

# REGENCY AT HERITAGE

## PHASE 3 - CONSTRUCTION DRAWINGS TOWN OF ROLESVILLE, WAKE COUNTY, NORTH CAROLINA



THIS DRAWING PREPARED AT THE  
**RALEIGH OFFICE**  
5410 Trinity Road, Suite 102, Raleigh, NC 27607  
TEL: 919-866-4951 FAX: 919-866-5324 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE

08/20/2019

DRAWN BY

331

DESIGNED BY

331

CHECKED BY

JFC

SCALE

NTS

JOB NO.

40013

SHEET NO.

C0.0

REVISION DESCRIPTION

DATE

DATE

DATE

DATE

REVIEW SET - NOT RELEASED FOR CONSTRUCTION

### SITE DATA

PROJECT:	REGENCY AT HERITAGE		
ENGINEER:	TIMMONS GROUP 5410 TRINITY ROAD, SUITE 102 RALEIGH, NC 27607 PHONE: 919-866-4507 FAX: 919-859-5663 JIM CHANDLER, PE EMAIL: JIM.CHANDLER@TIMMONS.COM		
DEVELOPER:	PULTE GROUP 1225 CRESCENT GREEN DRIVE, SUITE 250 CARY, NC 27518 PHONE: 919-816-1146 RANDY KING, PE RANDY.KING@PULTEGROUP.COM		
PROPERTY INFORMATION:	PROPERTIES LOCATED WITHIN THE TOWN OF WAKE FOREST		
PIN	OWNER	AREA (AC)	ZONING
1749-66-3478	FORESTVILLE ROAD INVESTMENTS LLC 0 FORESTVILLE RD	16.60	GR5-CD
1749-66-9299	FORESTVILLE ROAD INVESTMENTS LLC 3637 FOXWILD LN	5.00	GR5-CD
1749-76-5204	FORESTVILLE ROAD INVESTMENTS LLC 3729 FOXWILD LN	1.39	GR5-CD
1749-76-9436	FORESTVILLE ROAD INVESTMENTS LLC 0 ROGERS RD	14.03	GR5-CD
		37.02 ACRES	
	PROPERTIES LOCATED WITHIN THE TOWN OF ROLESVILLE		
1749-75-2855	FORESTVILLE ROAD INVESTMENTS LLC 3700 FOXWILD LN	11.16	R-1
1749-75-9814	FREY, DARICE 3800 FOXWILD LN	3.56	R-1
		14.72 ACRES	
TOTAL TRACT AREA:		51.74 ACRES	
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL DETACHED HOUSING		



VICINITY MAP - NOT TO SCALE

Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS PLAN
C2.0	OVERALL SUBDIVISION & OPEN SPACE PLAN
C2.1	DETAILED SUBDIVISION & OPEN SPACE PLAN
C3.1	UTILITY PLAN
C4.0	GRADING & DRAINAGE PLAN
C4.1	STORM SEWER SCHEDULE
C5.1	MARSHALL FARM ST PLAN & PROFILE
C5.2	TEAGUE ST & PROSECCO COURT PLAN & PROFILE
C6.1	NOTES & DETAILS
C6.2	NOTES & DETAILS
C6.3	NOTES & DETAILS
C6.4	NOTES & DETAILS
C7.1	STAGE 1 EROSION CONTROL PLAN
C7.2	STAGE 2 EROSION CONTROL PLAN
C7.3	EROSION CONTROL NOTES & DETAILS
C7.4	EROSION CONTROL NOTES & DETAILS
C7.5	EROSION CONTROL NOTES & DETAILS

### ZONING CONDITIONS FOR RII-CZ

- APPROVAL OF THE PRELIMINARY PLAN IS SUBJECT TO STREET AND LOT RECONFIGURATION WITHIN THE PREVIOUSLY APPROVED REGENCY AT HERITAGE ADJACENT TO THE SITE IN WAKE FOREST SO AS TO COINCIDE WITH THE PROPOSED LAYOUT. NO PLATS SHALL BE RECORDED IN THIS DEVELOPMENT UNTIL FORMAL APPROVAL OF CONSTRUCTION DRAWINGS FOR A COMPLIMENTARY PLAN ON THE REGENCY AT HERITAGE SITE HAS BEEN GRANTED AND PROPERLY ALIGNED PUBLIC RIGHTS-OF-WAY IN THE AFFECTED AREAS ARE DEDICATED. ANY DEVIATIONS TO THE APPROVED PRELIMINARY PLAN ASSOCIATED SHALL REQUIRE PRIOR APPROVAL FROM THE TOWN OF ROLESVILLE.
- ALL TWO-STORY HOMES WILL BE A MINIMUM OF 2,500 HEATED SQUARE FEET. RANCH HOMES WILL BE A MINIMUM OF 2,000 HEATED SQUARE FEET.
- ALL HOMES SHALL HAVE, AT MINIMUM, A TWO CAR GARAGE WITH SEPARATE GARAGE DOORS. THE ENTIRE GARAGE INTERIOR WILL BE FINISHED WITH GYPSUM BOARD (IE. SHEETROCK).
- NO HOME SHALL BE CLAD WITH ALUMINUM OR VINYL SIDING. VINYL WINDOWS, TRIM AND SOFFIT ARE ALLOWED.
- ALL HOMES SHALL HAVE A CRAWL SPACE TYPE FOUNDATION.
- THE ARCHITECTURAL REQUIREMENTS OF THE NEIGHBORHOOD FOR BOTH HOMES AND ACCESSORY STRUCTURES SHALL INCLUDE AN ANTI-MONOTONY POLICY WHEREBY DUPLICATE ELEVATIONS/COLORS SHALL NOT BE ALLOWED ON ADJACENT LOTS.
- GENERAL ARCHITECTURAL REQUIREMENTS OF THE NEIGHBORHOOD WILL BE GOVERNED BY RECORDED CONDITIONS, COVENANTS, AND RESTRICTIONS. THE DEVELOPER SHALL SUBMIT A COPY OF THE CONDITIONS, COVENANTS, AND RESTRICTIONS TO THE TOWN OF ROLESVILLE TO ALLOW THE TOWN ATTORNEY TO REVIEW THEM BEFORE RECORDATION.
- ALL REQUIRED OPEN SPACE AND DRAINAGE EASEMENTS SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION IN PERPETUITY.
- THE DEVELOPER SHALL PROVIDE A STREET CONNECTION TO THE ADJACENT STONEWATER SUBDIVISION TO THE SOUTH.
- THE DEVELOPER SHALL PROVIDE MAIL KIOSKS WITHIN THE SUBDIVISION FOR MAIL SERVICE, AS APPROVED BY THE UNITED STATES POSTAL SERVICE.
- STREETS SHALL BE MAINTAINED BY TOWN OF ROLESVILLE.

**ATTENTION CONTRACTORS**  
The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-4540 at least twenty four hours prior to beginning any of their construction.  
**Failure** to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.  
**Failure** to call for Inspection, Install a Downstream Plug, have Permitted Plans on the Jobsite, or any other Violation of City of Raleigh Standards will result in a Fine and Possible Exclusion from future work in the City of Raleigh.

PUBLIC WATER DISTRIBUTION/EXTENSION SYSTEM  
THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.  
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PERMIT # \_\_\_\_\_  
AUTHORIZATION TO CONSTRUCT \_\_\_\_\_  
DATE \_\_\_\_\_

PUBLIC SEWER COLLECTION / EXTENSION SYSTEM  
THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC SEWER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.  
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PERMIT # \_\_\_\_\_  
AUTHORIZATION TO CONSTRUCT \_\_\_\_\_  
DATE \_\_\_\_\_

THESE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING PLANS, AND THE STANDARD SPECIFICATIONS OF THE TOWN OF ROLESVILLE. THE ENGINEER WHOSE SEAL AND SIGNATURE APPEAR ON THE PLANS CERTIFIES THAT THE STANDARD SPECIFICATIONS OF THE TOWN OF ROLESVILLE HAVE BEEN THOROUGHLY CHECKED AND ARE APPLICABLE TO THIS PROJECT. ANY EXCEPTIONS TO THE STANDARD SPECIFICATIONS APPLICABLE ARE SHOWN ON THIS SHEET.



HORIZONTAL DATUM - NAD83 / VERTICAL DATUM - NAVD88

**TIMMONS GROUP**  
NORTH CAROLINA LICENSE NO. C-1652  
REGENCY AT HERITAGE - PHASE 3  
ROLESVILLE - WAKE COUNTY - NORTH CAROLINA  
COVER SHEET

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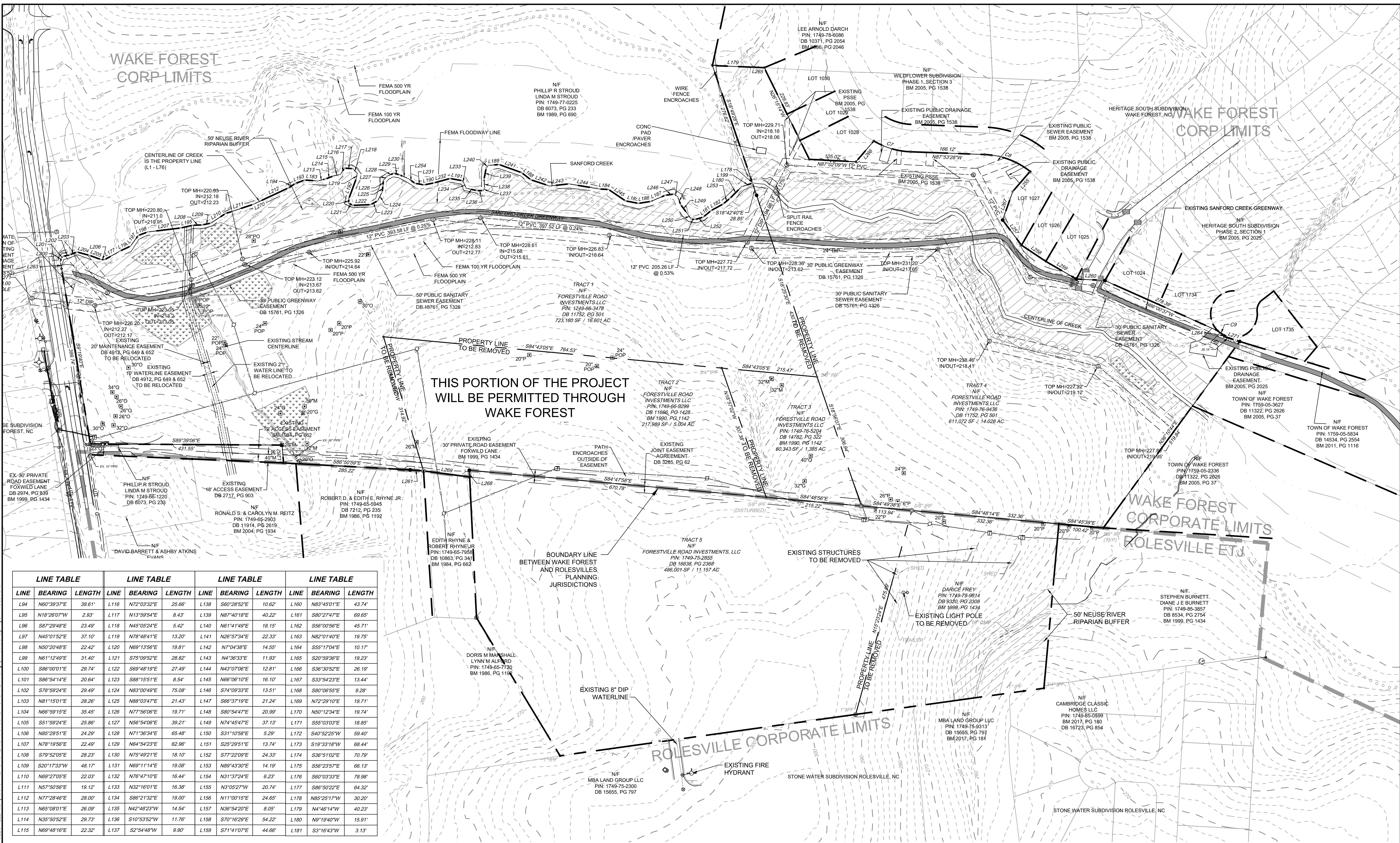
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 NORTH CAROLINA LICENSE NO. C-1652  
**REGENCY AT HERITAGE - PHASE 3**  
 ROLESVILLE - WAKE COUNTY - NORTH CAROLINA  
 EXISTING CONDITIONS PLAN

REVISION DESCRIPTION	DATE
YOUR VISION ACHIEVED THROUGH OURS.	08/20/2019
DRAWN BY	331
DESIGNED BY	331
CHECKED BY	JFC
SCALE	1" = 100'
JOB NO.	40013
SHEET NO.	C1.0

REVIEW SET - NOT RELEASED FOR CONSTRUCTION



**THIS PORTION OF THE PROJECT  
 WILL BE PERMITTED THROUGH  
 WAKE FOREST**

LINE TABLE			LINE TABLE			LINE TABLE			LINE TABLE		
LINE	BEARING	LENGTH	LINE	BEARING	LENGTH	LINE	BEARING	LENGTH	LINE	BEARING	LENGTH
L94	N60°39'37"E	39.61'	L116	N72°03'32"E	25.66'	L138	S60°28'52"E	10.62'	L160	N83°45'01"E	43.74'
L95	N18°26'07"W	2.93'	L117	N13°59'54"E	8.43'	L139	N87°40'18"E	40.22'	L161	S80°27'47"E	69.65'
L96	S87°29'48"E	23.49'	L118	N45°05'24"E	5.42'	L140	N61°41'49"E	18.15'	L162	S56°00'56"E	45.71'
L97	N45°01'52"E	37.10'	L119	N78°48'41"E	13.20'	L141	N26°57'34"E	22.33'	L163	N82°01'40"E	19.75'
L98	N50°20'48"E	22.42'	L120	N69°13'56"E	19.81'	L142	N7°04'38"E	14.55'	L164	S55°17'04"E	10.17'
L99	N61°12'49"E	31.40'	L121	S75°09'52"E	28.82'	L143	N4°36'33"E	11.93'	L165	S20°59'36"E	19.23'
L100	S86°00'01"E	29.74'	L122	S69°48'19"E	27.49'	L144	N43°07'06"E	12.81'	L166	S36°30'52"E	26.19'
L101	S86°54'14"E	20.64'	L123	S88°15'51"E	8.54'	L145	N68°06'10"E	16.10'	L167	S33°54'23"E	13.44'
L102	S78°59'24"E	29.49'	L124	N83°00'49"E	75.08'	L146	S74°09'33"E	13.51'	L168	S80°06'55"E	9.28'
L103	N81°15'01"E	28.26'	L125	N88°03'47"E	21.43'	L147	S66°37'19"E	21.24'	L169	N72°29'10"E	19.71'
L104	N66°59'15"E	35.45'	L126	N77°56'06"E	19.71'	L148	S80°54'47"E	20.99'	L170	N50°12'34"E	19.74'
L105	S51°59'24"E	25.86'	L127	N56°54'06"E	39.21'	L149	N74°45'47"E	37.13'	L171	S55°03'03"E	18.85'
L106	N85°29'51"E	24.29'	L128	N71°36'34"E	65.48'	L150	S31°10'58"E	5.29'	L172	S40°52'25"W	59.40'
L107	N78°19'56"E	22.49'	L129	N64°54'23"E	62.96'	L151	S25°29'51"E	13.74'	L173	S19°33'19"W	68.44'
L108	S79°52'05"E	28.23'	L130	N75°49'21"E	18.10'	L152	S77°22'09"E	24.33'	L174	S36°51'02"E	70.79'
L109	S20°17'33"W	48.17'	L131	N69°11'14"E	19.08'	L153	N89°43'30"E	14.19'	L175	S56°23'57"E	66.13'
L110	N69°27'05"E	22.03'	L132	N76°47'10"E	16.44'	L154	N31°37'24"E	6.23'	L176	S60°03'33"E	78.98'
L111	N57°50'56"E	19.12'	L133	N32°16'01"E	16.38'	L155	N3°05'27"W	20.74'	L177	S86°50'22"E	64.32'
L112	N77°28'46"E	26.00'	L134	S86°21'32"E	19.00'	L156	N11°00'15"E	24.65'	L178	N85°25'17"W	30.20'
L113	N65°08'01"E	26.09'	L135	N42°48'23"W	14.54'	L157	N36°54'20"E	8.05'	L179	N4°46'14"W	40.23'
L114	N35°50'52"E	29.73'	L136	S10°53'52"W	11.76'	L158	S70°16'29"E	54.22'	L180	N9°19'40"W	15.91'
L115	N69°48'16"E	22.32'	L137	S2°54'48"W	9.90'	L159	S71°41'07"E	44.66'	L181	S3°18'43"W	3.13'

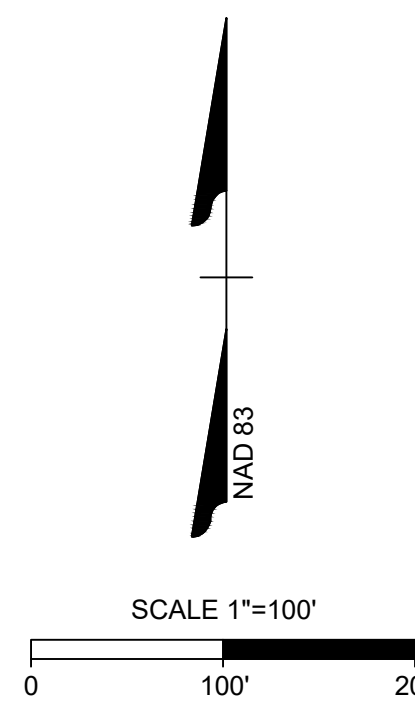
CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	DELTA	CHORD BEARING	CHORD
C4	175.00'	87.23'	44.54'	28°33'35"	S73°35'45"E	86.33'
C5	175.00'	111.55'	57.75'	36°31'24"	S69°41'27"E	109.67'
C6	52.50'	17.31'	8.74'	18°53'35"	S55°04'06"E	17.23'

TOTAL DBH OF SPECIMEN TREES TO BE REMOVED													
TREE SPECIMEN TO BE REMOVED	QUANTITY PER TREE PER DBH (INCHES)									TOTAL DBH PER TREE (QTY. * DBH)			
	20	22	23	24	26	28	30	32	34		36	38	40
QTY. OF OAKS	1	1	1	3	3	3	1	1	1				1
QTY. OF PINES	10	2	1	2									320
QTY. OF POPLARS	4	3	3	1									246
QTY. OF MAPLES					1	1	3	1					186
QTY. OF GUMS	1						1						76
	TOTAL DBH REMOVED (INCHES)											828	

- SPECIMEN TREE TO BE REMOVED
- SPECIMEN TREE TO BE REMOVED
- EX TREE TABLE DESCRIPTIONS
- |         |                       |    |          |
|---------|-----------------------|----|----------|
| ● 12" P | SYM. SIZE AND SPECIES | H  | HICKORY  |
| ●       | ASH                   | M  | MAPLE    |
| ●       | BIRCH                 | MM | MIMOSA   |
| ●       | CEDAR                 | O  | OAK      |
| ●       | CHERRY                | P  | PINE     |
| ●       | DOGWOOD               | PO | POPLAR   |
| ●       | SWEET GUM             | S  | SYCAMORE |

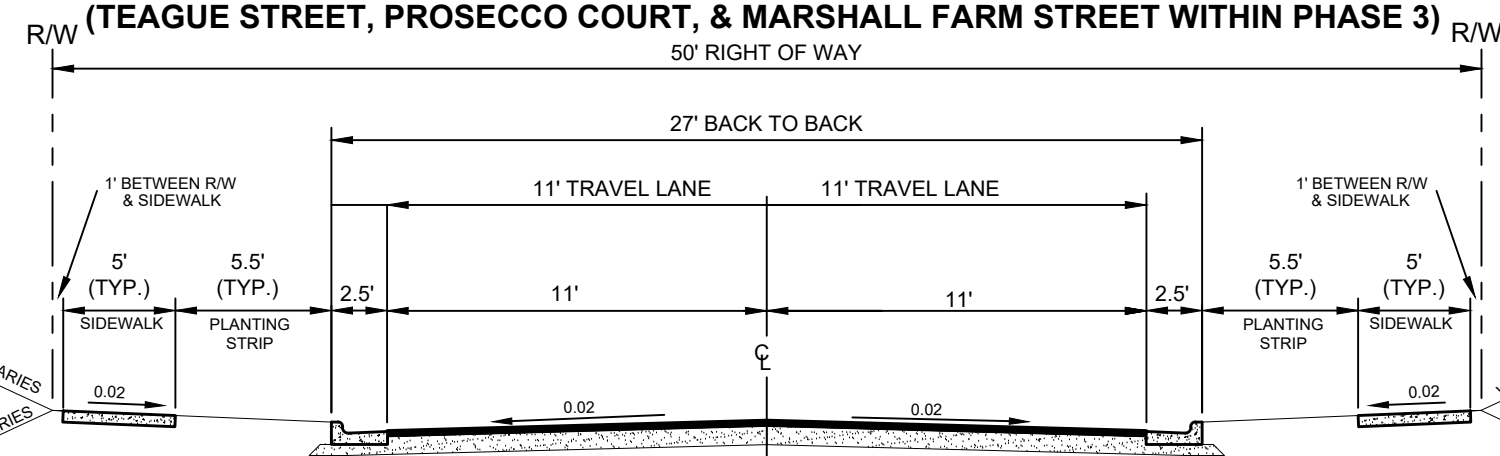
- SURVEY NOTES:**
- TITLE REPORT SHOWN HEREON BY: INVESTORS TITLE INSURANCE COMPANY, DATED: 07/21/17
  - AREAS COMPUTED BY COORDINATE METHOD.
  - PROPERTY SHOWN HEREON IS SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS AND RESTRICTIONS OF RECORD.
  - ALL DISTANCES SHOWN ON SURVEY ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
  - THIS SURVEY DOES NOT REPRESENT A TITLE SEARCH BY THIS FIRM.
  - RIGHTS-OF-WAY INFORMATION IS BASED ON DEEDS AND MAPS OF RECORD.
  - BASIS OF BEARING SHOWN HEREON IS NAD83(2011).
  - BOUNDARY INFORMATION IS BASED IN PART, ON DEEDS AND MAPS OF RECORD, BY OTHERS, AND IN PART, BY AN ACTUAL FIELD SURVEY BY THIS FIRM.
  - THIS SITE LIES IN ZONE X, WHICH IS ACCORDING TO FLOOD INSURANCE RATE MAP 3720171000J PANEL 1710, WITH AN EFFECTIVE DATE OF MAY 2, 2006.
  - WETLANDS HAVE BEEN INVESTIGATED AND ARE SHOWN ON THIS SITE.
  - ALL PROPERTY CORNERS FOUND ARE 5/8" IRON PIPE UNLESS OTHERWISE NOTED HEREON.
  - ALL PROPERTY CORNERS SET ARE 5/8" IRON REBAR UNLESS OTHERWISE NOTED HEREON.

- NOTES**
- BOUNDARY TAKEN FROM SURVEY BY TIMMONS GROUP.
  - TOPOGRAPHIC INFORMATION TAKEN FROM COMBINATION OF SURVEY AND GIS DATA.
  - WETLAND AND STREAM DELINEATION BY S&EC, PA.
  - THE SUBJECT PROPERTY CONTAINS FEMA MAPPED FLOOD ZONES.
- LEGEND**
- 100-YR FLOODPLAIN
  - EXISTING WETLANDS
  - NEUSE RIVER BUFFER



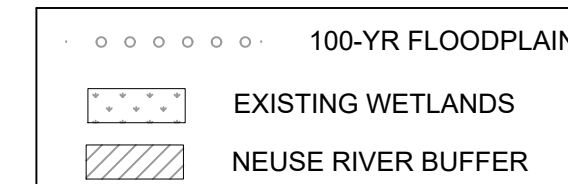
S:\331\40013-Regency-at-Heritage\_Revision DWG\_Sheet\_VD\Rolesville\_CD\40013-RL-C1.0-EXISTING CONDITIONS PLAN.dwg | Plotted by Ryan Wadsworth

**RESIDENTIAL YIELD STREET  
(50' PUBLIC R/W)**

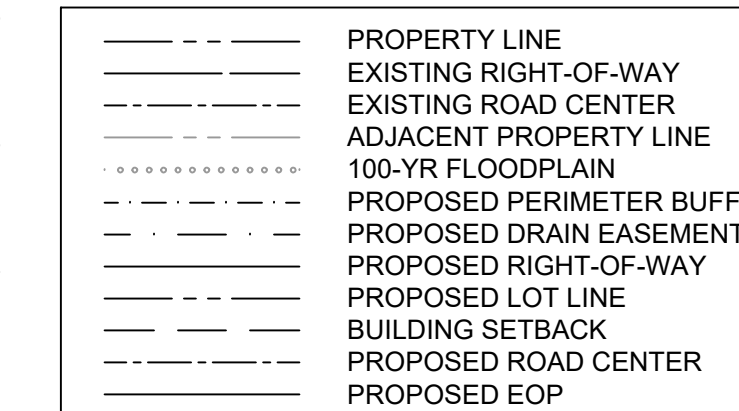


OPEN SPACE STATISTICS			
TOWN OF WAKE FOREST			
OPEN SPACE #1	0.10	Ac	
OPEN SPACE #2	0.83	Ac	
OPEN SPACE #3	7.22	Ac	
OPEN SPACE #4	6.03	Ac	
OPEN SPACE #5	2.20	Ac	
OPEN SPACE #6	0.09	Ac	
<b>TOTAL</b>	<b>16.47</b>	<b>Ac</b>	<b>44.5%</b>
TOWN OF ROLESVILLE			
OPEN SPACE #7	1.17	Ac	
OPEN SPACE #8	1.19	Ac	
<b>TOTAL</b>	<b>2.36</b>	<b>Ac</b>	<b>16.0%</b>

**LEGEND**



**LEGEND**



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DESIGNED BY  
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SCALE  
**1" = 100'**

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

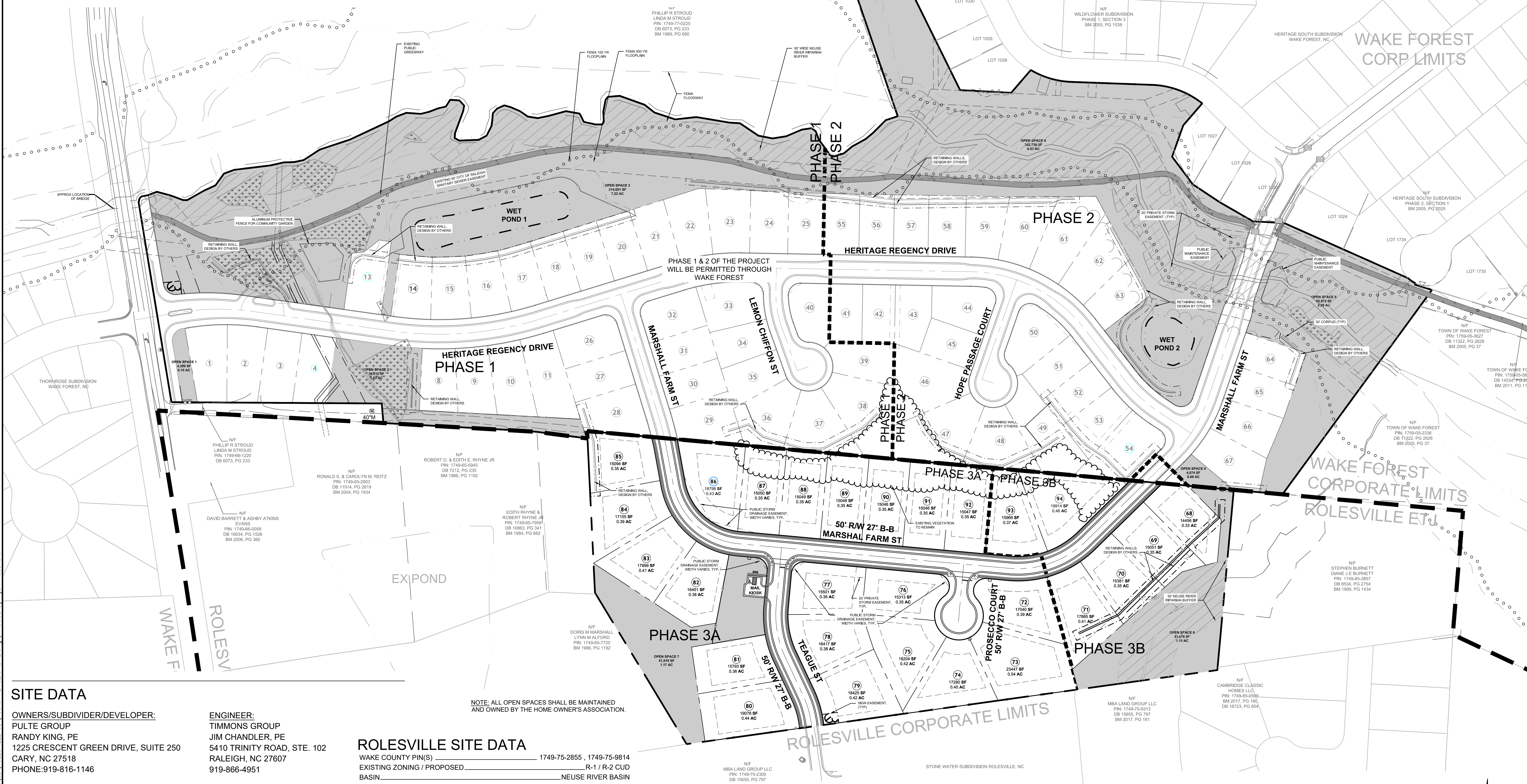
**REGENCY AT HERITAGE - PHASE 3**  
ROLESVILLE - WAKE COUNTY - NORTH CAROLINA

**OVERALL SUBDIVISION & OPEN SPACE PLAN**

JOB NO.  
**40013**

SHEET NO.  
**C2.0**

REVIEW SET - NOT RELEASED FOR CONSTRUCTION



**SITE DATA**

**OWNERS/SUBDIVIDER/DEVELOPER:**  
PULTE GROUP  
RANDY KING, PE  
1225 CRESCENT GREEN DRIVE, SUITE 250  
CARY, NC 27518  
PHONE: 919-816-1146

**ENGINEER:**  
TIMMONS GROUP  
JIM CHANDLER, PE  
5410 TRINITY ROAD, STE. 102  
RALEIGH, NC 27607  
919-866-4951

**ROLESVILLE SITE DATA**

WAKE COUNTY PIN(S) \_\_\_\_\_ 1749-75-2855, 1749-75-9814  
EXISTING ZONING / PROPOSED \_\_\_\_\_ R-1 / R-2 CUD  
BASIN \_\_\_\_\_ NEUSE RIVER BASIN  
FEMA FLOODPANEL \_\_\_\_\_ 1749J  
GROSS PROJECT AREA \_\_\_\_\_ 14.72 AC (DEEDS & SURVEY)  
AREA IN FUTURE INTERNAL PUBLIC STREET R/W \_\_\_\_\_ 2.02 AC  
AREA IN FORESTVILLE ROAD R/W DEDICATION \_\_\_\_\_ 0.00 AC  
NET PROJECT AREA \_\_\_\_\_ 12.70 AC  
AREA IN RESIDENTIAL LOTS \_\_\_\_\_ 10.34 AC  
AREA IN PRIVATE OPEN SPACE \_\_\_\_\_ 2.36 AC  
IMPERVIOUS AREA \_\_\_\_\_ 4.38 AC  
STREETS \_\_\_\_\_ 0.86 AC  
SIDEWALK \_\_\_\_\_ 0.36 AC  
MAIL KIOSK \_\_\_\_\_ 0.06 AC  
RESIDENTIAL LOTS (5,000 SF PER LOT) \_\_\_\_\_ 3.10 AC  
NUMBER OF SINGLE FAMILY DETACHED RESIDENTIAL LOTS \_\_\_\_\_ 27 UNITS  
PROPOSED DENSITY \_\_\_\_\_ 27 / 14.72 1.83 UN/AC  
MINIMUM LOT SIZE \_\_\_\_\_ 8,007 SF  
AVERAGE LOT SIZE \_\_\_\_\_ 10,209 SF  
MINIMUM LOT WIDTH \_\_\_\_\_ 50 LF  
MAXIMUM BUILDING HEIGHT \_\_\_\_\_ 3 STORIES

**WAKE FOREST SITE DATA**

WAKE COUNTY PIN(S) \_\_\_\_\_ 1749-66-3478, 1749-66-9299, 1749-76-5204, 1749-76-9436  
EXISTING ZONING \_\_\_\_\_ GR5-CD  
BASIN \_\_\_\_\_ NEUSE RIVER BASIN  
FEMA FLOODPANEL \_\_\_\_\_ 1749J  
GROSS PROJECT AREA \_\_\_\_\_ 37.02 AC (SURVEY)  
AREA IN FUTURE INTERNAL PUBLIC STREET R/W \_\_\_\_\_ 4.92 AC  
AREA IN FORESTVILLE ROAD 20' R/W DEDICATION \_\_\_\_\_ 0.19 AC  
NET PROJECT AREA \_\_\_\_\_ 31.91 AC  
AREA IN RESIDENTIAL LOTS \_\_\_\_\_ 15.44 AC  
AREA IN PRIVATE OPEN SPACE \_\_\_\_\_ 16.47 AC  
NUMBER OF SINGLE FAMILY DETACHED RESIDENTIAL LOTS \_\_\_\_\_ 67 UNITS  
PROPOSED DENSITY \_\_\_\_\_ 63 / 37.02 1.70 UN/AC  
MINIMUM LOT SIZE \_\_\_\_\_ 8,007 SF  
AVERAGE LOT SIZE \_\_\_\_\_ 10,209 SF  
MINIMUM LOT WIDTH \_\_\_\_\_ 50 LF  
MAXIMUM BUILDING HEIGHT \_\_\_\_\_ 3 STORIES

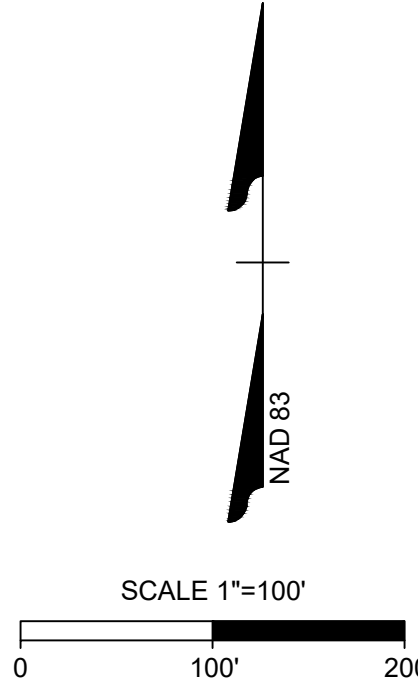
PUBLIC IMPROVEMENT QUANTITIES	WAKE FOREST		ROLESVILLE		TOTAL
	PHASE 1	PHASE 2	PHASE 3A	PHASE 3B	
PHASE	36	27	21	6	90
NUMBER OF LOTS	1-40	41-67	72-92	68-71, 93-94	1-94
LOT / BLDG NUMBERS BY PHASE	YES (PRVT.)	YES (PRVT.)	YES (PRVT.)	YES (PRVT.)	YES (PRVT.)
OPEN SPACE	3	3	1	1	8
NUMBER OF OPEN SPACE LOTS	2,042 L.F.	1,723 L.F.	1,438 L.F.	271 L.F.	5,474 L.F.
LINEAR FOOTAGE OF PUBLIC WATERLINE	2,004 L.F.	1,604 L.F.	1,168 L.F.	290 L.F.	5,066 L.F.
LINEAR FOOTAGE OF PUBLIC SANITARY SEWER	3,966 L.F.	3,311 L.F.	2,444 L.F.	658 L.F.	10,379 L.F.
LINEAR FOOTAGE OF PUBLIC SIDEWALK	1,932 L.F.	1,720 L.F.	1,365 L.F.	329 L.F.	5,346 L.F.
LINEAR FOOTAGE OF PUBLIC STREETS	121 L.F.	0 L.F.	0 L.F.	0 L.F.	121 L.F.
LINEAR FOOTAGE OF GREENWAY	4,133 L.F.	3,260 L.F.	2,912 L.F.	668 L.F.	10,973 L.F.
LINEAR FOOTAGE OF CURB AND GUTTER	2,736 L.F.	1,917 L.F.	1,276 L.F.	0 L.F.	5,929 L.F.
LINEAR FOOTAGE OF STORM DRAINAGE					

**WAKE FOREST SETBACKS TABLE**

FRONT YARD = 20 feet  
SIDE YARD = 8 feet  
REAR YARD = 25 feet  
CORNER YARD = 20 feet

**ROLESVILLE SETBACKS TABLE**

FRONT YARD = 30 feet  
SIDE YARD = 12 feet  
REAR YARD = 25 feet  
CORNER YARD = 22 feet



S:\331\40013-Regency\_at\_Heritage\_Revision\DWG\Sheet\CD\ROLESVILLE\_CD\_40013-RL-C2.0-SITE.dwg | Plotted by Ryan Madaworth



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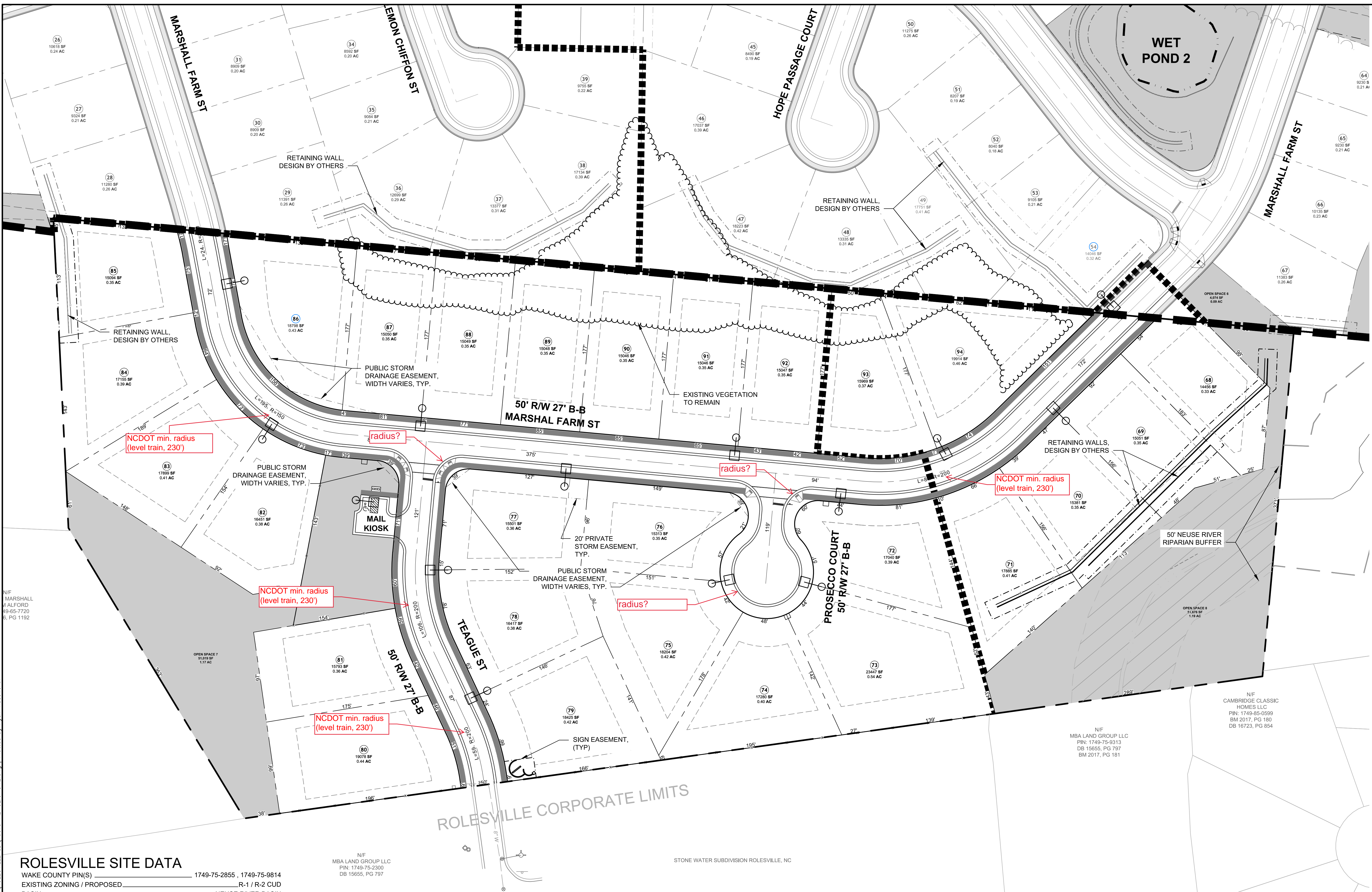
SCALE  
 1" = 50'

REVISION DESCRIPTION

DATE

DATE

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**ROLESVILLE SITE DATA**

WAKE COUNTY PIN(S) 1749-75-2855, 1749-75-9814  
 EXISTING ZONING / PROPOSED R-1 / R-2 CUD  
 BASIN NEUSE RIVER BASIN  
 FEMA FLOODPANEL 1749J  
 GROSS PROJECT AREA 14.72 AC (DEEDS & SURVEY)  
 AREA IN FUTURE INTERNAL PUBLIC STREET R/W 2.02 AC  
 AREA IN FORESTVILLE ROAD R/W DEDICATION 0.00 AC  
 NET PROJECT AREA 12.70 AC  
 AREA IN RESIDENTIAL LOTS 10.34 AC  
 AREA IN PRIVATE OPEN SPACE 2.36 AC  
 IMPERVIOUS AREA 4.38 AC  
 STREETS 0.86 AC  
 SIDEWALK 0.36 AC  
 MAIL KIOSK 0.06 AC  
 RESIDENTIAL LOTS (5,000 SF PER LOT) 3.10 AC  
 NUMBER OF SINGLE FAMILY DETACHED RESIDENTIAL LOTS 27 UNITS  
 PROPOSED DENSITY 27 / 14.72 1.83 UN/AC  
 MINIMUM LOT SIZE 15,041 SF  
 AVERAGE LOT SIZE 16,720 SF  
 MINIMUM LOT WIDTH 85 LF  
 MAXIMUM BUILDING HEIGHT 3 STORIES

PUBLIC IMPROVEMENT QUANTITIES	ROLESVILLE	
	PHASE 3A	PHASE 3B
PHASE	21	6
NUMBER OF LOTS	72-92	68-71, 93-94
LOT / BLDG NUMBERS BY PHASE	YES (PRVT.)	YES (PRVT.)
OPEN SPACE	1	1
NUMBER OF OPEN SPACE LOTS	1,438 L.F.	271 L.F.
LINEAR FOOTAGE OF PUBLIC WATERLINE	1,168 L.F.	290 L.F.
LINEAR FOOTAGE OF PUBLIC SANITARY SEWER	2,444 L.F.	658 L.F.
LINEAR FOOTAGE OF PUBLIC SIDEWALK	1,365 L.F.	329 L.F.
LINEAR FOOTAGE OF PUBLIC STREETS	0 L.F.	0 L.F.
LINEAR FOOTAGE OF GREENWAY	2,912 L.F.	668 L.F.
LINEAR FOOTAGE OF CURB AND GUTTER	1,276 L.F.	0 L.F.
LINEAR FOOTAGE OF STORM DRAINAGE		

**ROLESVILLE SETBACKS TABLE**

FRONT YARD = 30 feet  
 SIDE YARD = 12 feet  
 REAR YARD = 25 feet  
 CORNER YARD = 22 feet

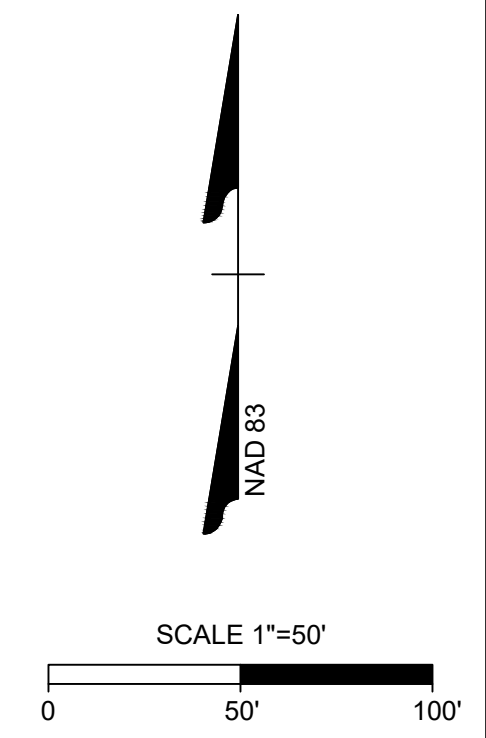
**LEGEND**

- EXISTING WETLANDS
- PRIMARY OPEN SPACE
- SECONDARY OPEN SPACE
- COMMON GREEN

NOTE: ALL OPEN SPACES SHALL BE MAINTAINED AND OWNED BY THE HOME OWNER'S ASSOCIATION.

**LEGEND**

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING ROAD CENTER
- ADJACENT PROPERTY LINE
- 100-YR FLOODPLAIN
- PROPOSED PERIMETER BUFFER
- PROPOSED DRAIN EASEMENT
- PROPOSED RIGHT-OF-WAY
- PROPOSED LOT LINE
- BUILDING SETBACK
- PROPOSED ROAD CENTER
- PROPOSED EOP



# TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652  
**REGENCY AT HERITAGE - PHASE 3**  
 ROLESVILLE - WAKE COUNTY - NORTH CAROLINA  
**DETAILED SUBDIVISION & OPEN SPACE PLAN**

JOB NO.  
**40013**  
 SHEET NO.  
**C2.1**

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1" = 50'

REVISION DESCRIPTION

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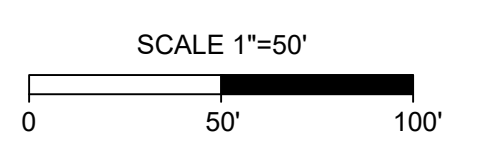
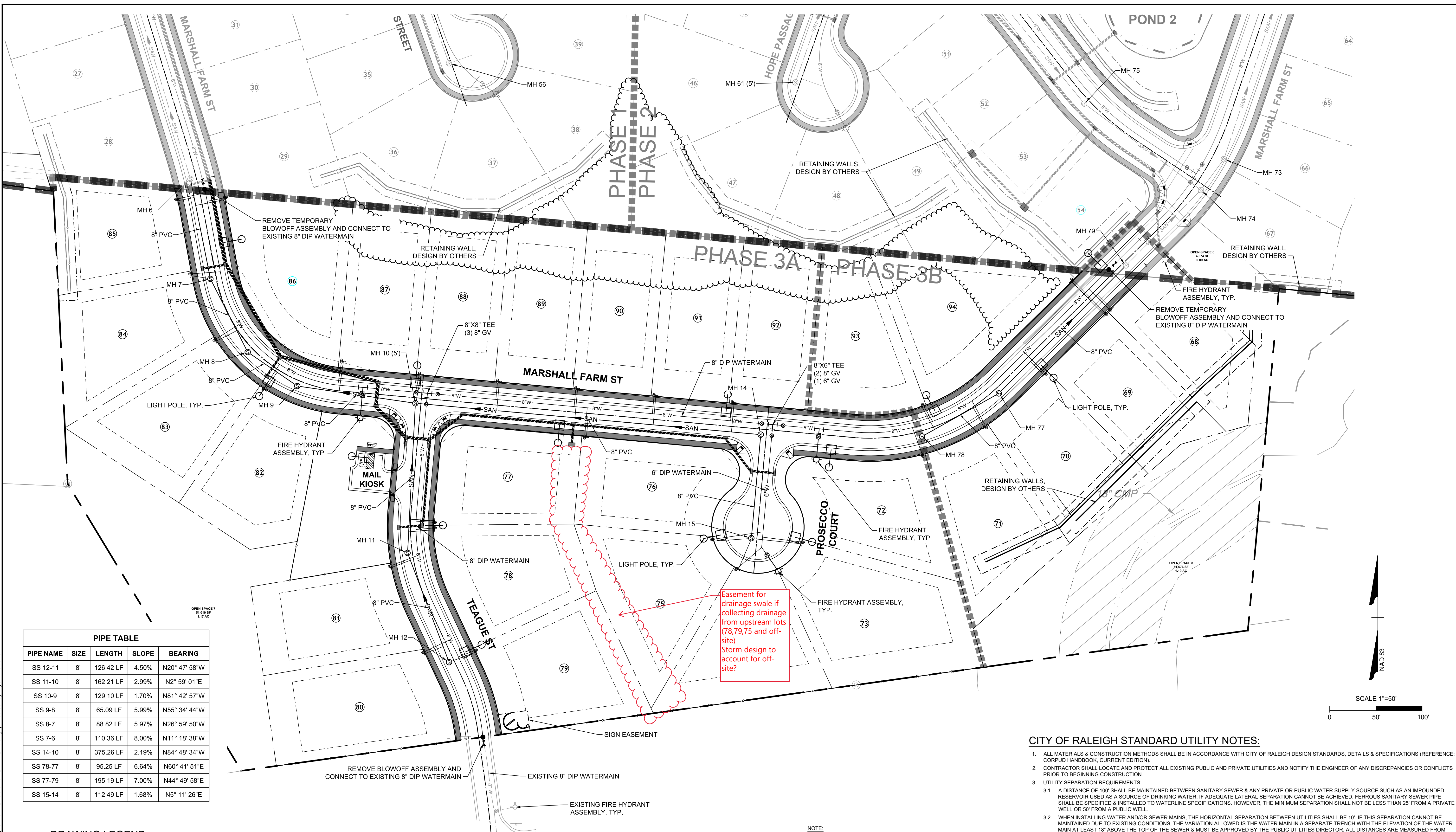
# TIMMONS GROUP

## REGENCY AT HERITAGE - PHASE 3

NORTH CAROLINA LICENSE NO. C-1652  
ROLESVILLE - WAKE COUNTY - NORTH CAROLINA

### UTILITY PLAN

REVIEW SET - NOT RELEASED FOR CONSTRUCTION



PIPE TABLE				
PIPE NAME	SIZE	LENGTH	SLOPE	BEARING
SS 12-11	8"	126.42 LF	4.50%	N20° 47' 58"W
SS 11-10	8"	162.21 LF	2.99%	N2° 59' 01"E
SS 10-9	8"	129.10 LF	1.70%	N81° 42' 57"W
SS 9-8	8"	65.09 LF	5.99%	N55° 34' 44"W
SS 8-7	8"	88.82 LF	5.97%	N26° 59' 50"W
SS 7-6	8"	110.36 LF	8.00%	N11° 18' 38"W
SS 14-10	8"	375.26 LF	2.19%	N84° 48' 34"W
SS 78-77	8"	95.25 LF	6.64%	N60° 41' 51"E
SS 77-79	8"	195.19 LF	7.00%	N44° 49' 58"E
SS 15-14	8"	112.49 LF	1.68%	N5° 11' 26"E

**DRAWING LEGEND**

**SEWER**

- SAN - PROPOSED SANITARY SEWER
- (S) - SANITARY MANHOLE

**WATER**

- W - EXISTING WATER LINE
- W - PROPOSED WATER LINE
- W - WATER VALVE
- W - FIRE HYDRANT
- W - BLOWOFF ASSEMBLY
- W - 1" TYPE "K" COPPER WATER SERVICE & 1" METER
- W - 4" SCH 40 PVC SAN. SEWER SERVICE & CLEANOUT

**STORM DRAINAGE**

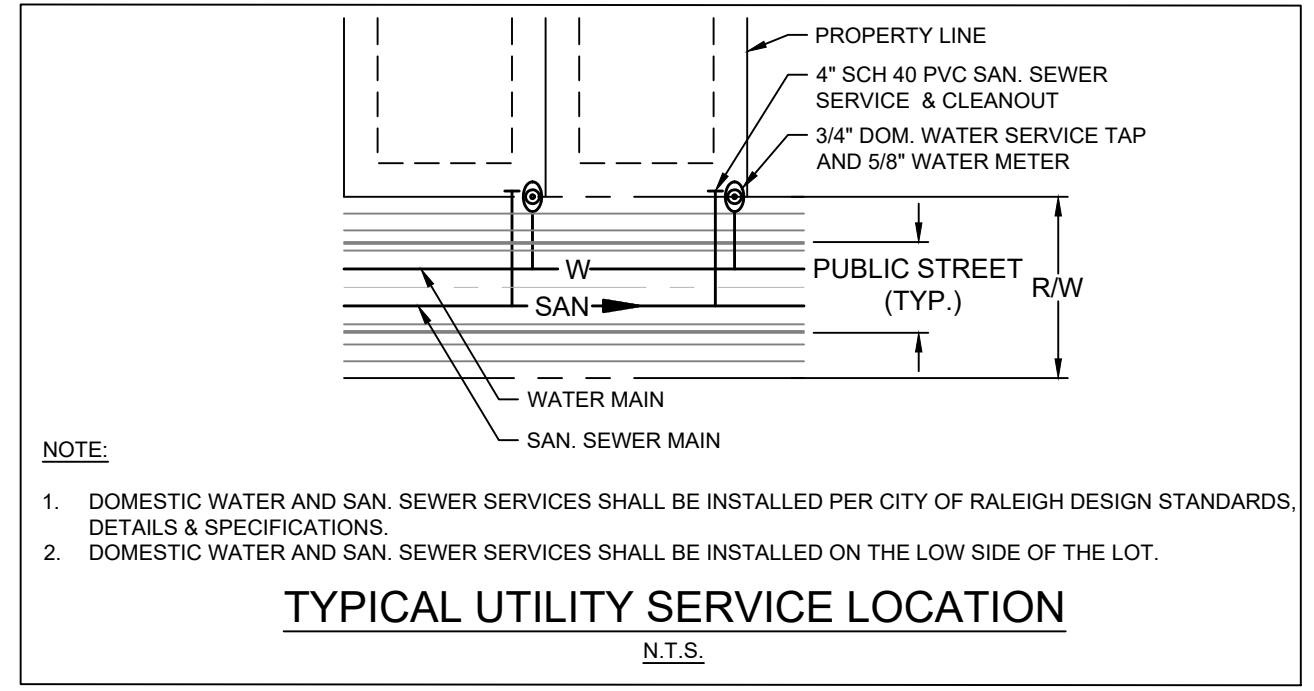
- SD - STORM DRAINAGE
- SD - STORM JUNCTION BOX
- SD - CURB INLET
- SD - DROP INLET

**LEGEND**

- 100-YR FLOODPLAIN
- EXISTING WETLANDS
- NEUSE RIVER BUFFER

**LEGEND**

- PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING ROAD CENTER
- ADJACENT PROPERTY LINE
- PROPOSED PERIMETER BUFFER
- PROPOSED DRAIN EASEMENT
- PROPOSED RIGHT-OF-WAY
- PROPOSED LOT LINE
- BUILDING SETBACK
- PROPOSED ROAD CENTER
- PROPOSED EOP



**NOTE:**  
ALL FIRE HYDRANTS, WATER METERS, AND CLEAN OUTS TO BE PLACED JUST INSIDE OF THE ROW LINE AND SHALL NOT CONFLICT WITH THE PROPOSED SIDEWALKS.

**PUBLIC SEWER COLLECTION/EXTENSION SYSTEM**  
THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC SEWER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

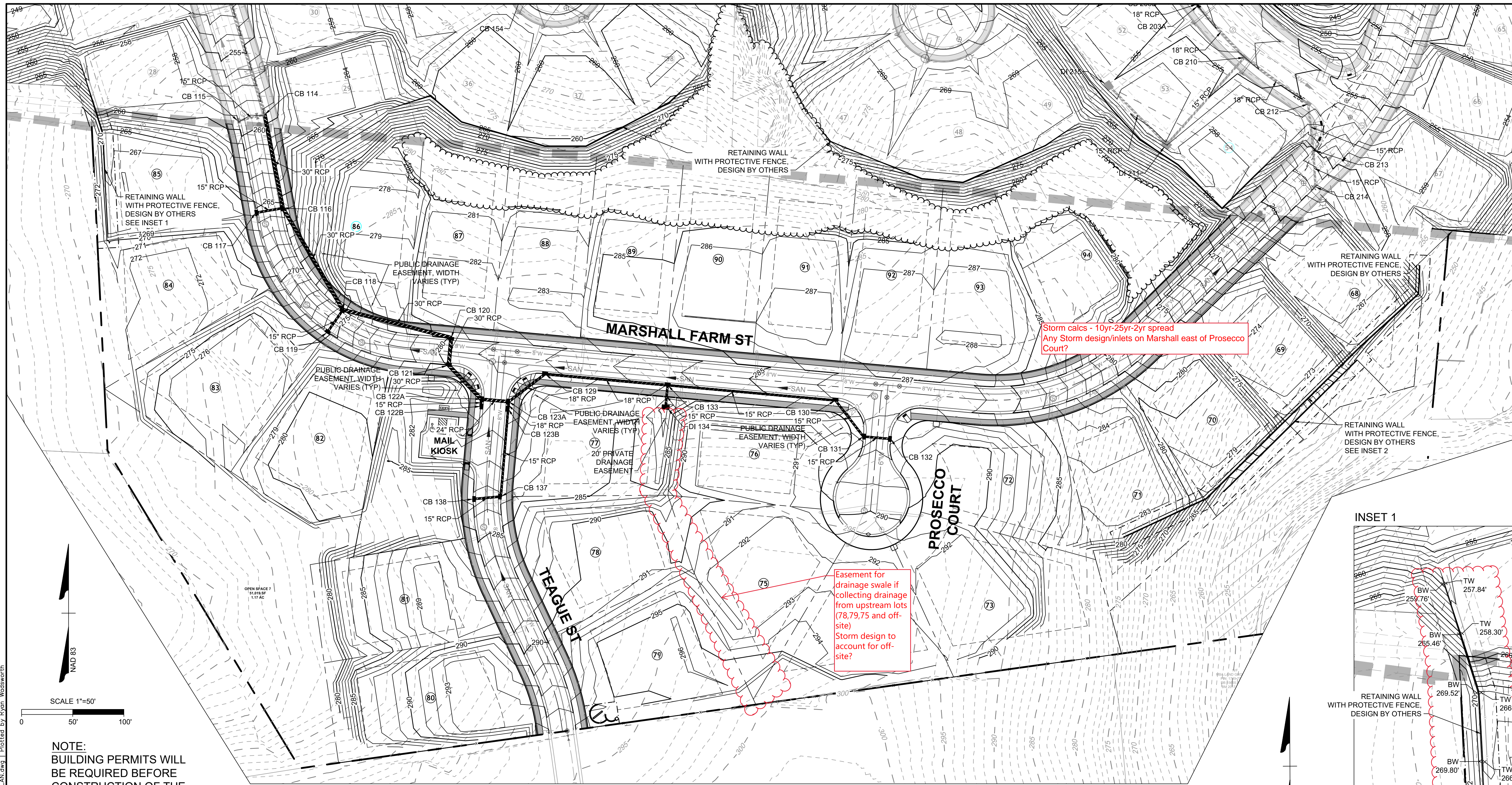
CITY OF RALEIGH  
PUBLIC UTILITIES DEPARTMENT PERMIT # \_\_\_\_\_  
AUTHORIZATION TO CONSTRUCT \_\_\_\_\_  
DATE \_\_\_\_\_

**PUBLIC WATER DISTRIBUTION/EXTENSION SYSTEM**  
THE CITY OF RALEIGH CONSENTS TO THE CONNECTION AND EXTENSION OF THE CITY'S PUBLIC WATER SYSTEM AS SHOWN ON THIS PLAN. THE MATERIAL AND CONSTRUCTION METHODS USED FOR THIS PROJECT SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE CITY'S PUBLIC UTILITIES HANDBOOK.

CITY OF RALEIGH  
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DATE \_\_\_\_\_

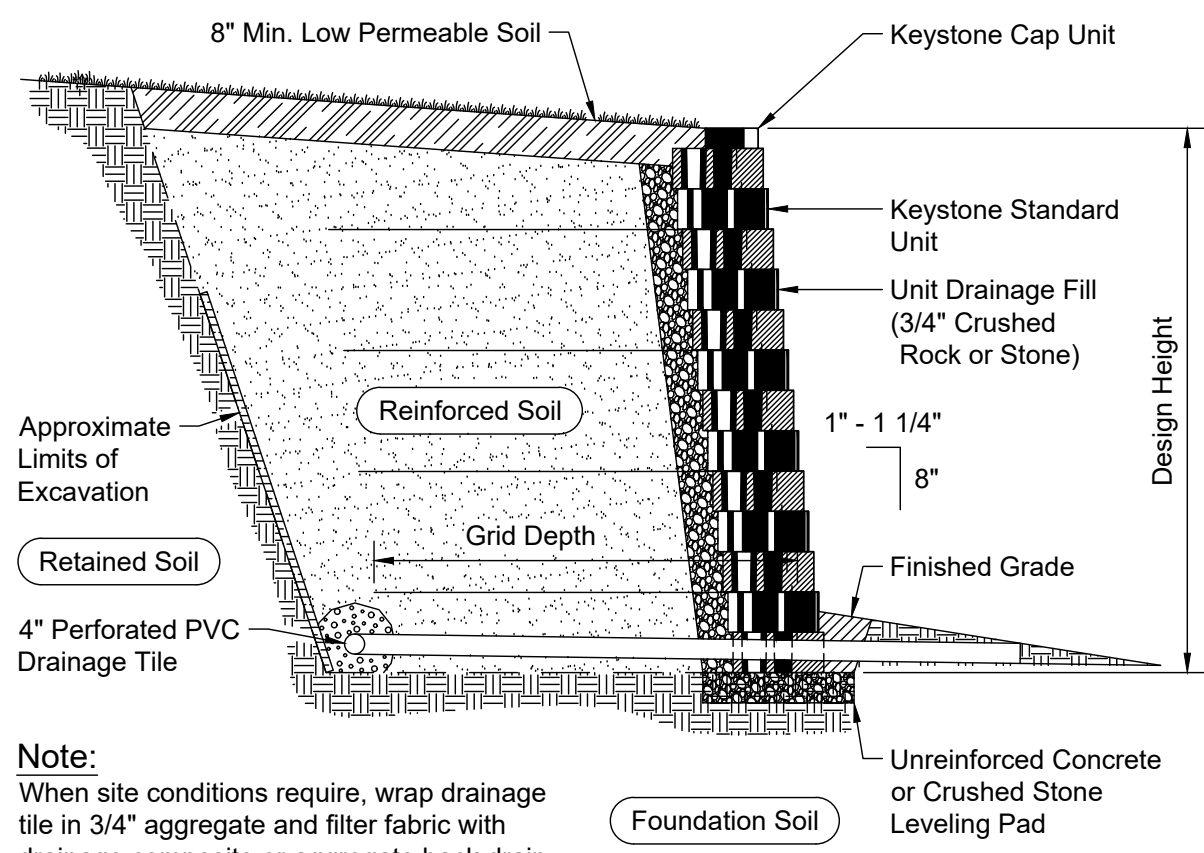
- CITY OF RALEIGH STANDARD UTILITY NOTES:**
- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION).
  - CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING PUBLIC AND PRIVATE UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
  - UTILITY SEPARATION REQUIREMENTS:
    - A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
    - WHEN INSTALLING WATER AND/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
    - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATER MAIN, DIP MATERIALS OR STEEL ENCASUREMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
    - 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
    - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATER MAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
    - ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
  - ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
  - CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24-HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
  - 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE MAINS.
  - IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
  - INSTALL 1" TYPE "K" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT.
  - INSTALL 4" SCHEDULE 40 PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
  - PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
  - ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDOWQ. USACE AND/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
  - NCDOT /RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
  - CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED, BROTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

S:\331\40013-Regency at Heritage - Revision DWG\_Sheet\CD\ROLESVILLE\_CD\_40013-RL-C3-0-UTILITY\_PLAN.dwg | Plotted by Ryan Wadsworth



NOTE:  
BUILDING PERMITS WILL  
BE REQUIRED BEFORE  
CONSTRUCTION OF THE  
RETAINING WALLS.

SEE SHEET C4.1 FOR STORM SEWER SCHEDULE



Typical Reinforced Wall Section

RETAINING WALLS TO BE DESIGNED BY OTHERS

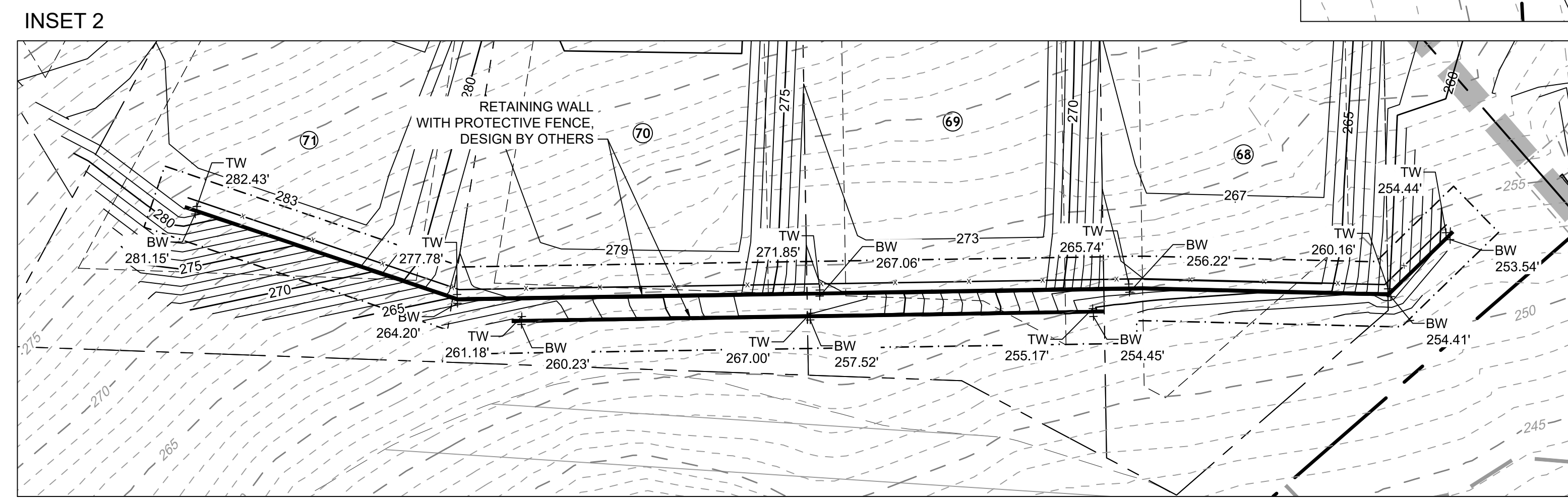
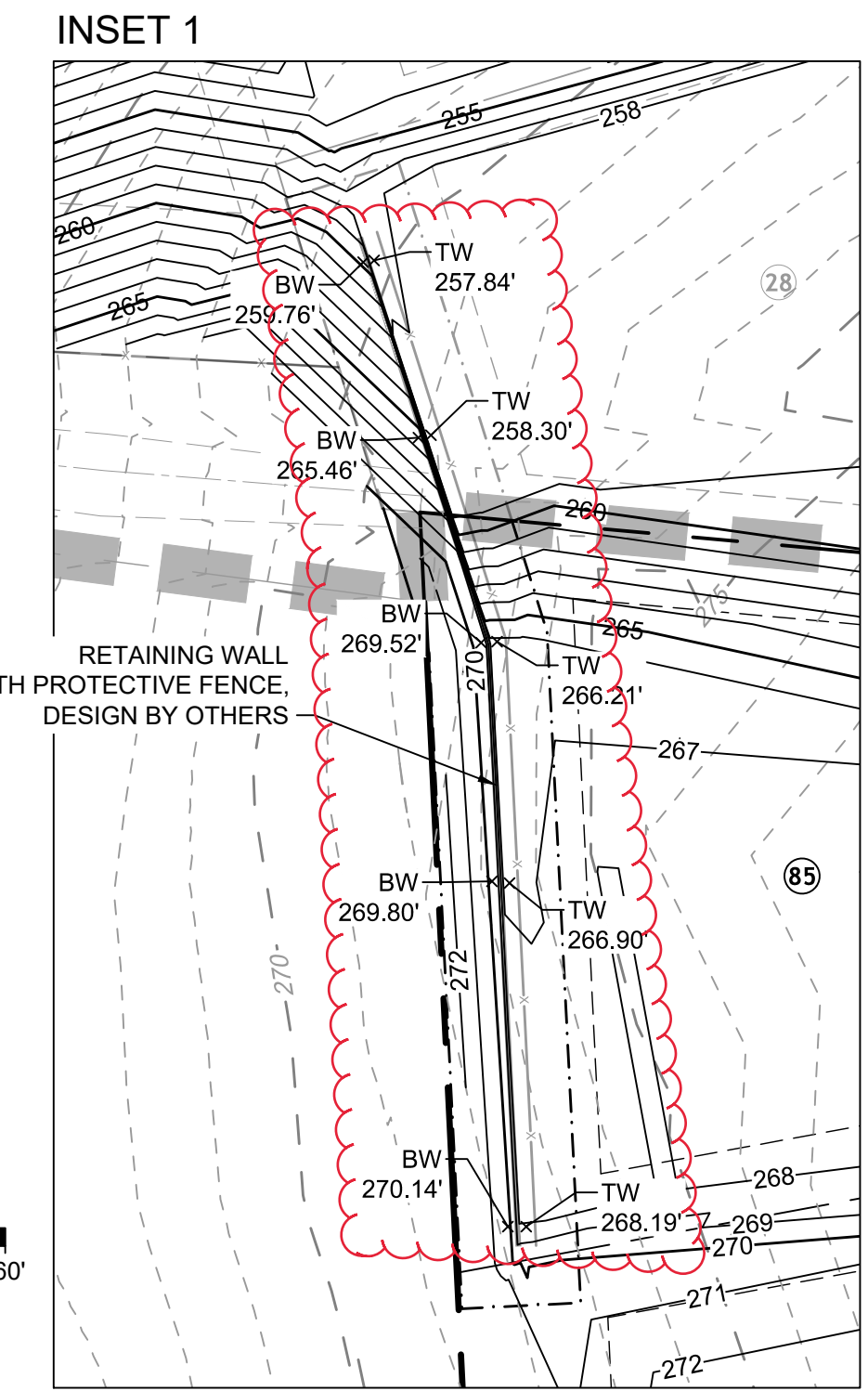
### GENERAL NOTES

- All storm drainage systems within the jurisdiction of the Town of Wake Forest shall meet all the requirements of the Town of Wake Forest Manual of Specifications, Standards and Design, latest revision. The following shall be considered to be the minimum standards of design for storm drainage systems within the jurisdiction of the Town of Wake Forest.
- All storm drainage pipes shall be reinforced concrete class III minimum B or C Wall.
- All storm sewer manhole rings and covers shall be sanitary sewer standard, except that they shall be stamped "storm sewer."
- Design Storm Frequencies for conveyance systems within this development:
 

Local Roadways	10 Year Storm
Bridges / Box Culverts	100 Year Storm
Curb and Gutter and Inlets	2 Year, 5 min TC
- Precast catch basins with weep holes shall generally be required. See Town of Wake Forest standard Details 9.50 through 9.51 as applicable.
- Flared end sections will be permitted on pipe as follows:  
On single pipe systems up to a 42" diameter.  
On twin pipe systems up to 18" diameter.  
Otherwise, head walls will be used for all larger pipe systems and for all other multi-barrel pipe systems.
- For Head/End wall construction details, refer to the NCDOT Highway Design Branch Roadway Standard Drawings, latest revision. Standard Drawings are to be used in conjunction with the NCDOT Standard Specifications
- No storm water drainage shall be discharged into a sanitary sewer.

Storm calcs - 10yr-25yr-2yr spread  
Any Storm design/inlets on Marshall east of Prosecco Court?

Easement for drainage swale if collecting drainage from upstream lots (78,79,75 and off-site)  
Storm design to account for off-site?



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**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652  
**REGENCY AT HERITAGE - PHASE 3**  
ROLESVILLE - WAKE COUNTY - NORTH CAROLINA

**GRADING & DRAINAGE PLAN**

JOB NO.	40013
SHEET NO.	C4.0

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STORM DRAINAGE TABLE (STORM 100)						
STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 116	7.81'	265.31	257.50' (30" RCP) CB 118 258.75' (15" RCP) CB 117	257.50' (30" RCP)	93' @ 6.76%	CB 114
CB 117	6.73'	265.78		259.05' (15" RCP)	27' @ 1.11%	CB 116
CB 118	8.27'	274.77	266.50' (30" RCP) CB 120 267.75' (15" RCP) CB 119	266.50' (30" RCP)	116' @ 7.79%	CB 116
CB 119	6.73'	274.78		268.05' (15" RCP)	27' @ 1.11%	CB 118
CB 120	10.32'	282.02	271.70' (30" RCP) CB 121	271.70' (30" RCP)	109' @ 4.76%	CB 118
CB 121	10.02'	282.02	272.00' (30" RCP) CB 122A	272.00' (30" RCP)	27' @ 1.11%	CB 120
CB 122A	8.34'	280.64	272.80' (24" RCP) CB 123A 273.55' (15" RCP) CB 122B	272.30' (30" RCP)	46' @ 0.65%	CB 121
CB 122B	4.63'	280.54		275.91' (15" RCP)	7' @ 33.53%	CB 122A
CB 123A	7.54'	280.64	273.73' (18" RCP) CB 129 273.45' (18" RCP) CB 123B	273.10' (24" RCP)	27' @ 1.11%	CB 122A
CB 123B	7.04'	280.54	273.75' (15" RCP) CB 137	273.50' (18" RCP)	7' @ 0.71%	CB 123A
CB 129	7.81'	282.21	274.40' (18" RCP) CB 133	274.40' (18" RCP)	45' @ 1.50%	CB 123A

STORM PIPE TABLE							
PIPE #	DIA	FROM - TO	UPSTREAM INVERT	DOWNSTREAM INVERT	SLOPE	LENGTH	DESCRIPTION
116-114	30"	CB 116 - CB 114	257.50	251.20	6.76%	93.18 LF	NCDOT Circular Pipe
117-116	15"	CB 117 - CB 116	259.05	258.75	1.11%	27.00 LF	NCDOT Circular Pipe
118-116	30"	CB 118 - CB 116	266.50	257.50	7.79%	115.53 LF	NCDOT Circular Pipe
119-118	15"	CB 119 - CB 118	268.05	267.75	1.11%	27.00 LF	NCDOT Circular Pipe
120-118	30"	CB 120 - CB 118	271.70	266.50	4.76%	109.32 LF	NCDOT Circular Pipe
121-120	30"	CB 121 - CB 120	272.00	271.70	1.11%	27.00 LF	NCDOT Circular Pipe
122B-122A	15"	CB 122B - CB 122A	275.91	273.55	33.53%	7.04 LF	NCDOT Circular Pipe
122-121	30"	CB 122A - CB 121	272.30	272.00	0.65%	45.94 LF	NCDOT Circular Pipe
123B-123A	18"	CB 123B - CB 123A	273.50	273.45	0.71%	7.05 LF	NCDOT Circular Pipe
123A-122	24"	CB 123A - CB 122A	273.10	272.80	1.11%	27.00 LF	NCDOT Circular Pipe
129-123A	18"	CB 129 - CB 123A	274.40	273.73	1.50%	44.56 LF	NCDOT Circular Pipe

STORM DRAINAGE TABLE (STORM 100)						
STRUCTURE UP	HEIGHT	TOP	INV IN	INV OUT	OUTLET PIPE	STRUCTURE DOWN
CB 130	6.34'	286.49	280.15' (15" RCP) CB 131	280.15' (15" RCP)	165' @ 1.76%	CB 133
CB 131	7.00'	287.85	280.85' (15" RCP) CB 132	280.85' (15" RCP)	45' @ 1.57%	CB 130
CB 132	6.70'	287.85		281.15' (15" RCP)	27' @ 1.11%	CB 131
CB 133	7.02'	284.02	277.25' (15" RCP) CB 130 277.00' (15" RCP) DI 134	277.00' (18" RCP)	120' @ 2.16%	CB 129
CB 137	6.65'	283.65	277.00' (15" RCP) CB 138	277.00' (15" RCP)	86' @ 3.78%	CB 123B
CB 138	6.26'	283.76		277.50' (15" RCP)	27' @ 1.84%	CB 137
DI 134	4.38'	282.41		278.03' (15" RCP)	21' @ 4.79%	CB 133

STORM PIPE TABLE							
PIPE #	DIA	FROM - TO	UPSTREAM INVERT	DOWNSTREAM INVERT	SLOPE	LENGTH	DESCRIPTION
130-133	15"	CB 130 - CB 133	280.15	277.25	1.76%	164.74 LF	NCDOT Circular Pipe
131-130	15"	CB 131 - CB 130	280.85	280.15	1.57%	44.57 LF	NCDOT Circular Pipe
132-131	15"	CB 132 - CB 131	281.15	280.85	1.11%	27.00 LF	NCDOT Circular Pipe
133-129	18"	CB 133 - CB 129	277.00	274.40	2.16%	120.35 LF	NCDOT Circular Pipe
134-133	15"	DI 134 - CB 133	278.03	277.00	4.79%	21.50 LF	NCDOT Circular Pipe
137-123B	15"	CB 137 - CB 123B	277.00	273.75	3.78%	86.02 LF	NCDOT Circular Pipe
138-137	15"	CB 138 - CB 137	277.50	277.00	1.84%	27.11 LF	NCDOT Circular Pipe



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DESIGNED BY

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JFC

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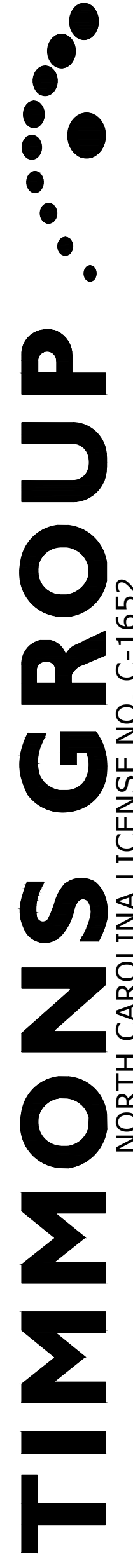
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SHEET NO.

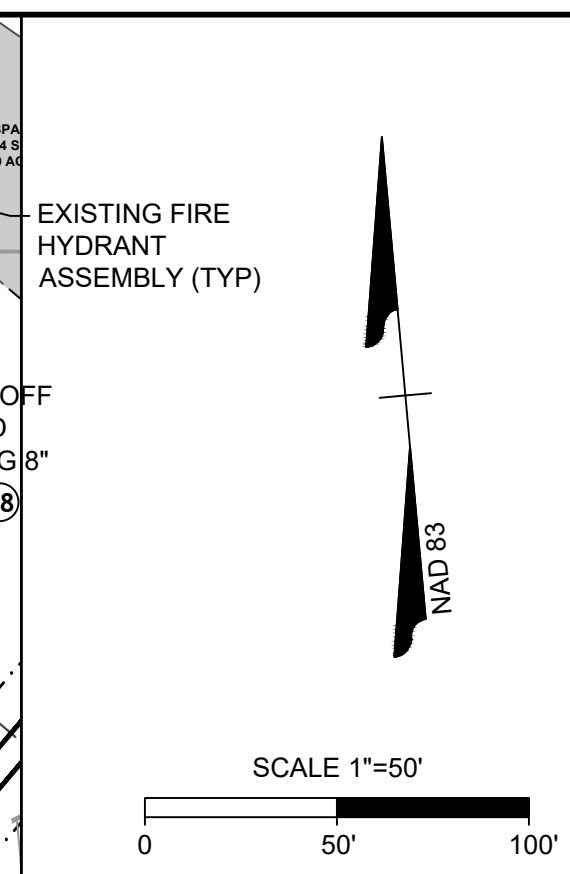
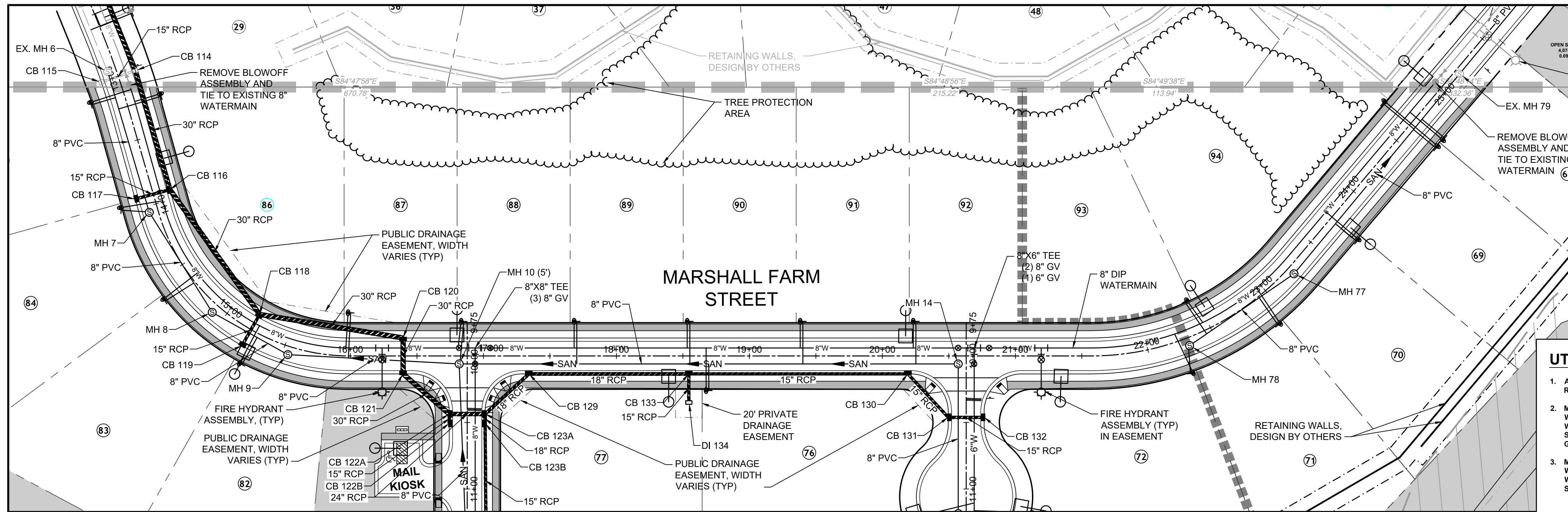
C4.1



STORM SEWER SCHEDULE

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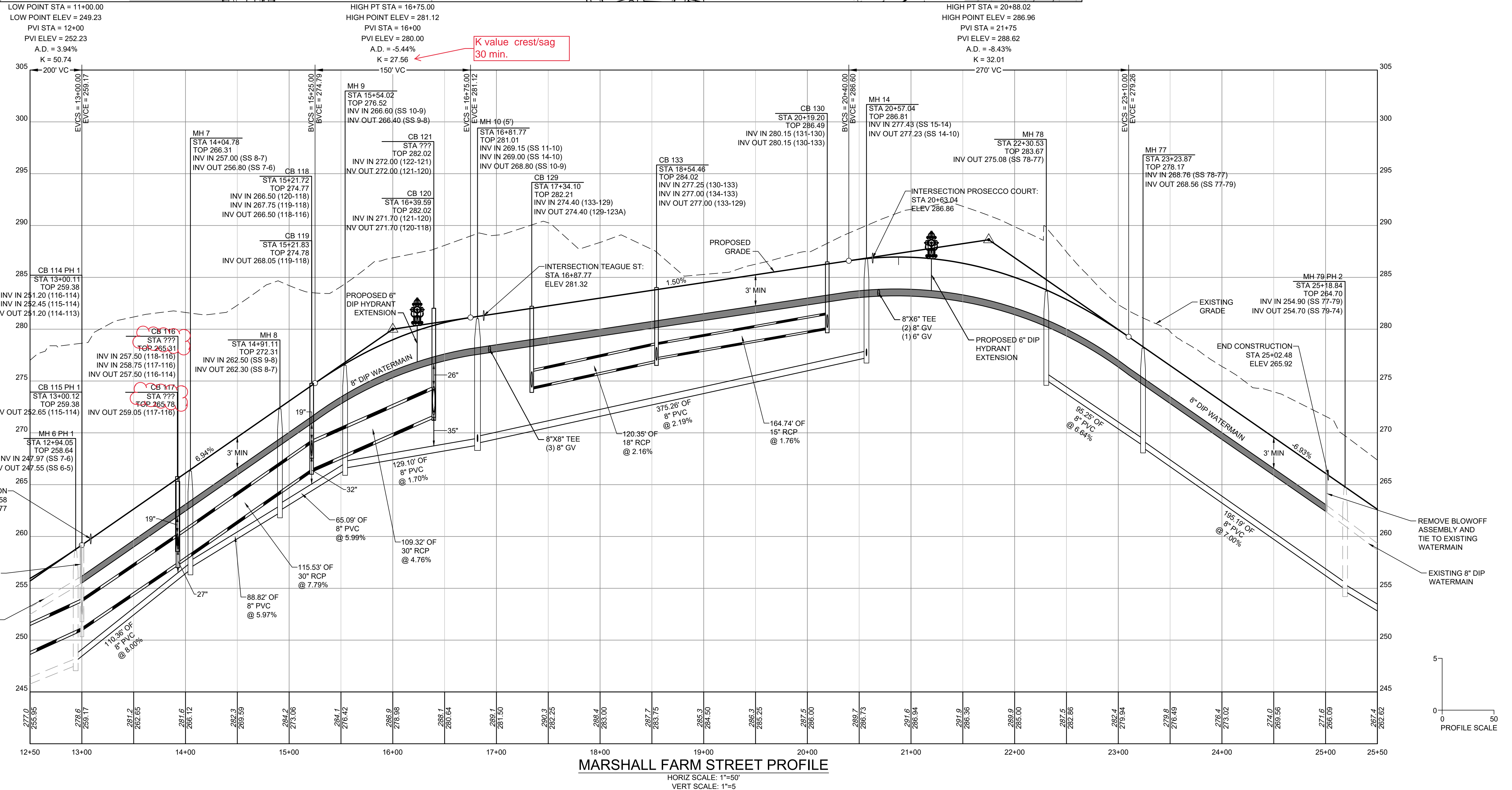
**UTILITY NOTES:**

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ROLESVILLE STANDARDS AND SPECIFICATIONS.
2. MINIMUM UTILITY HORIZONTAL SEPARATION DISTANCES:  
 WATER AND SANITARY SEWER MAINS - 10 FT.  
 WATER AND STORM SEWER MAINS - 8 FT.  
 SANITARY SEWER AND STORM SEWER MAINS - 10 FT.  
 GRAVITY SANITARY SEWER AND FORCE MAINS - 5 FT.
3. MINIMUM UTILITY VERTICAL SEPARATION DISTANCES:  
 WATER AND SANITARY SEWER MAINS - 18 IN.  
 WATER AND STORM SEWER MAINS - 18 IN.  
 SANITARY SEWER AND STORM SEWER MAINS - 24 IN.

**ATTENTION CONTRACTORS**  
 The Construction Contractor responsible for the extension of water, sewer, and/or gas, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-4540 at least twenty four hours prior to beginning any of their construction.  
 Failure to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.  
 Failure to call for Inspection, Install a Downstream Plug, have Permitted Plans on the Jobsite, or any other Violation of City of Raleigh Standards will result in a Fine and Possible Exclusion from future work in the City of Raleigh.

**PUBLIC WATER DISTRIBUTION/EXTENSION SYSTEM**  
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 CITY OF RALEIGH  
 PUBLIC UTILITIES DEPARTMENT PERMIT # \_\_\_\_\_  
 AUTHORIZATION TO CONSTRUCT \_\_\_\_\_  
 DATE \_\_\_\_\_

**PUBLIC SEWER COLLECTION/EXTENSION SYSTEM**  
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 CITY OF RALEIGH  
 PUBLIC UTILITIES DEPARTMENT PERMIT # \_\_\_\_\_  
 AUTHORIZATION TO CONSTRUCT \_\_\_\_\_  
 DATE \_\_\_\_\_



K value crest/sag  
30 min.



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REVISION DESCRIPTION	DATE
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SCALE	H: 1"=50' V: 1"=5'

**TIMMONS GROUP**  
 NORTH CAROLINA LICENSE NO. C-1652

**REGENCY AT HERITAGE - PHASE 3**  
 ROLESVILLE - WAKE COUNTY - NORTH CAROLINA

**MARSHALL FARM ST PLAN & PROFILE**

JOB NO.	40013
SHEET NO.	C5.1

S:\331\40013-Regency\_at\_Heritage\_Revision DWG\_Sheet\_VD\Rolesville\_CD\_40013-RL-C6\_1-PROF.dwg | Plotted by Ryan Wadsworth

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DATE

JOB NO.  
 40013  
 SHEET NO.  
 C5.2

REVISION DESCRIPTION

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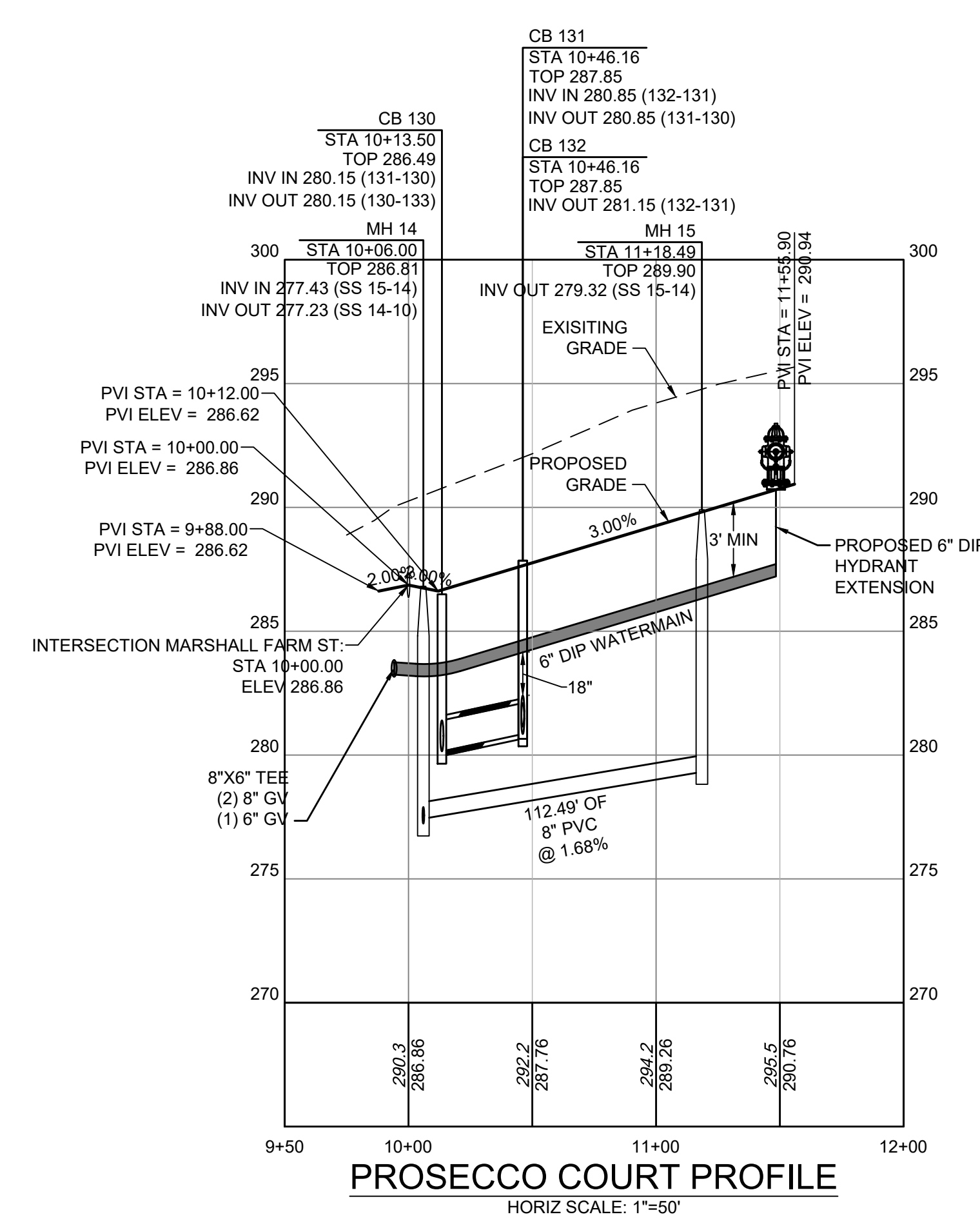
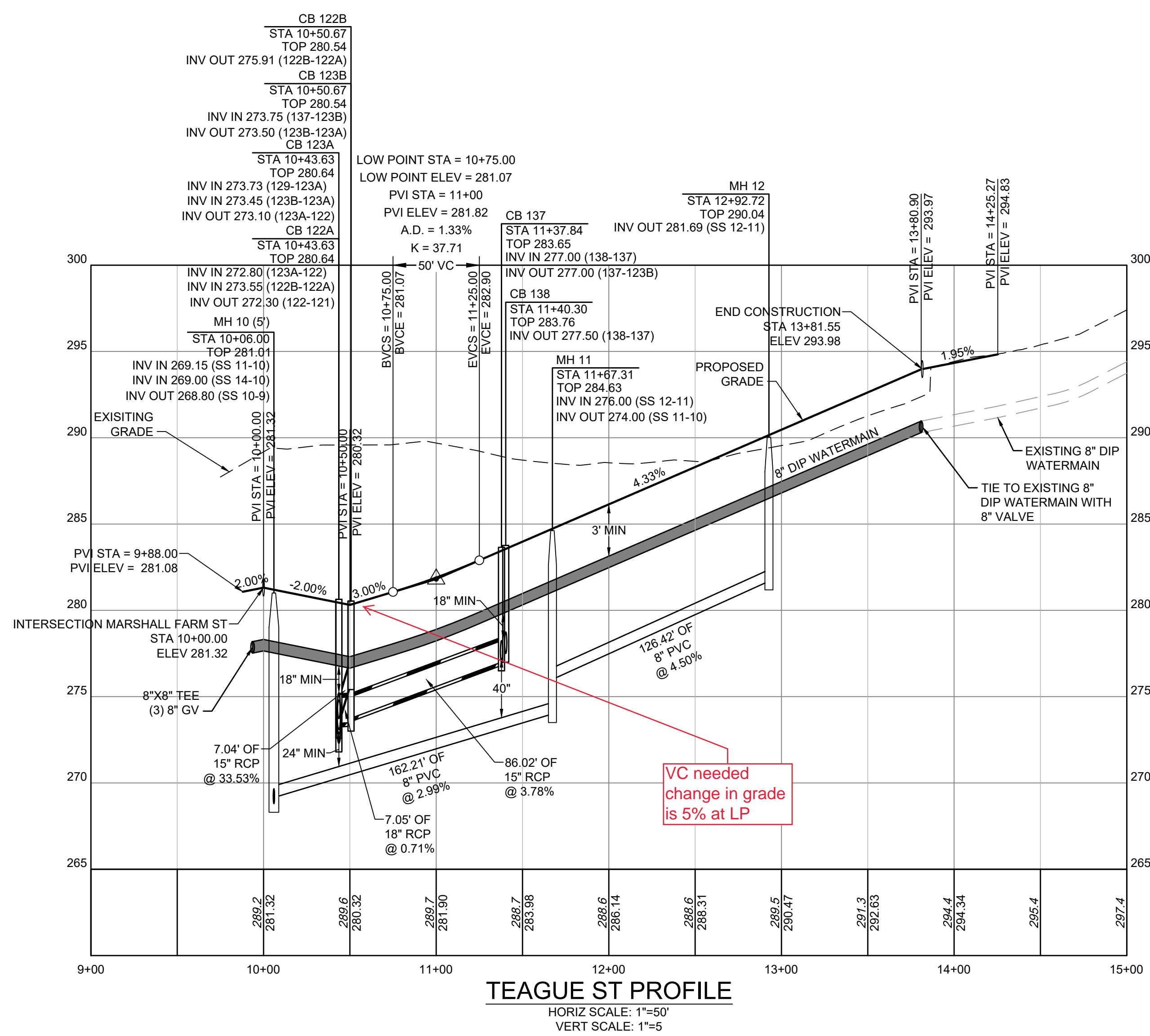
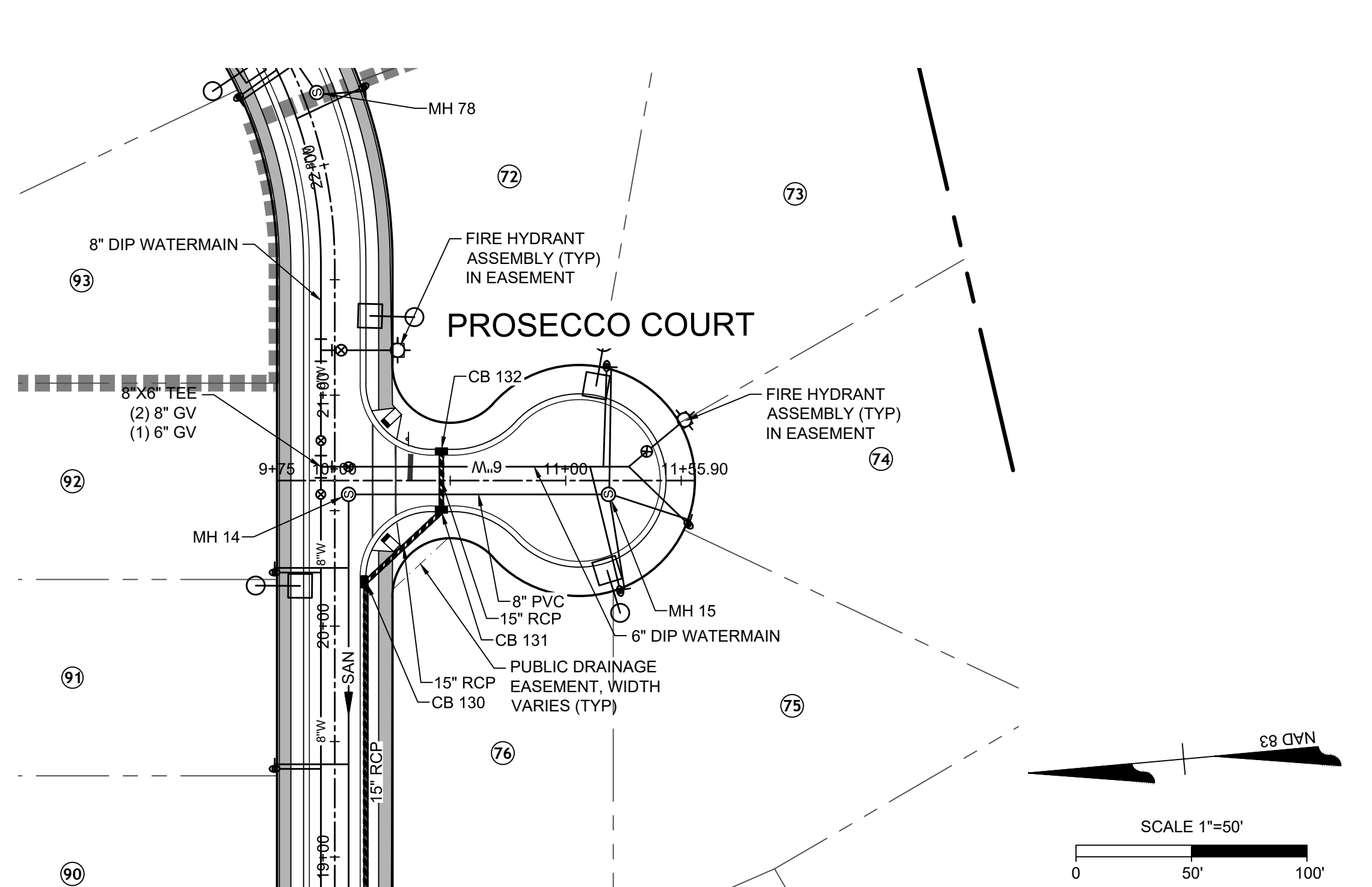
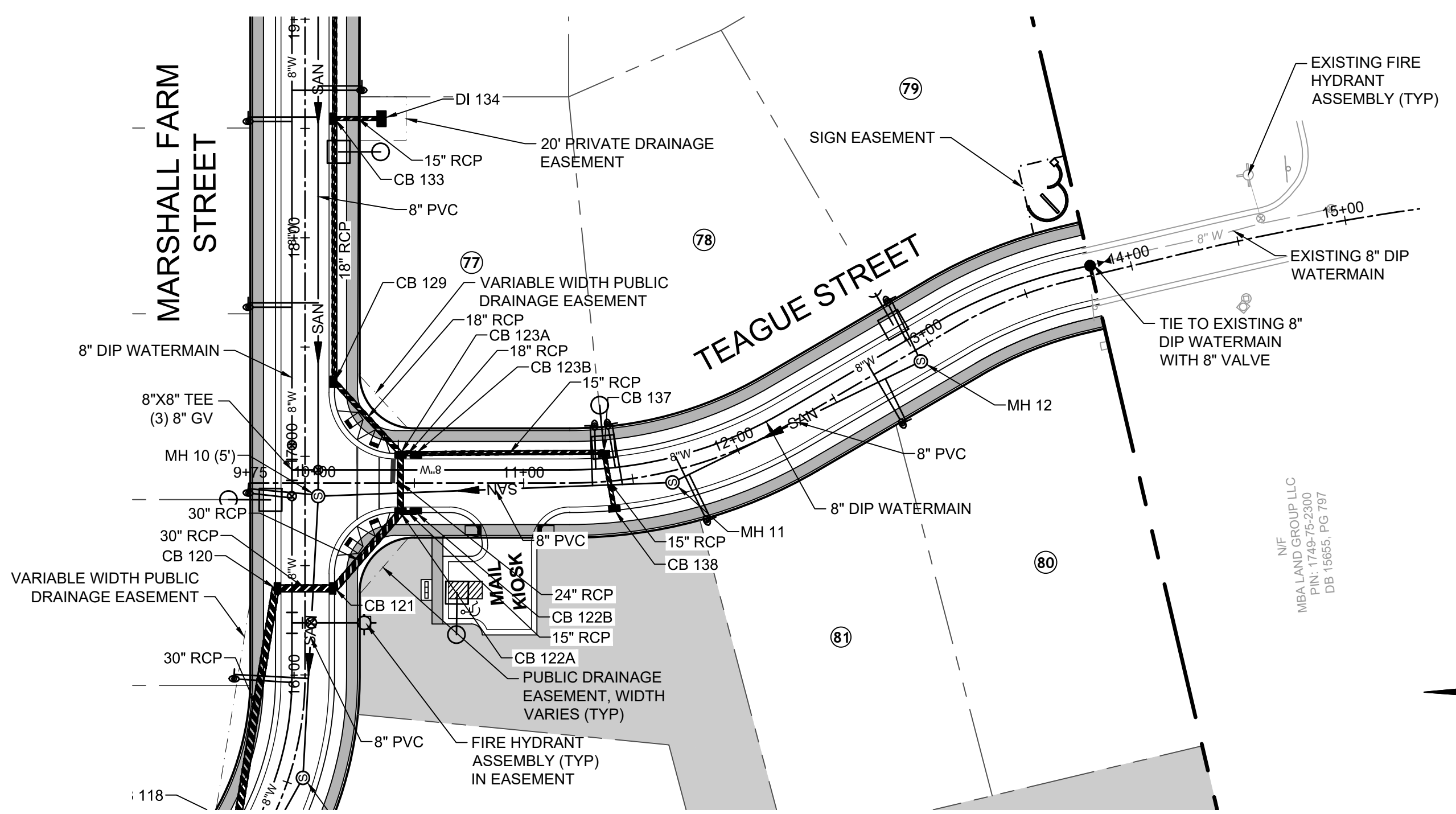
# TIMMONS GROUP

NORTH CAROLINA LICENSE NO. C-1652

## REGENCY AT HERITAGE - PHASE 3

ROLESVILLE - WAKE COUNTY - NORTH CAROLINA

### TEAGUE ST & PROSECCO COURT PLAN & PROFILE



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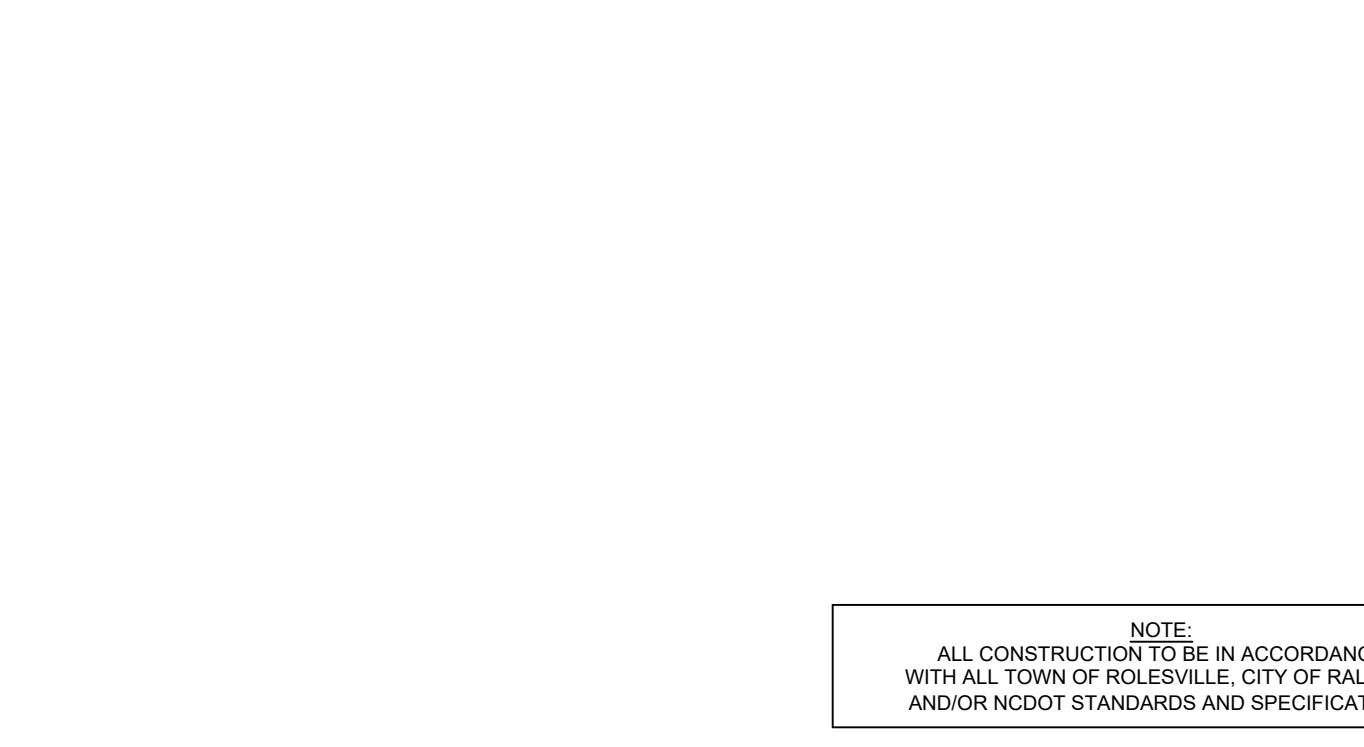
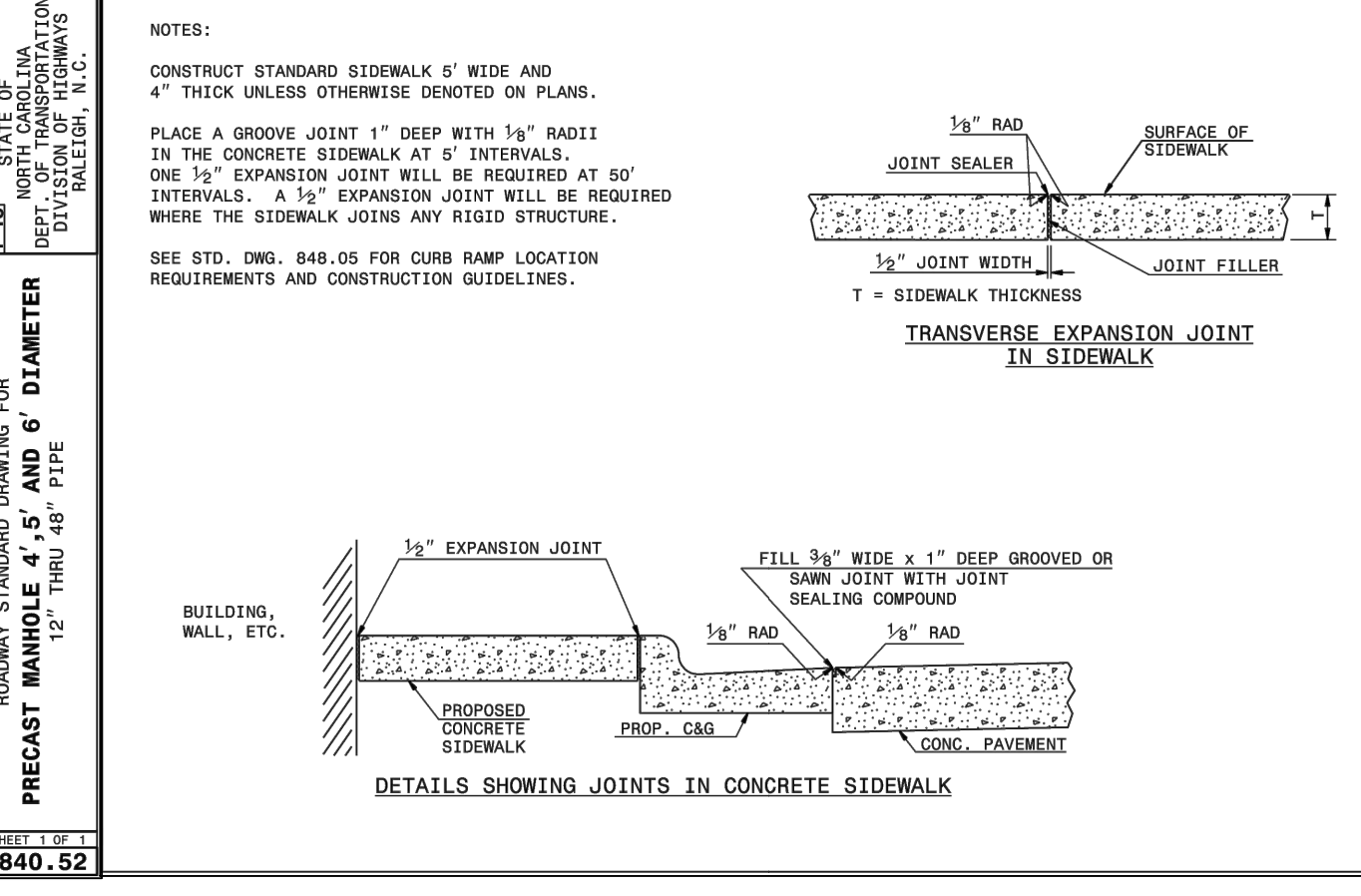
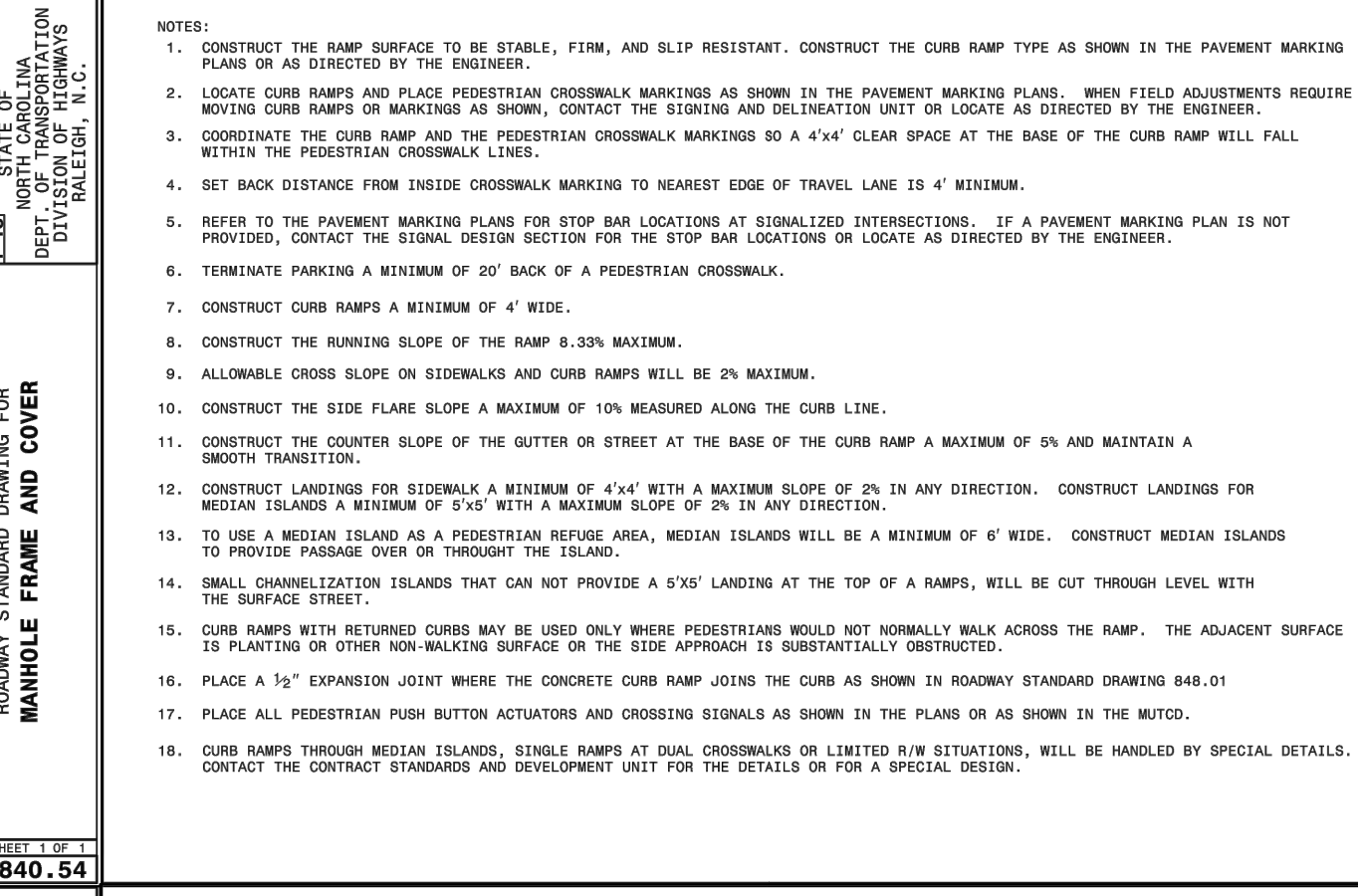
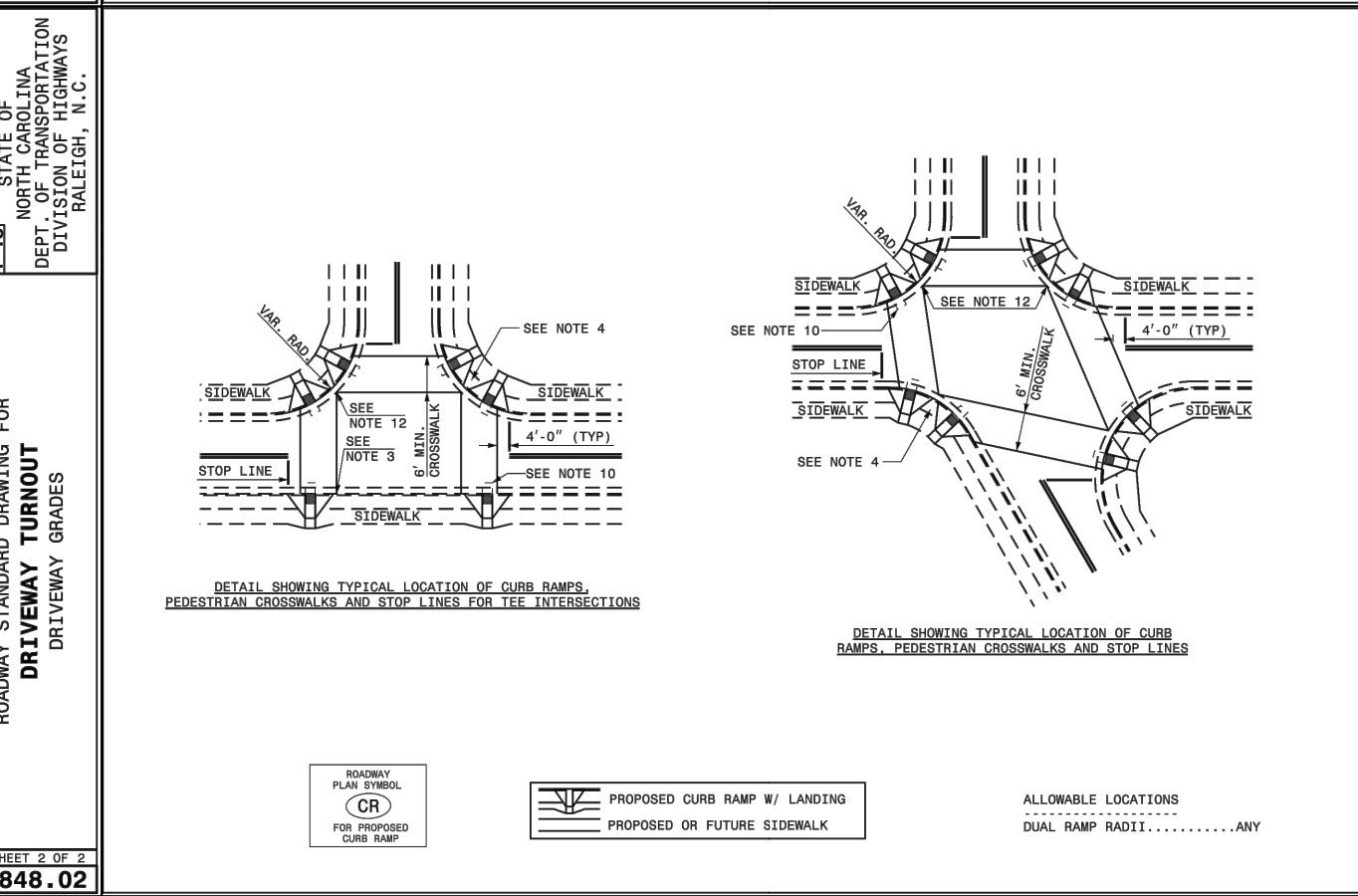
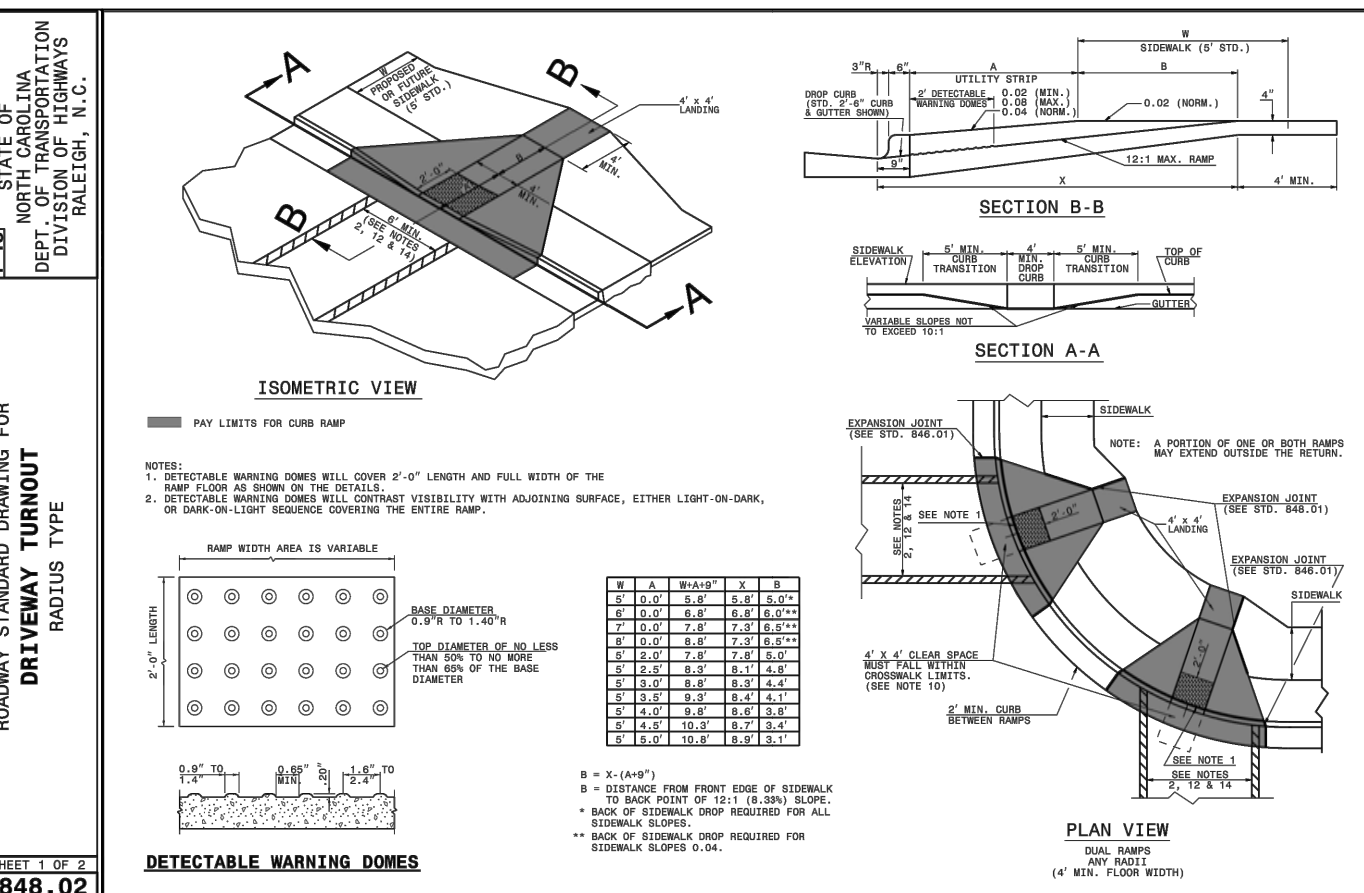
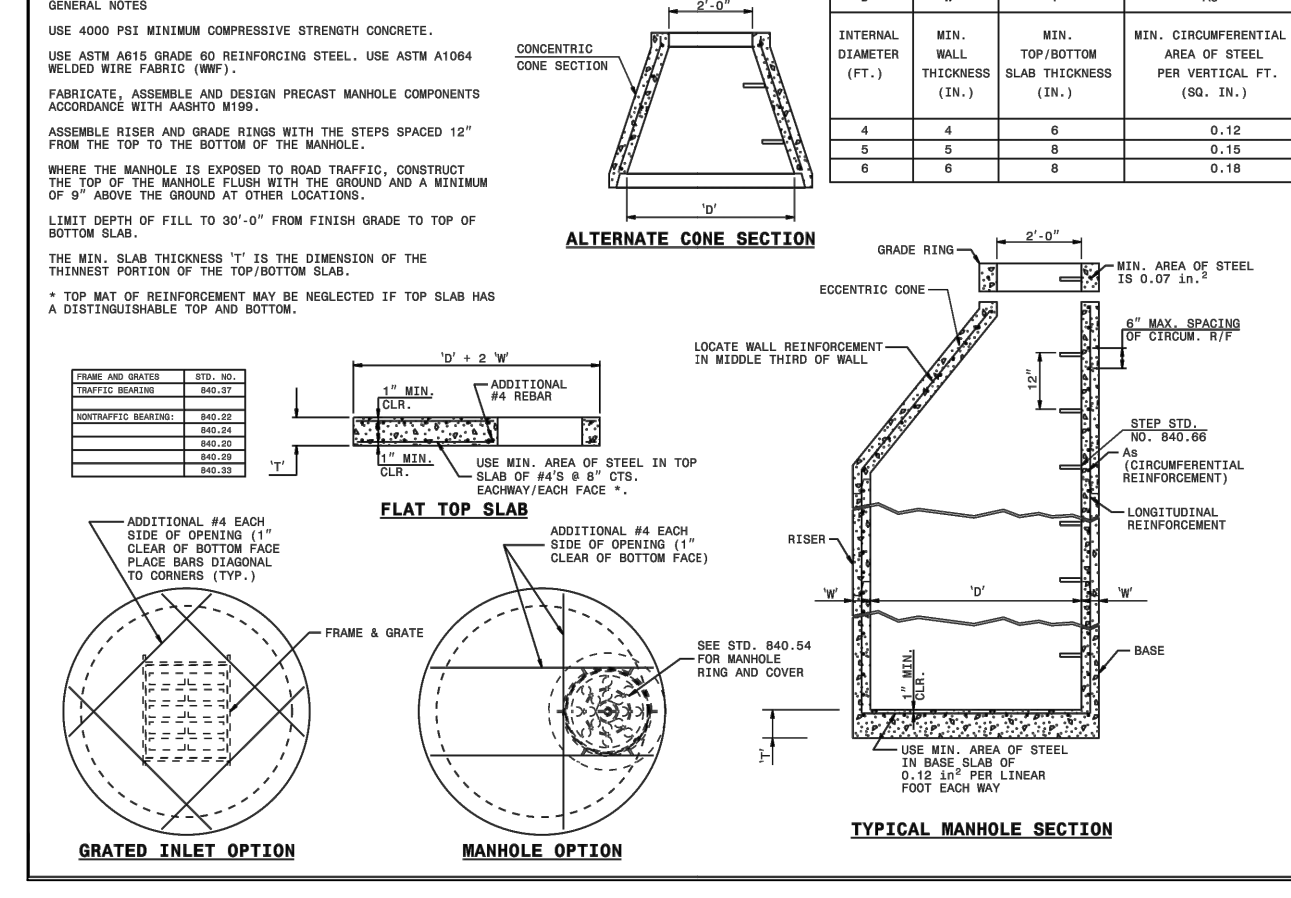
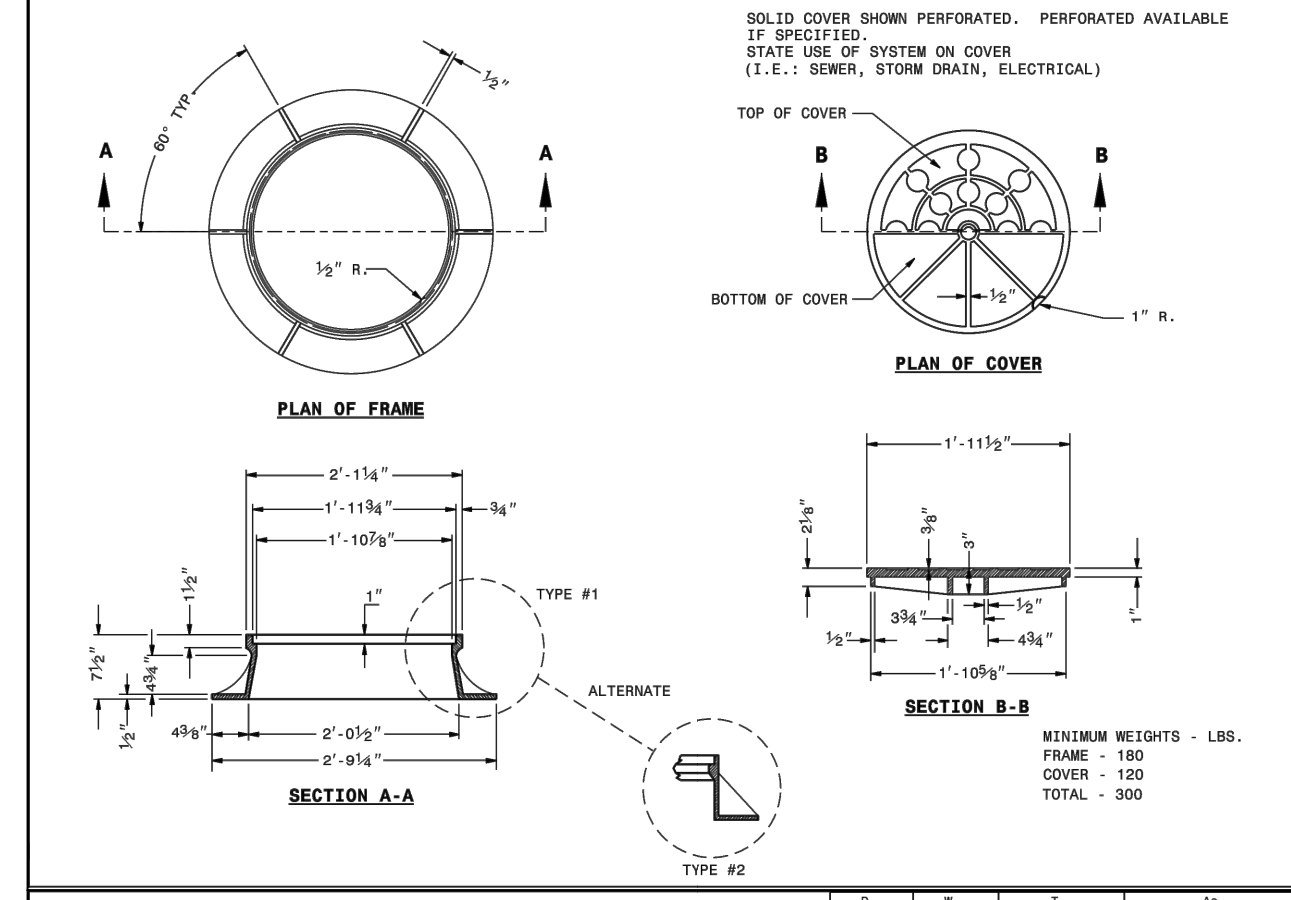
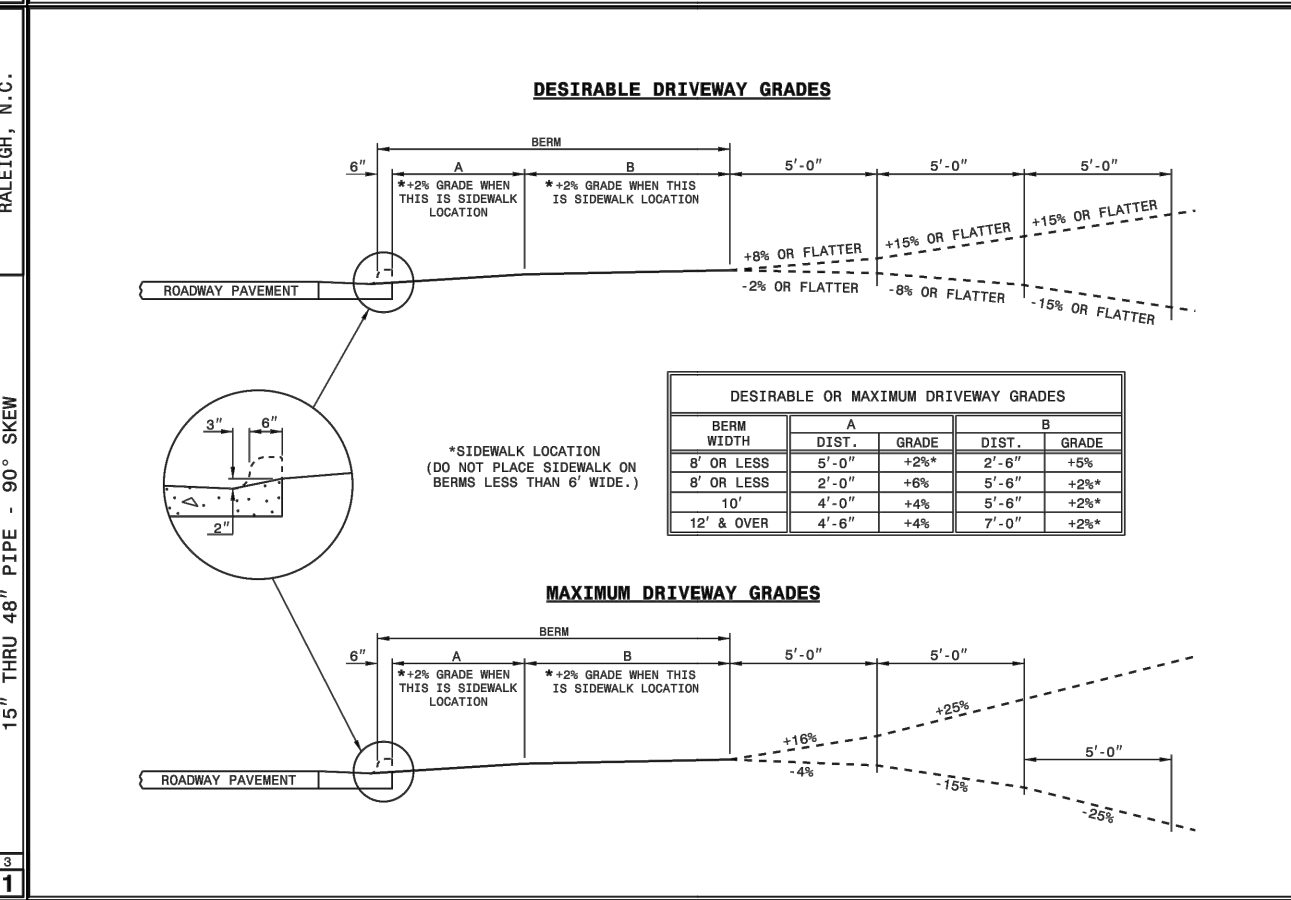
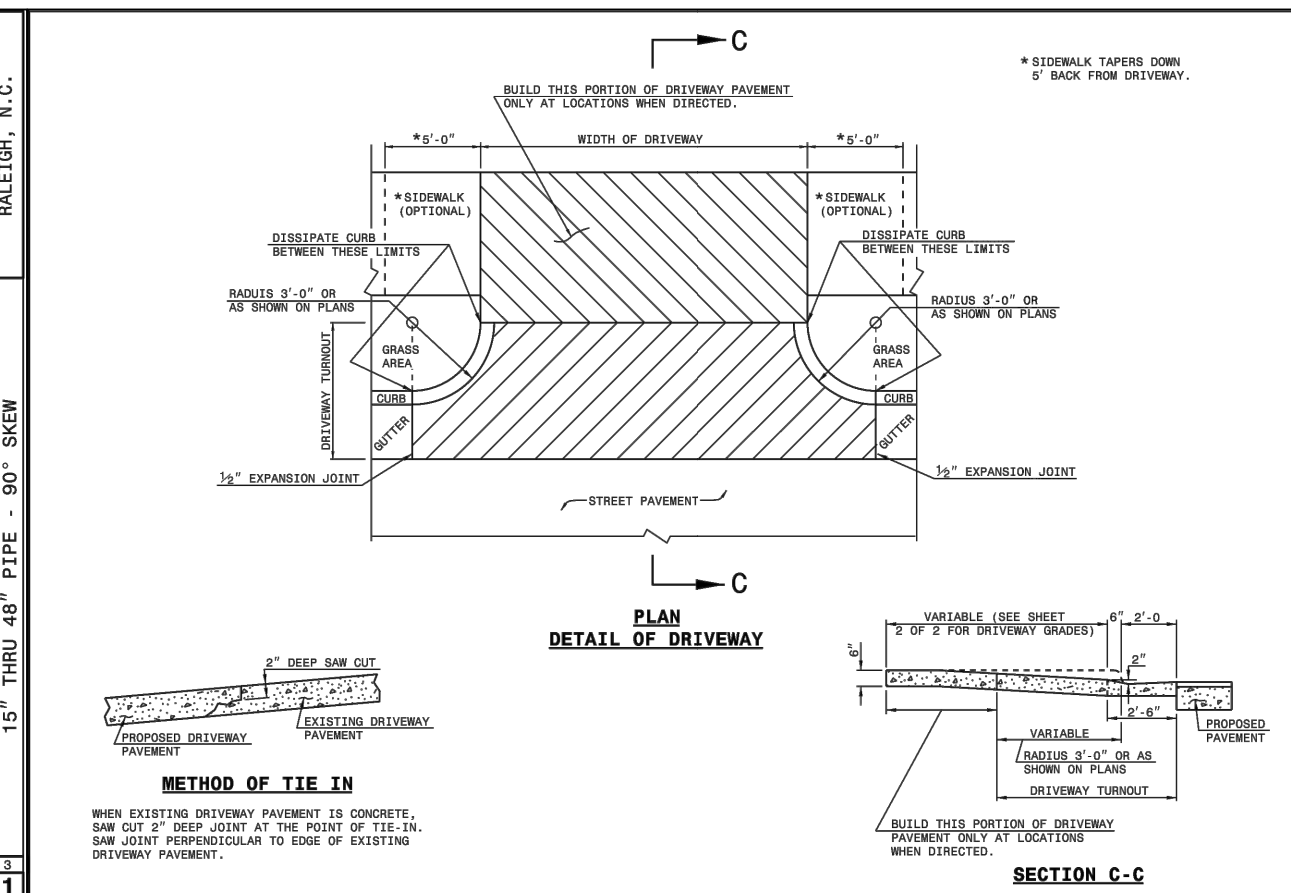
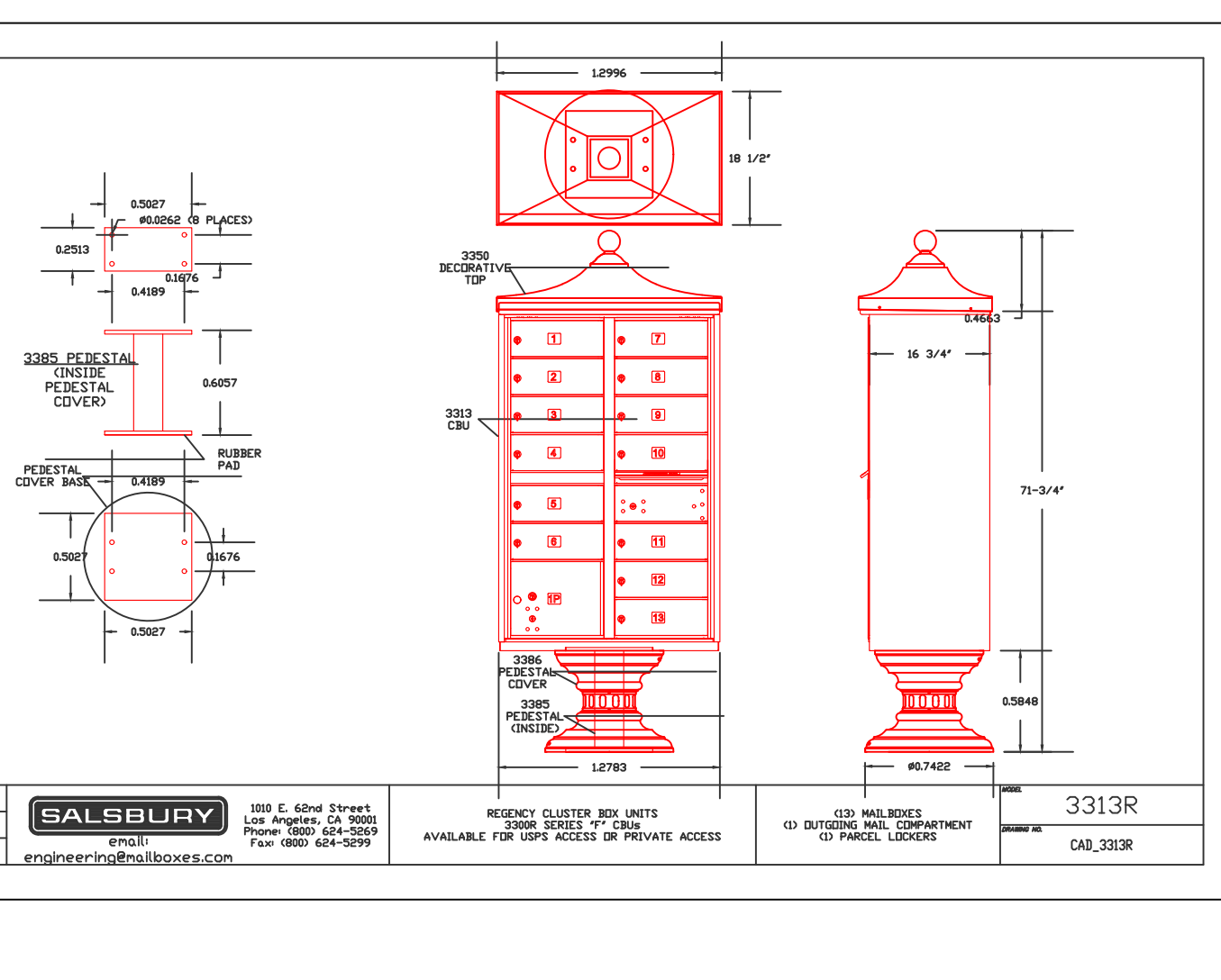
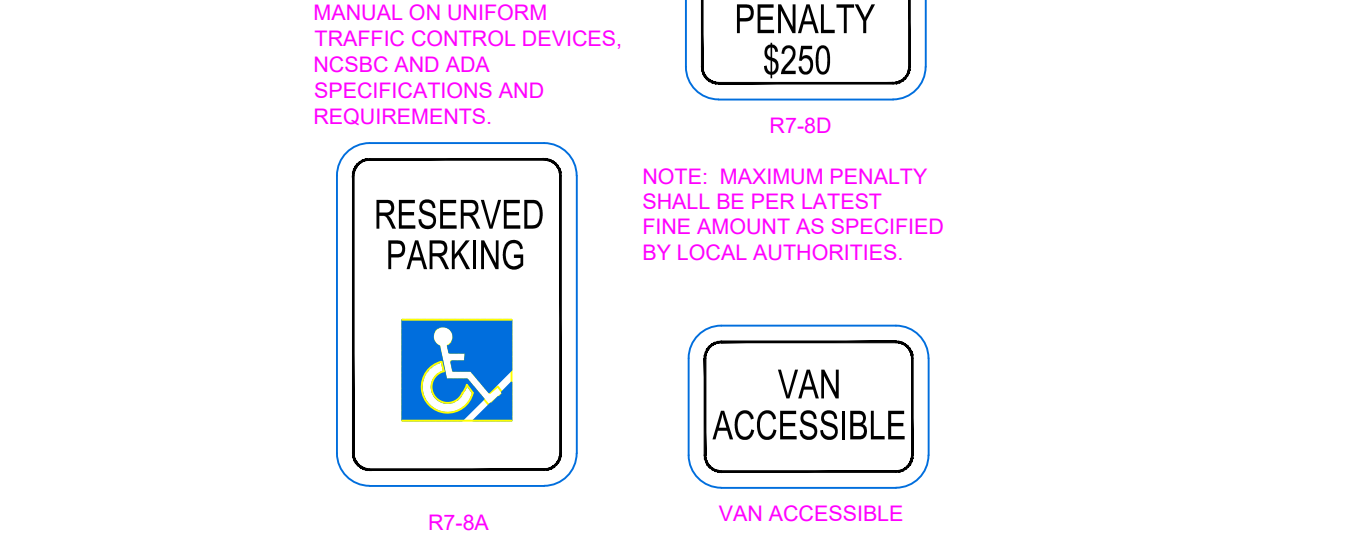
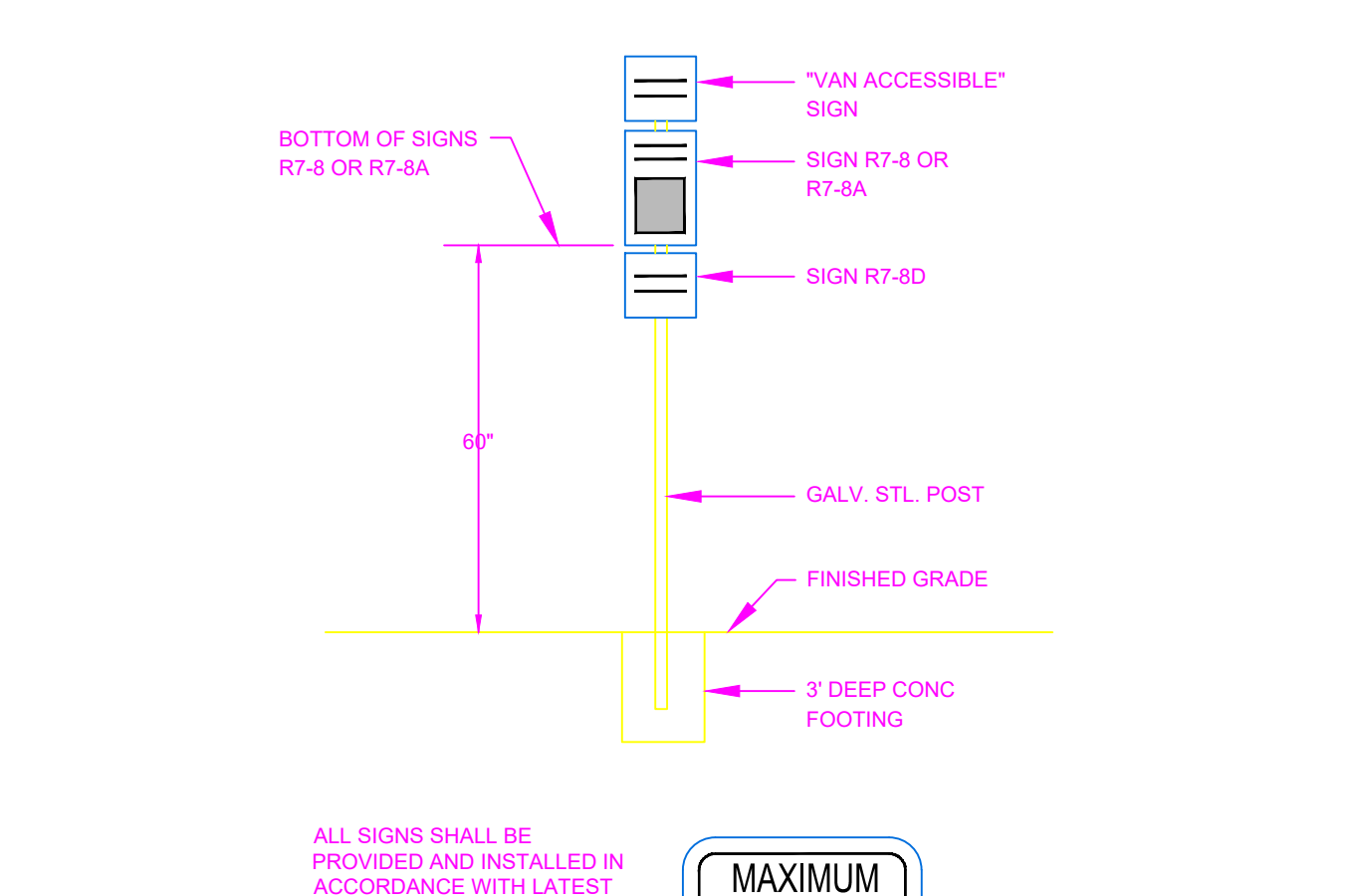
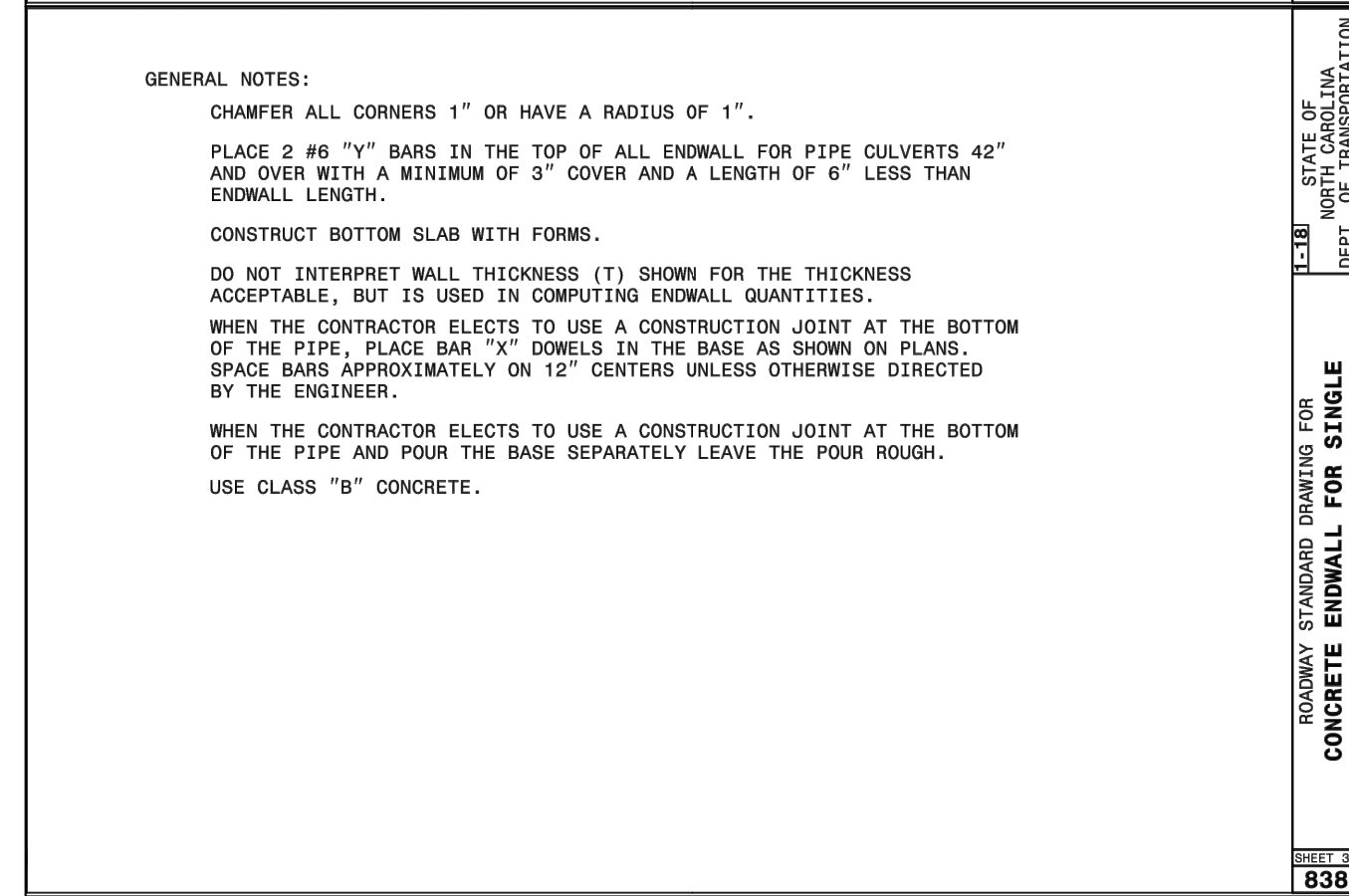
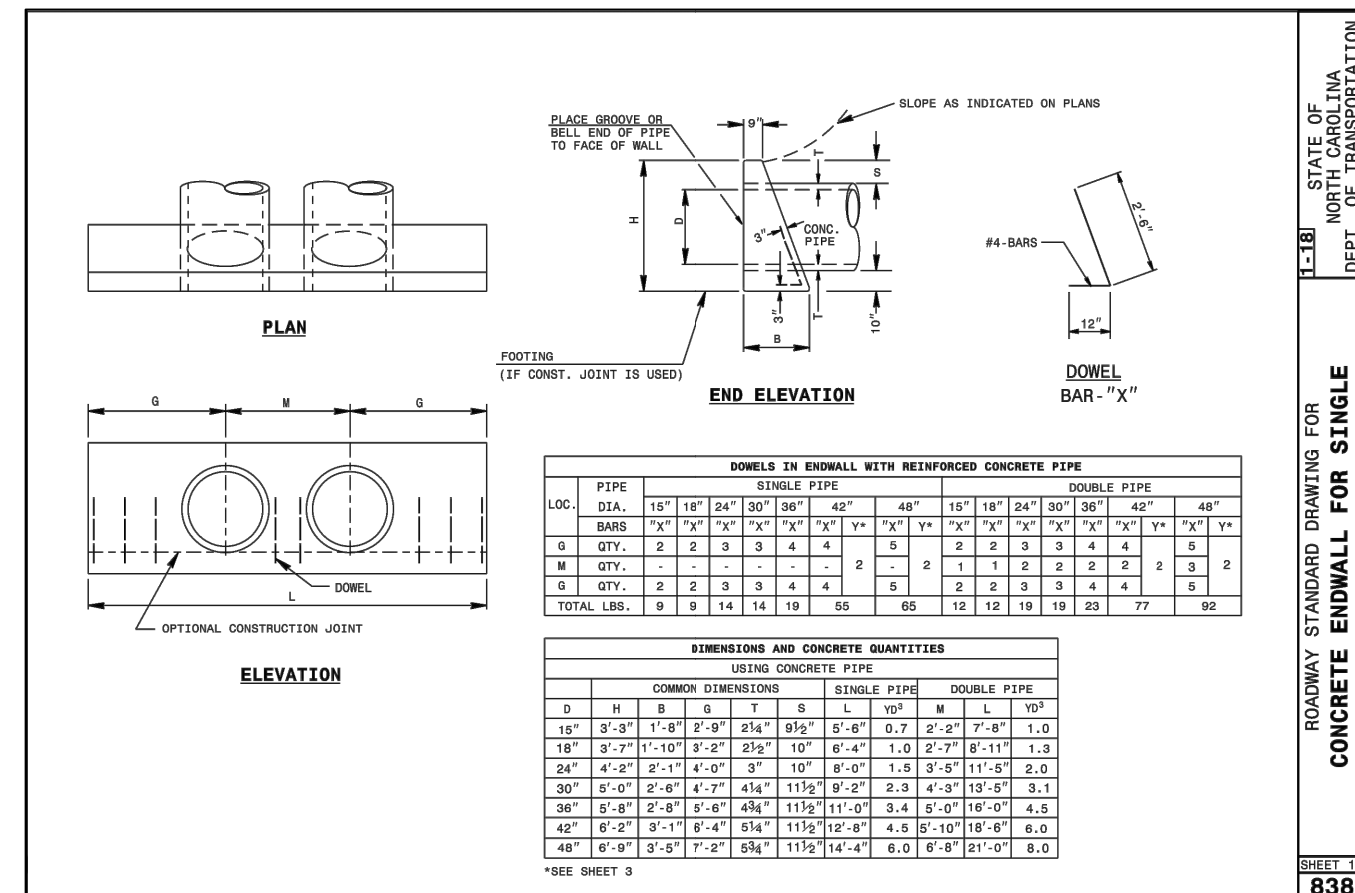
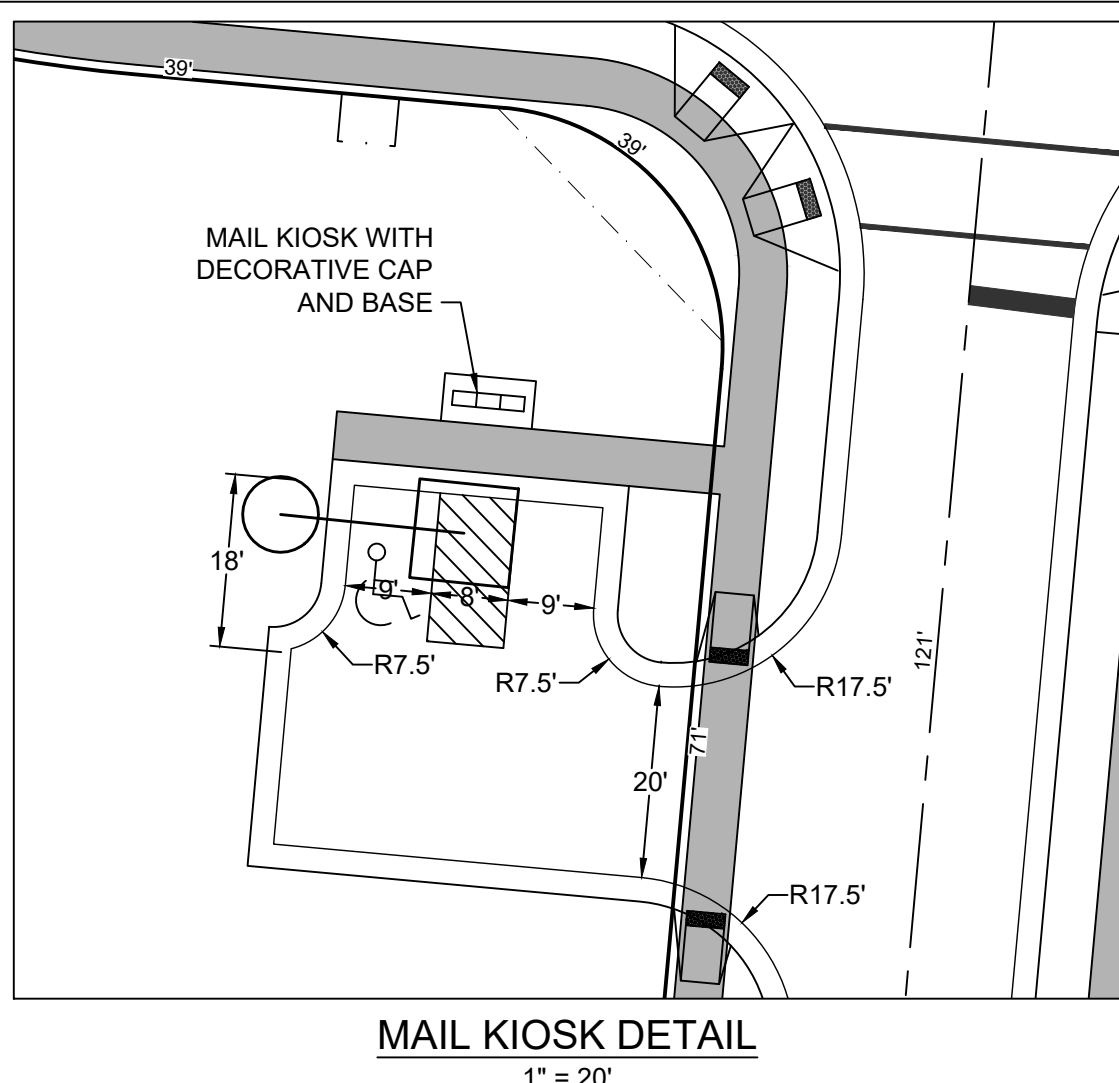
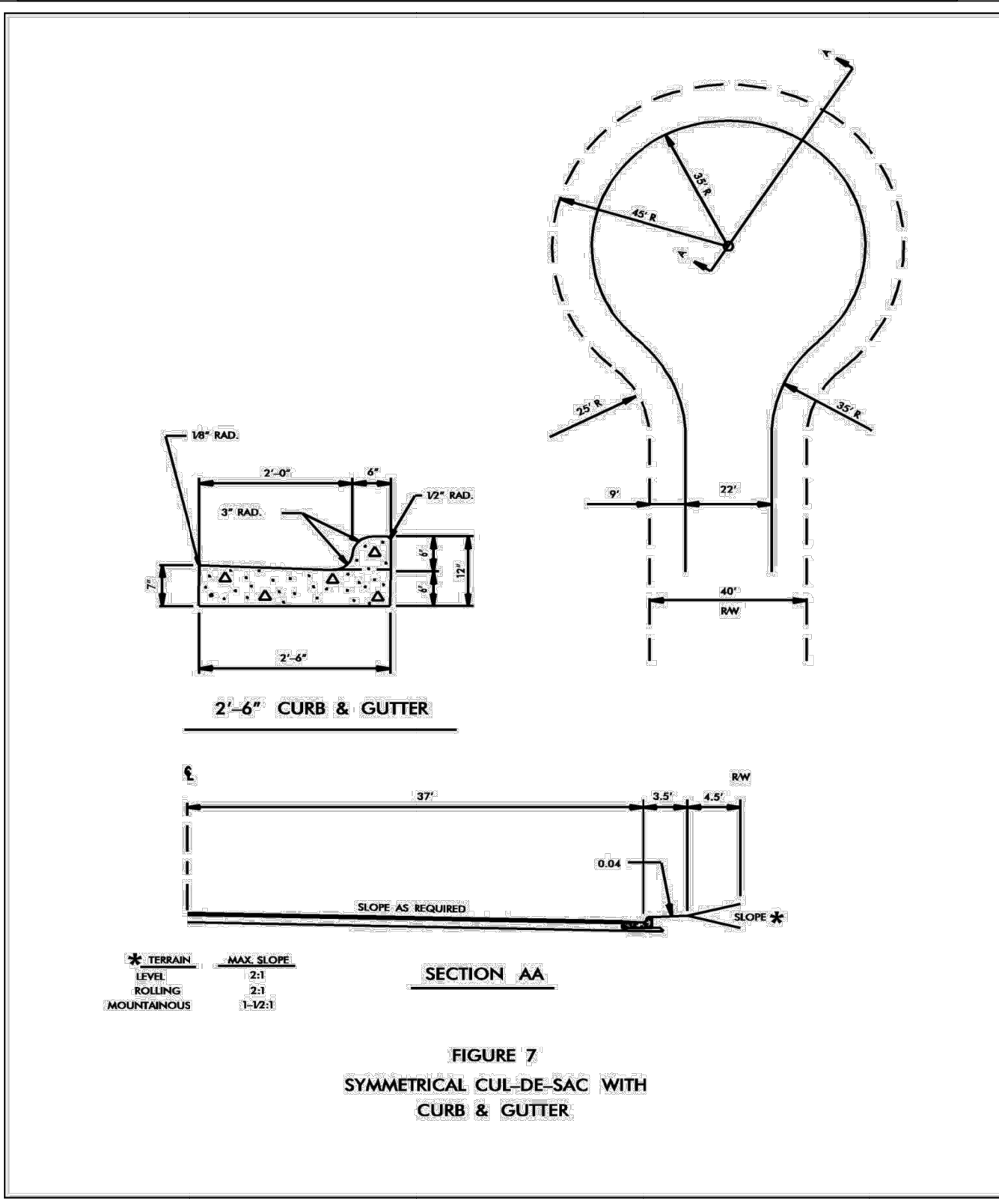
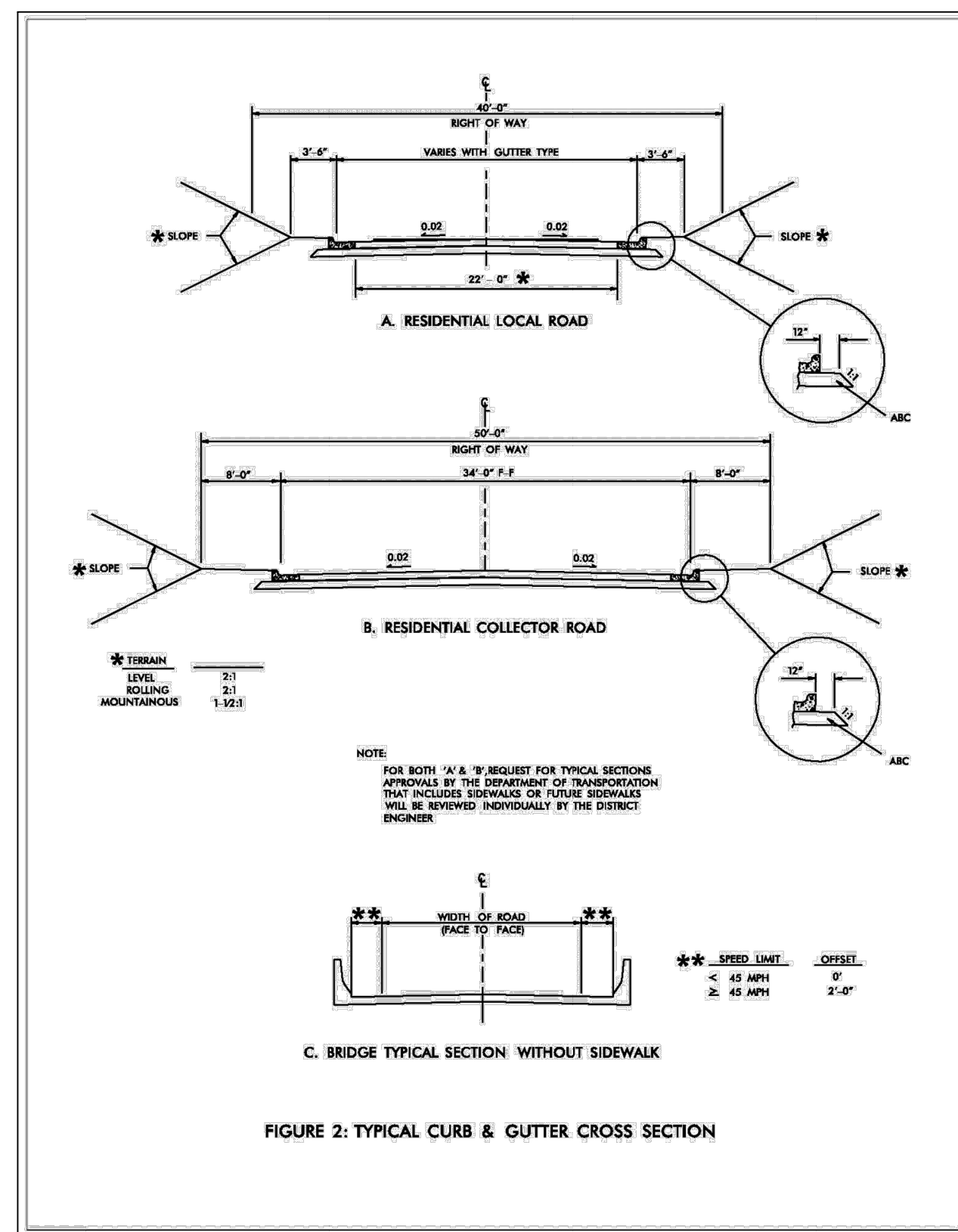
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CITY OF RALEIGH  
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**TIMMONS GROUP**  
 NORTH CAROLINA LICENSE NO. C-1652

**REGENCY AT HERITAGE - PHASE 3**  
 ROLESVILLE - WAKE COUNTY - NORTH CAROLINA

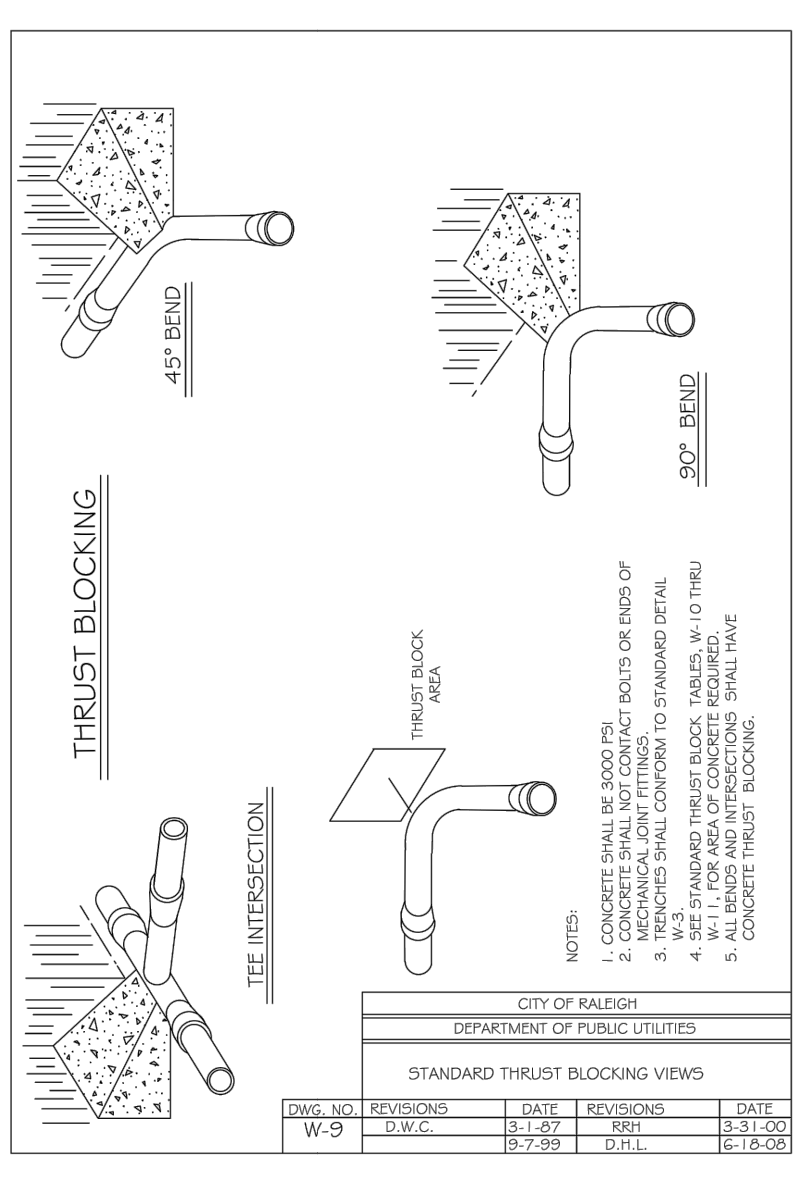
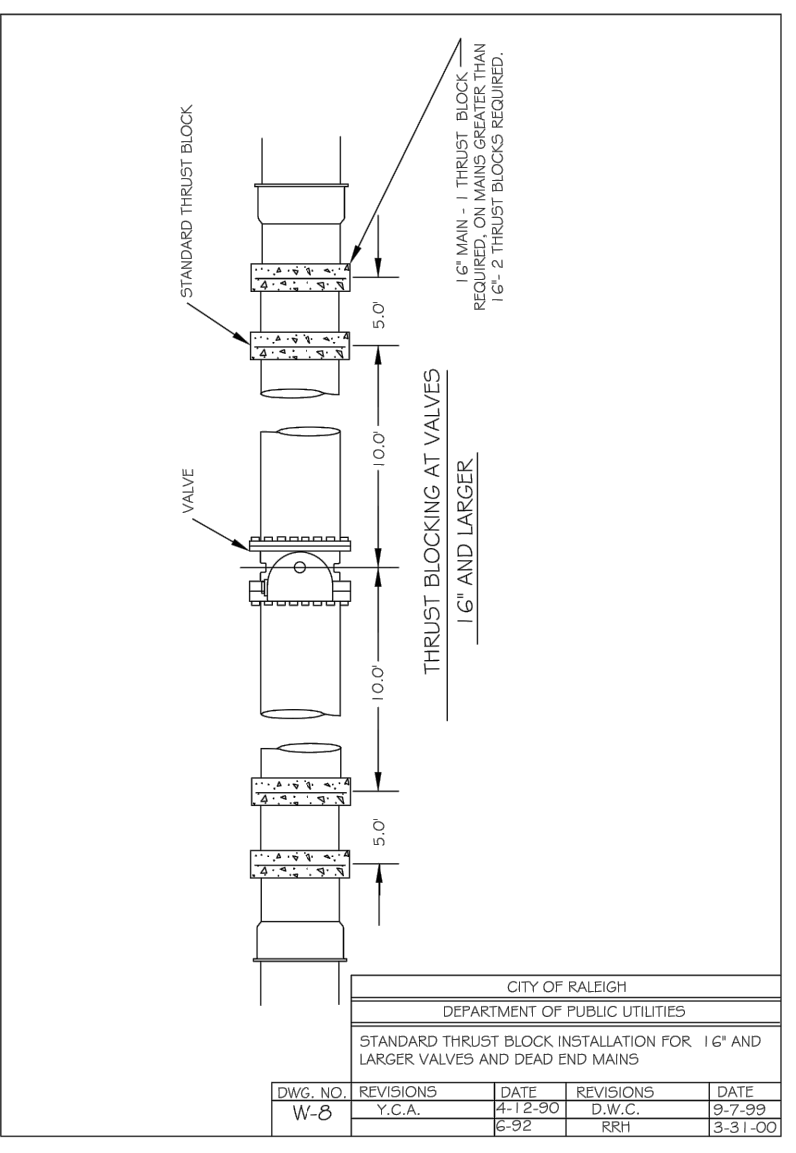
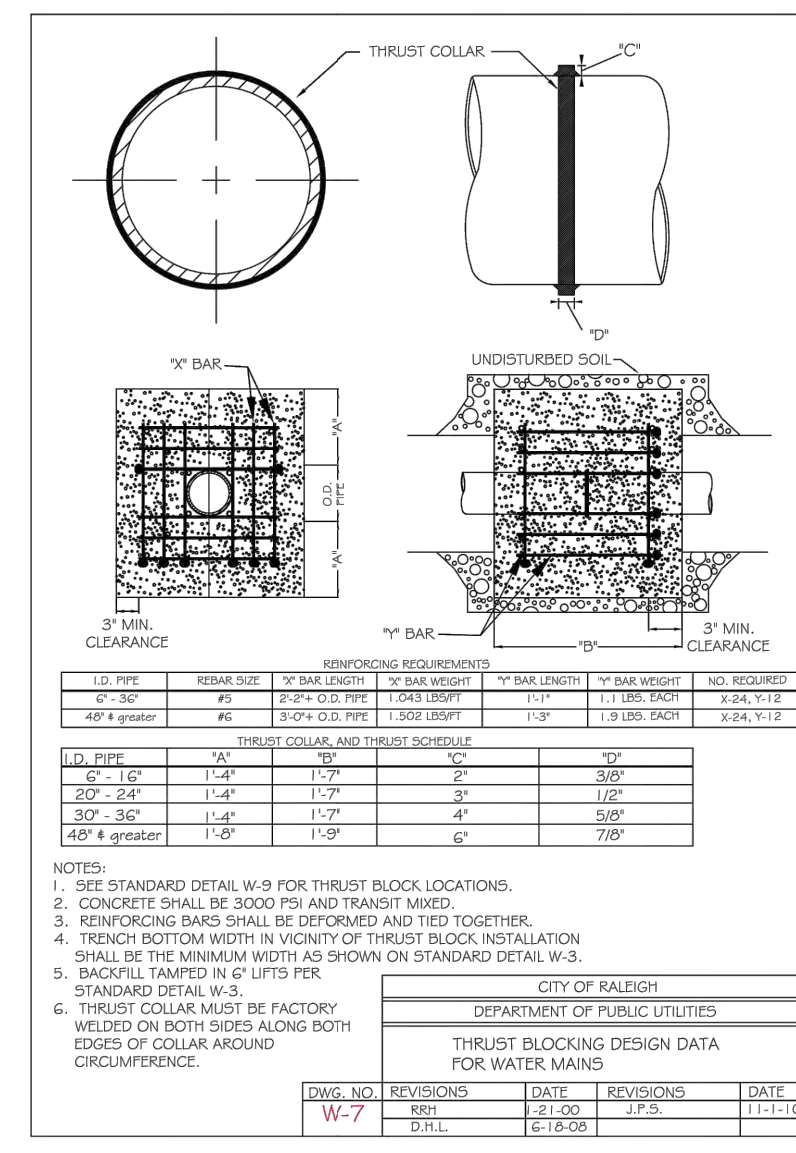
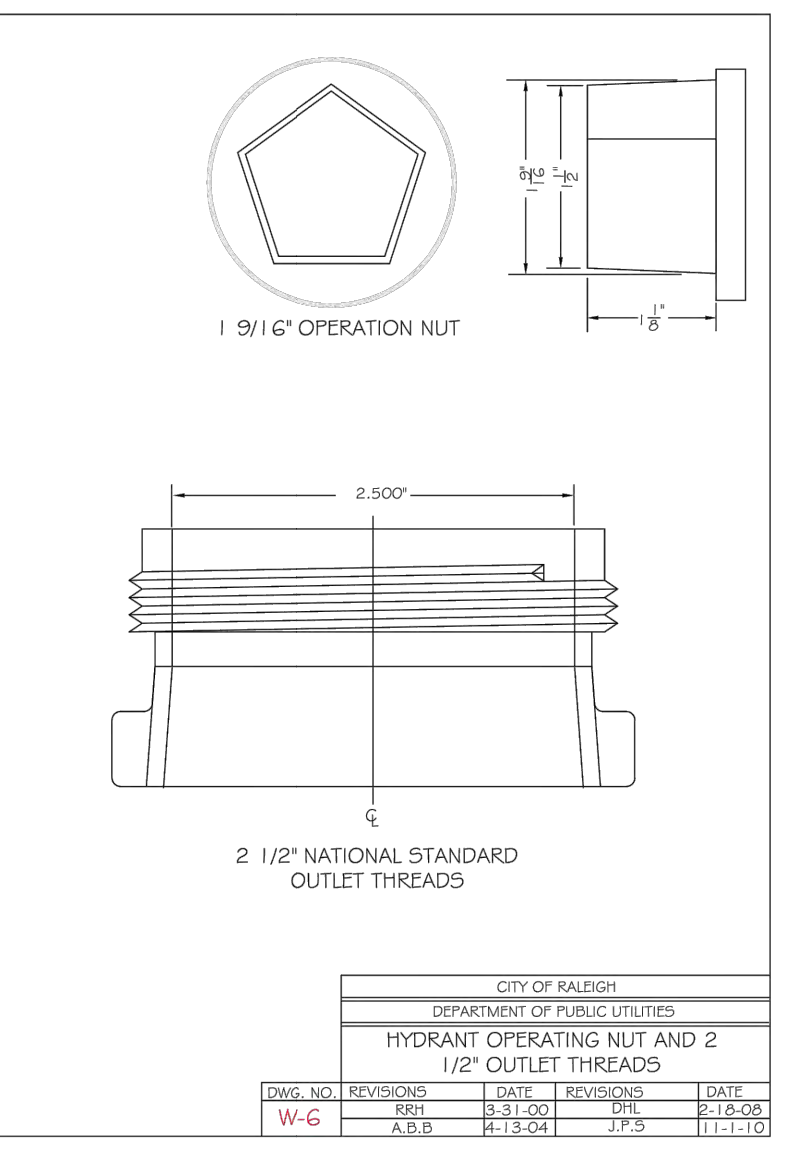
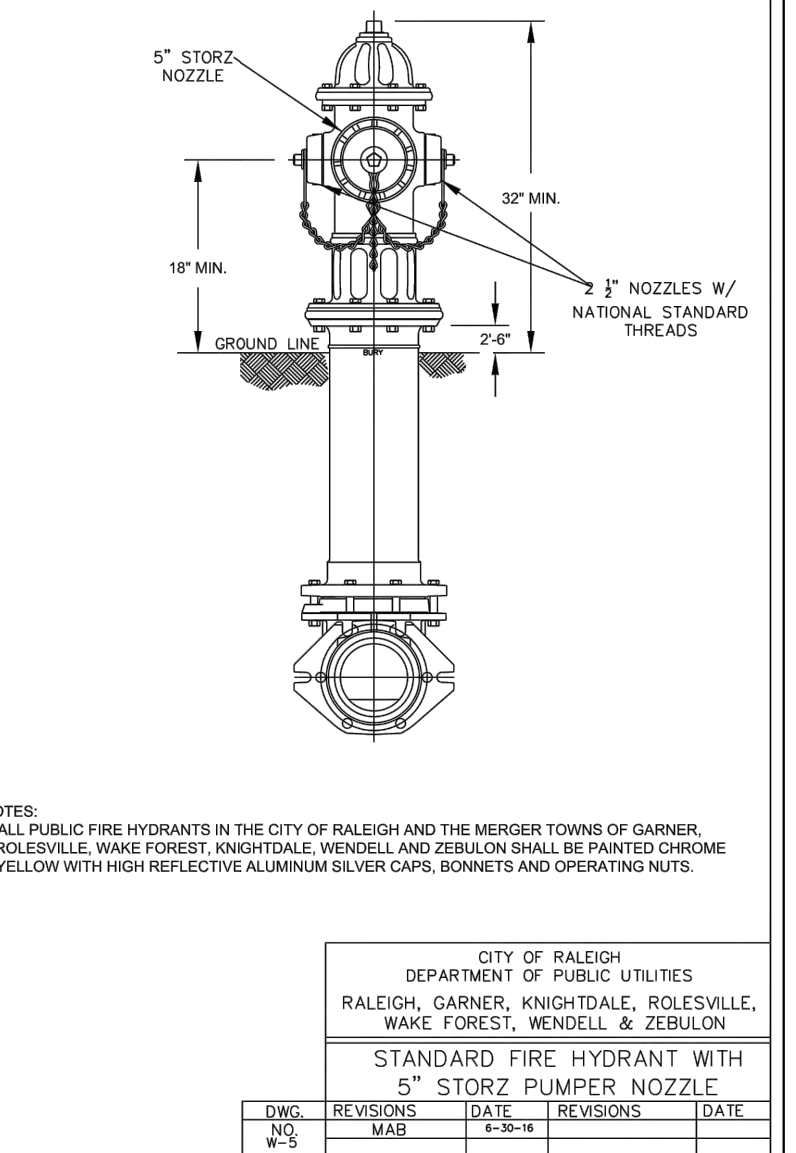
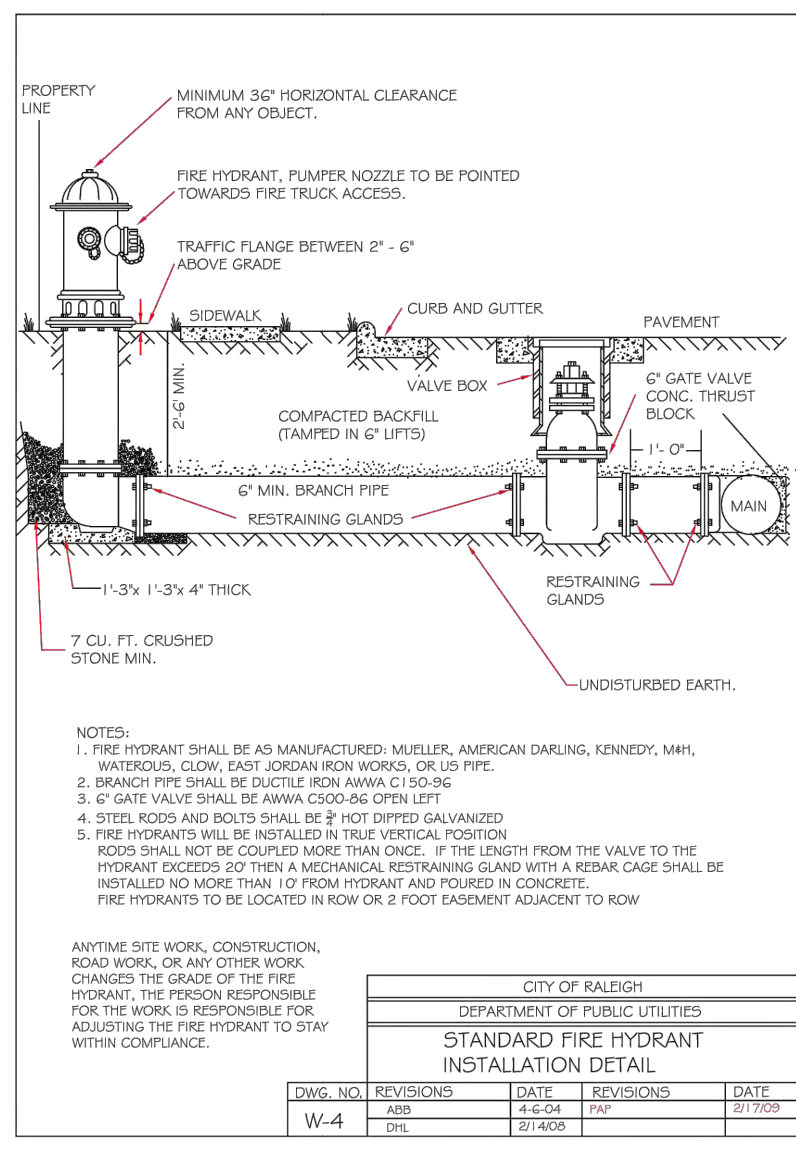
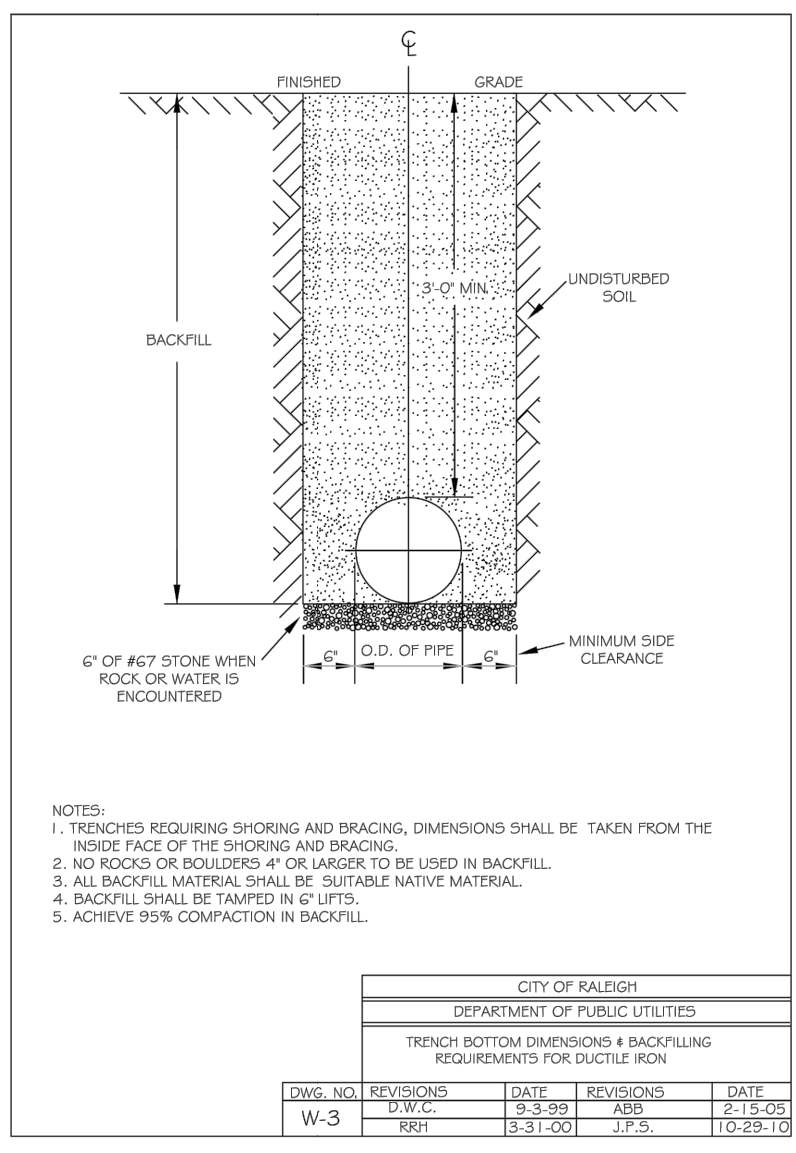
**NOTES & DETAILS**

JOB NO. 40013  
 SHEET NO. C6.1

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REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS  
BASED ON TEST PRESSURE OF 300 PSI

PIPE SIZE	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT
1 1/4"	1.108	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
22 1/2"	2.207	1.2	2.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
45"	4.328	2.3	3.3	1.1	1.1	2.5	1.1				
90"	7.996	2.4	4.5	1.1	1.1	2.8	1.1				
PLUG	5.459	2.3	4.1	1.1	1.1	2.6	1.1				
30"											
1 1/4"	1.970	1.1	1.2	1.1	1.1	1.2	1.1				
22 1/2"	3.922	1.2	2.3	1.1	1.1	1.4	1.1				
45"	7.834	2.4	3.1	1.1	1.1	2.8	1.1				
90"	14.215	4.4	6.9	2.2	2.4	4.1	1.5	2.2			
PLUG	10.053	3.5	6.2	2.2	3.1	10	1.1				
1 1/2"											
1 1/4"	4.453	2.3	3.3	1.1	1.1	2.5	1.1				
22 1/2"	8.926	3.5	6.2	2.2	2.5	9.9	1.1				
45"	17.812	5.9	11.3	3.3	3.5	18.2	2.1				
90"	31.963	6.16	19.4	4.4	6.3	32.4	4.1				
PLUG	22.619	6.12	14.3	3.3	3.6	23.3	3.1				
1 1/2"											
1 1/4"	7.881	2.4	5.1	1.1	1.1	2.8	1.1				
22 1/2"	15.691	4.4	10.2	2.2	2.4	16.2	2.1				
45"	30.772	8.16	19.4	4.4	6.3	32.4	4.1				
90"	56.261	15.29	35.8	8.6	15.5	57.6	8.1				
PLUG	40.213	10.21	25.5	5.5	10.4	41.5	5.1				

**CITY OF RALEIGH**  
DEPARTMENT OF PUBLIC UTILITIES  
THRUST BLOCKING DESIGN QUANTITY TABLE

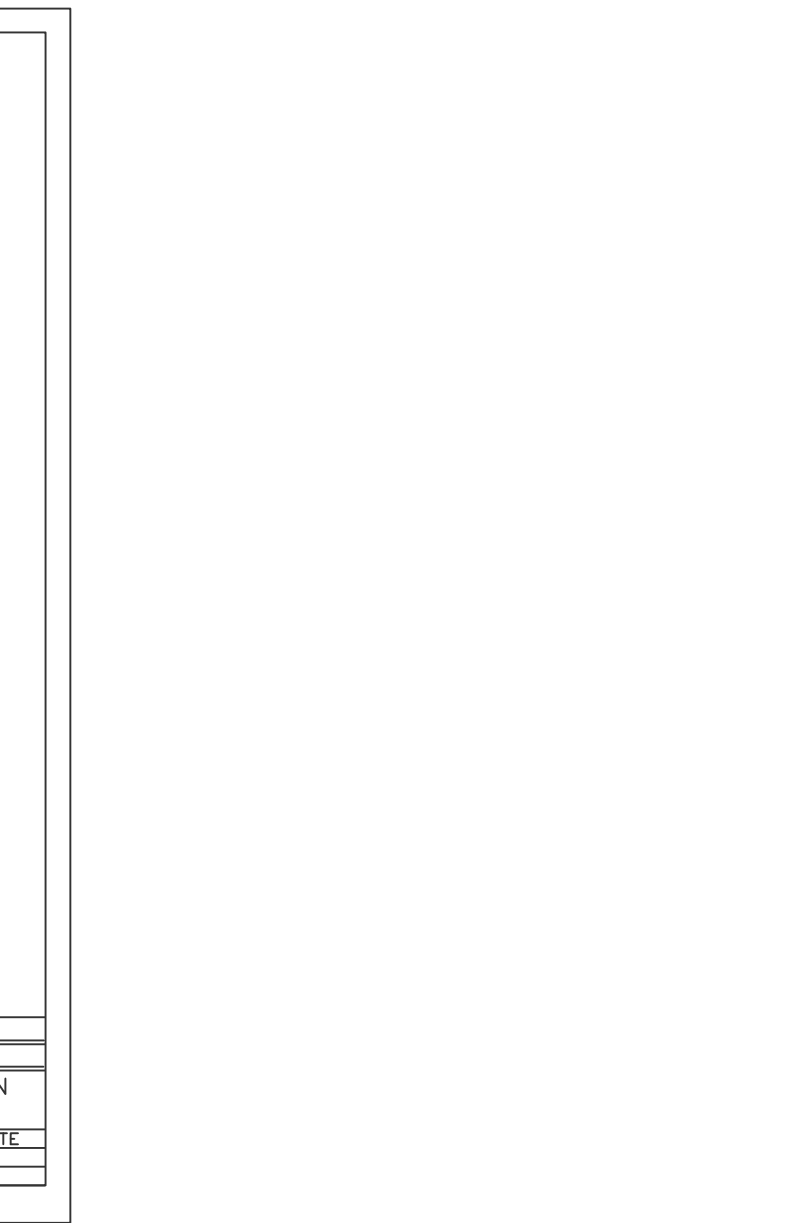
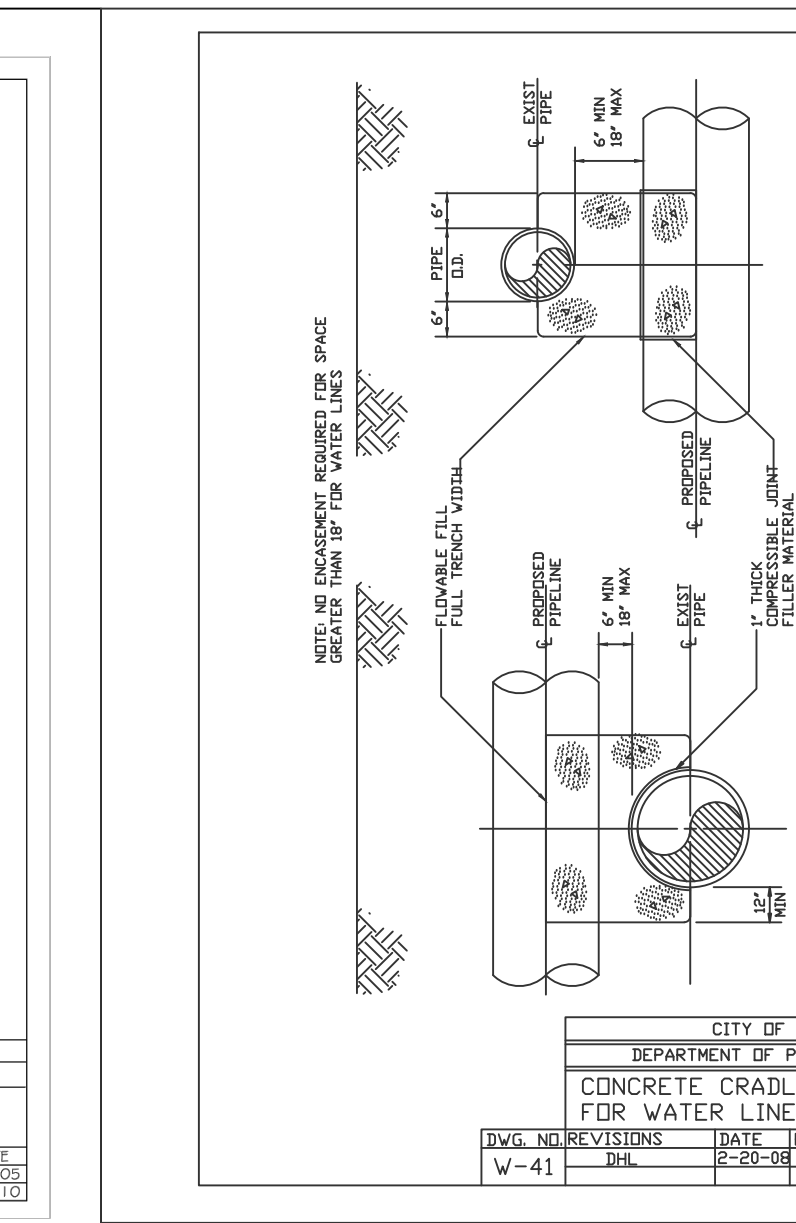
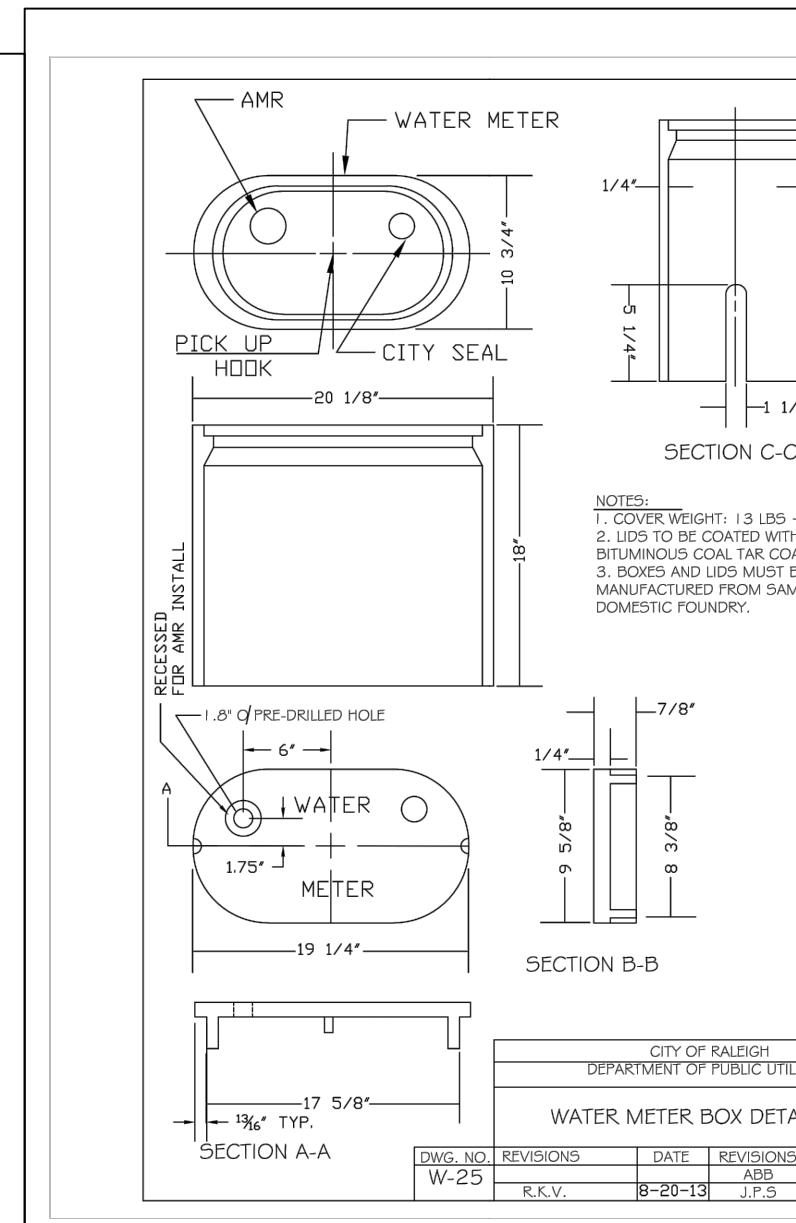
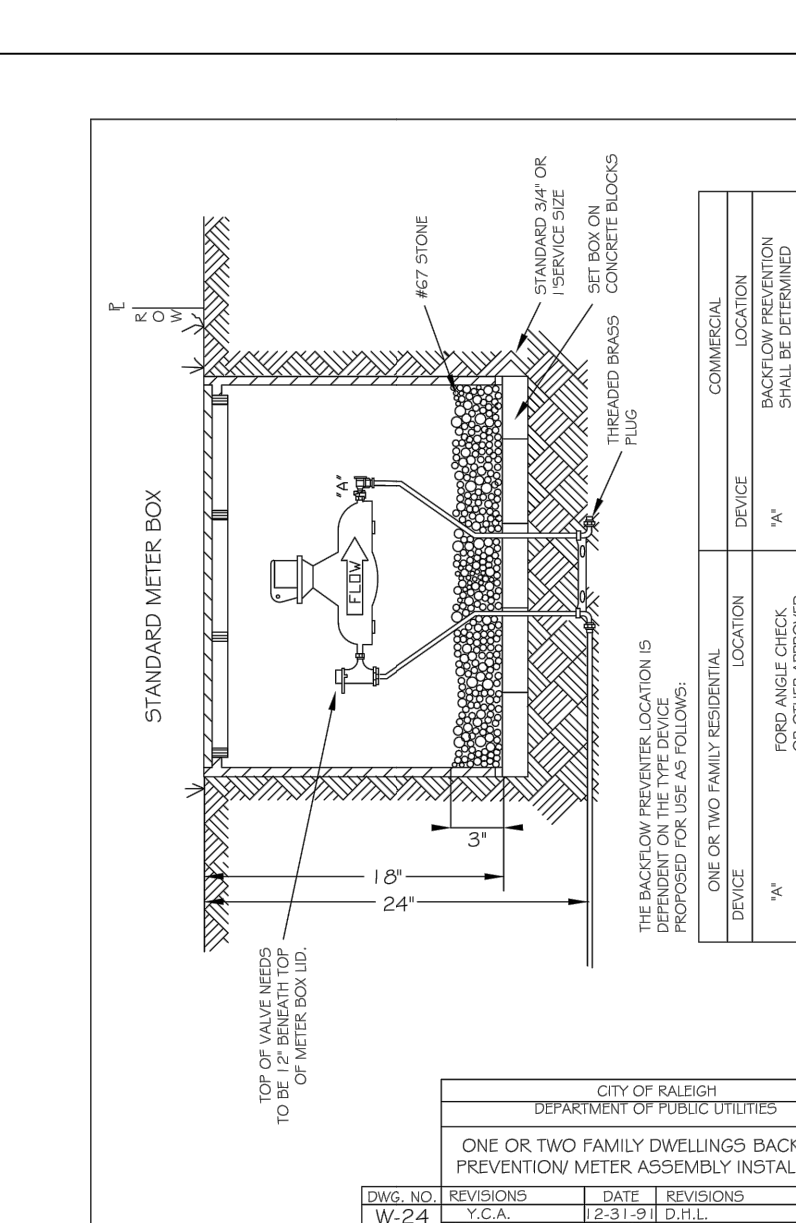
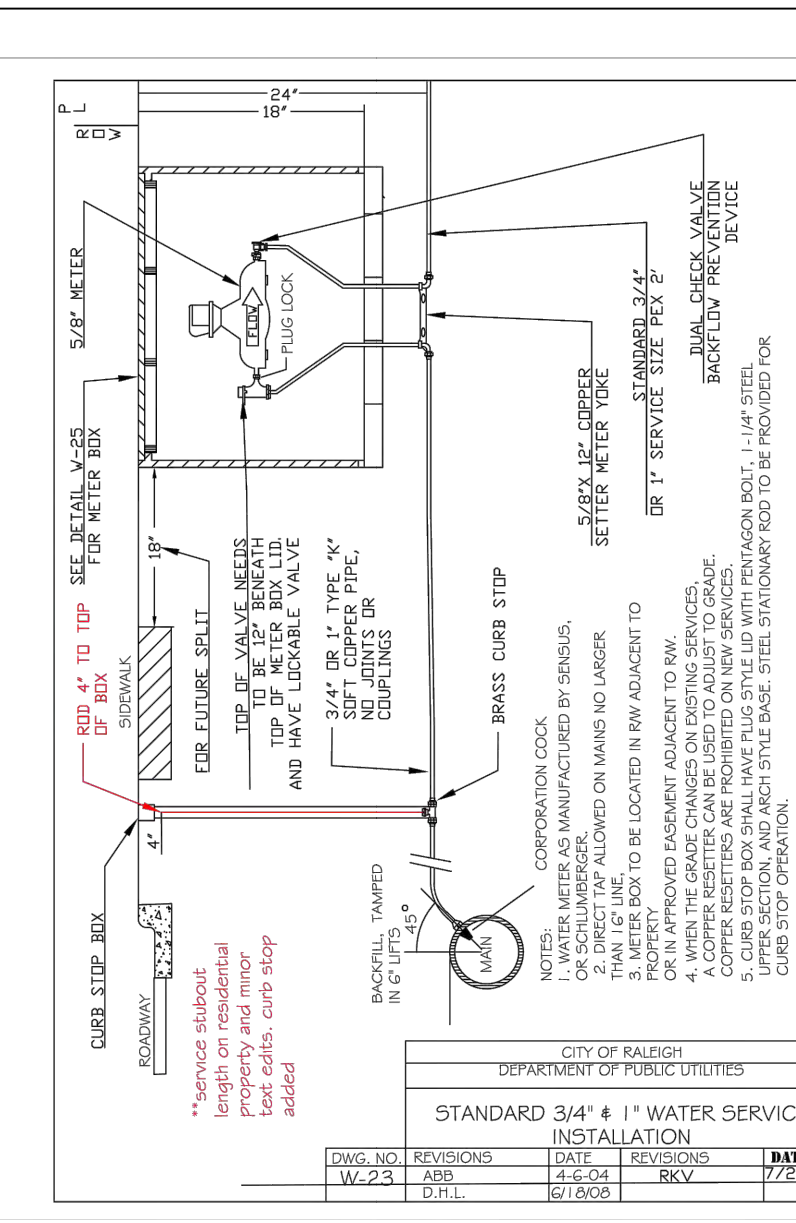
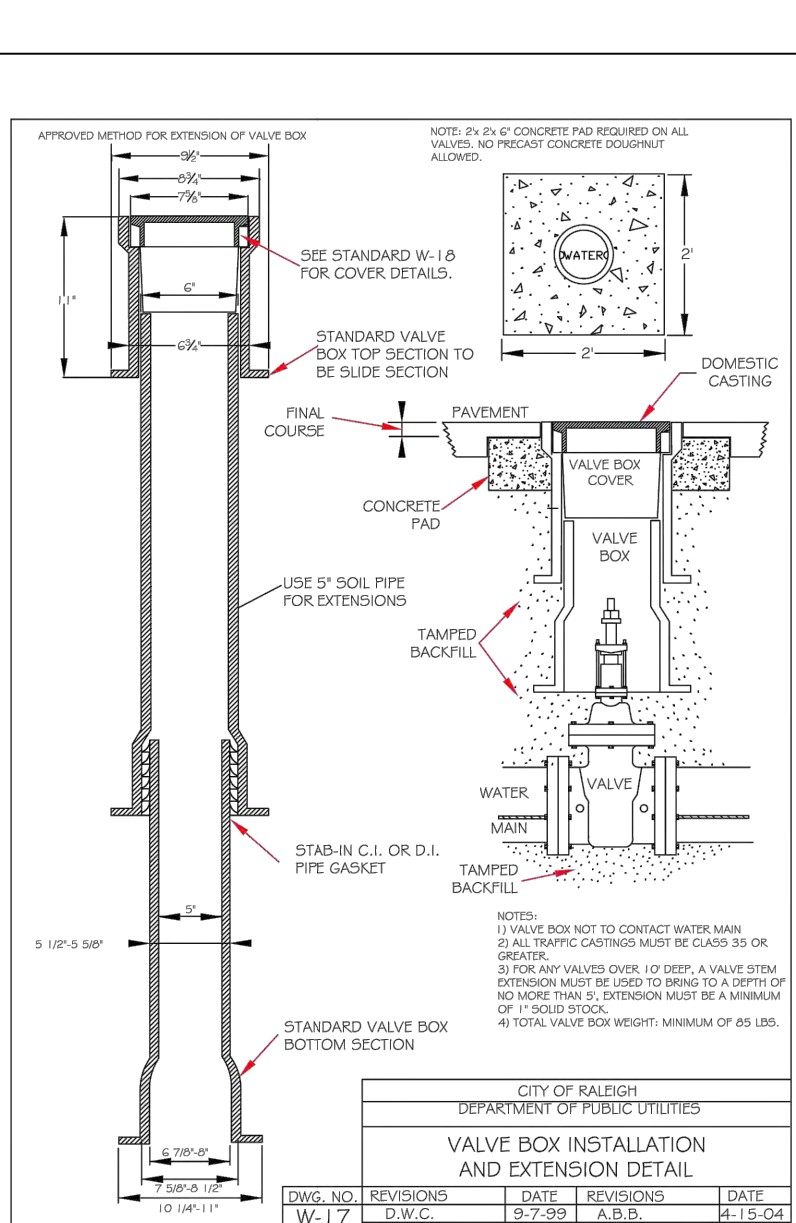
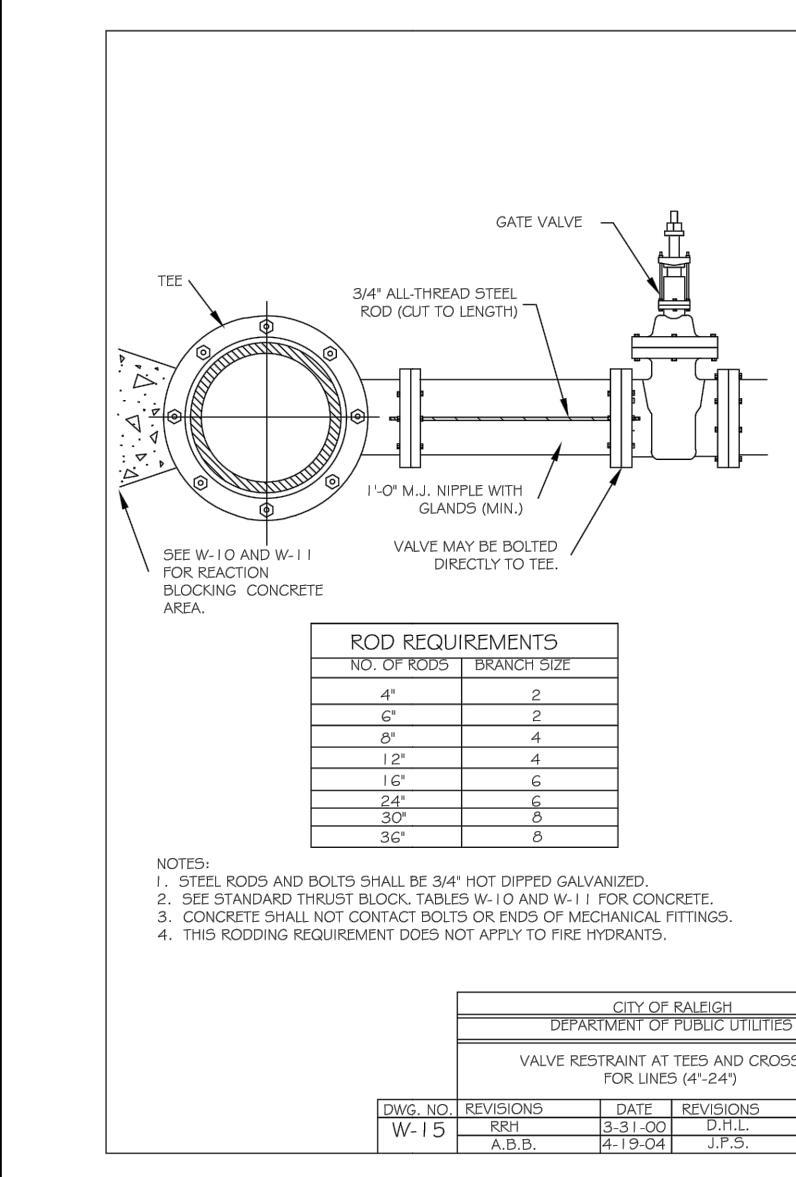
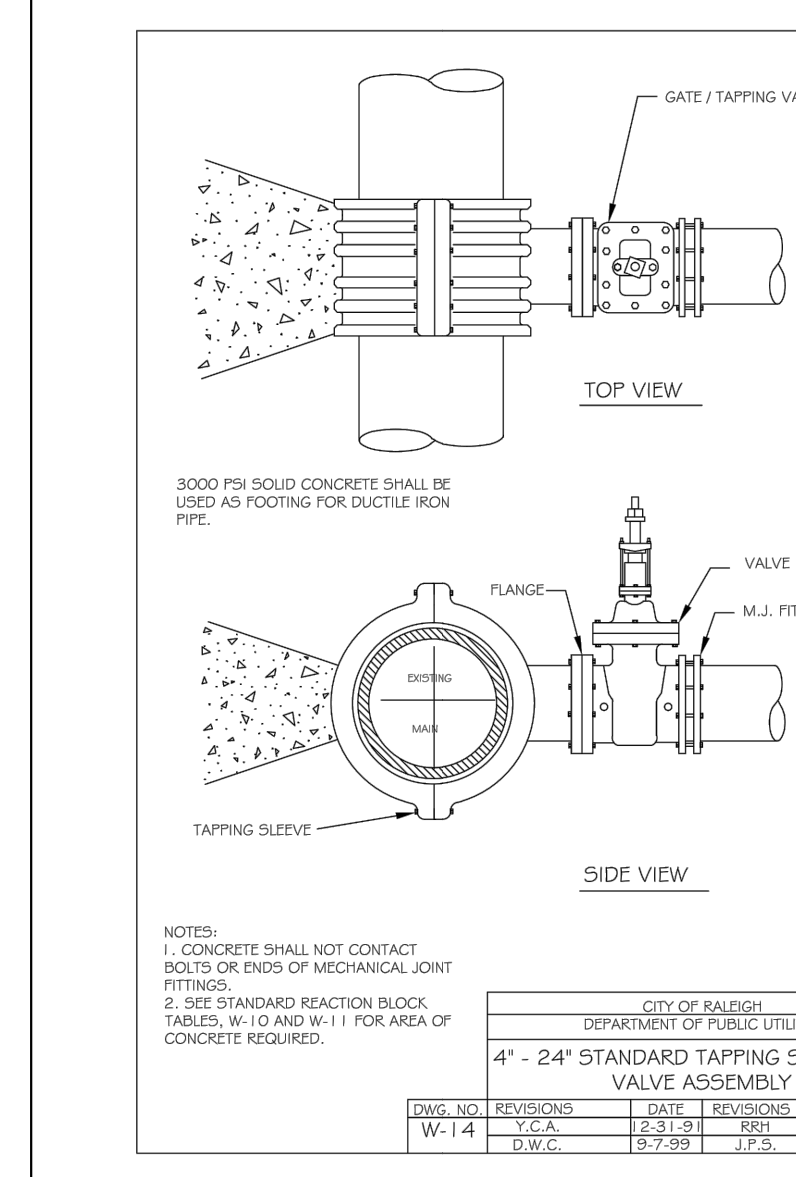
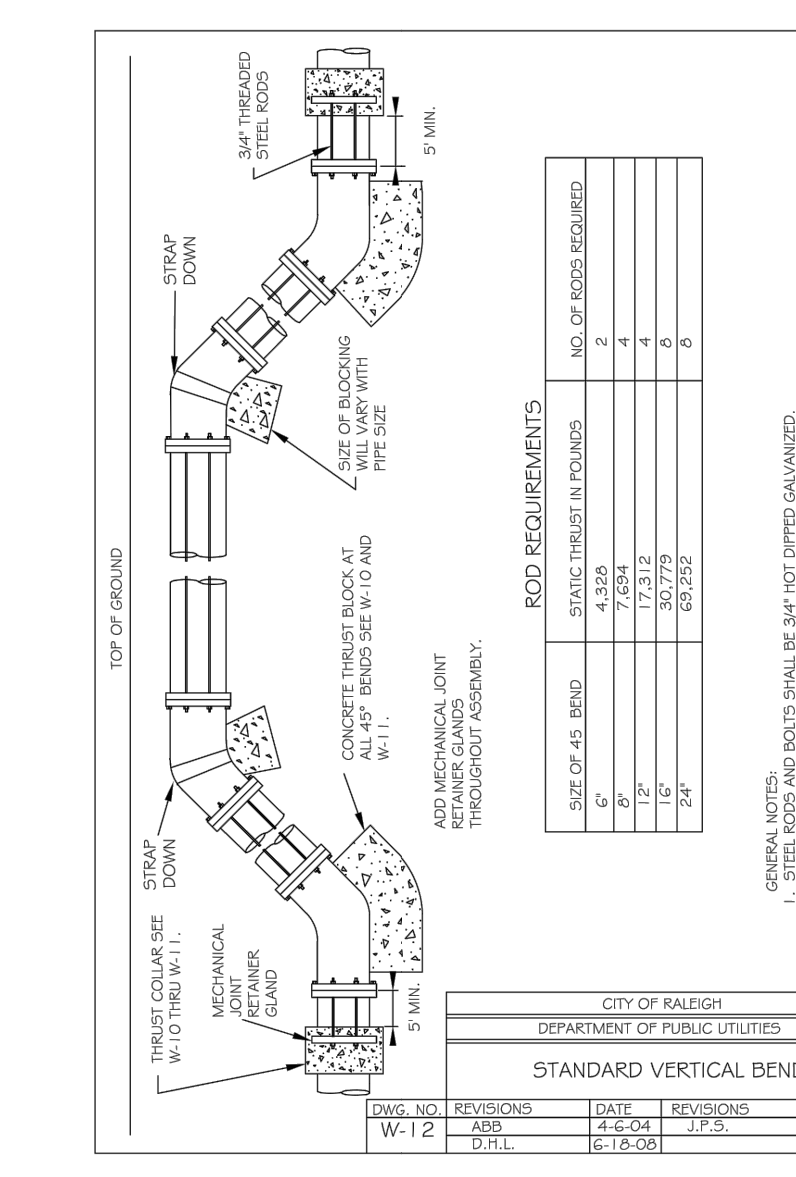
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-10	D.W.C.	8-3-99		

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS  
BASED ON TEST PRESSURE OF 300 PSI

PIPE SIZE	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT	PIPE WEIGHT
1 1/4"	17.724	5.9	11.3	3.3	3.5	18.2	2.1				
22 1/2"	35.305	9.8	22.9	5.5	9.9	36.4	4.1				
45"	69.252	18.35	42.9	9.9	18.7	70.7	8.1				
90"	127.936	32.64	71.6	16.1	32.1	128.13	15.1				
PLUG	90.474	23.46	55.12	12.12	28.91	91.10	10.1				
30"											
1 1/4"	27.709	7.14	17.4	4.4	7.2	2.3					
22 1/2"	55.163	14.28	34.7	7.14	14.56	6.1					
45"	109.326	28.55	69.14	14.28	29.109	11.1					
90"	198.300	50.100	138.28	28.55	58.200	20.1					
PLUG	141.372	36.71	65.18	18.36	142.15	14.1					
36"											
1 1/4"	39.301	10.20	24.5	5.5	10.40	4.1					
22 1/2"	78.438	20.40	49.0	10.10	20.30	8.1					
45"	155.616	39.78	94.0	20.39	156.16	16.1					
90"	287.652	72.144	172.36	36.72	288.29	32.1					
PLUG	205.574	51.102	122.26	25.51	204.21	21.1					
48"											
1 1/4"	70.935	18.36	43.9	9.9	18.71	6.1					
22 1/2"	141.219	36.71	85.18	16.36	142.15	12.1					
45"	277.007	70.139	166.35	33.70	277.28	24.1					
90"	511.742	138.276	320.64	64.128	512.52	48.1					
PLUG	361.911	91.161	217.46	46.91	362.37	32.1					

**CITY OF RALEIGH**  
DEPARTMENT OF PUBLIC UTILITIES  
THRUST BLOCKING DESIGN QUANTITY TABLE

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-11	D.W.C.	8-3-99		



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DATE  
**08/20/2019**

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**331**

DESIGNED BY  
**331**

CHECKED BY  
**JFC**

SCALE  
**NTS**

**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

**REGENCY AT HERITAGE - PHASE 3**

ROLESVILLE - WAKE COUNTY - NORTH CAROLINA

**NOTES & DETAILS**

JOB NO.  
**40013**

SHEET NO.  
**C6.3**

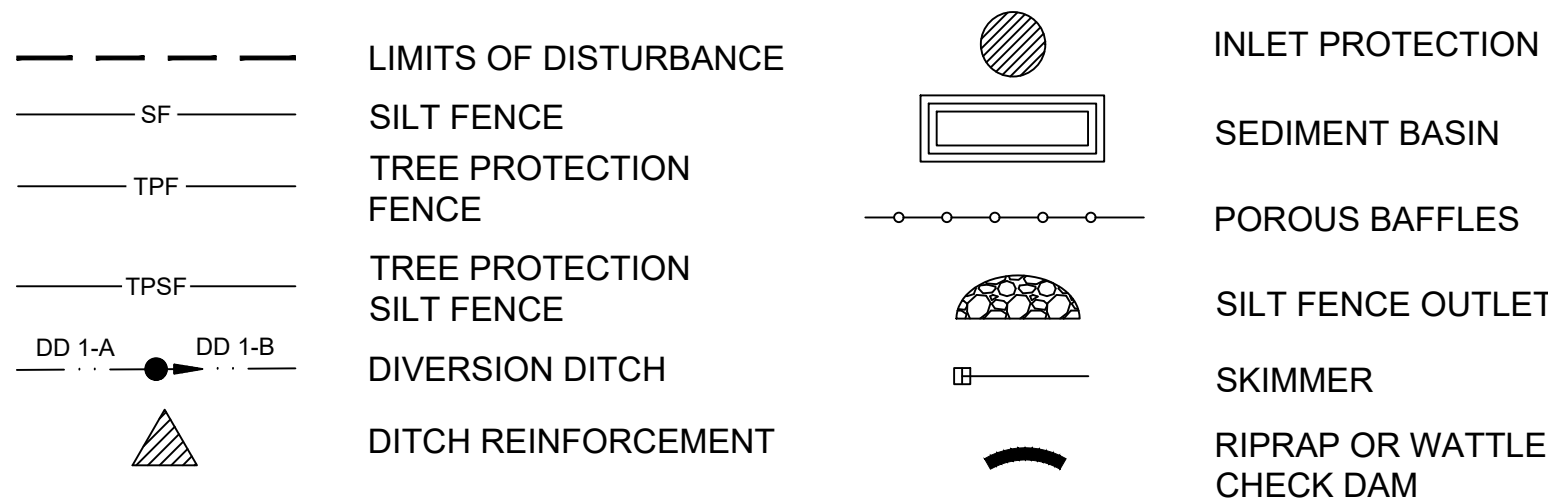
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NOTE:  
ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF ROLESVILLE, CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS



**LEGEND**



**GROUND STABILIZATION**

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS	SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE	SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
HIGH QUALITY WATER (HOW) ZONE	7 DAYS	NONE	ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1 14 DAYS ARE ALLOWED	*EXCEPTIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICAL. - (SECTION II.B(2)(b))		



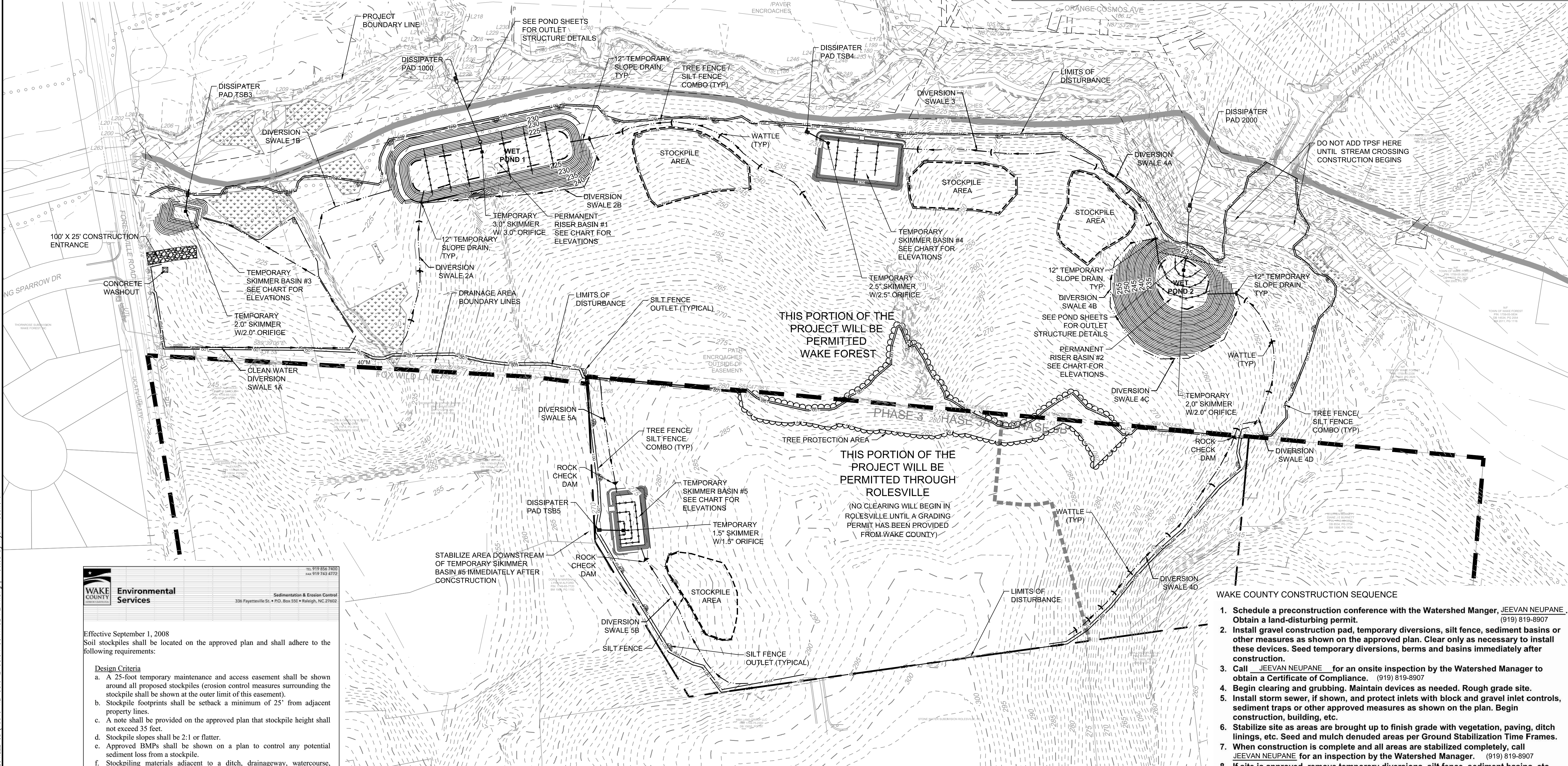
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 SCALE: 1" = 100'

**TIMMONS GROUP**  
 NORTH CAROLINA LICENSE NO. C-1652  
**REGENCY AT HERITAGE - PHASE 3**  
 ROLESVILLE - WAKE COUNTY - NORTH CAROLINA  
**STAGE 1 EROSION CONTROL PLAN**

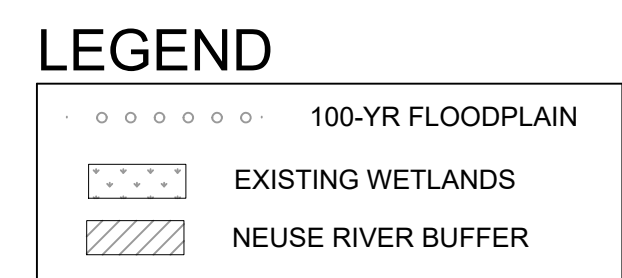
JOB NO. 40013  
 SHEET NO. C7.1



THIS PORTION OF THE PROJECT WILL BE PERMITTED WAKE FOREST

THIS PORTION OF THE PROJECT WILL BE PERMITTED THROUGH ROLESVILLE  
 (NO CLEARING WILL BEGIN IN ROLESVILLE UNTIL A GRADING PERMIT HAS BEEN PROVIDED FROM WAKE COUNTY)

- WAKE COUNTY CONSTRUCTION SEQUENCE**
- Schedule a preconstruction conference with the Watershed Manger, JEEVAN NEUPANE. Obtain a land-disturbing permit. (919) 819-8907
  - Install gravel construction pad, temporary diversions, silt fence, sediment basins or other measures as shown on the approved plan. Clear only as necessary to install these devices. Seed temporary diversions, berms and basins immediately after construction.
  - Call JEEVAN NEUPANE for an onsite inspection by the Watershed Manager to obtain a Certificate of Compliance. (919) 819-8907
  - Begin clearing and grubbing. Maintain devices as needed. Rough grade site.
  - Install storm sewer, if shown, and protect inlets with block and gravel inlet controls, sediment traps or other approved measures as shown on the plan. Begin construction, building, etc.
  - Stabilize site as areas are brought up to finish grade with vegetation, paving, ditch linings, etc. Seed and mulch denuded areas per Ground Stabilization Time Frames.
  - When construction is complete and all areas are stabilized completely, call JEEVAN NEUPANE for an inspection by the Watershed Manager. (919) 819-8907
  - If site is approved, remove temporary diversions, silt fence, sediment basins, etc., and seed out or stabilize any resulting bare areas. All remaining permanent erosion control devices, such as velocity dissipaters, should now be installed.
  - When vegetation has become established, call for a final site inspection by the Watershed Manager, JEEVAN NEUPANE. Obtain a Certificate of Completion. (919) 819-8907



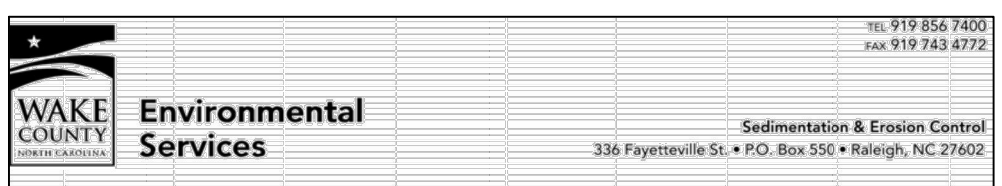
**TEMPORARY DIVERSION DITCHES**

DITCH NAME	LENGTH	DA	I(10)	C	Q(10)	N VALUE	UPPER ELEV	LOWER ELEV	AVERAGE SLOPE	VELOCITY	SHEAR	DEPTH	PROTECTION	X-SECT AREA	WET-PER	HYD RADIUS	BOTTOM WIDTH
DS-4D	880	3.72	7.19	0.50	13.4	0.022	281.0	247.0	3.86%	7.02	1.95	0.81	NAG C125	1.97	5.12	0.38	0
DS-5A	230	0.69	7.19	0.50	2.5	0.022	274.0	273.0	0.43%	2.03	0.18	0.65	NAG C125	1.27	4.11	0.31	0
DS-5B	345	2.47	7.19	0.50	8.9	0.022	286.0	275.0	3.19%	5.89	1.43	0.72	NAG C125	1.56	4.55	0.34	0

**DISTURBED AREA IN ROLESVILLE IS 12.6 ACRES**  
 (PERMITTED BY WAKE COUNTY)

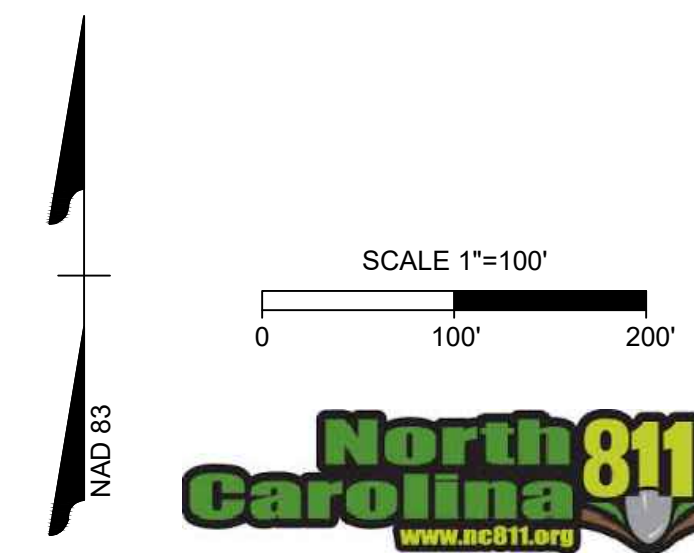
**SEDIMENT BASINS**

BASIN ID	DRAINAGE AREA (Pre) (AC)	DRAINAGE AREA (Post) (AC)	DISTURBED AREA (AC)	I(10)	C	Q10 (CFS)	REQUIRED VOLUME (CF)	PROVIDED VOLUME (CF)	BASIN LENGTH (FT)	BASIN WIDTH (FT)	BASIN DEPTH (FT)	SURFACE AREA REQ' (SF)	SURFACE AREA PROVIDED (SF)	WEIR LENGTH (FT)	FLOW DEPTH (FT)	BASIN TYPE	SKIMMER SIZE (IN)	SKIMMER ORIFICE (IN)	DEWATER TIME (DAYS)
SEDIMENT BASIN 1	20.00	20.00	20.00	7.19	0.50	71.90	36,000	216,000	360	100	6	23,368	36,000	53	0.59	SKIMMER	3.0	3.00	3
SEDIMENT BASIN 2	7.97	7.97	7.97	7.19	0.50	28.65	14,346	100,750	130	155	5	9,312	20,150	54	0.31	SKIMMER	2.0	2.00	3
SKIMMER BASIN 3	1.75	1.75	1.75	7.19	0.50	6.29	3,150	5,130	36	57	2.5	2,045	50	0.12	SKIMMER	2.0	2.00	3	
SKIMMER BASIN 4	10.14	10.14	10.14	7.19	0.50	38.45	18,252	29,645	77	154	2.5	11,847	11,858	51	0.38	SKIMMER	2.5	2.50	3
SKIMMER BASIN 5	4.45	4.45	4.45	7.19	0.50	16.00	8,010	13,924	59	118	2	5,199	6,962	52	0.22	SKIMMER	3.0	2.75	3



Effective September 1, 2008  
 Soil stockpiles shall be located on the approved plan and shall adhere to the following requirements:

- Design Criteria**
- A 25-foot temporary maintenance and access easement shall be shown around all proposed stockpiles (erosion control measures surrounding the stockpile shall be shown at the outer limit of this easement).
  - Stockpile footprints shall be setback a minimum of 25' from adjacent property lines.
  - A note shall be provided on the approved plan that stockpile height shall not exceed 35 feet.
  - Stockpile slopes shall be 2:1 or flatter.
  - Approved BMPs shall be shown on a plan to control any potential sediment loss from a stockpile.
  - Stockpiling materials adjacent to a ditch, drainage way, watercourse, wetland, stream buffer, or other body of water shall be avoided unless an alternative location is demonstrated to be unavailable.
  - Any concentrated flow likely to affect the stockpile shall be diverted to an approved BMP.
  - Off-site spoil or borrow areas must be in compliance with Wake County UDO and State Regulations. All spoil areas over an acre are required to have an approved sediment control plan. Developer/Contractor shall notify Wake County of any off-site disposal of soil, prior to disposal. Fill of FEMA Floodways and Non-encroachment Areas are prohibited except as otherwise provided by subsection 14-19-2 of the Wake County Unified Development Ordinance (certifications and permits required).
- Maintenance Requirements to be Noted on the Plan**
- Seeding or covering stockpiles with tarps or mulch is required and will reduce erosion problems. Tarps should be keyed in at the top of the slope to keep water from running underneath the plastic.
  - If a stockpile is to remain for future use after the project is complete (builders, etc.), the financial responsible party must notify Wake County of a new responsible party for that stockpile.
  - The approved plan shall provide for the use of staged seeding and mulching on a continual basis while the stockpile is in use.
  - Establish and maintain a vegetative buffer at the toe of the slope (where practical).



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LEGEND

	LIMITS OF DISTURBANCE		INLET PROTECTION
	SILT FENCE		SEDIMENT BASIN
	TREE PROTECTION FENCE		POROUS BAFFLES
	TREE PROTECTION SILT FENCE		SILT FENCE OUTLET
	DIVERSION DITCH		SKIMMER
	DITCH REINFORCEMENT		RIPRAP OR WATTLE CHECK DAM

GROUND STABILIZATION

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS	SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE	SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
HIGH QUALITY WATER (HOW) ZONE	7 DAYS	NONE	ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1 14 DAYS ARE ALLOWED	*EXCEPTIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICAL. - (SECTION II.B(2)(b))		



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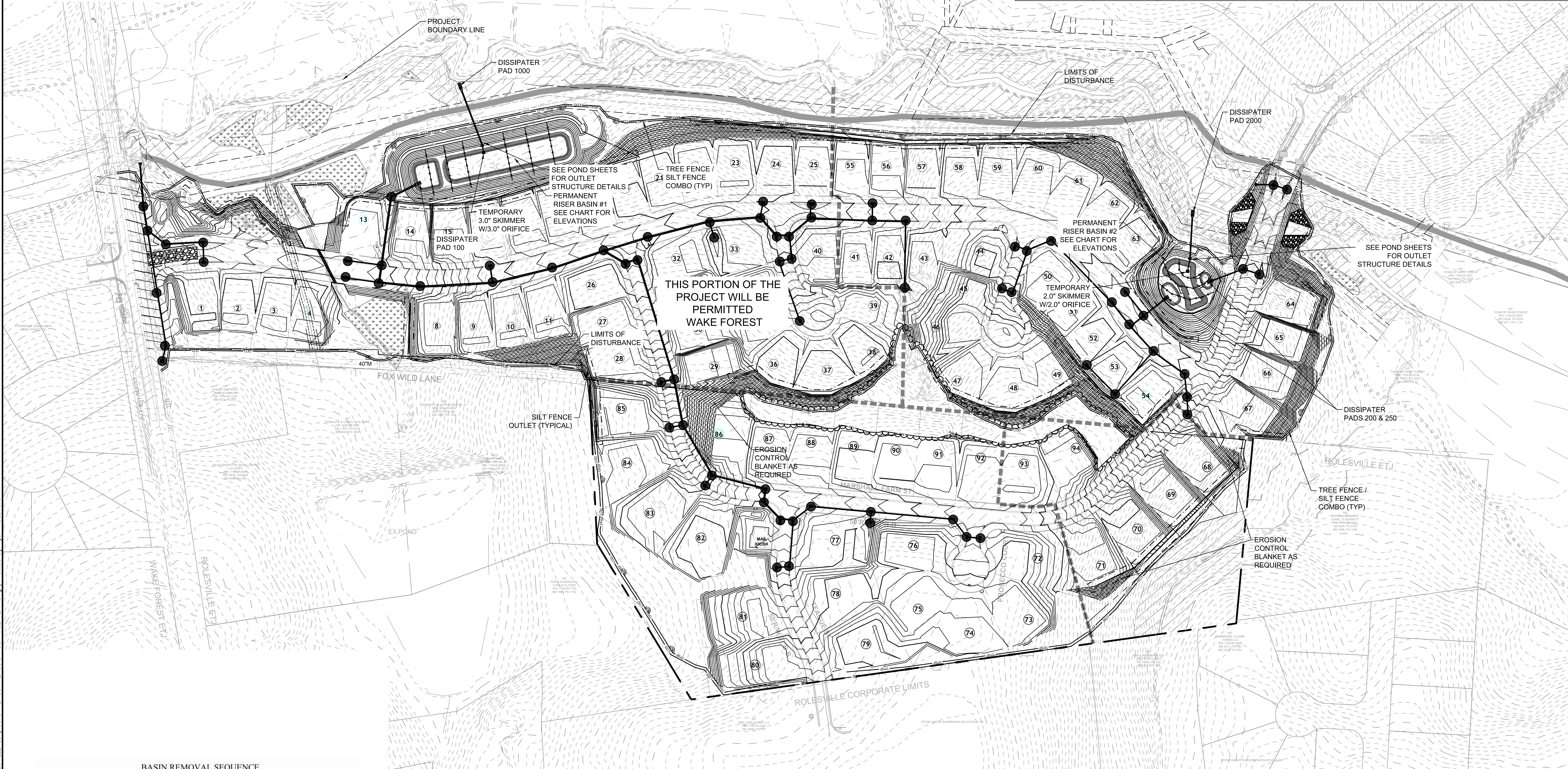
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DESIGNED BY	331
CHECKED BY	JFC
SCALE	1" = 100'

**TIMMONS GROUP**  
 NORTH CAROLINA LICENSE NO. C-1652  
**REGENCY AT HERITAGE - PHASE 3**  
 ROLESVILLE - WAKE COUNTY - NORTH CAROLINA  
**STAGE 2 EROSION CONTROL PLAN**

JOB NO.	40013
SHEET NO.	C7.2

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BASIN REMOVAL SEQUENCE

- Schedule a site meeting with the Environmental Engineer/Consultant to determine if a basin can be removed. Install silt fencing or other temporary erosion control measures as needed prior to removal of the basin.
- Remove Basin(s) and associated temporary diversion ditches. If culvert pipes need to be extended, perform this operation at this time. Fine grade area in preparation for seeding.
- Perform seedbed preparation, seed, mulch and asphalt tack any resulting bare areas immediately.
- Install velocity dissipators and/or level spreaders as required on the Erosion Control Plan.
- When site is fully stabilized, call Environmental Engineer/Consultant for approval of removing remaining temporary erosion control measures and advice on when site can be issued a Certificate of Completion.

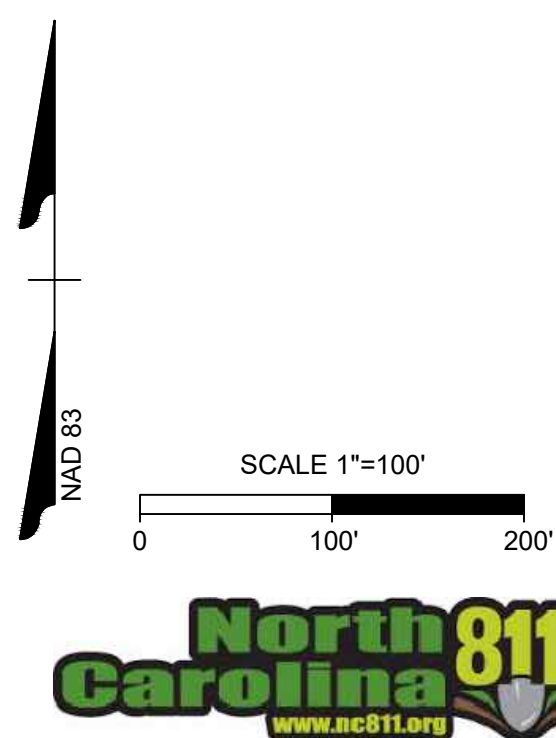
Note: A meeting should also be scheduled with the Environmental Engineer/Consultant to determine when a basin may be converted for stormwater use. Some municipalities may also require this.

LEGEND

	100-YR FLOODPLAIN
	EXISTING WETLANDS
	NEUSE RIVER BUFFER
	EROSION CONTROL BLANKET

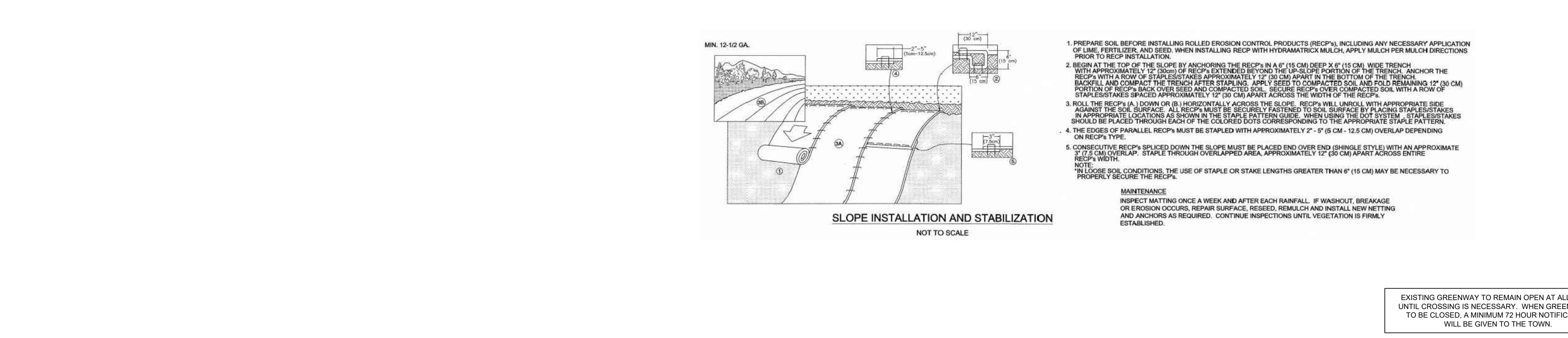
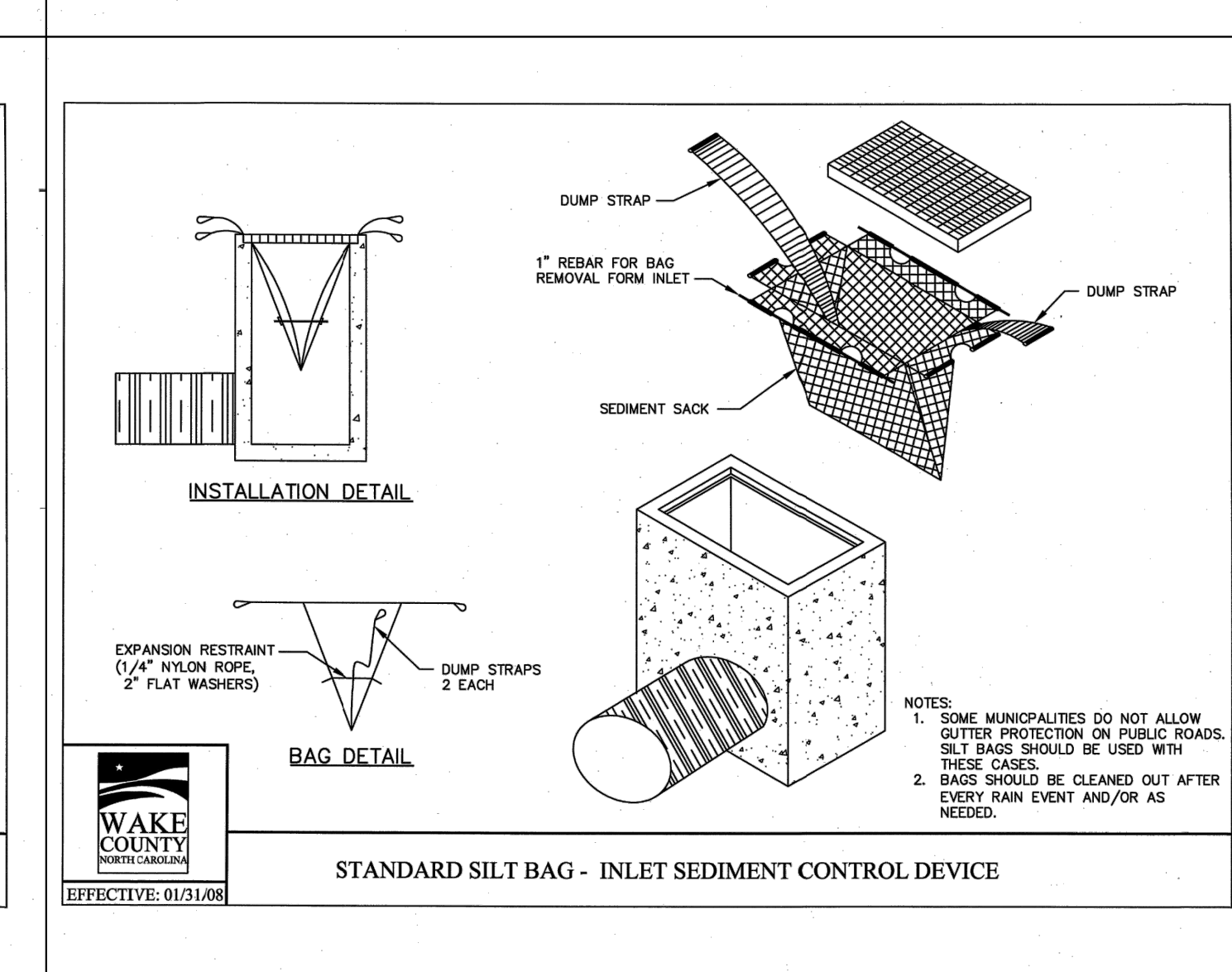
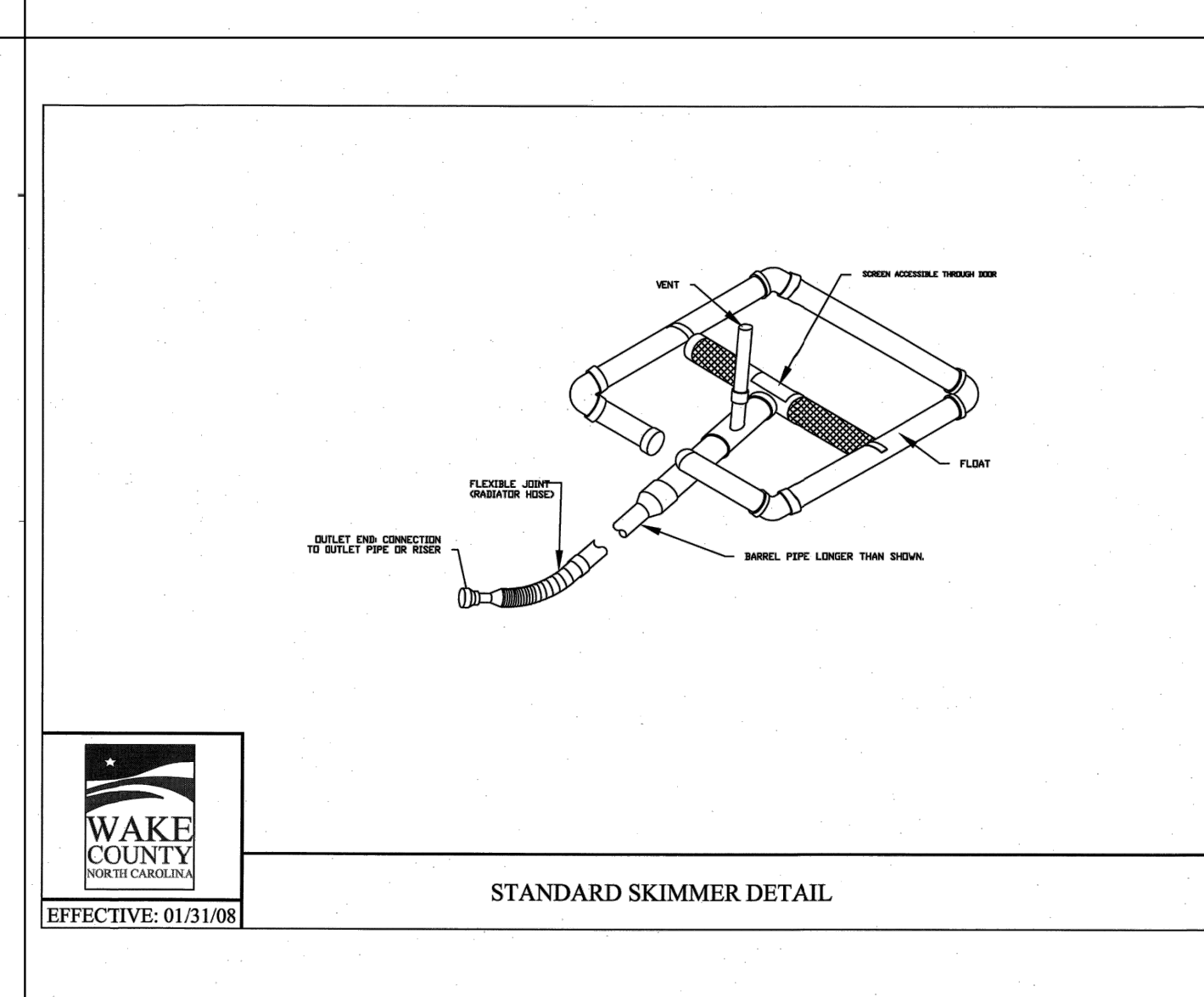
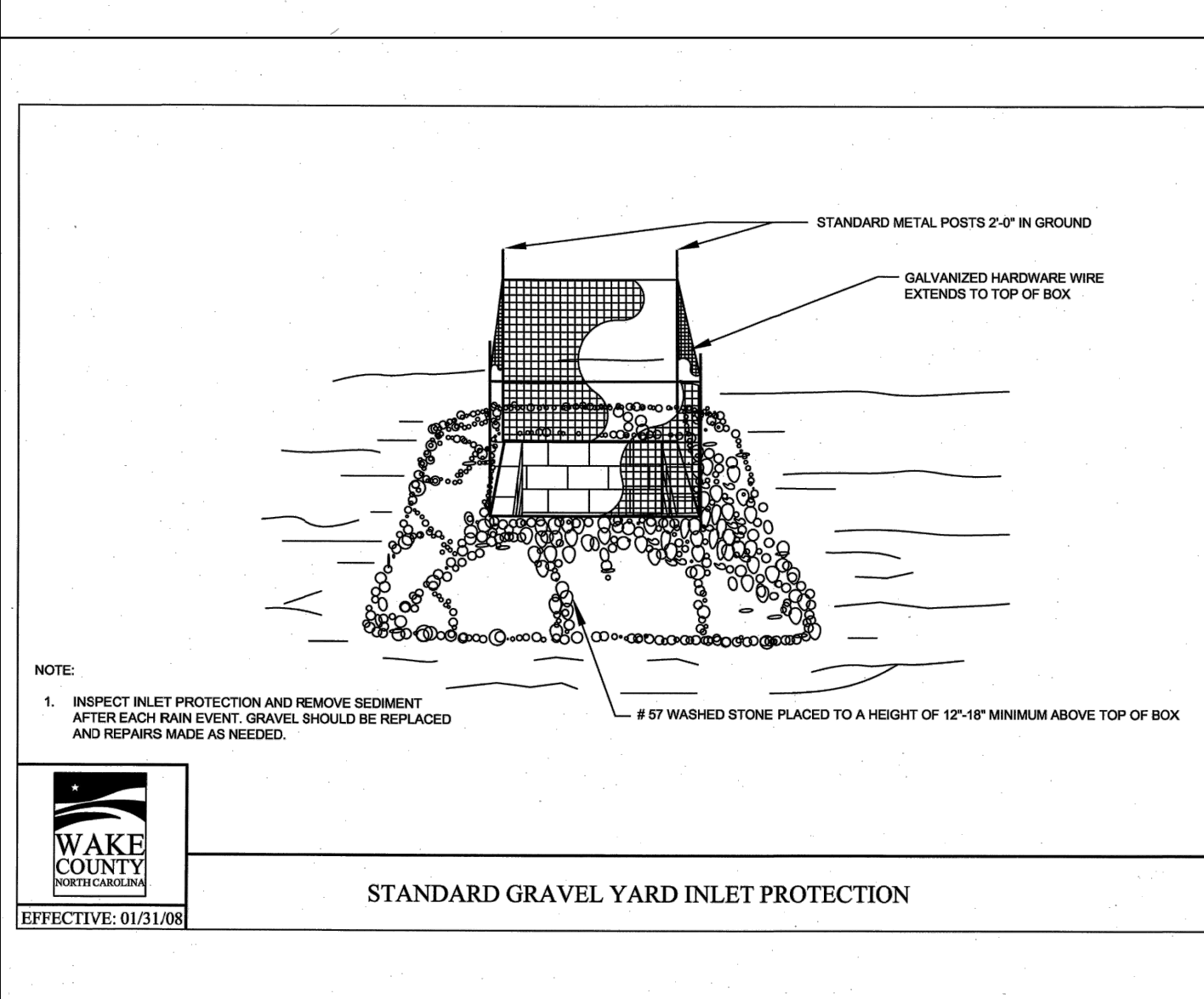
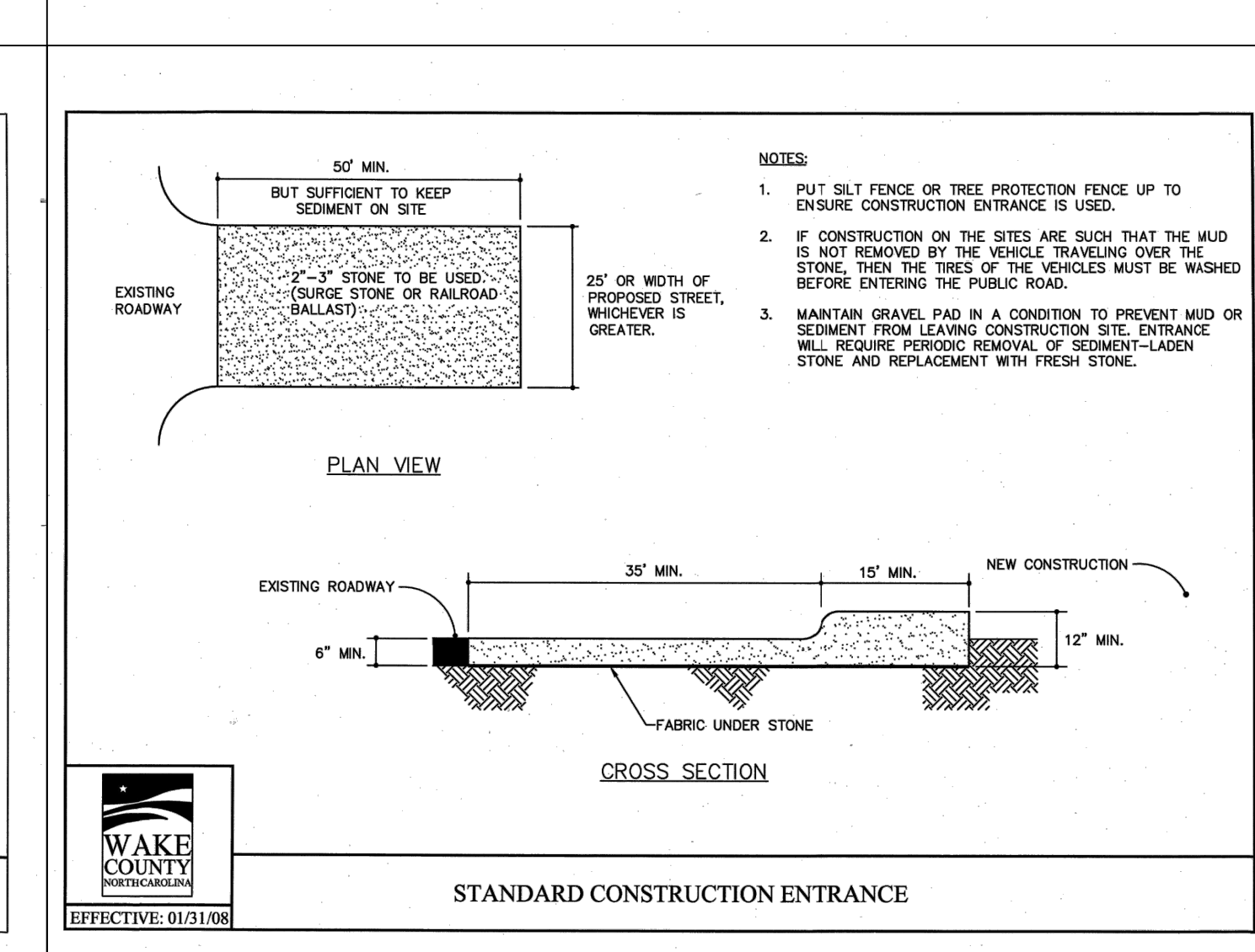
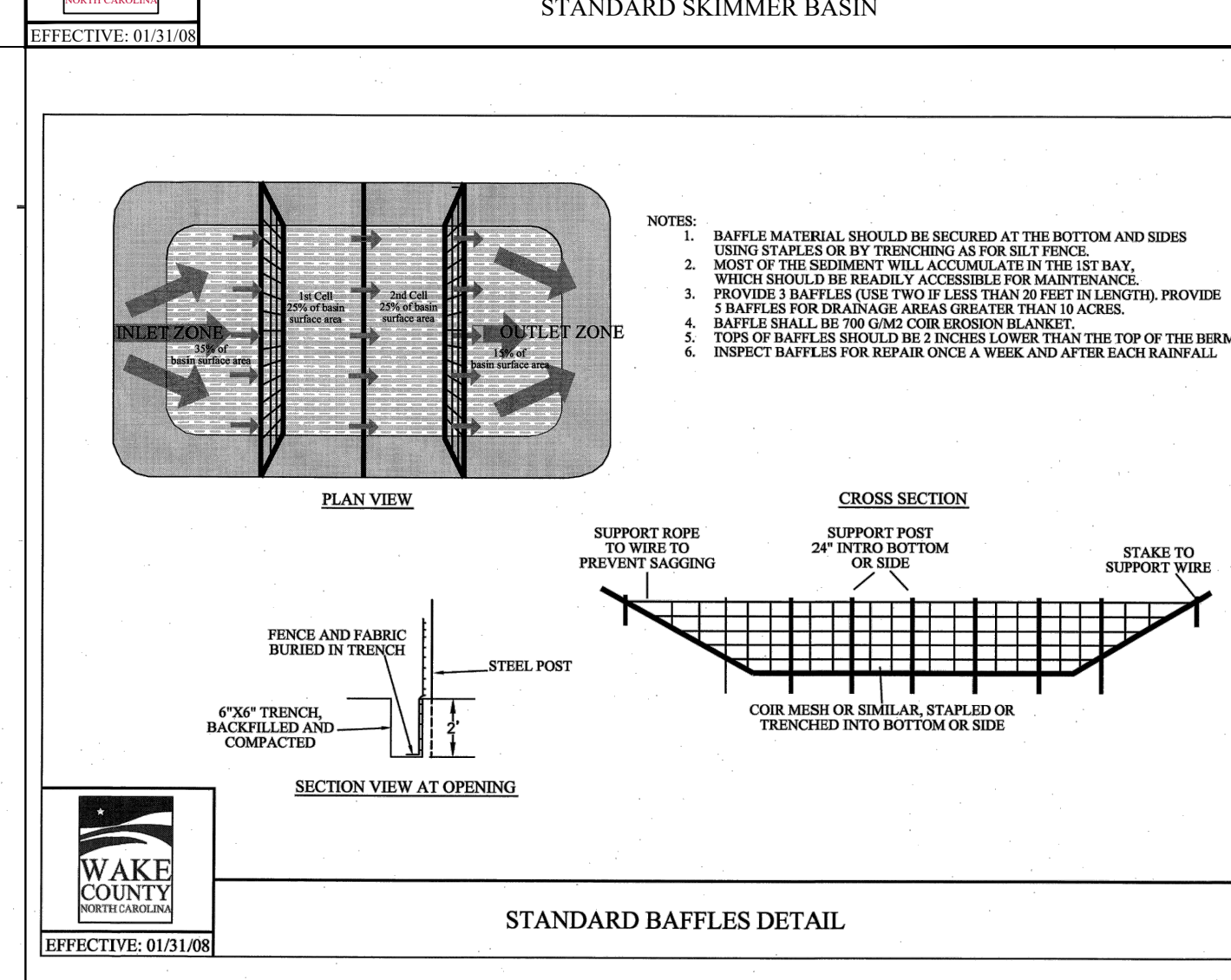
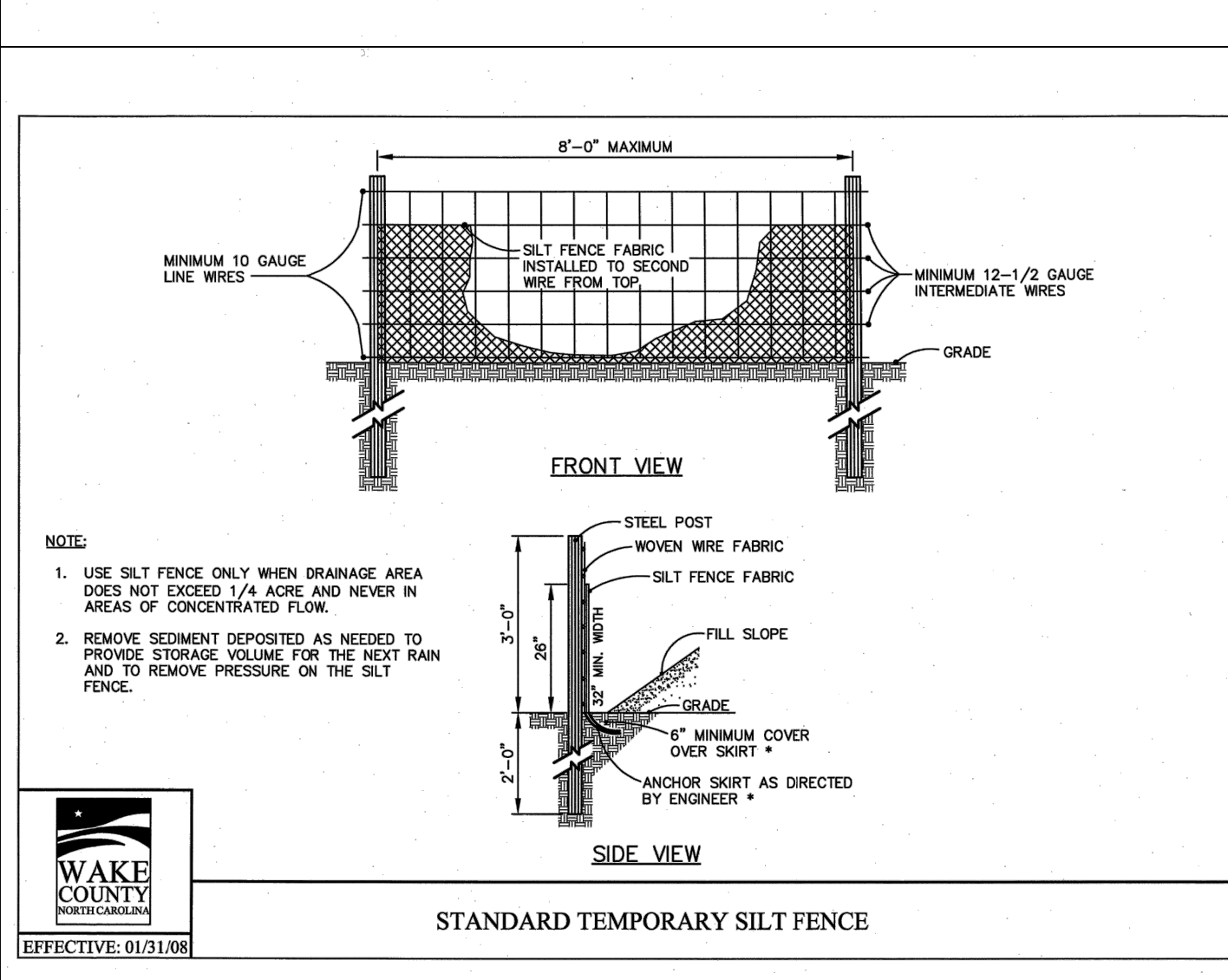
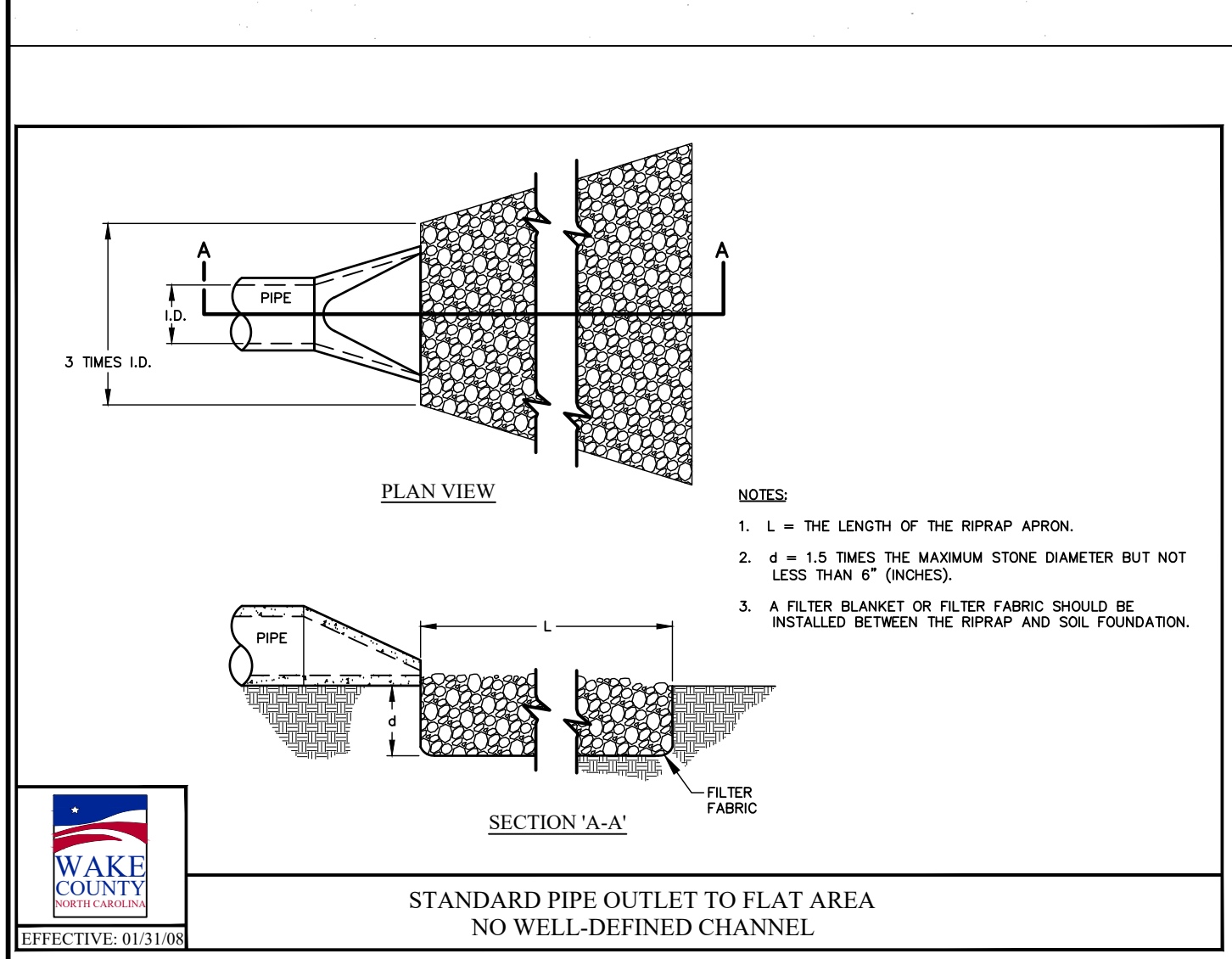
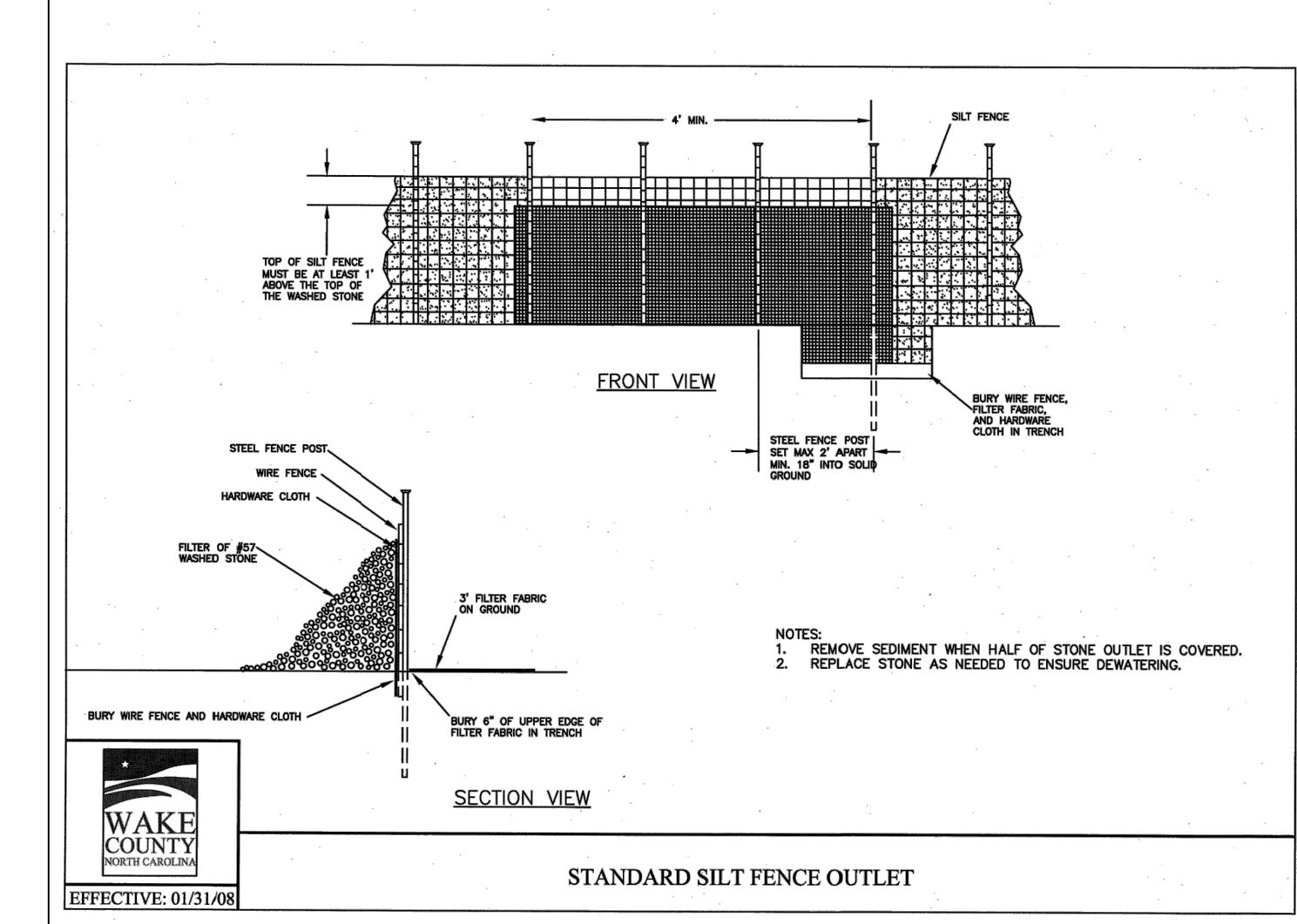
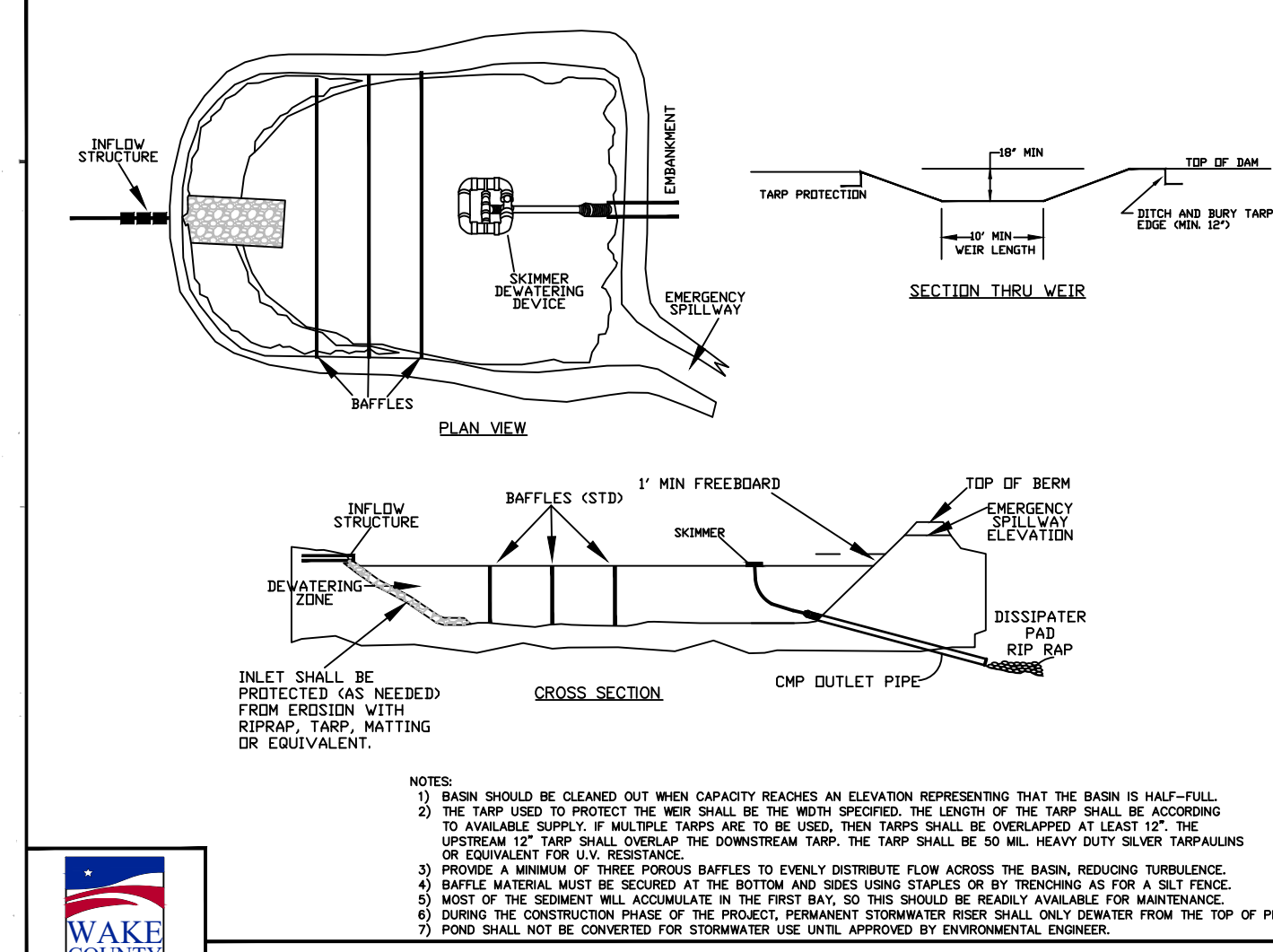
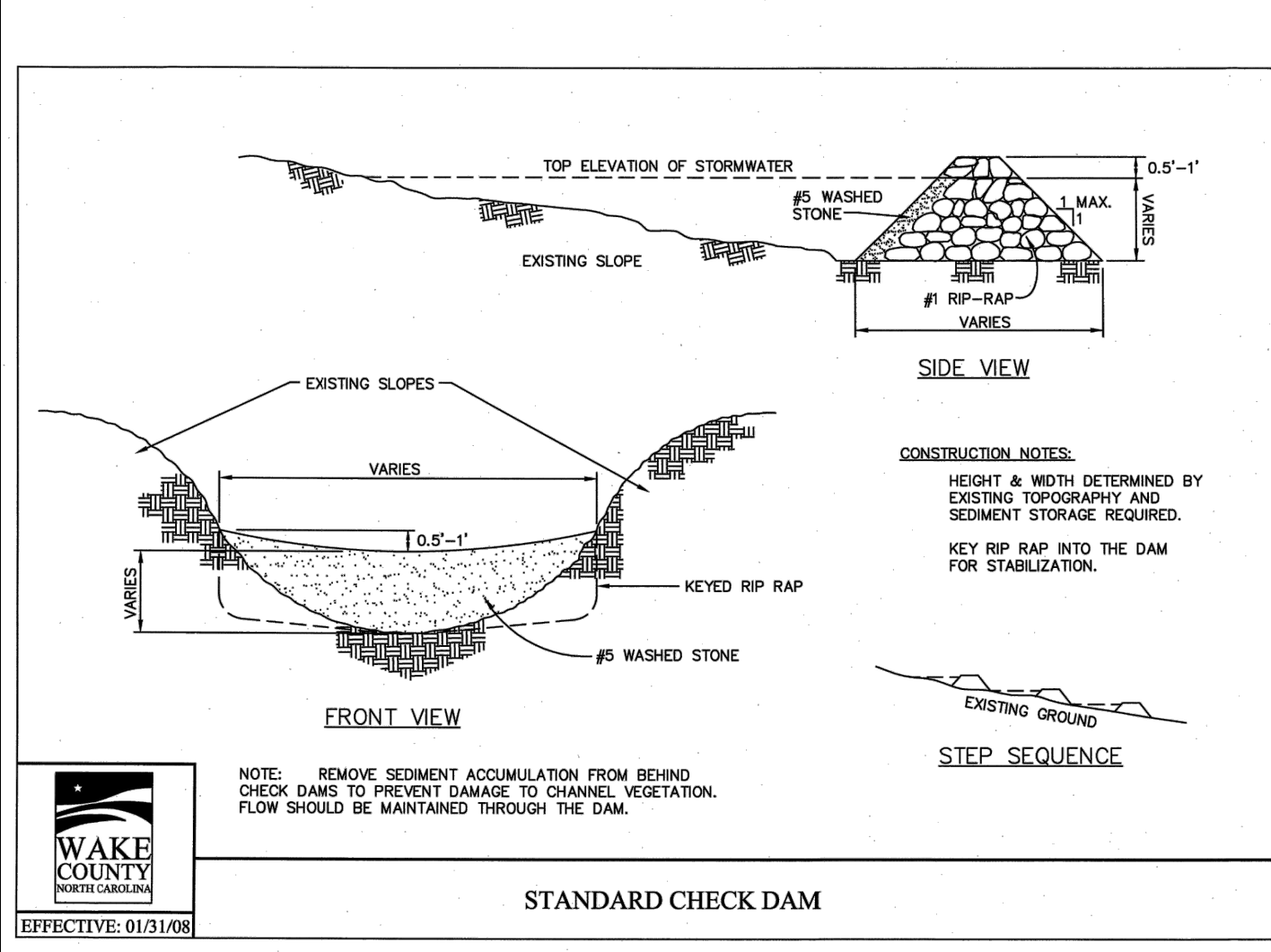
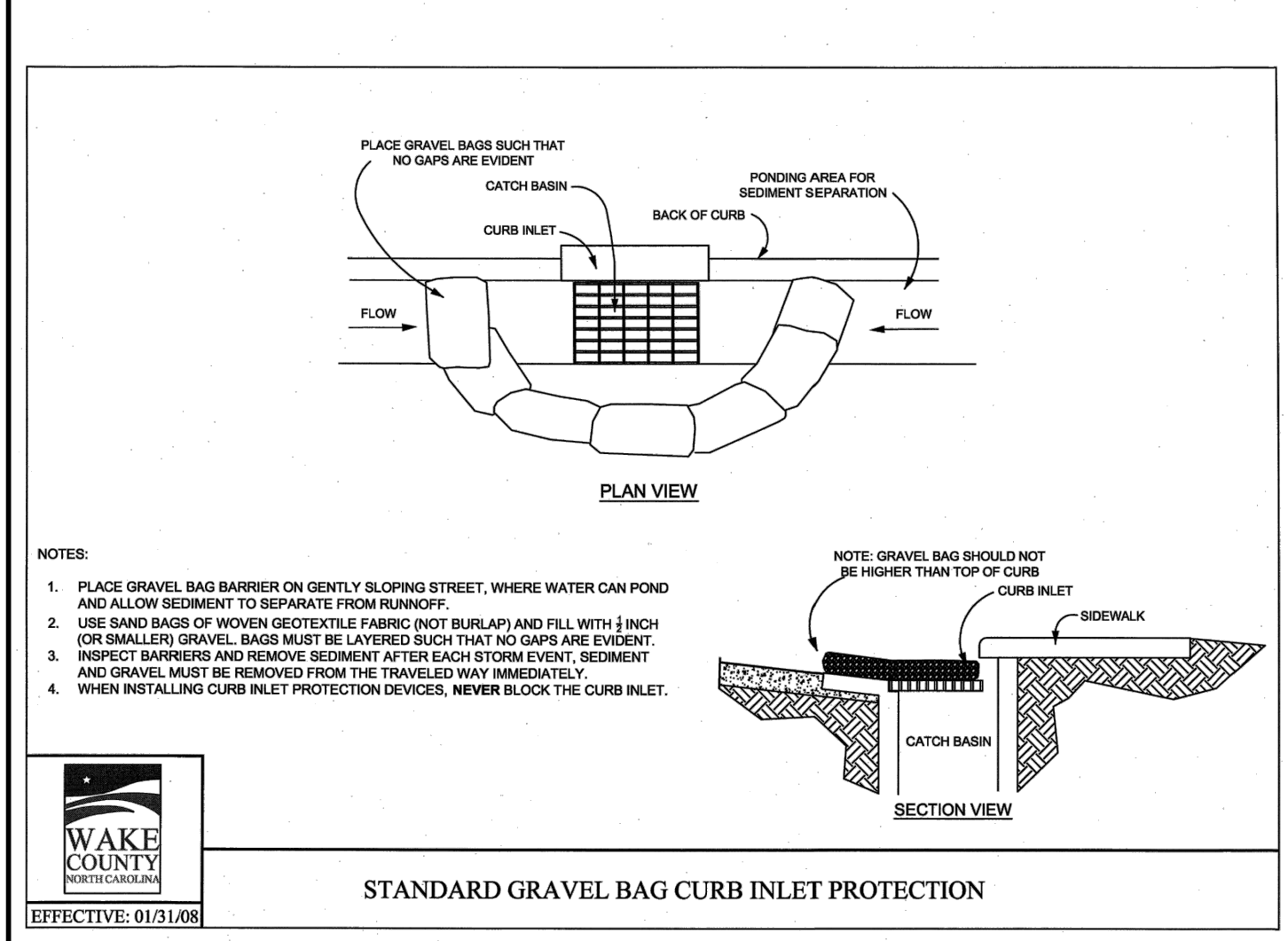
**DISTURBED AREA IN ROLESVILLE IS 12.6 ACRES**  
 (PERMITTED BY WAKE COUNTY)

BASIN ID	DRAINAGE AREA (Pre) (AC)	DRAINAGE AREA (Post) (AC)	DISTURBED AREA (AC)	I(10)	C	Q10 (CFS)	REQUIRED VOLUME (CF)	PROVIDED VOLUME (CF)	BASIN LENGTH (FT)	BASIN WIDTH (FT)	BASIN DEPTH (FT)	SURFACE AREA REQ' (SF)	SURFACE AREA PROVIDED (SF)	WEIR LENGTH (FT)	FLOW DEPTH (FT)	BASIN TYPE	SKIMMER SIZE (IN)	SKIMMER ORFICE (IN)	DEWATER TIME (DAYS)
SEDIMENT BASIN 1	20.00	20.00	20.00	7.19	0.50	71.90	36,000	216,000	360	100	6	23,368	36,000	53	0.59	SKIMMER	3.0	3.00	3
SEDIMENT BASIN 2	7.97	7.97	7.97	7.19	0.50	28.65	14,346	100,750	130	155	5	9,312	20,150	54	0.31	SKIMMER	2.0	2.00	3
SKIMMER BASIN 3	1.75	1.75	1.75	7.19	0.50	6.29	3,150	5,130	36	57	2.5	2,045	2,052	50	0.12	SKIMMER	2.0	2.00	3
SKIMMER BASIN 4	10.14	10.14	10.14	7.19	0.50	36.45	18,252	29,645	77	154	2.5	11,847	11,858	51	0.38	SKIMMER	2.5	2.50	3
SKIMMER BASIN 5	4.45	4.45	4.45	7.19	0.50	16.00	8,010	13,924	59	118	2	5,199	6,962	52	0.22	SKIMMER	3.0	2.75	3




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EXISTING GREENWAY TO REMAIN OPEN AT ALL TIMES  
UNTIL CROSSING IS NECESSARY. WHEN GREENWAY IS  
TO BE CLOSED, A MINIMUM 72 HOUR NOTIFICATION  
WILL BE GIVEN TO THE TOWN.



**TIMMONS GROUP**

NORTH CAROLINA LICENSE NO. C-1652

REGENCY AT HERITAGE - PHASE 3  
ROLESVILLE - WAKE COUNTY - NORTH CAROLINA

EROSION CONTROL NOTES & DETAILS

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REVISION DESCRIPTION

NO.	DATE	DESCRIPTION

JOB NO.  
**40013**

SHEET NO.  
**C7.3**

DATE  
**08/20/2019**

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**331**

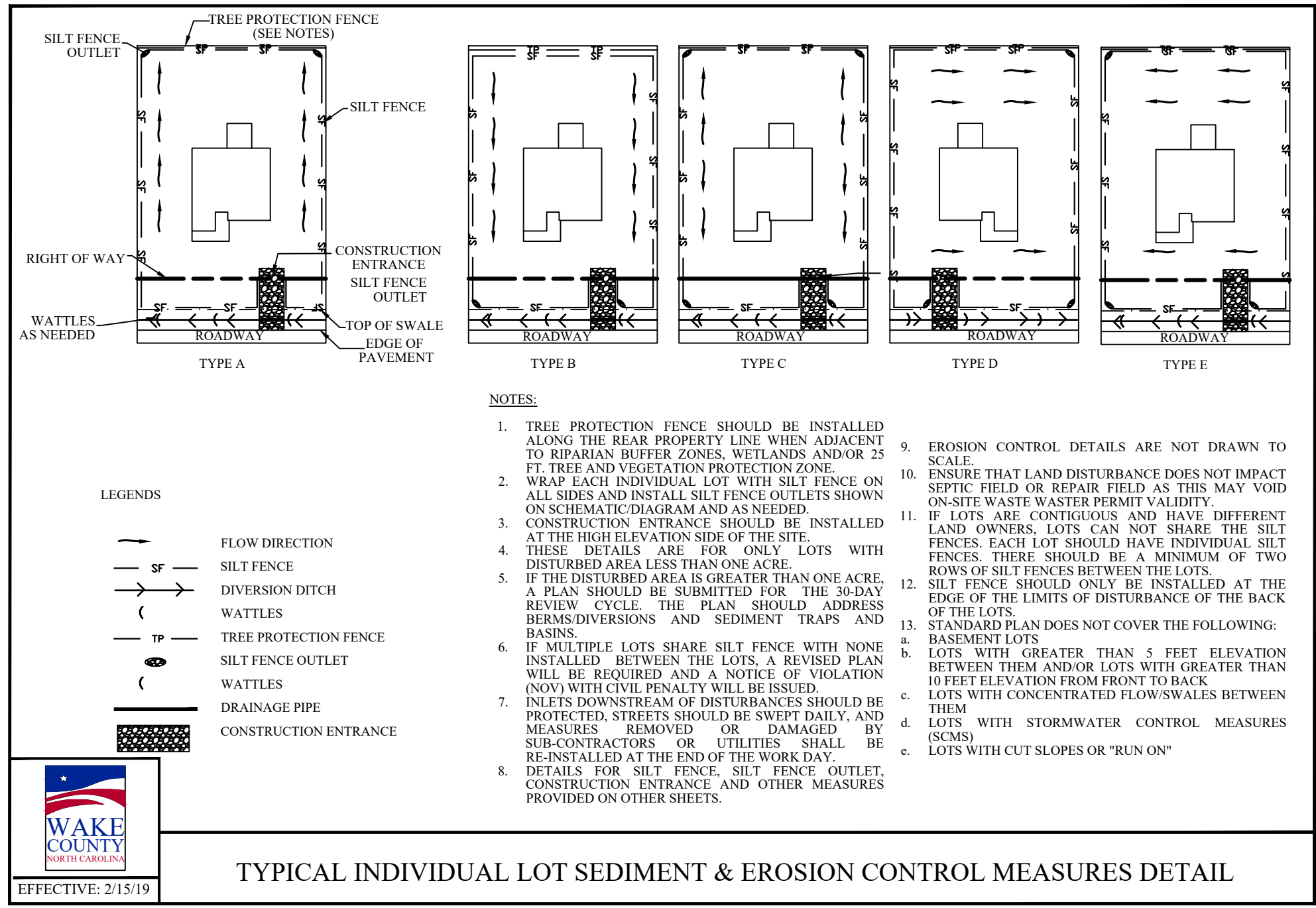
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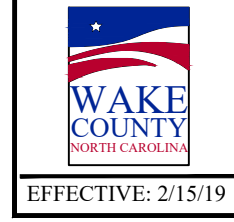
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TYPICAL INDIVIDUAL LOT SEDIMENT & EROSION CONTROL MEASURES DETAIL



**GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT**  
 Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

**SECTION E: GROUND STABILIZATION**

Required Ground Stabilization Timeframes		
Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed 7 days for slopes greater than 50' in length and with slopes steeper than 4:1 7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones 10 days for Falls Lake Watershed
(d) Slopes 3:1 to 4:1	14	7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones 10 days for Falls Lake Watershed unless there is zero slope
(e) Areas with slopes flatter than 4:1	14	7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones 10 days for Falls Lake Watershed unless there is zero slope

**Note:** After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

**GROUND STABILIZATION SPECIFICATION**  
 Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li>Roll-on erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul style="list-style-type: none"> <li>Permanent grass seed covered with straw or other mulches and tackifiers</li> <li>Geotextile fabrics such as permanent soil reinforcement matting</li> <li>Hydroseeding</li> <li>Shrubs or other permanent plantings covered with mulch</li> <li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li> <li>Structural methods such as concrete, asphalt or retaining walls</li> <li>Roll-on erosion control products with grass seed</li> </ul>

- POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**
- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
  - Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
  - Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
  - Provide ponding area for containment of treated stormwater before discharging offsite.
  - Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

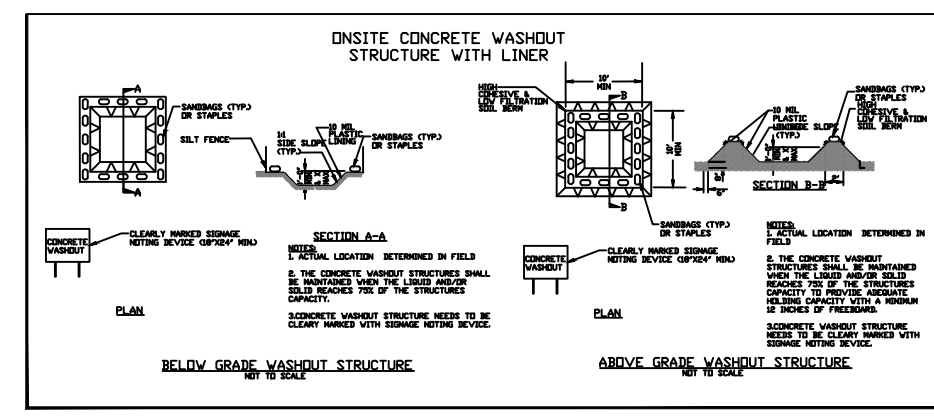
- EQUIPMENT AND VEHICLE MAINTENANCE**
- Maintain vehicles and equipment to prevent discharge of fluids.
  - Provide drip pans under any stored equipment.
  - Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
  - Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
  - Remove leaking vehicles and construction equipment from service until the problem has been corrected.
  - Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

- LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**
- Never bury or burn waste. Place litter and debris in approved waste containers.
  - Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
  - Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
  - Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
  - Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
  - Anchor all lightweight items in waste containers during times of high winds.
  - Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
  - Dispose waste off-site at an approved disposal facility.
  - On business days, clean up and dispose of waste in designated waste containers.

- PAINT AND OTHER LIQUID WASTE**
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
  - Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
  - Contain liquid wastes in a controlled area.
  - Containment must be labeled, sealed and placed appropriately for the needs of site.
  - Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

- PORTABLE TOILETS**
- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
  - Provide shading or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
  - Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

- EARTHEN STOCKPILE MANAGEMENT**
- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
  - Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
  - Provide stable stone access point when feasible.
  - Stabilize stockpiles within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



- CONCRETE WASHOUTS**
- Do not discharge concrete or cement slurry from the site.
  - Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
  - Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
  - Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
  - Do not use concrete washouts for dewatering or storing defatted curbs or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
  - Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
  - Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
  - Do not use concrete washouts for dewatering or storing defatted curbs or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
  - At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

- HERBICIDES, PESTICIDES AND RODENTICIDES**
- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
  - Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
  - Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
  - Do not stockpile these materials onsite.

- HAZARDOUS AND TOXIC WASTE**
- Create designated hazardous waste collection areas on-site.
  - Place hazardous waste containers under cover or in secondary containment.
  - Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING EFFECTIVE: 04/01/19

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION A: SELF-INSPECTION**  
 Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rain fall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero". The permittee may use another rain-monitoring device approved by the Division.
(2) EESC Measures	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the measures inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Indication of whether the measures were operating properly. 5. Description of maintenance needs for the measure. 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected. 2. Date and time of the inspection. 3. Name of the person performing the inspection. 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids, discoloration. 5. Indication of visible sediment leaving the site. 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits. 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part II, Section C, Item (2)(i) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading/installation of perimeter EESC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

**NOTE:** The rain inspection resets the required 7 calendar day inspection requirement.

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION B: RECORDKEEPING**  
**1. EESC Plan Documentation**  
 The approved EESC plan as well as any approved deviation shall be kept on the site. The approved EESC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the EESC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each EESC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved EESC plan.	Initial and date each EESC measure on a copy of the approved EESC plan or complete, date and sign an inspection report that lists each EESC measure shown on the approved EESC plan. This documentation is required upon the initial installation of the EESC measures or if the EESC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved EESC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved EESC plan.	Initial and date a copy of the approved EESC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all EESC measures have been performed.	Complete, date and sign an inspection report to indicate the completion of the corrective action.
(e) Corrective actions have been taken to EESC measures.	Initial and date a copy of the approved EESC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

**2. Additional Documentation to be kept on Site**  
 In addition to the EESC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

**3. Documentation to be Retained for Three Years**  
 All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION C: REPORTING**

**1. Occurrences that Must be Reported**  
 Permittees shall report the following occurrences:  
 (a) Visible sediment deposition in a stream or wetland.  
 (b) Oil spills if:  
 • They are 25 gallons or more,  
 • They are less than 25 gallons but cannot be cleaned up within 24 hours,  
 • They cause sheen on surface waters (regardless of volume), or  
 • They are within 100 feet of surface waters (regardless of volume).  
 (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.  
 (d) Anticipated bypasses and unanticipated bypasses.  
 (e) Noncompliance with the conditions of this permit that may endanger health or the environment.

**2. Reporting Timeframes and Other Requirements**  
 After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li> <li>If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired waters conditions.</li> </ul>
(b) Oil spills and release of hazardous substances per Item (b)(1)-(c) above	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li> </ul>
(c) Anticipated bypasses (40 CFR 122.41(m)(3))	<ul style="list-style-type: none"> <li>A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.</li> </ul>
(d) Unanticipated bypasses (40 CFR 122.41(m)(3))	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment (40 CFR 122.41(i)(7))	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(i)(6)].</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

**PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT**

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- The EESC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the EESC plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above.
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices.
- Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING EFFECTIVE: 04/01/19



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DATE: 08/20/2019  
 DRAWN BY: JFC  
 DESIGNED BY: JFC  
 SCALE: NTS

**TIMMONS GROUP**  
 NORTH-CAROLINA LICENSE NO. C-1652  
**REGENCY AT HERITAGE - PHASE 3**  
 ROLESVILLE - WAKE COUNTY - NORTH CAROLINA  
**EROSION CONTROL NOTES & DETAILS**

JOB NO. 40013  
 SHEET NO. C7.5

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