

ELIZABETH HEIGHTS

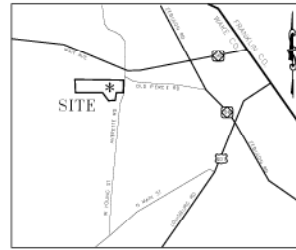
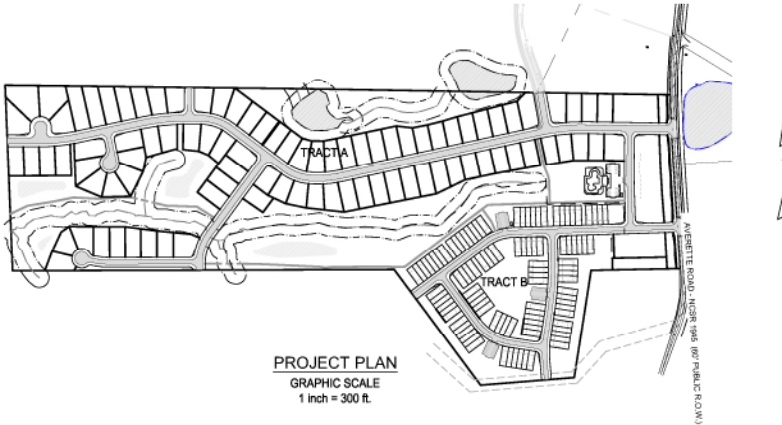
CONSTRUCTION DRAWINGS

TRACT B

TOWN OF ROLESVILLE
WAKE COUNTY, NC

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C809	DETAILS
C810	DETAILS
A-XXX	ARCHITECTURALS - TOWNHOMES

TOWN OF
WAKE FOREST



DEVELOPER:
WRIGHT-WHITLEY DEVELOPMENT COMPANY, LLC
1225 N WHITE ST
WAKE FOREST, NC 27583

OWNER:
DOUGLAS JONES
1109 AVERETTE RD
WAKE FOREST, NC 27587

SITE ADDRESS:
1205 AVERETTE ROAD
WAKE FOREST, NC 27587
WAKE COUNTY, NC



Bateman Civil Survey Company

Engineers • Surveyors • Planners

2524 Reliance Avenue, Apex, North Carolina 27539

Phone: 919.577.1080 Fax: 919.577.1081

NCBELS FIRM No. C-2378

PROJECT NUMBER: 170348

ATTENTION CONTRACTORS

The Construction Contractor responsible for the installation, construction, sewer, road or reuse, as approved in these plans, is responsible for consulting the Public Utilities Department at (919) 998-1549 at least twenty-four hours prior to beginning any of their construction.

Failure to notify both the Department in advance of beginning construction, will result in the issuance of a stop-work order, and require reinstallation of any water or sewer facilities not impacted as a result of the notification failure.

Failure to call for Inspection, Install a Downstream Plug, have Permitted Plans on file, 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 construction and extension of its City public sewer system as shown on this plan. The material and Construction Methods used for the project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # W-3099
Authorization to Construct PERMITTED IN TRACT A
Date SEE TRACT A CONSTRUCTION DRAWINGS

Public

Sewer Collection / Extension System
The City of Raleigh consents to the construction and extension of its City public sewer system as shown on this plan. The material and Construction Methods used for the project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # S-4523
Authorization to Construct PERMITTED IN TRACT A
Date SEE TRACT A CONSTRUCTION DRAWINGS

UTILITY IMPROVEMENTS	
8" PVC PUBLIC SEWER	9,375 LF
8" DIP PUBLIC SEWER	2,085 LF
16" PVC PUBLIC SEWER	890 LF
CLASS III RCP STORM	11,445 LF
4" DIP PUBLIC WATER	110 LF
6" DIP PUBLIC WATER	225 LF
8" DIP PUBLIC WATER	4,185 LF
12" DIP PUBLIC WATER	4,646 LF
16" DIP PUBLIC WATER	900 LF

WAKE CO. STORMWATER NOTE:

RESIDENTIAL ONLY Perpetuity statement
Maximum Impervious Area Square Footage on each individual lot will be Stringently Enforced with no Exceptions into Perpetuity. Plans approved with a maximum impervious surface of (2,500) SF per lot.

EROSION CONTROL, STORMWATER AND FLOODPLAIN MANAGEMENT

APPROVED

EROSION CONTROL S-ec-011532-2019

STORMWATER MGMT. S-mf-011530-2019

FLOOD STUDY S-

DATE PERMITTED IN TRACT A

SEE TRACT A CONSTRUCTION DRAWINGS

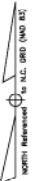


KNOW WHAT IS BELOW
CALL BEFORE YOU DIG

C000 - COVER

PROJECT: TOWN OF ELIZABETH HEIGHTS (CADD) SHEET: CONSTRUCTION DRAWINGS (C000) COVER (2x8)

ELIZABETH HEIGHTS - CONSTRUCTION DRAWINGS



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2524 Relevance Avenue, Suite 1000, Cary, NC 27513
 Phone: (919) 487-1101
 Website: www.bateman-survey.com



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1000 AVENUE F ROAD
 SUITE 1000
 WAKE COUNTY, NC

EXISTING CONDITIONS PLAN

PARCEL LINE DATA		
SEGMENT	LENGTH	DIRECTION
L1	30.96	S89° 57' 14" E
L2	100.29	S71° 44' 48" E
L3	100.00	S27° 19' 28" E
L4	100.00	S27° 06' 18" E
L5	100.00	S27° 38' 38" E
L6	100.00	S27° 41' 51" E
L7	100.00	S27° 44' 15" E
L8	100.00	S27° 47' 58" E
L9	100.00	S27° 49' 18" E
L10	88.72	S27° 29' 52" E
L11	38.03	S89° 57' 14" W

- LEGEND:**
- EXISTING POND
 - EXISTING WETLAND
 - EXISTING WATERSHED (R-40W)
 - EXISTING STREAM / TOP OF BANK
 - EXISTING 50' NEUSE RIVER BASIN RIPARIAN BUFFER

EXISTING TRACT DATA:

DEVELOPER:
 WRIGHT-WHITLEY DEVELOPMENT COMPANY, LLC
 1225 N. WHITE ST.
 WAKE FOREST, NC 27588
 CONTACT NO. (919) 348-9220
 NC PIN: 1960-03-0619
 DEED REFERENCE: DB 617635, PG 01542
 REAL ESTATE ID: 0002813

TOTAL TRACT AREA: 82.22 AC
 AREA WITHIN ROW: 0.61 AC
 NEW TOTAL AREA: 81.61 AC
 ZONING: R & PUD, RAW
 EXISTING USE: VACANT / UNDEVELOPED WOODS

OWNER:
 DOUGLAS JONES
 1109 AVERETTE RD
 WAKE FOREST, NC 27587

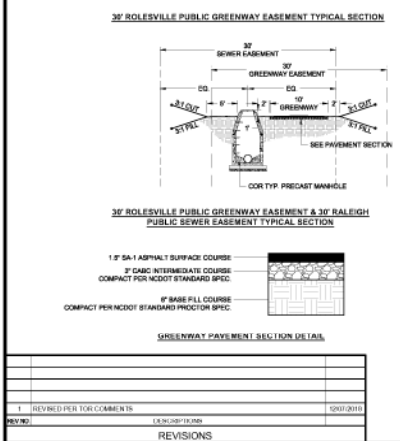
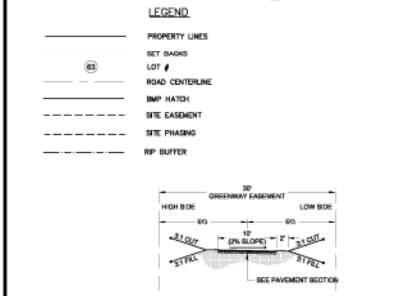
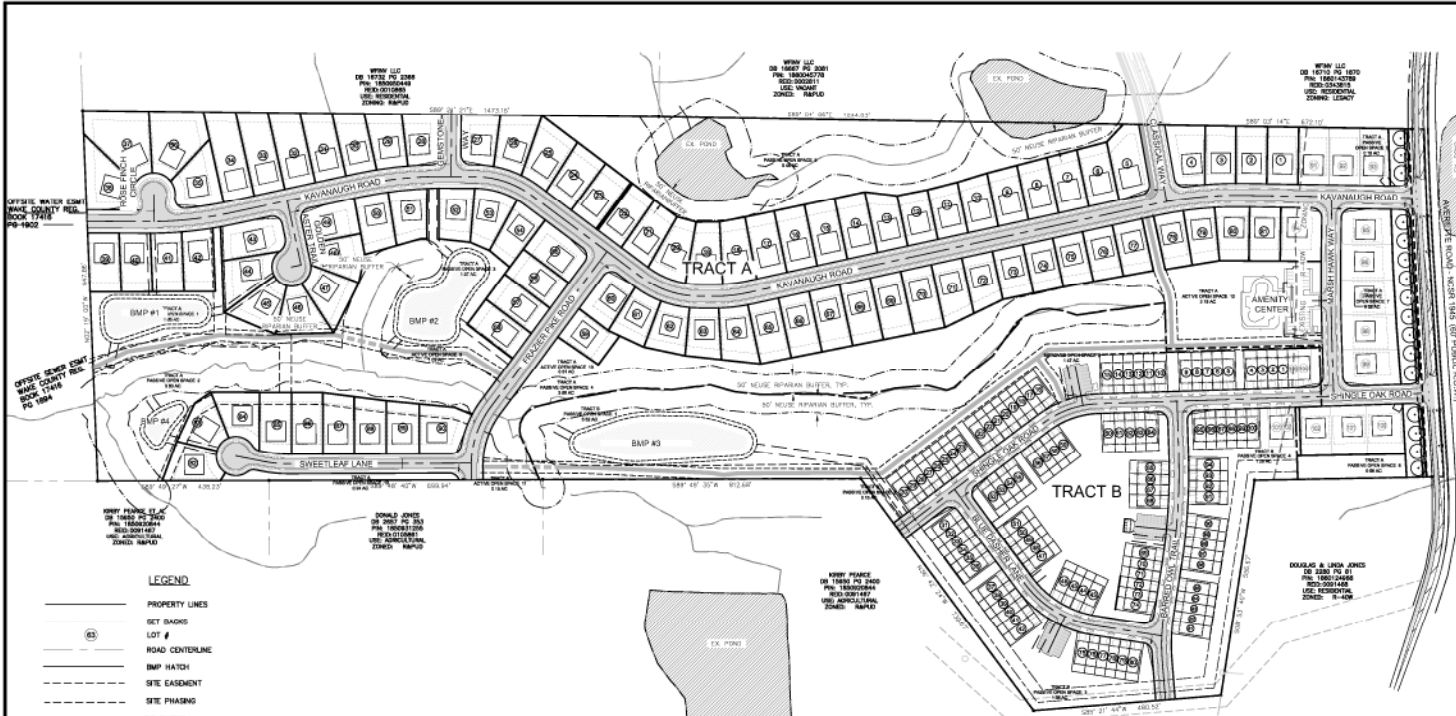
- NOTES**
- PER FEMA MAPS 37201850J & 37201860J FOR NORTH CAROLINA, THERE ARE NO FLOOD HAZARD AREAS WITHIN THE DEVELOPMENT BOUNDARIES.
 - EXISTING BOUNDARY TAKEN FROM A SURVEY BY STATEMAN CIVIL SURVEY COMPANY (R.A. 8. 2017).
 - EXISTING TOPOGRAPHY DOWNLOADED FROM WAKE COUNTY GIS WEBSITES AND STREAMS HAVE RECEIVED A PRELIMINARY JURISDICTIONAL DETERMINATION FROM THE CORPS, (CURRENTLY PENDING). ARRANGEMENTS HAVE BEEN MADE WITH AUSTIN CREEK DEVELOPER TO EXTEND UTILITIES TO SITE PROPERTY LINE. IN THE EVENT THIS DEVELOPMENT PRECEDES THE AUSTIN CREEK DEVELOPMENT PERMISSION HAS BEEN OBTAINED TO THE INTO EXISTING UTILITIES.
 - ELITE ENERGY COORDINATION.

REV#	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/01/2018



Project Engineer	TSB
Designed By	LEB
Drawn By	LEB
Checked By	TSB
Scale	P=80%
Date	10/02/18
Project Number	17096

SHEET
C101



- SITE PLAN NOTES**
- PER FEMA MAPS 372018000J & 372018000J FOR NORTH CAROLINA, THERE ARE NO FLOOD HAZARD AREAS WITHIN THE DEVELOPMENT BOUNDARIES.
 - WATER SUPPLY AND WASTE WATER FOR ALL LOTS IN THIS DEVELOPMENT SHALL BE PROVIDED BY THE CITY OF RALEIGH THROUGH A MERGER AGREEMENT WITH THE TOWN OF ROLESVILLE.
 - ROAD NAMES SHALL BE SUBMITTED AND APPROVED PRIOR TO APPROVAL OF THE FINAL PLAT.
 - ALL OPEN SPACE PARCELS SHALL BE OWNED BY A LEGALLY ORGANIZED HOME OWNERS ASSOCIATION THAT WILL BE RESPONSIBLE FOR MANAGING AND ENSURING RESIDENTS' ACCESS.
 - AS PER THE TOWN OF ROLESVILLE UDD 15.4.8.2.B.4, THE PROPOSED PASSIVE OPEN SPACE MAY CONTAIN ENVIRONMENTALLY SENSITIVE AREAS, LIKE BODIES OF WATER, NEUSE RIVER RIPARIAN BUFFERS, WETLANDS, SPECIAL FLOOD HAZARD AREAS, ROCK OUTCROPS AND STEEP SLOPES. PASSIVE OPEN SPACE WILL BE USED FOR CONSERVATION OF NATURAL RESOURCES, MEADOWS, WOODLANDS, WETLANDS, WILDLIFE CORRIDORS AND SIMILAR CONSERVATION ORIENTED ACTIVITIES.
 - IT IS THE INTENT OF THIS PROJECT THAT THE 6.53 AC. ZONED R-40W WILL BE REGRADED AT CONSTRUCTION SO THAT IT CAN BE REMOVED FROM THE WATERSHED. FOLLOWING THE WATERSHED ADJUSTMENT, A REZONING REQUEST WILL BE FILED. THE 12 SINGLE FAMILY DETACHED LOTS AND 4 TOWNHOME LOTS CURRENTLY LOCATED IN THE R-40W HAVE NOT BEEN SHOWN ON THIS PRELIMINARY SUBDIVISION PLAT BUT, WILL BE SUBMITTED FOR TOWN APPROVAL ONCE THE WATERSHED ADJUSTMENT HAS BEEN FINALIZED AND THE REZONING APPROVED.
 - FRONT FACING TOWNHOME GARAGES SHALL HAVE AT LEAST TWENTY FEET (20') SEPARATING THE NEIGHBORING DRIVEWAYS OR NO MORE THAN FIVE FEET (5') SEPARATING NEIGHBORING DRIVEWAYS, IF THE SEPARATION MEASURES FIVE FEET (5') OR LESS, THE MEAT SEPARATION MUST BE AT LEAST TWENTY FEET (20') REAR FACING GARAGES MAY BE ACCESSED BY A PRIVATE ALLEY WITH NO SEPARATION REQUIREMENTS.
 - HANDICAP RAMPS WILL BE INSTALLED AT ALL INTERSECTIONS NECESSARY FOR SIDEWALK CONNECTIVITY.

SITE DEVELOPMENT DATA

GROSS TRACT AREA:	82.399 AC.
AREA IN EXISTING ROW:	0.613 AC.
AREA IN NEW DEDICATED ROW:	0.201 AC.
NEW GROSS TRACT AREA:	81.525 AC.
PROPOSED USE:	RESIDENTIAL
MAXIMUM BUILDING HEIGHT:	45 FT., 3 STORIES

ALLOWED DENSITY	
SINGLE FAMILY DWELLINGS (TRACT "A")	4 / AC.
TOWNHOUSES (TRACT "B")	8 / AC.
TOTAL TRACT	4 / AC.

PROPOSED DENSITY	
AREA IN TRACT "A": SINGLE FAMILY DWELLINGS:	56.38 AC.
PROPOSED LOTS:	102 LOTS
PROPOSED DENSITY TRACT "A":	1.75 LOTS / AC.
AREA IN TRACT "B":	23.15 AC.
PROPOSED UNITS:	104 UNITS
PROPOSED DENSITY TRACT "B":	4.49 UNITS / AC.
TOTAL PROPOSED DENSITY:	2.53 UNITS / AC.

LOT DIMENSIONS	
TRACT "A" (SINGLE FAMILY)	
MINIMUM WIDTH:	50'
PROPOSED:	11,382 SF
AVERAGE LOT SIZE:	
TRACT "B" (TOWNHOUSES)	
MINIMUM LOT WIDTH:	20'
PROPOSED:	26'

SETBACKS	
TRACT "A" (SINGLE FAMILY)	
FRONT:	20'
REAR:	20'
SIDE:	5'
TRACT "B" (TOWNHOUSES)	
FRONT:	15' (FROM R.O.W.)
PROPOSED:	20'
REAR:	15' (FROM PROPERTY LINE)

IMPERVIOUS AREA SUMMARY	
-EXISTING IMPERVIOUS AREA:	0 SF
-PROPOSED IMPERVIOUS AREA:	2,200 SF
-SITE AREA IN ROADS, PARKING, ETC.:	347,814 SF
-TOTAL AREA IN LOTS:	225,000 SF
-AVERAGE IMPERVIOUS AREA PER LOT:	2.20 SF
-TOTAL IMPERVIOUS AREA:	572,814 SF

PARKING	
TRACT "A" (SINGLE FAMILY DETACHED)	
NUMBER OF UNITS:	102
CLUSTER MAILBOX UNITS:	4 SPACES (75-104 DWELLING UNITS)
PROPOSED:	5 SPACES AT AMENITY CENTER
TRACT "B" (TOWNHOUSES)	
NUMBER OF UNITS:	104
REQUIRED:	2.5 TOWNHOUSE (104 x 2.5 = 260)
PROPOSED:	224
REQUIRED GUEST PARKING:	1 / 4 TOWNHOUSES (104 / 4 = 26)
PROPOSED GUEST PARKING:	42
CLUSTER MAILBOX UNITS:	4 SPACES (75-104 DWELLING UNITS)
REQUIRED PARKING SPACES:	4 SPACES AT NORTH PARKING LOT
PROPOSED PARKING SPACES:	

PERIMETER LANDSCAPE BUFFERS	
TRACT "A" (SINGLE FAMILY)	
CLASS II ADJOINING CLASS II:	NONE
STREETSCAPE AVIETTE ROAD:	0'
TRACT "B" (TOWNHOUSES)	
CLASS II ADJOINING CLASS II:	20' TYPE B LANDSCAPE
PERIMETER YARD BUFFER:	5'

RECREATION & OPEN SPACE	
REQUIRED	
TRACT "A" (SINGLE FAMILY)	
10% OF SPD (58.38 AC.):	5.84 AC.
PROPOSED:	21.43 AC.
50% OF 5.84 AC. TO BE SUITABLE FOR ACTIVE:	2.92 AC.
PROPOSED ACTIVE OPEN SPACE:	4.17 AC.
(1.25 ACRES EXTRA)	
PROPOSED PASSIVE OPEN SPACE:	17.26 AC.
TRACT "B" (TOWNHOUSES)	
15% OF TH (23.15 AC.):	3.47 AC.
PROPOSED:	11.47 AC.
36% OF REQUIRED SPACE TO BE IMPROVED:	1.22 AC.
PROPOSED IMPROVED OPEN SPACE:	1.25 AC.
(UNUSED FROM TRACT A AMENITY)	
PROPOSED PASSIVE OPEN SPACE:	8.31 AC.



SITE PLAN SHEET KEY





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 Engineers • Surveyors • Planners
 2530 Rialto Avenue, Apt. North Carolina 27619
 Phone: (919) 487-1001
 FAX: (919) 487-1001
 LICENSE # 9896, No. C-2038

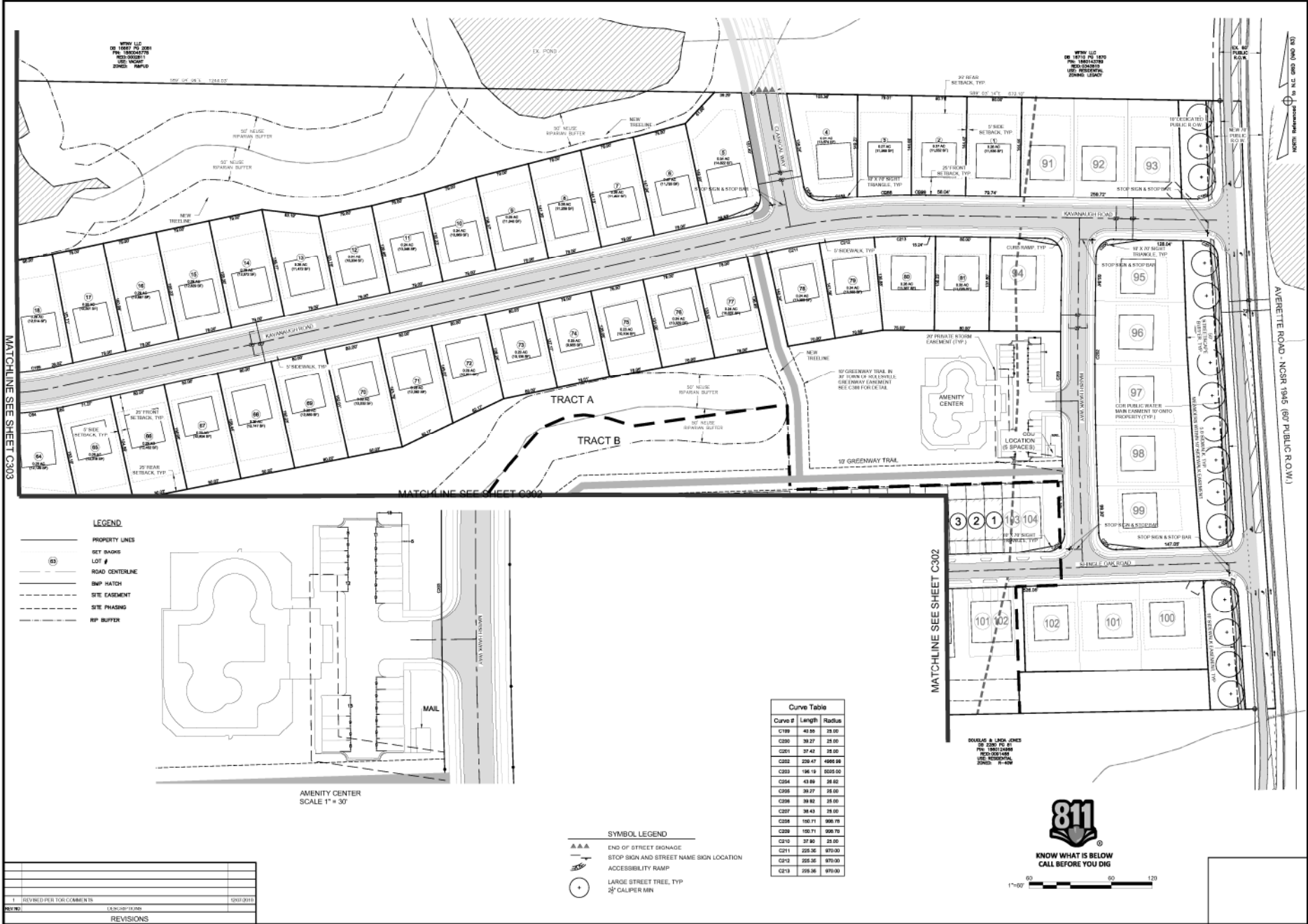


ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS
 1205 AVIETTE ROAD, SUITE 207
 WAKE COUNTY, NC

OVERALL SITE DATA

Project Engineer:	TSB
Designed By:	LSG
Drawn By:	LSG
Checked By:	TSB
Scale:	1"=80'
Date:	10/09/18
Project Number:	0708

SHEET
C300



MATCHLINE SEE SHEET C303

MATCHLINE SEE SHEET C302

MATCHLINE SEE SHEET C302



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Website: www.bateman-survey.com



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

12026 AVERETTE ROAD
WAKE COUNTY, NC 27617
WAKE COUNTY, NC

SITE PLAN

Project Engineer: TSB
Designed By: LGS
Drawn By: LGS
Checked By: TSB
Scale: 1"=00'
Date: 10/09/18
Project Number: 0704

SHEET
C301



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Website: www.bateman.com



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

SITE PLAN

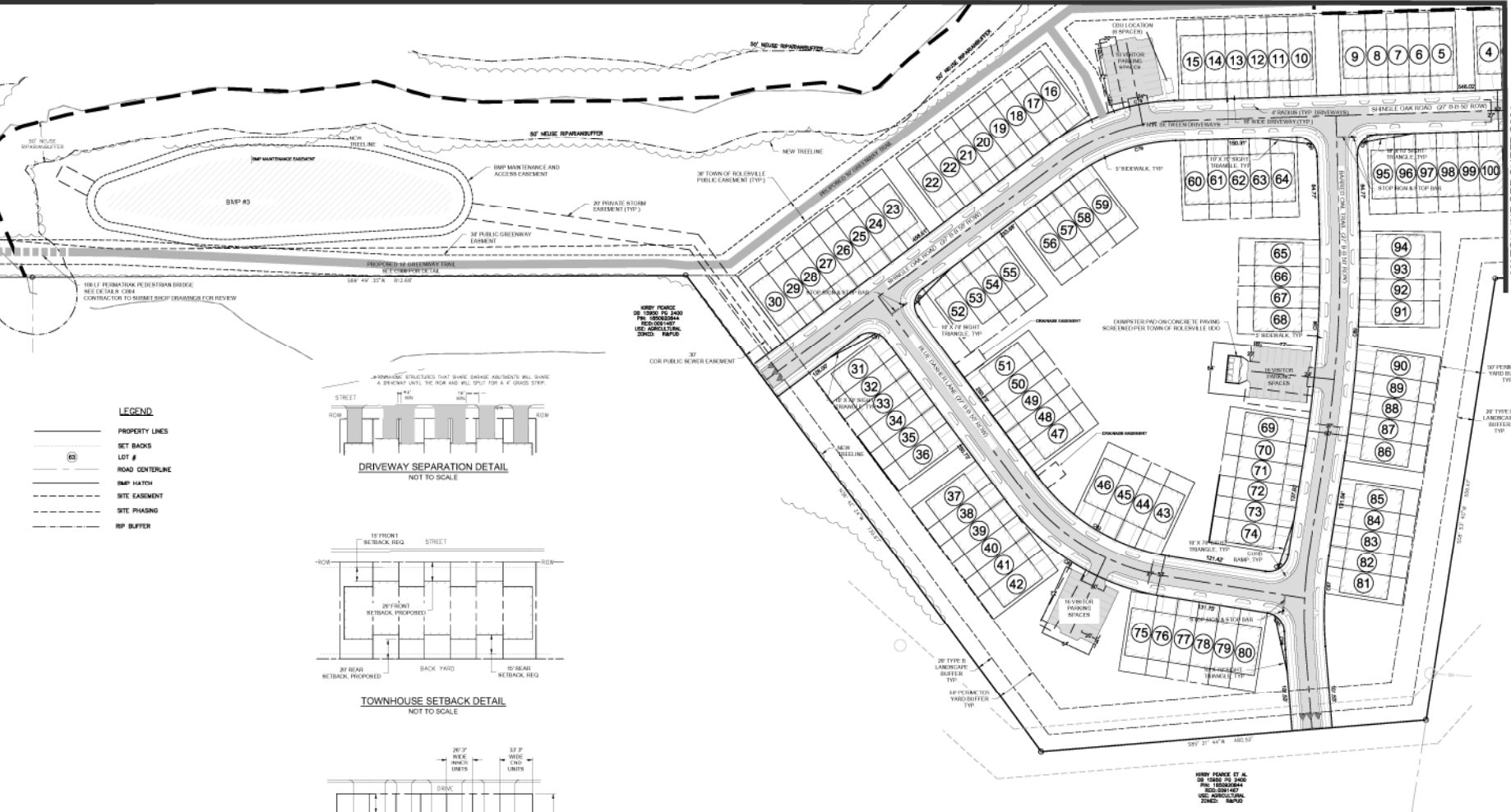
Project Engineer: TSB
Designed By: LSC
Drawn By: LSC
Checked By: TSB
Scale: 1"=40'

Date: 10/08/18
Project Number: 0704

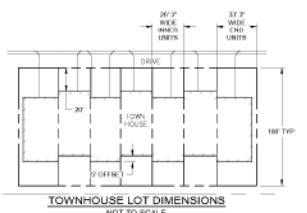
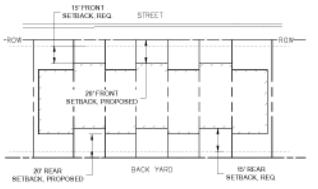
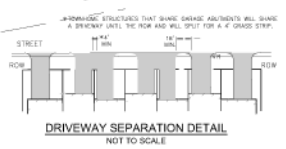
SHEET
C302

MATCHLINE SEE SHEET C301

NORTH Reference T.S. ACC. 0800 (NAD 83)



- LEGEND**
- PROPERTY LINES
 - SET BACKS
 - LOT #
 - ROAD CENTERLINE
 - BMP HATCH
 - SITE EASEMENT
 - SITE PHASING
 - IMP BUFFER



- SYMBOL LEGEND**
- END OF STREET SIGNAGE
 - STOP SIGN AND STREET NAME SIGN LOCATION
 - ACCESSIBILITY RAMP
 - LARGE STREET TREE, TYP 30" CALIPER MIN



REV#	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	10/27/2018



LEGEND

- PROPERTY LINES
- SET BACKS
- (6) LOT #
- ROAD CENTERLINE
- BMP HATCH
- SITE EASEMENT
- SITE PHASING
- RP BUFFER

SYMBOL LEGEND

- ▲ END OF STREET SIGNAGE
- ▲ STOP SIGN AND STREET NAME SIGN LOCATION
- ♻ ACCESSIBILITY RAMP
- LARGE STREET TREE, TYP
- 2" CALIPER MIN

MATCHLINE SEE SHEET C302

Curve Table		Curve Table		Curve Table	
Curve #	Length	Curve #	Length	Curve #	Length
C13	38.24	C20	25.18	C28	39.26
C14	37.82	C21	31.51	C29	4.06
C15	62.15	C22	39.30	C30	75.92
C16	80.41	C23	39.24	C31	76.92
C17	83.86	C24	73.23	C32	24.81
C18	13.88	C25	41.86	C33	10.72
C19	97.94	C26	39.82	C34	74.96
C20	44.82	C27	9.11	C35	8.73
C21	43.56	C28	39.27	C36	98.15
C22	53.23	C29	58.12	C37	9.11
C23	53.23	C30	58.12	C38	98.15
C24	38.25	C31	112.45	C39	29.75
C25	43.84	C32	29.89	C40	39.27
C26	13.32	C33	112.45	C41	39.27
C27	80.23	C34	29.75	C42	39.27
C28	88.29	C35	39.27	C43	39.27

REV	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

REVISIONS



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

SITE PLAN

<p>Project Engineer: TSB Designed By: LRS Drawn By: LRS Checked By: TSB Scale: 1"=40' Date: 10/09/18 Project Number: 07018</p>	<p>SHEET C303</p>
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Engineers • Surveyors • Planners

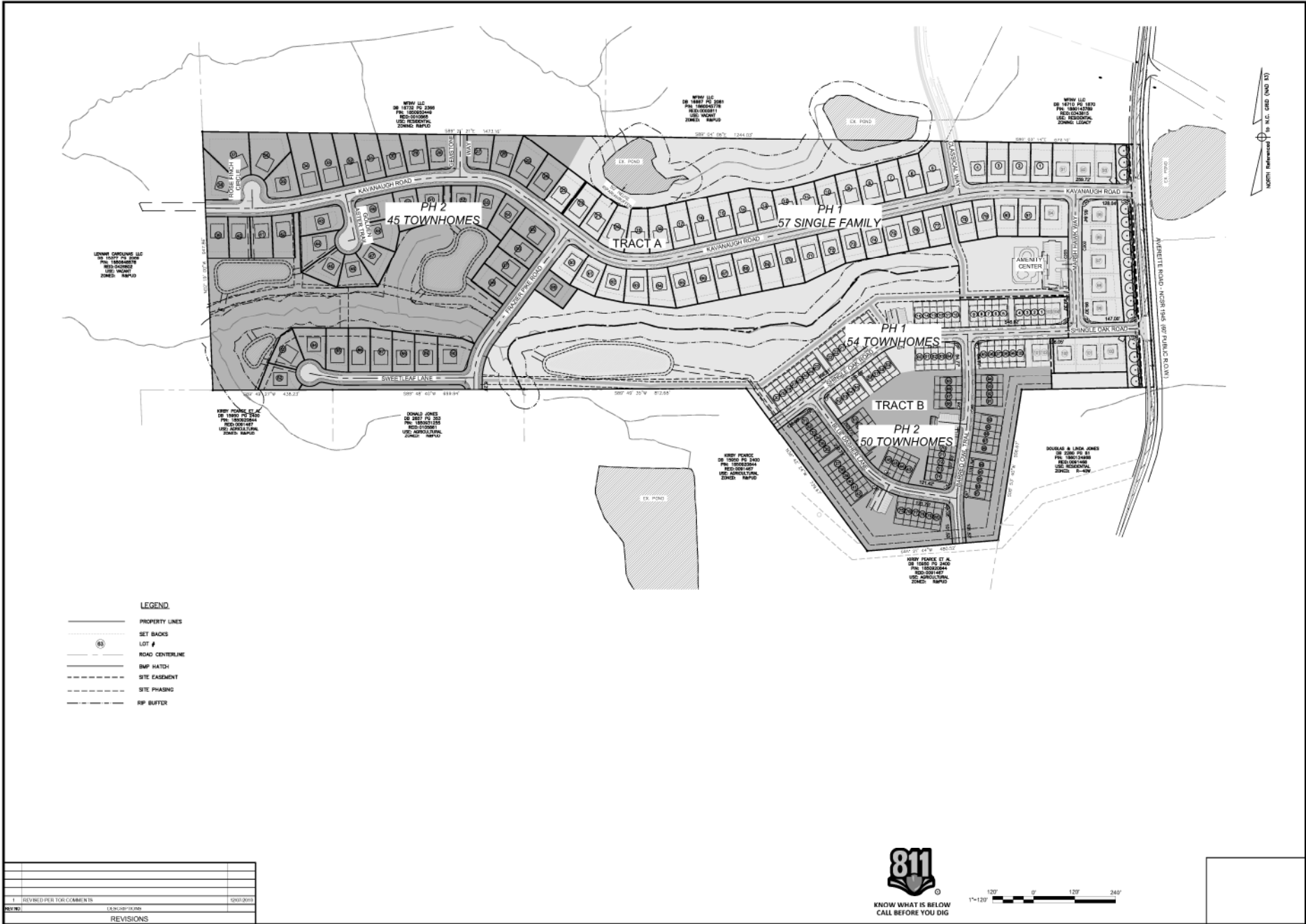
2532 Reliance Avenue, Apt. North Carolina 27039
Phone: (704) 791-1801
Fax: (704) 791-1802
Website: www.bateman-survey.com

OFFICE WATER EIGHT
WAKE COUNTY REG.
BOOK 17418
PG 1802

OFFICE SOWS ONE
WAKE COUNTY REG.
BOOK 17418
PG 1804

WPAW LLC
08.18.18 46.23.08
1809-27-0384
102 FORDSTOWN
JONING MAPLE

NORTH
Reference T to N.C. G.S. 100-103



NORTH
 NORTH Referenced to N.C. GRID (NAD 83)

LOWME CONSULTING LLC
 DE 1807 TO 2100
 PLS 10000044
 REC 1000447
 ZONED R-40P

NEW LLC
 DE 1807 TO 2100
 PLS 10000044
 REC 1000447
 ZONED R-40P

NEW LLC
 DE 1807 TO 2100
 PLS 10000044
 REC 1000447
 ZONED R-40P

NEW LLC
 DE 1807 TO 2100
 PLS 10000044
 REC 1000447
 ZONED R-40P

NEW HOME CO. LLC
 DE 1807 TO 2100
 PLS 10000044
 REC 1000447
 ZONED R-40P

DOUGLAS & LINDA JONES
 DE 1807 TO 2100
 PLS 10000044
 REC 1000447
 ZONED R-40P

NEW POND
 DE 1807 TO 2100
 PLS 10000044
 REC 1000447
 ZONED R-40P

DOUGLAS & LINDA JONES
 DE 1807 TO 2100
 PLS 10000044
 REC 1000447
 ZONED R-40P

NEW POND
 DE 1807 TO 2100
 PLS 10000044
 REC 1000447
 ZONED R-40P

- LEGEND**
- PROPERTY LINES
 - SET BACKS
 - ⑤ LOT #
 - ROAD CENTERLINE
 - BMP HATCH
 - - - SITE EASEMENT
 - - - SITE PHASING
 - - - RP BUFFER

REV#	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018



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 License #27039, No. C-2038



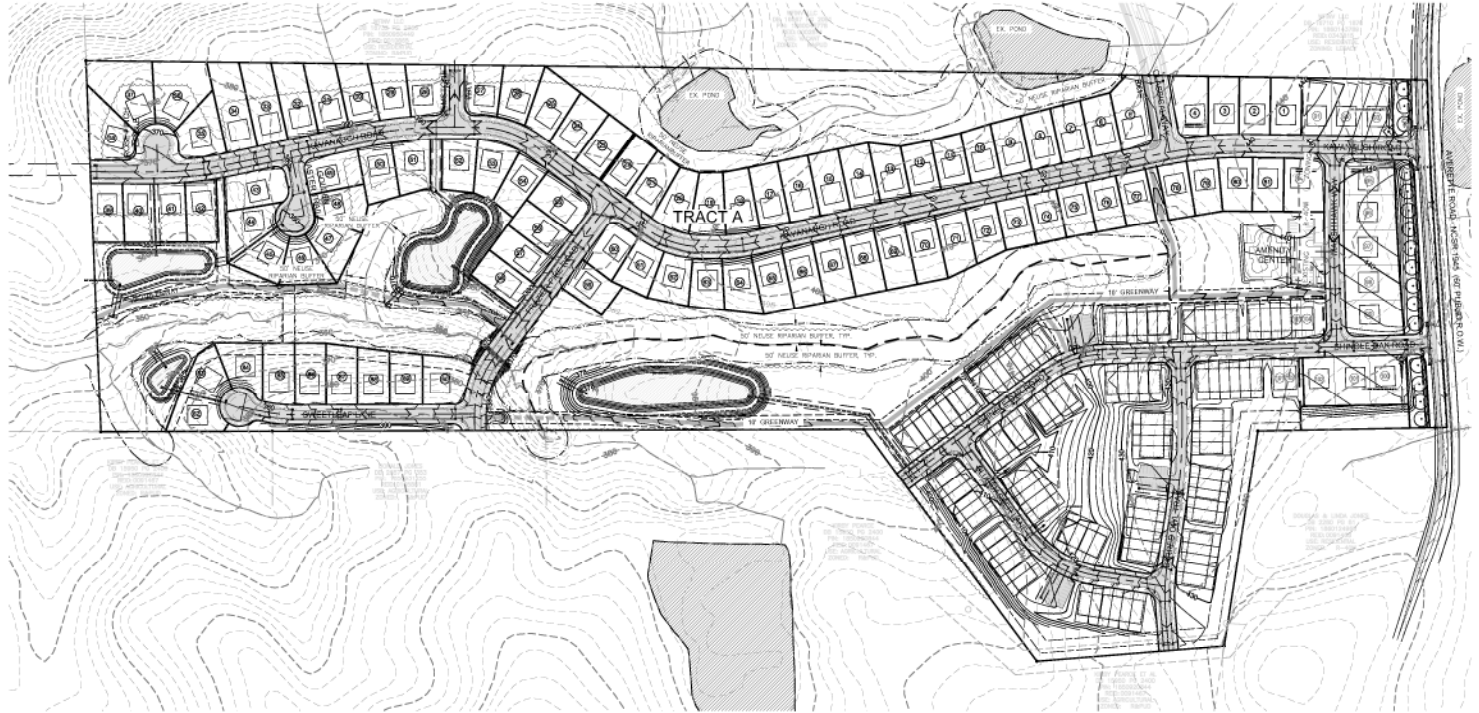
ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

PHASING MAP

Project Engineer	TSS
Designed By	RAJ
Drawn By	RAJ
Checked By	TSS
Scale	N/A
Date	10/09/18
Project Number	5704

SHEET
C304

ELIZABETH HEIGHTS



- LEGEND:**
- EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR

NO.	DESCRIPTION	DATE
1	REVISED PER FOR COMMENTS	12/07/2018
REVISIONS		



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 Phone: (434) 447-1181
 License # 10000, No. C-2018

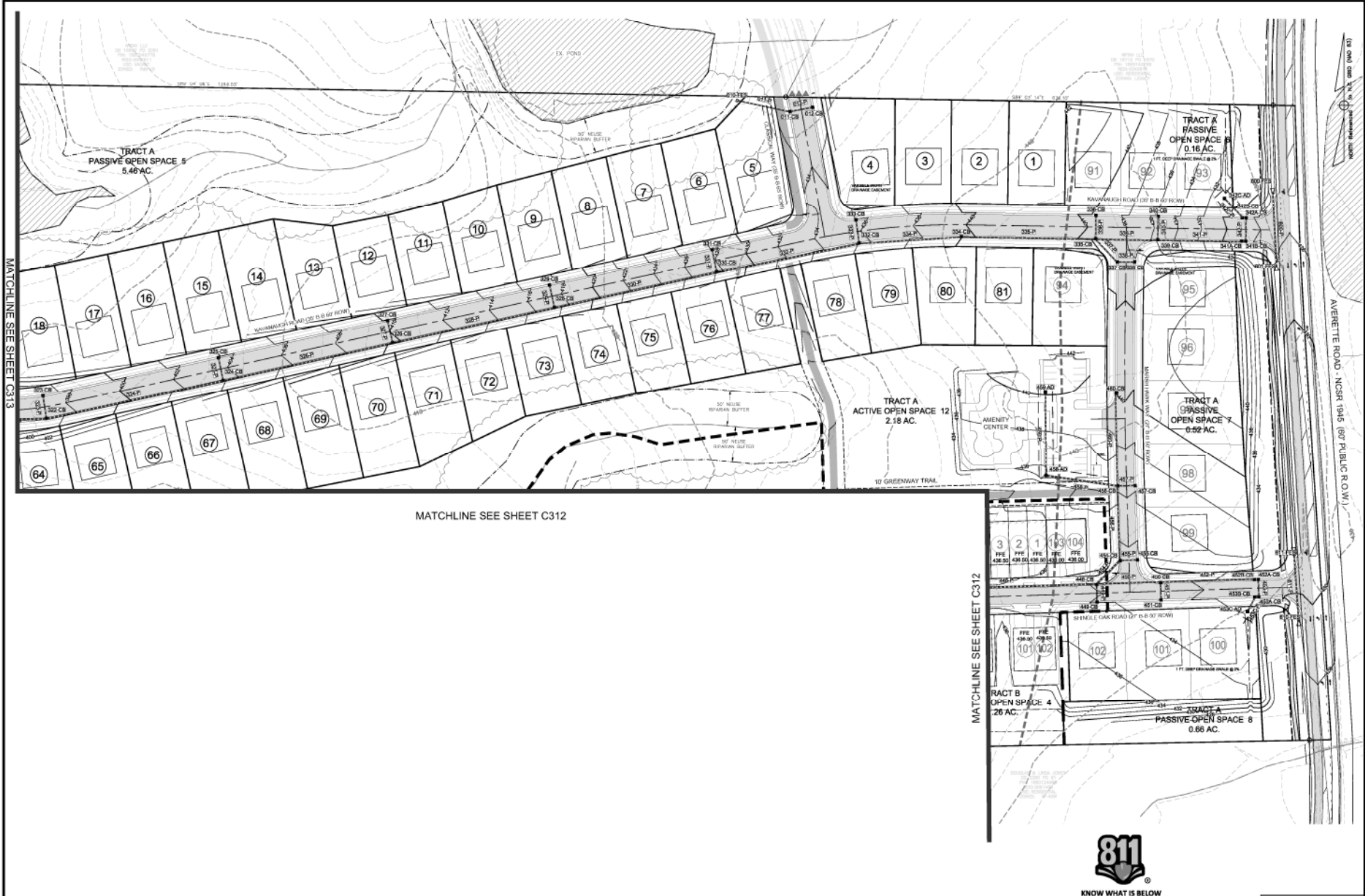


ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVENUE ROAD
 SUITE 207
 WAKE COUNTY, NC

OVERALL GRADING PLAN

Project Engineer	TSB
Designed By	LSB
Drawn By	LSD
Checked By	TSB
Scale	1"=80'
Date	10/09/18
Project Number	0704

SHEET
C310



REV	NO	DESCRIPTION	DATE
1		REVISED PER TOR COMMENTS	12/07/2018
REVISIONS			





Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Redstone Avenue, North Carolina 27619
 Phone: (919) 487-1101
 Fax: (919) 487-1101
 License No. C-2078



ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

GRADING PLAN

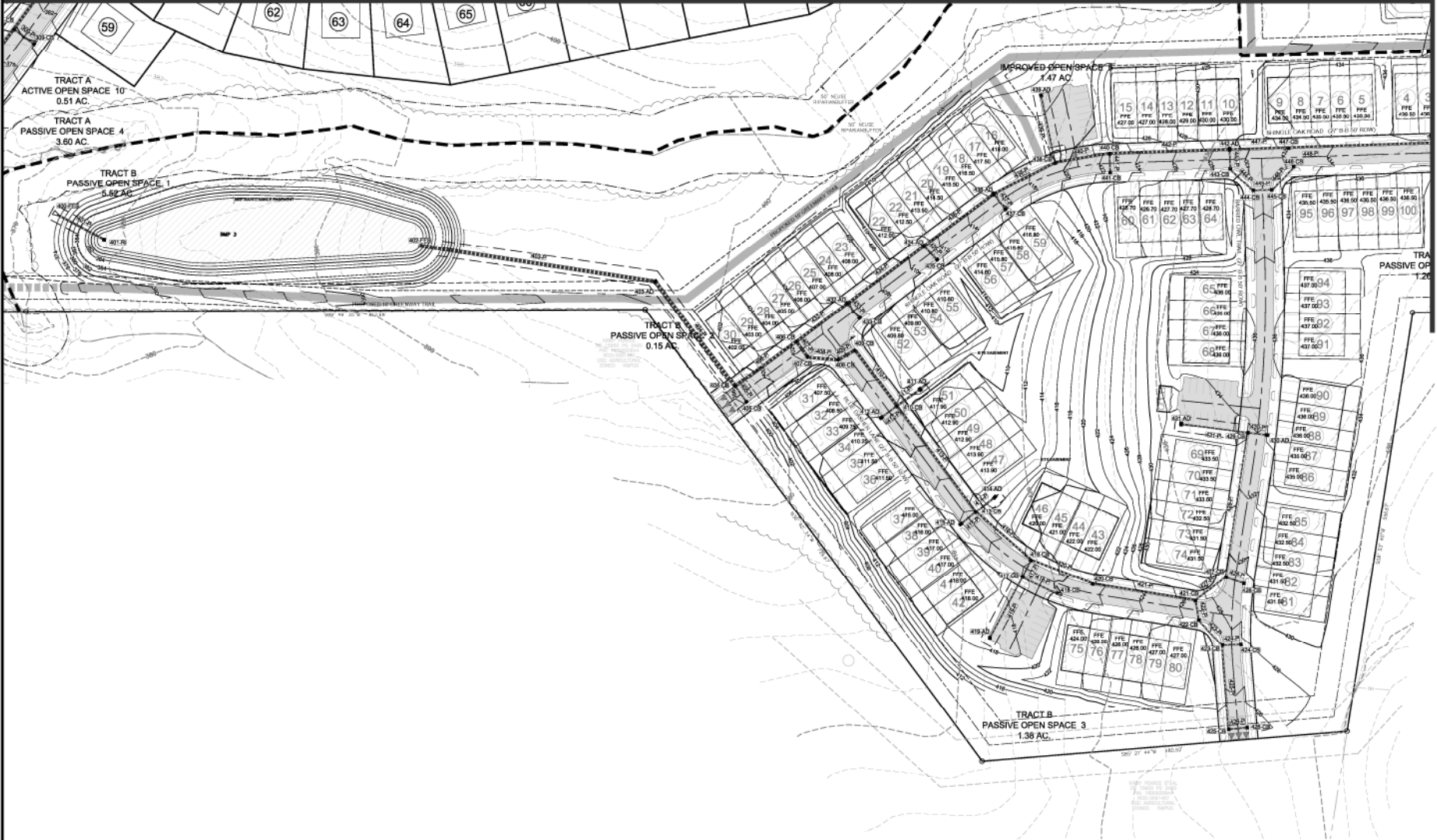
Project Engineer	TSB
Designed By	LSG
Drawn By	LSG
Checked By	TSB
Scale	1"=40'
Date	10/09/2018
Project Number	07004

SHEET
C311

MATCHLINE SEE SHEET C311

NORTH Reference To A.C. and (plus 30)

MATCHLINE SEE SHEET C311



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Relevance Avenue, North Carolina 27619
 Phone: (919) 487-1101
 Fax: (919) 487-1101
 License # 9890, No. C-2078



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVENUE F ROAD
 SUITE 207
 WAKE COUNTY, NC

GRADING PLAN

Project Engineer: TSB
 Designed By: LSG
 Drawn By: LSG
 Checked By: TSB
 Scale: 1"=40'

Date: 10/09/18
 Project Number: 0704

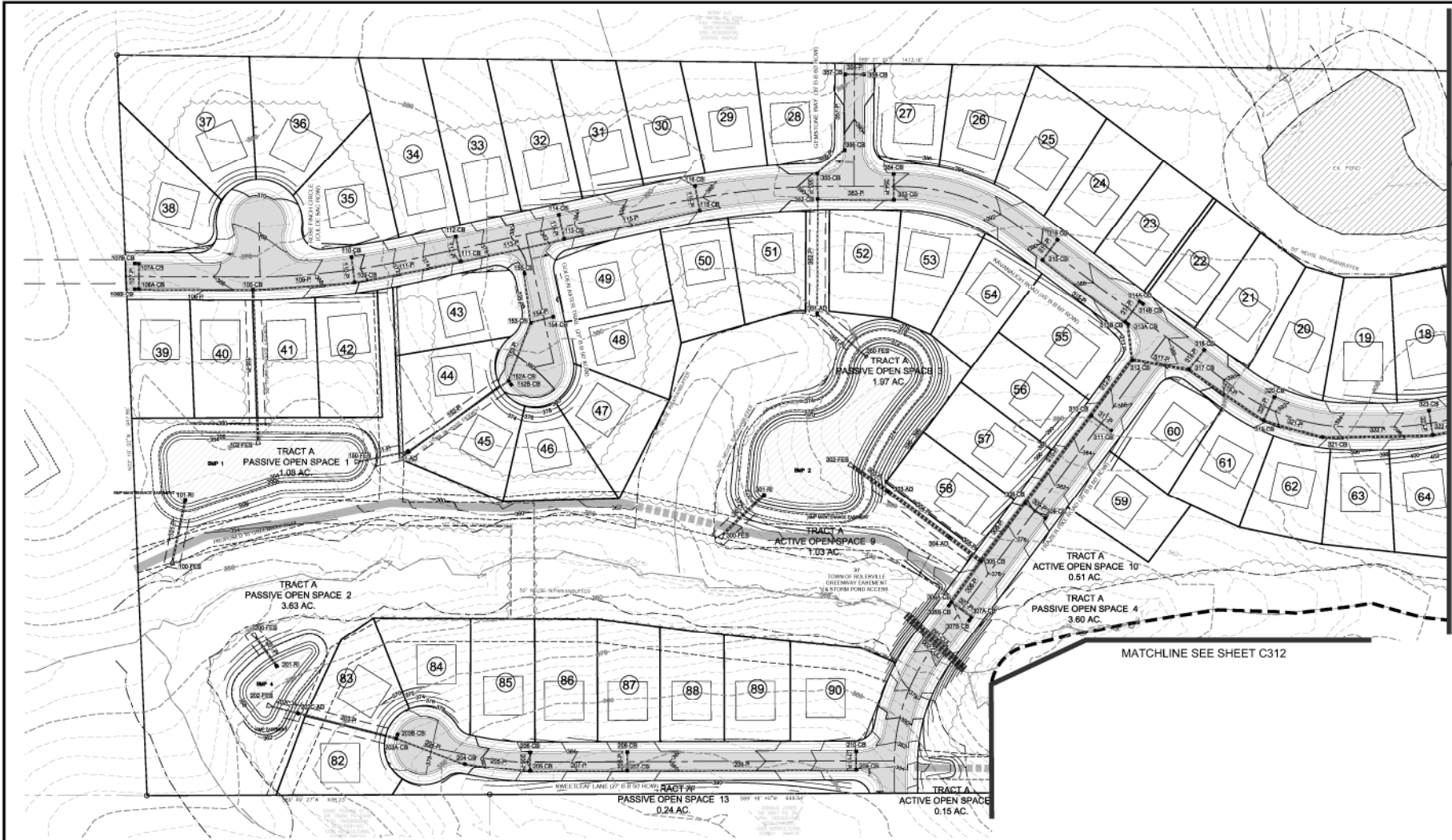
SHEET
C312

REV	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	10/07/2018



**KNOW WHAT IS BELOW
 CALL BEFORE YOU DIG**





NORTH Reference 1 in N.C. 800 (80)

MATCHLINE SEE SHEET C311

MATCHLINE SEE SHEET C312



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2524 Relevance Avenue, North Carolina 27519
 Phone: (919) 487-1181
 Fax: (919) 487-1181
 License: 27118, N.C. C-2738



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVENUE F ROAD
 SUITE 207
 WAKE COUNTY, NC

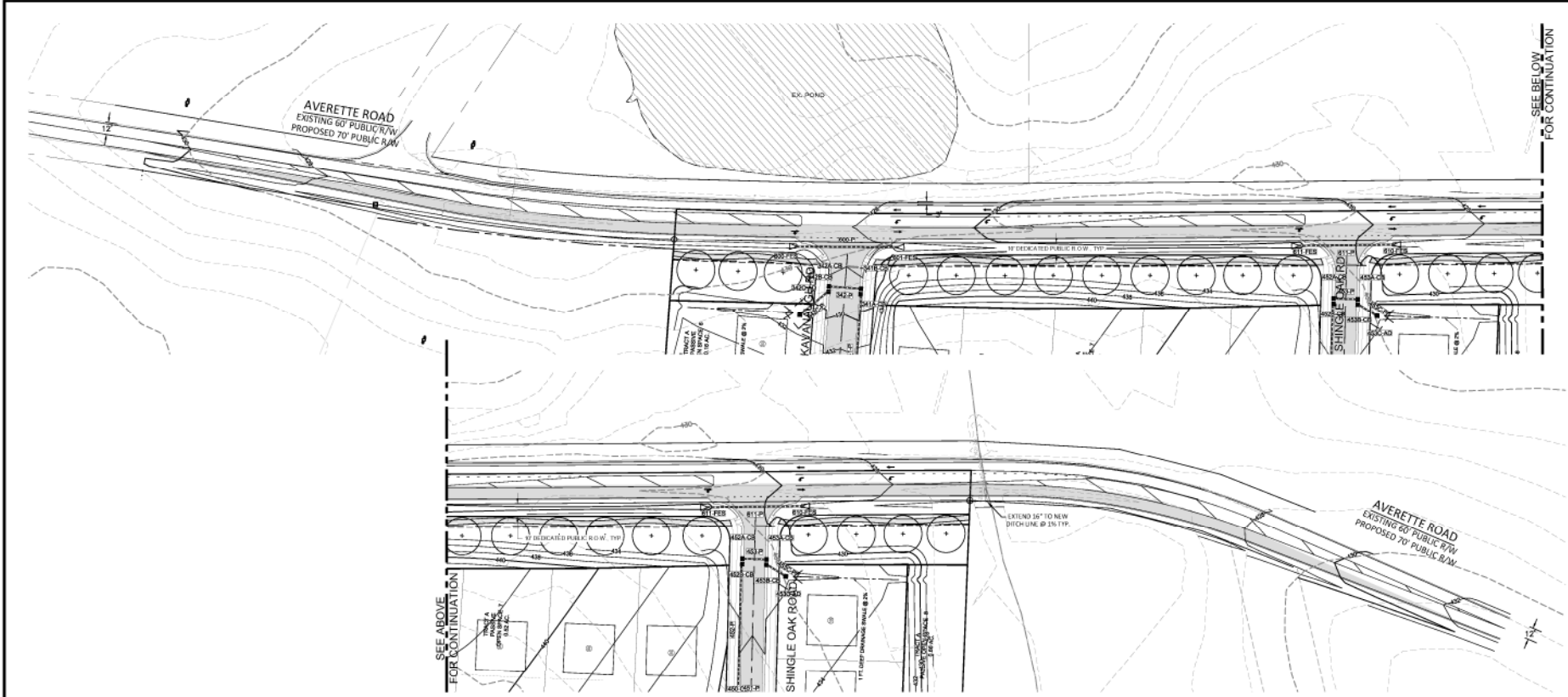
GRADING PLAN

Project Engineer	TSB
Designed By	LSG
Drawn By	LSG
Checked By	TSB
Scale	1"=40'
Date	10/09/18
Project Number	0704

SHEET
C313

REV	NO	DESCRIPTION	DATE
1		REVISED PER TOR COMMENTS	10/07/2018





SEE BELOW FOR CONTINUATION

SEE ABOVE FOR CONTINUATION



NO.	REVISIONS	DATE
1	REVISED PER FOR COMMENTS	12/07/2018



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2534 Relevance Avenue, North Carolina 27639
 Phone: (919) 487-1101
 Fax: (919) 487-1101
 License #27639, No. C-2378



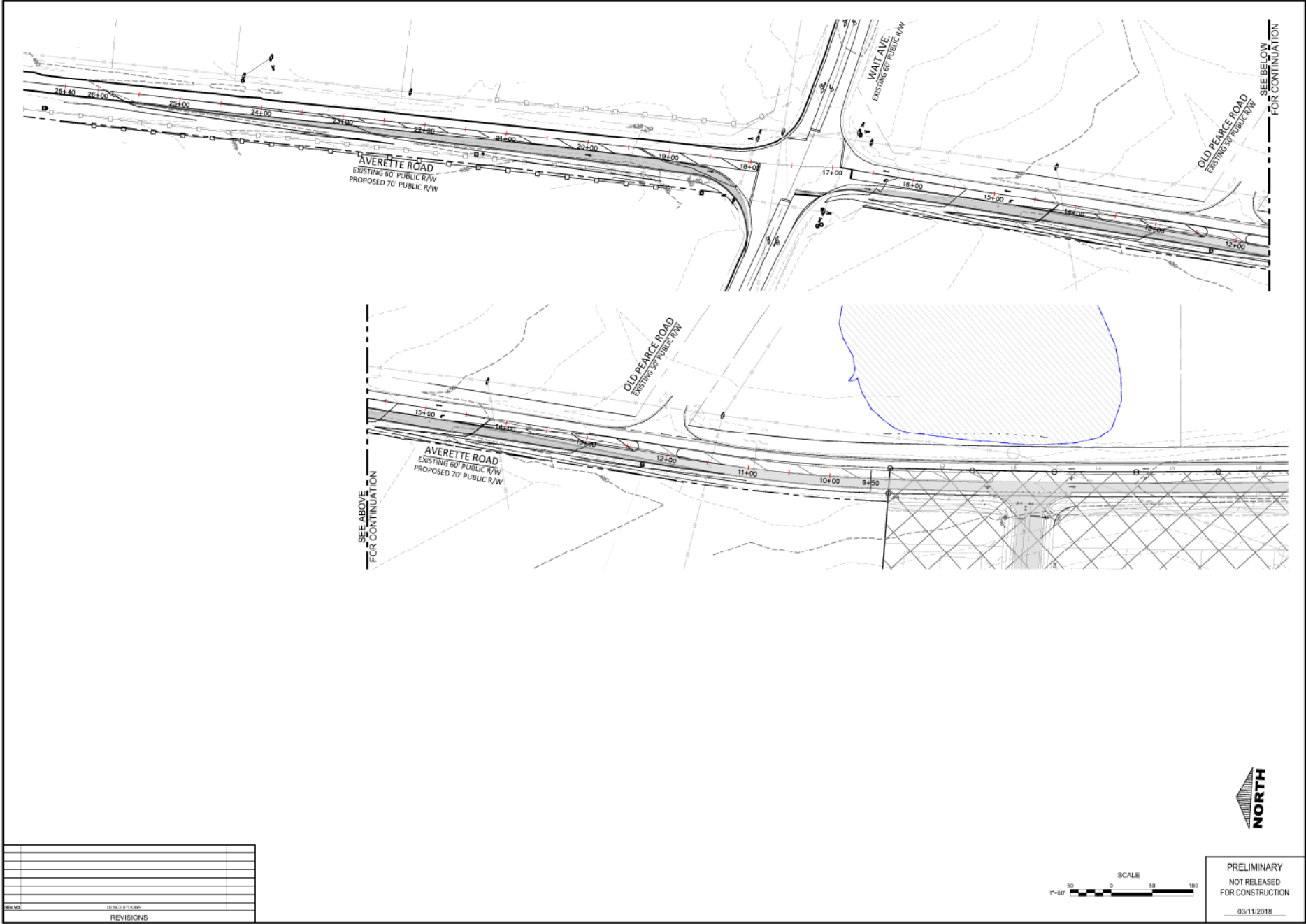
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVERETTE ROAD
 WAKE COUNTY, NC 27707
 WAKE COUNTY, NC

AVERETTE ROAD
GRADING PLAN

Project Engineer	TSB
Designed By	RAJ
Drawn By	RAJ
Checked By	TSB
Scale	N/D
Date	10/30/18
Project Number	57204

SHEET
C316

ELIZABETH HEIGHTS



REV	DESCRIPTION



PRELIMINARY
 NOT RELEASED
 FOR CONSTRUCTION
 03/11/2018



ELIZABETH HEIGHTS

Bateman Civil Survey Company
 Engineers • Surveyors • Planners

2533 Reference Avenue, North Carolina 27709
 Phone: (919) 487-1101
 Fax: (919) 487-1101
 License: IC26215 (SRM), No. C-0378



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

AVERETTE RD. / WAIT AVE.
GRADING PLAN

Project Engineer	TSB
Designed By	RAJ
Drawn By	SAJ
Checked By	TSB
Scale	N/A
Date	03/11/2018
Project Number	17046

SHEET
C317



- WAKE COUNTY BASIN REMOVAL SEQUENCE:**
1. SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL ENGINEER/CONSULTANT TO DETERMINE IF A BASIN CAN BE REMOVED.
 2. INSTALL SET FENCE OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
 3. REMOVE BASIN(S) AND ASSOCIATED TEMPORARY DIVERSION DETACHES. IF COLLECTOR PIPES NEED TO BE EXTENDED, PERFORM THIS OPERATION AT THIS TIME. FINE GRADE AREA IN PREPARATION FOR PDS SEEDING.
 4. PERFORM SEEDING PREPARATION, SOIL, MULCH AND ASPHALT TACK AND RESULTING BARE AREAS IMMEDIATELY.
 5. INSTALL VELOCITY DISSEMINATOR AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
 6. WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL ENGINEER/CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVISE ON WHAT SITE CAN BE PLACED A FUTURE USE OF COMPLETION.

LEGEND:

- SET FENCE
- TREE PROTECTION FENCE
- SET FENCE OUTLET
- EX COLLECTOR LINE
- PROP CONTOUR LINE
- LIMITS OF RESTORANCE
- CONSTRUCTION DISTANCE
- TEMPORARY DIVERSION DETACH
- CONCRETE WORKMAN
- STOCKPILE AREA
- ROCK CHECK DAM

TOTAL DISTURBED AREA =
194,345 SF
44.6 AC

REV	DATE	DESCRIPTION



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Relevance Avenue, North Carolina 27639
 Phone: (919) 487-1101
 Fax: (919) 487-1101
 License # 9896, No. C-2078

ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVENUE F ROAD
 WAKE COUNTY, NC 27607
 WAKE COUNTY, NC

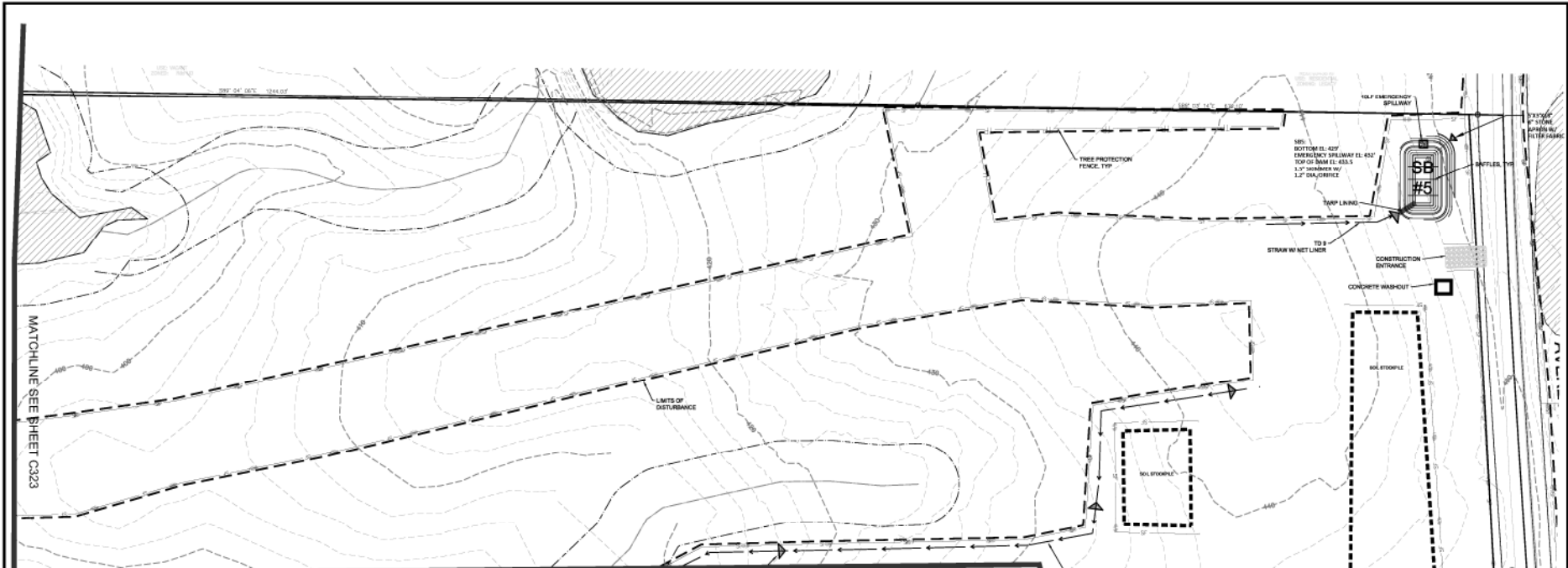
OVERALL

EROSION CONTROL PLAN

Project Engineer	TSS
Designed By	LSG
Drawn By	LSG
Checked By	TSS
Scale	1"=80'
Date	10/09/18
Project Number	0704

SHEET

C320



MATCHLINE SEE SHEET C322

SKIMMER BASIN SUMMARY

Basin	Area	Area	G _s	25yr. (in/hr)	Q10 (cfs)	Required Storage	Required SA (sf)	Depth	Width	Length	Width	Length	Width	Length	Storage	SA (sf)	Size (in)	Factor	*Skimmer Office Diameter (in)	Flow Depth	*Weir
Stage 1 & 2 Skimmer Basins																					
1	4.33 ac	7.32 ac	0.50	7.22	26.43	13,180 cf	11,900		Dimensions per BMP #14 design				48,270 cf	17,207	2.5		2.1	0.50'	27.0'		
2	4.43 ac	7.41 ac	0.50	7.22	26.97	13,450 cf	11,730		Dimensions per BMP #2 design				83,855 cf	23,460	2.5		2.1	0.50'	26.0'		
3	18.92 ac	18.92 ac	0.50	7.22	68.31	34,060 cf	29,720		Dimensions per BMP #4 design				106,376 cf	36,340	4.0		3.0	0.50'	70.0'		
4	2.17 ac	2.17 ac	0.50	7.22	7.83	3,910 cf	3,410		Dimensions per BMP #4 design				11,992 cf	4,739	1.5		1.3	0.50'	19.0'		
5	1.26 ac	1.68 ac	0.50	7.22	6.98	3,090 cf	2,690	3.0'	28'	66'	19'	56'	31'	74'	5,490 cf	2,738	1.5		1.2	0.50'	19.0'
6	4.56 ac	4.56 ac	0.50	7.22	16.46	8,210 cf	7,100	3.0'	51'	111'	42'	102'	60'	129'	16,993 cf	7,200	2.0		1.6	0.50'	17.0'

Note:
 *Skimmer and skimmer offices sizes assume a drawdown time of 3 days using Faircloth Skimmer method for determining skimmer and office size.
 *Volume calculation does not include freeboard
 *Add 1.0' to depth to obtain overall depth of basin
 *Minimum length of weir is 10'

DIVERSION DITCH LINER SUMMARY - Elizabeth Heights													
Temporary Diversion #	Total Area (ac)	Total Length	Begin Elevation	End Elevation	Δ Elevation	Tc	Slope	C	Intensity	Q	Depth	Shear	Liner
Stage 1 Diversions													
1	0.42	290.0	390.0	390.0	0.0	2.80	0.036	0.5	7.22	1.36	0.37	0.47	Straw w/ Net
2	1.58	726.0	389.5	362.0	27.5	4.40	0.036	0.5	7.22	5.76	0.54	1.28	Straw w/ Net
3	0.50	179.0	389.5	378.0	11.5	1.22	0.064	0.5	7.22	1.75	0.32	1.28	Straw w/ Net
4	0.80	385.0	390.5	378.0	12.5	2.86	0.032	0.5	7.22	2.96	0.44	0.89	Straw w/ Net
5	7.73	1634.0	443.5	398.0	45.5	9.24	0.028	0.5	7.22	27.60	1.04	1.81	Synthetic Mat
6	7.30	1550.0	425.5	384.0	41.5	9.01	0.027	0.5	7.22	26.34	1.02	1.70	Synthetic Mat
7	0.95	862.0	386.0	364.0	22.0	5.84	0.026	0.5	7.22	3.43	0.46	0.76	Straw w/ Net
8	0.33	585.0	392.0	364.0	28.0	3.27	0.050	0.5	7.22	1.18	0.29	0.90	Straw w/ Net
9	0.22	185.0	442.5	434.0	8.5	1.42	0.046	0.5	7.22	0.86	0.25	0.72	Straw w/ Net
10	0.81	424.0	436.0	429.5	6.5	4.12	0.015	0.5	7.22	2.63	0.50	0.48	Straw w/ Net

LEGEND:

- SILT FENCE
- TREE PROTECTION FENCE
- SETBACK DITCH
- EMERGENCY SHELTERWAY
- PROP CONTOUR LINE
- LIMITS OF DISTURBANCE
- CONSTRUCTION ENTRANCE
- TEMPORARY DIVERSION DITCH
- CONCRETE WASHOUT
- SOLE STOOPLE
- ROCK CHECK DAM

REV	DATE	DESCRIPTION



NORTH CAROLINA PROFESSIONAL SURVEYORS & ENGINEERS
 STATE BOARD OF SURVEYORS & ENGINEERS
 EXPIRES 12/31/2024

Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Relevance Avenue, Apex, North Carolina 27539
 Phone: (919) 236-7100
 Fax: (919) 236-7101
 License # 9896, No. C-2078

ELIZABETH HEIGHTS CONSTRUCTION DRAWINGS

EROSION CONTROL PLAN

Project Engineer: **TSB**
 Designed By: **LRG**
 Drawn By: **LDG**
 Checked By: **TSB**
 Scale: **1"=40'**
 Date: **10/09/18**
 Project Number: **07004**

SHEET
C321



Bateman Civil Survey Company
Engineers • Surveyors • Planners
2534 Reliance Avenue, Apex, North Carolina 27539
Phone: 919.216.1801
Fax: 919.216.1807
Website: www.batemannc.com



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
1205 AVENUE F ROAD
WAKE COUNTY, NC 27159

EROSION CONTROL PLAN

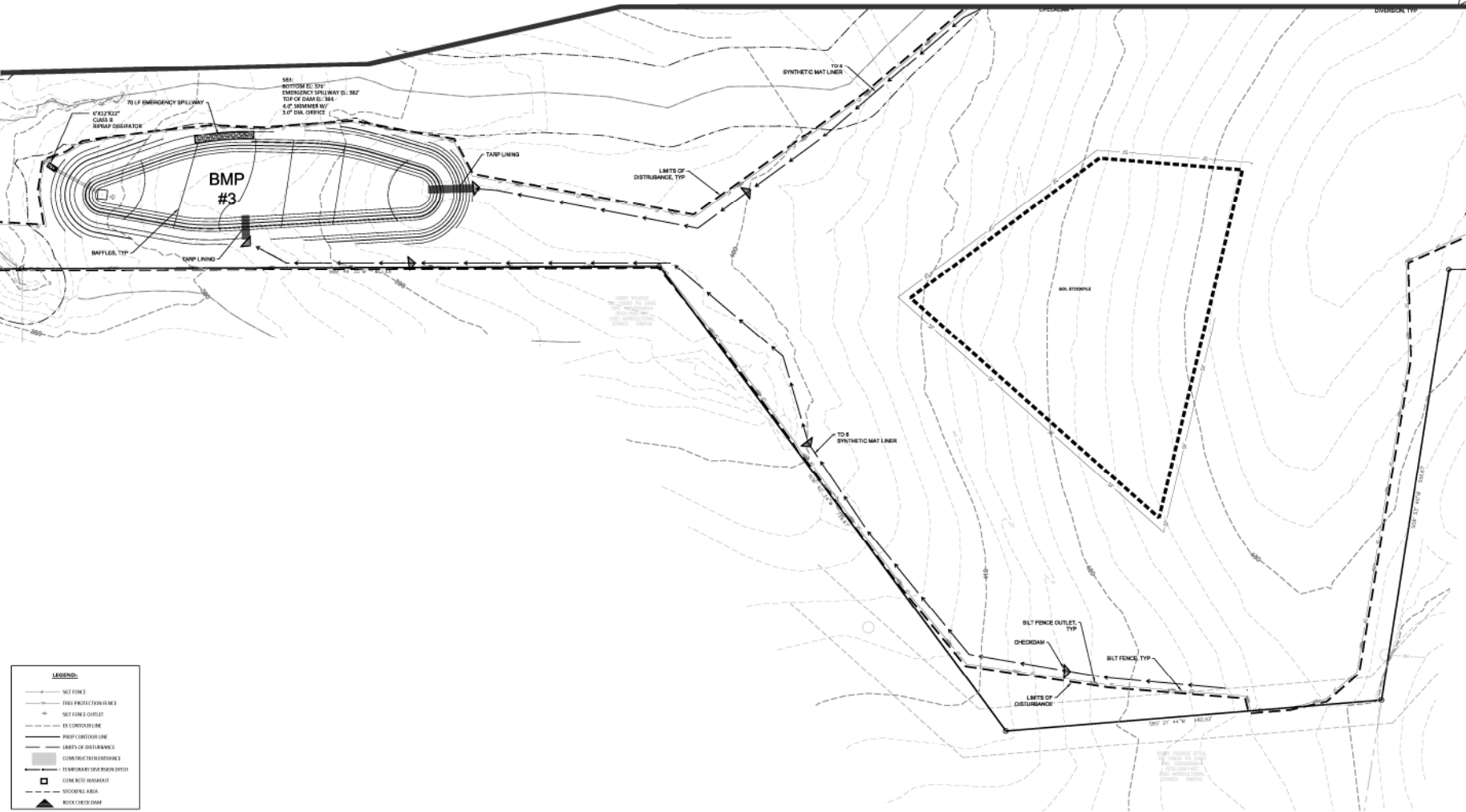
Project Engineer: TSB
Designed By: LSG
Drawn By: LSG
Checked By: TSB
Scale: 1"=80'
Date: 10/09/18
Project Number: 07204

SHEET
C322

MATCHLINE SEE SHEET C323

NORTH Reference To N.C. GRID (NAD 83)

MATCHLINE SEE SHEET C321



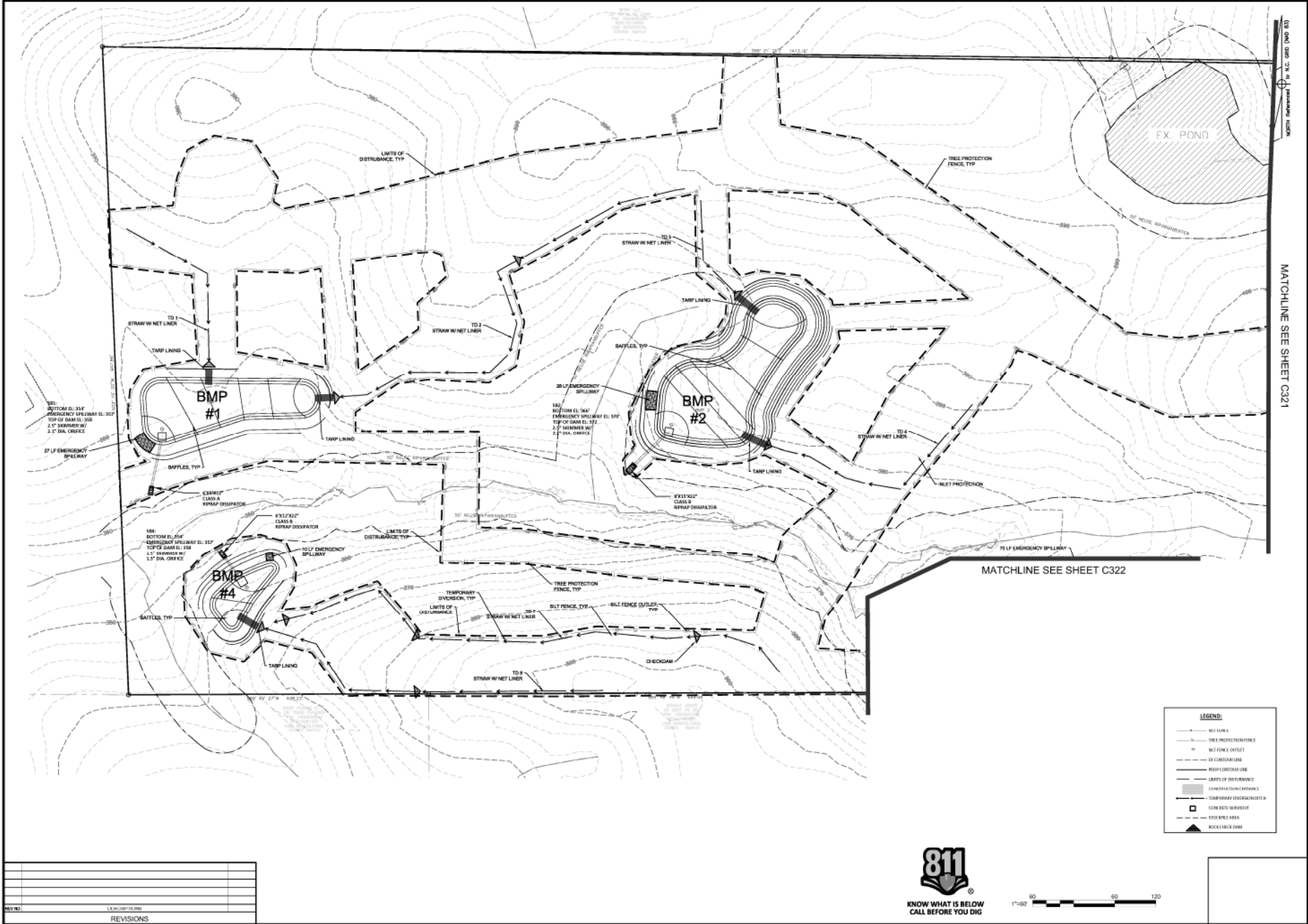
LEGEND:

—	SET FENCE
—	TEMP PROTECTION FENCE
+	SET FENCE OUTLET
---	EX CENTERLINE
---	PROP CENTERLINE
---	LIMITS OF DISTURBANCE
---	CONSTRUCTION DISTURBANCE
---	TEMPORARY EROSION CONTROL
□	CONE RITE MARKERS
---	STOCKPILE AREA
▲	ROCK CHECK DAM

REV	NO	DATE	DESCRIPTION

REVISIONS





Bateman Civil Survey Company
Engineers • Surveyors • Planners
2531 Relevance Avenue, North Carolina 27639
Phone: 919.286.7100
Fax: 919.286.7101
Website: www.batemannc.com

ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

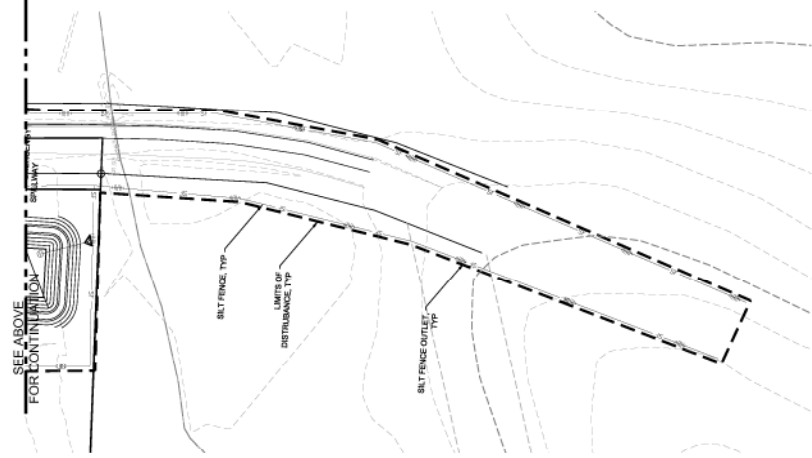
EROSION CONTROL PLAN

Project Engineer:	TSS
Designed By:	LGS
Drawn By:	LGS
Checked By:	TSS
Scale:	1"=60'
Date:	10/09/18
Project Number:	0704

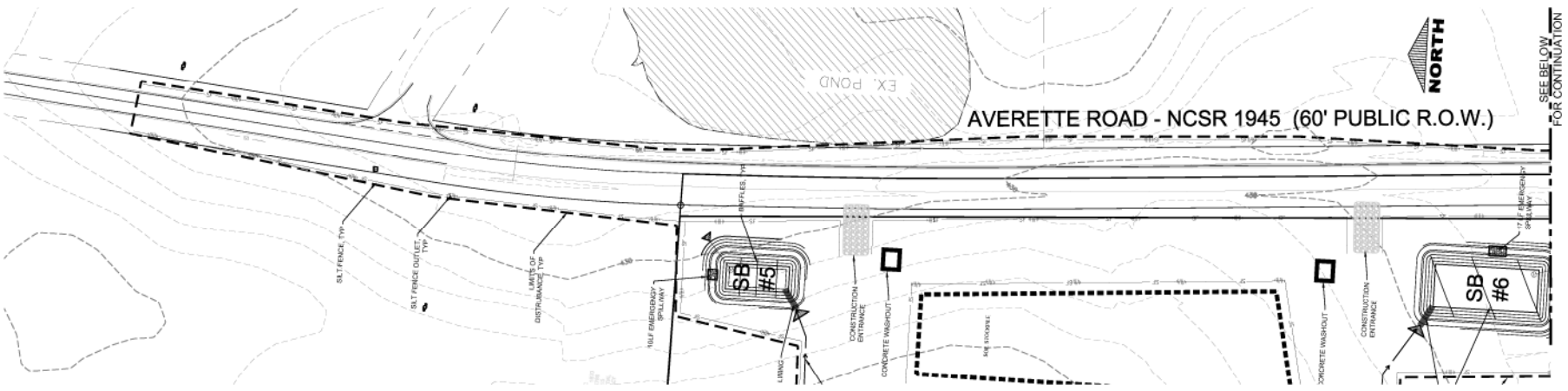
SHEET
C323

REV#	DATE	DESCRIPTION

REVISIONS



SEE ABOVE FOR CONTINUATION



SEE BELOW FOR CONTINUATION

LEGEND:

- SILT FENCE
- - - TREE PROTECTION FENCE
- - - SILT FENCE OUTLET
- - - EX. COMPOUR LINE
- TOP OF CONSTRUCTION
- DISTURBANCE LIMITS
- - - CONSTRUCTION DISTURBANCE
- TEMPORARY DEWATERING DITCH
- ▣ CONCRETE WASHOUT
- ▣ STOCKPILE AREA
- ▣ ROCK CHECK DAM

SCALE
1"=50'

50 0 50 100



Bateman Civil Survey Company
Engineers • Surveyors • Planners
2531 Reliance Avenue, North Carolina 27639
WAKE COUNTY, NC
Phone: 919.856.9900
FAX: 919.856.9901
WEBSITE: www.bateman-survey.com



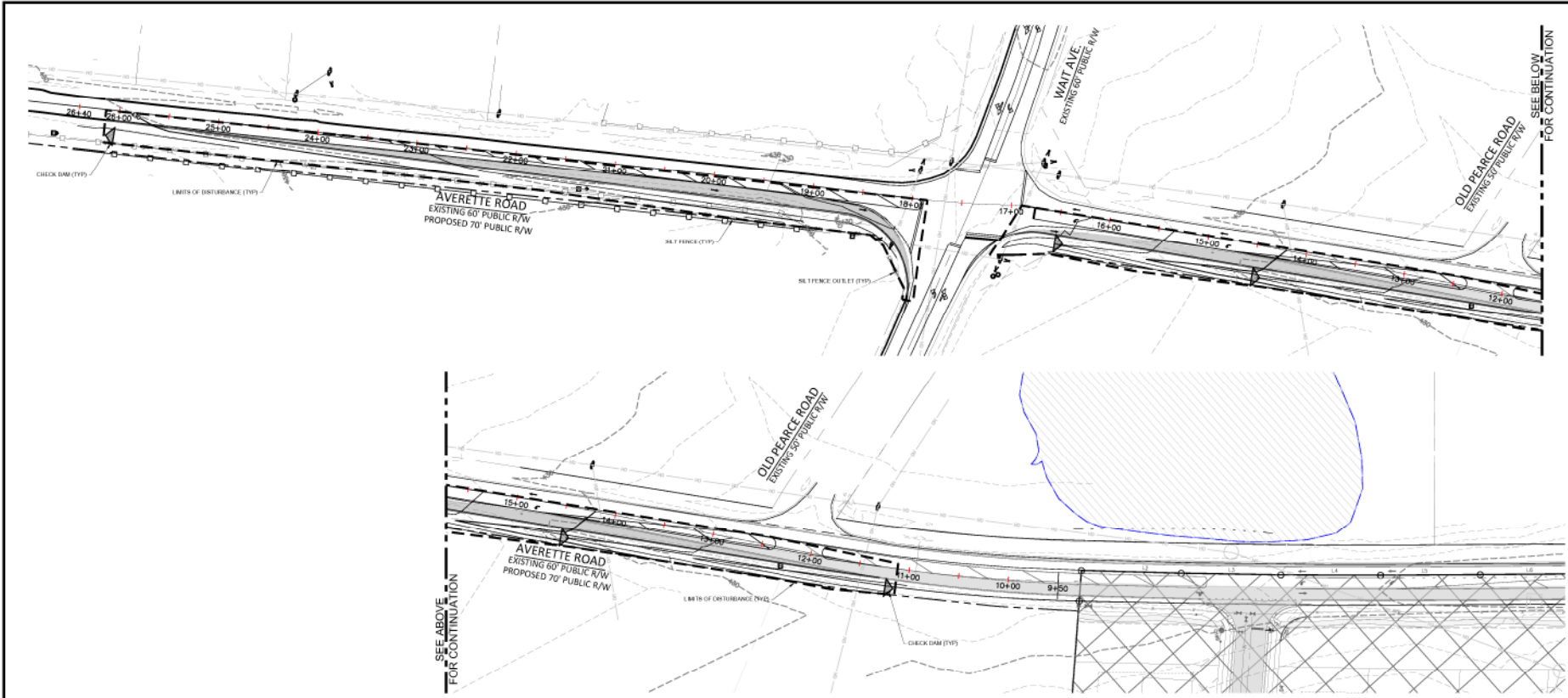
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
1226 AVERETTE ROAD
WAKE COUNTY, NC 27607
WAKE COUNTY, NC

AVERETTE ROAD
EROSION CONTROL PLAN

Project Engineer: **TSS**
Designed By: **SAJ**
Drawn By: **RAJ**
Checked By: **TSS**
Scale: **N/D**
Date: **10/09/18**
Project Number: **5794**

SHEET
C324

ELIZABETH HEIGHTS



SEE ABOVE FOR CONTINUATION

SEE BELOW FOR CONTINUATION

LEGEND:

- SET FENCE
- TREE PROTECTION FENCE
- SET FENCE OUTLET
- EX CENTERLINE
- PROP CENTERLINE
- LIMITS OF DISTURBANCE
- CONSTRUCTION DISTURBANCE
- UNDESIGNED DRAINAGE DITCH
- CONCRETE WASHOUT
- STOCKPILED AREA
- ROCK CHECK DAM

DISTURBED AREA (THIS SHEET ONLY) =
55,643 SF
1.28 AC



REV	DESCRIPTION

PRELIMINARY
NOT RELEASED
FOR CONSTRUCTION
03/11/2018



Bateman Civil Survey Company
Engineers • Surveyors • Planners
2535 Redwood Avenue, North Carolina 27019
Phone: 703.625.1101
Fax: 703.625.1101
www.bateman-cs.com



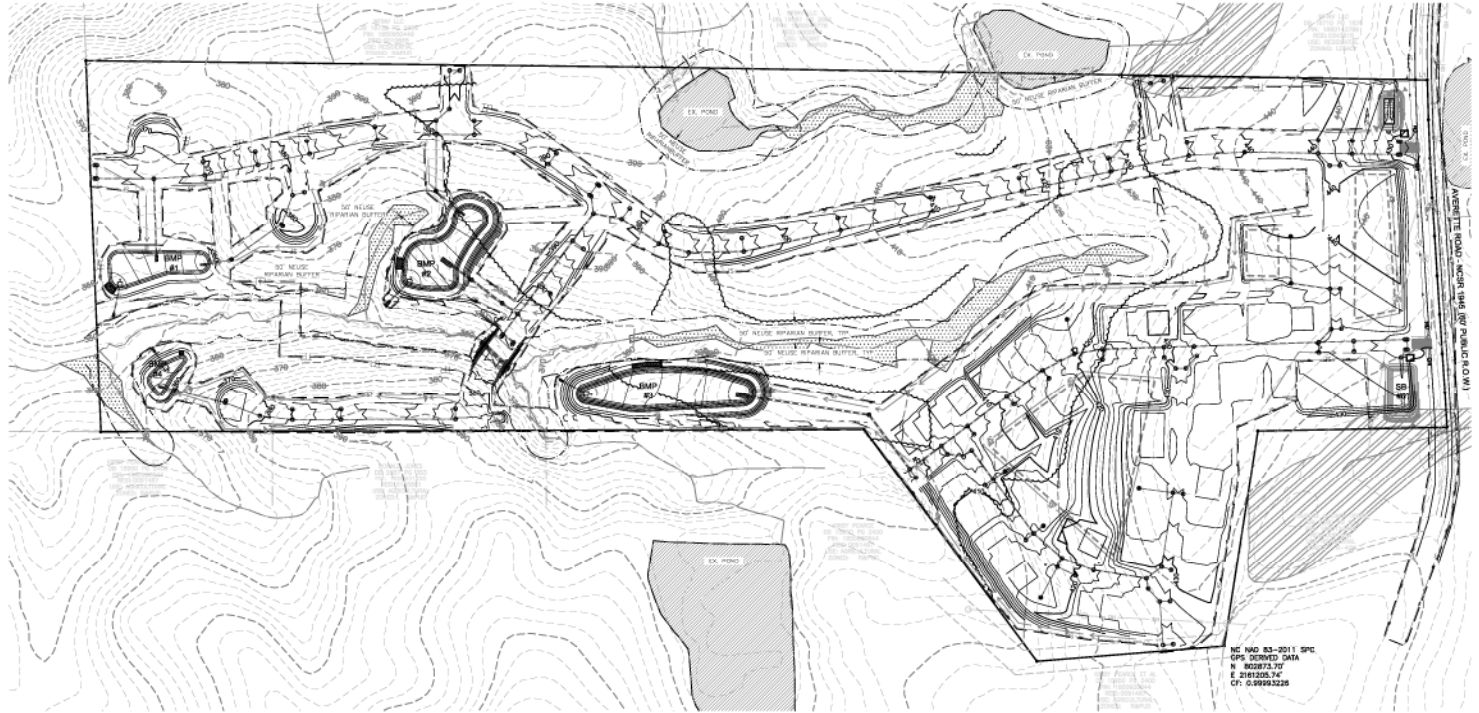
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
1026 AVERETTE ROAD
WAKE COUNTY, NC 27157
WAKE COUNTY, NC

AVERETTE RD. / WAIT AVE.
EROSION CONTROL PLAN

Project Engineer	TSB
Designed By	RAJ
Drawn By	RAJ
Checked By	TSB
Scale	N/A
Date	03/11/2018
Project Number	17046

SHEET
C324A
Of: ---

ELIZABETH HEIGHTS



NC 83-2011 SPC
 OPS DERIVED DATA
 BY 8/28/12 JF
 E 2181200.742
 CT 10.98993226

North Arrow
 NAD 83
 1" = 400'

(WORK DRAWING) THIS DESIGN - OPION ALL RIGHTS

LEGEND:

- SILT FENCE
- TREE PROTECTION FENCE
- SILT FENCE OUTLET
- EX. CONTOUR LINE
- PROP. CONTOUR LINE
- LANDS OF DISTURBANCE
- CONSTRUCTION DISTURBANCE
- STORM-WATER INFILTRATION DEVICE
- CONCRETE WASHOUT
- STOCKPILE AREA
- BULLET PROTECTION
- ▲ ROCK CHECK DAM

TOTAL DISTURBED AREA =
 194,3458 SF
 44.6 AC

REV	DESCRIPTION

REVISIONS



KNOW WHAT IS BELOW
 CALL BEFORE YOU DIG



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2534 Rebalance Avenue, North Carolina 27639
 Phone: (817) 647-1181
 FAX: (817) 647-1181
 LICENSE # 1181, N.C. 2019



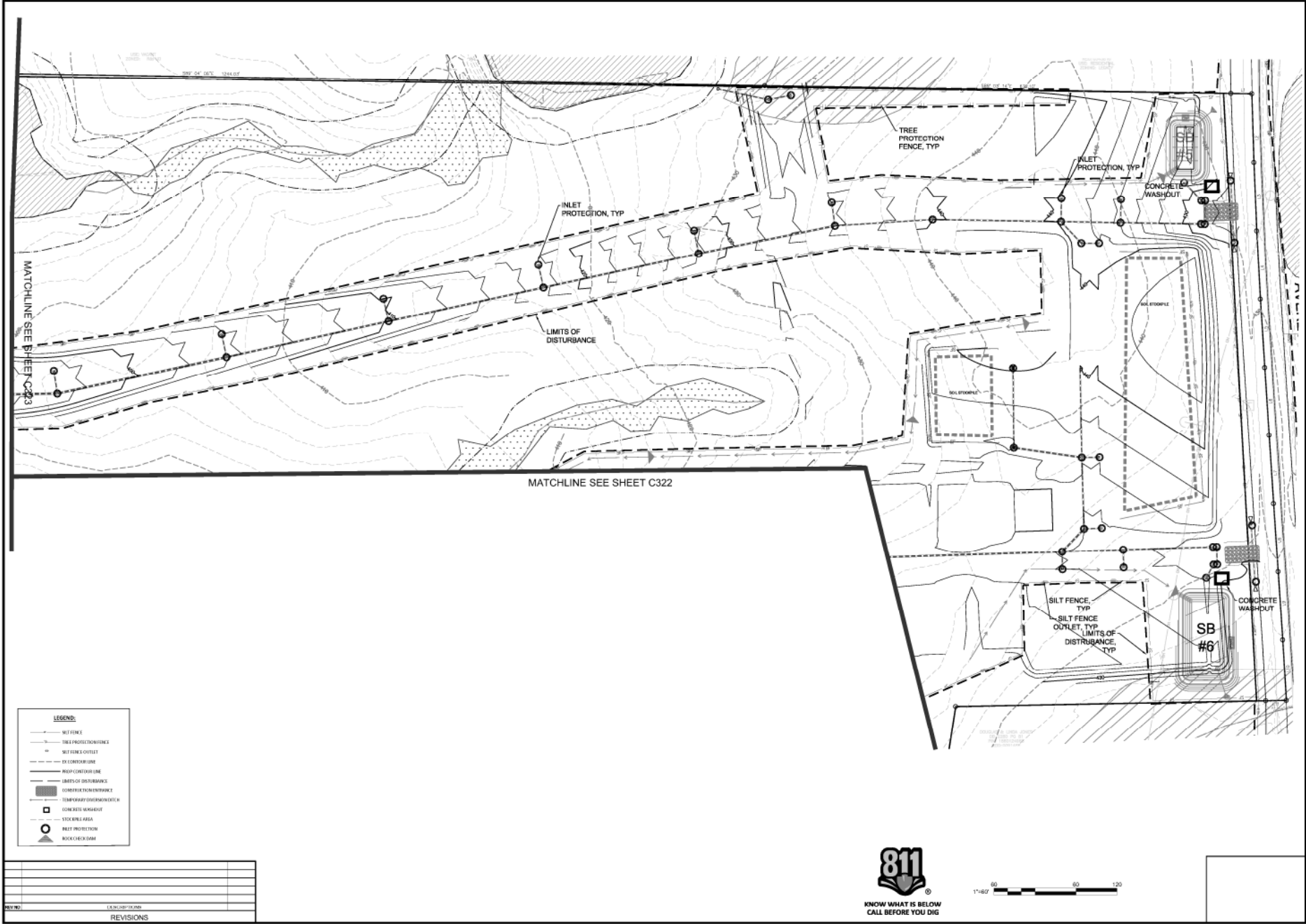
**ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS**

1028 AVENUE ROAD
 WAKE COUNTY, NC 27707

**OVERALL
 EROSION CONTROL PLAN**

Project Engineer	TSB
Designed By	LSB
Drawn By	LSB
Checked By	TSB
Scale	1"=80'
Date	10/09/18
Project Number	0708

SHEET
C325



LEGEND:

- SILT FENCE
- - - TREE PROTECTION FENCE
- SILT FENCE OUTLET
- - - EX. CONTOUR LINE
- PROP. CONTOUR LINE
- - - LIMITS OF DISTURBANCE
- ▭ CONCRETE WASHOUT
- ▭ STOCKPILE
- SILT STOCKPILE
- SILT FENCE OUTLET TYP
- - - LIMITS OF DISTURBANCE TYP
- TREE PROTECTION
- ROCK CHECK DAM

REV. NO.	DATE	DESCRIPTION

REVISIONS



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
2531 Relevance Avenue, Apex, North Carolina 27539
 Phone: (919) 271-1811
 Fax: (919) 271-1811
 License # 9990, No. C-2078

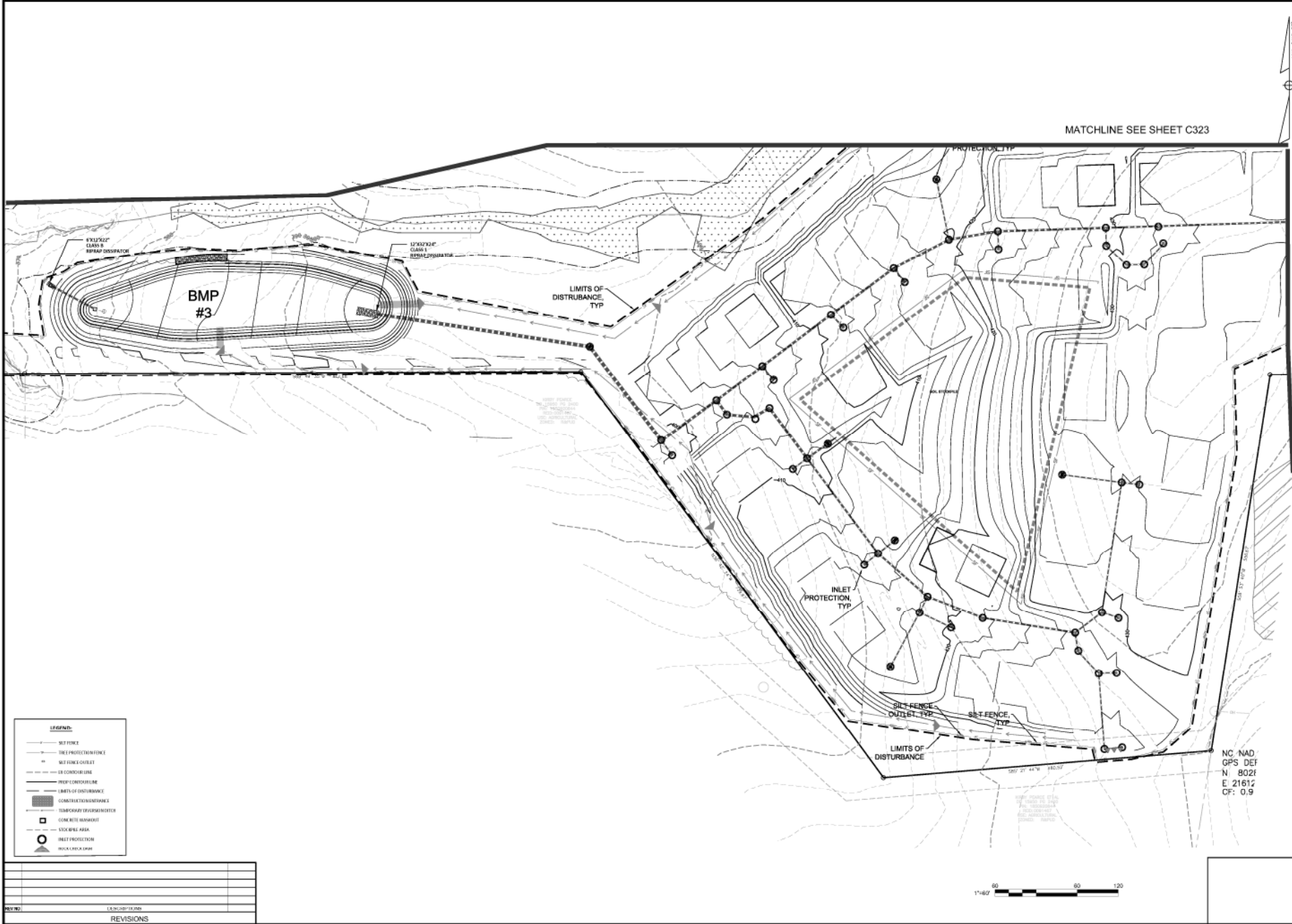
ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

1205 AVENUE F ROAD
 ELIZABETH HEIGHTS, NC 27607
 WAKE COUNTY, NC

EROSION CONTROL PLAN

Project Engineer	TSS
Designed By	LSD
Drawn By	LSD
Checked By	TSS
Scale	1"=40'
Date	10/09/18
Project Number	0704

SHEET
C326



LEGEND:

- SILT FENCE
- TREE PROTECTION FENCE
- SILT FENCE OUTLET
- DE CONTOUR LINE
- DEVELOPMENT FOOTPRINT
- LIMITS OF DISTURBANCE
- CONSTRUCTION DISTURBANCE
- TEMPORARY OVERFLOW CENTER
- CONCRETE BANKHOLE
- STOCKPILE AREA
- INLET PROTECTION
- INLET CHECK DAM

REV	DATE	DESCRIPTION

REVISIONS

MATCHLINE SEE SHEET C321

MATCHLINE SEE SHEET C323

ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

1205 AVENUE F ROAD
WAKE COUNTY, NC 27707

Bateman Civil Survey Company
Engineers • Surveyors • Planners

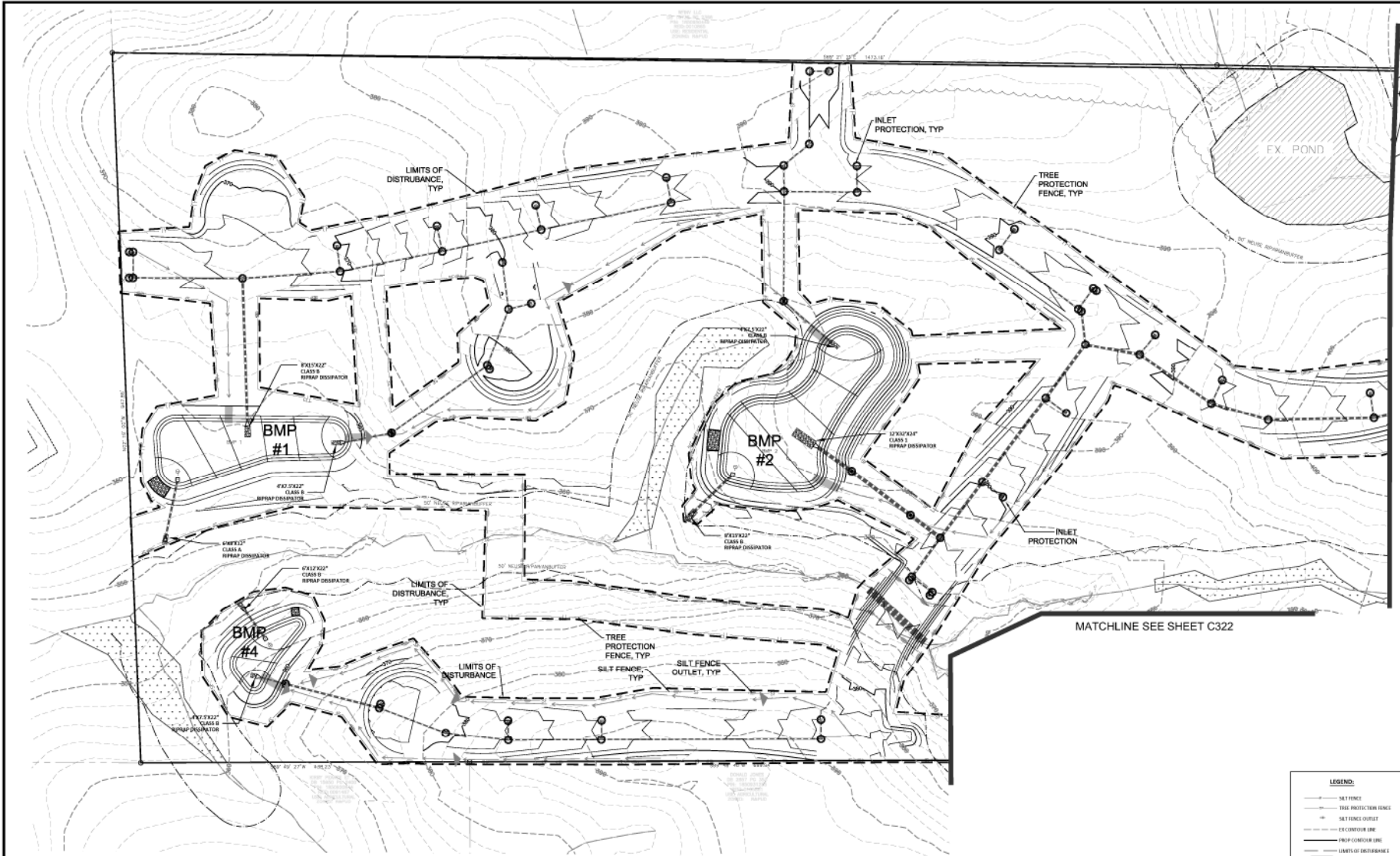
2534 Reardon Avenue, Apex, North Carolina 27539
Phone: (919) 211-1811
Fax: (919) 211-1811
Website: www.bateman-civil.com

NC, NAD
GPS DEF
N 802f
E 2161f
CF: 0.9

Project Engineer	TSB
Designed By	LSG
Drawn By	LSG
Checked By	TSB
Scale	1"=60'

Date	10/09/18
Project Number	0704

SHEET
C327



MATCHLINE SEE SHEET C321

MATCHLINE SEE SHEET C322

LEGEND:

	SILT FENCE
	TREE PROTECTION FENCE
	SILT FENCE OUTLET
	PROPOSED CONSTRUCTION LINE
	LIMITS OF DISTURBANCE
	CONSTRUCTION DISTURBANCE
	TEMPORARY EROSION SWITCH
	CONCRETE APRON
	GRASSED AREA
	INLET PROTECTION
	ROCK CHECK DAM

REV	DATE	DESCRIPTION

REVISIONS



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2534 Relevance Avenue, North Carolina 27639
 Phone: (704) 771-1001
 Fax: (704) 771-1002
 License No. 10000

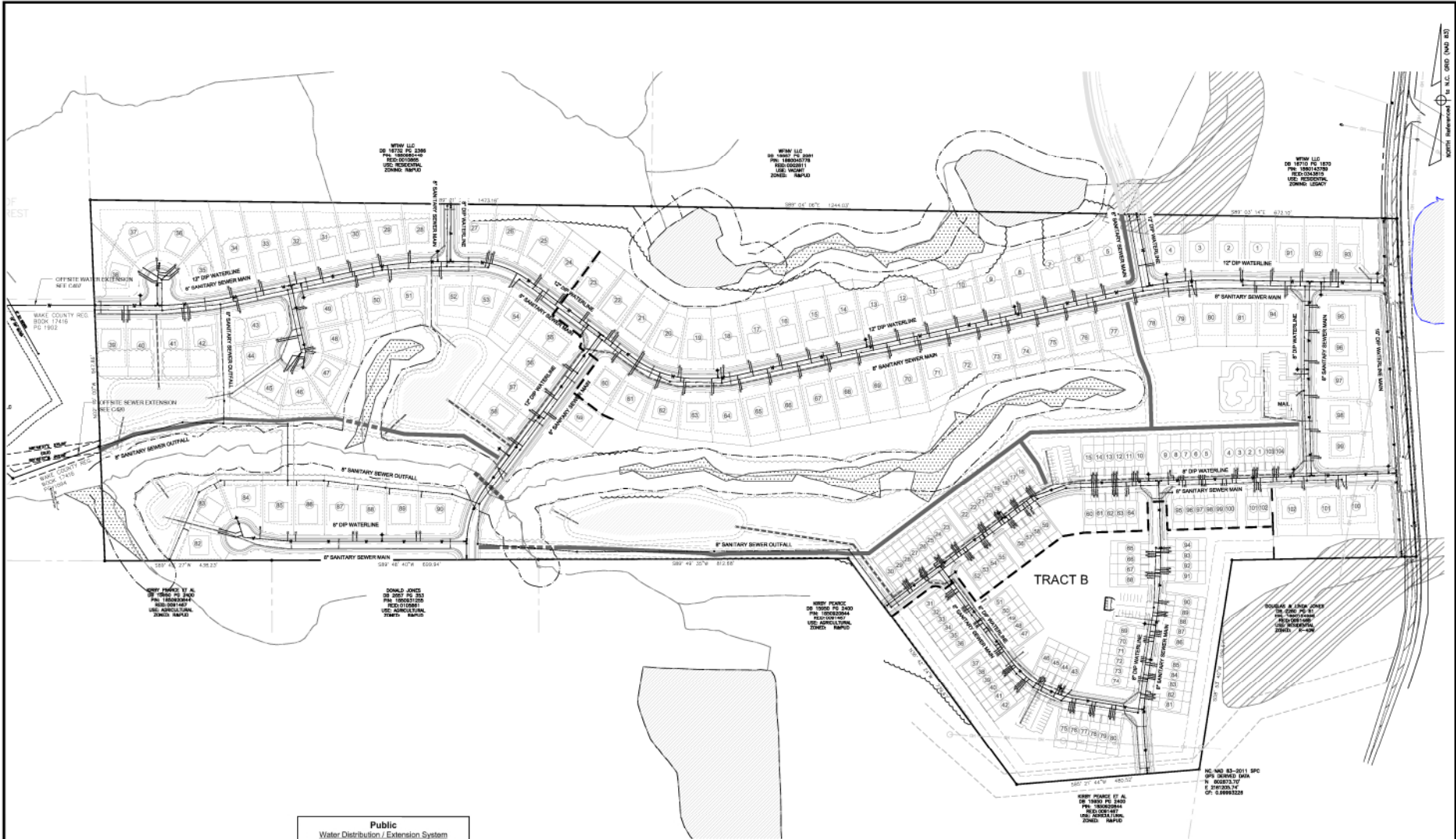


ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS
 1205 AVENUE F ROAD
 ELIZABETH HEIGHTS, NC 27827
 WAKE COUNTY, NC

EROSION CONTROL PLAN

Project Engineer	TSS
Designed By	LGS
Drawn By	LGS
Checked By	TSS
Scale	1"=40'
Date	10/09/18
Project Number	0704

SHEET
C328



REV#	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

Public
Water Distribution / Extension System
 The City of Raleigh consents to the construction and operation 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 # **W-3088**
 Authorization to Construct **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date

Public
Sewer Collection / Extension System
 The City of Raleigh consents to the construction and operation 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 # **S-4523**
 Authorization to Construct **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date

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 919-996-4340 at least *nine* 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 emergency flows, and require installation 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 Job-site, 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.



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Ralston Avenue, Suite 1000, Raleigh, NC 27603
 Phone: 919.833.9900 Fax: 919.833.9901
 Website: www.bateman-civil.com

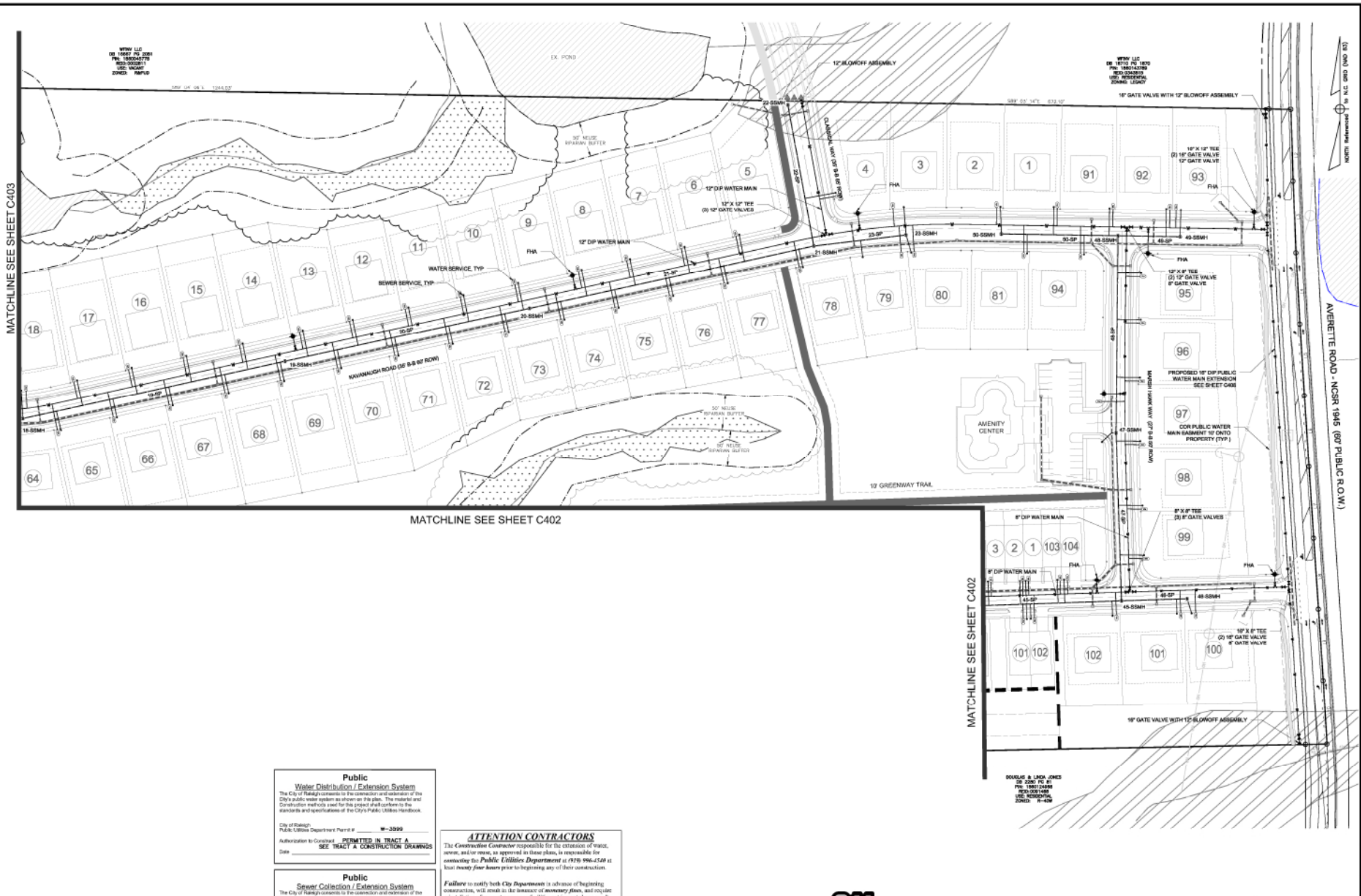


ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1026 AVERETTE ROAD
 SUITE 207
 WAKE COUNTY, NC

OVERALL UTILITY PLAN

Project Engineer	TSB
Designed By	LSG
Drawn By	LSG
Checked By	TSB
Scale	1"=20'
Date	10/09/18

Project Number: 07008
SHEET
C400



MATCHLINE SEE SHEET C403

MATCHLINE SEE SHEET C402

MATCHLINE SEE SHEET C402

AVENETTE ROAD - NCRR 1945 (60' PUBLIC R.O.W.)



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2524 Relevance Avenue, North Carolina 27639
 Phone: (919) 487-1101
 Fax: (919) 487-1101
 Website: www.bateman.com



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 12025 AVENETTE ROAD
 WAKE COUNTY, NC 27617
 WAKE COUNTY, NC

UTILITY PLAN

NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2016

Public Water Distribution / Extension System
 The City of Raleigh consents to the construction 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 # **W-3299**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

Public Sewer Collection / Extension System
 The City of Raleigh consents to the construction 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 # **S-4523**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

ATTENTION CONTRACTORS
 The Construction Contractor responsible for the extension of water, sewer, and/or gas, as approved on these plans, is responsible for contacting the **Public Utilities Department at (919) 996-5448** 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 **stop-work orders**, and require notification 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 Places on the Abandon, 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.

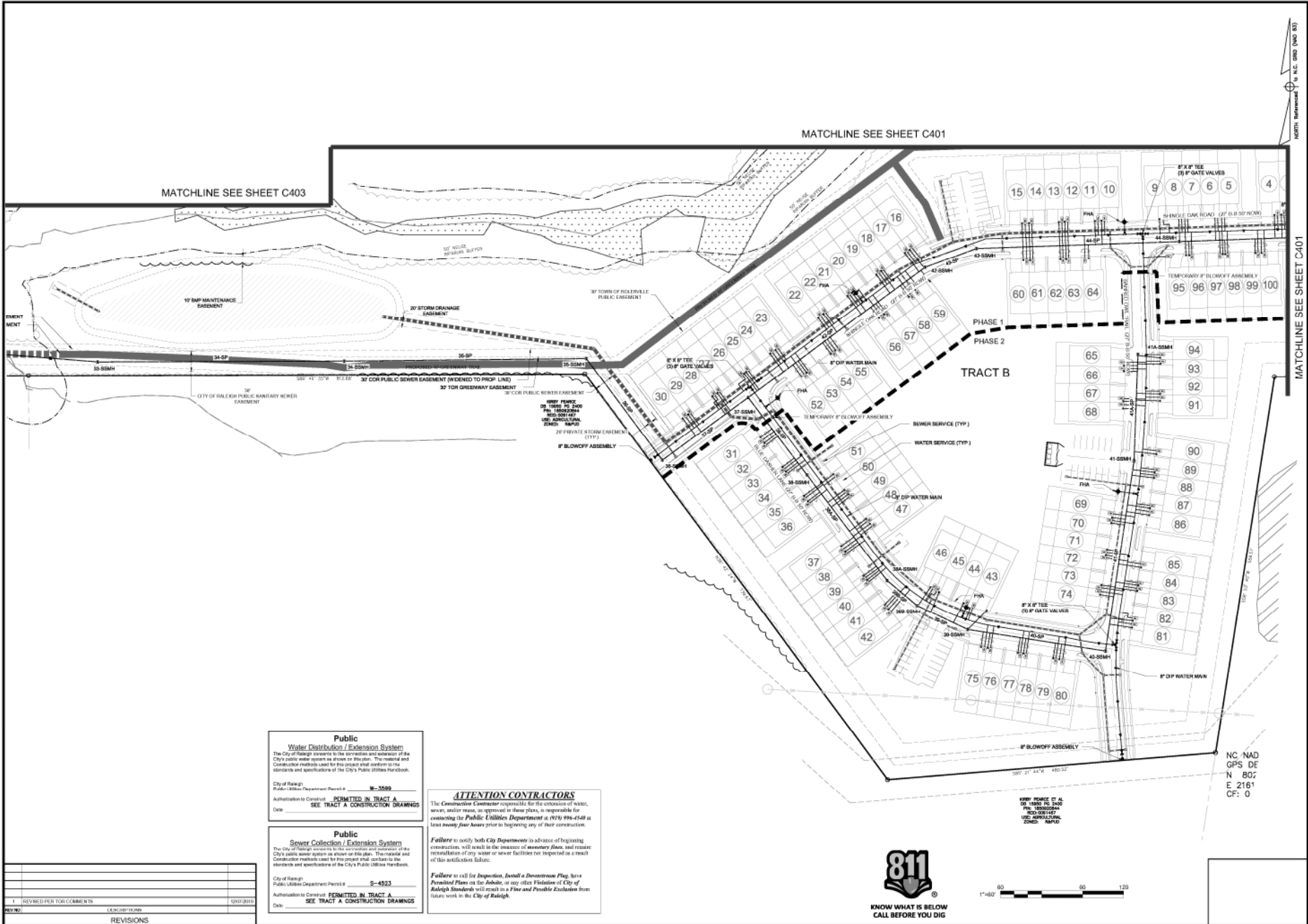


KNOW WHAT IS BELOW
 CALL BEFORE YOU DIG



Project Engineer	TSB
Designed by	LSG
Drawn by	LSG
Checked by	TSB
Scale	1"=60'
Date	10/09/16
Project Number	07018

SHEET
C401



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2534 Relevance Avenue, North Carolina 27639
 Phone: (919) 487-1101
 Fax: (919) 487-1101
 License No. C-20734



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVENUE F ROAD
 SUITE 207
 WAKE COUNTY, NC

UTILITY PLAN

Project Engineer	TSB
Designed By	LSG
Drawn By	LSG
Checked By	TSB
Scale	1"=40'

Date: 10/09/18
 Project Number: 07008

SHEET
C402

NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	10/07/2018

Public Water Distribution / Extension System
 The City of Raleigh consents to the construction and installation 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 is **W-3569**
 Authorization to Construct **PERMITTED IN TRACT A**
 Date: **SEE TRACT A CONSTRUCTION DRAWINGS**

Public Sewer Collection / Extension System
 The City of Raleigh consents to the construction and installation 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 is **S-4923**
 Authorization to Construct **PERMITTED IN TRACT A**
 Date: **SEE TRACT A CONSTRUCTION DRAWINGS**

ATTENTION CONTRACTORS
 The Contractor/Constructor is responsible for the construction of water, sewer, and/or gas, as approved in these plans, is responsible for contacting the **Public Utilities Department** at (919) 996-4348 at least **seventy-four hours** prior to beginning any of their construction.

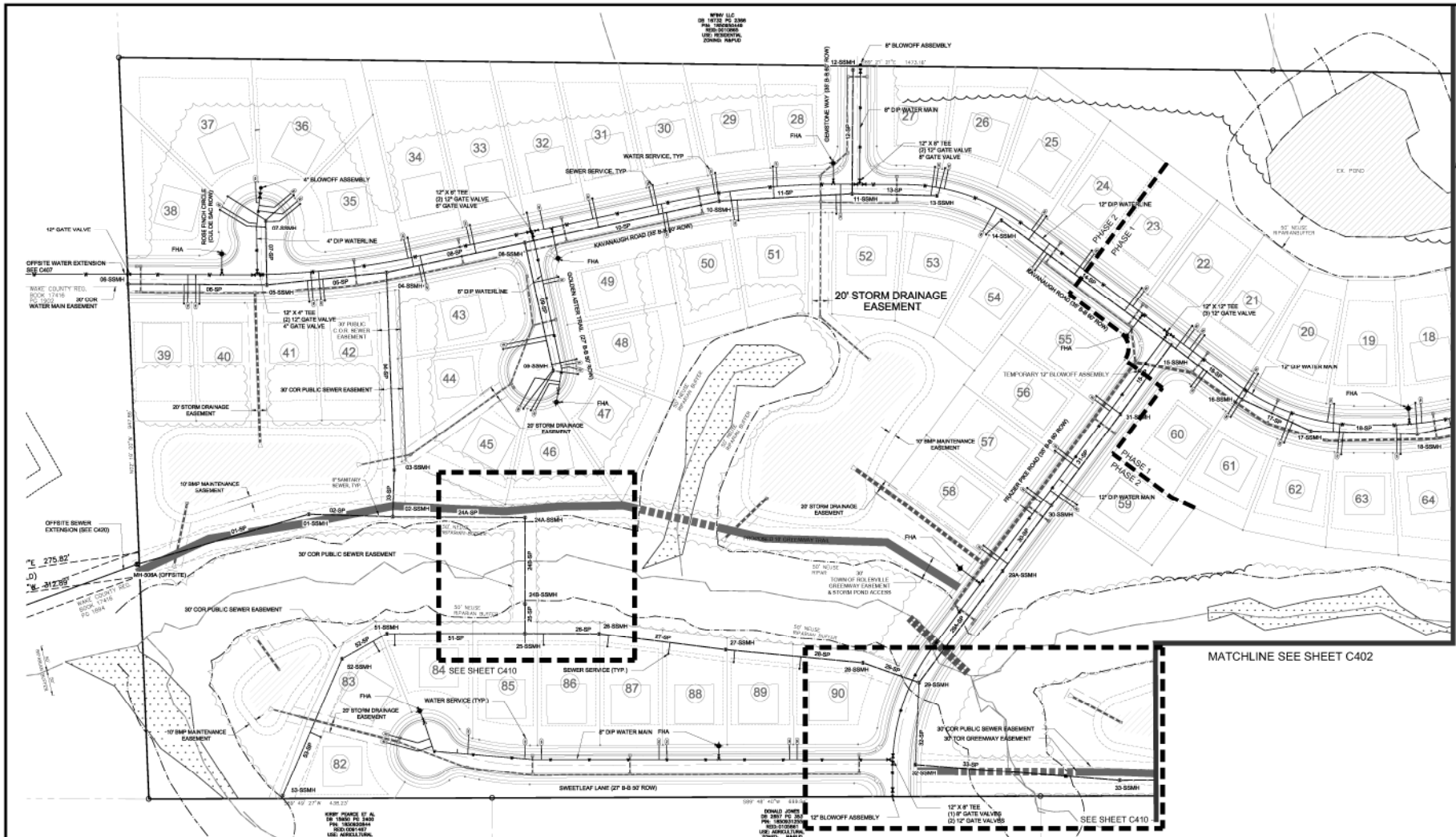
Failure to notify both City Department in advance of beginning construction, will result in the issuance of a stop-work order, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for Inspection, Avoid a Stop-work Order, has a **Permitted Plans** on the jobsite, or any other violation of City of Raleigh Standards will result in a **Stop-work Order** and possible exclusion from future work in the City of Raleigh.



NC NAD
 GPS DE
 N 80°
 E 216'
 CF: 0

KERRY BRACE ET AL
 OR ISSUED TO THIS
 PLAN 10/09/2018
 902-000147
 USE APPROPRIATE
 ZONING MAPS



NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

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 # **W-3599**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 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 # **S-4523**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

ATTENTION CONTRACTORS
 The Construction Contractor responsible for the construction of water, sewer, and/or gas, as approved in these plans, is responsible for obtaining the Public Utilities Department's (PUD) 396-2549 or least seven (7) business days prior to beginning any of their construction.

Failure to notify both City Departments in advance of beginning construction, will result in the issuance of necessary fines, and require installation of any water or sewer facilities not inspected as a result of the notification failure.
Failure to call for Inspection, Install a Downstream Plug, have Permitted Plans on file, or any other violation of City of Raleigh Standards will result in a fine and possibly Extension fees for future work in the City of Raleigh.



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Ralston Avenue, Apt. North Carolina 27619
 Phone: (919) 876-1101
 FAX: (919) 876-1101
 LICENSE # 9996, No. C-2078



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

UTILITY PLAN

Project Engineer	TSB
Designed by	LSG
Drawn by	LGS
Checked by	TSB
Scale	1"=40'
Date	10/09/18
Project Number	07004

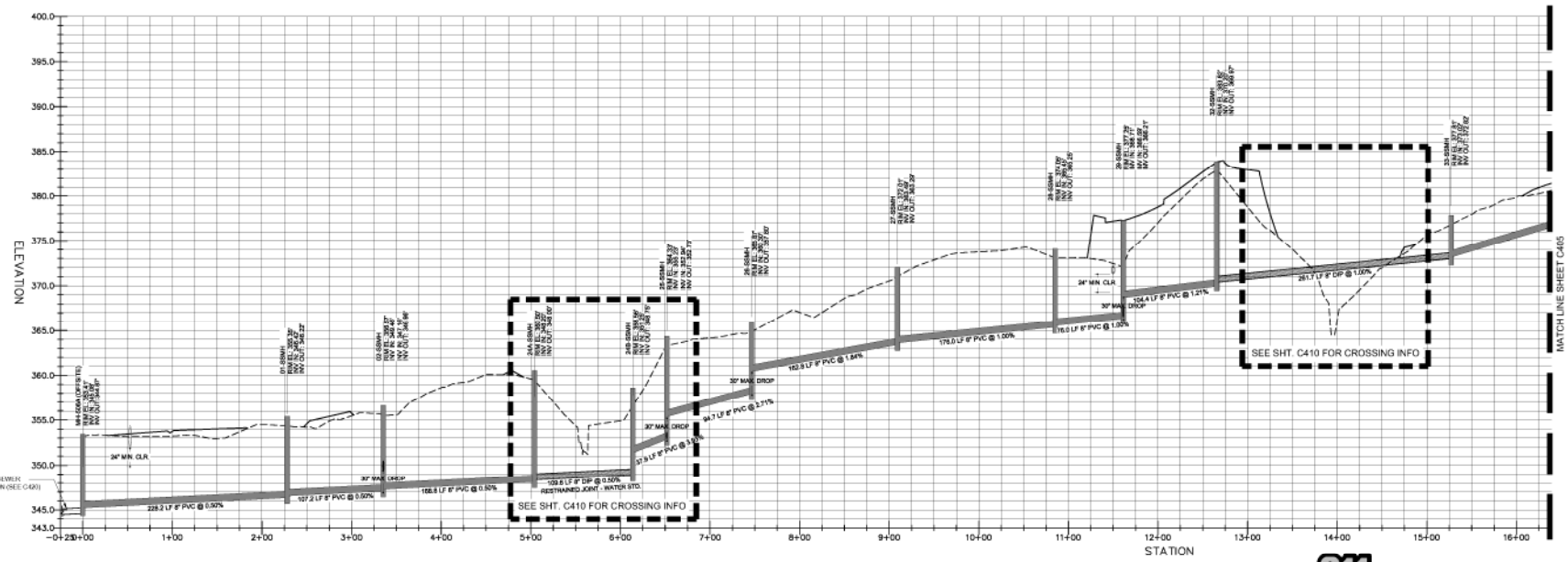
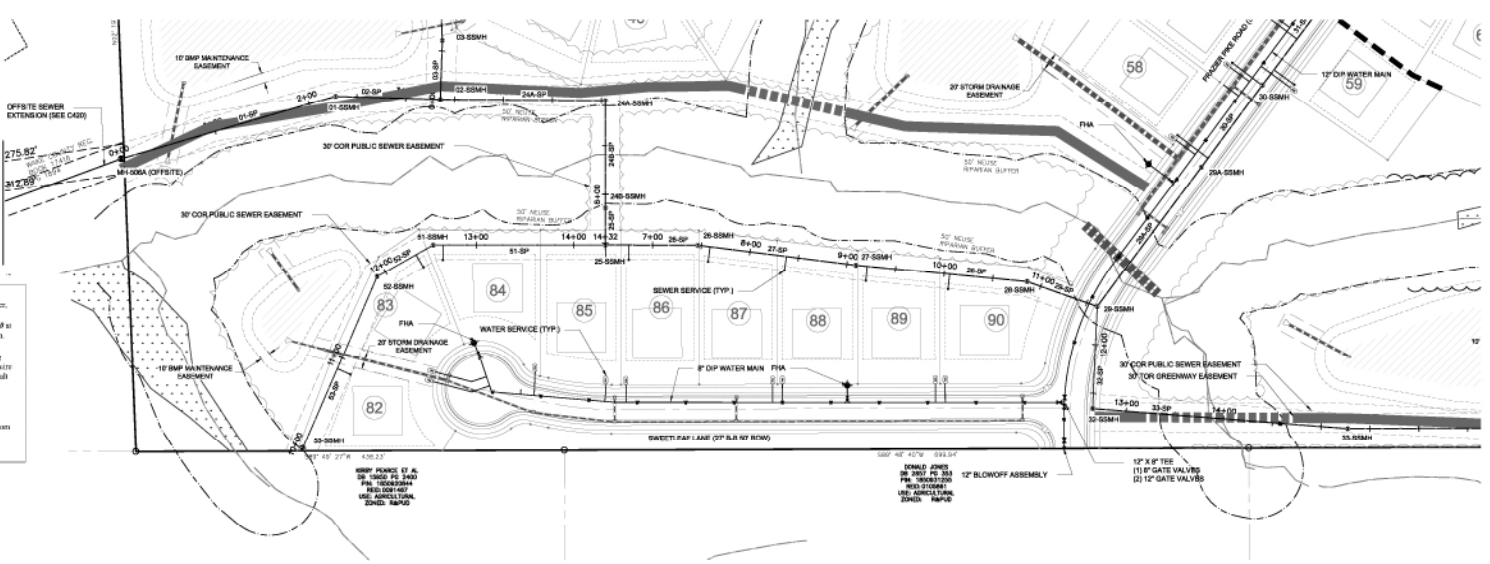
SHEET
C403



Public Water Distribution / Extension System
 The City of Raleigh consents to the construction and installation of the 20" sanitary sewer system as shown on this plan. The eventual end destination of the sewer system is to be determined by the City of Raleigh. Consideration is given to the project and conforms to the standards and specifications of the City of Raleigh Handbook.
 City of Raleigh
 Public Utilities Department Permit # **M-3599**
 Authorization by Contract: **PERMITTED IN TRACT A**
 Date: **SEE TRACT A CONSTRUCTION DRAWINGS**

Public Sewer Collection / Extension System
 The City of Raleigh consents to the construction and installation of the City of Raleigh sewer system as shown on this plan. The eventual end destination of the sewer system is to be determined by the City of Raleigh. Consideration is given to the project and conforms to the standards and specifications of the City of Raleigh Handbook.
 City of Raleigh
 Public Utilities Department Permit # **S-4523**
 Authorization by Contract: **PERMITTED IN TRACT A**
 Date: **SEE TRACT A CONSTRUCTION DRAWINGS**

ATTENTION CONTRACTORS
 The Construction Contractor responsible for the collection of water, sewer, and/or gas, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 998-4549 at least twenty-four hours prior to beginning any of their construction.
 Failure to notify both City Department in advance of beginning construction, will result in the issuance of necessary 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 Disconnect Plug, have Permitted Plans on the Jobite, 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.



REV	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018



KNOW WHAT IS BELOW
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Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2534 Relevance Avenue, North Carolina 27619
 Phone: (919) 877-1801
 FAX: (919) 877-1802
 LICENSE # 27539, No. C-2378



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVENETTE ROAD
 SUITE 207
 WAKE COUNTY, NC

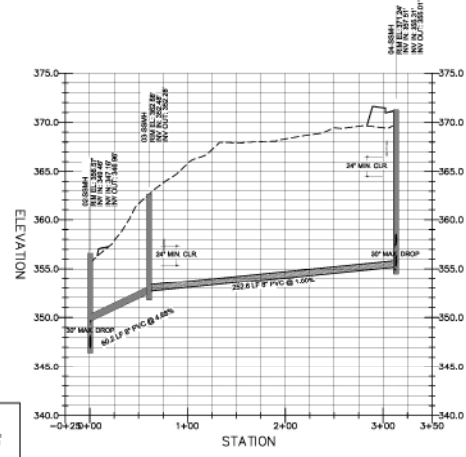
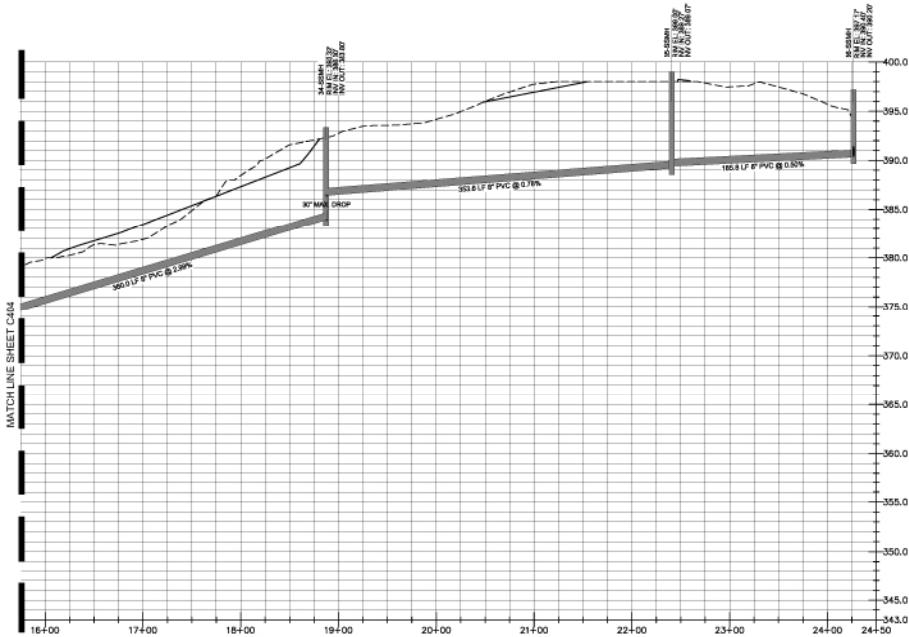
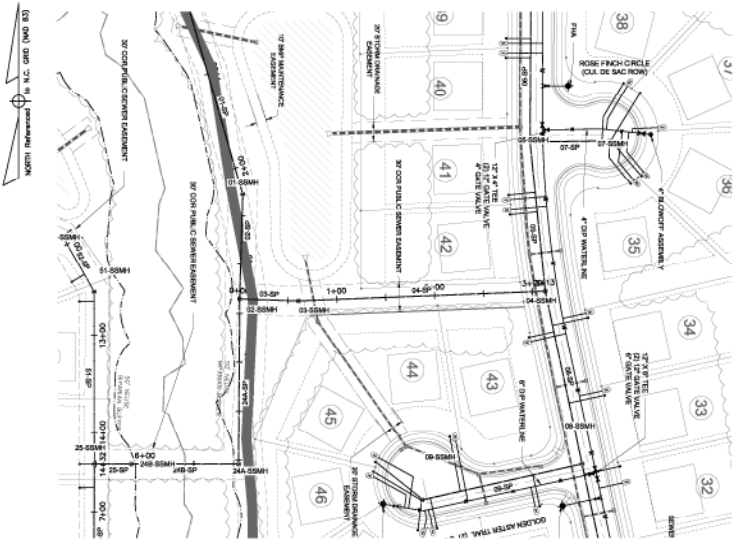
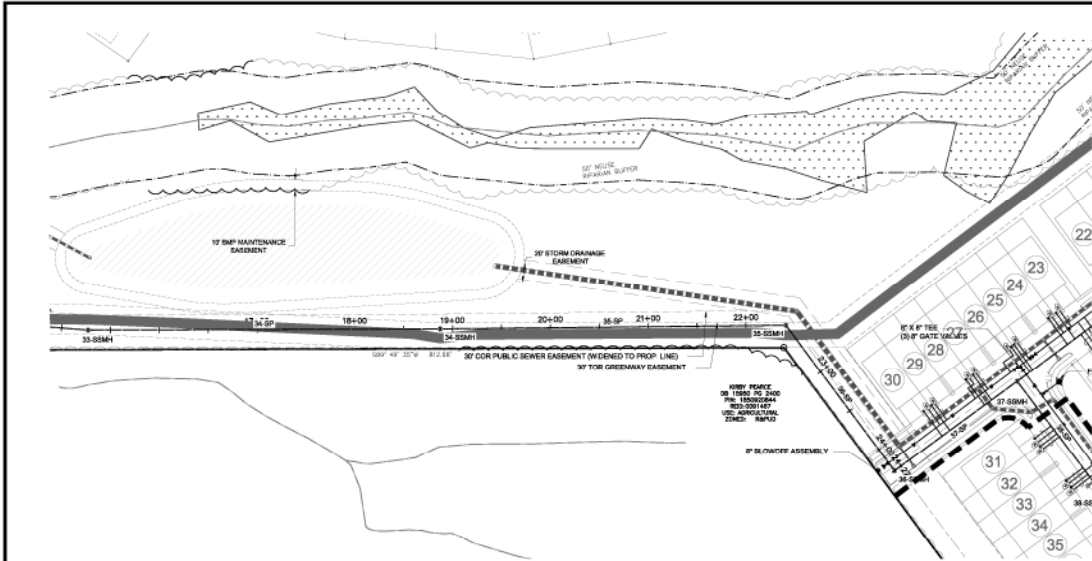
SANITARY SEWER PROFILE

Project Engineer	TSB
Designed by	LSG
Drawn by	LSG
Checked by	TSB
Scale	1"=40'

Date: 10/09/2018

Project Number: 07004

SHEET
C404



NO.	REVISIONS	DATE
1	REVISED PER FOR COMMENTS	12/07/2018

Public
Water Distribution / Extension System
 The City of Raleigh consents to the construction and installation 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 # **W-3599**
 Authorization to Construct **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date _____

Public
Sewer Collection / Extension System
 The City of Raleigh consents to the construction and installation 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 # **E-4523**
 Authorization to Construct **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date _____

ATTENTION CONTRACTORS
 The Construction Extension Department is responsible for the detection of water, sewer, and/or gas, as approved in these plans, is responsible for notifying the Public Utilities Department at (919) 996-6148 at least twenty-four hours prior to beginning any of these construction.
 Failure to notify both City Departments in advance of beginning construction, will result in the issuance of emergency fees, and require installation of any water or sewer facilities (as specified as a result of the notification failure).
 Failure to call in Prospective, Install a Downstream Plug, have Permitted Plans on the Jobfile, 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.



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2531 Reliance Avenue, Apt. North Carolina 27639
 Raleigh, NC 27607
 Phone: (919) 876-1181
 Fax: (919) 876-1181
 License No. 25319

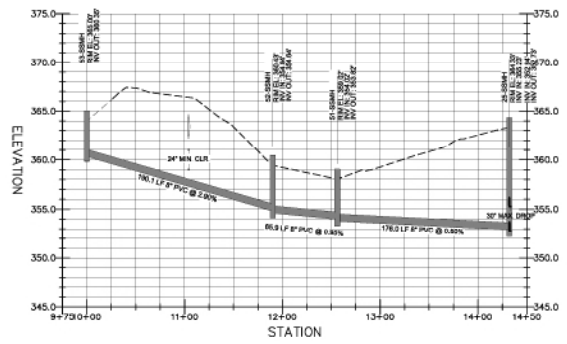
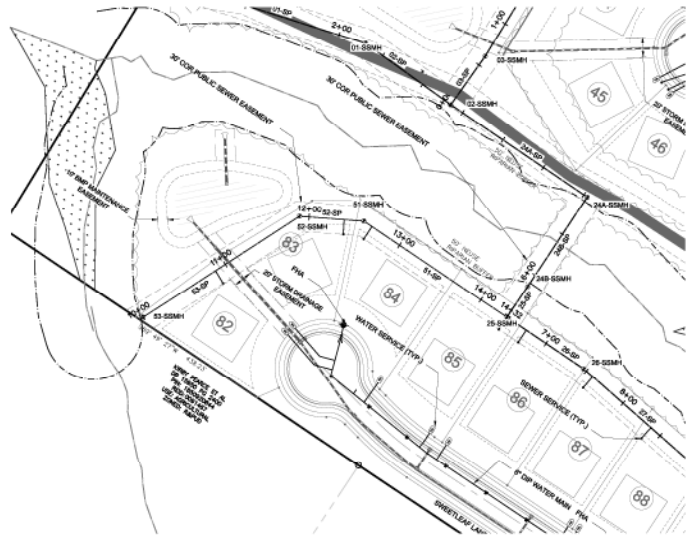
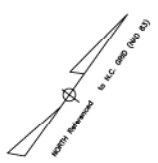


ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVENUE F ROAD
 WAKE FOREST, NC 27707
 WAKE COUNTY, NC

SANITARY SEWER PROFILE

Project Engineer	TSB
Designed by	LSG
Drawn by	LSG
Checked by	TSB
Scale	1"=40'
Date	10/09/18
Project Number	0704

SHEET
C405



Public
Water Distribution / Extension System

The City of Raleigh consents to the construction 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 # **W-3599**

Authorized to Construct **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS

Date _____

Public
Sewer Collection / Extension System

The City of Raleigh consents to the construction 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 # **S-4523**

Authorized to Construct **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS

Date _____

ATTENTION CONTRACTORS

The Construction Contractor responsible for the installation of water, sewer, and/or gas, in approval of these plans, is responsible for contacting the **Public Utilities Department** or city 311-4548 at least **ten (10) business days** prior to beginning any of their construction.

Failure to notify both City Department in advance of beginning construction, will result in the issuance of stop-work orders, and require installation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call the Inspection, Assess or Document Fee, have Permitted Plans on file, or any other Violation of City of Raleigh Standards will result in a Stop Work or Stop Work Order from either work in the City of Raleigh.

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2018



Bateman Civil Survey Company
Engineers • Surveyors • Planners
2531 Relevance Avenue, North Carolina 27619
Phone: 919.487.1181
Fax: 919.487.1181
WAKE COUNTY, N.C.

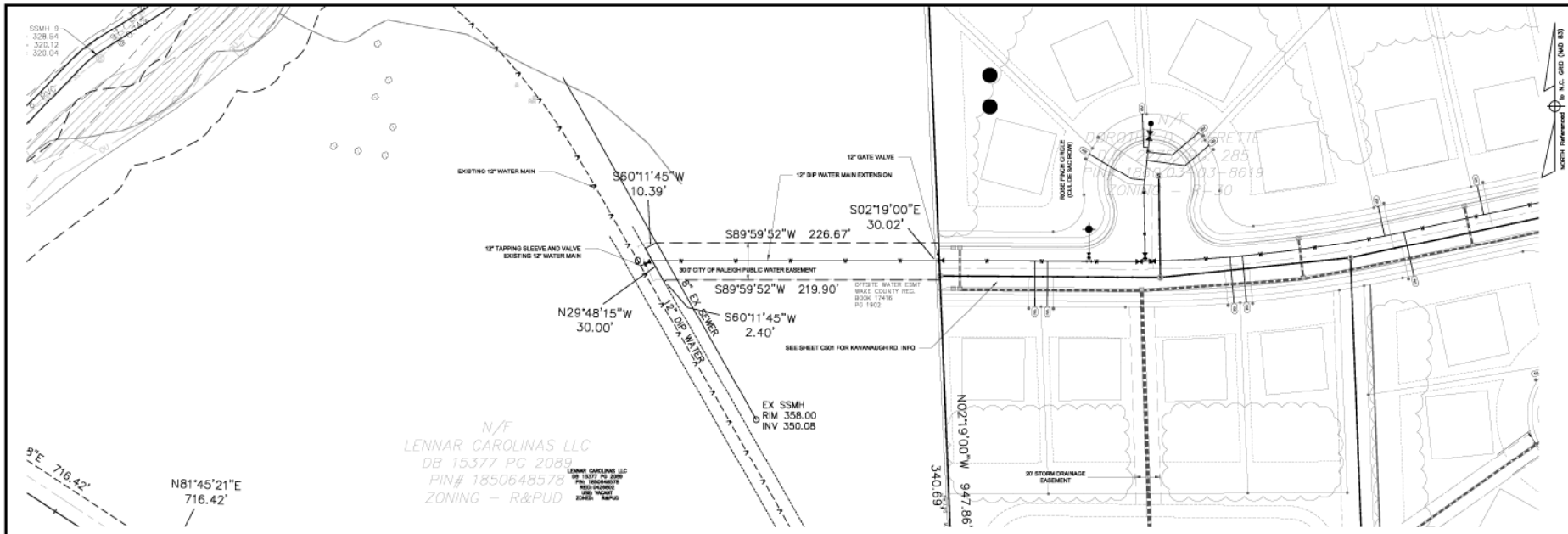


ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
1202 AVENUE F ROAD
WAKE COUNTY, NC 27607
WAKE COUNTY, NC

SANITARY SEWER PROFILE

Project Engineer	TSB
Designed by	LSD
Drawn by	LSG
Checked by	TSB
Scale	1"=40'
Date	10/30/18
Project Number	57004

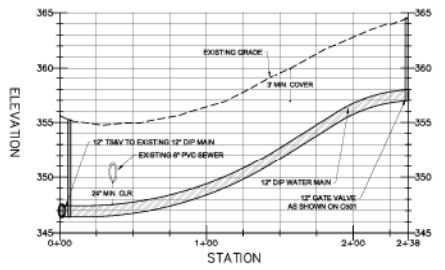
SHEET
C406



9°E 716.42'
 N81°45'21"E
 716.42'

N/F
 LENNAR CAROLINAS LLC
 DB 15377 PG 2089
 PIN# 1850648578
 ZONING - R&PUD

LENNAR CAROLINAS LLC
 98 WEST END
 PUBLIC WORKS
 1000 W. HARRIS
 ZONING - R&PUD



SEE SHEET C501

Public
Water Distribution / Extension System
 The City of Raleigh consents to the construction and installation 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 # **W-3599**
 Authorization to Construct **PERMITTED IN TRACT A**
 Date **SEE TRACT A CONSTRUCTION DRAWINGS**

Public
Sewer Collection / Extension System
 The City of Raleigh consents to the construction and installation 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 # **S-4523**
 Authorization to Construct **PERMITTED IN TRACT A**
 Date **SEE TRACT A CONSTRUCTION DRAWINGS**

ATTENTION CONTRACTORS
 The Construction Contractor responsible for the construction of water, sewer, and/or storm is approved in these plans, in recognition of the construction of the Public Utilities Department at (919) 996-4540 at least seven 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 **stop-work orders**, 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 Drawdown Plug, Issue Permitted Plans on the Job-site, 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.

NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2520 Relevance Avenue, North Carolina 27639
 Phone: (919) 881-1001
 FAX: (919) 881-1001
 WAKE COUNTY, NC



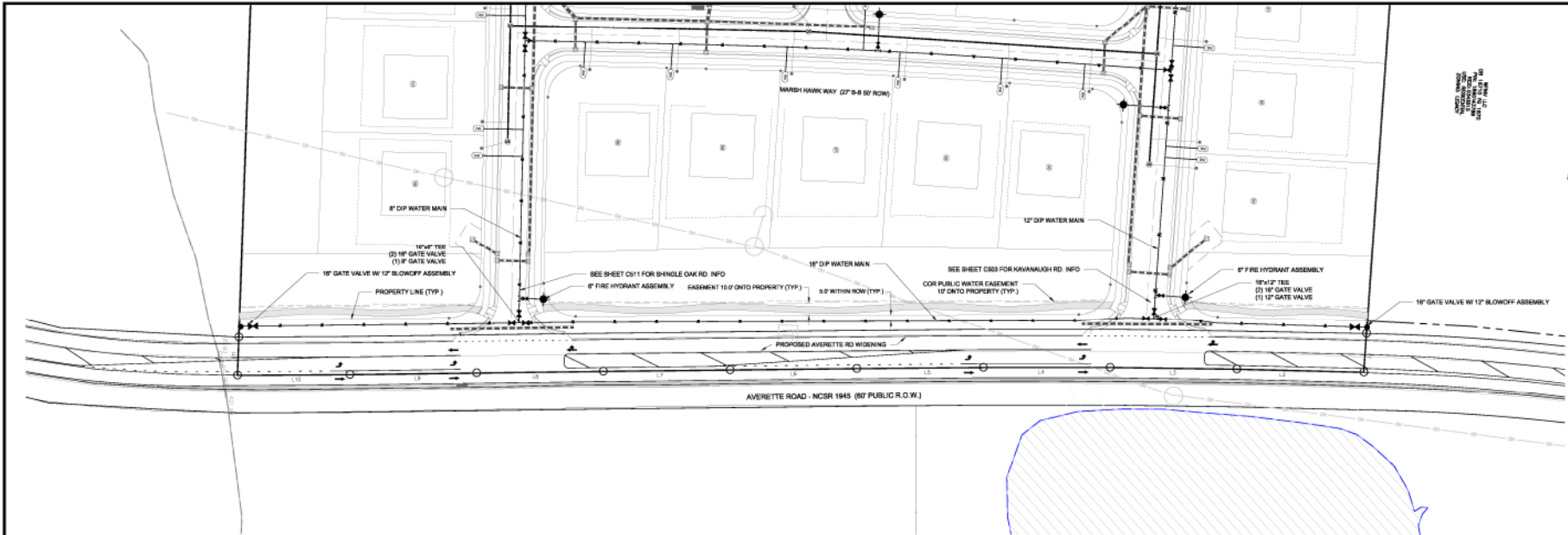
ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS
 1205 AVENUE F ROAD
 SUITE 207
 WAKE COUNTY, NC

OFFSITE WATER EXTENSION

Project Engineer	TSB
Designed By	LSG
Drawn By	LSG
Checked By	TSB
Scale	1"=40'
Date	10/09/2018
Project Number	07018

SHEET
C407

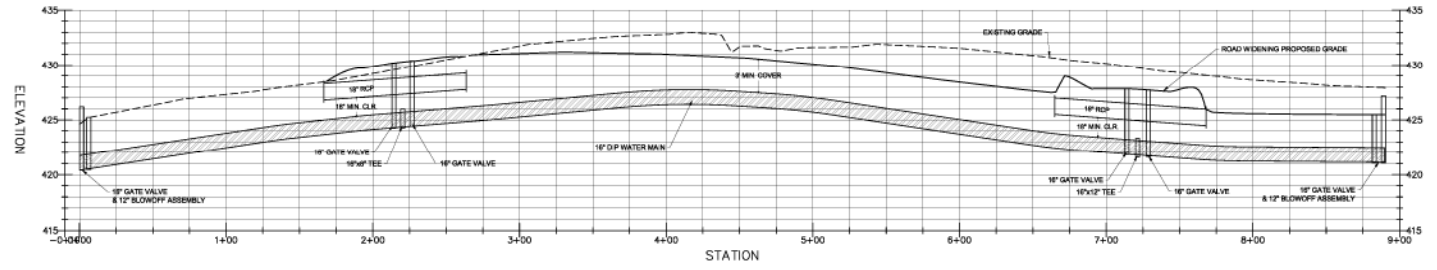




Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2534 Relevance Avenue, North Carolina 27639
 Phone: 919.850.3207
 FAX: 919.850.3207
 LICENSE # 9996, No. C-0374



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVERETTE ROAD
 WAKE COUNTY, NC 27707



Public
Water Distribution / Extension System
 The City of Raleigh consents to the construction and installation of the City's public water system as shown on this plan. The materials 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 # **W-3599**
 Authorization to Construct **PERMITTED IN TRACT A**
 Date **SEE TRACT A CONSTRUCTION DRAWINGS**

Public
Sewer Collection / Extension System
 The City of Raleigh consents to the construction and installation of the City's public sewer system as shown on this plan. The materials 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 # **S-4523**
 Authorization to Construct **PERMITTED IN TRACT A**
 Date **SEE TRACT A CONSTRUCTION DRAWINGS**

ATTENTION CONTRACTORS
 The Construction Contractor responsible for the construction of water, sewer, and/or utility as approved in these plans, is responsible for notifying the Public Utilities Department at (919) 998-4540 at least **seven** *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 emergency 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 Drawdown Plug, have Permitted Plans on the Job-site, 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.

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2016



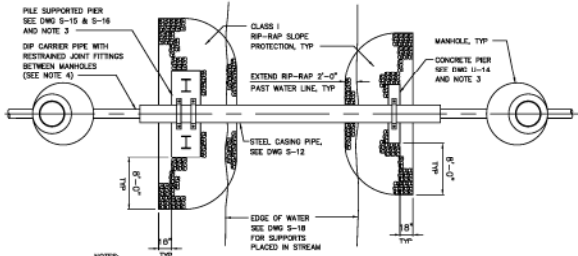
**KNOW WHAT IS BELOW
 CALL BEFORE YOU DIG**



Project Engineer	TSB
Designed by	LRG
Drawn by	LDG
Checked by	TSB
Scale	1"=40'

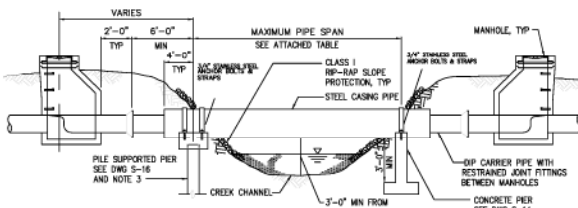
Date: 10/09/16
 Project Number: 07008

SHEET
C408



- NOTES:
- RIP-RAP FOR SLOPE PROTECTION SHALL BE CLASS I RIP-RAP IN ACCORDANCE WITH SECTION 806 OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES".
 - RIP-RAP SHALL BE PLACED IN ACCORDANCE WITH DRAWING 80A-01 OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES".
 - TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES".
 - WHERE DUCTILE IRON PIPE IS USED FOR CARRIER PIPE, DUCTILE IRON CARRIER PIPE SHALL BE INSTALLED UTILIZING 3 PIPE ALIGNMENT GUIDES FOR JOINT ONE FOURTH OF THE PIPE JOINT LENGTH IN FROM BOTH THE BELL AND SPOUT ENDS.
- SUPPORT TYPE FOR PIERS SHALL BE DETERMINED BY ENGINEER BASED ON SUBGRADE CONDITIONS AT SITE. SEE DRAWING S-14 FOR SUBGRADE PARAMETERS FOR EACH TYPE OF FOUNDATION.

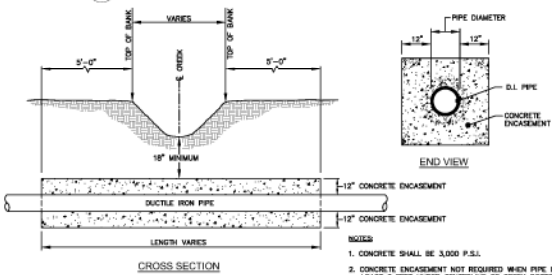
1 AERIAL PIPE CROSSING PLAN Scale: N.T.S.



CARRIER PIPE, DIP DIAMETER (IN.)	CASING PIPE, STEEL DIAMETER (IN.)	MINIMUM CASING PIPE WALL THICKNESS (IN.)	ALLOWABLE SPAN (FT.)
8	16	0.3750	45

- NOTES:
- STEEL PIPE SHALL BE EITHER SPIRAL WELDED OR SMOOTH WALL SEAMLESS WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI. PAINTING AND LINING SHALL BE AS REQUIRED BY THE CITY OF RALEIGH PUBLIC UTILITIES HANDBOOK.
 - DUCTILE IRON PIPE SHALL BE SUPPORTED WITH TWO SPIDERS AT EVERY JOINT WITHIN THE CASING PIPE USING APPROVED PIPE ALIGNMENT GUIDE. SEE DRAWING S-39. ALL JOINTS SHALL BE RESTRAINED JOINT. SEE NOTE 2, DWG S-10.
 - PILE SUPPORTED PIERS TO BE USED IN CONSTRUCTION. SEE DETAIL 4 THIS SHEET.
 - BOTTOM OF PIPE TO BE AT A MINIMUM OF 1' ABOVE THE 25 YEAR FLOOD ELEVATION.

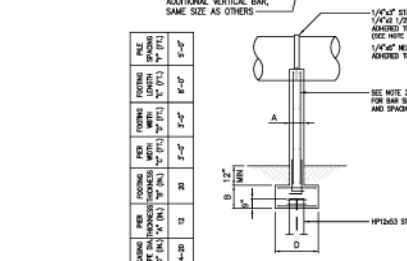
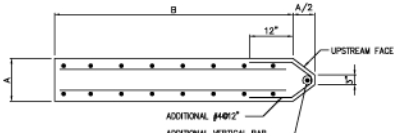
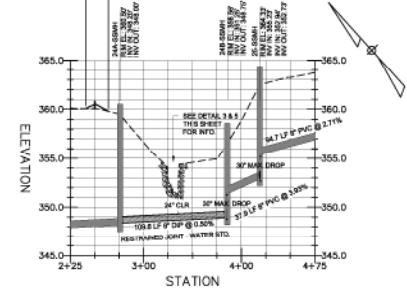
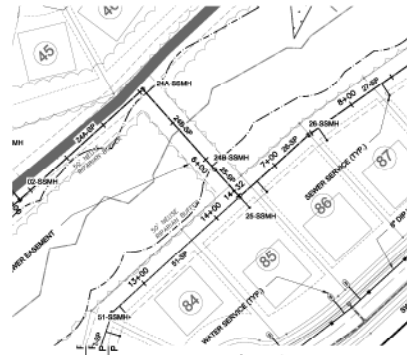
2 AERIAL PIPE CROSSING ELEVATION Scale: N.T.S.



- NOTES:
- CONCRETE SHALL BE 3,000 P.S.I.
 - CONCRETE ENCASUREMENT NOT REQUIRED WHEN PIPE IS AT LEAST 3 FEET UNDER CENTERLINE OF CREEK BOTTOM.

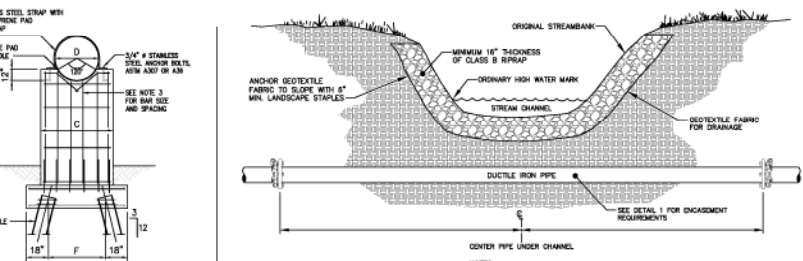
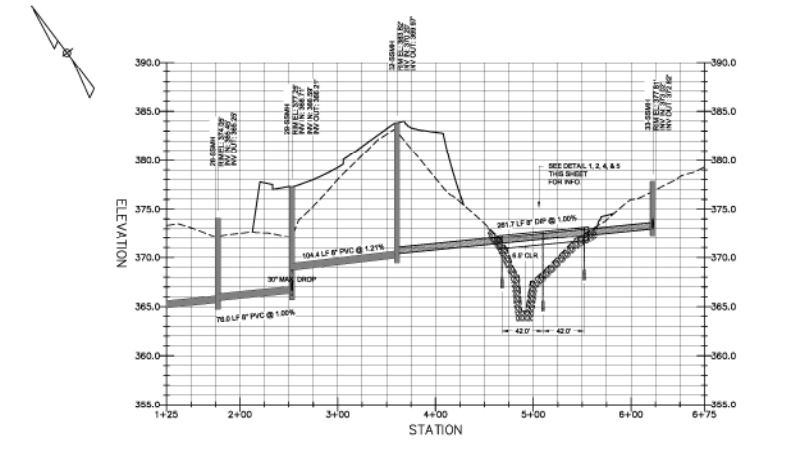
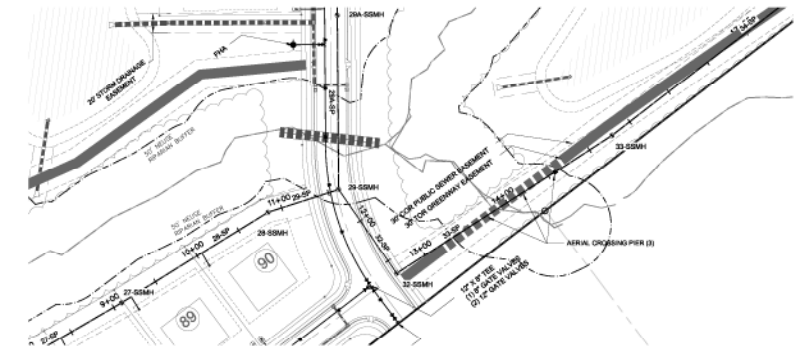
3 STREAM CROSSING Scale: N.T.S.

NO.	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018



- NOTES:
- PILE SUPPORTED PIER FOUNDATION DESIGN SHOWN ON THIS DETAIL IS BASED ON THE FOLLOWING PARAMETERS:
MINIMUM CAPACITY OF HP1263 PILE = 30 TONS
CONCRETE COMPRESSIVE STRENGTH = 4,000 PSI
GRADE 60 REINFORCING STEEL
MAXIMUM STREAM VELOCITY = 10 FT/SEC
 - IF FIELD CONDITIONS REQUIRE ANY DEVIATION FROM THESE PARAMETERS, THE FOUNDATION DESIGN SHALL BE REVIEWED BY THE ENGINEER.
 - LENGTH OF PILES SHALL BE AS REQUIRED TO DEVELOP 20 TON CAPACITY BY OTHER END BEARING, FRICTION OR A COMBINATION OF END BEARING AND FRICTION. AS A MINIMUM, PILES SHALL BE DRIVEN AT LEAST 15 FEET INTO UNDISTURBED SOIL.
 - TWENTY-INCH AND FOURTEEN-INCH WIDE PIERS SHALL BE REINFORCED WITH #8 BARS AT 12 INCHES OC IN EACH DIRECTION ON EACH FACE. EIGHTEEN-INCH WIDE PIERS SHALL BE REINFORCED WITH #7 BARS AT 12 INCHES OC IN EACH DIRECTION ON EACH FACE. FOOTINGS SHALL BE REINFORCED THROUGHOUT TO PIERS.
 - EIGHTEEN-INCH WIDE PIERS SHALL REQUIRE TWO STRAPS OVER THE PIPE INSTEAD OF ONE (AS SHOWN).
 - WHEN CONCRETE SUPPORTS ARE REQUIRED TO BE LOCATED WITHIN A STREAM AND ARE NOT COVERED WITH BACKFILL, SEE SECTION ABOVE FOR COLUMN MODIFICATION.

4 AERIAL STREAM CROSSING PILE SUPPORTED PIER Scale: N.T.S.



- NOTES:
- MAINTAIN ORIGINAL CONTOURS IN STREAMBED AND BANKS.
 - FACE OF PROPOSED RIPRAP BANK TO MATCH EXISTING CONTOURS OF STREAMBANKS.
 - RIPRAP MUST BE KEPT INTO THE GROUND AND THE ORIGINAL CONTOURS SHALL BE MAINTAINED AS PER U.S. ARMY CORPS OF ENGINEERS.

5 STREAM BANK RESTORATION Scale: N.T.S.



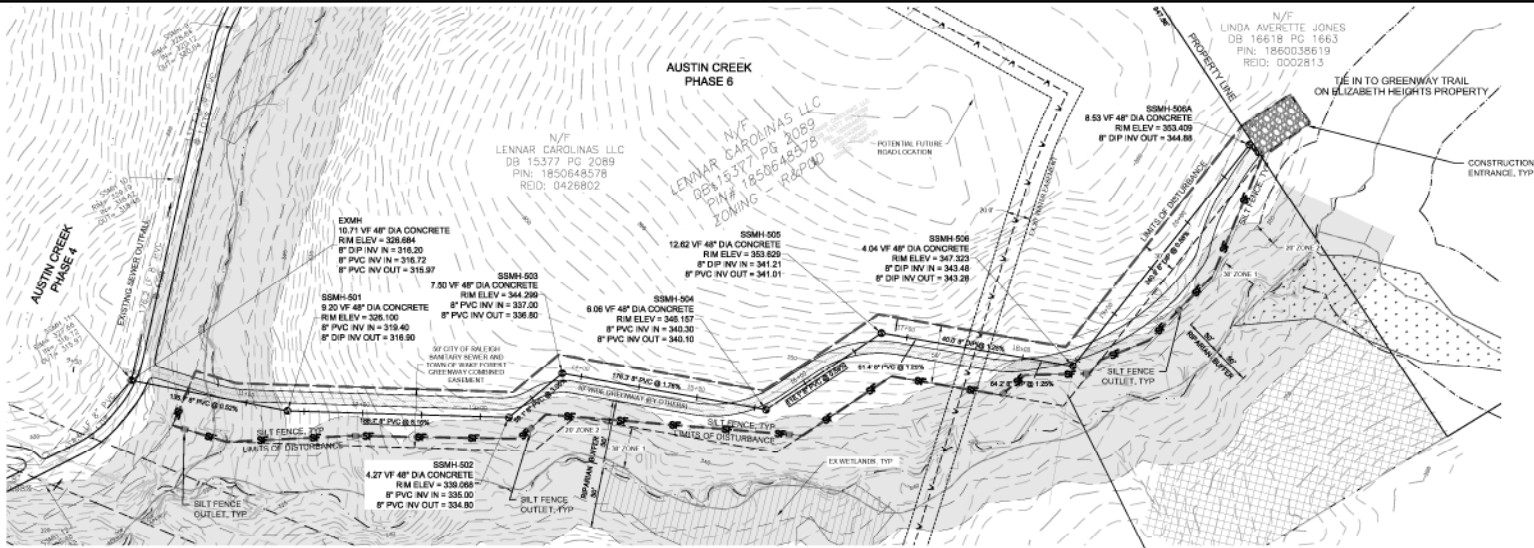
Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Ralston Avenue, North Carolina 27619
 Phone: (919) 487-1101
 Fax: (919) 487-1101
 Website: www.bateman-survey.com

ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS
 1205 AVENUE F ROAD
 WAKE COUNTY, NC 27707
 WAKE COUNTY, NC

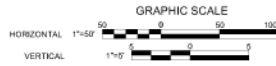
SANITARY SEWER
 STREAM CROSSING

Project Engineer	TSS
Designed by	LEB
Drawn by	LDG
Checked by	TSS
Scale	1"=40'
Date	10/09/18
Project Number	0708

SHEET
C410



OFFSITE SEWER OUTFALL



OFFSITE SEWER ESMT
WAKE COUNTY REG.
BOOK 17416
PG 1894

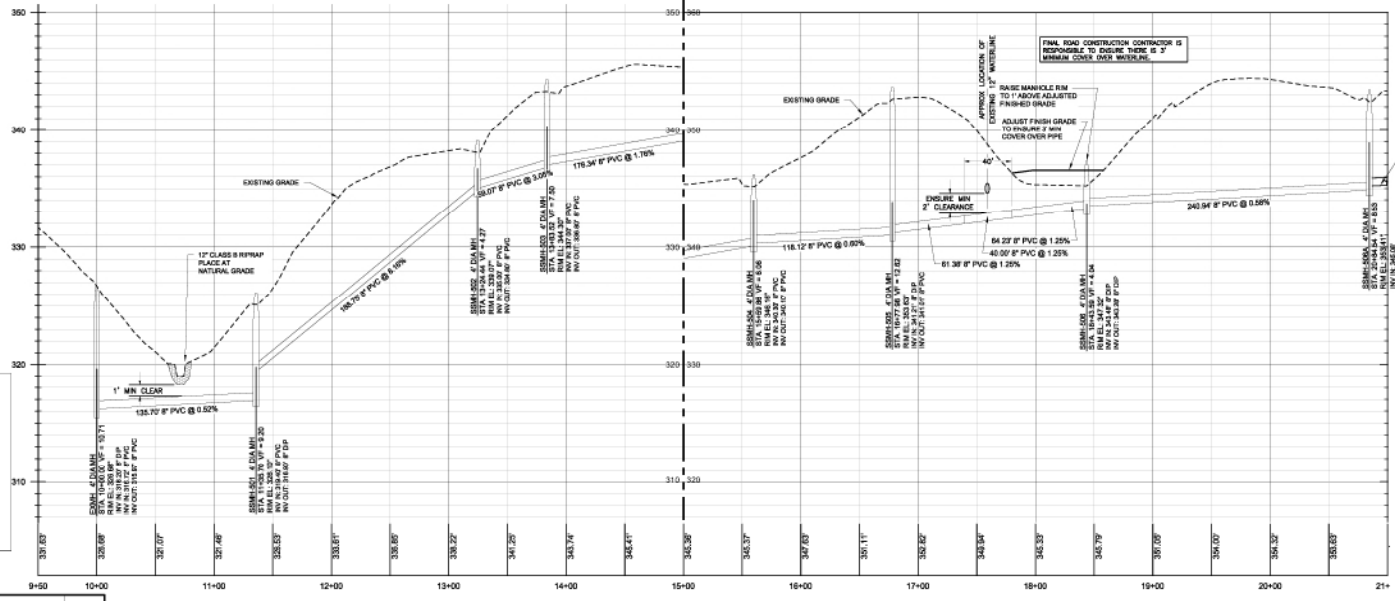
- LEGEND:**
- LIMITS OF DISTURBANCE
 - SF--SF- TREE PROTECTION / SILT CONSTRUCTION FENCE
 - S-O-S- SILT FENCE OUTLET
 - CONSTRUCTION ENTRANCE
 - EX CONTOURS

DISTURBED AREA
45,673 SF
1.05 AC.

Public Water Distribution / Extension System
The City of Raleigh reserves the right to review and approve or disapprove the City's public water system as shown on this plan. The material and construction methods used for the project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit #
Authorizes to Construct
Date:

Public Sewer Collection / Extension System
The City of Raleigh reserves the right to review and approve or disapprove the City's public sewer system as shown on this plan. The material and construction methods used for the project shall conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit #
Authorizes to Construct
Date:

ATTENTION CONTRACTORS
The Construction Contractor responsible for the erection of manhole, manhole, and/or manhole, as approved in these plans, is responsible for connecting 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 Department in advance of beginning construction, will result in the issuance of monetary fines, and require reconnection of any water or sewer facilities not approved as a result of this notification failure.
Failure to call for inspection, install a Disturbance Flag, have Permitted Plans on the Job, 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.



EXISTING 12\"/>

REV#	DESCRIPTION

PRELIMINARY
NOT RELEASED
FOR CONSTRUCTION



Bateman Civil Survey Company
Engineers • Surveyors • Planners
2520 Relevance Avenue, North Carolina 27619
Phone: (919) 487-1101
FAX: (919) 487-1101
LICENSE # 9896, No. C-0376



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

OFFSITE SEWER OUTFALL PLAN

Project Engineer	TSE
Designed By	RAJ
Drawn By	RAJ
Checked By	TSE
Scale	N/A
Date	10/09/18

Project Number: 57048
SHEET
420

ELIZABETH HEIGHTS



LEGEND:

- LIMITS OF DISTURBANCE
- SF-SF- TREE PROTECTION / SILT COMBINATION FENCE
- SILT FENCE OUTLET
- CONSTRUCTION ENTRANCE

DISTURBED AREA
77,965 SF
1.79 AC.

NOTES:

1. BACKGROUND MAP IMAGERY TAKEN FROM WAKE COUNTY GIS
2. CONTRACTOR SHALL PROVIDE STANDARD SPECIFICATIONS, DETAILS, AND A DETAILED CONSTRUCTION SEQUENCE FOR THE USE OF PUMP BYPASS EQUIPMENT, METHODS, AND FINAL TESTING.

PUMP INFO:

1. SUCTION STATIC LIFT: 14.6 FT
2. N.P.S.H. REQ'D: 33.44 FT
3. REQ'D HORSEPOWER: 15 HP

* FINAL HYDRAULIC PUMP DESIGN IS TO BE SUBMITTED BY THE CONTRACTOR AND SEALED BY NC REGISTERED PE.

SEWER FLOW INFO:
PEAK FLOW: 685,313 GPD



PRELIMINARY
NOT RELEASED
FOR CONSTRUCTION



Bateman Civil Survey Company
Engineers • Surveyors • Planners
2524 Relevance Avenue, North Carolina 27639
Phone: (919) 487-1101
Fax: (919) 487-1101
WAKE COUNTY, NC



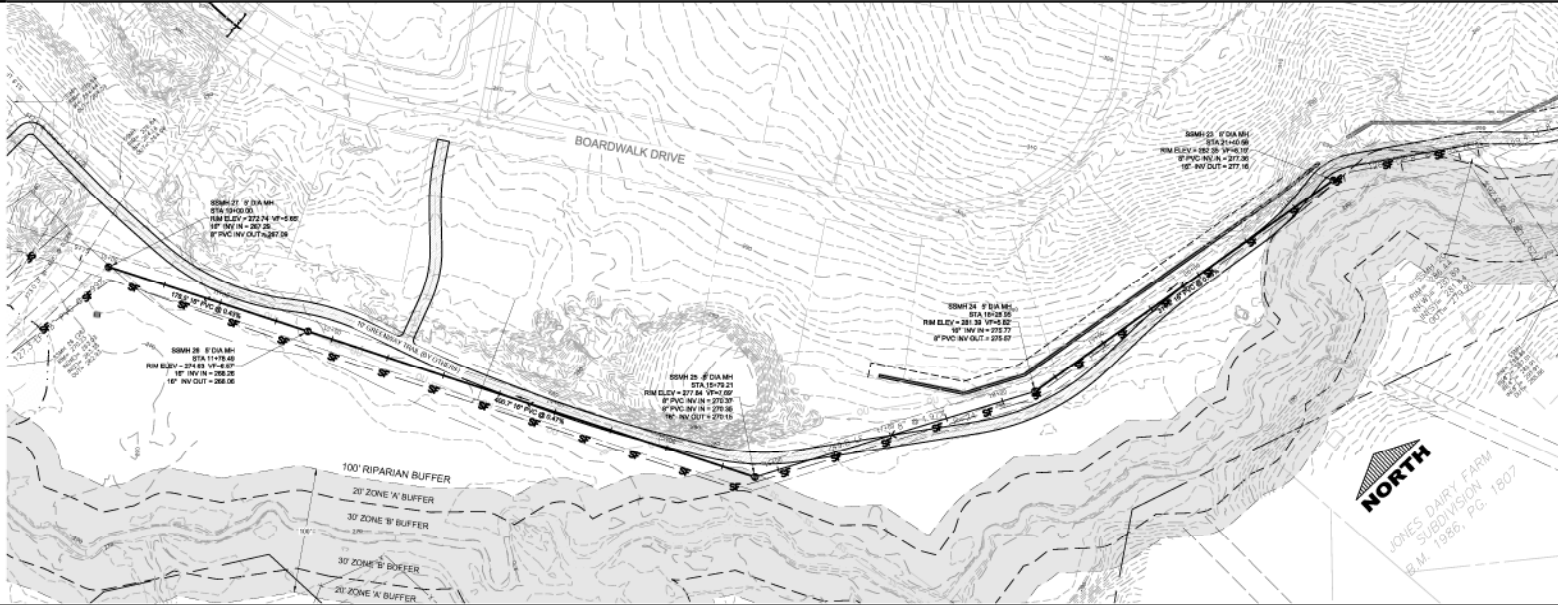
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
1202 AVENUE F ROAD
SUITE 207
WAKE COUNTY, NC

REHABILITATION PLAN
OFFSITE SEWER LINE

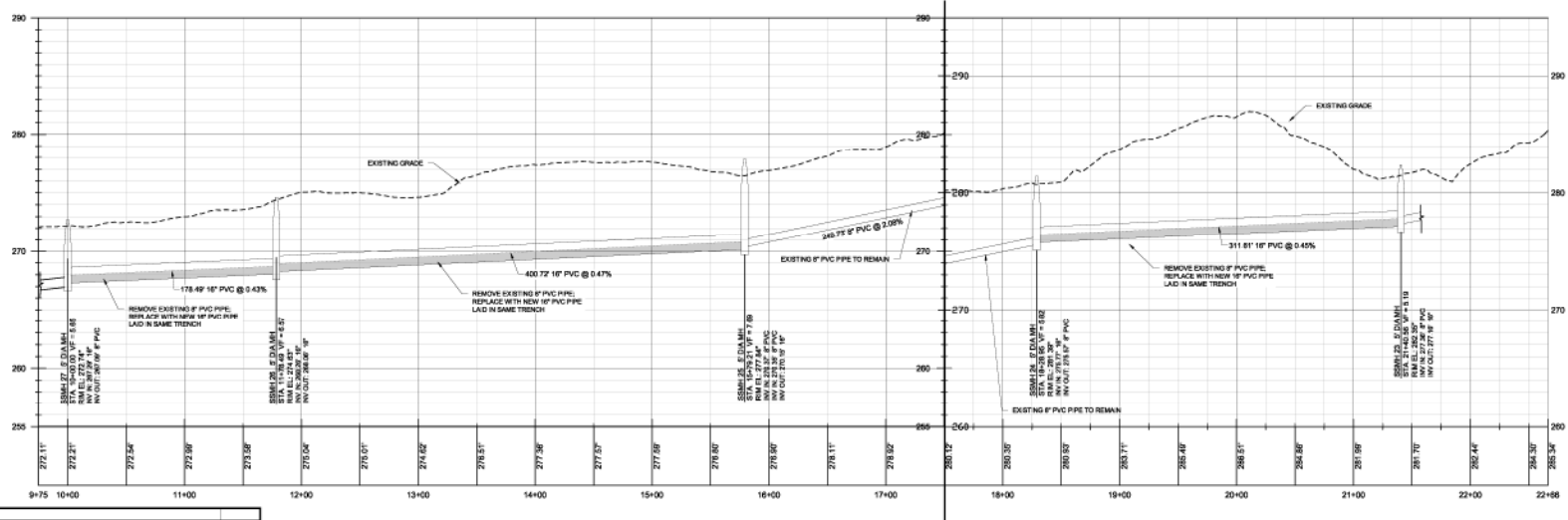
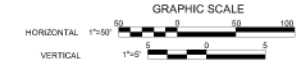
Project Engineer	TSB
Designed By	RAJ
Drawn By	RAJ
Checked By	TSB
Scale	N/D
Date	10/09/18
Project Number	57004

SHEET
421

NO.	DATE	REVISIONS



SEWER REHABILITATION PROFILE



NO.	DATE	DESCRIPTION



PRELIMINARY
NOT RELEASED
FOR CONSTRUCTION



Bateman Civil Survey Company
Engineers • Surveyors • Planners
2520 Relevance Avenue, North Carolina 27519
Phone: (919) 487-1181
Fax: (919) 487-1181
NCESLS 01896 No. C-0378



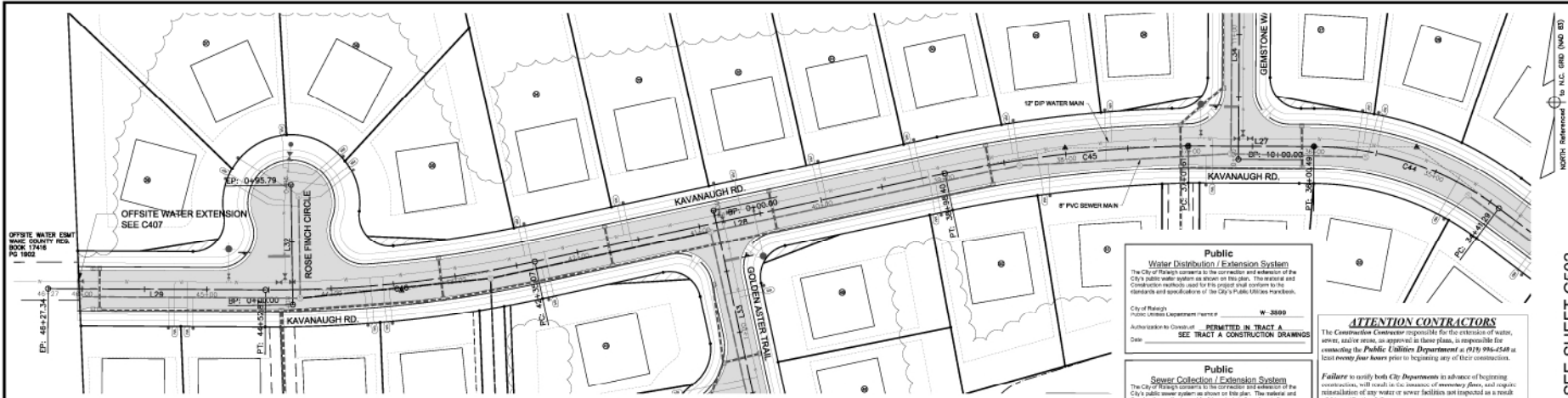
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
1205 AVENUE F ROAD
SUITE 207
WAKE COUNTY, NC

REHABILITATION PROFILE
OFFSITE SEWER LINE

Project Engineer: TSB
Designed By: RAN
Drawn By: RAN
Checked By: TSB
Scale: NTD
Date: 10/09/18
Project Number: 5704

SHEET
422

ELIZABETH HEIGHTS



KAVANAUGH RD - PLAN
SCALE: 1"=40'
STA: 34+30 - 46+27

KAVANAUGH ROAD					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
C44	250.00	159.20	N71° 25' 50.35"W	34+41.29	36+00.49
L27		1.01.13	N89° 47' 54.81"W	36+00.49	37+01.61
C45	1000.00	196.79	S83° 29' 05.78"W	37+01.61	38+98.40
L28		3.35.67	S77° 50' 50.44"W	38+98.40	42+35.07
C46	1000.00	217.80	S84° 05' 12.99"W	42+35.07	44+52.87
L29		174.47	N89° 40' 24.45"W	44+52.87	46+27.34

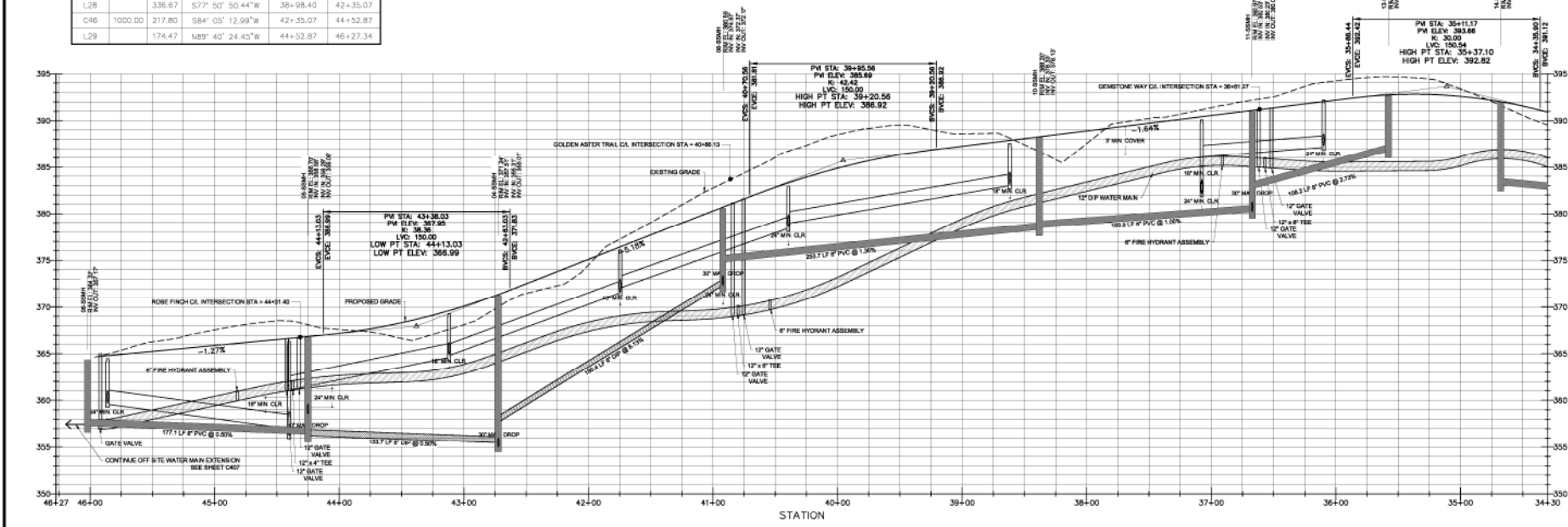
Public Water Distribution / Extension System
 The City of Raleigh permits the construction and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City of Raleigh Utility Handbook.
 City of Raleigh Public Utilities Department Permit # **W-3800**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

Public Sewer Collection / Extension System
 The City of Raleigh permits the construction 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 of Raleigh Utility Handbook.
 City of Raleigh Public Utilities Department Permit # **S-4523**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

ATTENTION CONTRACTORS
 The Commissioning 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) 984-2544 at least **ten (10) business days** prior to beginning any of their construction.
 Failure to notify both City Departments in advance of beginning construction, will result in the issuance of emergency flags, and require reinstallation of any water or sewer facilities not inspected as a result of this modification failure.
 Failure to call for inspection **immediately** upon completion of work, will result in the issuance of emergency flags. Any other violation of City of Raleigh Standards will result in a **Stop Work** and **Exclosure** until work is to the City's satisfaction.

SEE SHEET C502

ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
PLAN AND PROFILE
KAVANAUGH RD.
 Project Engineer: TSB
 Designed By: MP
 Drawn By: MP
 Checked By: TSB
 Scale: AS SHOWN
 Date: 10/09/18
 Project Number: 07008
 SHEET **C501**



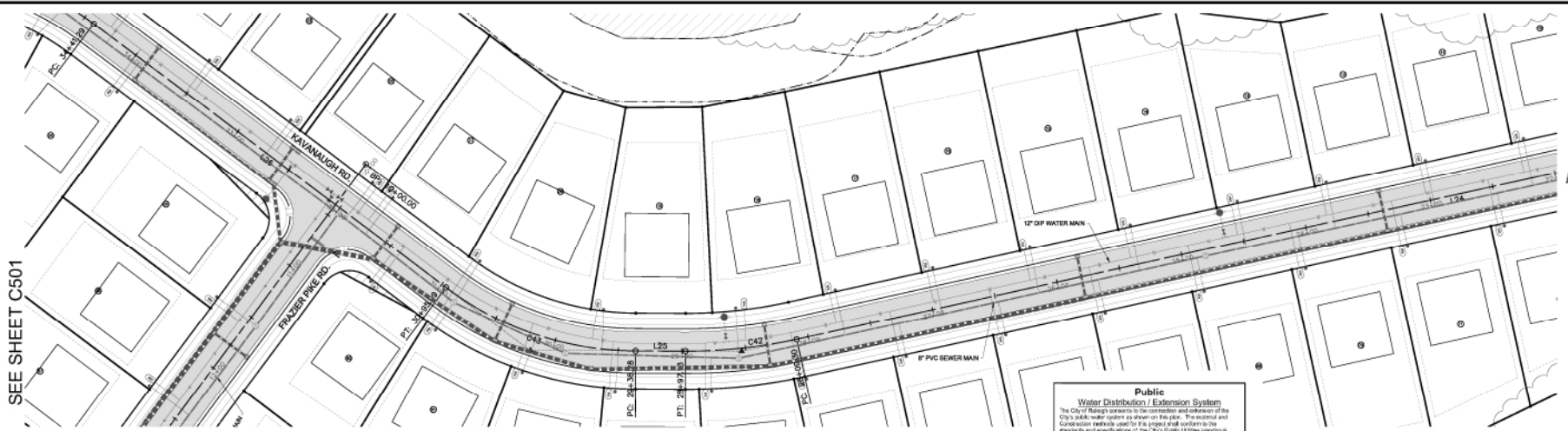
KAVANAUGH RD - PROFILE
HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
STA: 34+30 - 46+27

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	10/07/2018

ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
PLAN AND PROFILE
KAVANAUGH RD.
 Project Engineer: TSB
 Designed By: MP
 Drawn By: MP
 Checked By: TSB
 Scale: AS SHOWN
 Date: 10/09/18
 Project Number: 07008
 SHEET **C501**

SEE SHEET C501

NORTH Reference 1" to N.C. GRID (NAD 83)



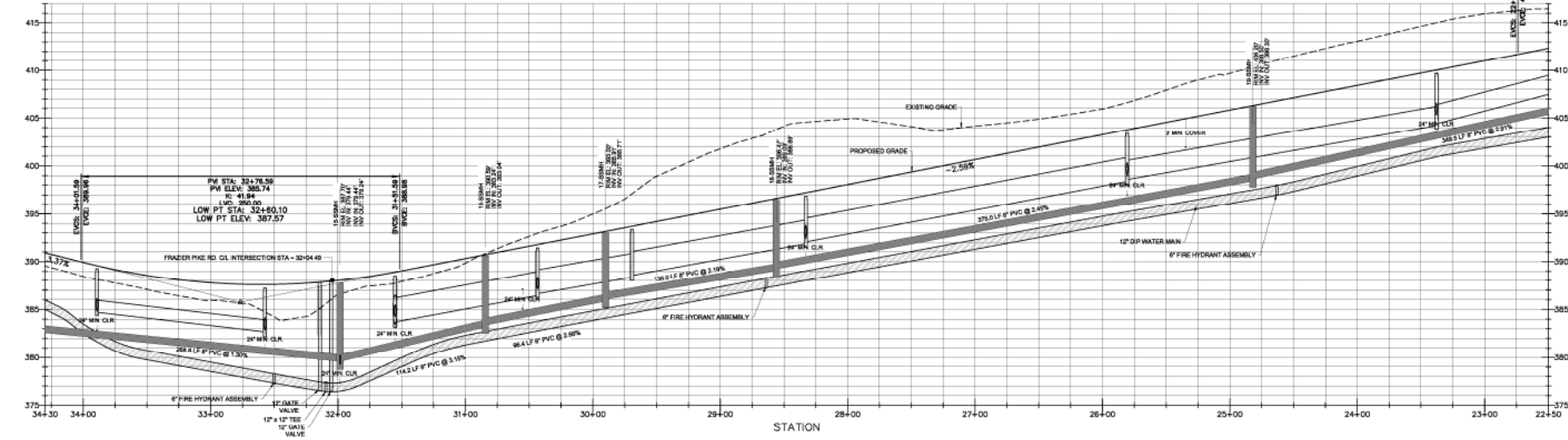
KAVANAUGH ROAD					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L22	91.51	91.51	S87° 40' 34.01\"/>		

KAVANAUGH RD - PLAN
SCALE: 1"=40'
STA: 22+50 - 34+30

Public Water Distribution / Extension System
The City of Raleigh consents to the construction 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 # **W-3599**
Authorization to Construct: **PERMITTED IN TRACT A**
Date: **SEE TRACT A CONSTRUCTION DRAWINGS**

Public Sewer Collection / Extension System
The City of Raleigh consents to the construction 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 # **S-4523**
Authorization to Construct: **PERMITTED IN TRACT A**
Date: **SEE TRACT A CONSTRUCTION DRAWINGS**

ATTENTION CONTRACTORS
The Construction Contractor responsible for the extension of water, sewer, and/or electric, 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 re-qualification of any water or sewer facilities not inspected as a result of this modification notice.
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 **Stop and Possible Exclusion** from future work in the City of Raleigh.



KAVANAUGH RD - PROFILE
HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
STA: 22+50 - 34+30

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

SEE SHEET C503

Bateman Civil Survey Company
Engineers • Surveyors • Planners
2524 Relevance Avenue, North Carolina 27619
Phone: 919-882-1100 Fax: 919-882-1101
Website: www.bateman-survey.com License No. C-20734

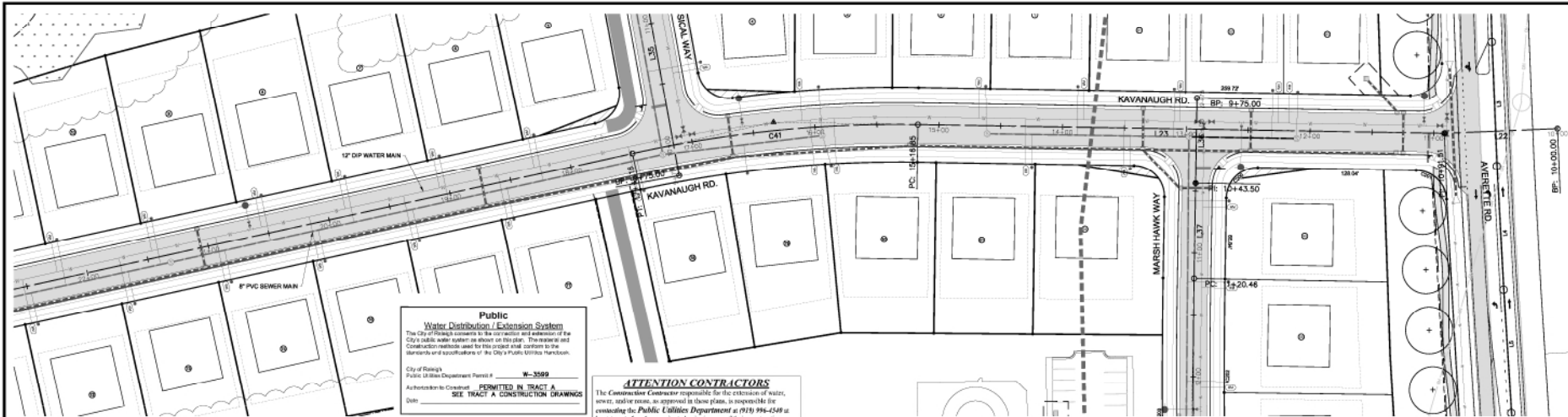
ELIZABETH HEIGHTS CONSTRUCTION DRAWINGS
12026 ABERNETHY ROAD
Raleigh, NC 27617
WAKE COUNTY, NC

PLAN AND PROFILE KAVANAUGH RD.

Project Engineer	TSB
Designed By	MP
Drawn By	MP
Checked By	TSB
Scale	AS SHOWN
Date	10/30/2018
Project Number	07004

SHEET
C502

ELIZABETH HEIGHTS



Public Water Distribution / Extension System
 The City of Raleigh contracts for the installation and extension of the City's public water system as shown on this plan. The materials 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 # **W-3599**
 Authorization to Construct **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date:

Public Sewer Collection / Extension System
 The City of Raleigh contracts for the installation and extension of the City's public sewer system as shown on this plan. The materials 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 # **S-4523**
 Authorization to Construct **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date:

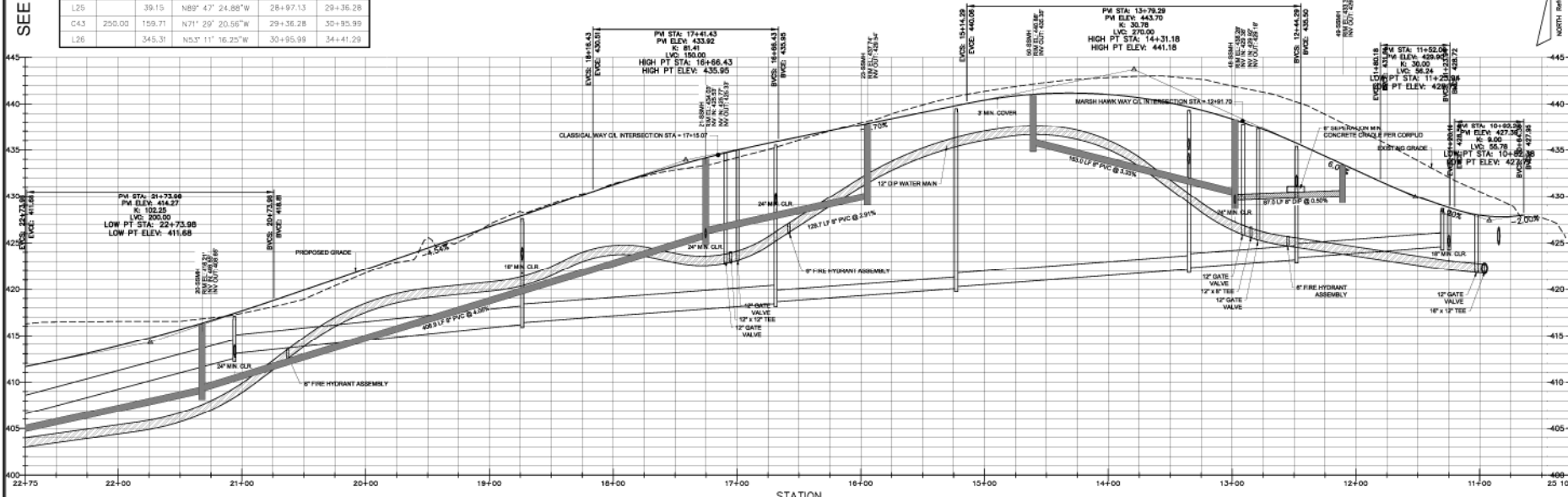
ATTENTION CONTRACTORS
 The Construction Contractor responsible for the extension of water, sewer, and/or gas, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-4549 at least twenty four hours prior to beginning any of their construction.

Failure to notify both City Departments in advance of beginning construction, will result in the issuance of necessary fines, and require indemnification of any water or sewer facilities not approved as a result of this notification failure.
Failure to call for inspection. Install a Dewatering Plug, have Permitted Plans on the job site, 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.

KAVANAUGH RD - PLAN
 SCALE: 1"=40'
 STA: 10+25 - 22+50

SEE SHEET C502

KAVANAUGH ROAD						
Number	Radius	Length	Line/Chord Direction	Start Station	End Station	
L22	91.51	587' 40"	34.01°W	10+00.00	10+91.51	
L23	425.34	N89° 03'	35.12°W	10+91.51	15+16.85	
C41	1000.00	232.32	S84° 17'	05.67°W	15+16.85	17+49.16
L24	1060.14	S77° 37'	46.33°W	17+49.16	28+09.30	
C42	400.00	87.83	S83° 55'	10.72°W	28+09.30	28+97.13
L25	39.15	N89° 47'	24.88°W	28+97.13	29+36.28	
C43	250.00	159.71	N71° 29'	20.56°W	29+36.28	30+95.99
L26	345.31	N03° 11'	16.23°W	30+95.99	34+41.29	



KAVANAUGH RD - PROFILE
 HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
 STA: 10+25 - 22+50

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2524 Relevance Avenue, North Carolina 27639
 Phone: (919) 487-1101
 Fax: (919) 487-1101
 License: 14205 (S&P), No. C-2078

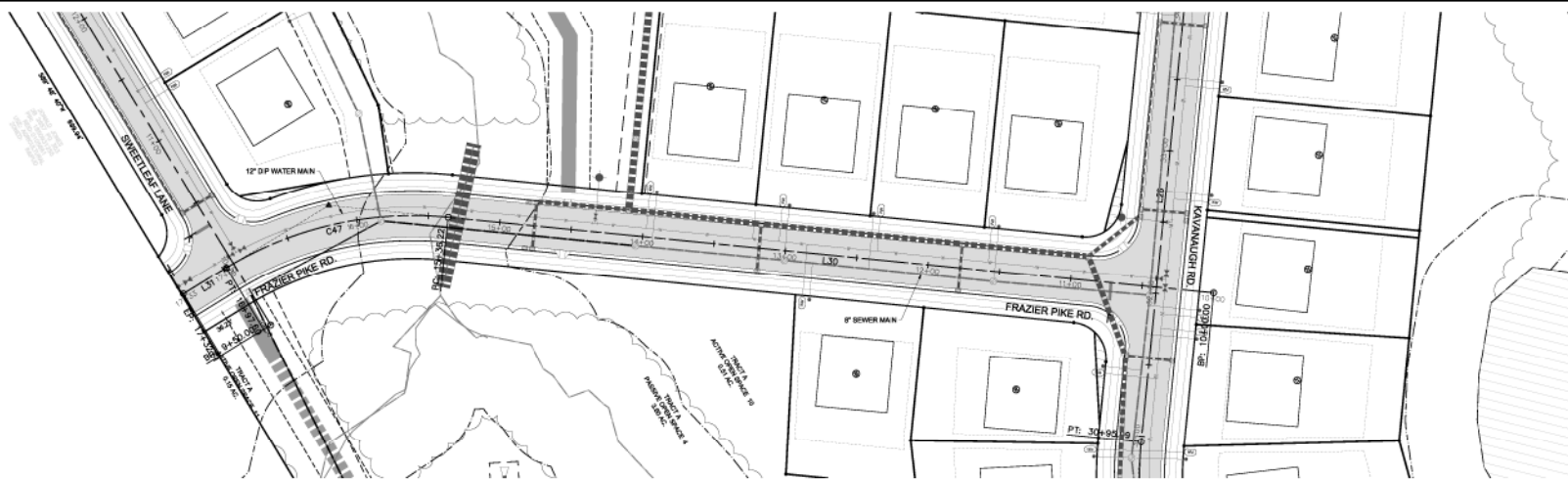
ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

PLAN AND PROFILE
KAVANAUGH RD.

Project Engineer	TSB
Designed By	MP
Drawn By	MP
Checked By	TSB
Scale	AS SHOWN
Date	10/30/18
Project Number	0704

SHEET
C503

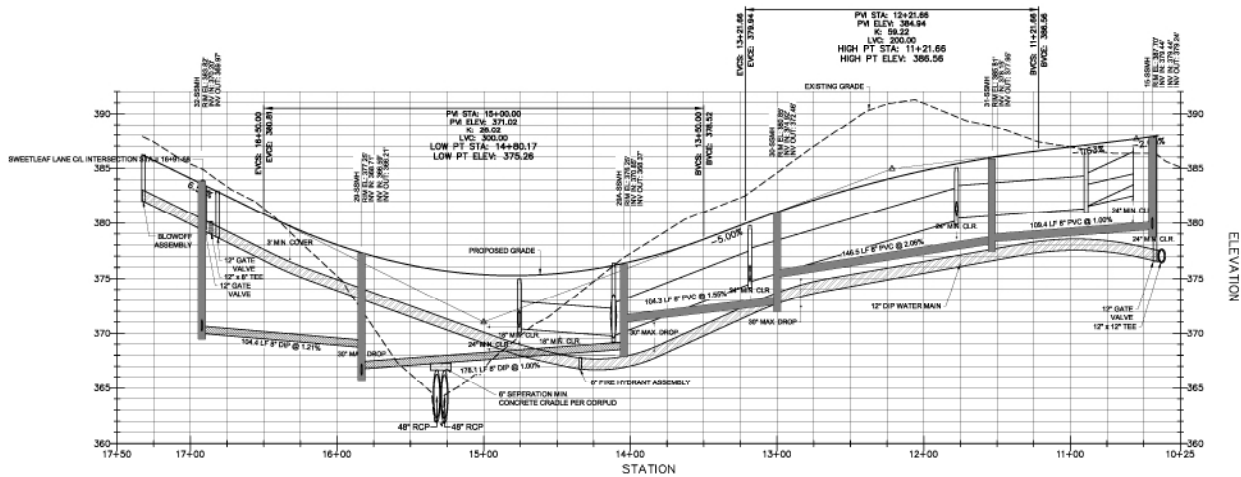
ELIZABETH HEIGHTS



FRAZIER PIKE RD - PLAN
SCALE: 1"=40'
STA: 10+25 - 17+33

NORTH Referenced to N.C. GRID (NAD 83)

FRAZIER PIKE ROAD					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L30	536.22	536' 48" 43.75"W		10+00.00	15+36.22
C47	200.00	181.36 51° 19' 09.18"W		15+36.22	16+97.60
L31	35.02	50' 10" 35.92"E		16+97.60	17+32.61



FRAZIER PIKE RD - PROFILE
HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
STA: 10+25 - 17+33

Public
Water Distribution / Extension System
The City of Raleigh consents to the construction and installation of the City's public water system as shown on this plan. The material and construction methods used for this project and conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit # **W-3569**
Authorization to Construct **PERMITTED IN TRACT A**
Date **SEE TRACT A CONSTRUCTION DRAWINGS**

Public
Sewer Collection / Extension System
The City of Raleigh consents to the construction and installation of the City's public sewer system as shown on this plan. The material and construction methods used for this project and conform to the standards and specifications of the City's Public Utilities Handbook.
City of Raleigh
Public Utilities Department Permit # **S-4553**
Authorization to Construct **PERMITTED IN TRACT A**
Date **SEE TRACT A CONSTRUCTION DRAWINGS**

ATTENTION CONTRACTORS
The Construction Contractor responsible for the restoration of water, sewer, and/or gas, as approved in these plans, is responsible for contacting the Public Utilities Department at (919) 996-3300 at least **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 installation of any water or sewer facilities not inspected as a result of this certification failure.
Failure to call for Inspection, Install a Downstream Plug, have Permitted Plans on the Jobite, 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.



Bateman Civil Survey Company
Engineers • Surveyors • Planners
2520 Relevance Avenue, North Carolina 27619
Phone: (919) 887-1101
Fax: (919) 887-1101
WAKE COUNTY, NC



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

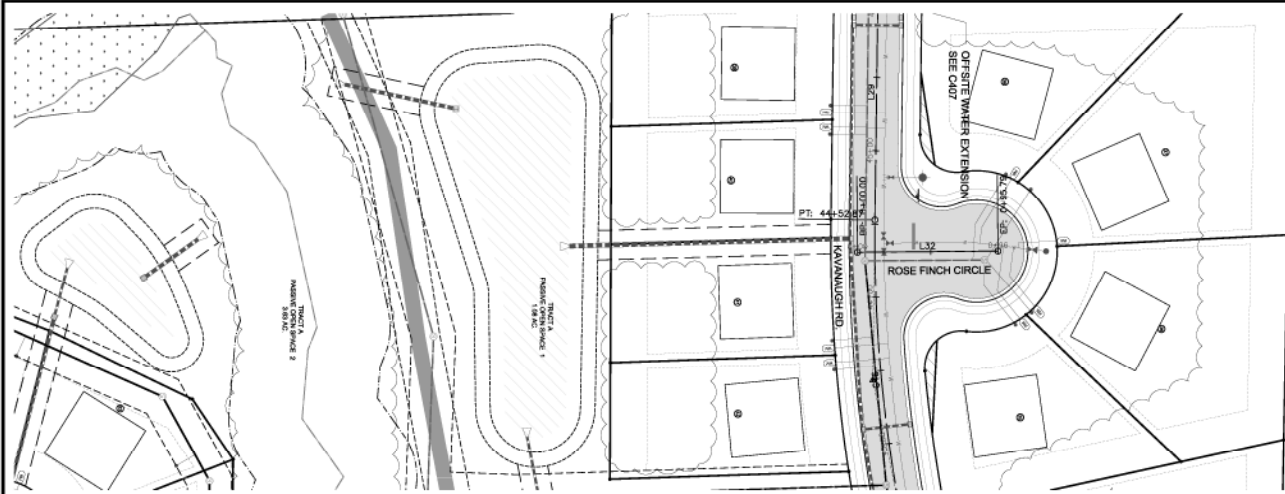
PLAN AND PROFILE
FRAZIER PIKE RD.

Project Engineer: **TSS**
Designed By: **MP**
Drawn By: **MP**
Checked By: **TSS**
Scale: **AS SHOWN**
Date: **10/09/18**
Project Number: **0704**

SHEET
C504

REV	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	10/07/2018

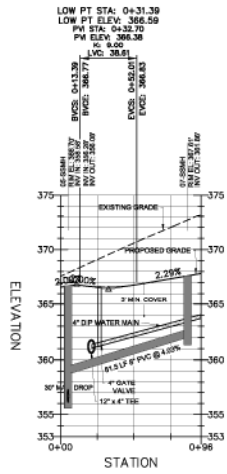
REVISIONS



ROSE FINCH CIRCLE - PLAN
SCALE: 1"=40'
STA: 0+00 - 0+96



ROSE FINCH CIRCLE					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L32		95.79	N0° 55' 32.50"W	0+00.00	0+95.79



ROSE FINCH CIRCLE - PROFILE
HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
STA: 0+00 - 0+96

NO.	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018
REVISIONS		

Public
Water Distribution / Extension System
The City of Raleigh consents to the construction and extension of the City's public water system as shown on this plan. The materials 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 # **W-3599**

Authorization to Construct: **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS

Date: _____

Public
Sewer Collection / Extension System
The City of Raleigh consents to the construction and extension of the City's public sewer system as shown on this plan. The materials 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 # **S-4523**

Authorization to Construct: **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS

Date: _____

ATTENTION CONTRACTORS

The Commissioner/Coverman responsible for the occurrence of storm, sewer, and/or gas, as approved in these plans, is responsible for contacting the **Public Utilities Department** at 919-996-4549 at least **twenty-four hours** prior to beginning any of their construction.

Failure to notify both **City Department** in advance of beginning construction, will result in the issuance of **emergency flow**, and require reinstallation of any water or sewer facilities not inspected as a result of this work/notice below.

Failure to call for **Inspection, Detail a Drawnman Pkg.** Items Permitted Plans on the **Jobfile**, 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.

ELIZABETH HEIGHTS

Bateman Civil Survey Company
Engineers • Surveyors • Planners
2534 Relevance Avenue, North Carolina 27639
Phone: 919.487.1811
FAX: 919.487.1810
WAKE COUNTY, NC

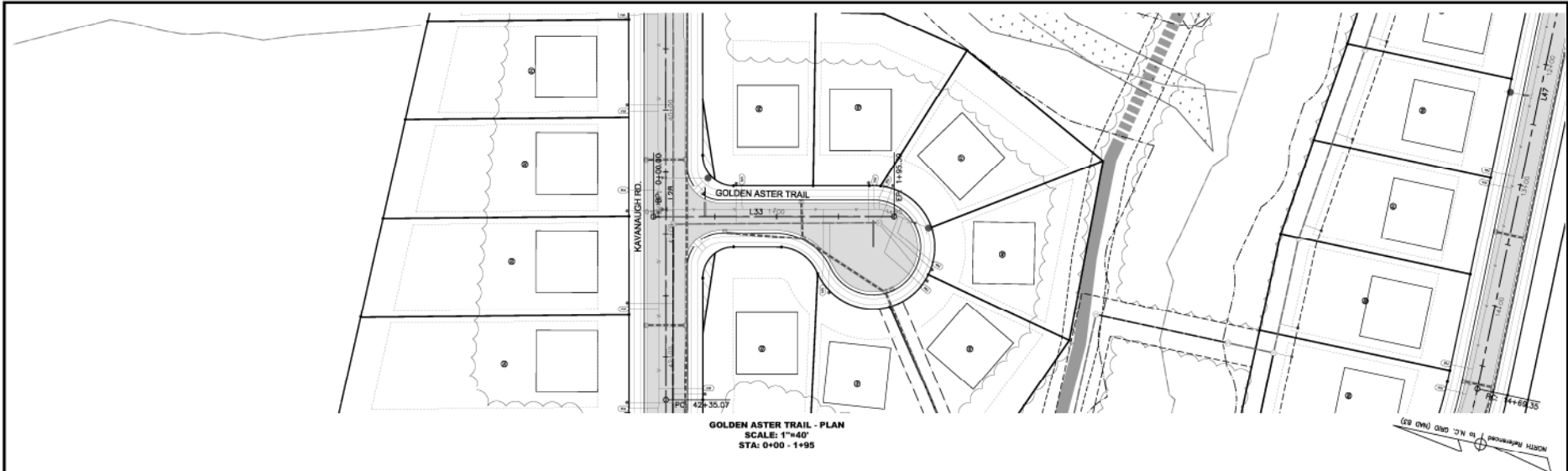
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

1202 AVENUE ROAD
SUITE 207
WAKE COUNTY, NC

PLAN AND PROFILE
ROSE FINCH CIRCLE

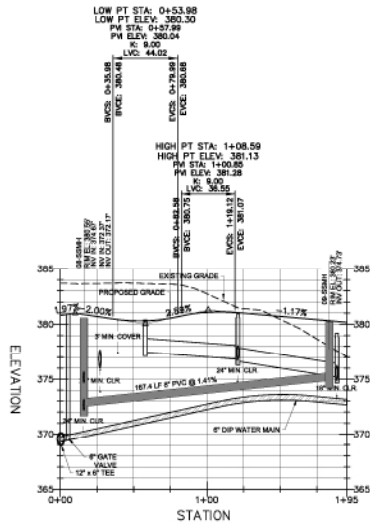
Project Engineer	TSB
Designed By	MP
Drawn By	MP
Checked By	TSB
Scale	AS SHOWN
Date	10/09/18
Project Number	07018

SHEET
C505



GOLDEN ASTER TRAIL - PLAN
 SCALE: 1"=40'
 STA: 0+00 - 1+95

GOLDEN ASTER TRAIL					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L33	133	195.39	312° 08' 08.56"E	0+00.00	1+95.39



GOLDEN ASTER TRAIL - PROFILE
 HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
 STA: 0+00 - 1+95

Public Water Distribution / Extension System
 The City of Raleigh reserves the right to modify or discontinue the City's public water system as shown on this plan. The address 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 # **W-3599**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

Public Sewer Collection / Extension System
 The City of Raleigh reserves the right to modify or discontinue the City's public sewer system as shown on this plan. The address 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 # **S-4533**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

ATTENTION CONTRACTORS
 The Contractor/Contractor responsible for the construction of water, sewer, and/or manholes, as approved in these plans, is responsible for contacting the **Public Utilities Department** at 919-996-4549 at least **ten (10) business days** prior to beginning any of their construction.

Failure to notify both City Departments in advance of beginning construction, will result in the issuance of a stop-work order, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.
Failure to call for **Reinspection**, **Reseat a Manhole**, **Flag**, **have Permitted Plans** on the **Job**, or any other violation of City of Raleigh Standards will result in a **File and Possible Exclusion** from future work in the City of Raleigh.

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2524 Relevance Avenue, North Carolina 27639
 Phone: 919-885-1101
 Fax: 919-885-1101
 Website: www.bateman-survey.com

ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

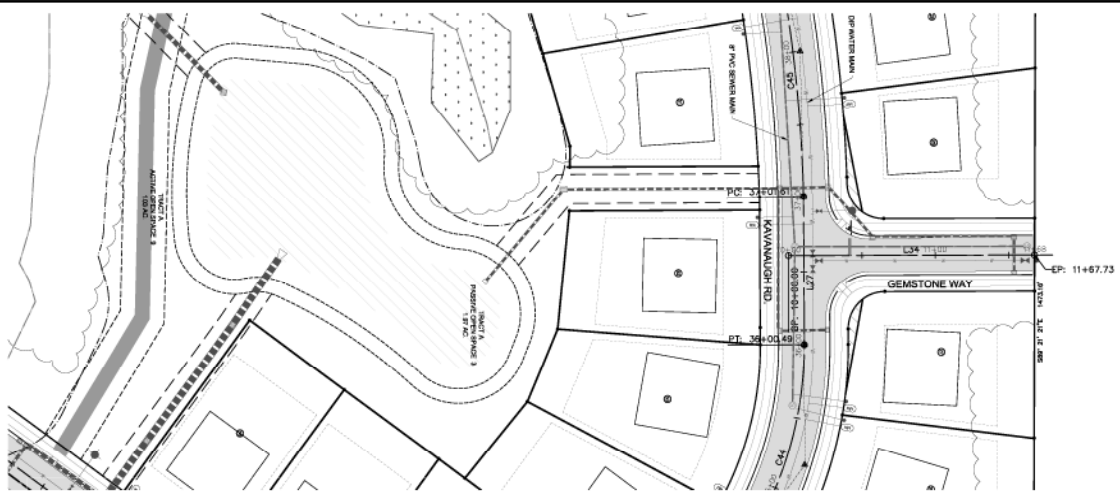
PLAN AND PROFILE
GOLDEN ASTER TRAIL

Project Engineer	TSS
Designed By	MP
Drawn By	MP
Checked By	TSS
Scale	AS SHOWN
Date	10/09/18
Project Number	07018

SHEET
C506

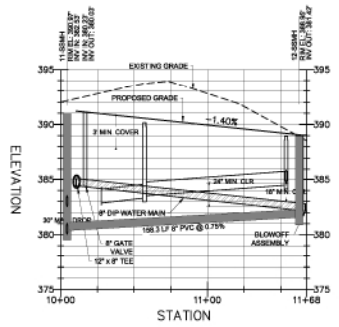
ELIZABETH HEIGHTS

1202 AVENUE ROAD
 SUITE 207
 WAKE COUNTY, NC



GEMSTONE WAY - PLAN
 SCALE: 1"=40'
 STA: 10+00 - 11+68

GEMSTONE WAY					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L34		167.73	N0° 21' 13.83"E	10+00.00	11+67.73



GEMSTONE WAY - PROFILE
 HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
 STA: 10+00 - 11+68



REV	NO	DESCRIPTION	DATE
1		REVISED PER TOR COMMENTS	12/07/2018

Public
Water Distribution / Extension System
 The City of Raleigh consents to the construction and extension of the City's public water system as shown on this plan. The methods 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 # **W-3599**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

Public
Sewer Collection / Extension System
 The City of Raleigh consents to the construction and extension of the City's public sewer system as shown on this plan. The methods 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 # **S-4523**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

ATTENTION CONTRACTORS
 The Construction Contractor responsible for the construction of water, sewer, and/or roads, as approved in these plans, is responsible for contacting the **Public Utilities Department at 919-996-6449** at least **seventy 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 emergency flags, and require installation of any water or sewer facilities not depicted 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 Eviction from future work in the City of Raleigh.



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2524 Relevance Avenue, North Carolina 27639
 Phone: 919-850-1100
 FAX: 919-850-1101
 WAKE COUNTY, NC



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1202 AVENUE F ROAD
 SUITE 207
 WAKE COUNTY, NC

PLAN AND PROFILE
GEMSTONE WAY

Project Engineer	TSS
Designed By	MP
Drawn By	MP
Checked By	TSS
Scale	AS SHOWN
Date	10/09/18
Project Number	0704

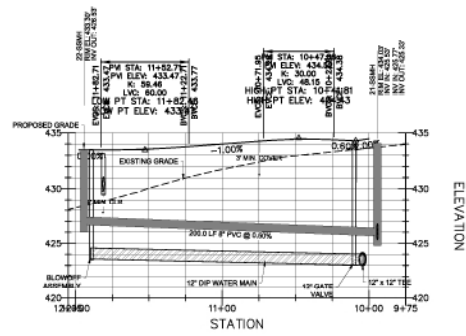
SHEET
C507

ELIZABETH HEIGHTS



CLASSICAL WAY - PLAN
SCALE: 1"=40'
STA: 09+75 - 12+05

CLASSICAL WAY					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L35		230.11	N10° 28' 45.70"W	9+75.00	12+05.11



CLASSICAL WAY - PROFILE
HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
STA: 09+75 - 12+05

Public
Water Distribution / Extension System
The City of Raleigh consents to the construction and operation of the City's public water system as shown on the plan. The material and Construction methods used for the project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # **W-3099**

Authorization to Construct: **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS

Date: _____

Public
Sewer Collection / Extension System
The City of Raleigh consents to the construction and operation of the City's public sewer system as shown on the plan. The material and Construction methods used for the project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # **S-4523**

Authorization to Construct: **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS

Date: _____

ATTENTION CONTRACTORS
The **Contractor** responsible for the extension of sewer, water, and/or gas, as approved in these plans, is responsible for contacting the **Public Utilities Department at 919-996-4140** at least **ninety-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 installation of any water or sewer facilities not requested as a result of this authorization failure.

Failure to call for Inspection, Install a Downstream Plug, have Permitted Plans on file with the Aesthetic, or any other Violation of City of Raleigh Standards will result in a **Time and Penalties Exclusion** from future work in the City of Raleigh.

REV#	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

Bateman Civil Survey Company
Engineers • Surveyors • Planners
2531 Relevance Avenue, North Carolina 27639
Phone: 919-286-1181
Fax: 919-286-1181
NCELS 5789, No. C-2378

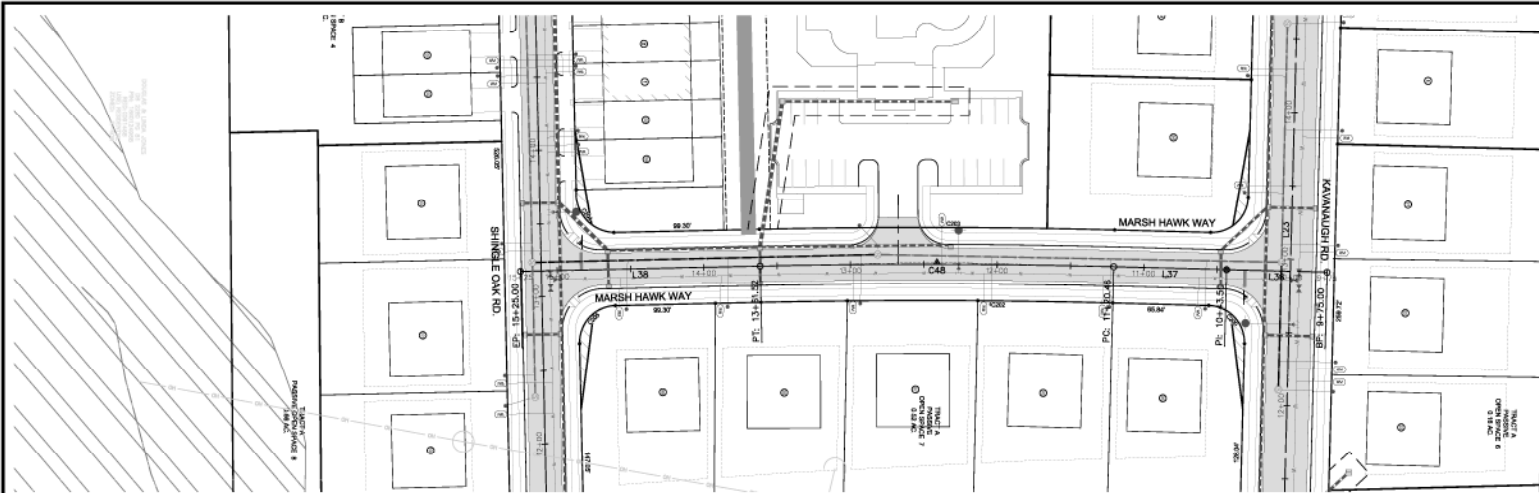
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

1205 AVENUE F ROAD
SUITE 207
WAKE COUNTY, NC

PLAN AND PROFILE
CLASSICAL WAY

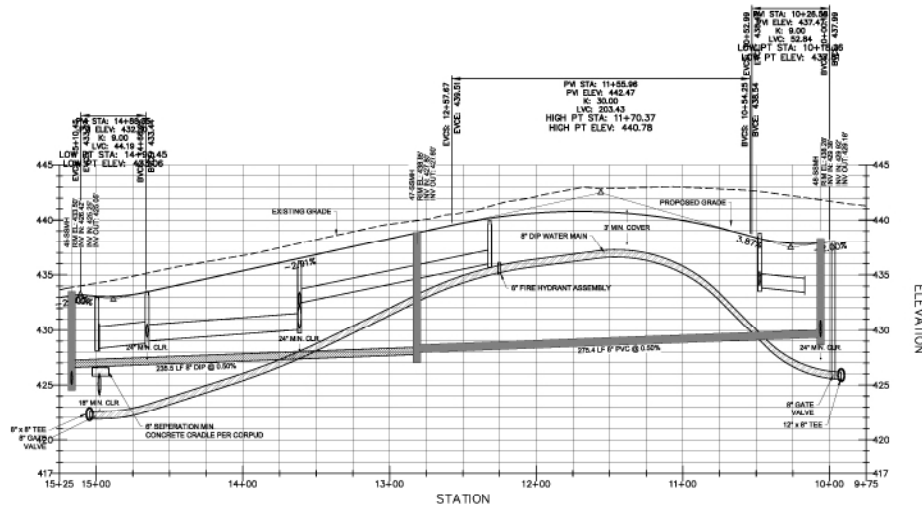
Project Engineer	TSS
Designed By	MP
Drawn By	MP
Checked By	TSS
Scale	AS SHOWN
Date	10/09/18
Project Number	0704

SHEET
C508



MARSH HAWK WAY - PLAN
SCALE: 1"=40'
STA: 09+75 - 15+25

MARSH HAWK WAY					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L36	68.50	50' 56" 24.88'W		9+75.00	10+43.50
L37	76.98	50' 56" 24.88'W		10+43.50	11+20.46
C48	5000.00	241.06' 50' 26" 27.43'E		11+20.46	13+61.52
L38	163.48	51' 49" 19.73'E		13+61.52	15+25.00



MARSH HAWK WAY - PROFILE
HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
STA: 09+75 - 15+25



Public
Water Distribution / Extension System
The City of Raleigh concerns to the construction and extension of the City's public water system as shown on this plan. The standards 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 # **W-3599**
Authorization to Construct **PERMITTED IN TRACT A**
Date **SEE TRACT A CONSTRUCTION DRAWINGS**

Public
Sewer Collection / Extension System
The City of Raleigh concerns to the construction and extension of the City's public sewer system as shown on this plan. The standards 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 # **S-4523**
Authorization to Construct **PERMITTED IN TRACT A**
Date **SEE TRACT A CONSTRUCTION DRAWINGS**

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) 996-4340 at least **ten (10) business days** prior to beginning any of their construction.
Failure to notify both City Departments in advance of beginning construction, will result in the issuance of **stop-work orders**, and require notification of any water or sewer facilities not impacted as a result of this modification follow.
Failure to call for **Inspection, Install a Detention Plug, Issue Permitted Plans** on the **Jobite**, or any other Violation of **City of Raleigh Standards** will result in a **Plan and Possible Exclusion** from future work in the City of Raleigh.

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

Bateman Civil Survey Company
Engineers • Surveyors • Planners
2534 Relevance Avenue, North Carolina 27639
Phone: (919) 487-1181
FAX: (919) 487-1181
LICENSE # 9890, No. C-2078

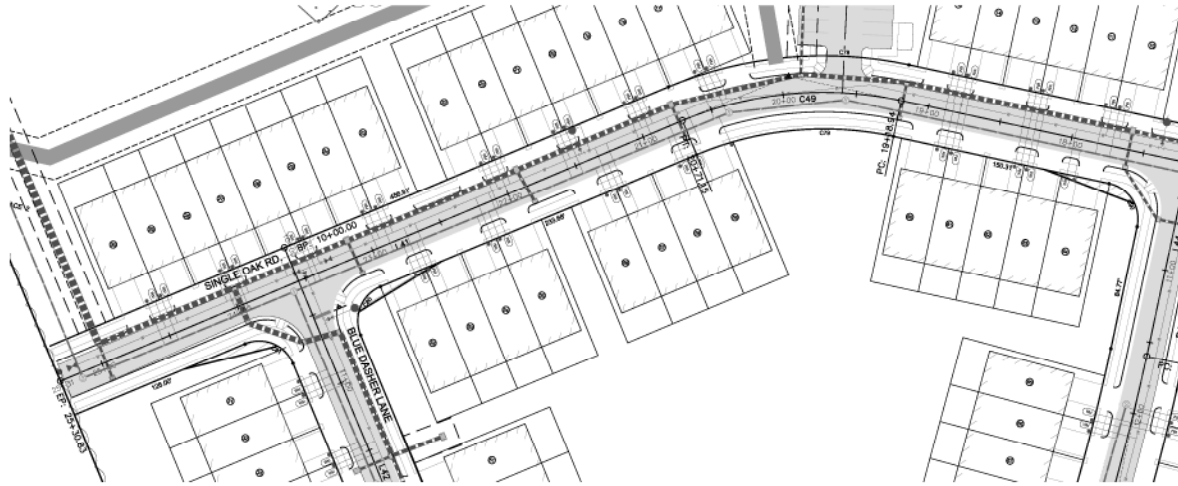
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
1202 AVENUE F ROAD
SUITE 207
WAKE COUNTY, NC

PLAN AND PROFILE
MARSH HAWK WAY

Project Engineer	TSB
Designed By	MP
Drawn By	MP
Checked By	TSB
Scale	AS SHOWN
Date	10/30/18
Project Number	0704

SHEET
C509

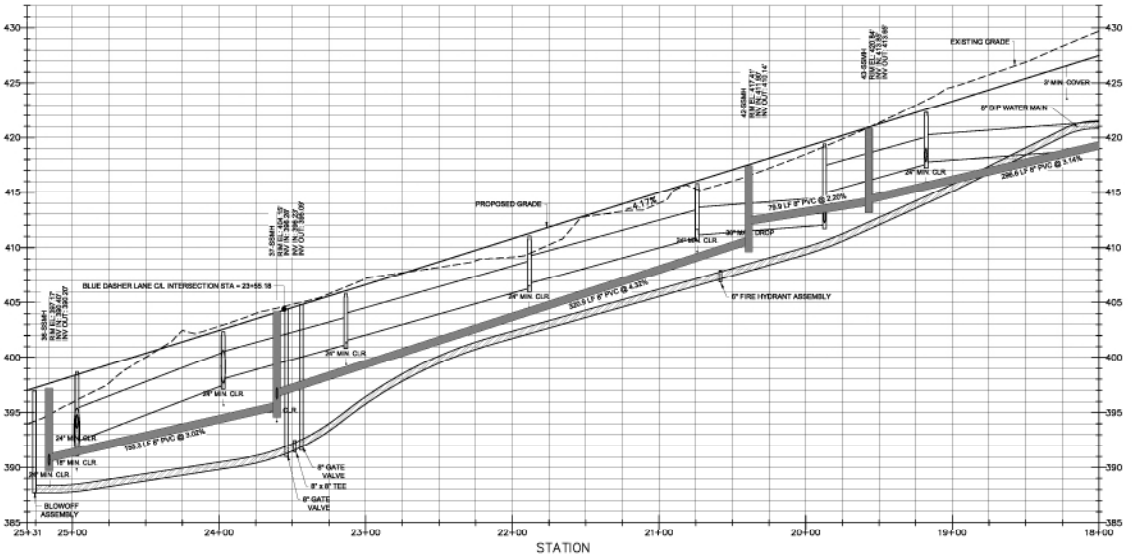
ELIZABETH HEIGHTS



SINGLE OAK RD. - PLAN
 SCALE: 1"=40'
 STA: 18+00 - 25+31

SEE SHEET C511

SINGLE OAK ROAD					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L39	90.82	586' 10"	S86° 10' 11.26"W	10+00.00	10+90.62
C50	205.00	7.01	S87° 10' 25.76"W	10+90.62	10+97.63
L40	821.31	588' 10"	S88° 10' 40.27"W	10+97.63	19+18.94
C49	255.00	152.21	S70° 44' 08.37"W	19+18.94	20+71.15
L41	459.68	553' 17"	S53° 17' 36.47"W	20+71.15	25+30.83



SINGLE OAK RD. - PROFILE
 HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
 STA: 18+00 - 25+31

ELEVATION

Public
Water Distribution / Extension System
 The City of Raleigh consents to the construction 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 # W-3999
 Authorization to Construct PERMITTED IN TRACT A
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date:

Public
Sewer Collection / Extension System
 The City of Raleigh consents to the construction 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 # S-4523
 Authorization to Construct PERMITTED IN TRACT A
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date:

ATTENTION CONTRACTORS
 The Contractor/Constructor responsible for the construction of water, sewer, and/or gas, as approved in these plans, is responsible for obtaining the necessary permits from the City of Raleigh. Failure to notify both City Departments in advance of beginning a construction, will result in the issuance of emergency plans, and require reimbursement of any water or sewer facilities not impacted as a result of this notification failure.
 Failure to call for inspection, install a Downstream Plug, have Permitted Plans on file, or any other violation of City of Raleigh Standards will result in a Fine and Possible Suspension from future work in the City of Raleigh.

REV#	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Relevance Avenue, North Carolina 27619
 Phone: 919.487.1181
 Fax: 919.487.1181
 License # 9986, No. C-2034

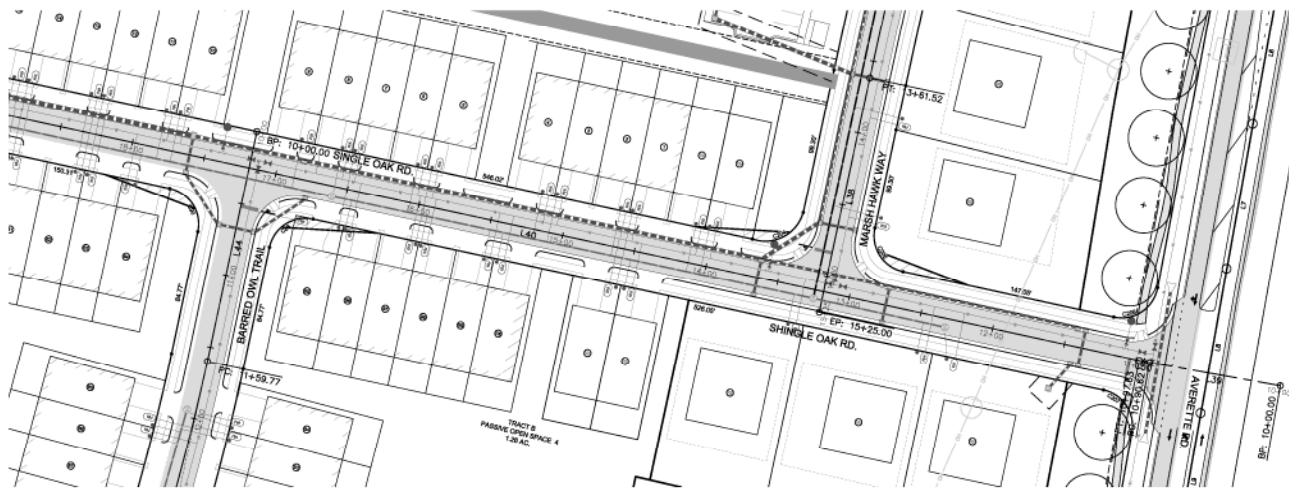
ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

PLAN AND PROFILE
 SHINGLE OAK RD.

Project Engineer: **TSS**
 Designed by: **MP**
 Drawn by: **MP**
 Checked by: **TSS**
 Scale: **AS SHOWN**
 Date: **10/30/18**
 Project Number: **0704**

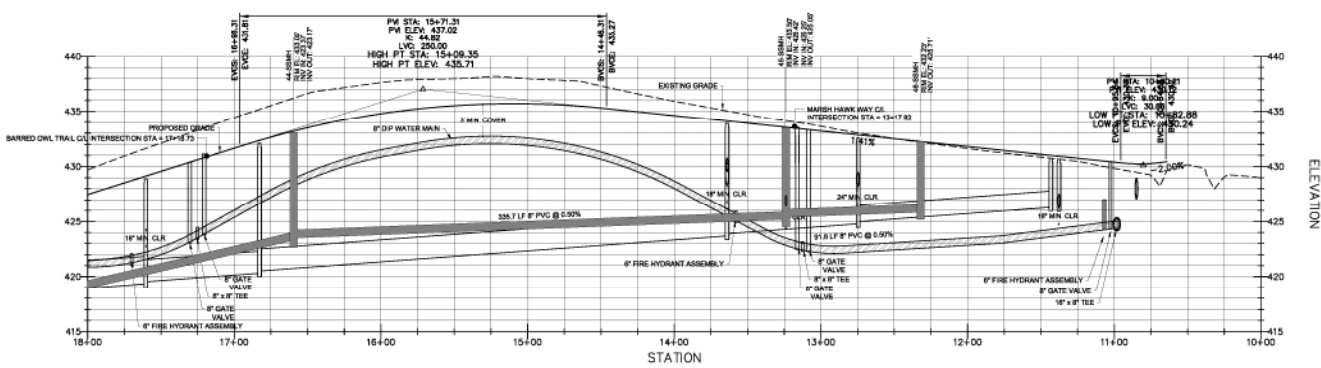
SHEET
C510

SEE SHEET C510

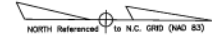


SINGLE OAK RD. - PLAN
SCALE: 1"=40'
STA: 10+00 - 18+00

SINGLE OAK ROAD					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L39	90.62	586' 10" 11.26"W		10+00.00	10+90.62
C50	205.00	7.01 587° 10' 28.76"W		10+90.62	10+97.63
L40	821.31	588° 10' 40.27"W		10+97.63	19+18.94
C49	255.00	152.21 570° 44' 08.37"W		19+18.94	20+71.15
L41	459.68	553' 17" 36.47"W		20+71.15	25+30.83



SINGLE OAK RD. - PROFILE
HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
STA: 10+00 - 18+00



Public
Water Distribution / Extension System
The City of Raleigh consents to the construction 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 water utility handbook.

City of Raleigh
Public Utilities Department Permit # **W-3099**
Authorization to Construct **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS
Date: _____

Public
Sewer Collection / Extension System
The City of Raleigh consents to the construction 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 # **S-4523**
Authorization to Construct **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS
Date: _____

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 919.996.4500 at least **seven days** in advance prior to beginning any of their construction.

Failure to notify both City Departments in advance of beginning construction, will result in the issuance of **stop-work orders**, and require installation of any water or sewer facilities not depicted as a result of this notification failure.

Failure to call for inspection, install a **Drawdown Plug**, leave **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.

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2018



ELIZABETH HEIGHTS

Bateman Civil Survey Company
Engineers • Surveyors • Planners
2530 Relevance Avenue, North Carolina 27639
Phone: (919) 487-1101
Fax: (919) 487-1101
WAKE COUNTY, NC



ELIZABETH HEIGHTS

CONSTRUCTION DRAWINGS

PLAN AND PROFILE

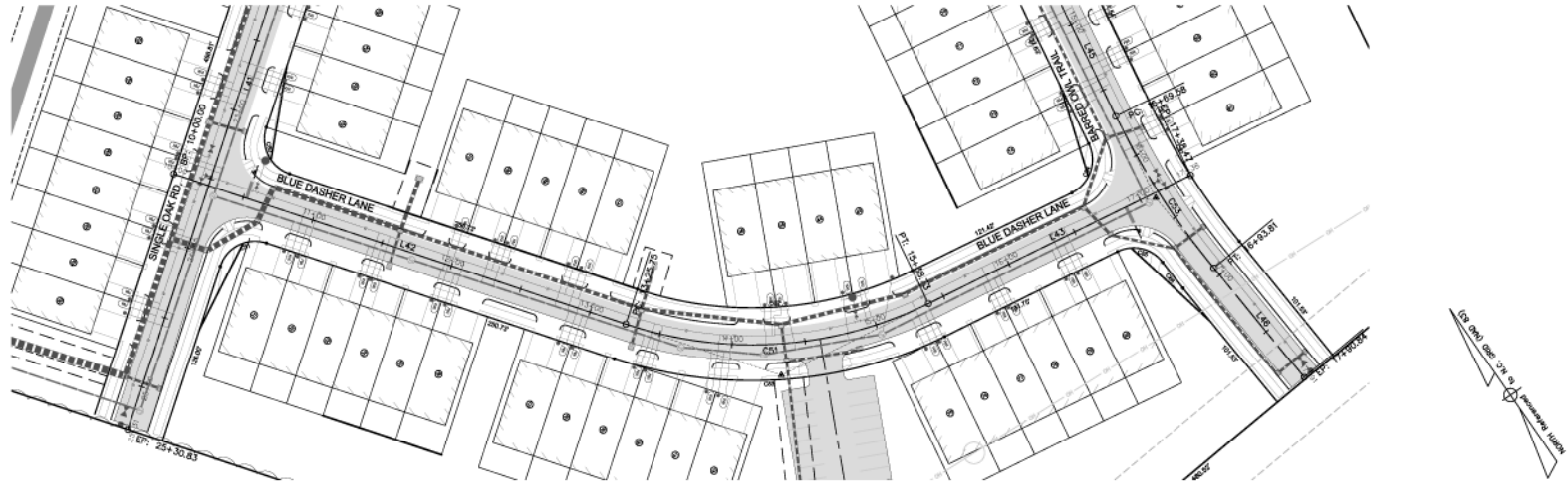
SHINGLE OAK RD.

1205 AVERETTE ROAD
SUITE 207
WAKE COUNTY, NC

Project Engineer	TSB
Designed By	MP
Drawn By	MP
Checked By	TSB
Scale	AS SHOWN
Date	10/30/18
Project Number	5704

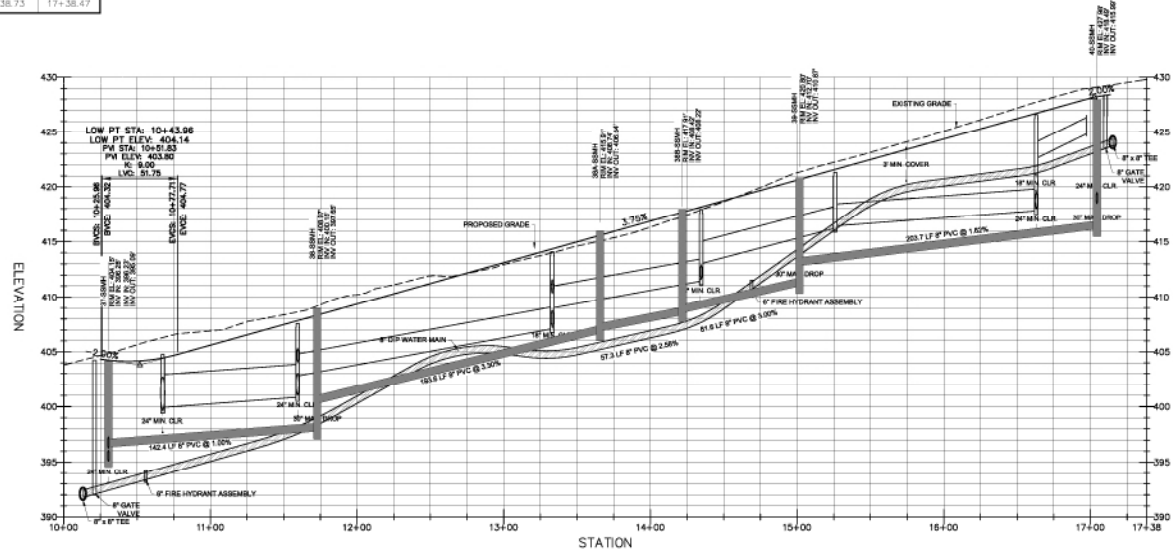
SHEET

C511



BLUE DASHER LANE - PLAN
 SCALE: 1"=40'
 STA: 10+00 - 17+38

BLUE DASHER LANE					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L42	325.75	536' 42"	536° 42' 23.59"E	10+00.00	13+25.75
CS1	275.00	212.98	590° 53' 30.14"E	13+25.75	15+38.73
L43	199.74	581' 04"	46.89°E	15+38.73	17+38.47



BLUE DASHER LANE - PROFILE
 HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
 STA: 10+00 - 17+38

Public Water Distribution / Extension System
 The City of Raleigh consents to the construction 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 # **W-3599**
 Authorization to Construct: **PERMITTED IN TRACT A**
 Date: **SEE TRACT A CONSTRUCTION DRAWINGS**

Public Sewer Collection / Extension System
 The City of Raleigh consents to the construction 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 # **S-4523**
 Authorization to Construct: **PERMITTED IN TRACT A**
 Date: **SEE TRACT A CONSTRUCTION DRAWINGS**

ATTENTION CONTRACTORS
 The Construction Contractor responsible for the installation of water, sewer, and/or gas, as approved in these plans, is responsible for contacting the Public Utilities Department at 919-996-6448 at least **ninety-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 Disconnection Plug, Install 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.

REV#	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Relevance Avenue, North Carolina 27619
 Phone: (919) 487-1181
 Website: batemansurvey.com



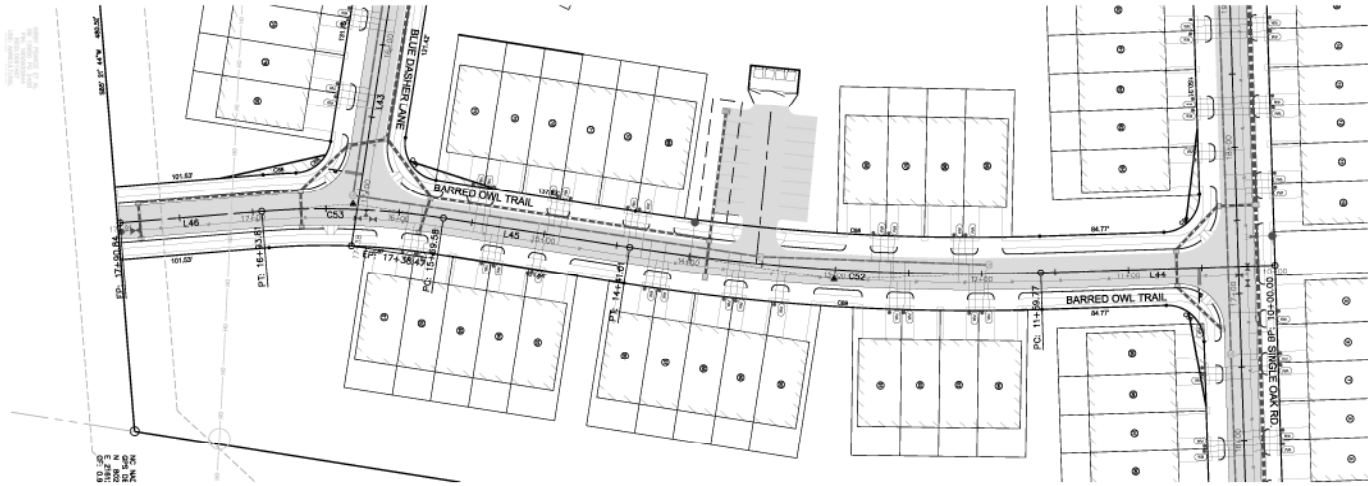
ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

PLAN AND PROFILE
BLUE DASHER LANE

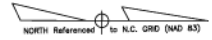
Project Engineer: **TSS**
 Designed by: **MP**
 Drawn by: **MP**
 Checked by: **TSS**
 Scale: **AS SHOWN**
 Date: **10/30/18**
 Project Number: **0704**

SHEET
C512

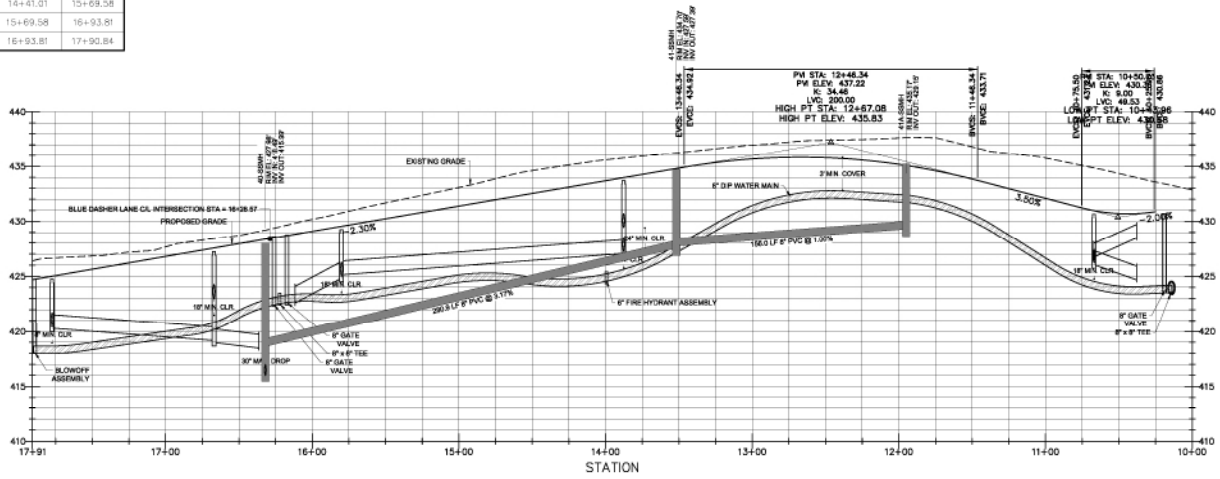
ELIZABETH HEIGHTS



BARRED OWL TRAIL - PLAN
SCALE: 1"=40'
STA: 10+00 - 17+91



BARRED OWL TRAIL					
Number	Radius	Length	Line/Chord Direction	Start Station	End Station
L44	159.77	51' 49" 18.75°E	10+00.00	11+59.77	
C52	1500.00	281.24 93° 32' 56.79"W	11+59.77	14+ 41.01	
L45	128.56	58' 55" 13.31"W	14+41.01	15+69.58	
C53	525.00	124.23 52° 08' 28.47"W	15+69.58	16+93.81	
L46	97.03	54° 34' 16.37°E	16+93.81	17+90.84	



BARRED OWL TRAIL - PROFILE
HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
STA: 10+00 - 17+91

Public Water Distribution / Extension System
The City of Raleigh consents to the construction and operation 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 # **W-3599**
Authorization to Construct: **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS
Date: _____

Public Sewer Collection / Extension System
The City of Raleigh consents to the construction and operation 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 # **S-4523**
Authorization to Construct: **PERMITTED IN TRACT A**
SEE TRACT A CONSTRUCTION DRAWINGS
Date: _____

ATTENTION CONTRACTORS
The Contractor/Constructor 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) 996-6549 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 emergency flags, and require cancellation of any water or sewer facilities not completed 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.

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

Bateman Civil Survey Company
Engineers • Surveyors • Planners
2532 Relevance Avenue, North Carolina 27639
Phone: (919) 487-1101
Fax: (919) 487-1101
NCELS 5990, No. C-2078

ELIZABETH HEIGHTS CONSTRUCTION DRAWINGS

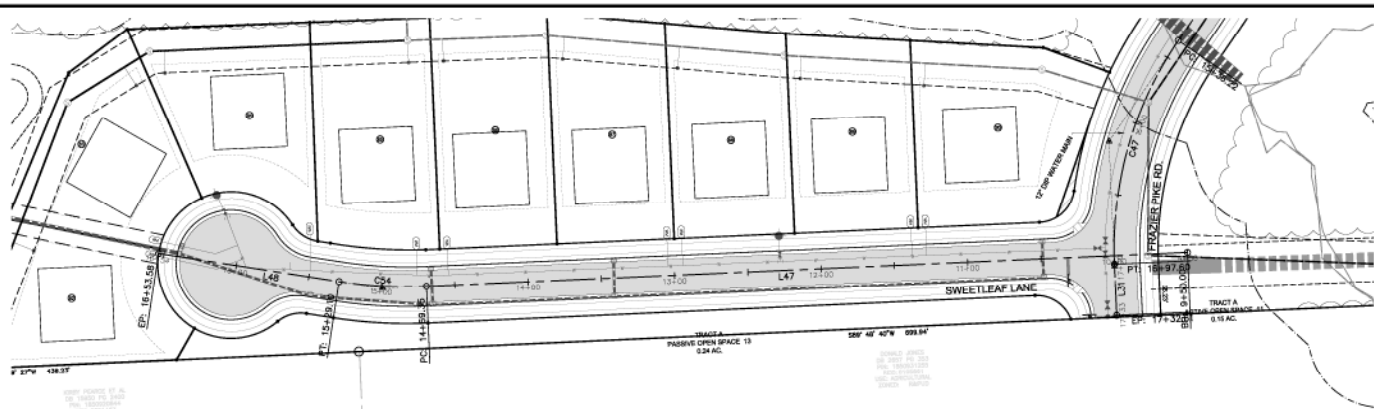
1025 AVENUE ROAD
SUITE 100
WAKE COUNTY, NC 27607

PLAN AND PROFILE BARRED OWL TRAIL

Project Engineer: **TSS**
Designed by: **MP**
Drawn by: **MP**
Checked by: **TSS**
Scale: **AS SHOWN**
Date: **10/09/18**
Project Number: **0704**

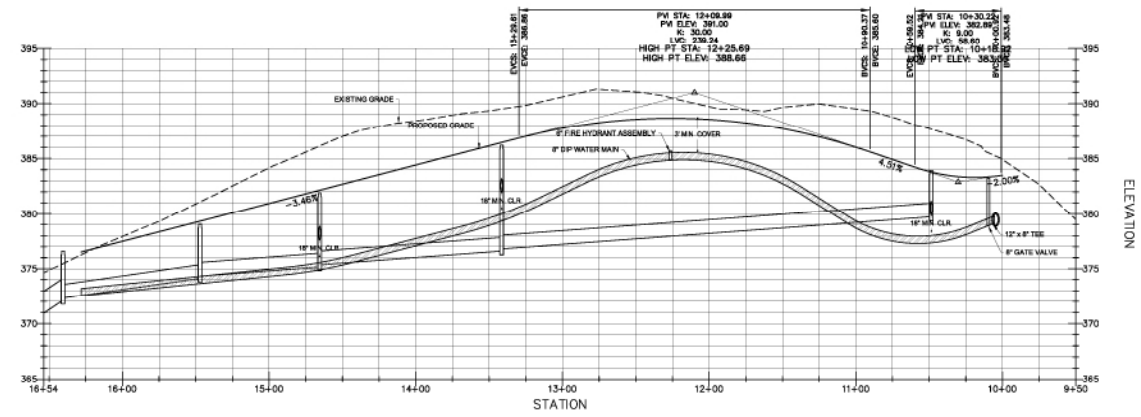
SHEET
C513

ELIZABETH HEIGHTS



SWEETLEAF LANE - PLAN
 SCALE: 1"=40'
 STA: 10+00 - 16+54

SWEETLEAF LANE					
Number	Radius	Length	Line/Orient Direction	Start Station	End Station
L47		519.35	S89° 48' 49.18"W	9+50.00	14+69.35
C54	300.00	59.76	N84° 28' 47.87"W	14+69.35	15+29.10
L48		124.48	N78° 46' 24.92"W	15+29.10	16+53.58



SWEETLEAF LANE - PROFILE
 HOR. SCALE: 1"=40' VER. SCALE: 1"=8'
 STA: 10+00 - 16+54

Public Water Distribution / Extension System
 The City of Raleigh consents to the construction and installation of this City's public water system as shown on this plan. The material and construction methods used for the project shall conform to the standards and specifications of the City's Public Utilities Handbook.
 City of Raleigh Public Utilities Department Permit # **W-3599**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

Public Sewer Collection / Extension System
 The City of Raleigh consents to the construction and installation of this City's public sewer system as shown on this plan. The material and construction methods used for the project shall conform to the standards and specifications of the City's Public Utilities Handbook.
 City of Raleigh Public Utilities Department Permit # **S-4523**
 Authorization to Construct: **PERMITTED IN TRACT A**
 SEE TRACT A CONSTRUCTION DRAWINGS
 Date: _____

ATTENTION CONTRACTORS
 The Construction Contractor responsible for the construction of water, sewer, and/or gas, as approved in these plans, is responsible for obtaining the Public Utilities Department or PWS 506-4-24 at least seven (7) days prior to beginning any of their construction.
 Failure to notify both City Departments in advance of beginning construction, will result in the issuance of a stop-work order, and require re-notification 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 power flow 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.

NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/07/2018


Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2530 Relevance Avenue, North Carolina 27639
 Phone: 919.487.1181
 Fax: 919.487.1181
 Website: www.bateman-survey.com

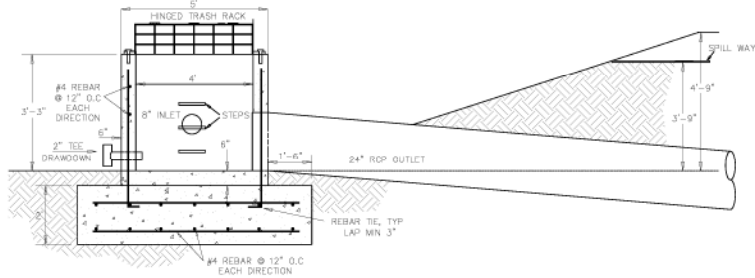

ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS
 1202 AVENUE F ROAD
 WAKE COUNTY, NC 27607

PLAN AND PROFILE
SWEETLEAF LANE

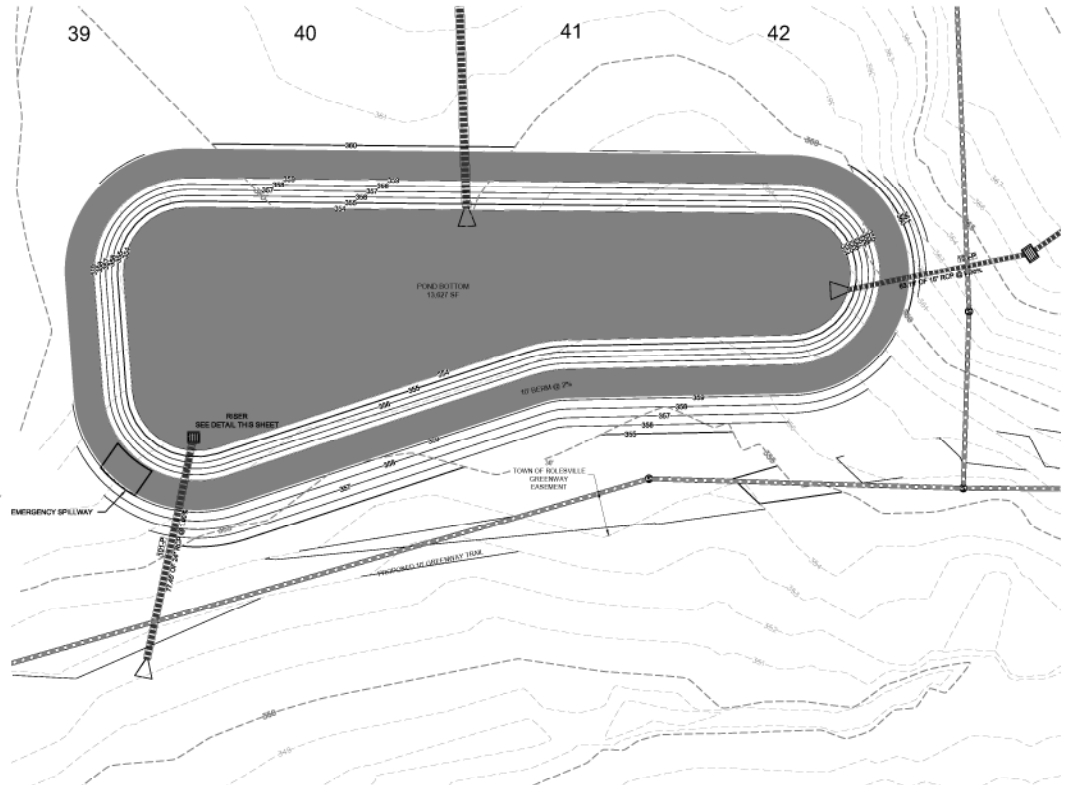
Project Engineer	TSB
Designed by	MP
Drawn by	MP
Checked by	TSB
Scale	AS SHOWN
Date	10/30/18
Project Number	5704

SHEET
C514

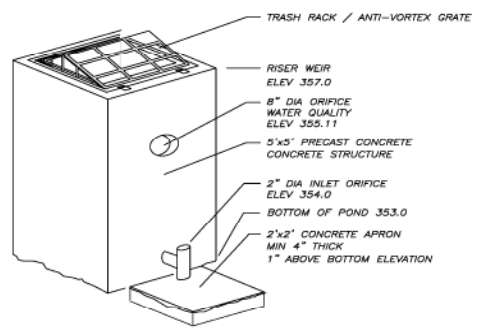
LEGEND:
 - - - - - LIMITS OF DISTURBANCE
 ---326--- EX CONTOUR LINE
 ---326--- PROPOSED CONTOUR LINE



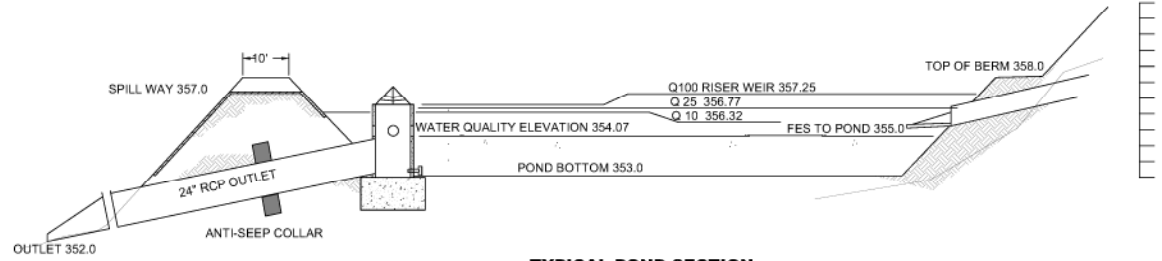
**RISER - SECTION
SCALE: 1"=2'**



**BMP 1 - PLAN
SCALE: 1"=20'**



**RISER STRUCTURE VIEW
NOT TO SCALE**



**TYPICAL POND SECTION
NOT TO SCALE**

ROLESVILLE TOWN
 TRACT B - TOWNHOMES IS A SEPARATE SUBMITTAL AS A QUASI-JUDICIAL DETAILED SITE PLAN AND SHOULD BE NOTED AS NOT INCLUDED WITH THESE SUBMITTAL CONSTRUCTION PLANS. THE DETAILED SITE PLAN IS A SEPARATE QUASI-JUDICIAL APPROVAL PROCESS FOR THE ROLESVILLE UNIFIED DEVELOPMENT ORDINANCE. THE DETAILED SITE PLAN MUST BE APPROVED BY THE TOWN BOARD OF COMMISSIONERS AND CANNOT BE INCLUDED IN THE ADMINISTRATIVE APPROVAL OF THE CONSTRUCTION PLANS FOR TRACT A, SINGLE FAMILY RESIDENTIAL LOTS. THE SUBMITTED SITE PLAN SHALL INCLUDE THE LORDED INFORMATION AS LISTED IN SECTION 3.6.3 GENERAL CONDITIONS AND LIMITATIONS ASSOCIATED WITH A SPECIAL USE PERMIT. A COPY OF SAID SECTION IS BELOW PLEASE SUBMIT A REVISED DETAIL SITE PLAN APPLICATION FOR PHASE 2, TOWNHOMES THAT WILL INCLUDE ALL IMPROVEMENTS AND DETAILS LISTED IN SECTION 3.6.3 FOR THE DEVELOPMENT. PLEASE SUBMIT A SEPARATE DETAILED SITE PLAN APPLICATION FOR TRACT B - TOWNHOMES THAT WILL INCLUDE ALL IMPROVEMENTS FOR THE DEVELOPMENT OF THIS TRACT.

SYMBOL LEGEND
 ▲▲▲ END OF STREET SIGNAGE
 ■ STOP SIGN AND STREET NAME SIGN LOCATION
 ♣ ACCESSIBILITY RAMP
 ○ LARGE STREET TREE, TYP 12" CALIPER MIN



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 1522 Belmore Avenue, Suite North Carolina 27209
 Phone: 919.877.1080 Fax: 919.877.1081
 NCBELL'S FROM MS. C-2378



**ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS**
 1205 AVRELETTE ROAD
 WAKE FOREST, NC 27787
 WAKE COUNTY, NC

**BMP DETAILS
BMP 1**

Project Engineer: TSS
 Designer: TSS
 Drawn By: MP
 Checked By: TSS
 Scale: AS SHOWN

Date: 10/18/2014
 Project Number: 170049

**SHEET
C522**

NO.	REVISIONS	DATE
1	REVISION PER YOUR COMMENTS	12/23/2015



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 Engineers • Surveyors • Planners
 1524 Belmore Avenue, Apex, North Carolina 27509
 Phone: 919.577.1000 Fax: 919.577.1081
 NCBSLLS FIRM No. C-2378



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVRETT ROAD
 WAKE FOREST, NC 27787
 WAKE COUNTY, NC

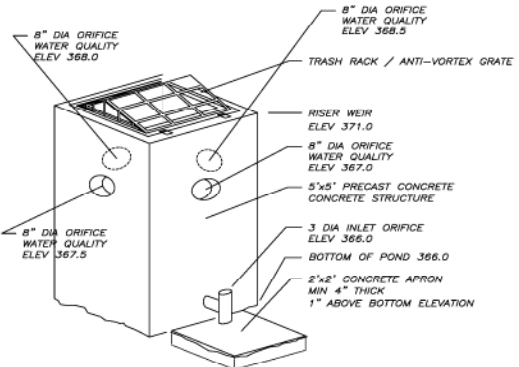
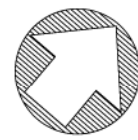
BMP DETAILS
BMP2

Project Engineer: TSS
 Designer: TSS
 Drawn By: MP
 Checked By: TSS
 Scale: AS SHOWN
 Date: 10/18/2014

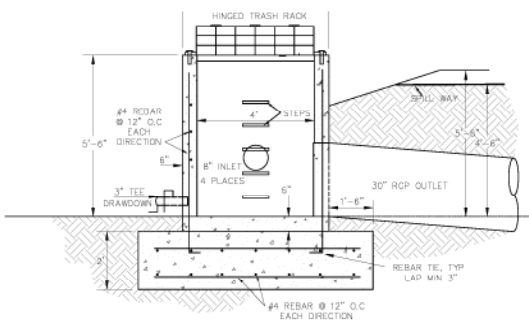
Project Number: 17049

SHEET
C523

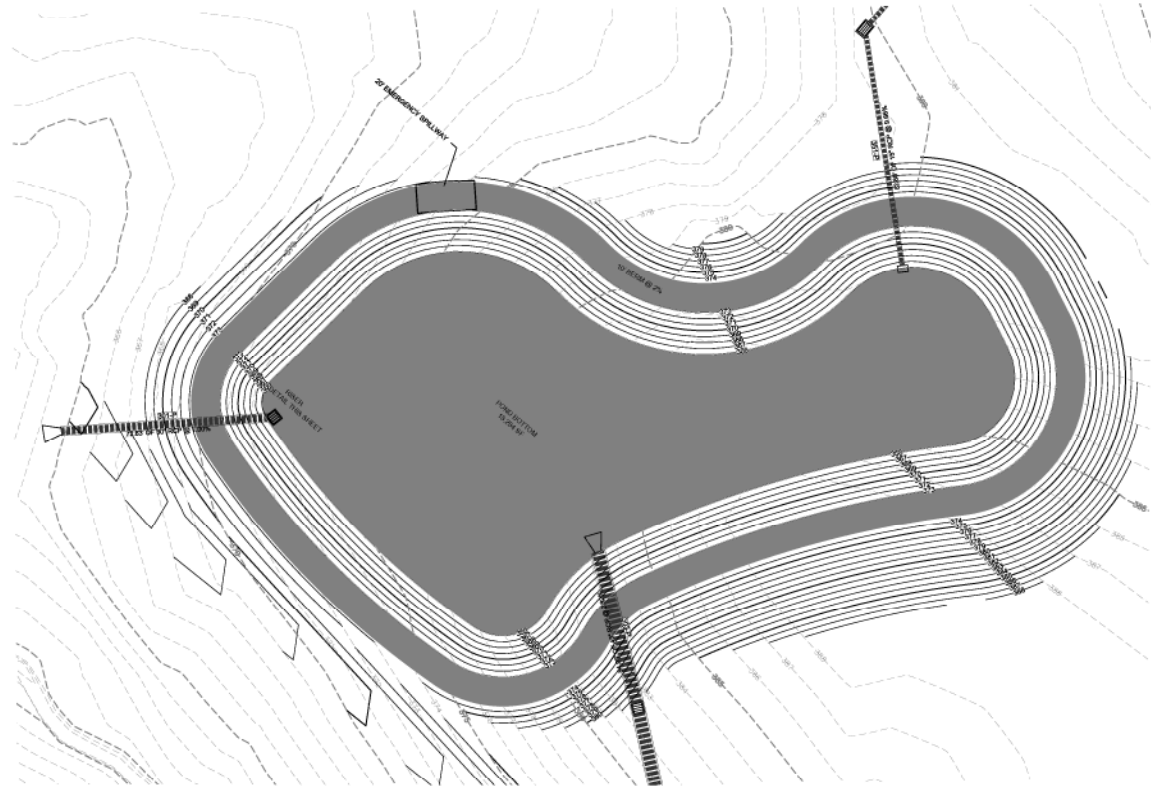
LEGEND:
 - - - - - LIMITS OF DISTURBANCE
 --- EX CONTOUR LINE
 - - - - - PROPOSED CONTOUR LINE



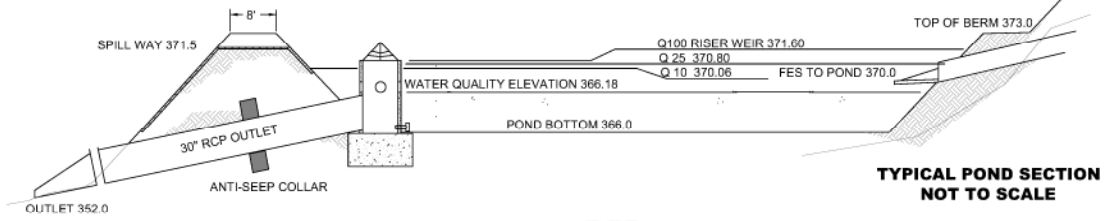
RISER STRUCTURE VIEW
 NOT TO SCALE



RISER - SECTION
 SCALE: 1"=2'



BMP 2 - PLAN
 SCALE: 1"=20'



TYPICAL POND SECTION
 NOT TO SCALE

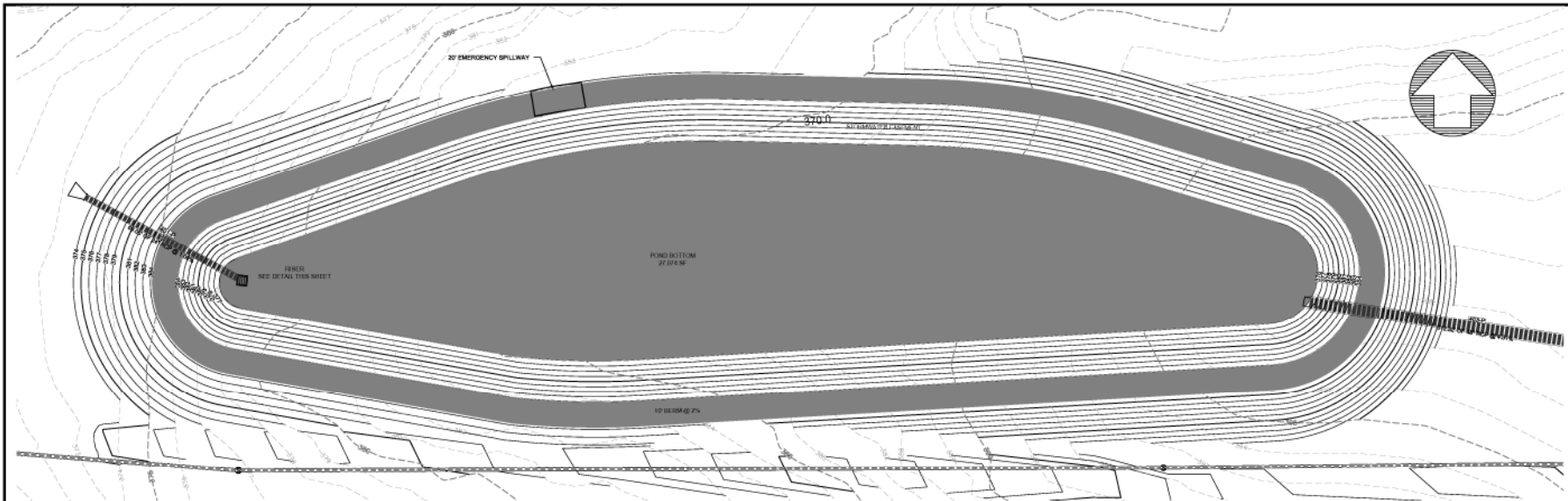


KNOW WHAT IS BELOW
CALL BEFORE YOU DIG

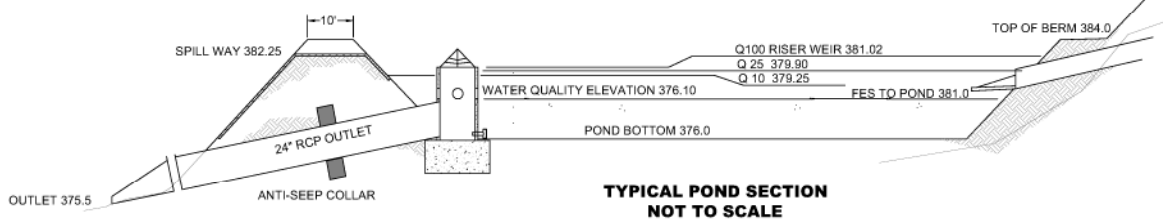


NOTICE TO THE CONTRACTOR:
 TRACT B - TOWNHOMES IS A SEPARATE SUBMITTAL AS A QUASI-JUDICIAL DETAILED SITE PLAN AND SHOULD BE NOTED AS NOT INCLUDED WITH THESE SUBMITTAL CONSTRUCTION PLANS. THE DETAILED SITE PLAN IS A SEPARATE QUASI-JUDICIAL APPROVAL PROCESS FOR THE ROLESVILLE UNIFIED DEVELOPMENT ORDINANCE. THE DETAILED SITE PLAN MUST BE APPROVED BY THE TOWN BOARD OF COMMISSIONERS AND CANNOT BE INCLUDED IN THE ADMINISTRATIVE APPROVAL OF THE CONSTRUCTION PLANS FOR TRACT A SINGLE FAMILY RESIDENTIAL LOTS. THE SUBMITTED SITE PLAN SHALL INCLUDE THE LISTED IMPROVEMENTS LISTED IN SECTION 3.3.1 GENERAL CONDITIONS AND REGULATIONS ASSOCIATED WITH A SPECIAL USE PERMIT. A COPY OF SAID SECTION IS BELOW. PLEASE SUBMIT A SEPARATE DETAILED SITE PLAN APPLICATION FOR PHASE 2, TOWNHOMES THAT WILL INCLUDE ALL IMPROVEMENTS AND DETAILS LISTED IN SECTION 3.3.1 FOR THE DEVELOPMENT. PLEASE SUBMIT A SEPARATE DETAILED SITE PLAN APPLICATION FOR TRACT B - TOWNHOMES THAT WILL INCLUDE ALL IMPROVEMENTS FOR THE DEVELOPMENT OF THIS TRACT.

NO.	REVISIONS	DATE
1	REVISION PER YOUR COMMENTS	10/20/2014

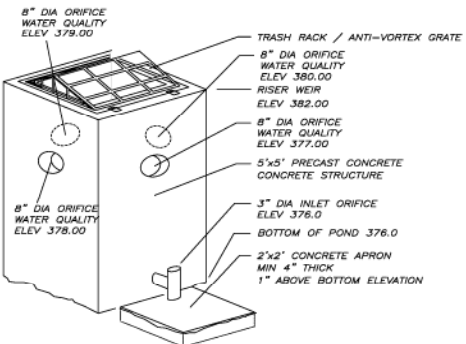


BMP 3 - PLAN
SCALE: 1"=20'

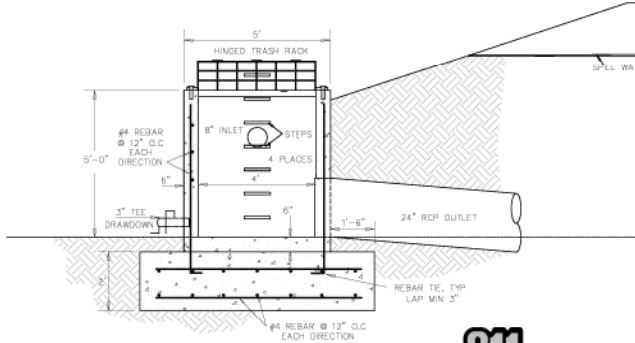


TYPICAL POND SECTION
NOT TO SCALE

LEGEND:
 --- LIMITS OF DISTURBANCE
 --- 2' EX CONTOUR LINE
 --- 2' PROPOSED CONTOUR LINE



RISER STRUCTURE VIEW
NOT TO SCALE



RISER - SECTION
SCALE: 1"=2'



NO.	REVISIONS	DATE
1	ISSUED PER YOUR COMMENTS	03/03/2015

NOTICE:
 TRACT B - TOWNHOMES IS A SEPARATE SUBMITTAL AS A QUASI-JUDICIAL DETAILED SITE PLAN AND SHOULD BE NOTED AS NOT INCLUDED WITH THESE SUBMISSION CONSTRUCTION PLANS. THE DETAILED SITE PLAN IS A SEPARATE QUASI-JUDICIAL APPROVAL PROCESS FOR THE ROLESVILLE UNIFIED DEVELOPMENT ORDINANCE. THE DETAILED SITE PLAN MUST BE APPROVED BY THE TOWN BOARD OF COMMISSIONERS AND CANNOT BE INCLUDED IN THE ADMINISTRATIVE APPROVAL OF THE CONSTRUCTION PLANS FOR TRACT A, SINGLE FAMILY RESIDENTIAL LOTS. THE SUBMITTED SITE PLAN SHALL INCLUDE THE LOTS AND INFORMATION LISTED IN SECTION 3.1.5 GENERAL CONDITIONS AND REGULATIONS ASSOCIATED WITH A SPECIAL USE PERMIT. A COPY OF SAID SECTION IS BELOW PLEASE SUBMIT A SEPARATE DETAILED SITE PLAN APPLICATION FOR PHASE 2, TOWNHOMES THAT WILL INCLUDE ALL IMPROVEMENTS AND DETAILS LISTED IN SECTION 3.1 FOR THE DEVELOPMENT. PLEASE SUBMIT A SEPARATE DETAILED SITE PLAN APPLICATION FOR TRACT B - TOWNHOMES THAT WILL INCLUDE ALL IMPROVEMENTS FOR THE DEVELOPMENT OF THIS TRACT.



Bateman Civil Survey Company
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 1532 Belaire Avenue, Apt. North Carolina 27209
 Phone: 919.877.1880 Fax: 919.877.1881
 NCBELL'S PERM No. C-2378



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1205 AVONETTE ROAD
 WAKE FOREST, NC 27787
 WAKE COUNTY, NC

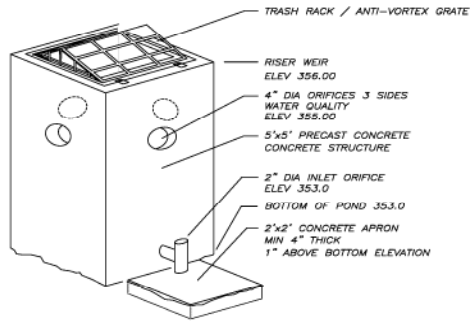
BMP DETAILS
BMP3

Prepared By:	TSS
Designed By:	TSS
Drawn By:	MP
Checked By:	TSS
Scale:	AS SHOWN
Date:	10/16/2014

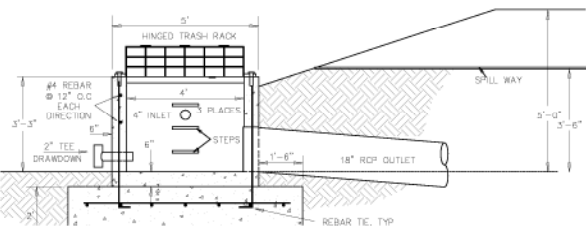
Project Number: 17046
 SHEET
C524

LEGEND:

- LIMITS OF DISTURBANCE
- 326--- EX CONTOUR LINE
- 326--- PROPOSED CONTOUR LINE



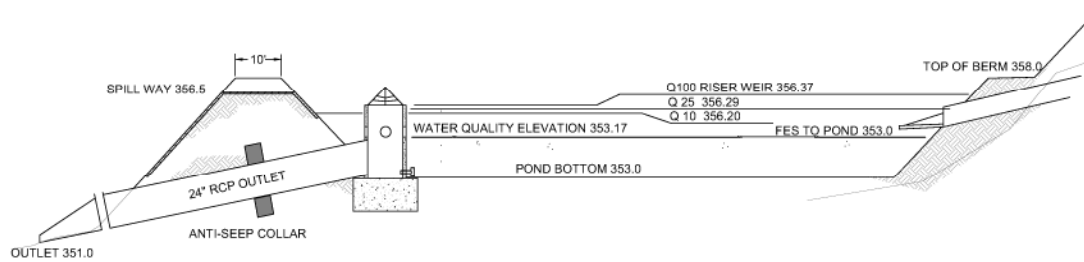
**RISER STRUCTURE VIEW
NOT TO SCALE**



**RISER - SECTION
SCALE: 1"=2'**



**BMP 4 - PLAN
SCALE: 1"=20'**



**TYPICAL POND SECTION
NOT TO SCALE**

NO.	REVISIONS	DATE
1	REVISION PER YOUR COMMENTS	03/01/2018

ROLESVILLE NOTICE:
TRACT 10 - TOWNHOMES IS A SEPARATE SUBMITTAL AS A QUASI-JUDICIAL DETAILED SITE PLAN AND SHOULD BE NOTED AS NOT INCLUDED WITH THESE SUBDIVISION CONSTRUCTION PLANS. THE DETAILED SITE PLAN IS A SEPARATE QUASI-JUDICIAL APPROVAL PROCESS FOR THE ROLESVILLE UNIFIED DEVELOPMENT ORDINANCE. THE DETAILED SITE PLAN MUST BE APPROVED BY THE TOWN BOARD OF COMMISSIONERS AND CANNOT BE INCLUDED IN THE ADMINISTRATIVE REVIEW OF THE CONSTRUCTION PLANS FOR TRACT A SINGLE-FAMILY RESIDENTIAL LOTS. THE SUBMITTED SITE PLAN SHALL INCLUDE THE LATEST INFORMATION AVAILABLE IN SECTION 3.6.1 GENERAL CONDITIONS AND LIMITATIONS ASSOCIATED WITH A SPECIAL USE PERMIT. A COPY OF SAID SECTION IS BELOW. PLEASE SUBMIT A REVISED DETAILED SITE PLAN APPLICATION FOR PHASE 2, TOWNHOMES THAT WILL INCLUDE ALL IMPROVEMENTS AND DETAILS LISTED IN SECTION 3.6.1 FOR THE DEVELOPMENT. PLEASE SUBMIT A SEPARATE DETAILED SITE PLAN APPLICATION FOR TRACT B - TOWNHOMES THAT WILL INCLUDE ALL IMPROVEMENTS FOR THE DEVELOPMENT OF THIS TRACT.



**KNOW WHAT IS BELOW
CALL BEFORE YOU DIG**



Bateman Civil Survey Company
Engineers • Surveyors • Planners
1532 Redwood Avenue, North Carolina 27509
Phone: 919.577.1000 Fax: 919.577.1001
NCBELL'S FIRM No. C-2378



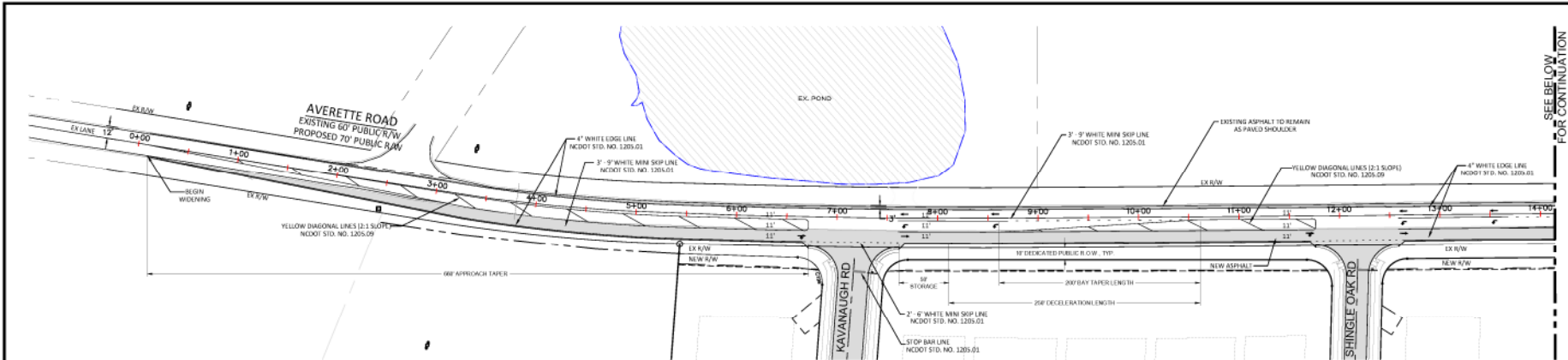
**ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS**
1205 AVARLETTE ROAD
WAKE FOREST, NC 27787
WAKE COUNTY, NC

**BMP DETAILS
BMP4**

Project Engineer	TSS
Design/Draw	TSS
Drawn By	MP
Checked By	TSS
Scale	AS SHOWN
Date	10/18/2018

Project Number: 17049

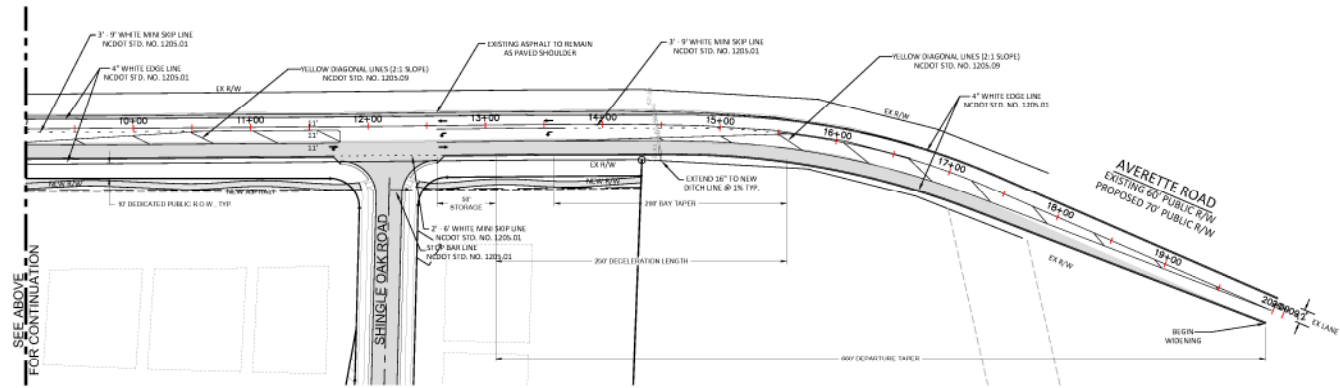
**SHEET
C525**



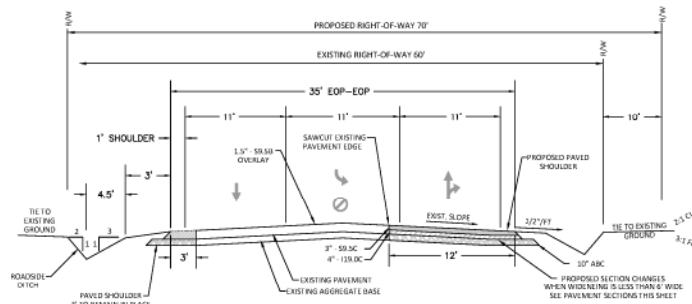
SEE BELOW FOR CONTINUATION

NOTES:

1. ALL CONSTRUCTION IN THE RIGHT OF WAY SHALL BE IN ACCORDANCE TO NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM THEIR ACTIVITIES. CONTRACTOR SHALL CALL UTILITY LOCATOR SERVICE 48 HOURS PRIOR TO BEGINNING CONSTRUCTION, NC ONE CALL 1-800-432-4888 PER NCCS 87-102.
3. NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DRIVEWAY PERMIT IS REQUIRED BEFORE STARTING CONSTRUCTION.
4. THE DEVELOPER IS RESPONSIBLE FOR THE FABRICATION AND INSTALLATION OF ALL REQUIRED SIGNS AND PAVEMENT MARKINGS WITHIN THE PUBLIC RIGHT OF WAY.
5. CONTRACTOR IS RESPONSIBLE FOR PREPARING AND SUBMITTING A TRAFFIC MAINTENANCE PLAN FOR REVIEW AND APPROVAL BY DOT PRIOR TO BEGINNING WORK WITHIN THE RIGHT OF WAY.
6. CONTRACTOR SHALL MAINTAIN ACCESS DURING ALL TIMES OF CONSTRUCTION.
7. CONTRACTOR SHALL CONTACT WAKE COUNTY SCHOOLS TO COORDINATE ROAD WORK SO IT WILL NOT ADVERSELY AFFECT THE SCHOOLS TRANSPORTATION SCHEDULE AND OR OPERATIONS.
8. THERMOPLASTIC PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS SHALL BE INSTALLED WITHIN THE TURN LANE CONSTRUCTION LIMITS IN ACCORDANCE WITH THE STANDARD NCDOT STANDARDS AND SPECIFICATIONS.
9. THE CONTRACTOR SHALL RESURFACE THE ENTIRE WIDTH OF THE ROADWAY FOR THE ENTIRE LENGTH OF THE CONSTRUCTION LIMITS WITH 1.5 INCHES OF 5.5-8.8. BOTH ENDS OF THE TURN LANE SHALL BE MILLED (0" TO 1.0") A MINIMUM OF 50 FEET SO THAT THERE WILL BE A SMOOTH TRANSITION BACK TO THE EXISTING PAVEMENT.



SEE ABOVE FOR CONTINUATION



TYPICAL ROAD WIDENING SECTION
AVERETTE ROAD, WAKE COUNTY
NOT TO SCALE



NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

Bateman Civil Survey Company
Engineers • Surveyors • Planners
2524 Relevance Avenue, North Carolina 27619
Phone: 919.857.1881
NCELS 0000 No. C-2078

ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

1202 AVERETTE ROAD
WAKE COUNTY, NC 27607
WAKE COUNTY, NC

AVERETTE ROAD WIDENING PLAN

Project Engineer	TSS
Designed By	LSD
Drawn By	LSD
Checked By	TSS
Scale	1"=40'
Date	10/09/18
Project Number	0704

SHEET
C701
OF: —

ELIZABETH HEIGHTS



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2534 Relevance Avenue, North Carolina 27639
 Phone: (919) 487-1001
 LICENSE # 9990, No. C-0376



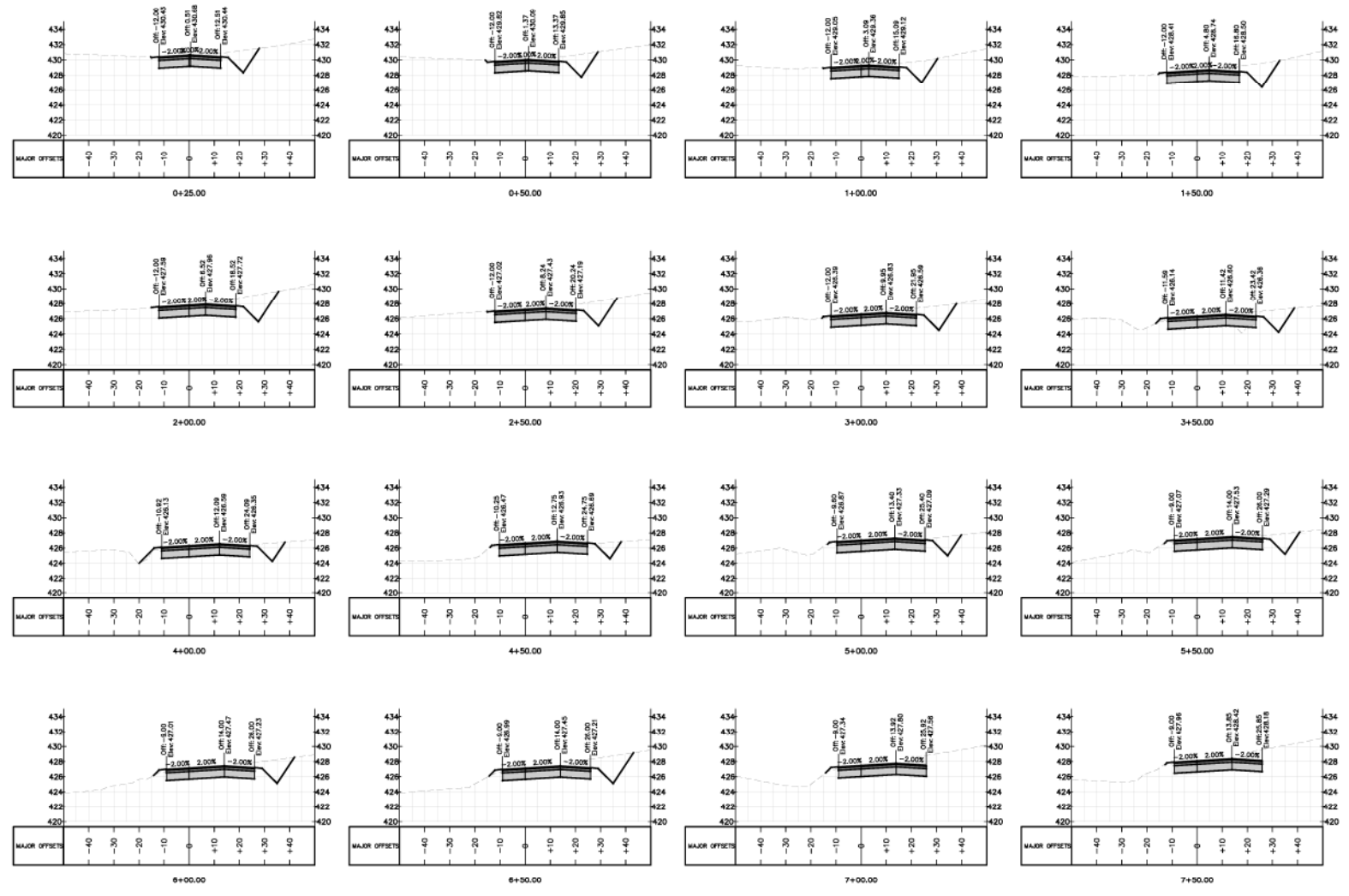
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

AVERETTE ROAD
CROSS SECTIONS

Project Engineer: TSB
 Designed By: RAJ
 Drawn By: RAJ
 Checked By: TSB
 Scale: NTD
 Date: 10/09/18
 Project Number: 57004

SHEET
C702
 OF: —

ELIZABETH HEIGHTS



NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	10/07/2018



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2534 Relevance Avenue, North Carolina 27619
 Phone: (919) 487-1101
 LICENSE # 5799, No. C-2078



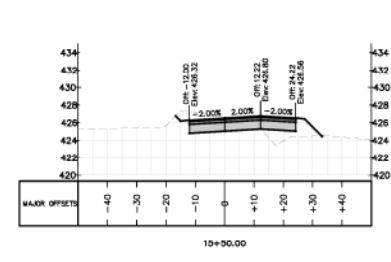
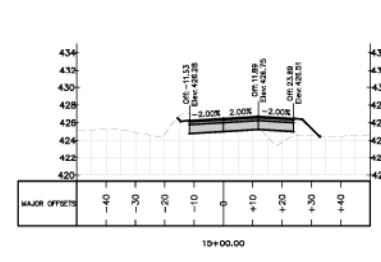
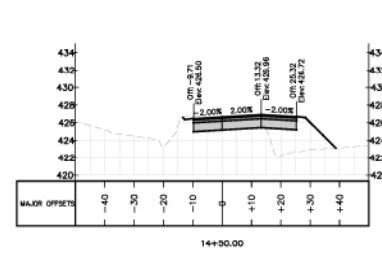
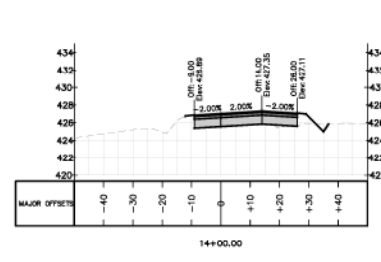
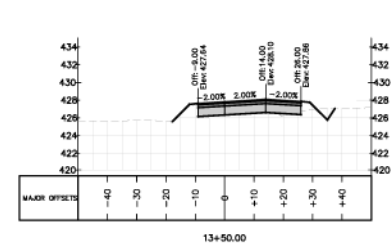
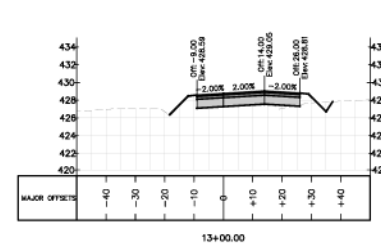
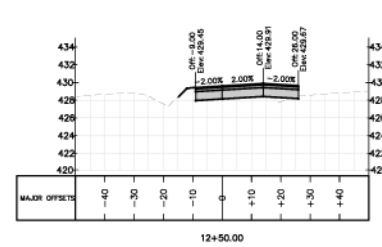
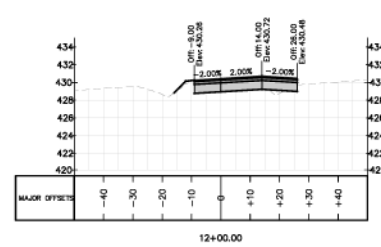
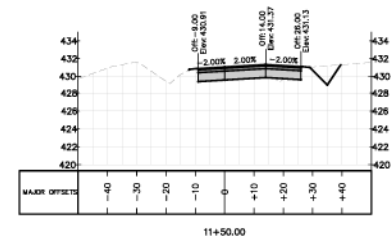
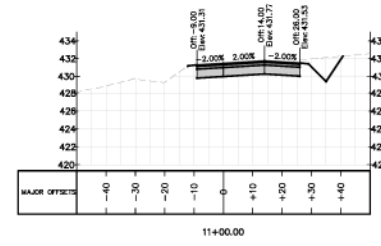
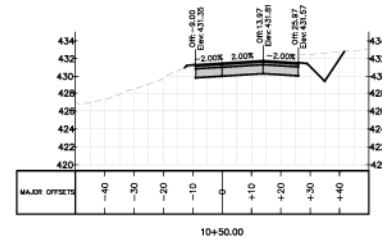
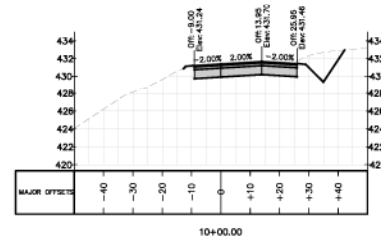
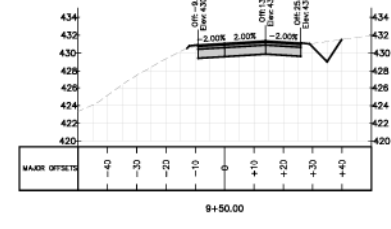
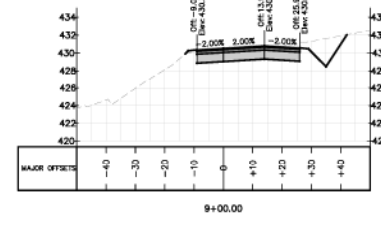
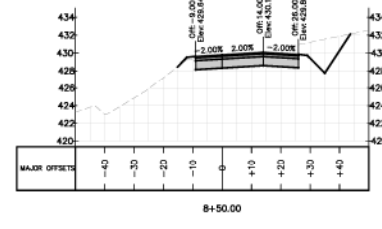
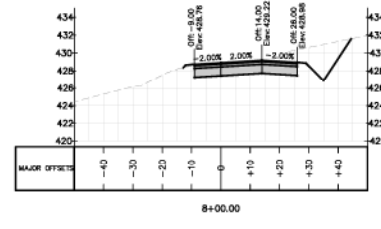
ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

AVERETTE ROAD
 CROSS SECTIONS

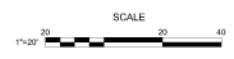
Project Engineer	TSS
Designed By	RAJ
Drawn By	RAJ
Checked By	TSS
Scale	N/A
Date	10/09/18
Project Number	5799

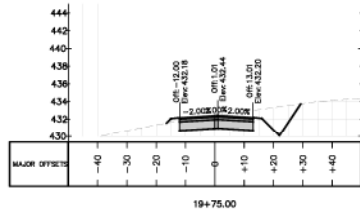
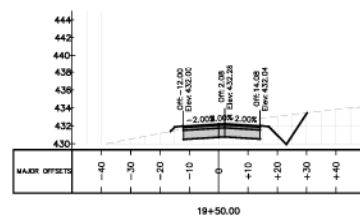
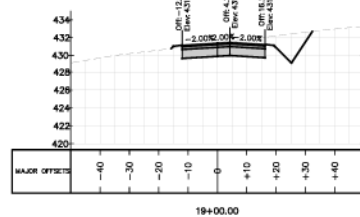
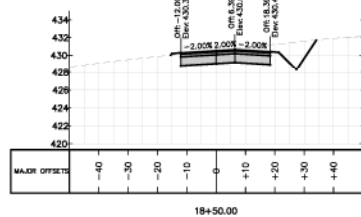
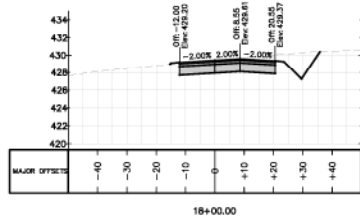
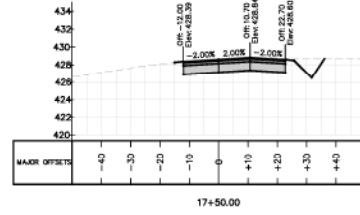
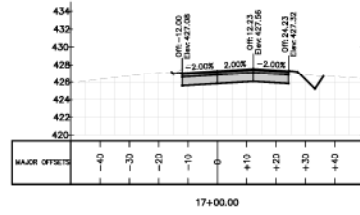
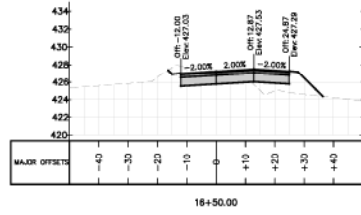
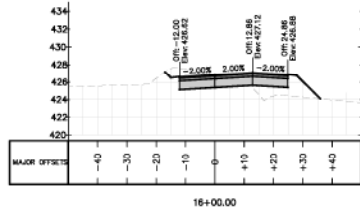
SHEET
C703
 OF: —

ELIZABETH HEIGHTS

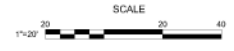


NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	10/07/2018





NO.	REVISIONS	DATE
1	REVISED PER TOR COMMENTS	12/17/2018



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2534 Relevance Avenue, North Carolina 27639
 Phone: 919.771.1001
 LICENSE #10007, No. C-2018



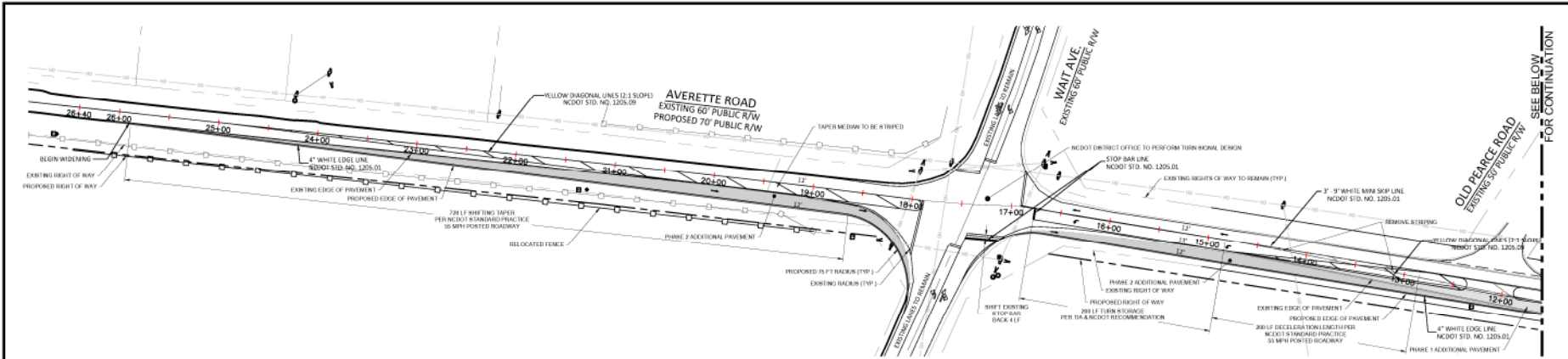
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
 1026 AVERETTE ROAD
 WAKE COUNTY, NC 27707

AVERETTE ROAD
CROSS SECTIONS

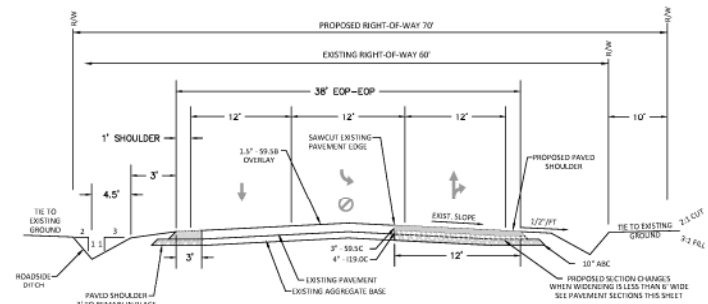
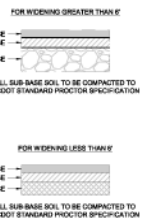
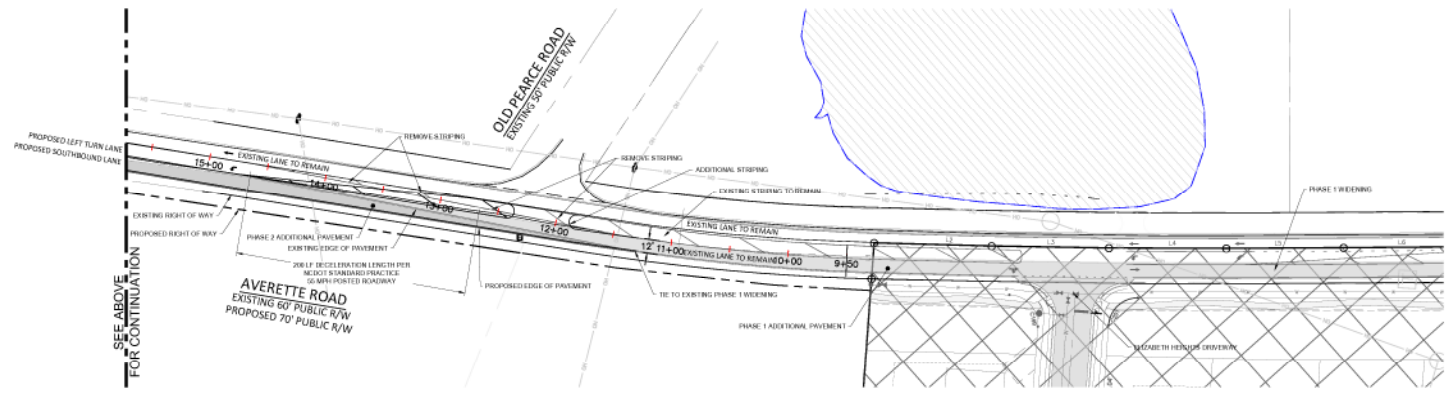
Project Engineer	TSS
Designed By	RAJ
Drawn By	RAJ
Checked By	TSS
Scale	N/A
Date	10/30/18
Project Number	57004

SHEET
C704
 OF: —

ELIZABETH HEIGHTS



- NOTES:**
1. ALL CONSTRUCTION IN THE RIGHT OF WAY SHALL TO BE IN ACCORDANCE TO NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
 2. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES, AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM THEIR ACTIVITIES. CONTRACTOR SHALL CALL UTILITY LOCATOR SERVICE 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. NC ONE CALL: 1-800-632-4848 PER NCDOT 87-102.
 3. NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DRIVEWAY PERMIT IS REQUIRED BEFORE STARTING CONSTRUCTION.
 4. THE DEVELOPER IS RESPONSIBLE FOR THE FABRICATION AND INSTALLATION OF ALL REQUIRED SIGNS AND PAVEMENT MARKINGS WITH IN THE PUBLIC RIGHT OF WAY.
 5. CONTRACTOR IS RESPONSIBLE FOR PREPARING AND SUBMITTING A TRAFFIC MAINTENANCE PLAN FOR REVIEW AND APPROVAL BY DOT PRIOR TO BEGINNING WORK WITHIN THE RIGHT OF WAY.
 6. CONTRACTOR SHALL MAINTAIN ACCESS DURING ALL TIMES OF CONSTRUCTION.
 7. CONTRACTOR SHALL CONTACT WAKE COUNTY SCHOOLS TO COORDINATE ROAD WORK SO IT WILL NOT ADVERSELY AFFECT THE SCHOOLS TRANSPORTATION SCHEDULE AND OR OPERATIONS.
 8. THERMOPLASTIC PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS SHALL BE INSTALLED WITHIN THE TURN LANE CONSTRUCTION LIMITS IN ACCORDANCE WITH THE STANDARD NCDOT STANDARDS AND SPECIFICATIONS.
 9. THE CONTRACTOR SHALL RESURFACE THE ENTIRE WIDTH OF THE ROADWAY FOR THE ENTIRE LENGTH OF THE CONSTRUCTION LIMITS WITH 1.5 INCHES OF 5.5-8.9. BOTH ENDS OF THE TURN LANE SHALL BE MILLED 1/8" TO 1/4" A MINIMUM OF 50 FEET SO THAT THERE WILL BE A SMOOTH TRANSITION BACK TO THE EXISTING PAVEMENT.



TYPICAL ROAD WIDENING SECTION
 AVERETTE ROAD, WAKE COUNTY
 NOT TO SCALE



REV NO	DESCRIPTION

PRELIMINARY
 NOT RELEASED
 FOR CONSTRUCTION
 03/11/2018



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2525 Revere Avenue, North Carolina 27639
 Phone: (919) 487-1001
 Fax: (919) 487-1001
 License No. 10077, 1001
 License No. C-0274



ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS
 1026 AVERETTE ROAD
 ELIZABETH HEIGHTS
 WAKE COUNTY, NC

AVERETTE RD. / WAIT AVE.
 INTERSECTION IMPROVEMENTS

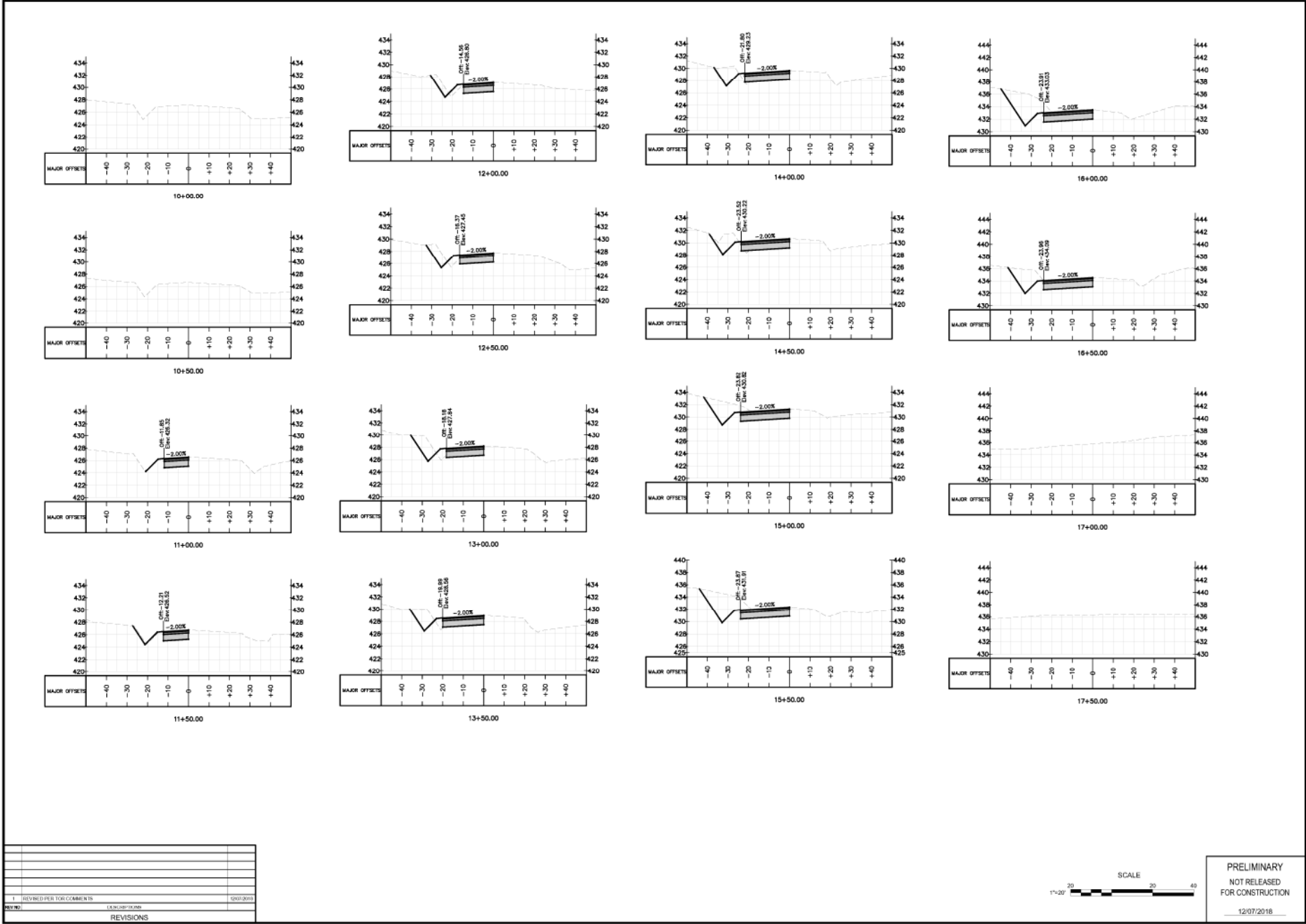
Project Engineer: TSB
 Designed By: RAJ
 Drawn By: SAJ
 Checked By: TSB
 Scale: NTS
 Date: 03/11/2018

Project Number: 17048
 SHEET
C710
 Of: 11

SEE BELOW FOR CONTINUATION

SEE ABOVE FOR CONTINUATION

ELIZABETH HEIGHTS



REV	NO	DESCRIPTION	DATE
1		REVISED PER FOR COMMENTS	12/07/2018



PRELIMINARY
NOT RELEASED
FOR CONSTRUCTION
12/07/2018

ELIZABETH HEIGHTS

Bateman Civil Survey Company
Engineers • Surveyors • Planners

2534 Reliance Avenue, Apex, North Carolina 27539
Phone: 919.216.1101
FAX: 919.216.1101
LICENSE #PRM No. C-20334

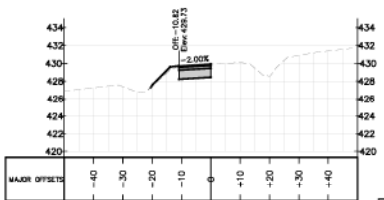
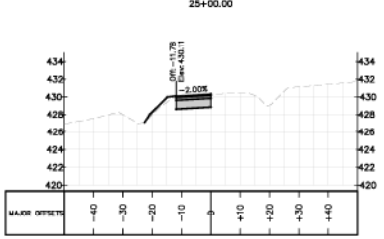
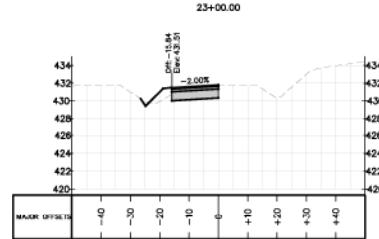
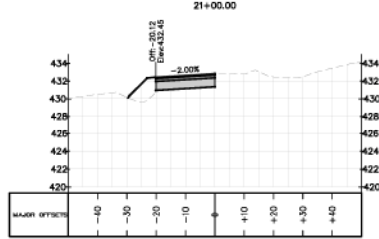
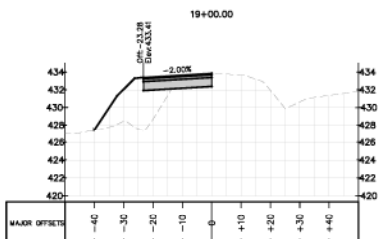
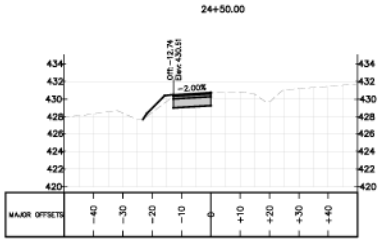
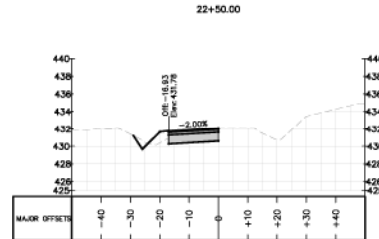
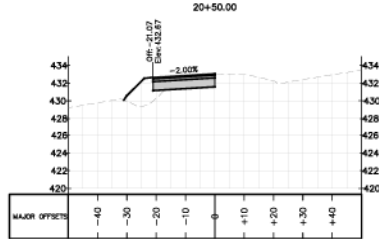
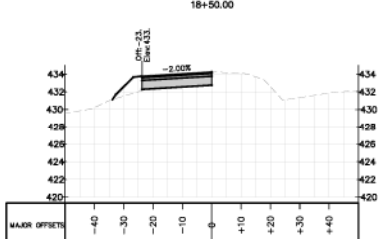
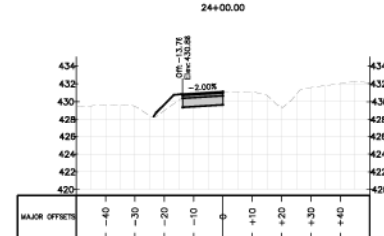
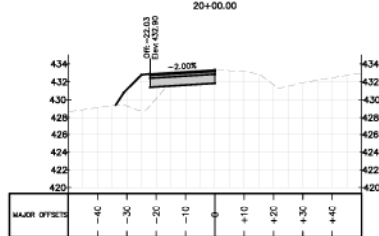
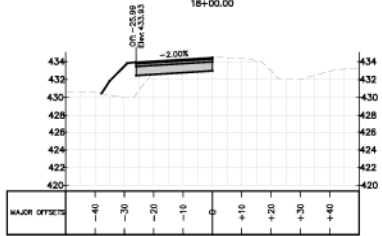
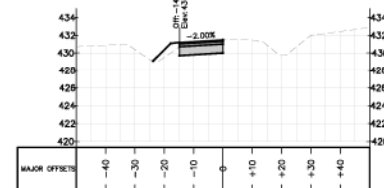
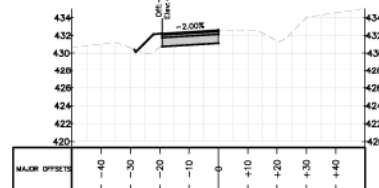
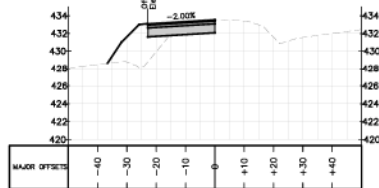
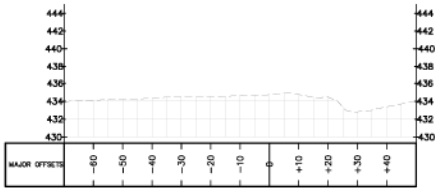
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

1025 AVERETTE ROAD
APEX, NC 27539
WAKE COUNTY, NC

AVERETTE ROAD
CROSS SECTIONS

Project Engineer	TSB
Designed By	RAJ
Drawn By	RAJ
Checked By	TSB
Scale	HTB
Date	10/09/18
Project Number	57094

SHEET
C711
OF: —



NO.	DESCRIPTION	DATE
1	REVISED PER FOR COMMENTS	12/07/2016

PRELIMINARY
NOT RELEASED
FOR CONSTRUCTION
12/07/2016



Bateman Civil Survey Company
Engineers • Surveyors • Planners
2534 Relevance Avenue, North Carolina 27639
Phone: (919) 487-1101
FAX: (919) 487-1101
LICENSE # 9990, No. C-2078



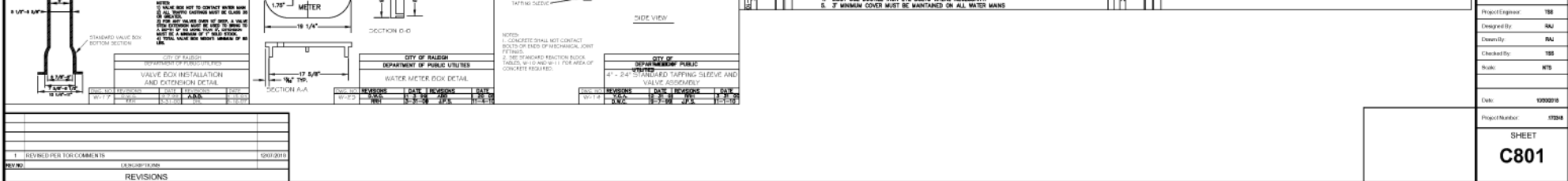
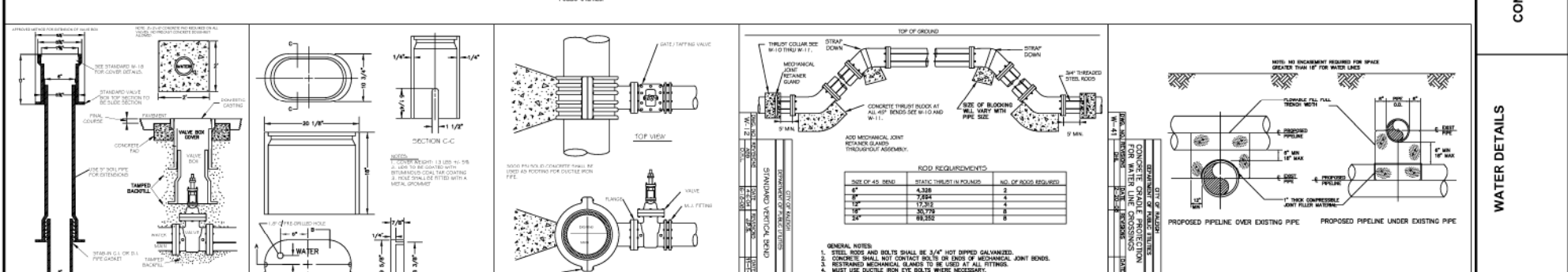
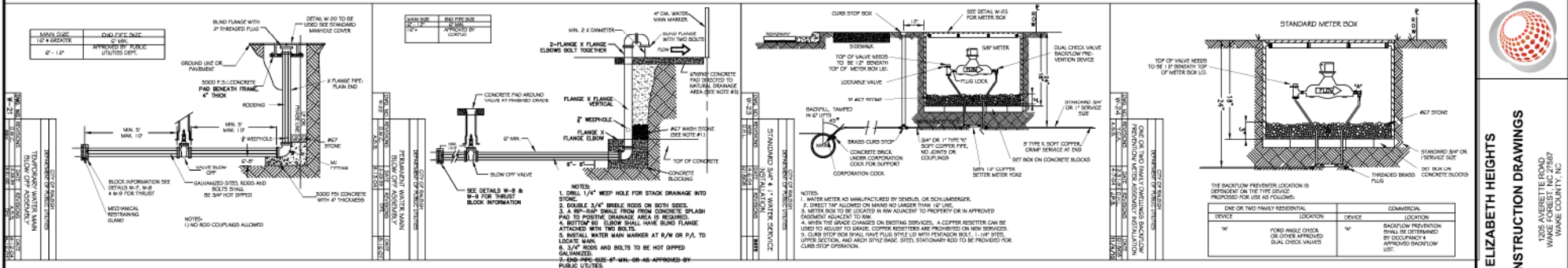
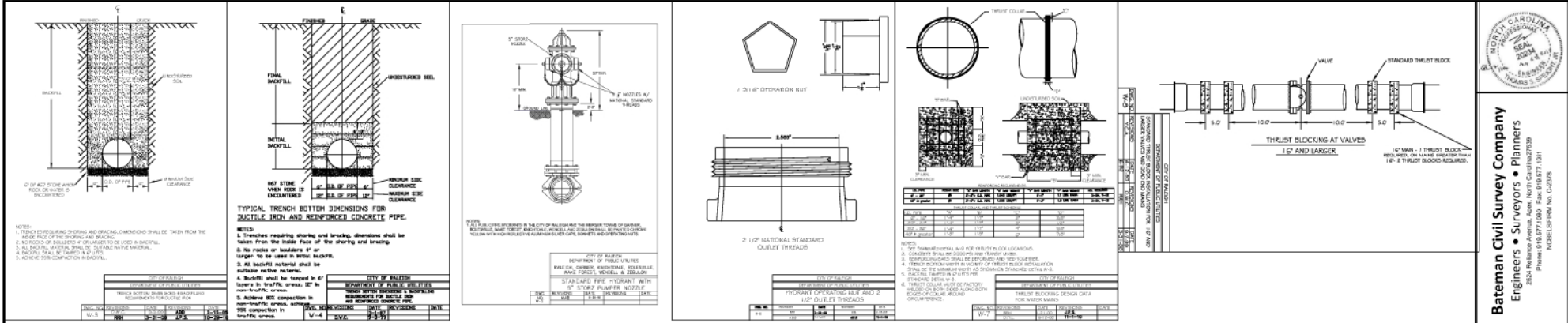
ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
1026 AVERETTE ROAD
ELIZABETH, NC 27827
WAKE COUNTY, NC

AVERETTE ROAD
CROSS SECTIONS

Project Engineer	TSS
Designed By	RAJ
Drawn By	RAJ
Checked By	TSS
Scale	HTD
Date	10/09/16

Project Number: 57004
SHEET
C712
OF: —

ELIZABETH HEIGHTS



NORTH CAROLINA PROFESSIONAL SURVEYORS AND PLANNERS

Bateman Civil Survey Company
Engineers • Surveyors • Planners
2535 Reliance Avenue, Apt. North Carolina 27619
Phone: 919.487.1101
FAX: 919.487.1101
LICENSE #1994, No. C-2074

ELIZABETH HEIGHTS

CONSTRUCTION DRAWINGS

WATER DETAILS

1025 AVENUE F ROAD
WAKE COUNTY, NC 27707

Project Engineer: TSB
Designed by: RAU
Drawn by: RAU
Checked by: TSB
Scale: NTS
Date: 10/09/18
Project Number: 5704

SHEET
C801

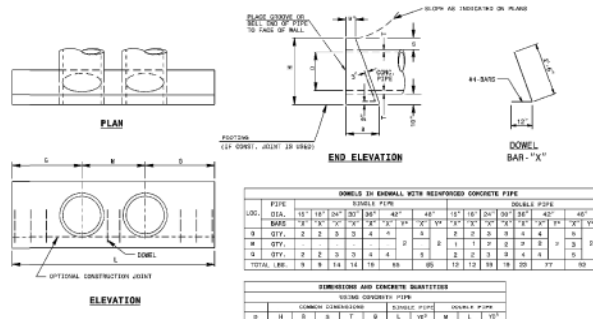


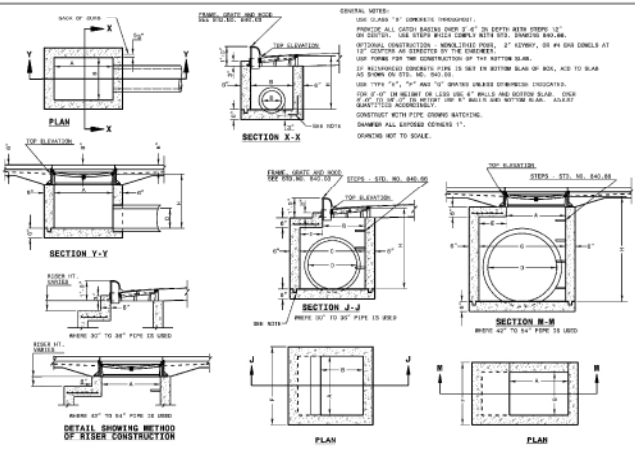
TABLE 1

DIA.	RISER PIPE				DOWEL PIPE			
	18"	24"	30"	36"	18"	24"	30"	36"
NO.	1	1	1	1	1	1	1	1
SIZE	1/2"	3/4"	1"	1 1/4"	1/2"	3/4"	1"	1 1/4"
SPACING	12"	12"	12"	12"	12"	12"	12"	12"

TABLE 2

DIA.	RISER PIPE				DOWEL PIPE			
	18"	24"	30"	36"	18"	24"	30"	36"
NO.	1	1	1	1	1	1	1	1
SIZE	1/2"	3/4"	1"	1 1/4"	1/2"	3/4"	1"	1 1/4"
SPACING	12"	12"	12"	12"	12"	12"	12"	12"

ROADWAY STANDARD DRAWING FOR
 NORTH CAROLINA
 DEPT. OF TRANSPORTATION
**CONCRETE CATCH BASIN
 AND DOUBLE PIPE CULVERTS**
 15" THRU 48" PIPE - 90° SKEW
838.01



ROADWAY STANDARD DRAWING FOR
 NORTH CAROLINA
 DEPT. OF TRANSPORTATION
CONCRETE CATCH BASIN
 12" THRU 54" PIPE
840.02

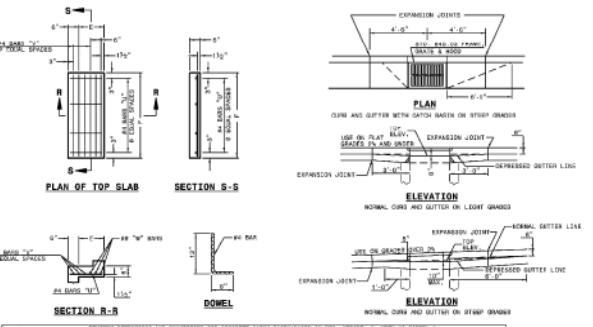
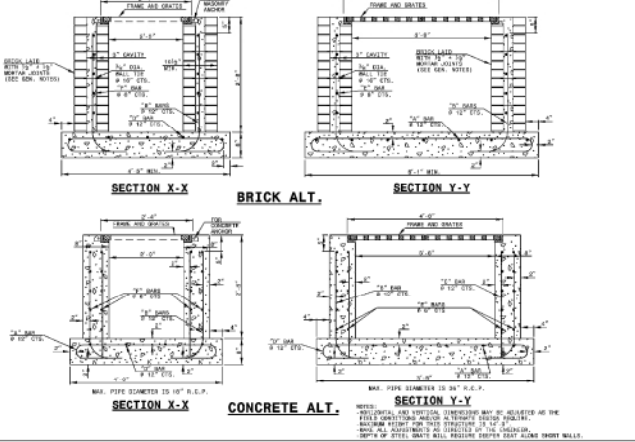


TABLE 3

DIA.	RISER PIPE				DOWEL PIPE			
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NO.	1	1	1	1	1	1	1	1
SIZE	1/2"	3/4"	1"	1 1/4"	1/2"	3/4"	1"	1 1/4"
SPACING	12"	12"	12"	12"	12"	12"	12"	12"

ROADWAY STANDARD DRAWING FOR
 NORTH CAROLINA
 DEPT. OF TRANSPORTATION
CONCRETE CATCH BASIN
 12" THRU 54" PIPE
840.03



ROADWAY STANDARD DRAWING FOR
 NORTH CAROLINA
 DEPT. OF TRANSPORTATION
TRAFFIC BEARING GRATED DROP INLET
 FOR CAST IRON DOUBLE FRAME AND GRATINGS
840.35

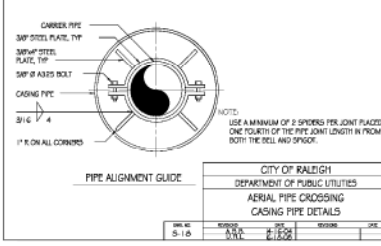
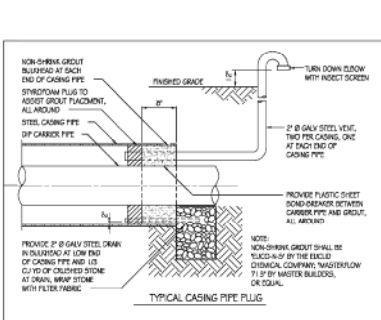
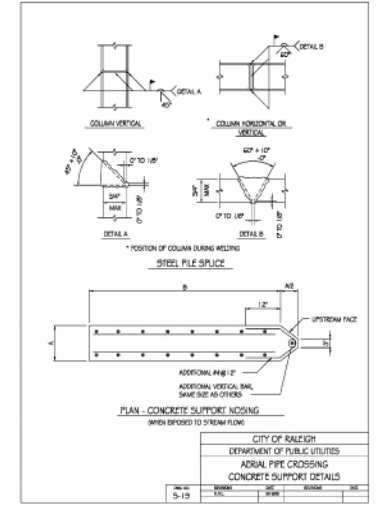


TABLE 4

NO.	DATE	BY	CHKD.	REVISION	JOB
1	1-10-01	SAJ	RSB	2	838

Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2535 Raleigh Avenue, North, Raleigh, NC 27617, USA
 Phone: (919) 876-1101
 FAX: (919) 876-1101
 LICENSE # 3990, No. C-2378

ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

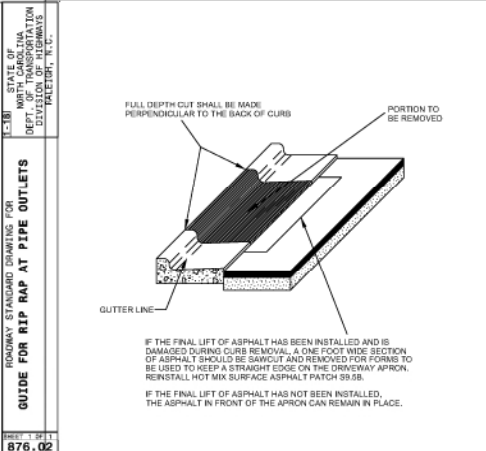
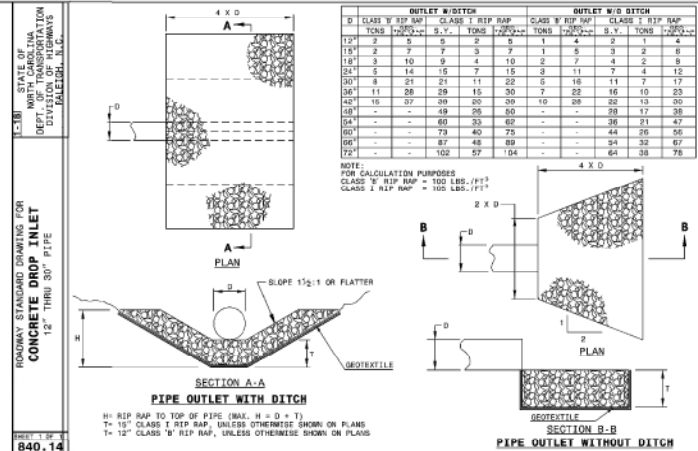
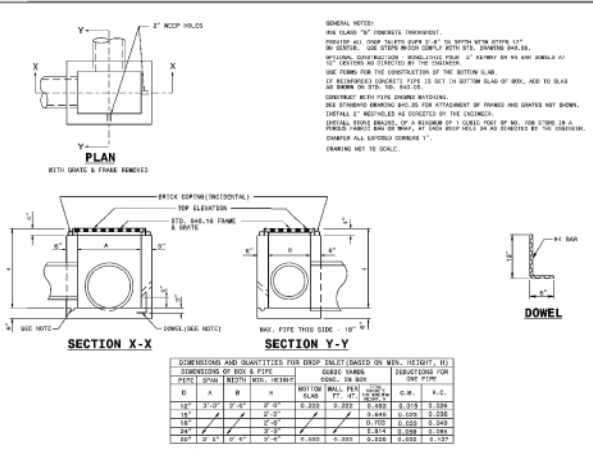
SEWER CONT. / STORM DETAILS

Project Engineer: TSB
 Designer: SAJ
 Drafter: RAJ
 Checked by: TSB
 Scale: NTS
 Date: 10/09/08
 Project Number: 0708

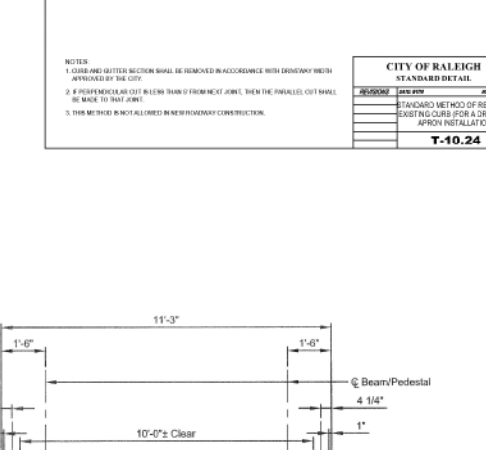
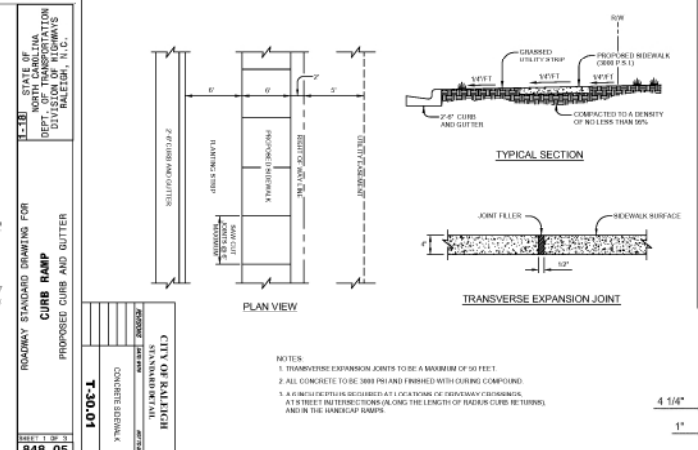
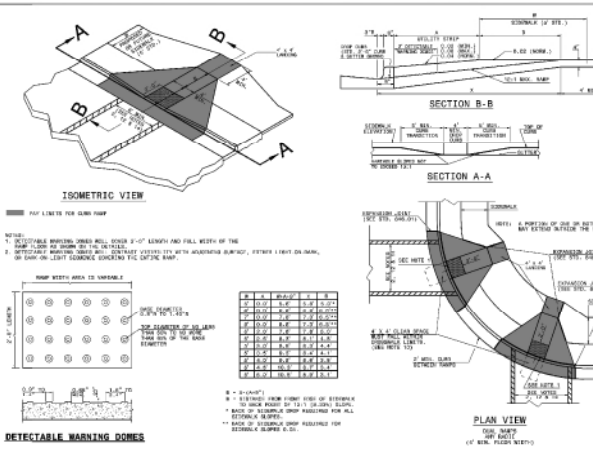
SHEET
C803

REVISIONS

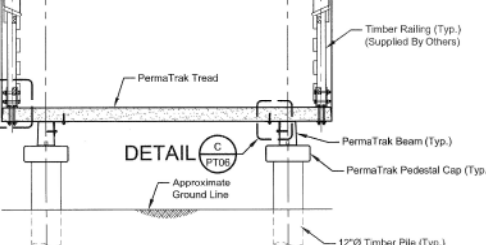
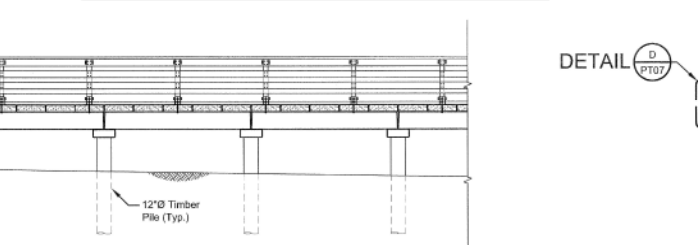
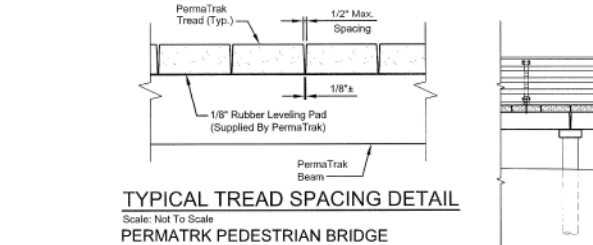
NO.	DATE	DESCRIPTION
1		REVISED PER TOR COMMENTS



ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
CITY OF RALEIGH
STANDARD DETAIL
T-10.24

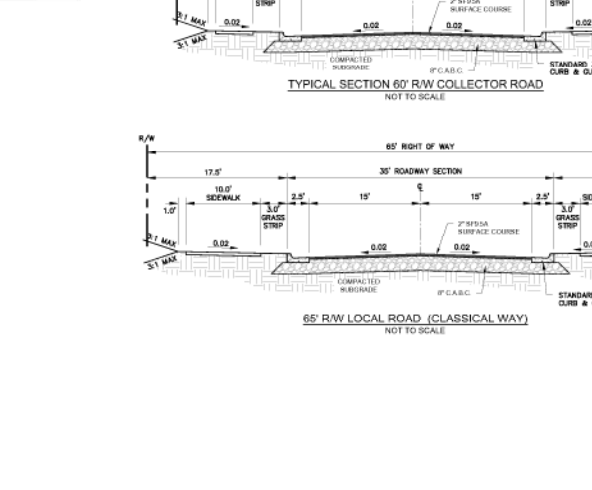
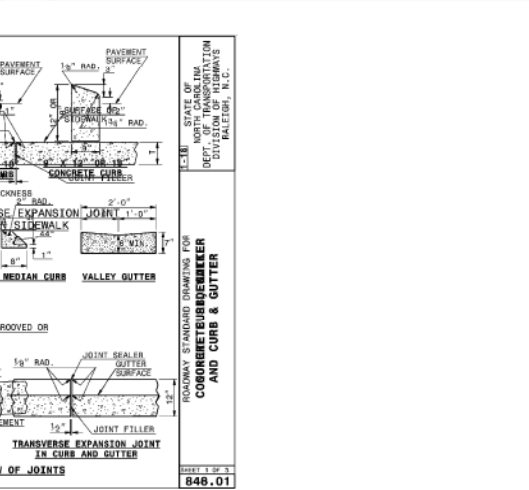
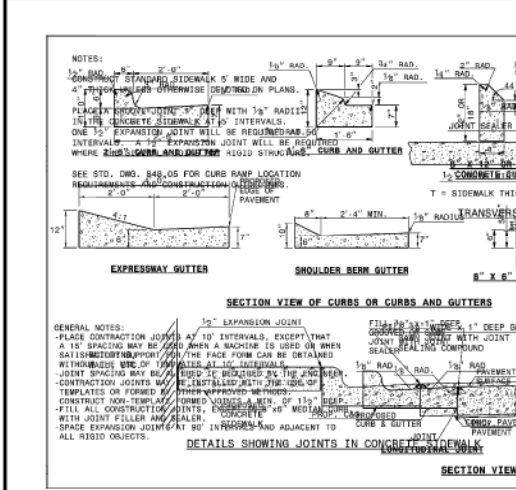
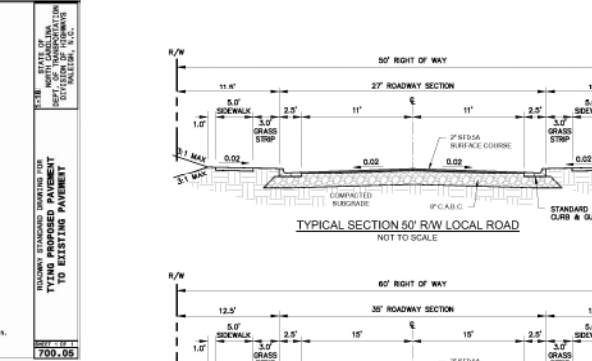
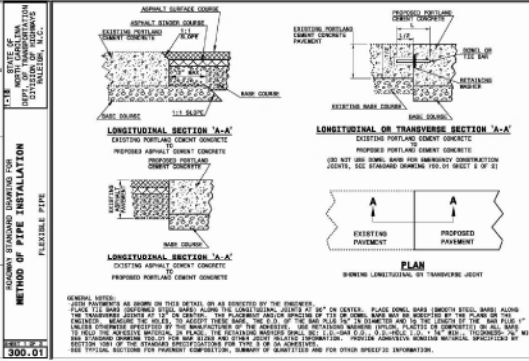
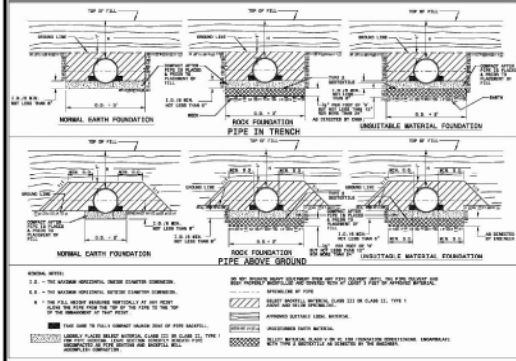
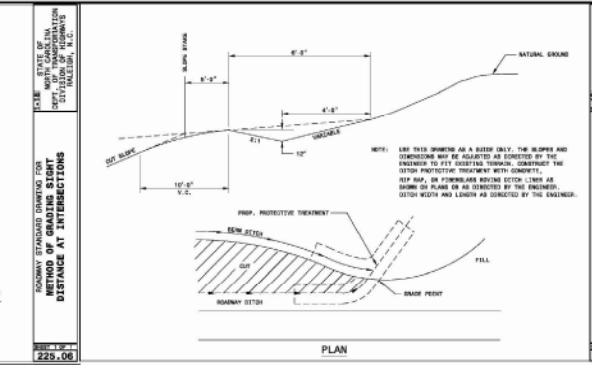
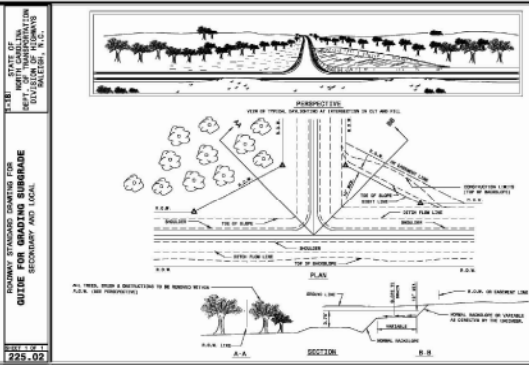
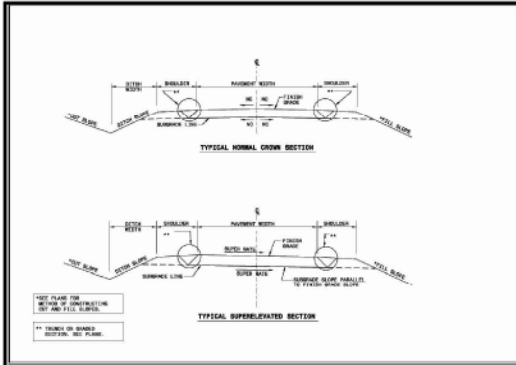


ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS
SITE DETAILS



NO.	DESCRIPTION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

PROJECT ENGINEER TSB
DESIGNED BY SAJ
DRAWN BY RAJ
CHECKED BY TSB
SCALE NTD
DATE 10/30/18
PROJECT NUMBER 0704
SHEET C804



NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018
2		
3		

848.01	SHEET 4 OF 4
--------	--------------

BATEMAN CIVIL SURVEY COMPANY
 ENGINEERS • SURVEYORS • PLANNERS

2535 RICHMOND AVENUE, NORTH CAROLINA 27619
 PHONE: (919) 487-1101
 FAX: (919) 487-1101
 LICENSE # 9896, N.C. C-2034

ELIZABETH HEIGHTS

1202 AVENUE F ROAD
 WAKE COUNTY, NC 27707

ELIZABETH HEIGHTS

CONSTRUCTION DRAWINGS

NCDOT DETAILS

Project Engineer: TSB
 Designed By: RAJ
 Drawn By: RAJ
 Checked By: TSB
 Scale: NTS

Date: 10/09/18
 Project Number: 57004

SHEET

C805

ELIZABETH HEIGHTS



Bateman Civil Survey Company
 Engineers • Surveyors • Planners
 2535 Roberson Avenue, Apex, North Carolina 27539
 Phone: (919) 252-1511
 Fax: (919) 252-1512
 License No. C-2028



ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

NCDOT DETAILS

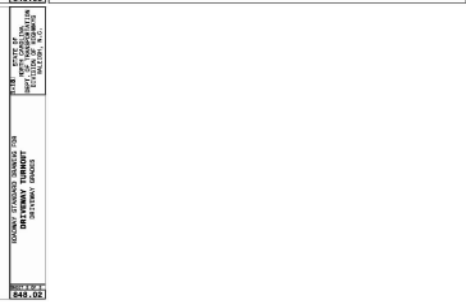
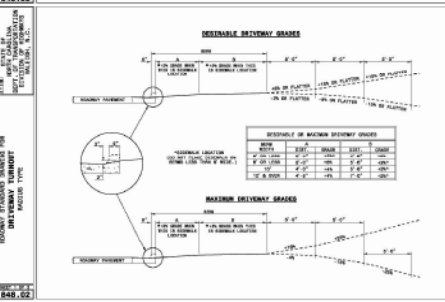
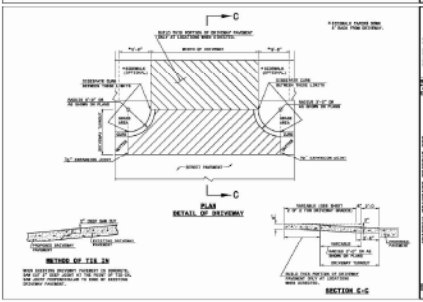
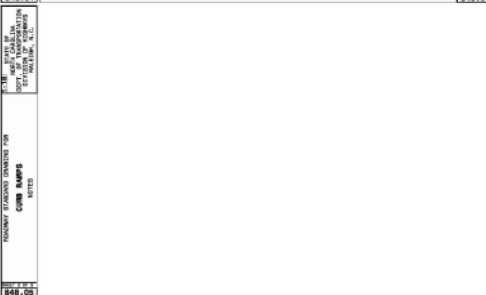
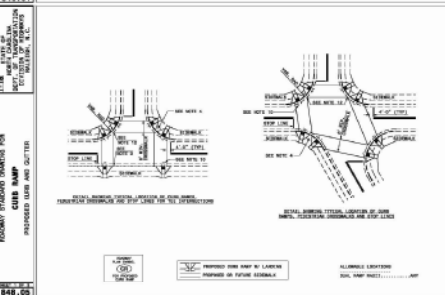
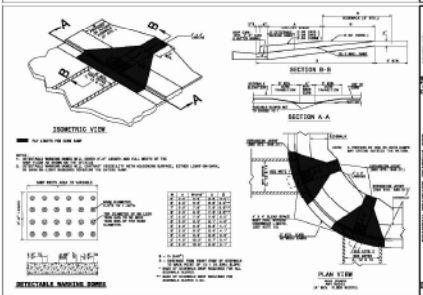
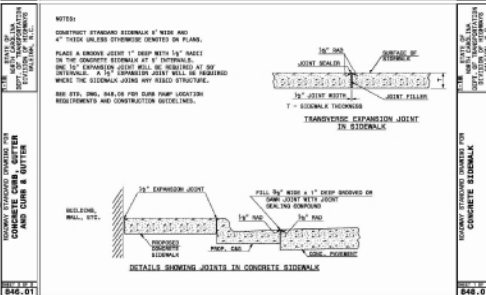
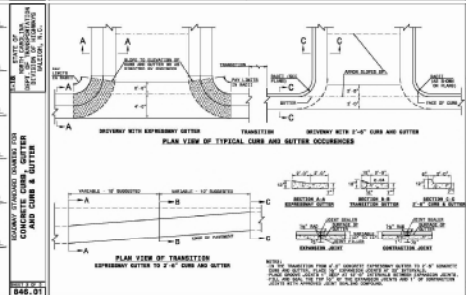
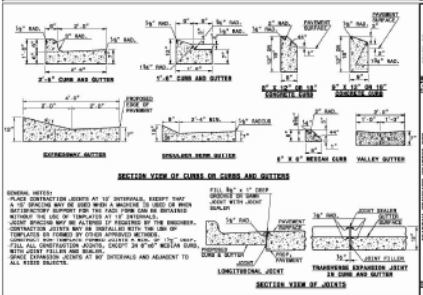
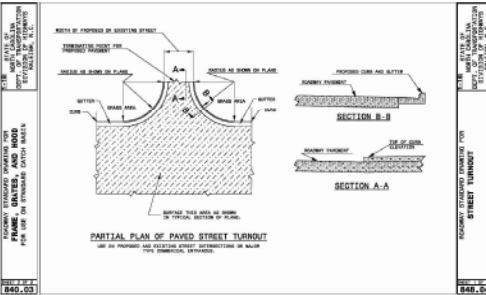
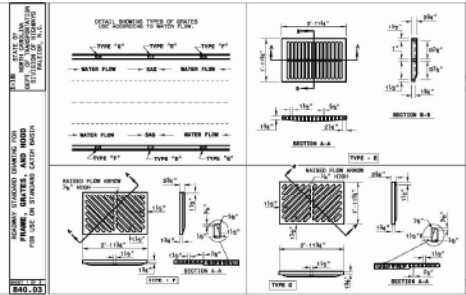
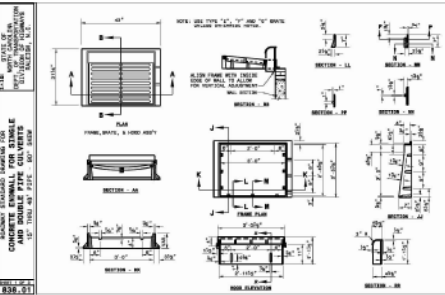
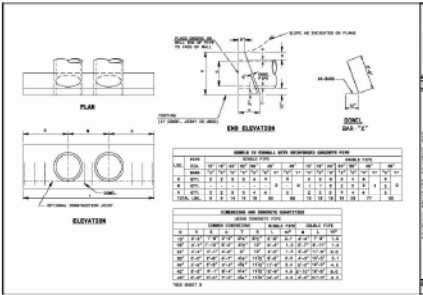
Project Engineer: TSB
 Designed By: SAJ
 Drawn By: RAJ
 Checked By: TSB
 Scale: NTS
 Date: 10/09/18
 Project Number: 57048

SHEET
C806

ELIZABETH HEIGHTS

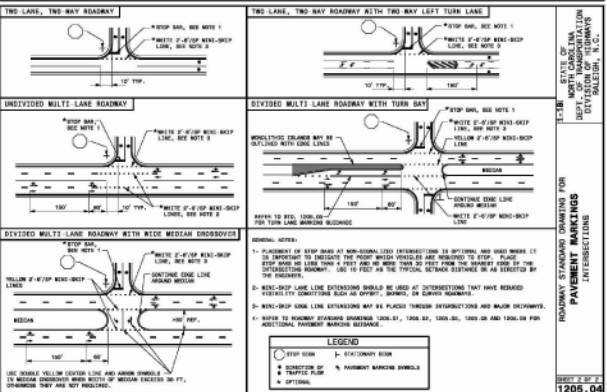
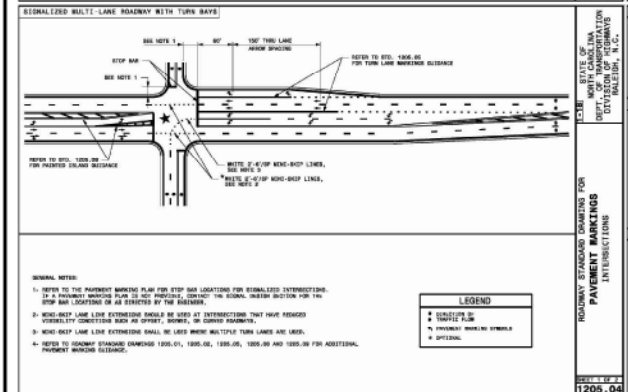
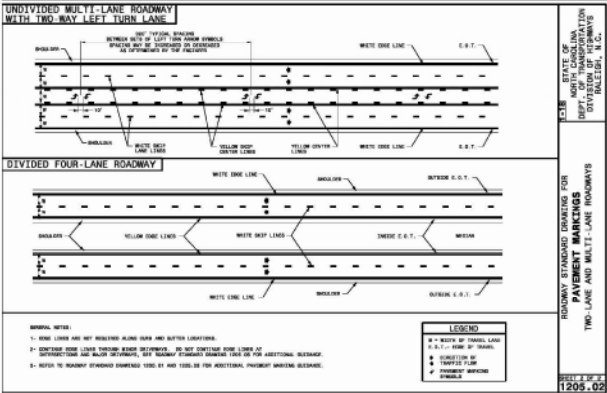
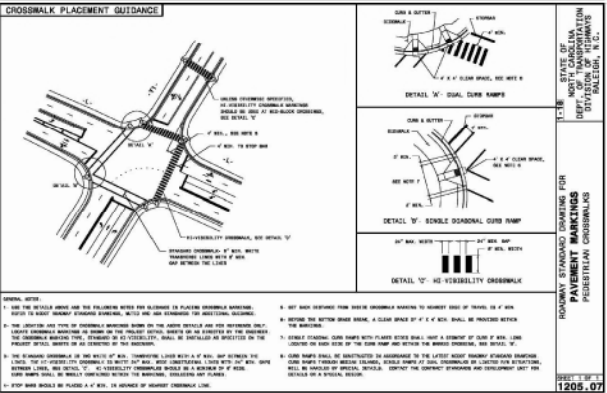
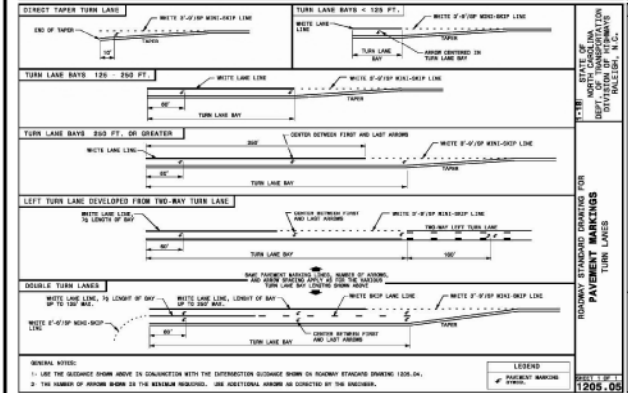
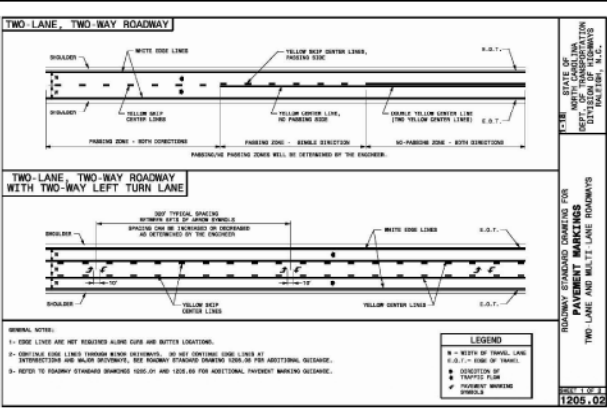
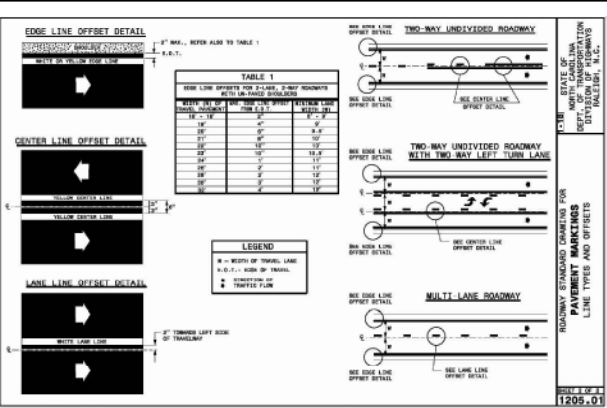
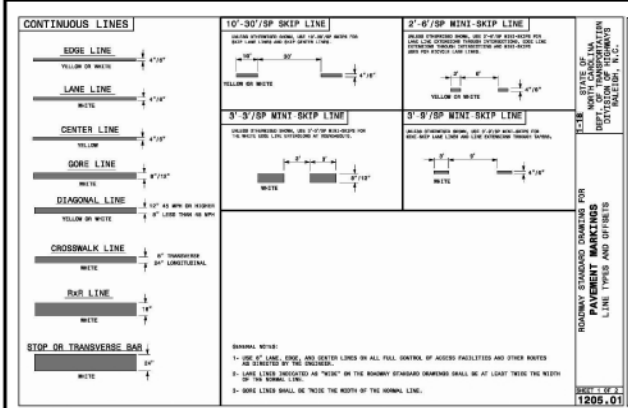
NCDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION

NCDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION



NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

REVISIONS



NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018
2		
3		
4		
5		

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NCELS 0090, No. C-2078

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR PAVEMENT MARKINGS TWO-LANE AND MULTI-LANE ROADWAYS
SHEET # 1 OF 2
1205.02

ELIZABETH HEIGHTS
CONSTRUCTION DRAWINGS

1205 AVENUE ROAD
SUITE 207
WAKE COUNTY, NC

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

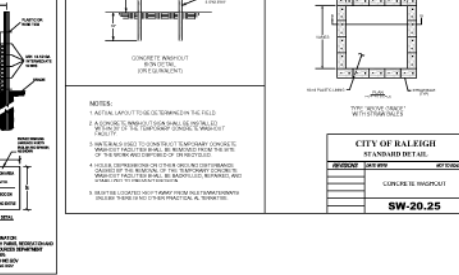
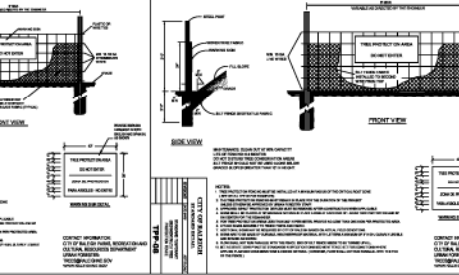
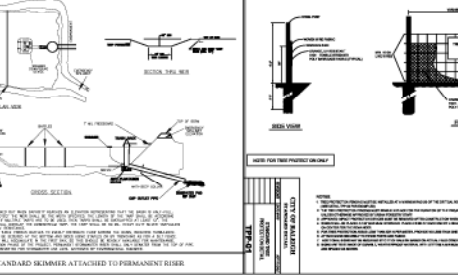
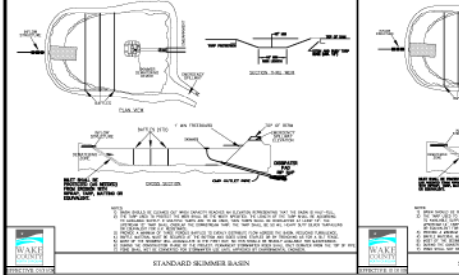
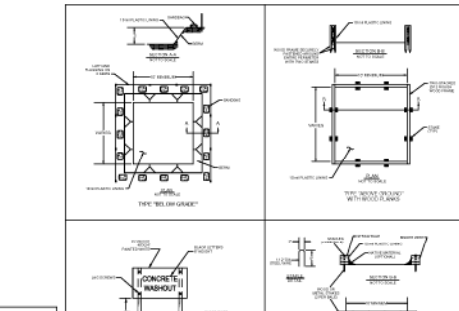
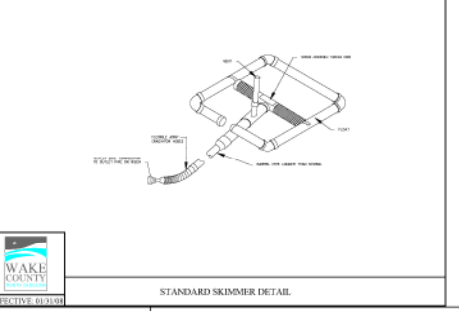
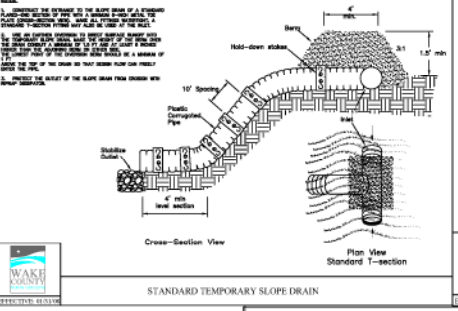
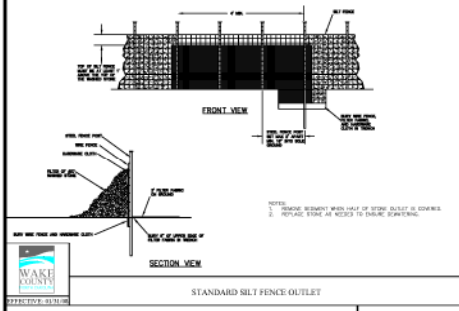
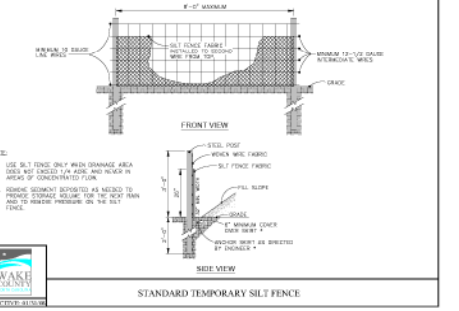
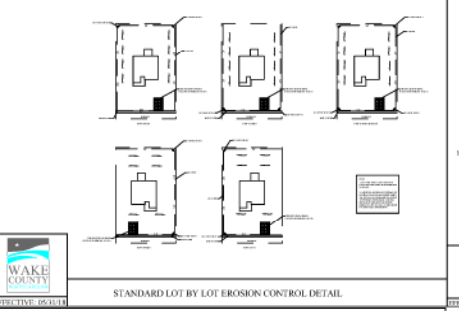
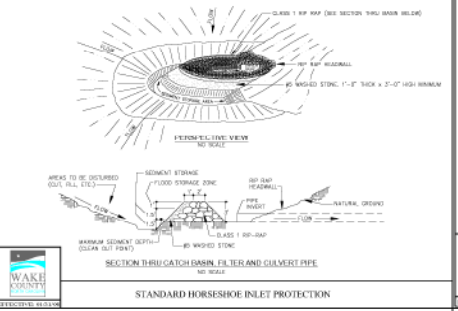
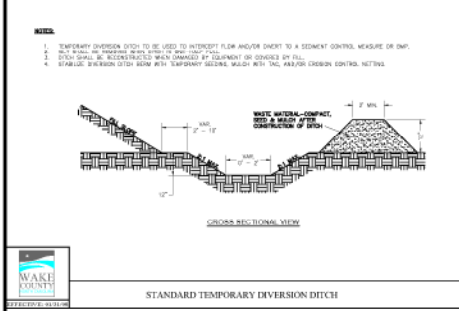
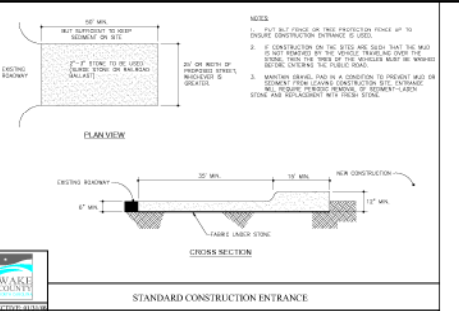
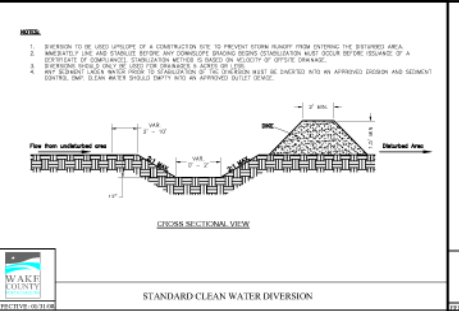
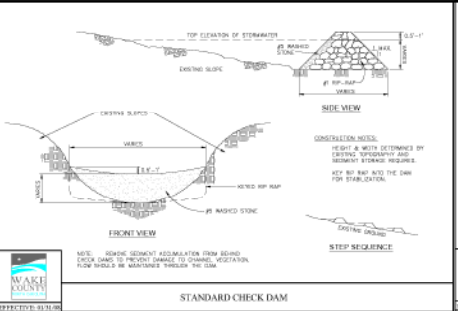
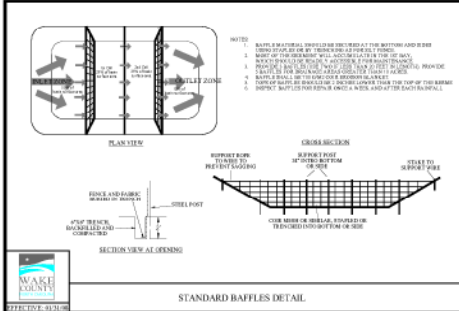
ROADWAY STANDARD DRAWING FOR PAVEMENT MARKINGS TWO-LANE AND MULTI-LANE ROADWAYS
SHEET # 2 OF 2
1205.02

NCDOT DETAILS

Project Engineer: TSB
Designed by: SAJ
Drawn by: SAJ
Checked by: TSB
Scale: NTS

Date: 10/09/18
Project Number: 57048

SHEET
C807



NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

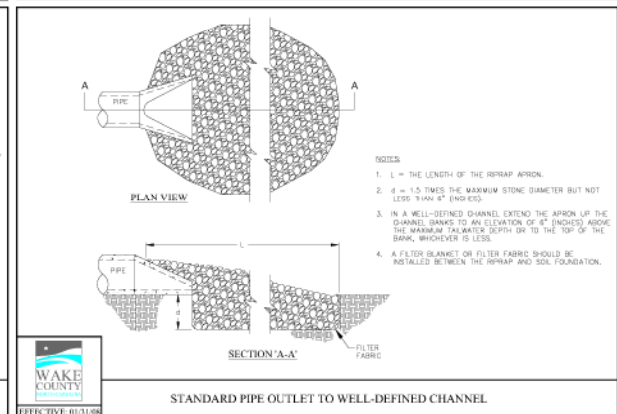
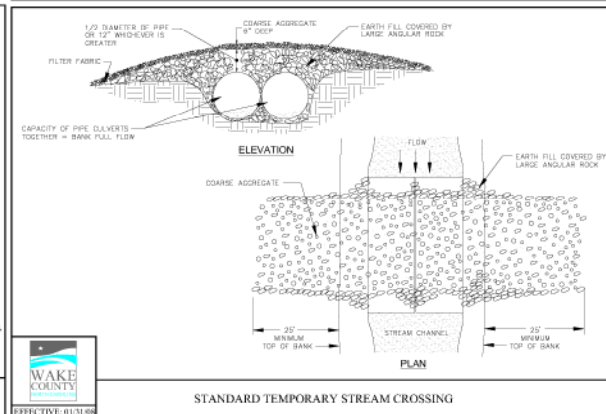
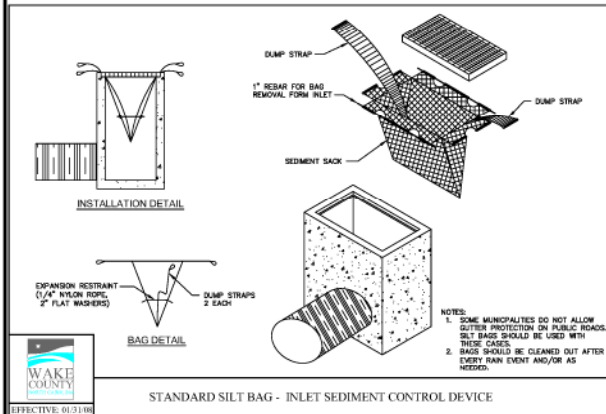
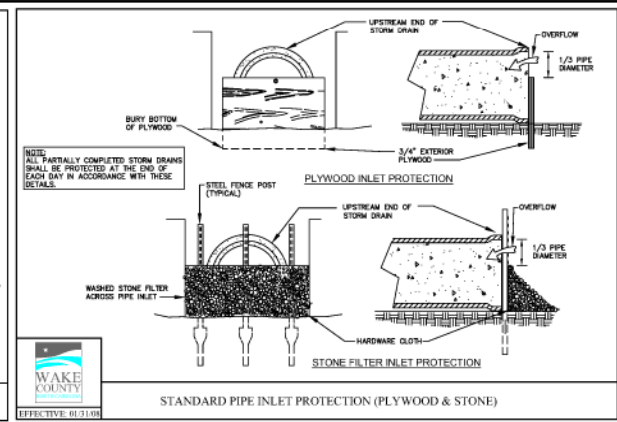
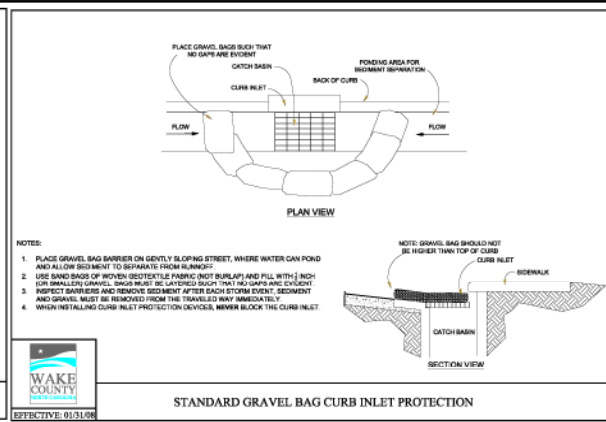
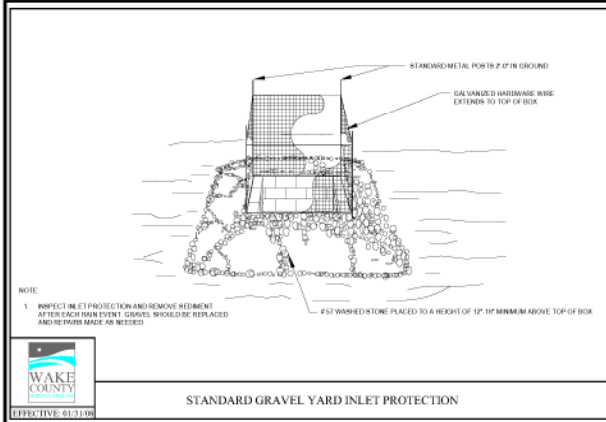
NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2018

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 Phone: (919) 210-1101
 FAX: (919) 210-1101
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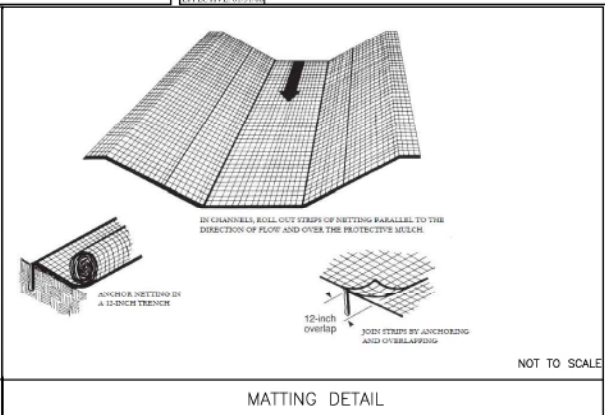
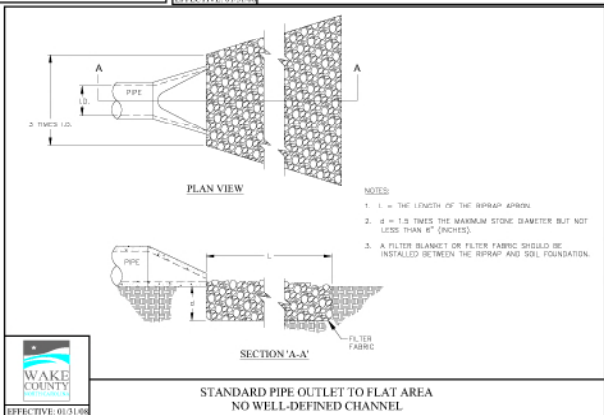
ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS

WAKE COUNTY
 EROSION CONTROL DETAILS

Project Engineer	TSS
Designed by	SAJ
Drawn by	RAJ
Checked by	TSS
Scale	N/A
Date	10/09/18
Project Number	57018
SHEET	C808



NO.	REVISION	DATE
1	REVISED PER TOR COMMENTS	12/07/2016



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 FICELS 01990, No. C-2078



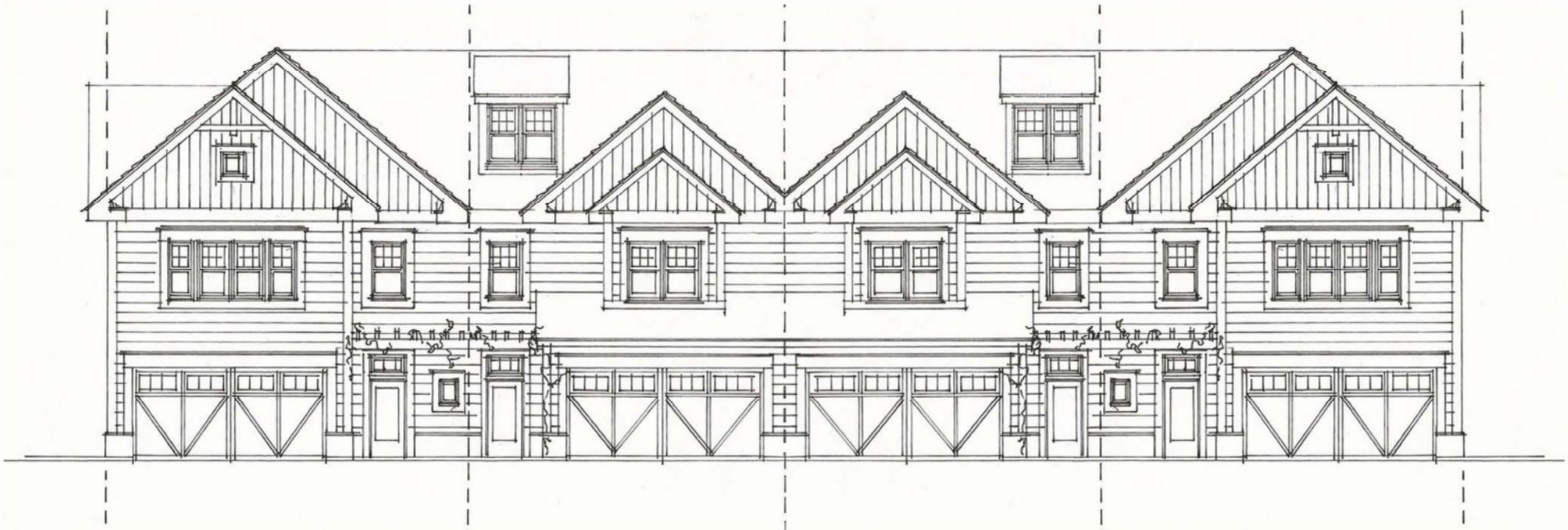
ELIZABETH HEIGHTS
 CONSTRUCTION DRAWINGS
 1026 AVERETTE ROAD
 SUITE 207
 WAKE COUNTY, NC

WAKE COUNTY
 EROSION CONTROL DETAILS

Project Engineer	TSS
Designed By	SAJ
Drawn By	RAJ
Checked By	TSS
Scale	N/A
Date	10/09/16
Project Number	0704

SHEET
C809

ELIZABETH HEIGHTS



ELIZABETH SPRINGS TOWNHOMES

ROLESVILLE, NORTH CAROLINA

formerly Elizabeth Heights