

PCO CONCEPT PLANS FOR COURTYARDS AT QUAIL PARK

TOWN OF MINT HILL

MECKLENBURG COUNTY, NORTH CAROLINA

OWNER:
CLINTON MONTGOMERY BLACK JR. ESTATE
D.B. 1472 PAGE: 231

DEVELOPER:
EPCON COMMUNITIES
11020 DAVID TAYLOR DRIVE, SUITE 105
CHARLOTTE, NC 28262
704-607-0152

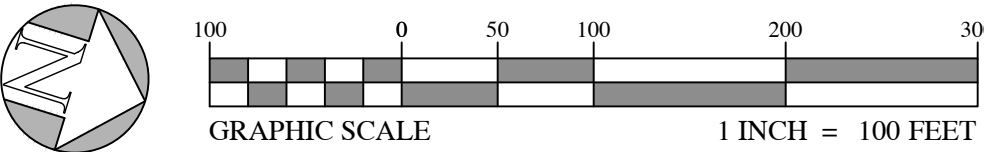
EPM #: XXXXXXXXXX

DEVELOPMENT DATA
EXISTING ZONING: R (RESIDENTIAL DISTRICT)
PROPOSED ZONING: R-CD (RESIDENTIAL - CONDITIONAL DISTRICT) & B-G (BUSINESS - GENERAL -DEDICATED)
USE: AGE RESTRICTED DETACHED HOUSING
SITE AREA: 32.84 ACRES

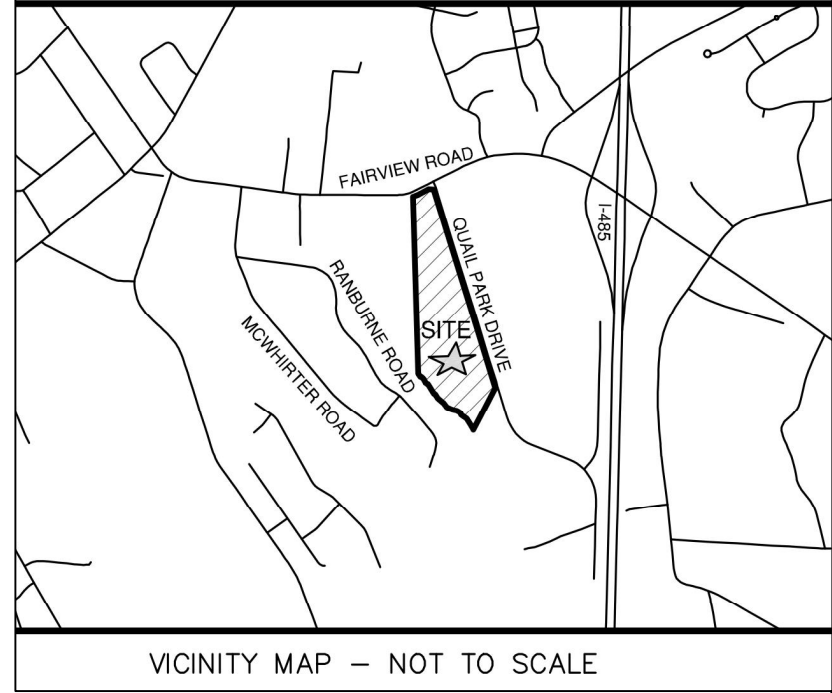
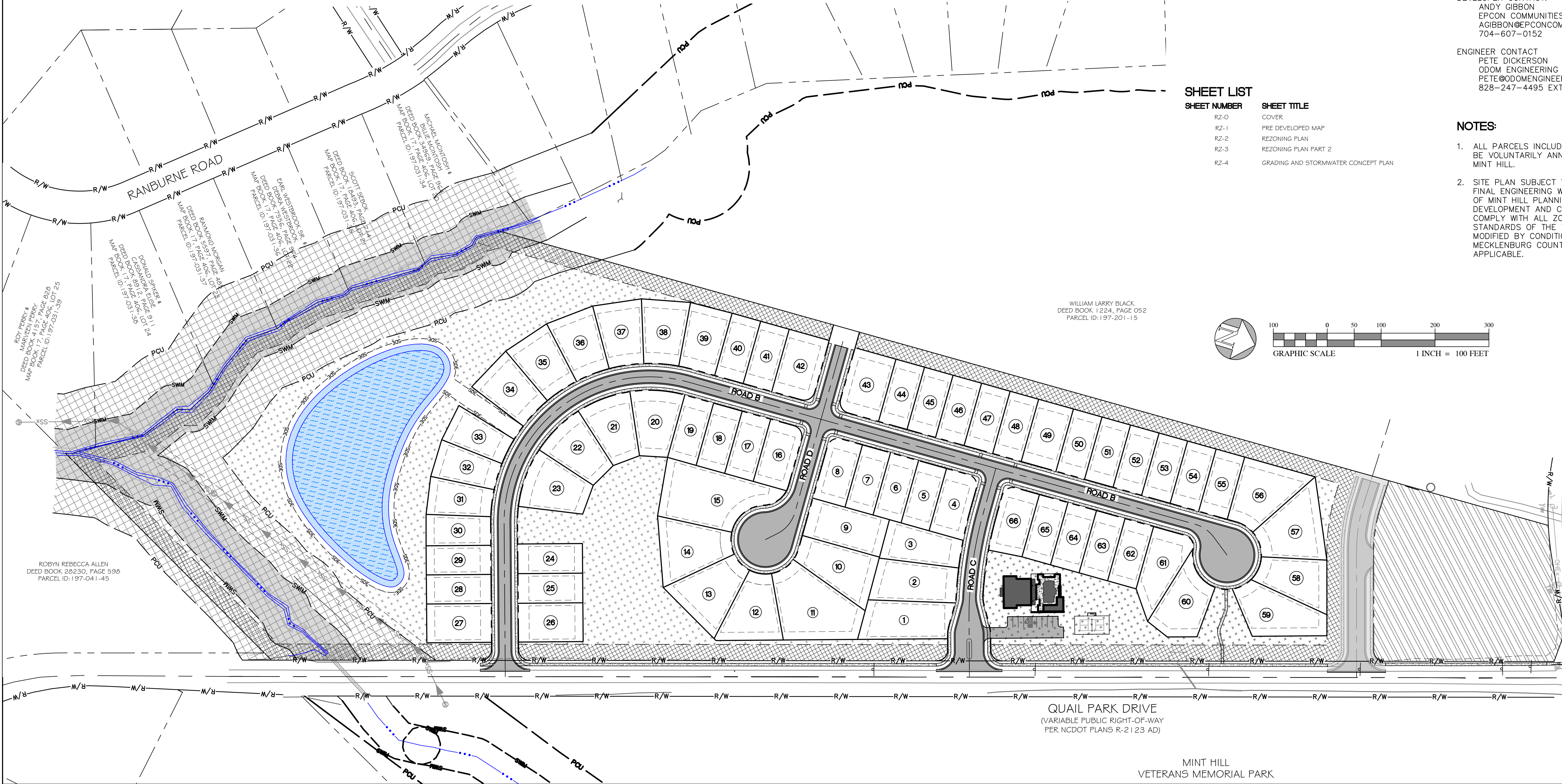
MECKLENBURG COUNTY GIS PROPERTY
PIN # 19720114
PROPERTY ADDRESS
8612 FAIRVIEW RD
CHARLOTTE, NC 28227
DEVELOPER CONTACT:
ANDY GIBBON
EPCON COMMUNITIES
AGIBBON@EPCONCOMMUNITIES.COM
704-607-0152
ENGINEER CONTACT
PETE DICKERSON
ODOM ENGINEERING
PETE@ODOMENGINEERING.COM
828-247-4495 EXT. 11

- NOTES:**
- ALL PARCELS INCLUDED IN THIS PROJECT WILL BE VOLUNTARILY ANNEXED INTO THE TOWN OF MINT HILL.
 - SITE PLAN SUBJECT TO CHANGE BASED ON FINAL ENGINEERING WITH APPROVAL FROM TOWN OF MINT HILL PLANNING DEPARTMENT. ALL DEVELOPMENT AND CONSTRUCTION SHALL COMPLY WITH ALL ZONING AND SUBDIVISION STANDARDS OF THE TOWN OF MINT HILL AS MODIFIED BY CONDITIONAL ZONING AGREEMENTS, MECKLENBURG COUNTY, AND NCDOT AS APPLICABLE.

SHEET NUMBER	SHEET TITLE
RZ-0	COVER
RZ-1	PRE DEVELOPED MAP
RZ-2	REZONING PLAN
RZ-3	REZONING PLAN PART 2
RZ-4	GRADING AND STORMWATER CONCEPT PLAN



APPROVAL OF THIS REZONING/SKETCH/CONCEPT PLAN DOES NOT IMPLY OR GUARANTEE APPROVAL AND/OR VESTING OF THE FINAL CONSTRUCTION PLANS.
FINAL CONSTRUCTION PLAN WILL BE REVIEWED FOR COMPLIANCE PER ALL TOWN, COUNTY, AND STATE REGULATIONS IN EFFECT AT THE TIME OF SUBMITTAL.
PLANS ARE FOR CONCEPTUAL PURPOSES ONLY AND ARE BEING SIGNED TO COMPLY WITH THE POST-CONSTRUCTION ORDINANCE (PCO) SKETCH PLAN SUBMITTAL REQUIREMENTS PER THE TOWN OF MINT HILL AND MECKLENBURG COUNTY. THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION.



JOB NUMBER:
22250

REV	DATE	DESCRIPTION
1		
2		
3		
4		
5		

1. I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF NORTH CAROLINA AS SIGNIFIED BY MY HAND AND SEAL.

SEAL

052503

12/06/2022

ENGINEER
WILLIAM F. MCDONALD

REZONING PCO CONCEPT PLANS FOR
COURTYARDS AT QUAIL PARK
MECKLENBURG COUNTY, NC
MINT HILL
COVER

ODOM

Engineering

PLLC

169 Oak Street, Forest City, N.C. 28433
ph: 828.247.4495 fax: 828.247.4498
NC License # 4498

DATE: 12/06/2022

DRAWN BY: WFM

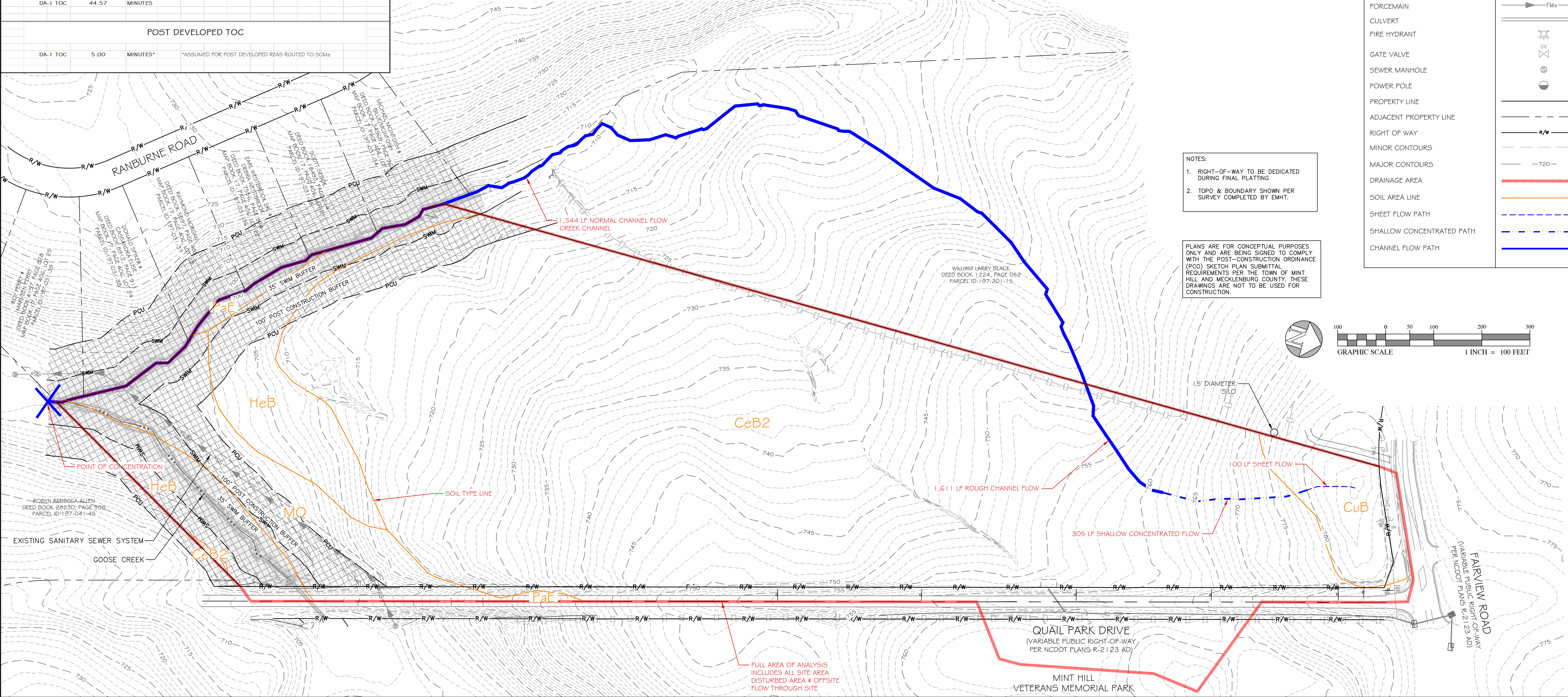
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PROJECT MGR: DWO

SHEET:
RZ-0

Z:\2022\22250 - QUAIL PARK MINT HILL (EPCON)\CALCULATIONS\STORMWATER PONDS\PRE AND POST DEVELOPED MAPS.dwg, 12/7/2022 3:41:38 PM, _DWG To PDF.pc3

TIME OF CONCENTRATION			
PRE-DEVELOPED TOC			
DA- I TOC			
SHEET FLOW			
$T_t = \frac{0.42(nL^{0.58})}{(P_2)^{0.58}}$		WHERE: T_t = TRAVEL TIME (MINUTES) n = MANNINGS' ROUGHNESS COEFFICIENT L = FLOW LENGTH P_2 = 2- YEAR, 24 HOUR RAINFALL = 3.12 INCHES	
$n =$	0.400		
$L =$	100	FT	
$S =$	0.042	FT/FT	
SHEET FLOW T_t	16.16	MINUTES	
SHALLOW CONCENTRATED FLOW			
$V = 16.1345(S)^{0.58}$		UNPAVED	WHERE V = AVERAGE VELOCITY (FT/S) S = SLOPE OF HYDRAULIC
$V = 20.3282(S)^{0.58}$		PAVED	
$T_t = \frac{L \times 0.0167}{V}$		TRAVEL TIME	T_t = TRAVEL TIME (MINUTES) L = FLOW LENGTH V = AVERAGE VELOCITY (FT/S)
$L =$	305	FT	
$S =$	0.061	FT/FT	
$V =$	3.98	FT/S	
SHALLOW CONCENTRATED T_t :	1.28	MINUTES	
CHANNEL FLOW			
$t_c = 0.0078 \times \frac{L^{0.77}}{S^{0.38}}$		**TRAVEL TIME	T_t = TRAVEL TIME (MINUTES) L = FLOW LENGTH S = SLOPE (FT/FT)
ROUGH OVERLAND		2	
$L =$	1611	FT	
$S =$	0.032	FT/FT	**MULTIPLY T_c BY 2 FOR ROUGH OVERLAND UNPAVED SURFACES (DENSE GRASS/WOODS) BY 0.4 FOR PAVED SURFACE FLOWS * BY 0.2 FOR PAVED CHANNEL FLOW
CHANNEL T_t	17.30	MINUTES	
NORMAL		1	**CREEK CHANNEL
$L =$	1344	FT	
$S =$	0.016	FT/FT	
CHANNEL T_t	9.83	MINUTES	
$t_c = 0.0078 \times \frac{L^{0.77}}{S^{0.38}}$		**TRAVEL TIME	
TOTAL TOC = SHEET FLOW T_t + SHALLOW CONCENTRATED T_t + CHANNEL FLOW T_c			
DA- I TOC	44.57	MINUTES	
POST DEVELOPED TOC			
DA- I TOC	5.00	MINUTES*	*ASSUMED FOR POST DEVELOPED REAS ROUTED TO SCMs



Map Unit Legend			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CeB2	Cecil sandy clay loam, 2 to 8 percent slopes, moderately eroded	28.9	79.4%
CuB	Cecil-Urban land complex, 2 to 8 percent slopes	1.2	3.4%
HeB	Helena sandy loam, 2 to 8 percent slopes	3.4	9.3%
MO	Monacan loam, 0 to 2 percent slopes, frequently flooded	2.6	7.3%
PaE	Pacolet sandy loam, 15 to 25 percent slopes	0.2	0.6%
Totals for Area of Interest		36.5	100.0%

DRAINAGE AREA SUMMARY			
TOTAL DRAINAGE AREA:	36.457 AC		
TOTAL SITE AREA:	32.842 AC		
TOTAL ROUTED TO SCM:	36.457 AC		
TOTAL SITE AREA BYPASS:	-3.615 AC		

PRE-DEVELOPED DRAINAGE AREA SUMMARY			
DA-1: PRE DEVELOPED DRAINAGE AREA			
DESCRIPTION	AREA (SF)	AREA (AC)	CN
WOODS/GRASS B SOIL	1,543,545	35.435	58
IMPERVIOUS	44,537	1.022	98
		36.457	CN: 59.122
TOTAL AREA (SF):	1,588,082		
TOTAL AREA (AC):	36.46		
IMPERVIOUS TOTAL (AC):	1.02	2.80 %	
WEIGHTED CN:	59		
TIME OF CONCENTRATION (MINUTES):	44.57		

LEGEND	
UTILITY/STRUCTURE	EXISTING
OVERHEAD ELECTRICAL	—OHEx—
UNDERGROUND ELECTRICAL	—UGEx—
NATURAL GAS	—GASx—
OVERHEAD TELEPHONE	—OHTx—
FIBER OPTIC	—FBRx—
SANITARY SEWER	—SSx—
WATER	—Wx—
FORCEMAIN	—FMx—
CULVERT	—CULV—
FIRE HYDRANT	—FHD—
GATE VALVE	—GV—
SEWER MANHOLE	—SMH—
POWER POLE	—PP—
PROPERTY LINE	—PL—
ADJACENT PROPERTY LINE	—APL—
RIGHT OF WAY	—R/W—
MINOR CONTOURS	—720—
MAJOR CONTOURS	—720—
DRAINAGE AREA	—DA—
SOIL AREA LINE	—SAL—
SHEET FLOW PATH	—SFP—
SHALLOW CONCENTRATED PATH	—SCP—
CHANNEL FLOW PATH	—CFP—

JOB NUMBER:
22250

DATE
12/06/2022

BY
WFM

DESCRIPTION
PRE REZONING SKETCH PLANS

REV
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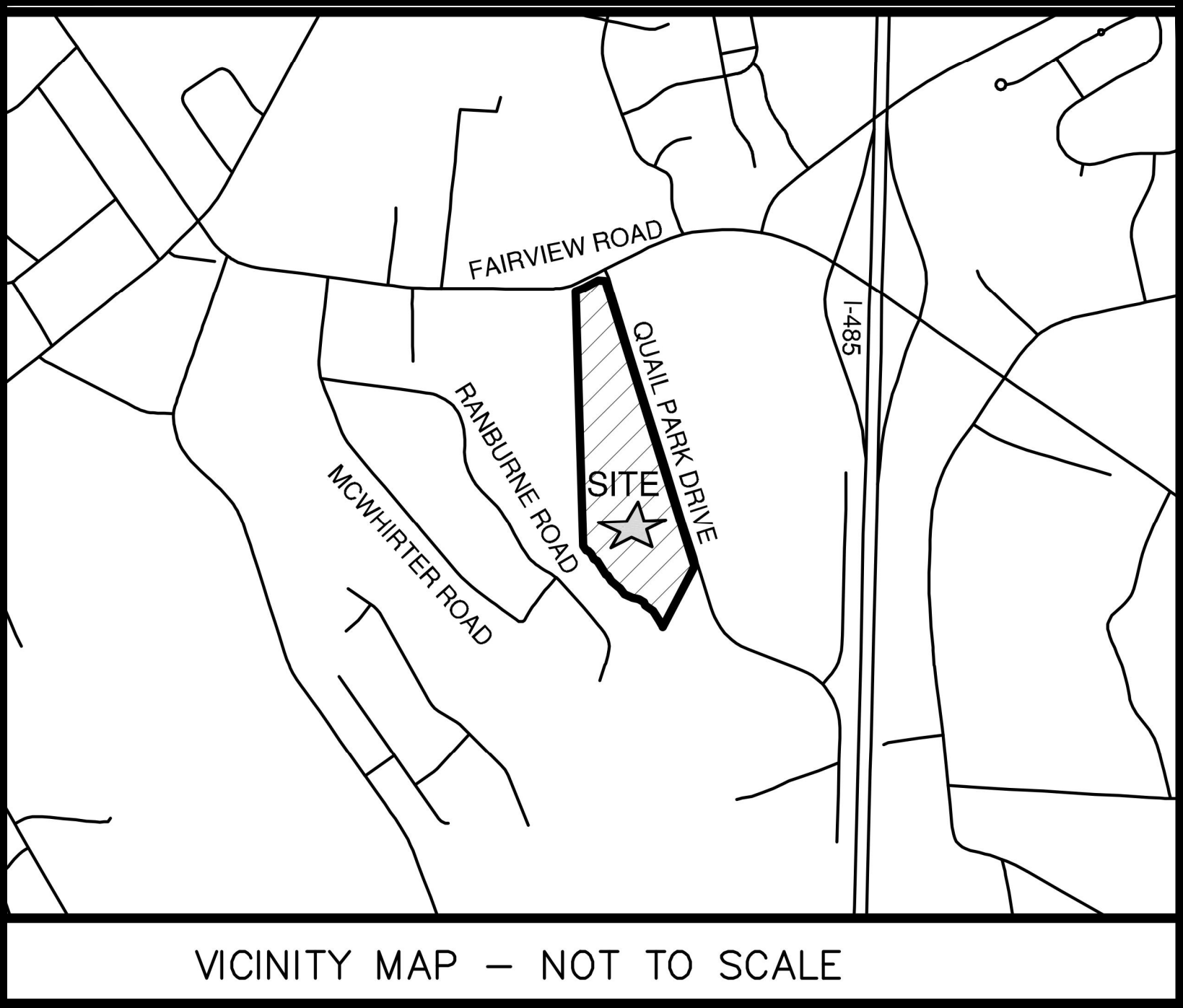
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PRE REZONING SKETCH PLANS
COURTYARDS AT QUAIL PARK
MINT HILL
MECKLENBURG COUNTY, NC
PRE-DEVELOPED MAP

Odom Engineering
PLLC
169 Oak Street, Forest City, N.C. 28043
ph: 828.247.4406 fax: 828.247.4406
NC License # 4406

1" = 100'

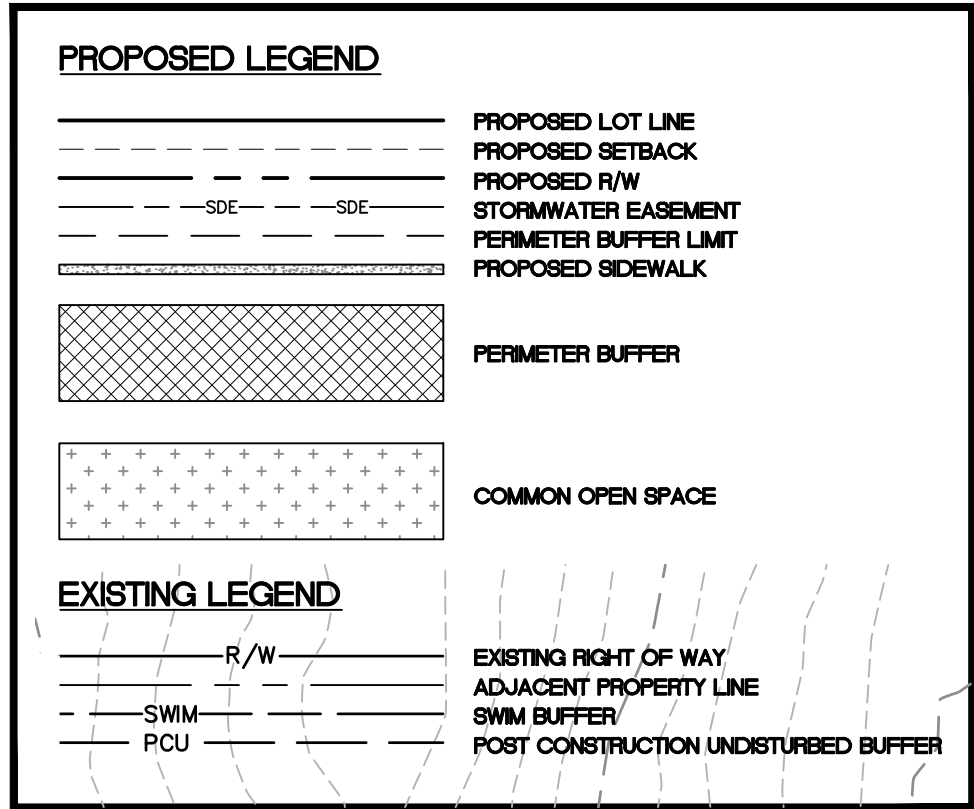
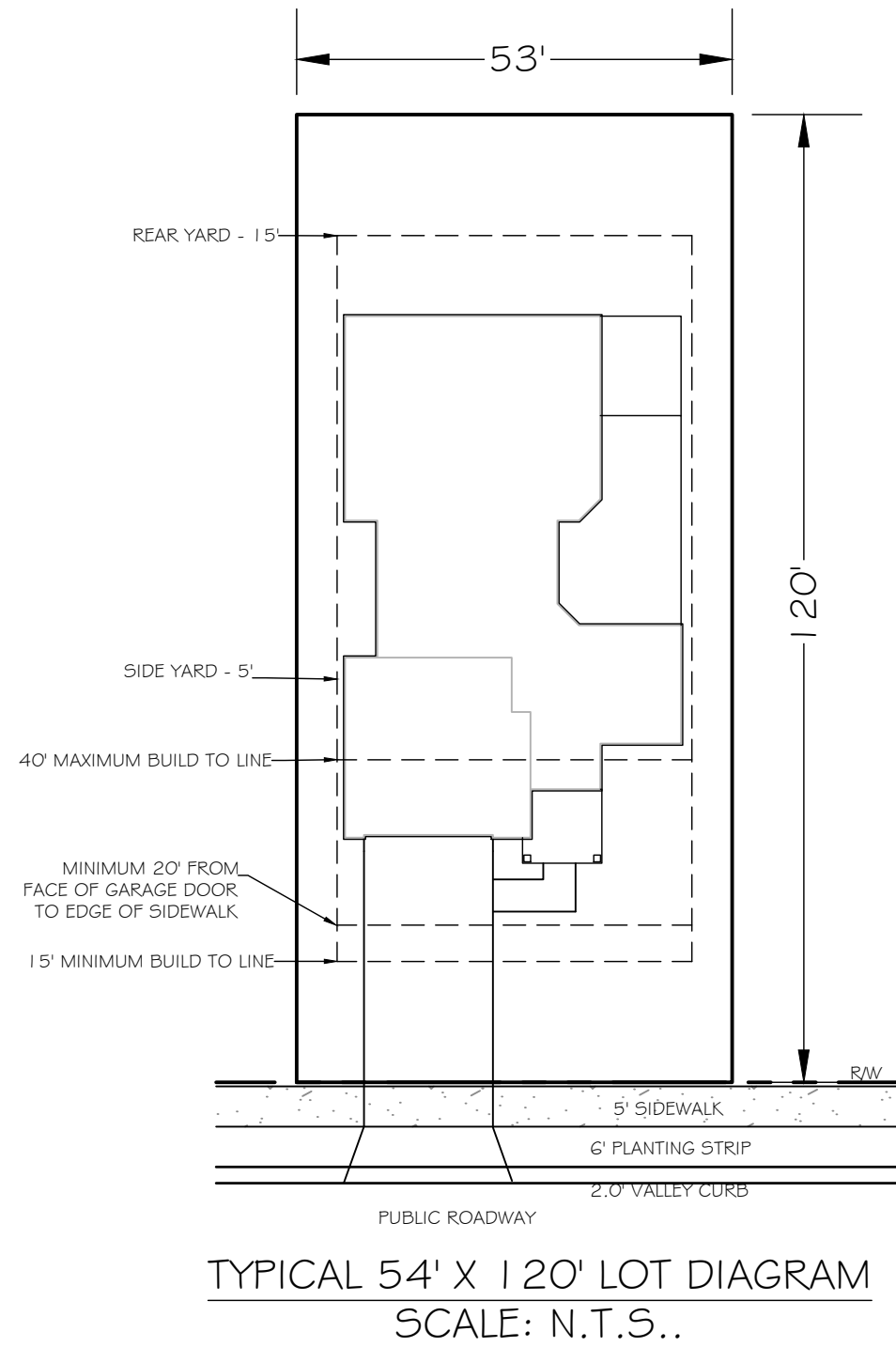
DATE: 12/06/2022
DRAWN BY: WFM
CHECKED BY: WFM
PROJECT MGR: DWO
SHEET:
RZ-1



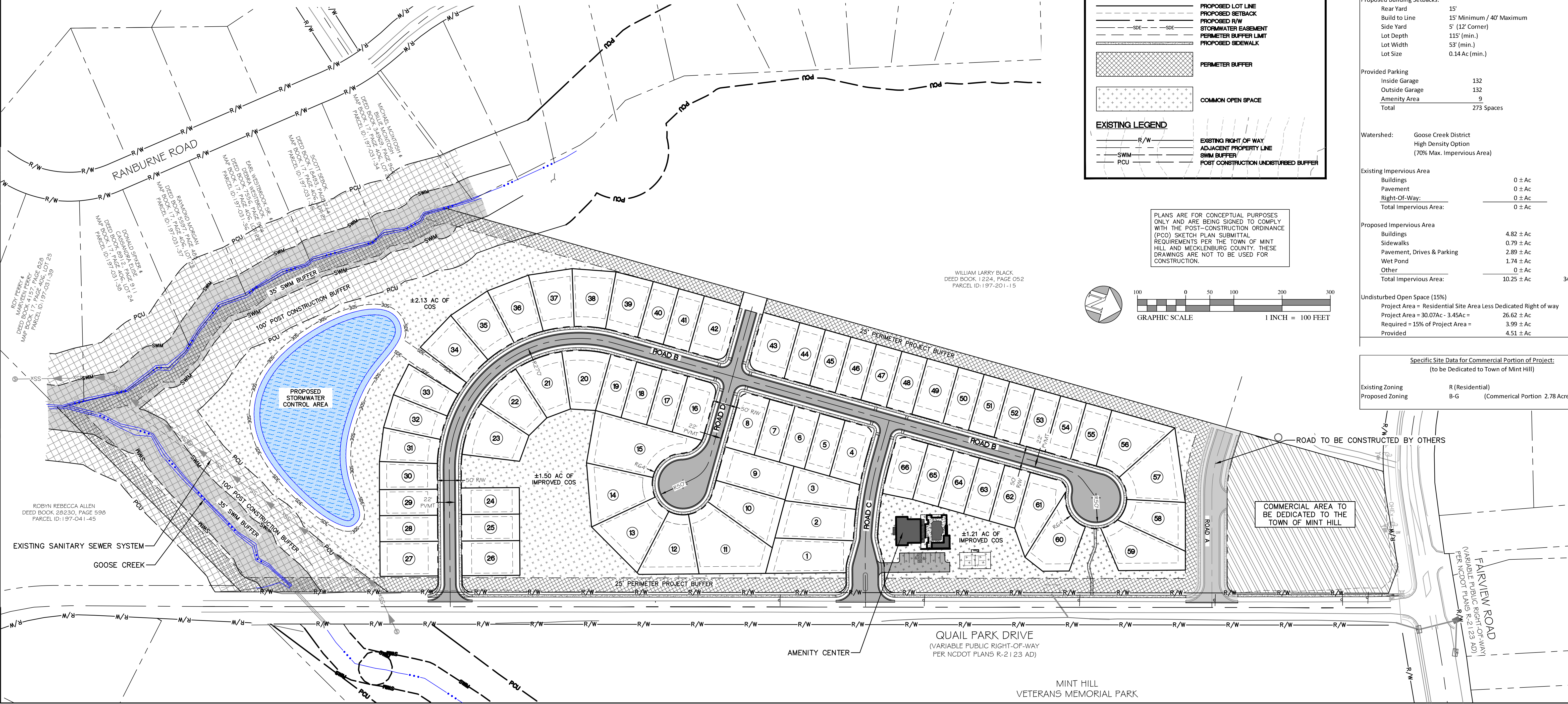
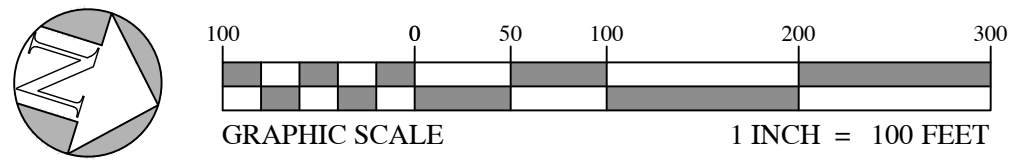
VICINITY MAP — NOT TO SCALE

NOTES:

1. All development and construction shall comply with all zoning and subdivision standards of the Town of Mint Hill, Mecklenburg County, and NCDOT, as applicable.
2. This property may be subject to any easements and/or rights of way of record.
3. All areas designated as common and/or urban open space shall be owned and maintained by the homeowners association and dedicated for perpetuity.
4. Access (ingress/egress) location and design shown in this sketch plan are subject to achieving vertical and horizontal sight distances, turn lane improvements (including right-of-way) and intersection with adjacent and opposing access points. Modifications to the plan may result.
5. Large maturing trees will be planted 40' on center within the required planting strip along the streets with the exception of rural parkways where existing trees can satisfy the existing tree requirement. Small maturing trees are to be used when overhead power lines exist.
6. Mail service will be provided in clusters. Kiosk locations are to be determined and be coordinated with the USPS during final engineering.
7. Trash service to be provided by the Town of Mint Hill for each lot.
8. Direct access from lots to a thoroughfare is prohibited.
9. The Build-to line is a line extending through a lot which is generally parallel to the front property line and marks the location from which the principle vertical plane of the front building elevation, exclusive of porches, bay windows and similar appurtenances, must be erected intended to create an even facade line on a street. The build-to line is established on the record plat (final Plat).
10. SCM access and maintenance easements shall be provided around around each SCM and recorded on a plat after construction plan approval.
11. Based on the existing condition of the tree canopy, the 25' external buffer is intended to be undisturbed along the south side (plan west) of the property. Along the North, West, and East sides (Plan North, South, and East) of the property the buffer shall be disturbed and replanted in accordance with the Town's ordinance.
12. Fire hydrants shall be provided within 750 feet of the most remote point of the structure as the apparatus travels. Final hydrant locations to be approved by Charlotte Water.
13. Stormwater management/detention provided by the proposed SCM's, located on the subject property. SCM's provided are shown for general conformance with the Town of Mint Hill requirements. Size, shape and type of proposed SCM's provided are subject to change and will be finalized with details as part of final engineering/construction documents, subject to the Town of Mint Hill engineering approval.
14. Proposed water service connection shall be made to the existing Charlotte Water System watermain located near the intersection of Quail Park Drive and Fairview Road.
15. Proposed sewer connection shall be made to Charlotte Water Sanitary Sewer system which crosses the southern portion of the project parcel.
16. Appropriate environmental permitting will be obtained though NCDEQ for impacts to existing stream, if required.
17. Proposed signs, lighting & landscaping will be designed in accordance with the Town of Mint Hill standards and regulations. Proposed locations will be prepared and reviewed as part of the construction plans.
18. Street trees to be maintained by the Homeowners Association.
19. Any sidewalk proposed outside of the right-of-way shall be placed in a permanent sidewalk easement.



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Site Data		JOB NUMBER:	
Overall Project Data:		22250	
Developer / Applicant EPCON Communities 11020 David Taylor Blvd. Suite. 105 Charlotte, NC 28262 (704) 997-8044		DATE	
Tax Parcel ID: 197-201-14		BY	
Total Site Area Per Alta Survey: 32.84 ± Ac		DESCRIPTION	
Note: For the purposes of rezoning, Parcel # 197-201-14 is to be divided into two project areas: 1) An area of approximately 2.78 acres as shown on the plan including a roadway to be dedicated as public right-of-way. Rezoning request for the commercial area to be B-G District. 2) A Residential area containing approximately 30.07 acres to be subdivided into individual lots, with dedicated open space areas, and roadways dedicated as public rights-of-way. Rezoning request for the residential area to be R-CZ (Conditional Zoning).		REV	
Specific Site Data for Residential Project:			
Existing Zoning Proposed Zoning	R (Residential) R-CZD (Residential Portion 30.07 Acres)		
The proposed development will be age-restricted in accordance with the Federal Fair Housing Act's Housing for Older Persons Act (HOPA). The HOPA regulations will be incorporated into the Homeowners Association Documents.			
Total Number of Residential Lots:	66 Lots		
Proposed Density:	2.0 Dwelling Units/Ac* *Based on gross parcel area 32.84 Ac		
Site Area			
Original Parcel Area	32.84 ± Ac		
Less Area Dedicated to Town	-2.78 ± Ac		
Residential Site Area	30.07 ± Ac		
Right of Way to be Dedicated	3.45 ± Ac		
Proposed Building Setbacks:			
Rear Yard	15'		
Build to Line	15' Minimum / 40' Maximum		
Side Yard	5' (12' Corner)		
Lot Depth	115' (min.)		
Lot Width	53' (min.)		
Lot Size	0.14 Ac (min.)		
Provided Parking			
Inside Garage	132		
Outside Garage	132		
Amenity Area	9		
Total	273 Spaces		
Watershed:	Goose Creek District High Density Option (70% Max. Impervious Area)		
Existing Impervious Area			
Buildings	0 ± Ac		
Pavement	0 ± Ac		
Right-Of-Way:	0 ± Ac		
Total Impervious Area:	0 ± Ac		
Proposed Impervious Area			
Buildings	4.82 ± Ac		
Sidewalks	0.79 ± Ac		
Pavement, Drives & Parking	2.89 ± Ac		
Wet Pond	1.74 ± Ac		
Other	0 ± Ac		
Total Impervious Area:	10.25 ± Ac	34% ±	
Undisturbed Open Space (15%)			
Project Area = Residential Site Area Less Dedicated Right of way			
Project Area = 30.07Ac - 3.45Ac =	26.62 ± Ac		
Required = 15% of Project Area =	3.99 ± Ac		
Provided	4.51 ± Ac		
Specific Site Data for Commercial Portion of Project: (to be Dedicated to Town of Mint Hill)			
Existing Zoning Proposed Zoning	R (Residential) B-G (Commerical Portion 2.78 Acres)		

REZONING PCO CONCEPT PLANS FOR
COURTYARDS AT QUAIL PARK
MINT HILL
MECKLENBURG COUNTY, NC
REZONING PLAN



DATE: 12/06/2022
DRAWN BY: WFM
CHECKED BY: FED
PROJECT MGR: DWO
SHEET:
RZ-2

ALL RETAINING WALLS REQUIRING SPECIAL INSPECTIONS (>35' IN HEIGHT) SHALL MEET THE REQUIREMENTS OF THE MCSB CHAPTER 17-SPECIAL INSPECTIONS AS DETAILED FOR THE MECKLENBURG COUNTY CODE ENFORCEMENT DEPARTMENT INSPECTION PROCESS. ADDITIONALLY, COPIES OF THE RETAINING WALL PLANS SHALL BE SUBMITTED TO THE MINT HILL ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL. THE TOWN OF MINT HILL SHALL BE COPIED ON ALL STATEMENTS OF WORK, SPECIAL INSPECTION REPORTS, FINISH REPORTS, AND DESIGN PRINCIPAL IN CHARGE (DPIC) LETTERS. RETAINING WALLS THAT IN AND/OR AFFECT THE PUBLIC RIGHT-OF-WAY MUST BE REVIEWED AND APPROVED BY THE TOWN.

DRAINAGE:

EXISTING CONDITIONS

THE EXISTING SITE DRAINAGE GENERALLY FLOWS FROM NORTH TO SOUTH TOWARDS GOOSE CREEK. A SMALL PORTION OF THE SITE DRAINS FROM SOUTH TO NORTH AND ACROSS FAIRVIEW RD.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT WILL CONVEY STORMWATER TO A SINGLE SCM LOCATED ON THE SOUTHERN PORTION OF THE SITE. ALL RUNOFF FROM ROOFTOPS, SIDEWALKS, ROADWAYS AND LAWNs WILL BE DIRECTED TO THE SCM. THE SCM WILL DISCHARGE THE STORMWATER NEAR THE EXISTING STREAM AND WILL CONFORM WITH THE TOWN OF MINT HILL STORMWATER MANAGEMENT REQUIREMENTS.

SCMS PROVIDED ARE SHOWN FOR GENERAL CONFORMANCE WITH THE TOWN OF MINT HILL REQUIREMENTS. SIZE, SHAPE, AND TYPE OF SCMS ARE SUBJECT TO CHANGE AND WILL BE FINALIZED WITH DETAILS AS PART OF THE FINAL ENGINEERING/CONSTRUCTION DOCUMENTS, SUBJECT THE TOWN OF MINT HILL APPROVAL

WETPOND

ONSITE DRAINAGE AREA =	±29.46 AC
OFFSITE DRAINAGE AREA =	±1.50 AC
STORAGE VOLUME REQUIRED =	2.86 AC-FT

OVERALL STORMWATER SUMMARY

2 YEAR ALLOWABLE RELEASE RATE =	3.63 CFS
10 YEAR ALLOWABLE RELEASE RATE =	19.09 CFS
25 YEAR ALLOWABLE RELEASE RATE =	28.68 CFS
50 YEAR ALLOWABLE RELEASE RATE =	20.18 CFS

50 YEAR WATER ELEVATION FREEBOARD SHALL BE GREATER THAN 6"

1. STORMWATER MANAGEMENT/DETENTION PROVIDED BY THE PROPOSED SCM'S LOCATED ON THE SUBJECT PROPERTY. SCMs PROVIDED ARE SHOWN FOR GENERAL CONFORMANCE WITH THE TOWN OF MINT HILL REQUIREMENTS. SIZE, SHAPE, LOCATION, AND TYPE OF PROPOSED SCMS PROVIDED ARE SHOWN SUBJECT TO CHANGE AND WILL BE FINALIZED WITH DETAILS AS PART OF FINAL ENGINEERING/CONSTRUCTION DOCUMENTS. SUBJECT TO TOWN OF MINT HILL ENGINEERING APPROVAL.
2. STORMS SEWER STRUCTURES AND PIPE ARE SHOWN FOR GENERAL CONFORMANCE WITH THE TOWN OF MINT HILL REQUIREMENTS. STORM SEWER SYSTEM AS SHOWN IS SUBJECT TO CHANGE AND WILL BE FINALIZED WITH DETAILS AS PART OF FINAL ENGINEERING/CONSTRUCTION DOCUMENTS, SUBJECT TO TOWN OF MINT HILL ENGINEERING APPROVAL.
3. POST DEVELOPMENT RELEASE RATES WILL BE EQUAL TO OR LESS THAN PRE-DEVELOPMENT RELEASE RATES.
4. SEE SHEET RZ-3 FOR TYPICAL STREET SECTION.
5. PROPOSED ZONING FOR PROJECT SITE IS R/CD.
6. AN ADS YARD DRAINAGE SYSTEM WILL BE INCORPORATED TO EACH LOT TO CAPTURE ROAD RUNOFF AND DIRECT TO SCM.

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