0.05	0.60	0.030	0.20	0.00	0.20	0.0010	0.0200	2.0	0.0833	4.1650	5.56				
			right	0.07	0.60	0.042	0.27	0.00	0.27	0.0010	0.0200	2.0	0.0833	4.1650	6.31				
38	3C	6.0	combined flow						0.5							0.08	0.167	3.83	
			left	0.11	0.70	0.077	0.50	0.00	0.50	0.0010	0.0200	2.0	0.0833	4.1650	7.92				
			right	0.11	0.70	0.077	0.50	0.00	0.50	0.0010	0.0200	2.0	0.0833	4.1650	7.92				
44D	3C	8.0	combined flow						1.0							0.11	0.245	5.60	Maximum allowable spead = 7'
			left	0.16	0.55	0.088	0.57	0.00	0.57	0.0010	0.0200	2.0	0.0833	4.1650	8.33				
			right	0.14	0.55	0.077	0.50	0.00	0.50	0.0010	0.0200	2.0	0.0833	4.1650	7.92				
44F	3C	8.0	combined flow						1.1							0.12	0.256	5.87	Maximum allowable spead = 7'
			left	0.09	0.75	0.068	0.44	0.00	0.44	0.0010	0.0200	2.0	0.0833	4.1650	7.54				
			right	0.08	0.75	0.060	0.39	0.00	0.39	0.0010	0.0200	2.0	0.0833	4.1650	7.21				
50	3C	8.0	combined flow						0.8							0.10	0.216	4.94	Maximum allowable spead = 8.25'
			left	0.06	0.75	0.045	0.29	0.00	0.29	0.0010	0.0200	2.0	0.0833	4.1650	6.48				
			right	0.07	0.75	0.053	0.34	0.00	0.34	0.0010	0.0200	2.0	0.0833	4.1650	6.86				
50B	3C	8.0	combined flow						0.6							0.08	0.180	4.13	Maximum allowable spead = 8.25'
			left	0.20	0.60	0.120	0.78	0.00	0.78	0.0010	0.0200	2.0	0.0833	4.1650	9.36				
			right	0.30	0.60	0.180	1.17	0.00	1.17	0.0010	0.0200	2.0	0.0833	4.1650	10.89				
54	3C	10.0	combined flow						2.0							0.16	0.343	7.86	Maximum allowable spead = 12'
			left	0.19	0.80	0.152	0.99	0.00	0.99	0.0010	0.0200	2.0	0.0833	4.1650	10.22				
			right	0.17	0.80	0.136	0.88	0.00	0.88	0.0010	0.0200	2.0	0.0833	4.1650	9.81				
54B	3C	10.0	combined flow						1.9							0.15	0.334	7.65	Maximum allowable spead = 12'
			left	0.04	0.70	0.028	0.18	0.00	0.18	0.0075	0.0200	2.0	0.0833	4.1650	3.72				
			right	0.05	0.70	0.035	0.23	0.00	0.23	0.0200	0.0200	2.0	0.0833	4.1650	3.36				
64	3C	6.0	combined flow						0.4							0.07	0.153	3.50	Maximum allowable spead = 7'
			left	0.09	0.75	0.068	0.44	0.00	0.44	0.0010	0.0200	2.0	0.0833	4.1650	7.54				
			right	0.05	0.75	0.038	0.24	0.00	0.24	0.0010	0.0200	2.0	0.0833	4.1650	6.05				
70	3C	6.0	combined flow						0.7				E			0.10	0.215	4.92	Maximum allowable spead = 8.25'
			left	0.16	0.70	0.112	0.73	0.08	0.81	0.0010	0.0200	2.0	0.0833	4.1650	9.48				
			right	0.10	0.70	0.070	0.46	0.05	0.51	0.0010	0.0200	2.0	0.0833	4.1650	7.95				
70B	3C	10.0	combined flow						1.3							0.12	0.264	6.04	Maximum allowable spead = 8.25'
			left	0.11	0.60	0.066	0.43	0.00	0.43	0.0010	0.0200	2.0	0.0833	4.1650	7.48				
			right	0.11	0.60	0.066	0.43	0.00	0.43	0.0010	0.0200	2.0	0.0833	4.1650	7.48				
72B	3C	6.0	combined flow						0.9							0.11	0.250	5.74	Maximum allowable spead = 8.25'
			left	0.08	0.75	0.060	0.39	0.00	0.39	0.0010	0.0200	2.0	0.0833	4.1650	7.21				
			right	0.06	0.75	0.045	0.29	0.00	0.29	0.0010	0.0200	2.0	0.0833	4.1650	6.48				
72F	3C	6.0	combined flow						0.7							0.10	0.215	4.92	Maximum allowable spead = 8.25'
			left	0.06	0.80	0.048	0.31	0.00	0.31	0.0200	0.0200	2.0	0.0833	4.1650	3.78				
			right	0.06	0.80	0.048	0.31	0.09	0.40	0.0200	0.0200	2.0	0.0833	4.1650	4.16				
76D	3C	8.0	combined flow						0.7							0.09	0.195	4.47	Maximum allowable spead = 12'
			left	0.02	0.85	0.017	0.11	0.00	0.11	0.0010	0.0200	2.0	0.0833	4.1650	4.50				
			right	0.07	0.85	0.060	0.39	0.00	0.39	0.0010	0.0200	2.0	0.0833	4.1650	7.19				
80B	3C	8.0	combined flow						0.5							0.07	0.153	3.51	Maximum allowable spead = 12'
			left	0.02	0.70	0.014	0.09	0.00	0.09	0.0010	0.0200	2.0	0.0833	4.1650	4.18				
			right	0.10	0.70	0.070	0.46	0.00	0.46	0.0010	0.0200	2.0	0.0833	4.1650	7.64				
88	3C	6.0	combined flow						0.5							0.08	0.185	4.24	Maximum allowable spead = 12'
			left	0.19	0.60	0.114	0.74	0.00	0.74	0.0010	0.0200	2.0	0.0833	4.1650	9.18				
			right	0.16	0.60	0.096	0.62	0.00	0.62	0.0010	0.0200	2.0	0.0833	4.1650	8.60				
88B	3C	8.0	combined flow						1.4							0.14	0.301	6.89	Maximum allowable spead = 12'
			left	0.04	0.65	0.026	0.17	0.00	0.17	0.0200	0.0200	2.0	0.0200	1.0000	3.01				
			right	0.05	0.65	0.033	0.21	0.00	0.21	0.0200	0.0200	2.0	0.0200	1.0000	3.27				
92	3C	6.0	combined flow						0.4							0.07	0.146	3.33	Maximum allowable spead = 5'
			left	0.03	0.60	0.018	0.12	0.00	0.12	0.0010	0.0200	2.0	0.0833	4.1650	4.59				
			right	0.12	0.60	0.072	0.47	0.00	0.47	0.0010	0.0200	2.0	0.0833	4.1650	7.72				
98	3C	6.0	combined flow						0.6							0.09	0.194	4.44	Maximum allowable spead = 7'
			left	0.25	0.60	0.150	0.98	0.00	0.98	0.0010	0.0200	2.0	0.0833	4.1650	10.17				
			right	0.15	0.60	0.090	0.59	0.00	0.59	0.0010	0.0200	2.0	0.0833	4.1650	8.40				
100	3C	8.0	combined flow						1.6							0.15	0.329	7.53	Maximum allowable spead = 18'
			left	0.08	0.75	0.060	0.39	0.00	0.39	0.0010	0.0200	2.0	0.0833	4.1650	7.21				
			right	0.20	0.75	0.150	0.98	0.00	0.98	0.0010	0.0200	2.0	0.0833	4.1650	10.17				
108	3C	8.0	combined flow						1.4							0.14	0.301	6.89	Maximum allowable spead = 18'
			left	0.22	0.70	0.154	1.00	0.00	1.00	0.0125	0.0200	2.0	0.0833	4.1650	6.40				
			right	0.14	0.70	0.098	0.64	0.00	0.64	0.0200	0.0200	2.0	0.0833	4.1650	4.94				
112	3C	8.0	combined flow						1.6							0.16	0.340	7.78	Maximum allowable spead = 18'

STRUCTURE INLET	TYPE	AREA (FT^2)	PERIMETER (FT)	DRAINAGE A (ACRES)	C	I (IN/HR)	Q (CFS)	D (IN)	FLOW TYPE
YD-6A	18" Nyloplast Yard Inlet	0.59	30.25	0.15	0.45	4.00	0.270	0.25	WEIR FLOW
YD-6A	18" Nyloplast Yard Inlet	0.59	30.25	0.15	0.45	6.50	0.439	0.34	WEIR FLOW
YD-6A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.15	0.45	4.00	0.270	0.39	WEIR FLOW
YD-6A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.15	0.45	6.50	0.439	0.92	WEIR FLOW
YD-6B	18" Nyloplast Yard Inlet	0.59	30.25	0.14	0.45	4.00	0.252	0.24	WEIR FLOW
YD-6B	18" Nyloplast Yard Inlet	0.59	30.25	0.14	0.45	6.50	0.410	0.33	WEIR FLOW
YD-6B	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.14	0.45	4.00	0.252	0.38	WEIR FLOW
YD-6B	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.14	0.45	6.50	0.410	0.80	WEIR FLOW
YD-6C	18" Nyloplast Yard Inlet	0.59	30.25	0.11	0.45	4.00	0.198	0.20	WEIR FLOW
YD-6C	18" Nyloplast Yard Inlet	0.59	30.25	0.11	0.45	6.50	0.322	0.28	WEIR FLOW
YD-6C	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.11	0.45	4.00	0.198	0.32	WEIR FLOW
YD-6C	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.11	0.45	6.50	0.322	0.49	WEIR FLOW
YD-6D	18" Nyloplast Yard Inlet	0.59	30.25	0.09	0.30	4.00	0.108	0.13	WEIR FLOW
YD-6D	18" Nyloplast Yard Inlet	0.59	30.25	0.09	0.30	6.50	0.176	0.19	WEIR FLOW
YD-6D	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.09	0.30	4.00	0.108	0.21	WEIR FLOW
YD-6D	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.09	0.30	6.50	0.176	0.30	WEIR FLOW
YD-6E	18" Nyloplast Yard Inlet	0.59	30.25	0.29	0.40	4.00	0.464	0.36	WEIR FLOW
YD-6E	18" Nyloplast Yard Inlet	0.59	30.25	0.29	0.40	6.50	0.754	0.68	WEIR FLOW
YD-6E	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.29	0.40	4.00	0.464	1.03	WEIR FLOW
YD-6E	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.29	0.40	6.50	0.754	2.71	WEIR FLOW
YD-6F	18" Nyloplast Yard Inlet	0.59	30.25	0.23	0.45	4.00	0.414	0.33	WEIR FLOW
YD-6F	18" Nyloplast Yard Inlet	0.59	30.25	0.23	0.45	6.50	0.673	0.54	WEIR FLOW
YD-6F	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.23	0.45	4.00	0.414	0.82	WEIR FLOW
YD-6F	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.23	0.45	6.50	0.673	2.16	WEIR FLOW
YD-7A	18" Nyloplast Yard Inlet	0.59	30.25	0.18	0.60	4.00	0.432	0.34	WEIR FLOW
YD-7A	18" Nyloplast Yard Inlet	0.59	30.25	0.18	0.60	6.50	0.702	0.59	WEIR FLOW
YD-7A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.18	0.60	4.00	0.432	0.89	WEIR FLOW
YD-7A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.18	0.60	6.50	0.702	2.35	WEIR FLOW
YD-7B	18" Nyloplast Yard Inlet	0.59	30.25	0.12	0.50	4.00	0.240	0.23	WEIR FLOW
YD-7B	18" Nyloplast Yard Inlet	0.59	30.25	0.12	0.50	6.50	0.390	0.32	WEIR FLOW
YD-7B	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.12	0.50	4.00	0.240	0.36	WEIR FLOW
YD-7B	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.12	0.50	6.50	0.390	0.73	WEIR FLOW
YD-7C	18" Nyloplast Yard Inlet	0.59	30.25	0.22	0.45	4.00	0.396	0.32	WEIR FLOW
YD-7C	18" Nyloplast Yard Inlet	0.59	30.25	0.22	0.45	6.50	0.644	0.49	WEIR FLOW
YD-7C	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.22	0.45	4.00	0.396	0.75	WEIR FLOW
YD-7C	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.22	0.45	6.50	0.644	1.98	WEIR FLOW
YD-8A	18" Nyloplast Yard Inlet	0.59	30.25	0.04	0.60	4.00	0.096	0.12	WEIR FLOW
YD-8A	18" Nyloplast Yard Inlet	0.59	30.25	0.04	0.60	6.50	0.156	0.17	WEIR FLOW
YD-8A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.04	0.60	4.00	0.096	0.20	WEIR FLOW
YD-8A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.04	0.60	6.50	0.156	0.27	WEIR FLOW
YD-8B	18" Nyloplast Yard Inlet	0.59	30.25	0.07	0.60	4.00	0.168	0.18	WEIR FLOW
YD-8B	18" Nyloplast Yard Inlet	0.59	30.25	0.07	0.60	6.50	0.273	0.25	WEIR FLOW
YD-8B	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.07	0.60	4.00	0.168	0.29	WEIR FLOW
YD-8B	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.07	0.60	6.50	0.273	0.40	WEIR FLOW
YD-9	18" Nyloplast Yard Inlet	0.59	30.25	0.11	0.60	4.00	0.264	0.24	WEIR FLOW
YD-9	18" Nyloplast Yard Inlet	0.59	30.25	0.11	0.60	6.50	0.429	0.34	WEIR FLOW
YD-9	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.11	0.60	4.00	0.264	0.39	WEIR FLOW
YD-9	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.11	0.60	6.50	0.429	0.88	WEIR FLOW
YD-9A	18" Nyloplast Yard Inlet	0.59	30.25	0.11	0.60	4.00	0.264	0.24	WEIR FLOW
YD-9A	18" Nyloplast Yard Inlet	0.59	30.25	0.11	0.60	6.50	0.429	0.34	WEIR FLOW
YD-9A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.11	0.60	4.00	0.264	0.39	WEIR FLOW
YD-9A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.11	0.60	6.50	0.429	0.88	WEIR FLOW
YD-10	18" Nyloplast Yard Inlet	0.59	30.25	0.08	0.60	4.00	0.192	0.20	WEIR FLOW
YD-10	18" Nyloplast Yard Inlet	0.59	30.25	0.08	0.60	6.50	0.312	0.27	WEIR FLOW
YD-10	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.08	0.60	4.00	0.192	0.31	WEIR FLOW
YD-10	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.08	0.60	6.50	0.312	0.46	WEIR FLOW
YD-10A	18" Nyloplast Yard Inlet	0.59	30.25	0.08	0.60	4.00	0.192	0.20	WEIR FLOW
YD-10A	18" Nyloplast Yard Inlet	0.59	30.25	0.08	0.60	6.50	0.312	0.27	WEIR FLOW
YD-10A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.08	0.60	4.00	0.192	0.31	WEIR FLOW
YD-10A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.08	0.60	6.50	0.312	0.46	WEIR FLOW
YD-11	18" Nyloplast Yard Inlet	0.59	30.25	0.20	0.50	4.00	0.400	0.32	WEIR FLOW
YD-11	18" Nyloplast Yard Inlet	0.59	30.25	0.20	0.50	6.50	0.650	0.50	WEIR FLOW
YD-11	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.20	0.50	4.00	0.400	0.76	WEIR FLOW
YD-11	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.20	0.50	6.50	0.650	2.02	WEIR FLOW
YD-11A	18" Nyloplast Yard Inlet	0.59	30.25	0.12	0.50	4.00	0.240	0.23	WEIR FLOW
YD-11A	18" Nyloplast Yard Inlet	0.59	30.25	0.12	0.50	6.50	0.390	0.32	WEIR FLOW
YD-11A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.12	0.50	4.00	0.240	0.36	WEIR FLOW
YD-11A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.12	0.50	6.50	0.390	0.73	WEIR FLOW
YD-11B	18" Nyloplast Yard Inlet	0.59	30.25	0.14	0.50	4.00	0.280	0.25	WEIR FLOW
YD-11B	18" Nyloplast Yard Inlet	0.59	30.25	0.14	0.50	6.50	0.455	0.35	WEIR FLOW
YD-11B	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.14	0.50	4.00	0.280	0.40	WEIR FLOW
YD-11B	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.14	0.50	6.50	0.455	0.99	WEIR FLOW
YD-11C	18" Nyloplast Yard Inlet	0.59	30.25	0.10	0.50	4.00	0.200	0.20	WEIR FLOW
YD-11C	18" Nyloplast Yard Inlet	0.59	30.25	0.10	0.50	6.50	0.325	0.28	WEIR FLOW
YD-11C	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.10	0.50	4.00	0.200	0.32	WEIR FLOW
YD-11C	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.10	0.50	6.50	0.325	0.50	WEIR FLOW
YD-12	18" Nyloplast Yard Inlet	0.59	30.25	0.28	0.40	4.00	0.448	0.35	WEIR FLOW
YD-12	18" Nyloplast Yard Inlet	0.59	30.25	0.28	0.40	6.50	0.728	0.63	WEIR FLOW
YD-12	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.28	0.40	4.00	0.448	0.96	WEIR FLOW
YD-12	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.28	0.40	6.50	0.728	2.53	WEIR FLOW
YD-12A	18" Nyloplast Yard Inlet	0.59	30.25	0.06	0.60	4.00	0.144	0.20	WEIR FLOW
YD-12A	18" Nyloplast Yard Inlet	0.59	30.25	0.06	0.60	6.50	0.234	0.28	WEIR FLOW
YD-12A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.06	0.60	4.00	0.144	0.32	WEIR FLOW
YD-12A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.06	0.60	6.50	0.234	0.50	WEIR FLOW
YD-13	18" Nyloplast Yard Inlet	0.59	30.25	0.09	0.65	4.00	0.234	0.35	WEIR FLOW
YD-13	18" Nyloplast Yard Inlet	0.59	30.25	0.09	0.65	6.50	0.380	0.63	WEIR FLOW
YD-13	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.09	0.65	4.00	0.234	0.96	WEIR FLOW
YD-13	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.09	0.65	6.50	0.380	2.53	WEIR FLOW
YD-13A	18" Nyloplast Yard Inlet	0.59	30.25	0.08	0.70	4.00	0.224	0.16	WEIR FLOW
YD-13A	18" Nyloplast Yard Inlet	0.59	30.25	0.08	0.70	6.50	0.364	0.23	WEIR FLOW
YD-13A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.08	0.70	4.00	0.224	0.26	WEIR FLOW
YD-13A	18" Nyloplast Yard Inlet - 50% clogged	0.30	15.13	0.08	0.70	6.50	0.364	0.36	WEIR FLOW

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REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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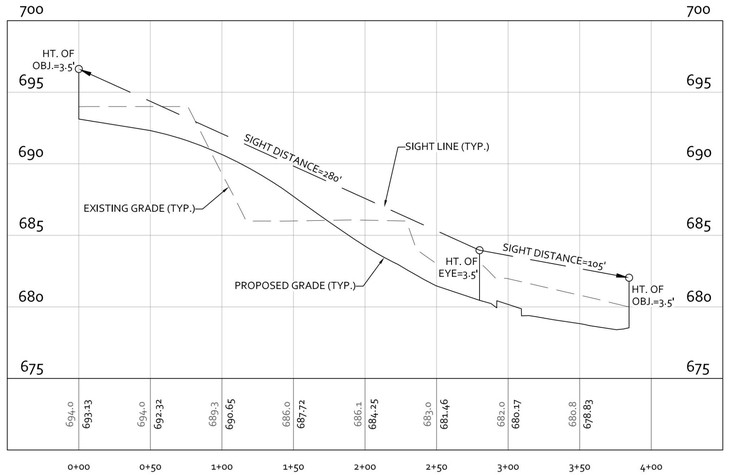
200 GARRETT STREET, SUITE K, CHARLOTTESVILLE, VA 22902 434.293.3719

PROJECT
GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

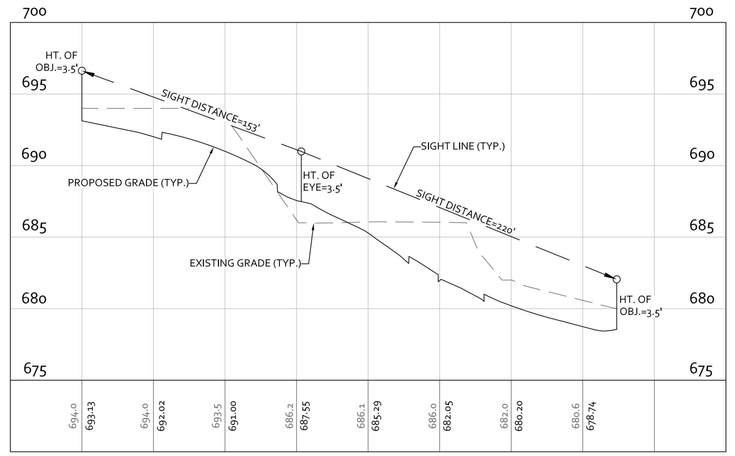
SHEET
DRAINAGE CALCULATIONS

JOB NO. 112066
SCALE N/A
SHEET NO. 14

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LEEHAM COURT (WEST) & LEEHAM STREET INTERSECTION SIGHT DISTANCE PROFILE



PARKING LOT & LEEHAM STREET INTERSECTION SIGHT DISTANCE PROFILE

VERTICAL GRAPHIC SCALE

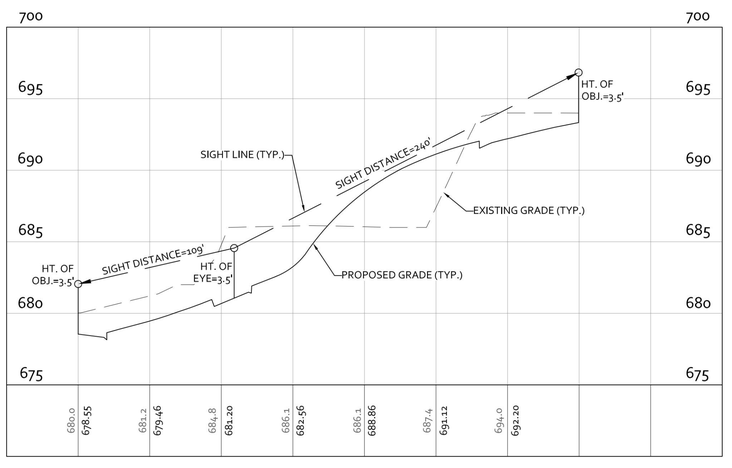
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

HORIZONTAL GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



MARLIN COURT & LEEHAM STREET INTERSECTION SIGHT DISTANCE PROFILE

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REVISIONS

DATE	REVISION DESCRIPTION
2/16/24	FINAL SITE PLAN - 1ST SUBMISSION

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PROJECT GLENBROOK AT FOOTHILLS PHASE IV - FINAL SITE PLAN

SHEET SIGHT DISTANCE PROFILES

JOB NO. 112066

SCALE 1" = 50'

SHEET NO. 15

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