

TEMPORARY SKIMMER BASIN DESIGN

Basin ID	Drainage Area	Disturbed Area	Storage Volume (CF)		Surface Area (SF)		Bottom Dimensions (ft.)		Top Dimensions (ft.)			Emergency Spillway (ft.)		Skimmer Sizing		Baffle Locations							
			Required	Provided	Required	Provided	Length	Width	Bottom Elevation	Length	Width	Elevation	Length	Elevation	Head (in.)	Orifice Dia. (in.)	(Distance from Invert of Weir, ft.)						
TSB 6A2 - STAGE 2	4.87	4.87	17,532	19,107	7,310	8,429			See Plan			322.00	See Plan			327.00	15	324.50	3.00	2.42	22	44	66

LEGEND

- RIGHT-OF-WAY LINE
- PROPERTY LINE (PL)
- SETBACK LINE
- UTILITY EASEMENT
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED SILTY FENCE
- PROPOSED TREE PROTECTION FENCE
- PROPOSED LIMITS OF DISTURBANCE
- TEMPORARY DIVERSION DITCH
- TEMPORARY STONE CHECK DAM
- INLET PROTECTION
- CONCRETE WASHOUT
- HORSESHOE INLET PROTECTION FILTER
- SILTY FENCE OUTLET
- RIP-RAP OUTLET DISSIPATOR
- CURB INLET SILTY SOCK
- CONSTRUCTION ENTRANCE
- EROSION CONTROL MATTING

EROSION CONTROL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
- SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE. GROUND COVER STABILIZATION SHALL BE IN ACCORDANCE WITH NPDES PERMIT AND STABILIZATION CHART ABOVE. TEMPORARY GROUND COVER WILL BE INSTALLED ON ALL EXPOSED SLOPES IN 7 OR 14 DAYS. PERMANENT GROUND COVER WILL BE INSTALLED ON EXPOSED SLOPES WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER), FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
- MAINTENANCE, ALL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSPECTED WEEKLY AND AFTER EVERY RUNOFF PRODUCING RAINFALL EVENT. NEEDED REPAIRS WILL BE MADE IMMEDIATELY.
- MAXIMUM GRADED SLOPE SHALL NOT EXCEED THREE (3) TO ONE (1).
- THIS PHASE IS NOT LOCATED WITHIN 100 YEAR FLOOD PLAIN ACCORDING TO FEMA MAP NUMBER 3710978200K, DATED 11/17/2017.
- SEE SHEET 23, 24, & 25 FOR EROSION CONTROL DETAILS.

NC DENR SELF-INSPECTION PROGRAM

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED.

RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TAKE EFFECT OCTOBER 1, 2010.

THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS SHOULD BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM THE LAND QUALITY WEB SITE. <http://portal.ncdenr.gov/web/l/erosion>

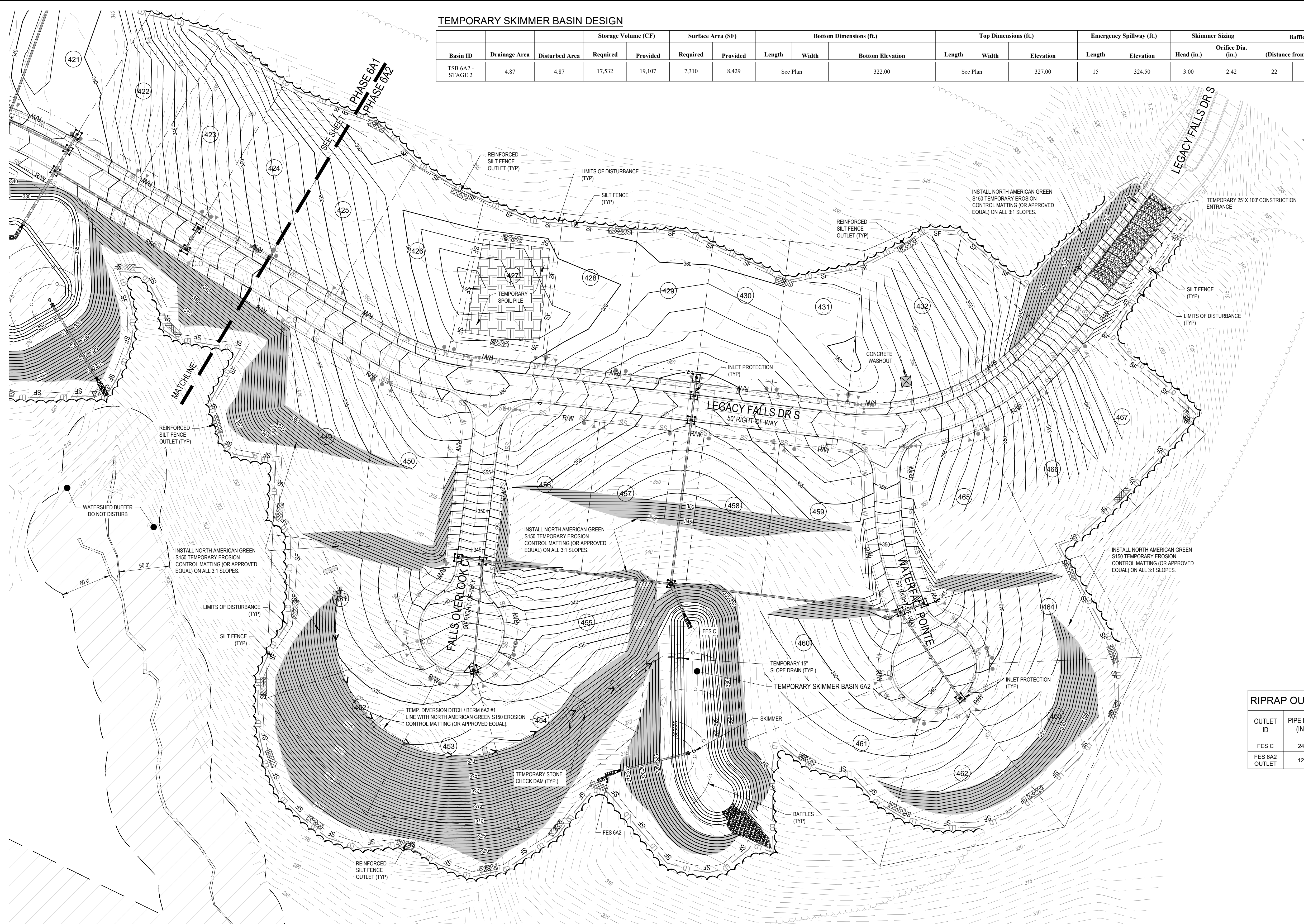
NO.	REVISIONS	DATE
1	PER CLIENT COMMENTS	2018-04-11
2	PER EROSION CONTROL COMMENTS	2018-04-11
3	PER EROSION CONTROL COMMENTS	2018-04-11
4	PER OWNER COMMENTS	2018-06-16
5	PER OWNER COMMENTS	2018-06-16
6	PER NCDEQ COMMENTS	2018-06-13
7	PER CHATHAM COUNTY COMMENTS	2018-12-17
8	PER CHATHAM COUNTY COMMENTS	2019-01-14
9	PER NCDEQ - PERCS COMMENTS	2019-01-30

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SEAL
 034332
 NORTH CAROLINA PROFESSIONAL ENGINEER
 JOSEPH M. CRAIG
 01/30/19

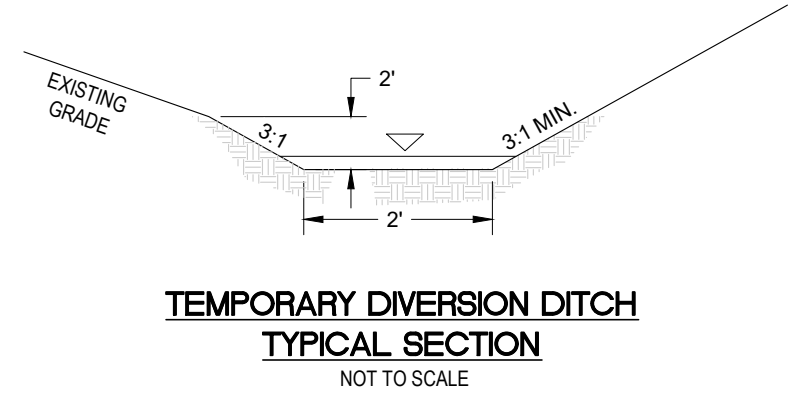
THE LEGACY - PHASE 6
 CONSTRUCTION PLANS
 EROSION CONTROL PLAN 6A2
 STAGE 2
 BIG WOODS ROAD
 CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
 Scale: 1" = 50'
 Drawn: JCH
 Checked: JMC
 Project No: 330-12
 Computer Dwg. Name: 330-12 9 EROSION CONTROL PLAN 6A2 STAGE 2
 Sheet No: 9
 Of 32

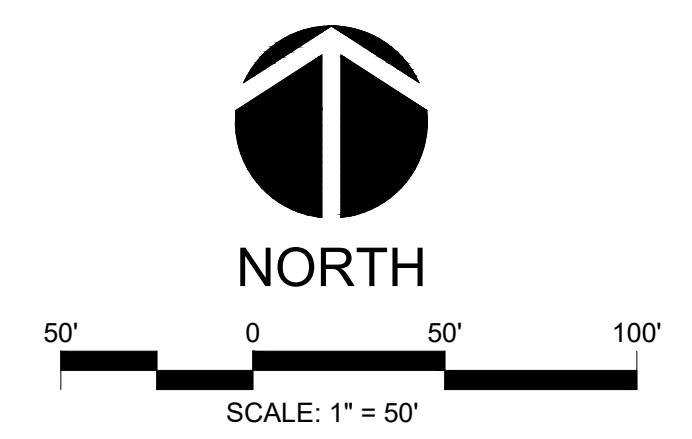


RIPRAP OUTLET DISSIPATOR TABLE - 6A2

OUTLET ID	PIPE DIA. (IN)	Q ₂₅ DISCHARGE (CFS)	APRON LENGTH (FT)	APRON WIDTH (FT)	APRON THICKNESS (IN)	d ₅₀ ROCK SIZE (IN)	RIPRAP CLASS
FES C	24	5.26	12	6	18	8	B
FES 6A2 OUTLET	12	8.28	6	3	18	8	B



LIMITS OF DISTURBANCE (6A2)
 (507,207 SF = 11.64 AC.)



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CHATHAM COUNTY, NCDEQ PWSS, AND NCDOT STANDARDS AND SPECIFICATIONS.

GENERAL CONSTRUCTION NOTES

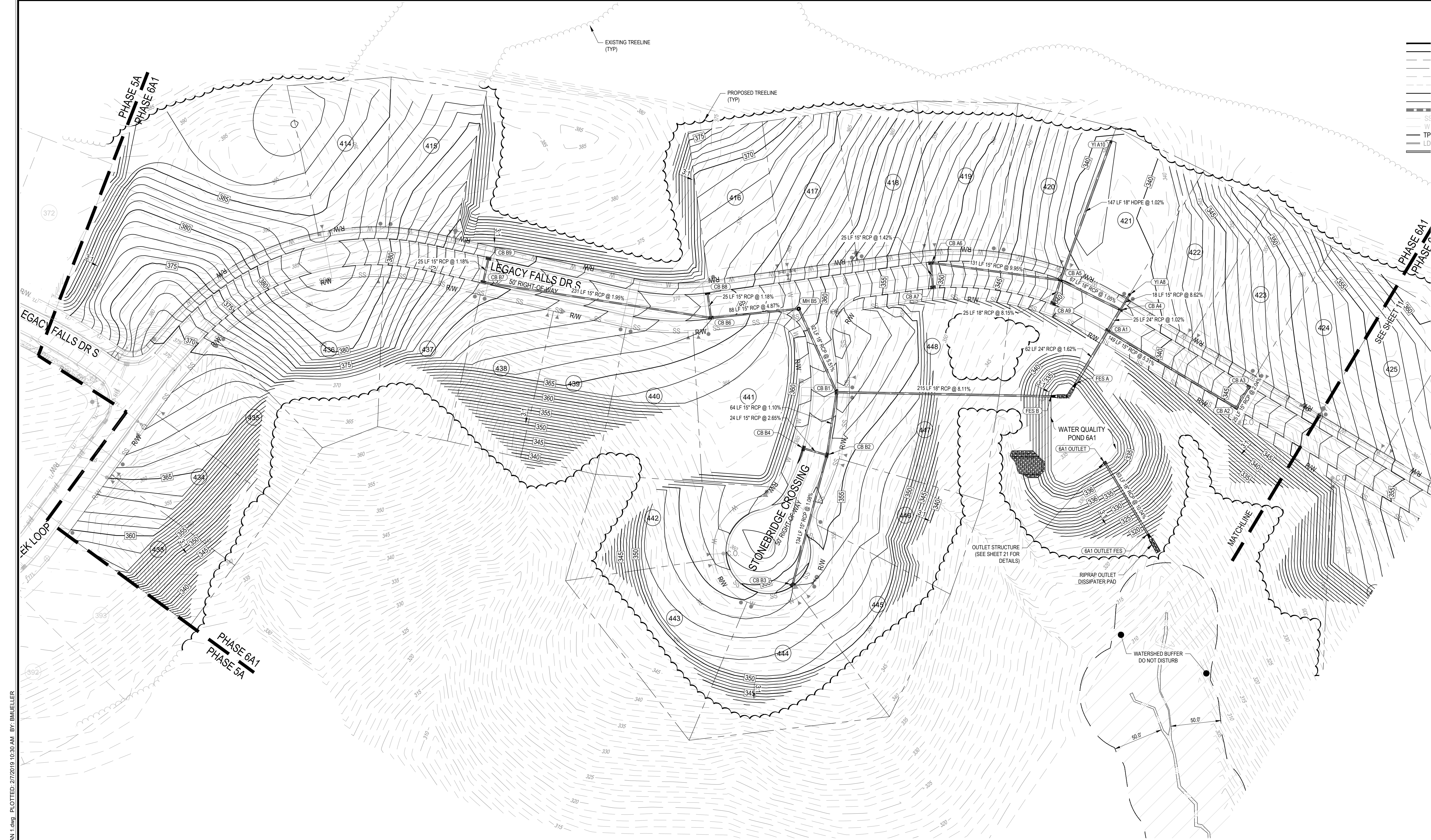
- EXISTING UNDERGROUND STRUCTURES AND UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY CONDITIONS, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 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 37109770001, DATED 02/02/07, & FEMA FIRM PANEL 9782, MAP NUMBER 3710978200J, 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' OF COVER AS MEASURED FROM FINISHED GRADE AT THE LOCATION WHERE INSTALLED.
- ALL WATER MAINS SHALL BE OVER THE SEWER MAIN AND SERVICES 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.
- DISTURBANCE IS LIMITED TO NO MORE THAN 15 AC OF GRADUAL SLOPED LAND AT ANY ONE TIME (0 - 14.9% SLOPE).
- DISTURBANCE IS LIMITED TO NO MORE THAN 10 AC OF MODERATELY SLOPED LAND AT ANY ONE TIME (15 - 24.9% SLOPE).
- WHERE GRAVITY SEWER LINES ARE DIP DUE TO VERTICAL SEPARATION REQUIREMENTS, THE DIP GRAVITY SEWER LINE SEGMENTS SHALL BE HYDROSTATICALLY TESTED WITH WATER TO ENSURE JOINT TIGHTNESS.

EROSION CONTROL SEQUENCE - STAGE 2

- ONCE APPROVAL FOR PHASE 1 IS OBTAINED BEGIN CLEARING AND GRUBBING OF REMAINING DISTURBED AREAS AS SHOWN ON APPROVED PLAN.
- BEGIN EARTH MOVING OPERATIONS. INSTALL RETAINING WALLS IN CUT AREAS IMMEDIATELY AS MATERIAL IS BEING REMOVED. INSTALL RETAINING WALLS IN FILL AREAS AS SITE COMES TO FINAL GRADE. TSB 6A3 IS TO BE REMOVED AND EVENTUALLY FILLED TO FINAL GRADE. CHATHAM COUNTY IS TO BE NOTIFIED PRIOR TO REMOVAL OF TEMPORARY SKIMMER BASIN 6A3.
- BEGIN INSTALLATION OF NEW STORM DRAINAGE NETWORKS AND SITE UTILITIES AS SITE IS BEING BROUGHT UP TO FINAL GRADE.
- ONCE THE PIPES FOR STORM SYSTEM A AND B ARE COMPLETE, INSTALL STAGE 2 TEMPORARY DIVERSION BERMS/ DITCHES AND OTHER TEMPORARY MEASURES. INSTALL CHECK DAMS IN EACH AND STABILIZE WITH PERMANENT MATTING IMMEDIATELY.
- COMPLETE THE INSTALLATION OF THE STORM DRAINAGE NETWORK AS THE SITE COMES TO FINAL GRADE. PLACE INLET PROTECTION AND HORSESHOE INLET PROTECTION AROUND STORM DRAINAGE STRUCTURES ONCE THEY ARE COMPLETED.
- BRING SITE TO FINAL GRADE AND BEGIN EXCAVATION OF ROADWAYS.
- SEED AND MULCH ALL DENIED AREAS WITHIN 15 WORKING DAYS OF COMPLETION OF ANY PHASE OF CONSTRUCTION. EROSION CONTROL MATTING IS TO BE INSTALLED ON ALL SLOPES 3:1 OR GREATER IMMEDIATELY AFTER SEEDING.
- REQUEST FINAL APPROVAL BY ENVIRONMENTAL INSPECTOR. IF THE INSPECTOR IS SATISFIED WITH UPSTREAM PERMANENT GROUND COVER, BEGIN REMOVING TEMPORARY EROSION CONTROL MEASURES.
- AFTER STABILIZATION HAS OCCURRED REMOVE SEDIMENT FROM RISER BASIN WATER QUALITY POND AND CONVERT TO PERMANENT STRUCTURE.

*CONTRACTOR TO REESTABLISH TEMPORARY DIVERSION SWALES AT THE END OF EACH DAY TO ENSURE DRAINAGE TO THE APPROPRIATE STRUCTURE.

P: 330 (Erosion Control) 330-12 Legacy Phase 6 Erosion Control Plan 6A2 Stage 2.dwg PLOTTED: 2/16/2018 10:29 AM BY: EMBLELER



LEGEND

— PL	PROPERTY LINE (PL)
— RW	RIGHT-OF-WAY LINE
— SL	SETBACK LINE
— UE	UTILITY EASEMENT
— 140	EXISTING MAJOR CONTOUR
— 139	EXISTING MINOR CONTOUR
— 140	PROPOSED MAJOR CONTOUR
— 139	PROPOSED MINOR CONTOUR
— SS	PROPOSED STORM DRAINAGE PIPE
— GS	PROPOSED GRAVITY SEWER
— W	PROPOSED WATER LINE
— TP	PROPOSED TREE PROTECTION FENCE
— LD	PROPOSED LIMITS OF DISTURBANCE
— LD	PROPOSED RETAINING WALL
▲	FLARED END SECTION
●	STORM MANHOLE
■	YARD INLET
□	CATCH BASIN
→	FLOW ARROW
○	PROPOSED SPOT ELEVATION
○	PROPOSED GRADE AT TOP OF WALL
○	PROPOSED GRADE AT BOTTOM OF WALL

NO.	REVISIONS	DATE
1	PER CLIENT COMMENTS	2018-03-15
2	PER EROSION CONTROL COMMENTS	2018-04-03
3	PER EROSION CONTROL COMMENTS	2018-04-11
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5	PER OWNER COMMENTS	2018-06-02
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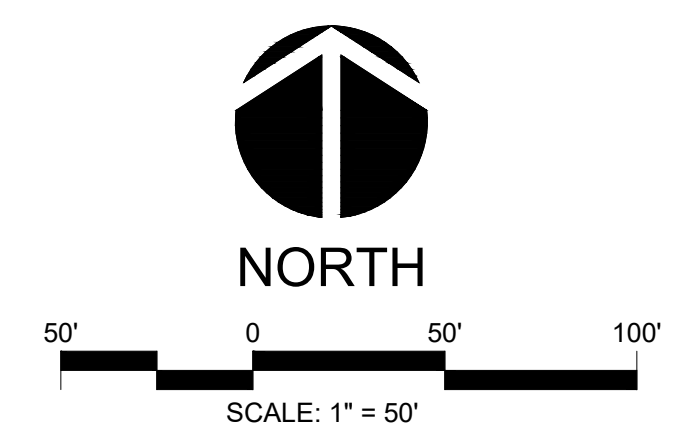
**THE LEGACY - PHASE 6
 CONSTRUCTION PLANS
 GRADING & DRAINAGE PLAN 6A1**

BIG WOODS ROAD
 CHATHAM COUNTY, NORTH CAROLINA

FES A INV = 331.00 (CB A1)	CB A6 OPENING ELEV. = 350.73 INV IN = 347.00 (CB A7) INV OUT = 346.50 (CB A5) 131 LF 15" RCP @ 9.95% Slope	CB B6 OPENING ELEV. = 365.55 INV IN = 362.00 (CB B8) INV OUT = 362.20 (CB B7) 88 LF 15" RCP @ 4.67% Slope	CB B9 OPENING ELEV. = 370.34 INV IN = 367.09 (CB B7) 25 LF 15" RCP @ 1.18% Slope
CB A1 OPENING ELEV. = 338.15 INV IN = 333.10 (CB A3) INV OUT = 332.00 (CB A4) INV OUT = 332.00 (FES A) 62 LF 24" RCP @ 1.62% Slope	CB A7 OPENING ELEV. = 350.60 INV OUT = 347.35 (CB A6) 25 LF 15" RCP @ 1.42% Slope	CB B1 OPENING ELEV. = 356.91 INV IN = 348.50 (CB B2) INV IN = 342.40 (MH B5) INV OUT = 348.40 (FES B) 215 LF 18" RCP @ 8.11% Slope	CB B7 OPENING ELEV. = 370.35 INV IN = 368.80 (CB B8) INV OUT = 366.70 (CB B6) 231 LF 15" RCP @ 1.95% Slope
CB A2 OPENING ELEV. = 345.87 INV IN = 341.20 (CB A3) INV OUT = 341.00 (CB A1) 150 LF 15" RCP @ 5.31% Slope	CB A8 OPENING ELEV. = 340.04 INV OUT = 335.50 (CB A5) 25 LF 18" RCP @ 8.15% Slope	CB B2 OPENING ELEV. = 355.02 INV IN = 351.10 (CB B4) INV IN = 349.30 (CB B3) INV OUT = 349.20 (CB B1) 64 LF 15" RCP @ 1.10% Slope	CB B8 OPENING ELEV. = 365.54 INV OUT = 362.29 (CB B6) 25 LF 15" RCP @ 1.18% Slope
CB A3 OPENING ELEV. = 345.86 INV OUT = 341.70 (CB A2) 25 LF 15" RCP @ 2.04% Slope	CB A9 OPENING ELEV. = 340.04 INV OUT = 335.50 (CB A5) 25 LF 18" RCP @ 8.15% Slope	CB B3 OPENING ELEV. = 354.00 INV OUT = 350.75 (CB B2) 134 LF 15" RCP @ 1.08% Slope	CB B8 OPENING ELEV. = 365.54 INV OUT = 362.29 (CB B6) 25 LF 15" RCP @ 1.18% Slope
CB A4 (DOUBLE) OPENING ELEV. = 338.14 INV IN = 332.70 (CB A5) INV IN = 332.55 (YI A8) INV IN = 332.45 (CB A1) 25 LF 24" RCP @ 1.02% Slope	YI A8 OPENING ELEV. = 339.08 INV OUT = 334.08 (CB A4) 18 LF 15" RCP @ 8.62% Slope	CB B4 OPENING ELEV. = 355.02 INV OUT = 351.75 (CB B2) 24 LF 15" RCP @ 2.65% Slope	CB B9 OPENING ELEV. = 370.34 INV IN = 367.09 (CB B7) 25 LF 15" RCP @ 1.18% Slope
CB A5 OPENING ELEV. = 340.10 INV IN = 333.50 (YI A10) INV IN = 333.50 (CB A8) INV IN = 333.50 (CB A6) INV OUT = 333.40 (CB A4) 67 LF 18" RCP @ 1.05% Slope	YI A10 OPENING ELEV. = 338.50 INV OUT = 335.00 (CB A5) 147 LF 18" RCP @ 1.02% Slope	MH B5 OPENING ELEV. = 361.68 INV IN = 357.70 (CB B6) INV OUT = 357.45 (CB B1) 92 LF 18" RCP @ 5.51% Slope	

GENERAL GRADING NOTES

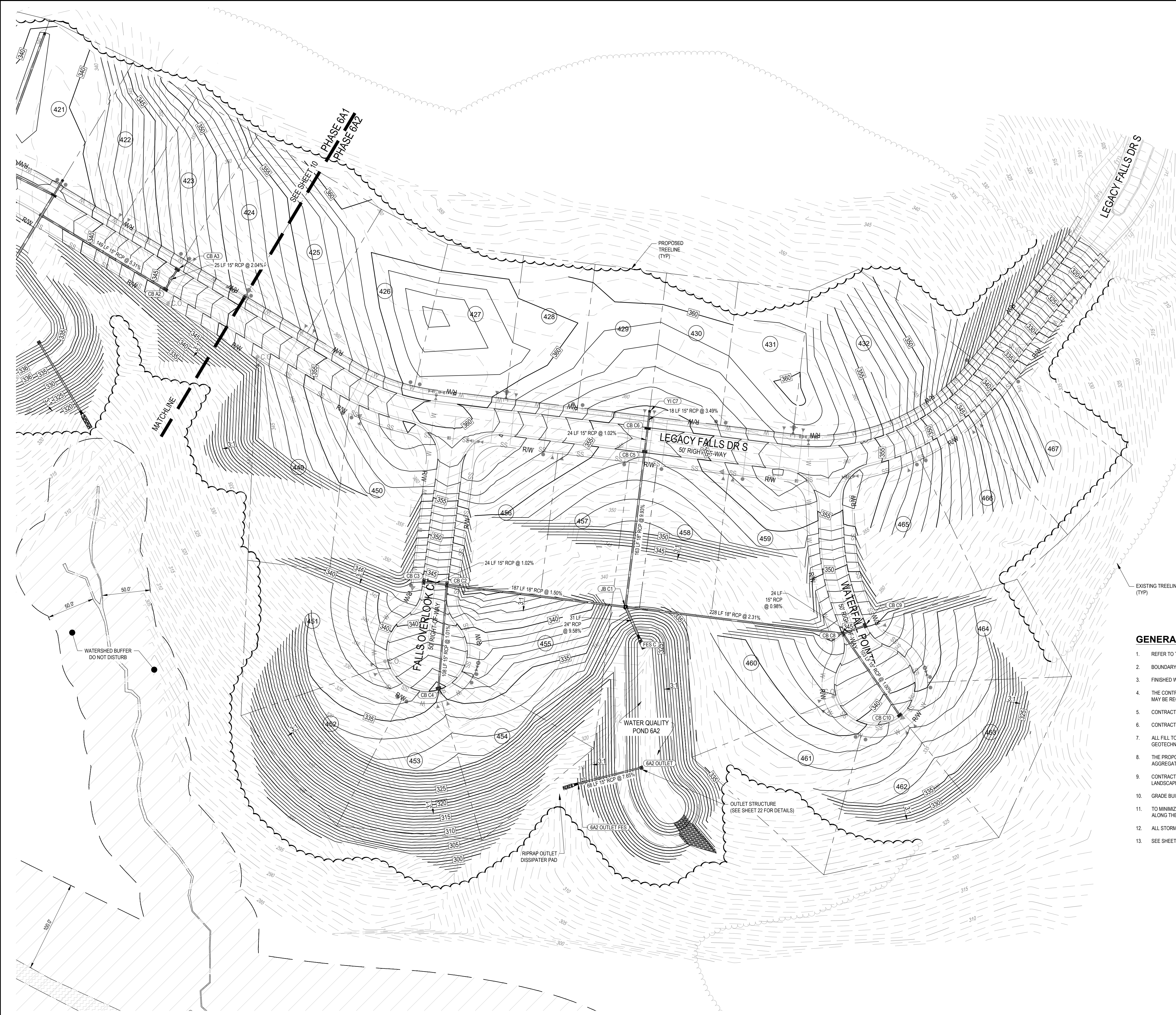
- REFER TO THE OVERALL SITE LAYOUT FOR RELATED NOTES.
- BOUNDARY & TOPOGRAPHIC INFORMATION TAKEN FROM A SURVEY PREPARED BY THE CE GROUP, INC.
- FINISHED WALK AND CURB ELEVATIONS SHALL BE 6" ABOVE FINISHED PAVEMENT GRADE UNLESS NOTED DIFFERENTLY ON THE PLANS.
- THE CONTRACTOR SHALL NOTE THAT THE PLANS ARE SCHEMATIC IN NATURE AND DO NOT SHOW EVERY OFFSET, TRANSITION, GRADE CHANGE, ETC. THAT MAY BE REQUIRED FOR A COMPLETE AND WORKING SYSTEM.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
- ALL FILL TO BE COMPACTED TO 98% DRY DENSITY (STANDARD PROCTOR) UNDER PAVEMENT AND BUILDING PADS OR AS SPECIFIED IN PROJECT GEOTECHNICAL REPORT BY OTHERS.
- THE PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS. REFER TO PAVEMENT AND SIDEWALK DETAILS TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL FLOW BY GRAVITY AWAY FROM BUILDINGS AND ACROSS NEW PAVEMENT AND/OR LANDSCAPE AREAS TO NEW OR EXISTING STORM DRAIN INLETS, SWALES, DITCHES OR OVERLAND SHEET FLOW.
- GRADE BUILDING PAD(S) TO A LEVEL BELOW FINISHED FLOOR ELEVATION EQUAL TO THE FLOOR SLAB THICKNESS TO AN ACCURACY OF 1/10TH OF A FOOT.
- TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE EXTERIOR EDGE OF BUFFERS AND STREETSCAPE, THE CONTRACTOR SHALL CUT MINIMUM 2" TRENCHES ALONG THE LIMITS OF DISTURBANCE SO AS TO CUT, RATHER THAN TEAR, ROOTS.
- ALL STORM DRAINAGE PIPING SHALL BE CLASS III REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE NOTED.
- SEE SHEET 31 FOR DRAINAGE STRUCTURE DETAILS.



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P: 330 (Erewhold Capital) 330-12 (Legacy Phase 6) Design/Planets/Construction Plans/330-12 10 GRADING PLAN 1.dwg PLOTTED: 2/7/2018 10:30 AM BY: BMUELLER

P: 330 (Embedd Capital) 330-12 Legacy Phase 6 Design Plans Construction Plans 330-12-11 GRADING PLAN 2.dwg PLOTTED: 2/7/2018 10:30 AM BY: BAMELLER



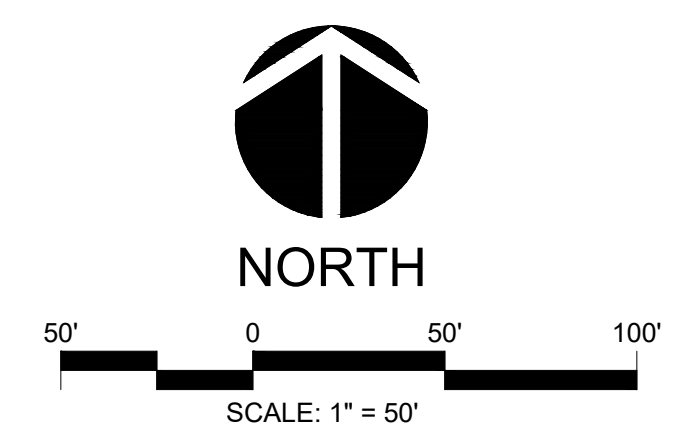
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FES C INV = 322.00 (JB C1)	CB C5 OPENING ELEV. = 353.62 INV IN = 350.02 (CB C5) INV OUT = 345.12 (JB C1) 163 LF 18" RCP @ 9.93% Slope
JB C1 RW ELEV. = 334.46 INV IN = 328.50 (CB C8) INV IN = 328.96 (CB C5) INV IN = 327.30 (CB C2) INV OUT = 329.00 (FES C) 31 LF 24" RCP @ 9.58% Slope	CB CE (DOUBLE) OPENING ELEV. = 353.62 INV IN = 350.37 (YI C7) INV OUT = 350.27 (CB C5) 24 LF 15" RCP @ 1.02% Slope
CB C2 OPENING ELEV. = 343.55 INV IN = 332.20 (CB C4) INV IN = 340.05 (CB C3) INV OUT = 330.10 (JB C1) 187 LF 18" RCP @ 1.50% Slope	YI C7 OPENING ELEV. = 354.74 INV IN = 350.99 (CB C6) 16 LF 15" RCP @ 3.49% Slope
CB C3 OPENING ELEV. = 343.55 INV IN = 340.30 (CB C2) 24 LF 15" RCP @ 1.02% Slope	CB C8 OPENING ELEV. = 344.49 INV IN = 333.86 (CB C10) INV IN = 340.99 (CB C9) INV IN = 333.76 (JB C1) 228 LF 18" RCP @ 2.31% Slope
CB C4 OPENING ELEV. = 334.54 INV IN = 331.29 (CB C2) 108 LF 15" RCP @ 1.01% Slope	CB C9 OPENING ELEV. = 344.48 INV IN = 341.23 (CB C8) 24 LF 15" RCP @ 0.98% Slope
	CB C10 OPENING ELEV. = 337.95 INV IN = 334.89 (CB C8) 103 LF 15" RCP @ 1.00% Slope

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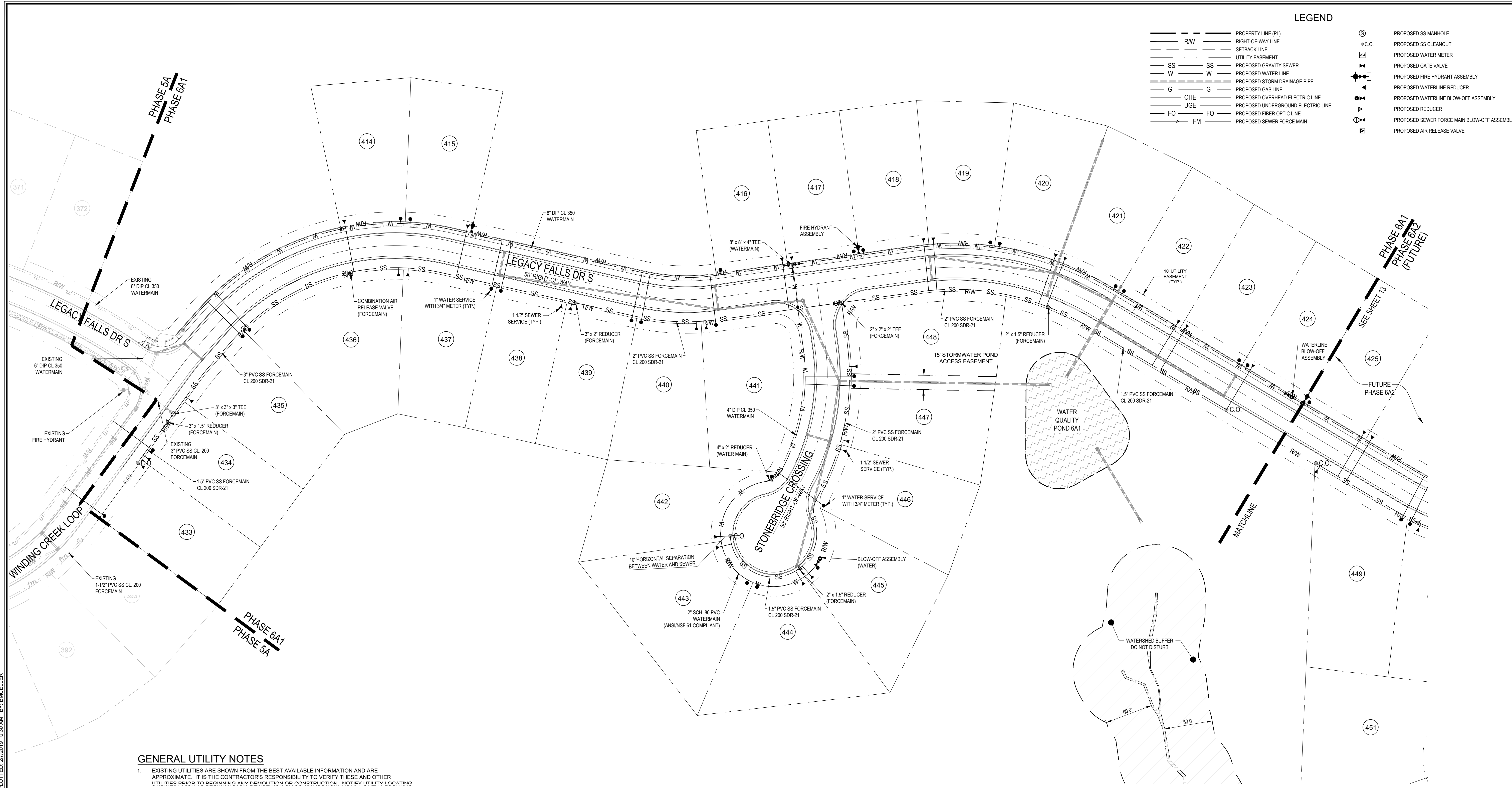
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THE LEGACY - PHASE 6
CONSTRUCTION PLANS
GRADING & DRAINAGE PLAN 6A2

BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

Date:	02/16/2018
Scale:	1" = 50'
Drawn:	JCH
Checked:	JMC
Project No.:	330-12
Computer Dwg. Name:	330-12 11 GRADING PLAN 2

P:\330 (Erewhold Capital)\330-12 (Legacy Phase 6)\Design\Plans\Construction\Plan330-12 UTILITY PLAN 1.dwg PLOTTED: 2/16/2018 10:30 AM BY: BMUELLER



LEGEND

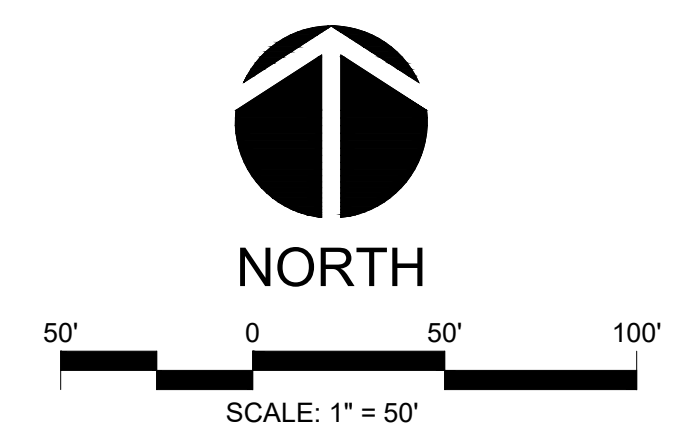
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---	SETBACK LINE	⊕	PROPOSED WATER METER
---	UTILITY EASEMENT	⊕	PROPOSED GATE VALVE
---	PROPOSED GRAVITY SEWER	⊕	PROPOSED FIRE HYDRANT ASSEMBLY
---	PROPOSED WATER LINE	⊕	PROPOSED WATERLINE REDUCER
---	PROPOSED STORM DRAINAGE PIPE	⊕	PROPOSED WATERLINE BLOW-OFF ASSEMBLY
---	PROPOSED GAS LINE	⊕	PROPOSED REDUCER
---	PROPOSED OVERHEAD ELECTRIC LINE	⊕	PROPOSED SEWER FORCE MAIN BLOW-OFF ASSEMBLY
---	PROPOSED UNDERGROUND ELECTRIC LINE	⊕	PROPOSED AIR RELEASE VALVE
---	PROPOSED FIBER OPTIC LINE		
---	PROPOSED SEWER FORCE MAIN		

GENERAL UTILITY NOTES

- EXISTING UTILITIES ARE SHOWN FROM THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE AND OTHER UTILITIES PRIOR TO BEGINNING ANY DEMOLITION OR CONSTRUCTION. NOTIFY UTILITY LOCATING COMPANY (ONE CALL @ 1-800-632-4949) OR INDIVIDUAL UTILITY OWNERS FOR UNDERGROUND LOCATIONS AT LEAST 48 HOURS IN ADVANCE.
- ANY LOT WHICH CONNECTS TO THE GRAVITY SANITARY SEWER VIA A GRAVITY SERVICE CONNECTION WILL REQUIRE A SEWER BACKWATER VALVE IF THE FINISHED FLOOR ELEVATION IS LOWER THAN THE UPSTREAM MANHOLE RIM ELEVATION.
- REFER TO ROADWAY PLAN / PROFILES FOR DETAILED UTILITY INFORMATION.
- ALL LOTS ON THIS OVERALL UTILITY PLAN SHALL HAVE A WILKENS 700 SERIES WATER PRESSURE REDUCING VALVE MODEL 705S INSTALLED BEYOND THE METER ON EACH LOT.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CHATHAM COUNTY PUBLIC UTILITIES AND WATER DIVISION STANDARDS AND REGULATIONS.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN AND/OR PROFILE BY CHATHAM COUNTY AND THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF THE PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO CHATHAM COUNTY AND/OR THE UTILITY COMPANY.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS AND SEWER FORCEMAINS.
- CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO RELOCATE ANY UTILITY POLES AND/OR STRUCTURES AS SHOWN ON THE PLANS OR OTHERWISE, AS NEEDED FOR CONSTRUCTION. ALL EXISTING FACILITIES WHICH CONFLICT WITH THE IMPROVEMENTS UNDER THE SCOPE OF THIS PROJECT SHALL BE RELOCATED AT THE EXPENSE OF THE APPLICANT UPON APPROVAL.
- CONTRACTOR TO COORDINATE UTILITY PLAN WITH PLUMBING PLANS, BY OTHERS, FOR EXACT LOCATION OF WATER AND SEWER CONNECTIONS INTO THE BUILDING(S).
- CONTRACTOR TO COORDINATE UTILITY PLAN WITH ELECTRICAL PLANS, BY OTHERS, FOR ELECTRICAL AND TELECOMMUNICATIONS ROUTING AND CONNECTION INFORMATION.
- CONTRACTOR TO FIELD ADJUST VALVE BOXES, CLEAN-OUTS AND MANHOLES TO MATCH FINISHED GRADE.
- ALL BENDS ON WATERLINES SHALL HAVE THRUST BLOCKING PER CHATHAM COUNTY PUBLIC UTILITIES & WATER DIVISION DETAILS AND SPECIFICATIONS.

GENERAL CONSTRUCTION NOTES

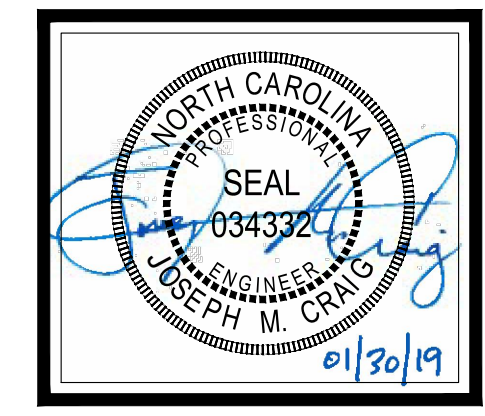
- EXISTING UNDERGROUND STRUCTURES AND UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, PRIOR TO STARTING CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 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 3710977300J, DATED 02/02/07, & FEMA FIRM PANEL 9782, MAP NUMBER 3710978200J, 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 SEWER MAIN AND SERVICES 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.



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CHATHAM COUNTY, NCDEQ PWSS, AND NCDOT STANDARDS AND SPECIFICATIONS.

NO.	REVISIONS	DATE
9	PER NCDEQ - PERCS COMMENTS	2019-01-30
8	PER PERCS & PWSS COMMENTS	2019-01-14
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6	PER OWNER COMMENTS	2018-08-13
5	PER NCDEQ COMMENTS	2018-08-02
4	PER OWNER COMMENTS	2018-06-16
3	PER EROSION CONTROL COMMENTS	2018-04-11
2	PER EROSION CONTROL COMMENTS	2018-04-09
1	PER CLIENT COMMENTS	2018-03-15

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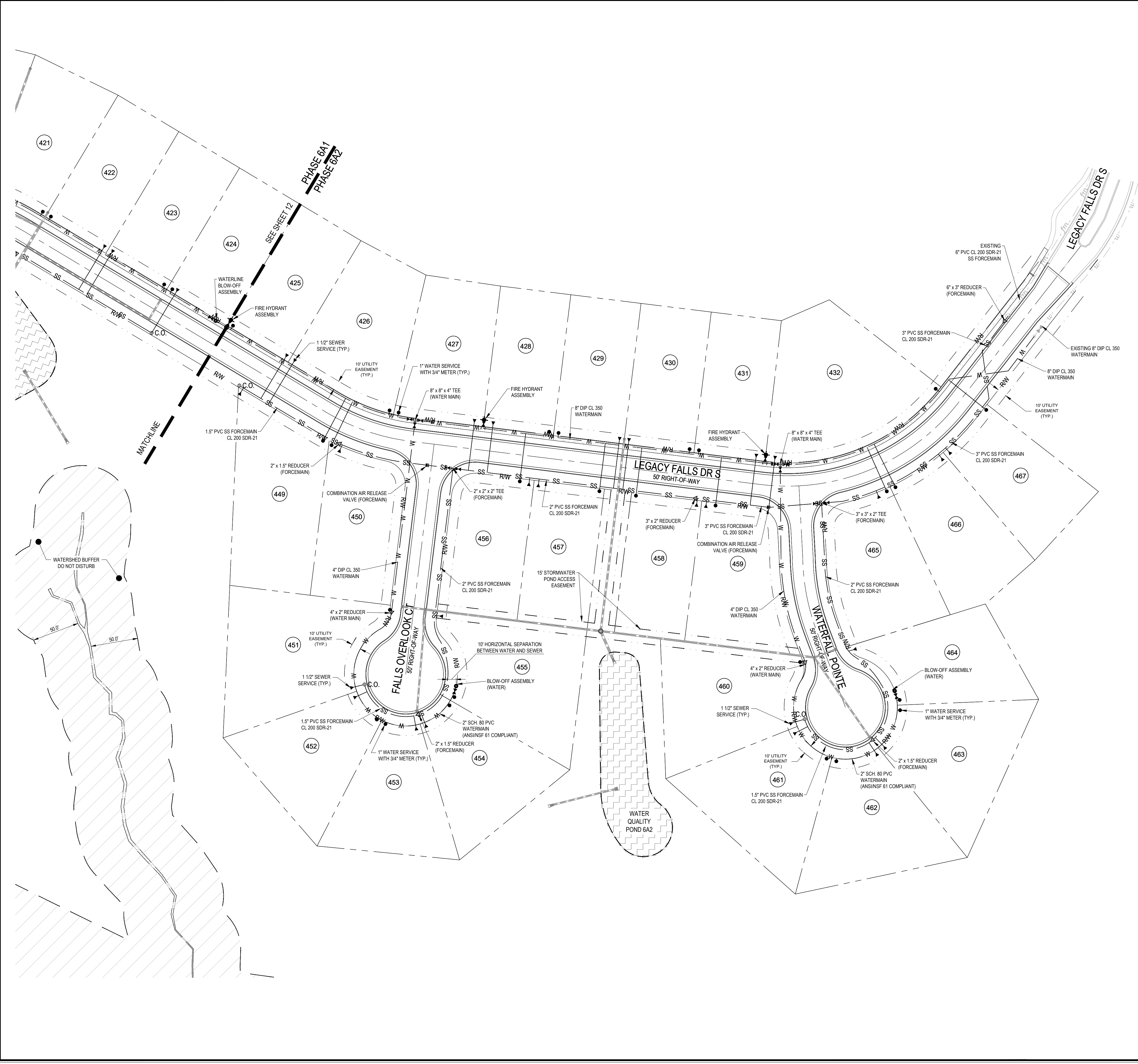


**THE LEGACY - PHASE 6
 CONSTRUCTION PLANS
 UTILITY PLAN 6A1**

BIG WOODS ROAD
 CHATHAM COUNTY, NORTH CAROLINA

Date:	02/16/2018
Scale:	1" = 50'
Drawn:	JCH
Checked:	JMC
Project No.:	330-12
Computer Dwg. Name:	330-12 UTILITY PLAN 1

P:\330 (Erehold Capital)\330-12 Legacy Phase 6\Design\Plans\Construction Plans\330-12 UTILITY PLAN 2.dwg, PLOTTED: 2/7/2018 10:30 AM BY: BMUELLER



LEGEND

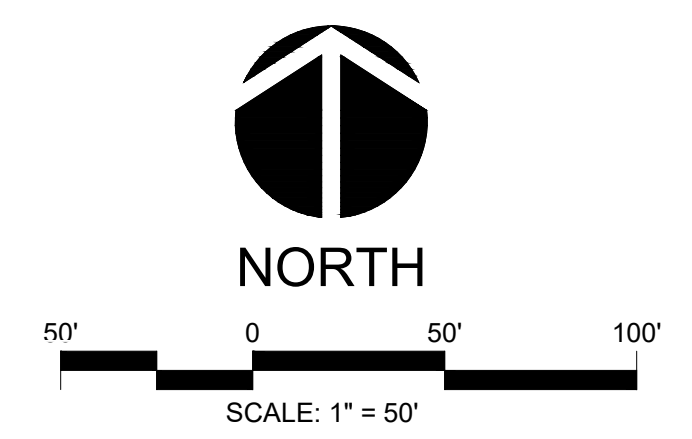
---	PROPERTY LINE (PL)
---	RIGHT-OF-WAY LINE
---	SETBACK LINE
---	UTILITY EASEMENT
SS	PROPOSED GRAVITY SEWER
W	PROPOSED WATER LINE
---	PROPOSED STORM DRAINAGE PIPE
G	PROPOSED GAS LINE
OHE	PROPOSED OVERHEAD ELECTRIC LINE
U	PROPOSED UNDERGROUND ELECTRIC LINE
FO	PROPOSED FIBER OPTIC LINE
FM	PROPOSED SEWER FORCE MAIN
⊙	PROPOSED SS MANHOLE
⊙	PROPOSED SS CLEANOUT
⊙	PROPOSED WATER METER
⊙	PROPOSED GATE VALVE
⊙	PROPOSED FIRE HYDRANT ASSEMBLY
⊙	PROPOSED WATERLINE REDUCER
⊙	PROPOSED WATERLINE BLOW-OFF ASSEMBLY
⊙	PROPOSED REDUCER
⊙	PROPOSED SEWER FORCE MAIN BLOW-OFF ASSEMBLY
⊙	PROPOSED AIR RELEASE VALVE

GENERAL CONSTRUCTION NOTES

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GENERAL UTILITY NOTES

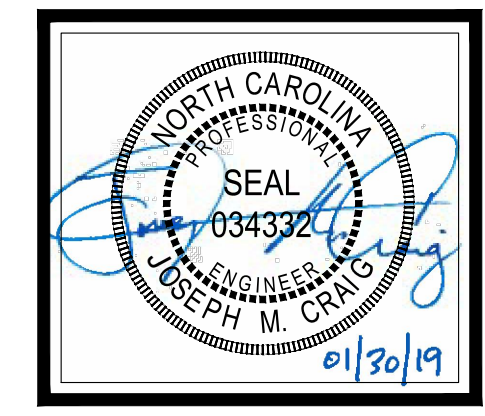
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- REFER TO ROADWAY PLAN / PROFILES FOR DETAILED UTILITY INFORMATION.
- ALL LOTS ON THIS OVERALL UTILITY PLAN SHALL HAVE A WILKENS 70 SERIES WATER PRESSURE REDUCING VALVE MODEL 70SS INSTALLED BEYOND THE METER ON EACH LOT.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CHATHAM COUNTY PUBLIC UTILITIES AND WATER DIVISION STANDARDS AND REGULATIONS.
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3	PER EROSION CONTROL COMMENTS	2018-04-11
2	PER EROSION CONTROL COMMENTS	2018-04-09
1	PER CLIENT COMMENTS	2018-03-15

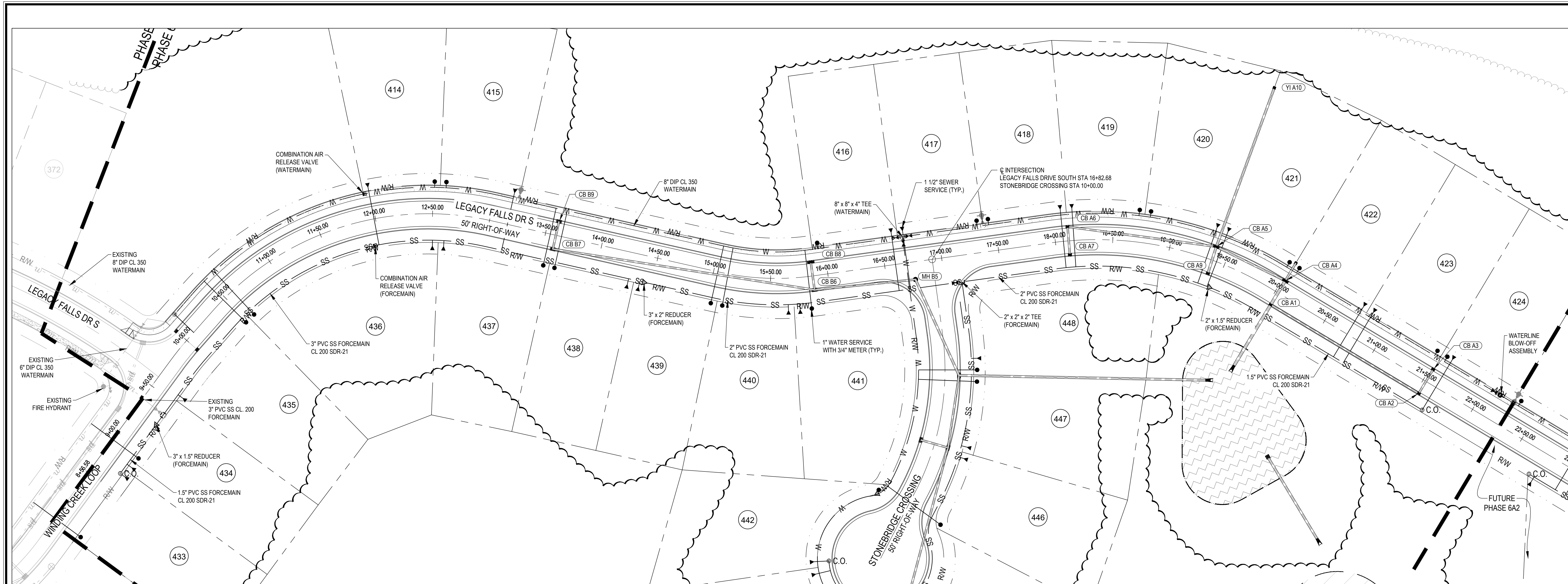
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 www.cegroupinc.com
 License # C-1739



THE LEGACY - PHASE 6
CONSTRUCTION PLANS
UTILITY PLAN 6A2

BIG WOODS ROAD
 CHATHAM COUNTY, NORTH CAROLINA

Date:	02/16/2018
Scale:	1" = 50'
Drawn:	JCH
Checked:	JMC
Project No:	330-12
Computer Dwg. Name:	330-12 13 UTILITY PLAN 2

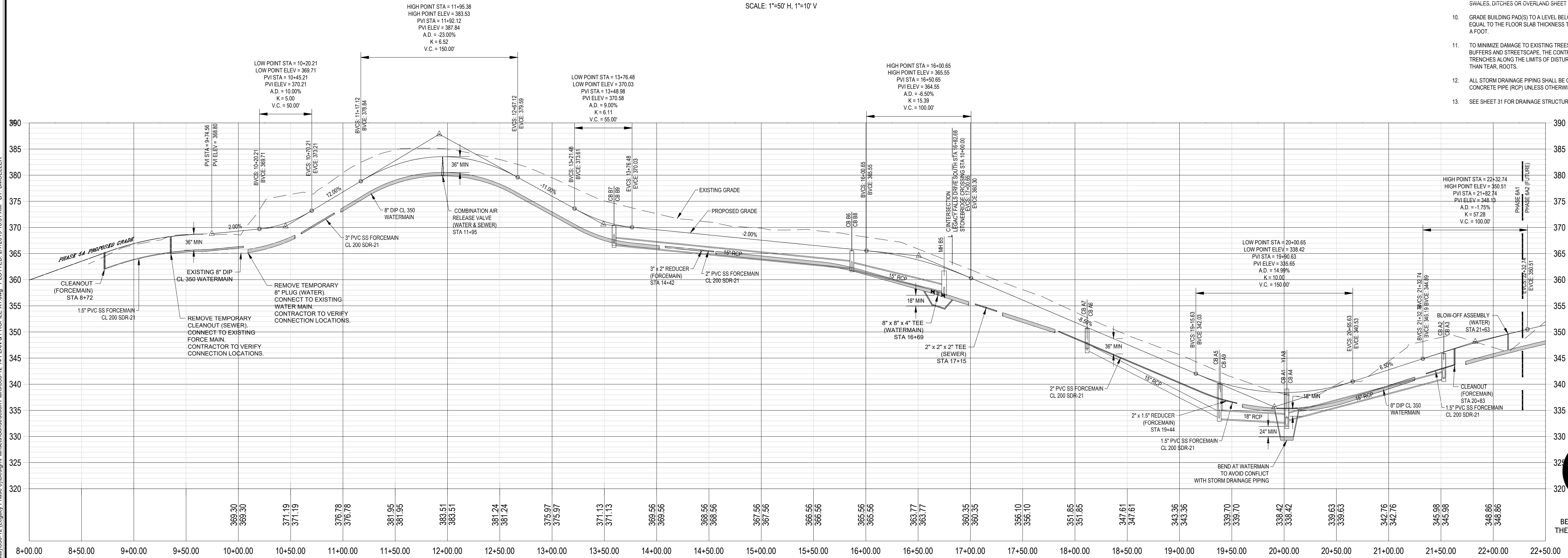


LEGEND

—	PROPERTY LINE (PL)
---	RIGHT-OF-WAY LINE
---	SETBACK LINE
---	UTILITY EASEMENT
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	PROPOSED STORM DRAINAGE PIPE
---	PROPOSED GRAVITY SEWER
---	PROPOSED WATER LINE
---	PROPOSED TREE PROTECTION FENCE
---	PROPOSED LIMITS OF DISTURBANCE
---	PROPOSED RETAINING WALL
▲	FLARED END SECTION
●	STORM MANHOLE
■	YARD INLET
■	CATCH BASIN
→	FLOW ARROW
○	PROPOSED SPOT ELEVATION
○	TW=100.0'
○	BW=100.0'
○	PROPOSED GRADE AT TOP OF WALL
○	PROPOSED GRADE AT BOTTOM OF WALL

- GENERAL GRADING NOTES**
- REFER TO THE OVERALL SITE LAYOUT FOR RELATED NOTES.
 - BOUNDARY & TOPOGRAPHIC INFORMATION TAKEN FROM A SURVEY PREPARED BY THE CE GROUP, INC.
 - FINISHED WALK AND CURB ELEVATIONS SHALL BE 6" ABOVE FINISHED PAVEMENT GRADE UNLESS NOTED DIFFERENTLY ON THE PLANS.
 - THE CONTRACTOR SHALL NOTE THAT THE PLANS ARE SCHEMATIC IN NATURE AND DO NOT SHOW EVERY OFFSET, TRANSITION, GRADE CHANGE, ETC. THAT MAY BE REQUIRED FOR A COMPLETE AND WORKING SYSTEM.
 - CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION.
 - CONTRACTOR SHALL BLENDE NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
 - ALL FILL TO BE COMPACTED TO 98% DRY DENSITY (STANDARD PROCTOR) UNDER PAVEMENT AND BUILDING PAD OR AS SPECIFIED IN PROJECT GEOTECHNICAL REPORT BY OTHERS.
 - THE PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS. REFER TO PAVEMENT AND SIDEWALK DETAILS TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
 - CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL FLOW BY GRAVITY AWAY FROM BUILDINGS AND ACROSS NEW PAVEMENT AND/OR LANDSCAPE AREAS TO NEW OR EXISTING STORM DRAIN INLETS, SWALES, DITCHES OR OVERLAND SHEET FLOW.
 - GRADE BUILDING (PADS) TO A LEVEL BELOW FINISHED FLOOR ELEVATION EQUAL TO THE FLOOR SLAB THICKNESS TO AN ACCURACY OF 1/10TH OF A FOOT.
 - TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE EXTERIOR EDGE OF BUFFERS AND STREETScape, THE CONTRACTOR SHALL CUT MINIMUM 2' TRENCHES ALONG THE LIMITS OF DISTURBANCE SO AS TO CUT, RATHER THAN TEAR, ROOTS.
 - ALL STORM DRAINAGE PIPING SHALL BE CLASS III REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE NOTED.
 - SEE SHEET 31 FOR DRAINAGE STRUCTURE DETAILS.

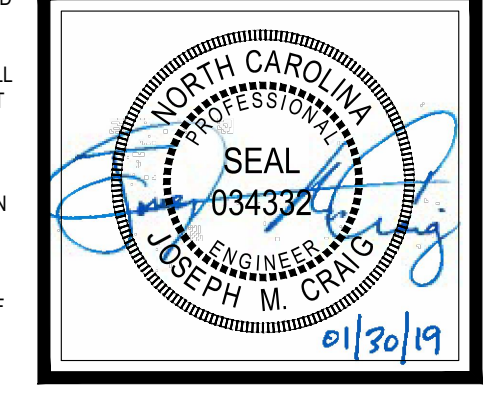
LEGACY FALLS DRIVE SOUTH PLAN & PROFILE
SCALE: 1"=50' H, 1"=10' V



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CHATHAM COUNTY, NCDEQ PWSS, AND NCDOT STANDARDS AND SPECIFICATIONS.

NO.	REVISIONS	DATE
1	PER CLIENT COMMENTS	2018-03-15
2	PER EROSION CONTROL COMMENTS	2018-04-11
3	PER EROSION CONTROL COMMENTS	2018-04-11
4	PER OWNER COMMENTS	2018-06-16
5	PER OWNER COMMENTS	2018-06-16
6	PER OWNER COMMENTS	2018-06-13
7	PER CHATHAM COUNTY COMMENTS	2018-12-17
8	PER PERCS & PWSS COMMENTS	2019-01-14
9	PER NCDEQ - PERCS COMMENTS	2019-01-30

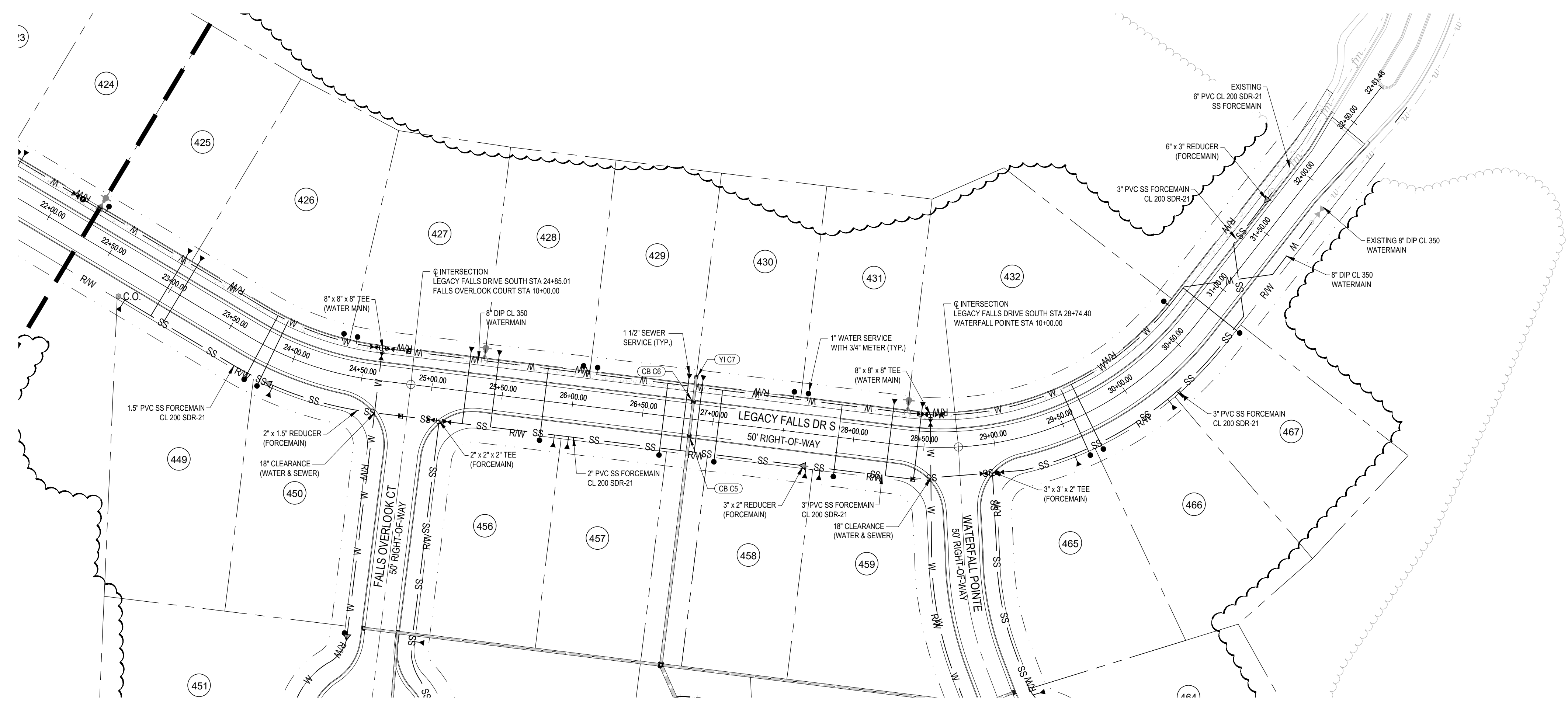
CE GROUP
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THE LEGACY - PHASE 6
CONSTRUCTION PLANS
PLAN & PROFILE - LEGACY FALLS DRIVE SOUTH
STA. 10+00 - STA. 22+00
BIG WOODS ROAD
CHATHAM COUNTY, NORTH CAROLINA

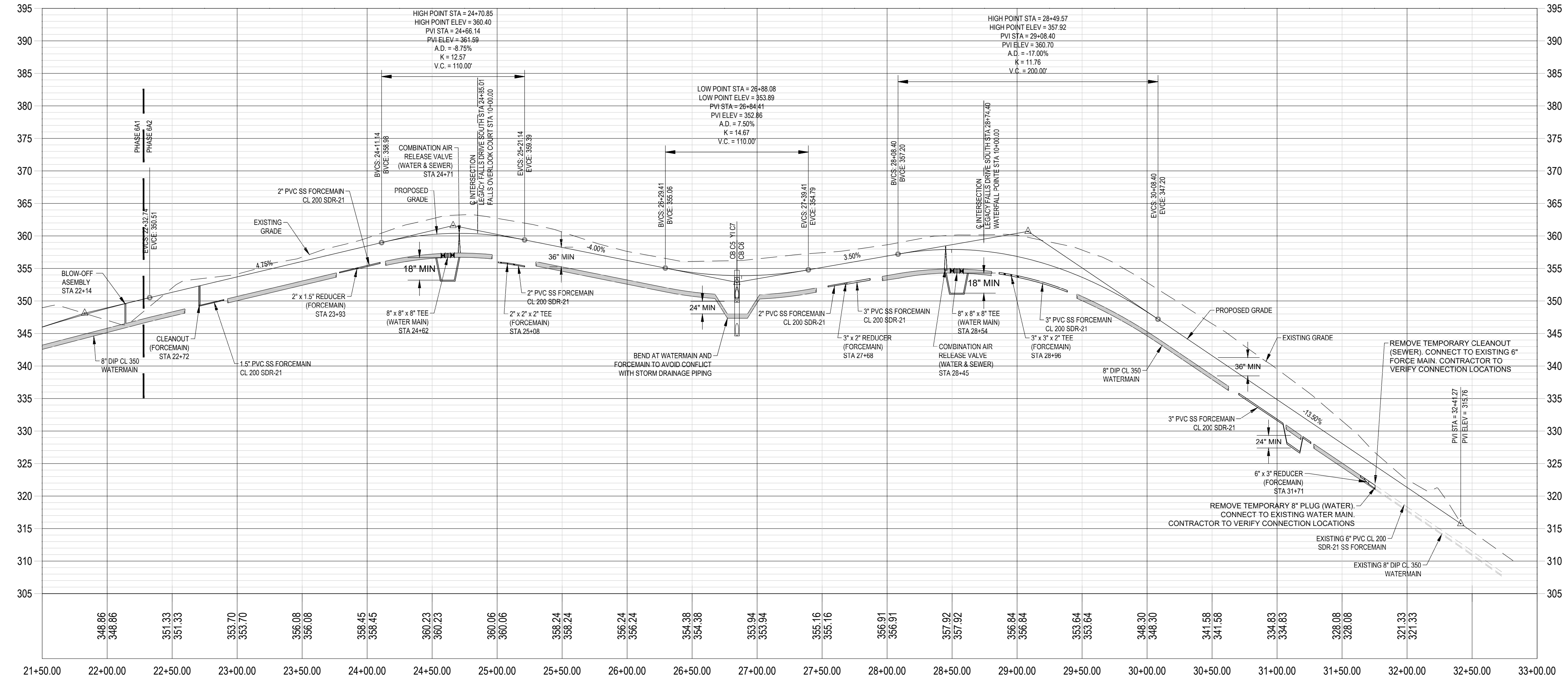
Date: 02/16/2018
Scale:
Drawn: JCH
Checked: JMC
Project No: 330-12
Computer Dwg. Name: 330-12 14 PLAN & PROFILE A1

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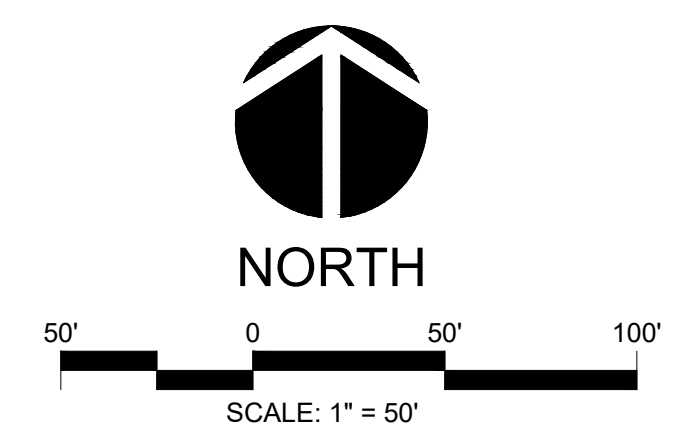
LEGACY FALLS DRIVE SOUTH PLAN & PROFILE

SCALE: 1"=50' H, 1"=10' V



GENERAL GRADING NOTES

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- FINISHED WALK AND CURB ELEVATIONS SHALL BE 6" ABOVE FINISHED PAVEMENT GRADE UNLESS NOTED DIFFERENTLY ON THE PLANS.
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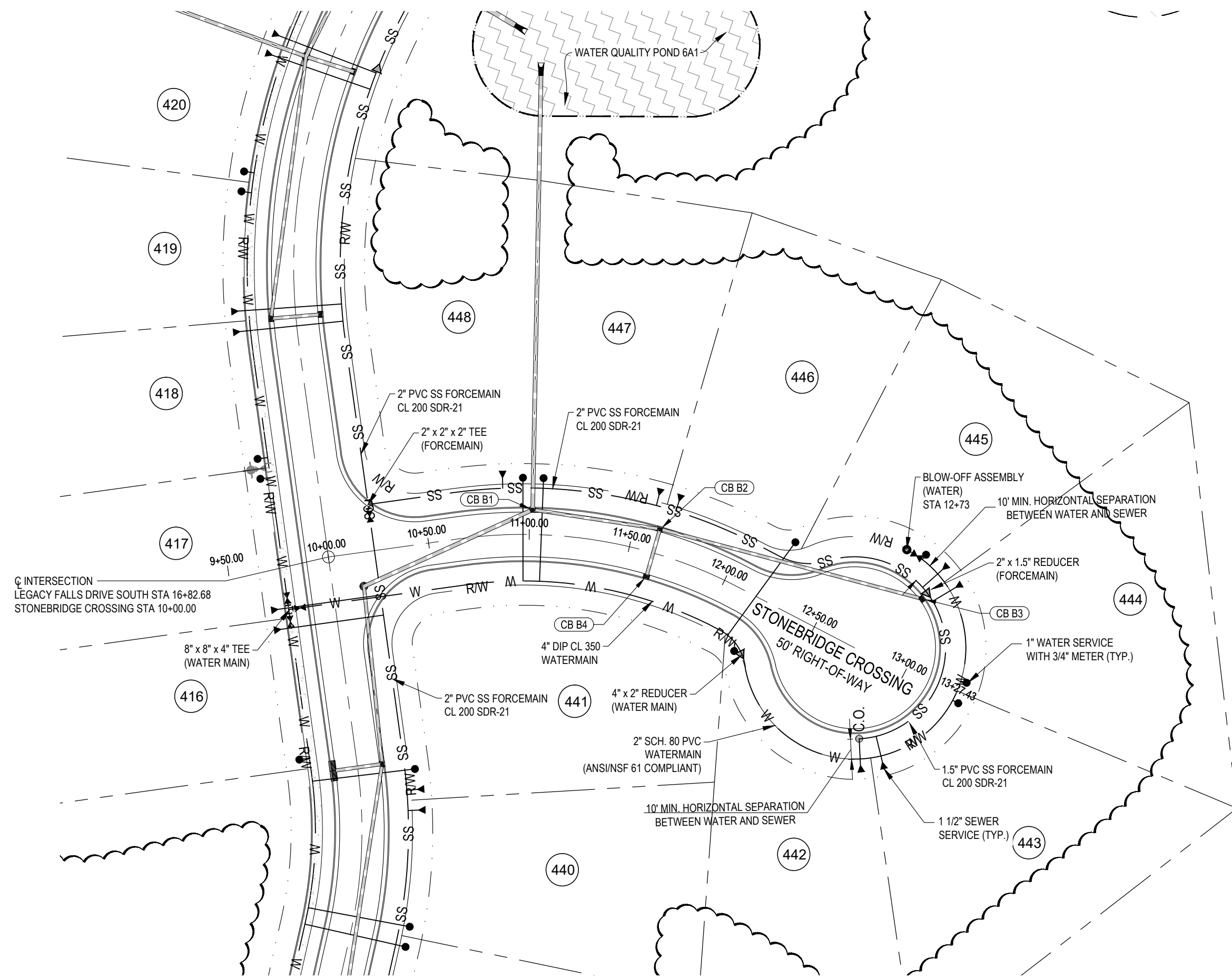
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THE LEGACY - PHASE 6
CONSTRUCTION PLANS
PLAN & PROFILE - LEGACY FALLS DRIVE SOUTH
STA. 22+00 - STA. 32+17.42
 BIG WOODS ROAD
 CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
 Scale: 1" = 50'
 Drawn: JCH
 Checked: JMC
 Project No: 330-12
 Computer Dwg. Name: 330-12 15 PLAN & PROFILE A2

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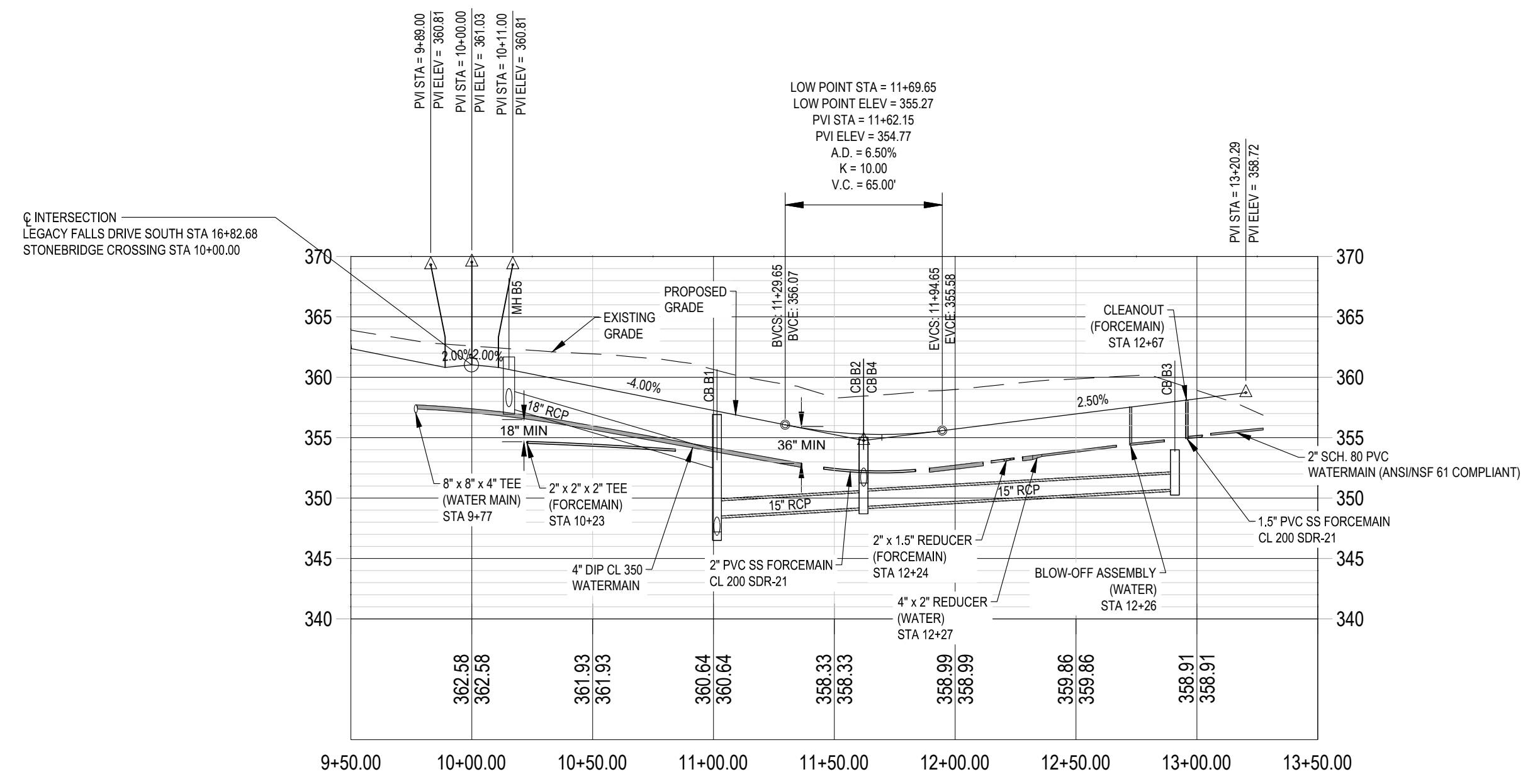


LEGEND

---	PROPERTY LINE (PL)
---	RIGHT-OF-WAY LINE
---	SETBACK LINE
---	UTILITY EASEMENT
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	PROPOSED STORM DRAINAGE PIPE
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---	PROPOSED RETAINING WALL
---	FLARED END SECTION
●	STORM MANHOLE
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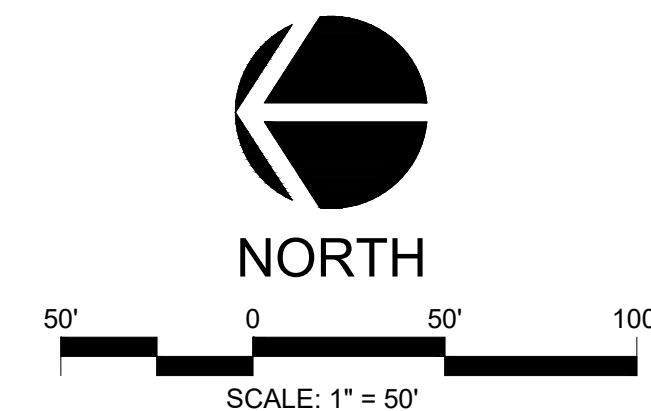
STONEBRIDGE CROSSING PLAN & PROFILE

SCALE: 1"=50' H, 1"=10' V



GENERAL GRADING NOTES

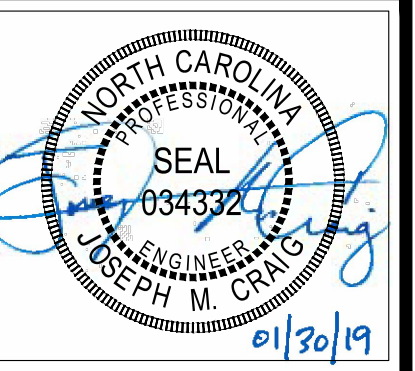
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- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
- ALL FILL TO BE COMPACTED TO 98% DRY DENSITY (STANDARD PROCTOR) UNDER PAVEMENT AND BUILDING PADS OR AS SPECIFIED IN PROJECT GEOTECHNICAL REPORT BY OTHERS.
- THE PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS. REFER TO PAVEMENT AND SIDEWALK DETAILS TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL FLOW BY GRAVITY AWAY FROM BUILDINGS AND ACROSS NEW PAVEMENT AND/OR LANDSCAPE AREAS TO NEW OR EXISTING STORM DRAIN INLETS, SWALES, DITCHES OR OVERLAND SHEET FLOW.
- GRADE BUILDING (PADS) TO A LEVEL BELOW FINISHED FLOOR ELEVATION EQUAL TO THE FLOOR SLAB THICKNESS TO AN ACCURACY OF 1/10TH OF A FOOT.
- TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE EXTERIOR EDGE OF BUFFERS AND STREETSCAPE, THE CONTRACTOR SHALL CUT MINIMUM 2" TRENCHES ALONG THE LIMITS OF DISTURBANCE SO AS TO CUT, RATHER THAN TEAR, ROOTS.
- ALL STORM DRAINAGE PIPING SHALL BE CLASS III REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE NOTED.
- SEE SHEET 31 FOR DRAINAGE STRUCTURE DETAILS.



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CHATHAM COUNTY, NCDEQ PWSS, AND NCDOT STANDARDS AND SPECIFICATIONS.

NO.	REVISIONS	DATE
1	PER CLIENT COMMENTS	2018-03-15
2	PER EROSION CONTROL COMMENTS	2018-04-11
3	PER OWNER COMMENTS	2018-06-16
4	PER OWNER COMMENTS	2018-06-16
5	PER NCDEQ COMMENTS	2018-06-02
6	PER OWNER COMMENTS	2018-06-13
7	PER CHATHAM COUNTY COMMENTS	2018-12-17
8	PER PERCS & PWSS COMMENTS	2019-01-14
9	PER NCDEQ - PERCS COMMENTS	2019-01-30

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THE LEGACY - PHASE 6
CONSTRUCTION PLANS
PLAN & PROFILE - STONEBRIDGE CROSSING
 STA. 10+00 - 12+98.77
 BIG WOODS ROAD
 CHATHAM COUNTY, NORTH CAROLINA

Date: 02/16/2018
 Scale: 1" = 50'
 Drawn: JCH
 Checked: JMC
 Project No: 330-12
 Computer Dwg. Name: 330-12 16 PLAN & PROFILE.D