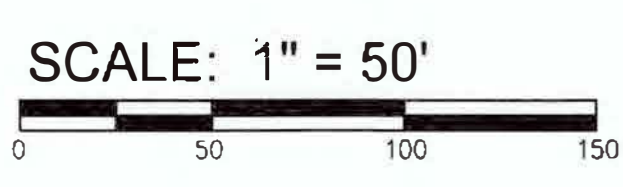


**PARCEL ADDRESS:** 1025 ASHES DRIVE  
**PARCEL ID#:** R05100-003-065-000  
**MAP ID#:** 315819.50.1064.000  
**PARCEL OWNER:** HUDSON WILMINGTON DEVELOPMENT LLC  
**PARCEL AREA:** 8.85 ACRES (385,325 SF)  
**ZONING:** O&I-1 OFFICE AND INSTITUTIONAL  
**SOIL TYPES:** Ls, To, Mu  
**CAMA LAND USE:** WATERSHED RESOURCE PROTECTION AREA  
**WETLANDS:** NONE EXIST ON SITE  
**NO CAMA AEC OR SETBACKS WITHIN SITE AREA**  
**HISTORICAL SITE:** NONE  
**CEMETERY:** NONE  
**FORESTED AREA:** SEE SURVEY  
**ENDANGERED SPECIES/HABITAT:** NONE REPORTED

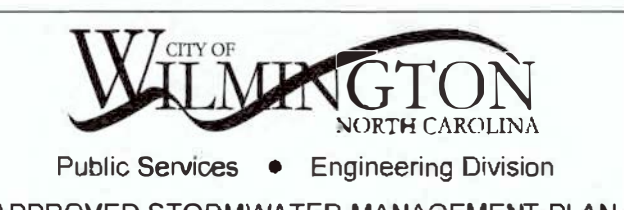
Ls SOILS

To SOILS

Mu SOILS



SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
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APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

**Approved Construction Plan**  
**MODIFICATION**  
**Date:** 12/7/21  
**#** 2019065  
**SWP #:** 2020023R1  
**PO, CW, ES, MB, BM**

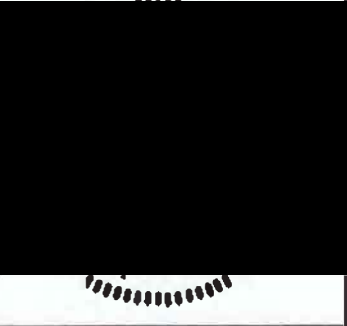
NCDENR PWSS WATER PERMIT #	_____	GPD
WATER CAPACITY:	_____	GPD
DWQ SEWER PERMIT #	_____	GPD
SEWER CAPACITY:	_____	GPD
SEWER SHED # AND PLANT:	_____	
SEWER TO FLOW THROUGH NEI:	YES or NO (CIRCLE ONE)	

**INVENTORY SITE PLAN**  
**RENAISSANCE APARTMENTS**  
**1025 ASHES DRIVE**  
**WILMINGTON, N. C.**

**OWNER/DEVELOPER**  
 HUDSON WILMINGTON DEVELOPMENT, LLC  
**MANAGER**  
 WILLIAM SCHEITTELKOTTE  
 1051 MILITARY CUTOFF RD., SUITE 200  
 WILMINGTON, NC 28405  
 910.880.0063

**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS P.C.  
 2602 IRON GATE DR., SUITE 102 1429 ASH-LITTLE RIVER RD. NW  
 WILMINGTON, NC 28412 ASH, NC 28420  
 PHONE (910) 443-9653 PHONE (910) 287-5900

Licence #C-3641  
**19021**  
 DES. JST  
 OKD. JPN  
 DRWN. NKS  
 DATE 10/4/21



11



LOCATION MAP NTS

LEGEND

- PROPERTY LINE
- - - - - DISTURBED AREA LIMITS
- PROPOSED CONTOUR
- - - - - TEMPORARY SILT FENCE
- PROPOSED STORMDRAIN PIPE
- PROPOSED WATERLINE
- PROPOSED SANITARY SEWER
- PROPOSED SPOT ELEVATION FLOW LINE
- PROPOSED SPOT ELEVATION TOP OF CURB
- PROPOSED SPOT ELEVATION FINISH GRADE
- FLARED END SECTION WITH RIP-RAP ENERGY DISSIPATOR
- DROP INLET WITH INLET PROTECTION (DI)
- CURB INLET WITH INLET PROTECTION (CI)
- JUNCTION BOX WITH INLET PROTECTION (JB)
- PROPOSED FIRE HYDRANT
- EXISTING CONTOUR
- 13" PINE
- X 13" PINE
- TREE PROTECTION FENCING
- ASPHALT
- CONCRETE

UNIT MIX SUMMARY

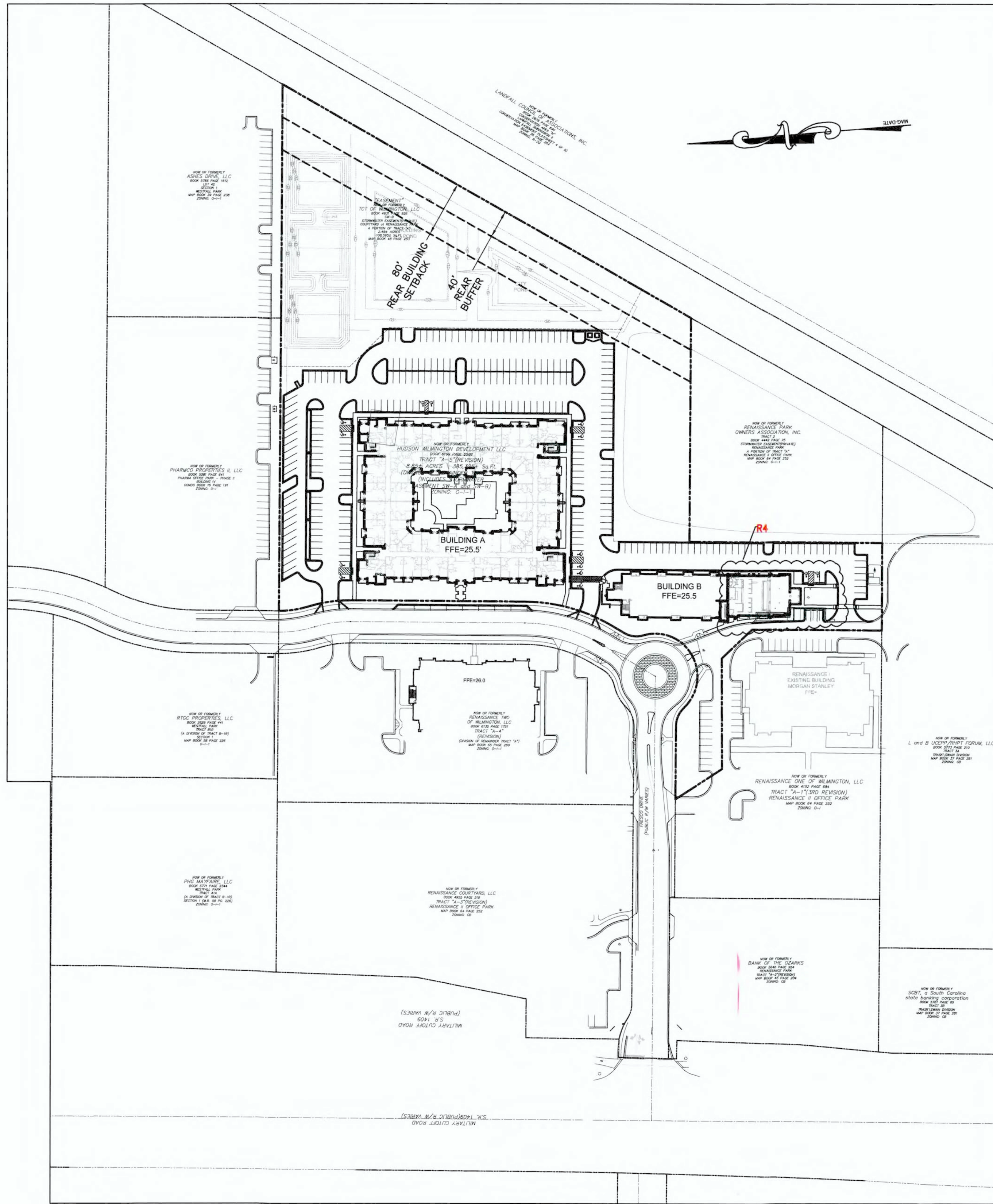
Unit Types	1BR/1BA	1BR/1BA	1BR/1BA	1BR/1BA	1BR/1BA	1BR/1BA	2BR/2BA	2BR/2BA	2BR/2BA	2BR/2BA	2BR/2BA	Non-Rentable Units	Totals
Unit Key	A1	A2	A3	A3-ACC	A4	A5	B1	B1-ACC	B2	B3			
HUD NSF:	710	714	781	778	747	724	1,027	1,027	1,137	1,027			
HUD GSF:	765	774	842	842	807	791	1,101	1,101	1,210	1,102			
<b>Units in Building A</b>													
Level 4	12	8	4	0	0	0	16	0	4	0	0	0	44
Level 3	12	8	4	0	0	0	16	0	4	0	0	0	44
Level 2	12	8	4	0	0	0	16	0	4	0	0	0	44
Level 1	12	8	0	4	0	1	5	4	4	0	0	0	38
Totals:	48	32	12	4	0	1	53	4	16	0	0	0	170
Total NSF:	34,080	22,848	9,372	3,112	0	724	54,431	4,108	18,192	0	0	0	146,867
Total GSF:	36,720	24,768	10,104	3,368	0	791	58,353	4,404	19,360	0	0	0	157,868
<b>Units in Building B</b>													
Level 4	0	0	0	0	1	0	4	0	0	2			7
Level 3	0	0	0	0	1	0	4	0	0	2			7
Level 2	0	0	0	0	1	0	4	0	0	2			7
Level 1	0	0	0	0	1	0	2	2	0	2			7
Totals:	0	0	0	0	4	0	14	2	0	8	0	0	28
Total NSF:	0	0	0	0	2,988	0	14,378	2,054	0	8,216	0	0	27,636
Total GSF:	0	0	0	0	3,228	0	15,414	2,202	0	8,816	0	0	29,660
<b>Total Unit NSF Areas:</b> 174,503													
<b>Total Unit GSF Areas:</b> 187,528													
Total Residential Units:	48	32	12	4	4	1	67	6	16	8	0	0	198
Residential Unit % Mix:	24.24%	16.16%	6.06%	2.02%	2.02%	0.51%	33.84%	3.03%	8.08%	4.04%	0.00%	0.00%	100.00%
<b>Mobility &amp; Audio Visual Accessibility Units</b>													
Mobility	Total	5% of Total	Actual Num of	Units Assigned	AV	Unit Type	Total Units	% of Total	Actual Num of	Units Assigned			
1 BR	101	4	4	A114, A116, A140, A142	1 BR	101		2	A107, A147				
2 BR	97	6	6	A111, A117, A137, A143, B101, B107	2 BR	97		2	A130, B102				
	198	10	10			198		4	4				
<b>Building Gross Floor Areas***</b>													
	1st Flr	2nd Flr	3rd Flr	4th Flr	Total								
Building A	53,714	53,738	53,738	53,738	214,929								
Building B	9,849	9,849	9,849	9,849	39,397								
R4 Restaurant	3,406				3,406								
					254,326								
					3,406								
					257,732								
<b>Amenity Floor Areas</b>													
	NSF*	GSF**											
Leasing Office	2054	2,197.00											
Clubroom	1019	1,096.00											
Exercise	1022	1,096.00											
Pool Lounge	1020	1,096.00											
Mail	678	726.00											
Trash	378	438.00											
*Pool/Pool Deck	N/A	4,891.00											
Totals	6,171	11,540											

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

NCDENR PWSS WATER PERMIT #:  
WATER CAPACITY: \_\_\_\_\_ G  
DWQ SEWER PERMIT #:  
SEWER CAPACITY: \_\_\_\_\_ G  
SEWER SHED # AND PLANT:  
SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

Approved Construction Plan  
MODIFICATION  
Date: 12/7/21  
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WILMINGTON NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED STORMWATER MANAGEMENT PLAN  
Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
Signed: \_\_\_\_\_



SCALE: 1" = 100'



**SITE DATA TABLE**

PARCEL TR. A-5  
PARCEL ID#: R05100-003-065-000  
PARCEL OWNER: HUDSON WILMINGTON DEVELOPMENT LLC  
MAP ID#: 315819.50.1064.000  
ADDRESS: 1025 ASHES DRIVE  
PARCEL AREA: 8.85 ACRES (385,325 SF)  
ZONING: OMB-1 (CDMU) OFFICE AND INSTITUTIONAL  
WATERSHED RESOURCE PROTECTION AREA

**COMPLIANCE REQUIREMENTS**  
MAXIMUM LOT COVERAGE: 40%  
MINIMUM FRONT SETBACK: 20'  
MINIMUM REAR SETBACK: 80' BUILDING A / 20' BUILDING B  
MINIMUM INTERIOR SIDE SETBACK: 10'  
MAXIMUM HEIGHT: 45' (APPROVED TO 48')  
BUFFER BUILDING A: 40'  
PROPOSED LOT COVERAGE: 17.87%

**PROPOSED SETBACKS BLDG. A**  
FRONT SETBACK: 20'  
REAR SETBACK: 216'  
SIDE NORTH: 110'  
SIDE SOUTH: 178'  
BUILDING HEIGHT: 46'-10"

**PROPOSED SETBACKS BLDG. B**  
FRONT SETBACK: 20'  
REAR SETBACK: 43'  
SIDE NORTH: 475'  
SIDE SOUTH: 116'  
BUILDING HEIGHT: 46'-10"/16' (1 STORY)

BUILDING DATA:	FOOTPRINT	GSE	HEIGHT
BUILDING A:	53,700 SF	214,929 SF	46'-10" (4 STORY)
BUILDING B:	15,146 SF	42,803 SF	46'-10" (4 STORY)/16' (1 STORY)
TOTAL:	68,846 SF	257,732 SF	

**UNITS:**  
BUILDING A: 1 BR 97, 2 BR 73, TOTAL 170  
BUILDING B: 4, 24, 28, TOTAL 101  
TOTAL: 101 97 198

**RESTAURANT SPACE: 3,406 SF (GSF)**  
BUILDING CONSTRUCTION TYPE: 5A

**PARKING:**  
PARKING REQUIREMENT RESIDENTIAL (OMB-1)  
MAXIMUM: 2.5/UNIT (198 UNITS)=495 SPACES  
MINIMUM: 1 BR 1.5/UNIT=151 SPACES  
2 BR 2/UNIT=194 SPACES  
TOTAL=345 SPACES

**PARKING REQUIREMENT RESIDENTIAL (CDMU)**  
1 PER DWELLING UNIT (198 UNITS)=198 SPACES

**PARKING REQUIREMENT (OMB-1)**  
RESTAURANT:  
MAX: 1 PER 2.5 SEATS OR 1 PER 65 SQ FT GFA EXCLUSIVE OF KITCHEN AND RESTROOM FACILITIES  
MIN: 1 PER 4 SEATS OR 1 PER 80 SQ FT GFA EXCLUSIVE OF KITCHEN RESTROOM FACILITIES  
RESTAURANT: 161 SEATS: MAX. 64, MIN. 40

**TOTAL PARKING REQUIRED (OMB-1): MAX. 559, MIN. 385**  
**TOTAL PARKING PROVIDED (CDMU):**  
RESIDENTIAL 198  
RESTAURANT MAX. 64, MIN. 40  
TOTAL: MAX. 262, MIN. 238

**PARKING PROVIDED: 300 TOTAL (284 REGULAR, 14 HC)**  
**ACCESSIBLE PARKING REQUIRED: 14**  
**ACCESSIBLE PARKING PROVIDED: 14**

**BICYCLE PARKING:** 5 BICYCLE PARKING FOR THE FIRST 25 CAR PARKING SPACES. EACH ADDITIONAL ONE HUNDRED (100) AUTOMOBILE PARKING SPACES ABOVE THE TWENTY-FIVE (25) MINIMUM SHALL REQUIRE PROVISIONS FOR PARKING AN ADDITIONAL FIVE (5) BICYCLES UP TO A BICYCLE PARKING SYSTEM THAT CAN ACCOMMODATE A MAXIMUM OF TWENTY (20) BICYCLES.

**TOTAL BICYCLE PARKING PROVIDED: 20**

**LANDSCAPING:** SEE PLANS BY MIHALY LAND DESIGN  
-FOUNDATION PLANTINGS: FACE OF BUILDING X (12X)  
-LANDSCAPING REQ'D INTERIOR O&B: X SHADING BASED ON PARKING LOT IMPERVIOUS AREA  
-STREET YARD: 25' MULTIPLIER (590 X 18 = 48 = 10,572 SF REQUIRED)  
-STREET TREES MUST BE LOCATED A MINIMUM OF 15' FROM STREET LIGHTS

**TRASH SERVICE: DUMPSTER**  
**DISTURBED AREA LIMITS: 5.54 ACRES**

**WATER/SEWER DEMANDS**  
MULTIFAMILY= 198 UNITS X 240 GPD/UNIT=47,520 GPD  
RESTAURANT= 161 SEATS X 40 GPD/SEAT=6,440 GPD

TREE REMOVAL TABLE

REGULATED PINES	Count
15" (1)	1
16" (1)	1
21" (1)	1
24" (1) LOBLOLLY	1

Renaissance Apartments IMPERVIOUS AREAS

Project Area: 385325 SF

Impervious Area	Existing	Existing To be Removed	Existing To Remain
Existing:	10880 SF	540 SF	10340 SF
Existing To be Removed:		540 SF	
Existing To Remain:			10340 SF
--- All To SW8 000103			
New:			
Asphalt, C&G:	102942 SF		
Sidewalk:	8677 SF		
Building:	77784 SF		
Future:	3000 SF		
TOTAL:	192403		
Total Impervious (New & Existing to Remain):	202743 SF		

NEW Impervious TO Stormwater Permit SW8 020822

Asphalt, C&G:	GSF	Asphalt, C&G:	GSF
Asphalt, C&G:	87522 SF	Asphalt, C&G:	15420 SF
Sidewalk:	6225 SF	Sidewalk:	2452 SF
Building:	67984 SF	Building:	9800 SF
Future:	1500 SF	Future:	1500 SF
TOTAL:	163231	TOTAL:	29172

New Impervious Off-Site  
Asphalt, C&G (Includes Driveways): 2482 SF --- To SW8 020822 in Ashes Dr. ROW

New Impervious Off-Site  
Asphalt, C&G (Includes Driveways): 2636 SF --- To SW8 980549 in Fresco Dr. ROW Improvements

TOTAL: 5118 SF

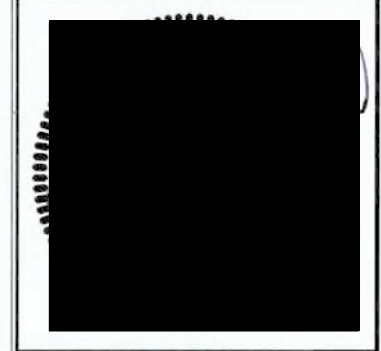
REV.	DATE	DESCRIPTION	BY
5/18/21		REV. RETAIL TO RESTAURANT SPACE, UPDATED BUILDING 2 FOOTPRINT, GRADING, PARKING, DRAINAGE AREAS.	NKS
R4		REVISIONS	

OVERALL SITE PLAN  
RENAISSANCE APARTMENTS  
1025 ASHES DRIVE  
WILMINGTON, N. C.

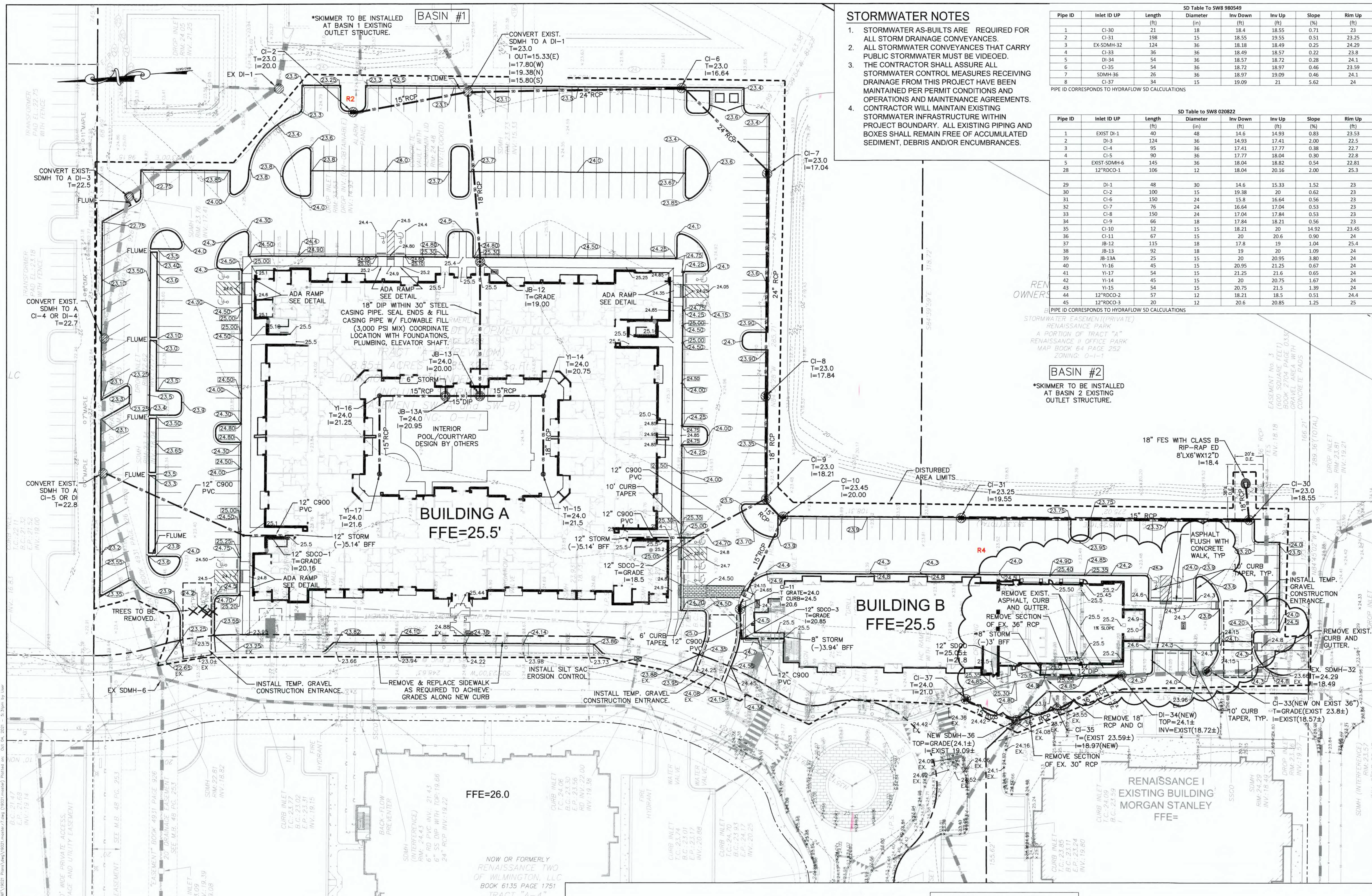
OWNER/DEVELOPER  
HUDSON WILMINGTON DEVELOPMENT, LLC  
WILLIAM SCHOTTTELKOTTE, MANAGER  
1051 MILITARY CUTOFF RD., SUITE 200  
WILMINGTON, NC 28405  
910 880-0063

NORRIS & TUNSTALL  
CONSULTING ENGINEERS P.C.  
2602 IRON GATE DR., SUITE 102  
WILMINGTON, NC 28412  
PHONE (910) 343-9653

Licence #C-3641  
19021  
DES. JST  
CHK. JPN  
DRWN. NKS  
DATE 10/4/21



C0.1



**GRADING DRAINAGE AND EROSION CONTROL PLAN**  
 RENAISSANCE APARTMENTS  
 1025 ASHES DRIVE  
 WILMINGTON, N. C.

**OWNER/DEVELOPER**  
 HUDSON WILMINGTON  
 DEVELOPMENT, LLC  
 WILLIAM SCHOETTELKOTTE,  
 MANAGER  
 1051 MILITARY CUTOFF RD.,  
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 CKD. JPN  
 DRWN. NKS  
 DATE 10/4/21



**C1.1**

REVISIONS	DATE	DESCRIPTION	BY
R4	5/18/21	REV. RETAIL TO RESTAURANT SPACE. UPDATED BUILDING 2 FOOTPRINT GRADING, PARKING, DRAINAGE AREAS	NKS
R2	2/08/21	REVISED STORMDRAIN, SPOT ELEVATIONS, & LANDSCAPE ISLAND	DGC

**REVISIONS**

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**Approved Construction Plan MODIFICATION**  
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NCDENR PWSS WATER PERMIT # \_\_\_\_\_ GPD  
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 SEWER CAPACITY: \_\_\_\_\_  
 SEWER SHED # AND PLANT: \_\_\_\_\_  
 SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

**APPROVED STORMWATER MANAGEMENT PLAN**

Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**SCALE: 1" = 30'**

NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NET:	YES or NO (CIRCLE ONE)

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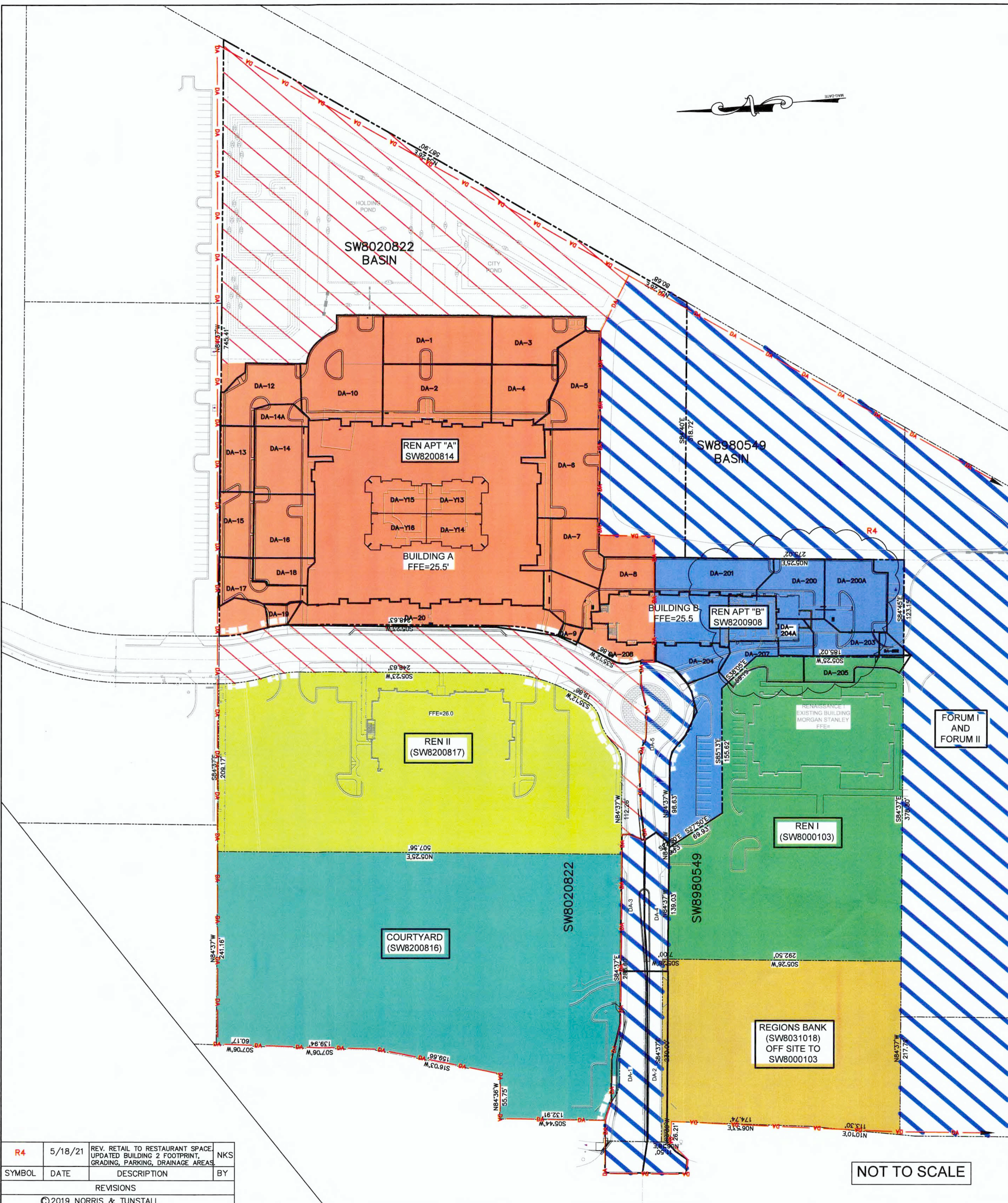
Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

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For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.



- REMAINING DA NOT INCLUDED IN OFFSITE PERMITS (SW8020822)
- REMAINING DA NOT INCLUDED IN OFFSITE PERMITS (SW8980549)
- REN APT "A" SW8200814
- REN APT "B" SW8200908
- REN II (SW8200817)
- COURTYARD (SW8200816)
- REN I (SW8000103)
- REGIONS BANK (SW8031018) OFF SITE TO SW8000103

\* NOTE: FORUM I (SW8970301) IS WITHIN SW8980549 DA TO THE SOUTH OF REN I



R4	5/18/21	REV. RETAIL TO RESTAURANT SPACE UPDATED BUILDING 2 FOOTPRINT, GRADING, PARKING, DRAINAGE AREAS	NKS
SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
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NOT TO SCALE

NOT TO SCALE

DRAINAGE AREA PLAN  
 RENAISSANCE APARTMENTS  
 1025 ASHES DRIVE  
 WILMINGTON, N. C.

OWNER/DEVELOPER  
 HUDSON WILMINGTON  
 DEVELOPMENT, LLC  
 WILLIAM SCHOETTELKOTTE,  
 MANAGER  
 1051 MILITARY CUTOFF RD.,  
 SUITE 200  
 WILMINGTON, NC 28405  
 910 880-0063

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 PHONE: (910) 343-9653  
 1429 ASH-LITTLE RIVER RD. NW  
 ASH, NC 28420  
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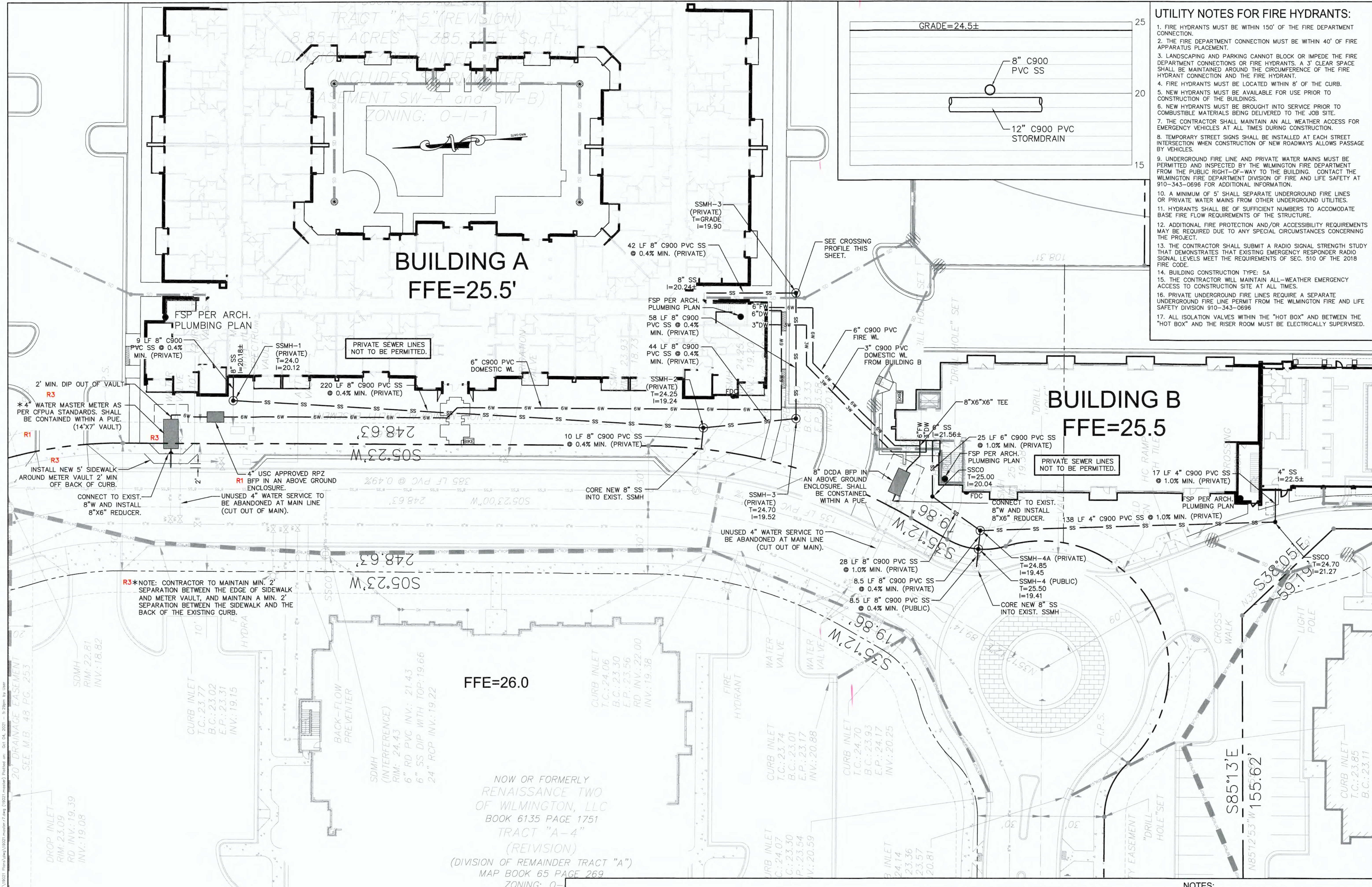
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 DRWN. NKS

DATE 10/4/21

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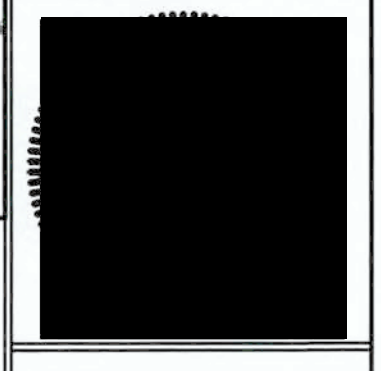
- UTILITY NOTES FOR FIRE HYDRANTS:**
1. FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
  2. THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
  3. LANDSCAPING AND PARKING CANNOT BLOCK OR IMPEDE THE FIRE DEPARTMENT CONNECTIONS OR FIRE HYDRANTS. A 3' CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FIRE HYDRANT CONNECTION AND THE FIRE HYDRANT.
  4. FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
  5. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS.
  6. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
  7. THE CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
  8. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
  9. UNDERGROUND FIRE LINE AND PRIVATE WATER MAINS MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
  10. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
  11. HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF THE STRUCTURE.
  12. ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
  13. THE CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SEC. 510 OF THE 2018 FIRE CODE.
  14. BUILDING CONSTRUCTION TYPE: 5A
  15. THE CONTRACTOR WILL MAINTAIN ALL-WEATHER EMERGENCY ACCESS TO CONSTRUCTION SITE AT ALL TIMES.
  16. PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0696
  17. ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM MUST BE ELECTRICALLY SUPERVISED.

**UTILITY PLAN**  
**RENAISSANCE APARTMENTS**  
 1025 ASHES DRIVE  
 WILMINGTON, N. C.

**OWNER/DEVELOPER**  
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 WILLIAM SCHOETTELKOTTE,  
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**C2.1**

SYMBOL	DATE	DESCRIPTION	BY
R3	5/7/21	REV. METER LOCATION	NKS
R1	11/3/20	REV. METER AND BFP SIZE	NKS
REVISIONS			
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NCDENR PWSS WATER PERMIT # \_\_\_\_\_  
 WATER CAPACITY: \_\_\_\_\_ GPD  
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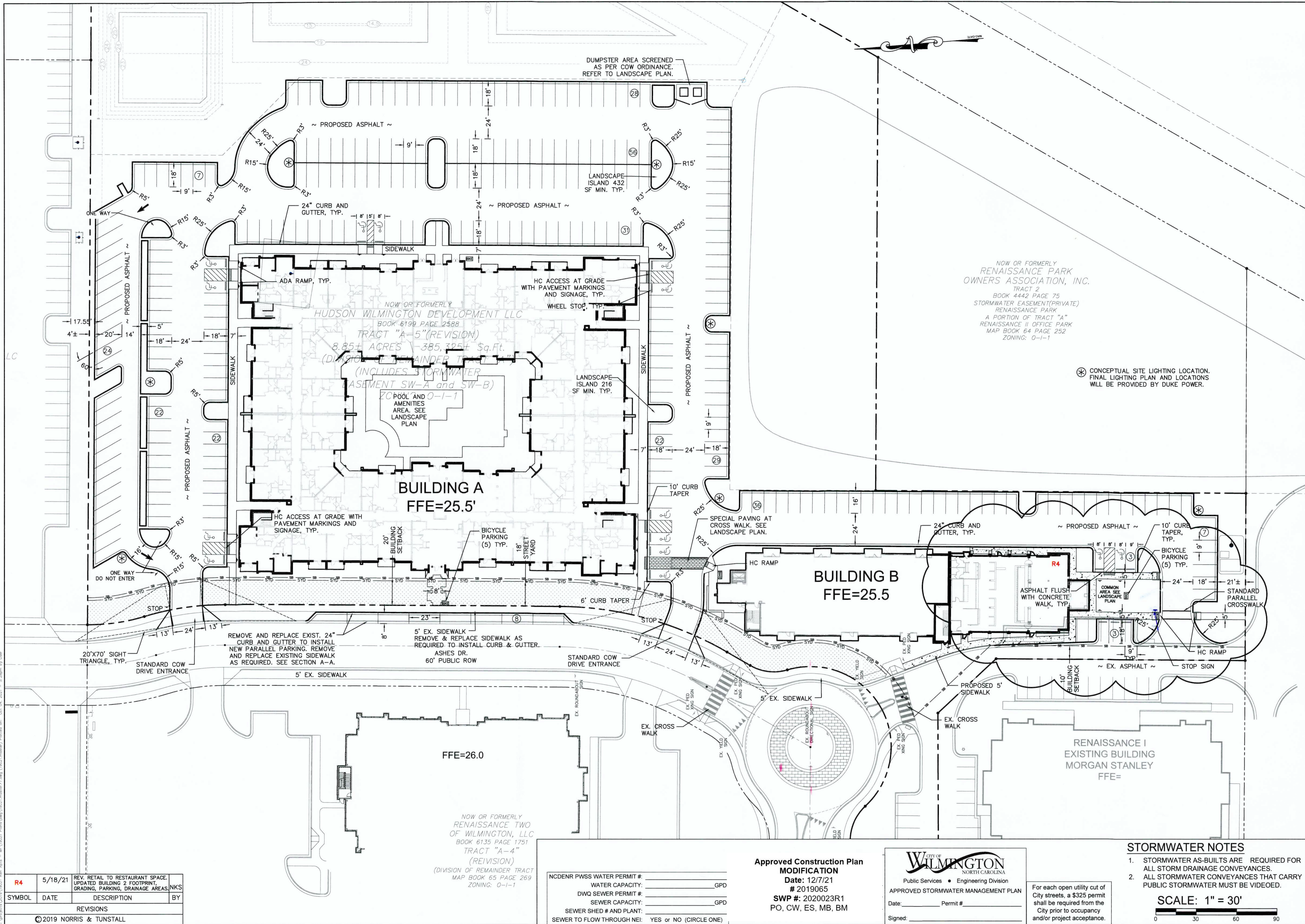
**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**NOTES:**

1. THE CONTRACTOR SHALL VERIFY ALL UTILITY CONNECTIONS WITH THE MEP PLANS PRIOR TO BEGINNING CONSTRUCTION.
2. UTILITY SERVICES SHOWN BASED ON PLUMBING ENGINEER PLANS.

**SCALE: 1" = 20'**



**LAYOUT PLAN**  
**RENAISSANCE APARTMENTS**  
 1025 ASHES DRIVE  
 WILMINGTON, N. C.

**OWNER/DEVELOPER**  
 HUDSON WILMINGTON  
 DEVELOPMENT, LLC  
 WILLIAM SCHOETTELKOTTE,  
 MANAGER  
 1051 MILITARY CUTOFF RD.,  
 SUITE 200  
 WILMINGTON, NC 28405  
 910 880-0063

**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS P.C.  
 2602 IRON GATE DR., SUITE 102 1429 ASH-LITTLE RIVER RD. NW  
 WILMINGTON, NC 28412 ASH, NC 28420  
 PHONE (910) 343-9633 PHONE (910) 287-5900

License #C-3641

19021	
DES.	JST
CHK.	JPN
DRWN.	NKS
DATE	10/4/21

**C3.1**

NOW OR FORMERLY  
 RENAISSANCE PARK  
 OWNERS ASSOCIATION, INC.  
 TRACT 2  
 BOOK 4442 PAGE 75  
 STORMWATER EASEMENT(PRIVATE)  
 RENAISSANCE PARK  
 A PORTION OF TRACT "A"  
 RENAISSANCE II OFFICE PARK  
 MAP BOOK 64 PAGE 252  
 ZONING: 0-1-1

⊗ CONCEPTUAL SITE LIGHTING LOCATION.  
 FINAL LIGHTING PLAN AND LOCATIONS  
 WILL BE PROVIDED BY DUKE POWER.

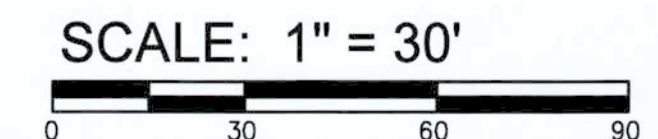
NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES OR NO (CIRCLE ONE)

**Approved Construction Plan  
 MODIFICATION**  
 Date: 12/7/21  
 # 2019065  
 SWP #: 2020023R1  
 PO, CW, ES, MB, BM

**WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN  
 Date: \_\_\_\_\_ Permit # \_\_\_\_\_  
 Signed: \_\_\_\_\_

For each open utility cut of  
 City streets, a \$325 permit  
 shall be required from the  
 City prior to occupancy  
 and/or project acceptance.

- STORMWATER NOTES**
1. STORMWATER AS-BUILTS ARE REQUIRED FOR ALL STORM DRAINAGE CONVEYANCES.
  2. ALL STORMWATER CONVEYANCES THAT CARRY PUBLIC STORMWATER MUST BE VIDEOED.



SYMBOL	DATE	DESCRIPTION	BY
R4	5/18/21	REV. RETAIL TO RESTAURANT SPACE. UPDATED BUILDING 2 FOOTPRINT, GRADING, PARKING, DRAINAGE AREAS.	NKS
REVISIONS			
©2019 NORRIS & TUNSTALL			

NOW OR FORMERLY  
 RENAISSANCE TWO  
 OF WILMINGTON, LLC  
 BOOK 6135 PAGE 1751  
 TRACT "A-4"  
 (REVISION)  
 (DIVISION OF REMAINDER TRACT  
 MAP BOOK 65 PAGE 269  
 ZONING: 0-1-1)

REMOVE AND REPLACE EXIST. 24" CURB AND GUTTER TO INSTALL NEW PARALLEL PARKING. REMOVE AND REPLACE EXISTING SIDEWALK AS REQUIRED. SEE SECTION A-A.  
 5' EX. SIDEWALK REMOVE & REPLACE SIDEWALK AS REQUIRED TO INSTALL CURB & GUTTER. ASHES DR. 60' PUBLIC ROW  
 STANDARD COW DRIVE ENTRANCE  
 5' EX. SIDEWALK

STANDARD COW DRIVE ENTRANCE

EX. ROUNDABOUT

EX. ROUNDABOUT

EX. ROUNDABOUT

EX. ROUNDABOUT

EX. ROUNDABOUT

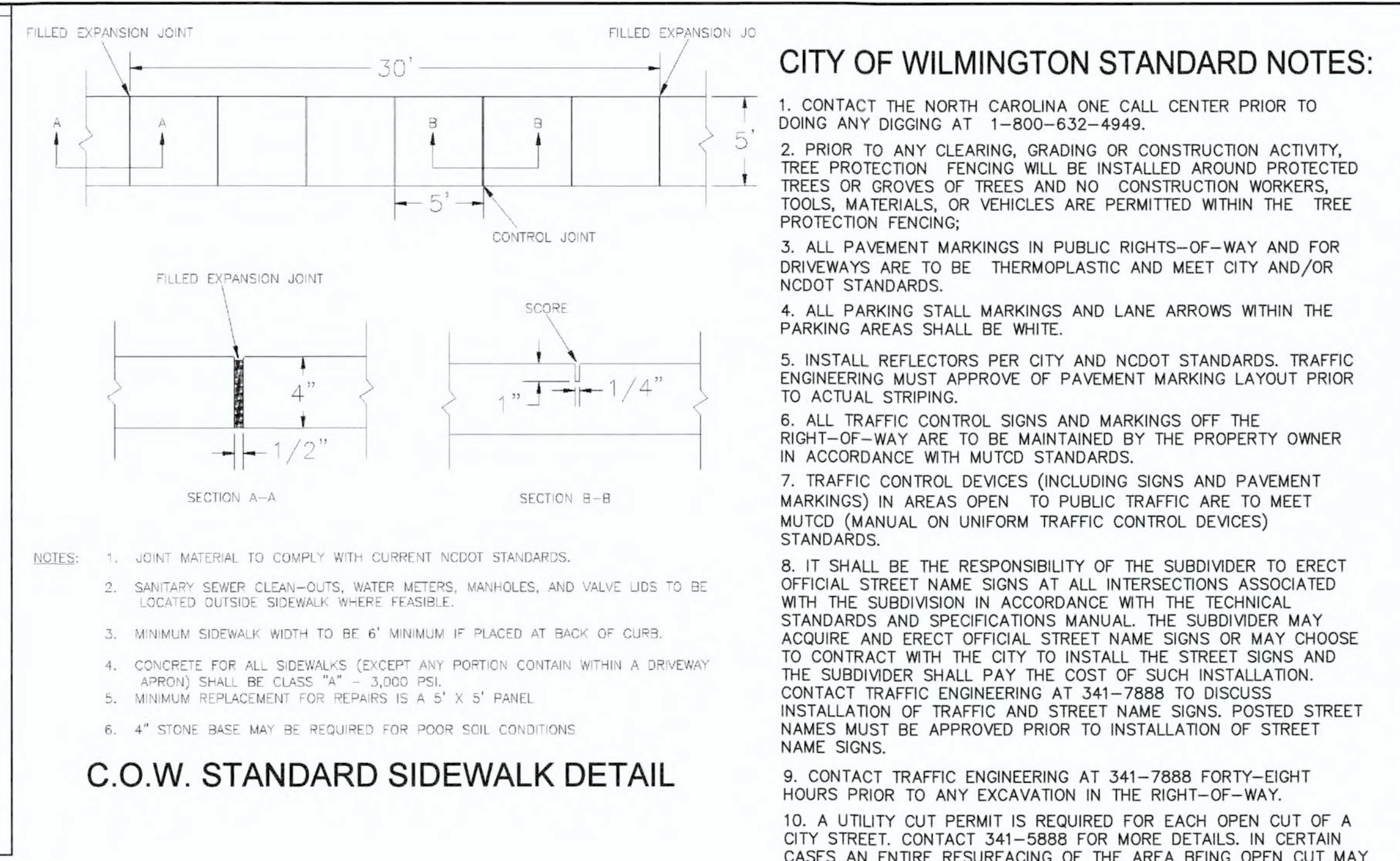
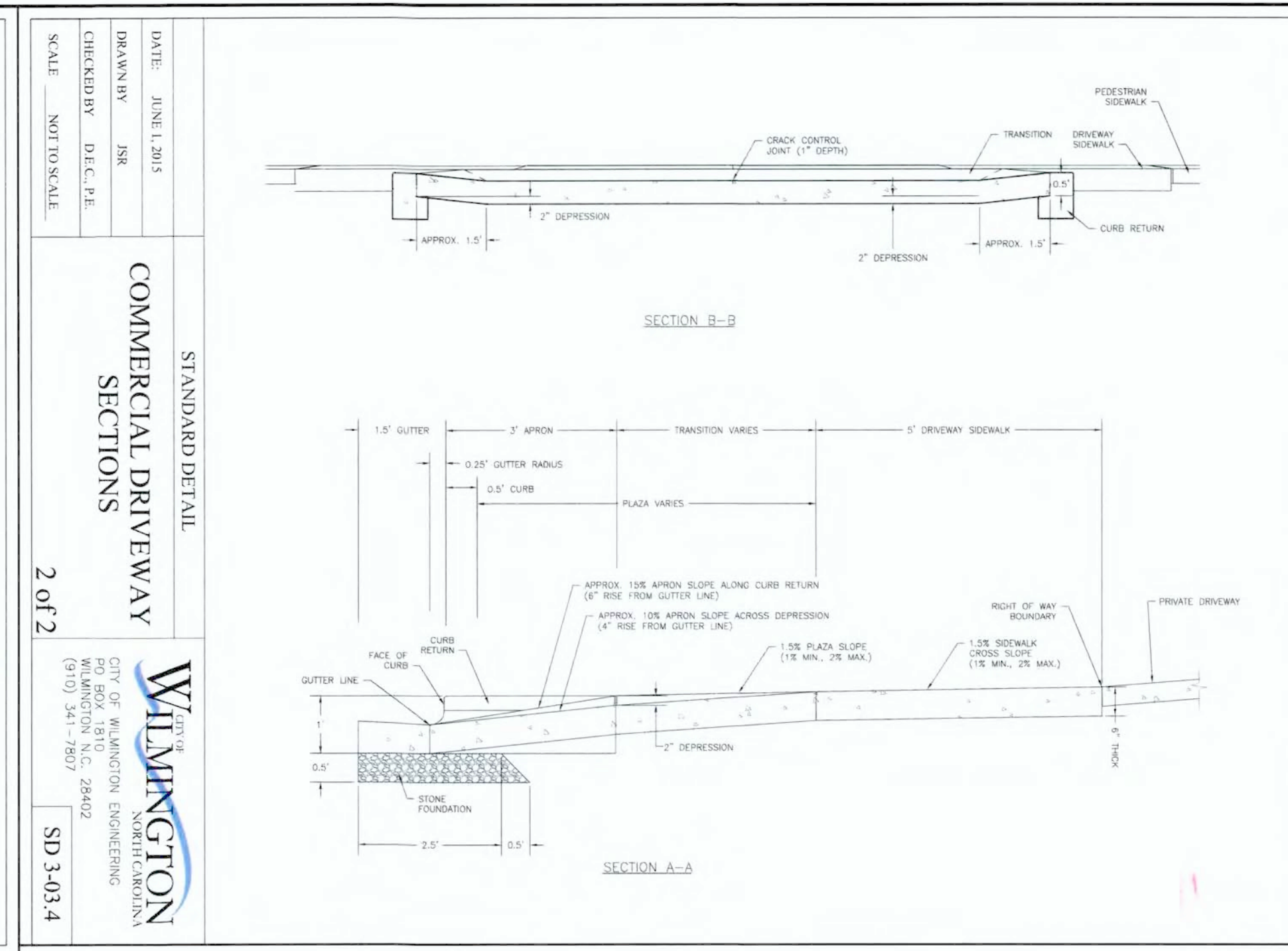
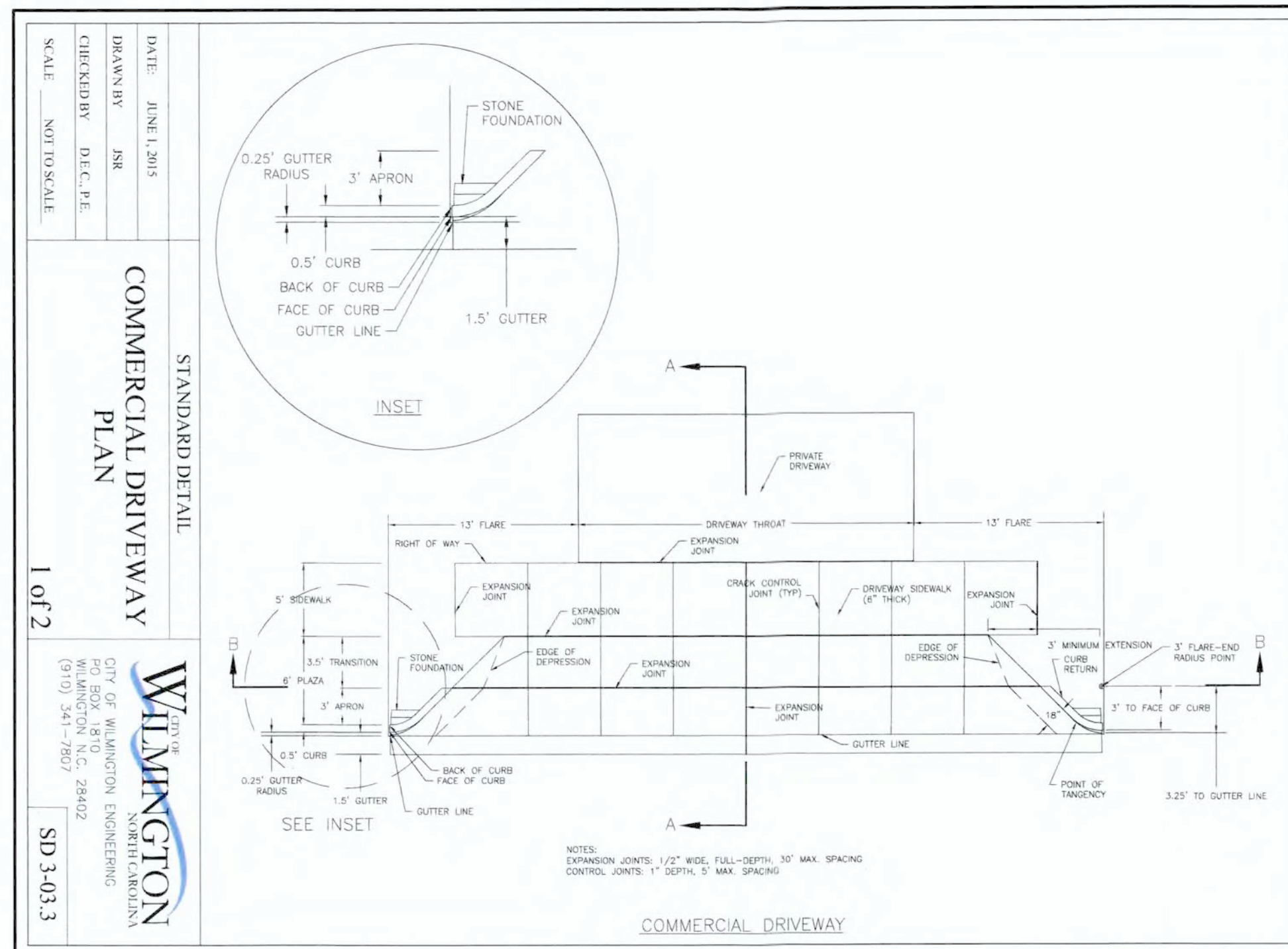
EX. ROUNDABOUT

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EX. ROUNDABOUT

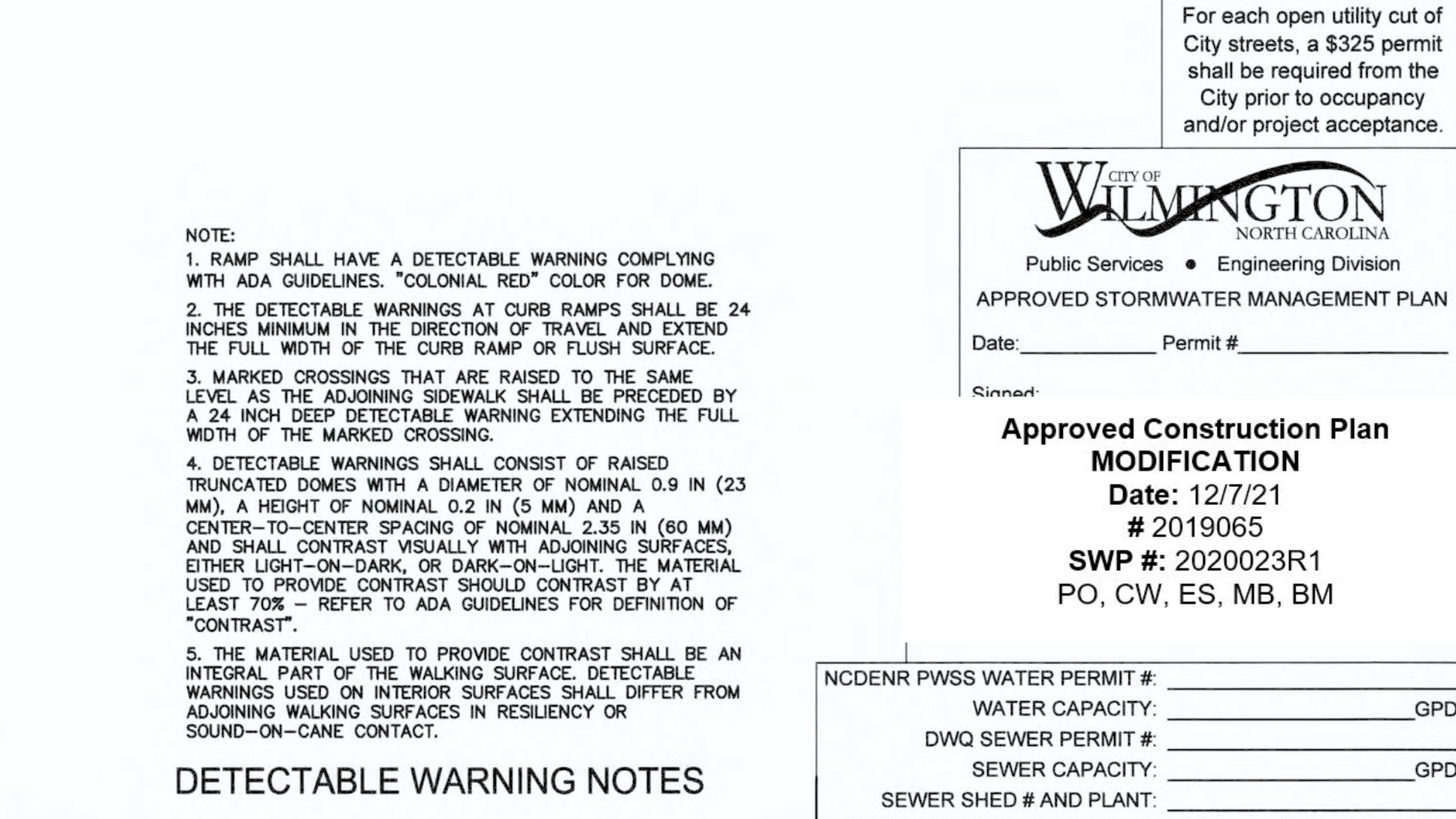
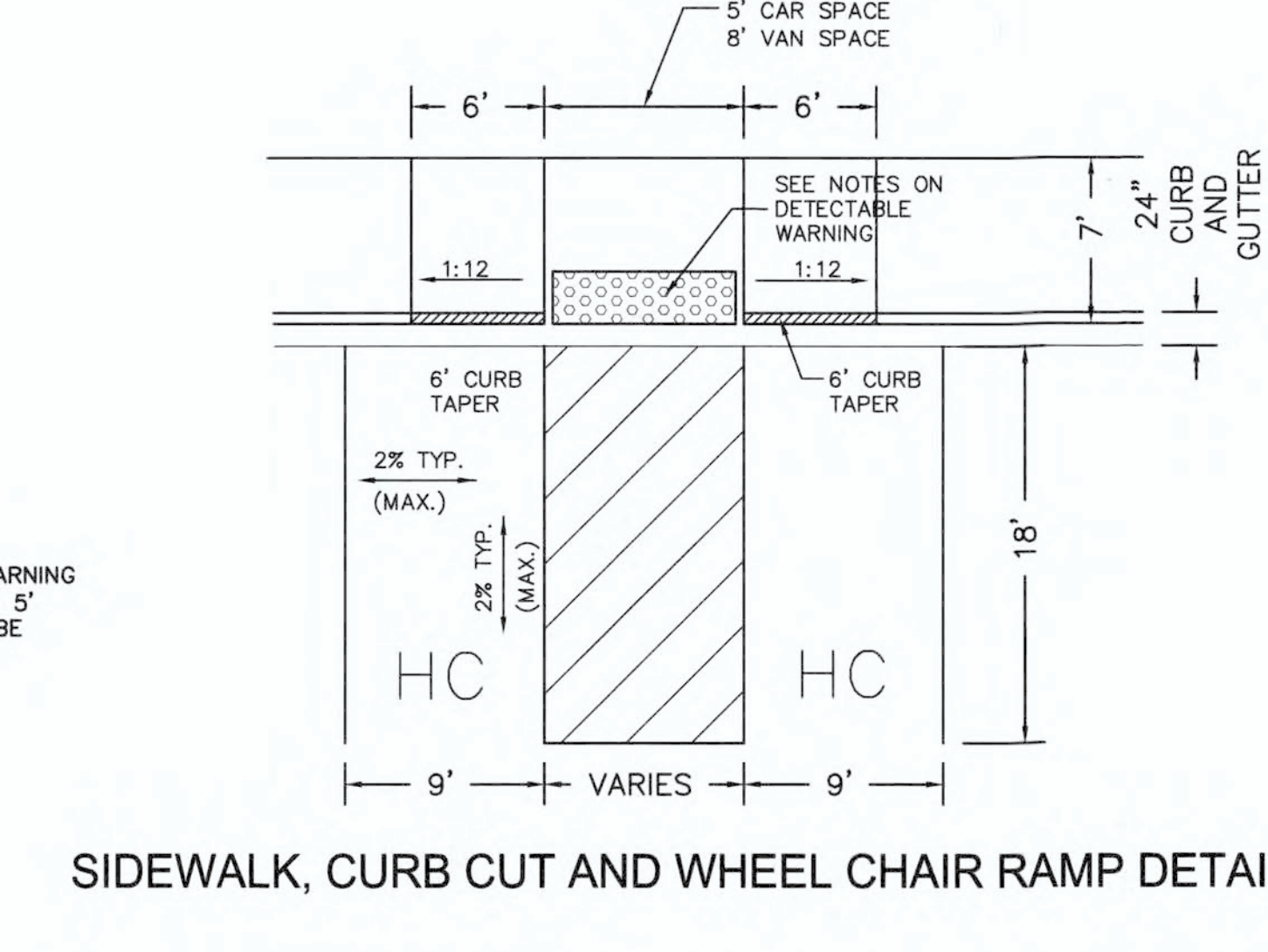
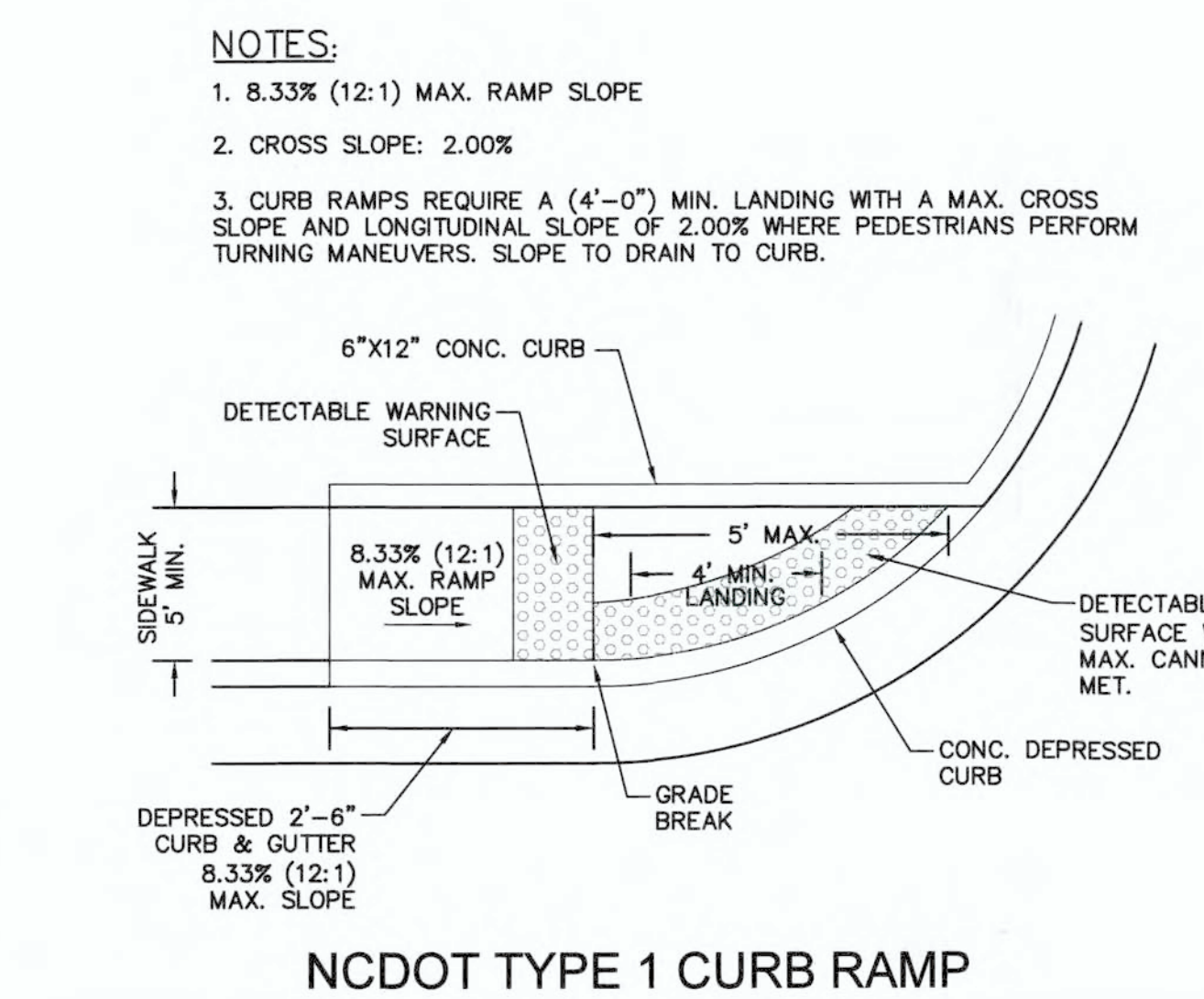
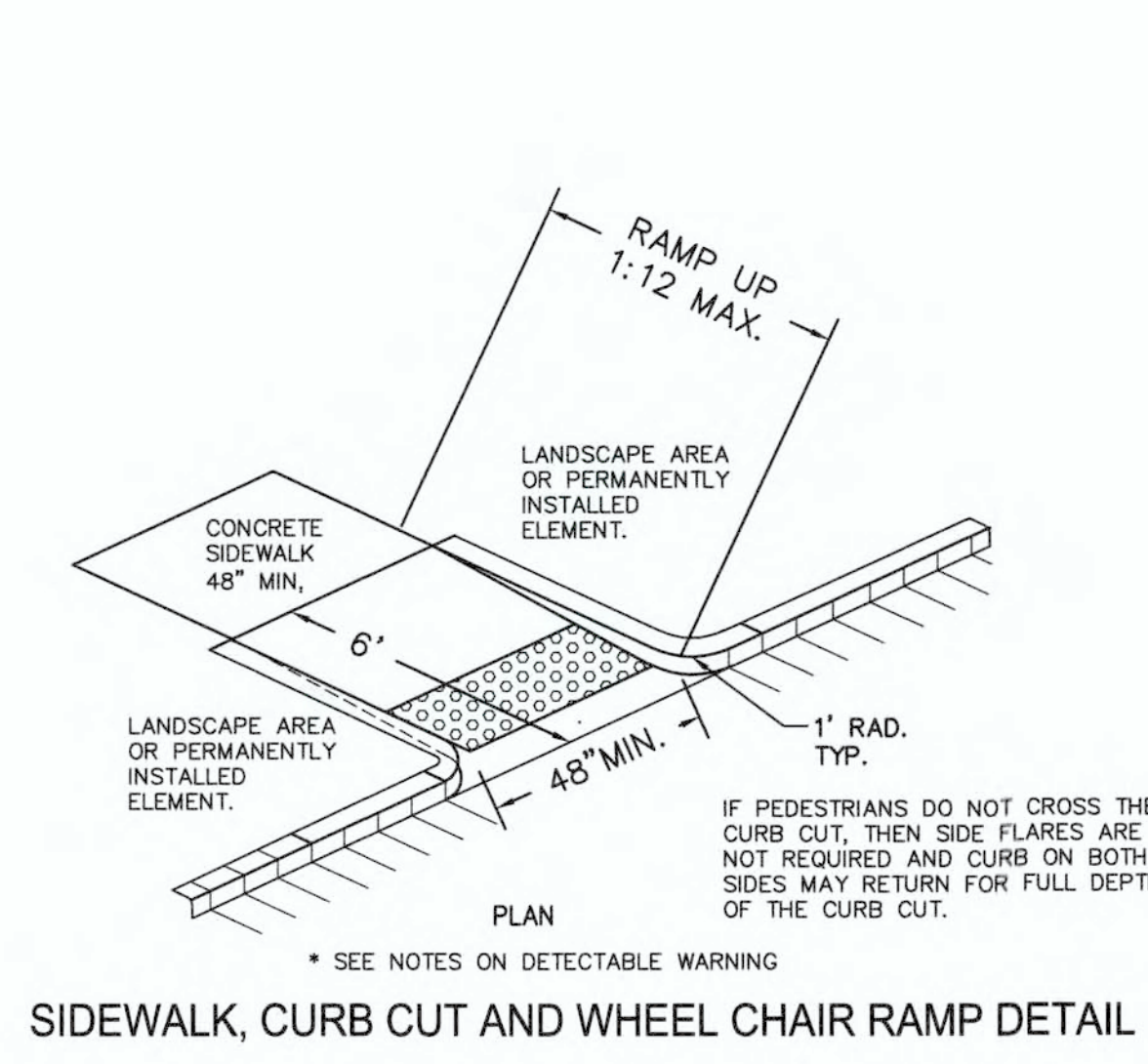
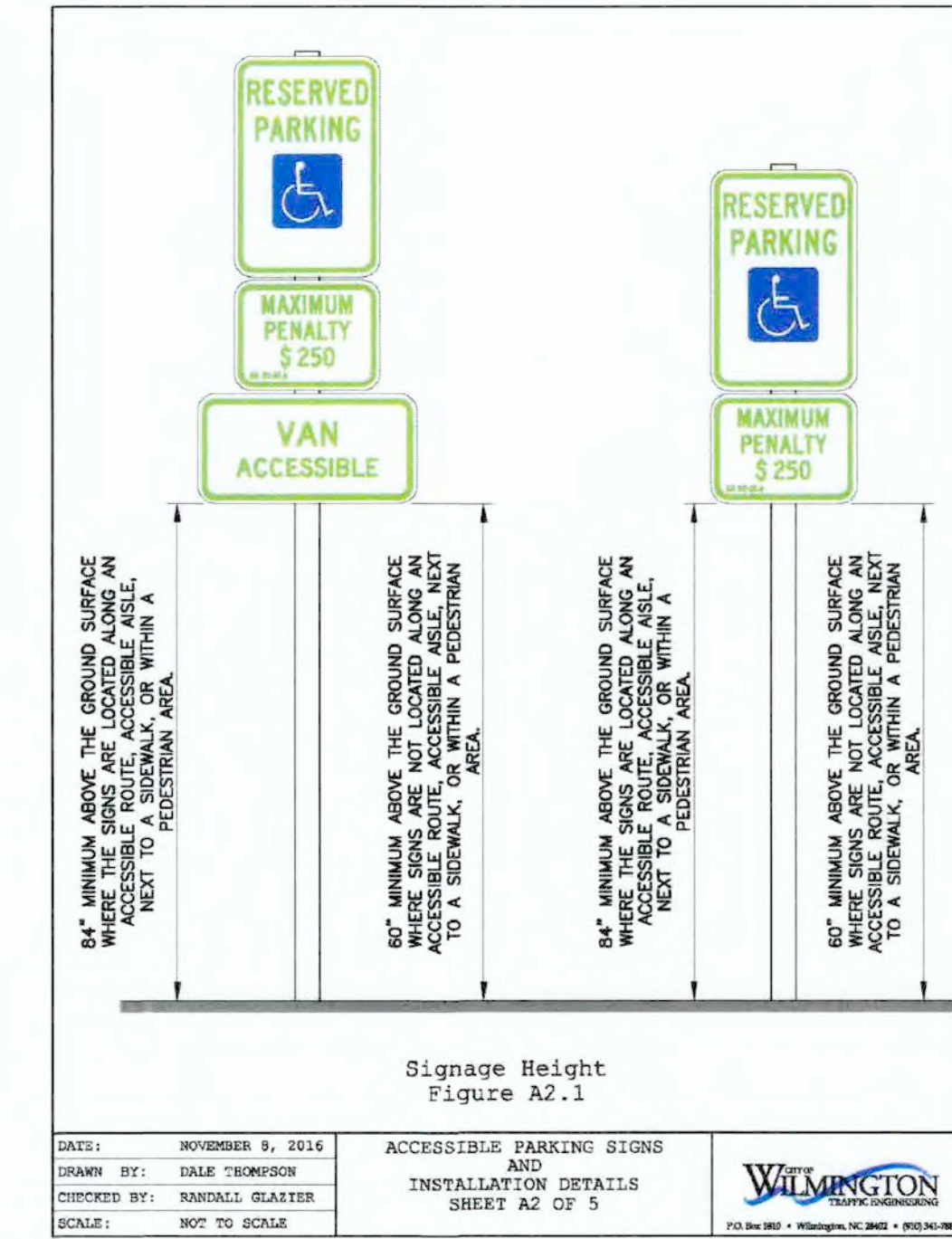
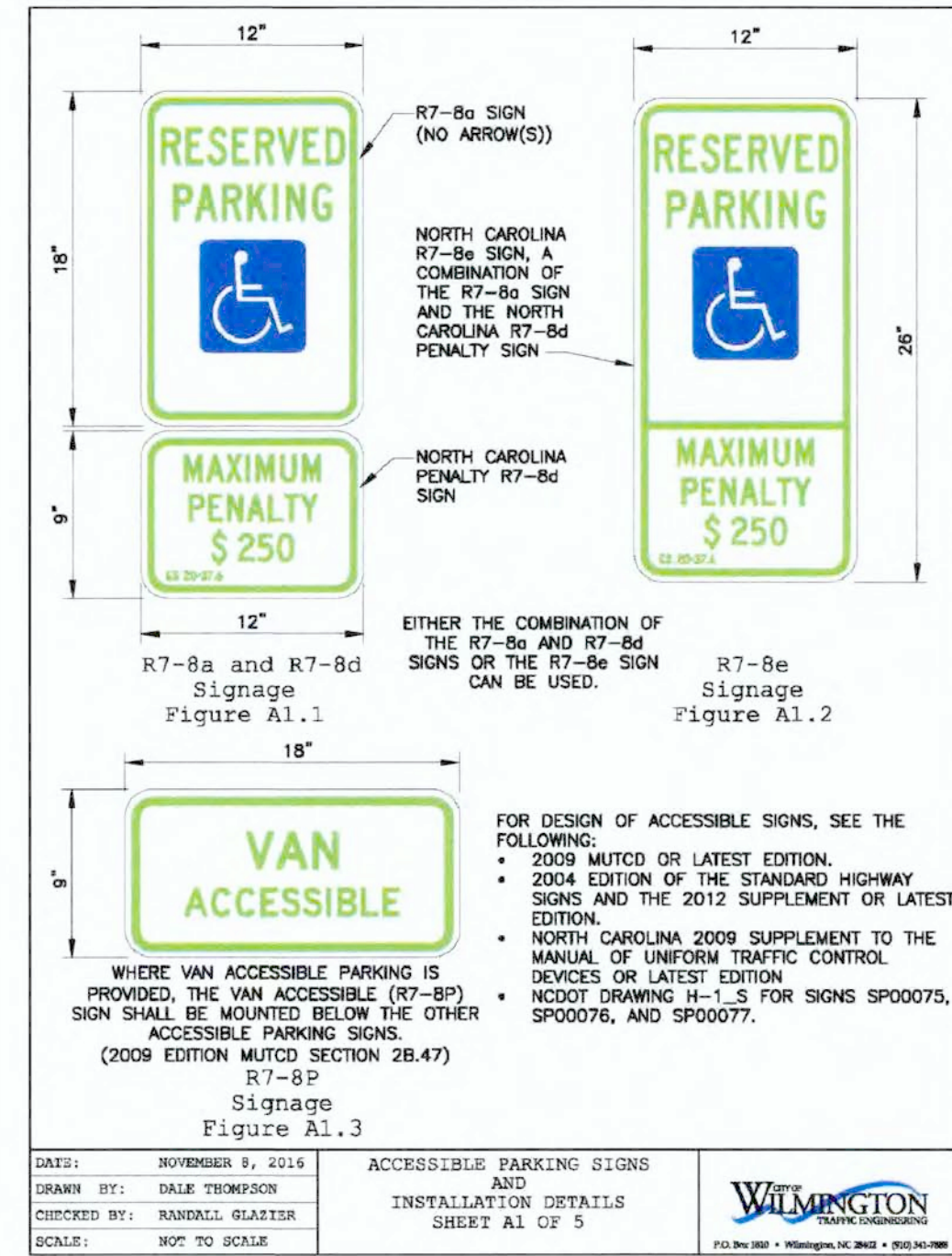


**NOTES AND DETAILS**  
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License #C-3641

19021

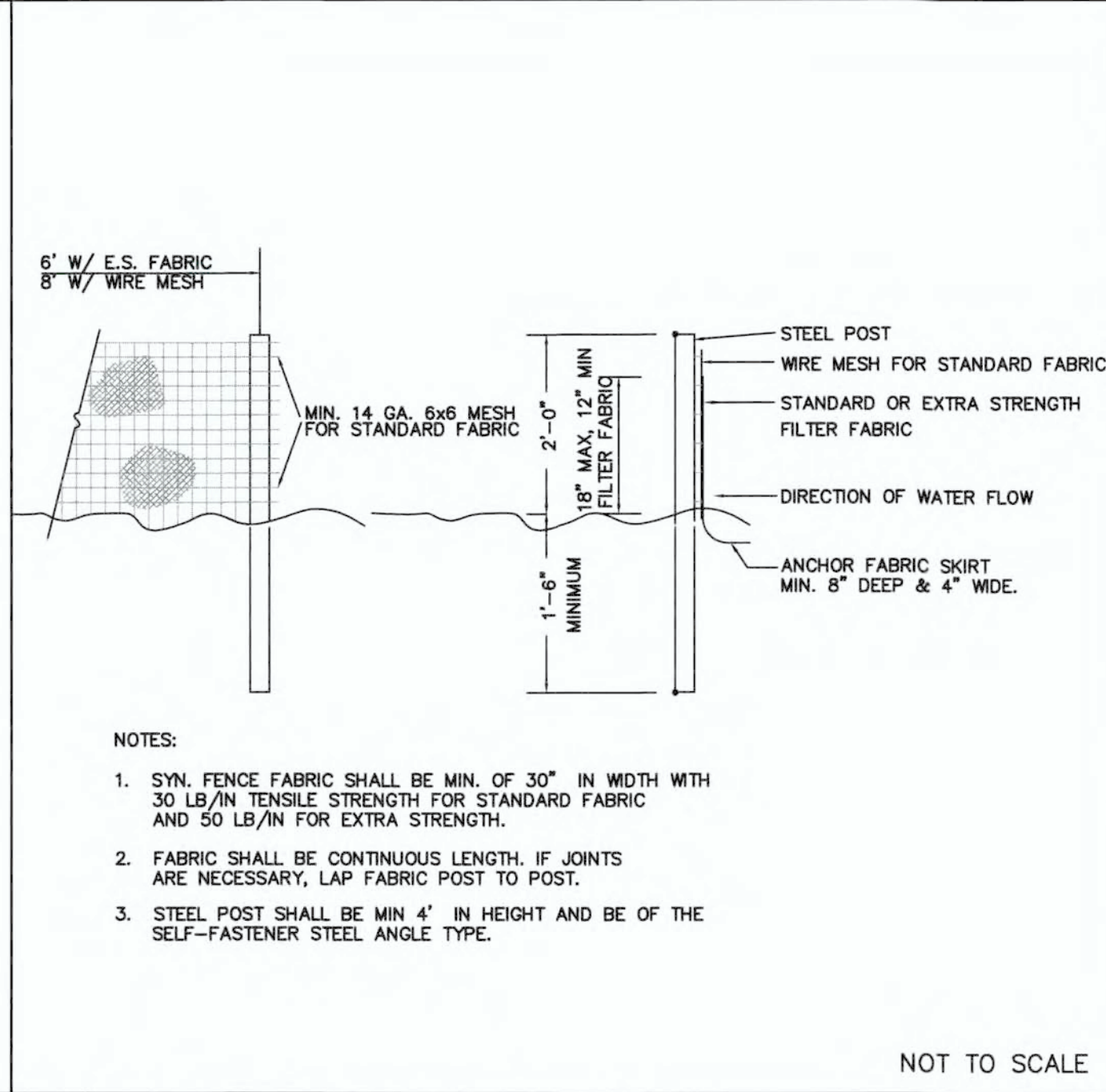
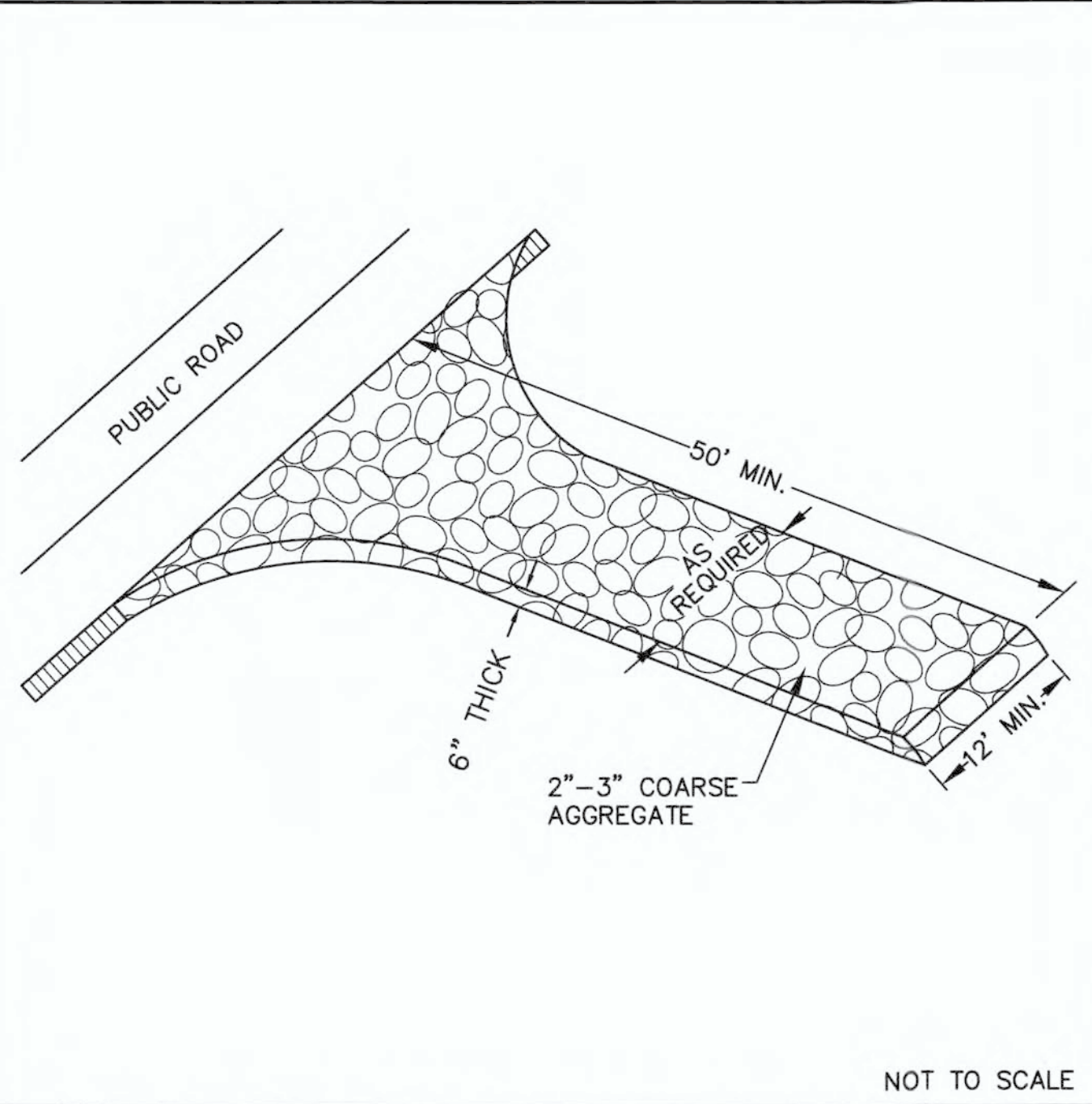
DES. JST  
 ORD. TJC  
 DRWN. NKS

DATE 10/4/21

**Approved Construction Plan MODIFICATION**  
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 PO, CW, ES, MB, BM

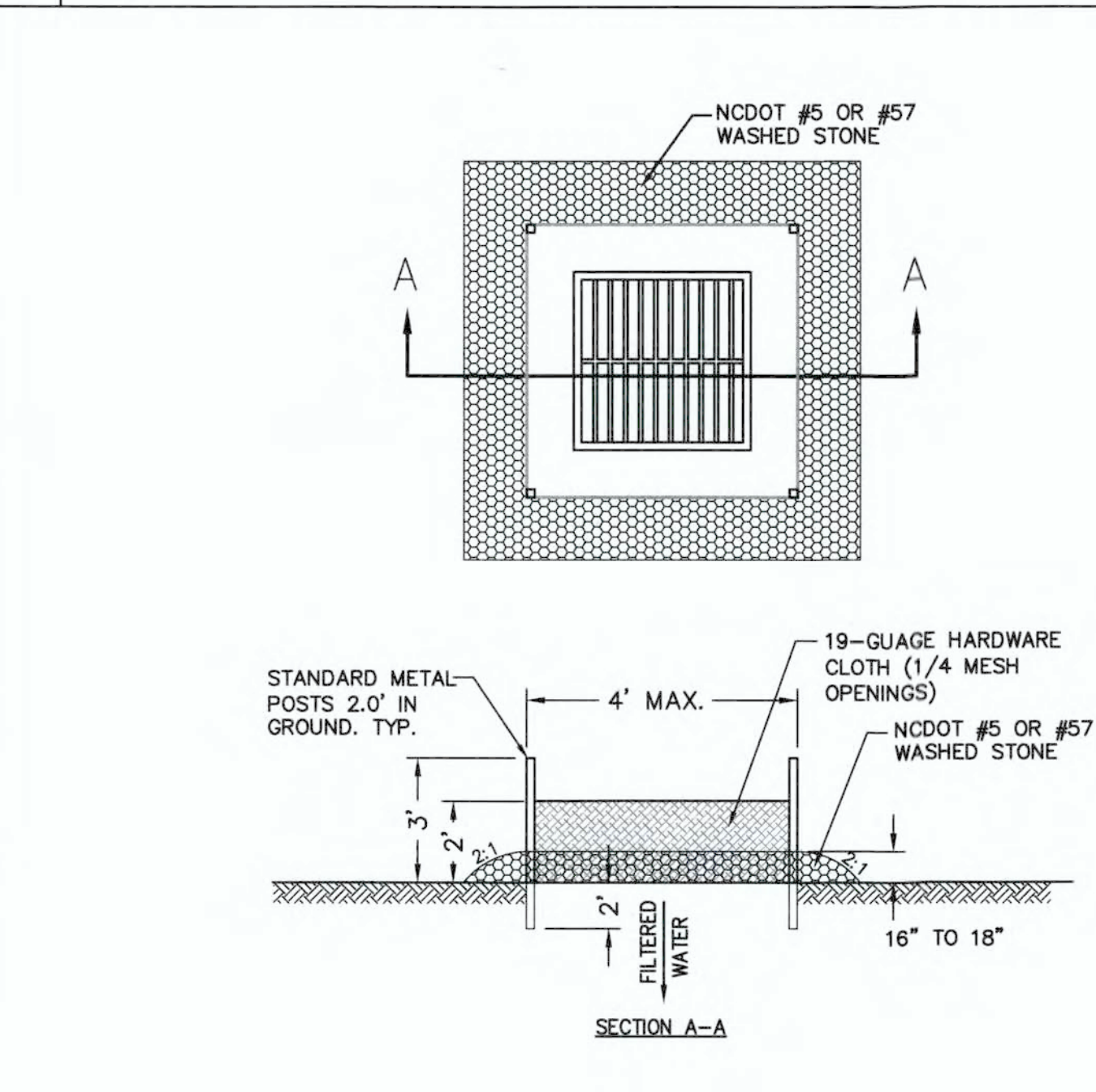
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 WATER CAPACITY: \_\_\_\_\_ GPD  
 DWQ SEWER PERMIT #: \_\_\_\_\_ GPD  
 SEWER CAPACITY: \_\_\_\_\_ GPD  
 SEWER SHED # AND PLANT: \_\_\_\_\_  
 SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

**C4.1**



1 TEMPORARY GRAVELLED CONSTRUCTION ENTRANCE

2 TEMPORARY SILT FENCE



**CONSTRUCTION SEQUENCE:**

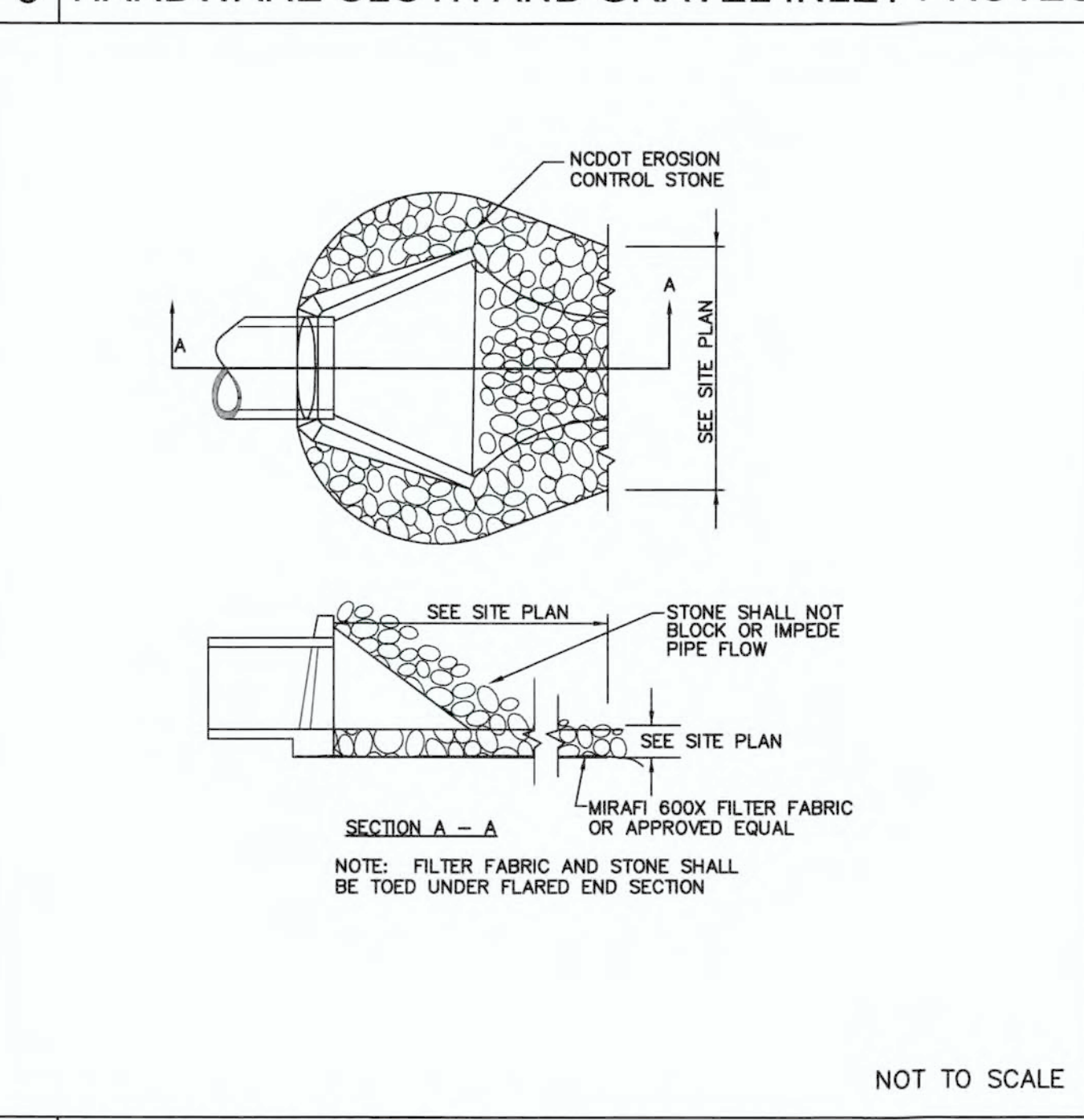
1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5" STEEL POST 2' INTO THE GROUND SURROUNDING THE INLET. SPACE POST EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4' APART.
3. SURROUND THE POST WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POST AT THE TOP, MIDDLE AND BOTTOM. PLACING A 2' FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NCDOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16" TO 18" AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUND COVER.

**MAINTENANCE:**

INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REMOVE SEDIMENT WHEN ACCUMULATION REACHES HALF THE DEPTH OF ROCK. REPLACE STONE WHEN IT NO LONGER DRAINS AS DESIGNED.

3 HARDWARE CLOTH AND GRAVEL INLET PROTECTION

NOT TO SCALE



**SKIMMER MAINTENANCE NOTES:**

1. INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ON-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY.
2. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLodge THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.
3. IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.
4. FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.

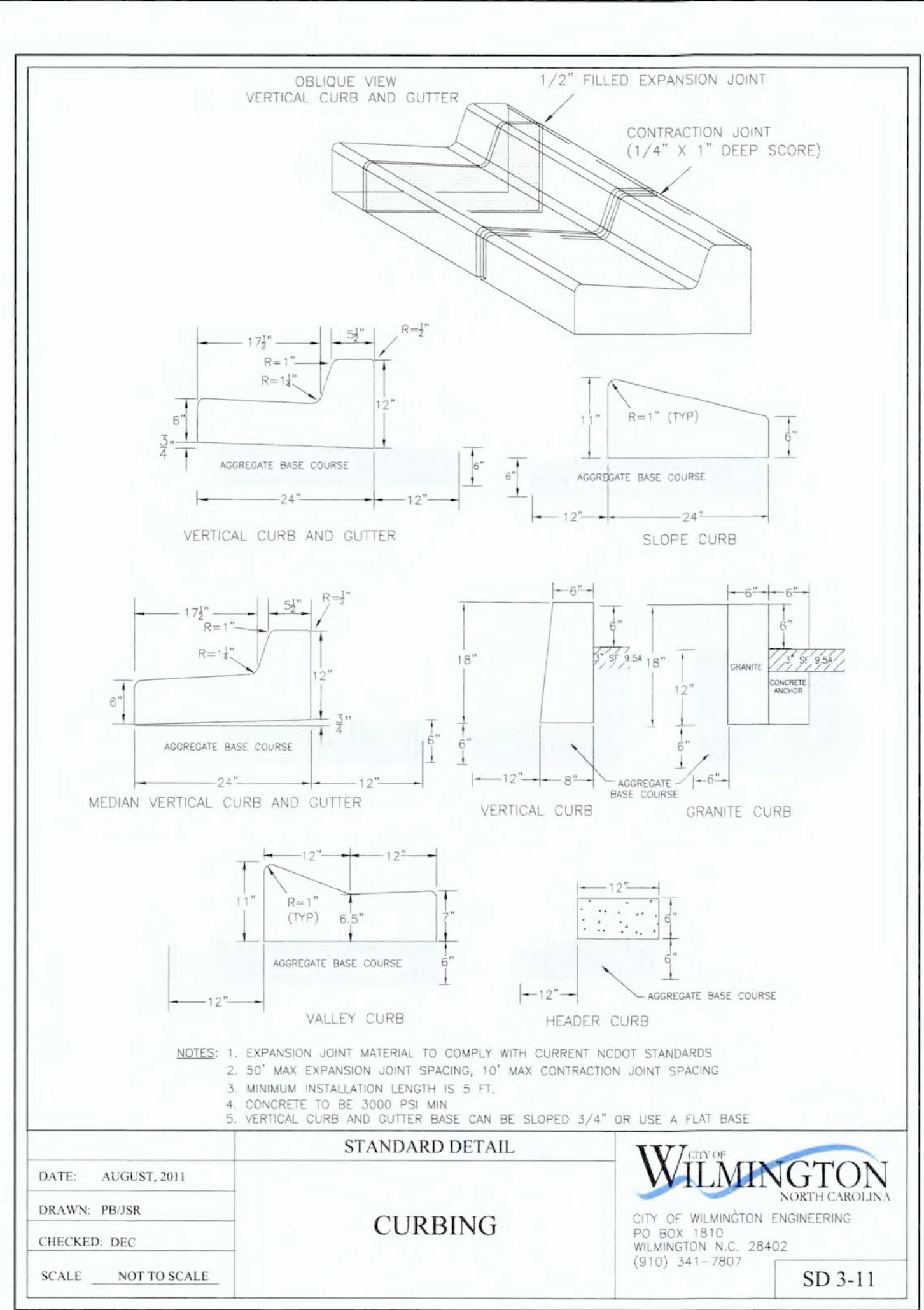
**SKIMMER NOTE:** SKIMMER MUST FLOAT ON TOP OF WATER TO WORK PROPERLY. CONTRACTOR SHALL VERIFY THAT THE BARREL LENGTH WILL ALLOW SKIMMER TO FLOAT AT EMERGENCY SPILLWAY ELEVATION.

**FAIRCLOTH ORIFICE MODEL DIA.**

BASIN 1	5 IN.	4.1 IN.
BASIN 2	5 IN.	4.2 IN.

4 ENERGY DISSIPATOR DETAIL

5 STANDARD SKIMMER DETAIL



**NOTES:**

1. EXPANSION JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS
2. 50' MAX EXPANSION JOINT SPACING, 10' MAX CONTRACTION JOINT SPACING
3. MINIMUM INSTALLATION LENGTH IS 5 FT.
4. CONCRETE TO BE 3000 PSI MIN.
5. VERTICAL CURB AND GUTTER BASE CAN BE SLOPED 3/4" OR USE A FLAT BASE

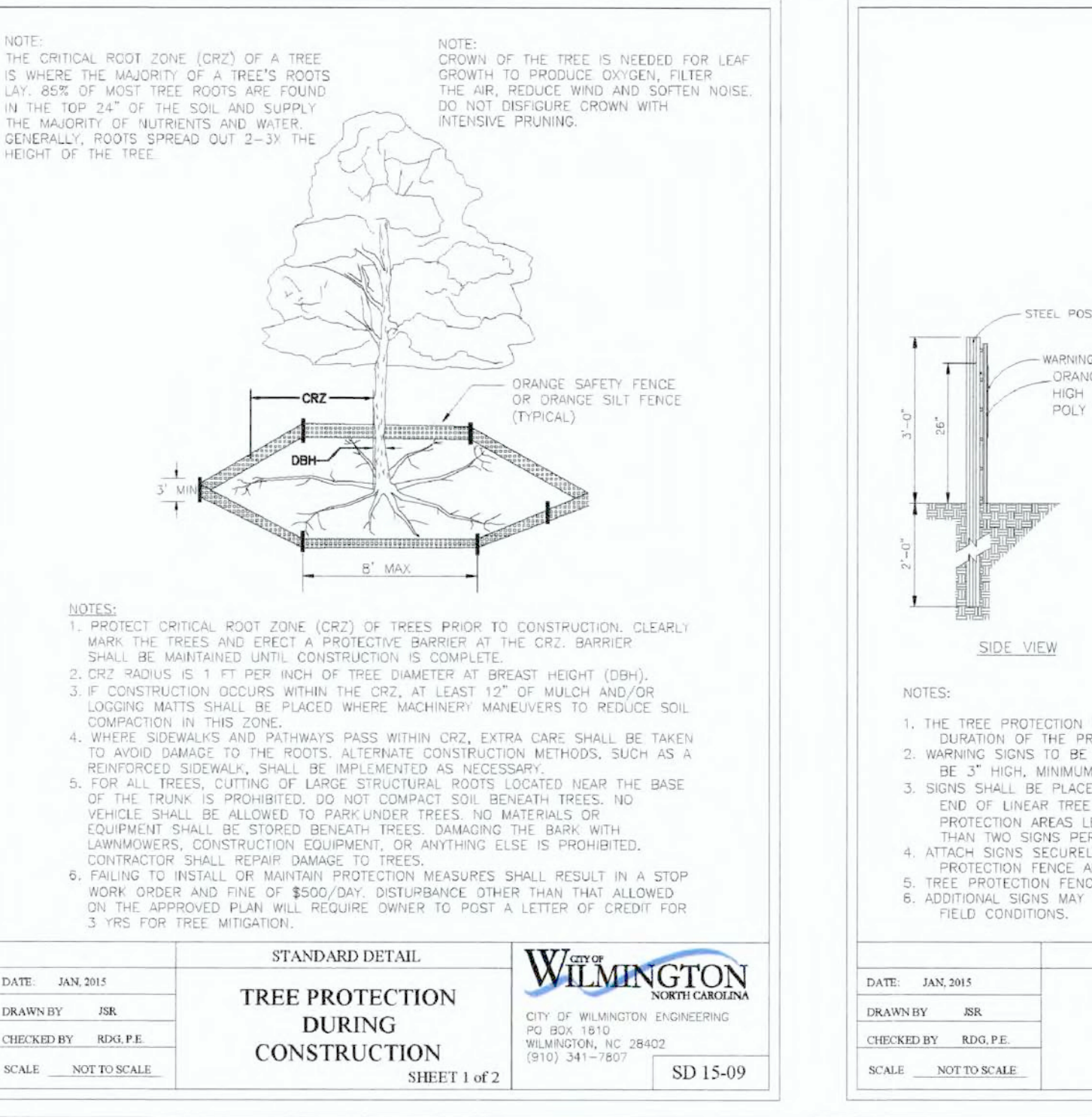
**STANDARD DETAIL**

**CURBING**

DATE: AUGUST, 2011  
 DRAWN: PBJSR  
 CHECKED: DEC  
 SCALE: NOT TO SCALE

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 CITY OF WILMINGTON ENGINEERING  
 PO BOX 1810  
 WILMINGTON, NC 28402  
 (910) 341-7807

SD 3-11



**NOTE:** THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LIVE. 60% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL, AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3x THE HEIGHT OF THE TREE.

**NOTE:** CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISRUPT CROWN WITH INTENSIVE PRUNING.

**NOTE:** CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).

**NOTE:** IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 10% OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY OPERATORS TO REDUCE SOIL COMPACTION IN THIS ZONE.

**NOTE:** WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.

**NOTE:** FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO LUMPKERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.

**NOTE:** FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

**STANDARD DETAIL**

**TREE PROTECTION DURING CONSTRUCTION**

DATE: JAN 2011  
 DRAWN BY: JJK  
 CHECKED BY: RSD, P.E.  
 SCALE: NOT TO SCALE

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 CITY OF WILMINGTON ENGINEERING  
 PO BOX 1810  
 WILMINGTON, NC 28402  
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SD 15-09

**STANDARD DETAIL**

**TREE PROTECTION DURING CONSTRUCTION**

DATE: JAN 2011  
 DRAWN BY: JJK  
 CHECKED BY: RSD, P.E.  
 SCALE: NOT TO SCALE

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
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SD 15-09

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**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

**Approved Construction Plan MODIFICATION**

Date: 12/7/21  
 # 2019065  
 SWP #: 2020023R1  
 PO, CW, ES, MB, BM

NCDENR PWSW WATER PERMIT # \_\_\_\_\_ GPD  
 WATER CAPACITY: \_\_\_\_\_ GPD  
 DWQ SEWER PERMIT # \_\_\_\_\_ GPD  
 SEWER CAPACITY: \_\_\_\_\_ GPD  
 SEWER SHED # AND PLANT: \_\_\_\_\_  
 SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

**EROSION CONTROL NOTES AND MAINTENANCE PLAN:**

1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL, BUT IN NO CASE, LESS THAN ONCE EVERY WEEK AND WITHIN 24 HOURS OF EVERY HALF-INCH RAINFALL.
2. ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF #4 STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
3. SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, BLOCK AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SLT SOCKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND WATTLIES, BEAVER DAMS, DANDY SOCKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
4. DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
5. SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE SEDIMENT FENCE, THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF-FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.
6. SEDIMENT WILL BE REMOVED FROM SEDIMENT TRAPS WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. THE ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR WHEN THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED AND KEPT CLEAN WEEKLY.
7. SEDIMENT WILL BE REMOVED FROM THE SEDIMENT BASIN WHEN THE DESIGN STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS OR IF THE ROCK IS DISLODGED. BAFFLES WILL BE REPAIRED OR REPLACED IF THEY COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE. THEY WILL BE REPLACED PROMPTLY. SEDIMENT WILL BE REMOVED FROM BAFFLES WHEN DEPOSITS REACH HALF THE HEIGHT OF THE 1ST BAFFLE. FLOATING SKIMMERS WILL BE INSPECTED WEEKLY AND WILL BE KEPT CLEAN.
8. **LAND QUALITY REQUIRES:** ALL SEEDED AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED, ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN, TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL SLOPES WILL BE STABILIZED WITHIN 15 WORKING DAYS. **WATER QUALITY REQUIRES:** ALL SEEDED AREAS WILL BE FERTILIZED, RESEED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, ALL SLOPES STEEPER THAN 3' HORIZONTAL TO 1' VERTICAL (3:1) AND ALL HIGH QUALITY WATER (HOW) ZONES SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN SEVEN (7) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
9. FLOCCULANTS WILL BE USED TO ADDRESS TURBIDITY ISSUES. THE PUMPS, TANKS, HOSES AND INJECT SYSTEMS WILL BE CHECKED FOR PROBLEMS OR TURBID DISCHARGES DAILY.
10. BASIN OUTLET STRUCTURES AND SKIMMERS SHALL WITHDRAW WATER FROM THE SURFACE.
11. CONCRETE WASHOUTS SHOULD BE INSPECTED DAILY AND AFTER HEAVY RAINS. DAMAGES SHOULD BE REPAIRED PROMPTLY. IF FILLED TO OVER 75% CAPACITY WITH RAIN WATER IT SHOULD BE VACUUMED OR ALLOWED TO EVAPORATE TO AVOID OVERFLOWS. BEFORE HEAVY RAINS THE CONTAINERS LIQUID LEVEL SHOULD BE LOWERED OR THE CONTAINER COVERED TO AVOID AN OVER FLOW DURING RAIN. WHEN SOLIDS HAVE HARDENED THEY SHOULD BE REMOVED AND RECYCLED.

**NOTES AND DETAILS**  
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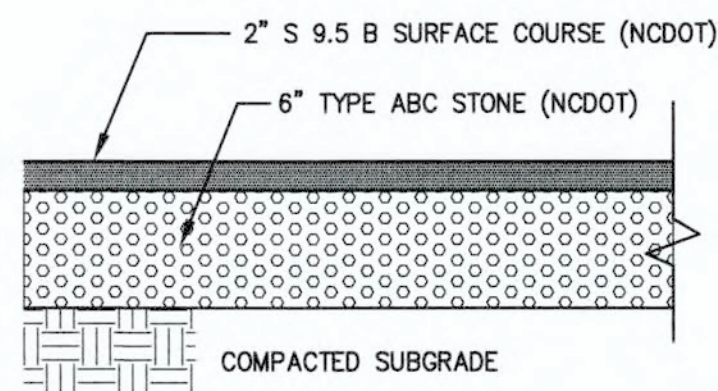
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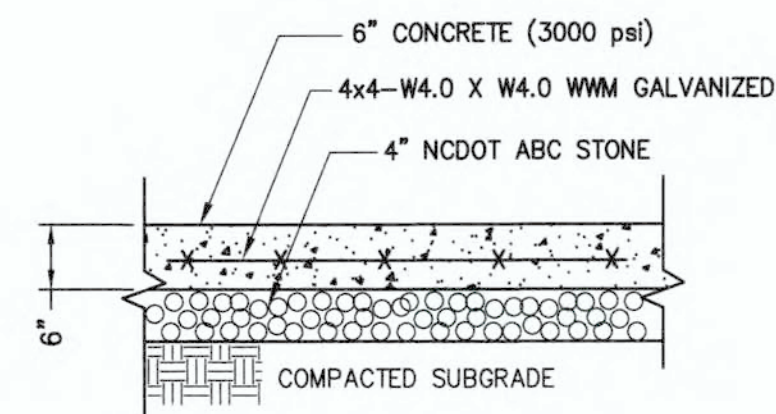






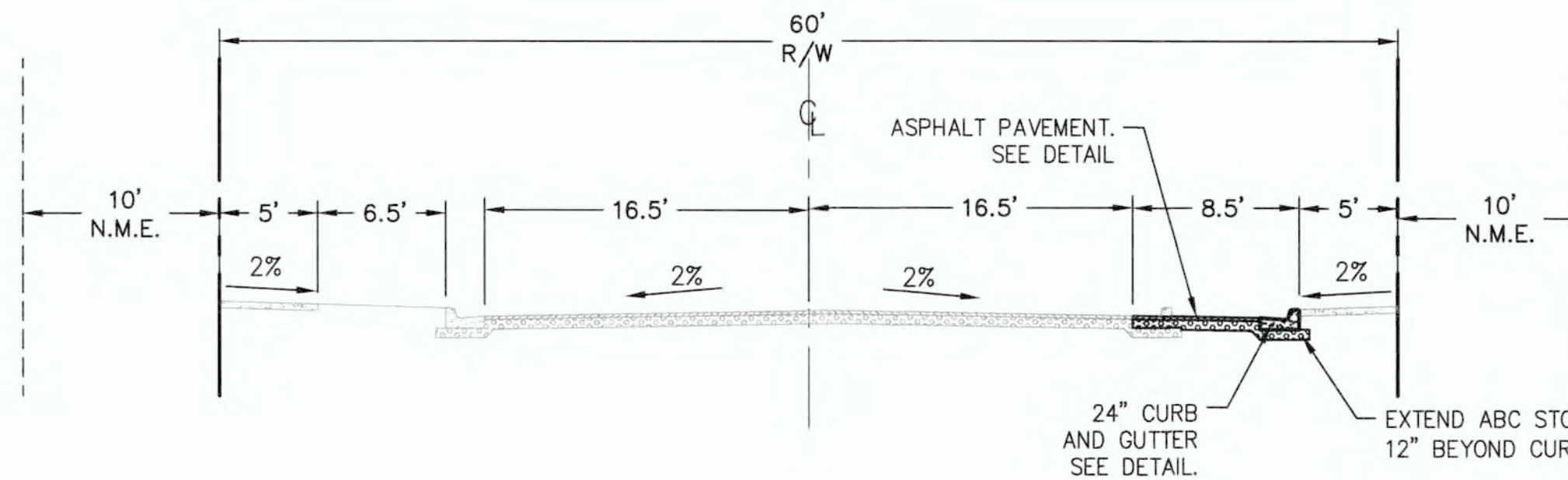
NOTES:  
 1. PAVEMENT SECTIONS SHALL BE DETERMINED WITH CONSULTATION FROM THE GEOTECHNICAL ENGINEER AND ONLY PER THEIR RECOMMENDATIONS. PAVEMENT DETAIL SECTIONS SHOWN ARE MINIMUMS AND MAY BE STRENGTHENED PER GEOTECHNICAL ENGINEERS RECOMMENDATIONS.  
 2. REFERENCE GEOTECHNICAL REPORT FOR UNDERCUTTING IN AREAS OF PROPOSED PARKING AND DRIVE AREAS. CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE REQUIRED SUBGRADE UNDERCUTTING AND REPLACEMENT.

NOT TO SCALE



NOTES:  
 1. CONTROL JOINTS SHALL BE EVERY 15 FT. (MAX.) AND EXPANSION JOINTS SHALL BE EVERY 50 FT. (MAX).  
 1. PAVEMENT SECTIONS SHALL BE DETERMINED WITH CONSULTATION FROM THE GEOTECHNICAL ENGINEER AND ONLY PER THEIR RECOMMENDATIONS. PAVEMENT DETAIL SECTIONS SHOWN ARE MINIMUMS AND MAY BE STRENGTHENED PER GEOTECHNICAL ENGINEERS RECOMMENDATIONS.  
 2. REFERENCE GEOTECHNICAL REPORT FOR UNDERCUTTING IN AREAS OF PROPOSED PARKING AND DRIVE AREAS. CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE REQUIRED SUBGRADE UNDERCUTTING AND REPLACEMENT.

NOT TO SCALE



NOT TO SCALE

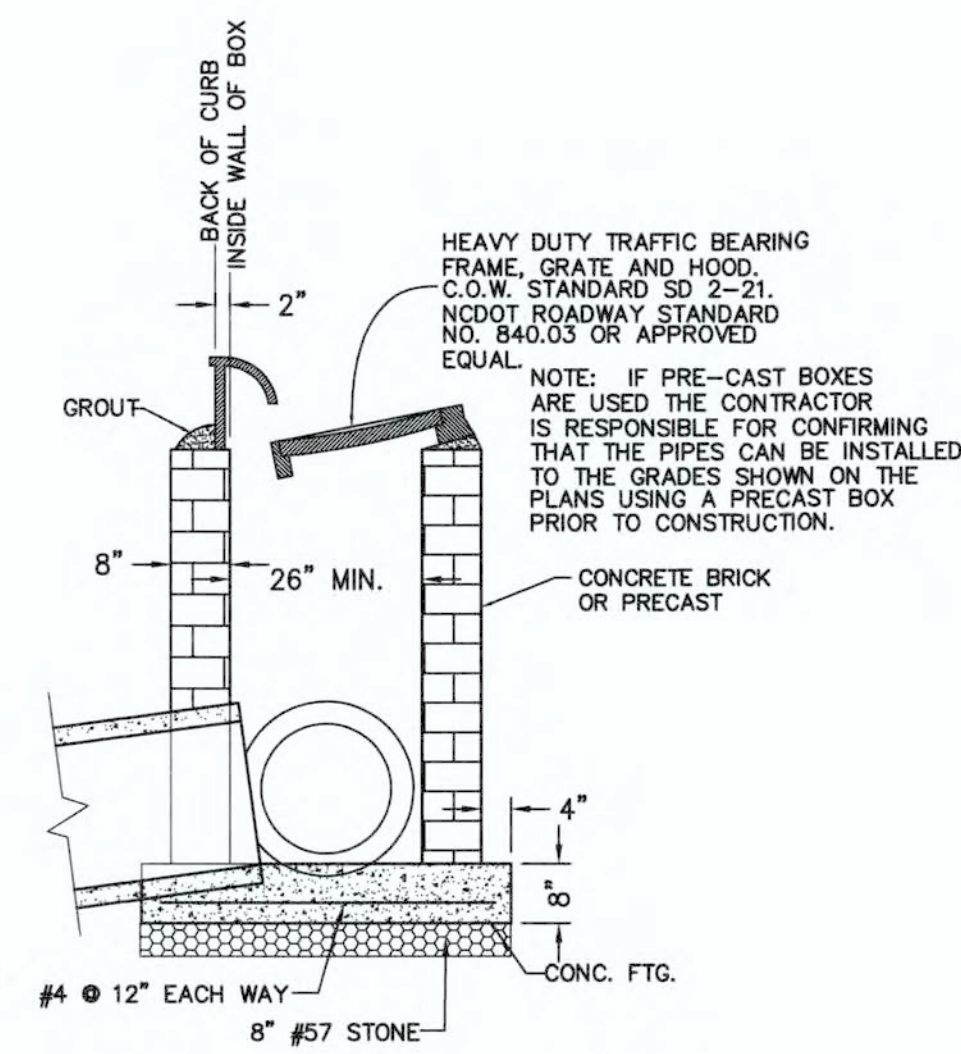
**SITE WORK NOTES:**

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.
2. CONTRACTOR SHALL COORDINATE WORK WITHIN NCDOT AND LOCAL RIGHT OF WAYS WITH PROPER AUTHORITIES AND SHALL MEET ANY REQUIREMENTS AS TO TRAFFIC CONTROL AND CONNECTION TO EXISTING STREETS.
3. CLEARING AND GRUBBING: REMOVE ALL TREES AS REQUIRED UNLESS OTHERWISE NOTED TO REMAIN, STUMPS, ROOTS, SHRUBBERY, ASPHALT, CONCRETE, STRUCTURES, BURIED UTILITIES, STORAGE TANKS, ETC. WITHIN LIMITS OF CONSTRUCTION.
4. STRIPPING: BEFORE EXCAVATING OR FILLING, REMOVE ALL TOPSOIL, WOOD, LEAVES, AND ANY OTHER UNSUITABLE MATERIAL.
5. MUCKING: REMOVE ANY SOFT, ORGANIC SILT MATERIALS AND EXISTING BURIED CONSTRUCTION DEBRIS AS REQUIRED AND FILL TO SUBGRADE ELEVATIONS WITH A CLEAN SELECT-FILL COMPACTED AS SPECIFIED.
6. DISPOSAL: CLEARED, GRUBBED, STRIPPED OR EXCAVATED SPOIL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES.
7. BORROW MATERIAL: THE CONTRACTOR SHALL FURNISH BORROW MATERIAL REQUIRED FROM OFF SITE AND OBTAIN ALL REQUIRED PERMITS ASSOCIATED WITH BORROW OPERATIONS.
8. FILL AND COMPACTION: AFTER STRIPPING THOSE AREAS DESIGNATED TO RECEIVE FILL SHOULD BE PROOFROLLED. THE TOP 8" OF SUBGRADE SHALL BE COMPACTED TO AT LEAST 98% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT. ANY AREA WHICH PUMPS OR RUTS EXCESSIVELY SHOULD BE UNDERCUT AND REPLACED WITH A CLEAN, SILTY OR CLAYEY SAND HAVING A UNIFIED SOIL CLASSIFICATION OF SP, SM, OR SC. FILL MATERIAL 5" OUTSIDE OF BUILDING AREAS SHALL THEN BE PLACED IN LAYERS NOT TO EXCEED 8" AND COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED TO 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IN AREAS WHERE NO STRUCTURAL FILL IS TO BE PLACED THE UPPER 12 INCHES OF IN-PLACE SUBGRADE SHOULD BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. IF THE MATERIAL IS TOO DRY TO COMPACT TO THE REQUIRED DENSITY EACH LAYER SHALL BE WETTED IN ACCORDANCE WITH COMPACTION REQUIREMENTS. IF THE MATERIAL IS TOO WET TO SECURE PROPER COMPACTION, IT SHALL BE HARROWED REPEATEDLY OR OTHERWISE AERATED WITH SUITABLE EQUIPMENT UNTIL OPTIMUM MOISTURE CONTENT IS OBTAINED. FILL SHALL BE PLACED IN SUCH A MANNER THAT THE SURFACE WILL DRAIN READILY AT ALL TIMES. SEE STRUCTURAL NOTES AND SOILS REPORT FOR ADDITIONAL REQUIREMENTS.
9. LAYOUT: THE CONTRACTOR SHALL PROVIDE ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION.
11. EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION FROM SURVEY MICHAEL UNDERWOOD AND ASSOCIATES, P.A.
12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES.
14. ALL PAVEMENT AND BASE MATERIALS AND WORKMANSHIP SHALL CONFORM TO NCDOT STANDARDS.
15. WATER AND SEWER SERVICES SHALL BE INSTALLED TO MEET LOCAL AND STATE PLUMBING CODES. METER AND TAPS SHALL MEET ALL LOCAL REQUIREMENTS.
16. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.
17. SEE SOILS REPORT FOR ADDITIONAL REQUIREMENTS.
18. CONTRACTOR SHALL NOTE THAT EARTHWORK QUANTITIES ARE HIS RESPONSIBILITY. PLANS DO NOT REPRESENT A BALANCED EARTHWORK CONDITION.
19. REINF. CONC. PIPE SHALL BE CLASS III W/RUBBER GASKETED JOINT OR "RAM NECK". INSTALL PER MANUFACTURER'S REQUIREMENTS.
20. USE WHITE LANE MARKING PAINT FOR ALL PAVEMENT MARKINGS. PAINT SHALL BE A CHLORINATED RUBBER ALKYD, FS TT-P-115, TYPE III, FACTORY MIXED, QUICK DRYING, NON-BLEEDING.
21. REFER TO THE PLUMBING DRAWINGS FOR LOCATION AND INVERTS OF NEW WASTE, WATER AND ROOF DRAIN LINES.

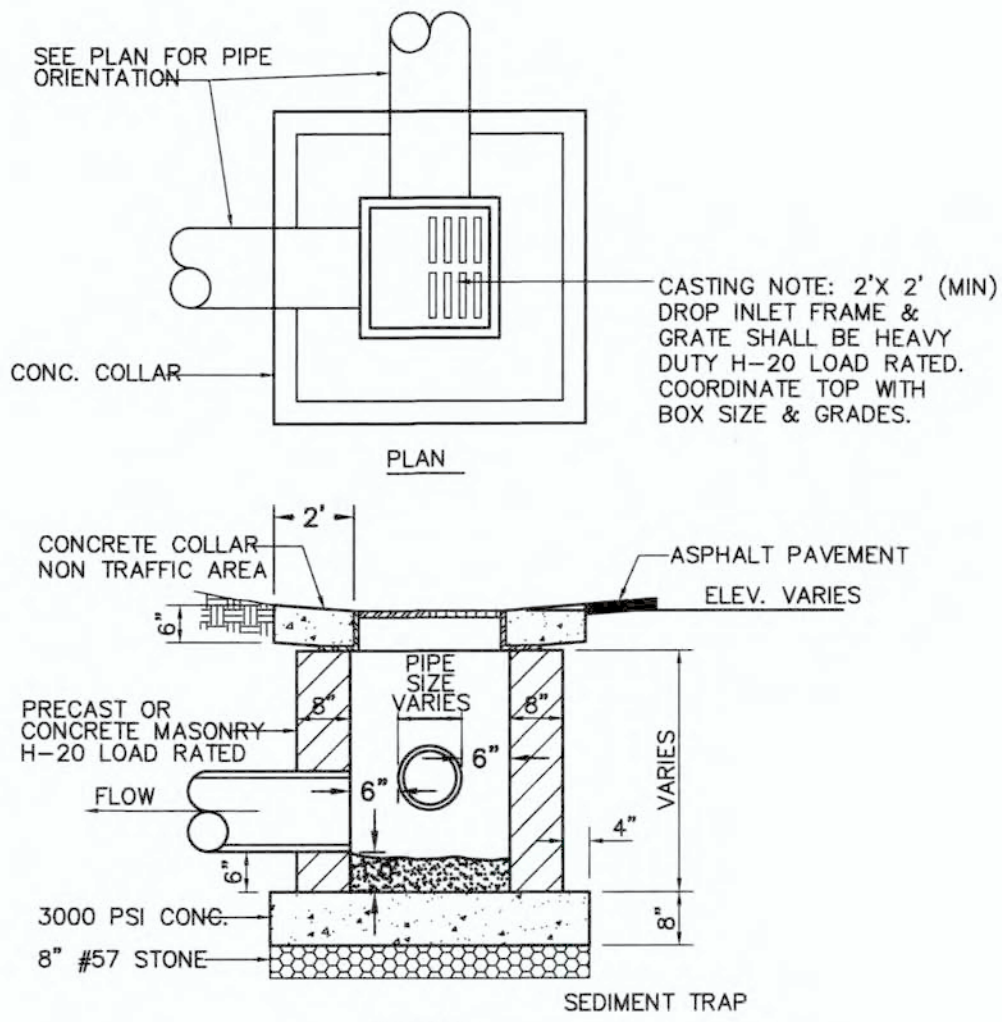
1 ASPHALT PAVEMENT SECTION

2 CONCRETE PAVEMENT SECTION

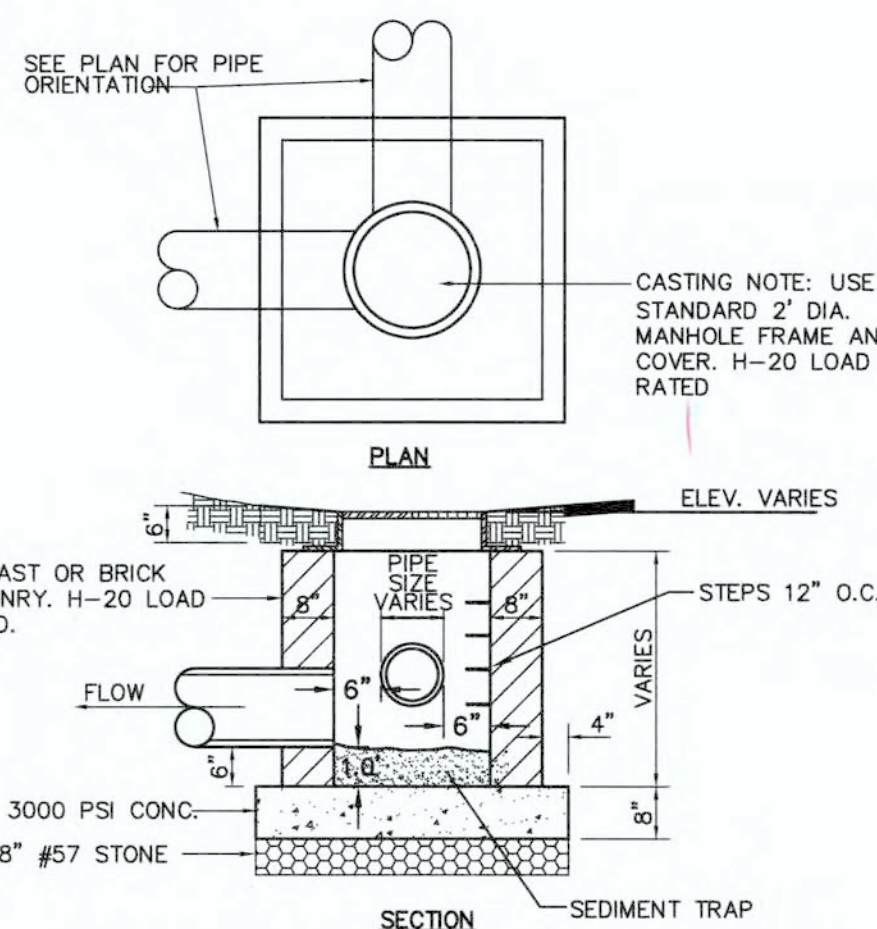
3 EXISTING ASHES DR. WITH ADDITIONAL PARALLEL PARKING SECTION A-A



NOT TO SCALE



NOT TO SCALE



NOT TO SCALE

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED STORMWATER MANAGEMENT PLAN

Date: \_\_\_\_\_ Permit # \_\_\_\_\_

Signed: \_\_\_\_\_

**Approved Construction Plan**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Planning: \_\_\_\_\_

Traffic: \_\_\_\_\_

Fire: \_\_\_\_\_

NCDENR PWSS WATER PERMIT #: \_\_\_\_\_

WATER CAPACITY: \_\_\_\_\_ GPD

DWQ SEWER PERMIT #: \_\_\_\_\_

SEWER CAPACITY: \_\_\_\_\_ GPD

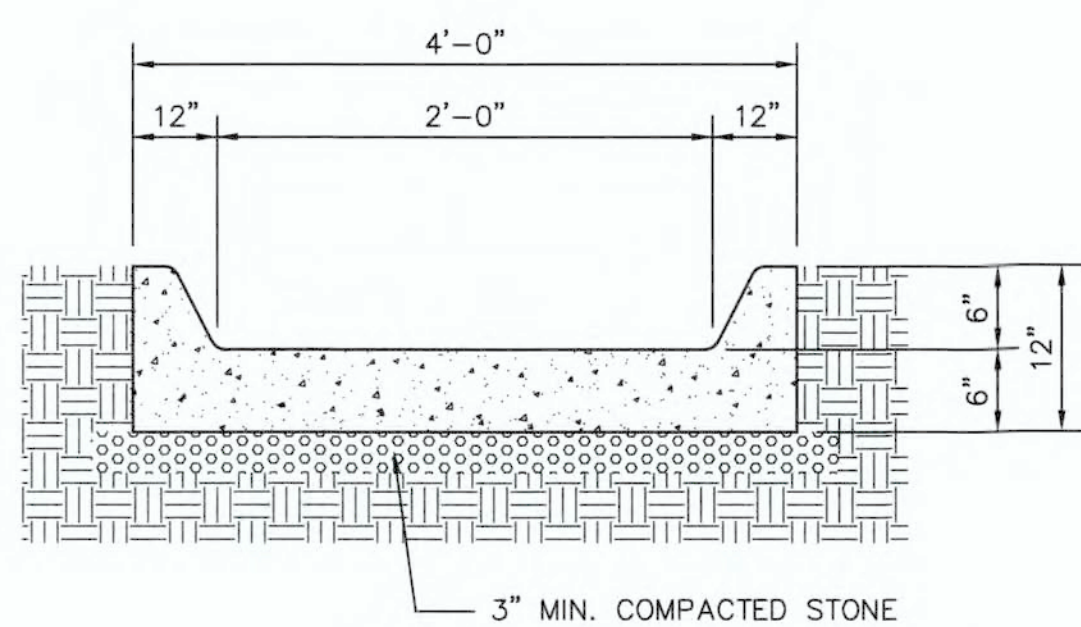
SEWER SHED # AND PLANT: \_\_\_\_\_

SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)

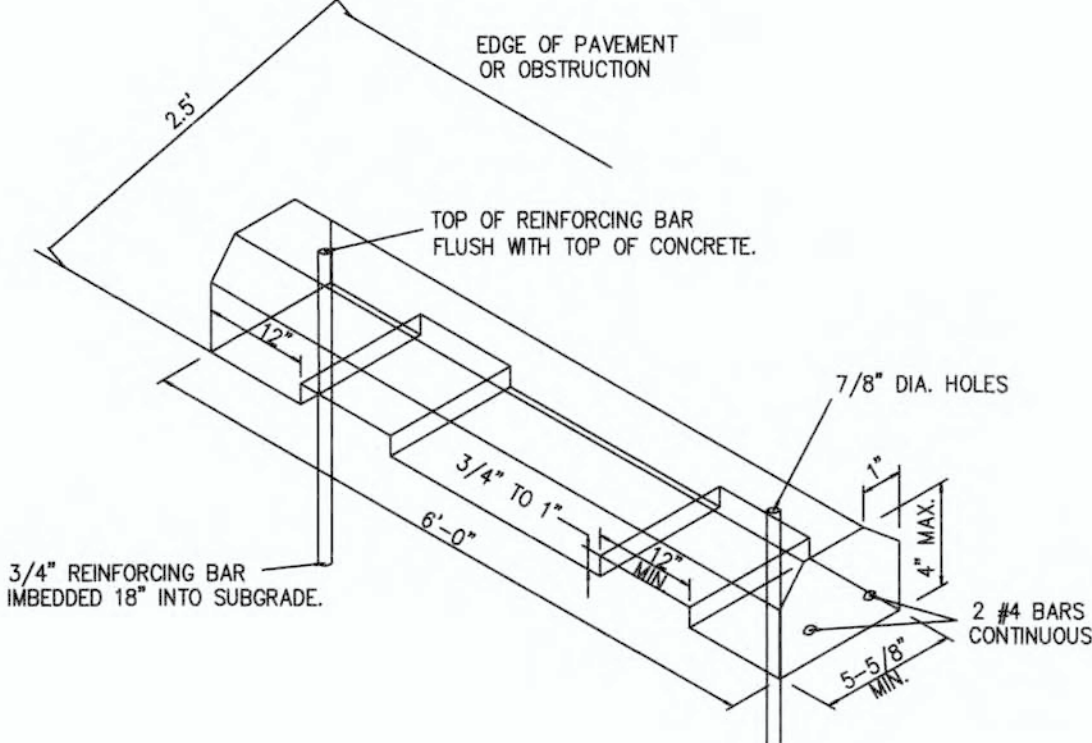
4 TYPICAL CATCH BASIN

5 TYPICAL DROP INLET

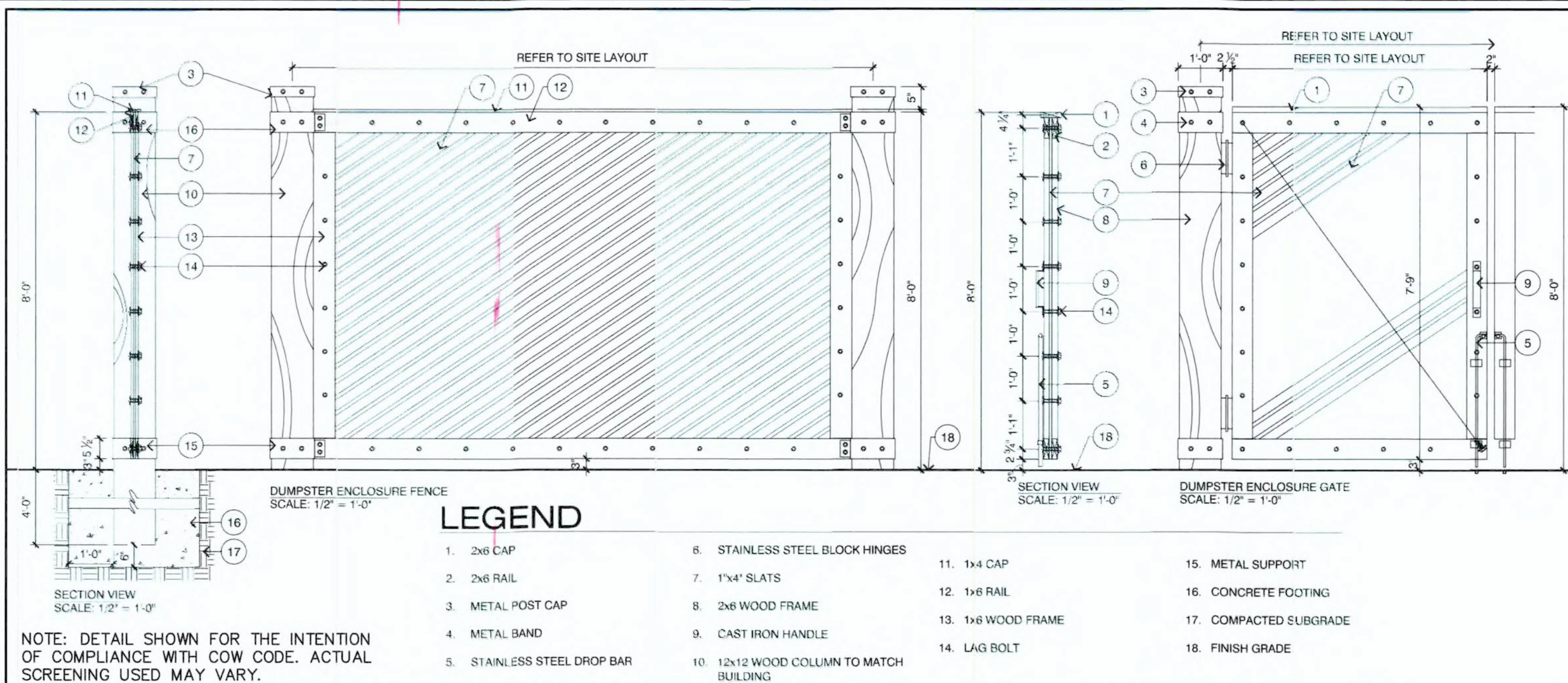
6 TYPICAL JUNCTION BOX



NOT TO SCALE



NOT TO SCALE



9 TYPICAL DUMPSTER SCREENING DETAIL

Approved Construction Plan  
**MODIFICATION**  
 Date: 12/7/21  
 # 2019065  
 SWP #: 2020023R1  
 PO, CW, ES, MB, BM

**LEGEND**

- |                             |   |                        |
|-----------------------------|---|------------------------|
| 1. 2x6 CAP                  | 8. STAINLESS STEEL BLOCK HINGES         | 11. 1x4 CAP            |
| 2. 2x6 RAIL                 | 9. 1x4 SLATS                            | 12. 1x6 RAIL           |
| 3. METAL POST CAP           | 10. 2x6 WOOD FRAME                      | 13. 1x6 WOOD FRAME     |
| 4. METAL BAND               | 11. CAST IRON HANDLE                    | 14. LAG BOLT           |
| 5. STAINLESS STEEL DROP BAR | 12. 12x12 WOOD COLUMN TO MATCH BUILDING | 15. METAL SUPPORT      |
|                             |   | 16. CONCRETE FOOTING   |
|                             |   | 17. COMPACTED SUBGRADE |
|                             |   | 18. FINISH GRADE       |

7 CONCRETE FLUME SECTION

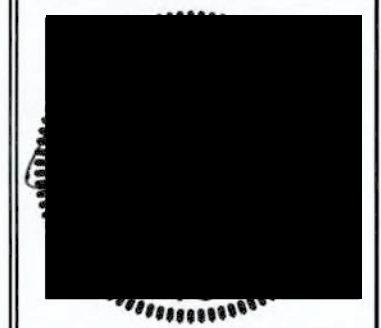
8 CONCRETE WHEEL STOPS

**NOTES AND DETAILS**  
 RENAISSANCE APARTMENTS  
 1025 ASHES DRIVE  
 WILMINGTON, N. C.

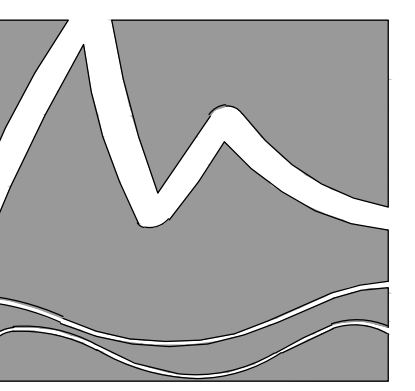
**OWNER/DEVELOPER**  
 HUDSON WILMINGTON  
 DEVELOPMENT, LLC  
 WILLIAM SCHOETTTELKOTTE,  
 MANAGER  
 1051 MILITARY CUTOFF RD.,  
 SUITE 200  
 WILMINGTON, NC 28405  
 910 880-0063

**NORRIS & TUNSTALL**  
 CONSULTING ENGINEERS P.C.  
 2602 IRON GATE DR., SUITE 102  
 WILMINGTON, NC 28412  
 PHONE (910) 343-9653  
 1429 ASH-LITTLE RIVER RD. NW  
 ASH, NC 28420  
 PHONE (910) 287-5900

Licence #C-3641  
**19021**  
 DES. JST  
 CRD. TJC  
 DRWN. NKS  
 DATE 10/4/21



**C4.4**



**MIHALY**  
LAND DESIGN  
PLANNING + LANDSCAPE ARCHITECTURE  
330 MILITARY CUT-OFF RD., SUITE A3  
WILMINGTON, NC 28405 910.392.4355

**Revisions**

2020-03-19: REVISED PER COW COMMENTS  
2021-02-18: REVISED PER UPDATED ENGINEER  
2021-03-16: REVISED PER COW COMMENTS  
2021-09-30: REVISED PER UPDATED ARCHITECTURE

**CLIENT**  
**HUDSON WILMINGTON DEVELOPMENT, LLC**  
1051 MILITARY CUTOFF ROAD, SUITE 200  
WILMINGTON, NC

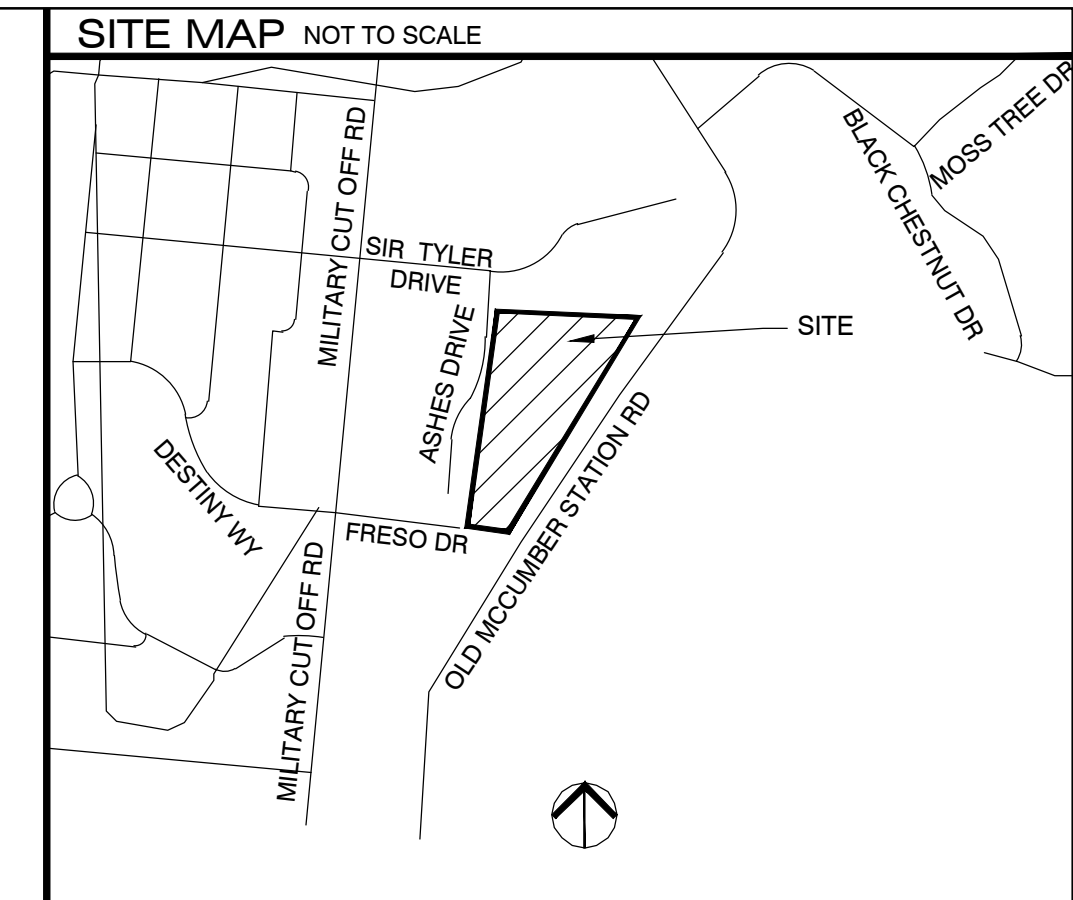
**PROJECT**  
**RENAISSANCE APARTMENTS**  
ASHES DRIVE  
WILMINGTON, NC  
LANDSCAPE PACKAGE

**PERMIT DRAWINGS**

Date: 2020-02-28  
Phase:  
Job Number: 400-20  
Designed by: MLD  
Drawn by: MAS  
Checked by: JWM

Sheet Title:  
OVERALL  
PLANTING PLAN

Sheet Number:  
**L3.0**  
of 4 sheets



**SITE DATA**

PARCEL ID	R05100-003-065-000
CURRENT OWNER:	HUDSON WILMINGTON DEVELOPMENT, LLC
TOTAL SITE AREA	8.80 AC (383,328 SF)
EXISTING ZONING	OS-1
PROPOSED ZONING	CDMU-MIXED USE
EXISTING LAND USE	VACANT
PROPOSED LAND USE	198 APARTMENTS
PROPOSED BUILDING HEIGHT	2,530 SF COMMERCIAL 46'-11"

**LANDSCAPE CALCULATIONS**

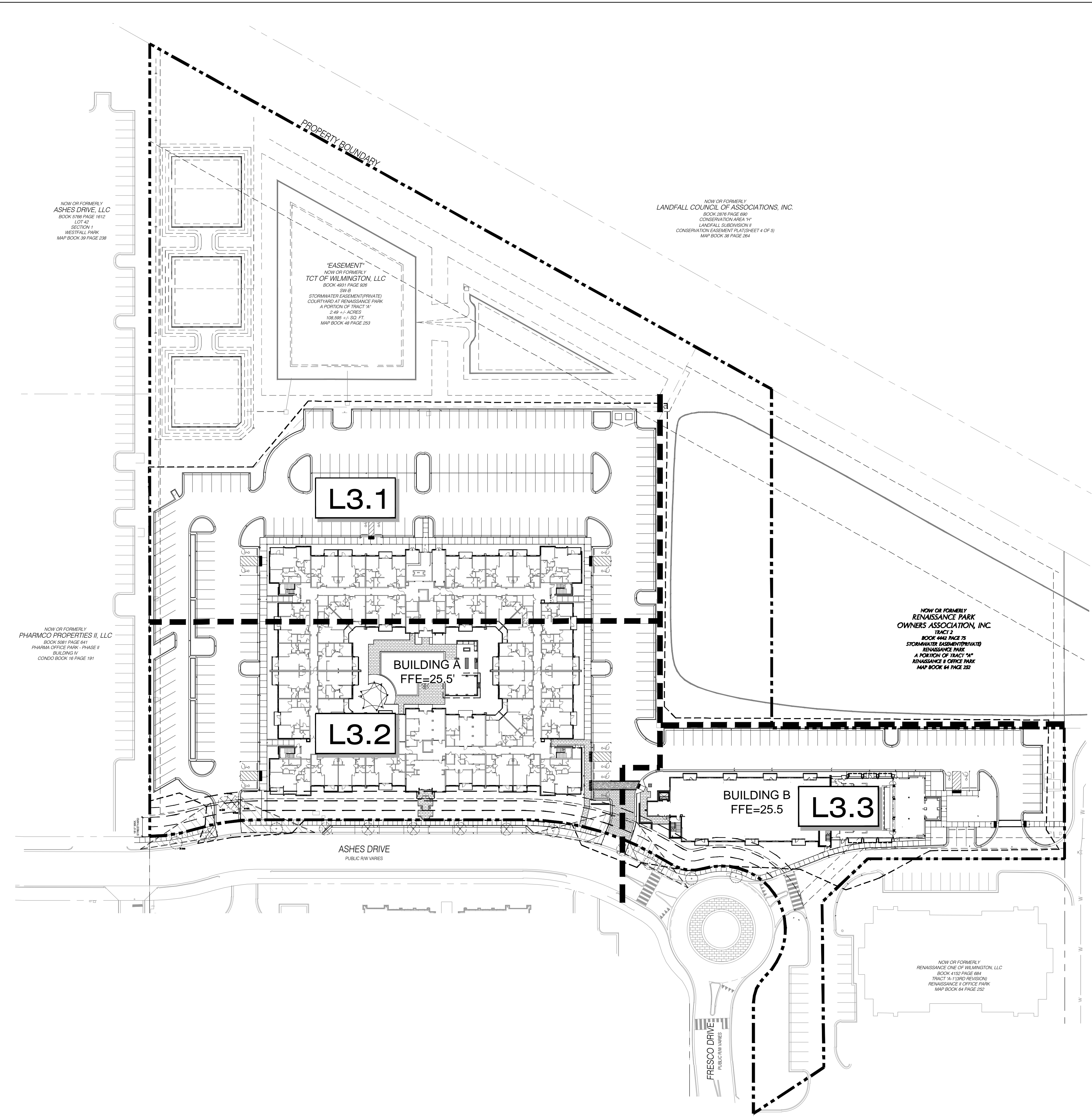
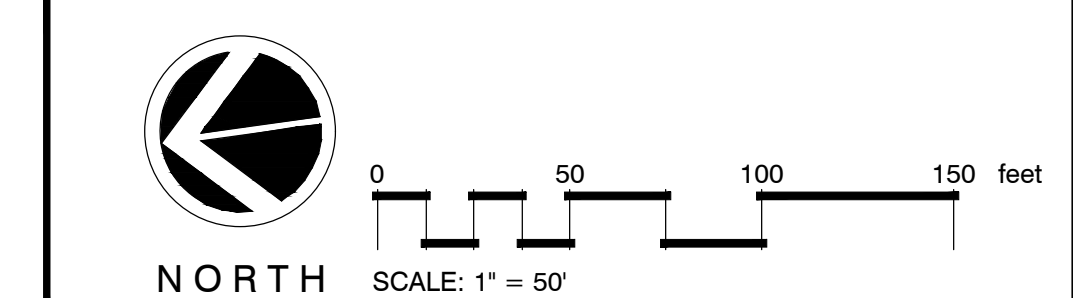
	REQUIRED	PROVIDED
<b>PARKING LOT CANOPY COVERAGE</b> (99,542 SF x 20%)	19,908 SF, 28 TREES	33 LARGE TREES, (707 SF x 33 = 23,331 SF)
<b>STREET YARD PLANTING</b> PRIMARY STREET YARD ASHES DRIVE	9,558 SF (531 LF x 18)	13,711 SF
TREES REQUIRED	16 (1/600 SF)	13 PROPOSED CANOPY TREES 9 UNDERSTORY TREES
SHRUBS REQUIRED	96 (6/600 SF)	395 PROPOSED SHRUBS
<b>FOUNDATION PLANTING</b> 12% FACADE AREA (ADJ. TO PARKING/DRIVE AISLE)		
BUILDING A		
NORTH	1,306 SF (232 LF x 46'-11" HT x 12)	1,297 SF
SOUTH	1,306 SF (232 LF x 46'-11" HT x 12)	1,308 SF
WEST	1,661 SF (295 LF x 46'-11" HT x 12)	1,661 SF
EAST	1,661 SF (295 LF x 46'-11" HT x 12)	1,628 SF
BUILDING B		
NORTH	383 SF (68 LF x 46'-11" HT x 12)	499 SF
SOUTH	383 SF (68 LF x 46'-11" HT x 12)	543 SF
WEST	1,300 SF (231 LF x 46'-11" HT x 12)	1,381 SF
EAST	1,300 SF (231 LF x 46'-11" HT x 12)	1,310 SF
<b>TREE REQUIREMENTS PER DISTURBED ACRE</b> 15 TREES PER DISTURBED ACRE MUST BE RETAINED OR PLANTED ON SITE.		
REQUIRED:	5.42 ACRES DISTURBED x 15 TREES = 81 TREES REQUIRED	
PROVIDED:	81 TREES PLANTED - REFER TO PLANTING LEGEND	
TOTAL:		81 TREES PROVIDED

**SHEET INDEX**

L3.0	OVERALL PLAN
L3.1	PLANTING PLAN
L3.2	PLANTING PLAN
L3.3	PLANTING PLAN

**SYMBOL LEGEND**

	PROPERTY BOUNDARY
	MATCHLINE
	RIGHT OF WAY LINE
	SITE TRIANGLE, TYP.



**Approved Construction Plan**  
**MODIFICATION**  
Date: 12/7/21  
# 2019065  
SWP #: 2020023R1  
PO, CW, ES, MB, BM

\*NOTE: PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING

NOW OR FORMERLY  
ASHES DRIVE, LLC  
BOOK 5768 PAGE 1612  
LOT 42  
SECTION 1  
WESTFALL PARK  
MAP BOOK 39 PAGE 238

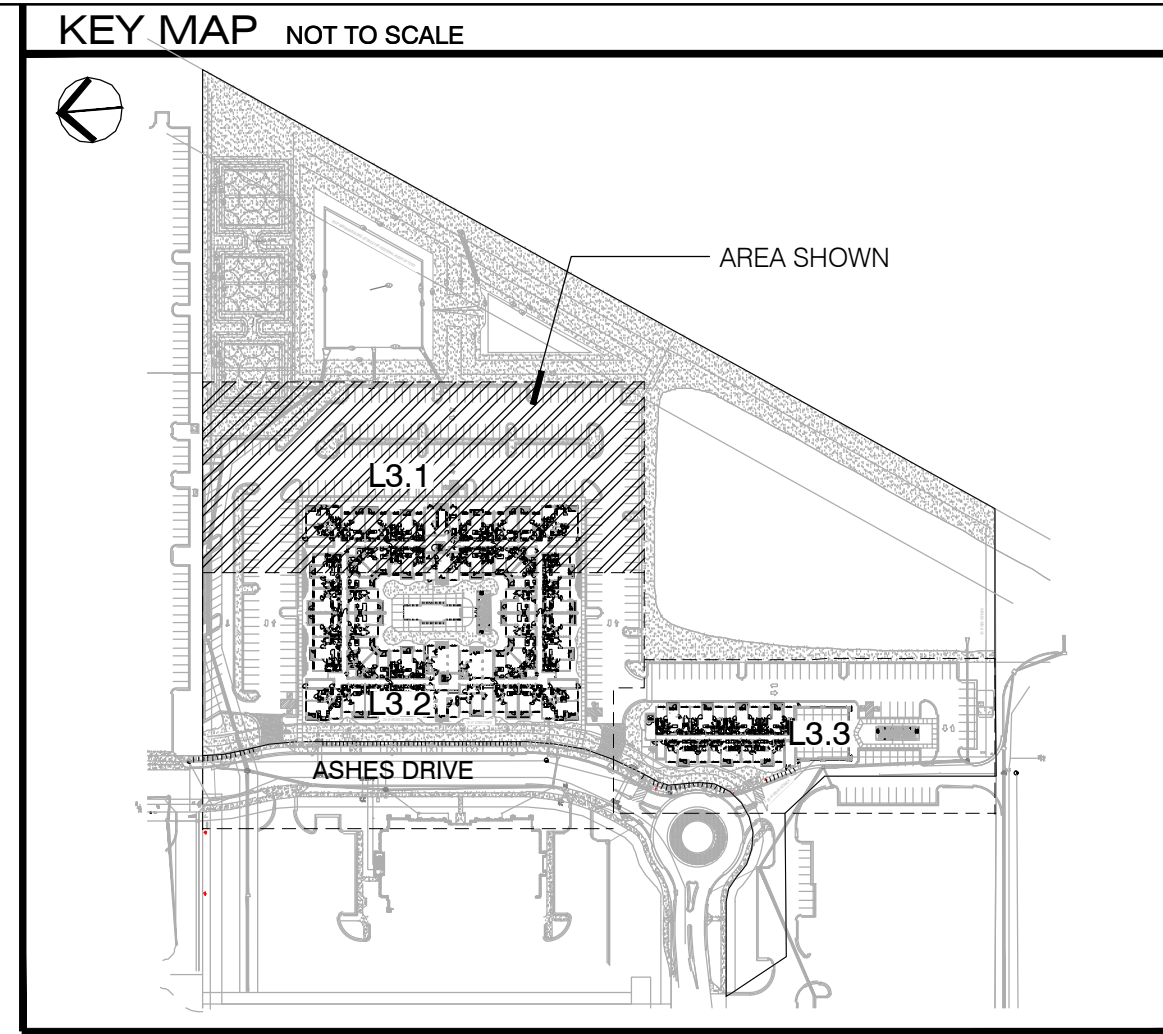
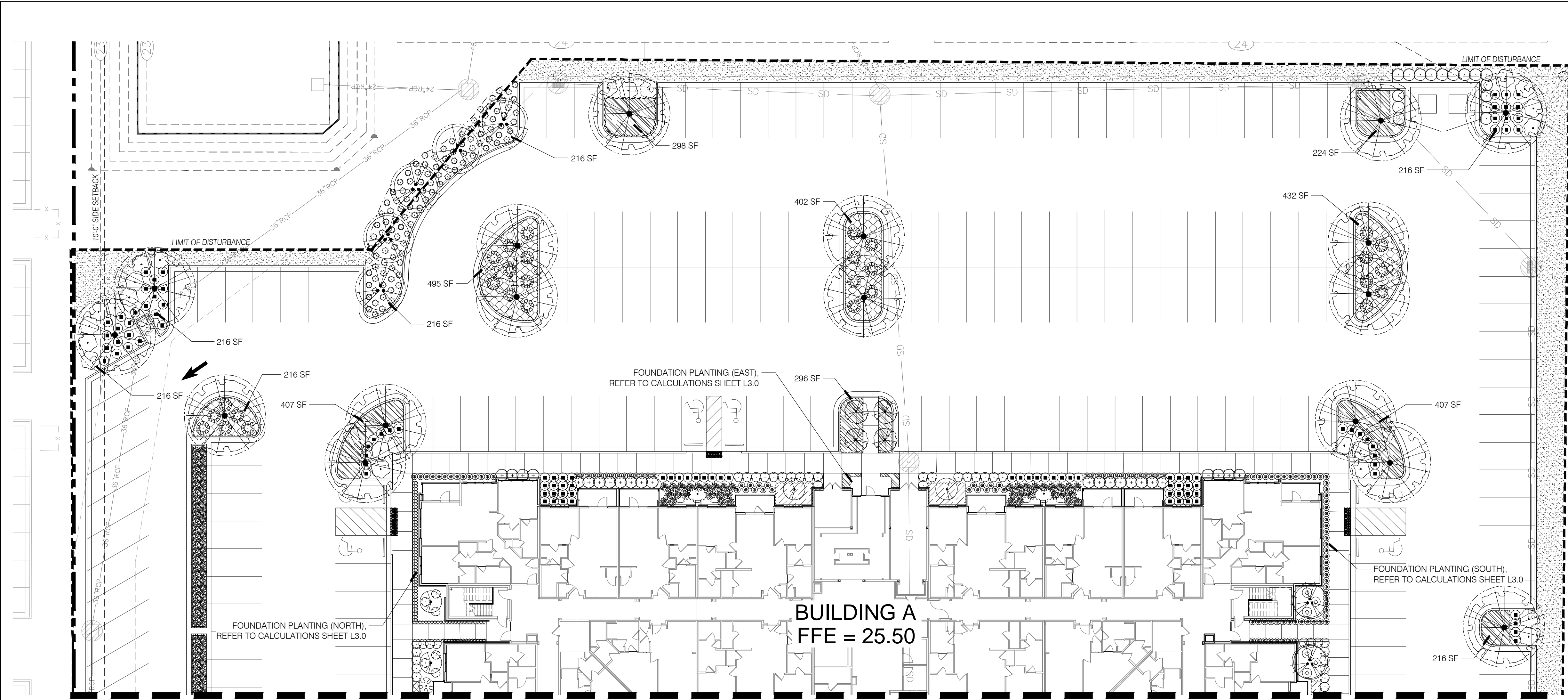
"EASEMENT"  
NOW OR FORMERLY  
TCT OF WILMINGTON, LLC  
BOOK 4817 PAGE 1028  
SHE 65  
STORMWATER EASEMENT (PRIVATE)  
COURTYARD AT RENAISSANCE PARK  
A PORTION OF TRACT "A"  
2.98 +/- ACRES  
108,889 +/- SQ. FT.  
MAP BOOK 48 PAGE 252

NOW OR FORMERLY  
LANDFALL COUNCIL OF ASSOCIATIONS, INC.  
BOOK 2818 PAGE 689  
CONSERVATION AREA 14"  
LANDFALL SUBDIVISION II  
CONSERVATION EASEMENT PLATSHEET 4 OF 9  
MAP BOOK 38 PAGE 264

NOW OR FORMERLY  
RENAISSANCE PARK  
OWNERS ASSOCIATION, INC.  
TRACT 2  
BOOK 4442 PAGE 75  
STORMWATER EASEMENT (PRIVATE)  
RENAISSANCE PARK  
A PORTION OF TRACT "A"  
RENAISSANCE I OFFICE PARK  
MAP BOOK 64 PAGE 232

NOW OR FORMERLY  
PHARMCO PROPERTIES II, LLC  
BOOK 5861 PAGE 641  
PHARMA OFFICE PARK - PHASE II  
BUILDING 10  
COMMO BOOK 16 PAGE 191

NOW OR FORMERLY  
RENAISSANCE ONE OF WILMINGTON, LLC  
BOOK 4152 PAGE 684  
TRACT "A" (1000 RESIDUAL)  
RENAISSANCE II OFFICE PARK  
MAP BOOK 64 PAGE 232



**Revisions**

2020-03-19	REVISED PER COW COMMENTS
2021-02-18	REVISED PER UPDATED ENGINEER
2021-03-16	REVISED PER COW COMMENTS
2021-09-30	REVISED PER UPDATED ARCHITECTURE

**CLIENT**  
**HUDSON WILMINGTON DEVELOPMENT, LLC**  
1051 MILITARY CUT-OFF ROAD, SUITE 200  
WILMINGTON, NC

**PROJECT**  
**RENAISSANCE APARTMENTS**  
ASHES DRIVE  
WILMINGTON, NC  
LANDSCAPE PACKAGE

**PERMIT DRAWINGS**

Date: 2020-02-28  
Phase:  
Job Number: 400-20  
Designed by: MLD  
Drawn by: MAS  
Checked by: JWM

Sheet Title:  
PLANTING PLAN

Sheet Number:  
**L3.1**  
of 4 sheets

**PLANT\_SCHEDULE\_L3.1**

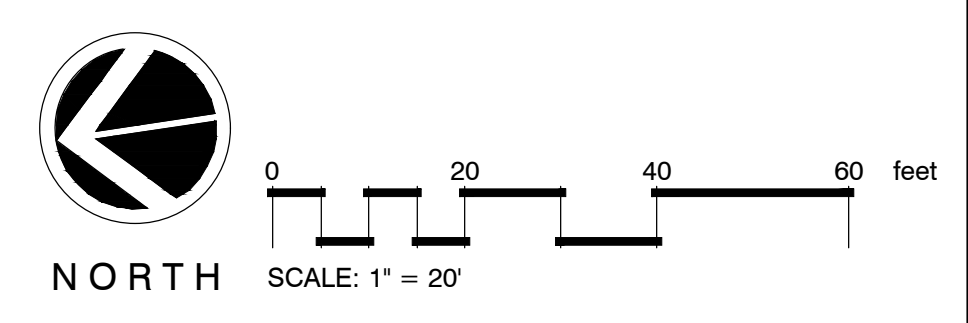
TREES	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	MIN. REQ. SIZE	QTY
	Betula nigra / River Birch 'Duraheat'	B & B	3" CAL		2-2.5" CAL.	5
	Lagerstroemia i. 'Muskegee' / Muskegee Crape Myrtle SINGLE STEM	B&B	3" CAL		2-2.5" CAL.	4
	Quercus virginiana / Southern Live Oak	B & B	4" CAL		2-2.5" CAL.	17
	Vitex agnus-castus 'Shoal Creek' / Chaste Tree	25 GAL		7-8' HT		2
SHRUBS	BOTANICAL / COMMON NAME	CONT	SIZE	MIN. REQ. SIZE	QTY	
	Aspidistra elatior / Cast Iron Plant	1 gal	15-18" HT	12" HT		118
	Buxus m. 'Wintergreen' / 7 gal. Boxwood	7 gal	18-24" HT	12" HT		37
	Dryopteris erythrosora / Autumn Fern	3 gal	15-18" HT	12" HT		15
	Fatsia japonica / Japanese Fatsia	7 gal	24-30" HT	12" HT		1
	Gardenia jasminoides 'Radicans' / Gardenia	3 gal	12-18" HT	12" HT		28
	Hydrangea m. 'Nikko Blue' / Nikko Blue Hydrangea	3 gal	18-24" HT	12" HT		6
	Hydrangea paniculata 'Little Lime' / Little Lime Hydrangea	3 gal	18-24" HT	12" HT		6
	Ilex vomitoria / Tree Form Yaupon Holly	B&B	7-8' HT			6
	Ilex vomitoria 'Nana' / Dwarf Yaupon	3 gal	15-18" HT	12" HT		105
	Ligustrum j. 'Recurvifolium' / Wax leaf ligustrum	7 gal	36" HT	3' HT		16
	Ligustrum japonicum / Tree Form Ligustrum	B&B	8' HT			6
	Muhlenbergia capillaris / Pink Muhly	3 gal	18-24" HT	12" HT		102

	Nandina domestica 'Harbour Dwarf' / Dwarf Heavenly Bamboo	3 gal	12-18" HT	12" HT		90
	Panicum virgatum / Switch Grass	3 gal	24-30" HT	12" HT		115
	Podocarpus macrophyllus maki / Shubby Yew	7 gal	3-4' HT	12" HT		24
	Sabal minor / Dwarf Palmetto	3 gal	18-24" HT	12" HT		29
	Viburnum odoratissimum / Sweet Viburnum	15 gal	36"-48" HT	12" HT		24
GROUND COVERS	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	QTY	
	Liriope gigantea / Giant Liriope	1 GAL	12-18" HT	24" o.c.	284	
	Ruellia brittoniana / Mexican Petunia	3 gal	15-24" HT	24" o.c.	46	
	Trachelospermum a. 'Asiatic' / Asiatic Jasmine	1 qt	6-12" HT	12" o.c.	1,206	
SOD/SEED	BOTANICAL / COMMON NAME	CONT	SIZE	SPACING	QTY	
	Zoysia japonica 'Crown' / Korean Grass	sod				

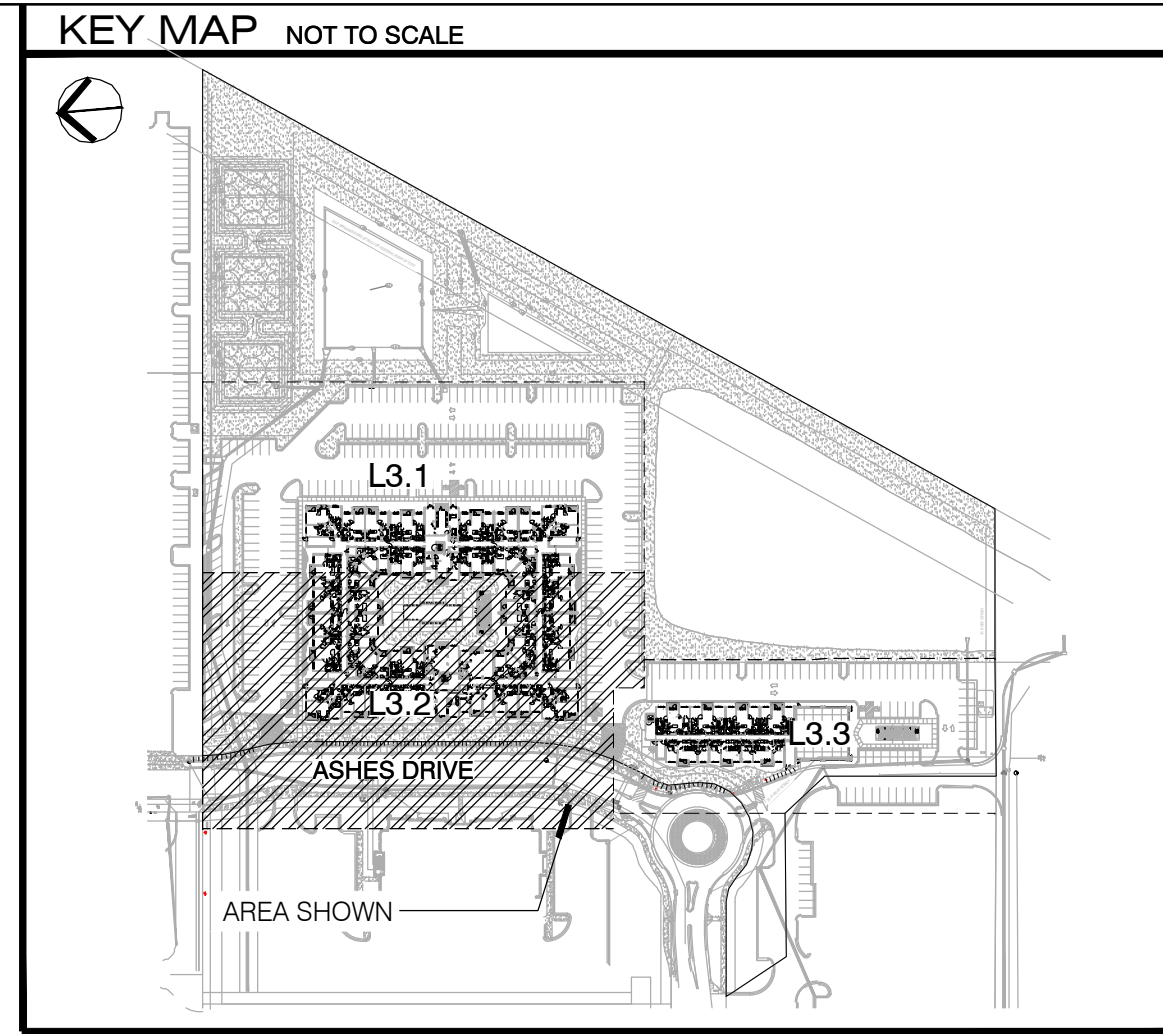
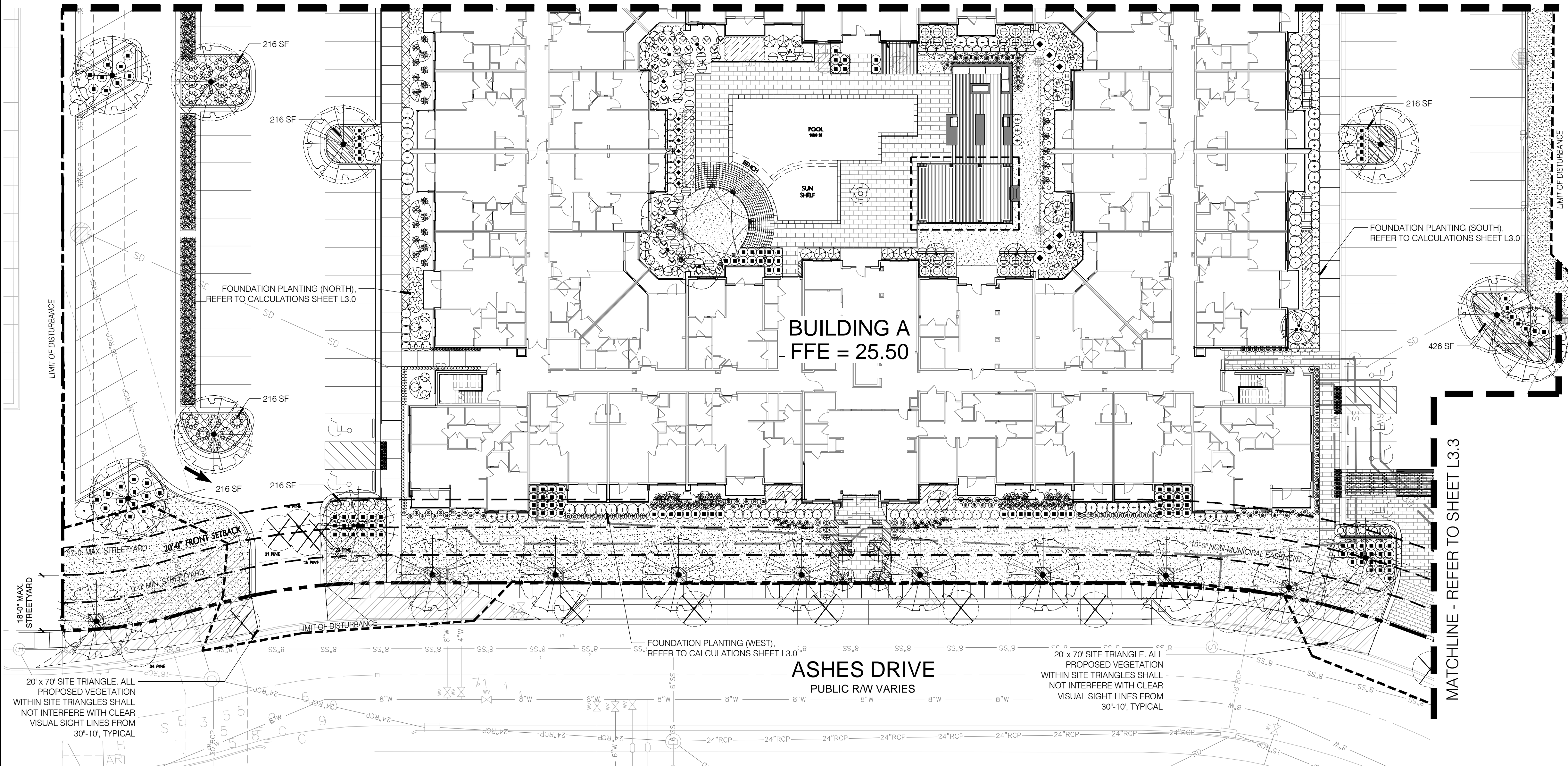
**Approved Construction Plan**  
**MODIFICATION**  
Date: 12/7/21  
# 2019065  
SWP #: 2020023R1  
PO, CW, ES, MB, BM

**SYMBOL LEGEND**

	PROPERTY BOUNDARY		TREES UTILIZED TO MEET PARKING LOT ISLAND SHADE REQUIREMENTS
	MATCHLINE		
	RIGHT OF WAY LINE		
	LIMIT OF DISTURBANCE		



MATCHLINE - REFER TO SHEET L3.1



**Revisions**

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1051 MILITARY CUT-OFF ROAD, SUITE 200  
WILMINGTON, NC

**PROJECT**  
**RENAISSANCE APARTMENTS**  
ASHES DRIVE  
WILMINGTON, NC  
LANDSCAPE PACKAGE

**PERMIT DRAWINGS**

Date: 2020-02-28  
Phase:  
Job Number: 400-20  
Designed by: MLD  
Drawn by: MAS  
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Sheet Title: PLANTING PLAN

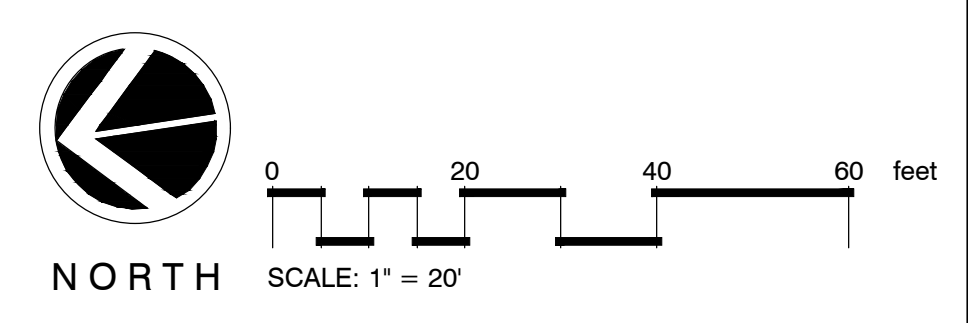
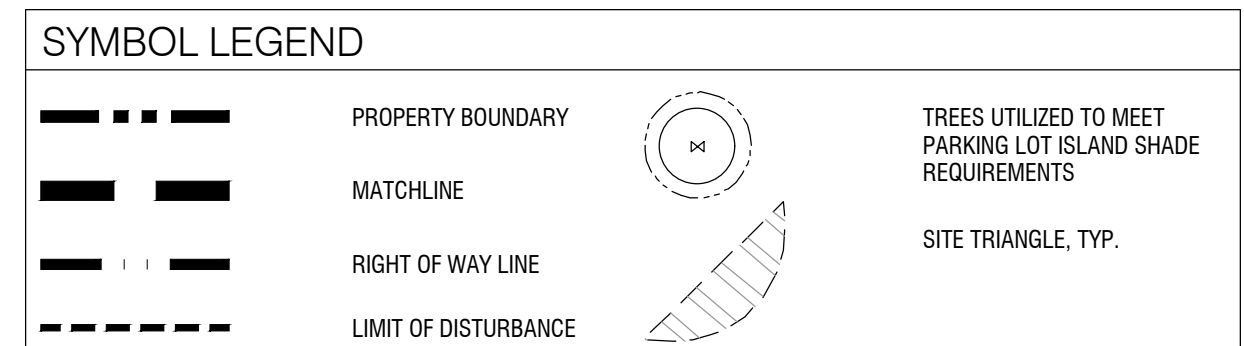
Sheet Number:  
**L3.2**  
of 4 sheets

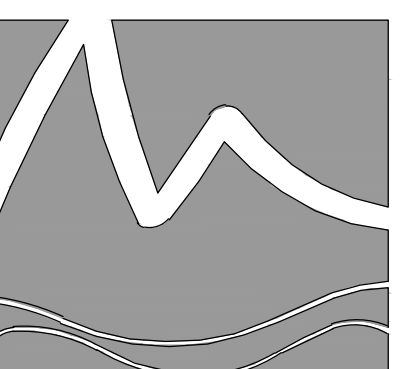
**PLANT\_SCHEDULE\_L3.2**

TREES	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	MIN. REQ. SIZE	QTY
	<i>Bulla capitata</i> / Pindo Palm 5 CLEAR TRUNK	B & B		8-10' HT		6
	<i>Lagerstroemia l.</i> 'Muskoegee' / Muskoegee Crape Myrtle SINGLE STEM	B&B	3" CAL		2-2.5' CAL.	4
	<i>Lagerstroemia l.</i> 'Pink Velour' / Pink Velour Crape Myrtle	25 GAL	1-1.5" CAL	6-7' HT.		3
	<i>Quercus virginiana</i> / Southern Live Oak	B & B	4" CAL		2-2.5' CAL.	19
	<i>Vitex agnus-castus</i> 'Shoal Creek' / Chaste Tree	25 GAL		7-8' HT		1
SHRUBS	BOTANICAL / COMMON NAME	CONT	SIZE		MIN. REQ. SIZE	QTY
	<i>Aspidistra elatior</i> / Cast Iron Plant	1 gal	15-18" HT	12" HT		91
	<i>Buddleja davidii</i> 'Blue Chip' / Dwarf Butterfly Bush	3 gal	12-18" HT	12" HT		12
	<i>Buxus m.</i> 'Wintergreen' / 7 gal. Boxwood	7 gal	18-24" HT	12" HT		81
	<i>Colocasia esculenta</i> 'Blue Hawaii' / Elephant Ears	1 gal	15-18" HT			6
	<i>Dryopteris erythrosora</i> / Autumn Fern	3 gal	15-18" HT	12" HT		17
	<i>Fatsia japonica</i> / Japanese Fatsia	7 gal	24-30" HT	12" HT		19
	<i>Gardenia j.</i> 'Frostproof' / Frostproof Gardenia	3 gal	18-24" HT	12" HT		6
	<i>Gardenia jasminoides</i> 'Radicans' / Gardenia	3 gal	12-18" HT	12" HT		28
	<i>Hemerocallis x</i> 'Stella de Oro' / Stella de Oro Daylily	1 gal	12-15" HT			20
	<i>Hydrangea m.</i> 'Nikko Blue' / Nikko Blue Hydrangea	3 gal	18-24" HT	12" HT		6
	<i>Hydrangea paniculata</i> 'Little Lime' / Little Lime Hydrangea	3 gal	18-24" HT	12" HT		3
	<i>Ilex vomitoria</i> / Tree Form Yaupon Holly	B&B		7-8' HT		6
	<i>Ilex vomitoria</i> 'Nana' / Dwarf Yaupon	3 gal	15-18" HT	12" HT		150
	<i>Ligularia tussockiana</i> 'Gigantea' / Giant Leopard Plant	3 gal	15-24" HT			23

	<i>Ligustrum j.</i> 'Recurvifolium' / Wax leaf Ligustrum	7 gal	36" HT	3' HT		14
	<i>Ligustrum japonicum</i> / Tree Form Ligustrum	B&B	8' HT			16
	<i>Mahonia e.</i> 'Soft Caress' / Mahonia Soft Caress	3 gal	18-24" HT	12" HT		13
	<i>Miscanthus s.</i> 'Adagio' / Adagio Eulalia Grass	3 gal	18-24" HT	12" HT		48
	<i>Miscanthus s.</i> 'Gracillimus' / Maiden Grass	3 gal	18-24" HT	12" HT		10
	<i>Muhlenbergia capillaris</i> / Pink Muhly	3 gal	18-24" HT	12" HT		118
	<i>Musa acuminata</i> / Banana IN IPE PLANTERS	7 gal	24-30" HT			11
	<i>Nandina domestica</i> 'Harbour Dwarf' / Dwarf Heavenly Bamboo	3 gal	12-18" HT	12" HT		79
	<i>Pittosporum tobira</i> 'Wheeler's Dwarf' / Dwarf Pittosporum	3 gal	12-15" HT	12" HT		40
	<i>Podocarpus macrophyllus</i> maki / Shubby Yew	7 gal	3-4' HT	12" HT		52
	<i>Rhapidois x</i> 'Montic' / MB Indian Hawthorn	7 gal	24-30" HT	12" HT		24
	<i>Rhapidois x</i> 'Needle Palm' / Needle Palm	7 gal	24-36" HT	12" HT		9
	Rosa Climbing Roses 'Constance Spray' / Constance Spray Climbing Rose	3 gal	24-36" HT			3
	Rosa x 'Knockout' TM / Rose	3 gal	18-24" HT	12" HT		7
	<i>Sabal minor</i> / Dwarf Palmetto	3 gal	18-24" HT	12" HT		16
	<i>Viburnum odoratissimum</i> / Sweet Viburnum	15 gal	36"-48" HT	12" HT		15
GROUND COVERS	BOTANICAL / COMMON NAME	CONT	SIZE		SPACING	QTY
	<i>Echinacea purpurea</i> / Purple Coneflower	1 gal	12-15" HT		18" o.c.	34
	<i>Liriodendron giganteum</i> / Giant Liriodendron	1 GAL	12-18" HT		24" o.c.	170
	<i>Ophiopogon japonicus</i> / Mondo Grass	1 GAL	6-12" HT		9" o.c.	288
	Perennial & Annual Color	--				99 sf
	<i>Petunia brittoniana</i> / Mexican Petunia	3 gal	15-24" HT		24" o.c.	102
	<i>Salvia pachyphylla</i> / Blue Sage	1 gal	6-12" HT		18" o.c.	34

	<i>Trachelospermum a.</i> 'Asiatic' / Asiatic Jasmine	1 qt	6-12" HT		12" o.c.	716
SOD/SEED	BOTANICAL / COMMON NAME	CONT	SIZE		SPACING	QTY
	<i>Zoyis japonica</i> 'Crown' / Korean Grass	sod				





**MIHALY**  
LAND DESIGN  
PLANNING + LANDSCAPE ARCHITECTURE  
330 MILITARY CUT-OFF RD., SUITE A3  
WILMINGTON, NC 28405 910.392.4355

**Revisions**  
2020-03-19: REVISED PER COW COMMENTS  
2021-02-18: REVISED PER LICENSED ENGINEER  
2021-03-16: REVISED PER COW COMMENTS  
2021-09-30: REVISED PER UPDATED ARCHITECTURE

**CLIENT**  
**HUDSON WILMINGTON DEVELOPMENT, LLC**  
1051 MILITARY CUT-OFF ROAD, SUITE 200  
WILMINGTON, NC

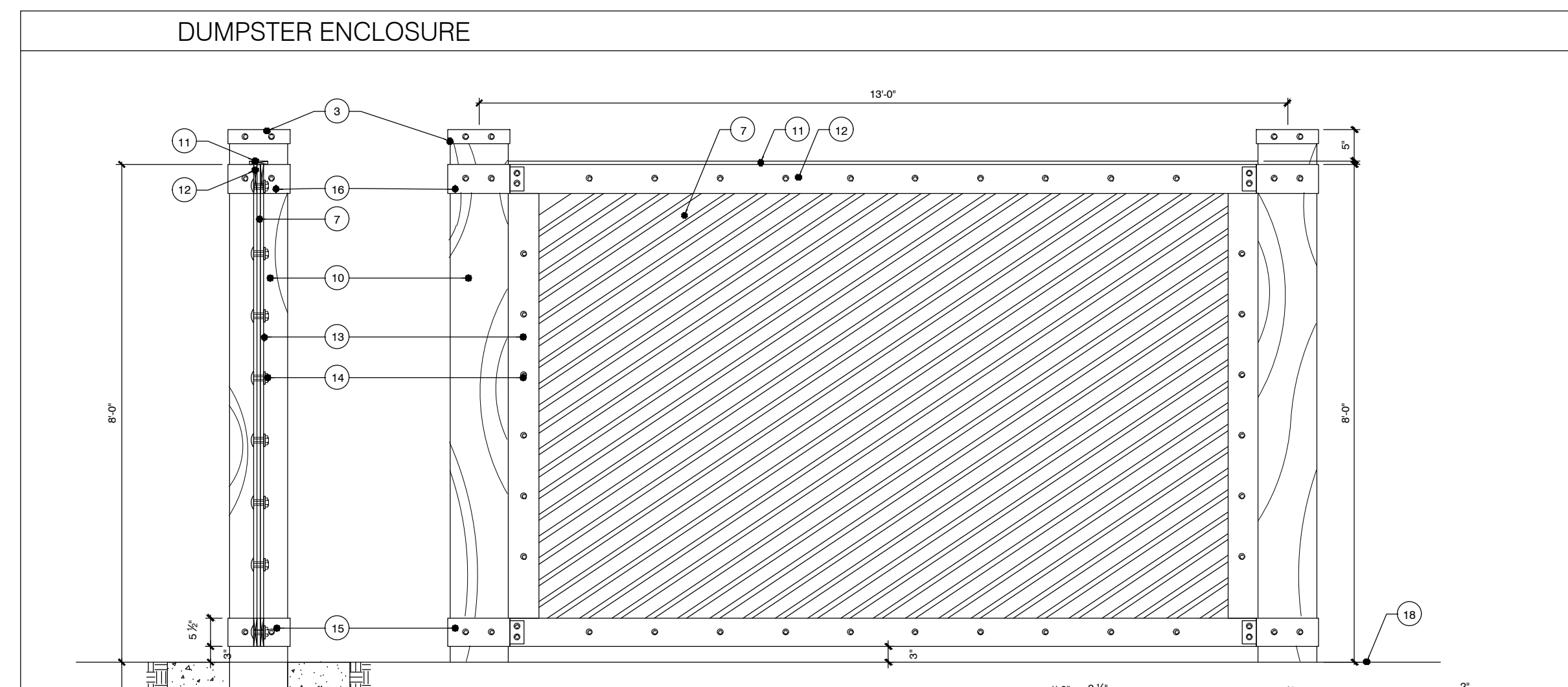
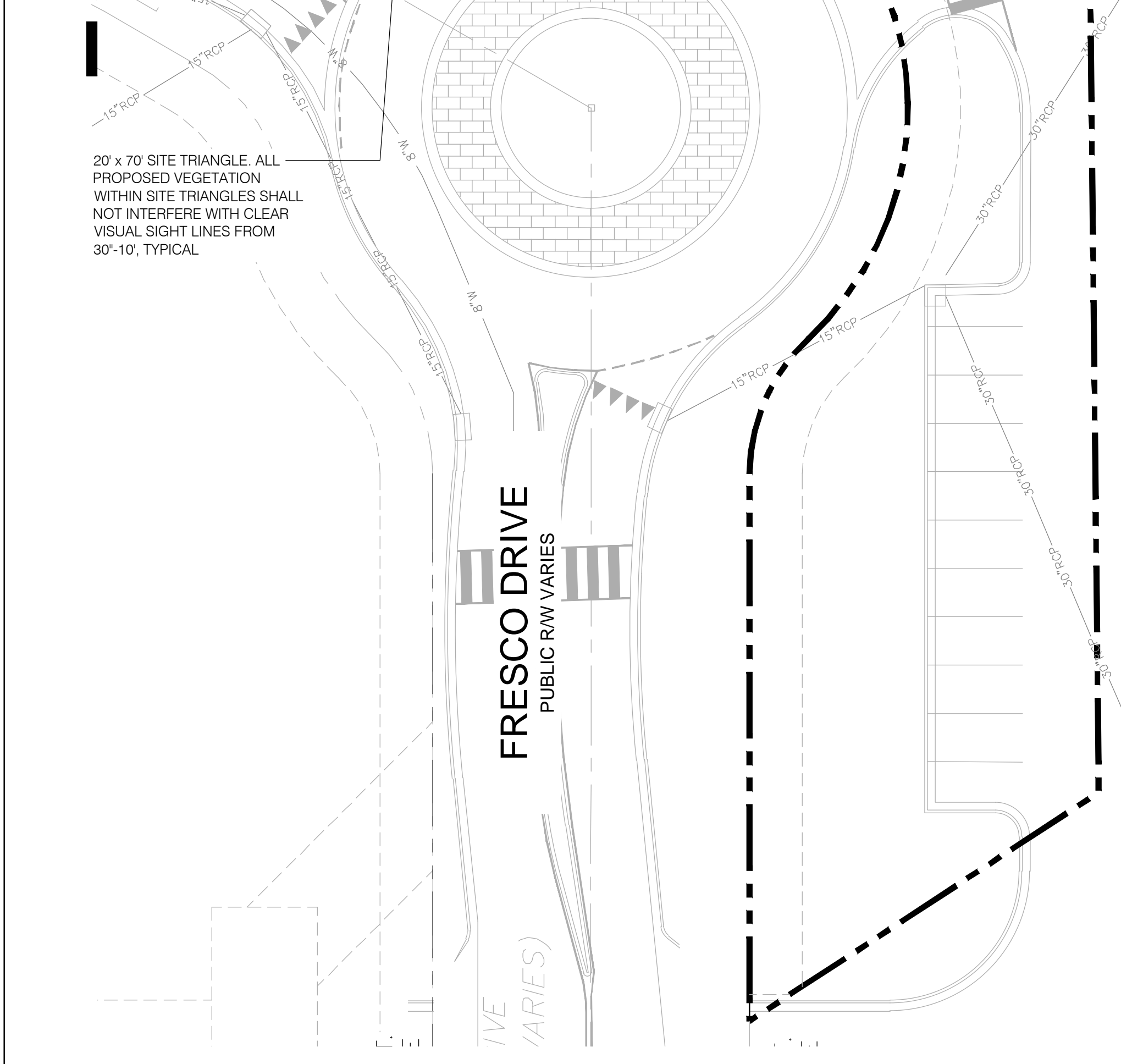
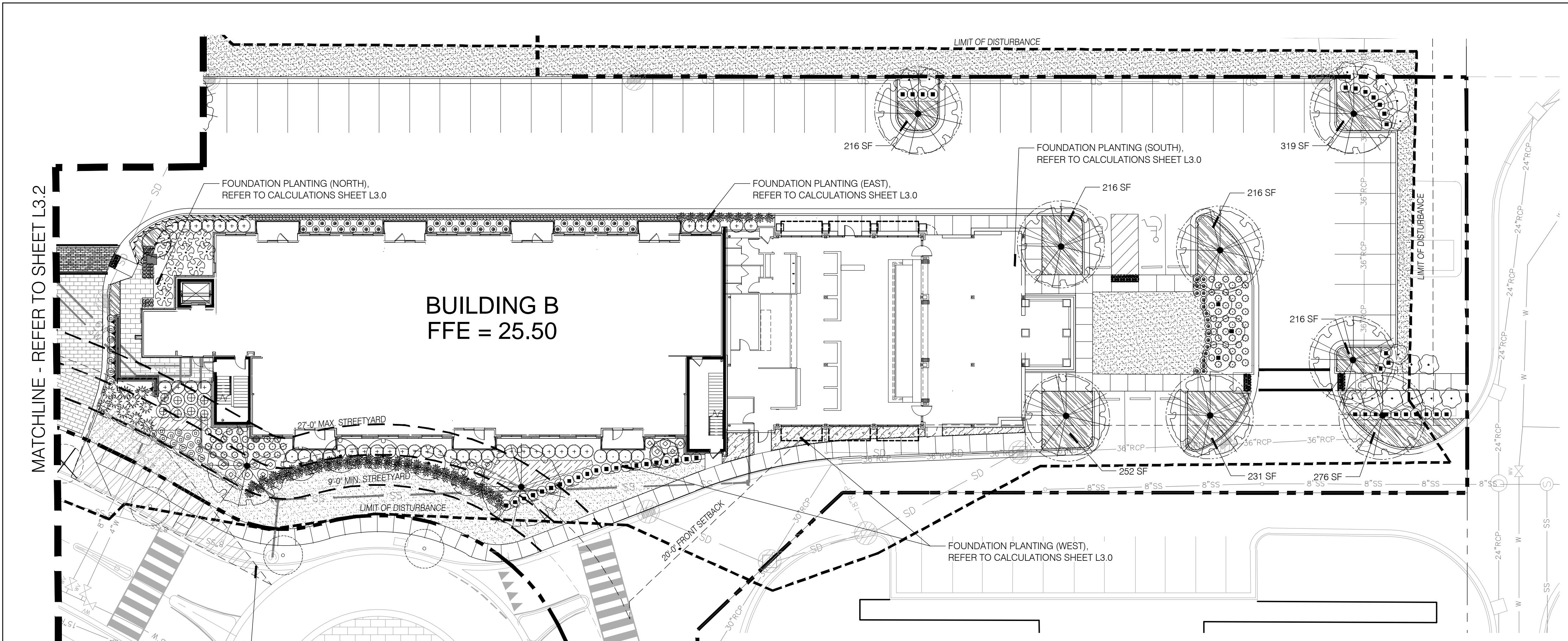
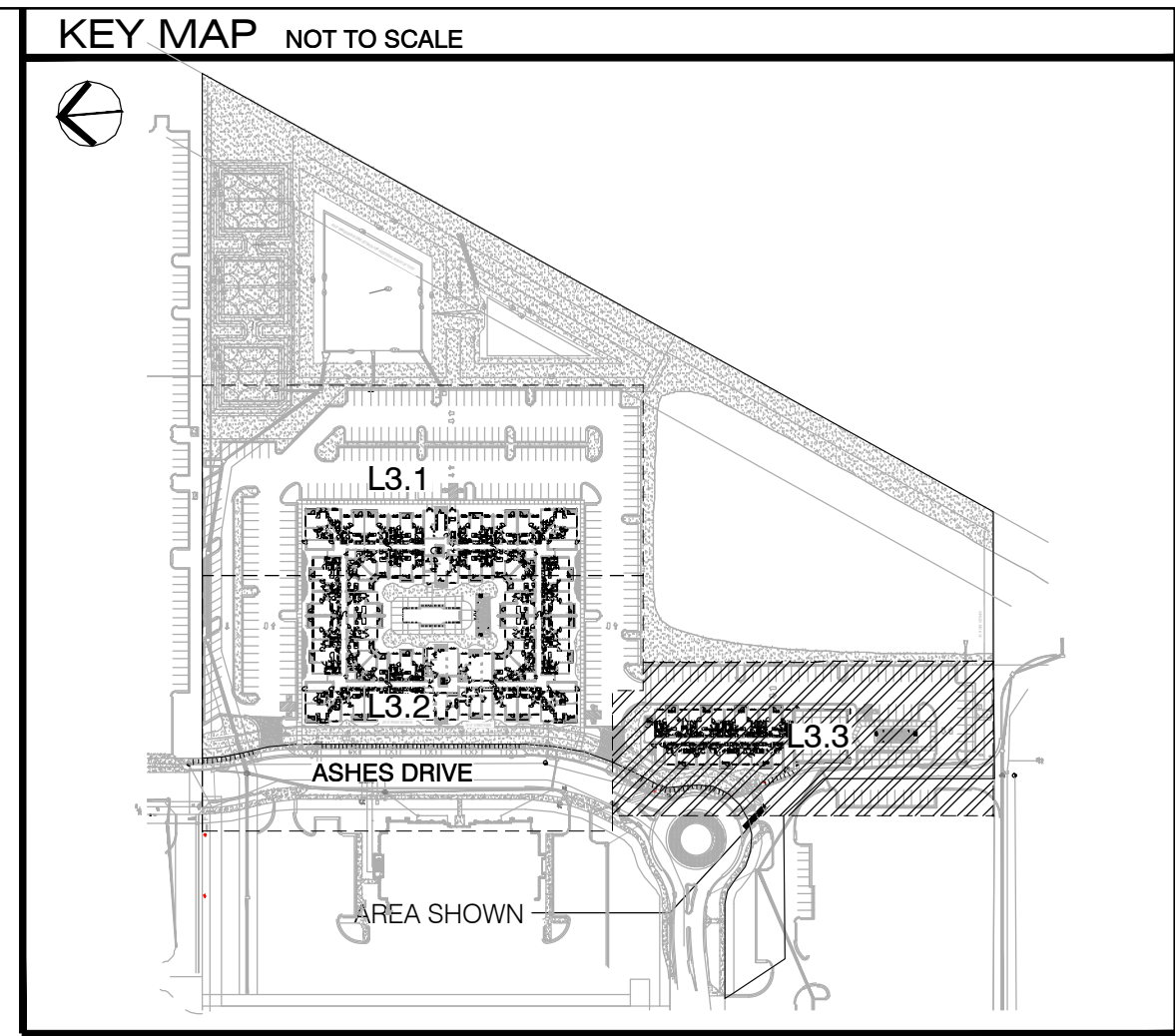
**PROJECT**  
**RENAISSANCE APARTMENTS**  
ASHES DRIVE  
WILMINGTON, NC  
LANDSCAPE PACKAGE

**PERMIT DRAWINGS**

Date: 2020-02-28  
Phase:  
Job Number: 400-20  
Designed by: MLD  
Drawn by: MAS  
Checked by: JWM

Sheet Title:  
PLANTING PLAN

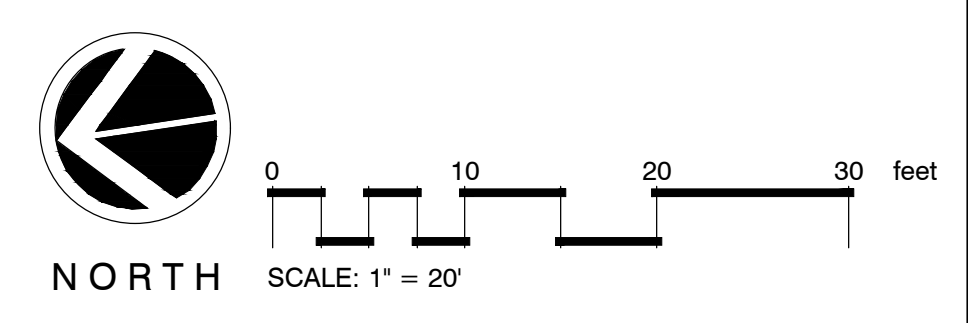
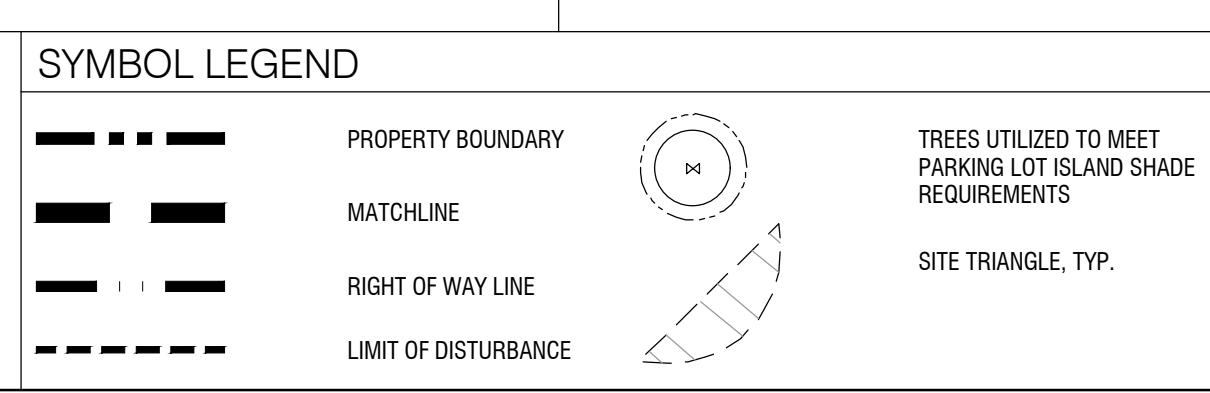
Sheet Number:  
**L3.3**  
of 4 sheets



- LEGEND**
- |                                 |   |
|---------------------------------|---|
| 1. 2x6 CAP                      | 10. 12x12 WOOD COLUMN TO MATCH BUILDING |
| 2. 2x6 RAIL                     | 11. 1x4 CAP                             |
| 3. METAL POST CAP               | 12. 1x6 RAIL                            |
| 4. METAL BAND                   | 13. 1x6 WOOD FRAME                      |
| 5. STAINLESS STEEL DROP BAR     | 14. LAG BOLT                            |
| 6. STAINLESS STEEL BLOCK HINGES | 15. METAL SUPPORT                       |
| 7. 1"x4" SLATS                  | 16. CONCRETE FOOTING                    |
| 8. 2x6 WOOD FRAME               | 17. COMPACTED SUBGRADE                  |
| 9. CAST IRON HANDLE             | 18. FINISH GRADE                        |

**PLANT SCHEDULE L3.3**

TREES	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	MIN. REQ. SIZE	QTY
	Acer palmatum / Green Leaf Japanese Maple	15 gal	1.5" CAL	5-6' HT		2
	Ilex cassine / Dahoon Holly	8 & B		8-10' HT		3
	Ilex x a. 'Eagleston' / Eagleston Holly	8&B		8-10' HT		5
	Quercus virginiana / Southern Live Oak	8 & B	4" CAL		2-2.5" CAL	10
SHRUBS	BOTANICAL / COMMON NAME	CONT	SIZE		MIN. REQ. SIZE	QTY
	Aspidistra elatior / Cast Iron Plant	1 gal	15-18" HT	12" HT		256
	Dryopteris erythrosora / Autumn Fern	3 gal	15-18" HT	12" HT		27
	Fatsia japonica / Japanese Fatsia	7 gal	24-30" HT	12" HT		10
	Hydrangea paniculata 'Little Lime' / Little Lime Hydrangea	3 gal	18-24" HT	12" HT		17
	Ilex vomitoria 'Nana' / Dwarf Yaupon	3 gal	15-18" HT	12" HT		45
	Ligustrum   'Recurvifolium' / Wax leaf ligustrum	7 gal	36" HT	3' HT		12
	Muhlenbergia capillaris / Pink Muhly	3 gal	18-24" HT	12" HT		64
	Nandina domestica 'Harbour Dwarf' / Dwarf Heavenly Bamboo	3 gal	12-18" HT	12" HT		58
	Panicum virgatum / Switch Grass	3 gal	24-30" HT	12" HT		68
	Podocarpus macrophyllus maki / Shrubby Yew	7 gal	3-4' HT	12" HT		33
	Rhaphiolepis x 'Montic' / MB Indian Hawthorn	7 gal	24-30" HT	12" HT		8
	Rosa x 'Meigalpio' / Red Drift Rose	3 gal	12-15" HT	12" HT		22
	Sabal minor / Dwarf Palmetto	3 gal	18-24" HT	12" HT		10
	Trachelospermum jasminoides 'Confederate' / Confederate Jasmine	3 gal	18-24" HT	12" HT		6
	Viburnum odoratissimum / Sweet Viburnum	15 gal	36"-48" HT	12" HT		16
GROUND COVERS	BOTANICAL / COMMON NAME	CONT	SIZE		SPACING	QTY
	Equisetum arvense / Field Horsetail	1 gal	6" HT.		6" o.c.	1,159
	Liriope gigantea / Giant Liriope	1 GAL	12-18" HT		24" o.c.	391
	Ruellia brittoniana / Mexican Petunia	3 gal	15-24" HT		24" o.c.	67
SOD/SEED	BOTANICAL / COMMON NAME	CONT	SIZE			QTY
	Zoysia japonica 'Crowne' / Korean Grass	sod				



**Approved Construction Plan**  
**MODIFICATION**  
Date: 12/7/21  
# 2019065  
SWP #: 2020023R1  
PO, CW, ES, MB, BM