

CONSTRUCTION PLANS

FOR

THE LEGACY

PHASE 5A

CHATTHAM COUNTY, NORTH CAROLINA

OCTOBER, 2014

GENERAL CONSTRUCTION NOTES

1. EXISTING UNDERGROUND STRUCTURES AND UTILITIES SHOWN ARE BASED ON FIELD SURVEY AND BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES, BOTH HORIZONTAL AND VERTICAL, LOCATION OF ALL UTILITIES, PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 800-368-5898 PRIOR TO ANY DIGGING.
3. ALL WATER UTILITY CONSTRUCTION SHALL CONFORM TO THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
4. ALL SANITARY SEWER UTILITY CONSTRUCTION SHALL CONFORM TO LATEST AQA OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
5. THE SUBJECT PROPERTY IS LOCATED IN A 500' HAZARDOUS AREA PER FEMA PANEL 8723 MAP NUMBER 570797200, DATED 02/20/07, & FEMA PANEL 8782 MAP NUMBER 570797200, DATED 02/20/07.
6. AQUA PERSONNEL SHALL BE NOTIFIED 48 HOURS BEFORE CONSTRUCTION IS TO BEGIN, ANY TESTING IS SCHEDULED, OR BEFORE ANY PIPE IS COVERED.
7. ALL WATER MAINS SHALL HAVE A MINIMUM OF 37" OF COVER AS MEASURED FROM FINISHED GRADE IN THE LOCATION WHERE INSTALLED.
8. ALL WATER MAINS SHALL BE OVER THE PRESSURE SEWER MAIN WITH A MINIMUM OF 18" SEPARATION.
9. ALL WATER MAINS AND FORCE MAINS CROSSING UNDER STORM DRAINAGE SHALL BE INSTALLED WITH A MINIMUM OF 18" SEPARATION CENTERED ON THE STORM PIPE CROSSING.
10. UTILITY WORK SHALL BE PROTECTED FROM MARCH 15 THROUGH JUNE 30 TO MINIMIZE IMPACTS TO BREWING/FISH.
11. TOPOGRAPHIC INFORMATION PROVIDED BY CE GROUP, INC. BASED ON AERIAL PHOTOGRAPHY FROM FIELD SURVEY BACKGROUND TOPOGRAPHY FROM AERIAL MAPPING.

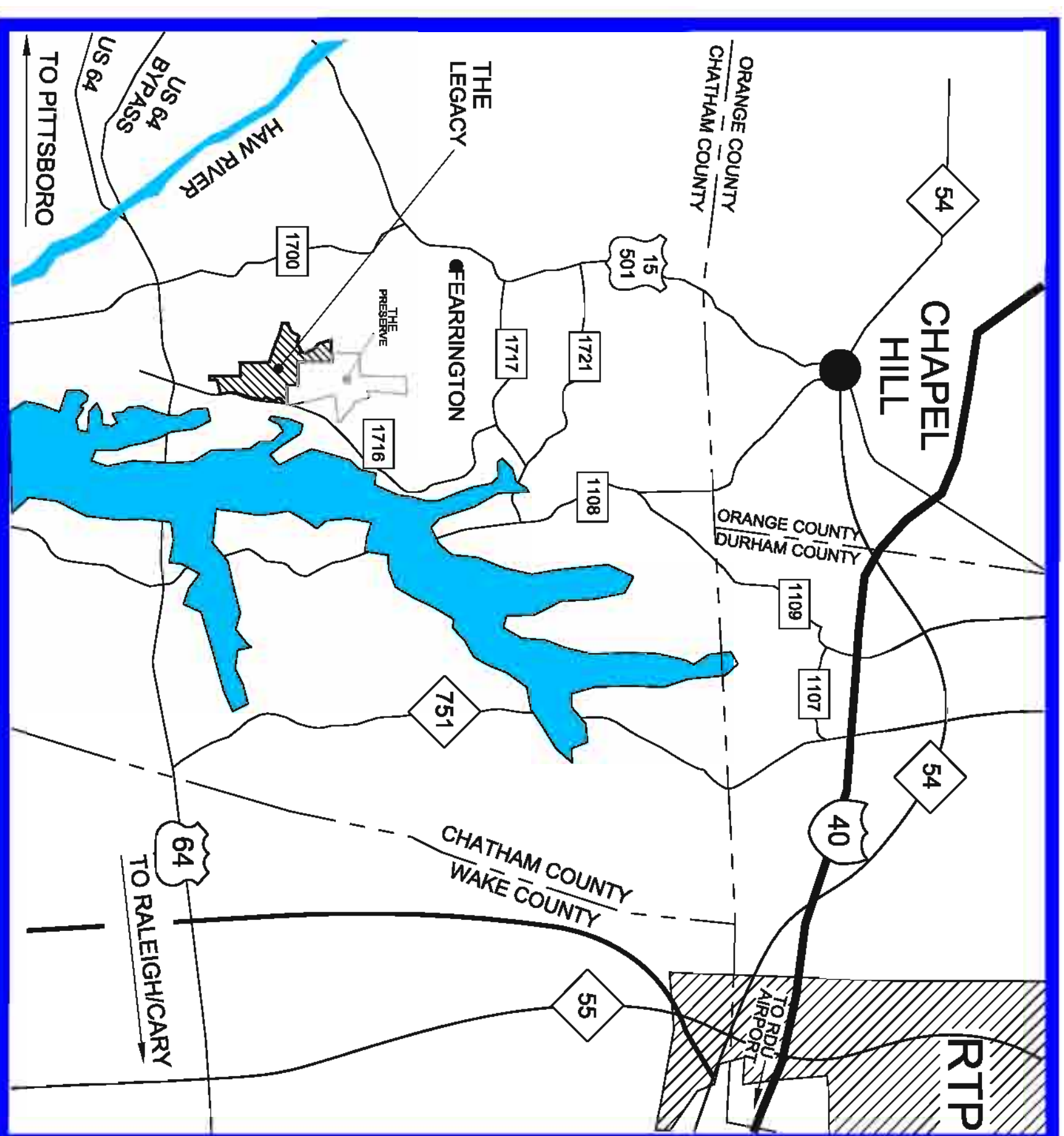
OWNER / DEVELOPER

F-L LEGACY OWNER, LLC
 500 BOYLSTON ST., SUITE 1870
 BOSTON, MA 02116
 PHONE: 617.221.8400

SITE DATA

PIN # 8783 12 2842
 ZONING: R-1 (RESIDENTIAL)
 TOTAL TRACT AREA: 286.96 ACRES

PHASE 5A = 57 LOTS



VICINITY MAP
 SCALE: 1 INCH = 10,000 FEET

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CE GROUP
 301 GLENWOOD AVE, SUITE 220
 RALEIGH, NC 27603
 PHONE: 919-387-8790
 www.cegroupinc.com



STOP!
 BEFORE YOU DIG CALL
 THE NC ONE CALL CENTER
 1-800-632-6669
 IT'S THE LAW!

NO.	REVISIONS	DATE

CE GROUP
 301 GLENWOOD AVE, 220
 RALEIGH, NC 27603
 PHONE: 919-387-8790
 FAX: 919-322-0032
 www.cegroupinc.com
 License # C-1739



**THE LEGACY
 PHASE 5A
 CONSTRUCTION PLANS
 COVER**

CHATTHAM COUNTY, NORTH CAROLINA

Date: SEPTEMBER, 2014
 Scale: N/A
 Drawn: JPD
 Checked: MPA
 Project No: 330-05
 Computer Desig. Name: 330-05-01 Plot Cover

FINAL DESIGN
 NOT RELEASED
 FOR CONSTRUCTION

NIF
LAURA F. CERRETTI &
BRETT A. LAWRENCE
PIN: 9782-01-3255
DB 1494 PG. 509
PB 94 PG. 315

NIF
WILFRED E. RAMMOND
PIN: 9783-00-3261
DB 660 PG. 1031
PB 98 PG. 147

NIF
DOUGLAS E. BROWN
PIN: 9783-01-3139
DB 660 PG. 893
PB 98 PG. 147

NIF
JESSE O. FEARRINGTON
PIN: 9773-92-4489
DB 1464 PG. 509
PB 2003 PG. 32

NIF
CONTINENTAL CREEK
DEVELOPMENT CO.
PIN: 9782-18-1415
DB 1139 PG. 763
PB 2007 PG. 225

NIF
CONTINENTAL CREEK
DEVELOPMENT CO.
PIN: 9782-18-3881
DB 1139 PG. 763
PB 2007 PG. 225

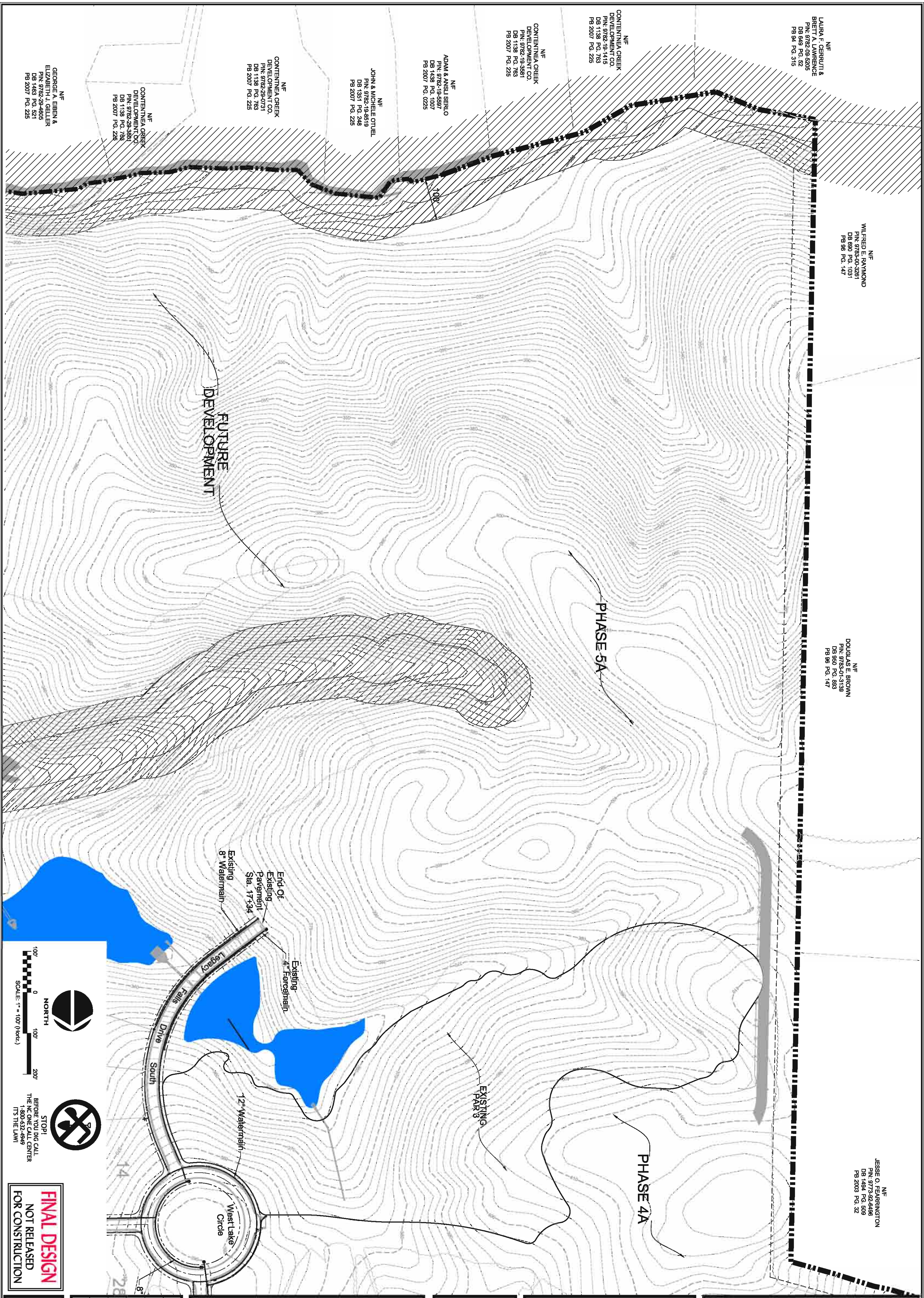
NIF
ADAM & ANSIL SERIO
PIN: 9782-18-3881
DB 1469 PG. 1007
PB 2007 PG. 0225

NIF
JOHN & MICHELE OTJEL
PIN: 9782-18-8919
DB 1351 PG. 248
PB 2007 PG. 225

NIF
CONTINENTAL CREEK
DEVELOPMENT CO.
PIN: 9782-18-3881
DB 1139 PG. 763
PB 2007 PG. 225

NIF
CONTINENTAL CREEK
DEVELOPMENT CO.
PIN: 9782-28-3801
DB 1139 PG. 763
PB 2007 PG. 225

NIF
GEORGE A. EISEN &
ELIZABETH A. EISEN
PIN: 9782-28-4805
DB 1463 PG. 521
PB 2007 PG. 225



100' 0' 100' 200'

SCALE: 1" = 100' (HORIZ.)

NORTH

STOP! YOU DID CALL THE NC ONE CALL CENTER (1-800-532-4849) (1) THE LAW!

FINAL DESIGN
NOT RELEASED
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Date:	SEPTEMBER, 2014
Scale:	N/A
Drawn:	JPD
Checked:	MPA
Project No.:	330-05
Consultant/Draw. Name:	330-05/MPA Inc/Draw

**THE LEGACY
PHASE 5A
CONSTRUCTION PLANS
EXISTING CONDITIONS PLAN**

CHATHAM COUNTY, NORTH CAROLINA



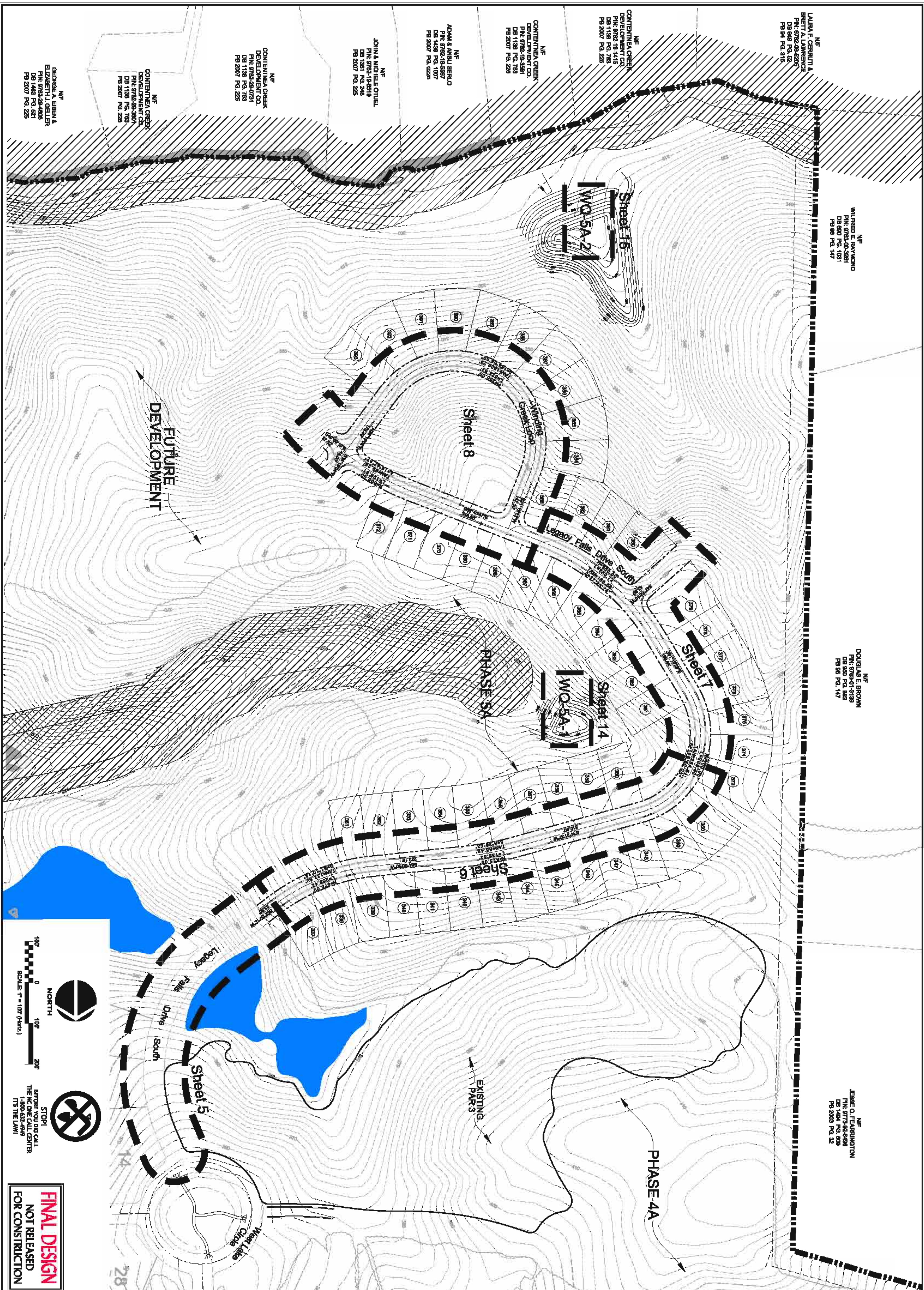
CCE GROUP

301 GLENWOOD AVE, 220
GLENWOOD, NC 27530
PHONE: 919-567-9790
FAX: 919-322-0032

www.ccegroupinc.com
License # C-1739

NO.	REVISIONS	DATE

Sheet No: **2** of



NF
LAURA F. CERRELLI &
BRETT A. LAWRENCE
DB 049 PG. 02
PB 04 PG. 03
PB 04 PG. 03

NF
WALTER E. TAYLOR
DB 001 PG. 001
PB 00 PG. 001

NF
DOUGLAS E. BROWN
PB 000 PG. 000
PB 00 PG. 00

NF
KEESE O. FARRINGTON
PB 000 PG. 00
PB 000 PG. 00

NF
CONTINENTAL CREEK
DEVELOPMENT CO.
DB 1158 PG. 783
PB 2007 PG. 225

NF
CONTINENTAL CREEK
DEVELOPMENT CO.
DB 1158 PG. 783
PB 2007 PG. 225

NF
ADAM & ANIBU BERLO
DB 1438 PG. 1807
PB 2007 PG. 0226

NF
JOHN & MICHAEL OTUEL
DB 051 PG. 206
PB 2007 PG. 025

NF
CONTINENTAL CREEK
DEVELOPMENT CO.
DB 1158 PG. 783
PB 2007 PG. 225

NF
CONTINENTAL CREEK
DEVELOPMENT CO.
DB 1158 PG. 783
PB 2007 PG. 225

NF
GEORGE A. BERNA &
ELIZABETH A. BELLER
DB 1463 PG. 091
PB 2007 PG. 225

NORTH

100' 0' 100' 200'

SCALE: 1" = 100' (feet)

STOP!
BEFORE YOU DIG CALL
THE N.C. ONE CALL CENTER
(703) 762-4444
(IN THE LAW)

FINAL DESIGN
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FOR CONSTRUCTION

Date:	SEPTEMBER, 2014
Scale:	1"=100'
Drawn:	JPD
Checked:	MPA
Project No.:	330-05
Contract Draw Name:	Sheet 03 of 03 Overall Layout
Sheet No.:	3
Of:	3

**THE LEGACY
PHASE 5A
CONSTRUCTION PLANS
OVERALL LAYOUT PLAN**
CHATHAM COUNTY, NORTH CAROLINA



CE GROUP

301 GLENWOOD AVE. 200
RALEIGH, NC 27603
PHONE: 919-257-0700
FAX: 919-257-0032

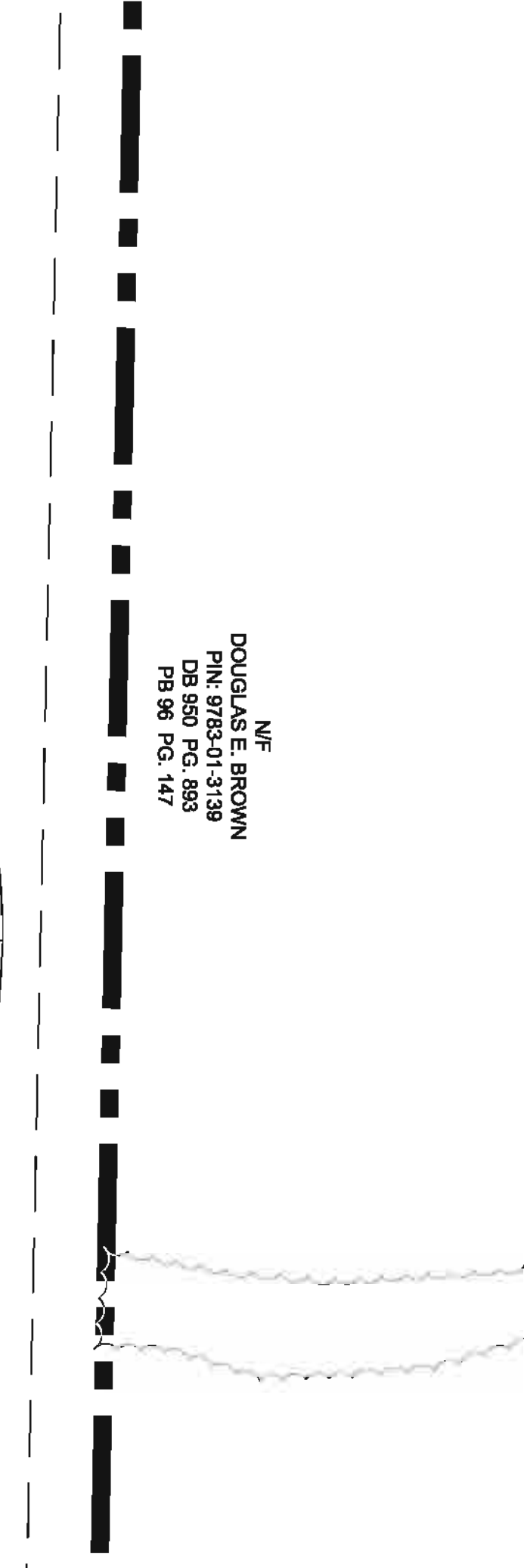
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License # C-1738

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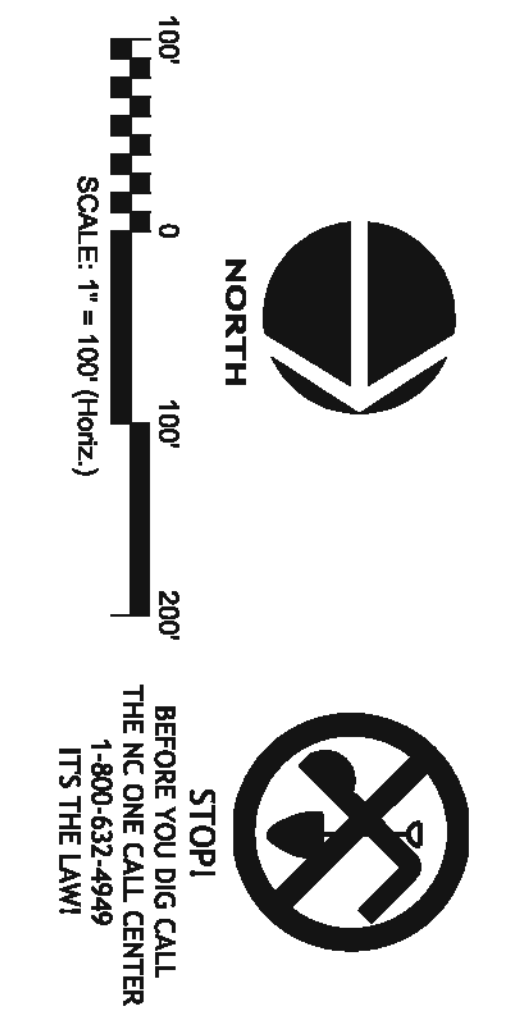
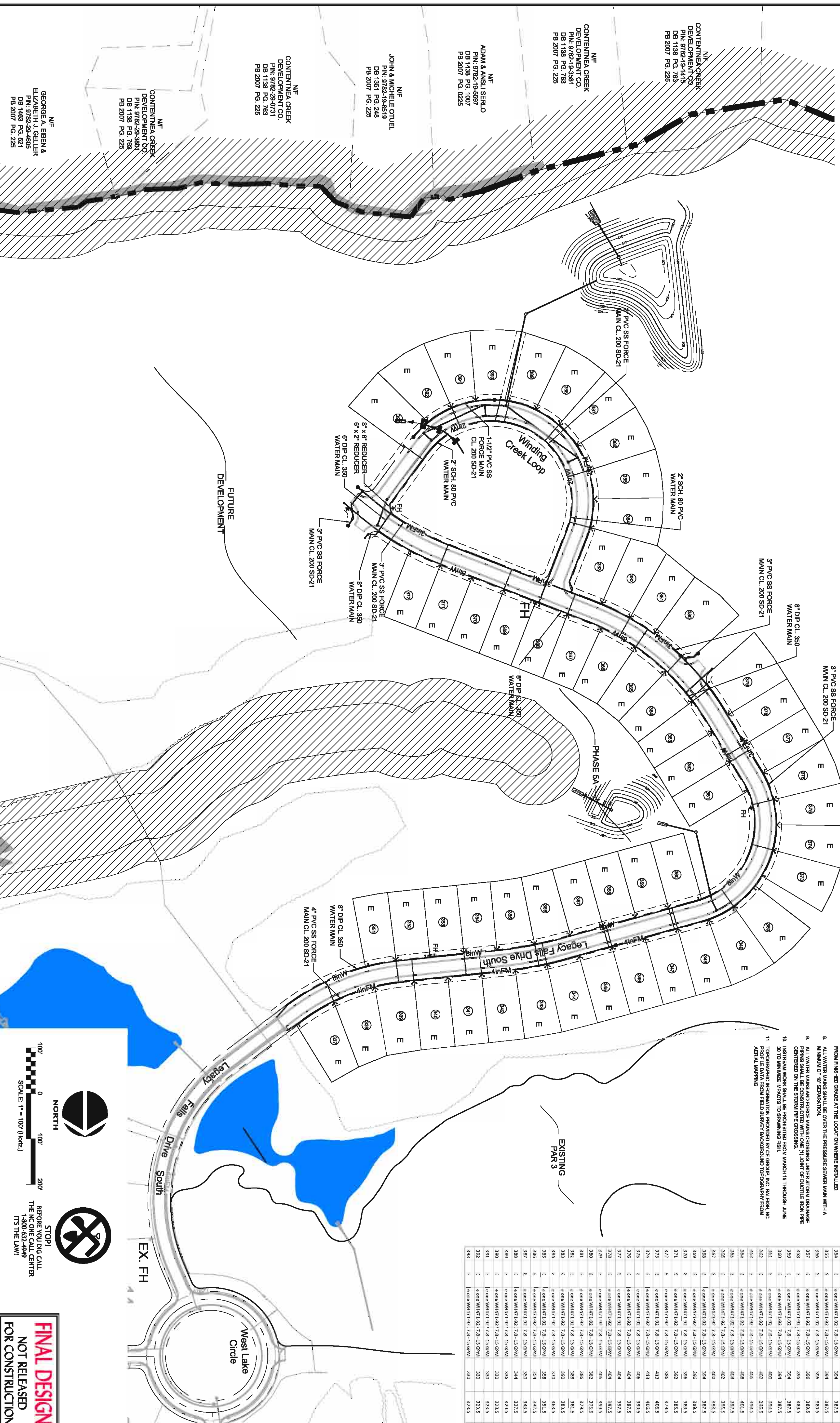
LEGEND

—•—	WATER MAIN	◆	FIRE HYDRANT
—•—	SEWER FORCE MAIN	▽	VALVE
—•—	REINFORCED CONCRETE PIPE STORM DRAINAGE	▽	REDUCER
—•—	YARD INLET	●	WATER SERVICE
—•—	CURB INLET	●	SEWER SERVICE
—•—	FLARED END SECTION	●	BLOW OFF
—•—		●	CLEAN OUT
—•—		●	AIR RELEASE VALVE

- NOTES**
1. ANY LOT WHICH CONNECTS TO THE GRAVITY SANITARY SEWER VIA A GRAVITY SERVICE CONNECTION WILL REQUIRE A SEWER BACKFLOW PREVENTER VALVE. THE PREVENTER SHALL BE INSTALLED DOWNSTREAM FROM THE UPSTREAM MANHOLE RIM ELEVATION.
 2. REFER TO ROADWAY PLAN / PROFILES FOR DETAILED UTILITY INFORMATION.
 3. ALL LOTS ON THIS OVERALL UTILITY PLAN SHALL HAVE A WALKERS 70 SERIES WATER PRESSURE REDUCING VALVE MODEL 70SS INSTALLED BEYOND THE METER ON EACH LOT.



- GENERAL CONSTRUCTION NOTES**
1. EXISTING UNDERGROUND STRUCTURES AND UTILITIES SHOWN ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY DATA. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 2. THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 1-800-444-4444. THE CONTRACTOR SHALL CALL AT LEAST 48 HOURS PRIOR TO ANY DIGGING.
 3. ALL WATER UTILITY CONSTRUCTION SHALL CONFORM TO THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
 4. ALL SANITARY SEWER UTILITY CONSTRUCTION SHALL CONFORM TO LATEST AASHTO M200-2010 STANDARDS AND SPECIFICATIONS.
 5. THE SUBJECT PROPERTY IS LOCATED IN A FLOOD HAZARD AREA PER FEMA FIRM PANEL 8772. MAP NUMBER 3709700L. DATED 06/20/07. A FEMA FIRM PANEL 8772 MAP NUMBER 3709700L DATED 06/20/07.
 6. ADVA PERSONNEL SHALL BE NOTIFIED 48 HOURS BEFORE CONSTRUCTION COMMENCES. ANY TESTS TO BE SCHEDULED ON BEFORE ANY PE IS CONSIDERED.
 7. ALL WATER MAINS SHALL HAVE A MINIMUM OF 3' OF COVER AS MEASURED FROM THE BOTTOM OF THE MAIN TO THE BOTTOM OF THE NEAREST NEIGHBORING FINISHED GRADE SURFACE.
 8. ALL WATER MAINS SHALL BE OVER THE PRESSURE SEWER MAIN WITH A MINIMUM OF 3' SEPARATION.
 9. ALL WATER MAINS AND FORCE MAINS CROSSING WATER BODIES SHALL BE PROTECTED WITH AN APPROVED UNDERPASS OR TUNNEL. THE UNDERPASS SHALL BE CENTERED ON THE STREAM PIPE CROSSING.
 10. TO MINIMIZE IMPACTS TO SWAMPING RISK.
 11. TOPOGRAPHIC INFORMATION PROVIDED BY GE GROUP, INC. (RALEIGH, NC). PROFILE DATA FROM FIELD SURVEY BACKGROUND TOPOGRAPHY FROM AERIAL MAPPING.



FINAL DESIGN
NOT RELEASED
FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
327	E	CONTRACTOR TO VERIFY FIELD CONDITIONS AND PROVIDE AS-BUILT DATA TO THE ENGINEER.
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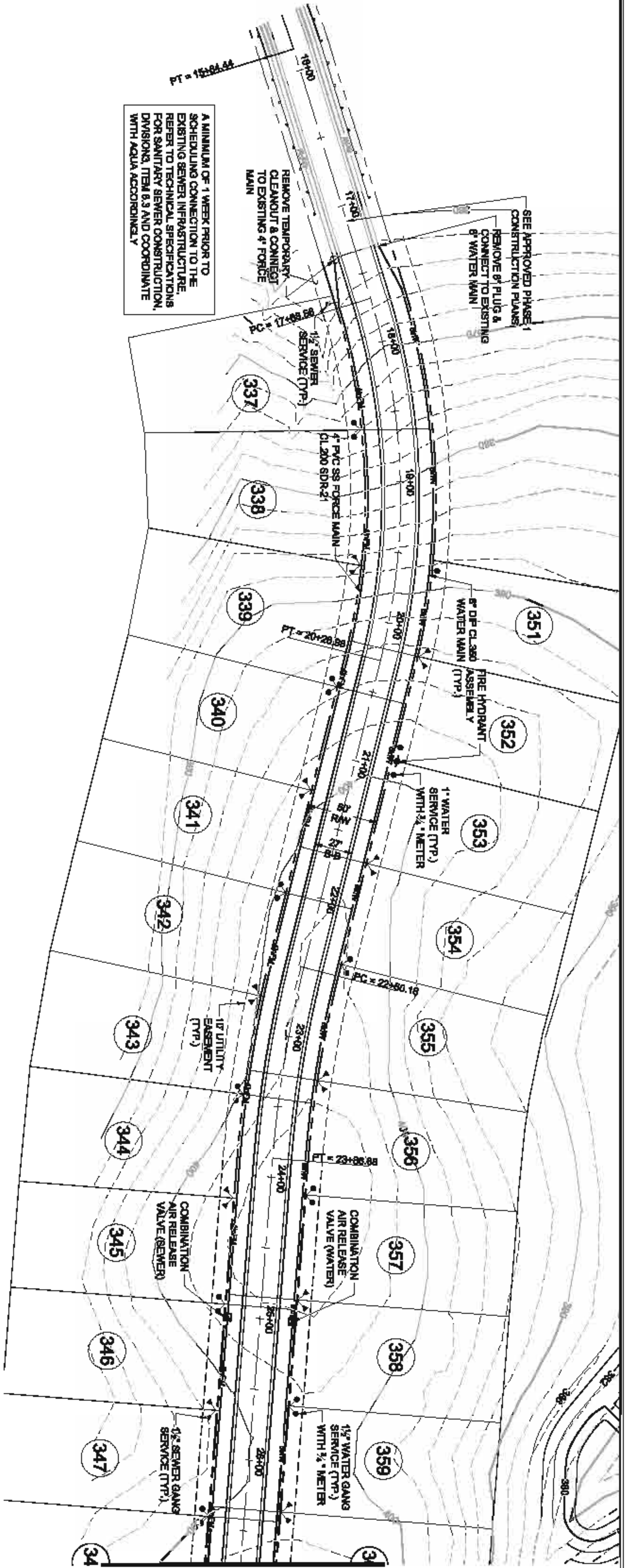
THE LEGACY PHASE 5A CONSTRUCTION PLANS OVERALL UTILITY PLAN
CHATHAM COUNTY, NORTH CAROLINA

Date: SEPTEMBER, 2014
Scale: 1"=100'
Drawn: JPD
Checked: MPA
Project No.: 330-05
Computer Draw Name: 330-05.dwg
Sheet No.: 4



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307 GLENWOOD AVE, 220
PALEIGH, NC 27850
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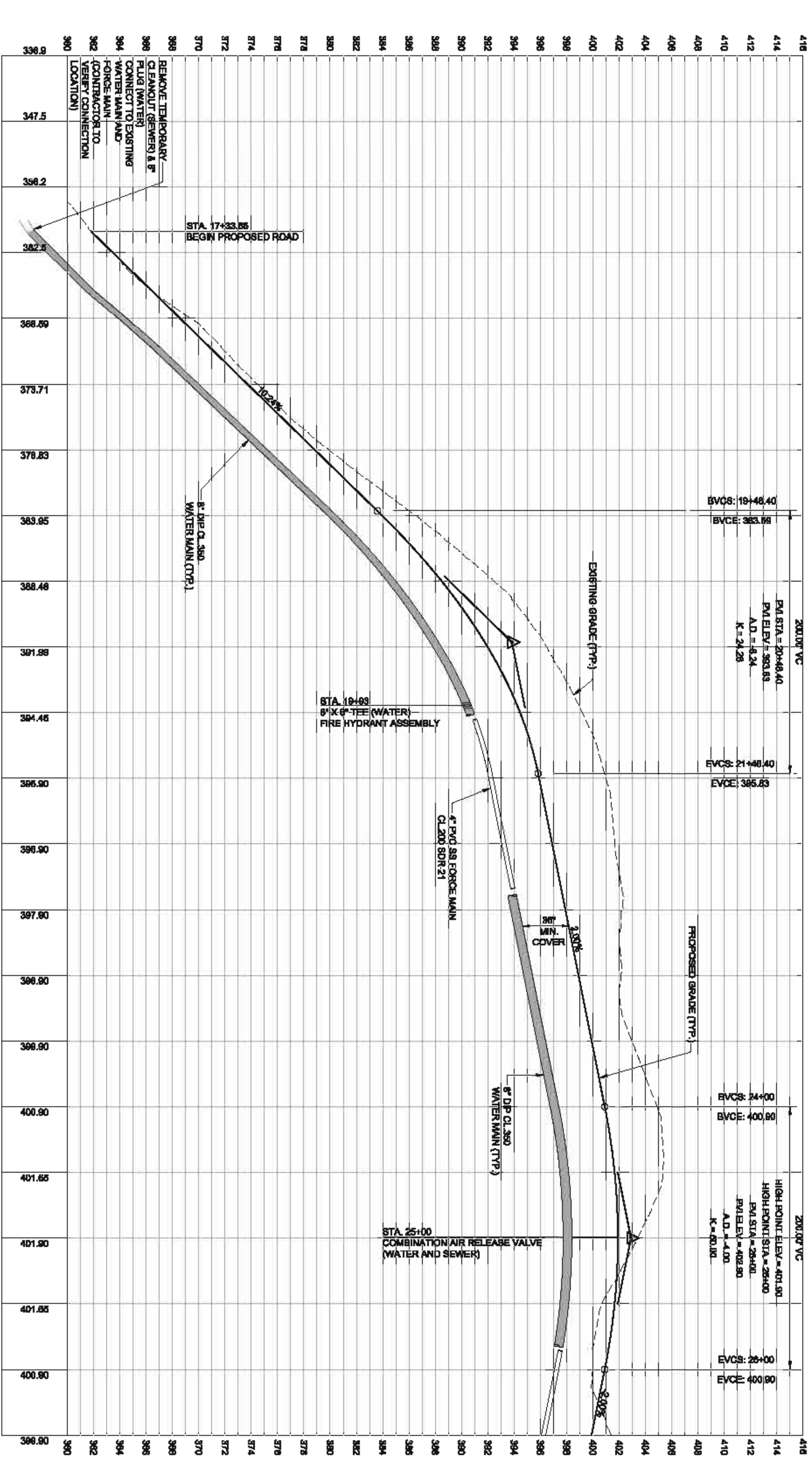
NO.	REVISIONS	DATE



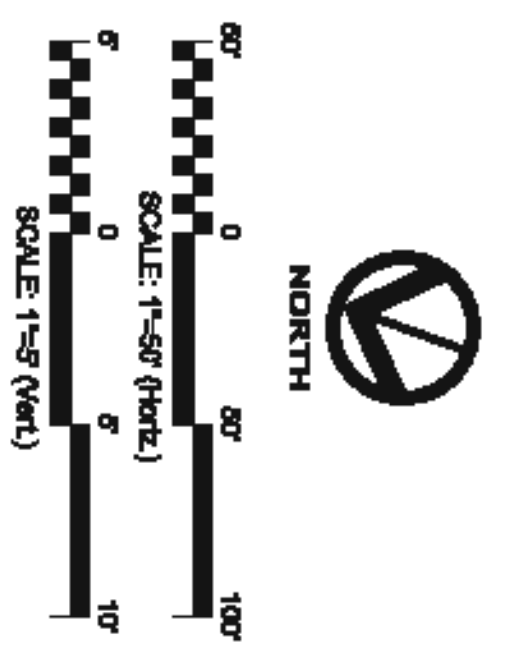
MATCHLINE STA. 26+50
CONTINUE ON SHEET 6

LEGACY FALLS DRIVE SOUTH
PLAN & PROFILE

SCALE 1"=50' H, 1"=8' V



- GENERAL CONSTRUCTION NOTES**
- EXISTING UNDESIGNED UTILITIES AND UTILITIES BEING ABANDONED OR FIELD REMOVED AND NOT REINSTALLED SHALL BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS INCLUDING THE LOCATION, DEPTH, AND MATERIAL OF ALL UTILITIES. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 - THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 1-800-444-4444. THE CONTRACTOR SHALL CALL AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.
 - ALL WATER UTILITY CONSTRUCTION SHALL CONFORM TO THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
 - ALL SANITARY SEWER UTILITY CONSTRUCTION SHALL CONFORM TO LATEST EDITION OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
 - THE EXISTING PROPERTY IS LOCATED IN A FLOOD HAZARD AREA PER FEMA PANEL 1901-0001-0001 (FLOOD HAZARD IDENTIFICATION, LIMITED COVERAGE).
 - ALL UTILITIES SHALL BE INSTALLED AT THE DEPTH AND SPACING SHOWN ON THE DRAWING. ALL UTILITIES SHALL BE INSTALLED ON BEDROCK, NOT OVER COVERED.
 - ALL WATER MAINS SHALL HAVE A MINIMUM OF 3.0' OF COVER AS SHOWN ON THE DRAWING.
 - ALL WATER MAINS SHALL BE OPEN THE PROBABLE SERVICE MAIN WITH A MINIMUM OF 3' SEPARATION.
 - ALL WATER MAINS AND FORCE MAINS CROSSINGS UNDER EXISTING ROADWAYS SHALL BE CONSTRUCTED WITH ONE (1) FOOT OF DOUBLE IRON PIPE CENTERED OVER THE EXISTING ROADWAY.
 - NECESSARY WORK SHALL BE PERMITTED FROM MARCH 15 THROUGH JUNE 30 TO MINIMIZE IMPACTS TO SWIMMING POOL.
 - TOPOGRAHY INFORMATION PROVIDED BY GEORGRAPHIC AND SURVEY, INC. SHALL BE USED FOR FIELD SURVEY AND CONSTRUCTION TO CORROBORATE FROM THE DRAWING.



STOP!
BEFORE YOU DIG CALL
THE 1-800-444-4444
IT'S THE LAW!

FINAL DESIGN
NOT RELEASED
FOR CONSTRUCTION

NO.	REVISIONS	DATE
1.	REVISED PER AQUA COMMENTS.	02/11/16

CE GROUP

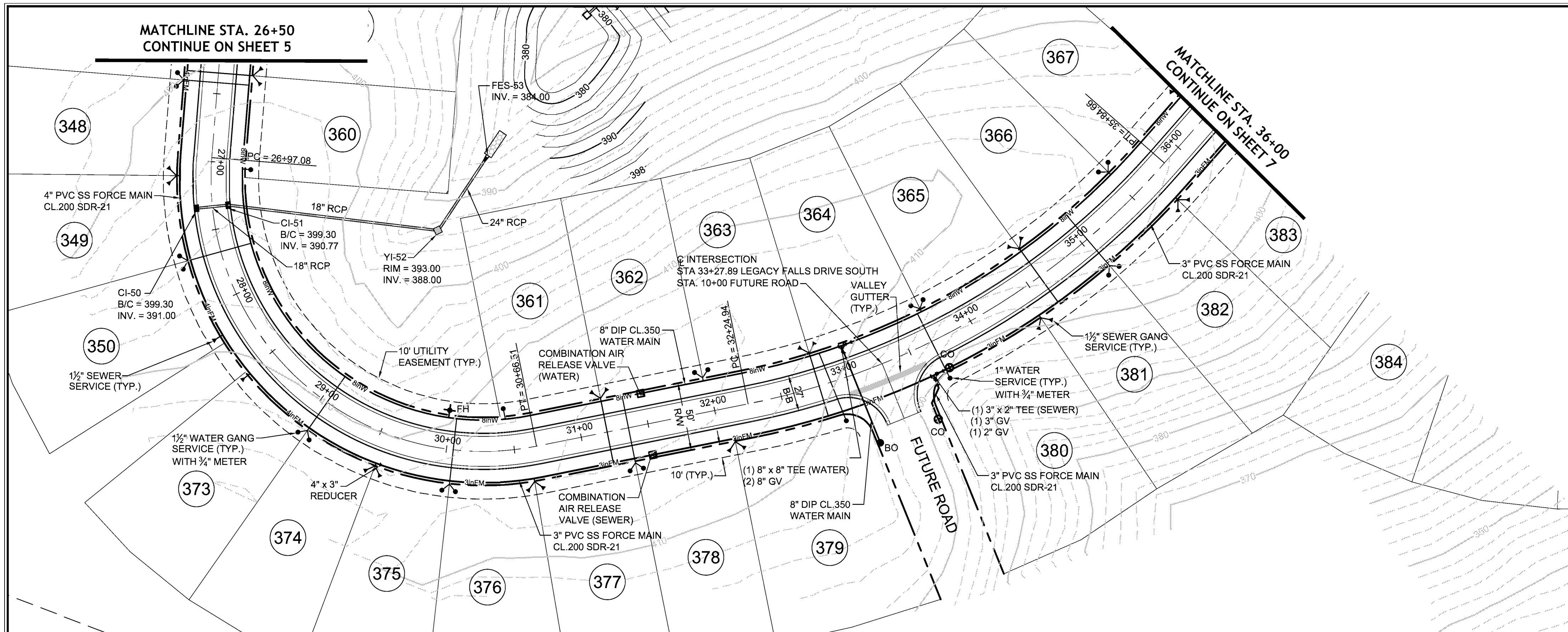
301 GLENWOOD AVE. 200
RALEIGH, NC 27603
PHONE: 919-257-0700
FAX: 919-257-0832

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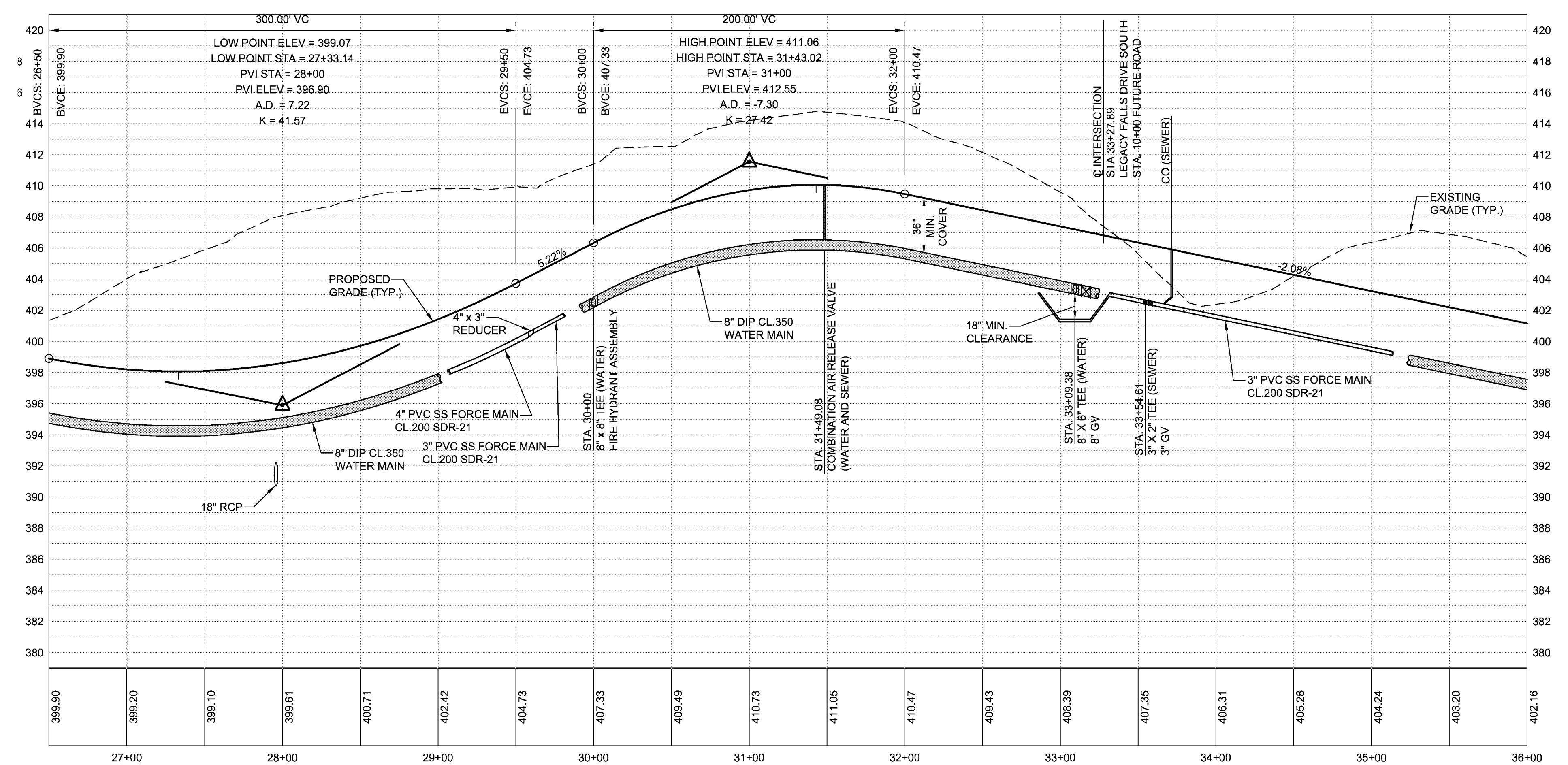
THE LEGACY
PHASE 5A
LEGACY FALLS DRIVE WEST
STA. 17+35 - STA. 26+50
CHATHAM COUNTY, NORTH CAROLINA

Date: JULY 7, 2014
Scale: 1"=50' (H) / 1"=8' (V)
Drawn: DPM
Checked: MPA
Project No.: 330-05
Contract Draw Name: 26505 01 P&S
Sheet No.: **5** of **5**



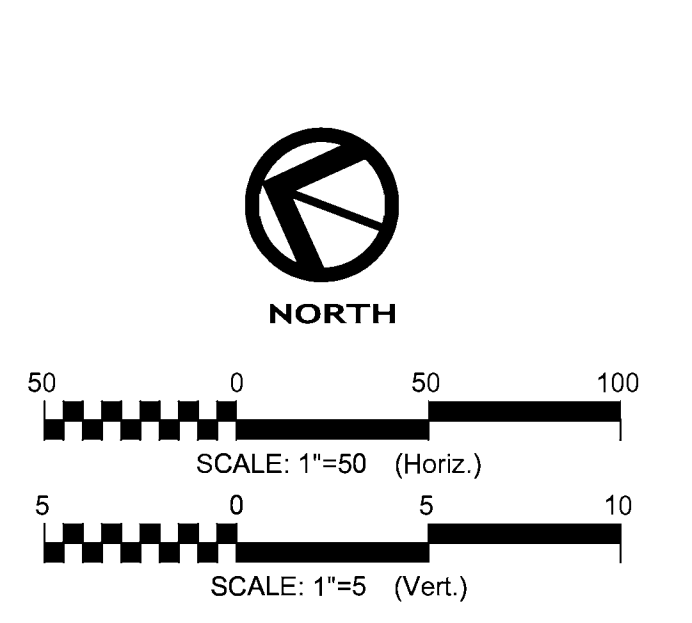
**LEGACY FALLS DRIVE SOUTH
PLAN & PROFILE**

SCALE: 1"=50 H, 1"=5 V



GENERAL CONSTRUCTION NOTES

- EXISTING UNDERGROUND STRUCTURES AND UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 1-800-632-4949. THE CONTRACTOR SHALL CALL AT LEAST 48 HOURS PRIOR TO ANY DIGGING.
- ALL WATER UTILITY CONSTRUCTION SHALL CONFORM TO THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
- ALL SANITARY SEWER UTILITY CONSTRUCTION SHALL CONFORM TO LATEST AQUA OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- THE SUBJECT PROPERTY IS LOCATED IN A FLOOD HAZARD AREA PER FEMA FIRM PANEL 9773, MAP NUMBER 371097200J, DATED 02/02/07, & FEMA FIRM PANEL 9782, MAP NUMBER 371097200J, DATED 02/02/07.
- AQUA PERSONNEL SHALL BE NOTIFIED 48 HOURS BEFORE CONSTRUCTION IS TO BEGIN. ANY TESTING IS SCHEDULED, OR BEFORE ANY PIPE IS COVERED.
- ALL WATER MAINS SHALL HAVE A MINIMUM OF 3.0' OF COVER AS MEASURED FROM FINISHED GRADE AT THE LOCATION WHERE INSTALLED.
- ALL WATER MAINS SHALL BE OVER THE PRESSURE SEWER MAIN WITH A MINIMUM OF 18" SEPARATION.
- ALL WATER MAINS AND FORCE MAINS CROSSING UNDER STORM DRAINAGE PIPING SHALL BE CONSTRUCTED WITH ONE (1) JOINT OF DUCTILE IRON PIPE CENTERED ON THE STORM PIPE CROSSING.
- INSTREAM WORK SHALL BE PROHIBITED FROM MARCH 15 THROUGH JUNE 30 TO MINIMIZE IMPACTS TO SPAWNING FISH.
- TOPOGRAPHIC INFORMATION PROVIDED BY CE GROUP, INC., RALEIGH, NC. PROFILE DATA FROM FIELD SURVEY BACKGROUND TOPOGRAPHY FROM AERIAL MAPPING.



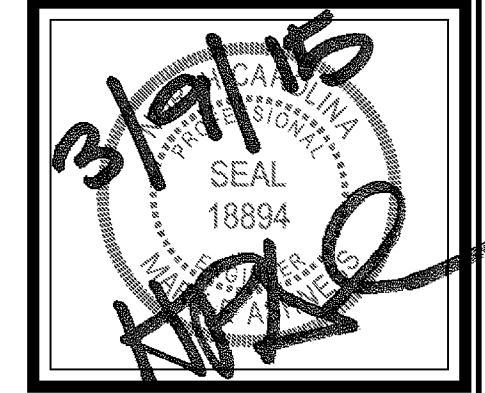
NO.	REVISIONS	DATE
1.	REVISED SEWER	3/9/15

CE GROUP

301 GLENWOOD AVE. 220
RALEIGH, NC 27603
PHONE: 919-367-8790
FAX: 919-322-0032

www.cegroupinc.com

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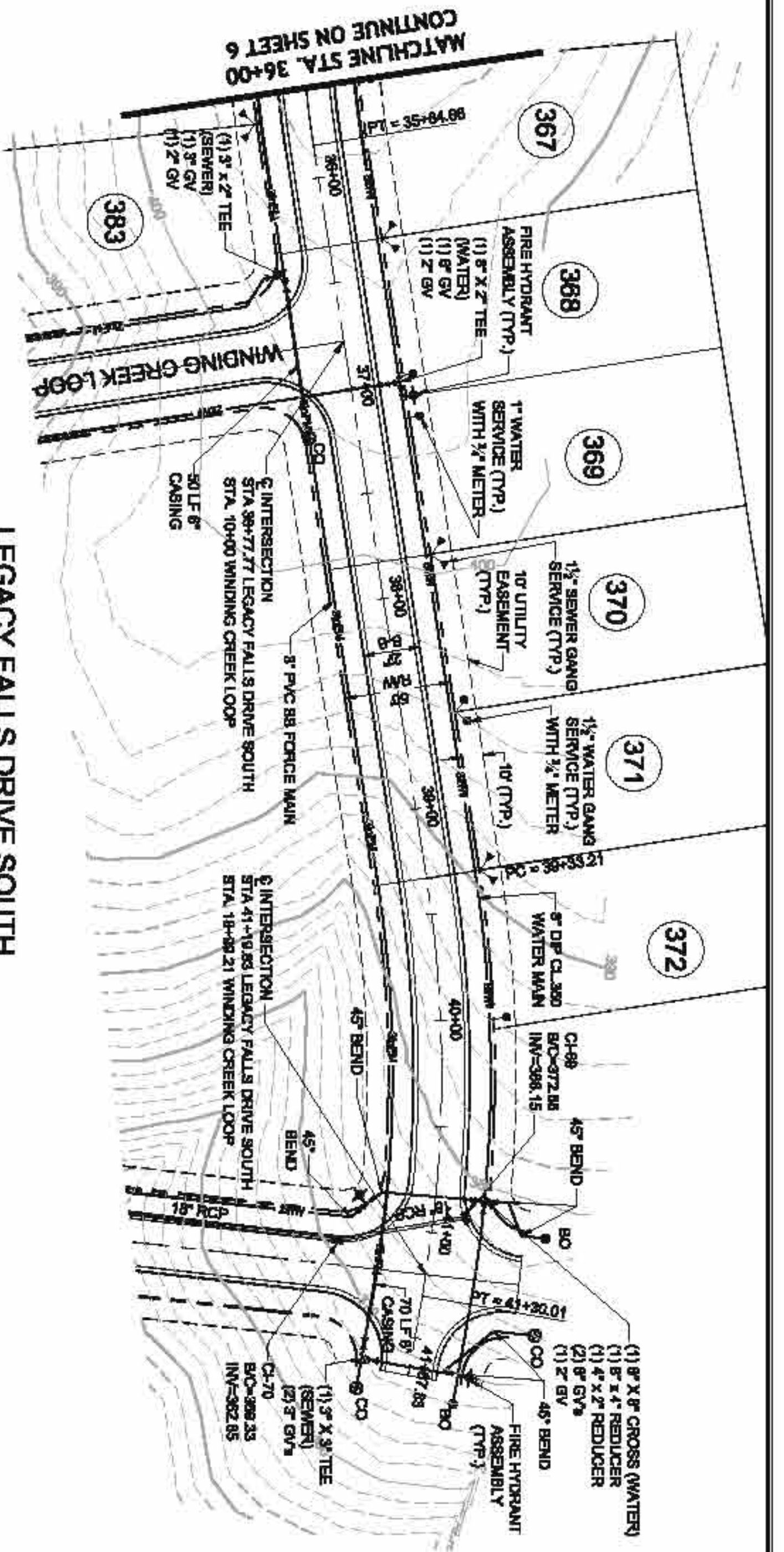


**THE LEGACY
PHASE 5A
LEGACY FALLS DRIVE SOUTH
STA. 26+50 - STA. 36+00**
CHATHAM COUNTY, NORTH CAROLINA

Date:	JULY, 2014
Scale:	1"=50 (H) / 1"=5 (V)
Drawn:	CPM
Checked:	MPA
Project No.:	330-05
Computer Dwg. Name:	330-05-06 Ph5 P&P

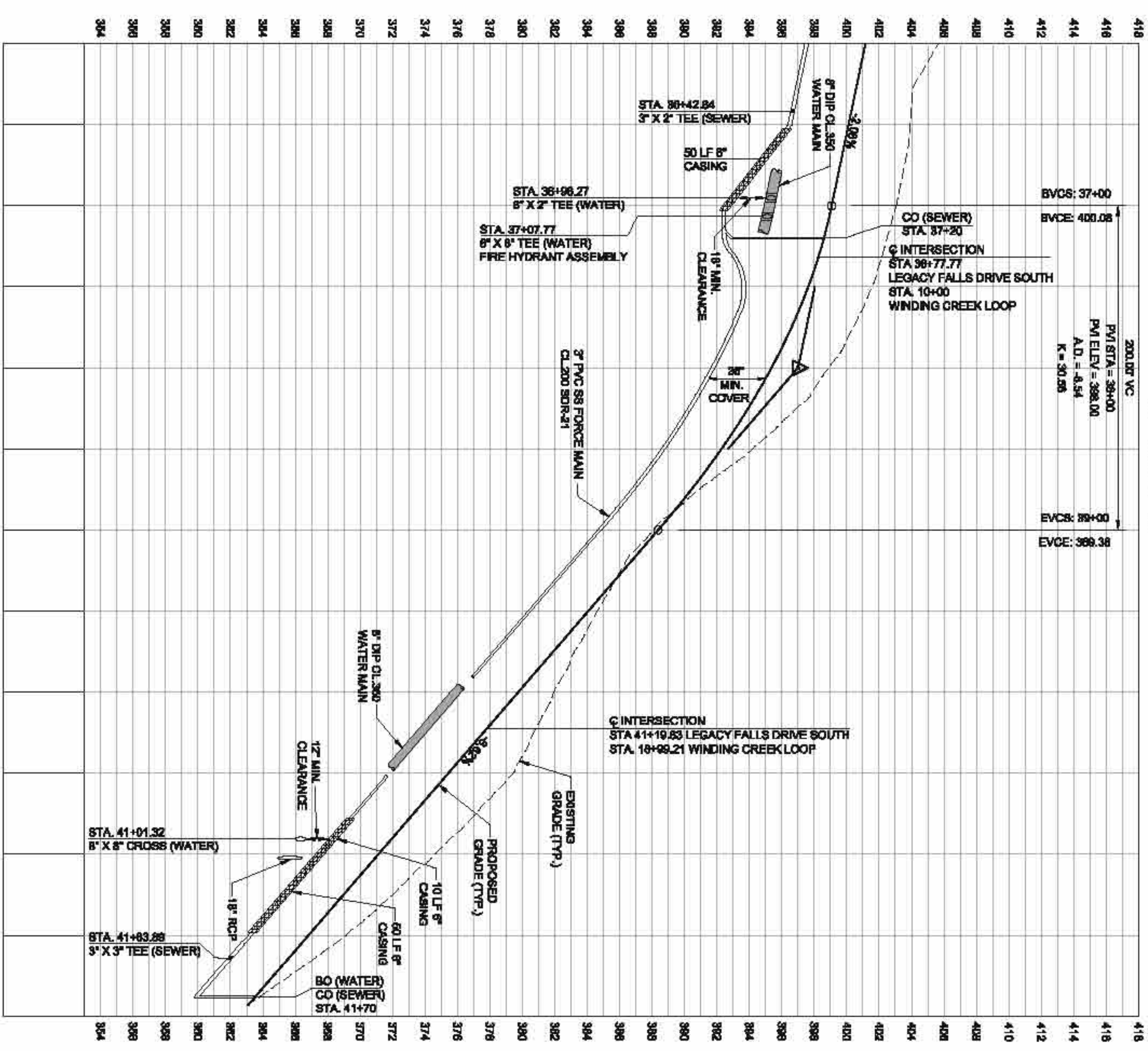
Sheet No: **6** Of ___

FINAL DESIGN
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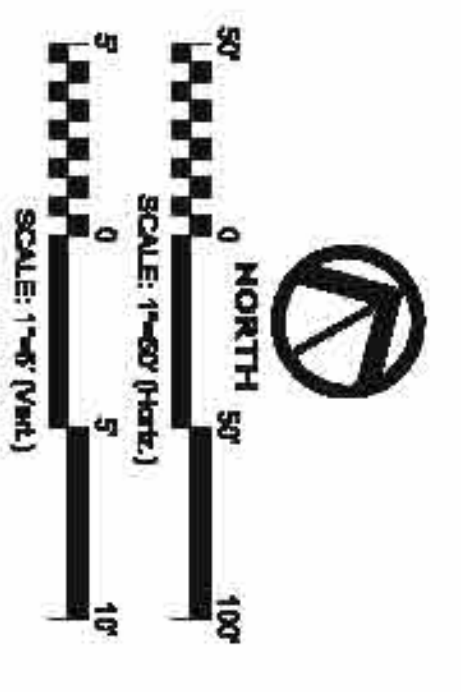


**LEGACY FALLS DRIVE SOUTH
PLAN & PROFILE**

SCALE: 1"=40' H, 1"=40' V



- GENERAL CONSTRUCTION NOTES**
1. EXISTING AND PROPOSED UTILITIES AND UTILITIES SHOWN ARE BASED ON THE RECORD DRAWINGS AND FIELD SURVEY DATA. THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
 2. THE CONTRACTOR SHALL CONFORM WITH ALL CITY, STATE, AND FEDERAL REGULATIONS AND ORDINANCES RELATIVE TO THE INSTALLATION AND MAINTENANCE OF ALL UTILITIES.
 3. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
 4. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
 5. THE EXISTING UTILITY LOCATIONS ARE SHOWN ON THE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION.
 6. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
 7. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
 8. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
 9. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
 10. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF CHATHAM COUNTY.



NO.	REVISIONS	DATE
1.	REVISED PER AQUA COMMENTS.	02/11/16

CE GROUP

301 GLENWOOD AVE, 200
 FAYETTEVILLE, NC 27803
 PHONE: 919-357-0700
 FAX: 919-422-0032

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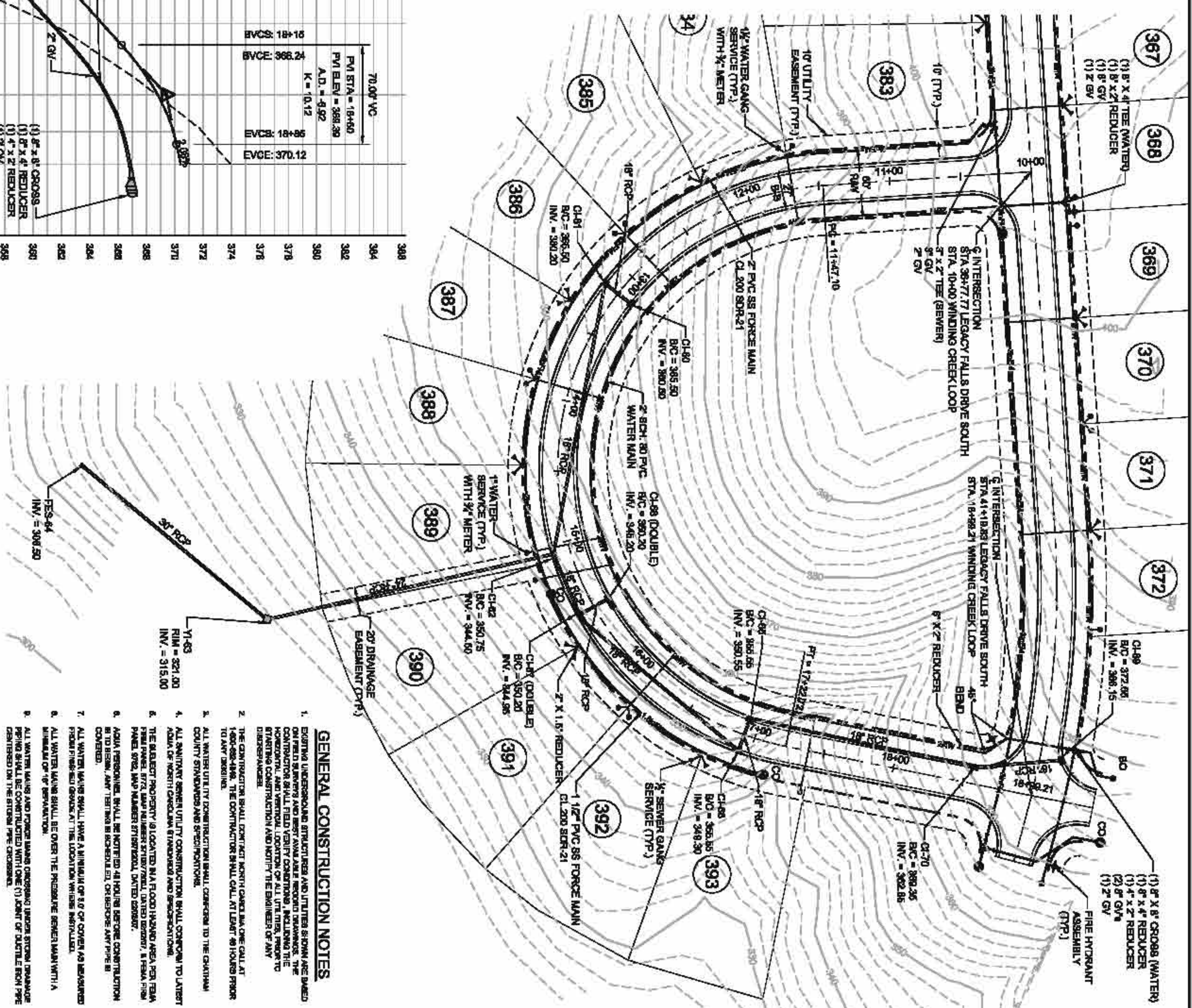
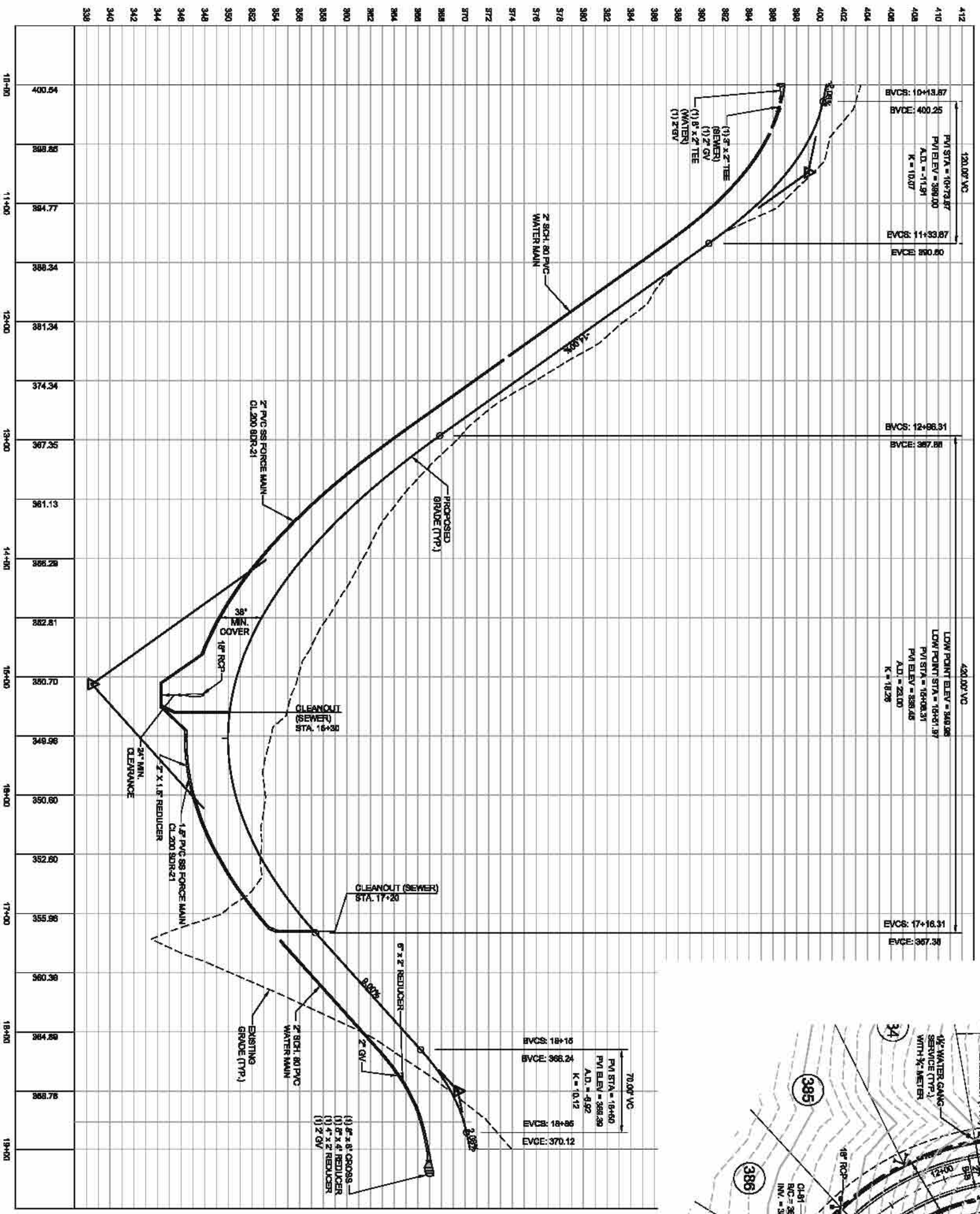


**THE LEGACY
 PHASE 5A
 LEGACY FALLS DRIVE SOUTH
 STA. 36+00 - STA. 41+67.83**

CHATHAM COUNTY, NORTH CAROLINA

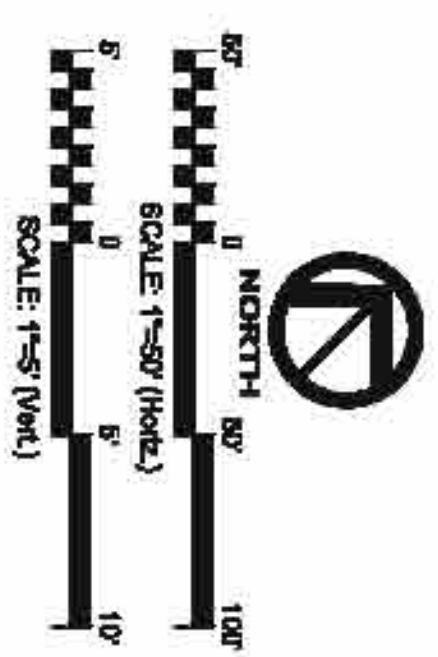
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 Checked: MPA
 Project No.: 330-05
 Computer Draw Name: 250507.rvt
 Sheet No.:

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 FOR CONSTRUCTION**



**WINDING CREEK LOOP
PLAN & PROFILE**

SCALE: 1"=50' H, 1"=5' V



- GENERAL CONSTRUCTION NOTES**
- EXISTING UNDERGROUND UTILITIES SHALL BE LOCATED AND IDENTIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES. ALL UTILITIES SHALL BE PROTECTED AND NOT DAMAGED DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 811 PRIOR TO CONSTRUCTION TO LOCATE ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE, AND FEDERAL AGENCIES. ALL UTILITIES SHALL BE PROTECTED AND NOT DAMAGED DURING CONSTRUCTION. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
 - ALL MATERIALS SHALL BE OF THE HIGHEST QUALITY AND SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE LOCAL, STATE, AND FEDERAL AGENCIES. ALL MATERIALS SHALL BE STORED PROPERLY AND PROTECTED FROM DAMAGE.
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THE NC ONE CALL CENTER
1-800-437-4949
IT'S THE LAW!

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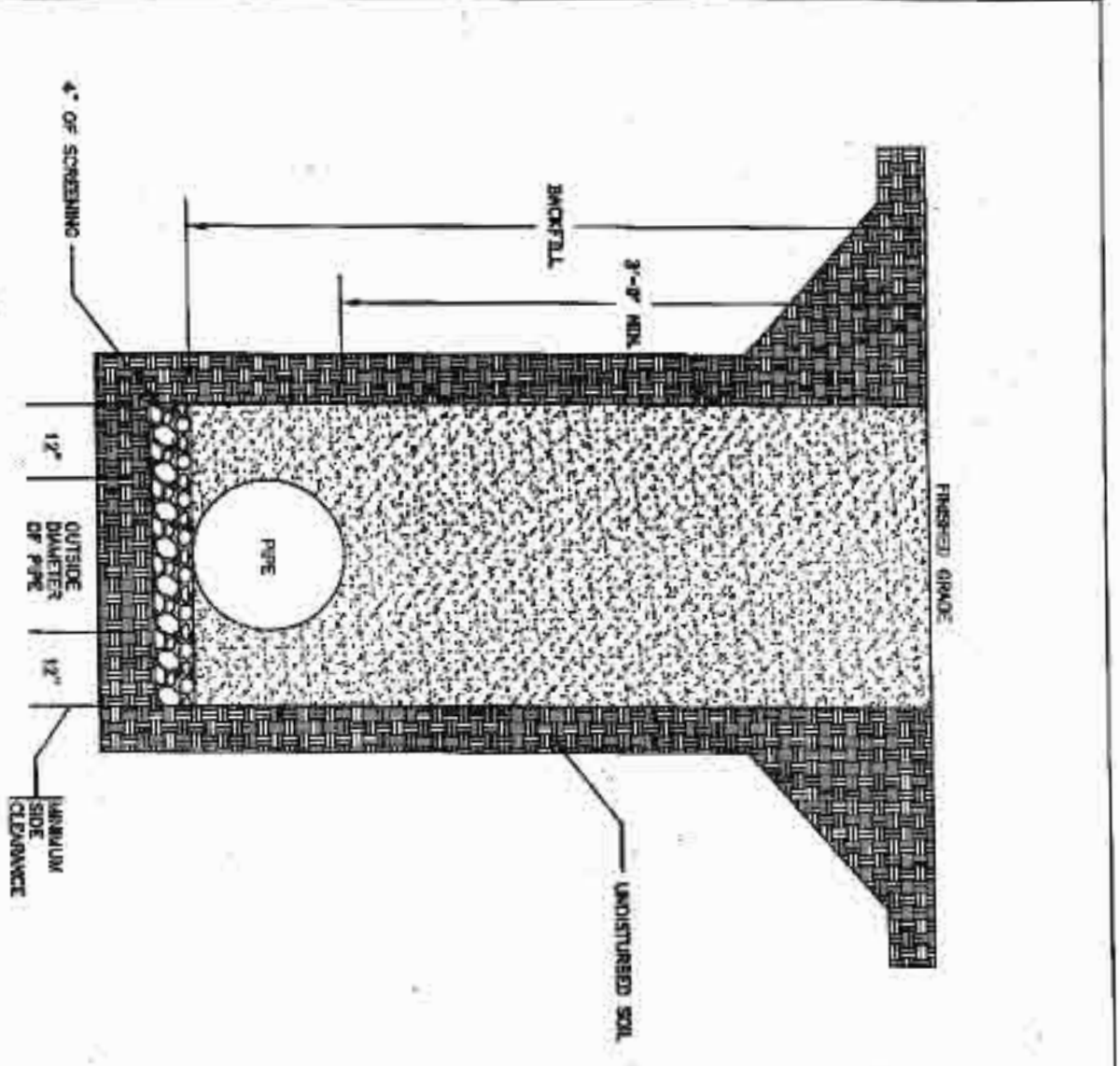
**THE LEGACY
PHASE 5A
WINDING CREEK LOOP
STA. 10+00 - STA. 18+99.21**
CHATHAM COUNTY, NORTH CAROLINA



CE GROUP
301 GLENWOOD AVE. 200
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PHONE: 919-357-0700
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NO.	REVISIONS	DATE

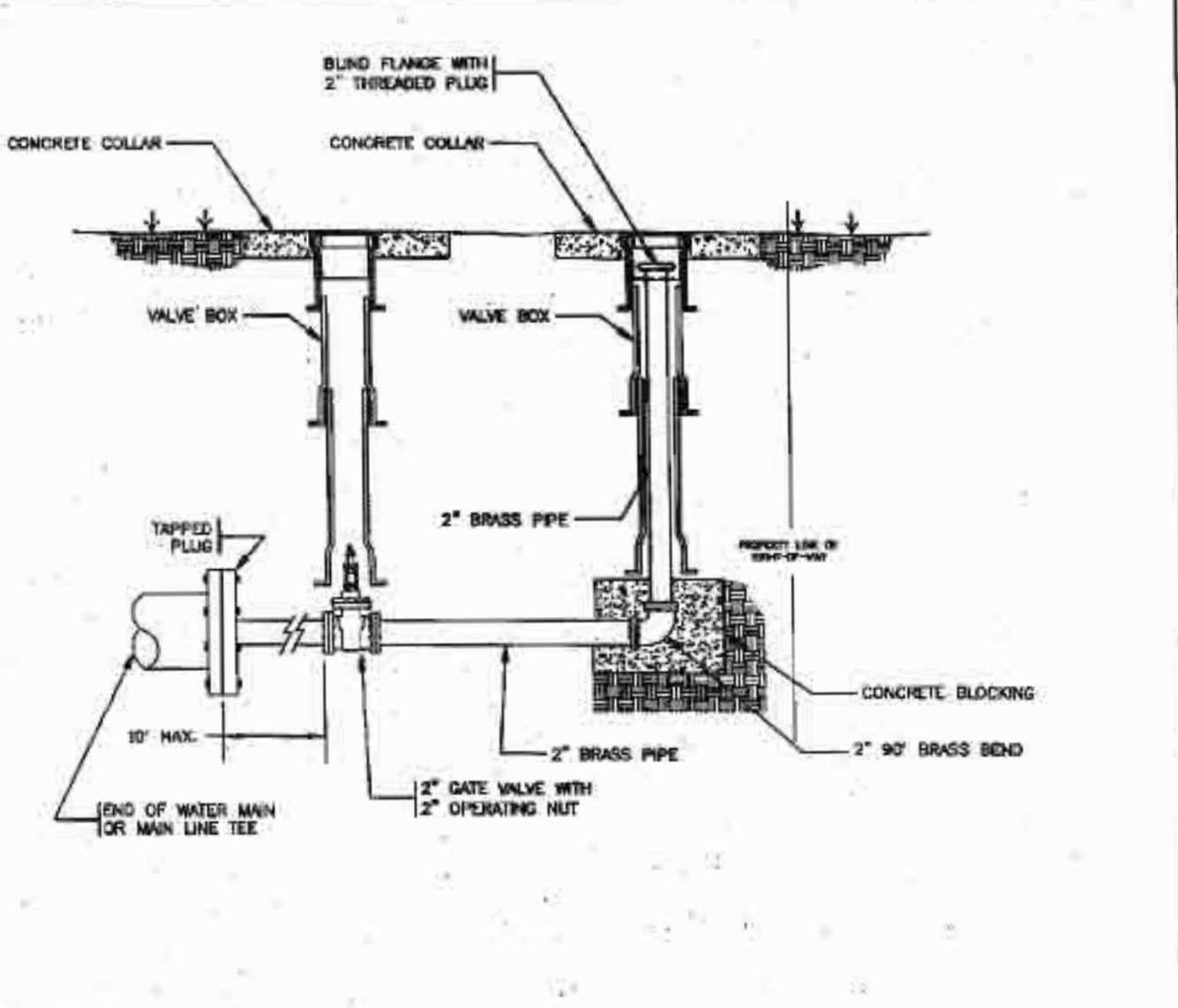
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Scale: 1"=50' (H) 1"=5' (V)
Drawn: JPD
Checked: MPA
Project No.: 390-05
Contract Draw Name: 2500 08 00 00
Sheet No.: 8
Of:



NOTES:
 1. TOP OF CURB SHALL BE FINISHED TO MATCH THE FINISH GRADE.
 2. 1' CONCRETE CURB SHALL BE INSTALLED TO BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
 3. 1' CONCRETE CURB SHALL BE INSTALLED TO BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
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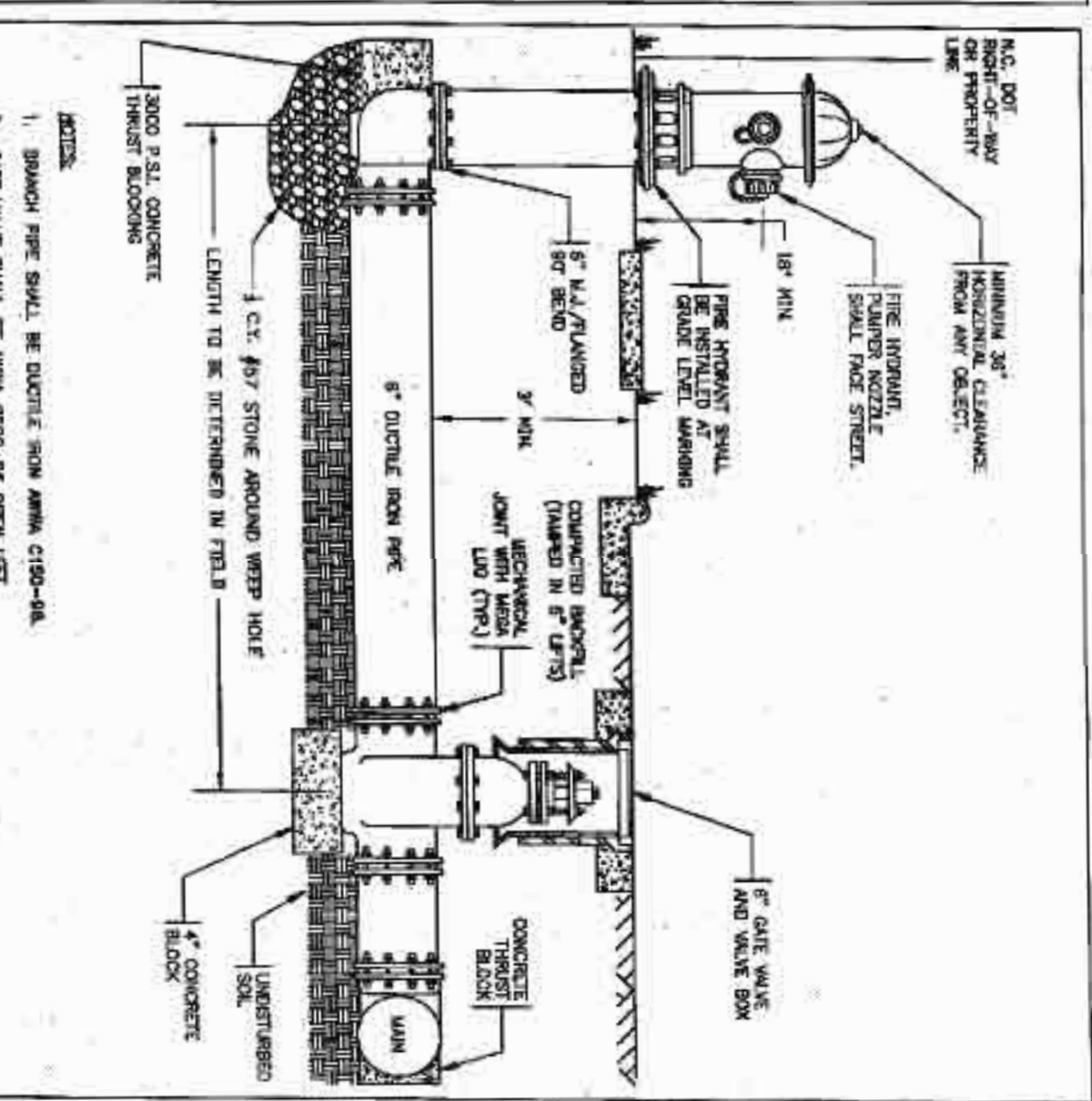
811

CHATHAM COUNTY
 PUBLIC UTILITIES & WATER SERVICES
 100 W. HARRIS ST., SUITE 200
 WAREHOUSES, NC 27586
 (919) 852-8200



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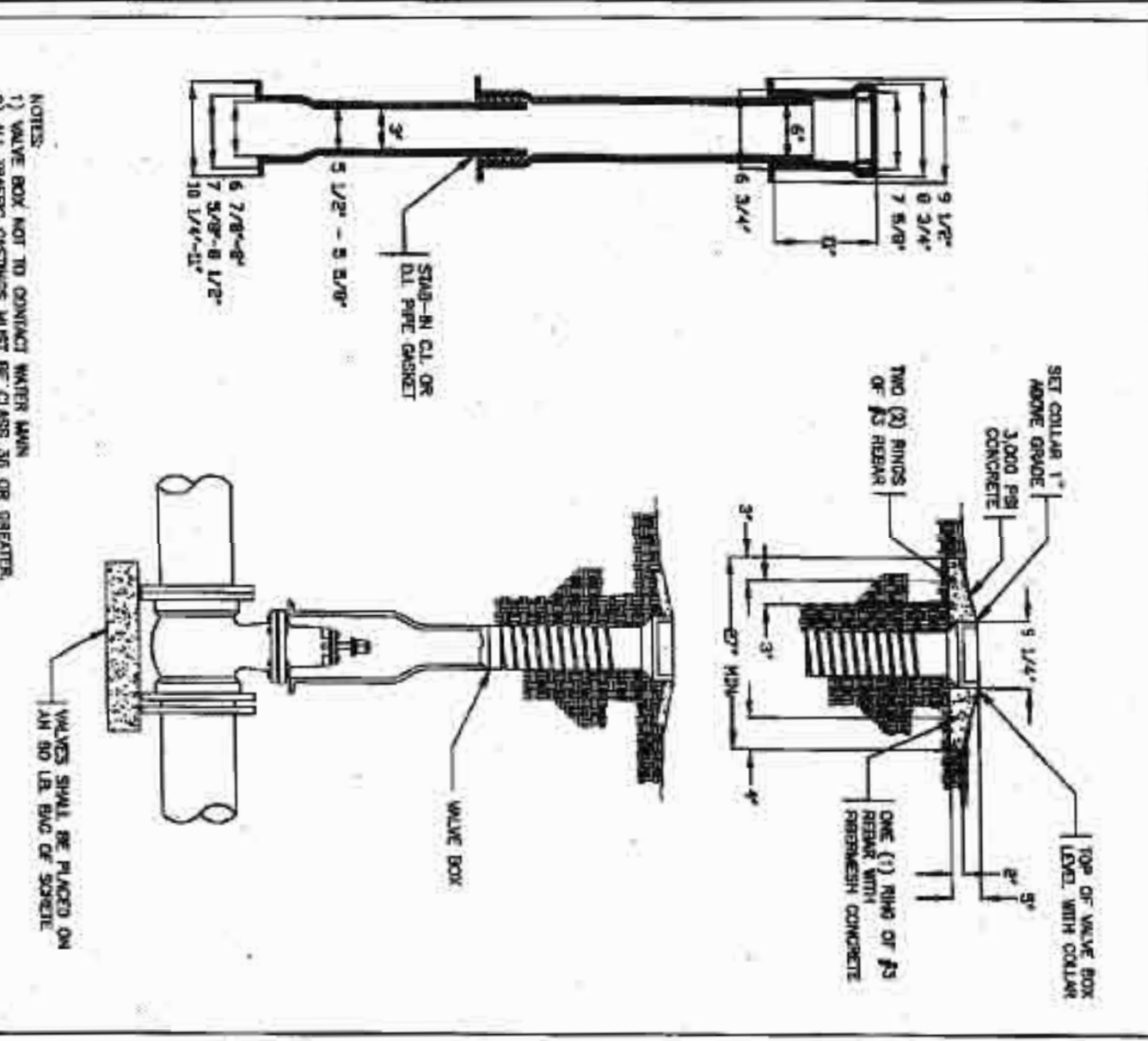
CHATHAM COUNTY
 PUBLIC UTILITIES & WATER SERVICES
 100 W. HARRIS ST., SUITE 200
 WAREHOUSES, NC 27586
 (919) 852-8200



NOTES:
 1. 3' x 3' FIRE HYDRANT SHALL BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
 2. 1' x 1' x 1' CONCRETE CURB SHALL BE INSTALLED TO BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
 3. 1' x 1' x 1' CONCRETE CURB SHALL BE INSTALLED TO BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
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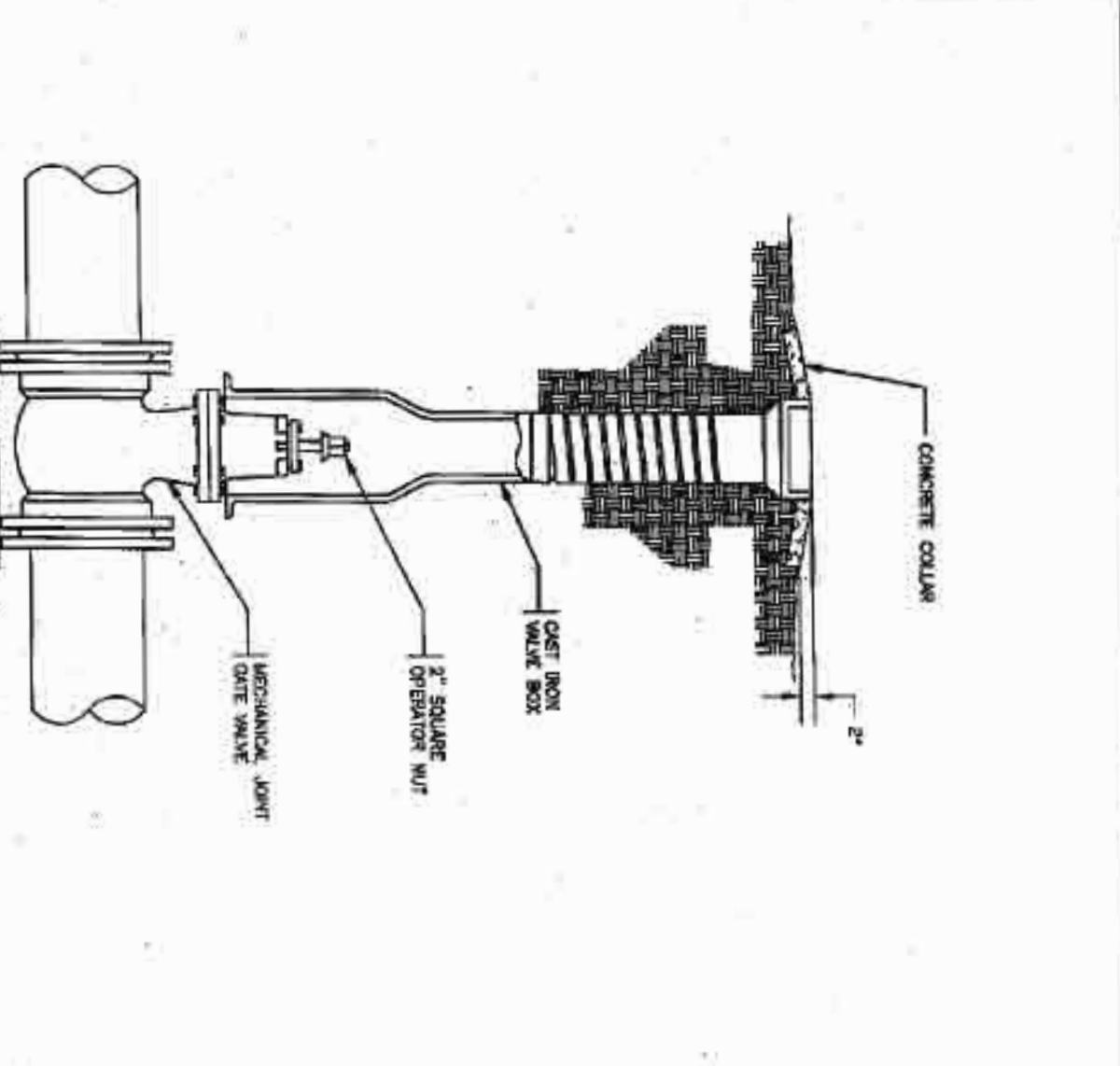
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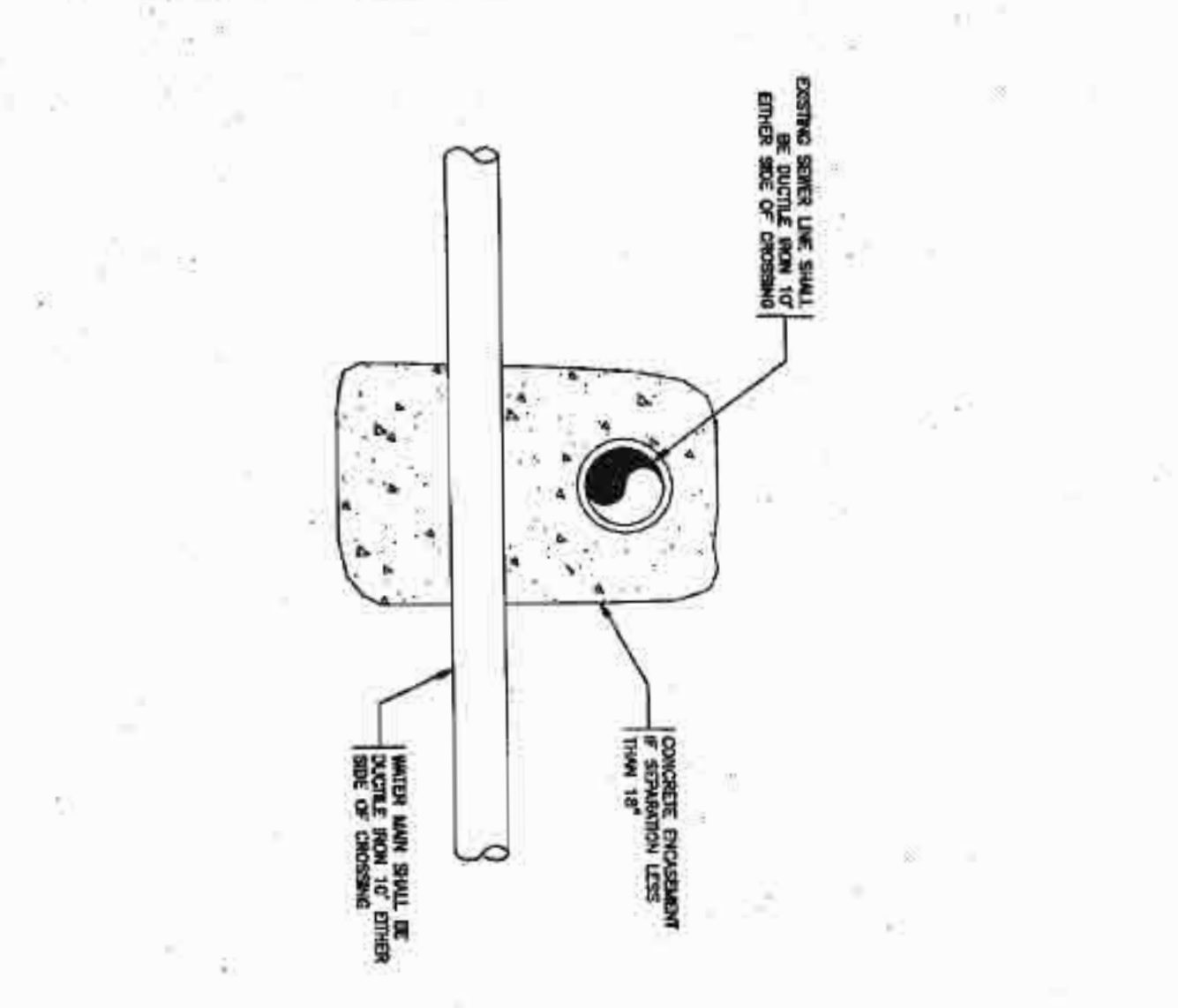
CHATHAM COUNTY
 PUBLIC UTILITIES & WATER SERVICES
 100 W. HARRIS ST., SUITE 200
 WAREHOUSES, NC 27586
 (919) 852-8200



NOTES:
 1. 2' x 2' GATE VALVE SHALL BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
 2. 2' x 2' CONCRETE CURB SHALL BE INSTALLED TO BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
 3. 2' x 2' CONCRETE CURB SHALL BE INSTALLED TO BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
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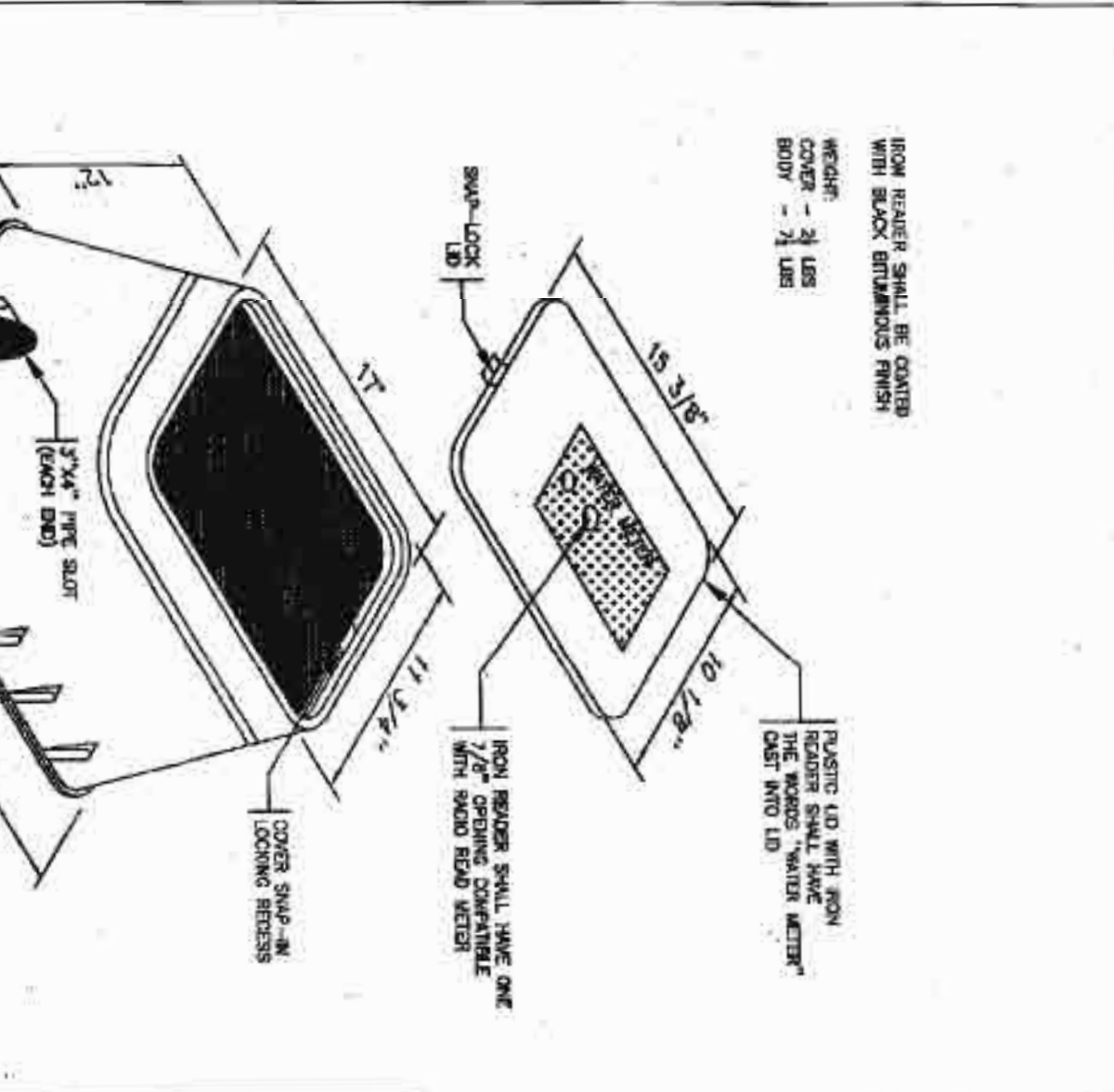
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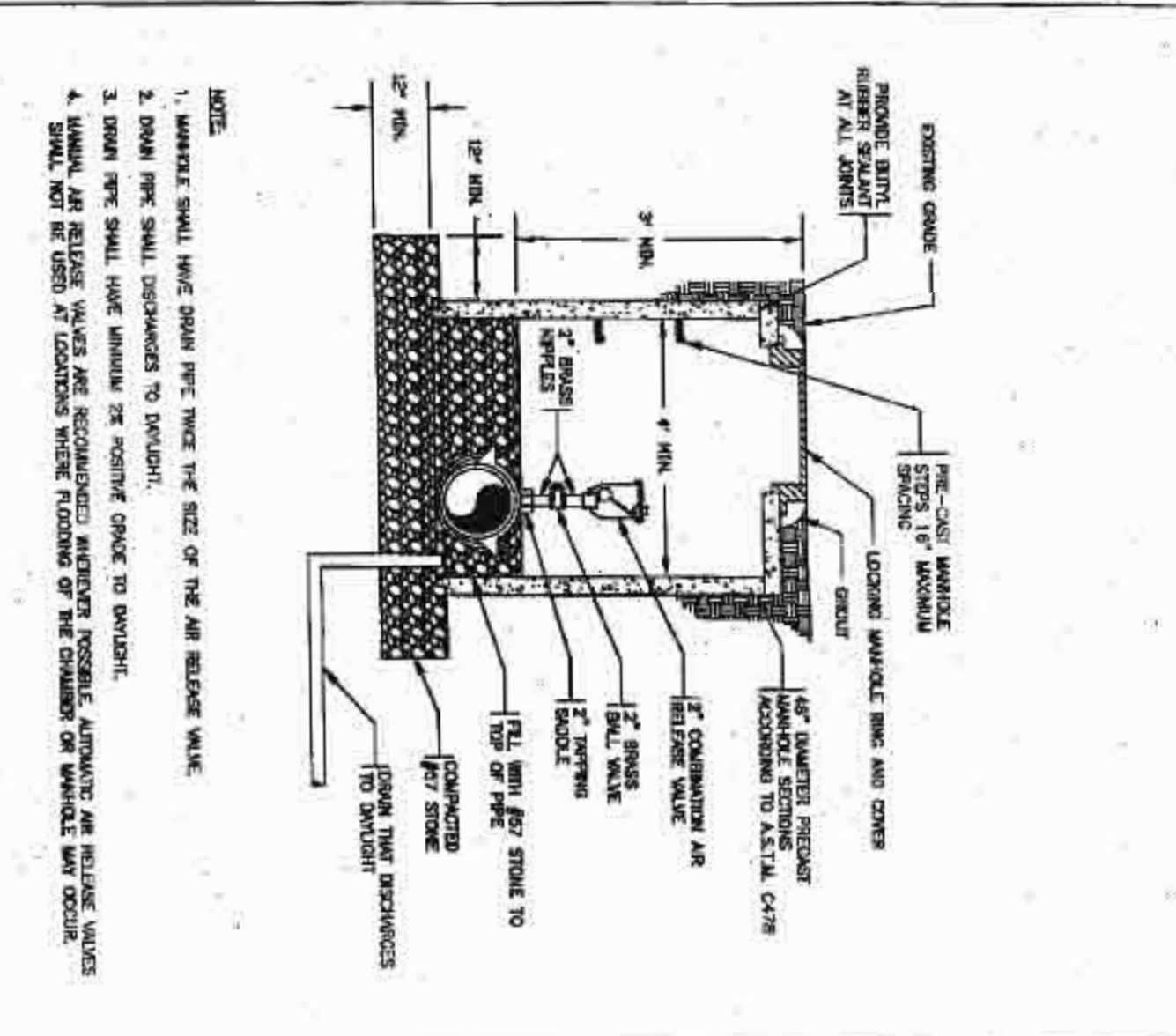
CHATHAM COUNTY
 PUBLIC UTILITIES & WATER SERVICES
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 WAREHOUSES, NC 27586
 (919) 852-8200



NOTES:
 1. 12' x 12' METER BOX SHALL BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
 2. 12' x 12' CONCRETE CURB SHALL BE INSTALLED TO BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
 3. 12' x 12' CONCRETE CURB SHALL BE INSTALLED TO BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
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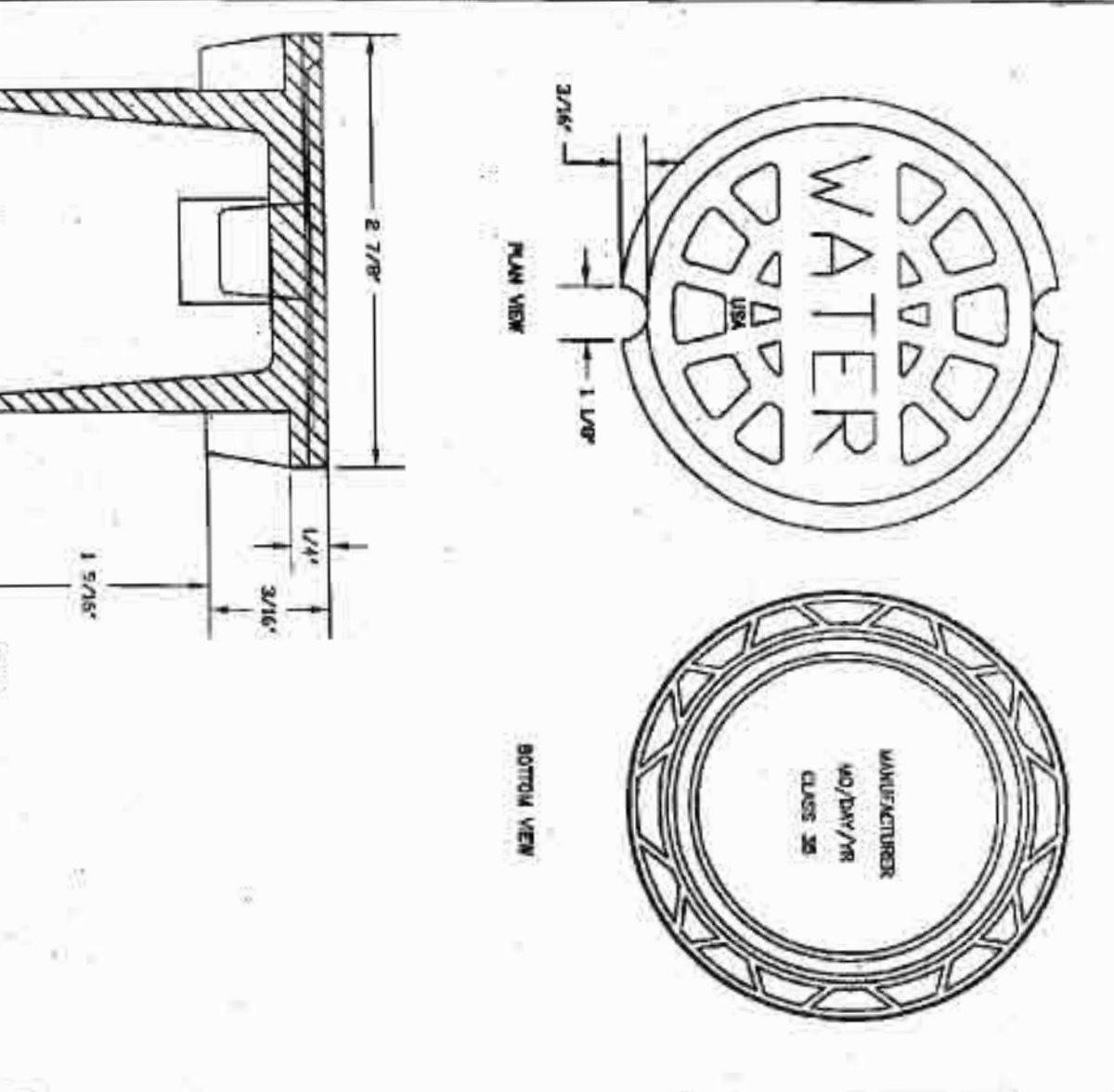
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CHATHAM COUNTY
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 100 W. HARRIS ST., SUITE 200
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 (919) 852-8200



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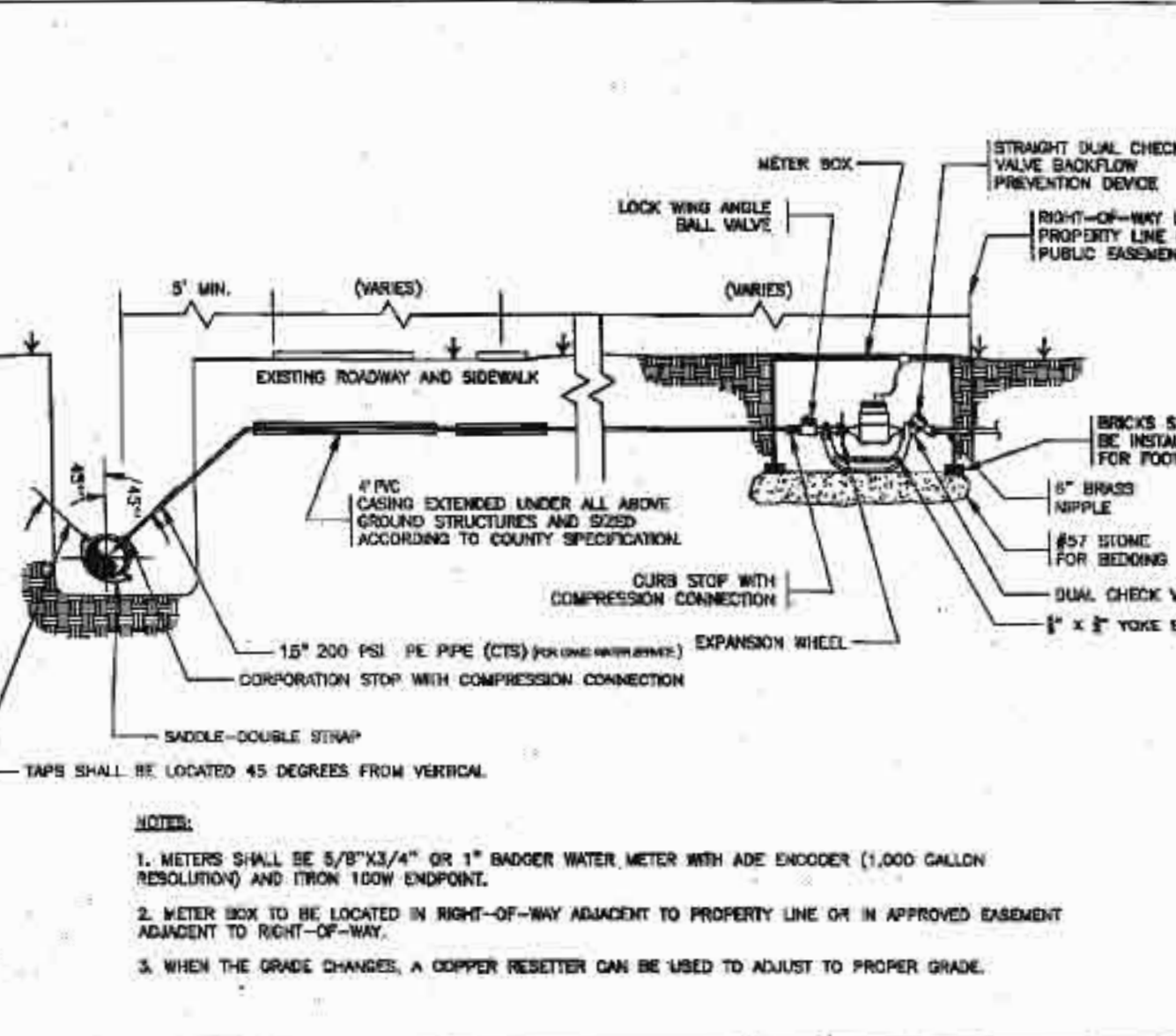
CHATHAM COUNTY
 PUBLIC UTILITIES & WATER SERVICES
 100 W. HARRIS ST., SUITE 200
 WAREHOUSES, NC 27586
 (919) 852-8200



NOTES:
 1. 2' x 2' VALVE BOX COVER SHALL BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
 2. 2' x 2' CONCRETE CURB SHALL BE INSTALLED TO BE LOCATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS.
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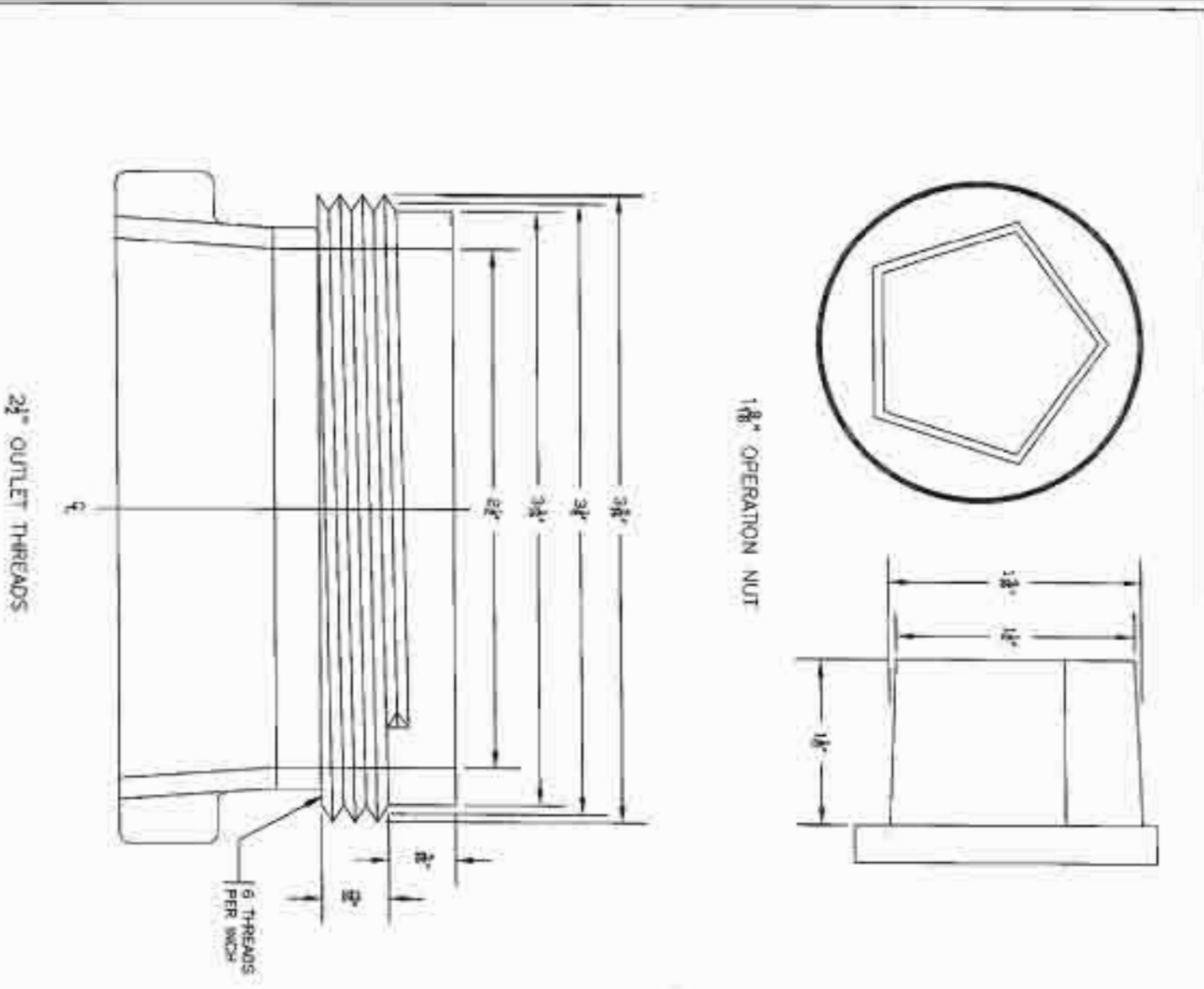
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Date:	JULY 2014
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Project No.:	330-05
Computer Desig. Name:	330-05 09 PWS WJ DRAIN

**THE LEGACY
 PHASE 5A
 CONSTRUCTION PLANS
 WATER DETAILS**
 CHATHAM COUNTY, NORTH CAROLINA



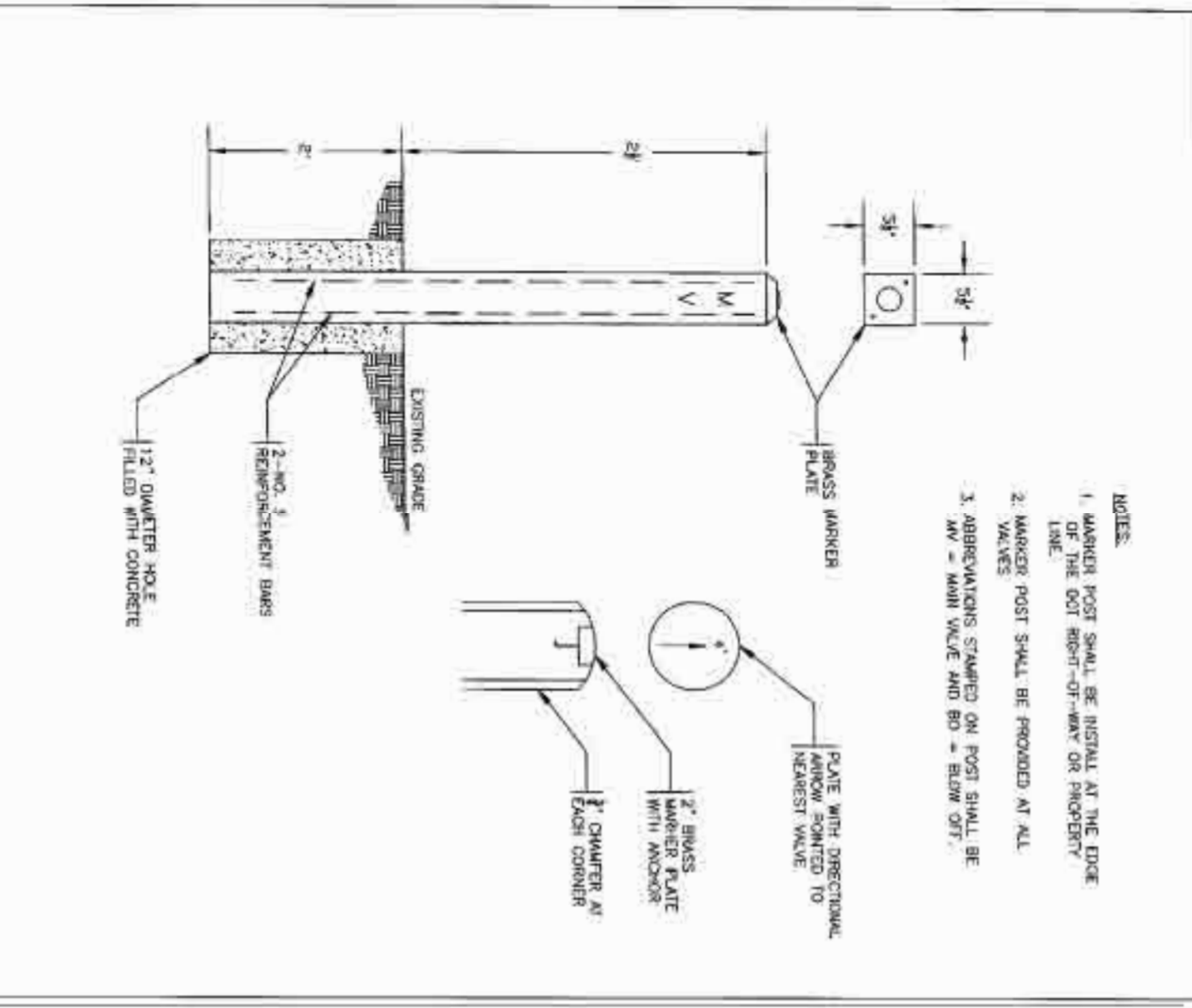
CE GROUP
 301 GLENWOOD AVE 220
 RALEIGH, NC 27603
 PHONE: 919-977-8700
 FAX: 919-972-0032
 www.cegroupinc.com
 License # C-1739

NO.	REVISIONS	DATE



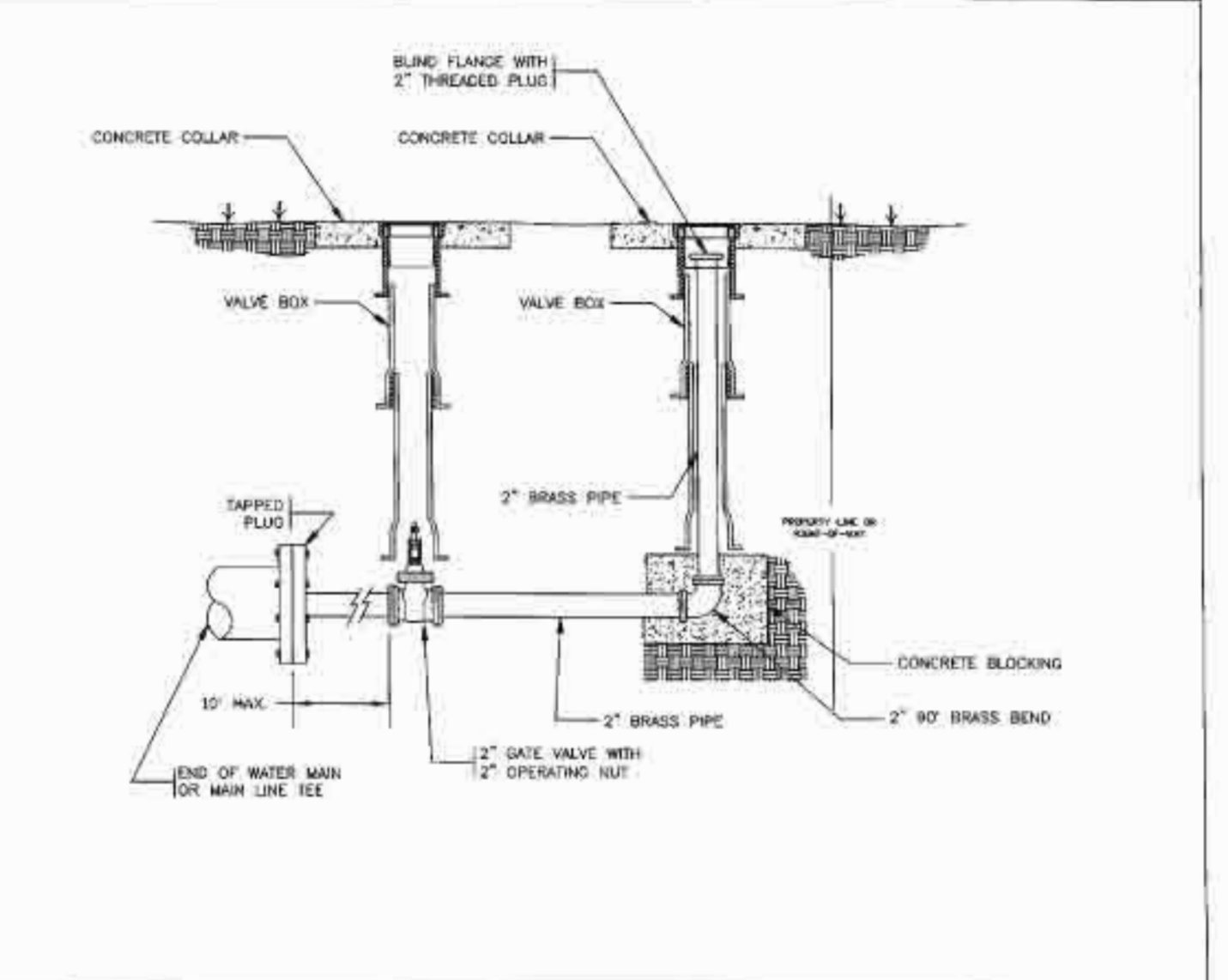
OPERATION NUT AND 2" OUTLET THREADS

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION



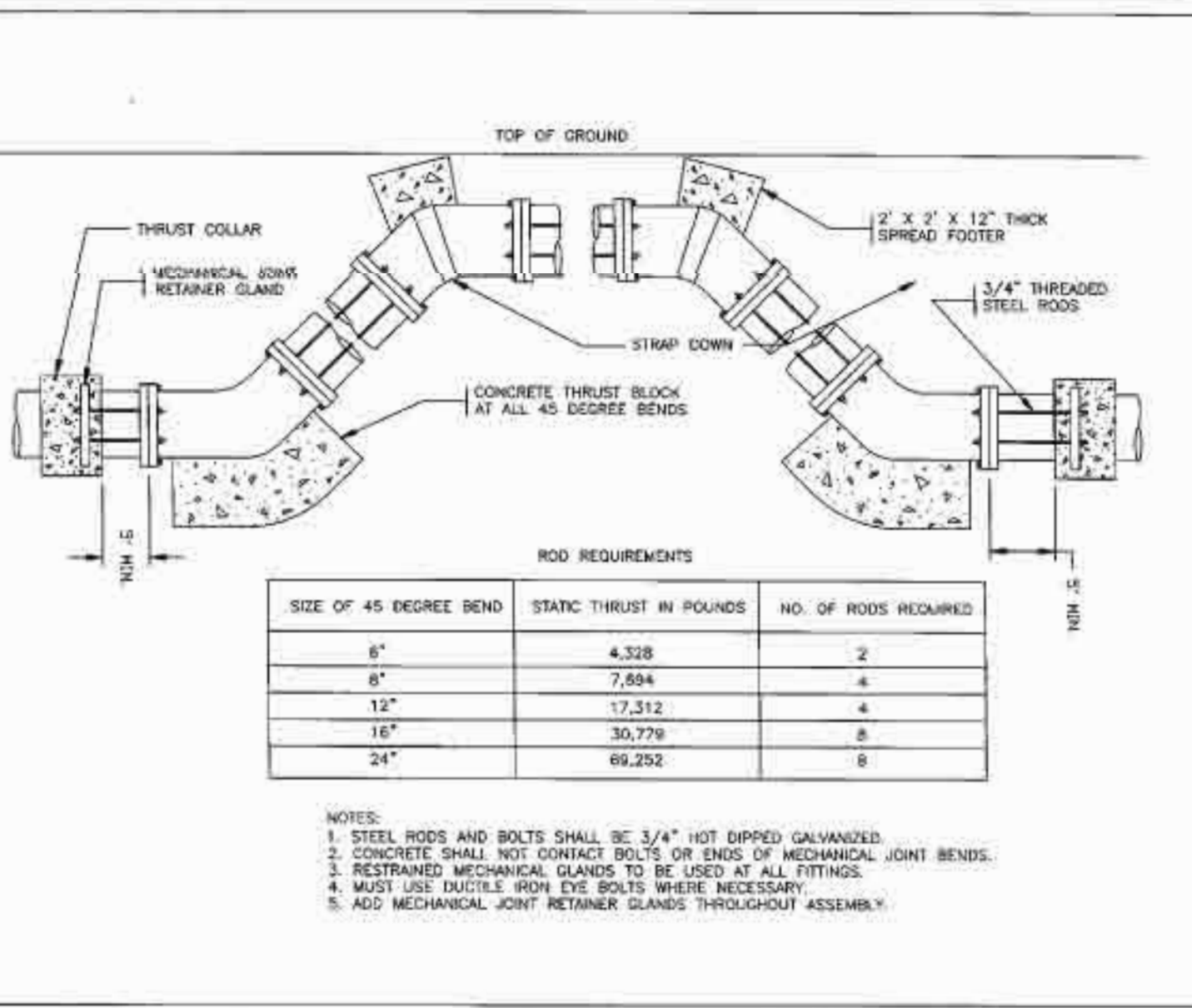
VALVE MARKER POST

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION



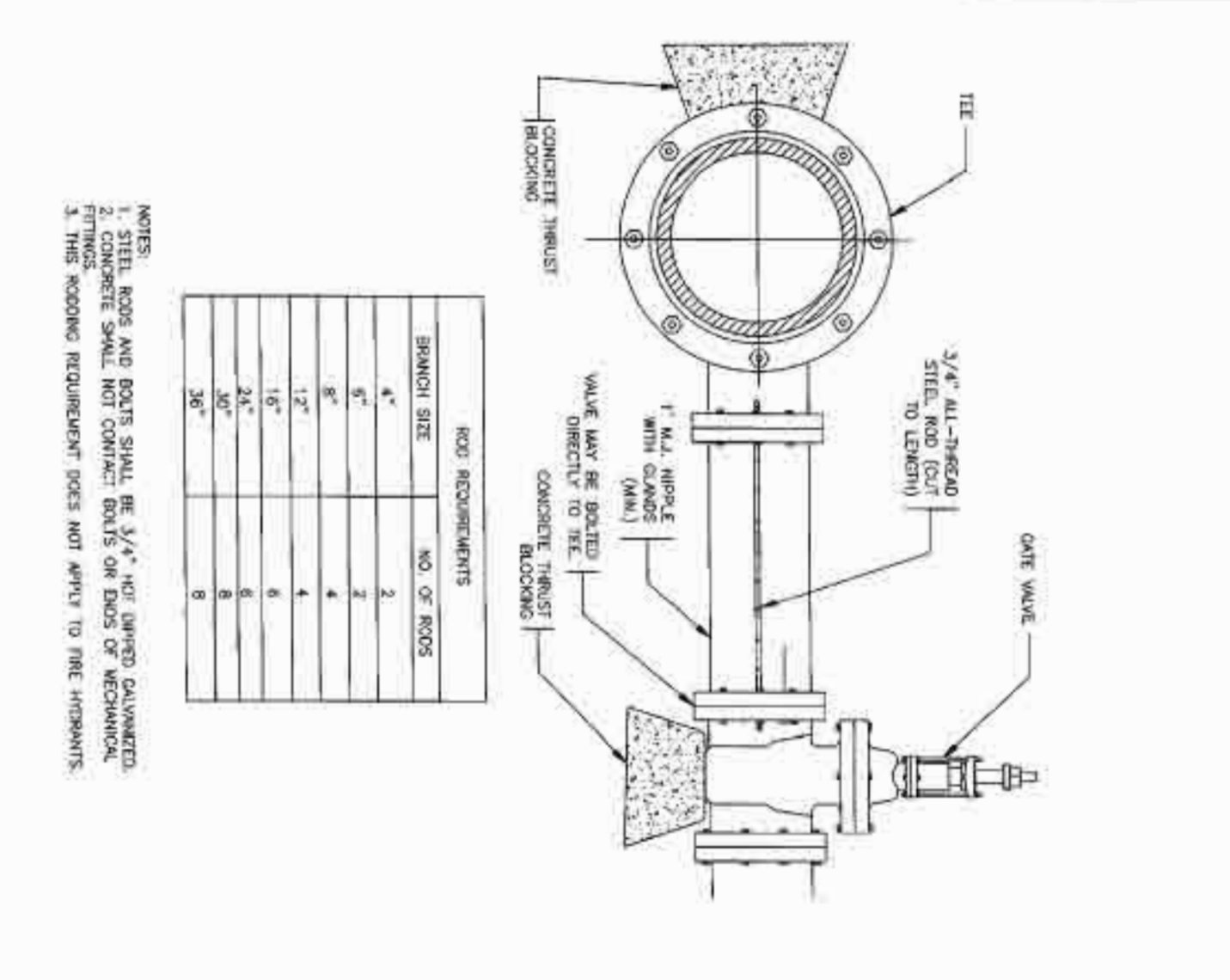
2" FLOW-OFF ASSEMBLY

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION



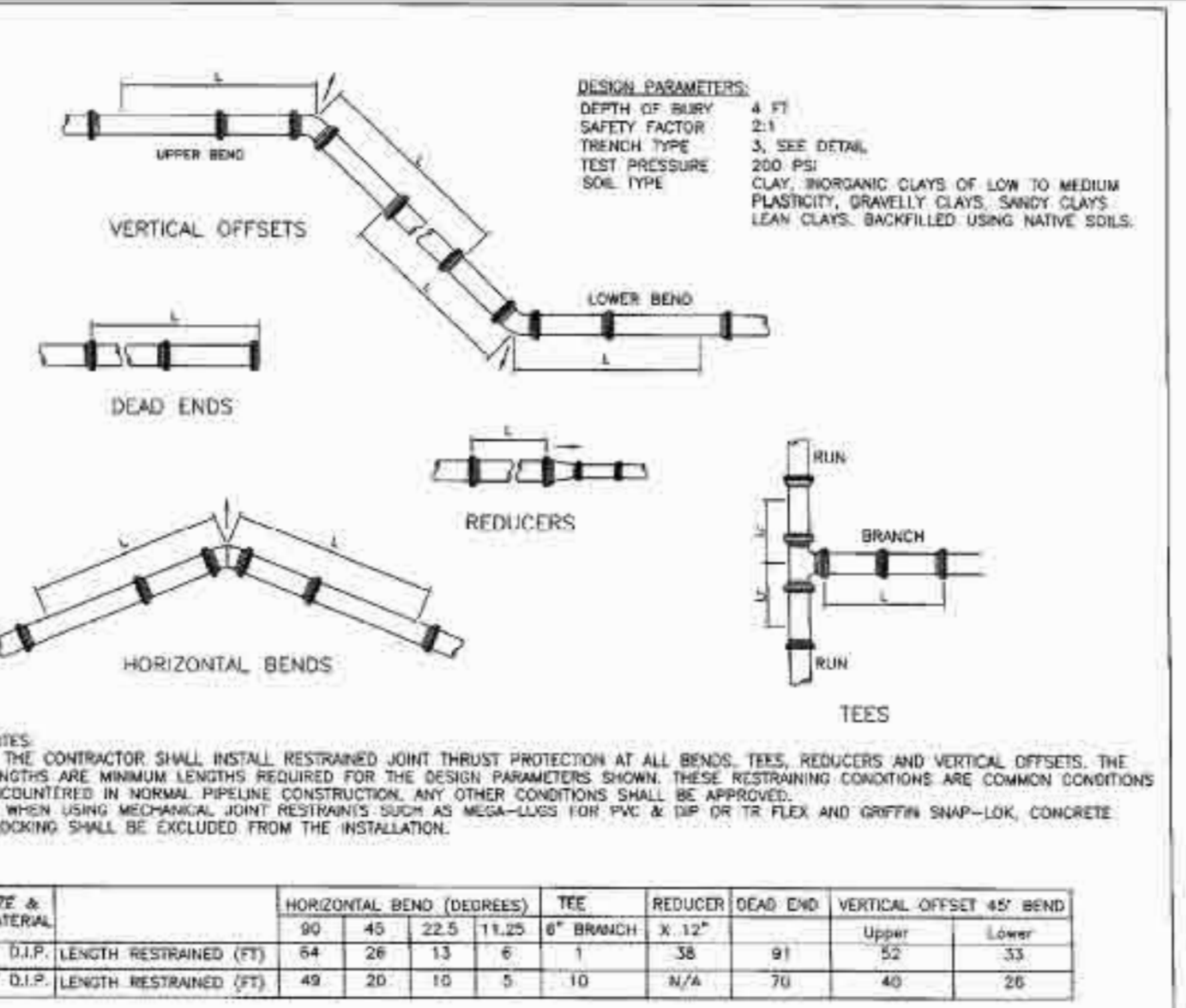
VERTICAL BEND ASSEMBLY

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION



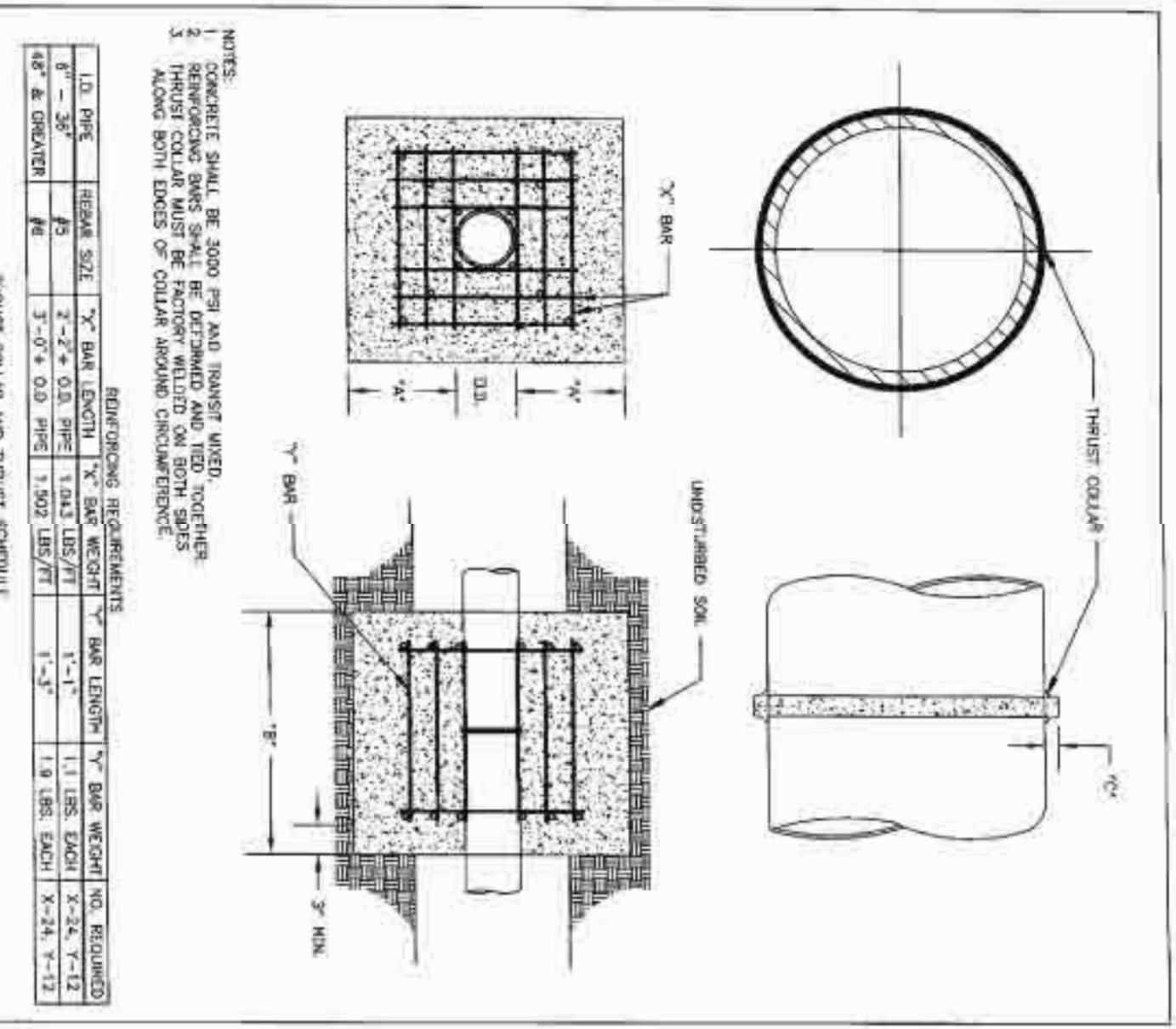
2" 24" RESTRAINED TEE AND VALVE ON DEAD ENDS

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION



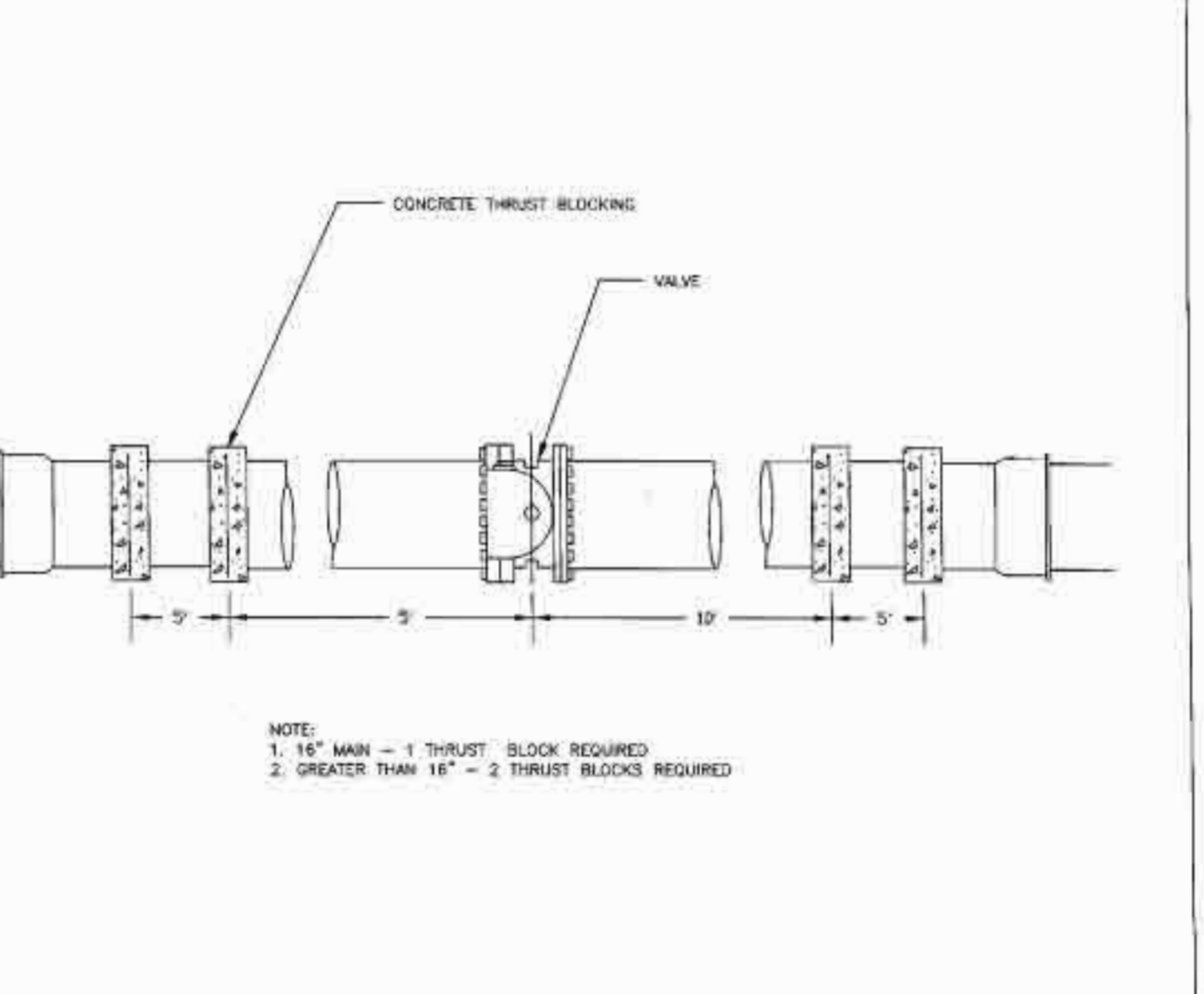
MECHANICAL JOINT RESTRAINT

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION



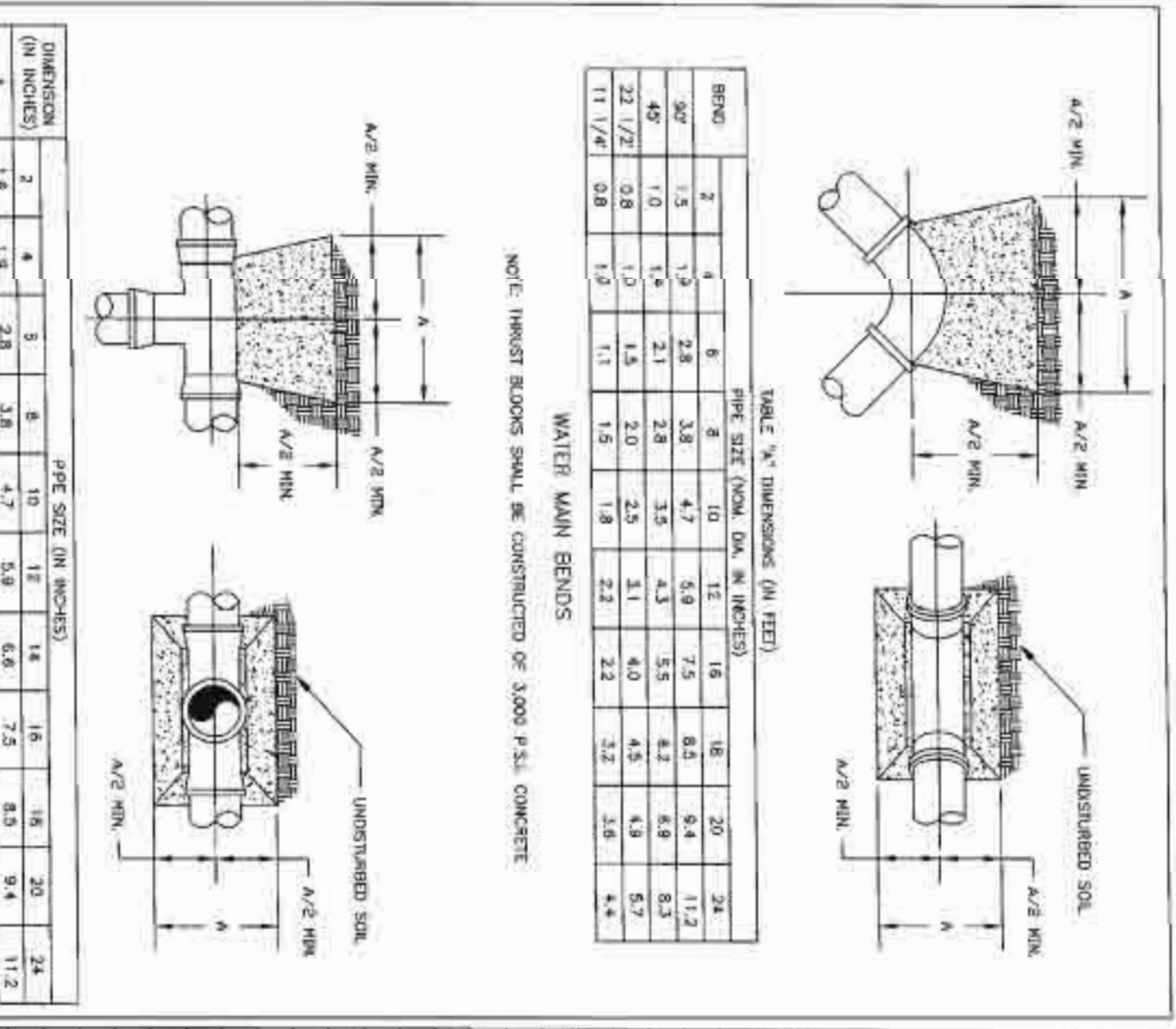
CONCRETE THRUST BLOCKING FOR WATER MAINS

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION



CONCRETE THRUST BLOCKING FOR VALVES AND DEAD ENDS

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION



CONCRETE THRUST BLOCKING FOR BENDS AND TEES

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION

REACTION BEARING AREAS FOR HORIZONTAL WATER PIPE BENDS

BASED ON TEST PRESSURE OF 200 PSI

SIZE AND DEGREE OF BEND	STATIC THRUST IN POUNDS	MODERATELY DRY CLAY 4000 LBS./FT	SOFT CLAY 1600 LBS./FT	GRAVEL - COARSE SAND 1600 LBS./FT	DRY CLAY - ALWAYS DRY 600 LBS./FT	SAND - COMPACT FIRM 600 LBS./FT	SAND - CLEAN DRY 400 LBS./FT	QUICKSAND - VERY POOR SOIL 100 LBS./FT	ROCK - POOR 10,000 LBS./FT
5"	1,108	1	1	1	1	1	1	1	1
11 1/4"	2,207	1	2	2	1	1	1	1	1
22 1/2"	4,326	2	3	3	1	1	1	1	1
45"	7,996	2	4	4	1	1	1	1	1
90"	14,215	4	8	8	2	2	2	2	2
PIUG	3,655	2	3	3	1	1	1	1	1
8"	1,970	1	1	1	1	1	1	1	1
11 1/4"	3,922	1	2	2	1	1	1	1	1
22 1/2"	7,694	2	3	3	1	1	1	1	1
45"	14,215	4	6	6	2	2	2	2	2
90"	26,619	8	12	12	4	4	4	4	4
PIUG	10,553	3	3	3	2	2	2	2	2
12"	4,433	2	3	3	1	1	1	1	1
11 1/4"	8,826	3	5	5	2	2	2	2	2
22 1/2"	17,212	5	9	9	4	4	4	4	4
45"	31,993	8	16	16	7	7	7	7	7
90"	58,861	15	29	29	13	13	13	13	13
PIUG	22,619	6	12	12	7	7	7	7	7
15"	7,881	2	4	4	1	1	1	1	1
22 1/2"	15,691	4	8	8	2	2	2	2	2
45"	30,779	8	16	16	4	4	4	4	4
90"	58,861	15	29	29	8	8	8	8	8
PIUG	40,213	10	21	21	5	5	5	5	5

CONCRETE THRUST BLOCKING QUANTITY TABLE

CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION



STOP! BEFORE YOU DIG CALL THE 811 CENTER AT 919-285-8111 ITS THE LAW

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THE LEGACY PHASE 5A CONSTRUCTION PLANS WATER DETAILS CHATHAM COUNTY, NORTH CAROLINA

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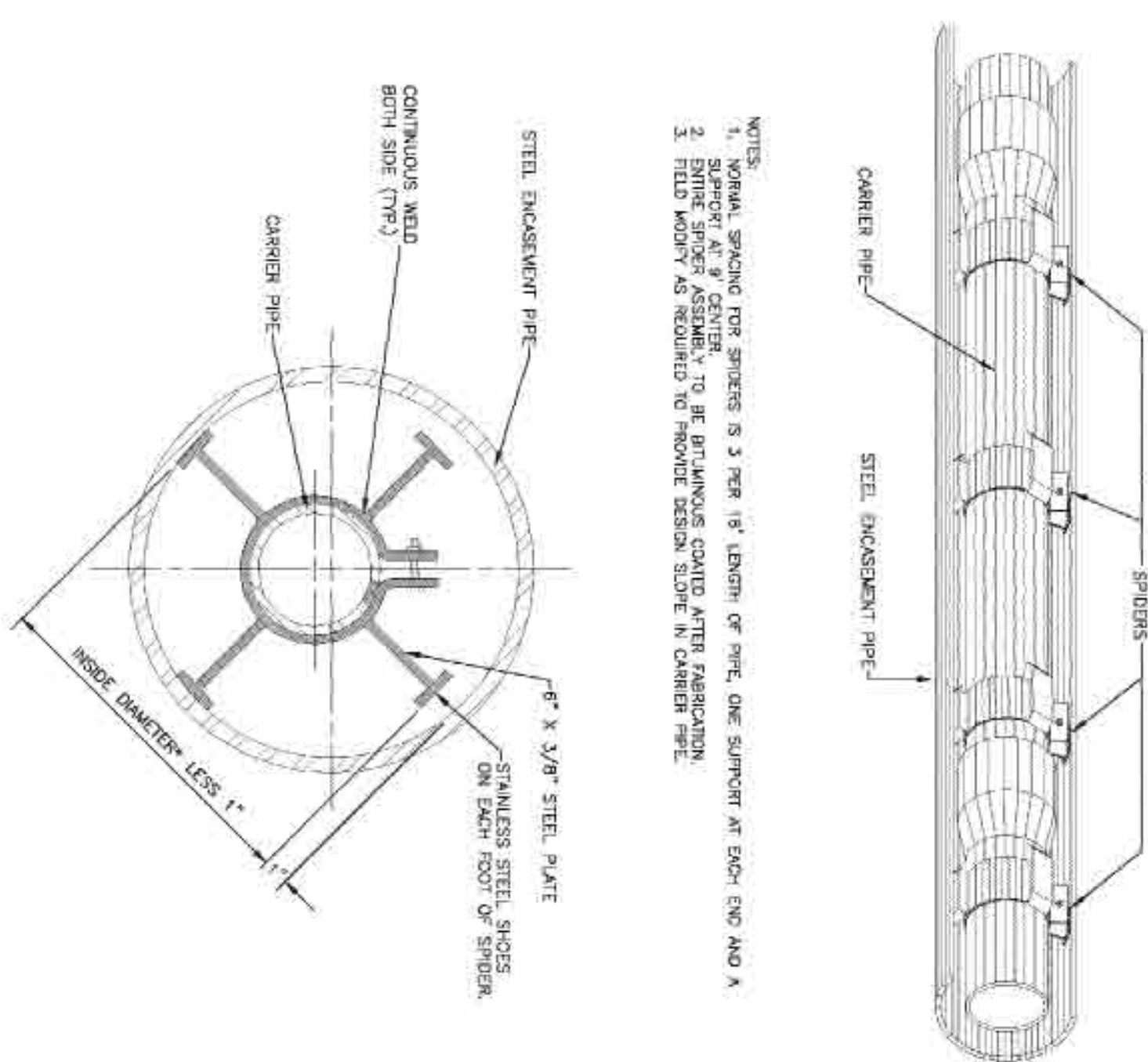
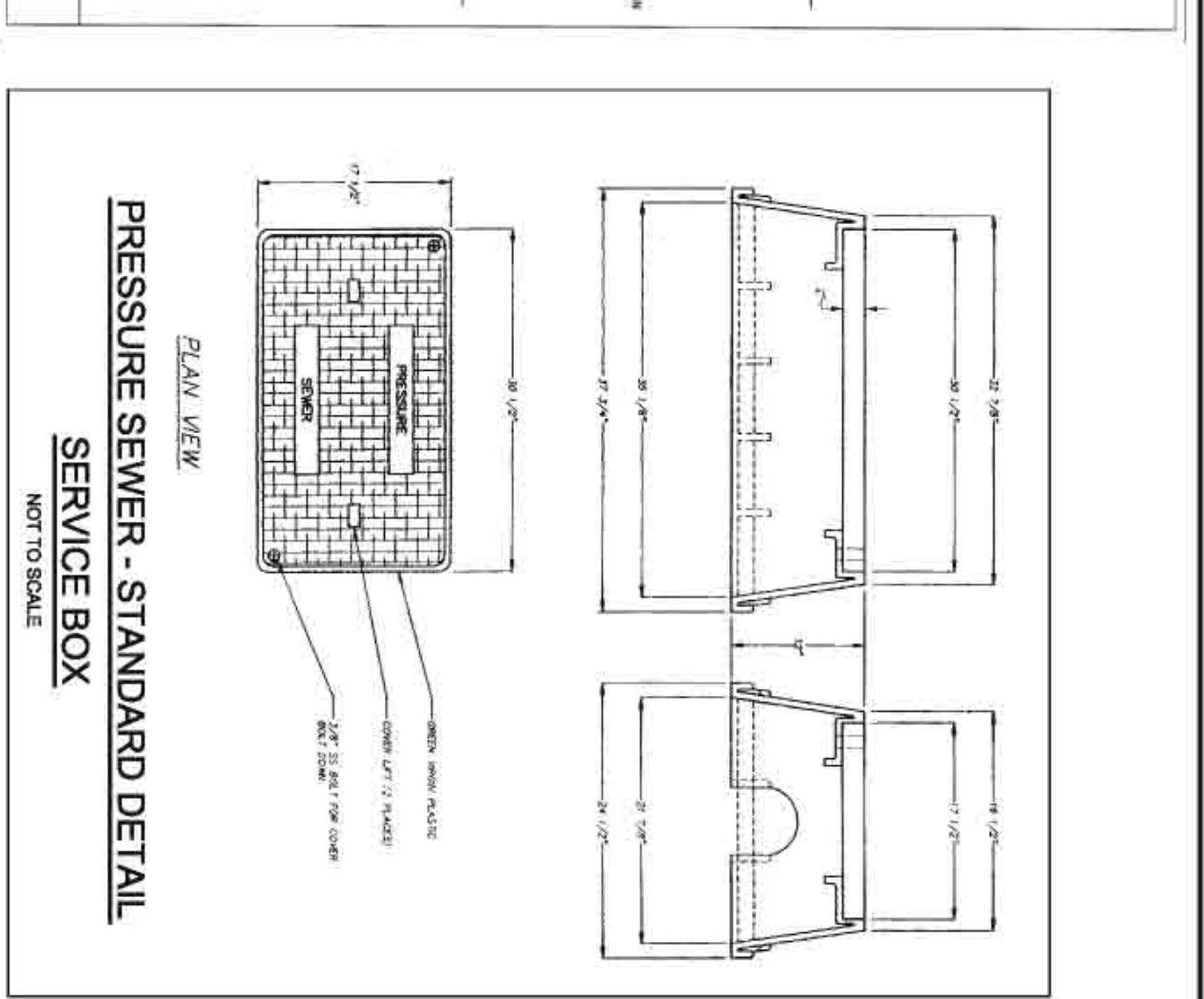
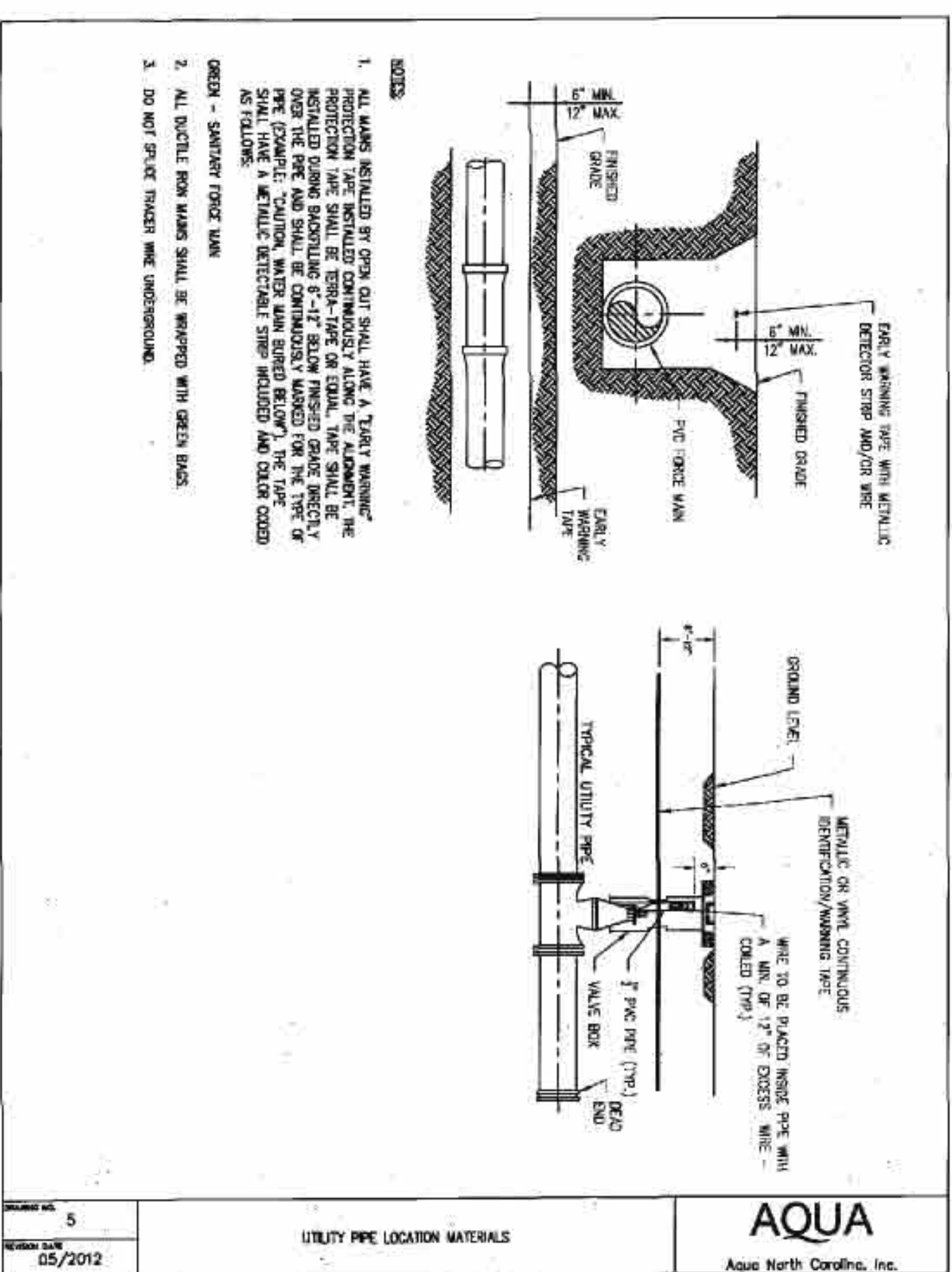
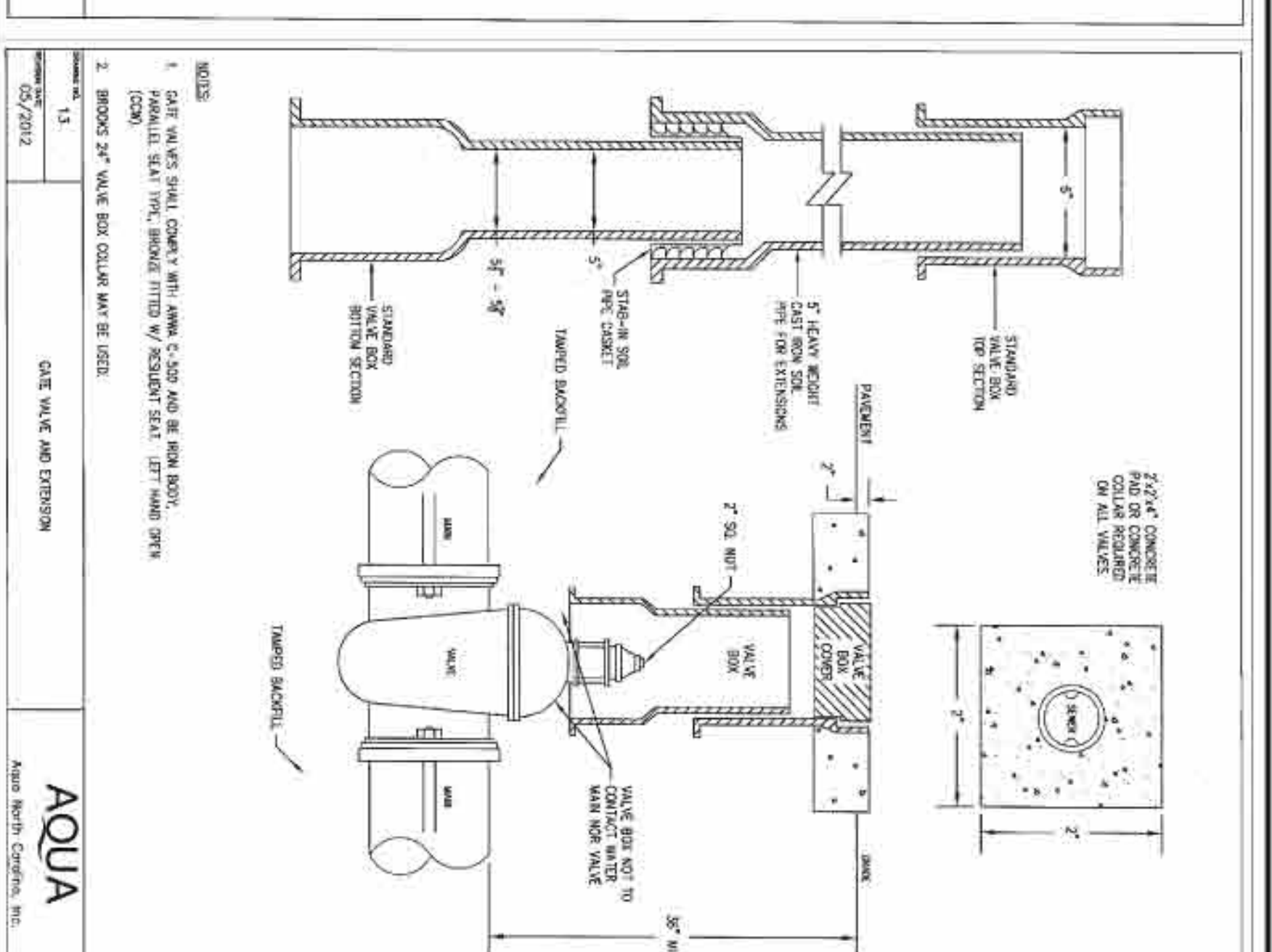
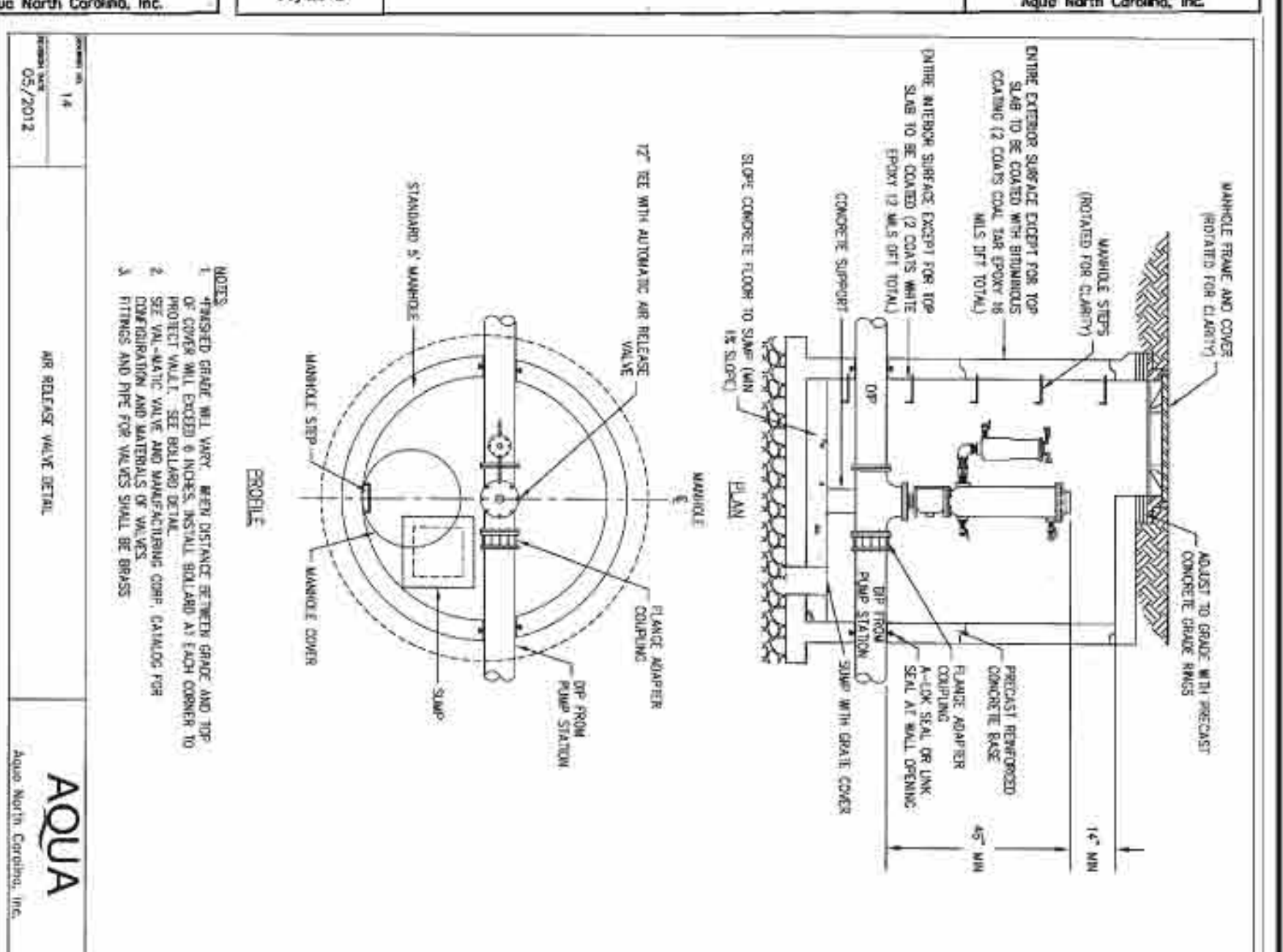
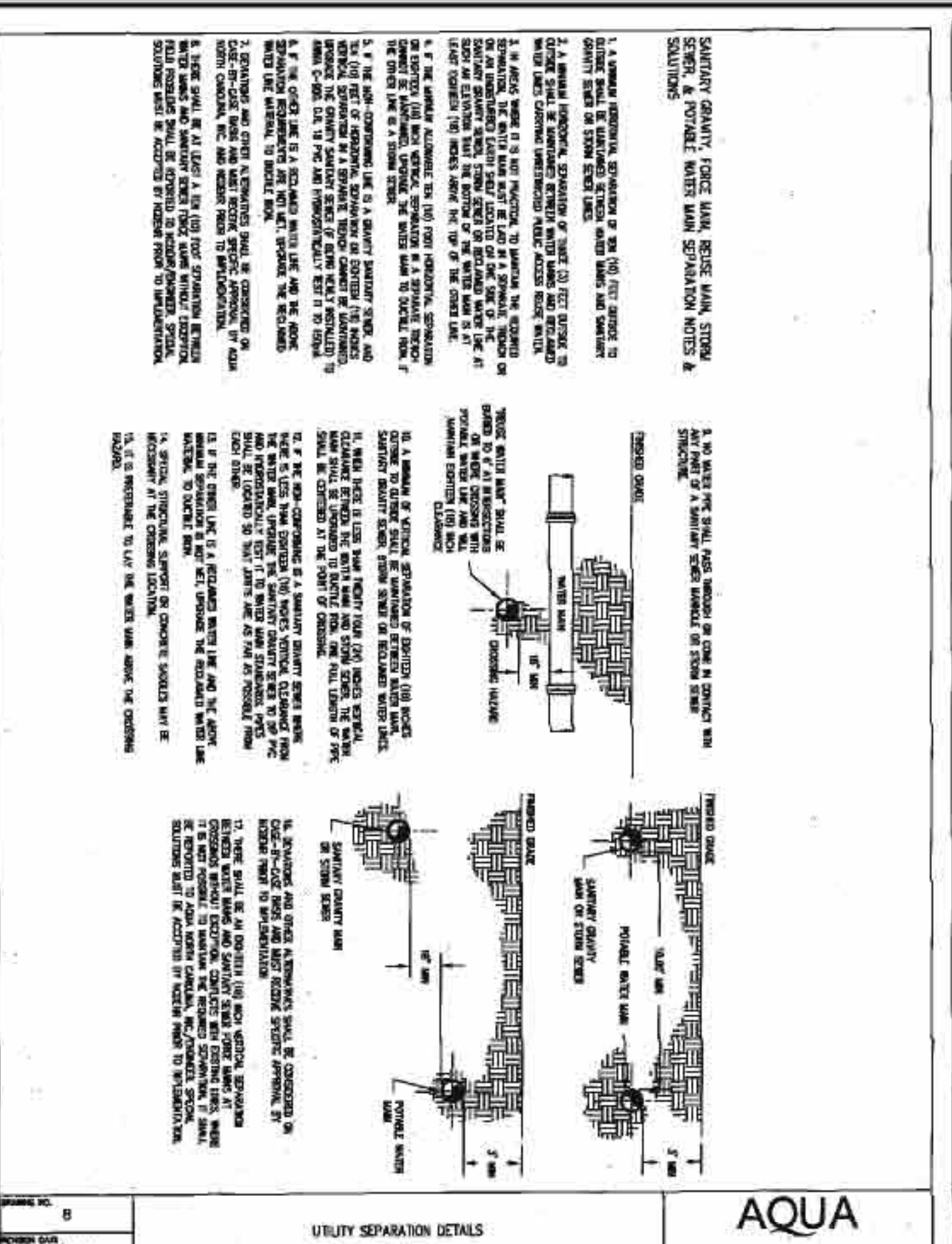
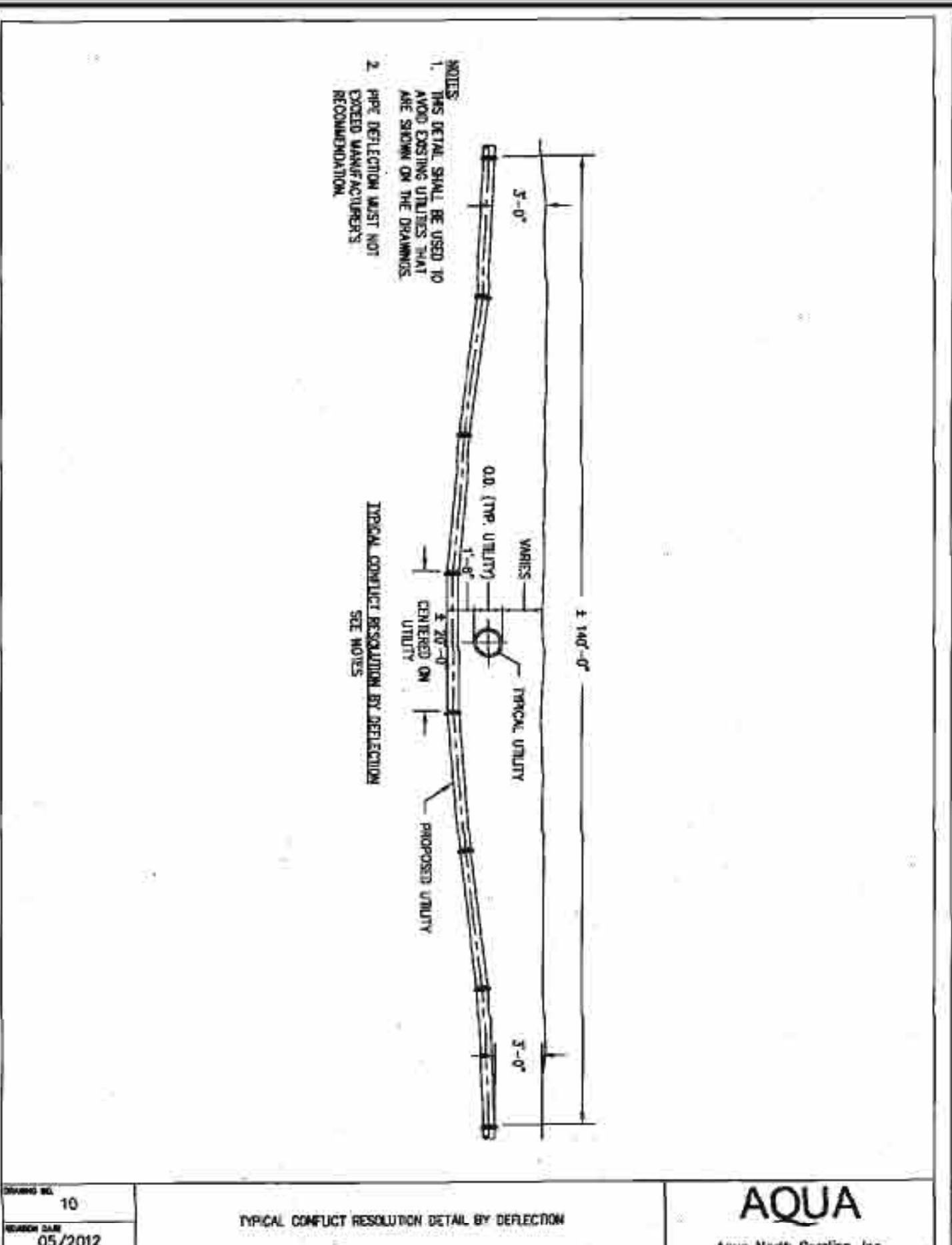
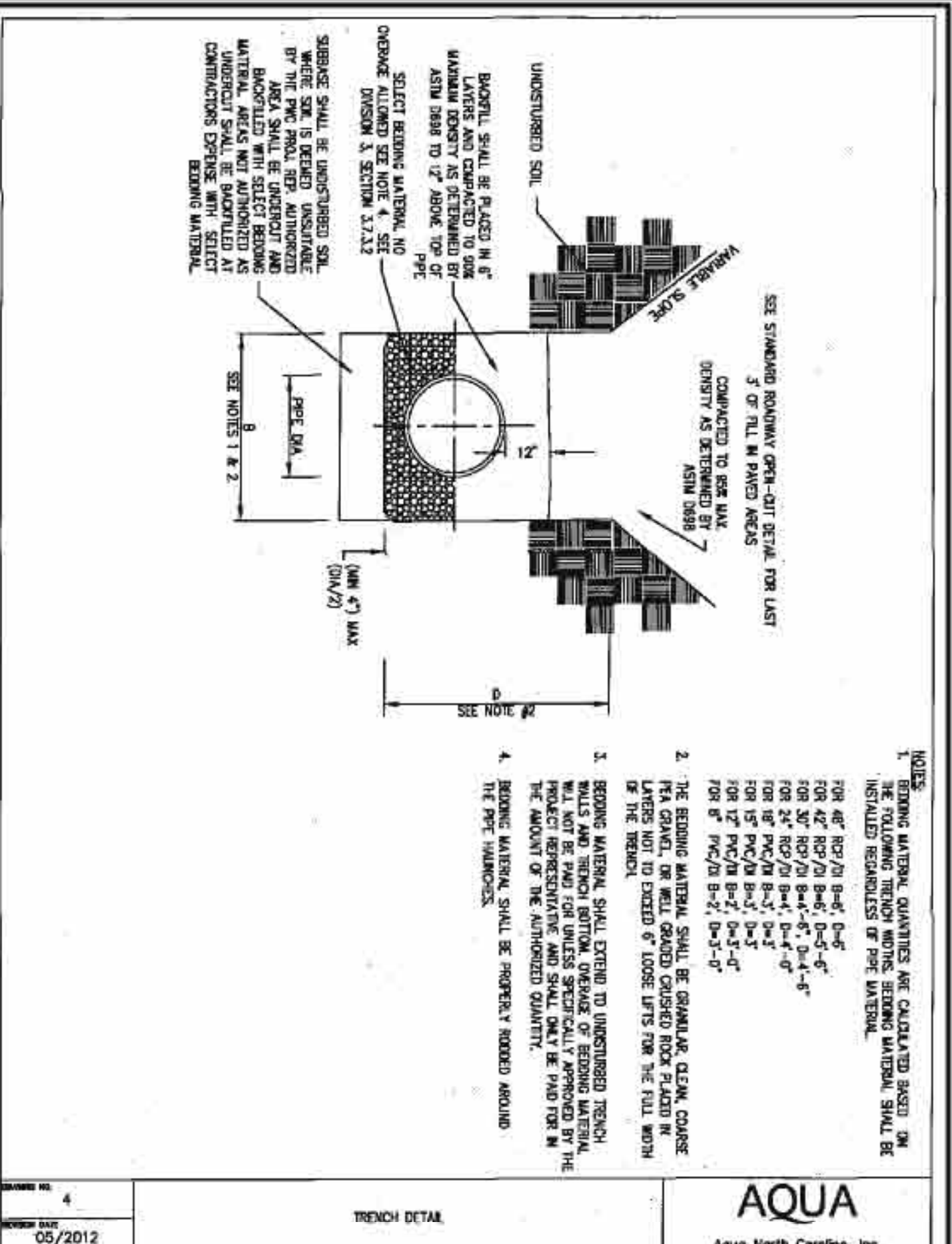
301 GLENWOOD AVE 220 RALEIGH, NC 27603 PHONE: 919-587-8790 FAX: 919-322-0032

CE GROUP

NO. REVISIONS DATE

Project No. 330-05
Contractor: JPD
Scale: N/A
Date: JULY, 2014

Sheet No. 10 of 10



SIZING TABLE FOR CARRIER PIPES AND CASING PIPES

THE FOLLOWING TABLE SUMMARIZES THE REQUIRED SIZES FOR STEEL PIPE ENCASEMENTS.

CONDUIT CARRIER PIPE SIZE (INCHES)	STEEL CASING PIPE SIZE (INCHES)	RAILROAD CROSSING	WALL THICKNESS	ROAD CROSSING	WALL THICKNESS
3 AND UNDER	12.75	0.188	6.625	0.250	0.250
4	12.75	0.188	6.625	0.250	0.250
5	12.75	0.188	6.625	0.250	0.250
6	12.75	0.188	6.625	0.250	0.250
8	12.75	0.188	6.625	0.250	0.250
10	20	0.281	20	0.250	0.250
12	24	0.312	24	0.250	0.250
14	28	0.375	28	0.312	0.312
16	30	0.406	30	0.375	0.375
18	36	0.469	36	0.438	0.438
20	42	0.562	42	0.500	0.500
24	42	0.562	42	0.500	0.500

FINAL DESIGN
 NOT RELEASED
 FOR CONSTRUCTION



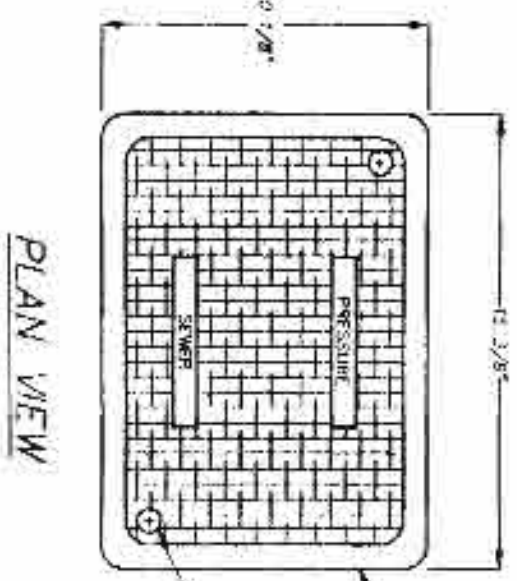
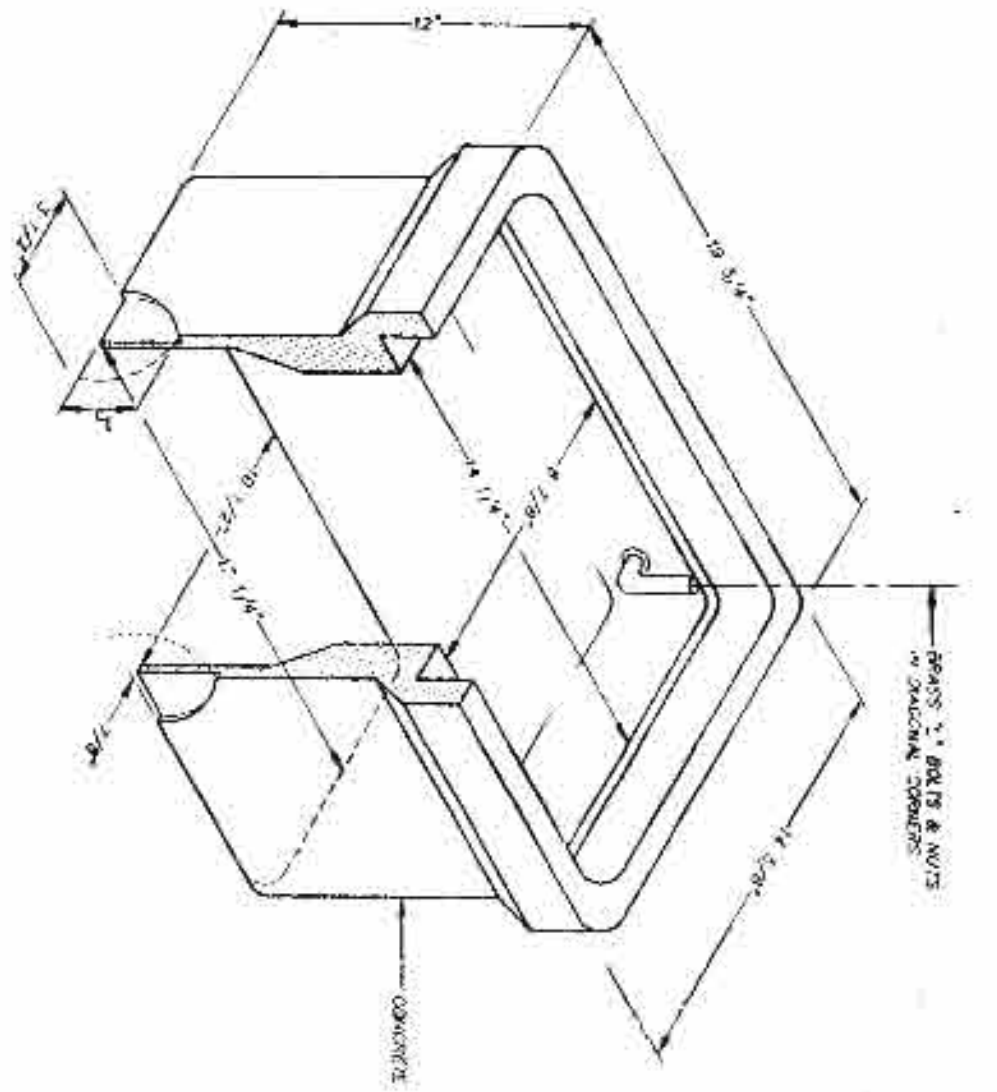
Drawn:	JPD
Checked:	MPA
Project No.:	330-06
Computer Date:	1/18/2014
Scale:	N/A
Date:	JULY, 2014

THE LEGACY PHASE 5A CONSTRUCTION PLANS SEWER DETAILS
 CHATHAM COUNTY, NORTH CAROLINA

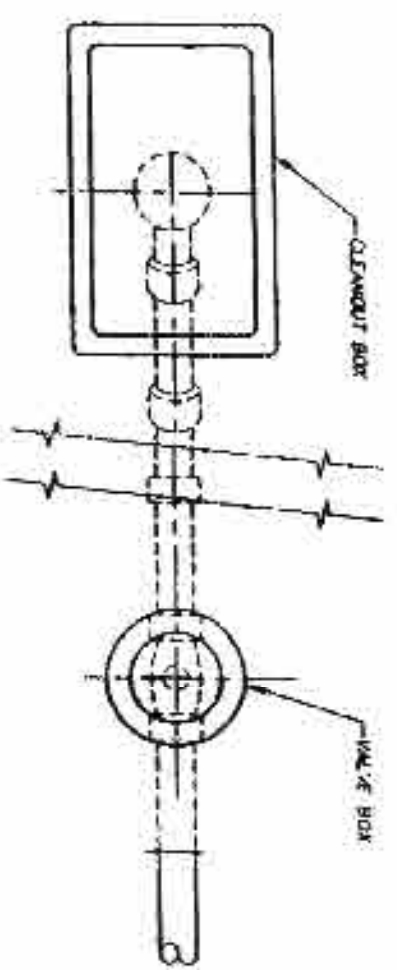
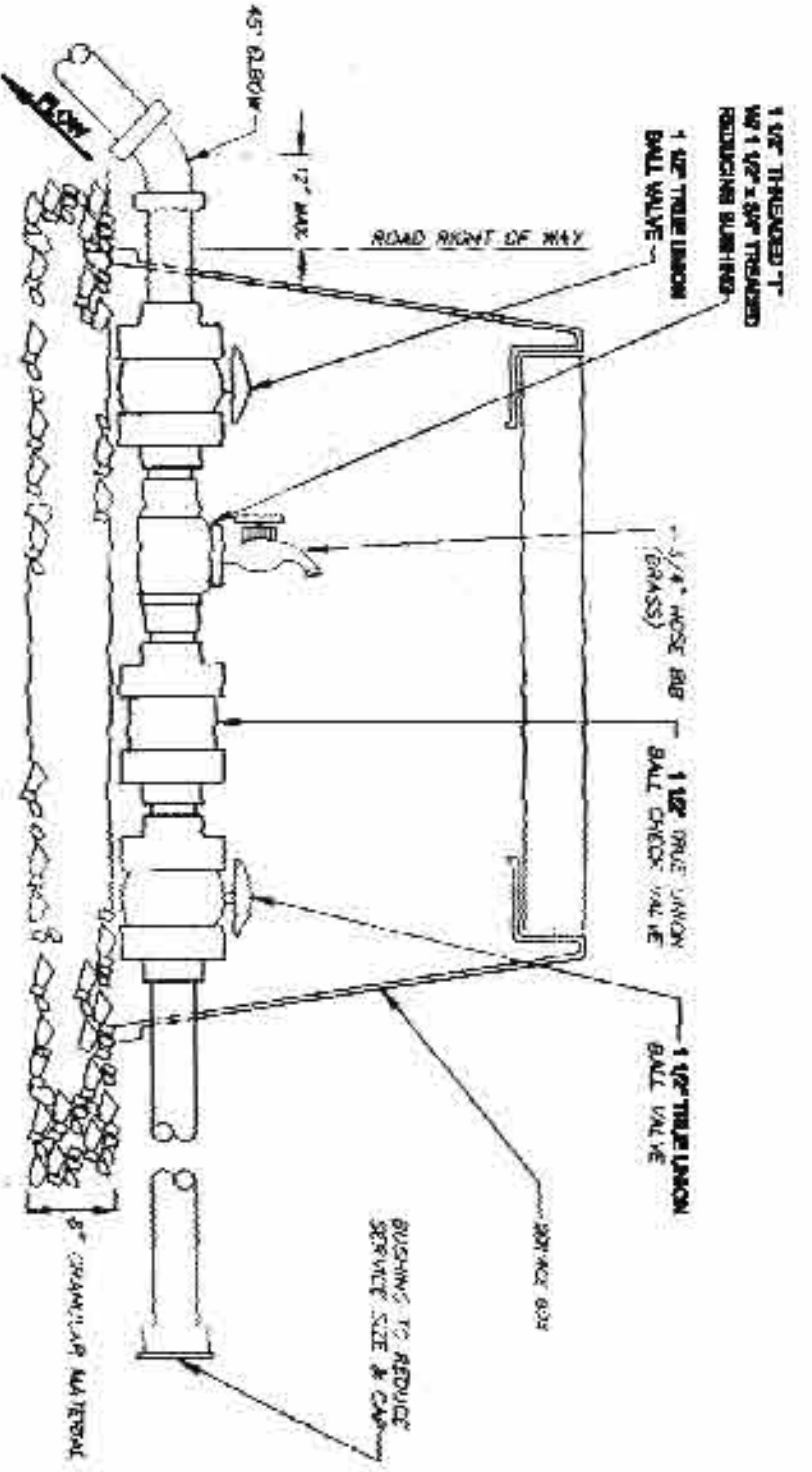


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NO.	REVISIONS	DATE



- NOTES:
1. BOXES SHALL BE LOCATED ADJACENT TO LOT LINE WITH THE LOT RECORD PERMITTING.
 2. BOX SHALL NOT BE IN SEPARATES OR 1.50' OF BOX SHALL BE 1.50' FROM DRIVE 1.50' OF LOT.



PRESSURE SEWER - STANDARD DETAIL

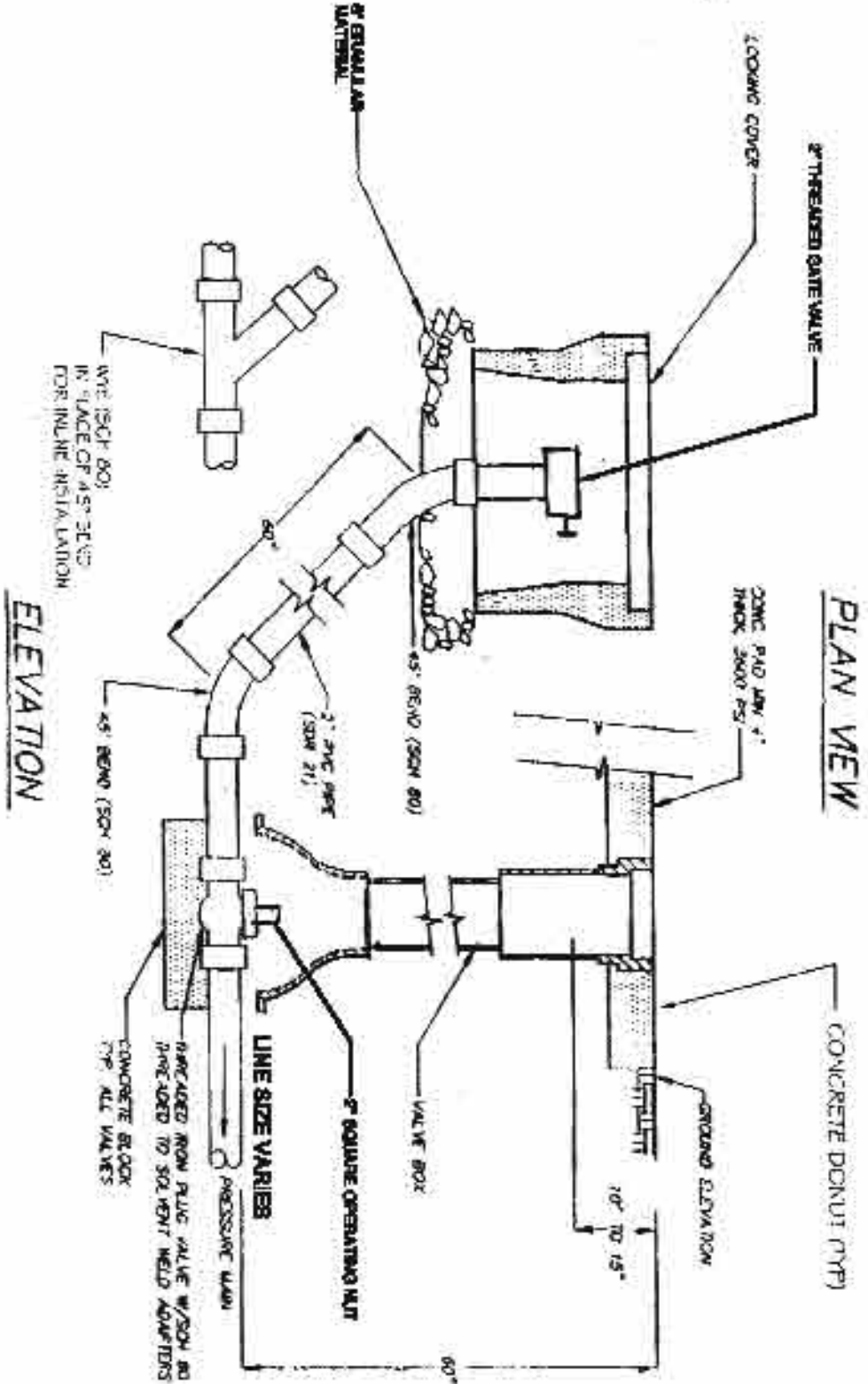
CLEANOUT BOX
NOT TO SCALE

PRESSURE SEWER - STANDARD DETAIL

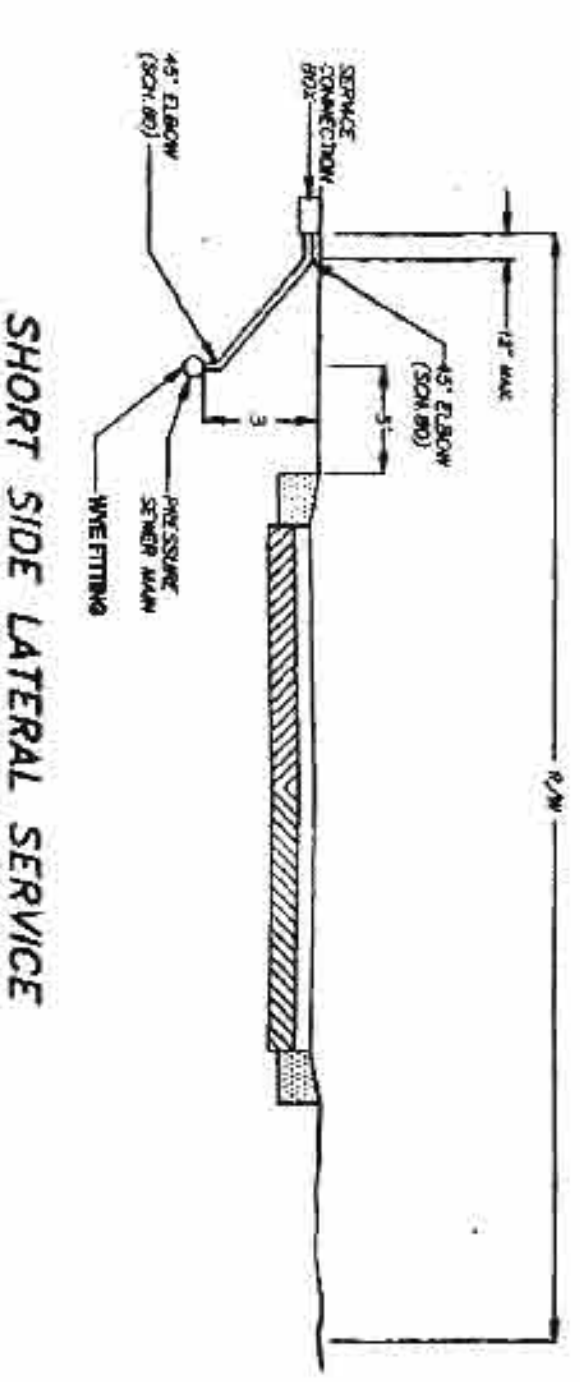
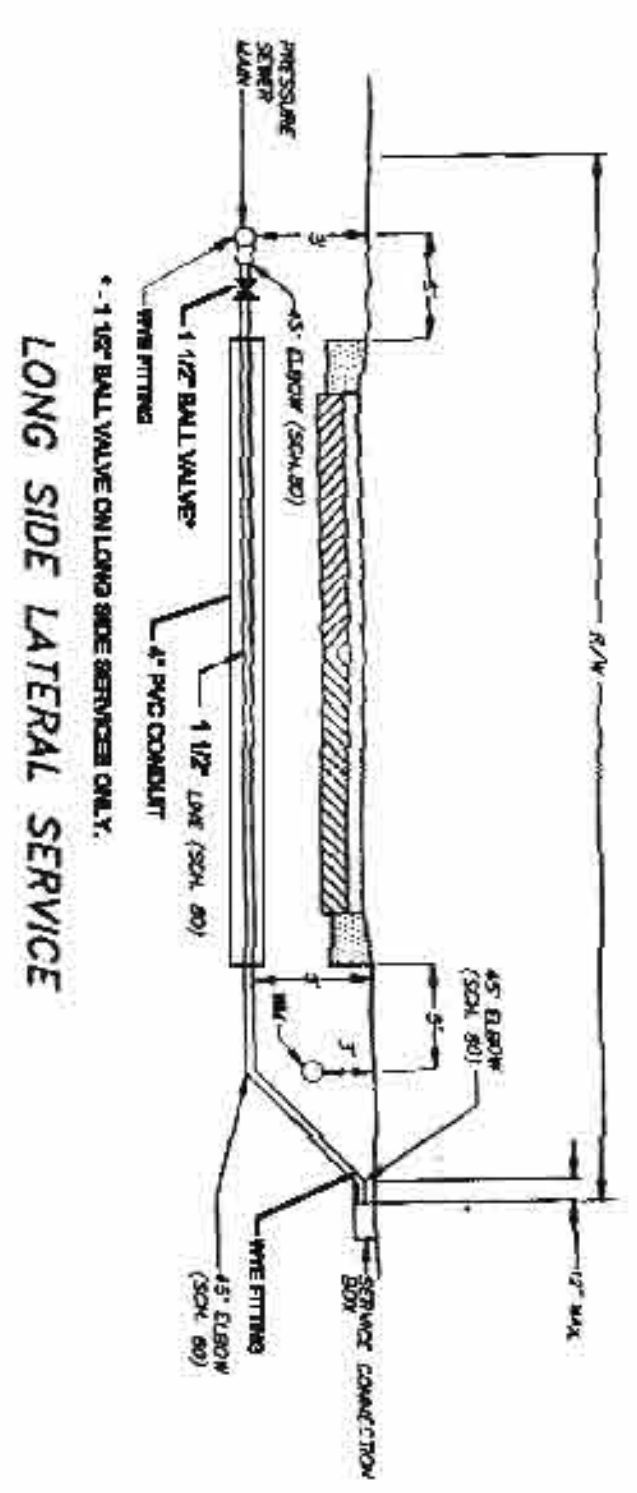
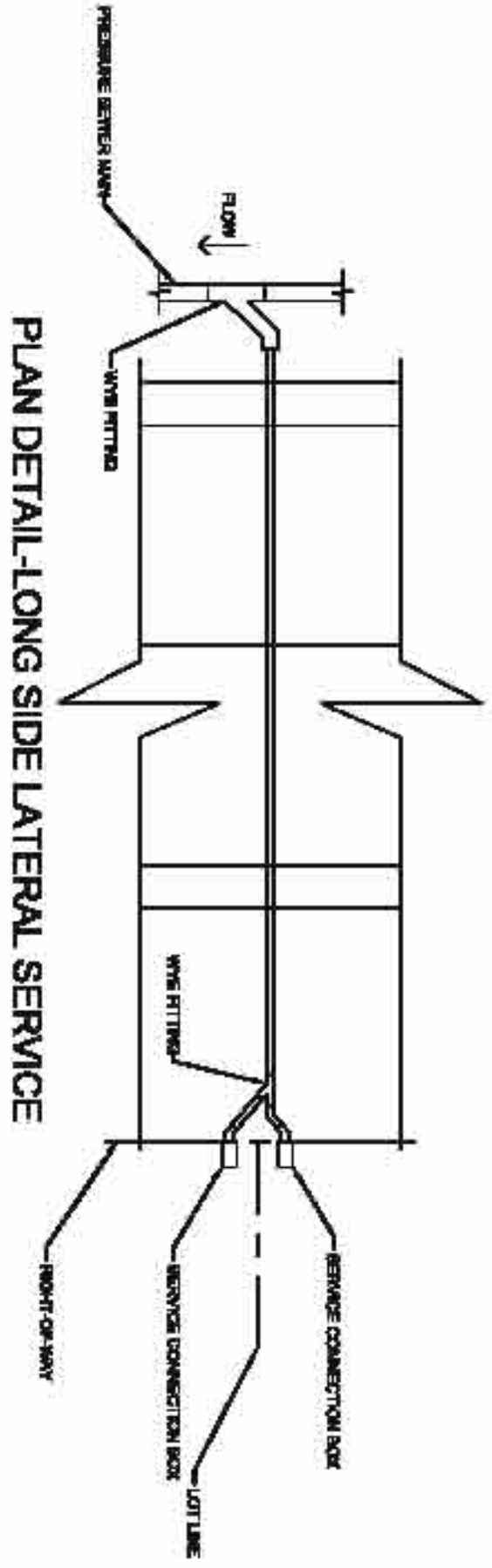
SERVICE CONNECTION
NOT TO SCALE

PRESSURE SEWER - STANDARD DETAIL

CLEANOUT AT END LINE INSTALLATION
NOT TO SCALE



NOTE: SEWER LATERALS WILL MEET THE SEPARATION REQUIREMENTS OF 15A NCAC 02T.0305 (F).

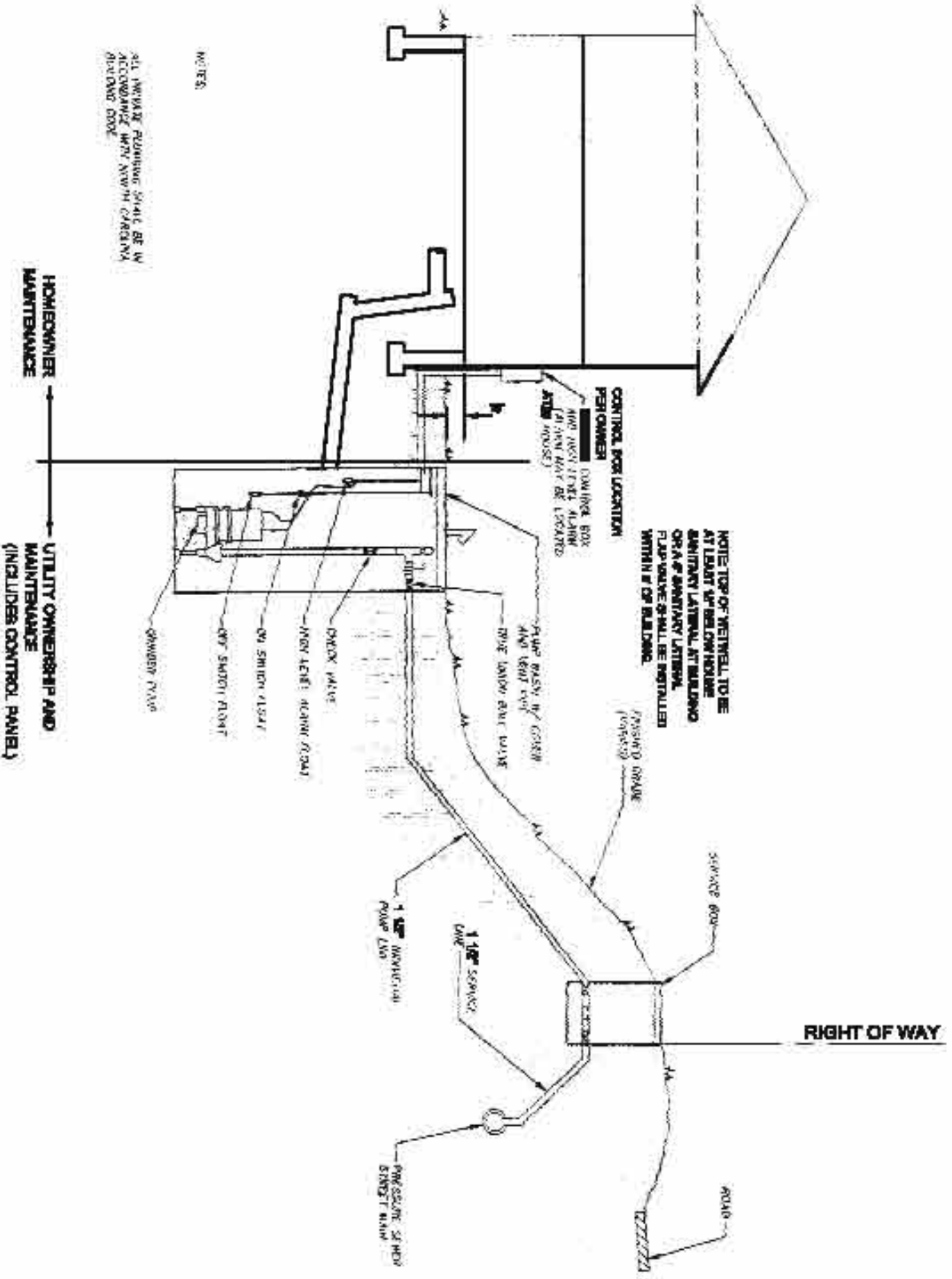


PRESSURE SEWER - STANDARD DETAIL

LATERAL SERVICE
NOT TO SCALE

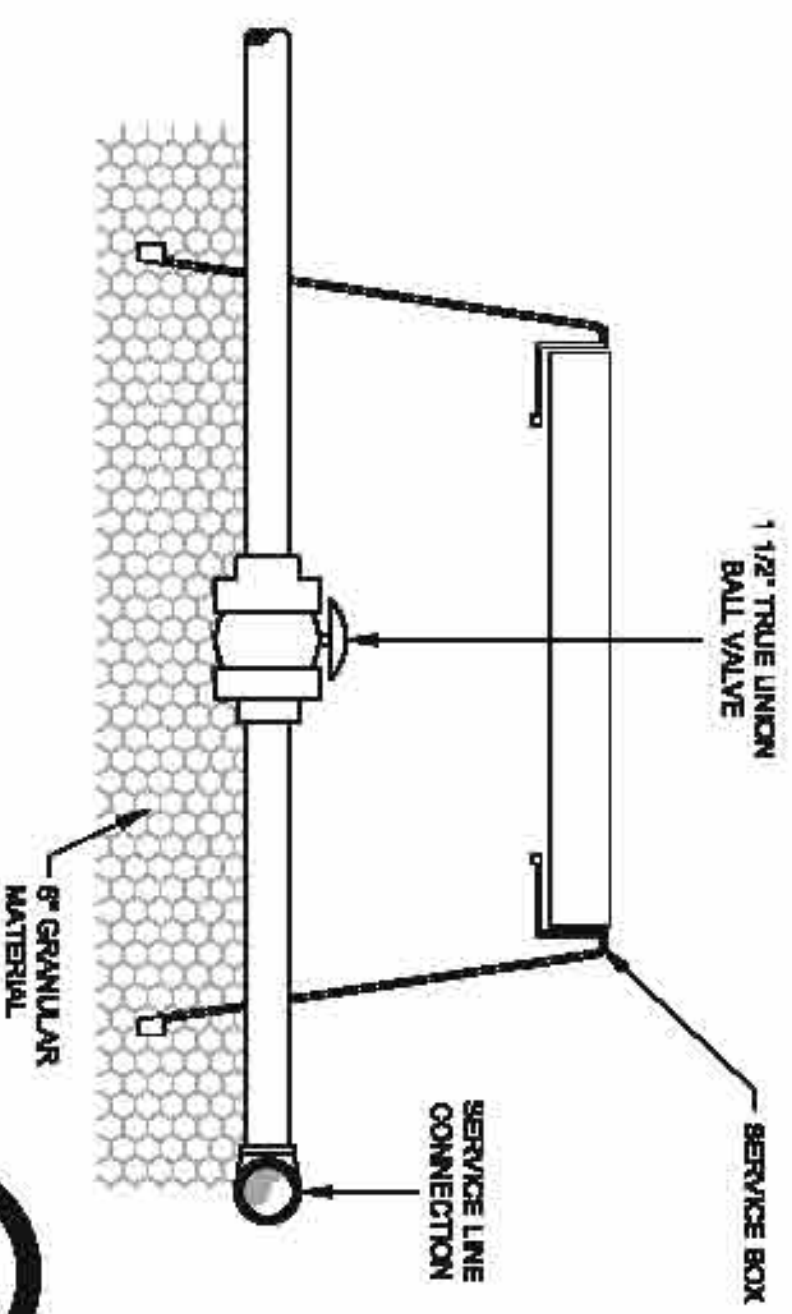
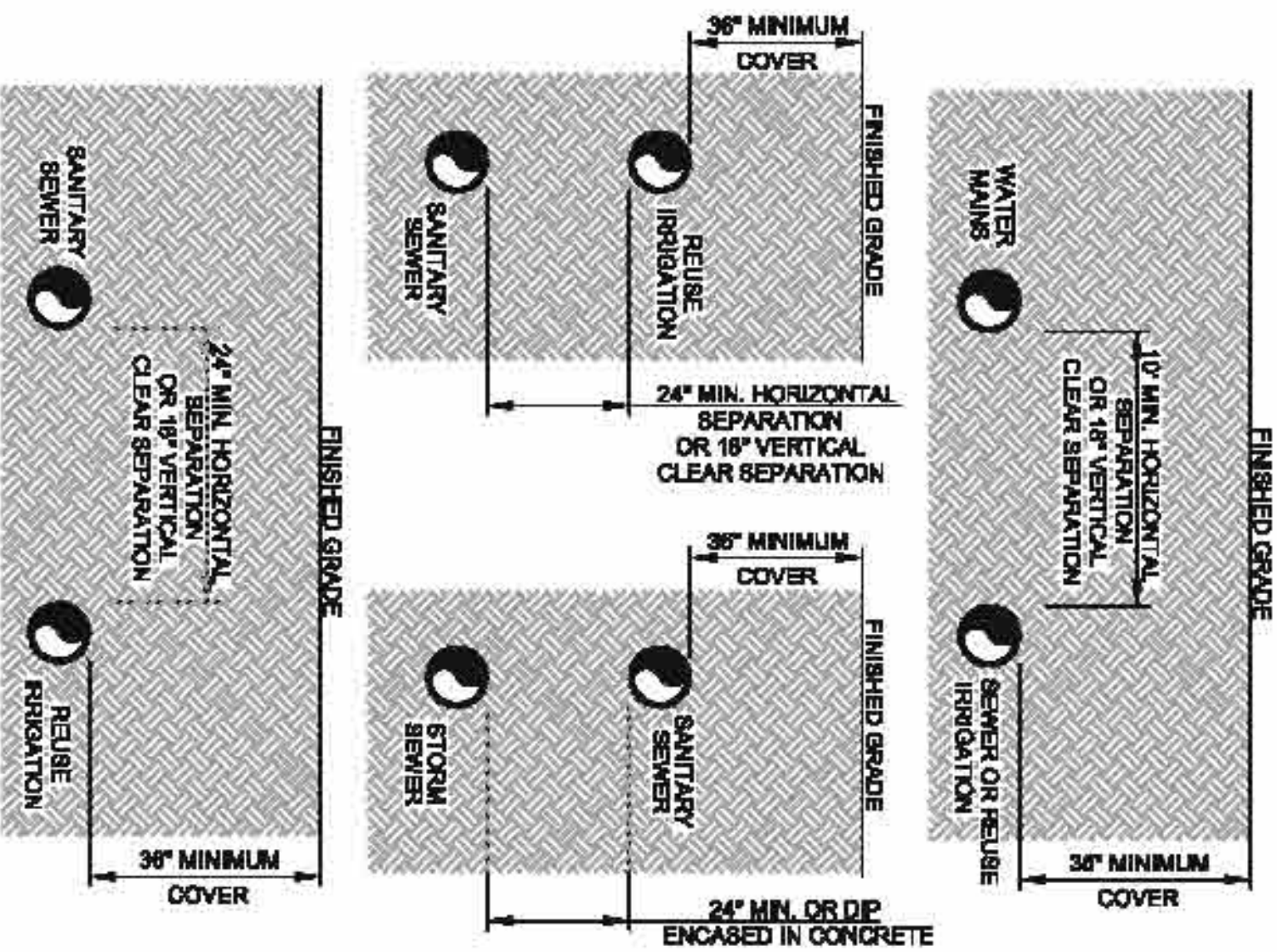
PRESSURE SEWER - STANDARD DETAIL

INDIVIDUAL GRINDER PUMP SYSTEM
NOT TO SCALE



TYPICAL SEPARATION DETAIL

NTS



BALL VALVE DETAIL

FOR LONG-SIDE SERVICE
NOT TO SCALE



STOP! BEFORE YOU DIG CALL THE NC ONE CALL CENTER ITS THE LAW!

FINAL DESIGN
NOT RELEASED FOR CONSTRUCTION

THE LEGACY
PHASE 5A
CONSTRUCTION PLANS
SEWER DETAILS
CHATHAM COUNTY, NORTH CAROLINA



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www.ccegroup.com
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NO.	REVISIONS	DATE

Sheet No: **12** of

Date: JULY, 2014

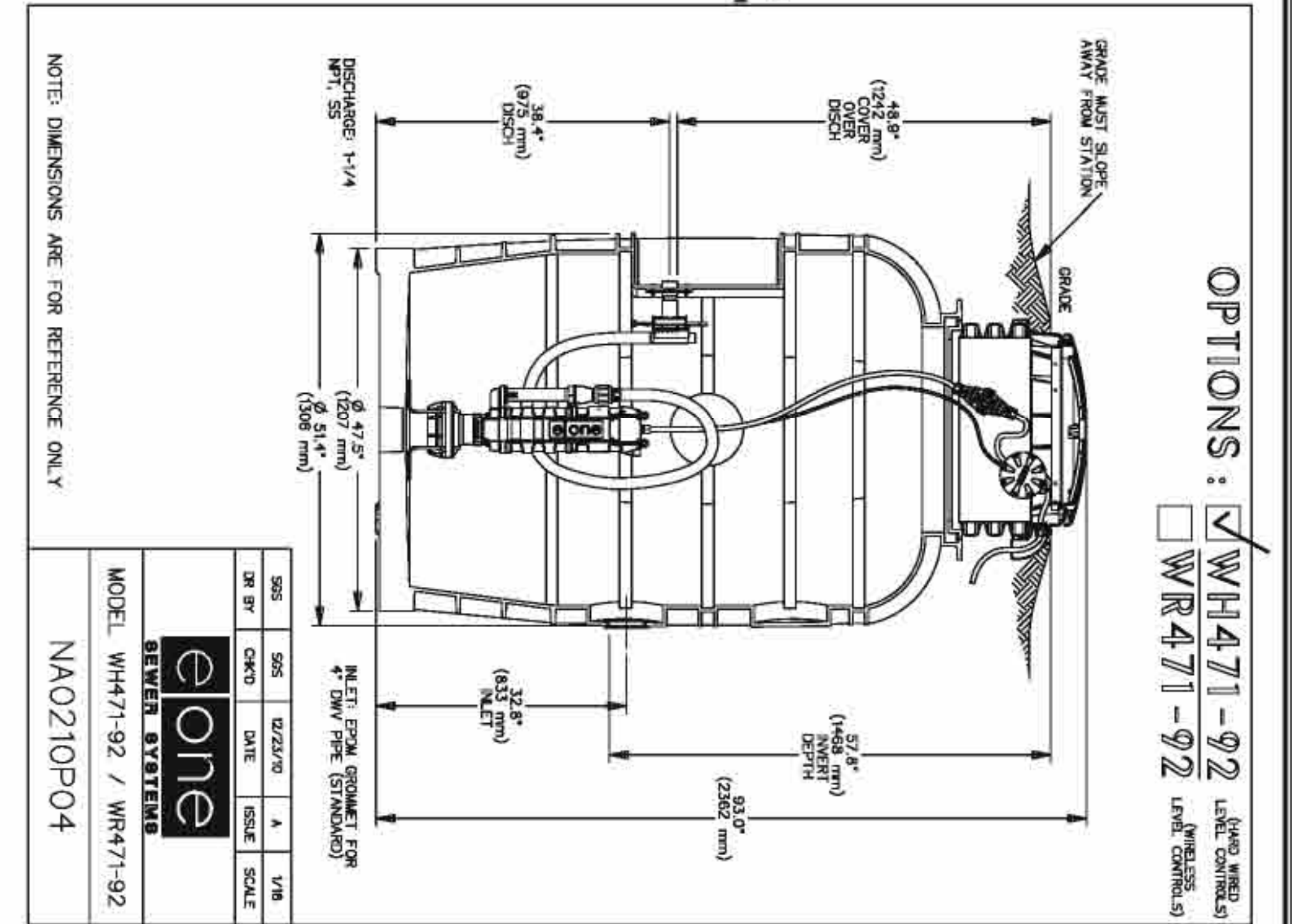
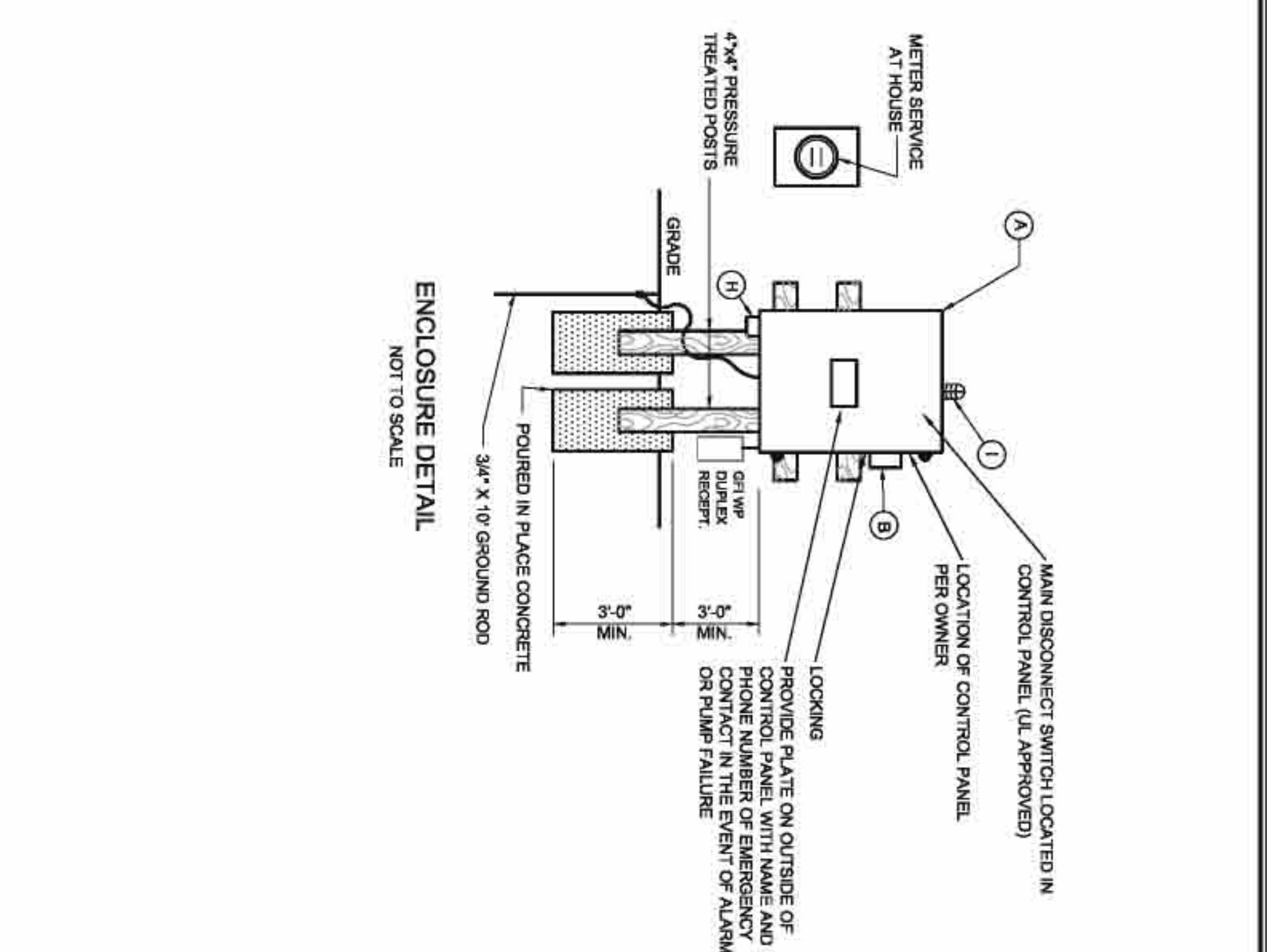
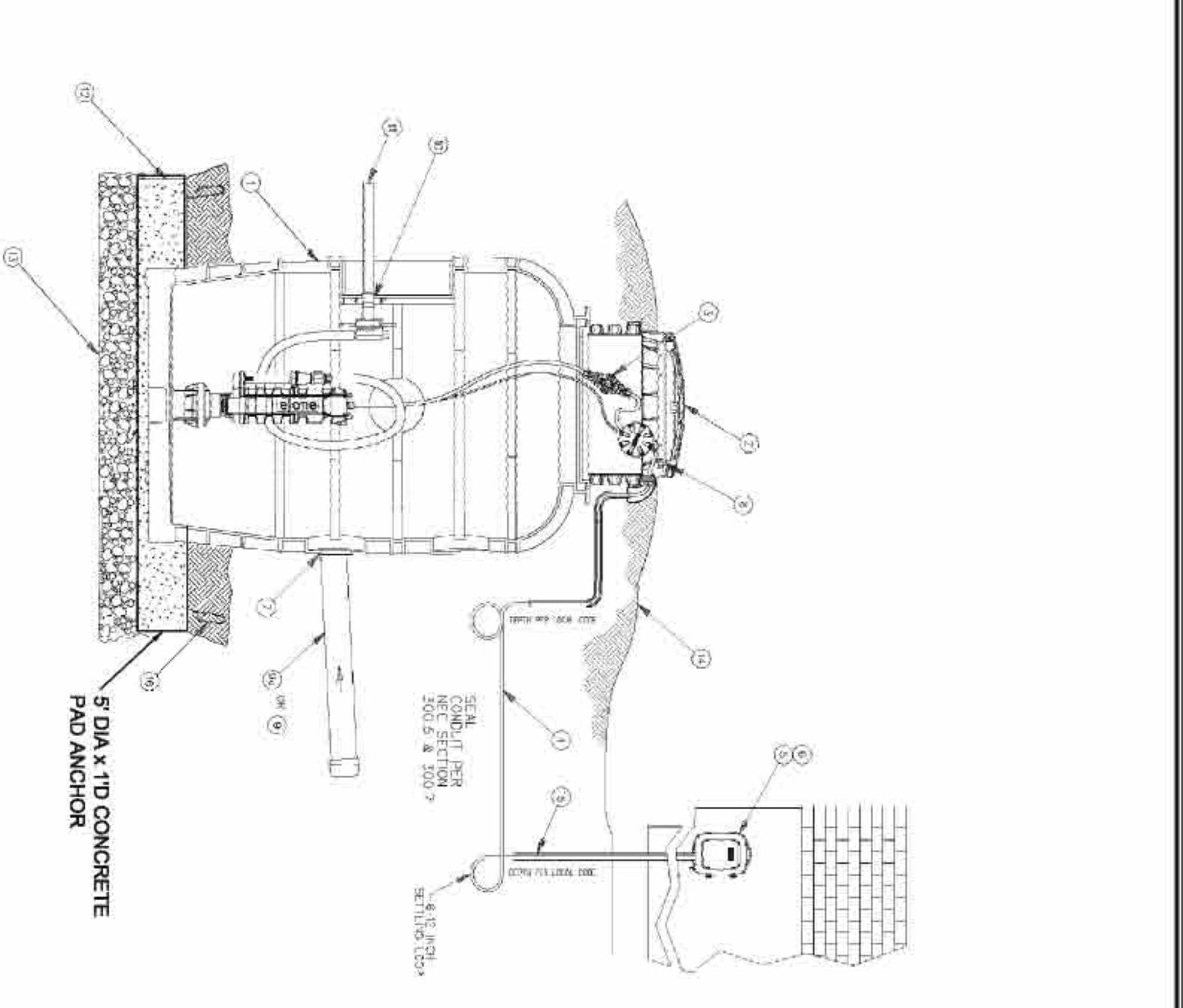
Scale: N/A

Drawn: JPD

Checked: MPA

Project No: 390-05

Contract/Draw Name: 2008 12 PWS 01 Detail



Environment One Grinder Pump Feature Identification

- GRINDER PUMP BASIN - Polyethylene
- ACCESSWAY COVER - High density polyethylene (HDPE)
- ELECTRICAL QUICK DISCONNECT (EQD) - Cable from pump core terminals have
- POWER AND ALARM CABLE - Cables to be installed in accordance with local codes
- ALARM PANEL - NEMA 4X enclosure and equipped with circuit breakers. Locate according to local codes.
- ALARM DEVICE - Every installation is to have an alarm device to alert the homeowner of a potential malfunction. Visual devices should be placed in very conspicuous locations.
- INLET - EPDM grommet (4.5" ID). For 4.5" OD DWV pipe (standard).
- WET WELL VENT - 2" tank vent
- GRAVITY SERVICE LINE - 4" DWV (4.5 OD). Supplied by others.
- STUB-OUT - 4" x 5' long watertight stub-out to be installed at time of burial unless the gravity discharge line is connected through riser. Supplied by others.
- DISCHARGE FITTING - 1.1/4" Female NPT, stainless steel
- CONCRETE ANCHOR - See Detail for specific weight for your station height.
- BEDDING MATERIAL - 6" minimum depth, round aggregate, (gravel). Supplied by others.
- FINISHED GRADE - Grade line to be 1" to 2" below removable lid and slope away from the station.
- CONDUIT - 1" or 1.1/4" material and burial depth as required per national and local codes. Conduit must enter panel from bottom and be sealed per NEC section 501.5.3.501.7. Supplied by others.
- REBAR - For use with precast concrete basins. Required to lift tank after ballast (concrete anchor) has been attached. 4 pieces, evenly spaced around tank.

PUMP SERVICE LINE AND TANK

- PUMP CHAMBER - SHALL BE 4.75" RIBBED CLASS BASK.
- PVC PIPE FOR SERVICE - SHALL BE PRESSURE CLASS 10 PER ASTM D2412 AS INDICATED ON THE DRAWINGS. FITTINGS SHALL BE SOLVENT WELD SOCKET-TYPE CONFORMING TO ASTM D2467 AND ASTM D2565.
- CHECK VALVES SHALL BE MADE OF PVC/PPC/HDPE/PLASTIC.
- PVC PIPE IN DOWNS TANK - SHALL BE SCHEDULE 80.

PUMPS CONTROL INFORMATION:

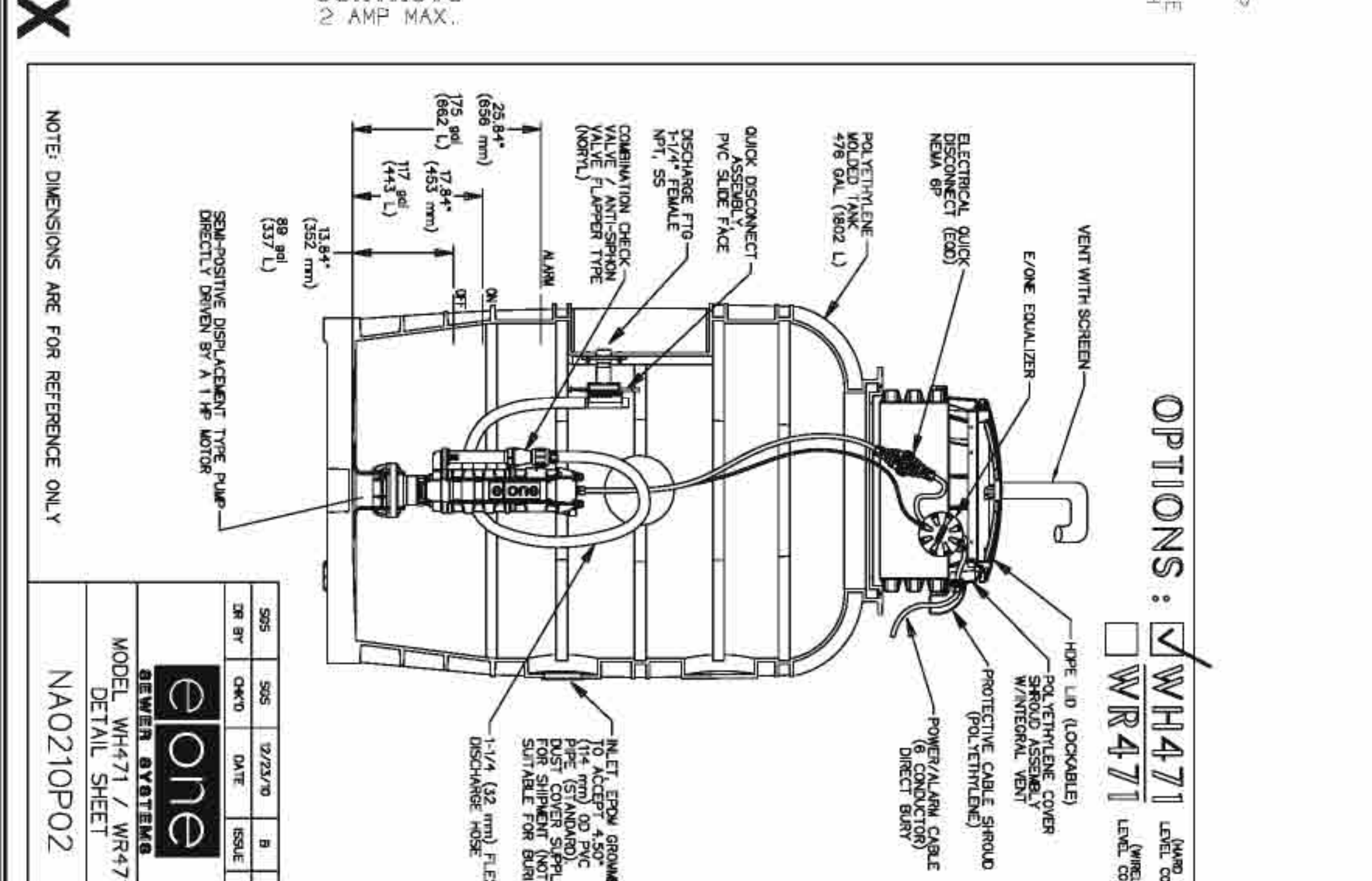
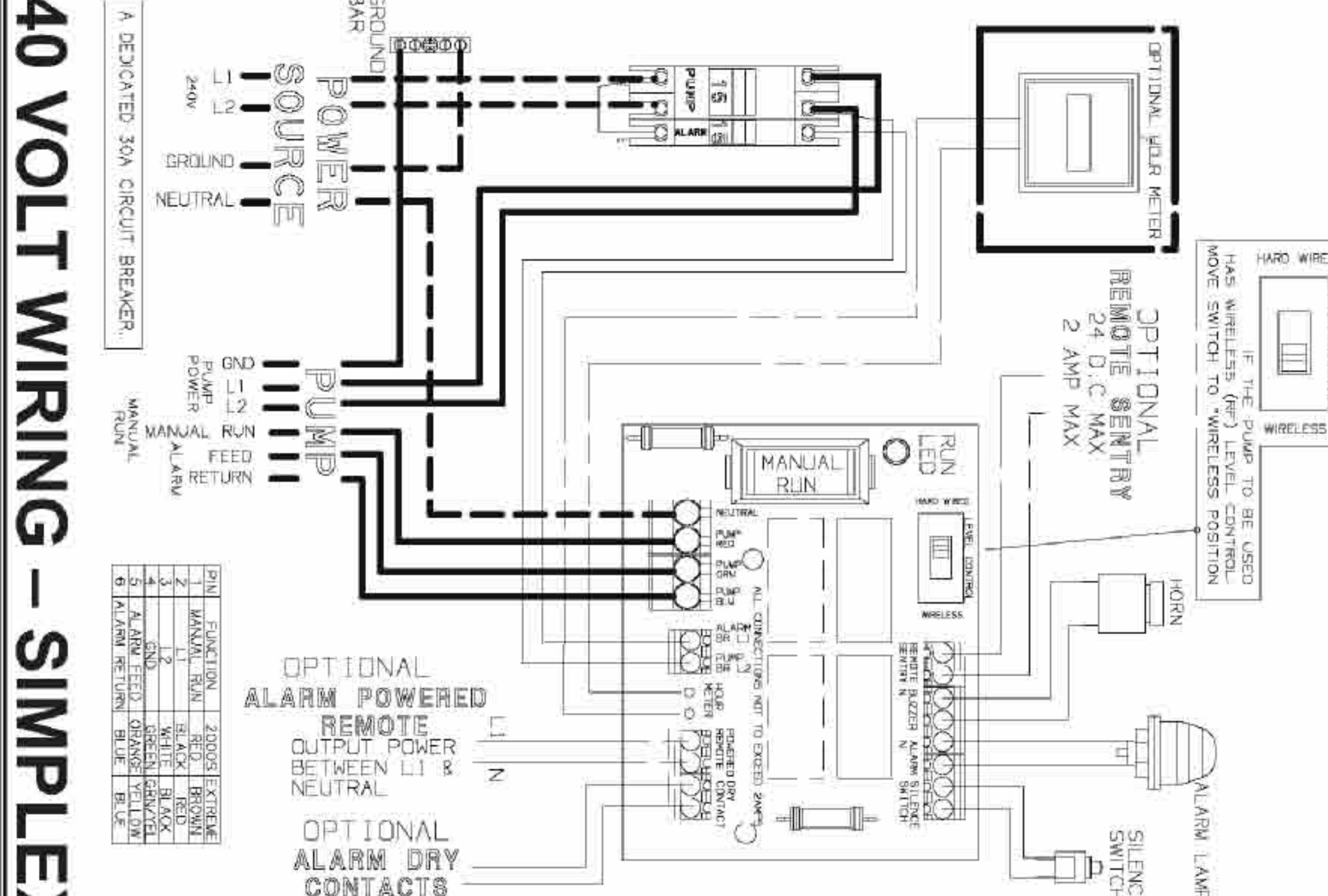
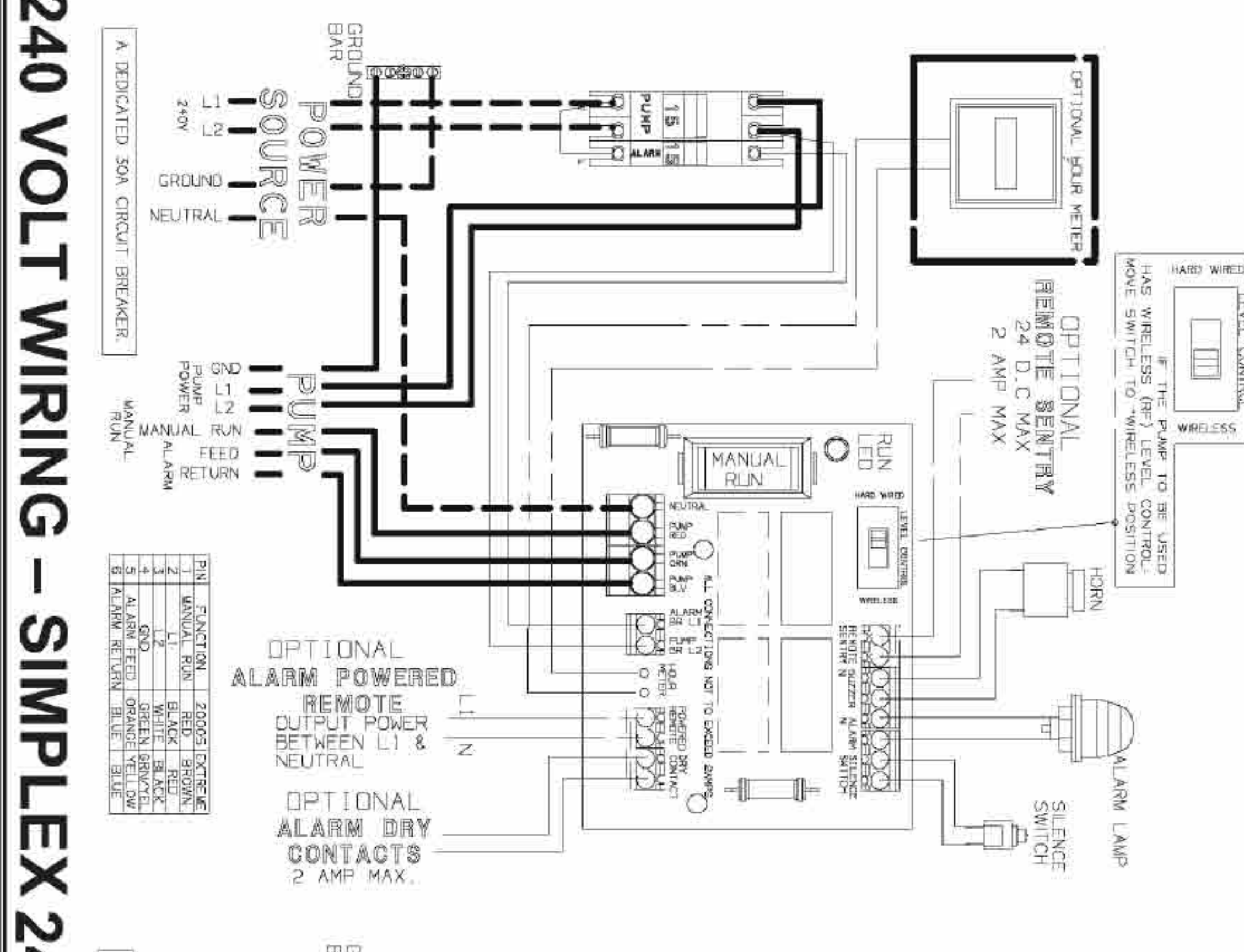
- STARTER FOR PUMP CONTROL PANEL - INCLUDES APPROVAL, CIRCUIT BREAKER, MOTOR STARTER, THERMAL STRIP AND GROUND BUS IN A LOCKABLE ENEMY AND ENCLOSURE. THE CONTROLS SHALL HAVE THREE LEVEL SENSING POINTS: PUMP OFF, PUMP ON, HIGH WATER ALARM. CONTROL PANEL AND ALARM MAY BE ATTACHED TO THE HOME EXTERIOR AT THE OWNERS OPTION OR POST MOUNTED 3" ABOVE GRADE AT LOCATION CONVENIENT TO THE OWNER. THE ALARM CIRCUIT SHALL SENSE HIGH WATER LEVEL, AND IN THE ALARM, AN ALARM RESET SWITCH AND ALARM TEST SWITCH SHALL BE PROVIDED ON THE CONTROL PANEL DOOR. A HIGH VISIBILITY RED ALARM LIGHT AND AUDIBLE ALARM SHALL BE MOUNTED ON THE EXTERIOR OF THE PANEL.
- LIQUID LEVEL SENSOR - SHALL BE ADJUSTABLE LEVEL MERCURY FLOAT SWITCH SUPPLIED BY THE MANUFACTURER.
- DURABLE RECEPTACLE - A RECEPTACLE (120 VOLTS) WITH GROUND FAULT PROTECTION AND A WATER PROOF COVER SHALL BE MOUNTED ON THE EXTERIOR OF THE PUMP PANEL.
- ELECTRIC CONDUIT - UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC DIRECT BURIAL WITH A MINIMUM DEPTH OF 30". ABOVE GROUND SHALL BE RIBB GALVANIZED STEEL.
- GENERAL - ALL CONTROLS AND WIRING SHALL BE FINISHED AND INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ANY APPLICABLE STATE AND LOCAL CODES.

TESTING:

- GENERAL - FINAL TESTING OF PUMP STATION SHALL BE MADE AFTER ITS COMPLETION. THE CONTRACTOR SHALL NOTIFY THE OWNER AND COUNTY INSPECTOR A MINIMUM OF 72 HOURS PRIOR TO INSPECTION.
- PLUMBING - THE CONTRACTOR SHALL REMOVE SURPLUS WATER TO ALLOW FULL DECOMPRESSION OF THE PUMPING CYCLES AND ALARM SEQUENCE TO THE SATISFACTION OF THE OWNER AND COUNTY INSPECTOR.
- PUMP TANK - SHALL BE TESTED FOR LEAKS THAT PREVENT OPERATION PRIOR TO THE COMPLETION OF THE SYSTEM. TANKS SHALL BE FILLED TO THE TOP OF INLET LINE WITH WATER AND TESTED FOR 24 HOURS. IF WATER LEVEL RISES, INCREASES OR DECREASES MORE THAN 1/2" DURING THIS TIME THE TANKS WILL HAVE FAILED THE INFLATION/DEFLATION TEST. THE CONTRACTOR MAY OPT TO PERFORM A VACUUM TEST TO SATISFY REQUIREMENTS.

ELECTRICAL NOTES

- 14" HIGH x 12" WIDE x 8" DEEP NEMA - 4X FIBERGLASS ENCLOSURE
- DURABLE COMPENSATED RECEPTACLE GROUND FAULT INTERRUPTER
- WEATHER PROOF COVER
- MANUAL TRANSFER SWITCH - 2-POLE - DOUBLE THROW
- CONTROL PANEL FINISHED BY PUMP MANUFACTURER
- AUDIBLE - VISIBLE HIGH-LEVEL ALARM WITH HORN FURNISHED BY PUMP MANUFACTURER
- ALL CONTROL WIRING TO BE FURNISHED BY PUMP MANUFACTURER
- DISCONNECT SWITCH - SERVICE ENTRANCE RATED RAMP W/KAUF
- ALARM BUZZER
- ALARM LIGHT



Options: WH471-92 (HAND WIRED LABEL CONTROL) WR471-92 (WIRELESS LABEL CONTROL)

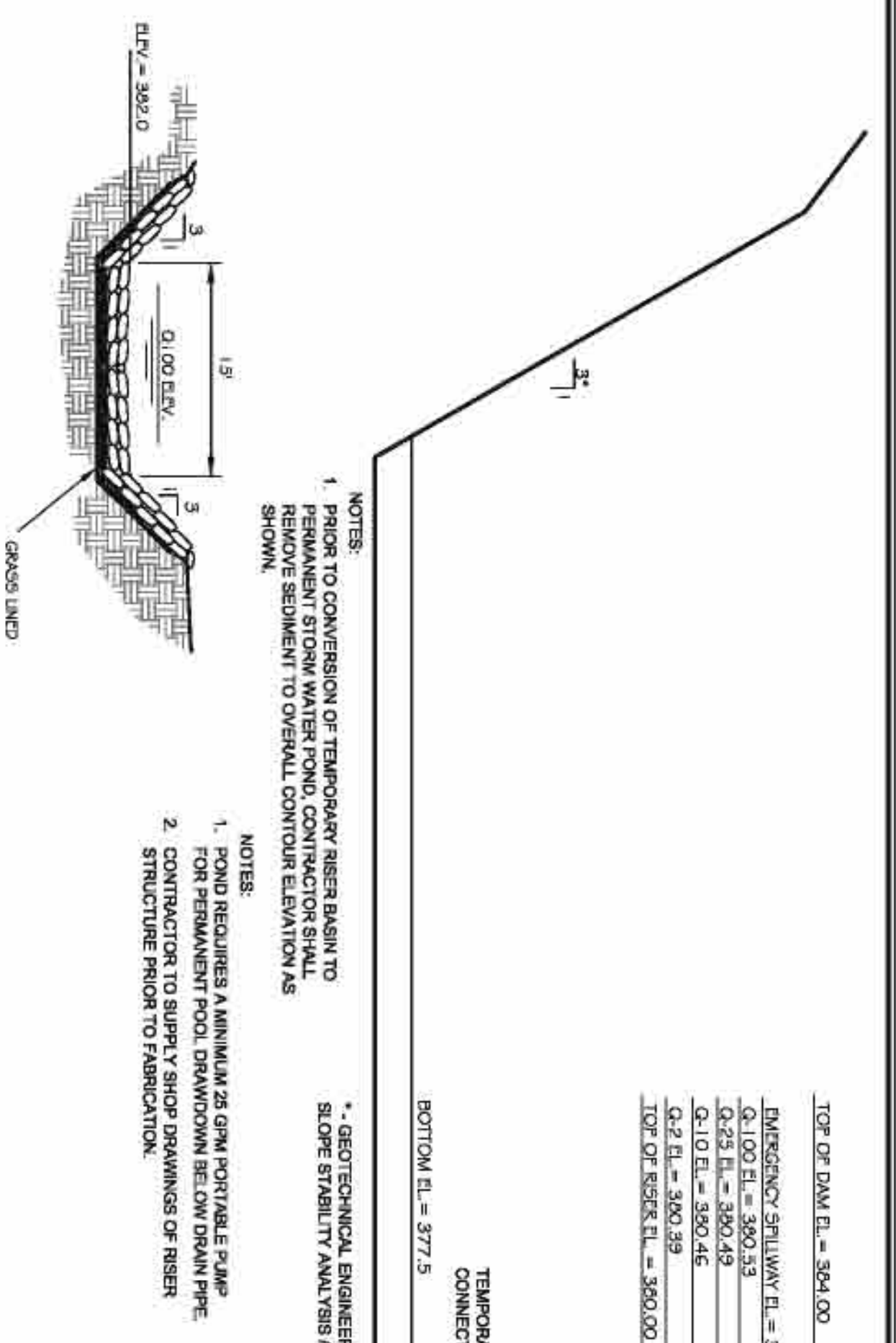
SIZE	DATE	SCALE
5/8"	02/23/09	1/8"
3/4"	02/23/09	1/8"
1"	02/23/09	1/8"

Model: WH471-92 / WR471-92
NA0210P04

Environment One
SEWER SYSTEMS

STOP!
BEFORE YOU CALL THE LOCAL ELECTRICAL CENTER ITS THE LAW!

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

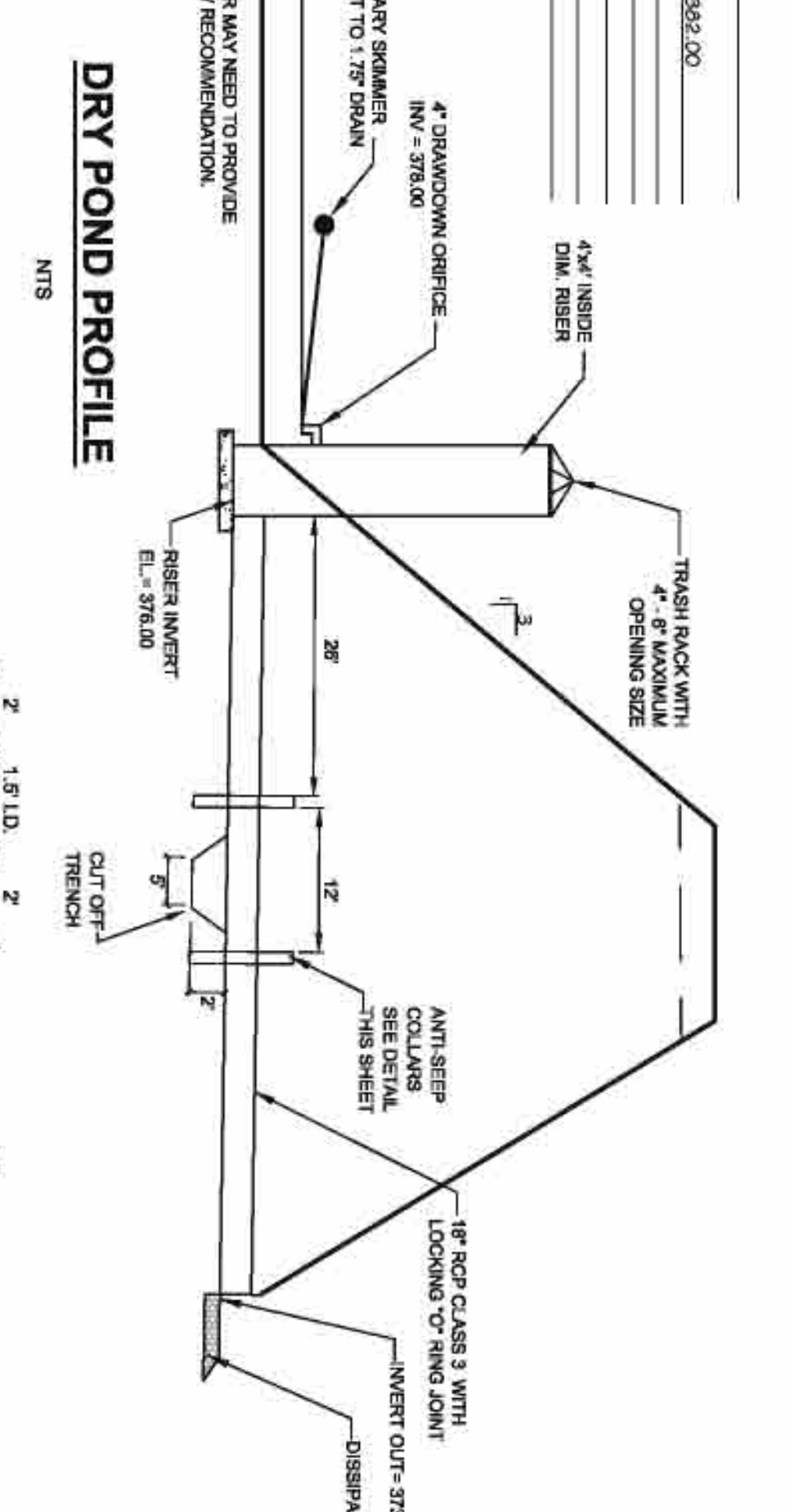


EMERGENCY SPILLWAY

NOTES:
 1. PRIOR TO CONVERSION OF TEMPORARY RISER BASIN TO PERMANENT STORM WATER POND, CONTRACTOR SHALL REMOVE SEDIMENT TO OVERALL CONTROL ELEVATION AS SHOWN.
 2. POND REQUIRES A MINIMUM 2% GRAV PORTABLE PUMP FOR PERMANENT POND. DRAWDOWN BELOW DRAIN PIPE STRUCTURE PRIOR TO FABRICATION.

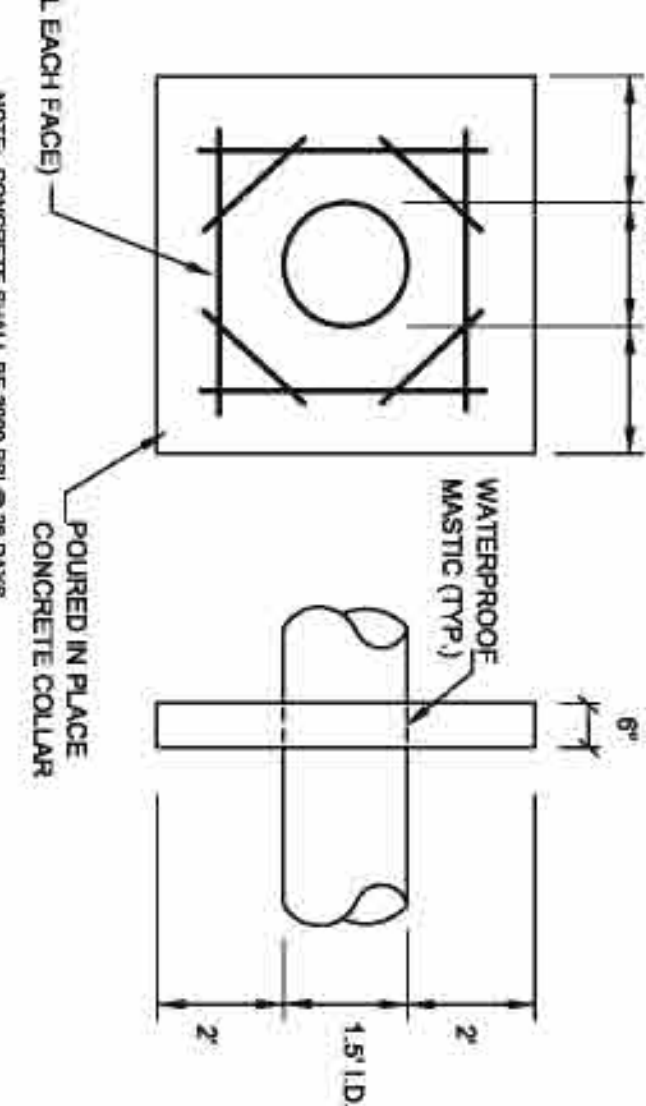
TOP OF DAM E.L. = 364.00
 EMERGENCY SPILLWAY E.L. = 362.00
 Q.100 E.L. = 360.53
 Q.25 E.L. = 360.43
 Q.10 E.L. = 360.46
 Q.2 E.L. = 360.39
 TOP OF RISER E.L. = 360.00

BOTTOM E.L. = 377.5



DRY POND PROFILE

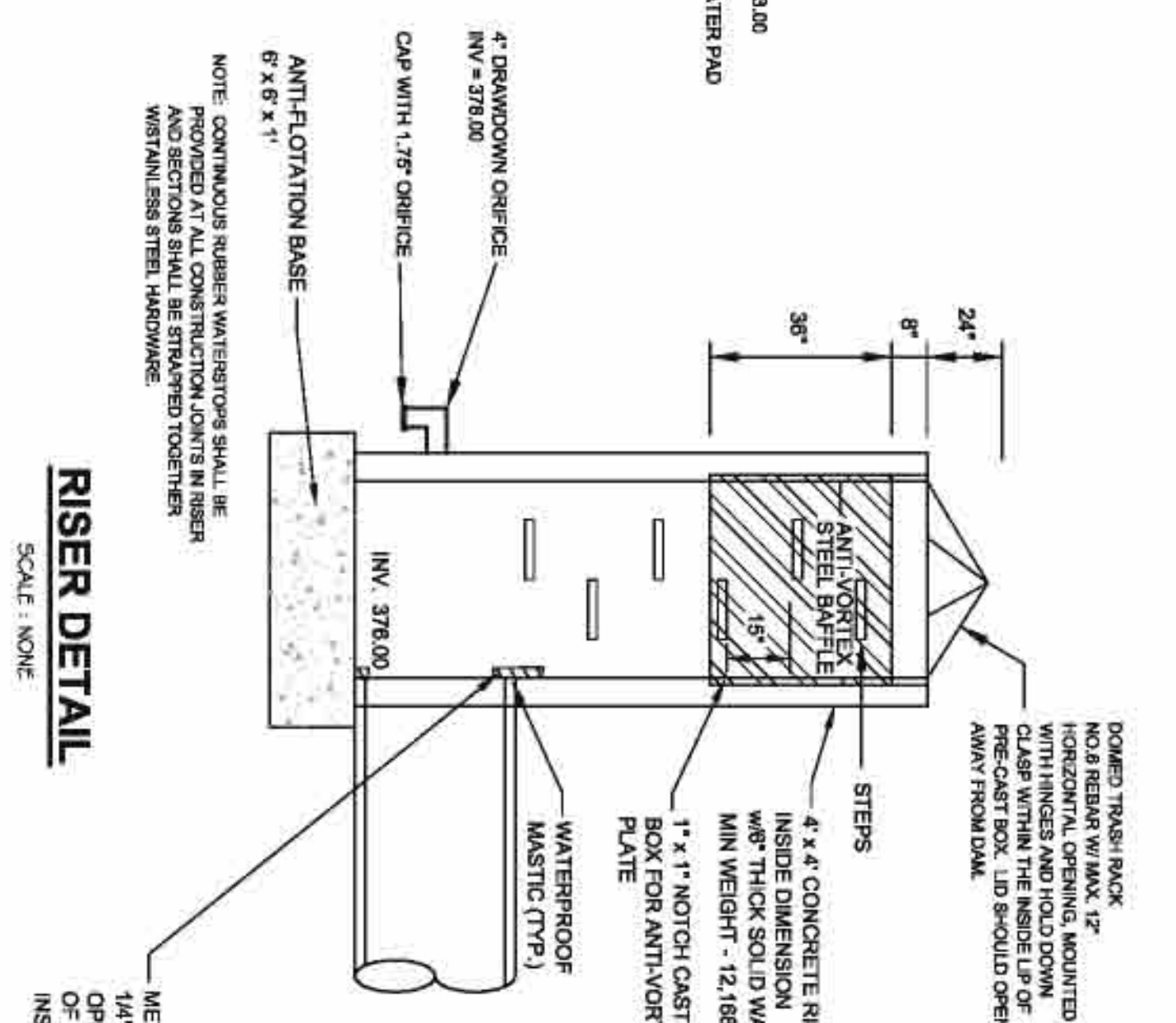
NOTES:
 * GEOTECHNICAL ENGINEER MUST PROVIDE SLOPE STABILITY ANALYSIS/RECOMMENDATION.



ANTI-SEEP COLLAR DETAIL

SCALE: NONE

NOTE: CONCRETE SHALL BE 3000 PSI @ 28 DAYS. COLLAR SHOULD BE PLACED AT LEAST TWO FEET FROM PIPE JOINT.



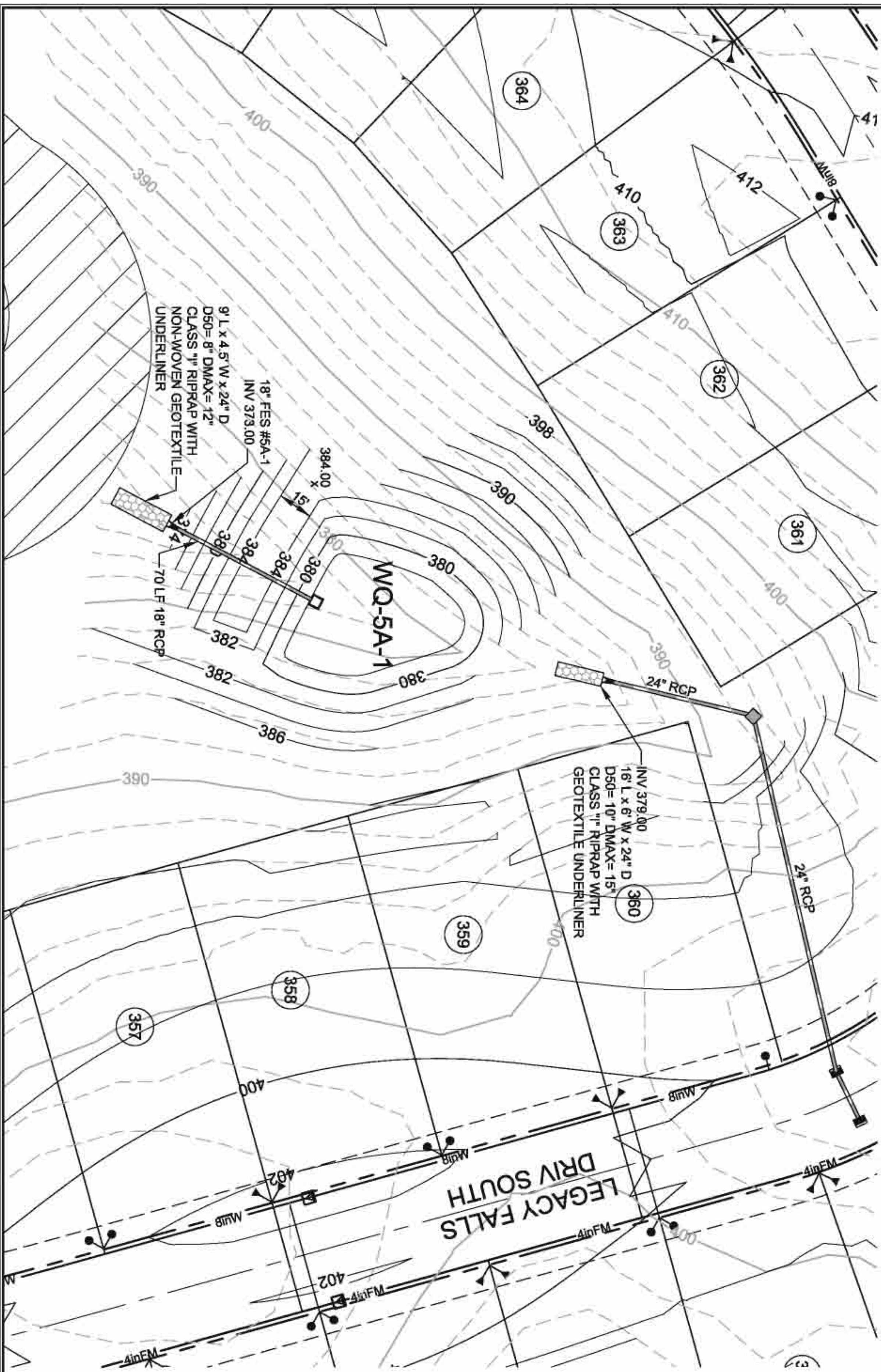
RISER DETAIL

SCALE: NONE

NOTE: CONTINUOUS RUBBER WATERSTOP SHALL BE PROVIDED AT ALL CONSTRUCTION JOINTS IN RISER. WELDING SHALL BE USED TO JOIN STEEL HARDWARE.

GENERAL CONSTRUCTION NOTES

- EXISTING UNDERGROUND STRUCTURES AND UTILITIES SHOWN ARE BASED ON FIELD SURVEY AND BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES, PERHAPS BY EXCAVATION, PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 800-448-4848 TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY EXCAVATION.
- ALL WATER UTILITY CONSTRUCTION SHALL CONFORM TO THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
- ALL WATER MAINS SHALL BE INSTALLED TO LATEST AVAILABLE NORTH CAROLINA STANDARDS AND SPECIFICATIONS. THE EXISTING PROPERTY IS LOCATED IN A 100' WADSWORTH AREA. PER RMA PLAN: 0722. WADSWORTH STREET SHALL BE 100' WADSWORTH STREET. ALL WADSWORTH STREET SHALL BE 100' WADSWORTH STREET. ALL WADSWORTH STREET SHALL BE 100' WADSWORTH STREET.
- ALL WATER MAINS SHALL HAVE A MINIMUM OF 3" OF COVER AS MEASURED FROM FINISHED GRADE IN THE LOCATION WHERE INSTALLED.
- ALL WATER MAINS SHALL BE OVER THE PRESSURE SEWER MAIN WITH A MINIMUM OF 18" SEPARATION.
- ALL WATER MAINS AND FORCE MAINS CROSSING UNDER STORM DRAINAGE SHALL BE INSTALLED WITH A MINIMUM OF 18" SEPARATION FROM THE STORM PIPE CROSSING.
- VERTICAL CURVES SHALL BE REGULATED FROM 100' TO 150' THROUGH LANE 30 TO MINIMIZE IMPACTS TO SPANWALK FISH.
- TEMPORARY NEIGHBORHOOD REQUIREMENTS FOR CONSTRUCTION SHALL BE AS FOLLOWS: NO PROJECT DRAIN FROM FIELD SURVEY BACKGROUND TO THROUGHPUT FROM ARIAL, WADSWORTH.



DAM EMBANKMENT CONSTRUCTION NOTES

- CONTROLLED FILL, AS PRECISED BY THE GEOTECHNICAL ENGINEER, IN THE DAM EMBANKMENT SHALL BE PLACED IN 6" LAYER LOOSE LAYERS (6" INCH LOOSE LAYERS WITHIN 2 FEET OF EITHER SIDE OF THE PRINCIPAL GRADWAY PIPE TO A DEPTH OF 2 FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION. SOIL WITH ORGANIC MATTER CONTENT OF 4% OR TWO PERCENTAGE POINTS OF THE ORIGINAL MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.
- ADJUSTIVE CORRECTIVE STRIPS AS NOTED AND LAYS SHALL BE REMOVED FROM THE FILL. WATERLOGGED EXCESSIVE 5% BY WEIGHT SHALL NOT BE USED. STONES GREATER THAN 3/4" ON ANY ORIENTATION SHALL BE REMOVED FROM THE FILL PRIOR TO CONSTRUCTION.
- CONCRETE SHALL BE 3000 PSI @ 28 DAYS. COLLAR SHOULD BE PLACED AT LEAST TWO FEET FROM PIPE JOINT.
- REQUIREMENTS SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIALS.
- THE LAYER SHALL BE SMOOTHED AND ROLLED TO REMOVE WATER. PREVENTION DURING A STORM SURFACE WATER AND STEAM LOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.
- CONSTRUCTION SHALL BE MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER. ADDITION TO THAT INDICATED ON THE PLANS, ALL SOIL UNDERLAPPING SHALL BE PERFORMED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND SHALL BE MONITORED AND DOCUMENTED IN NO CASE SHALL THERE BE AN ATTEMPT TO STABILIZE ANY PORTIONS OF THE FOUNDATION SOILS WITH TREATMENT OF SEWAGE AREAS, SUBGRADE REPAIR/FOUNDATION DRAINING AND ROCK FOUNDATION PREPARATION (I.E. TREATMENT WITH SUSH GROUTING, DENTAL CONCRETE ETC.) MAY BE OBSERVED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER.
- FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LAYS ARE AT THE SAME LEVEL ON BOTH SIDERS OF THE STRUCTURES.
- OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR FLUTE COMPACTORS OR MANUAIR BE REQUIRED TO NOT REVERSE FROM A CORNER OR LAYER SHALL NOT BE REMOVED.
- ADJACENT CURING TIME HAS LAYERS.
- TO BE ESTABLISH VEGETATION AFTER CONSTRUCTION. A 2 TO 3 INCH LAYER OF TOPSOIL SHALL BE HYDROSEEDER. UNDESIRABLE VEGETATION SHALL BE REMOVED AND REPLACED WITH HYDROSEEDER.

NOTES:
 CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR OUTLET STRUCTURE AND TRASH RACK FOR APPROVAL. DAM EMBANKMENT IS TO BE BREDED IMMEDIATELY AFTER DAM CONSTRUCTION IS COMPLETE. STORMWATER MANAGEMENT STRUCTURE IS TO BE UTILIZED AS A TEMPORARY EROSION CONTROL DEVICE UNTIL CONSTRUCTION IS COMPLETE AND UPSTREAM STAGES HAVE BEEN PERMANENTLY INSTALLED. CONSTRUCTION SHALL BE MONITORED AND DOCUMENTED BY THE GEOTECHNICAL ENGINEER. THIS INCLUDES NEIGHBORHOOD REQUIREMENTS FOR CONSTRUCTION. THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 800-448-4848 TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY EXCAVATION. DRAWING PIPE IS NOT TO BE INSTALLED UNTIL ALL UPSTREAM SERVICES HAVE BEEN PERMANENTLY PARALLEL.



STANDARD SLIP RESISTANT MANHOLE STEP DETAIL

SCALE: NONE

STOP! BEFORE YOU DIG CALL THE NC ONE CALL CENTER 1-800-632-4349 IT'S THE LAW!

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

Sheet No: **14** of **14**

Date: **SEPTEMBER, 2014**
 Scale: **1"=30'**
 Drawn: **JPD**
 Checked: **MPA**
 Project No: **330-06**
 Computer Desig. Name: **330-06 14 Final Design**

THE LEGACY PHASE 5A CONSTRUCTION PLANS
STORMWATER POND WQ-5A-1 PLAN & DETAILS
 CHATHAM COUNTY, NORTH CAROLINA

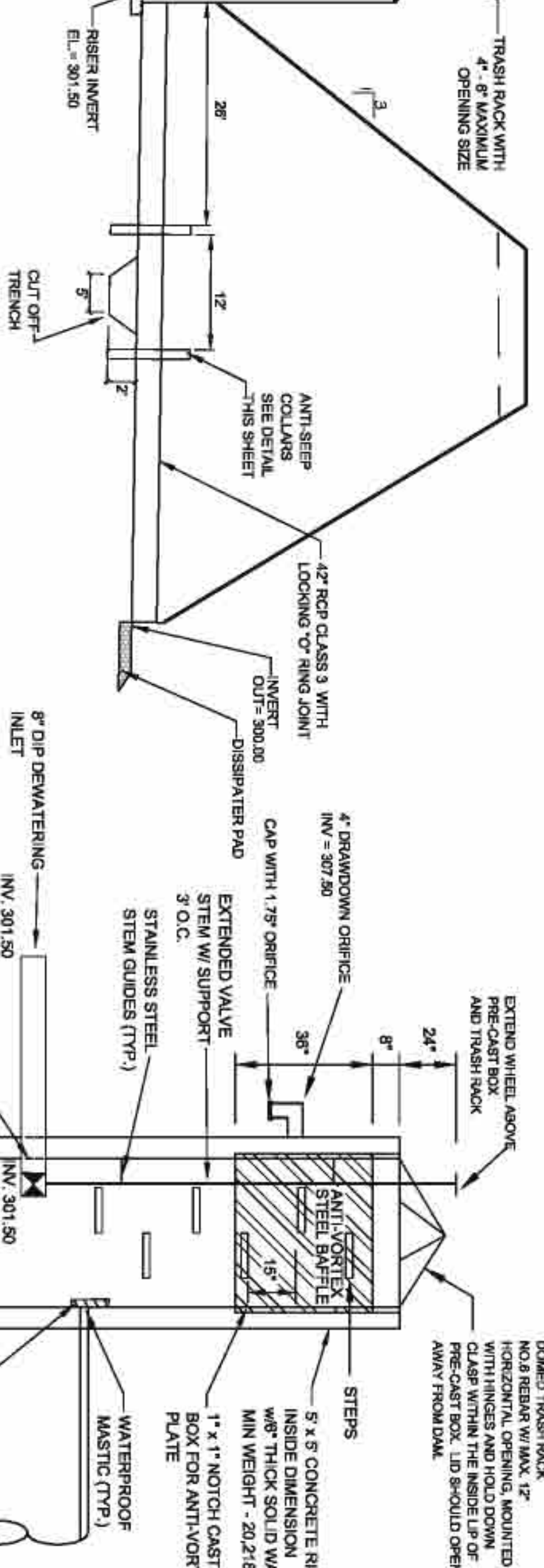
CE GROUP
 301 GLENWOOD AVE, 220
 SUITE 1100, DURHAM, NC 27704
 PHONE: 919-562-9700
 FAX: 919-322-0032
 www.cegroupinc.com
 License # C-1739

NO. REVISIONS DATE

NOTES:
 1. PRIOR TO CONSTRUCTION OF TEMPORARY RISER BARRIERS TO PERMANENT STORM WATER POND, CONTRACTOR SHALL REMOVE SEDIMENT TO OVERALL CONTROL ELEVATION AS SHOWN.

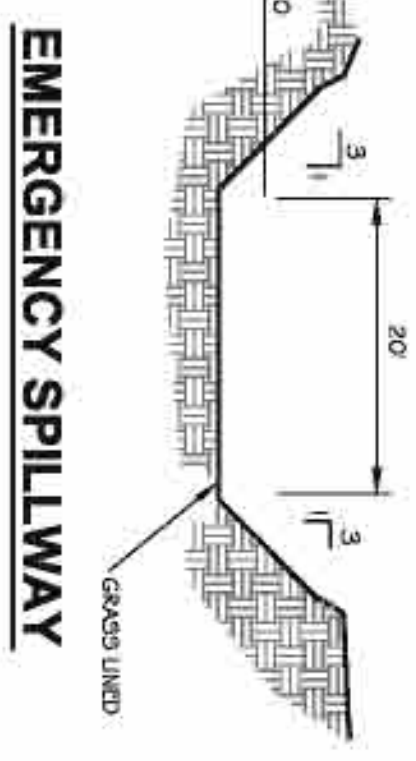
NOTES:
 1. CONTRACTOR TO SUPPLY SHOP DRAWINGS OF RISER STRUCTURE PRIOR TO FABRICATION.

WET POND PROFILE
 NTS



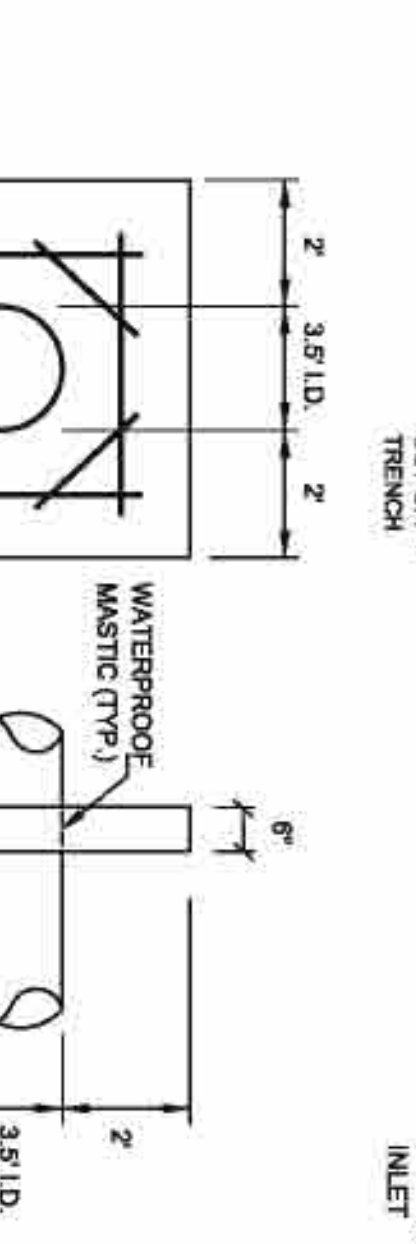
GENERAL CONSTRUCTION NOTES

1. ALL FILLING UNDESIGNED STRUCTURES AND UTILITIES SHOWN ARE BASED ON FIELD SURVEYING AND BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. THE CONTRACTOR SHALL CONTACT NORTH CAROLINA ONE CALL AT 800-368-5898 TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO ANY EXCAVATION.
3. ALL WATER UTILITY CONSTRUCTION SHALL CONFORM TO THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
4. ALL WATER MAINS SHALL BE INSTALLED TO LATEST A.S.A. NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
5. THE SUBJECT PROPERTY IS LOCATED IN A 100' FLOOD HAZARD AREA. THE FLOOD HAZARD ZONE MAP NUMBER IS 100-000000. DATED 02/20/07. A FLOOD PANEL 0722 MAP NUMBER IS 100-000000. DATED 02/20/07.
6. ALL FLOODING SHALL BE NOTICED 48 HOURS BEFORE CONSTRUCTION IS TO BEGIN. ANY TESTING IS SCHEDULED, OR BEFORE ANY PIPE IS COVERED.
7. ALL WATER MAINS SHALL HAVE A MINIMUM OF 3\"/>

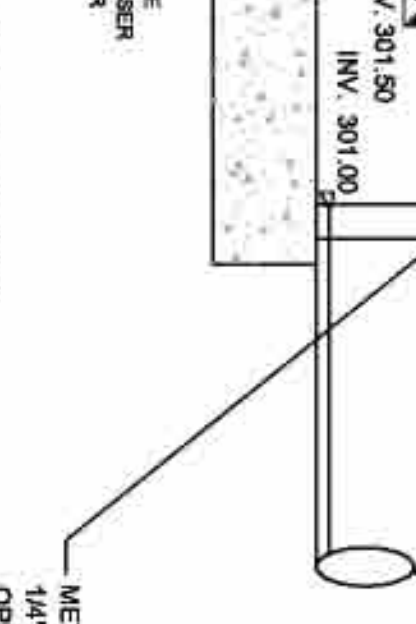


EMERGENCY SPILLWAY

ANTI-SEEP COLLAR DETAIL
 SCALE: NONE



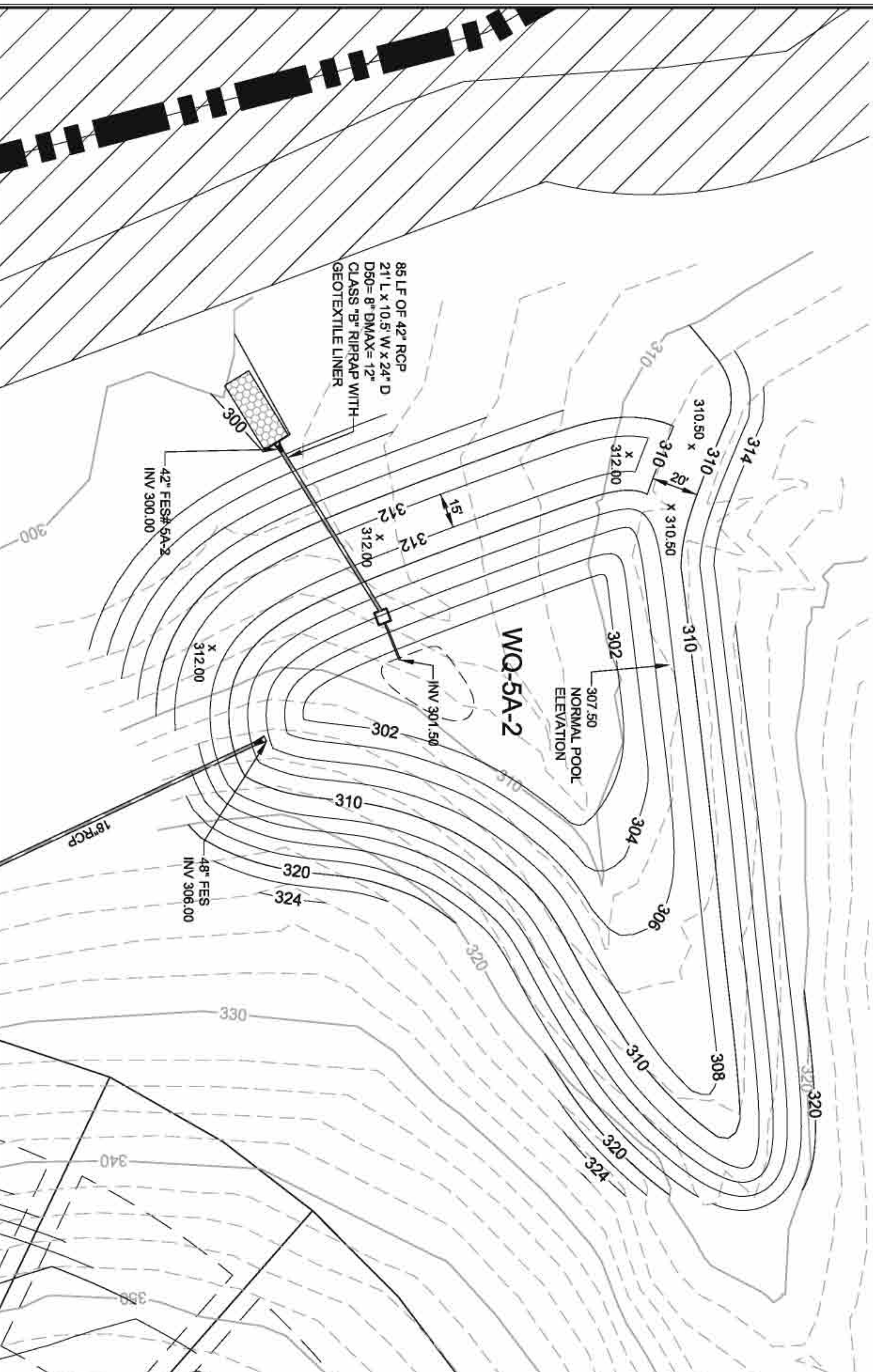
RISER DETAIL
 SCALE: NONE



DAM EMBANKMENT CONSTRUCTION NOTES

1. CONTROLLED FILL AS PRESCRIBED BY THE GEOTECHNICAL ENGINEER. IN THE DAM EMBANKMENT SHALL BE PLACED IN EACH LOWER LAYER (5-10\"/>

STANDARD SLIP RESISTANT MANHOLE STEP DETAIL
 SCALE: NONE



NOTES:

1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR OUTLET STRUCTURE AND TRASH RACK FOR APPROVAL.
2. DAM EMBANKMENT IS TO BE BEREDED IMMEDIATELY AFTER DAM CONSTRUCTION IS COMPLETE.
3. STORMWATER MANAGEMENT STRUCTURE IS TO BE UTILIZED AS A TEMPORARY REGION CONTROL DEVICE UNTIL ONCE CONSTRUCTION IS COMPLETE AND UPSTREAM STRUCTURES HAVE BEEN PERMANENTLY INSTALLED.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.
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12. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CHATHAM COUNTY STANDARDS AND SPECIFICATIONS.

STOP!
 BEFORE YOU DIG CALL THE NC ONE CALL CENTER 1-800-532-4949 IT'S THE LAW!

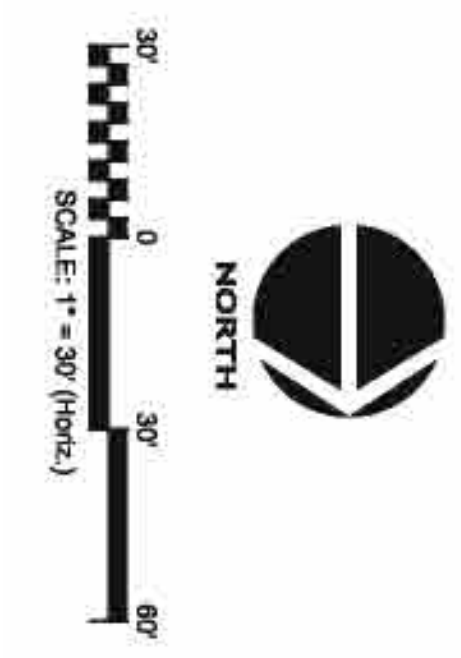
FINAL DESIGN
 NOT RELEASED FOR CONSTRUCTION

THE LEGACY PHASE 5A CONSTRUCTION PLANS
STORMWATER POND WQ-5A-2 PLAN & DETAILS
 CHATHAM COUNTY, NORTH CAROLINA

CE GROUP
 301 GLENWOOD AVE, 220
 SUITE 100, FAYETTEVILLE, NC 27030
 PHONE: 910-562-9790
 FAX: 910-322-0032
 www.cegroupinc.com
 License # C-1729

NO.	REVISIONS	DATE

CE GROUP
 301 GLENWOOD AVE, 220
 SUITE 100, FAYETTEVILLE, NC 27030
 PHONE: 910-562-9790
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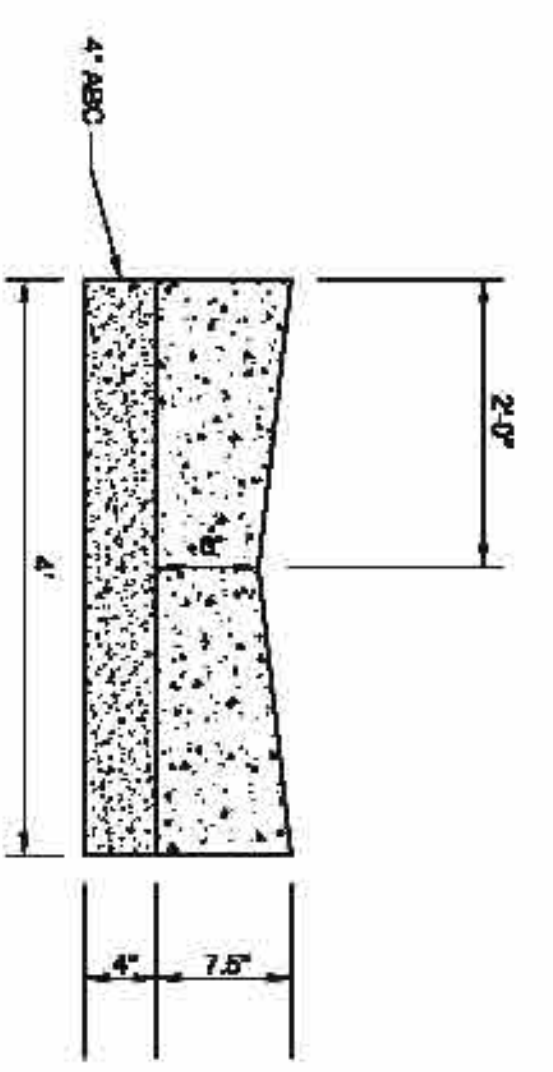
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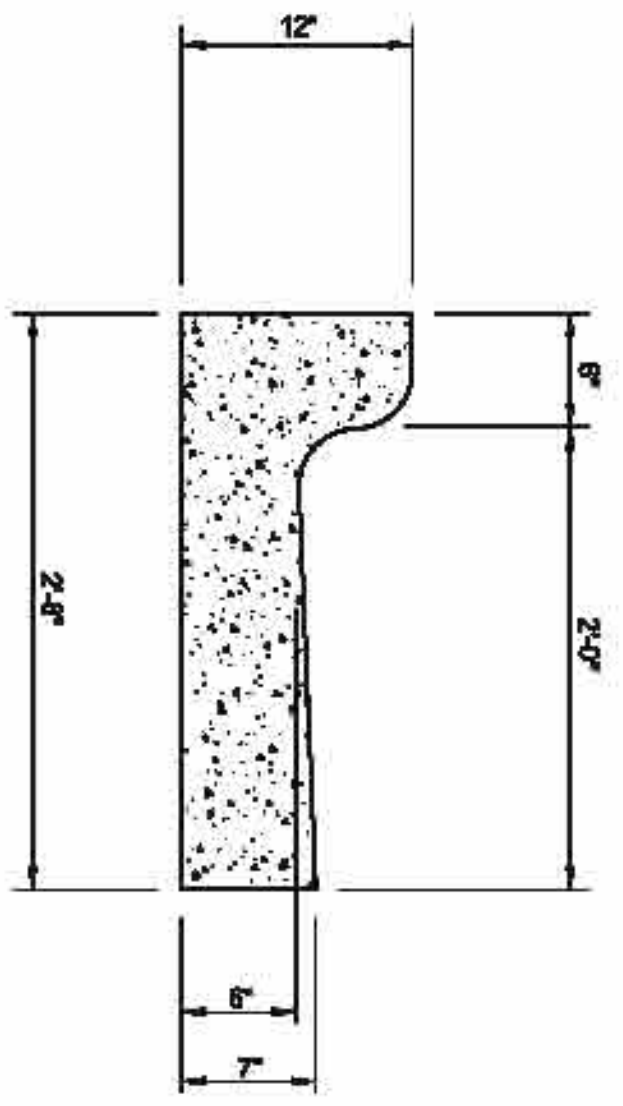
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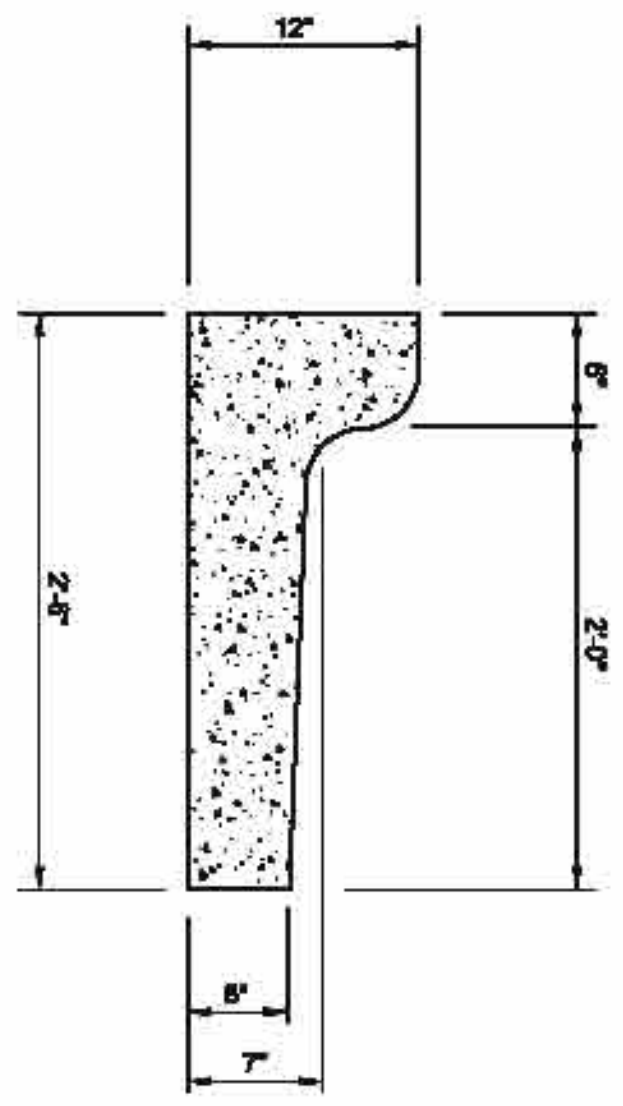
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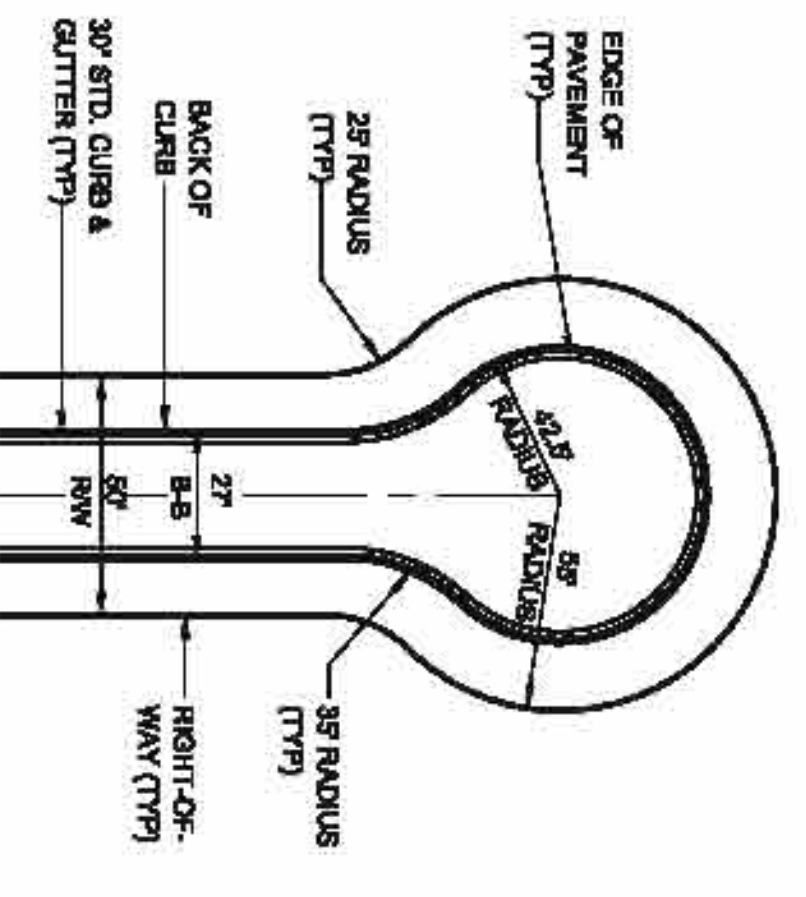
TYPICAL CONCRETE VALLEY
NOT TO SCALE
(MIN. 3000 PSI CONCRETE)



30" - STANDARD CURB & GUTTER
NOT TO SCALE

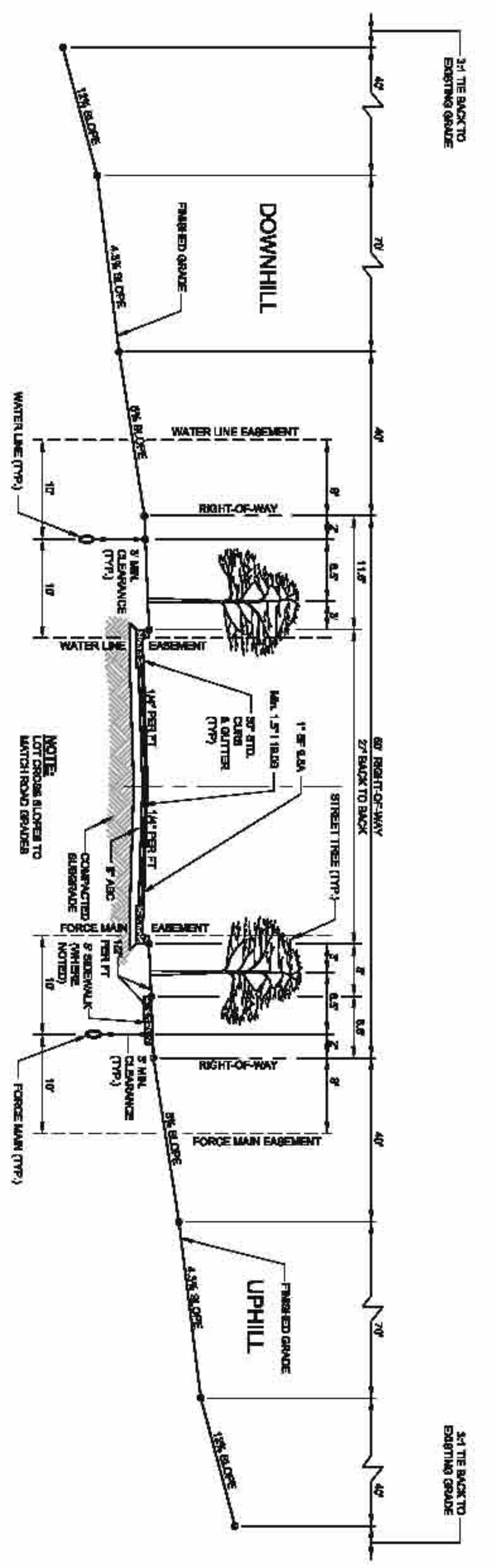


30" - SPILL CURB
NOT TO SCALE

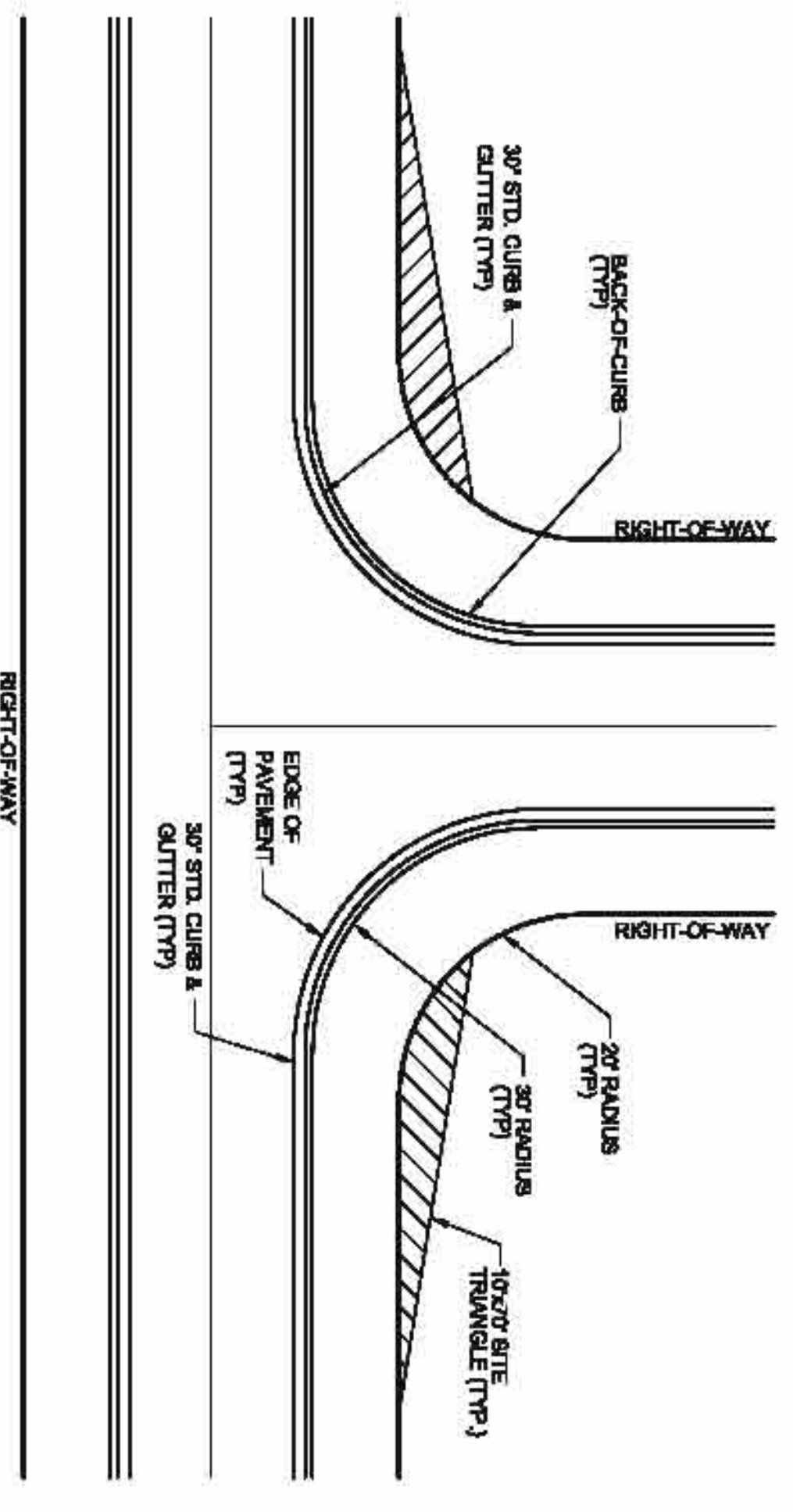


CUL-DE-SAC DETAIL
(STANDARD)
NOT TO SCALE

- NOTES:
- 1 ALL SIDEWALK RAMPING SHALL CONFORM TO N.C.D.O.T. STD. 886.02.
 - 2 THE 2'-0" CURB & GUTTER AND 1'-4" CURB & GUTTER SHALL CONFORM TO N.C.D.O.T. STD. 886.01.
 - 3 ALL ROADS WITHIN PHASE TWO ARE PRIVATE



TYPICAL ROADWAY SECTION & WATER LINE / FORCE MAIN LOCATION DETAIL
NOT TO SCALE



TYPICAL INTERSECTION DETAIL
NOT TO SCALE

NO.	REVISIONS	DATE

C/E GROUP
 301 GLENWOOD AVE. 220
 RALEIGH, NC 27603
 PHONE: 919-357-6700
 FAX: 919-422-0832
 www.cengrupo.com
 License # C-1738

SEAL
 16804
 10/16/2014

THE LEGACY PHASE 5A CONSTRUCTION PLANS ROADWAY DETAILS
 CHATHAM COUNTY, NORTH CAROLINA

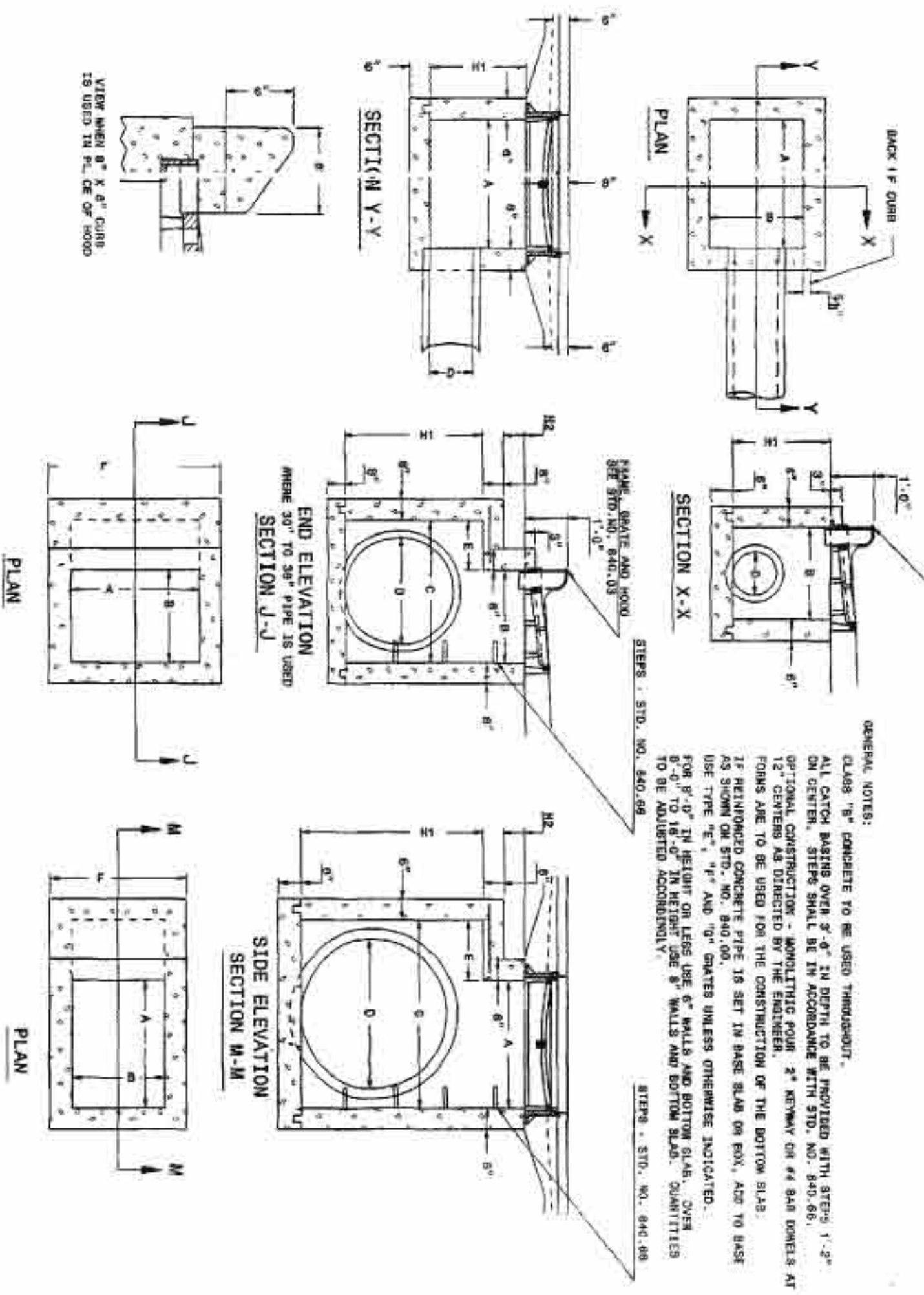
Date: JULY, 2014
 Scale: N/A
 Designer: JPD
 Checker: MPA
 Project No.: 390-05
 Contract Dist. Name: 2008 017-PAVEMENT/STREETS



STOP!
 BEFORE YOU DIG CALL
 THE NC ONE CALL CENTER
 1-800-452-9949
 IT'S THE LAW!

FINAL DESIGN
 NOT RELEASED
 FOR CONSTRUCTION

FOR 12" THROUGH 30" PIPES
SEE STANDARD 840.02

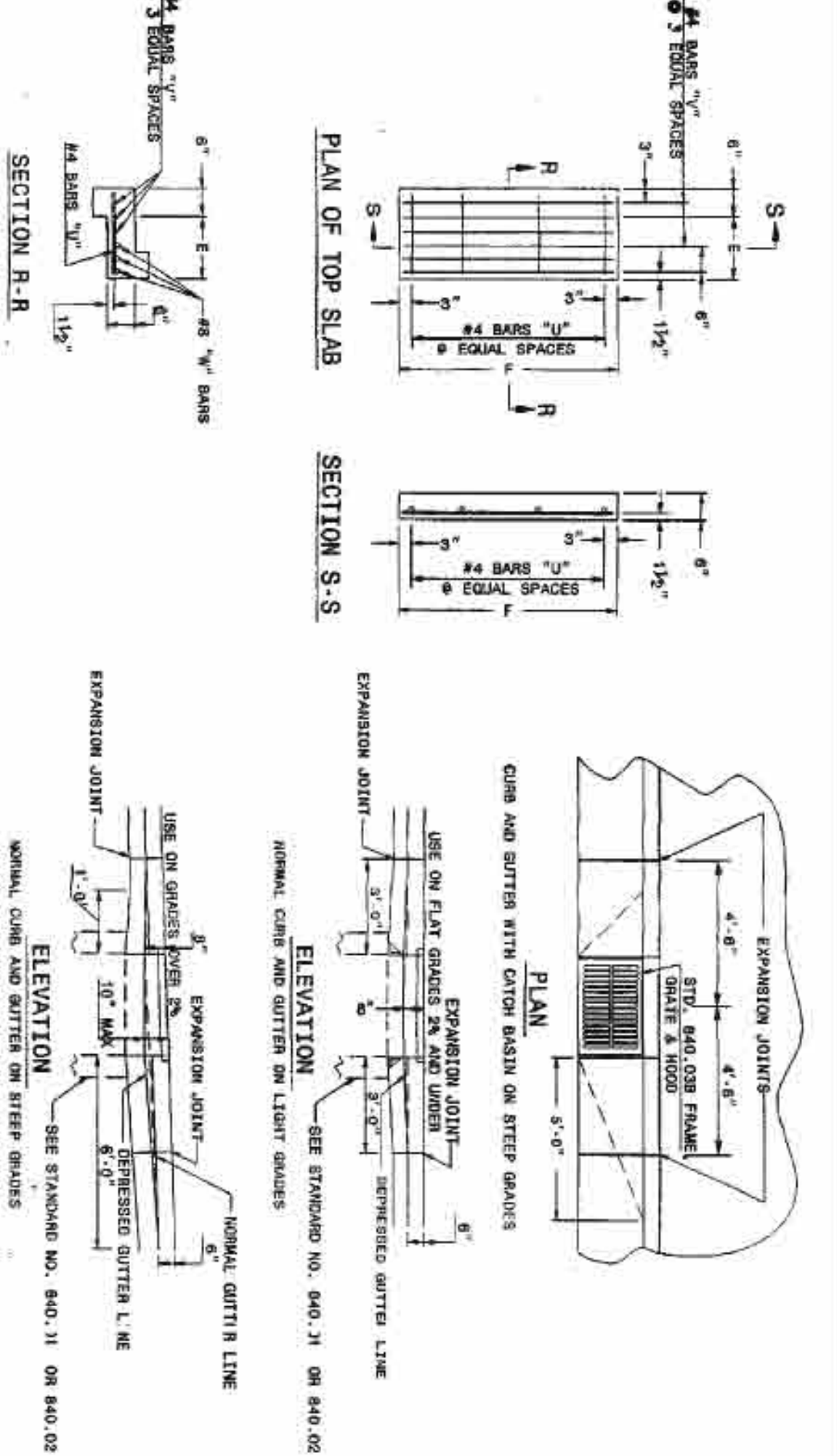


GENERAL NOTES:
 CLASS "C" CONCRETE TO BE USED THROUGHOUT.
 ALL CATCH BASINS OVER 6" IN DEPTH TO BE PROVIDED WITH STEEL 1/2" x 2" x 12" CENTRAL REINFORCING - WELDING FOR 2" MINIMUM OR 4# BARS COMING AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
 FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB AS SHOWN ON STD. NO. 840.02.
 FOR 6" DEPTH OR LESS USE 4# BARS UNLESS OTHERWISE INDICATED.
 FOR 6" DEPTH OR LESS USE 4# BARS UNLESS OTHERWISE INDICATED.
 FOR 6" DEPTH OR LESS USE 4# BARS UNLESS OTHERWISE INDICATED.
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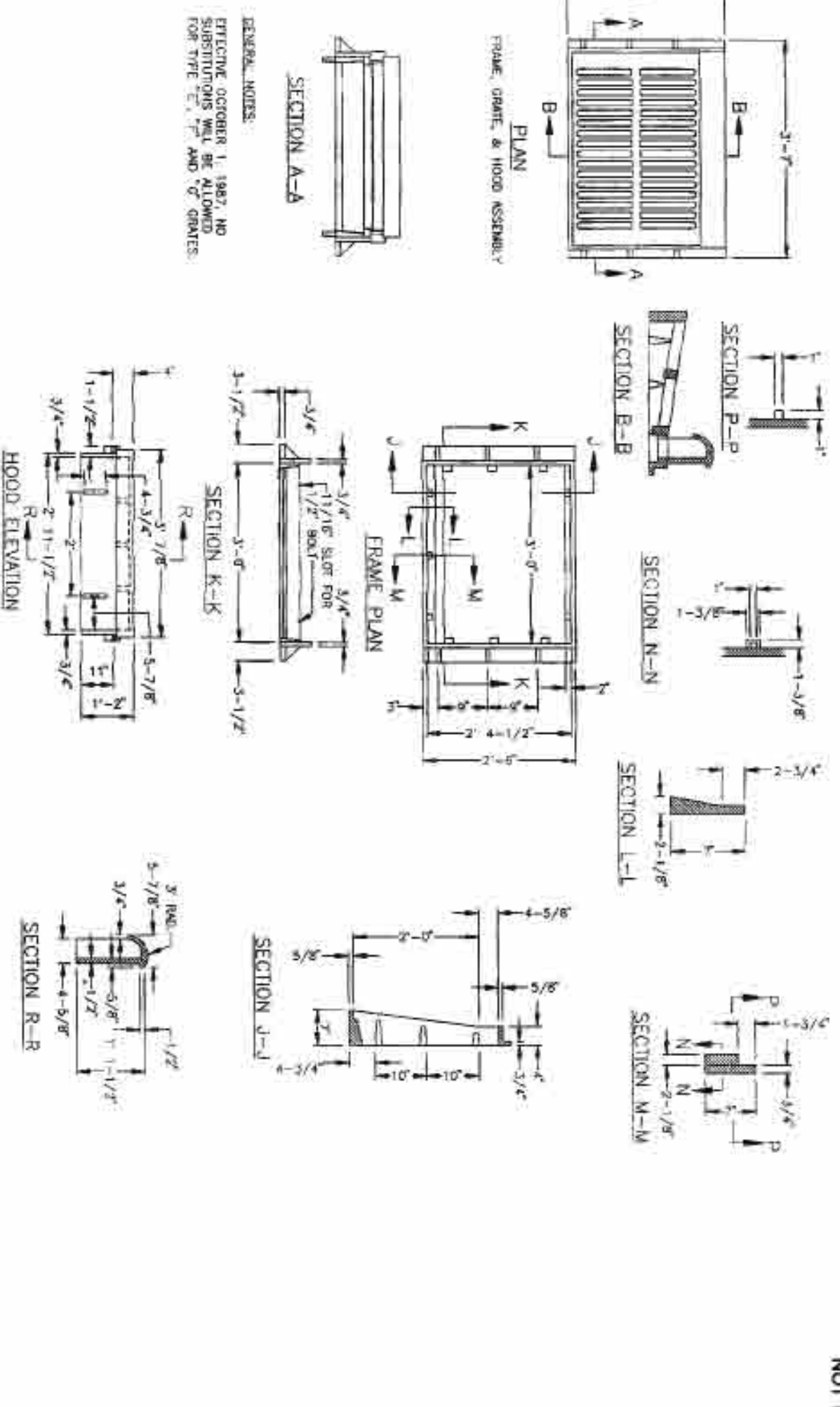
MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN

PIPE SIZE	MINIMUM BASIN DEPTH	MINIMUM BASIN WIDTH	MINIMUM BASIN LENGTH	MINIMUM GRATE WIDTH	MINIMUM GRATE LENGTH	MINIMUM CONCRETE THICKNESS	MINIMUM REINFORCING	MINIMUM COVER
6"	6"	12"	12"	6"	6"	4"	4# BARS @ 12" O.C.	2"
8"	8"	16"	16"	8"	8"	4"	4# BARS @ 12" O.C.	2"
10"	10"	20"	20"	10"	10"	4"	4# BARS @ 12" O.C.	2"
12"	12"	24"	24"	12"	12"	4"	4# BARS @ 12" O.C.	2"
15"	15"	30"	30"	15"	15"	4"	4# BARS @ 12" O.C.	2"
18"	18"	36"	36"	18"	18"	4"	4# BARS @ 12" O.C.	2"
24"	24"	48"	48"	24"	24"	4"	4# BARS @ 12" O.C.	2"
30"	30"	60"	60"	30"	30"	4"	4# BARS @ 12" O.C.	2"
36"	36"	72"	72"	36"	36"	4"	4# BARS @ 12" O.C.	2"
42"	42"	84"	84"	42"	42"	4"	4# BARS @ 12" O.C.	2"
48"	48"	96"	96"	48"	48"	4"	4# BARS @ 12" O.C.	2"
54"	54"	108"	108"	54"	54"	4"	4# BARS @ 12" O.C.	2"

CONCRETE CATCH BASIN, 12" THRU 54" PIPE
 N.C.D.O.T. STANDARD 840.02
 NOT TO SCALE



GENERAL NOTES:
 1. EXPANSION JOINTS SHOULD BE SPACED AT 10' MAX. AND 5' MIN. THICK.
 2. ALL CONCRETE TO BE 3000 PSI COMPRESSIVE STRENGTH.
 3. REINFORCING TO BE 4# BARS UNLESS OTHERWISE INDICATED TO BE OTHERWISE INDICATED TO 6# BARS.
 4. ALL CATCH BASINS OVER 3' IN DEPTH SHALL BE PROVIDED WITH STEPS.
 5. CONCRETE BARS MAY BE USED IN LIEU OF TYPICAL COMMON CLAY BRICK.
 6. FOR 6" DEPTH OR LESS USE 4# BARS UNLESS OTHERWISE INDICATED.
 7. FOR 6" DEPTH OR LESS USE 4# BARS UNLESS OTHERWISE INDICATED.
 8. ALL PIPES IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH THE TOP OF THE STRUCTURE.
 9. ALL PIPES IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH THE TOP OF THE STRUCTURE.
 10. ALL PIPES IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH THE TOP OF THE STRUCTURE.
 11. THE CATCH BASIN IS NOT TO BE USED WITHIN STREET RIGHT OF WAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.



FRAME, GRATES, AND HOOD
 N.C.D.O.T. STANDARD 840.03
 NOT TO SCALE

TEMPORARY CHECK DAM

STANDARD YARD INLET WITH CONCRETE SLAB

SLOPE DRAINS EXCEEDING 6%
 NOT TO SCALE

OUTLET PROTECTION FOR DEFINED CHANNEL
 NOT TO SCALE

FINAL DESIGN NOT RELEASED FOR CONSTRUCTION

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CE GROUP
 301 CLEMWOOD AVE. 220
 PHONES: 919-567-9700
 FAX: 919-322-0032
 www.cegroup.com
 License # C-1739

THE LEGACY PHASE 5A CONSTRUCTION PLANS STORM DRAINAGE DETAILS CHATHAM COUNTY, NORTH CAROLINA

Date: JULY, 2014
 Scale: 1"=30'
 Drawn: JPD
 Checked: MPA
 Project No.: 330-06
 Computer Desig./Name: 33006/1/Paw Barna
 Sheet No.: 17 of 17

NO.	REVISIONS	DATE