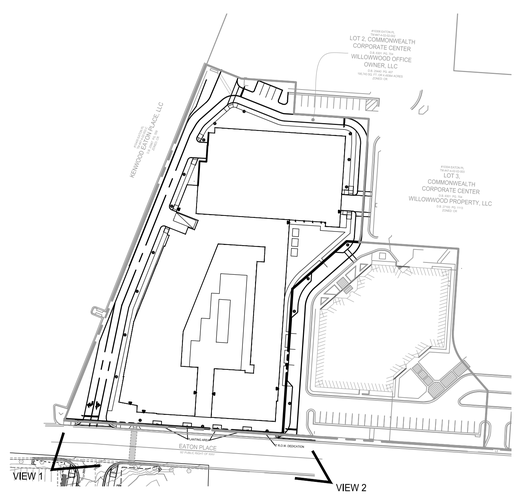
1) 3D VIEW 1

3) 3D VIEW 3

2) 3D VIEW 2




hickok cole

NOTE: THE GRAPHICS, SHOWN ON THIS SHEET, ARE CONCEPTUAL IN NATURE AND ILLUSTRATE THE GENERAL CHARACTER OF THE BUILDINGS AND PROJECT SITE. THESE DRAWINGS ARE NOT INTENDED TO REPRESENT FINAL BUILDING DESIGN OR TO BE INTERPRETED AS A COMMITMENT TO FINAL DESIGN OF THE PROJECT. FINAL DESIGN WILL BE DETERMINED AT THE TIME OF FINAL SITE PLAN SUBMISSION.

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COMMONWEALTH OF VIRGINIA
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Lic. No.52485
11/30/2022
PROFESSIONAL ENGINEER

N29 APARTMENTS
GENERAL DEVELOPMENT PLAN
---
CITY OF FAIRFAX, VA

| MARK | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-30-2022 | ADDRESSED PER CITY COMMENTS |

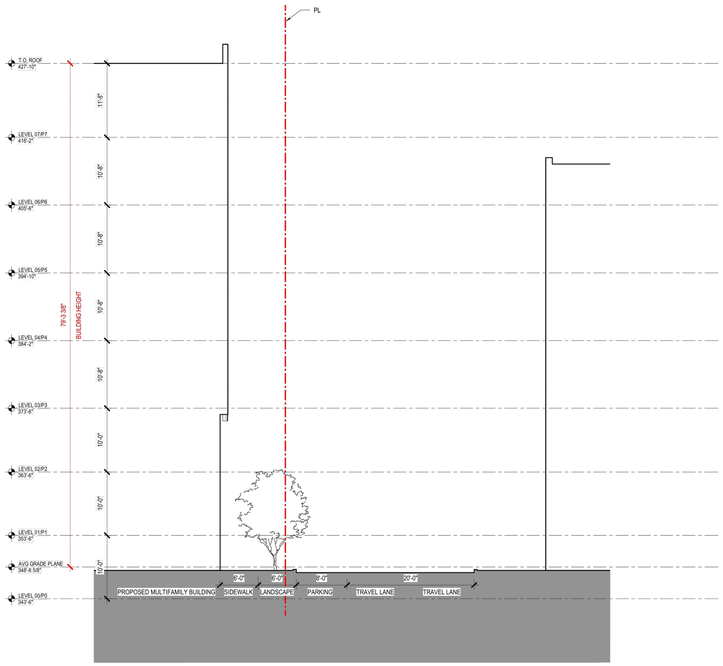
PROJECT No.: 21082.002.00
DRAWING No.: 111772
DATE: 2022-07-15
SCALE: NOT TO SCALE
DESIGN: QN
DRAWN: QN
CHECKED: JM

SHEET TITLE:

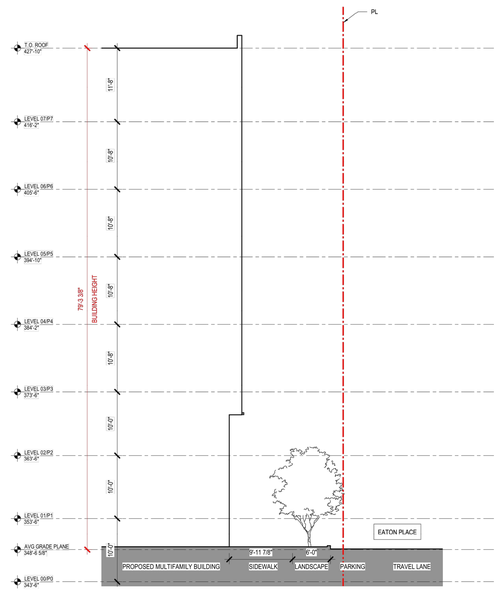
ILLUSTRATIVE BUILDING GRAPHICS

SHEET No.

PI_410




CROSS SECTION 1

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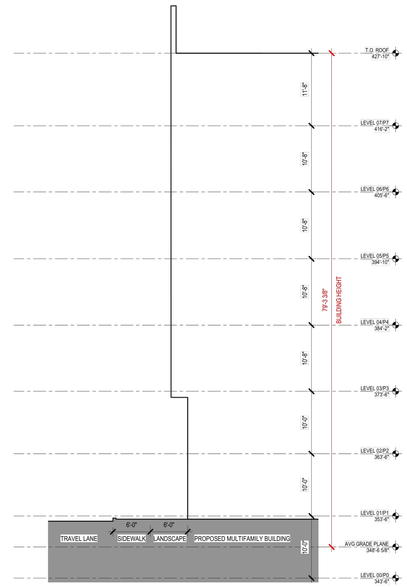


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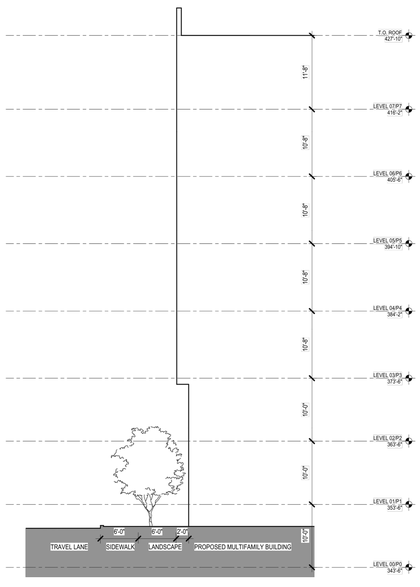


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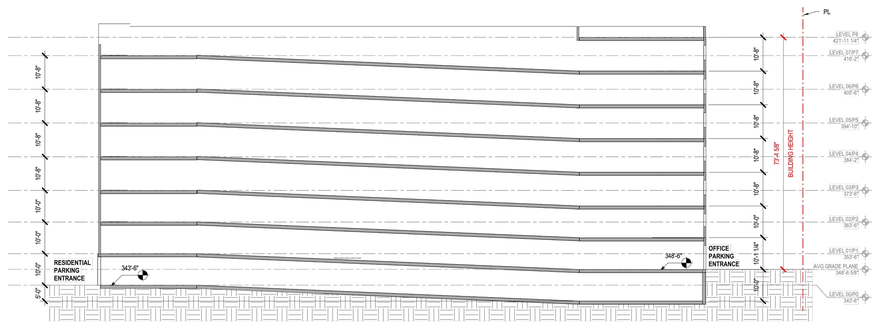
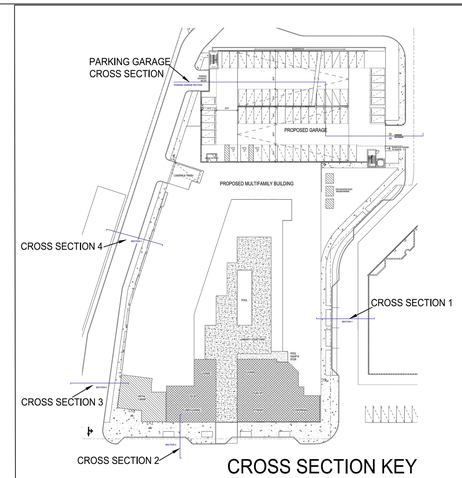



PARKING GARAGE
CROSS SECTION




CROSS SECTION KEY

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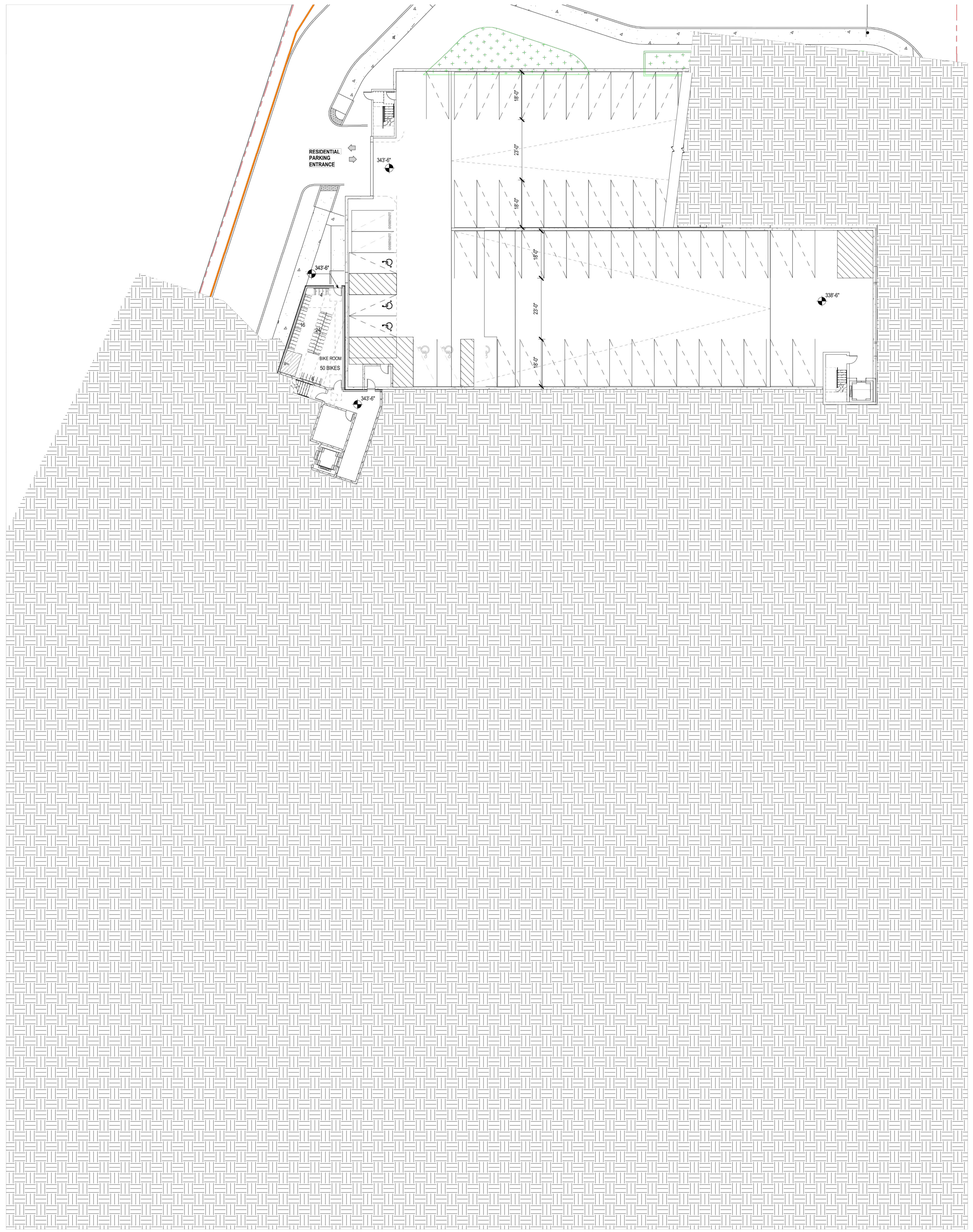
SHEET TITLE:

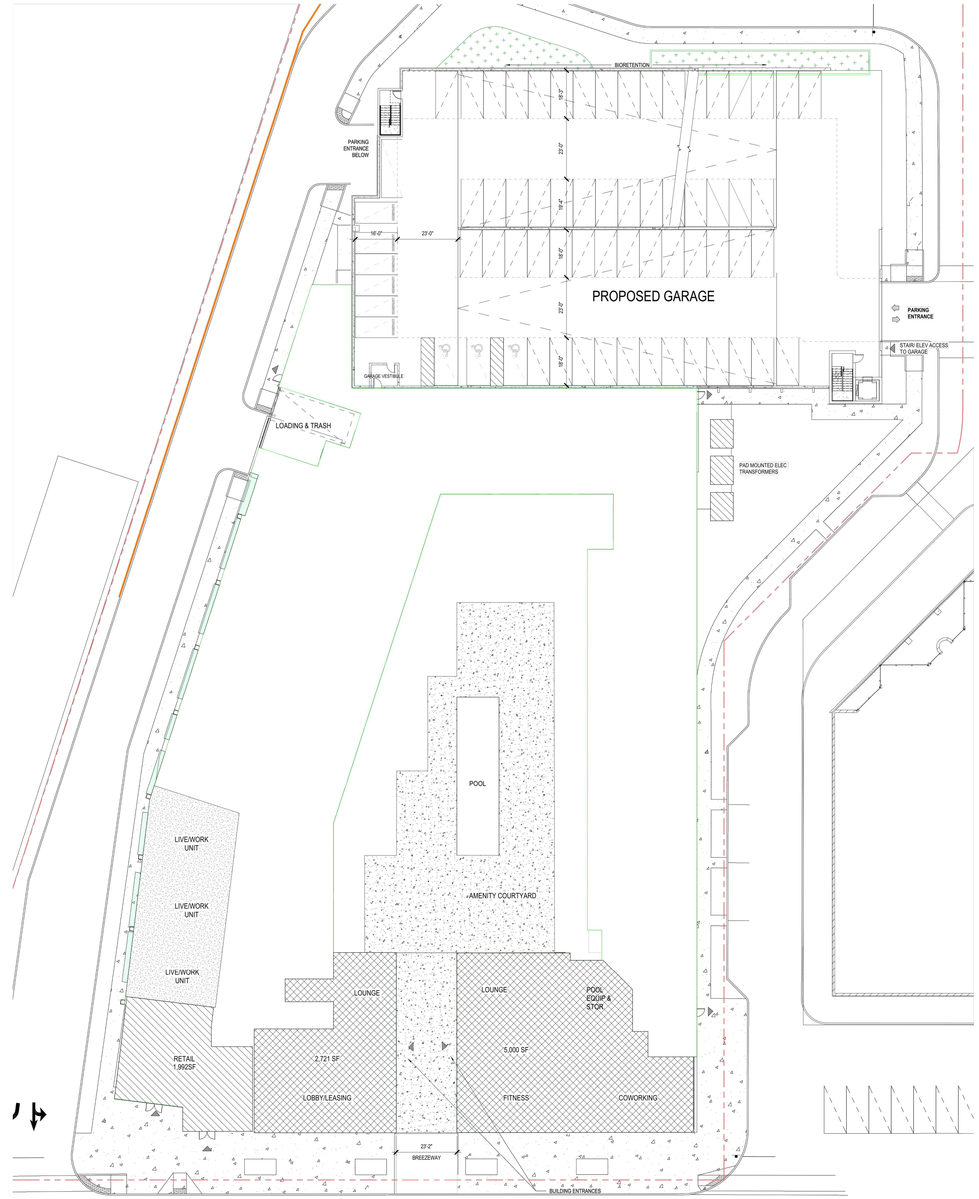
CROSS SECTIONS

SHEET No.

PI_411




LEVEL 00




LEVEL 01

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DESIGN: QN
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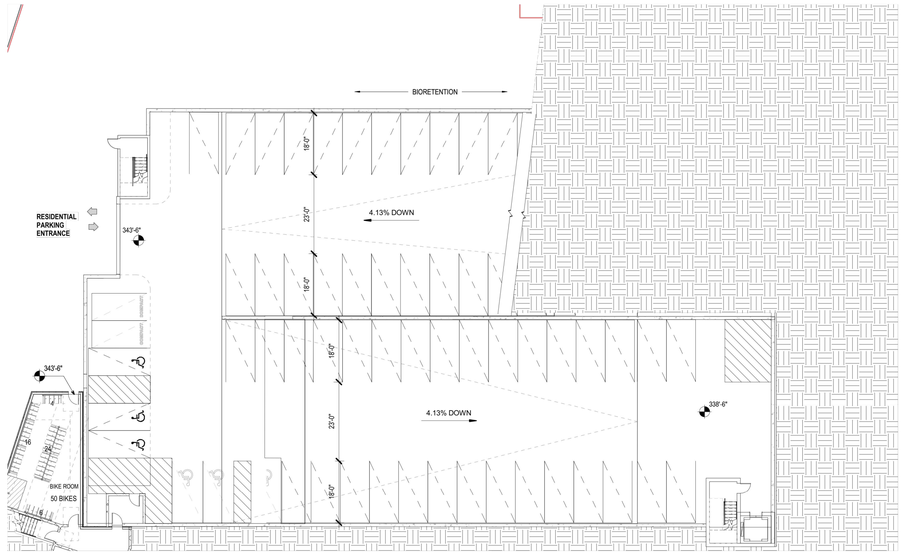
CHECKED: JM

SHEET TITLE:

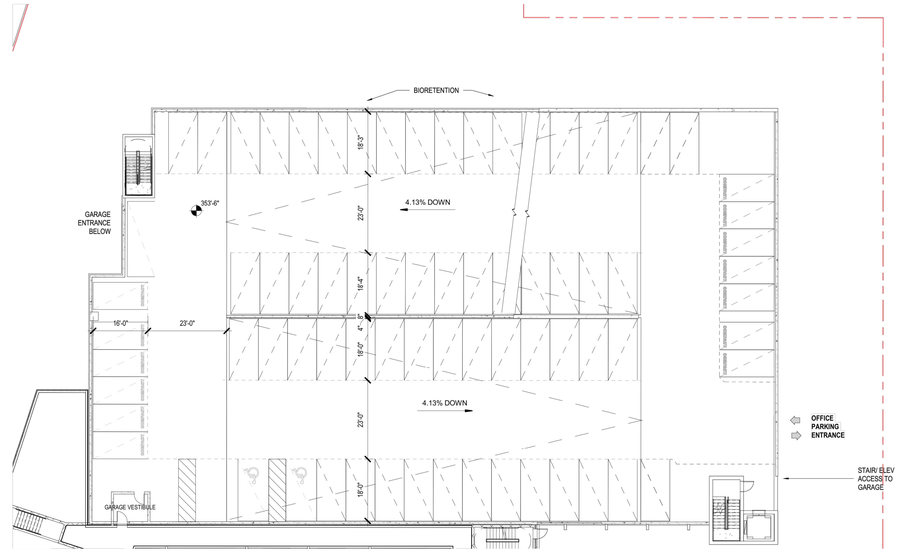
GROUND LEVEL PLAN

SHEET No.

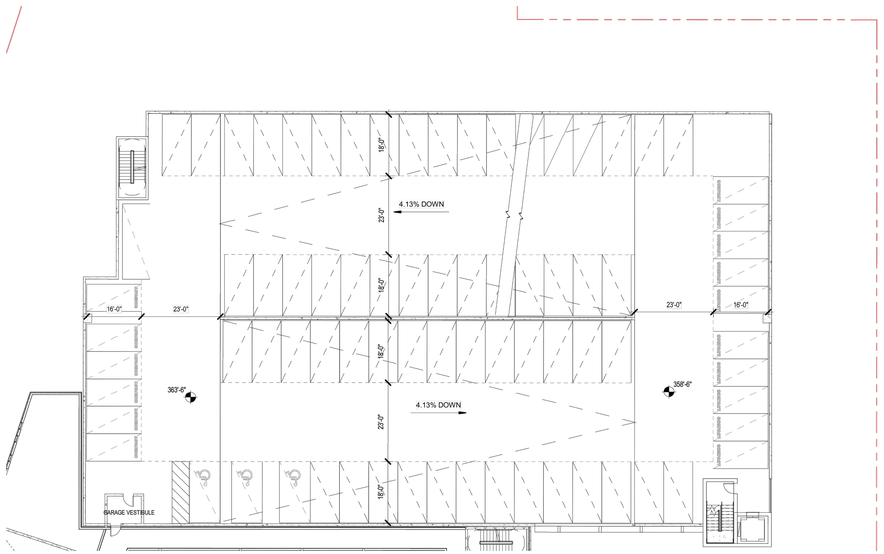
PI_412



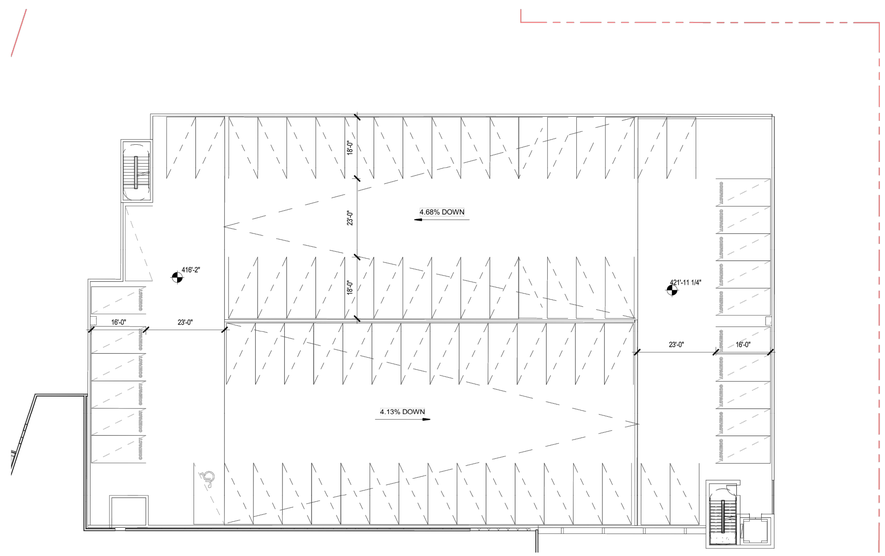

LEVEL P0




LEVEL P1




LEVEL P2- P7




LEVEL P8

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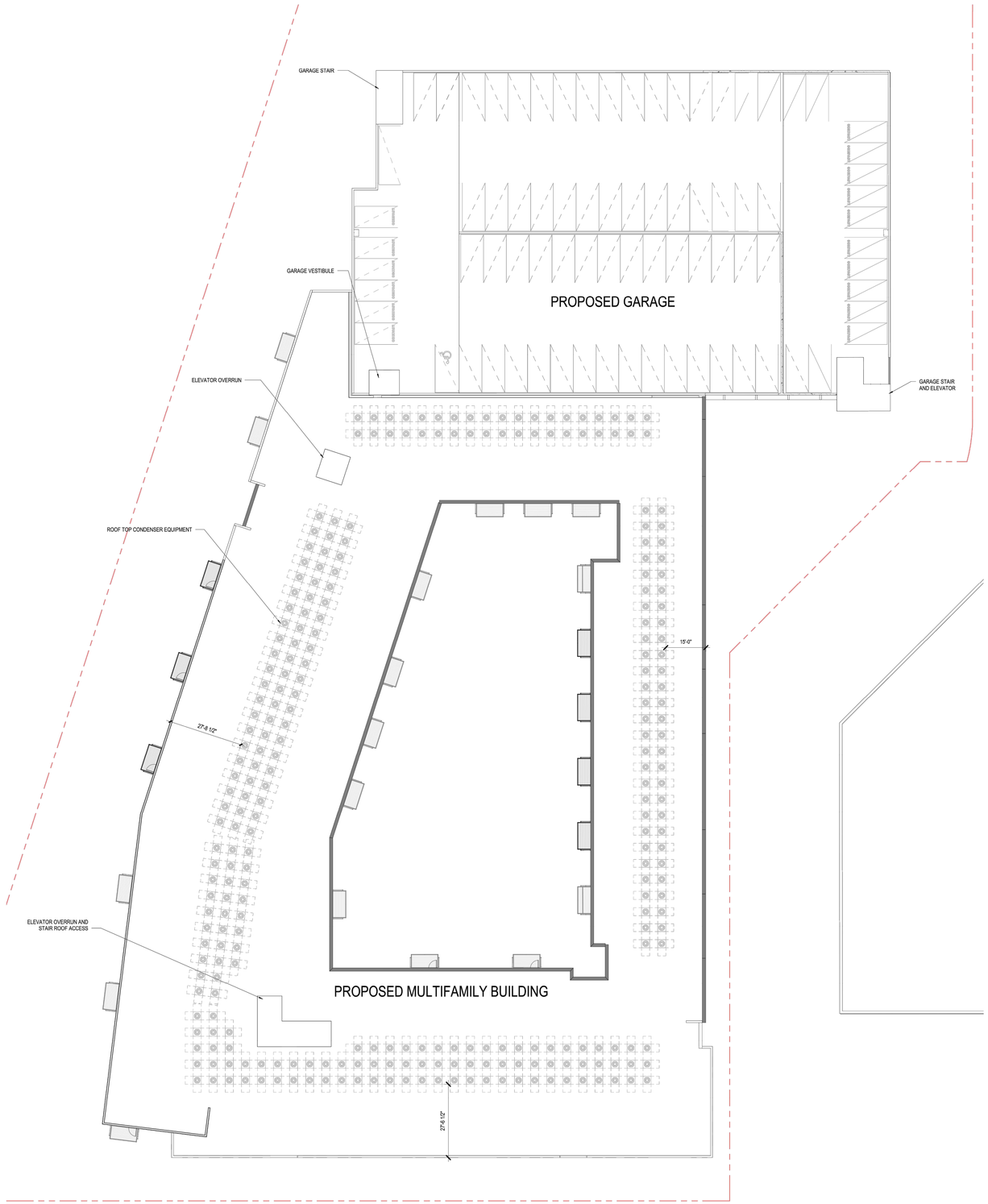
DESIGN: QN
DRAWN: QN
CHECKED: JM

SHEET TITLE:

PARKING LEVEL PLAN

SHEET No.

PI_413

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# N29 APARTMENTS
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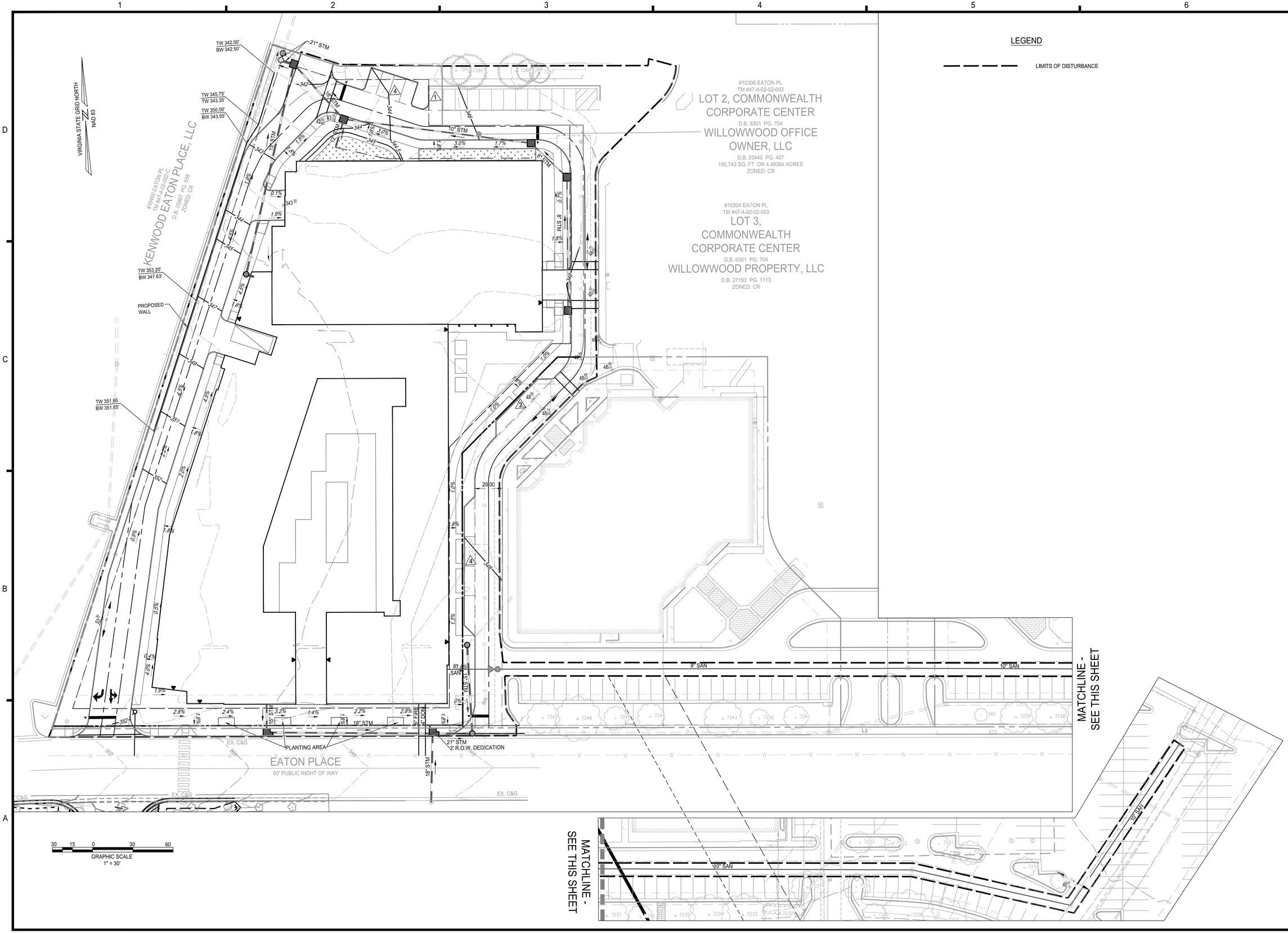
DESIGN: QN
DRAWN: QN
CHECKED: JM

SHEET TITLE:

ROOF LEVEL PLAN

SHEET No.

PI_414




LEGEND

LIMITS OF DISTURBANCE

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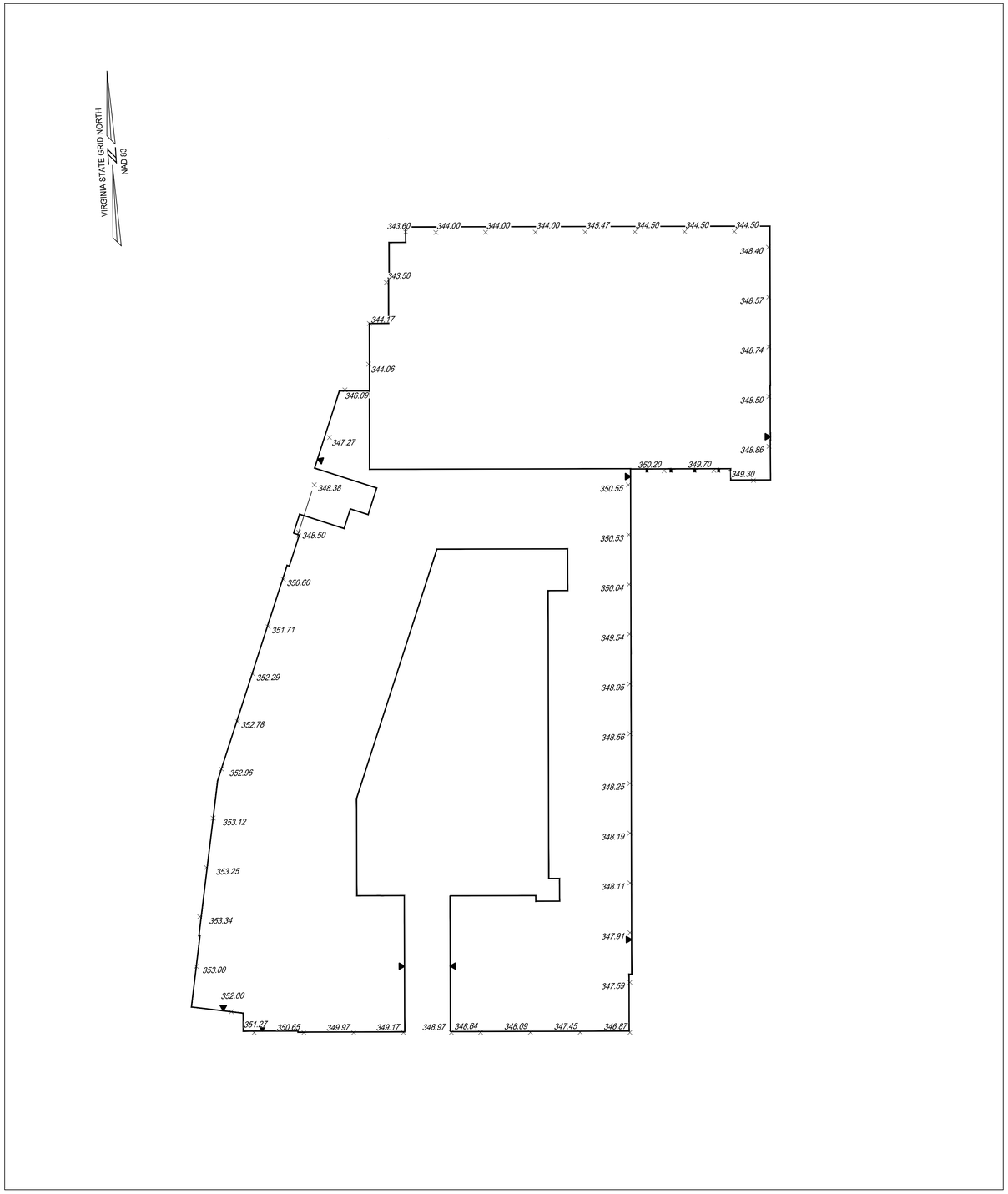
DATE: 2022-07-15
SCALE: 1" = 30'
DESIGN: JH
DRAWN: YH
CHECKED: JH

SHEET TITLE:

GRADING PLAN

SHEET No.

PI_420




| | AFG |
|---|---|
| 1 | 343.60 |
| 2 | 344.00 |
| 3 | 344.00 |
| 4 | 344.00 |
| 5 | 345.47 |
| 6 | 344.50 |
| 7 | 344.50 |
| 8 | 344.50 |
| 9 | 348.40 |
| 10 | 348.57 |
| 11 | 348.74 |
| 12 | 348.50 |
| 13 | 348.86 |
| 14 | 349.30 |
| 15 | 349.70 |
| 16 | 350.20 |
| 17 | 350.55 |
| 18 | 350.53 |
| 19 | 350.04 |
| 20 | 349.54 |
| 21 | 348.95 |
| 22 | 348.56 |
| 23 | 348.25 |
| 24 | 348.19 |
| 25 | 348.11 |
| 26 | 347.91 |
| 27 | 347.59 |
| 28 | 346.87 |
| 29 | 347.45 |
| 30 | 348.09 |
| 31 | 348.64 |
| 32 | 348.97 |
| 33 | 349.17 |
| 34 | 349.97 |
| 35 | 350.65 |
| 36 | 351.27 |
| 37 | 352.00 |
| 38 | 353.00 |
| 39 | 353.34 |
| 40 | 353.25 |
| 41 | 353.12 |
| 42 | 352.96 |
| 43 | 352.78 |
| 44 | 352.29 |
| 45 | 351.71 |
| 46 | 350.60 |
| 47 | 348.50 |
| 48 | 348.38 |
| 49 | 347.27 |
| 50 | 346.09 |
| 51 | 344.06 |
| 52 | 344.17 |
| 53 | 343.50 |
| AFG= | 348.55 |

30 15 0 30 60
GRAPHIC SCALE
1" = 30'

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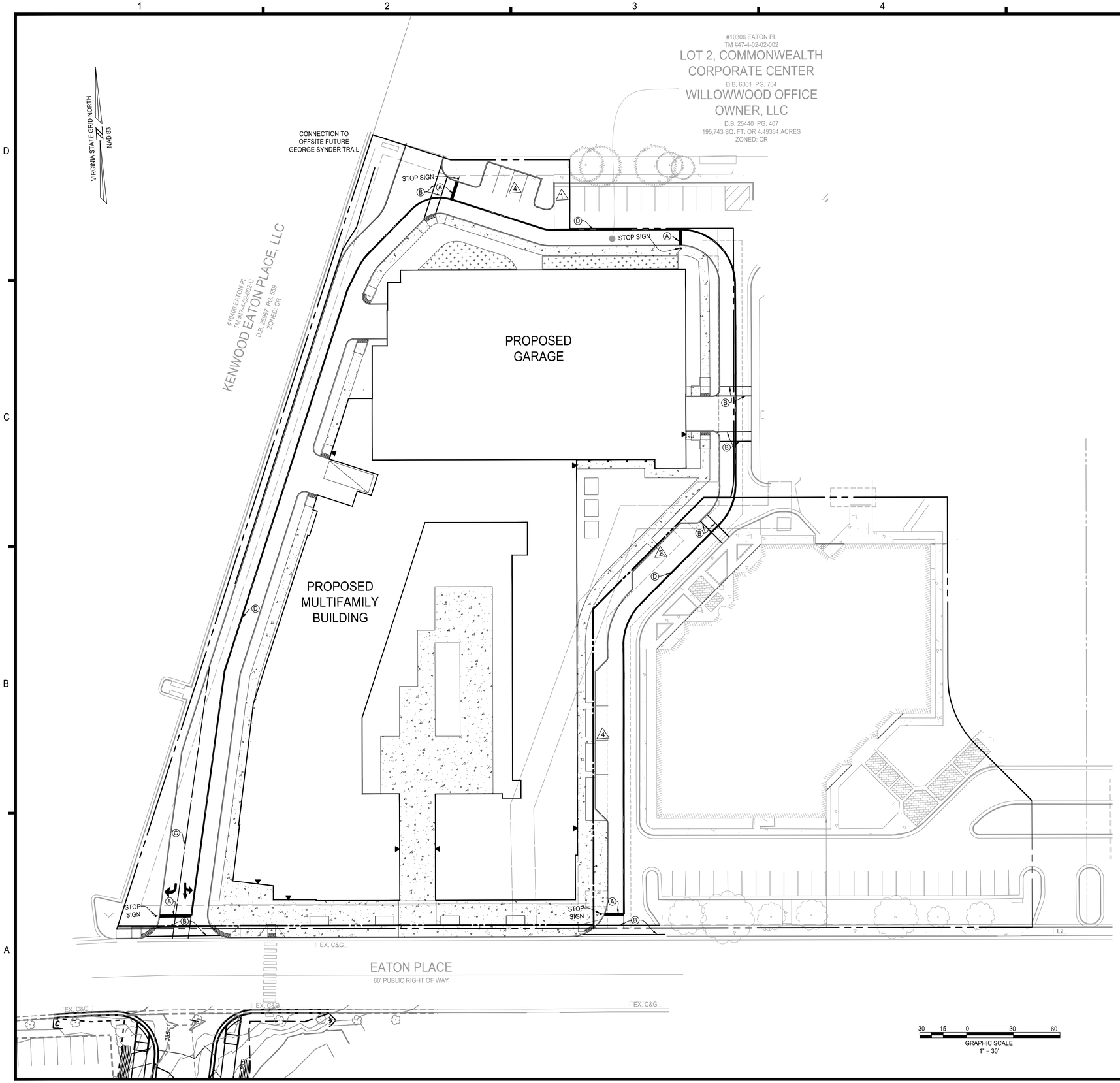
DESIGN: JH
DRAWN: YH
CHECKED: JH

SHEET TITLE:

AVERAGE FINISHED GRADE DIAGRAM

SHEET No.
PI_421




PAVEMENT MARKING LEGEND

- (A) STOP LINE, SOLID WHITE, 12" WIDTH
- (B) CROSSWALK, SOLID WHITE, 12" WIDTH
- (C) LANE LINE, WHITE, 4" WIDTH, 10' LINE SEGMENTS SEPARATED BY 30' GAPS
- (D) DOUBLE LANE LINES, SOLID YELLOW, 4" WIDTH

SIGN LEGEND


*R1-1*
*30"x30"*

1. METAL CONSTRUCTION.
2. WHITE LEGEND AND BORDER ON A RED BACKGROUND
3. SIGN TO BE MOUNTED 7' FROM THE GROUND TO THE BOTTOM OF THE SIGN.
4. POST SHALL BE METAL AND SECURELY MOUNTED.
5. AT INTERSECTIONS WHERE ALL APPROACHES ARE CONTROLLED BY STOP SIGNS, AN ALL WAY SUPPLEMENT PLAQUE SHALL BE MOUNTED BELOW EACH STOP SIGN. THE ALL WAY PLAQUE SHALL HAVE A WHITE LEGEND AND BORDER ON A RED BACKGROUND.

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# N29 APARTMENTS
## GENERAL DEVELOPMENT PLAN
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CITY OF FAIRFAX, VA

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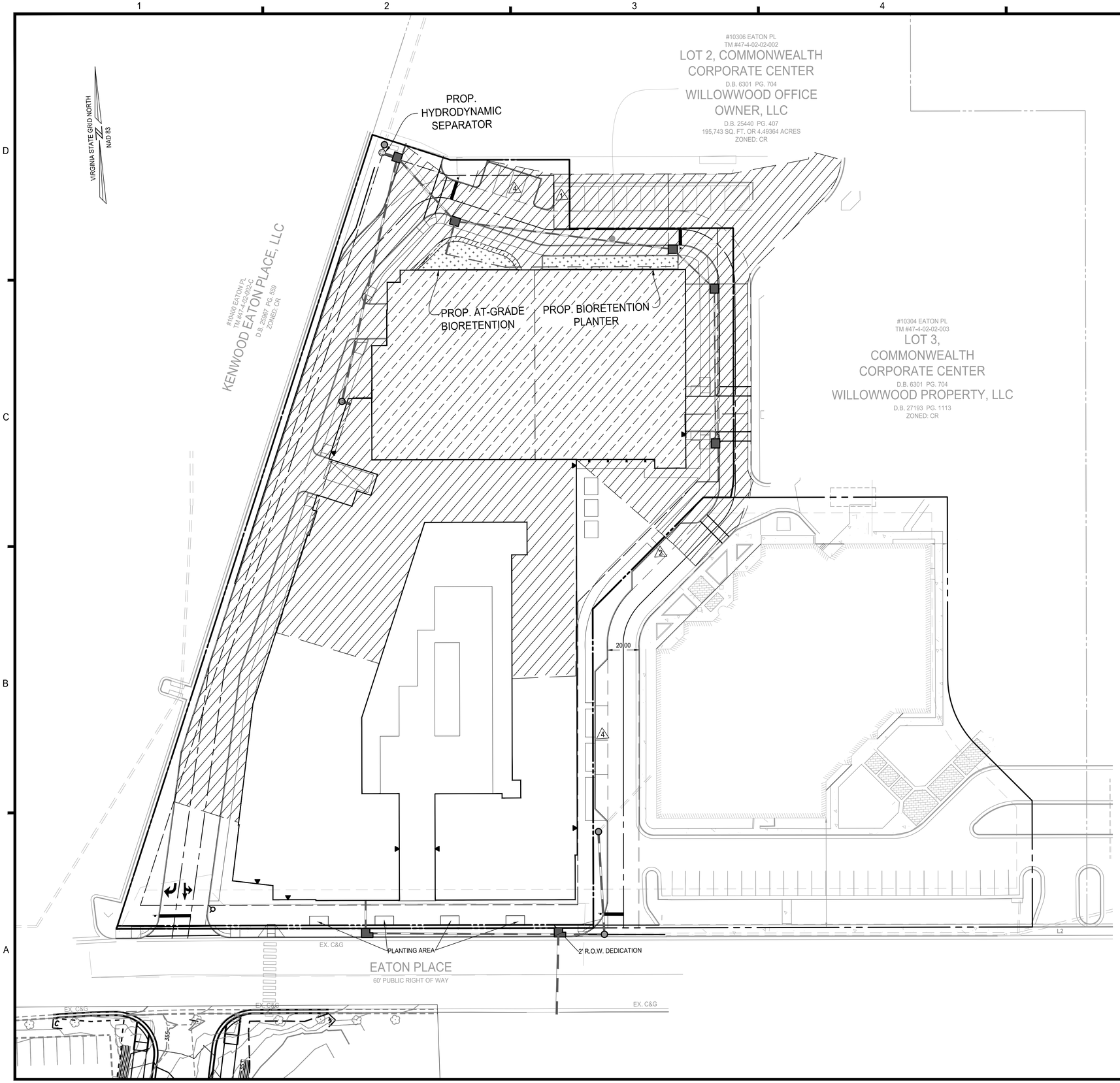
SCALE: 1" = 30'
DESIGN: LBD,ZY
DRAWN: ZY
CHECKED: JR

SHEET TITLE:

STRIPING AND SIGNAGE PLAN

SHEET No.

PI_422




## STORMWATER MANAGEMENT & BEST MANAGEMENT PRACTICE (SWM/BMP) NARRATIVE

ADEQUATE OUTFALL
THE EXISTING SITE DISCHARGES RUNOFF TO ACCOTINK CREEK THAT IS ADJACENT TO THE SITE.

SWM
WATER QUANTITY FOR THIS PROJECT WILL BE PROVIDED IN ACCORDANCE WITH STATE CODE 9VAC25-870-66-WATER QUANTITY AND THE CITY OF FAIRFAX STORMWATER ORDINANCE.

THE WATER QUANTITY REQUIREMENTS WILL BE MET BY A REDUCTION IN IMPERVIOUS AND RUNOFF REDUCING BMP METHODS. THE STORMWATER WILL THEN BE DIRECTED TO THE EXISTING CMP DETENTION STRUCTURE AT THE EAST OF THE SITE, AND ULTIMATELY TO THE TRIPLE BOX CULVERT AND INTO ACCOTINK CREEK WHERE IT DOES NOT CAUSE EROSION TO THE SYSTEM FOR THE TWO-YEAR STORM (CHANNEL PROTECTION) AND CONFINES THE STORMWATER RUNOFF DURING A 10-YEAR STORM (FLOOD PROTECTION). FOR THE 100-YEAR STORM, THE RUNOFF WILL STILL UTILIZE THE EXISTING CMP SYSTEM TO PROVIDE THE REQUIRED DETENTION FOR THE SITE.

BMP
THIS PROJECT WILL USE THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) REDEVELOPMENT TO MEET THE STATE, PART IIB CRITERIA (9VAC25-870-65) AND CITY WATER QUALITY DESIGN CRITERIA. THE PROJECT SITE AREA FOR WATER QUALITY CALCULATIONS WILL INCLUDE ALL AREA WITHIN THE LIMITS OF CLEARING AND GRADING. TO MEET WATER QUALITY DESIGN CRITERIA AND PHOSPHORUS REMOVAL, BIORETENTION AND PROPRIETARY BMP FACILITIES WILL BE USED. THESE PROPRIETARY FACILITIES MAY INCLUDE; HYDRODYNAMIC SEPARATORS AND/OR STORMFILTERS. ADDITIONAL PROPRIETARY AND NON-PROPRIETARY BMP FACILITIES MAY BE USED AS THE DESIGN OF THE SITE DEVELOPS FURTHER. PRELIMINARY LOCATIONS ARE SHOWN ON THE DEVELOPMENT PLAN.

NOTE:
LOCATIONS AND SIZING OF SWM/BMP FACILITIES SHOWN ARE BASED ON A PRELIMINARY STUDY TO ENSURE COMPLIANCE WITH STATE AND CITY REQUIREMENTS; THE LOCATION AND TYPE OF FACILITY IS SUBJECT TO CHANGE WITH FINAL DESIGN.

AREA DRAINING TO BIORETENTION

AREA DRAINING TO HYDRODYNAMIC SEPARATOR

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SHEET TITLE:

BMP NOTES NARRATIVE

SHEET No.

PI_500

*DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0*

○ 2011 BMP Standards and Specifications | ◉ 2013 Draft BMP Standards and Specifications

| | |
|---|---|
| Project Name: | Willowwood - Phase 1 |
| Date: | 11/15/2022 |
| Linear Development Project? | No |

CLEAR ALL

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

## Site Information

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

Enter Total Disturbed Area *(acres)* → 3.65

| | |
|---|---|
| *Maximum reduction required:* | *20%* |
| *The site's net increase in impervious cover (acres) is:* | *0* |
| *Post-Development TP Load Reduction for Site (lb/yr):* | *0.79* |

*Check:*
*BMP Design Specifications List:* 2013 Draft Stds & Specs
*Linear project?* No
*Land cover areas entered correctly?* ✓
*Total disturbed area entered?* ✓

### Pre-ReDevelopment Land Cover (acres)

| | A Soils | B Soils | C Soils | D Soils | Totals |
|---|---|---|---|---|---|
| **Forest/Open Space (acres)** -- undisturbed, protected forest/open space or reforested land | | | | | 0.00 |
| **Managed Turf (acres)** -- disturbed, graded for yards or other turf to be mowed/managed | | | | 0.31 | 0.31 |
| **Impervious Cover (acres)** | | | | 2.66 | 2.66 |
| | | | | | 2.97 |

### Post-Development Land Cover (acres)

| | A Soils | B Soils | C Soils | D Soils | Totals |
|---|---|---|---|---|---|
| **Forest/Open Space (acres)** -- undisturbed, protected forest/open space or reforested land | | | | | 0.00 |
| **Managed Turf (acres)** -- disturbed, graded for yards or other turf to be mowed/managed | | | | 0.56 | 0.56 |
| **Impervious Cover (acres)** | | | | 2.41 | 2.41 |
| **Area Check** | OK. | OK. | OK. | OK. | 2.97 |

### Constants

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

### Runoff Coefficients (Rv)

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

### LAND COVER SUMMARY -- PRE-REDEVELOPMENT

*Land Cover Summary-Pre*

| Pre-ReDevelopment | Listed | Adjusted[1] |
|---|---|---|
| Forest/Open Space Cover (acres) | 0.00 | 0.00 |
| Weighted Rv(forest) | 0.00 | 0.00 |
| % Forest | 0% | 0% |
| Managed Turf Cover (acres) | 0.31 | 0.31 |
| Weighted Rv(turf) | 0.25 | 0.25 |
| % Managed Turf | 10% | 10% |
| Impervious Cover (acres) | 2.66 | 2.66 |
| Rv(impervious) | 0.95 | 0.95 |
| % Impervious | 90% | 90% |
| **Total Site Area (acres)** | **2.97** | **2.97** |
| **Site Rv** | **0.88** | **0.88** |

Treatment Volume and Nutrient Load

| | | |
|---|---|---|
| **Pre-ReDevelopment Treatment Volume (acre-ft)** | 0.2170 | 0.2170 |
| **Pre-ReDevelopment Treatment Volume (cubic feet)** | 9,454 | 9,454 |
| **Pre-ReDevelopment TP Load (lb/yr)** | **5.94** | **5.94** |
| Pre-ReDevelopment TP Load per acre (lb/acre/yr) | 2.00 | 2.00 |
| Baseline TP Load (lb/yr) (**0.41 lbs/acre/yr** applied to pre-redevelopment area excluding pervious land proposed for new impervious cover) | | *1.22* |

[1] *Adjusted Land Cover Summary:*
*Pre ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.*

*Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).*

*Column I shows load reduction requriement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).*

### LAND COVER SUMMARY -- POST DEVELOPMENT

*Land Cover Summary-Post (Final)*

| Post ReDev. & New Impervious | |
|---|---|
| Forest/Open Space Cover (acres) | 0.00 |
| Weighted Rv(forest) | 0.00 |
| % Forest | 0% |
| Managed Turf Cover (acres) | 0.56 |
| Weighted Rv (turf) | 0.25 |
| % Managed Turf | 19% |
| Impervious Cover (acres) | 2.41 |
| Rv(impervious) | 0.95 |
| % Impervious | 81% |
| **Final Site Area (acres)** | **2.97** |
| **Final Post Dev Site Rv** | **0.82** |

*Land Cover Summary-Post*

| Post-ReDevelopment | |
|---|---|
| Forest/Open Space Cover (acres) | 0.00 |
| Weighted Rv(forest) | 0.00 |
| % Forest | 0% |
| Managed Turf Cover (acres) | 0.56 |
| Weighted Rv (turf) | 0.25 |
| % Managed Turf | 19% |
| ReDev. Impervious Cover (acres) | 2.41 |
| Rv(impervious) | 0.95 |
| % Impervious | 81% |
| **Total ReDev. Site Area (acres)** | **2.97** |
| **ReDev Site Rv** | **0.82** |

*Land Cover Summary-Post*

| Post-Development New Impervious | |
|---|---|
| New Impervious Cover (acres) | 0.00 |
| Rv(impervious) | -- |

Treatment Volume and Nutrient Load

| | |
|---|---|
| **Final Post-Development Treatment Volume (acre-ft)** | 0.2025 |
| **Final Post-Development Treatment Volume (cubic feet)** | 8,819 |
| **Final Post-Development TP Load (lb/yr)** | **5.54** |
| Final Post-Development TP Load per acre (lb/acre/yr) | 1.87 |

| | |
|---|---|
| **Post-ReDevelopment Treatment Volume (acre-ft)** | 0.2025 |
| **Post-ReDevelopment Treatment Volume (cubic feet)** | 8,819 |
| **Post-ReDevelopment Load (TP) (lb/yr)*** | **5.54** |
| Post-ReDevelopment TP Load per acre (lb/acre/yr) | 1.87 |
| **Max. Reduction Required (Below Pre-ReDevelopment Load)** | **20%** |
| **TP Load Reduction Required for Redeveloped Area (lb/yr)** | **0.79** |

| | |
|---|---|
| **Post-Development Treatment Volume (acre-ft)** | -- |
| **Post-Development Treatment Volume (cubic feet)** | -- |
| **Post-Development TP Load (lb/yr)** | -- |
| **TP Load Reduction Required for New Impervious Area (lb/yr)** | **0** |

### Post-Development Requirement for Site Area

| | |
|---|---|
| **TP Load Reduction Required (lb/yr)** | **0.79** |

### Nitrogen Loads (Informational Purposes Only)

| | |
|---|---|
| Pre-ReDevelopment TN Load (lb/yr) | 42.49 |
| Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr) | 39.64 |

## Drainage Area A

CLEAR BMP AREAS

**Drainage Area A Land Cover (acres)**

| | A Soils | B Soils | C Soils | D Soils | Totals | Land Cover Rv |
|---|---|---|---|---|---|---|
| Forest/Open Space (acres) | | | | | 0.00 | 0.00 |
| Managed Turf (acres) | | | | 0.18 | 0.18 | 0.25 |
| Impervious Cover (acres) | | | | 1.67 | 1.67 | 0.95 |
| | | | | Total | 1.85 | |

| | |
|---|---|
| Total Phosphorus Available for Removal in D.A. A (lb/yr) | 3.72 |
| Post Development Treatment Volume in D.A. A ($ft^3$) | 5,922 |

### Stormwater Best Management Practices (RR = Runoff Reduction)

--Select from dropdown lists--

| Practice | Runoff Reduction Credit (%) | Managed Turf Credit Area (acres) | Impervious Cover Credit Area (acres) | Volume from Upstream Practice ($ft^3$) | Runoff Reduction ($ft^3$) | Remaining Runoff Volume ($ft^3$) | Total BMP Treatment Volume ($ft^3$) | Phosphorus Removal Efficiency (%) | Phosphorus Load from Upstream Practices (lb) | Untreated Phosphorus Load to Practice (lb) | Phosphorus Removed By Practice (lb) | Remaining Phosphorus Load (lb) | Downstream Practice to be Employed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2. Rooftop Disconnection (RR)** | | | | | | | | | | | | | |
| 2.i. To Stormwater Planter, Urban Bioretention (Spec #9, Appendix A) | 40 | | 0.26 | 0 | 359 | 538 | 897 | 25 | 0.00 | 0.56 | 0.31 | 0.25 | 6.a. Bioretention #1 |
| **6. Bioretention (RR)** | | | | | | | | | | | | | |
| 6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9) | 40 | 0.02 | 0.28 | 538 | 609 | 913 | 1,522 | 25 | 0.25 | 0.62 | 0.48 | 0.39 | 14.a. MTD - Hydrodynamic |
| **14. Manufactured Treatment Devices (no RR)** | | | | | | | | | | | | | |
| 14.a. Manufactured Treatment Device-Hydrodynamic | 0 | 0.16 | 1.13 | 913 | 0 | 4,955 | 4,955 | 20 | 0.39 | 2.54 | 0.59 | 2.34 | |

### Site Results (Water Quality Compliance)

| Area Checks | D.A. A | D.A. B | D.A. C | D.A. D | D.A. E | AREA CHECK |
|---|---|---|---|---|---|---|
| FOREST/OPEN SPACE (ac) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | OK. |
| IMPERVIOUS COVER (ac) | 1.67 | 0.00 | 0.00 | 0.00 | 0.00 | OK. |
| IMPERVIOUS COVER TREATED (ac) | 1.67 | 0.00 | 0.00 | 0.00 | 0.00 | OK. |
| MANAGED TURF AREA (ac) | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | OK. |
| MANAGED TURF AREA TREATED (ac) | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | OK. |
| AREA CHECK | OK. | OK. | OK. | OK. | OK. | |

Site Treatment Volume ($ft^3$) 8,819

**Runoff Reduction Volume and TP By Drainage Area**

| | D.A. A | D.A. B | D.A. C | D.A. D | D.A. E | TOTAL |
|---|---|---|---|---|---|---|
| RUNOFF REDUCTION VOLUME ACHIEVED ($ft^3$) | 967 | 0 | 0 | 0 | 0 | 967 |
| TP LOAD AVAILABLE FOR REMOVAL (lb/yr) | 3.72 | 0.00 | 0.00 | 0.00 | 0.00 | 3.72 |
| TP LOAD REDUCTION ACHIEVED (lb/yr) | 1.37 | 0.00 | 0.00 | 0.00 | 0.00 | 1.37 |
| TP LOAD REMAINING (lb/yr) | 2.35 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 |
| NITROGEN LOAD REDUCTION ACHIEVED (lb/yr) | 6.33 | 0.00 | 0.00 | 0.00 | 0.00 | 6.33 |

**Total Phosphorus**

| | |
|---|---|
| FINAL POST-DEVELOPMENT TP LOAD (lb/yr) | 5.54 |
| TP LOAD REDUCTION REQUIRED (lb/yr) | 0.79 |
| TP LOAD REDUCTION ACHIEVED (lb/yr) | 1.37 |
| TP LOAD REMAINING (lb/yr): | 4.17 |
| REMAINING TP LOAD REDUCTION REQUIRED (lb/yr): | 0.00 ** |

** TARGET TP REDUCTION EXCEEDED BY 0.59 LB/YEAR **

**Total Nitrogen (For Information Purposes)**

| | |
|---|---|
| POST-DEVELOPMENT LOAD (lb/yr) | 39.64 |
| NITROGEN LOAD REDUCTION ACHIEVED (lb/yr) | 6.33 |
| REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr) | 33.31 |


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COMMONWEALTH OF VIRGINIA
JOHN L. HELMS
Lic. No.52485
11/30/2022
PROFESSIONAL ENGINEER

N29 APARTMENTS
GENERAL DEVELOPMENT PLAN
---
CITY OF FAIRFAX, VA

| MARK | DATE | DESCRIPTION |
|---|---|---|
| 1 | 11-30-2022 | ADDRESSED PER CITY COMMENTS |

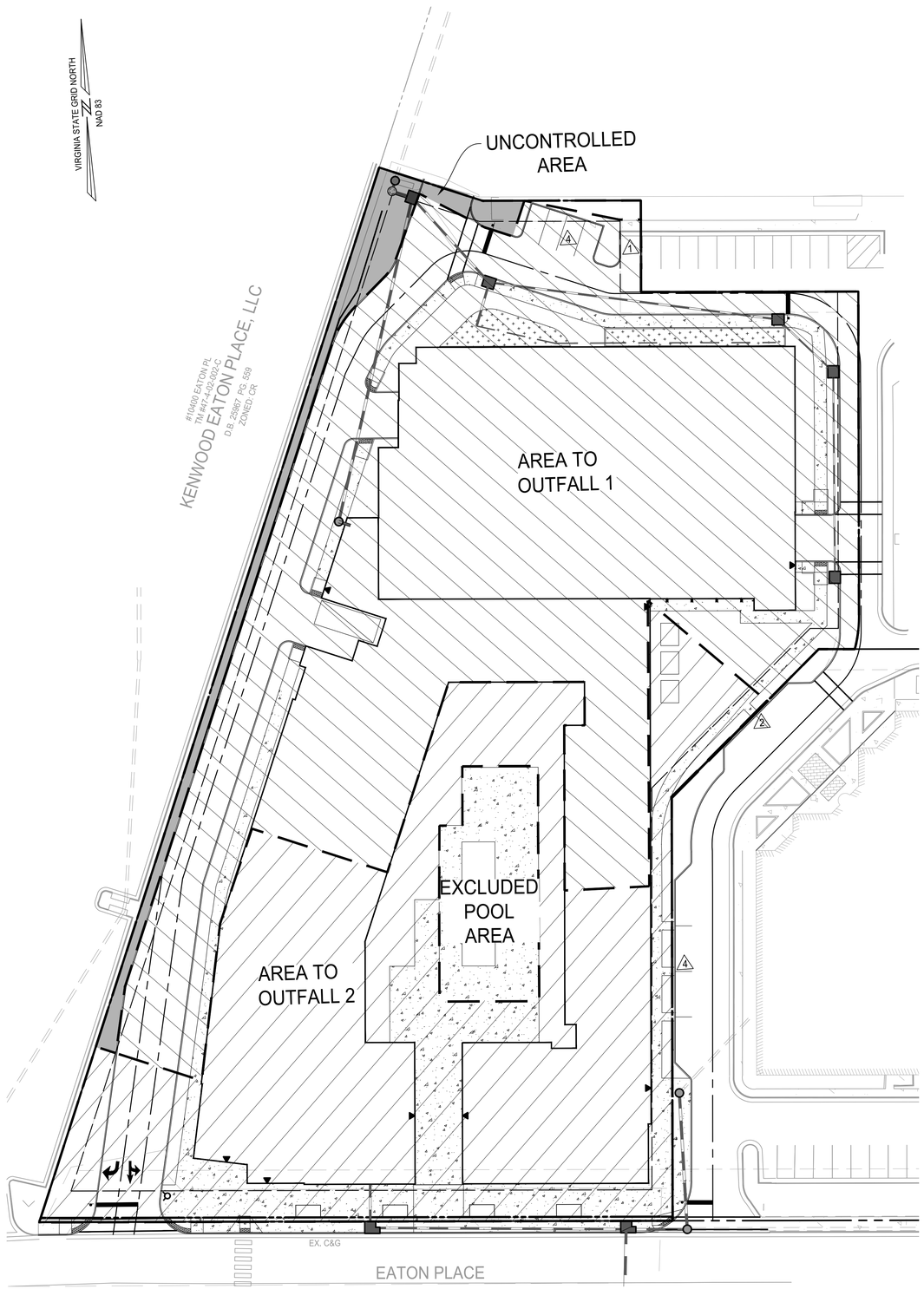
PROJECT No.: 21082.002.00
DRAWING No.: 111772
DATE: 2022-07-15
SCALE: N/A
DESIGN: JH
DRAWN: YH
CHECKED: JH

SHEET TITLE:

BMP CALCULATIONS

SHEET No.

PI_501




**POST-DEVELOPED**

| OUTFALL (1-YR) | | DA | IMP (D) | TURF (D) |
|---|---|---|---|---|
| Bioretention & HDS | DA-A/ Outfall 1 | 1.85 | 1.67 | 0.18 |
| | CN ave. | **94** | VRRM - See this sheet | |
| Untreated | Outfall 2 | 0.91 | 0.62 | 0.29 |
| | CN ave. | **92** | 98 | 80 |
| Untreated | Uncontrolled | 0.09 | 0.00 | 0.09 |
| | CN | **80** | 98 | 80 |
| | Total Area | 2.85 | | |
| | CN ave. | **93** | | |

| OUTFALL (2&10-YR) | | DA | IMP (D) | TURF (D) |
|---|---|---|---|---|
| Bioretention & HDS | DA-A/ Outfall 1 | 1.85 | 1.67 | 0.18 |
| | CN ave. | **95** | VRRM - See this sheet | |
| Untreated | Outfall 2 | 0.91 | 0.62 | 0.29 |
| | CN ave. | **92** | 98 | 80 |
| Untreated | Uncontrolled | 0.09 | 0.00 | 0.09 |
| | CN | **80** | 98 | 80 |
| | Total Area | 2.85 | | |
| | CN ave. | **94** | | |

*POOL AREA AND AREA DRAINING WITH THE POOL TO THE SANITARY SYSTEM OF 0.12 AC HAVE BEEN REMOVED FROM THE POST-DEV AREA

Phase I

| | On-Site | | | |
|---|---|---|---|---|
| | Q1 | RV1 | Q10 | RV10 |
| Pre | 8.06 | 24,224 | 15.60 | 48,957 |
| Post | 7.19 | 20,800 | 14.76 | 45,127 |

Channel Protection (1-Year Storm)

Qdev < IF (Qpre*Rvpre)/Rvdev

< 0.80 ( 8.061 * 24224 )/ 20800

7.19 < 7.51

Detention required: -0.32 CFS

Flood Protection (10-Year Storm)

Q10 post < (Qpre*Rvpre)/Rvdev

14.76 < 16.924

Detention required: -2.16 CFS

| | On-Site | |
|---|---|---|
| | Q2 | RV2 |
| Pre | 9.92 | 30,236 |
| Post | 8.99 | 26,576 |

Channel Protection (2-Year Storm)

Qdev < IF (Qpre*Rvpre)/Rvdev

< 0.80 ( 9.918 * 30236 )/ 26576

8.99 < 9.03

Detention required: -0.04 CFS

*SEE HYDROGRAPHS ON SHEET PI_503 AND PI_504.

## Drainage Area Curve Numbers and Runoff Depths*

***Curve numbers (CN, CNadj) and runoff depths ($RV_{Developed}$) are computed with and without reduction practices.***

| Drainage Area A | | A Soils | B Soils | C Soils | D Soils |
|---|---|---|---|---|---|
| Forest/Open Space -- undisturbed, protected forest/open space or reforested land | Area (acres) | 0.00 | 0.00 | 0.00 | 0.00 |
| | CN | 30 | 55 | 70 | 77 |
| Managed Turf -- disturbed, graded for yards or other turf to be mowed/managed | Area (acres) | 0.00 | 0.00 | 0.00 | 0.18 |
| | CN | 39 | 61 | 74 | 80 |
| Impervious Cover | Area (acres) | 0.00 | 0.00 | 0.00 | 1.67 |
| | CN | 98 | 98 | 98 | 98 |
| | | | | | $CN_{(D.A. A)}$ |
| | | | | | **96** |

| | |
|---|---|
| **Total Area (acres):** | 1.85 |
| **Runoff Reduction Volume ($ft^3$):** | 967 |

| | 1-year storm | 2-year storm | 10-year storm |
|---|---|---|---|
| **$RV_{Developed}$ *(watershed-inch)* with no Runoff Reduction*** | 2.26 | 2.75 | 4.73 |
| **$RV_{Developed}$ *(watershed-inch)* with Runoff Reduction*** | 2.11 | 2.61 | 4.59 |
| **Adjusted CN*** | **94** | **95** | **95** |

30 15 0 30 60
GRAPHIC SCALE
1" = 30'

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SHEET TITLE:

STORMWATER MANAGEMENT PLAN

SHEET No.

PI_502