

ZONING SHOD

MAYFAIRE DEVELOPMENT

MILITARY CUTOFF ROAD
(PUBLIC)
(S.R. 1409 A 100' R/W)

PROPOSED RENAISSANCE II TRACT "A-4"
3.16 ACRES

PROPOSED RENAISSANCE III TRACT "A-5"
5.55 ACRES

PROPOSED 60' PUBLIC R/W
1.63 ACRES

EXISTING STORMWATER TREATMENT SYSTEM

EXISTING POND

PROPERTY ADDRESS:
1069 MILITARY CUTOFF RD.
PARCEL #R05100-003-065-000
MAP ID #315706498929000

RENAISSANCE PARK (EXISTING)

TRACT "A"	21.35 AC
TRACT "A-1" R	2.16 AC
TRACT "A-2" R	1.40 AC
TRACT "A-3"	2.55 AC
FUTURE PUBLIC R/W (ACCESS EASEMENT)	0.73 AC
REMAINDER OF TRACT "A"	14.51 AC
SW-A (2.49 AC)	
SW-B (2.35 AC)	
REMAINDER (9.67)	

RENAISSANCE PARK (PROPOSED)

TRACT "A"	21.35 AC
TRACT "A-1" R	2.16 AC
TRACT "A-2" R	1.40 AC
TRACT "A-3"	2.55 AC
FUTURE PUBLIC R/W (R)	1.69 AC
REMAINDER OF TRACT "A" (R)	13.55 AC
SW-A (2.49 AC)	
SW-B (2.35 AC)	
TRACT "A-4" (3.16 AC)	
TRACT "A-5" (5.55 AC)	

THIS PROPERTY IS LOCATED IN ZONE "C" AREAS OF MINOR FLOODING ACCORDING TO FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 370168 0010 0128 DATE SEPTEMBER 3, 1992.

LANDFALL ASSOCIATES
DEED BOOK 1514 PAGE 1564

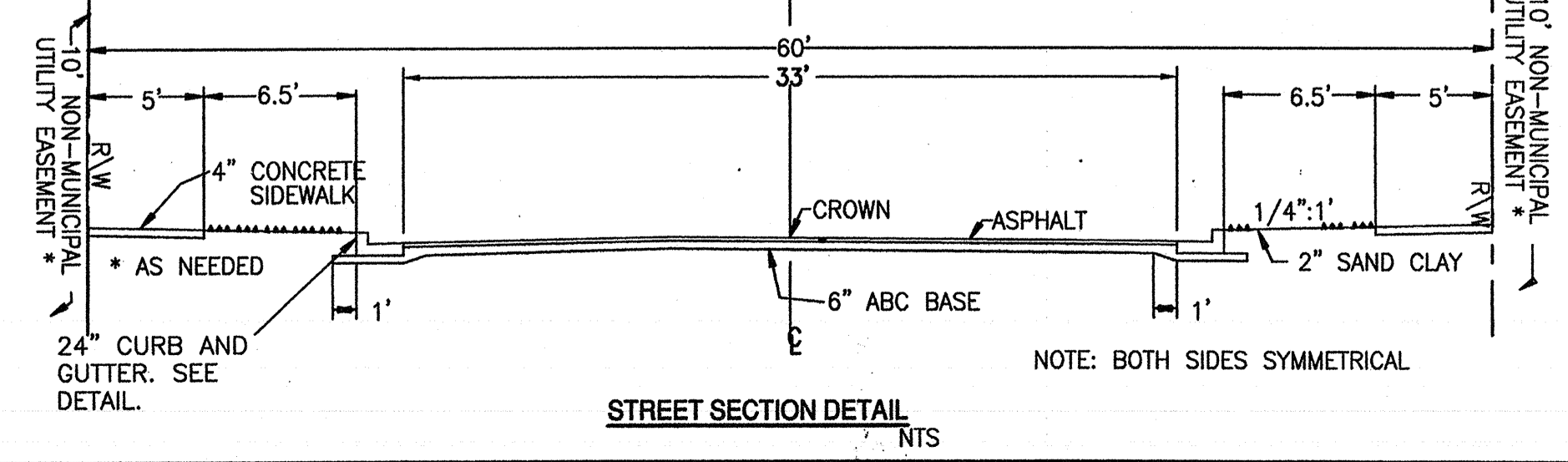
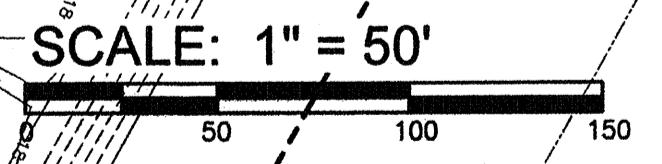
ZONING R-15

Approved Construction Plan

Name: *[Signature]* Date: 5/5/16
 Planning: *[Signature]*
 Traffic: *[Signature]* 5-5-16
 File: *[Signature]* 5-6-16

City of WILMINGTON
Public Services • Engineering Division
STORMWATER MANAGEMENT PLAN
Date: 5/5/16 Permit # 200702121
Signed: *[Signature]*

NODENR 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)



SUBDIVISION REVIEW PLAN
RENAISSANCE II OFFICE BUILDING
1022 ASHES DRIVE
WILMINGTON, NORTH CAROLINA

OWNER:
TCT OF WILMINGTON, LLC
1123 MILITARY CUTOFF RD.
WILMINGTON, NC 28405
(910) 259-7704

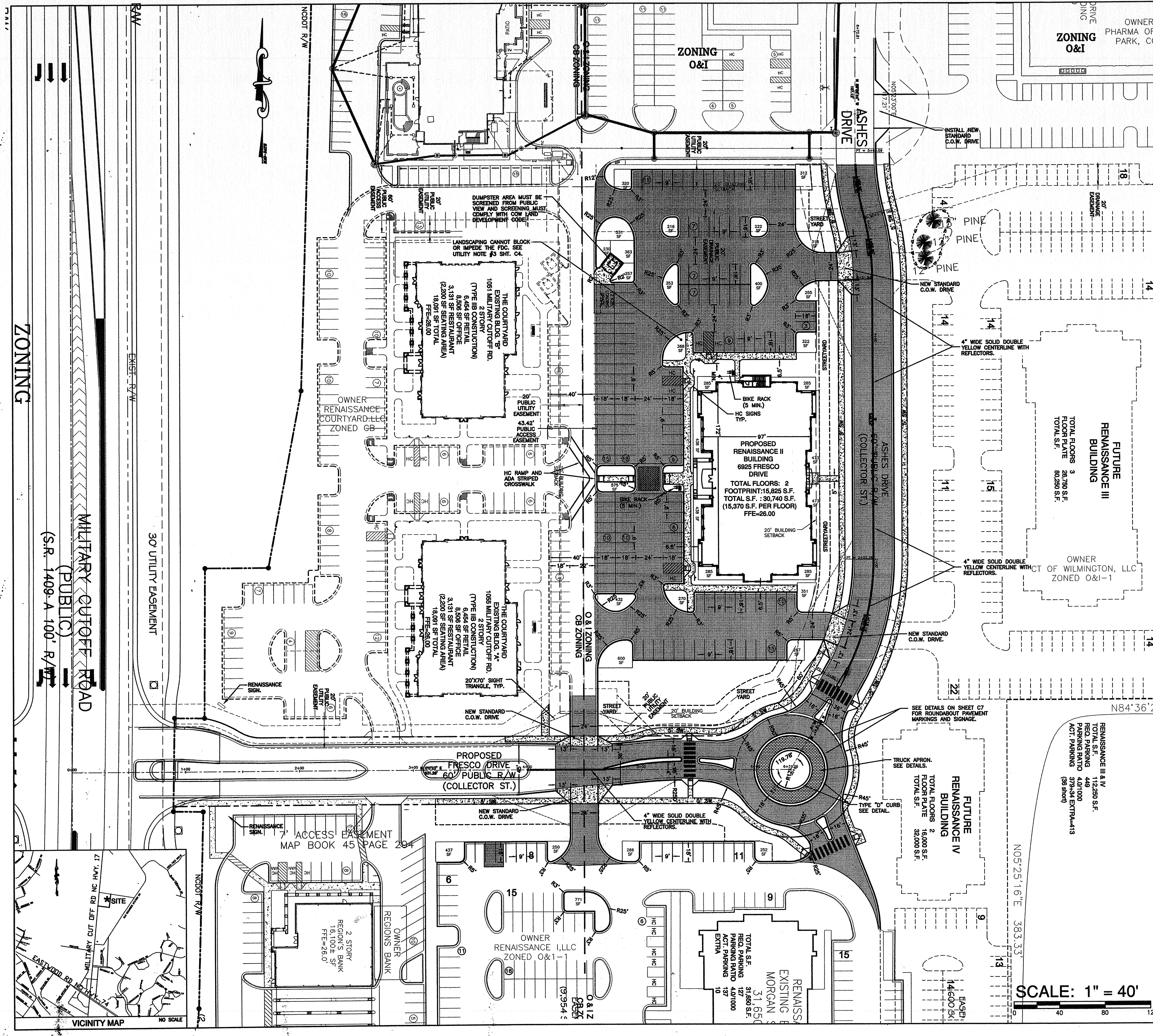
NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1429 ASH-LITTLE RIVER RD. NW
WILMINGTON, NC 28420
PHONE (910) 343-9653
license #C-3641

16009

DES. JST
CKD. JPN
DRWN. NKS

DATE 4/11/16

CO



SITE DATA TABLE

USE:	PROFESSIONAL OFFICE
SITE AREA:	3.16 ACRES (137,428 SF)
ACCESS EASEMENT WITHIN SITE:	.80 ACRES (34,718 SF)
PARCEL ID#:	R05100-003-065-000
MAP ID#:	315706-48-8929-000
DISTURBED AREA:	4.48 ACRES
ZONING:	O & I-1
CAMA LAND USE:	RESOURCE PROTECTION
BUILDING SETBACKS (REQUIRED):	FRONT SETBACK: 20' INTERIOR SIDE SETBACK: 130' CORNER SIDE SETBACK: 20' REAR SETBACKS: 20'
BUILDING SETBACKS (PROPOSED):	FRONT SETBACK: 135' INTERIOR SIDE SETBACK: 187' CORNER SIDE SETBACK: 110' REAR SETBACKS: 187'
MAX. BUILDING LOT COVERAGE:	40%
PROPOSED BUILDING LOT COVERAGE:	11%
MAX. BUILDING HEIGHT:	45'
BUILDING CONSTRUCTION TYPE:	IB
BUILDING MATERIAL:	BRICK, CALCIUM SILICATE MASONRY UNITS, HARD COAT STUCCO AT PARAPET
BUILDING HEIGHT:	43' (2 STORY)
BUILDING SQUARE FOOTAGE:	30,740 SF TOTAL (15,370 PER FLOOR)
PARKING REQ'D OFFICE:	200/SF MAX, 300/SF MIN.
TOTAL PARKING REQ'D:	154 MAX/102 MIN. REQUIRED
PROPOSED PARKING PROV'D:	144 (INCLUDES 5 HC)
BICYCLE PARKING REQ'D:	10
BICYCLE PARKING PROV'D:	10
PROPOSED IMPERVIOUS AREA:	
BUILDING:	15,825 SF (ROOF AREA)
ASPHALT, CURB & GUTTER:	51,678 SF
SIDEWALK:	4,150 SF
TOTAL:	71,653 SF
EXISTING IMPERVIOUS AREA WITHIN ACCESS EASEMENT:	25,000 SF
TOTAL IMPERVIOUS AREA:	96,653 SF
% SITE IMPERVIOUS AREA:	70%
AREA WITHIN NEW R/W:	48,000 SF
IMPERVIOUS AREA WITHIN NEW R/W:	38,635 SF
LANDSCAPING:	
FOUNDATION PLANTINGS (12%):	
FRONT: 45' X 158' X .12 = 842 SF REQ'D:	876 SF PROVIDED
SIDE (2): 45' X 104' X .12 = 562 SF REQ'D:	670 (2) SF PROVIDED
REAR: 45' X 158' X .12 = 842 SF REQ'D:	946 SF PROVIDED
TOTAL REQUIRED=2,808 SF TOTAL PROVIDED=2,862 SF	
LANDSCAPING REQ'D INTERIOR:	
ASPHALT, CONCRETE CURB & GUTTER:	51,678 SF
14% REQUIRED:	
(14%) X (51,678) = 7,235 SF	7,300 SF PROVIDED
STREETYARD LANDSCAPING:	
PRIMARY: PROPOSED PUBLIC R/W FRESCO DR.	3,918 SF PROVIDED
18' MULTIPLYER	
(241'-24) X 18' = 3,906 SF	
SECONDARY: ASHES DR.	3,763 SF PROVIDED
9' MULTIPLYER	
(451'-48) X 9' = 3,827 SF	

SITE DATA TABLE - EXISTING RENAISSANCE I, PHASE I

USE:	OFFICE
SITE AREA:	2.16 ACRES
DISTURBED AREA:	
ZONING:	O & I-1 AND CB
CAMA LAND USE:	RESOURCE PROTECTION
BUILDING SETBACKS (EXISTING):	FRONT: 250' SIDE: 33' NORTH, 11' SOUTH REAR: 45'
BUILDING HEIGHT:	32' (2 STORY)
BUILDING SQUARE FOOTAGE:	31,650 SF (15,825 SF EACH FLOOR)
PARKING REQ'D:	O & I ZONE
PARKING GROUP (OFFICE):	200/SF MAX, 300/SF MIN. REQUIRED 158 MAX/105 MIN. REQUIRED
PROPOSED PARKING PROV'D:	137 REGULAR (6 ARE HC)
IMPERVIOUS AREA-PHI DRAINAGE AREA:	
EXISTING BUILDING:	15,825 SF (ROOF AREA)
EXISTING ASPHALT/CURB & GUTTER:	48,925 SF
EXISTING SIDEWALKS/CONCRETE PADS:	6,850 SF
TOTAL EXISTING IMPERVIOUS AREA:	91,600 SF TOTAL
STREETYARD LANDSCAPING:	
(331'-24) X 18' = 5,928 SF REQUIRED	5,528 SF PROVIDED
INTERIOR LANDSCAPE PROVIDED:	1,976 SF PROVIDED

TREE REMOVAL TABLE

REGULATED PINES	
12" (2)	
15" (1)	

LEGEND

PROPERTY LINE	---
ASPHALT PAVEMENT	▨
CONCRETE	▩

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
Public Services • Engineering Division
STORMWATER MANAGEMENT PLAN
Date: 5/15/16 Permit # 200702721
Signed: [Signature]

Approved Construction Plan
Name: [Signature] Date: 5/15/16
Planning: [Signature] 5-15-16
Traffic: [Signature] 5-15-16
Fire: [Signature] 5-15-16

NC DENR 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)

SCALE: 1" = 40'

ZONING
MILITARY CUTOFF ROAD (PUBLIC)
(S.R. 1409-A-100' R/W)
30' UTILITY EASEMENT
VICINITY MAP

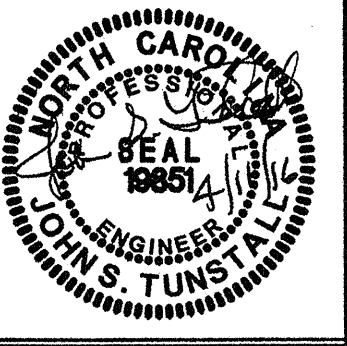
SYMBOL	DATE	DESCRIPTION
		REVISIONS

LAYOUT PLAN
RENAISSANCE II OFFICE BUILDING
1022 ASHES DRIVE
WILMINGTON, NORTH CAROLINA

OWNER:
TCT OF WILMINGTON, LLC
1123 MILITARY CUTOFF RD.
WILMINGTON, N.C. 28405
(910) 256-7704

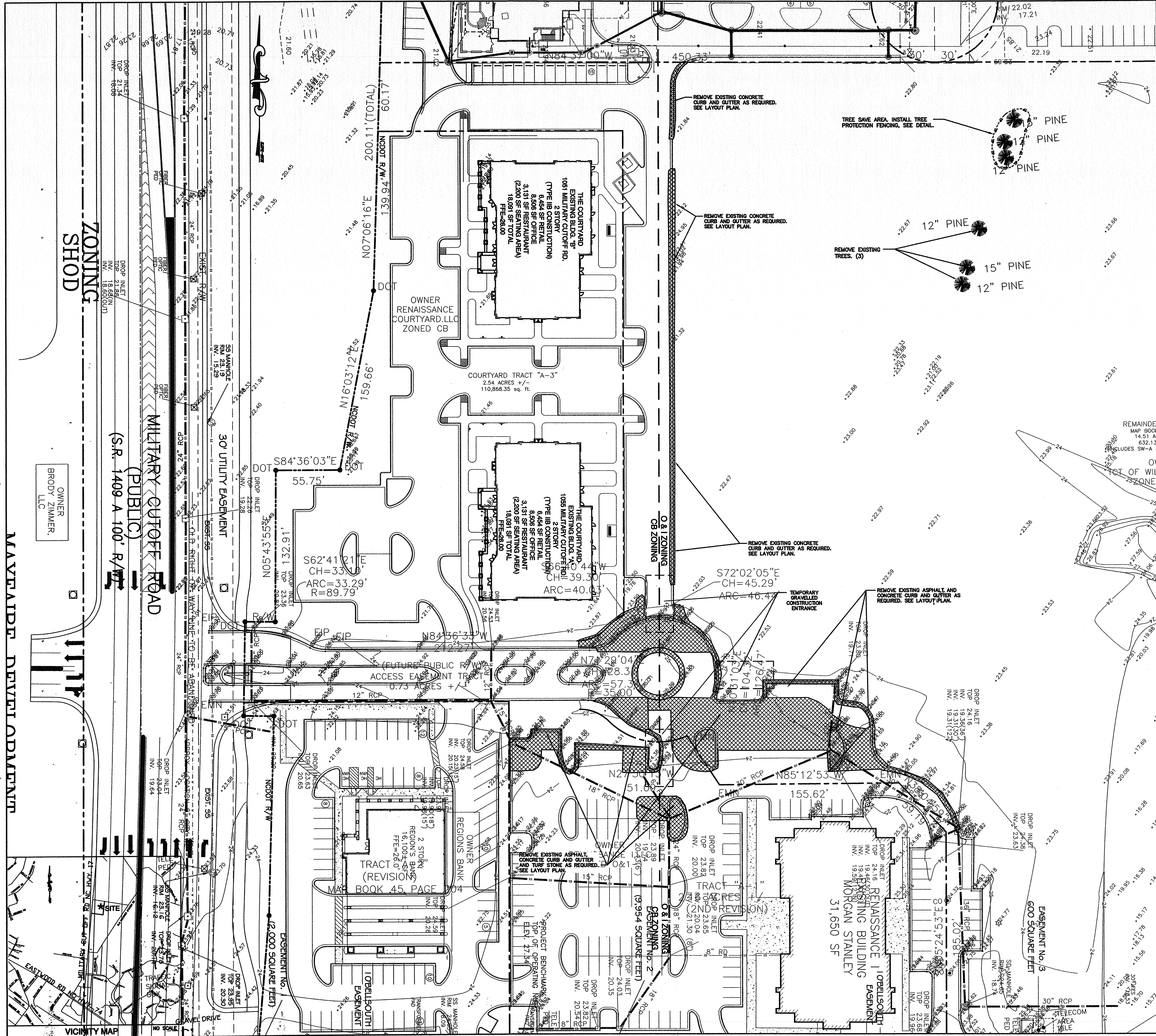
NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1429 ASH-LITTLE RIVER RD. NW
WILMINGTON, NC 28401
PHONE (910) 343-9653
license #C-3641

16009
DES. JST
ORD. JPN
DRWN. NKS
DATE 4/11/16



C1

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DEMOLITION NOTES

- THE DEMOLITION WORK LIMITS SHOWN ARE APPROXIMATE. THE SITE WORK CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING AND FIELD DETERMINING THE EXACT DEMOLITION LIMITS. QUESTIONS DURING BIDDING SHALL BE DIRECTED TO THE OWNER'S / DEVELOPER'S GENERAL CONTRACTOR. REMOVE THE EXISTING SITE FEATURES WITHIN THE DEMOLITION WORK LIMITS. SAWCUT, REMOVE, REPAIR, PATCH, REPLACE AND ABANDON AS REQUIRED THE EXISTING CONCRETE CURB AND GUTTER, EXISTING CONCRETE, EXISTING ASPHALT PAVEMENT, EXISTING SITE FEATURES AND EXISTING UTILITIES AS REQUIRED WITHIN THE DEMOLITION LIMITS. REPAIR AND PATCH THE AREA WITH NEW ASPHALT PAVEMENT UP TO THE EXISTING ADJACENT ASPHALT PAVEMENT GRADE. INSTALL THE NEW ASPHALT PAVEMENT AND NEW 24" CONCRETE CURB AND GUTTER FOR POSITIVE DRAINAGE. THE GENERAL CONTRACTOR, SITE WORK CONTRACTOR AND LANDSCAPE CONTRACTOR SHALL COORDINATE THE DEMOLITION WORK, REPAIR WORK AND REMOVAL, STORAGE AND REPLACEMENT OF THE EXISTING LANDSCAPING PRIOR TO BEGINNING ANY DEMOLITION OR CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIARIZED WITH FIELD DEMOLITION CONDITIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE SITE GRADES PRIOR TO BEGINNING CONSTRUCTION. CONTACT THE ENGINEER FOR DIRECTION AS REQUIRED DURING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL DEMOLISHED DEBRIS ASSOCIATED WITH THE PROJECT.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST GENERATED BY THE WORK, INCLUDING BUT NOT LIMITED TO DEMOLITION AND CONSTRUCTION ACTIVITIES, SITE VEHICULAR TRAFFIC AND RELATED OPERATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND IDENTIFYING ALL EXISTING UTILITIES. ANY UTILITIES ENCOUNTERED THAT HAVE NOT BEEN IDENTIFIED NEED TO BE BROUGHT TO THE ATTENTION OF THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF DISCONNECTING AND ABANDONING ALL EXISTING UTILITIES WITH APPLICABLE AGENCIES AND AUTHORITIES UNLESS OTHERWISE NOTED. ALL EXISTING UTILITIES AND ASSOCIATED PIPING, ETC. NOT IN USE ON THE SITE SHALL BE PROPERLY ABANDONED AND REMOVED AS REQUIRED. COORDINATE WITH THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING UTILITIES THAT REMAIN IN SERVICE OR ARE WITHIN THE PUBLIC RIGHT OF WAY DURING DEMOLITION.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REMOVAL OR RELOCATION OF ANY EXISTING UTILITY POLES / GUY LINES AND LIGHT POLES WITH THE OWNER AND THE APPLICABLE UTILITY COMPANY AS REQUIRED.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A TRAFFIC CONTROL PLAN AND DEVICES DURING CONSTRUCTION WORK IN ACCORDANCE WITH THE MUTCD, NCDOT AND CITY OF WILMINGTON STANDARDS.
- THE CONTRACTOR IS RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS AND SLOPES ON AND OFF SITE IN ACCORDANCE WITH THE EROSION CONTROL MEASURES SPECIFIED ON THE PLANS AND IN THE SPECIFICATIONS. IN ADDITION TO THE EROSION CONTROL MEASURES SPECIFIED, THE CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKETS /TURF REINFORCEMENT MATS IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION AS REQUIRED WHERE NORMAL SEED / SOD STABILIZATION IS UNSUCCESSFUL. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO DETERMINE WHO IS RESPONSIBLE FOR PROVIDING THE PERMANENT STABILIZATION MEASURES AND THE TYPE OF PERMANENT MEASURES PRIOR TO BEGINNING DEMOLITION AND CONSTRUCTION. THE PERMANENT STABILIZATION MEASURES SHALL BE IN PLACE AND ACCEPTABLE TO THE OWNERS REPRESENTATIVE AND ENGINEER PRIOR TO PROJECT CLOSEOUT. COORDINATE INSPECTION WITH THE OWNER AND ENGINEER PRIOR TO PROJECT CLOSEOUT.

TREE REMOVAL TABLE

REGULATED PINES	
12"	(2)
15"	(1)

For each open utility out 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
STORMWATER MANAGEMENT PLAN

Date: 5/5/16 Permit # 2007027R1

Approved Construction Plan

Name	Date
Planning	5/5/16
Traffic	5-5-16
Fire	5-6-16

NCDENR PWSS WATER PERMIT #: _____ GPD

WATER CAPACITY: _____ GPD

DWQ SEWER PERMIT #: _____

SEWER CAPACITY: _____ GPD

SEWER SHED # AND PLANT: _____

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

16009

DES: JST
CHK: JPN
DRAWN: NKS

DATE: 4/11/16

SCALE: 1" = 40'

0 40 80 120

C2

EXISTING SITE CONDITIONS AND DEMOLITION PLAN
RENAISSANCE II OFFICE BUILDING
1022 ASHES DRIVE
WILMINGTON, NORTH CAROLINA

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
902 MARKET STREET
WILMINGTON, NC 28401
PHONE (910) 343-9653
license #C-3641

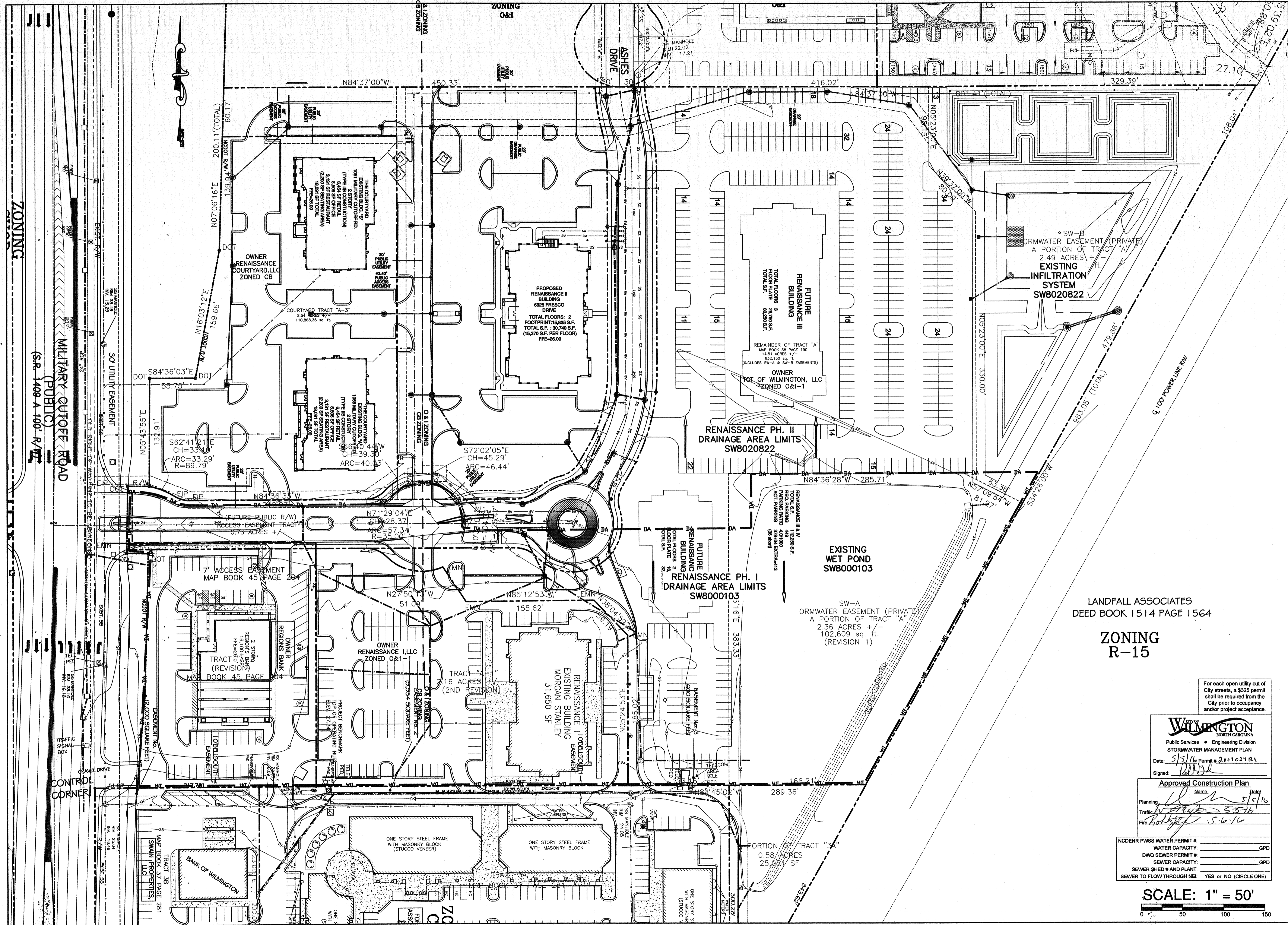
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DES: JST
CHK: JPN
DRAWN: NKS

DATE: 4/11/16

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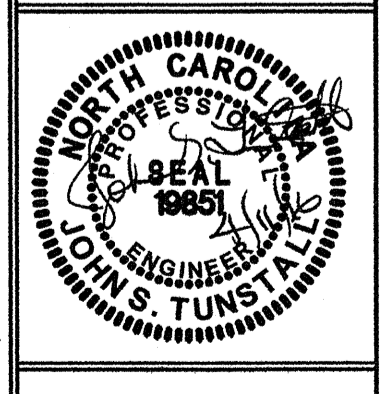
SYMBOL	DATE	DESCRIPTION	REVISIONS
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DRAINAGE AREA PLAN
RENAISSANCE II OFFICE BUILDING
1022 ASHES DRIVE
WILMINGTON, NORTH CAROLINA

OWNER:
 TCT OF WILMINGTON, LLC
 1123 MILITARY CUTOFF RD.
 WILMINGTON, NC 28405
 (910) 259-7704

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
 902 MARKET STREET
 WILMINGTON, NC 28401
 PHONE (910) 343-9653
 1429 ASH-LITTLE RIVER RD. NW
 ASH, NC 28420
 PHONE (910) 287-5900
 license #C-3641

16009
 DES. JST
 CDR. JPN
 DRWN. NKS
 DATE 4/11/16



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LANDFALL ASSOCIATES
 DEED BOOK 1514 PAGE 1564

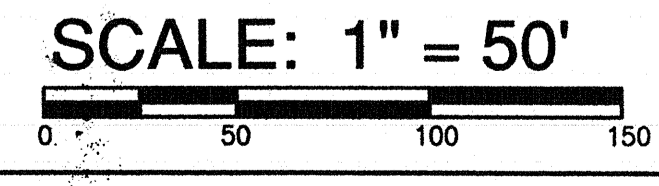
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R-15

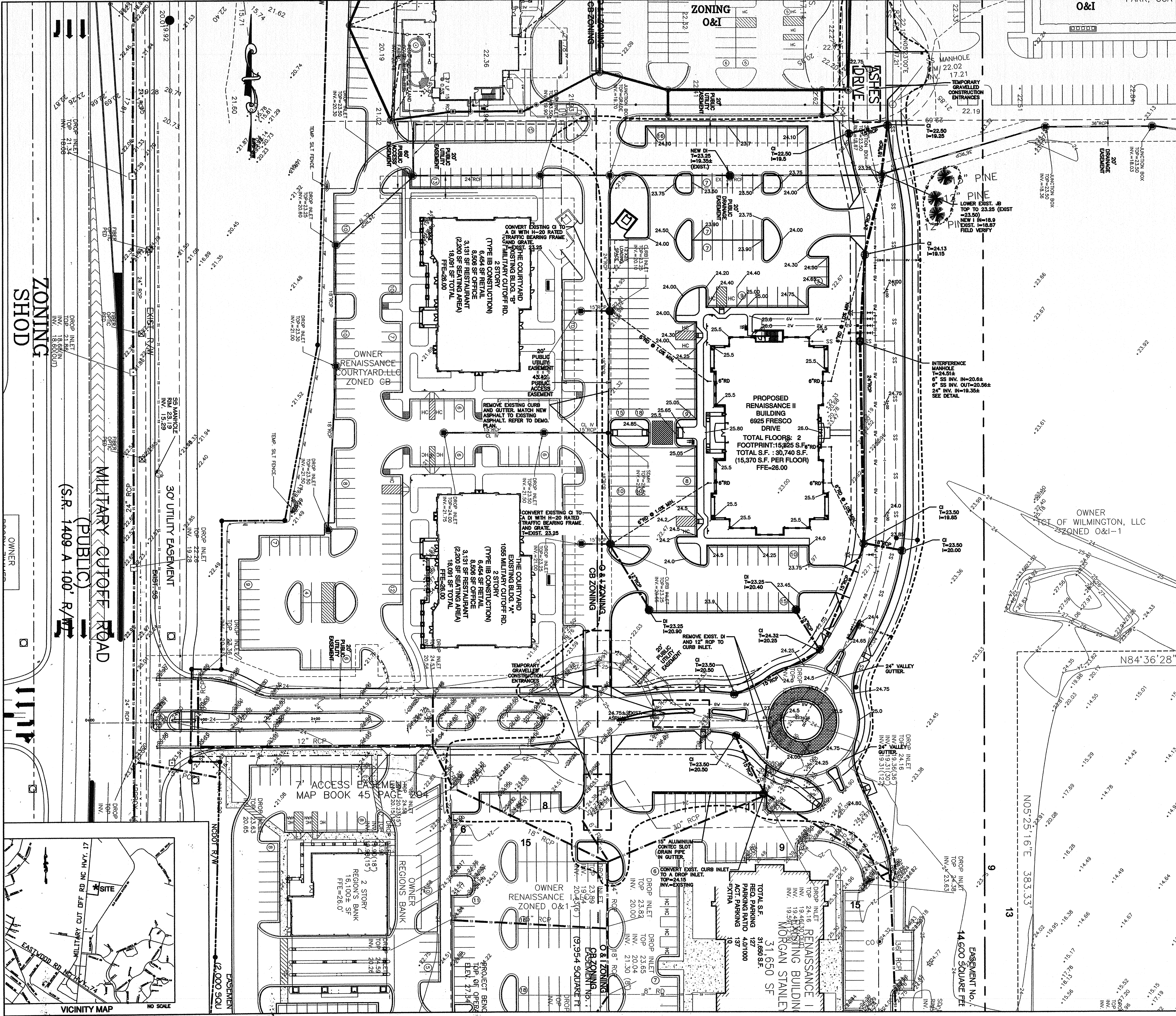
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

City of Wilmington
 NORTH CAROLINA
 Public Services • Engineering Division
 STORMWATER MANAGEMENT PLAN
 Date: 5/5/16 Permit # 2007027R1
 Signed: [Signature]

Approved Construction Plan
 Name: [Signature] Date: 5/5/16
 Planning: [Signature] 5/5/16
 Traffic: [Signature] 5/5/16
 Fire: [Signature] 5-6-16

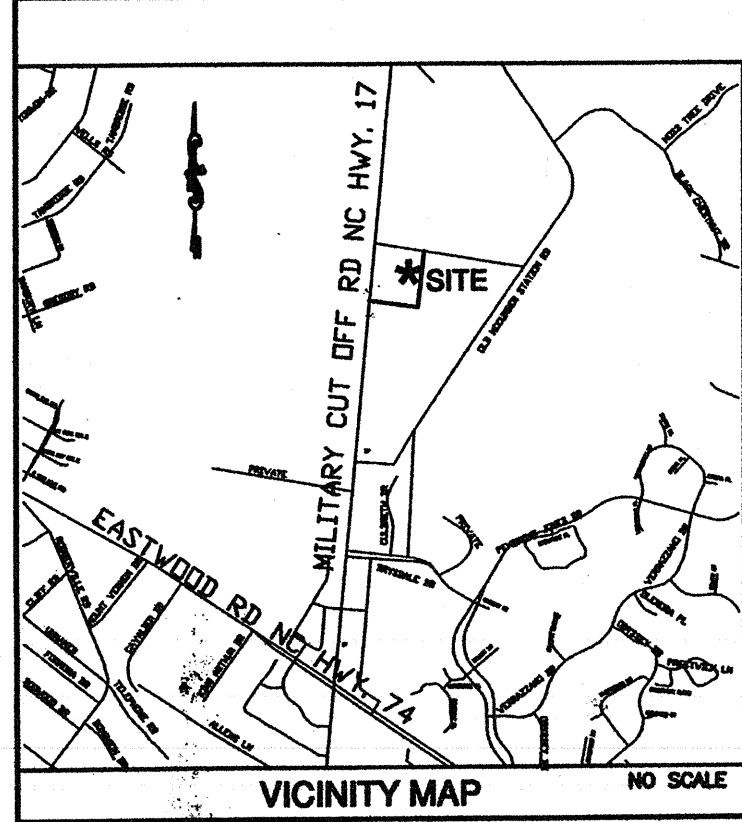
NC DENR PWSS WATER PERMIT #: _____ GPD
 WATER CAPACITY: _____ GPD
 DWQ SEWER PERMIT #: _____ GPD
 SEWER CAPACITY: _____ GPD
 SEWER SHED # AND PLANT: _____
 SEWER TO FLOW THROUGH NEI: YES or NO (CIRCLE ONE)





ZONING SHOD
OWNER
MILITARY CUTOFF ROAD
(PUBLIC)
(S.R. 1409 A 100' R/W)
30' UTILITY EASEMENT

ZONING SHOD
OWNER
MILITARY CUTOFF ROAD
(PUBLIC)
(S.R. 1409 A 100' R/W)
30' UTILITY EASEMENT



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
Public Services • Engineering Division
STORMWATER MANAGEMENT PLAN
Date: 5/5/16 Permit # 2007021R1
Signed: [Signature]

Approved Construction Plan
Name: [Signature] Date: 5/16
Planning: [Signature] Date: 5-5-16
Traffic: [Signature] Date: 5-5-16
File: [Signature] Date: 5-12-16

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

LEGEND

PROPERTY LINE	---
EXISTING SPOT ELEVATION	○ 22.84
EXISTING CONTOUR	- - - -
DISTURBED AREA	⊗
PROPOSED CONTOUR	Ⓢ
PROPOSED FINISH GRADE SPOT ELEVATION	○ 23.5
STORMDRAIN PIPE	— 15" —
TEMPORARY SILT FENCE	— S —
EROSION CONTROL AROUND INLETS	●
PROPOSED SANITARY SEWER	— S —
PROPOSED WATER LINE	— W —

SCALE: 1" = 40'
0 40 80 120

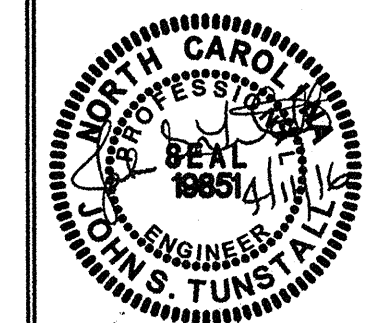
BY	DATE	DESCRIPTION
		REVISIONS

GRADING, DRAINAGE AND EROSION CONTROL PLAN
RENAISSANCE II OFFICE BUILDING
1022 ASHES DRIVE
WILMINGTON, NORTH CAROLINA

OWNER:
TCT OF WILMINGTON, LLC
1123 MILITARY CUTOFF RD.
WILMINGTON, N.C. 28405
(910) 256-7704

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
902 MARKET STREET
WILMINGTON, NC 28401
PHONE (910) 343-9653
1429 ASH-LITTLE RIVER RD., NW
ASH, NC 28420
PHONE (910) 287-5900
license #C-3641

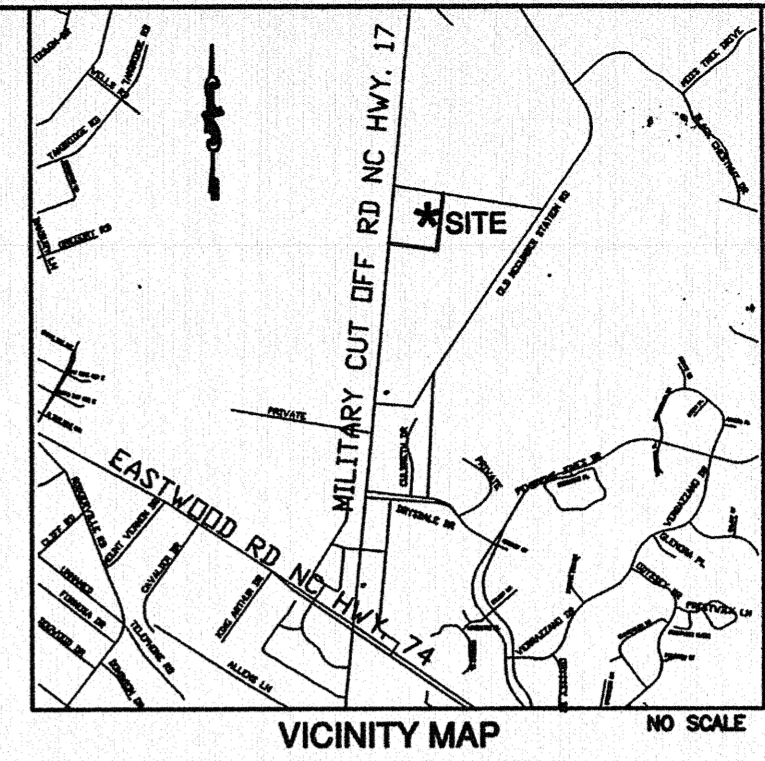
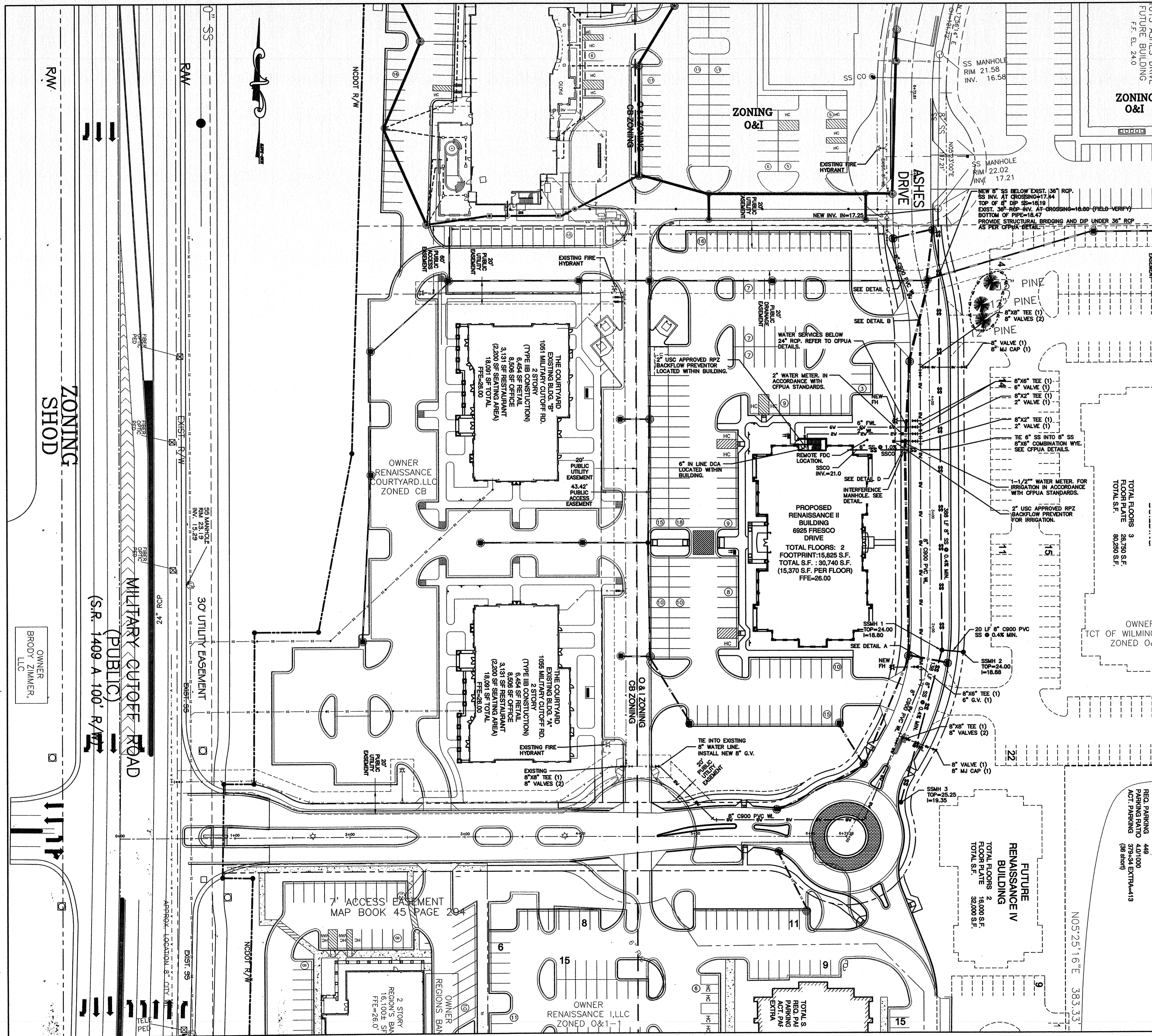
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CHKD. JPN
DRWN. NKS
DATE 4/11/16



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SYMBOL	DATE	DESCRIPTION	BY

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UTILITY PLAN
RENAISSANCE II OFFICE BUILDING
 1022 ASHES DRIVE
 WILMINGTON, NORTH CAROLINA

OWNER:
 TCT OF WILMINGTON, LLC
 1022 ASHES DRIVE
 WILMINGTON, NC 28405
 (910) 256-7704

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
 1429 ASH-LITTLE RIVER RD. NW
 WILMINGTON, NC 28420
 PHONE (910) 343-9653
 LICENSE #C-3641

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

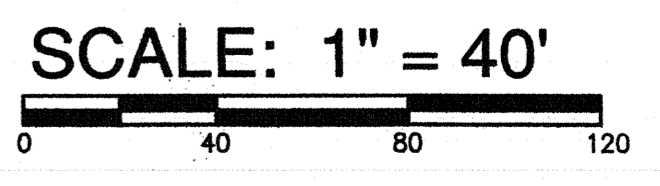
City of WILMINGTON
 NORTH CAROLINA
 Public Services • Engineering Division
STORMWATER MANAGEMENT PLAN
 Date: 5/5/16 Permit # 200702TR1
 Signed: [Signature]

Approved Construction Plan
 Name: [Signature] Date: 5/5/16
 Planning: [Signature] Date: 5/5/16
 Traffic: [Signature] Date: 5/5/16
 Fire: [Signature] Date: 5/6/16

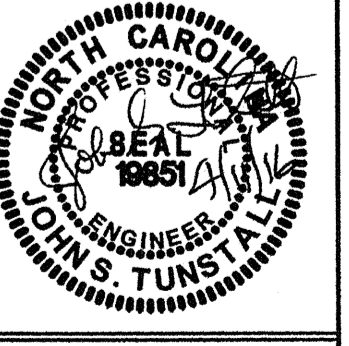
NCDENR PWSS WATER PERMIT #:	
WATER CAPACITY:	GPD
DWQ SEWER PERMIT #:	
SEWER CAPACITY:	GPD
SEWER SHED # AND PLANT:	
SEWER TO FLOW THROUGH NEI:	YES OR NO (CIRCLE ONE)

LEGEND

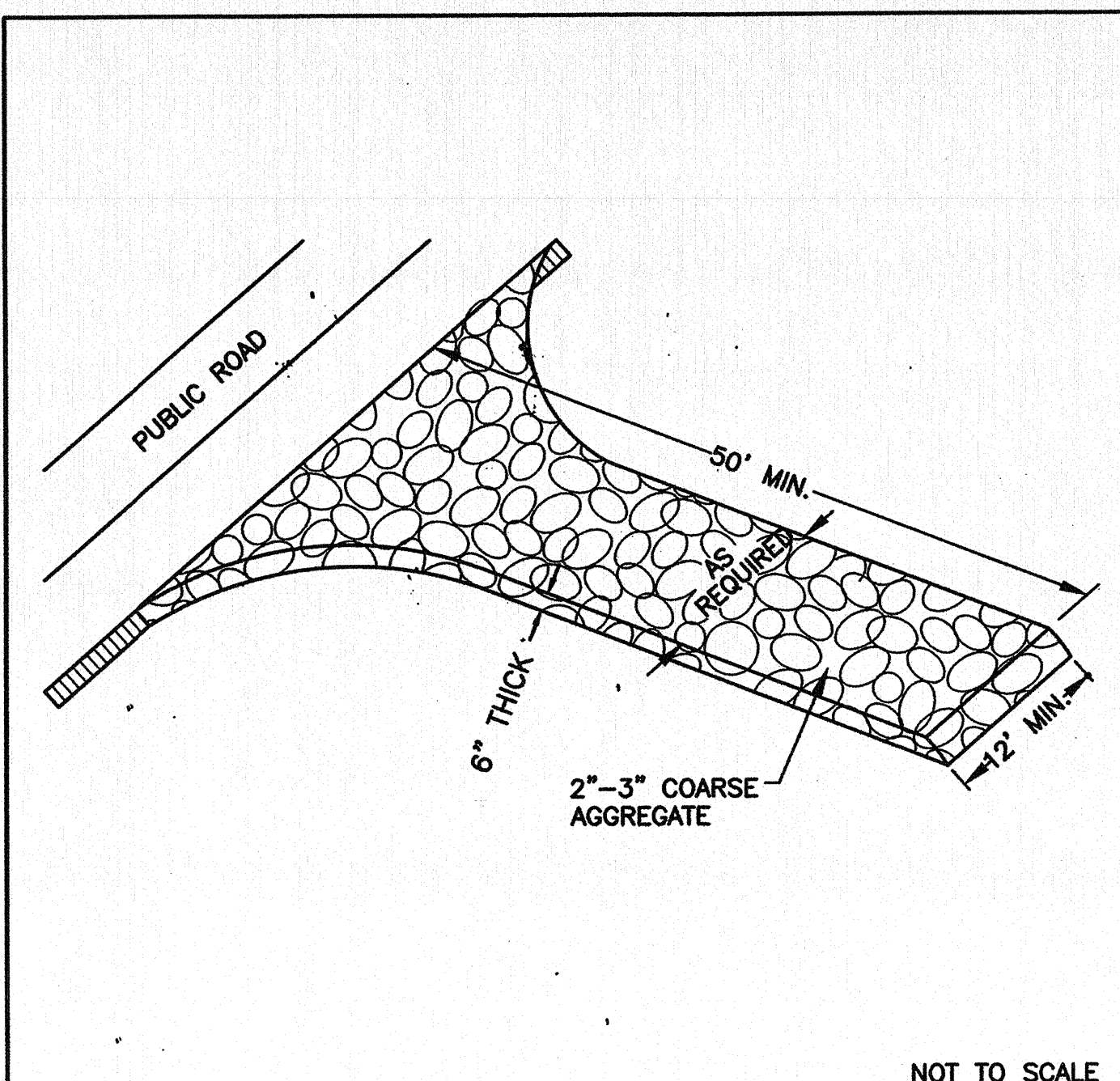
PROPERTY LINE	---
PROPOSED WATERLINE	-v-v-v-
PROPOSED SANITARY SEWER	SS



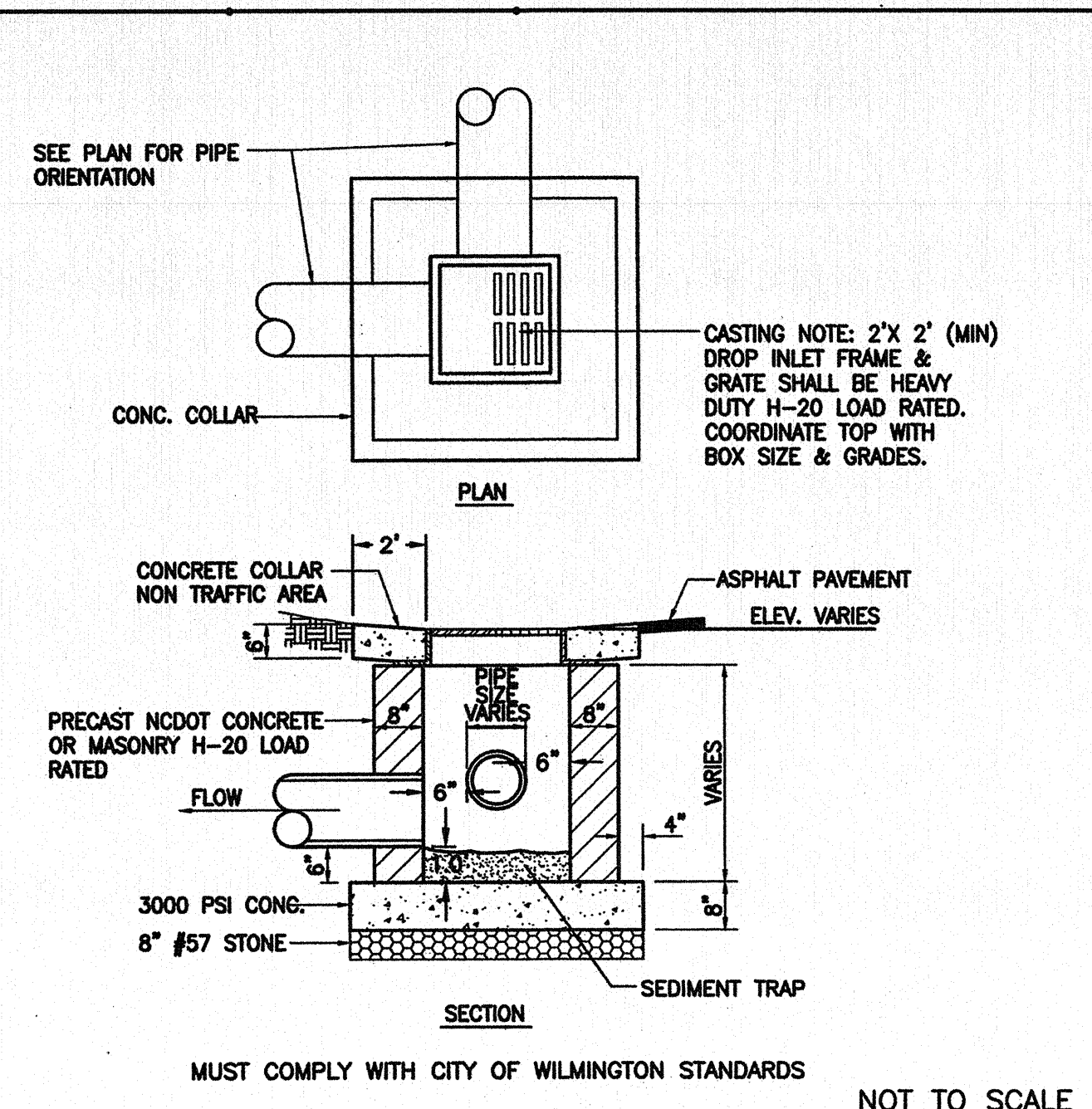
16009
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 CND. LPN
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 DATE 4/11/16



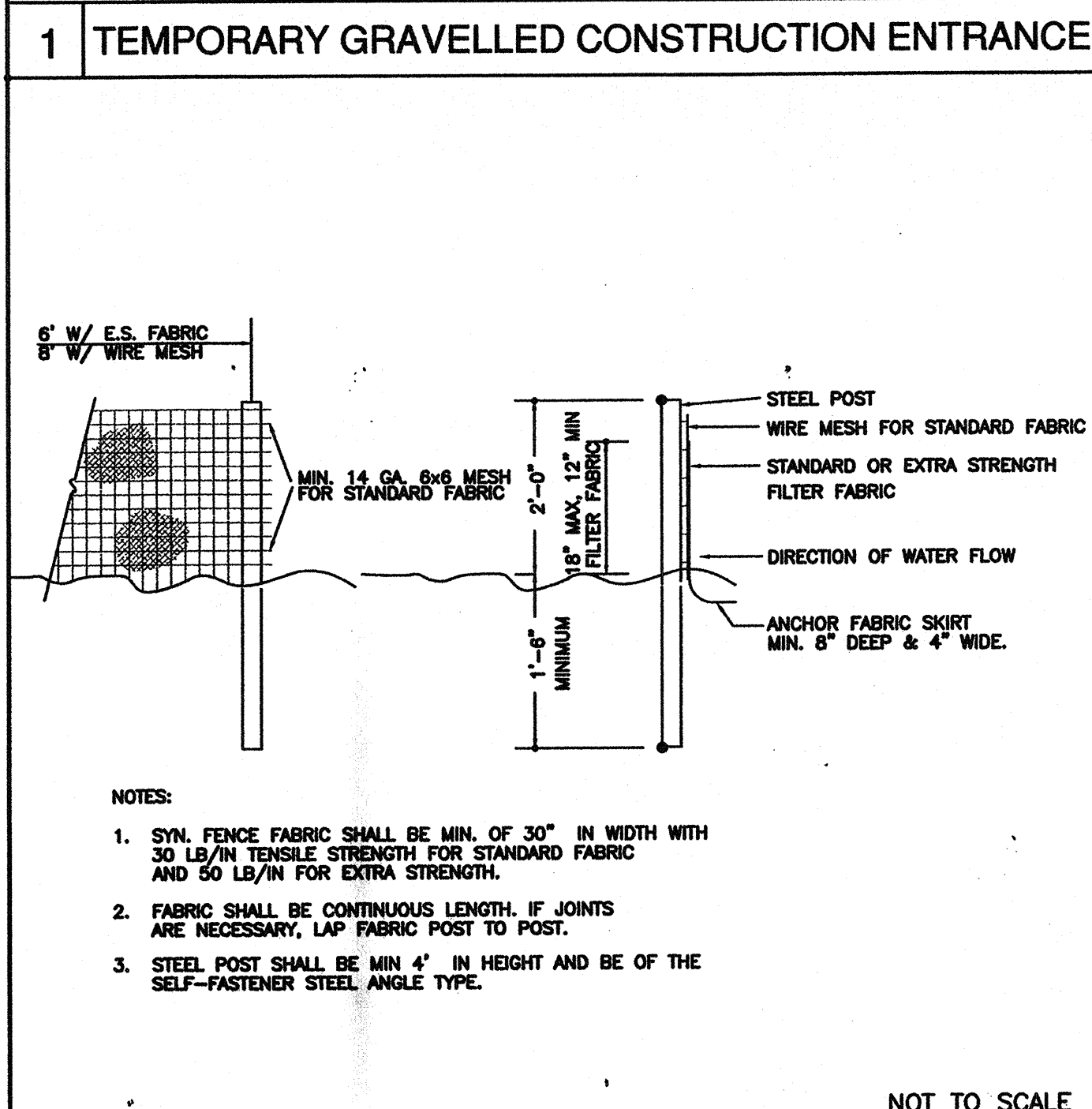
C4



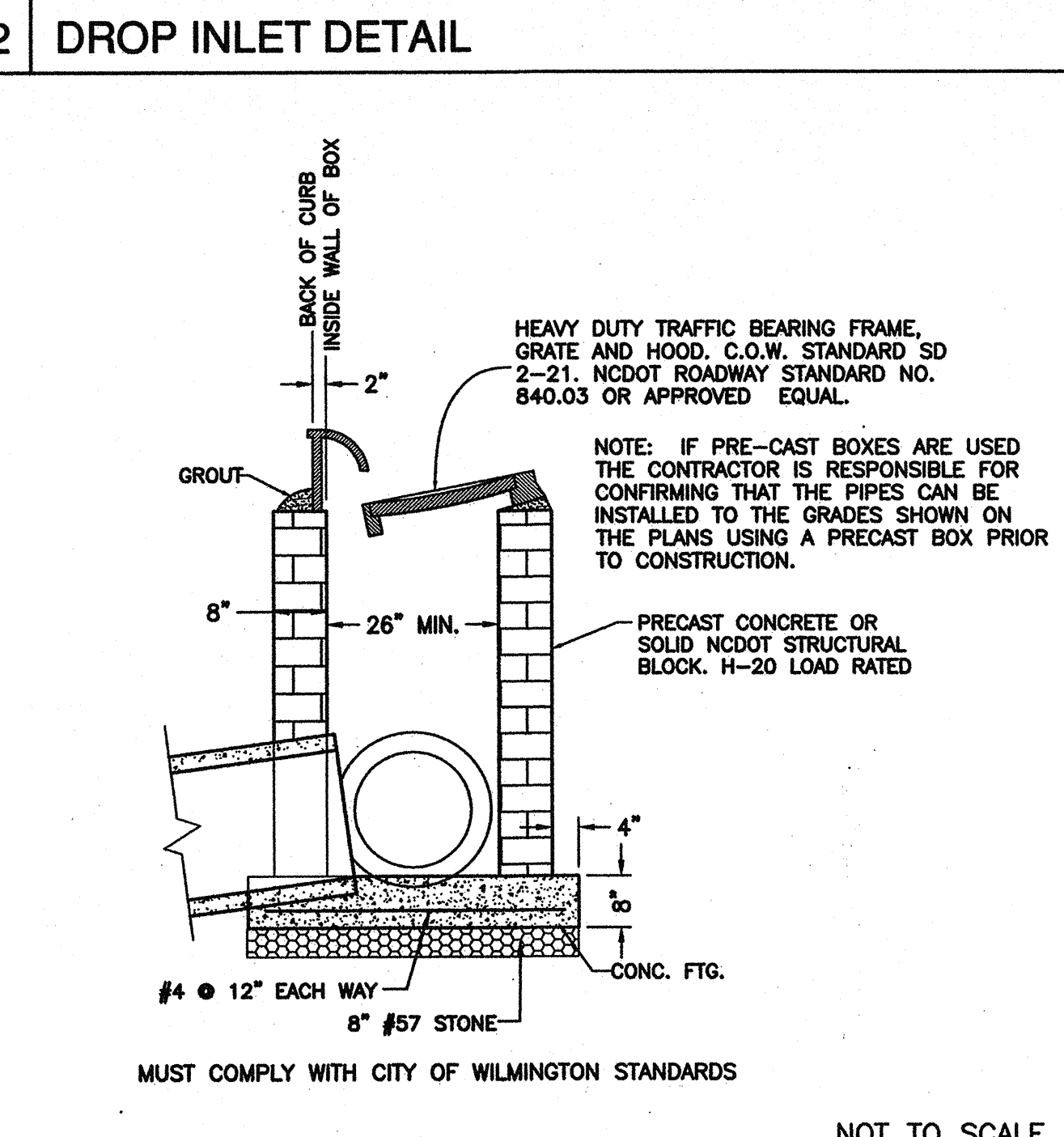
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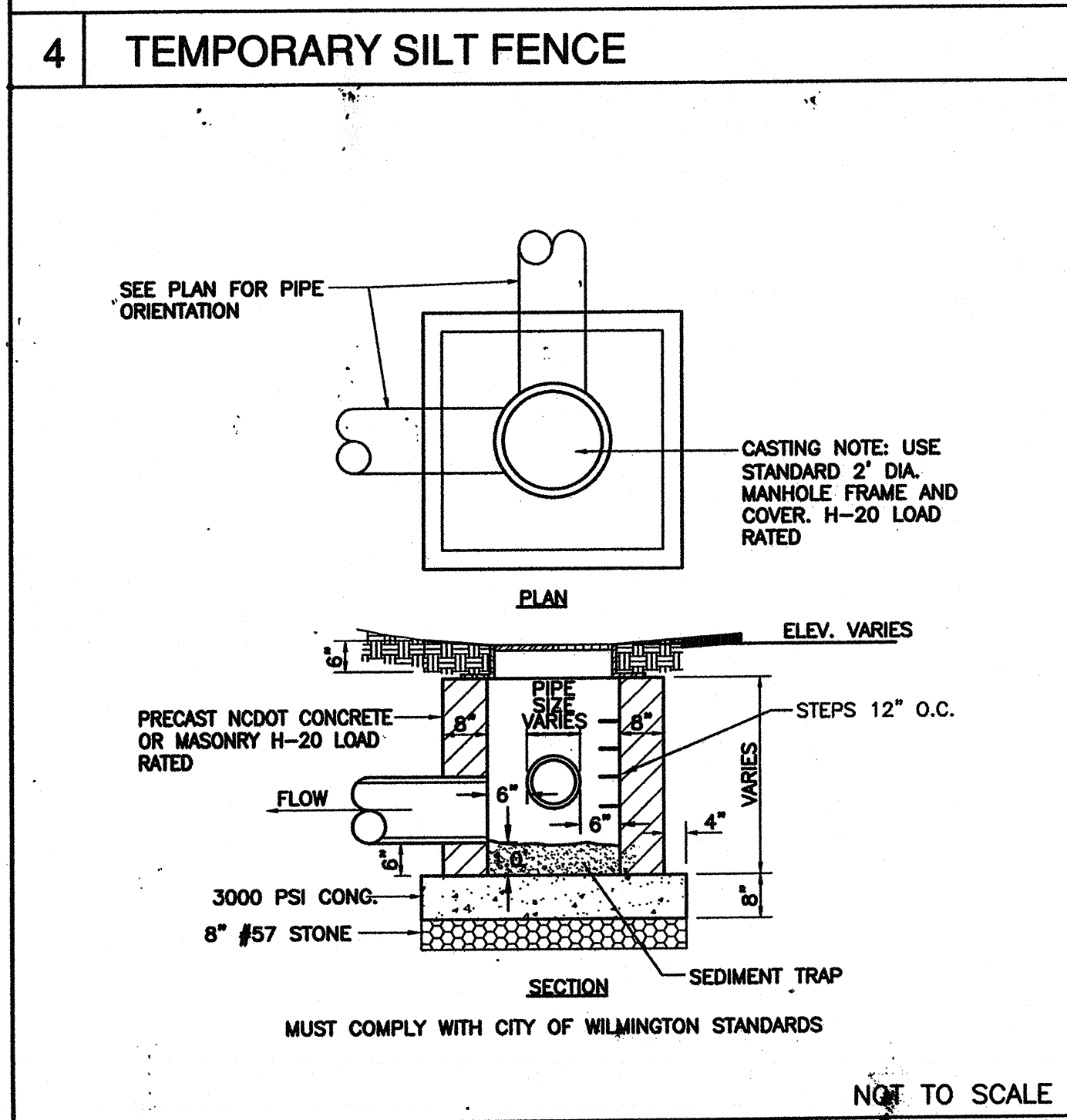
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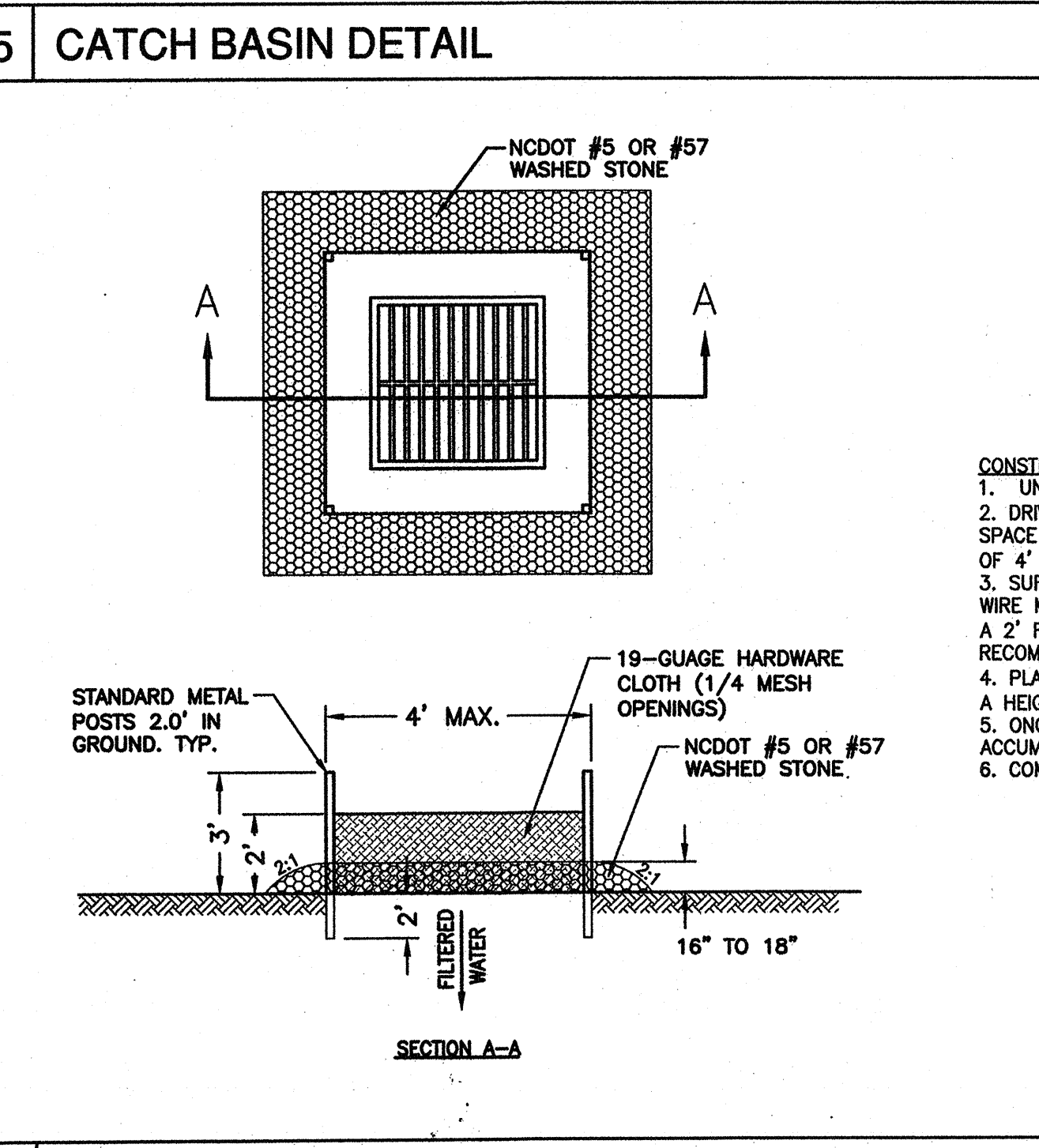
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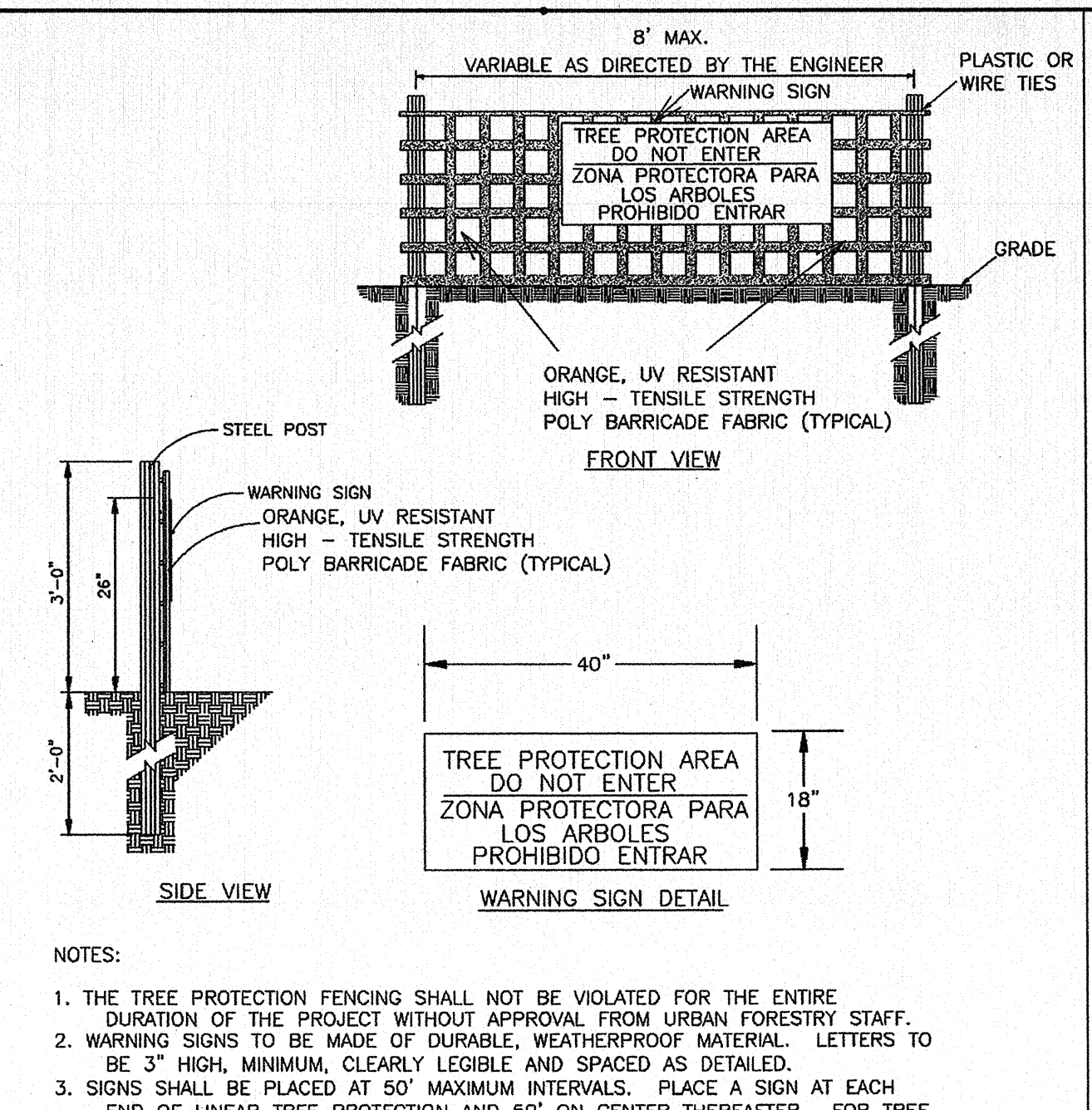
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NOT TO SCALE



NOT TO SCALE



NOTES:

1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCING AND SIGNS THROUGHOUT DURATION OF PROJECT.
5. TREE PROTECTION FENCING AND SIGNS SHALL BE REMOVED AFTER CONSTRUCTION.
6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

NOTE:

THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% 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 DISTURB CROWN WITH INTENSIVE PRUNING.

NOTES:

1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
4. 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.
5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLES SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES, DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
6. 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.

1 TREE PROTECTION

NOT TO SCALE

EROSION CONTROL NOTES AND MAINTENANCE PLAN:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL-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. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND WATLIES, BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
4. 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.
5. 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 21 CALENDAR DAYS. ALL OTHER AREAS 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 3:1 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 FOURTEEN (14) CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

TEMPORARY/PERMANENT GRASS SPECIFICATION:

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS.
 2. RIP THE ENTIRE AREA TO A 6 INCH DEPTH.
 3. REMOVE ALL ROCKS, ROOTS AND OTHER OBSTRUCTIONS LEAVING SURFACES SMOOTH AND UNIFORM.
 4. APPLY AGRICULTURAL LIME AND FERTILIZER UNIFORMLY AND MIX WITH SOIL. LIME: 45 LBS. PER 1000 S.F. PHOSPHOROUS: 20 LBS. PER 1000 S.F. FERTILIZER: 17 LBS. PER 1000 S.F.
 5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM, UNIFORM SEED BED IS PREPARED 4-6 INCHES DEEP.
 6. SEED ON A FRESHLY PREPARED SEED BED AND COVER SEED LIGHTLY. 2 - 3 LBS PER 1000 S.F. (SEE MIXTURE BELOW)
 7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH. GRAIN STRAW & HAY AT 75 TO 100 LBS PER 1000 S.F. WOOD CHIPS AT 500 LBS. PER 1000 S.F. JUTE & MESH AS PER MANUFACTURER
 8. ASPHALT FOR ANCHORING MULCH SHALL BE TYPE SS-1 EMULSION AND APPLIED AT A RATE OF 1000 GAL. PER ACRE FOR SLOPE STABILIZATION, AND 150 GAL. PER TON OF STRAW FOR ANCHORING STRAW.
 9. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEED WITHIN THE PLANTING SEASON, IF POSSIBLE. IF GRASS STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
 10. CONSULT CONSERVATION INSPECTOR ON MAINTENANCE, TREATMENT, AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
 11. SEED FOR TEMPORARY AND PERMANENT APPLICATIONS SHALL BE:
 - 20% CARPET GRASS
 - 28% BERMUDA GRASS
 - 20% TURF FESCUE
 - 10% CREEPING RED FESCUE
 - 20% ANNUAL RYE GRASS
- *BERMUDA SEED SHALL BE HULLED FOR WARM WEATHER PLANTING. PURITY OF SEED SHALL BE A MIN. OF 98% AND GERMINATION SHALL BE A MIN. OF 85%.
- ALL DISTURBED AREA SHALL BE SEEDED WITHIN 7-14 DAYS OF THE COMPLETION OF GRADING. SEE EROSION CONTROL AND MAINTENANCE NOTES. CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS, OTHER SEEDING SCHEDULES MAY BE POSSIBLE.

SITE WORK NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH FIELD CONSTRUCTION CONDITIONS.
2. CONTRACTOR SHALL COORDINATE WORK WITH NCDOT AND LOCAL RIGHT OF WAY 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 SOIL 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 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) WITH THE UPPER 12 INCHES OF SUBGRADE BEING COMPACTED TO 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. FILL MATERIALS WITHIN BUILDING AREAS TO A LINE OUTSIDE THE BUILDING AREAS SHALL 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 IN 6 INCH LAYERS 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 BY ARNOLD CARSON AND PROVIDED BY OWNER.
12. THE CONTRACTOR SHALL VERIFY DIMENSIONS AT JOBSITE.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF RELOCATION OR DISCONNECTION OF 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 ALKYL, 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.

NOTES AND DETAILS
 RENAISSANCE II OFFICE BUILDING
 1022 ASHES DRIVE
 WILMINGTON, NORTH CAROLINA

OWNER:
 TCT OF WILMINGTON, LLC
 WILMINGTON, NC 28405
 (910) 256-7704

NORRIS & TUNSTALL
 CONSULTING ENGINEERS, P.C.
 1429 ASH-LITTLE RIVER RD. NW
 WILMINGTON, NC 28420
 PHONE (910) 287-5900
 LICENSE #G-3641

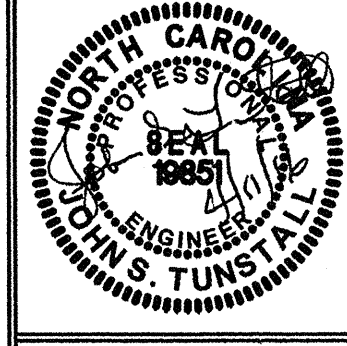
For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

City of WILMINGTON
 Public Services • Engineering Division
 STORMWATER MANAGEMENT PLAN
 Date: 5/16/16 Permit # 200702721
 Signed: [Signature]

Approved Construction Plan
 Name: [Name] Date: 5/16/16
 Planning: [Signature] Traffic: [Signature] Fire: [Signature]

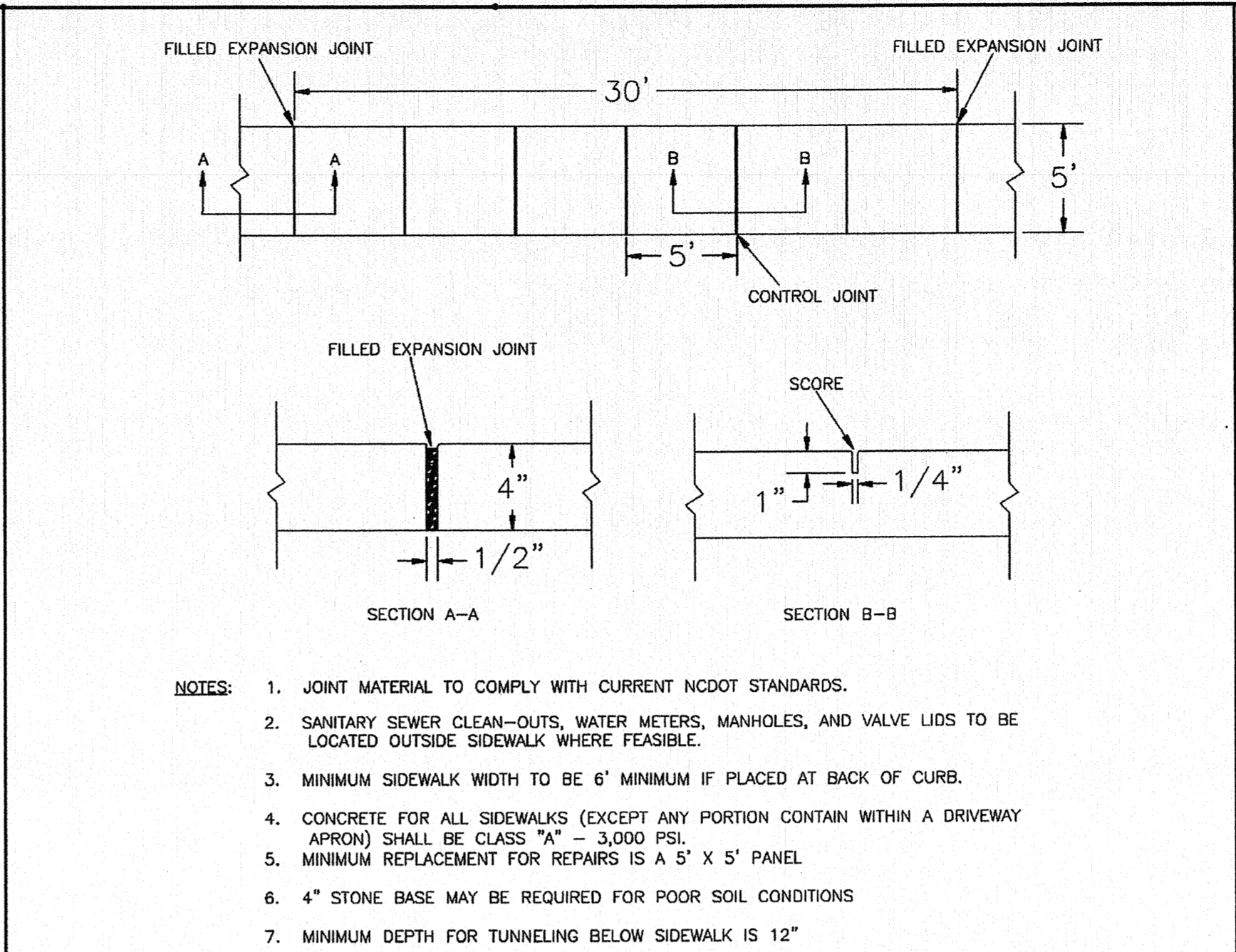
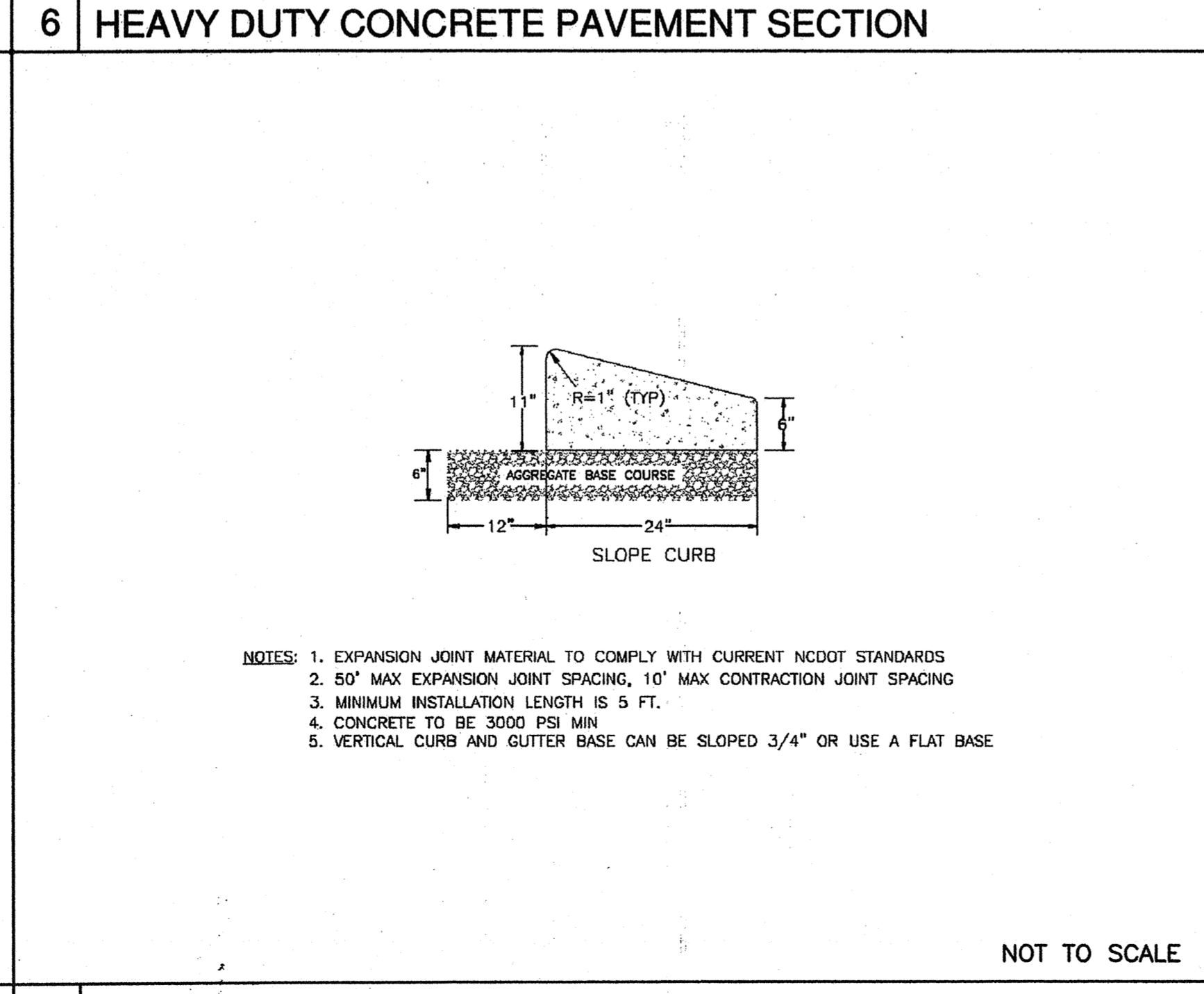
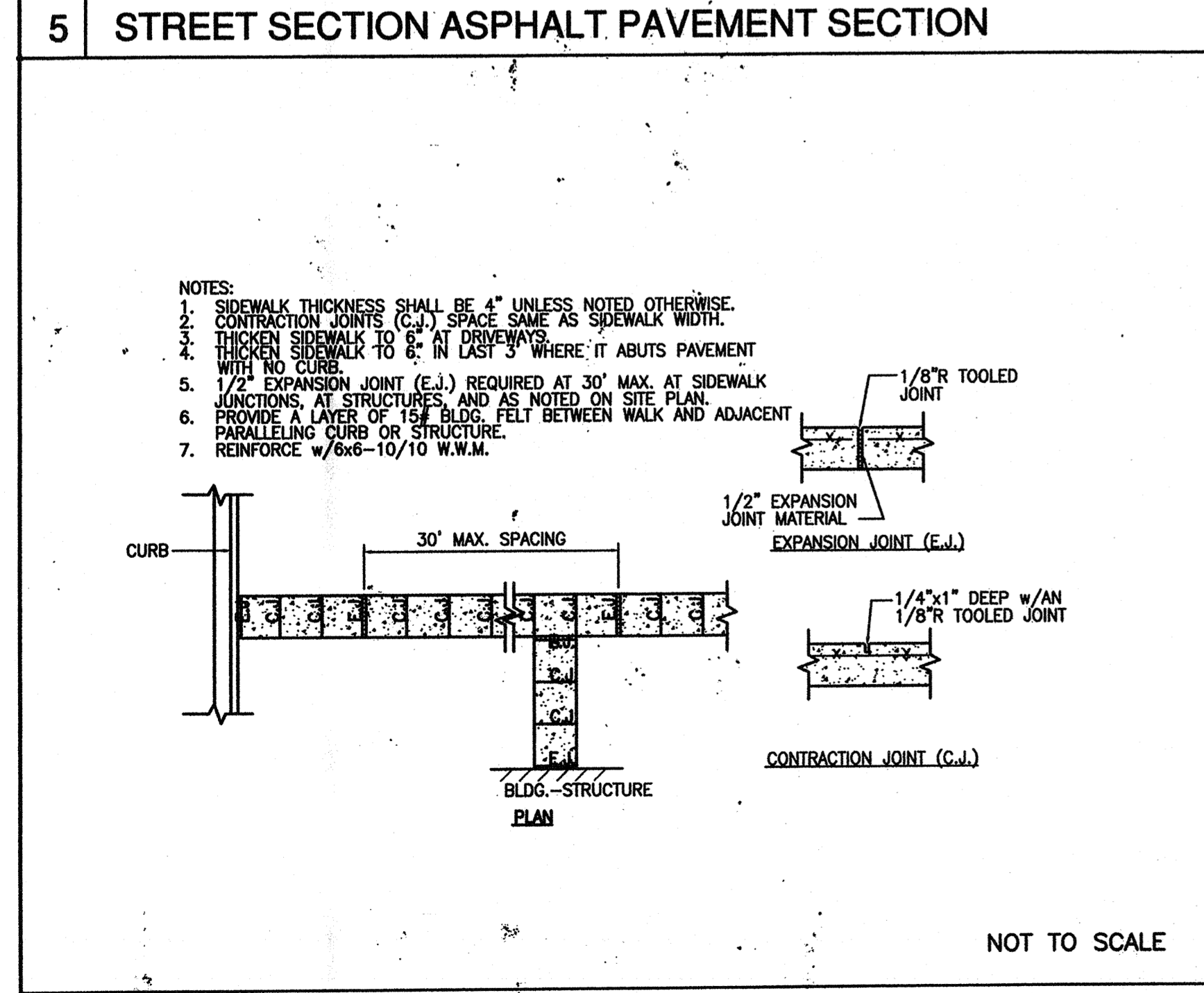
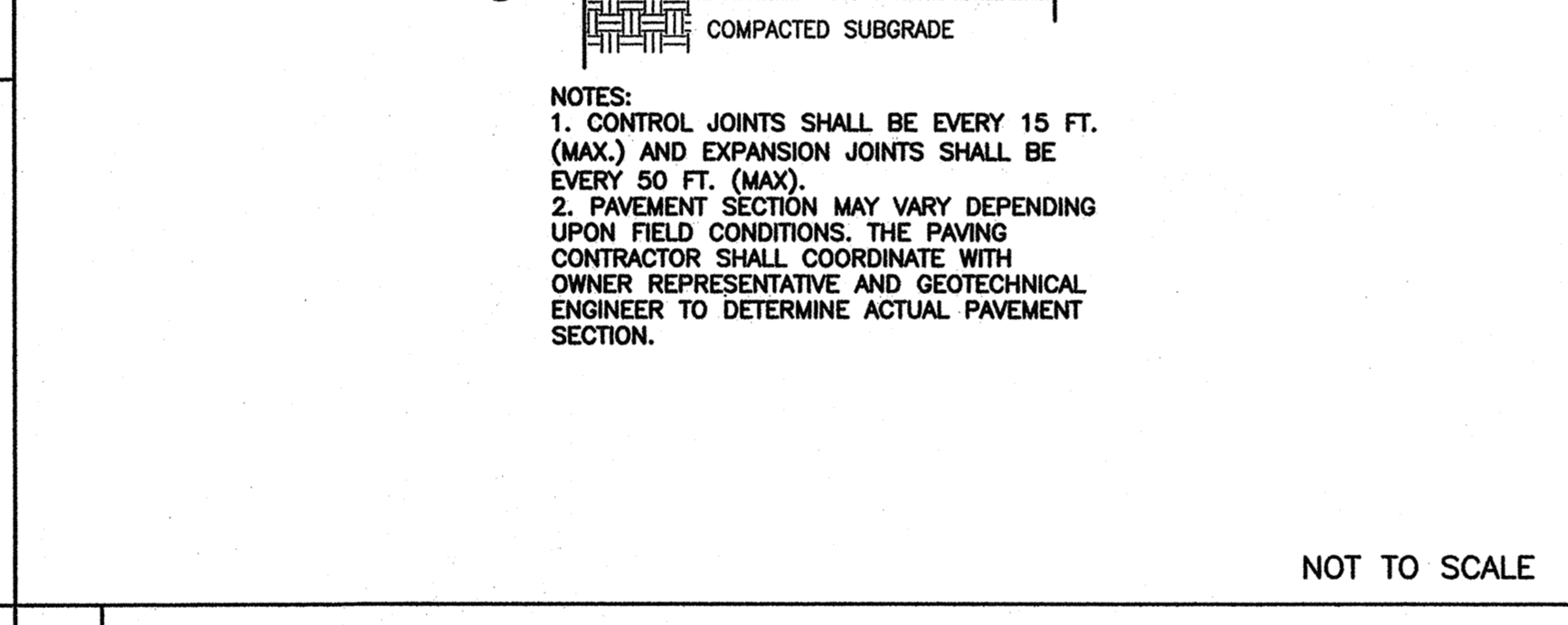
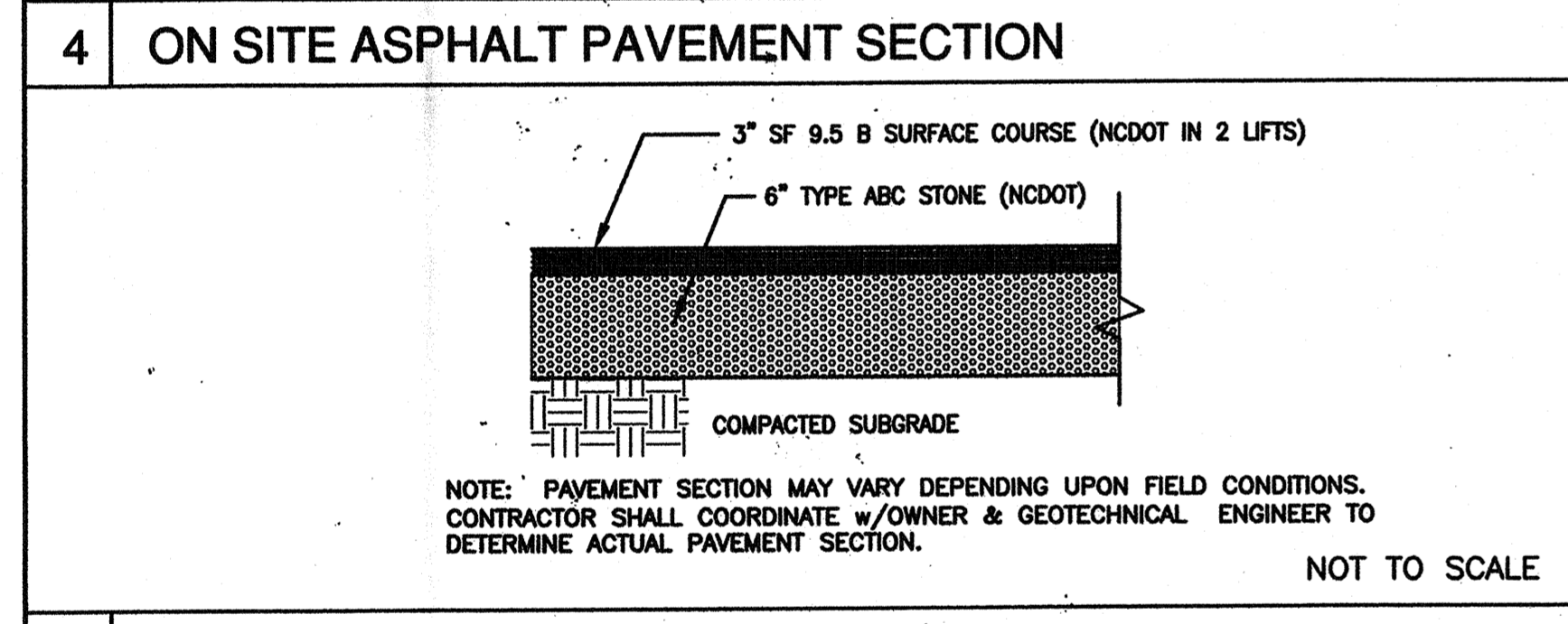
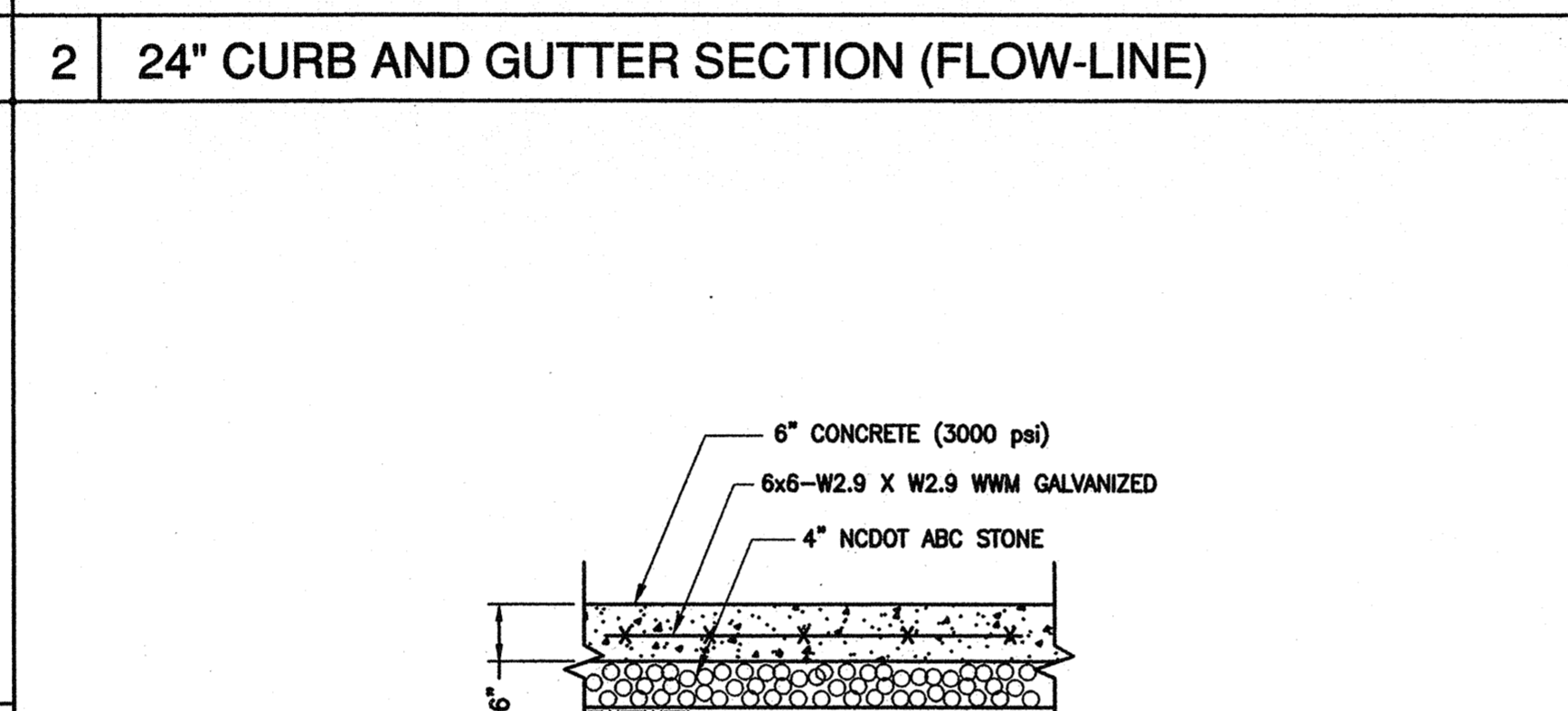
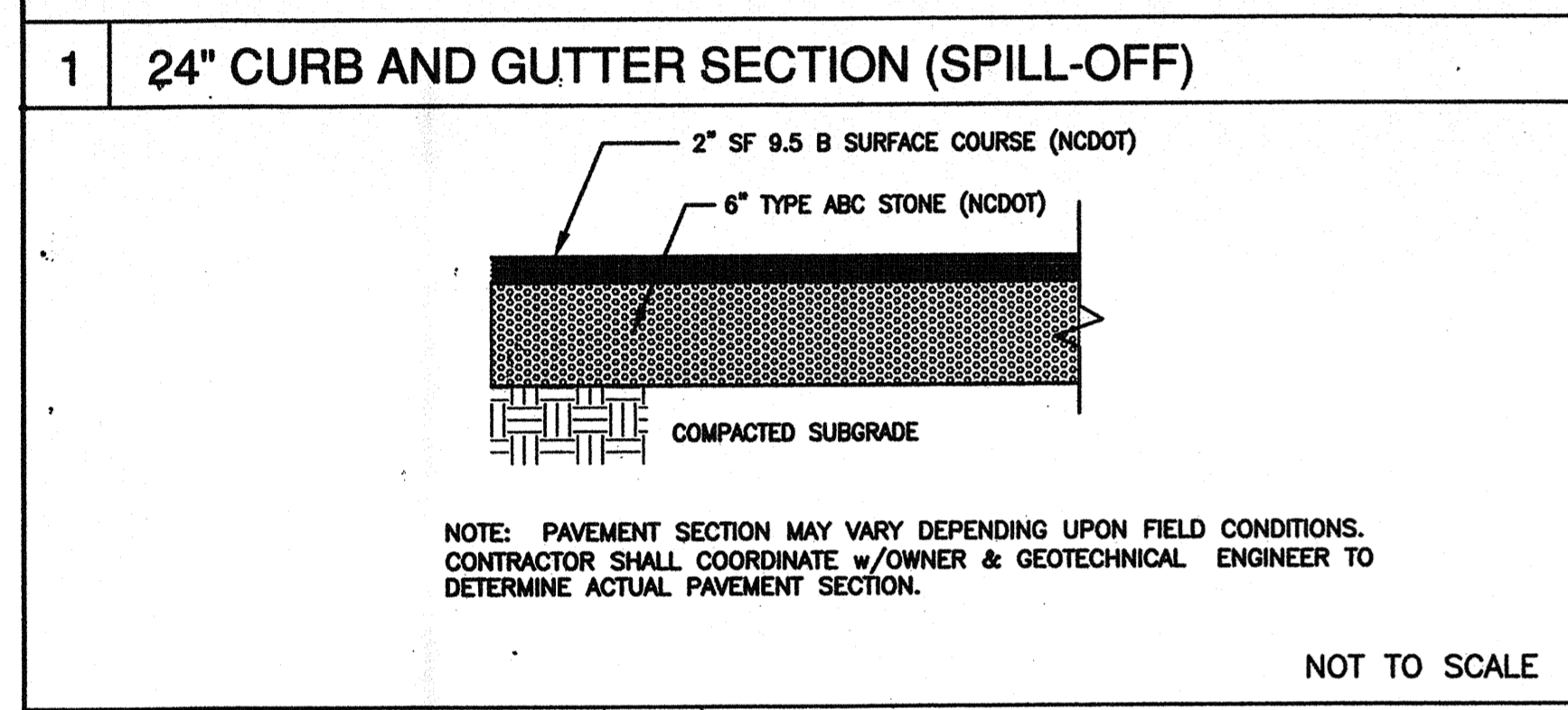
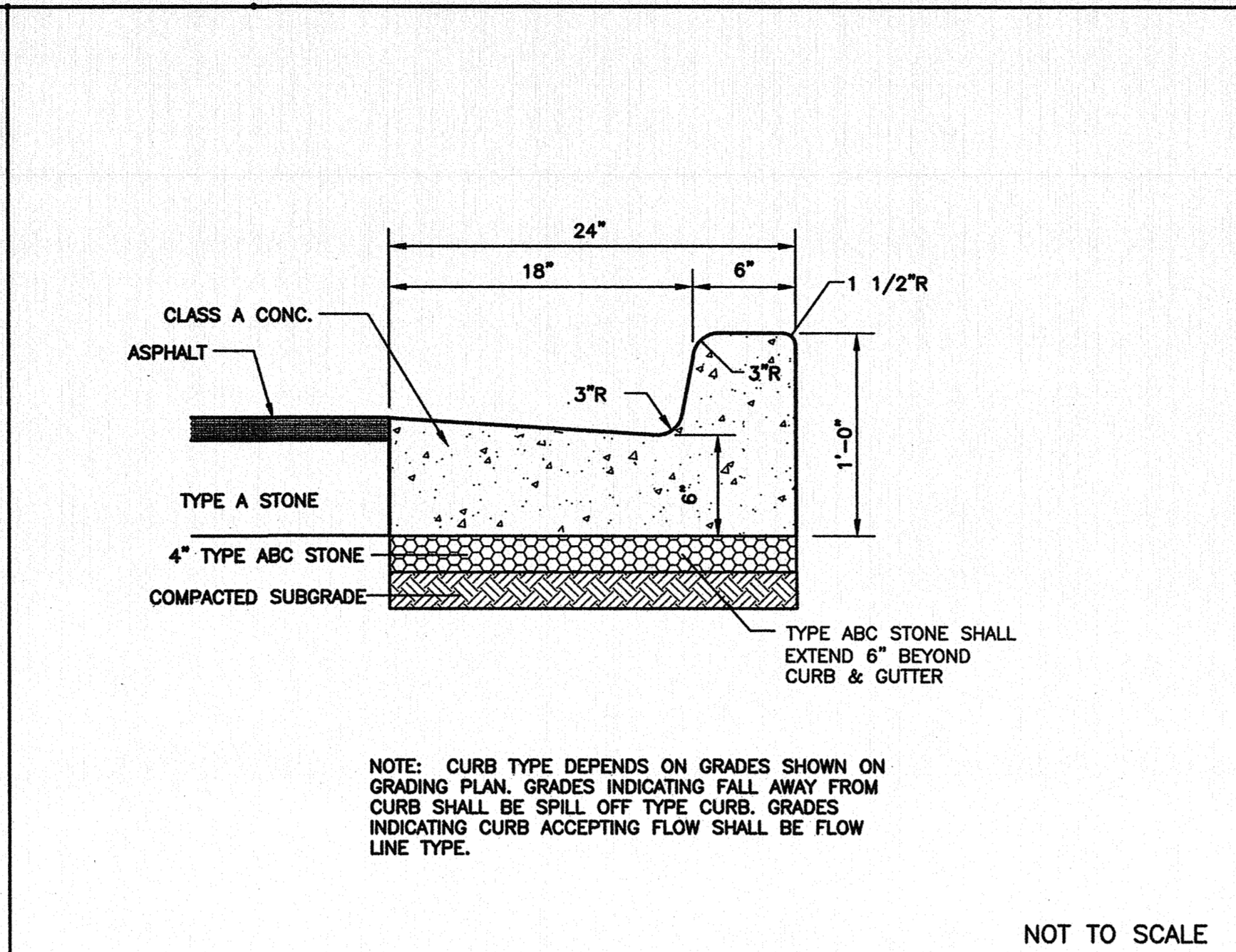
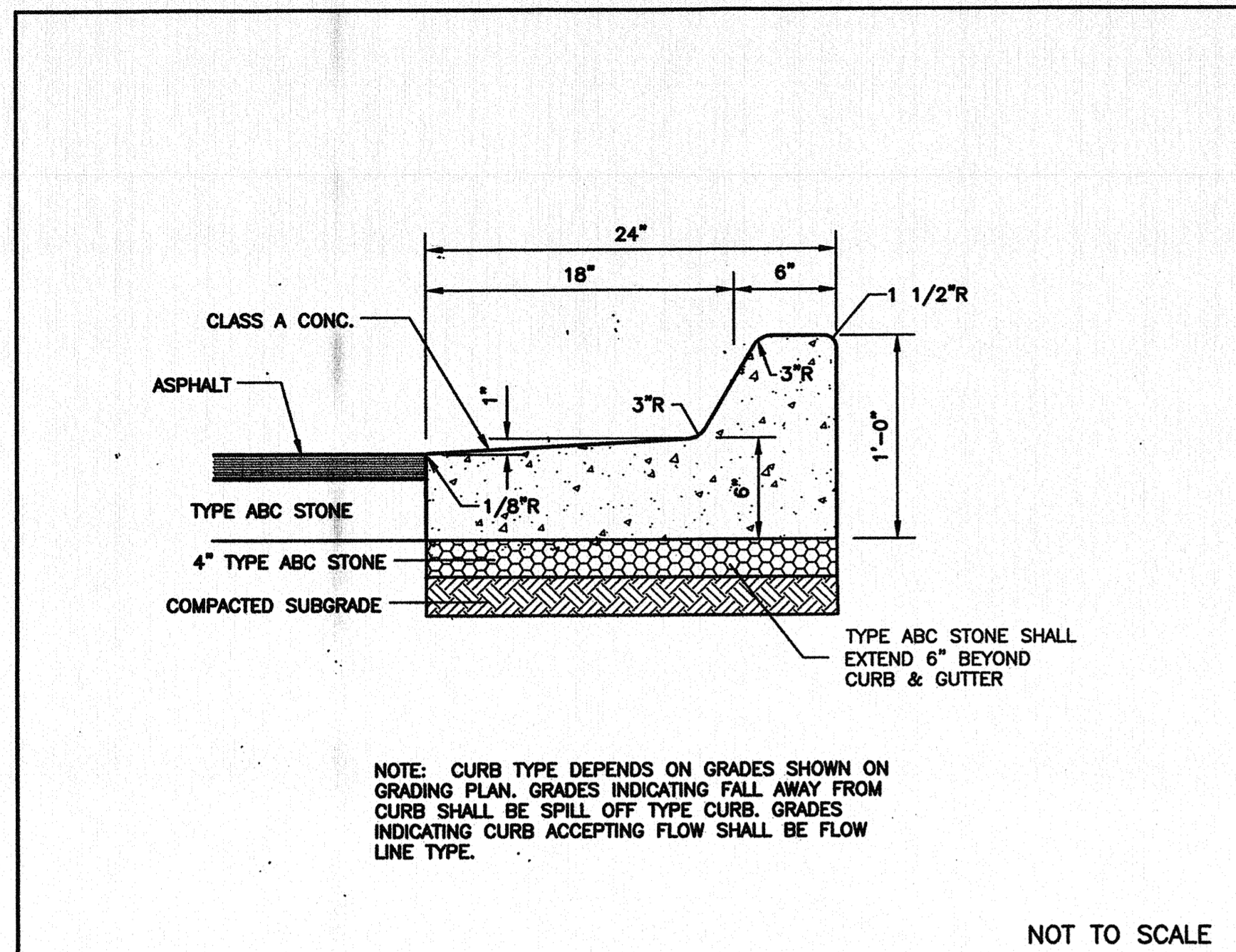
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 WATER CAPACITY: _____ GPD
 DWQ SEWER PERMIT #:
 SEWER CAPACITY: _____ GPD
 SEWER SHED # AND PLANT:
 SEWER TO FLOW THROUGH NE: YES OR NO (CIRCLE ONE)

16009
 DES. JST
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 DRWN. NKS
 DATE 4/11/16

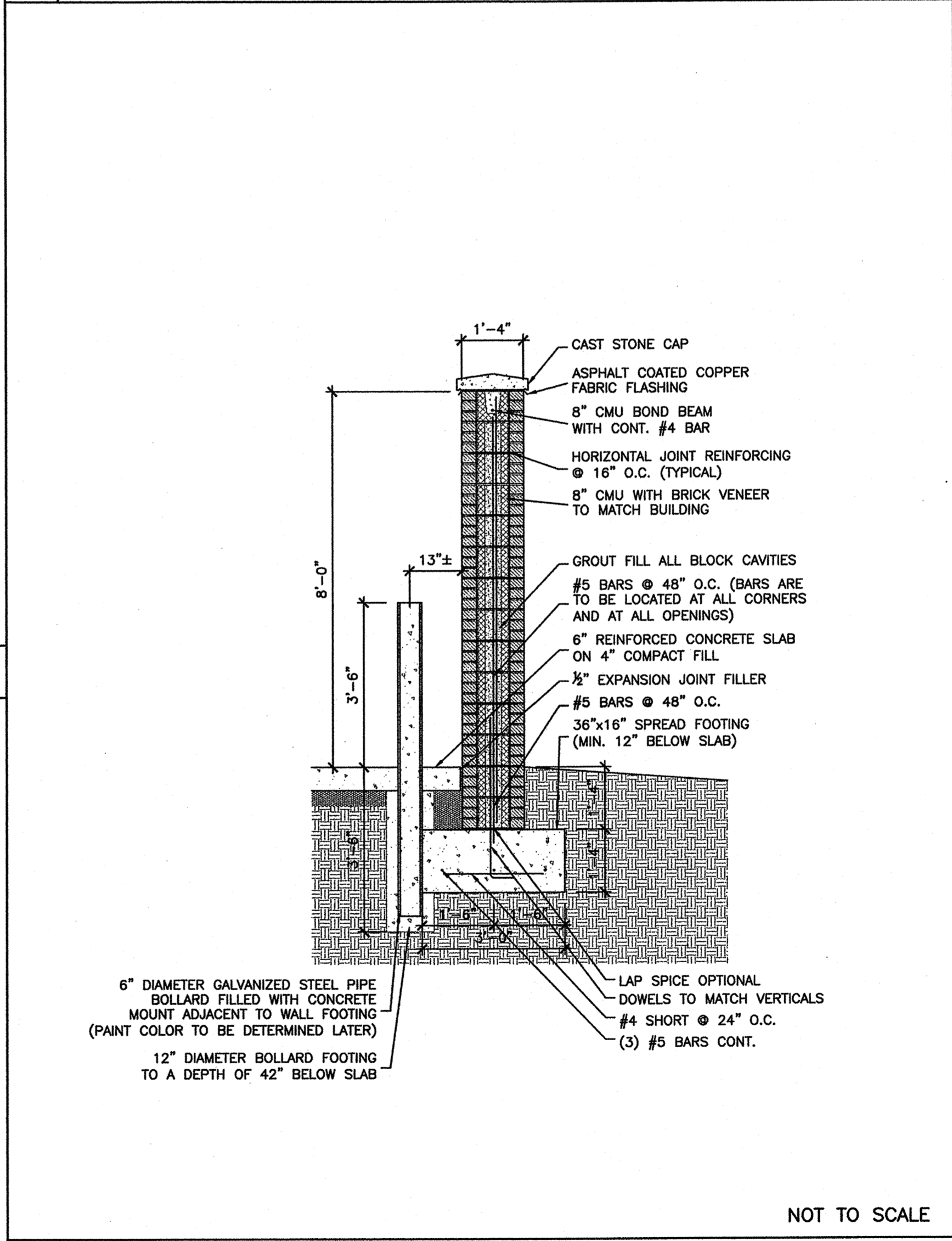


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 SYMBOL DATE DESCRIPTION BY
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C5



3 STANDARD SIDEWALK DETAIL



9 DUMPSTER SCREENING DETAIL

CITY OF WILMINGTON STANDARD NOTES:

- CONTACT THE NORTH CAROLINA ONE CALL CENTER PRIOR TO DOING ANY DIGGING AT 1-800-632-4949.
- PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
- ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
- INSTALL REFLECTORS PER CITY AND NCDOT STANDARDS. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING LAYOUT PRIOR TO ACTUAL STRIPING.
- ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
- TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
- IT SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER TO ERECT OFFICIAL STREET NAME SIGNS AT ALL INTERSECTIONS ASSOCIATED WITH THE SUBDIVISION IN ACCORDANCE WITH THE TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL. THE SUBDIVIDER MAY ACQUIRE AND ERECT OFFICIAL STREET NAME SIGNS OR MAY CHOOSE TO CONTRACT WITH THE CITY TO INSTALL THE STREET SIGNS AND THE SUBDIVIDER SHALL PAY THE COST OF SUCH INSTALLATION. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. POSTED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET NAME SIGNS.
- CONTACT TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
- A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. CONTACT 341-5888 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
- ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS, AND CURBING WILL BE REPLACED.
- CONTACT KAREN DIXON AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
- PROJECT SHALL COMPLY WITH CFPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL. CALL 343-3910 FOR INFORMATION.
- IF THE CONTRACTOR DESIRES CFPWA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
- ANY IRRIGATION SYSTEM SUPPLIED BY CFPWA WATER SHALL COMPLY WITH CFPWA CROSS CONNECTION CONTROL REGULATIONS. CALL 332-6558 FOR INFORMATION.
- ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCOCHR OR ASSE.
- WHEN PVC WATER MAINS AND/OR POLYETHYLENE SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED SINGLE STRAND COPPER WIRE INSTALLED THE ENTIRE LENGTH AND SECURED TO ALL VALVES. THIS WIRE IS TO BE ACCESSIBLE AT ALL FIRE HYDRANTS AND WATER METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
- THE NUMBER AND SPACING OF DRIVEWAYS FOR ALL INTERCONNECTED SITES WILL BE DETERMINED BY THE COMBINED FRONTAGE OF THE INTERCONNECTED PROPERTIES.
- UNDERGROUND FIRE LINE MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC ROW TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-343-0696 FOR ADDITIONAL INFORMATION.
- A LANDSCAPE PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEER DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT.
- IF AN IRRIGATION SYSTEM IS PLANNED FOR THE SITE, UTILIZE MOISTURE SENSORS.
- ALL PROPOSED VEGETATION WITHIN THE SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30'-10'.

UTILITY NOTES FOR FIRE HYDRANTS:

- FIRE HYDRANTS MUST BE WITHIN 150' OF THE FIRE DEPARTMENT CONNECTION.
- THE FIRE DEPARTMENT CONNECTION MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- 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.
- FIRE HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
- NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDINGS.
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS BEING DELIVERED TO THE JOB SITE.
- THE CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
- 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.
- A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
- HYDRANTS SHALL BE OF SUFFICIENT NUMBERS TO ACCOMMODATE BASE FIRE FLOW REQUIREMENTS OF THE STRUCTURE.
- BUILDING CONSTRUCTION TYPE: IIB

Approved Construction Plan

Name: _____ Date: 5/5/16

Planning: _____

Traffic: _____

Fire: _____

Permit # 200702721

Approved by: _____

Public Services • Engineering Division

APPROVED STORMWATER MANAGEMENT PLAN

Date: 5/5/16 Permit # 200702721

Signed: _____

SYMBOL	DATE	DESCRIPTION	BY
REVISIONS			
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NOTES AND DETAILS

NORRIS & TUNSTALL
 CONSULTING ENGINEERS, P.C.
 902 MARKET STREET
 WILMINGTON, NC 28401
 PHONE (910) 343-9653

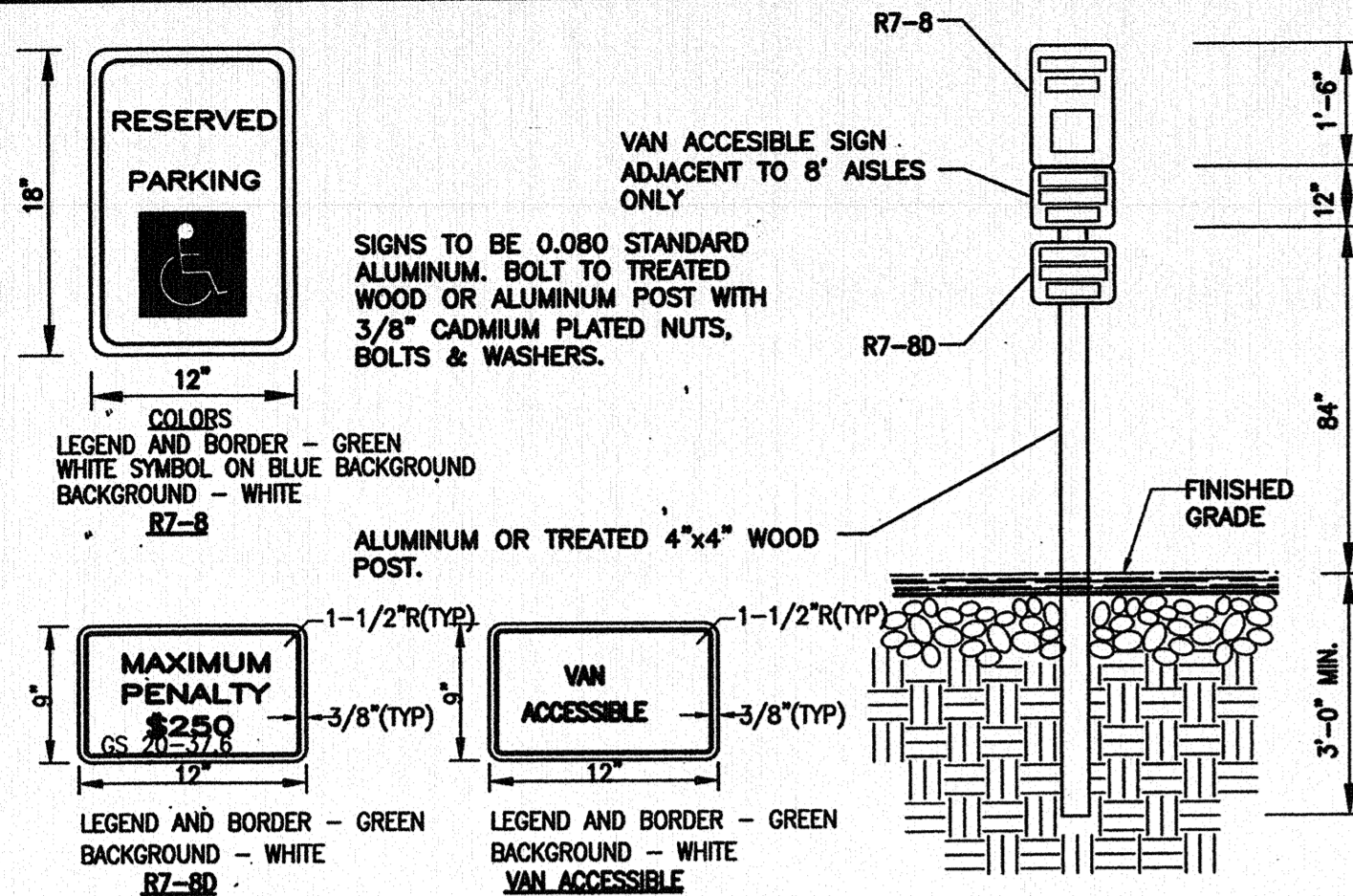
OWNER:
 TCT OF WILMINGTON, LLC
 1122 WILMINGTON, N.C. 28405
 (910) 256-7704

16009

DES. JST
 O.D. JPN
 DRWL. NKS

DATE 4/11/16

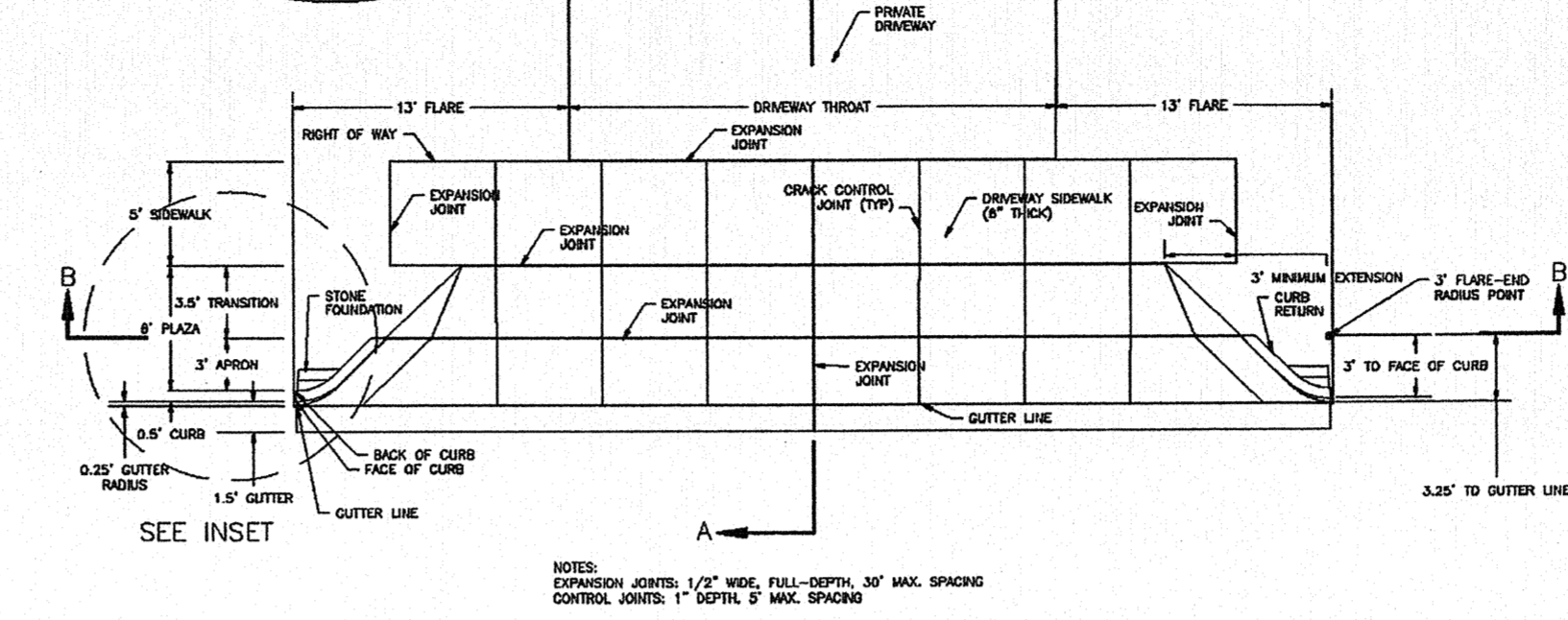
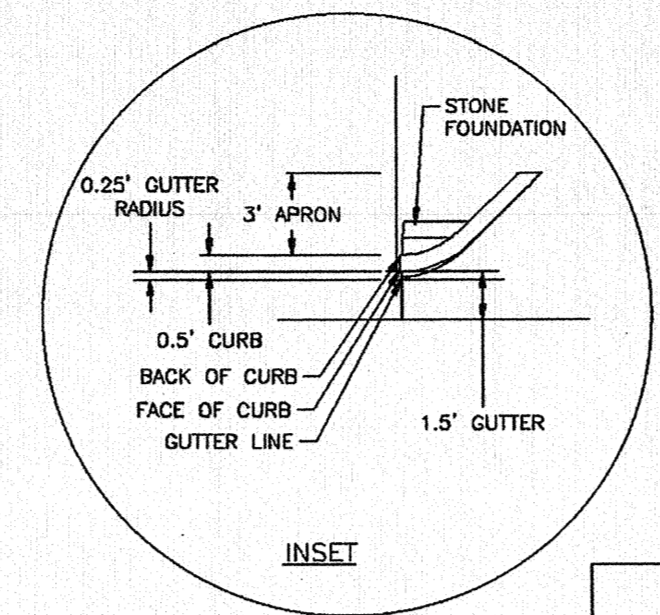
C6



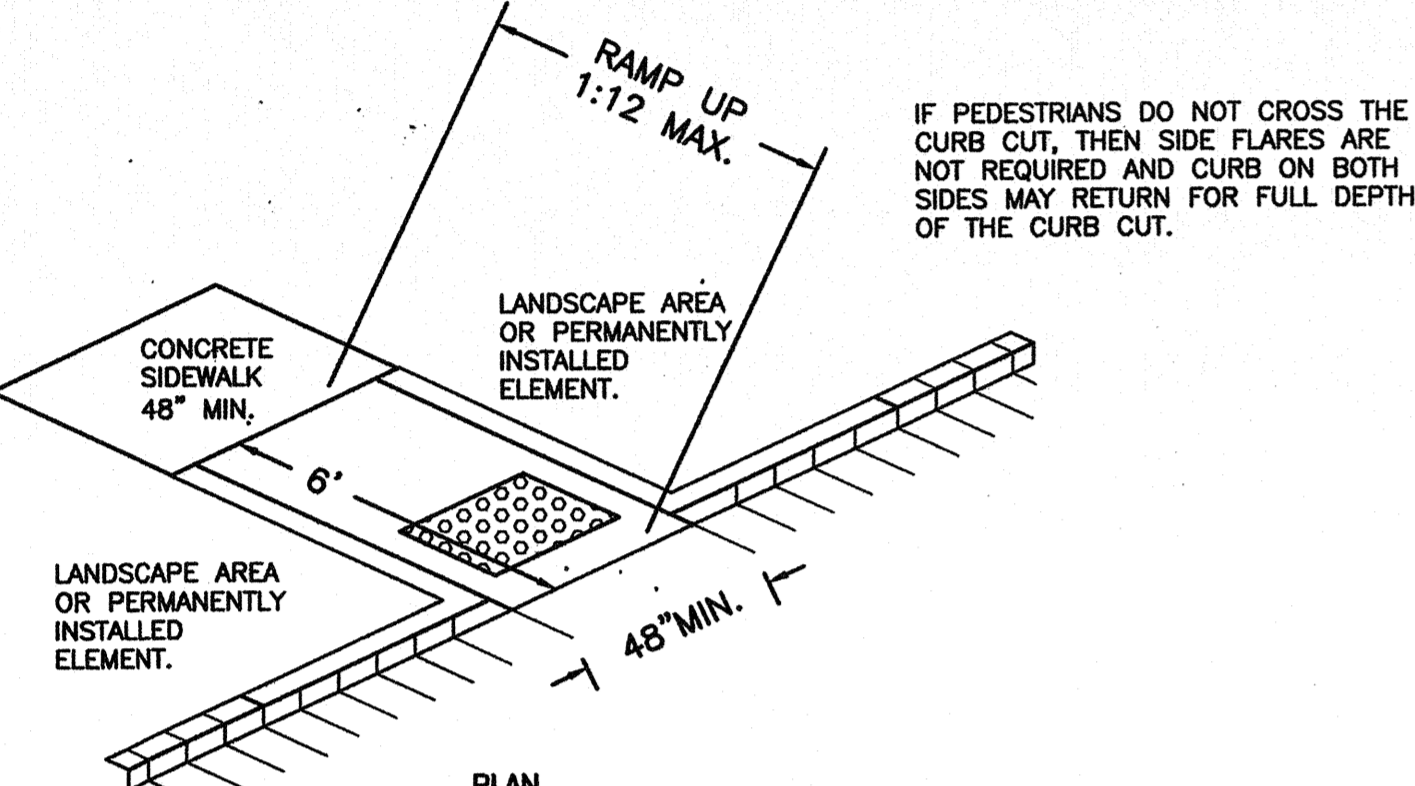
TYPICAL HANDICAPPED SIGN DETAIL
NOT TO SCALE

- NOTE:**
- RAMP SHALL HAVE A DETECTABLE WARNING COMPLYING WITH ADA GUIDELINES.
 - THE DETECTABLE WARNINGS AT CURB RAMPS SHALL BE 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
 - MARKED CROSSINGS THAT ARE RAISED TO THE SAME LEVEL AS THE ADJOINING SIDEWALK SHALL BE PRECEDED BY A 24 INCH DEEP DETECTABLE WARNING EXTENDING THE FULL WIDTH OF THE MARKED CROSSING.
 - DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 IN (23 MM), A HEIGHT OF NOMINAL 0.2 IN (5 MM) AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 IN (60 MM) AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHOULD CONTRAST BY AT LEAST 70% - REFER TO ADA GUIDELINES FOR DEFINITION OF "CONTRAST".
 - THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CAME CONTACT.

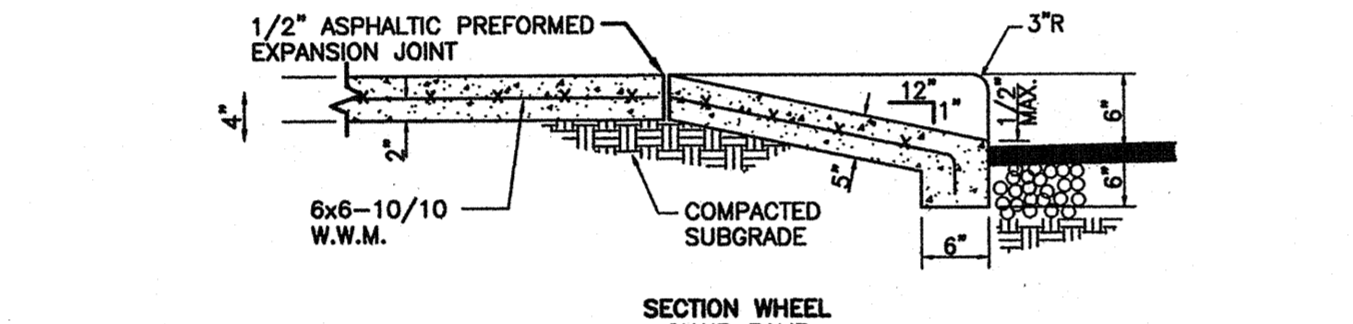
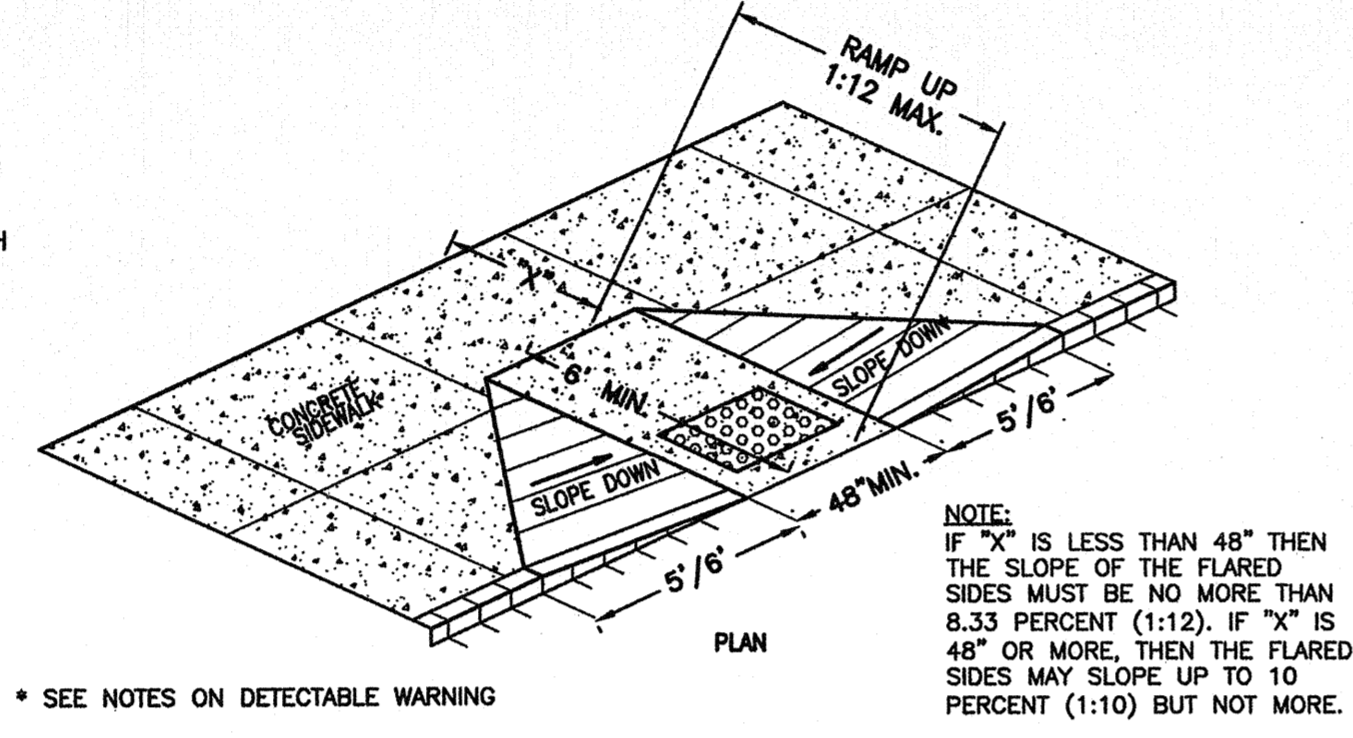
NOTES ON DETECTABLE WARNING FOR WHEEL CHAIR RAMPS



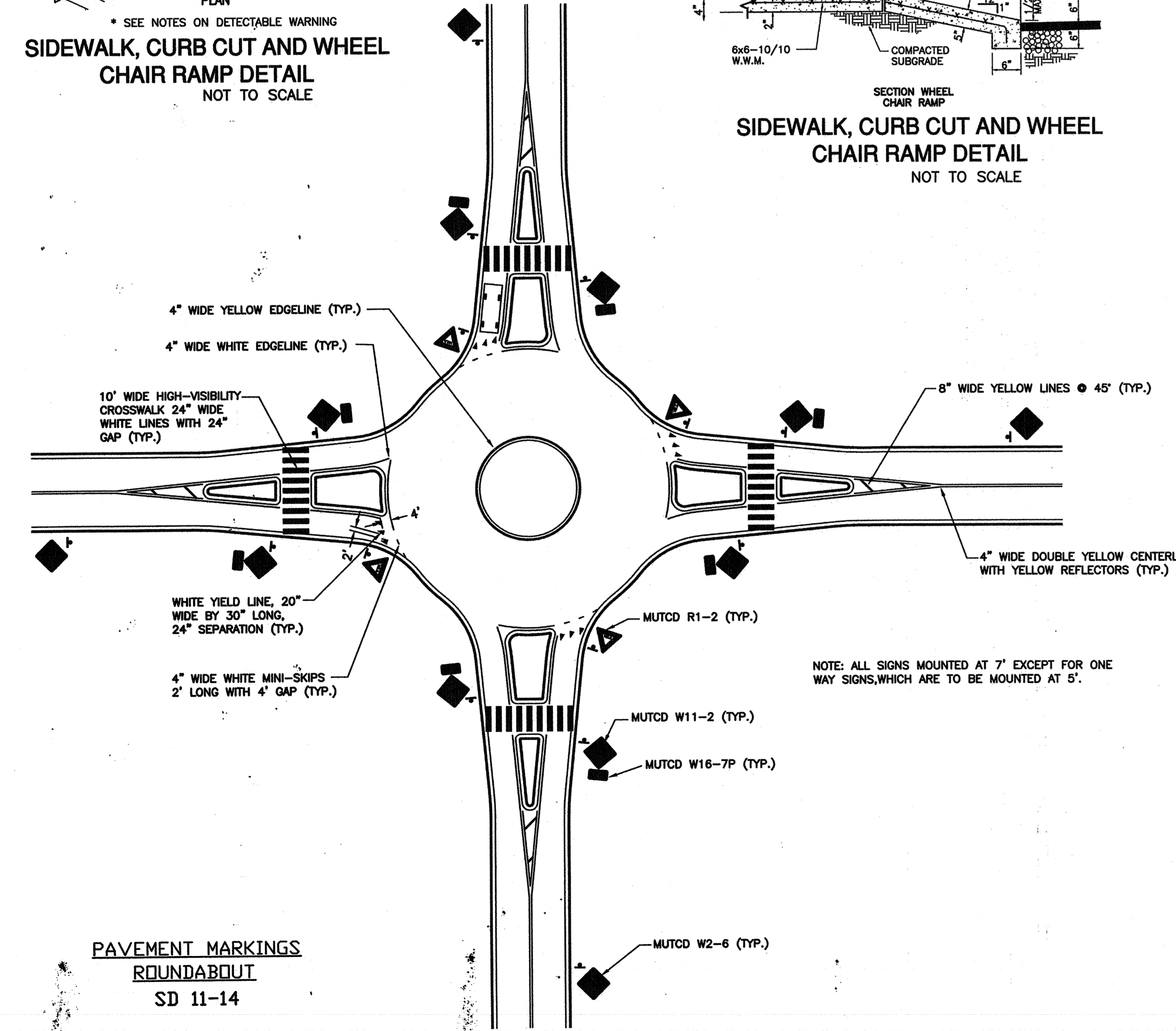
STANDARD CITY OF WILMINGTON DRIVE WAY DETAIL



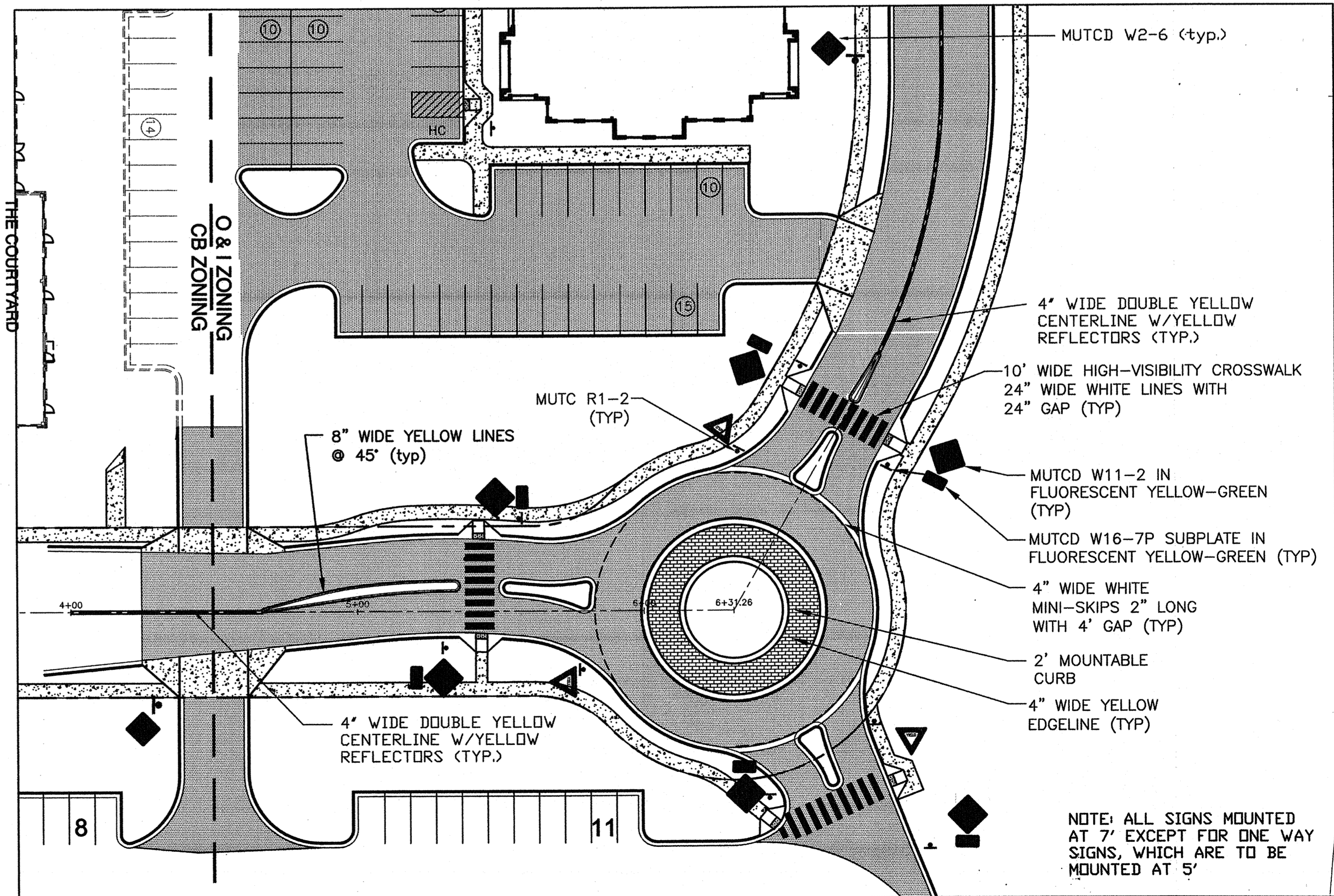
SIDEWALK, CURB CUT AND WHEEL CHAIR RAMP DETAIL
NOT TO SCALE



SIDEWALK, CURB CUT AND WHEEL CHAIR RAMP DETAIL
NOT TO SCALE



PAVEMENT MARKINGS ROUNDABOUT SD 11-14



PAVEMENT MARKINGS ROUNDABOUT

BY	DESCRIPTION
SYMBOL	DATE
REVISIONS	

NOTES AND DETAILS
RENAISSANCE II OFFICE BUILDING
1022 ASHES DRIVE
WILMINGTON, NORTH CAROLINA

OWNER:
TCT OF WILMINGTON, LLC
1022 WILMINGTON CUTOFF RD.
WILMINGTON, N.C. 28405
(910) 256-7704

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

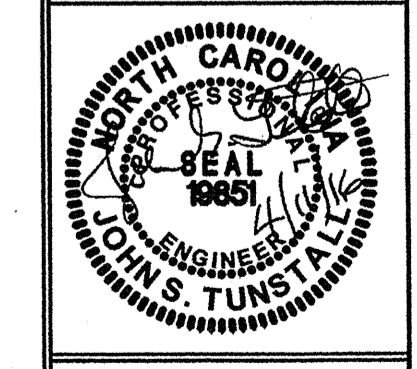
City of Wilmington
Public Services • Engineering Division
STORMWATER MANAGEMENT PLAN
Date: 5/12/16 Permit #: 2007027 R1
Signed: [Signature]

Approved Construction Plan
Name: [Name] Date: 5/12/16
Planning: [Signature] Date: 5/12/16
Traffic: [Signature] Date: 5/12/16
Fire: [Signature] Date: 5/12/16

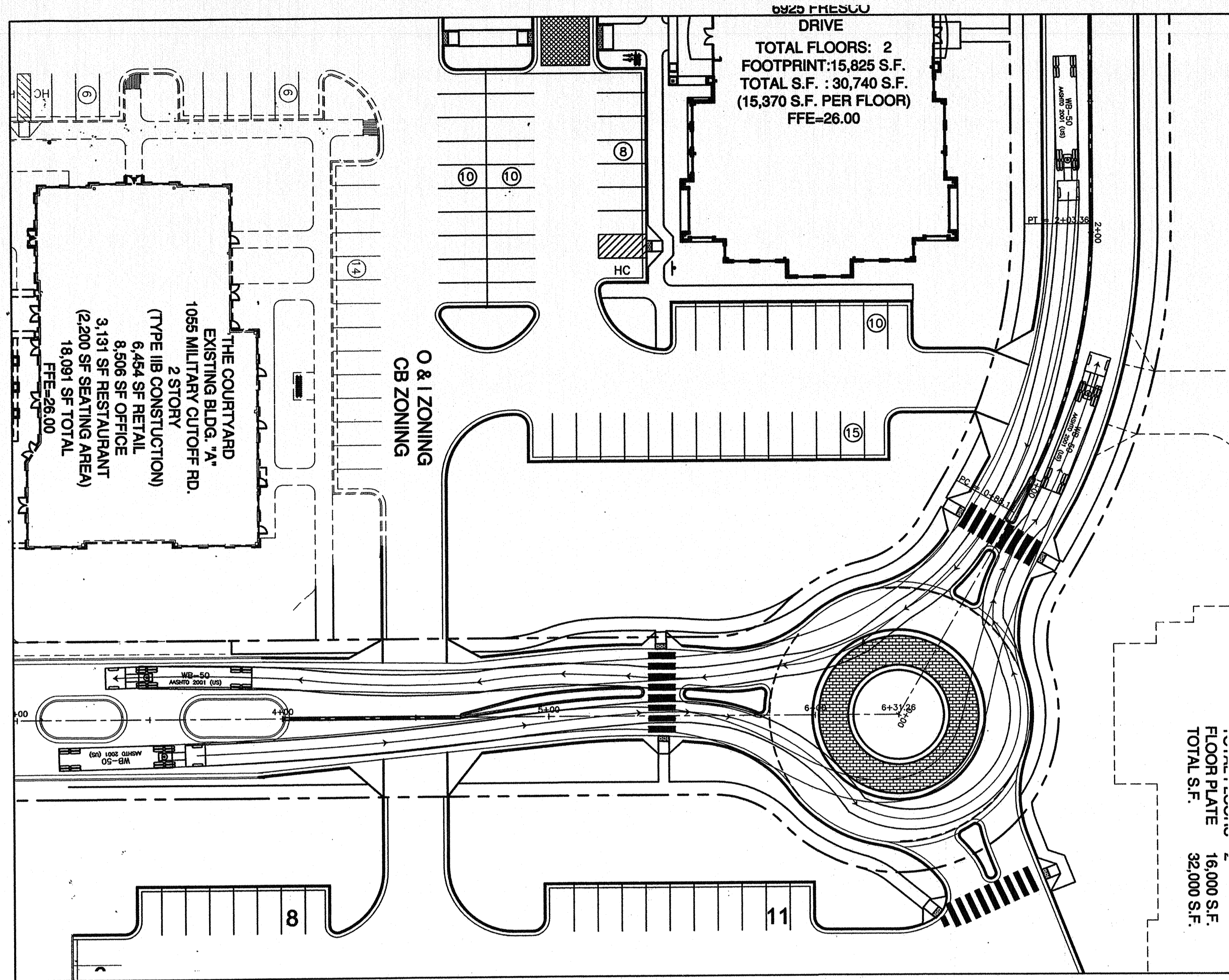
NC DENR PWSS WATER PERMIT #: _____ GPD
WATER CAPACITY: _____ GPD
DWO SEWER PERMIT #: _____ GPD
SEWER CAPACITY: _____ GPD
SEWER SHED # AND PLANT: _____
SEWER TO FLOW THROUGH NEI: YES OR NO (CIRCLE ONE)

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
902 MARKET STREET
WILMINGTON, NC 28401
PHONE (910) 343-9653
1429 ASH-LITTLE RIVER RD. NW
ASH, NC 28420
PHONE (910) 287-5900
license #C-3641

16009
DES. JST
CHK. JPN
DRWN. NKS
DATE 4/11/16

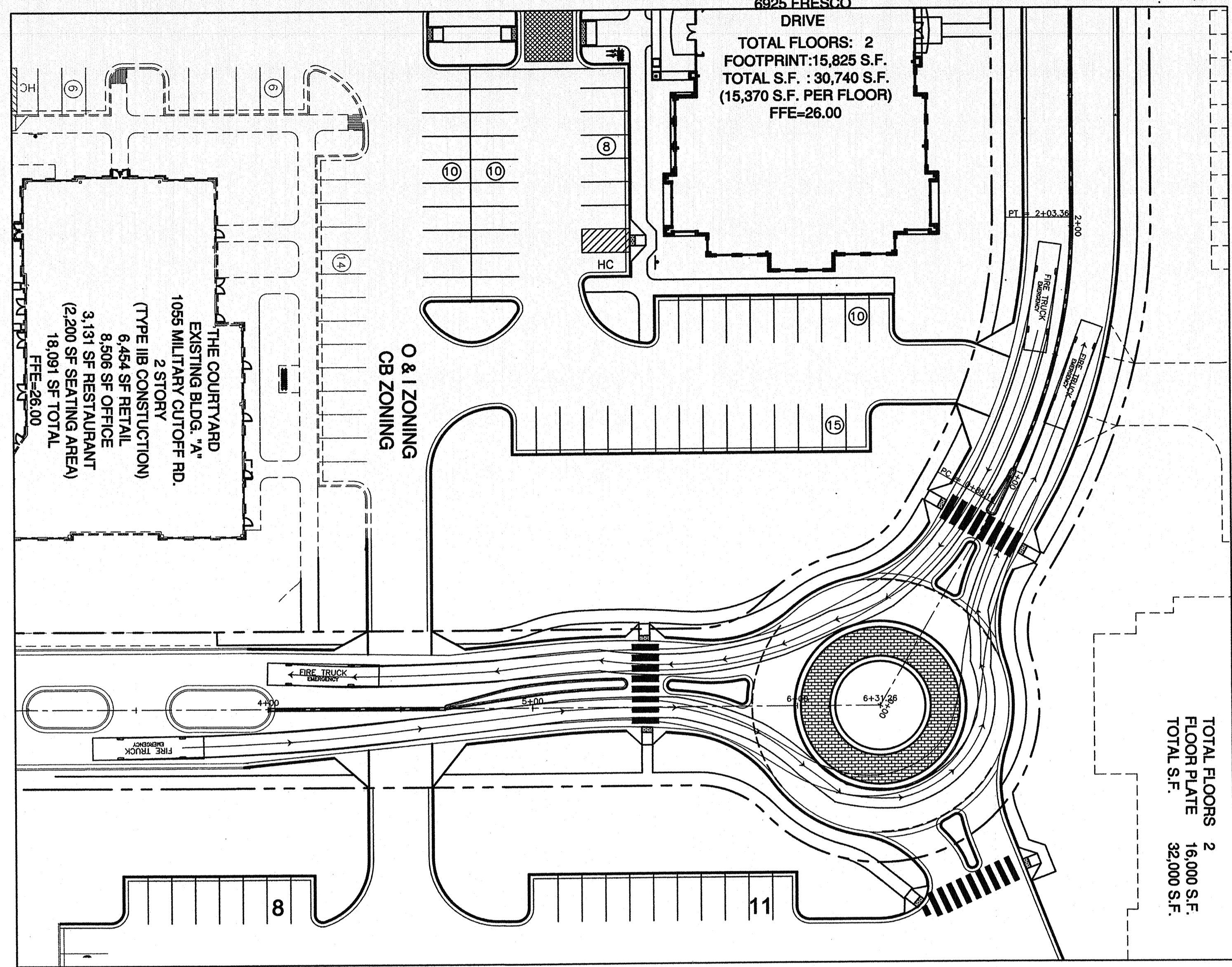


C7



TRUCK TURN DETAIL WB-50
SCALE: 1"=30'

FLOOR PLATE
TOTAL S.F. 16,000 S.F.
TOTAL S.F. 32,000 S.F.



TRUCK TURN DETAIL FIRE TRUCK
SCALE: 1"=30'

TOTAL FLOORS 2
FLOOR PLATE 16,000 S.F.
TOTAL S.F. 32,000 S.F.

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
Public Services • Engineering Division
STORMWATER MANAGEMENT PLAN
Date: 5/5/16 Permit # 2007027R1
Signed: *[Signature]*

Approved Construction Plan
Name: *[Signature]* Date: 5/5/16
Planning: *[Signature]* 5/5/16
Traffic: *[Signature]* 5/5/16
Fire: *[Signature]* 5/6/16

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)

TRUCK TURN DETAILS
RENAISSANCE II OFFICE BUILDING
1022 ASHES DRIVE
WILMINGTON, NORTH CAROLINA

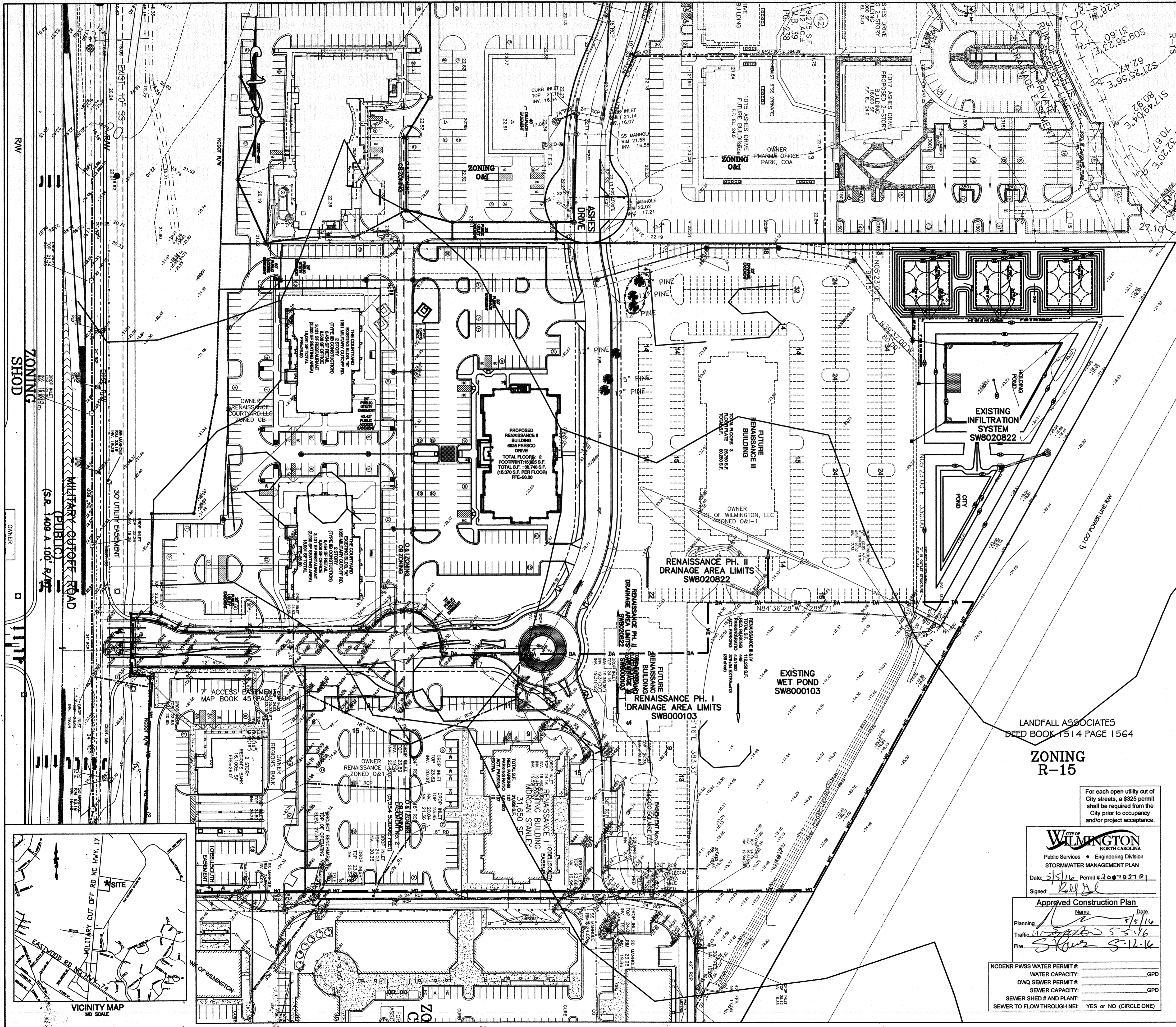
OWNER:
TCT OF WILMINGTON, LLC
1125 MILITARY CUTOFF RD.
WILMINGTON, N.C. 28405
(910) 258-7704

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
902 MARKET STREET
WILMINGTON, N.C. 28401
PHONE (910) 343-9853
1429 ASH-LITTLE RIVER RD. NW
ASH, NC 28420
PHONE (910) 287-5900
license #C-3641

16009
DES. JUST
ORD. JPN
DRWN. NKS
DATE 4/11/16



C8



SITE DATA TABLE	
USE:	OFFICE
SITE AREA:	3.15 ACRES TOTAL (137,426 SF)
ACCESS EASEMENT WITHIN SITE:	.80 ACRES (34,718 SF)
PARCEL ID#:	R05100-003-065-000
MAP ID#:	315706.49.8929.000
DISTURBED AREA:	0 & I-1
CAMA LAND USE:	RESOURCE PROTECTION
BUILDING SETBACKS (REQUIRED):	FRONT SETBACK: 20' INTERIOR SIDE SETBACK: 10' CORNER SIDE SETBACK: 20' REAR SETBACKS: 20'
BUILDING SETBACKS (PROPOSED):	FRONT SETBACK: 20' INTERIOR SIDE SETBACK: 187'± CORNER SIDE SETBACK: 110'± REAR SETBACKS: 130'±
MAX. BUILDING LOT COVERAGE:	40%
PROPOSED BUILDING LOT COVERAGE:	11%
MAX. BUILDING HEIGHT:	43' (2 STORY)
BUILDING CONSTRUCTION TYPE:	IIB
BUILDING:	15,825 SF (ROOF AREA)
BUILDING HEIGHT:	43' (2 STORY)
BUILDING SQUARE FOOTAGE:	30,740 SF TOTAL (15,370 PER FLOOR)
PARKING REQ'D: OFFICE:	200/SF MAX. 300/SF MIN.
TOTAL PARKING REQ'D:	154 MAX/102 MIN. REQUIRED
PROPOSED PARKING PROV'D:	146 (INCLUDES 5 HC)
BICYCLE PARKING REQ'D:	10 SPACES
BICYCLE PARKING PROV'D:	10 SPACES
PROPOSED IMPERVIOUS AREA:	
BUILDING:	15,825 SF (ROOF AREA)
ASPHALT, CURB & GUTTER:	51,878 SF
SIDEWALK:	4,150 SF
TOTAL:	71,653 SF
EXISTING IMPERVIOUS AREA WITHIN ACCESS EASEMENT:	25,000 SF
TOTAL IMPERVIOUS AREA:	96,653 SF
% SITE IMPERVIOUS AREA:	70%
AREA WITHIN NEW R/W:	46,000 SF
IMPERVIOUS AREA WITHIN NEW R/W:	38,635 SF
LANDSCAPING:	
FOUNDATION PLANTINGS (12%):	
FRONT: 45' X 156' X .12 = 842 SF REQD.	876 SF PROVIDED
SIDE (2): 45' X 104' X .12 = 562 SF REQD.	570 (2) SF PROVIDED
REAR: 45' X 156' X .12 = 842 SF REQD.	946 SF PROVIDED
TOTAL REQUIRED=2,808 SF TOTAL PROVIDED=2,962 SF	
LANDSCAPING REQ'D INTERIOR:	
ASPHALT, CONCRETE CURB & GUTTER:	51,878 SF
14% REQUIRED (146 X (51,878)) = 7,235 SF	7,300 SF PROVIDED
STREETYARD LANDSCAPING:	
PRIMARY: PROPOSED PUBLIC R/W FRESCO DR.	3,918 SF PROVIDED
18' MULTIPLYER (241'-24' X 18' = 3,908 SF	
SECONDARY: ASHES DR.	3,783 SF PROVIDED
9' MULTIPLYER (451'-45' X 9' = 3,827 SF	

SITE DATA TABLE - EXISTING RENAISSANCE I, PHASE I	
USE:	OFFICE
SITE AREA:	2.16 ACRES
DISTURBED AREA:	0 & I-1 AND CB
ZONING:	RESOURCE PROTECTION
CAMA LAND USE:	0 & I-1 AND CB
BUILDING SETBACKS (EXISTING):	FRONT: 230' SIDE: 33' NORTH, 11' SOUTH REAR: 45'
BUILDING HEIGHT:	32' (2 STORY)
BUILDING SQUARE FOOTAGE:	31,650 SF (15,825 SF EACH FLOOR)
PARKING REQ'D:	0 & I ZONE
PARKING GROUP (OFFICE):	200/SF MAX. 300/SF MIN. 158 MAX/105 MIN. REQUIRED
PROPOSED PARKING PROV'D:	137 REGULAR (6 ARE HC)
IMPERVIOUS AREA-PHI DRAINAGE AREA:	
EXISTING BUILDING:	15,825 SF (ROOF AREA)
EXISTING ASPHALT/CURB & GUTTER:	68,950 SF
EXISTING SIDEWALKS/CONCRETE PAVES:	6,850 SF
TOTAL EXISTING IMPERVIOUS AREA:	91,625 SF TOTAL
STREETYARD LANDSCAPING:	
(331'-24' X 18' = 5,526 SF REQUIRED	5,526 SF PROVIDED
INTERIOR LANDSCAPE PROVIDED:	1,976 SF PROVIDED

SITE INVENTORY MAP DATA	
PREPARER:	NORRIS, KUSKE & TUNSTALL ENGINEERS
SOIL TYPE:	Ra, La, To
MILITARY CUT-OFF RD:	SHOD
100 YEAR FLOOD BOUNDARY:	OUTSIDE 100 YEAR FLOOD BOUNDARY
FLOOD ZONE:	THIS SITE IS LOCATED IN ZONE "C" ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL NUMBER 370168 0085 E, DATED: 3 SEPT. 1992.
CONSERVATION OVERLAY DISTRICT:	NONE WITHIN SITE
HISTORICAL SITE:	NONE
CEMETERY:	NONE
FORESTED AREA:	VARIOUS (OAK, GUM, TULIP) SEE PLAN
WETLANDS:	NONE WITHIN SITE
ENDANGERED SPECIES/HABITAT:	NONE REPORTED

LANDFALL ASSOCIATES
DEED BOOK 1514 PAGE 1564

ZONING R-15

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
STORMWATER MANAGEMENT PLAN
Date: 5/5/16 Permit # 2007027 R 1
Signed: *[Signature]*

Approved Construction Plan
Memo: _____ Date: 5/5/16
Planning: _____
Traffic: _____
Fire: _____

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

SCALE: 1" = 60'
0 60 120 180

BY	DATE	DESCRIPTION
		REVISIONS

INVENTORY SITE PLAN
RENAISSANCE II OFFICE BUILDING
1022 ASHES DRIVE
WILMINGTON, NORTH CAROLINA

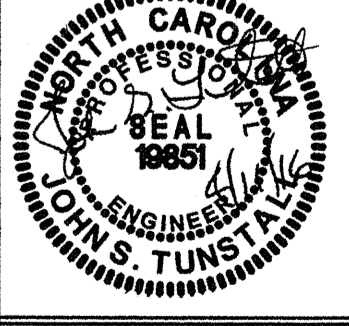
© 2016 NORRIS & TUNSTALL

NORRIS & TUNSTALL
CONSULTING ENGINEERS, P.C.
1429 ASH-LITTLE RIVER RD. NW
ASH, NC 28420
PHONE (910) 287-5900
license #C-3641

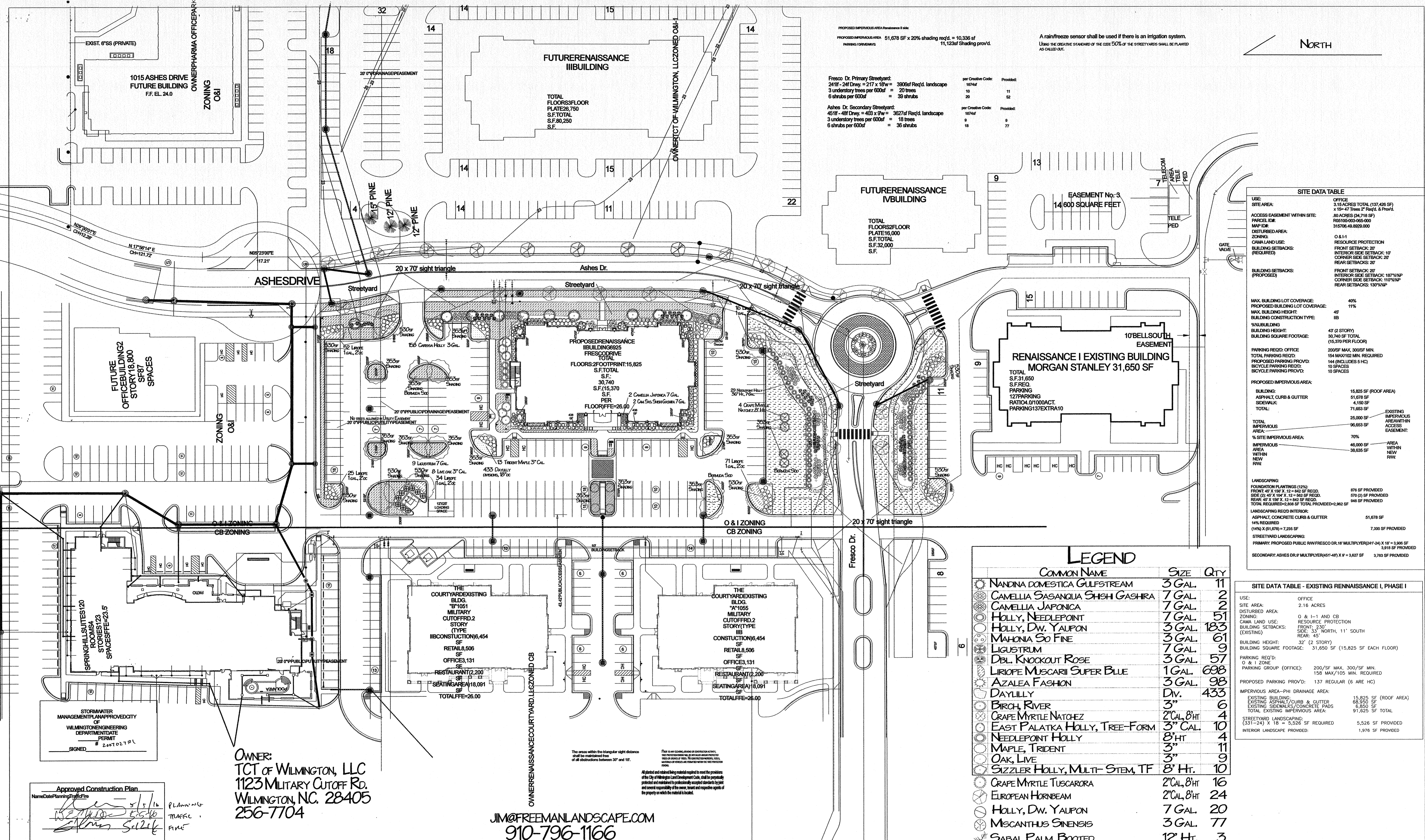
902 MARKET STREET
WILMINGTON, NC 28401
PHONE (910) 343-9653

16009

DES. JUST
CKD. JPN
DRWN. NKS
DATE 4/11/16



11



PROPOSED IMPERVIOUS AREA: 51,678 SF x 20% shading req'd. = 10,336 SF
 PROPOSED IMPERVIOUS AREA: 11,123 SF Shading prov'd.

A rain/freeze sensor shall be used if there is an irrigation system. Using the existing standard of the code 50% of the street yards shall be planted as called out.

Fresco Dr. Primary Streetyard:
 24'W - 24' Dwy. = 217 x 18'W = 3906sf Req'd. landscape
 3 understory trees per 600sf = 20 trees
 6 shrubs per 600sf = 36 shrubs

Ashes Dr. Secondary Streetyard:
 45'W - 48' Dwy. = 403 x 9'W = 3627sf Req'd. landscape
 3 understory trees per 600sf = 18 trees
 6 shrubs per 600sf = 36 shrubs

SITE DATA TABLE

USE:	OFFICE
SITE AREA:	3.15 ACRES TOTAL (137,425 SF) x 15'-47' Trees 2' Req'd. & Prov'd.
ACCESS EASEMENT WITHIN SITE:	80 ACRES (34,718 SF)
PARCEL ID#:	R05100-005-005-000
MAP ID#:	310706-49-8929-000
DISTURBED AREA:	O & I-1
ZONING:	RESOURCE PROTECTION
CAMA LAND USE:	FRONT SETBACK: 20'
BUILDING SETBACKS (REQUIRED):	INTERIOR SIDE SETBACK: 10'
BUILDING SETBACKS (PROPOSED):	CORNER SIDE SETBACK: 20'
	FRONT SETBACK: 20'
	INTERIOR SIDE SETBACK: 18' 1/2" W/P
	CORNER SIDE SETBACK: 10' 1/2" W/P
	REAR SETBACKS: 20'
	REAR SETBACKS: 130' W/P

MAX. BUILDING LOT COVERAGE:	40%
PROPOSED BUILDING LOT COVERAGE:	11%
MAX. BUILDING HEIGHT:	45'
BUILDING CONSTRUCTION TYPE:	IB
% BUILDING:	43' (2 STORY)
BUILDING SQUARE FOOTAGE:	30,740 SF TOTAL (10,370 PER FLOOR)
PARKING REQ'D: OFFICE:	2000' MAX. 300' SF MIN.
TOTAL PARKING REQ'D:	154 MAX/102 MIN. REQUIRED
PROPOSED PARKING PROV'D:	144 (INCLUDES 5 HC)
BICYCLE PARKING REQ'D:	10 SPACES
BICYCLE PARKING PROV'D:	10 SPACES

PROPOSED IMPERVIOUS AREA:

BUILDING:	15,825 SF (ROOF AREA)
ASPHALT, CURB & GUTTER:	51,678 SF
SIDEWALK:	4,150 SF
TOTAL:	71,653 SF
TOTAL IMPERVIOUS AREA:	96,653 SF
% SITE IMPERVIOUS AREA:	70%
IMPERVIOUS AREA WITHIN NEW RW:	46,000 SF
AREA WITHIN NEW RW:	38,653 SF

LANDSCAPING:

FOUNDATION PLANTINGS (12%):
 FRONT: 45' X 150' X 12' = 842 SF REQ'D. 876 SF PROVIDED
 SIDE: 42' X 104' X 12' = 522 SF REQ'D. 570 (2) SF PROVIDED
 REAR: 42' X 150' X 12' = 842 SF REQ'D. 946 SF PROVIDED
 TOTAL REQUIRED=2,808 SF TOTAL PROVIDED=2,992 SF

LANDSCAPING REQ'D INTERIOR:
 ASPHALT, CONCRETE CURB & GUTTER: 51,678 SF
 14% REQUIRED: 7,235 SF
 STREET YARD LANDSCAPING: 7,300 SF PROVIDED
 PRIMARY: PROPOSED PUBLIC RAW FRESCO DR. 18' MULTIPLEX (24' X 24') X 18' = 3,906 SF
 5,318 SF PROVIDED
 SECONDARY: ASHES DR. 9' MULTIPLEX (46' X 46') X 9' = 3,827 SF
 3,783 SF PROVIDED

LEGEND

COMMON NAME	SIZE	QTY
NANDINA DOMESTICA GULFSTREAM	3 GAL.	11
CAMELLIA SASANQUA SHISH GASHIRA	7 GAL.	2
CAMELLIA JAPONICA	7 GAL.	2
HOLLY, NEEDLEPOINT	7 GAL.	51
HOLLY, DW. YAUPON	3 GAL.	183
MAHONIA SO FINE	3 GAL.	61
LIGUSTRUM	7 GAL.	9
DBL. KNOCKOUT ROSE	3 GAL.	57
LIRIOPE MUSCARI SUPER BLUE	1 GAL.	698
AZALEA FASHION	3 GAL.	98
DAYLILLY	Div.	433
BIRCH, RIVER	3"	6
GRAPE MYRTLE NATCHEZ	2" CAL. 8' HT.	4
EAST PALATKA HOLLY, TREE-FORM	3" CAL.	10
NEEDLEPOINT HOLLY	8' HT.	4
MAPLE, TRIDENT	3"	11
OAK, LIVE	3"	9
SIZZLER HOLLY, MULTI-STEM, TF	8' HT.	10
GRAPE MYRTLE TUSCARORA	2" CAL. 8' HT.	16
EUROPEAN HORNBEAM	2" CAL. 8' HT.	24
HOLLY, DW. YAUPON	7 GAL.	20
MISCANTHUS SINENSIS	3 GAL.	77
SABAL PALM, BOOTED	12' HT.	3

SITE DATA TABLE - EXISTING RENAISSANCE I, PHASE I

USE:	OFFICE
SITE AREA:	2.16 ACRES
DISTURBED AREA:	O & I-1 AND CB
ZONING:	RESOURCE PROTECTION
CAMA LAND USE:	FRONT: 230'
BUILDING SETBACKS (EXISTING):	SIDE: 13' NORTH, 11' SOUTH
	REAR: 45'
BUILDING HEIGHT:	32' (2 STORY)
BUILDING SQUARE FOOTAGE:	31,650 SF (15,825 SF EACH FLOOR)
PARKING REQ'D: O & I ZONE:	200/SF MAX. 300/SF MIN.
PARKING GROUP (OFFICE):	158 MAX/105 MIN. REQUIRED
PROPOSED PARKING PROV'D:	137 REGULAR (6 ARE HC)
IMPERVIOUS AREA-PHI DRAINAGE AREA:	15,825 SF (ROOF AREA)
EXISTING BUILDING:	68,950 SF
EXISTING ASPHALT/CURB & GUTTER:	6,850 SF
EXISTING SIDEWALKS/CONCRETE PADS:	91,825 SF TOTAL
TOTAL EXISTING IMPERVIOUS AREA:	5,526 SF PROVIDED
STREET YARD LANDSCAPING:	1,976 SF PROVIDED
INTERIOR LANDSCAPE PROVIDED:	

OWNER:
 TCT OF WILMINGTON, LLC
 1123 MILITARY CUTOFF RD.
 WILMINGTON, NC. 28405
 256-7704

JIM@FREEMANLANDSCAPE.COM
 910-796-1166

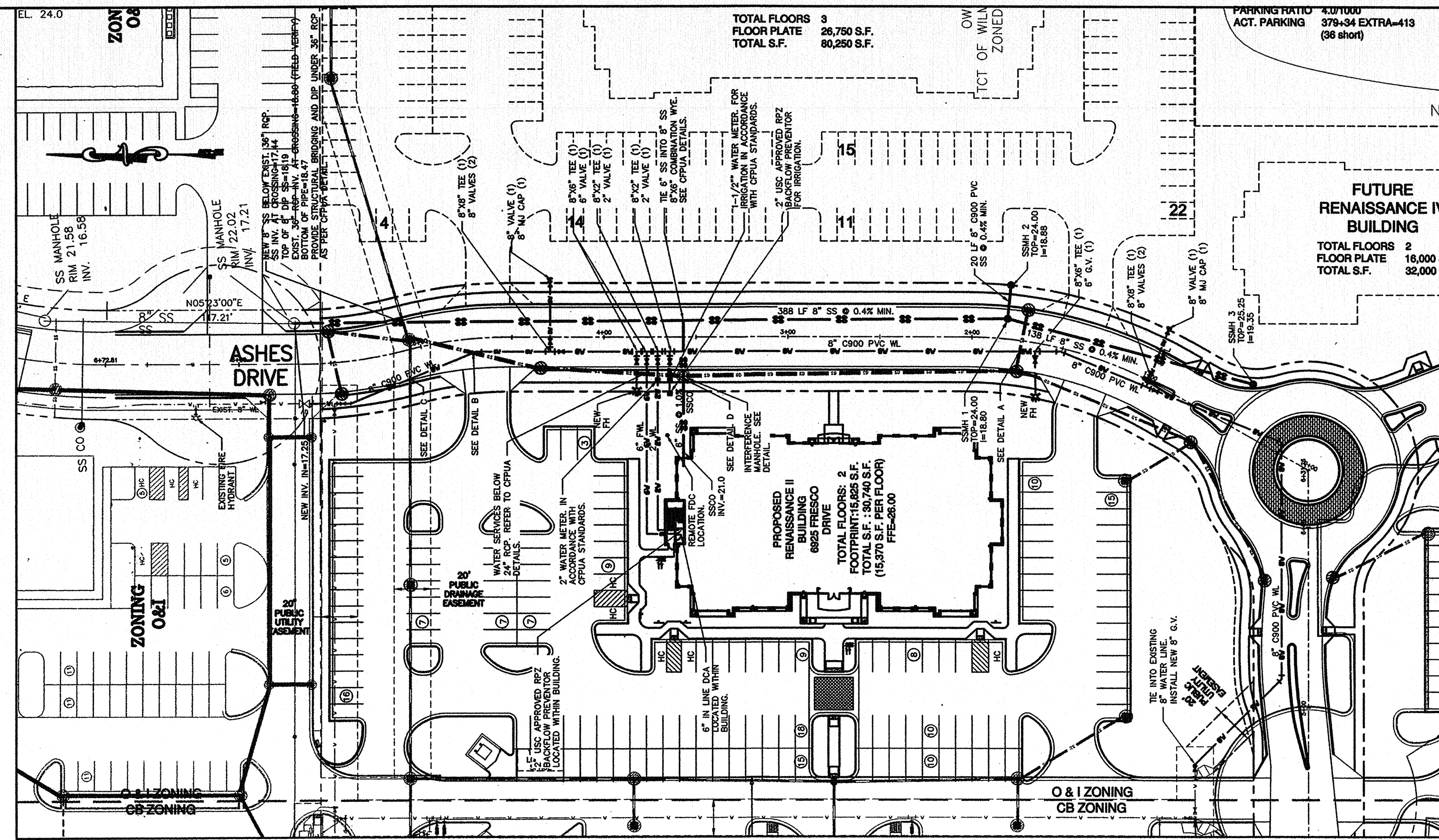
Approved Construction Plan
 Name: Date: Planning Traffic File
 5/15/16
 15271610-51616
 Planner: Marc
 Date: 5/16/16
 Sillit
 SIGNED

Revision #: 3
 Date: 5/3/2016

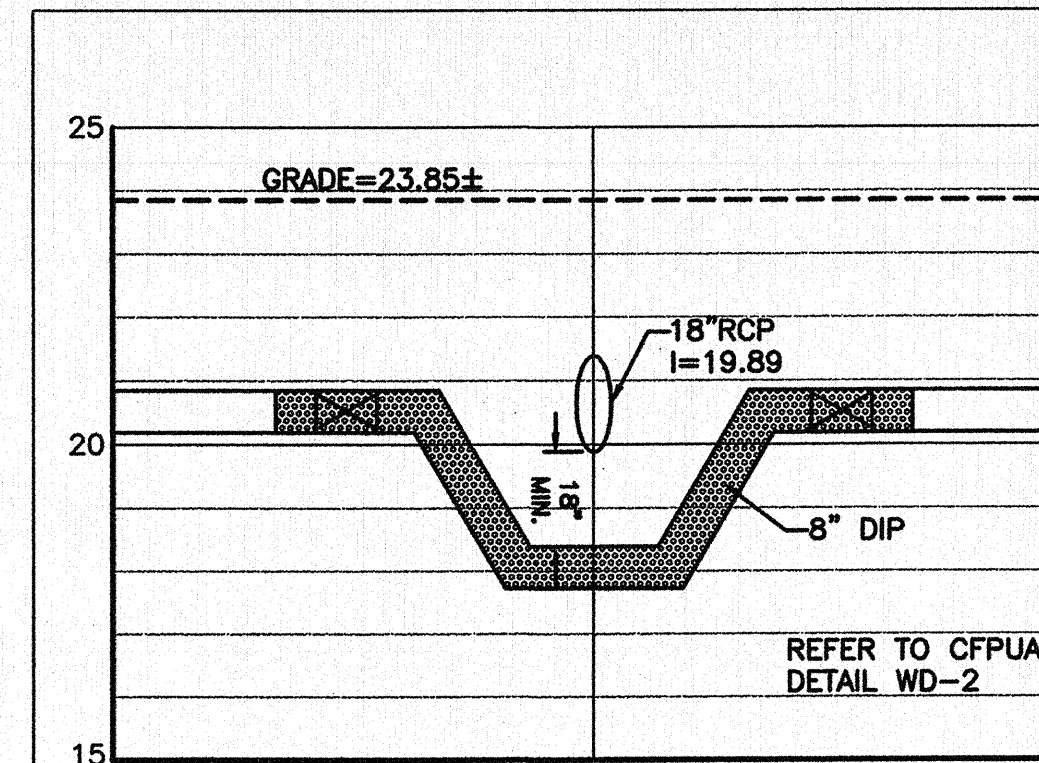
Scale:
 1" = 40'

Landscape Plan:
 Renaissance II

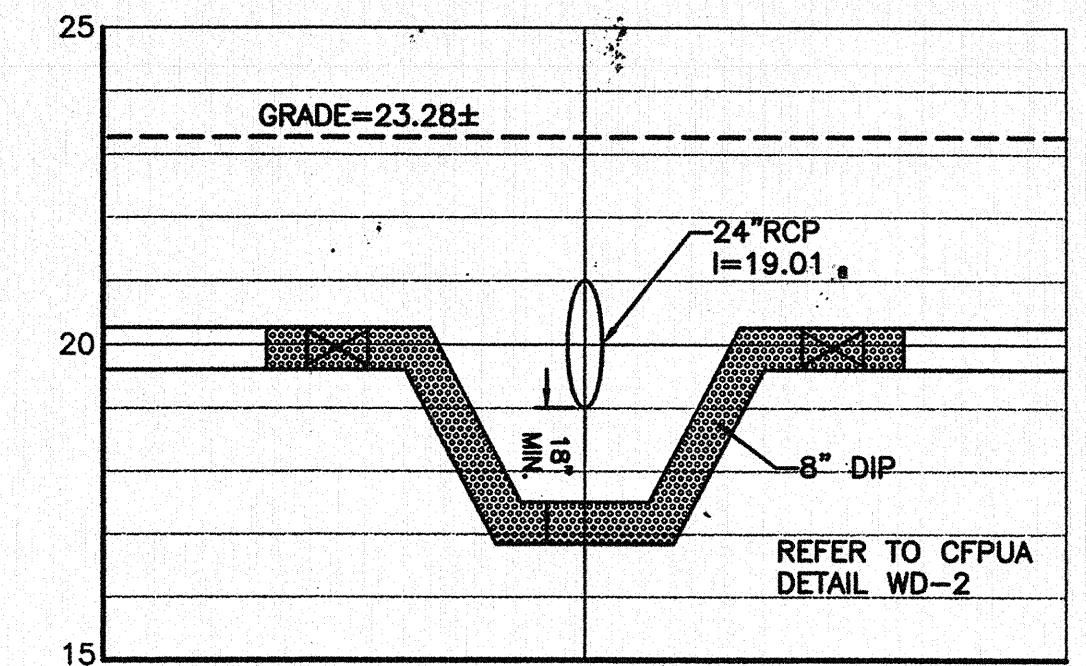
Landscape Design by: James Freeman - NCLC# 71
 Freeman Landscape, Inc.



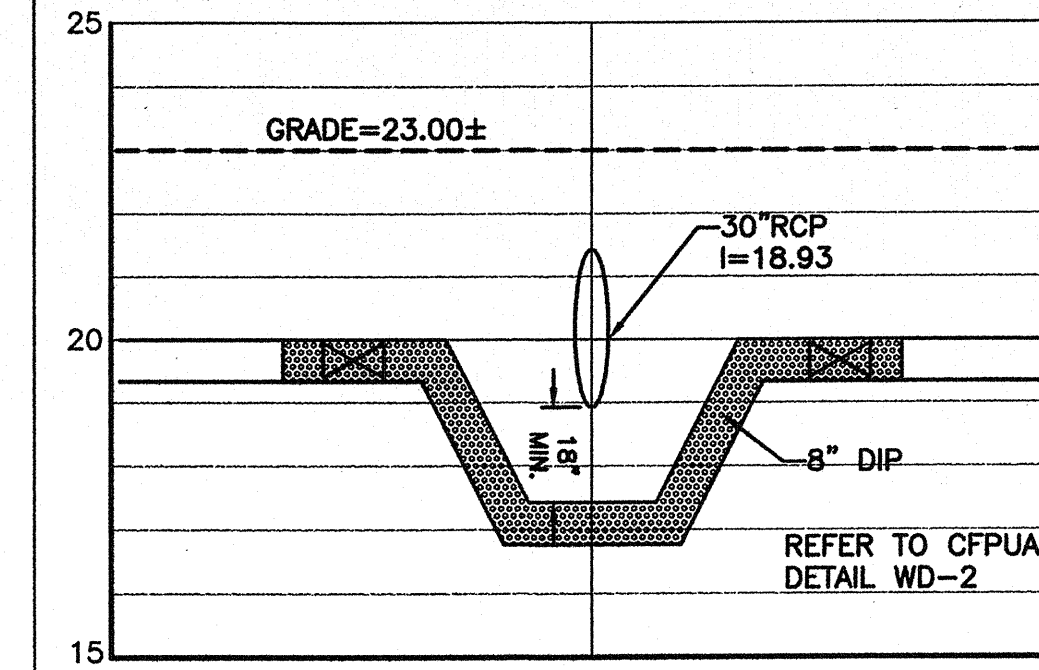
SCALE: 1" = 50'



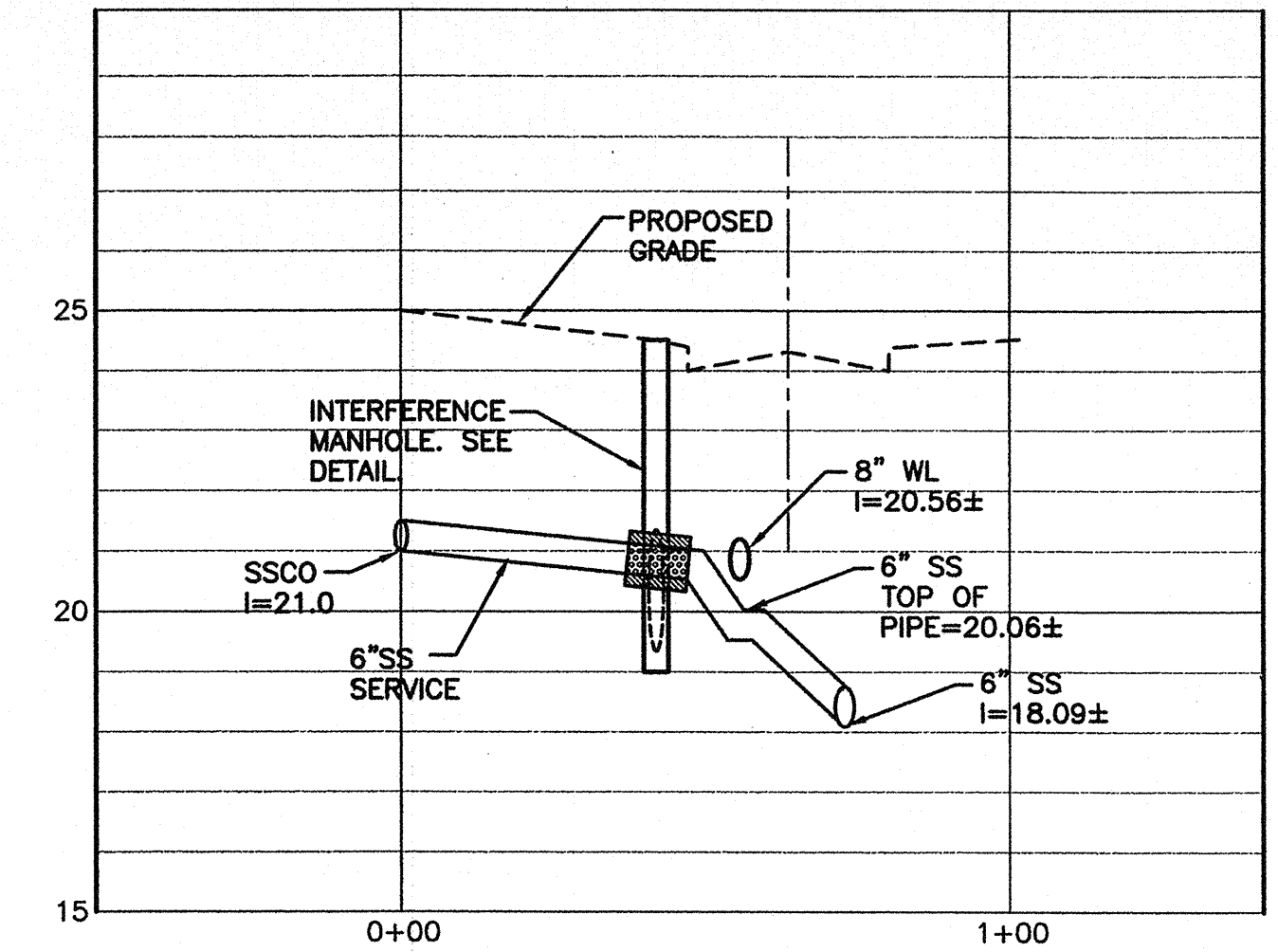
WATER/STORMDRAIN CROSSING "A"



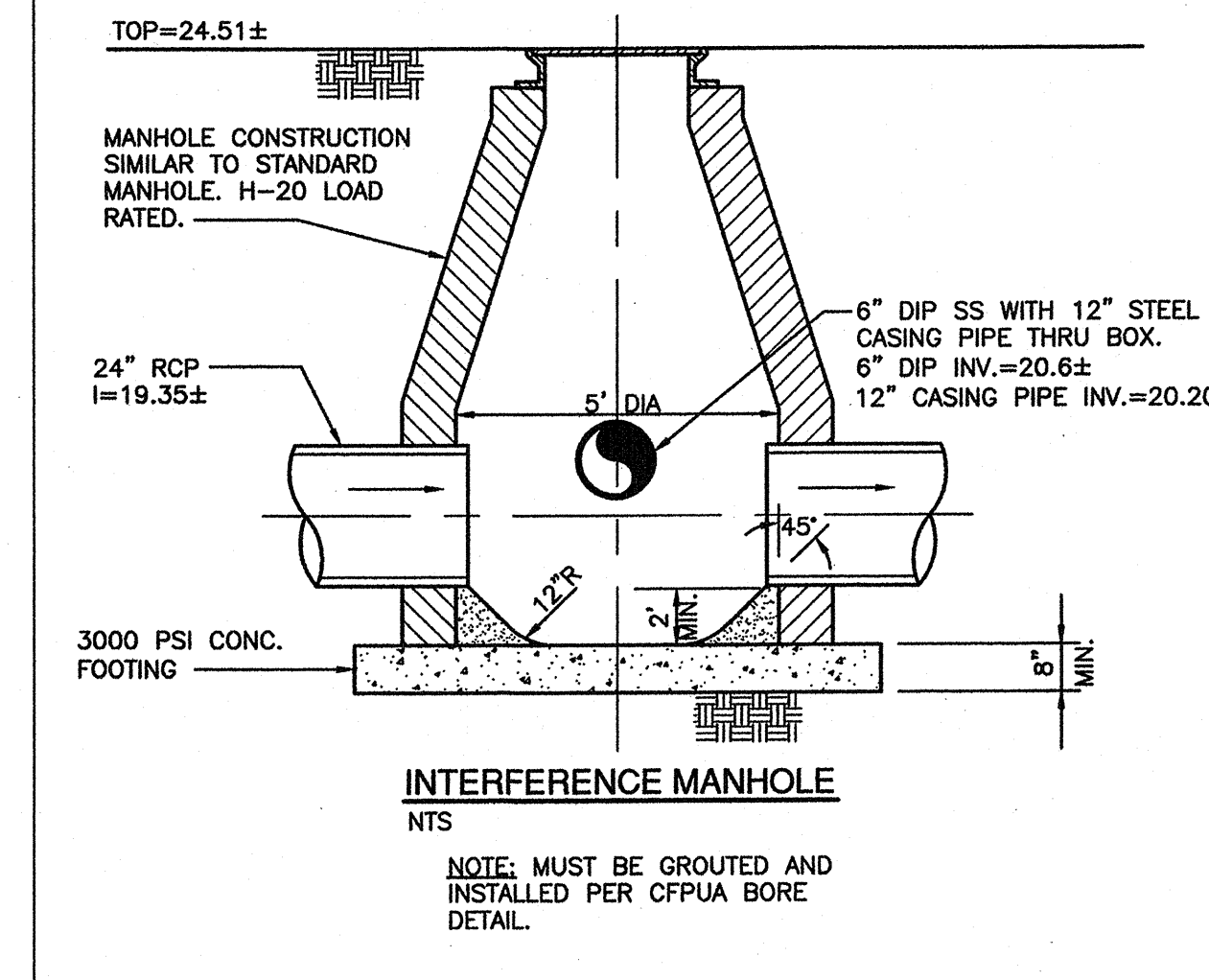
WATER/STORMDRAIN CROSSING "B"



WATER/STORMDRAIN CROSSING "C"



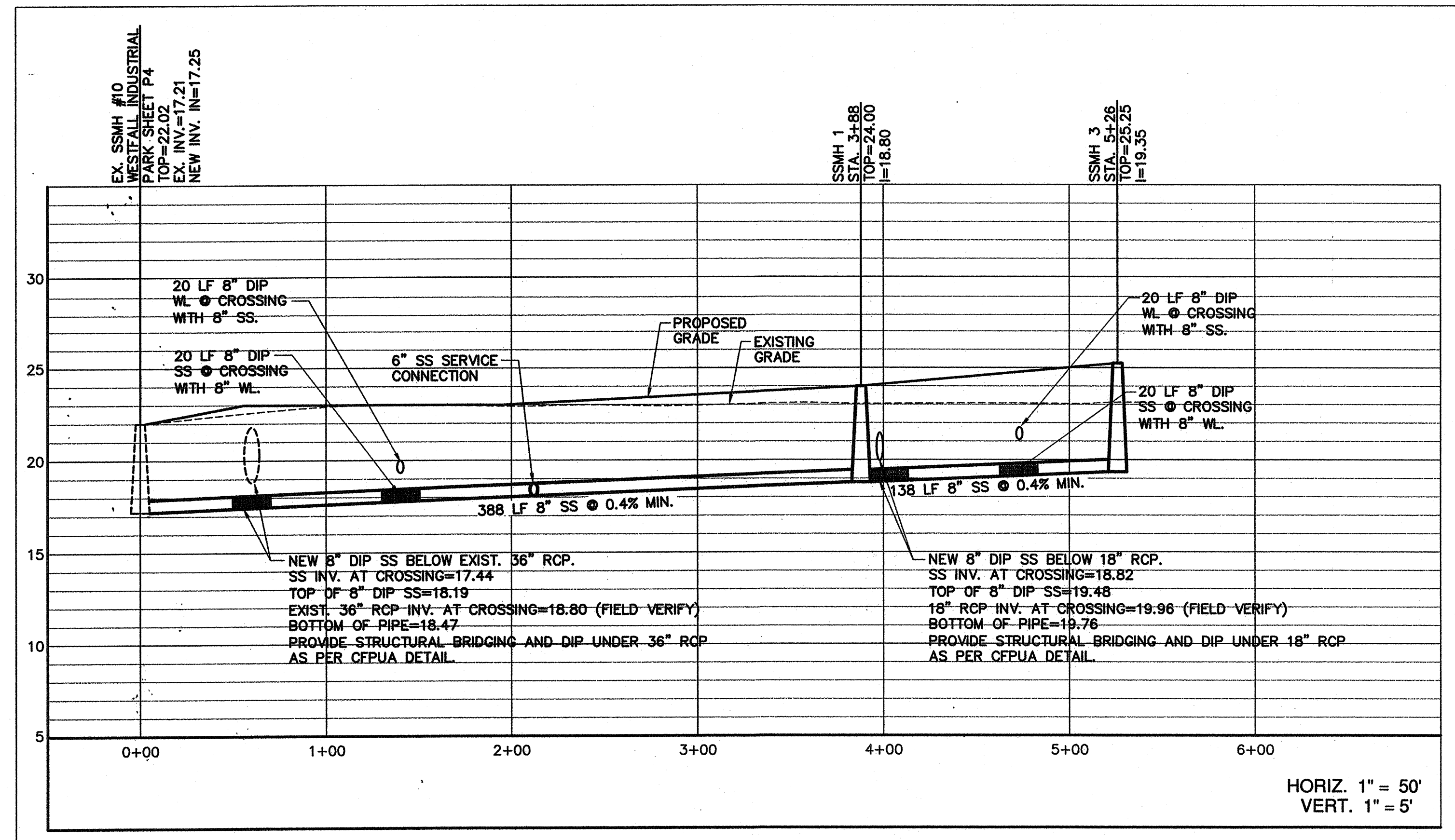
SEWER/STORMDRAIN/WATER CROSSING "D"



INTERFERENCE MANHOLE

NOTE: MUST BE GROUTED AND INSTALLED PER CFPUA BORE DETAIL.

HORIZ. 1" = 30'
VERT. 1" = 3'



HORIZ. 1" = 50'
VERT. 1" = 5'

- UTILITY NOTES:**
1. MAINTAIN A 24" MINIMUM SEPARATION BETWEEN THE PROPOSED OR EXISTING STORM DRAIN AND THE PROPOSED OR EXISTING WATER LINE OR SEWER LINE. SEE DETAILS.
 2. SANITARY SEWERS MUST MAINTAIN A MINIMUM SEPARATION FROM WATER LINES OF 10 FEET LATERALLY OR 18 INCHES VERTICALLY (WATER OVER SEWER). IF IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS DESCRIBED ABOVE OR ANYTIME THE SEWER IS OVER THE WATER MAIN, BOTH THE WATER MAIN AND SEWER MUST BE CONSTRUCTED OF FERROUS PIPE COMPLYING WITH PUBLIC WATER SUPPLY DESIGN STANDARDS AND BE PRESSURE TESTED TO 150 PSI TO ASSURE WATER TIGHTNESS BEFORE BACKFILLING OR EITHER THE WATER MAIN OR THE SEWER LINE MAY BE ENCASED IN A WATER TIGHT CARRIER PIPE WHICH EXTENDS 10 FEET ON BOTH SIDES OF THE CROSSING. MEASURED PERPENDICULAR TO THE WATER MAIN. THE CARRIER PIPE SHALL BE OF MATERIALS APPROVED BY THE REGULATORY AGENCY FOR USE IN WATER MAIN CONSTRUCTION.
 3. RESTRAINING/BLOCKING: THE PLUGS, CAPS, TEES AND BENDS DEFLECTING 22-1/2 DEGREES OR MORE EITHER VERTICALLY OR HORIZONTALLY ON WATER LINES 8 INCHES IN DIAMETER OF LARGER SHALL BE PROVIDED WITH THRUST BLOCKING OR "MEGALUG" RETAINER GLAND AT EACH JOINT, INSTALLED PER MANUFACTURER'S REQUIREMENTS.

- CFPUA STANDARD SEWER NOTES:**
1. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
 2. WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
 3. ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50 DIP WITH PROTECTO 401 CERAMIC EPOXY LINING.
 4. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
 5. NO FLEXIBLE COUPLINGS SHALL BE USED.
 6. ALL STAINLESS STEEL FASTENERS SHALL BE 316.
 7. CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.

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

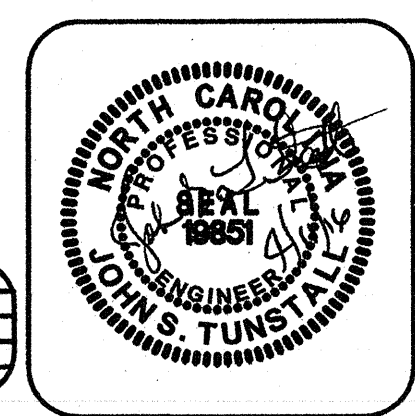
CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
STORMWATER PLAN
Date: 5/15/16 Permit # 2007027R1
Signed: [Signature]

Approved Construction Plan

Name: [Signature] Date: 5/15/16
 Planning: [Signature] 5/15/16
 Traffic: [Signature] 5/15/16
 Fire: [Signature] 5/15/16

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

REV. NO.	DESCRIPTION	DATE



NORRIS & TUNSTALL
CONSULTING ENGINEERS, INC.
602 MARKET STREET
WILMINGTON, NC 28401
PHONE: (910) 343-9883
FAX: (910) 343-9856
Source: JC-3641

RENAISSANCE II OFFICE BUILDING
WATERLINE LAYOUT AND SANITARY SEWER
PLAN & PROFILE

DATE: 4/11/16
SCALE: 1" = 50'
DRAWN: NKS
CHECKED: JST
PROJECT NO: 16009

SHEET NO:
PR1