

401 WEST GANNON AVENUE

SITE PLAN AND CONSTRUCTION DRAWINGS

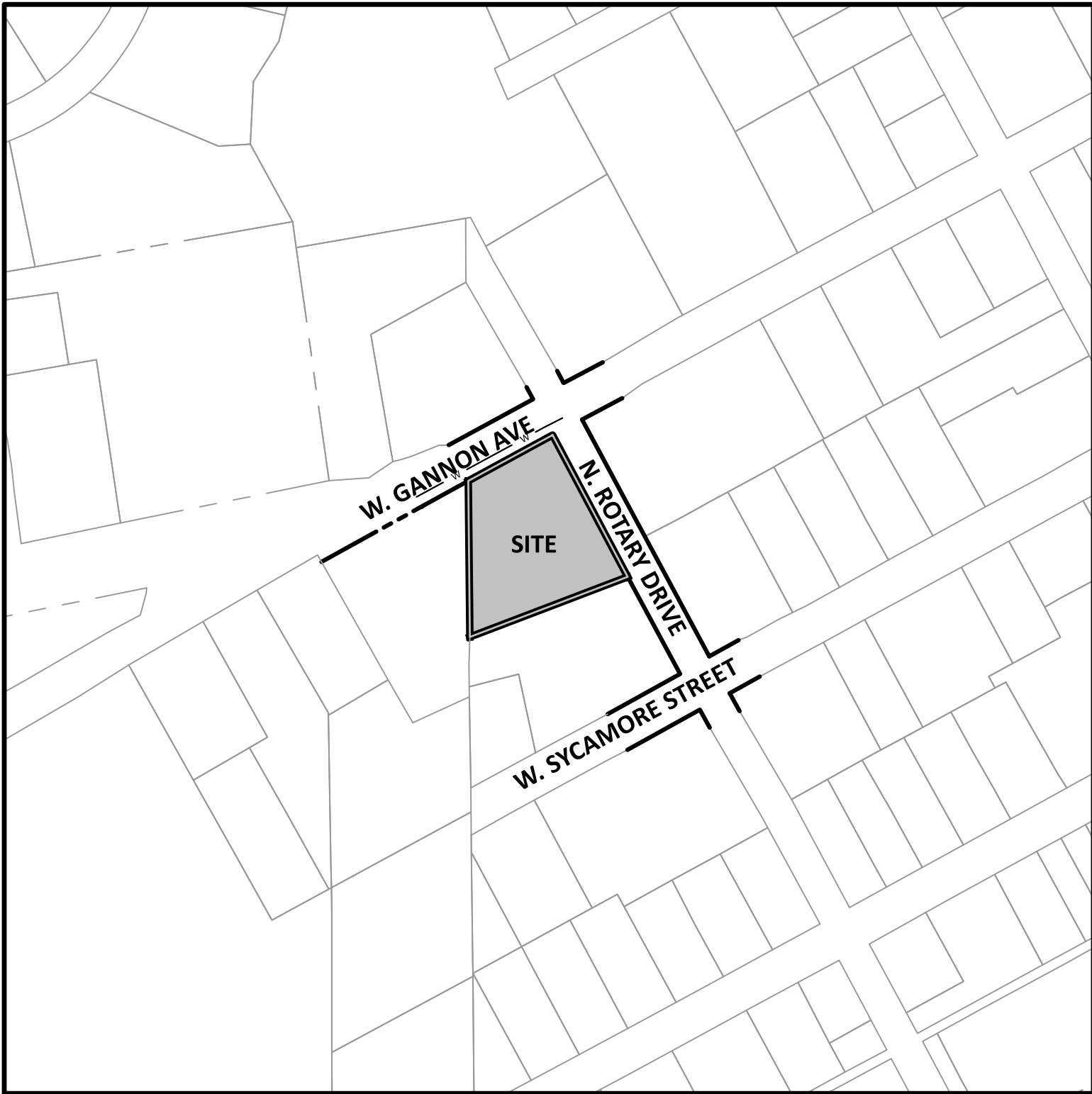
ZEBULON, NC

MARCH 1, 2023
REVISED JULY 10, 2023

CLIENT

MERIDIAN PROPERTIES GROUP, LLC
4030 WAKE FOREST ROAD, SUITE 100
RALEIGH, NC 27609
919-621-4648

VICINITY MAP
SCALE: 1"=200'



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EROSION CONTROL, STORMWATER
AND FLOODPLAIN MANAGEMENT

APPROVED

EROSION CONTROL ☐ S-

STORMWATER MGMT. ☐ S-

FLOOD STUDY ☐ S-

DATE _____

ENVIRONMENTAL CONSULTANT SIGNATURE

ATTENTION CONTRACTORS

THE CONSTRUCTION CONTRACTOR RESPONSIBLE FOR THE EXTENSION OF WATER, SEWER AND/OR REUSE, AS APPROVED IN THESE PLANS, IS RESPONSIBLE FOR CONTACTING THE PUBLIC UTILITIES DEPARTMENT AT 919-596-4640 AT LEAST 24 HOURS PRIOR TO BEGINNING ANY OF THEIR CONSTRUCTION.

FAILURE TO NOTIFY BOTH CITY DEPARTMENTS IN ADVANCE OF BEGINNING CONSTRUCTION WILL RESULT IN THE ISSUANCE OF MONETARY FINES, AND REQUIRE REINSTALLATION OF ANY WATER OR SEWER FACILITIES NOT INSPECTED AS A RESULT OF THIS NOTIFICATION FAILURE.

FAILURE TO CALL FOR INSPECTION, INSTALL A DOWNSTREAM PLUG, HAVE PERMITTED PLANS ON THE JOBSITE, OR ANY OTHER VIOLATION OF CITY OF RALEIGH STANDARDS WILL RESULT IN A FINE AND POSSIBLE EXCLUSION FROM FUTURE WORK IN THE CITY OF RALEIGH.

SITE PERMITTING APPROVAL

Water and Sewer Permits (If Applicable)

The City of Raleigh consents to the connection and extension of the City's Public Sewer System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # ~~S-XXXX~~

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CITY OF RALEIGH -- PLANS AUTHORIZED FOR CONSTRUCTION

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval _____
Raleigh Water Review Officer

TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TOWN OF
ZEBULON STANDARDS AND
SPECIFICATIONS

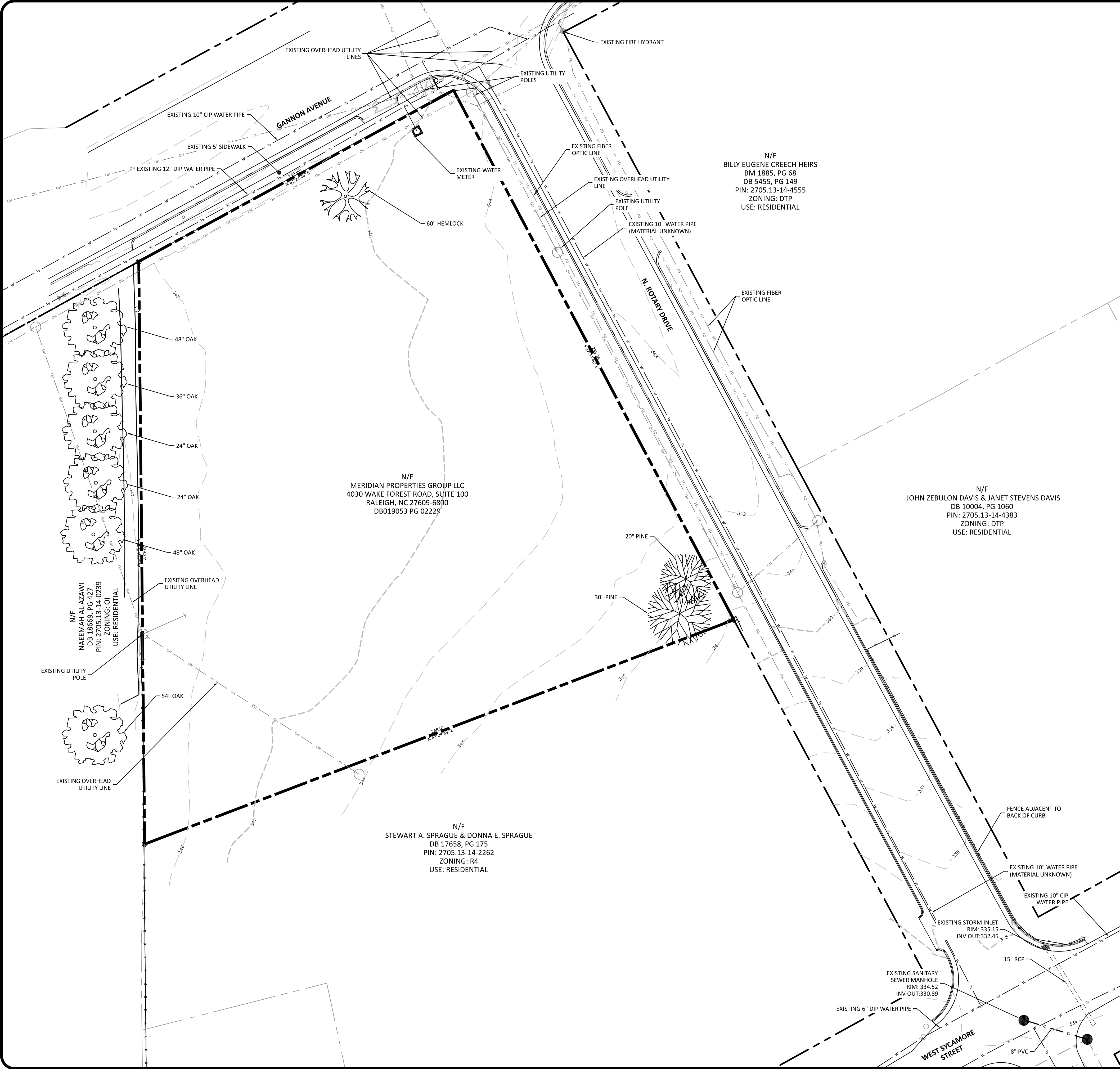


7/10/2023

The Nau Company
Consulting Civil Engineers

PO Box 810 Rolesville, NC 27571
919-435-6395
NCBELS License P-0751

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



EXISTING CONDITIONS SOURCES

- THE EXISTING CONDITIONS SHOWN ON THIS PLAN WERE TAKEN FROM A CAD FILE PROVIDED BY ANGLE RIGHT SURVEYING, PLLC | 3008 ANDERSON DRIVE, SUITE 160 RALEIGH, NC 27609 | 919-810-4324 WITH THE FOLLOWING EXCEPTIONS:
- PROPERTY LINES ADJACENT TO THE SUBJECT PROPERTY WERE TAKEN FROM WAKE COUNTY GIS
 - THE 10" CIP WATER LINE IN WEST GANNON AVENUE WAS DIGITIZED FROM CITY OF RALEIGH INFORMATION
 - WATER LINE SIZE AND MATERIAL WAS TAKEN FROM INFORMATION PROVIDED BY THE CITY OF RALEIGH

EXISTING CONDITIONS NOTES

- THERE ARE NO ROCK OUTCROPPINGS OR ONSITE SLOPES STEEPER THAN 3H:1V
- THERE ARE NO WETLANDS PRESENT ONSITE
- THERE ARE NO CREEKS, STREAMS PONDS OR DAMS ONSITE.
- THERE ARE PERENNIAL OR INTERMITTENT STREAMS AND NO REQUIRED RIPARIAN BUFFERS ONSITE.
- THERE IS NO FEMA FLOODPLAIN ONSITE PER FEMA PANEL 2705 MAP NUMBER 3720270500K EFFECTIVE JULY 19, 2022

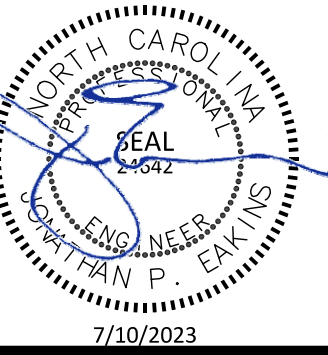


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OWNER/DEVELOPER:
MERIDIAN PROPERTIES GROUP LLC
4030 WAKE FOREST ROAD, SUITE 100
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919-621-4646

REVISIONS		DATE		BY		CHECKED	
1	2023-07-10	1	2023-07-10	1	2023-07-10	1	2023-07-10

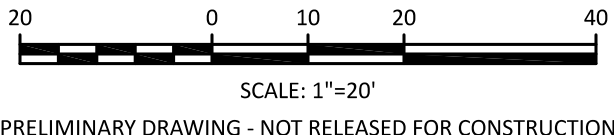
401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS
ZEBULON, NC
EXISTING CONDITIONS PLAN

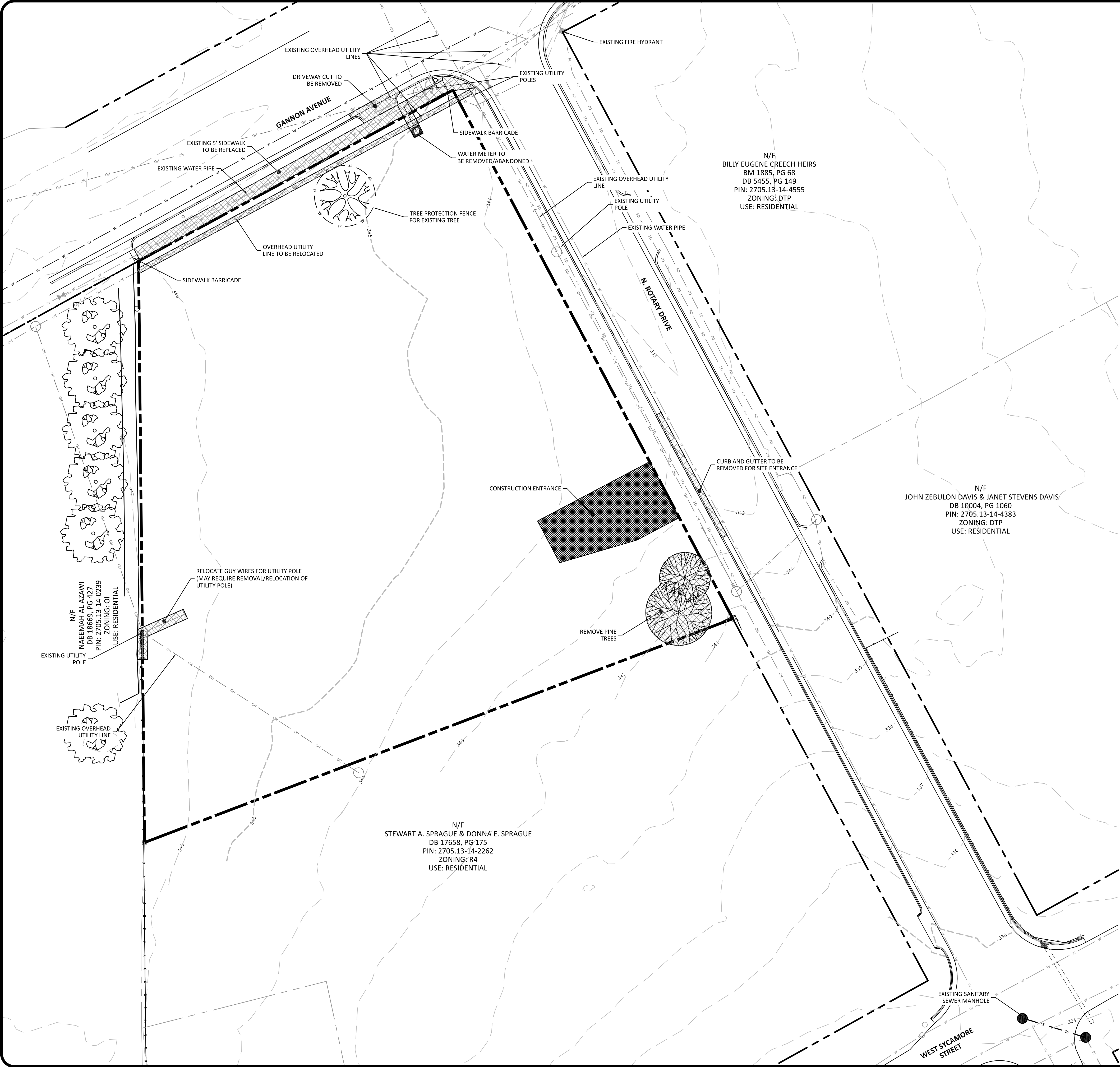


PROJECT NO:	---
DESIGN BY:	JPE
DRAWN BY:	JPE
SCALE:	1"=20'
DATE:	2023-03-01
SHEET NO:	C1.0

TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TOWN OF
ZEBULON STANDARDS AND
SPECIFICATIONS





- STAGING AND DEMOLITION NOTES**
1. THE ONLY TREE TO REMAIN IS THE HEMLOCK TREE ALONG THE NORTHERN PROPERTY BOUNDARY
 2. THERE ARE NO STOCKPILES REQUIRED FOR THIS PROJECT.
 3. CONSTRUCTION AND EMERGENCY ACCESS WILL BE FROM ROTARY DRIVE.
 4. TRAFFIC MANAGEMENT IS NOT NECESSARY FOR THE PROPOSED DEVELOPMENT
 5. THE EXISTING SIDEWALK ALONG GANNON AVENUE WILL REQUIRE A BARRICADE ON EACH END OF THE SITE WHILE THE EXISTING SIDEWALK IS REMOVED AND THE PROPOSED SIDEWALK IS CONSTRUCTED



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REVISIONS		DATE	DESCRIPTION
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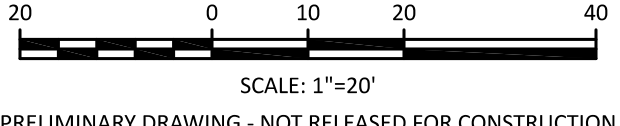
401 GANNON AVENUE
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ZEBULON, NC
STAGING AND DEMOLITION PLAN



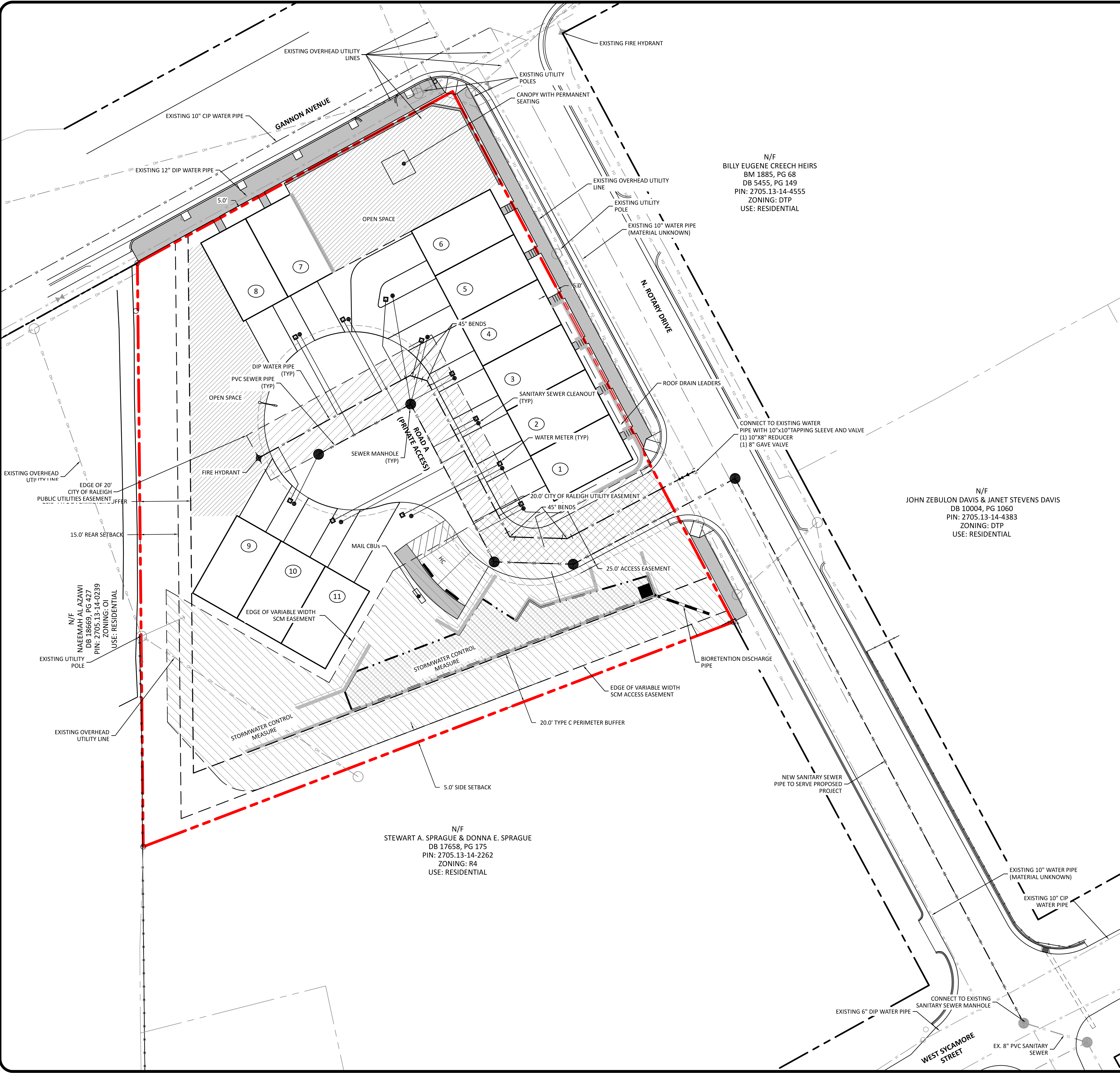
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DATE:	2023-03-01
SHEET NO:	C1.1

TOWN OF ZEBULON
PROJECT ID: 964220

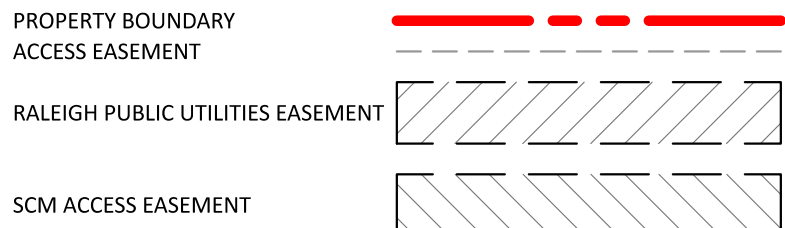
ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS



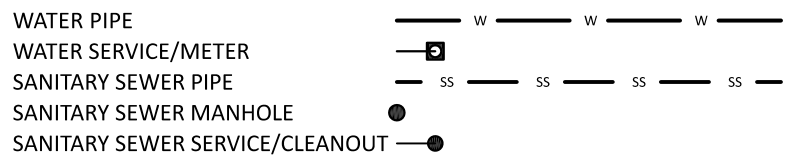
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DRAWN BY:	JPE
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DATE:	2023-03-01
SHEET NO:	630



SITE PLAN LEGEND



UTILITY PLAN LEGEND



CITY OF RALEIGH STANDARD UTILITY NOTES

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
2. UTILITY SEPARATION REQUIREMENTS:
A) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
B) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
C) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
D) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
E) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS. MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
F) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
6. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
7. INSTALL 4" COPPER* WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
8. INSTALL 4" PVC* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
9. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI. BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
10. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
11. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
12. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
13. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

ATTENTION CONTRACTORS

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SITE PERMITTING APPROVAL

Water and Sewer Permits (If Applicable)

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PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

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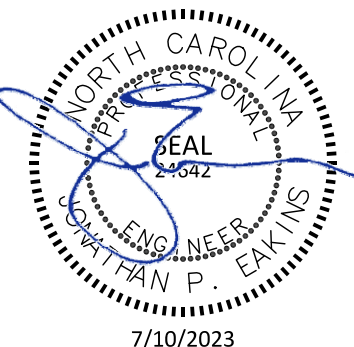
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REVISIONS		REVISED UPDATES AND REVISIONS PER TOWN COMMENTS	
1	2023-07-10		

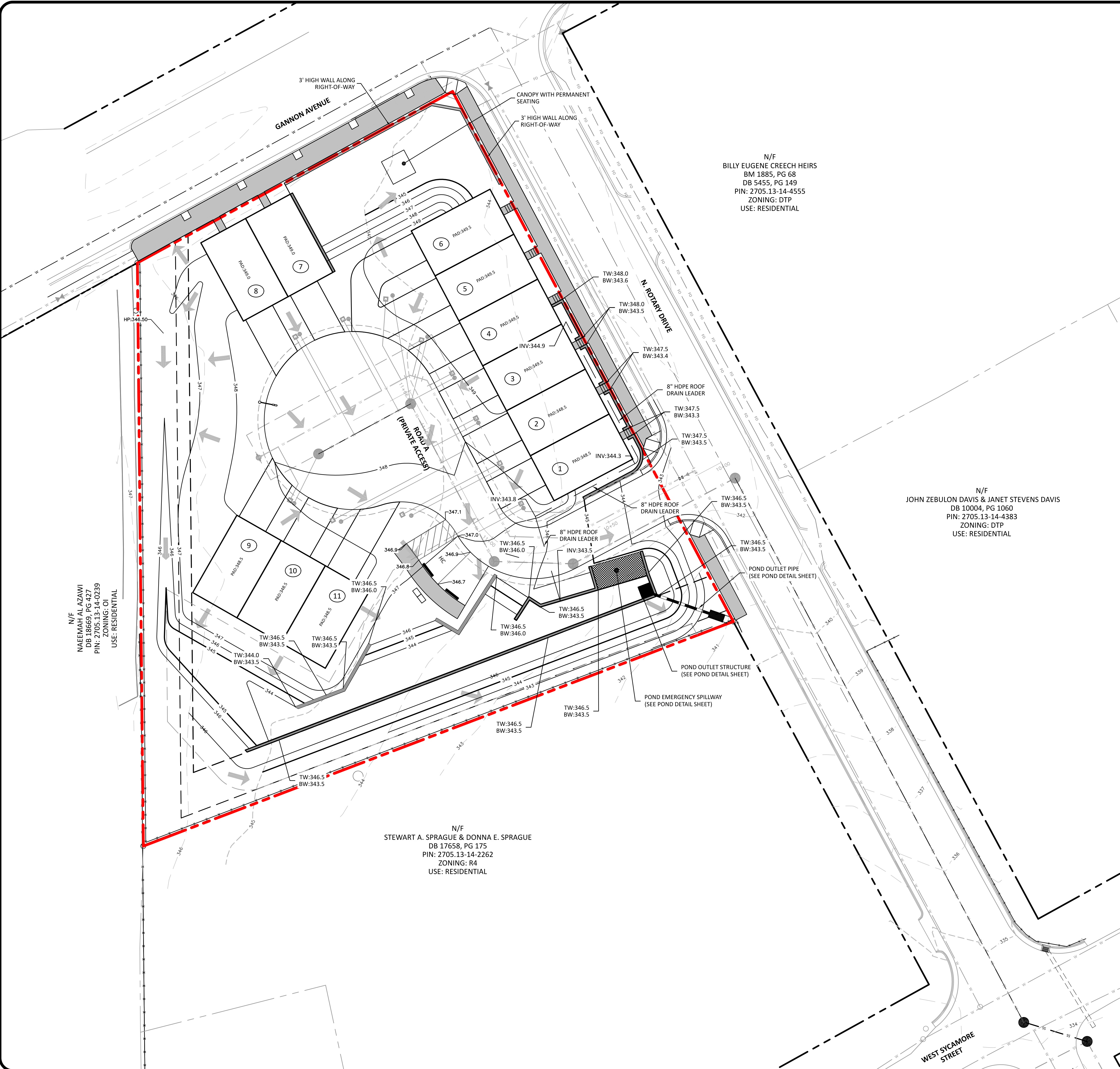
401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS

ZEBULON, NC

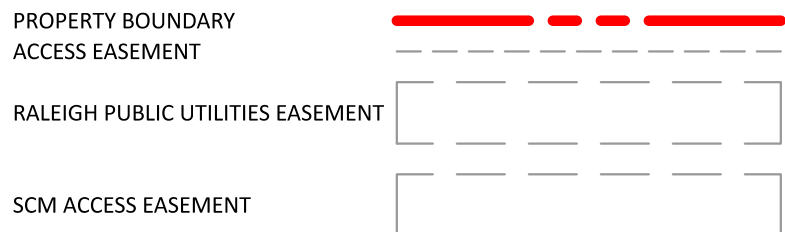
UTILITY PLAN



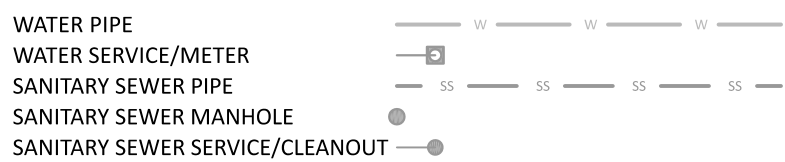
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DESIGN BY:	JPE
DRAWN BY:	JPE
SCALE:	1"=20'
DATE:	2023-03-01
SHEET NO:	C3.0



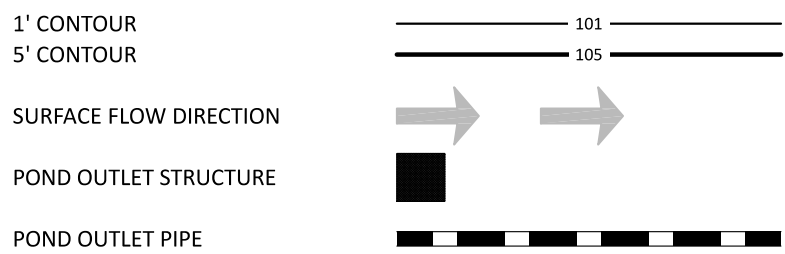
SITE PLAN LEGEND



UTILITY PLAN LEGEND



GRADING/DRAINAGE PLAN LEGEND



STORM DRAINAGE NOTES

- RIM ELEVATION FOR A CATCH BASIN (CB) OR CURB INLET (CI) IS TOP OF CURB (T/C). RIM ELEVATION FOR DROP INLET (DI) OR YARD INLET (YI) IS TOP OF BOX OR TOP OF GRATE (NOT SLAB). RIM ELEVATION FOR A MANHOLE (MH) OR JUNCTION BOX (JB) IS CENTER OF THE STRUCTURE COVER.
- ALL STORM DRAINAGE PIPES SHALL BE CLASS III REINFORCED CONCRETE PIPE (RCP) UNLESS NOTED OTHERWISE.
- ALL STORM DRAINAGE PIPE IN TRAFFIC AREAS SHALL HAVE A MINIMUM COVER OF 2 FEET TO THE PIPE CROWN UNLESS OTHERWISE APPROVED.
- ALL STORM DRAINAGE PIPE IN TRAFFIC NON-AREAS SHALL HAVE A MINIMUM COVER OF 1 FOOT TO THE PIPE CROWN UNLESS OTHERWISE APPROVED.
- ALL CONCRETE SHALL MEET A MINIMUM 3000 PSI COMPRESSIVE STRENGTH.
- ALL PIPE IN STORM DRAINAGE STRUCTURES SHALL BE STRUCK EVEN WITH THE INSIDE WALL.
- ALL PIPE JOINTS SHALL BE MADE WITH PREFORMED JOINT SEALER WHICH CONFORMS TO AASHTO SPECIFICATION M-198 FOR TYPE B FLEXIBLE PASTIC GASKETS UNLESS OTHERWISE NOTED.
- EACH DRAINAGE STRUCTURE SHALL HAVE A SHAPED INVERT CONSTRUCTED FROM CONCRETE, AND A BENCH WITH A MAXIMUM 5:1 SLOPE. THE BENCH SHALL BEGIN AT A HEIGHT OF ONE-HALF THE PIPE DIAMETER FOR 12 TO 24 INCH PIPE, ONE-THIRD THE PIPE DIAMETER FOR 30 - 48 INCH PIPE, AND ONE-FOURTH THE DIAMETER FOR PIPE GREATER THAN 48 INCHES.
- ALL BACKFILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATIVE MATTER, WASTE, CONSTRUCTION MATERIAL OR OTHER OBJECTIONABLE MATERIAL. SUITABLE SOILS SHALL BE CAPABLE OF COMPACTED BY MECHANICAL MEANS AND SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER TAMPING BLOWS OR PROOF ROLLING.
- MATERIALS DEEMED AS UNSUITABLE FOR BACKFILL PURPOSES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.
- BACKFILLING OF TRENCHES SHALL BE PERFORMED IMMEDIATELY AFTER PIPE IS LAID. THE FILL AROUND AND ABOVE THE PIPE SHALL BE COMPACTED IN ACCORDANCE WITH THE PERMITTING AUTHORITY'S SPECIFICATIONS AND/OR THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- UNDER NO CIRCUMSTANCES SHALL WATER BE ALLOWED TO RISE IN UNBACKFILLED TRENCHES AFTER PIPE HAS BEEN PLACED.

GRADING NOTES

- PROPOSED CONTOURS REPRESENT APPROXIMATE ELEVATIONS AT A POINT. PROPOSED SPOT ELEVATIONS AND ROADWAY PROFILES SUPERSEED CONTOUR INFORMATION.
- ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE AWAY FROM BUILDING FOUNDATIONS AND SHALL MAINTAIN ADEQUATE DRAINAGE DURING CONSTRUCTION.
- ALL GRADING, BACKFILLING, EXCAVATION, ETC. SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS SET FORTH BY THE LOCAL GOVERNING AUTHORITY. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR COORDINATING ALL CONSTRUCTION ACTIVITIES WITH SAID AUTHORITY.
- CONTRACTOR IS TO CONTACT NORTH CAROLINA "ONE CALL" AT 811 FOR UNDERGROUND UTILITY LOCATION 48 HOURS PRIOR TO ANY DIGGING.
- CONTRACTOR SHALL LOCATE AND VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- ANY AND ALL DISTURBED AREAS SHALL BE FINE GRADED, SEEDED WITH PERMANENT GRASS SEEDING MIX AND STRAWED PRIOR TO DEMOBILIZATION FROM THE SITE.
- ALL SWALES/DITCHES ALONG PROPERTY LINES AND REAR YARDS SHOULD BE 2% OR STEEPER.
- SLOPES STEEPER THAN 3H:1V SHOULD BE EVALUATED AND DESIGNED BY A GEOTECHNICAL ENGINEER.
- THE CONTRACTOR SHALL NOTE THAT SPILL CURB SHALL BE USED AS NECESSARY IN PARKING AREAS, AT INTERSECTIONS, AT MEDIANS TO ELIMINATE AREAS OF STANDING WATER IN THE CURB.

GENERAL GRADING NOTES

- NO SITE DEVELOPMENT ACTIVITY, INCLUDING BUT NOT LIMITED TO TESTING, CLEARING, INSTALLATION OF S&E MEASURES OR GRADING, SHALL OCCUR UNTIL REQUIRED PROTECTION FENCING HAS BEEN INSTALLED AND INSPECTED.

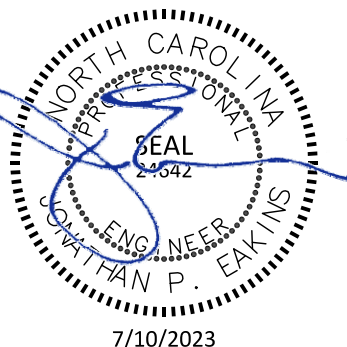


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REVISIONS		REVISED FOR	
1	2023-07-10	ADDITIONAL COMMENTS	

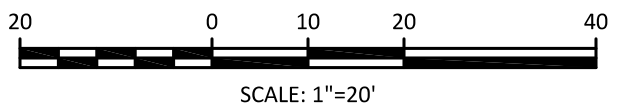
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ZEBULON, NC
GRADING AND DRAINAGE PLAN



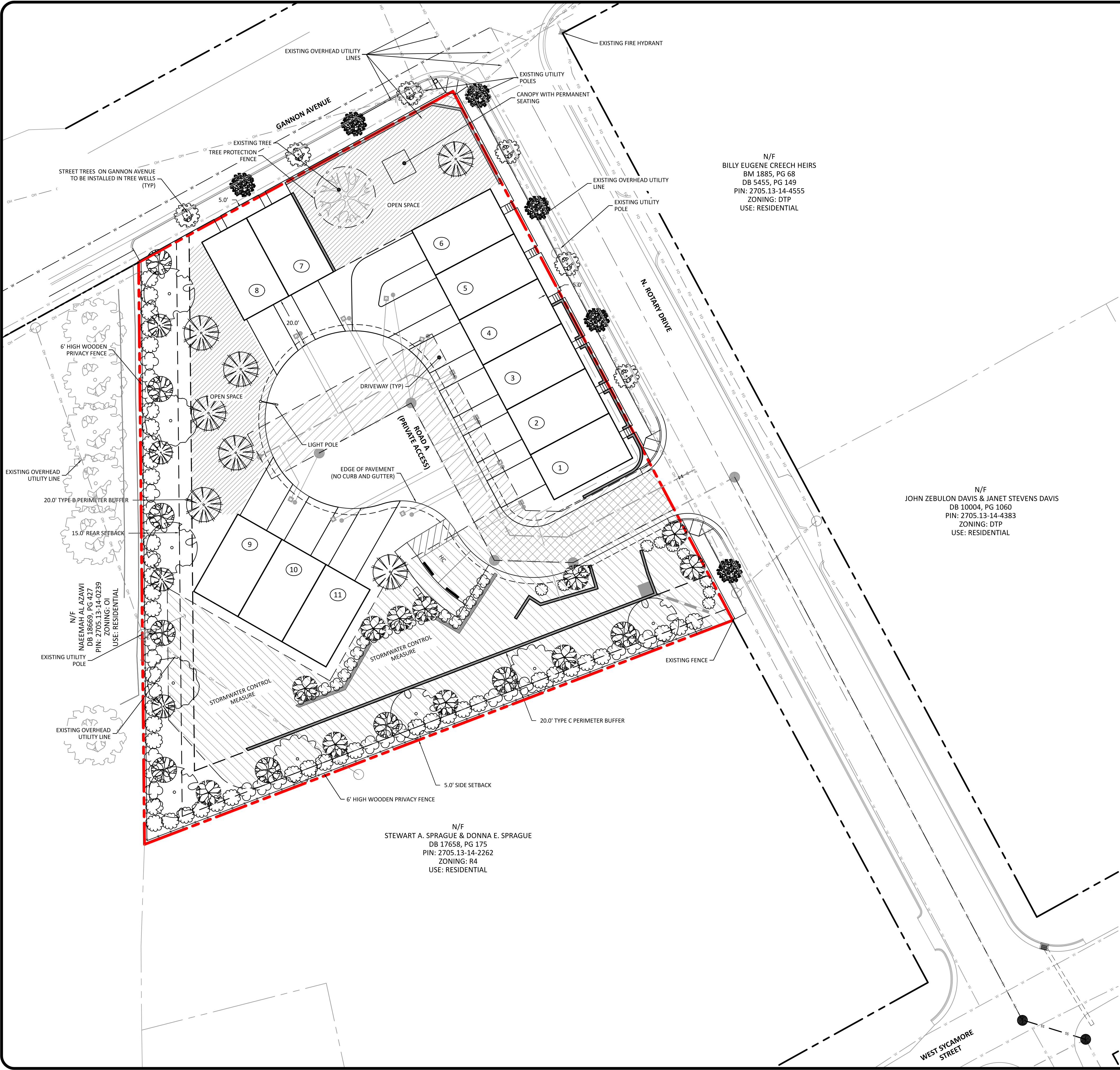
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SHEET NO:	C4.0

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PROJECT ID: 964220

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PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



N/F
BILLY EUGENE CREECH HEIRS
BM 1885, PG 68
DB 5455, PG 149
PIN: 2705.13-14-4555
ZONING: DTP
USE: RESIDENTIAL

N/F
JOHN ZEBULON DAVIS & JANET STEVENS DAVIS
DB 10004, PG 1060
PIN: 2705.13-14-4383
ZONING: DTP
USE: RESIDENTIAL

N/F
STEWART A. SPRAGUE & DONNA E. SPRAGUE
DB 17658, PG 175
PIN: 2705.13-14-2262
ZONING: R4
USE: RESIDENTIAL

SITE PLAN LEGEND

PROPERTY BOUNDARY	
ACCESS EASEMENT	
RALEIGH PUBLIC UTILITIES EASEMENT	
SCM ACCESS EASEMENT	

UTILITY PLAN LEGEND

WATER PIPE	
WATER SERVICE/METER	
SANITARY SEWER PIPE	
SANITARY SEWER MANHOLE	
SANITARY SEWER SERVICE/CLEANOUT	

TYPE "B" BUFFER LANDSCAPE PLANT LIST						
#	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	TYPE
45		Morella cerifera	WAX MYRTLE	18" HT/ 3 GAL	CONT.	EVERGREEN SHRUB
24		Ligustrum japonicum	CURLY-LEAF PRIVET	18" HT/ 3 GAL	CONT.	EVERGREEN SHRUB
4		Cercis Canadensis	REDBUD	1.5" CAL/ 4" HT	B&B	UNDERSTORY TREE
9		Ilex x 'Nellie R. Stevens'	NELLIE STEVENS HOLLY	1.5" CAL/ 4" HT	B&B	UNDERSTORY TREE
4		Amelanchier arborea	SERVICEBERRY	1.5" CAL/ 4" HT	B&B	UNDERSTORY TREE
5		Quercus Phellos	WILLOW OAK	2.0" CAL/ 8" HT	B&B	CANOPY TREE
2		Acer Rubrum	RED MAPLE	2.0" CAL/ 8" HT	B&B	CANOPY TREE
2		Celtis laevigata	HACKBERRY	2.0" CAL/ 8" HT	B&B	CANOPY TREE

SCM SCREENING LANDSCAPE PLANT LIST						
#	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	TYPE
10		Morella cerifera	WAX MYRTLE	18" HT/ 3 GAL	CONT.	EVERGREEN SHRUB
20		Ligustrum japonicum	CURLY-LEAF PRIVET	18" HT/ 3 GAL	CONT.	EVERGREEN SHRUB
7		Amelanchier arborea	SERVICEBERRY	1.5" CAL/ 4" HT	B&B	UNDERSTORY TREE

STREET TREE PLANT LIST						
#	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	TYPE
6		Koeleruteria paniculata	GOLDENRAIN TREE	1.5" CAL/ 4" HT	B&B	UNDERSTORY TREE
6		Magnolia x soulangiana var Alexandrina	SAUCER MAGNOLIA	1.5" CAL/ 4" HT	B&B	UNDERSTORY TREE

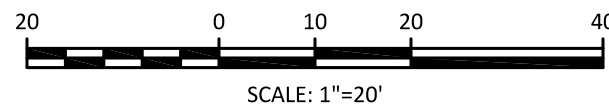
ADDITIONAL SHADE TREES						
SHADE TREES ADDED IN ADDITION TO REQUIRED BUFFERS AND STREET TREES						
#	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	TYPE
7		Sorbus alnifolia	KOREAN MOUNTAINASH	1.5" CAL/ 4" HT	B&B	SHADE TREE

STREET TREE INSTALLATION NOTES

- STREET TREES ALONG GANNON AVENUE SHALL BE INSTALLED IN A 3'x3' TREE WELL.
- CARE SHOULD BE TAKEN TO NOT DAMAGE EXISTING WATER LINES AND FIBER OPTIC LINES DURING PLANTING OF STREET TREES ALONG GANNON AVENUE AND ROTARY DRIVE
- STREET TREES ALONG ROTARY DRIVE WERE SELECTED FROM THE TOWN'S LIST OF UNDERSTORY TREES THAT ARE SUITABLE FOR PLANTING UNDER POWER LINES. DIFFERENT TREES MAY BE NEEDED DEPENDING ON THE HEIGHT OF THE EXISTING OVERHEAR UTILITY LINES.

TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TOWN OF
ZEBULON STANDARDS AND
SPECIFICATIONS



The Nau Company
Consulting Civil Engineers
PO Box 810, Rolesville, NC 27571
919-435-6395
NCBELS License P-0751

OWNER/DEVELOPER:
MERIDIAN PROPERTIES GROUP LLC
4030 WAKE FOREST RD., SUITE 100
RALEIGH, NC 27609
919-621-4646

REVISIONS

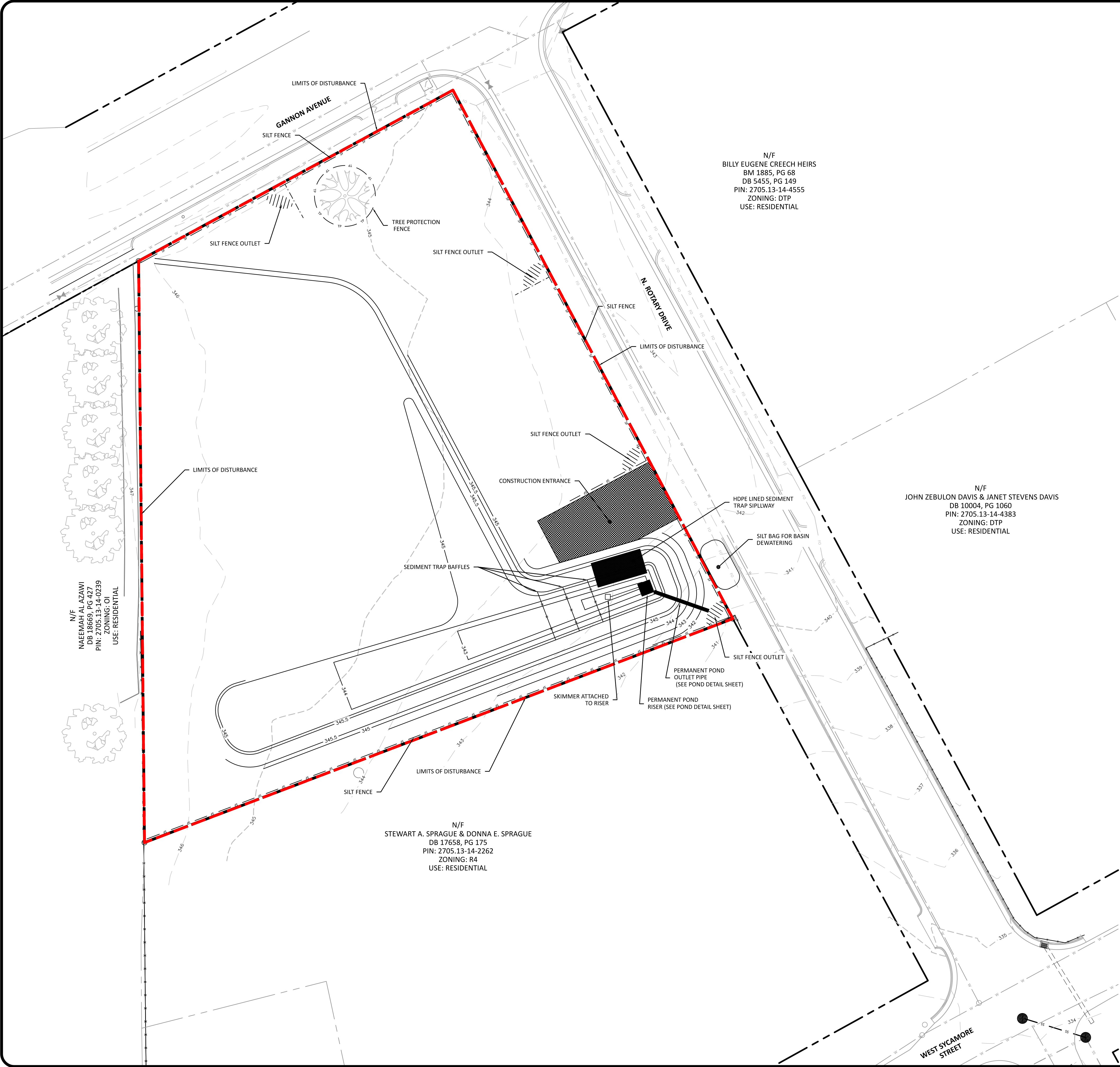
#	DATE	DESCRIPTION
1	2023-07-10	ISSUED FOR PERMITS AND REVISIONS PER TOWN COMMENTS

401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS

ZEBULON, NC
LANDSCAPE PLAN



PROJECT NO:	---
DESIGN BY:	JPE
DRAWN BY:	JPE
SCALE:	1"=20'
DATE:	2023-03-01
SHEET NO:	C5.0



REQUIRED WAKE COUNTY EROSION CONTROL SEQUENCE

1. SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL CONSULTANT. OBTAIN A LANDDISTURBING PERMIT.
2. INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
3. CALL ENVIRONMENTAL CONSULTANT FOR AN ONSITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT TO OBTAIN A CERTIFICATE OF COMPLIANCE.
4. BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED.
5. ROUGH GRADE SITE.
6. INSTALL STORM SEWER, IF SHOWN, AND PROTECT INLETS WITH BLOCK AND GRAVEL INLET CONTROLS, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN. BEGIN CONSTRUCTION, BUILDING, ETC.
7. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
8. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY CALL ENVIRONMENTAL CONSULTANT FOR AN INSPECTION.
9. IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
10. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT. OBTAIN A CERTIFICATE OF COMPLETION.

WAKE COUNTY SEDIMENT BASIN REMOVAL SEQUENCE

1. SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE IF A BASIN CAN BE REMOVED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
2. CONTACT NCDEQ - RALEIGH REGIONAL OFFICE (919) 791-4200 TO DETERMINE THE DIVISION OF ENERGY, MINERAL AND LAND RESOURCES CONTACT PERSON TO RECEIVE DEWATERING NOTIFICATIONS. AT LEAST 10 DAYS PRIOR TO BEGINNING DEWATERING ACTIVITY, SEND EMAIL TO NCDEQ-DEMLR CONTACT PERSON AND COPY ENVIRONMENTAL CONSULTANT THAT MET YOU ONSITE. THE EMAIL SHOULD INCLUDE: E&SC JURISDICTION: WAKE COUNTY, WAKE COUNTY PROJECT: NAME, NUMBER, AND LOCATION (CITY/TOWN), ENVIRONMENTAL CONSULTANT NAME, AND ADDRESS THE FOLLOWING: A) REASON FOR CONVERSION, B) BASIN #, C) DEWATERING METHOD, AND D) ALL OTHER NECESSARY INFO FROM PART II, SECTION G, ITEM 4 OF THE NCG01. (KEEP EMAIL FOR YOUR NPDES MONITORING DOCUMENTATION)
3. AFTER RECEIVING POSITIVE CONFIRMATION FROM NCDEQ-DEMLR THAT YOU MAY REMOVE THE BASIN OR ON > DAY 11, WHICHEVER IS SOONER. REMOVE BASIN(S) AND ASSOCIATED TEMPORARY DIVERSION DITCHES. IF PIPES NEED TO BE EXTENDED, PERFORM THIS OPERATION AT THIS TIME. FINE GRADE AREA IN PREPARATION FOR SEEDING.
4. PERFORM SEEDBED PREPARATION, SEED, MULCH AND ANCHOR ANY RESULTING BARE AREAS IMMEDIATELY.
5. INSTALL VELOCITY DISSIPATORS AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
6. WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVICE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION. NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE WHEN A BASIN MAY BE CONVERTED FOR STORMWATER USE. SOME MUNICIPALITIES MAY ALSO REQUIRE THIS.

SITE SPECIFIC STAGE 1 CONSTRUCTION SEQUENCE

1. INSTALL CONSTRUCTION ENTRANCE, PERIMETER SILT FENCE AND SILT FENCE OUTLETS
2. GRADE IN SEDIMENT BASIN, BASIN SPILLWAY AND INSTALL PERMANENT POND RISER AND OUTLET PIPE
3. ATTACH SKIMMER TO RISER AND INSTALL BAFFLES IN SEDIMENT BASIN
4. ONCE ALL NECESSARY EROSION CONTROL DEVICES ARE INSTALLED BEGIN GRADING
5. AS GRADING PROGRESSES, GRADUALLY TRANSITION FROM STAGE 1 TO STAGE 2.
6. REFER TO STAGE 2 EROSION CONTROL PLAN FOR ADDITIONAL SEQUENCING

THE SEDIMENT BASIN SHALL NOT BE CONVERTED TO THE FINAL STORMWATER CONTROL MEASURE UNTIL THE AREA UPSTREAM HAS BEEN ADEQUATELY STABILIZED AND HAS BEEN APPROVED BY THE EROSION CONTROL INSPECTOR. THIS INCLUDES MAINTAINING THE SKIMMER AND BAFFLES IN THE TRAP AND MAINTAINING INLET PROTECTION AT THE UPSTREAM INLETS.

THERE WILL BE NO STOCKPILES NECESSARY FOR THIS PROJECT.

SILT FENCE OUTLETS MAY BE ADJUSTED IN THE FIELD TO MATCH LOW POINTS ALONG SILT FENCE

TOTAL DISTURBED AREA
43,290 SF
0.99 ACRES

SEDIMENT TRAP DATA	
DRAINAGE AREA	0.55 AC
DISTURBED AREA	0.55 AC
Q(10)	2.0 CFS
VOLUME REQUIRED	990 CF
VOLUME PROVIDED	1,687 CF
SURFACE AREA REQUIRED	650 SF
SURFACE AREA PROVIDED	1,914 SF
TOP OF BERM ELEV.	345.5
BOTTOM OF TRAP ELEV.	342.0
SEDIMENT DEPTH	2.0 FT
SPILLWAY LENGTH	20 FT
SPILLWAY ELEV.	344.0
SKIMMER SIZE	1.5 IN
SKIMMER ORIFICE SIZE	0.5 IN

OUTLET PROTECTION - SCM	
Q(10)	1.0 CFS
APRON LENGTH	4 FT
APRON WIDTH	3 FT
APRON THICKNESS	9 INCHES
STONE SIZE	NCDOT CLASS A



The Nau Company
Consulting Civil Engineers
PO Box 810, Rolesville, NC 27571
919-435-6395
NCBELS License P-0751

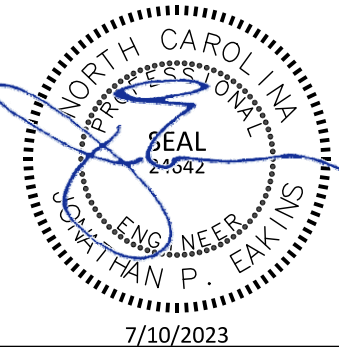
OWNER/DEVELOPER:
MERIDIAN PROPERTIES GROUP LLC
4050 WAKE FOREST ROAD, SUITE 100
RALEIGH, NC 27609
919-621-4646

REVISIONS

1. 2023-07-10

401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS
ZEBULON, NC

EROSION CONTROL PLAN STAGE 1



PROJECT NO: ---

DESIGN BY: JPE

DRAWN BY: JPE

SCALE: 1"=20'

DATE: 2023-03-01

SHEET NO: C6.1

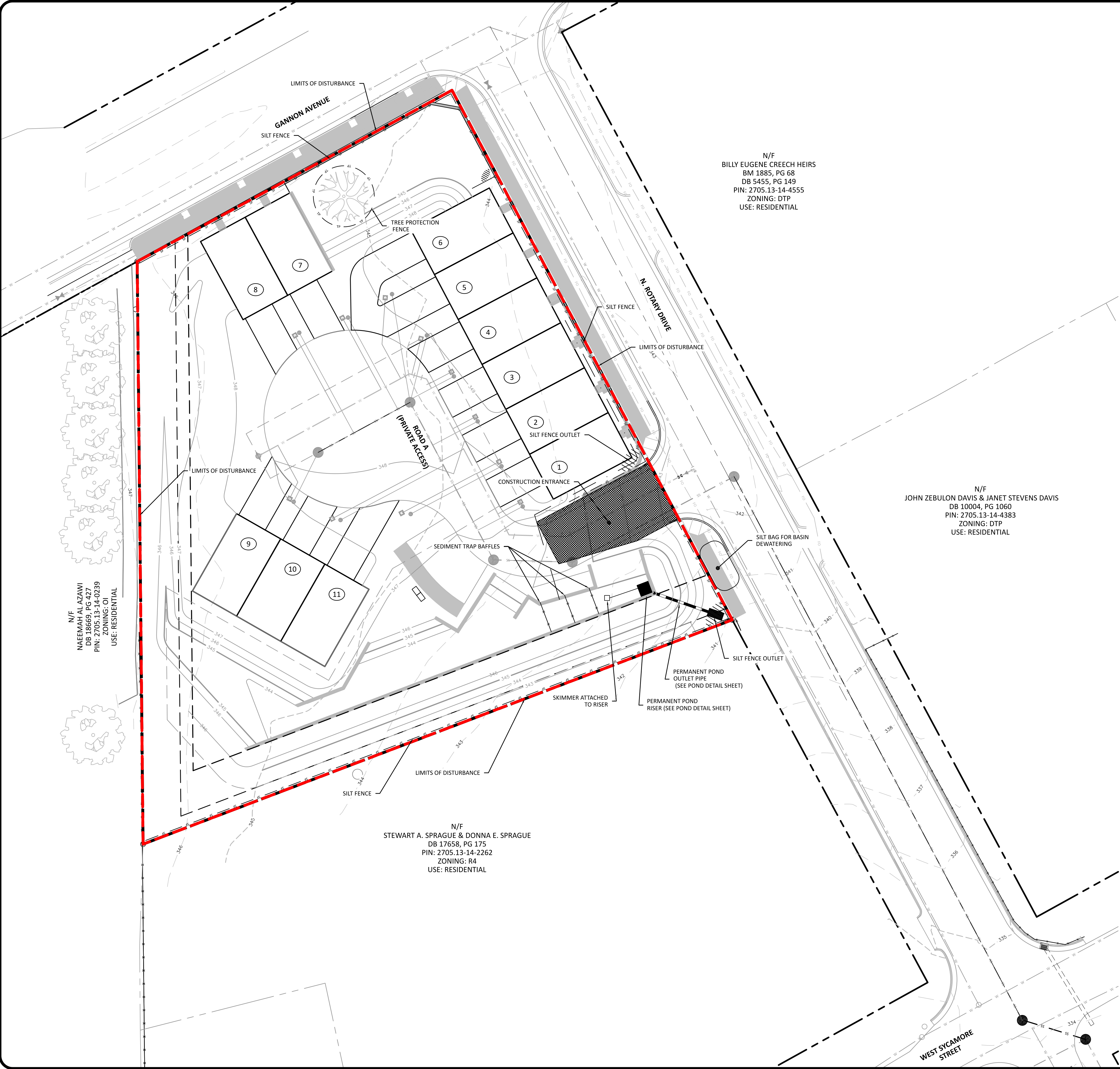
TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TOWN OF
ZEBULON STANDARDS AND
SPECIFICATIONS



SCALE: 1"=20'

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



N/F
BILLY EUGENE CREECH HEIRS
BM 1885, PG 68
DB 5455, PG 149
PIN: 2705.13-14-4555
ZONING: DTP
USE: RESIDENTIAL

N/F
JOHN ZEBULON DAVIS & JANET STEVENS DAVIS
DB 10004, PG 1060
PIN: 2705.13-14-4383
ZONING: DTP
USE: RESIDENTIAL

N/F
STEWART A. SPRAGUE & DONNA E. SPRAGUE
DB 17658, PG 175
PIN: 2705.13-14-2262
ZONING: R4
USE: RESIDENTIAL

N/F
N/AEEMAH AL AZAWI
DB 18669, PG 427
PIN: 2705.13-14-0239
ZONING: OI
USE: RESIDENTIAL

REQUIRED WAKE COUNTY EROSION CONTROL SEQUENCE

1. SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL CONSULTANT. OBTAIN A LANDDISTURBING PERMIT.
2. INSTALL GRAVEL CONSTRUCTION PAD, TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS OR OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. SEED TEMPORARY DIVERSIONS, BERMS AND BASINS IMMEDIATELY AFTER CONSTRUCTION.
3. CALL ENVIRONMENTAL CONSULTANT FOR AN ONSITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT TO OBTAIN A CERTIFICATE OF COMPLIANCE.
4. BEGIN CLEARING AND GRUBBING. MAINTAIN DEVICES AS NEEDED.
5. ROUGH GRADE SITE.
6. INSTALL STORM SEWER, IF SHOWN, AND PROTECT INLETS WITH BLOCK AND GRAVEL INLET CONTROLS, SEDIMENT TRAPS OR OTHER APPROVED MEASURES AS SHOWN ON THE PLAN. BEGIN CONSTRUCTION, BUILDING, ETC.
7. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
8. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY CALL ENVIRONMENTAL CONSULTANT FOR AN INSPECTION.
9. IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
10. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT. OBTAIN A CERTIFICATE OF COMPLETION.

WAKE COUNTY SEDIMENT BASIN REMOVAL SEQUENCE

1. SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE IF A BASIN CAN BE REMOVED. INSTALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
2. CONTACT NCDEQ - RALEIGH REGIONAL OFFICE (919) 791-4200 TO DETERMINE THE DIVISION OF ENERGY, MINERAL AND LAND RESOURCES CONTACT PERSON TO RECEIVE DEWATERING NOTIFICATIONS. AT LEAST 10 DAYS PRIOR TO BEGINNING DEWATERING ACTIVITY, SEND EMAIL TO NCDEQ-DEMLR CONTACT PERSON AND COPY ENVIRONMENTAL CONSULTANT THAT MET YOU ONSITE. THE EMAIL SHOULD INCLUDE: E&SC JURISDICTION: WAKE COUNTY, WAKE COUNTY PROJECT: NAME, NUMBER, AND LOCATION (CITY/TOWN), ENVIRONMENTAL CONSULTANT NAME, AND ADDRESS THE FOLLOWING: A) REASON FOR CONVERSION, B) BASIN #, C) DEWATERING METHOD, AND D) ALL OTHER NECESSARY INFO FROM PART II, SECTION G, ITEM 4 OF THE NCG01. (KEEP EMAIL FOR YOUR NPDES MONITORING DOCUMENTATION)
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4. PERFORM SEEDED PREPARATION, SEED, MULCH AND ANCHOR ANY RESULTING BARE AREAS IMMEDIATELY.
5. INSTALL VELOCITY DISSIPATORS AND/OR LEVEL SPREADERS AS REQUIRED ON THE EROSION CONTROL PLAN.
6. WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVISE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION. NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE WHEN A BASIN MAY BE CONVERTED FOR STORMWATER USE. SOME MUNICIPALITIES MAY ALSO REQUIRE THIS.

SITE SPECIFIC STAGE 2 CONSTRUCTION SEQUENCE

1. AS GRADING PROGRESSES, GRADUALLY TRANSITION FROM STAGE 1 TO STAGE 2.
2. THE SEDIMENT BASIN WILL BECOME A PERMANENT STORMWATER CONTROL MEASURE (SCM). GRADE BERM TO FINAL GRADES AND INSTALL WALLS ALONG INTERIOR OF SCM.
3. THE DIVERSION INTO THE SEDIMENT BASIN WILL GRADUALLY GO AWAY AS GRADING PROGRESSES. ENSURE SURFACE FLOW INTO THE SEDIMENT BASIN OR TO A SILT FENCE AS GRADING PROGRESSES.
4. ONCE FINAL GRADES HAVE BEEN ESTABLISHED STABILIZE GROUND IN ACCORDANCE WITH THE SEEDING SCHEDULES IN THIS PLAN.
5. THE SEDIMENT BASIN WILL BE USED AS A BIORETENTION AREA. THE SOIL MEDIA MIX FOR THE BIORETENTION SHOULD NOT BE PLACED UNTIL THE SITE HAS BEEN STABILIZED.
6. CONVERT THE SEDIMENT BASIN TO A PERMANENT SCM IN ACCORDANCE WITH THE SEQUENCE IN THESE PLANS

THE SEDIMENT BASIN SHALL NOT BE CONVERTED TO THE FINAL STORMWATER CONTROL MEASURE UNTIL THE AREA UPSTREAM HAS BEEN ADEQUATELY STABILIZED AND HAS BEEN APPROVED BY THE EROSION CONTROL INSPECTOR. THIS INCLUDES MAINTAINING THE SKIMMER AND Baffles IN THE TRAP AND MAINTAINING INLET PROTECTION AT THE UPSTREAM INLETS.

THERE WILL BE NO STOCKPILES NECESSARY FOR THIS PROJECT.

SILT FENCE OUTLETS MAY BE ADJUSTED IN THE FIELD TO MATCH LOW POINTS ALONG SILT FENCE

TOTAL DISTURBED AREA
43,290 SF
0.99 ACRES

SEDIMENT TRAP DATA	
DRAINAGE AREA	0.55 AC
DISTURBED AREA	0.55 AC
Q(10)	2.0 CFS
VOLUME REQUIRED	990 CF
VOLUME PROVIDED	1,687 CF
SURFACE AREA REQUIRED	650 SF
SURFACE AREA PROVIDED	1,914 SF
TOP OF BERM ELEV.	345.5
BOTTOM OF TRAP ELEV.	342.0
SEDIMENT DEPTH	2.0 FT
SPILLWAY LENGTH	20 FT
SPILLWAY ELEV.	344.0
SKIMMER SIZE	1.5 IN
SKIMMER ORIFICE SIZE	0.5 IN

OUTLET PROTECTION - SCM	
Q(10)	1.0 CFS
APRON LENGTH	4 FT
APRON WIDTH	3 FT
APRON THICKNESS	9 INCHES
STONE SIZE	NCDOT CLASS A



The Nau Company
Consulting Civil Engineers
PO Box 810, Rolesville, NC 27571
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NCBELS License P-0751

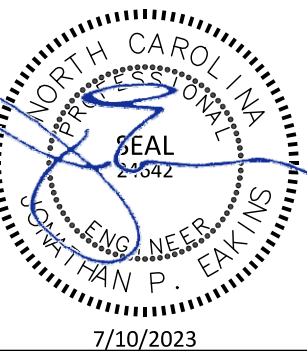
OWNER/DEVELOPER:
MERIDIAN PROPERTIES GROUP LLC
4050 WAKE FOREST ROAD, SUITE 100
RALEIGH, NC 27609
919-621-4646

REVISIONS

1 2023-07-10

401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS
ZEBULON, NC

EROSION CONTROL PLAN STAGE 2



PROJECT NO:

DESIGN BY:

DRAWN BY:

SCALE:

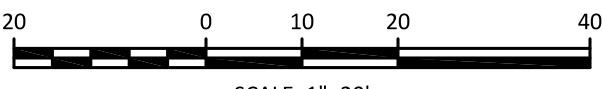
DATE:

SHEET NO:

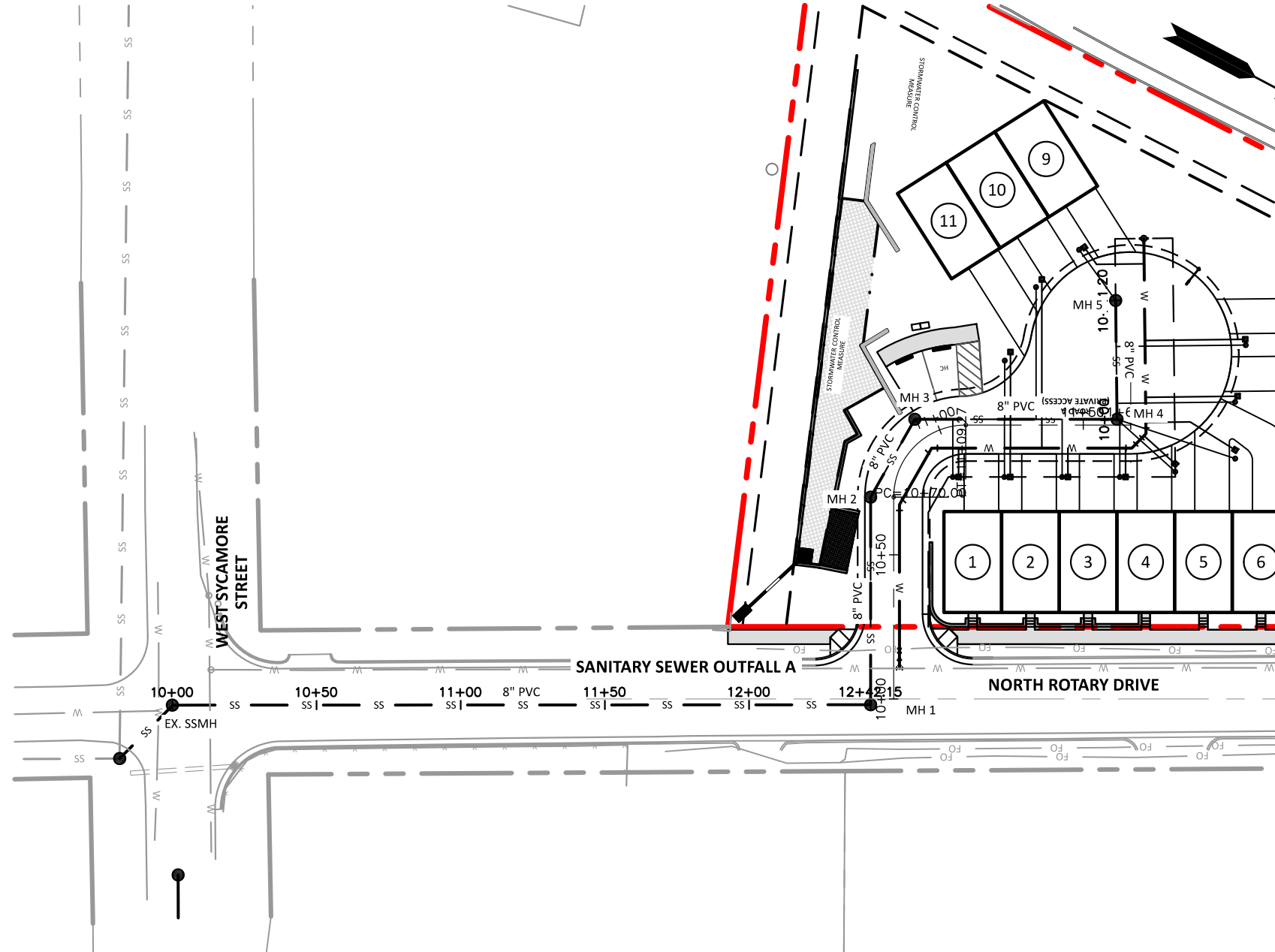
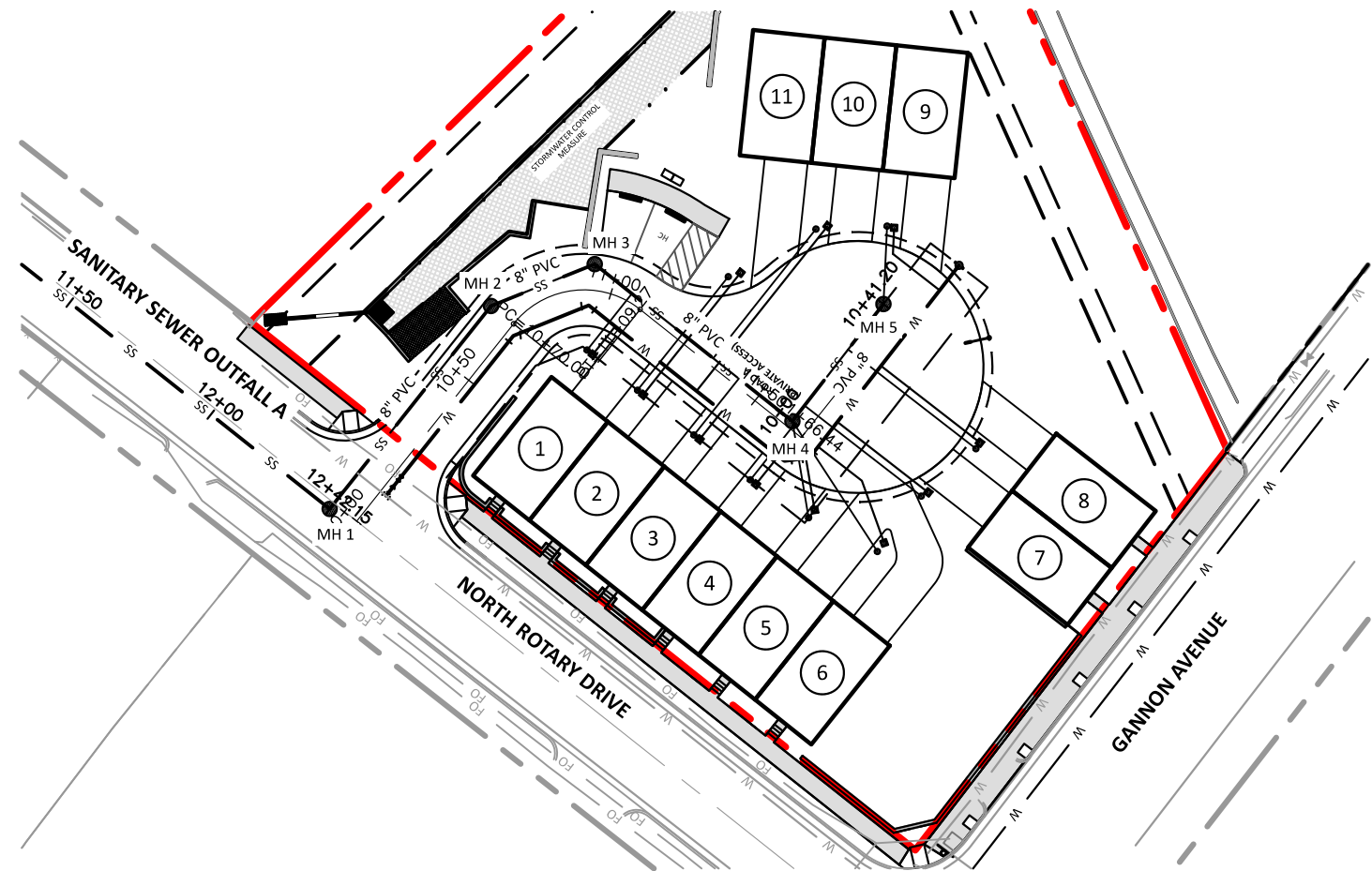
C6.2

TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TOWN OF
ZEBULON STANDARDS AND
SPECIFICATIONS



PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



ATTENTION CONTRACTORS

THE CONSTRUCTION CONTRACTOR RESPONSIBLE FOR THE EXTENSION OF WATER, SEWER AND/OR REUSE, AS APPROVED IN THESE PLANS, IS RESPONSIBLE FOR CONTACTING THE PUBLIC UTILITIES DEPARTMENT AT 919-996-4540 AT LEAST 24 HOURS PRIOR TO BEGINNING ANY OF THEIR CONSTRUCTION.

FAILURE TO NOTIFY BOTH CITY DEPARTMENTS IN ADVANCE OF BEGINNING CONSTRUCTION WILL RESULT IN THE ISSUANCE OF MONETARY FINES, AND REQUIRE REINSTALLATION OF ANY WATER OR SEWER FACILITIES NOT INSPECTED AS A RESULT OF THIS NOTIFICATION FAILURE.

FAILURE TO CALL FOR INSPECTION, INSTALL A DOWNSTREAM PLUG, HAVE PERMITTED PLANS ON THE JOBSITE, OR ANY OTHER VIOLATION OF CITY OF RALEIGH STANDARDS WILL RESULT IN A FINE AND POSSIBLE EXCLUSION FROM FUTURE WORK IN THE CITY OF RALEIGH.

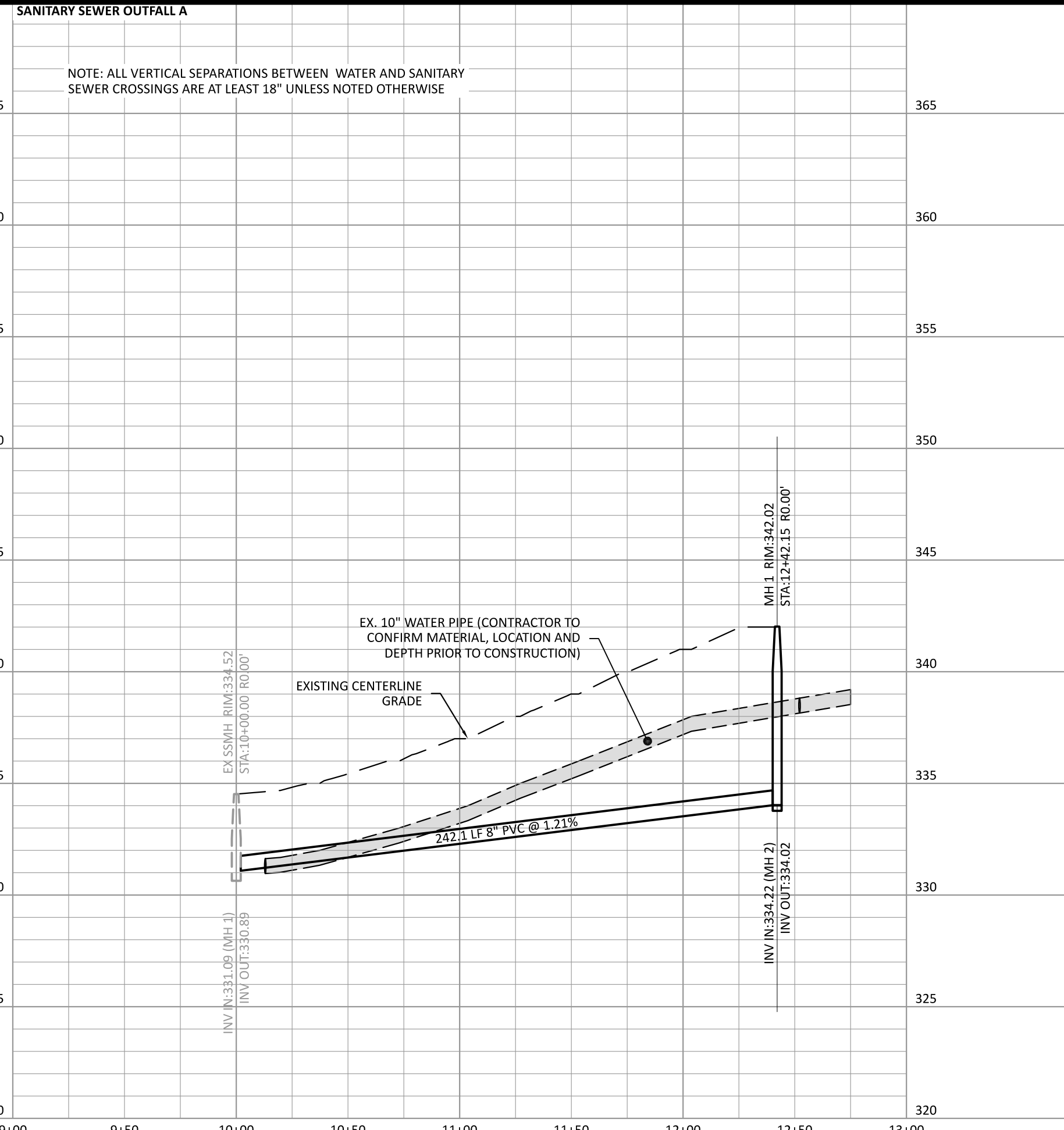
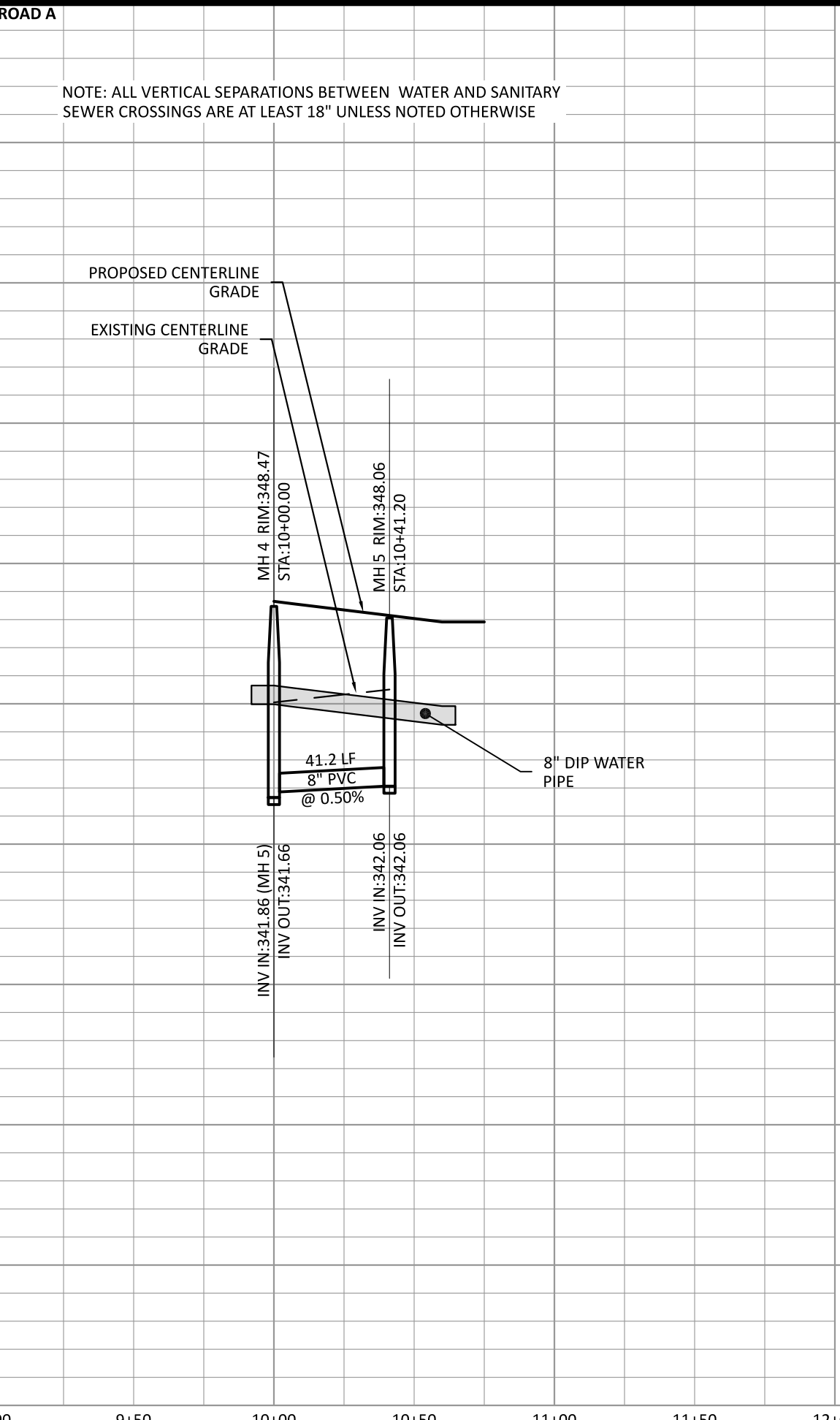
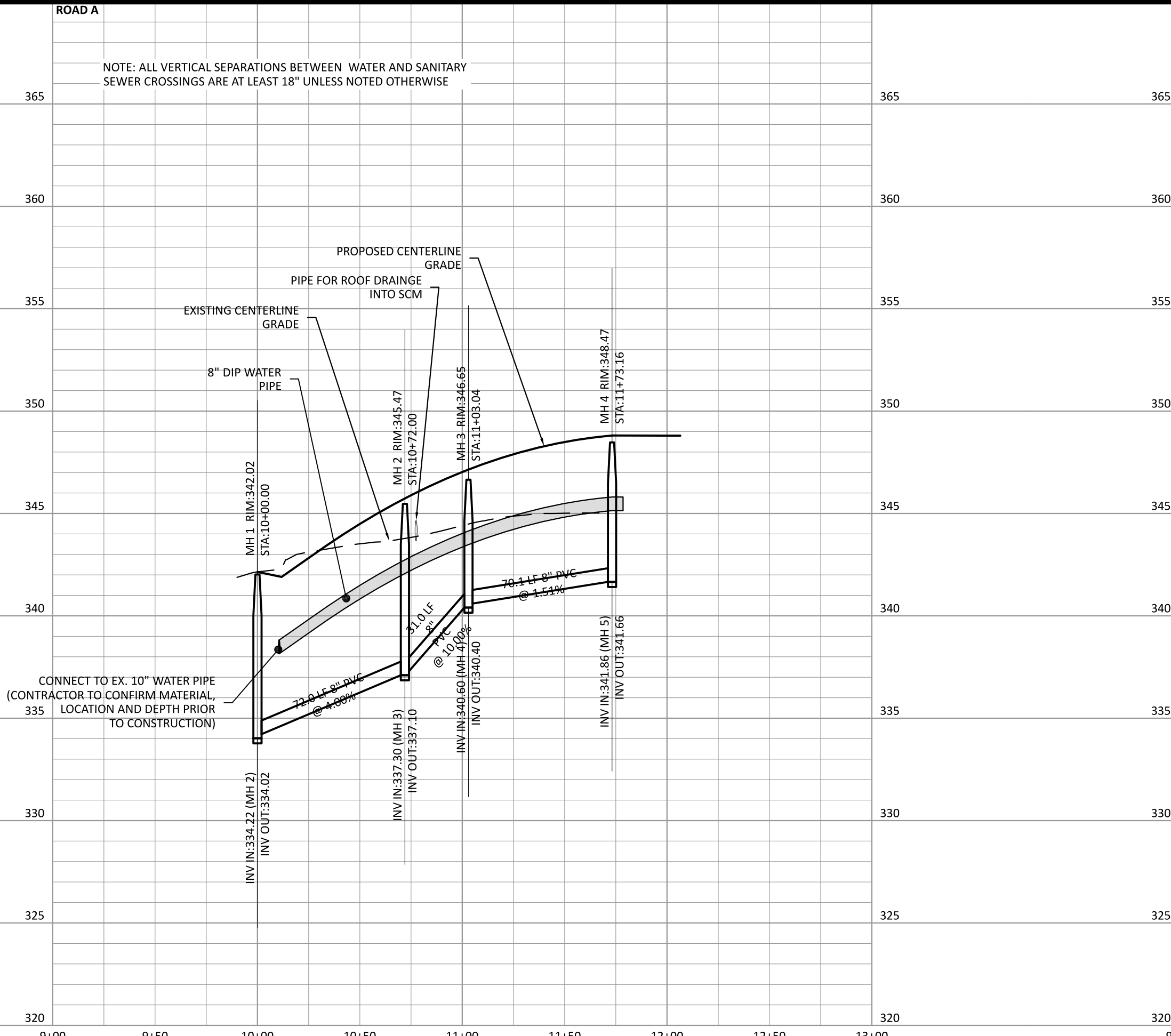
SITE PERMITTING APPROVAL
Water and Sewer Permits (If Applicable)

The City of Raleigh consents to the connection and extension of the City's Public Sewer System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # ~~18-0000~~ **23-0000**

The City of Raleigh consents to the connection and extension of the City's Public Water System as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. City of Raleigh Public Utilities Department Permit # ~~18-0000~~ **23-0000**

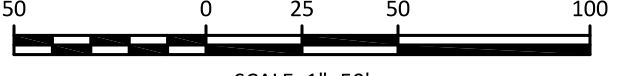
CITY OF RALEIGH -- PLANS AUTHORIZED FOR CONSTRUCTION
Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer Below. The City will retain a copy of the approval plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

City of Raleigh Development Approval
Raleigh Water Review Officer



TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TOWN OF
ZEBULON STANDARDS AND
SPECIFICATIONS

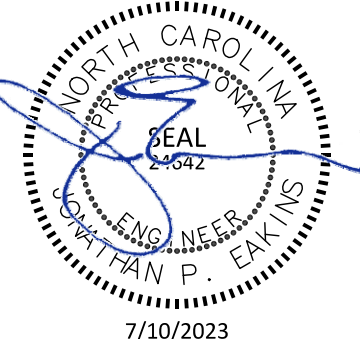


SCALE: 1"=50'

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS

ZEBULON, NC
PLAN AND PROFILE - ROAD A AND SANITARY
SEWER OUTFALL A



PROJECT NO: ---

DESIGN BY: JPE

DRAWN BY: JPE

SCALE: 1"=50' HORIZ
1"=5' VERT

DATE: 2023-03-01

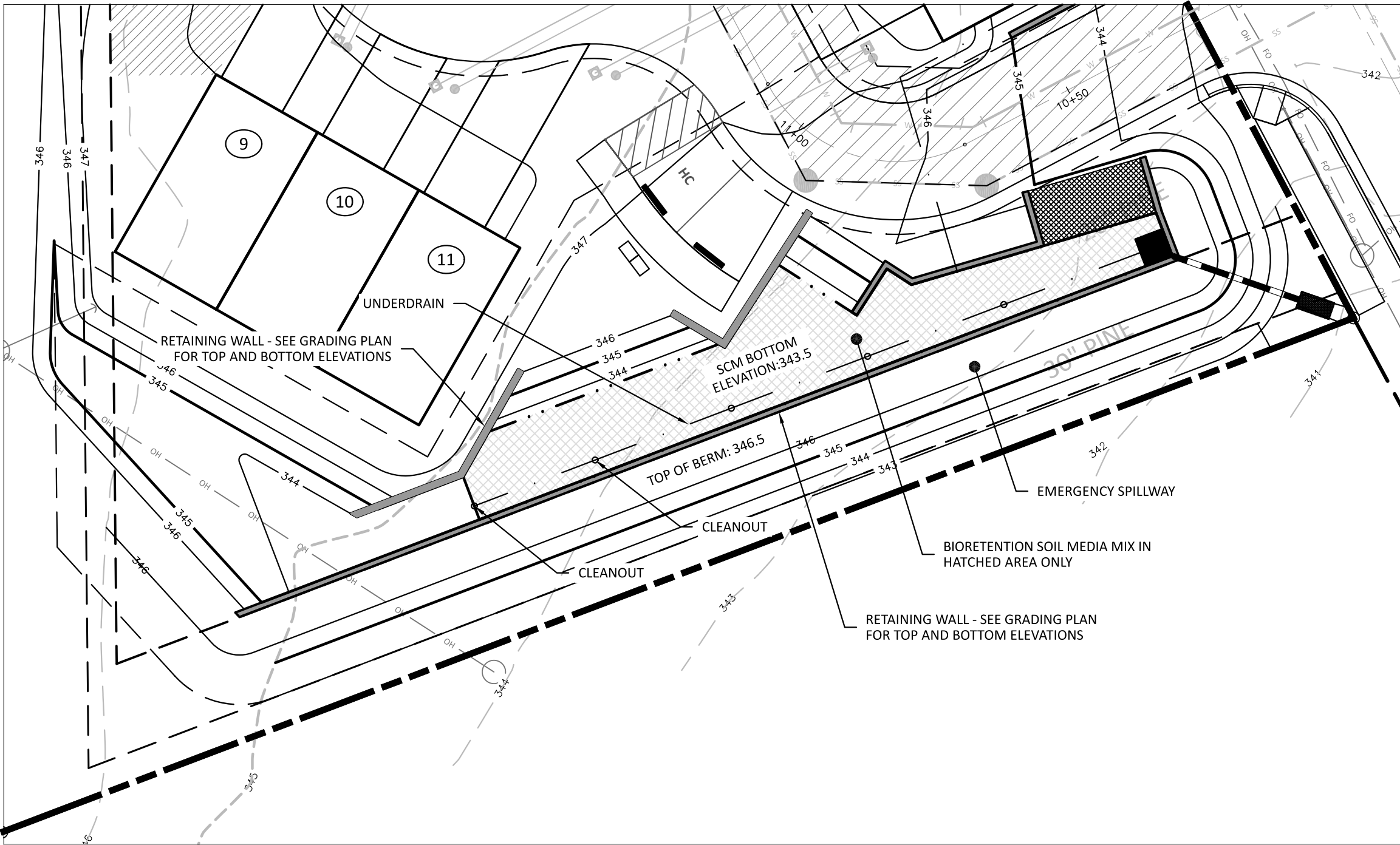
SHEET NO: **C7.1**

OWNER/DEVELOPER:
MERIDIAN PROPERTIES GROUP LLC
4030 WAKE FOREST ROAD, SUITE 100
RALEIGH, NC 27609
919-621-4646

The Nau Company
Consulting Civil Engineers
PO Box 810, Rolesville, NC 27571
919-435-6395
NCBELS License P-0751

REVISIONS

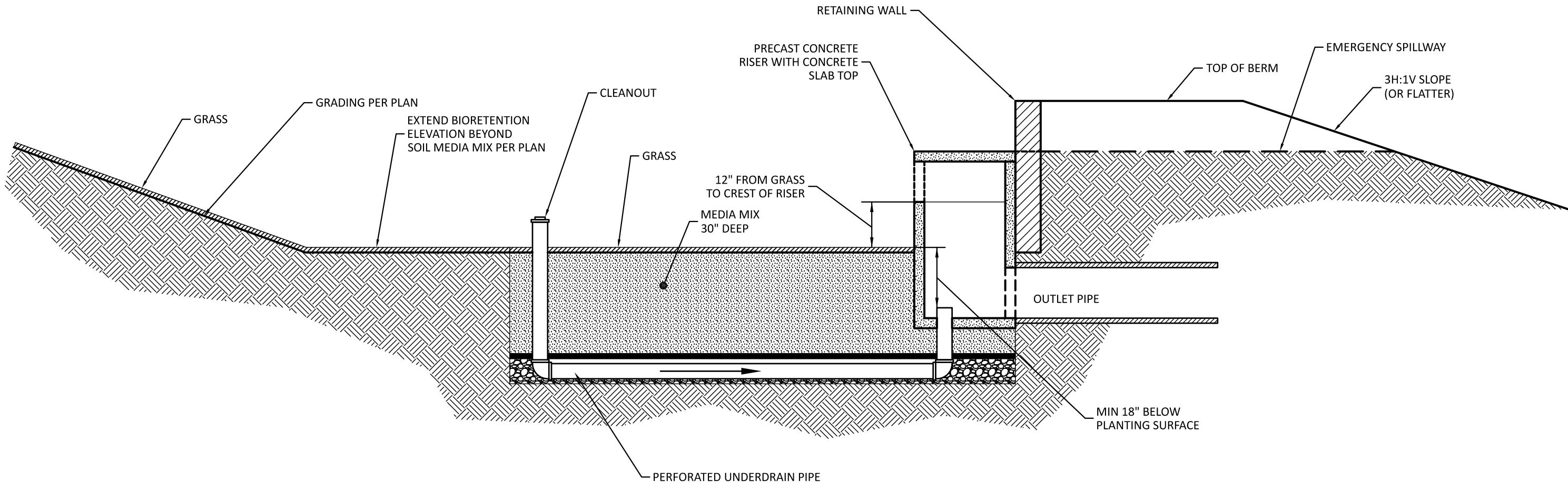
NO.	DATE	DESCRIPTION
1	2023-07-10	ISSUE FOR TOWN OF ZEBULON COMMENTS



BIORETENTION AREA GRADING

SCALE: 1"=50'

CONSTRUCTION DESIGN DATA		
DESIGN PARAMETER	DESIGN VALUE	AS-BUILT VALUE
TOP OF DAM ELEVATION	346.5	XXX
SEDIMENT CLEANOUT ELEV.	N/A	XXX
BOTTOM OF POND ELEVATION	343.5	XXX
RISER CREST ELEV.	344.5	XXX
RISER SIZE	48"x48" I.D SQUARE	XXX
NORMAL POOL ELEVATION	N/A	XXX
UNDERDRAIN PIPE DIAMETER	4.0 IN	XXX
ORIFICE DIAMETER	N/A	XXX
BARREL DIAMETER	12"	XXX
BARREL UPSTREAM INV.	341.9	XXX
BARREL DOWNSTREAM INV.	341.2	XXX
BARREL LENGTH	23 FT	XXX
EMERGENCY SPILLWAY ELEV.	345.25	XXX
EMERGENCY SPILLWAY LENGTH	20 FT	XXX
ANTI-FLOTATION BLOCK SIZE	6"x6"x18"	XXX
ANTI-SEEPAGE COLLAR SIZE	3"x3"	XXX
CALCULATED POND DATA		
SURFACE AREA REQUIRED	1297 SF	XXX
SURFACE AREA PROVIDED	1603 SF	XXX
WQ RAINFALL VOLUME	1297 CF	XXX
ELEV. AT WQ VOLUME	344.1	XXX
Q(1) DISCHARGE	0.1 CFS	XXX
Q(1) ELEV.	344.3	XXX
Q(2) DISCHARGE	0.1 CFS	XXX
Q(2) ELEV.	344.5	XXX
Q(10) DISCHARGE	0.1 CFS	XXX
Q(10) ELEV.	345.2	XXX
Q(100) DISCHARGE	4.6 CFS	XXX
Q(100) ELEV.	345.4	XXX
POND CONTOUR DATA		
ELEVATION	AREA	
343.5	1603 SF	XXX
344.0	2114 SF	XXX
345.0	3013 SF	XXX
346.0	3825 SF	XXX
346.5	4000 SF	XXX



BIORETENTION AREA - TYPICAL CROSS SECTION

NOT TO SCALE

BIORETENTION AREA CONSTRUCTION TIMING

1. THE CONTRACTOR SHALL GRADE AND PLACE THE SOIL MEDIA IN THE BIORETENTION CELL AS ONE OF THE LAST STEPS IN THE CONSTRUCTION PROCESS.
2. THE BIORETENTION AREA SHALL NOT BE CONSTRUCTED UNTIL BUILT UPON AREAS THAT DRAIN TO THE VEGETATED RECEIVING AREAS ARE COMPLETED
- UNTIL ADJACENT AREAS THAT DRAIN TO THE VEGETATED RECEIVING AREA ARE STABILIZED OR SURFACE FLOW IS DIVERTED AWAY FROM THE CELL

BIORETENTION AREA GENERAL NOTES

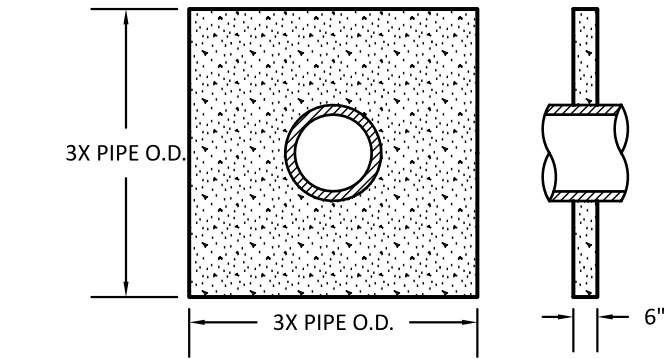
1. THE PONDING DEPTH OF THE BIORETENTION AREA IS LIMITED TO 12 INCHES.
2. THE MEDIA DEPTH FOR A BIORETENTION CELL WITH GRASS IS 30 INCHES AND 36 INCHES FOR BIORETENTION AREAS WITH TREES AND SHRUBS
3. THE BIORETENTION MIX IS DESIGNED TO MAINTAIN LONG TERM FERTILITY AND POLLUTANT PROCESSING CAPABILITY
4. THE SOIL MEDIA SHOULD BE SENT TO A LABORATORY FOR ANALYSIS OF THE P-INDEX. SOILS WITH A HIGH P-INDEX CAN INCREASE THE PHOSPHORUS IN THE STORMWATER RUNOFF.
5. THE SOIL MEDIA SHOULD NOT BE MECHANICALLY COMPACTED. IT IS RECOMMENDED TO EITHER WATER IT OR WALK ON IT AS IT IS PLACED.
6. NATIVE GRASSES CAN BE USED IN A MULCHED CELL BECAUSE OF THEIR HARDINESS, DEEP ROOTS AND AESTHETIC VALUE.
7. GRASS MAY BE USED AS A PLANTING OPTION. IF GRASS IS SELECTED SOD SHOULD BE USED AS SEEDING IS TYPICALLY NOT A VIABLE OPTION

MEDIA MIX NOTES

MEDIA MIX SPECIFICATIONS
THE MEDIA SHOULD BE COMPOSED OF A HOMOGENOUS MIX OF THE FOLLOWING:

75% TO 85% MEDIUM TO COARSE WASHED SAND
8% TO 10% FINES (SILT AND CLAY)
5% TO 10% ORGANIC MATTER (SUCH AS PINE BARK FINES)

MEDIA P-INDEX
THE MEDIA P-INDEX SHOULD BE LESS THAN 50



ANTI-SEEPAGE COLLAR

NOT TO SCALE

NOTES

1. THE CONCRETE COLLAR SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 3000 PSI.
2. ANTI-SEEPAGE COLLARS SHALL BE CONNECTED TO THE BARREL PIPE WITH A WATER TIGHT JOINT.
3. INSTALL ANTI-SEEPAGE COLLAR AT THE CENTER OF THE EMBANKMENT.
4. ANTI-SEEPAGE COLLARS SHALL BE INSTALLED AT LEAST 2 FEET FROM ANY PIPE JOINT.

EMERGENCY SPILLWAY LINING

THE EMERGENCY SPILLWAY SHALL BE LINED WITH NORTH AMERICAN GREEN VMAX S200 OR APPROVED EQUAL.

SEEDING SPECIFICATIONS

COMPLETE GRADING BEFORE PREPARING SEEDBEDS, AND INSTALL ALL NECESSARY EROSION CONTROL PRACTICES SUCH AS, DIKES, WATERWAYS, AND BASINS. MINIMIZE STEEP SLOPES BECAUSE THEY MAKE SEEDBED PREPARATION DIFFICULT AND INCREASE THE EROSION HAZARD. IF SOILS BECOME COMPACTED DURING GRADING, LOOSEN THEM TO A DEPTH OF 6-8 INCHES USING A RIPPER, HARROW, OR CHISEL FLOW.

SEEDBED PREPARATION

- GOOD SEEDBED PREPARATION IS ESSENTIAL TO SUCCESSFUL PLANT ESTABLISHMENT. A GOOD SEEDBED IS WELL-PULVERIZED, LOOSE, AND UNIFORM. WHERE HYDROSEEDING METHODS ARE USED, THE SURFACE MAY BE LEFT WITH A MORE IRREGULAR SURFACE OF LARGE CLODS AND STONES.
- LIMING—APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF THE PH (ACIDITY) OF THE SOIL IS NOT KNOWN, AN APPLICATION OF GROUND AGRICULTURAL LIMESTONE AT THE RATE OF 1 TO 1 1/2 TONS/ACRE ON COARSE-TEXTURED SOILS AND 2-3 TONS/ACRE ON FINETEXTURED SOILS IS USUALLY SUFFICIENT. APPLY LIMESTONE UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL. SOILS WITH A PH OF 6 OR HIGHER NEED NOT BE LIMED.
 - FERTILIZER—BASE APPLICATION RATES ON SOIL TESTS. WHEN THESE ARE NOT POSSIBLE, APPLY A 10-10-10 GRADE FERTILIZER AT 700-1,000 LB/ACRE. BOTH FERTILIZER AND LIME SHOULD BE INCORPORATED INTO THE TOP 4-6 INCHES OF SOIL. IF A HYDRAULIC SEEDER IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN 30 MINUTES BEFORE APPLICATION.
 - SURFACE ROUGHENING—IF RECENT TILLAGE OPERATIONS HAVE RESULTED IN A LOOSE SURFACE, ADDITIONAL ROUGHENING MAY NOT BE REQUIRED, EXCEPT TO BREAK UP LARGE CLODS. IF RAINFALL CAUSES THE SURFACE TO BECOME SEALED OR CRUSTED, LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING, OR OTHER SUITABLE METHODS. GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR BEFORE SEEDING (PRACTICE 6.03, SURFACE ROUGHENING).

PLANT SELECTION

SELECT AN APPROPRIATE SPECIES OR SPECIES MIXTURE FROM TABLE 6.10A FOR SEEDING IN LATE WINTER AND EARLY SPRING. TABLE 6.10B FOR SUMMER, AND TABLE 6.10C FOR FALL. IN THE MOUNTAINS, DECEMBER AND JANUARY SEEDINGS HAVE POOR CHANCES OF SUCCESS. WHEN IT IS NECESSARY TO PLANT AT THESE TIMES, USE RECOMMENDATIONS FOR FALL AND A SECURELY TACKED MULCH.

SEEDING

EVENLY APPLY SEED USING A CYCLONE SEEDER (BROADCAST), DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. USE SEEDING RATES GIVEN IN TABLES 6.10A-6.10C. BROADCAST SEEDING AND HYDROSEEDING ARE APPROPRIATE FOR STEEP SLOPES WHERE EQUIPMENT CANNOT BE DRIVEN. HAND BROADCASTING IS NOT RECOMMENDED BECAUSE OF THE DIFFICULTY IN ACHIEVING A UNIFORM DISTRIBUTION. SMALL GRAINS SHOULD BE PLANTED NO MORE THAN 1 INCH DEEP, AND GRASSES AND LEGUMES NO MORE THAN 1/2 INCH. BROADCAST SEED MUST BE COVERED BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY FIRMED WITH A ROLLER OR CULTIPACKER. HYDROSEEDED MIXTURES SHOULD INCLUDE A WOOD FIBER (CELLULOSE) MULCH.

MULCHING

THE USE OF AN APPROPRIATE MULCH WILL HELP ENSURE ESTABLISHMENT UNDER NORMAL CONDITIONS, AND IS ESSENTIAL TO SEEDING SUCCESS UNDER HARSH SITE CONDITIONS (PRACTICE 6.14, MULCHING). HARSH SITE CONDITIONS INCLUDE:

- SEEDING IN FALL FOR WINTER COVER (WOOD FIBER MULCHES ARE NOT CONSIDERED ADEQUATE FOR THIS USE),
- SLOPES STEEPER THAN 3:1,
- EXCESSIVELY HOT OR DRY WEATHER,
- ADVERSE SOILS (SHALLOW, ROCKY, OR HIGH IN CLAY OR SAND), AND
- AREAS RECEIVING CONCENTRATED FLOW.

IF THE AREA TO BE MULCHED IS SUBJECT TO CONCENTRATED WATERFLOW, AS IN CHANNELS, ANCHOR MULCH WITH NETTING (PRACTICE 6.14, MULCHING).

FROM: DEMLR EC MANUAL SECTION 6.10 REVISED 5/13

POND CERTIFICATION REQUIREMENTS

THE CONTRACTOR SHALL NOTE THAT THE FOLLOWING DOCUMENTATION IS REQUIRED FOR CERTIFICATION OF THIS POND. ADDITIONAL ITEMS MAY BE REQUIRED DEPENDING ON THE REVIEWING AUTHORITY.

1. AN AS-BUILT SURVEY WITH BARREL PIPE INVERTS AND DIAMETER, RISER DIMENSIONS AND CREST ELEVATION, ORIFICE ELEVATION(S) AND DIAMETER(S)
2. AN AS-BUILT TOPOGRAPHIC SURVEY OF THE POND AT ONE FOOT CONTOUR INTERVALS, INCLUDING THE TOP OF EMBANKMENT AND DOWNSTREAM SLOPE(S) OF THE EMBANKMENT
3. COMPACTION TESTS PERFORMED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. THIS SHOULD INCLUDE COMPACTION TESTS OF SOIL UNDER THE BARREL PIPE IF THE CONCRETE CRADLE WAS NOT USED.
4. VERIFICATION OF ANTI-SEEPAGE COLLAR SIZE AND INSTALLATION
5. VERIFICATION OF ANTI-FLOTATION BLOCK DIMENSIONS AND INSTALLATION

PERMANENT SODDING

ALL SOD SHOULD BE PLACED IN ACCORDANCE WITH SECTION 6.12 OF THE NC DENR EROSION CONTROL MANUAL.

SPECIES:

HYBRID BERMUDAGRASS

SOIL PREPARATION:

APPLY LIME AT A RATE OF 100 LB PER 1,000 SF. APPLY FERTILIZER AT A RATE OF 25 LB PER 1,000 SF OF 10-10-10 IN FALL OR 5-10-10 IN SPRING.

SOD INSTALLATION:

1. PRIOR TO LAYING SOD, CLEAR SURFACE OF SOIL OF ALL TRASH AND DEBRIS. FILL ALL LOW SPOTS TO AVOID STANDING WATER.
2. PRIOR TO INSTALLATION, STORE ALL SOD IN SHADE AND MOISTEN TO MAINTAIN VIABILITY. DELIVERY AND INSTALLATION OF SOD SHOULD TAKE PLACE WITHIN A PERIOD OF 36 HOURS.
3. DURING SUMMER, LIGHTLY IRRIGATE SOIL IMMEDIATELY BEFORE LAYING SOD.
4. LAY FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND BUTTING TIGHTLY AGAINST EACH OTHER. STAGGER STRIPS IN A BRICK-LIKE PATTERN. ENSURE THAT THE SOD IS NOT STRETCHED OR OVERLAPPED. TRIM AND FIT IRREGULAR AREAS WITH A KNIFE OR SHARP SPADE.
5. INSTALL STRIPS OF SOD WITH THEIR LONGEST DIMENSION PERPENDICULAR TO THE SLOPE. ON SLOPES 3:1 OR GREATER, OR WHEREVER EROSION MAY BE A PROBLEM, SECURE SOD WITH PEGS OR STAPLES.
6. AFTER SODDING OF AREAS IS COMPLETE, ROLL SOD TO PROVIDE FIRM CONTACT BETWEEN ROOTS AND SOIL.
7. IRRIGATE UNTIL THE SOIL IS WET 4 INCHES BELOW THE SOD. KEEP SODDED AREAS MOIST TO A DEPTH OF 4 INCHES UNTIL GRASS TAKES ROOT.
8. NO MOWING SHOULD OCCUR UNTIL THE SOD IS FIRMLY ROOTED, USUALLY 2-3 WEEKS.

MAINTENANCE:

WATER AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE. GRASS HEIGHT SHOULD BE MAINTAINED BETWEEN 1 AND 2 INCHES. APPLY FERTILIZER ANNUALLY AT A RATE OF 5-6 LB NITROGEN PER 1,000 SF.

PERMANENT SEEDING

FOR GENTLE SLOPES, SUN OR SEMI-SHADE, HIGH-MAINTENANCE, MINIMUM CARE LAWNS

SEEDING MIXTURE

SPECIES	RATE (LB/ACRE)
TALL FESCUE BLEND (EQUAL PARTS OF TWO OR PREFERABLY THREE TURF-TYPE TALL FESCUES)	200-500

SEEDING DATES

	BEST	POSSIBLE
BELOW 2,500 FT	AUG 15 - SEPT 1	JULY 25 - SEPT 15
	MAR 1 - APR 1	MAR 1 - MAY10
ABOVE 2,500 FT	JULY 25 - AUG 15	JULY 15 - AUG 30
	MAR 20 - APR 20	MAR 5 - MAY 15

SOIL AMMENDMENTS

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 4,000 LB/ACRE 10-10-10 FERTILIZER.

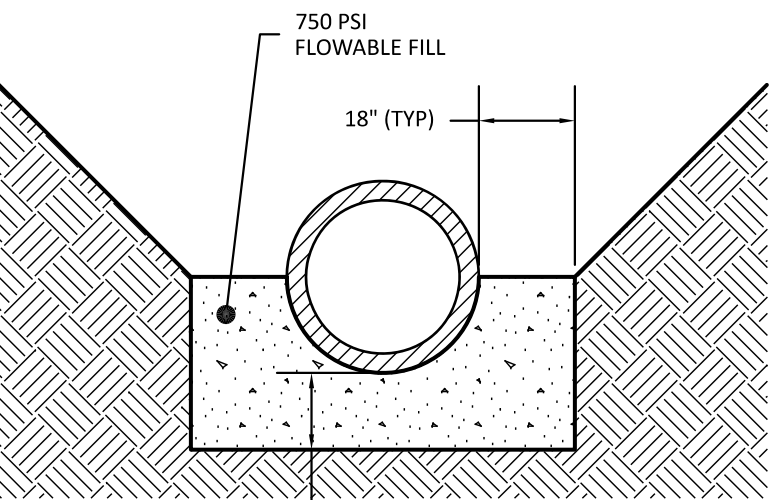
MULCH

APPLY 4,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH. ANCHOR STRAW BY TACKING WITH ASPHALT AT 400 GAL/ACRE, NETTING, OR ROVING OR BY ROLLING AND WATERING

MAINTENANCE

THE BUNCH-TYPE HABIT OF TALL FESCUE RESTRICTS ITS SPREAD INTO DAMAGED AREAS. RESEED BARE SPOTS IN THE FALL. REFERTILIZE ANNUALLY IN LATE WINTER AND AGAIN IN FALL. RESEED, FERTILIZE, AND MULCH DAMAGED AREAS IMMEDIATELY.

NOTE: PERMANENT SEEDING NOTED ABOVE IS ONLY FOR AREAS NOT COVERED WITH SOD



CONCRETE CRADLE DETAIL

NOT TO SCALE

CONCRETE CRADLE NOTES

1. EXCAVATE TRENCH FOR THE CONCRETE CRADLE AND BARREL PER THE DIMENSIONS ON THE CONCRETE CRADLE DETAIL.
2. PLACE BARREL PIPE ON CONCRETE BLOCKS TO ACHIEVE SLOPE AND INVERTS NOTED ON THE POND DETAIL SHEET.
3. PLACE 2 FOOT WIDE STRIPS OF FILTER FABRIC OVER PIPE JOINTS BEFORE PLACING FLOWABLE FILL.
4. PLACE FLOWABLE FILL AS ONE LIFT UP TO THE SPRINGLINE OF THE PIPE.
5. ALLOW CRADLE TO CURE FOR AT LEAST 7 DAY BEFORE USING ANY VIBRATING EQUIPMENT IN THE VICINITY OF THE PIPE.

CONCRETE CRADLE ALTERNATE

THE CONTRACTOR MAY CHOOSE TO ELIMINATE THE CONCRETE CRADLE AND USE COMPACTED BACKFILL. IF THE CONCRETE CRADLE IS NOT USED THE COMPACTED BACKFILL MUST BE PLACED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TOWN OF
ZEBULON STANDARDS AND
SPECIFICATIONS

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

The Nau Company
Consulting Civil Engineers
PO Box 810, Rolesville, NC 27571
919-435-6395
NCBELS License P-0751

OWNER/DEVELOPER:

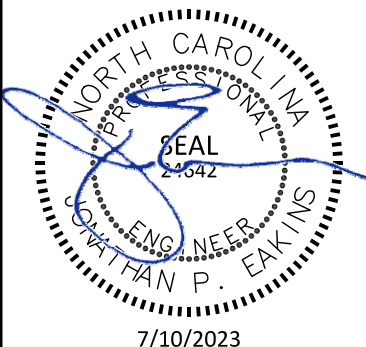
MERIDIAN PROPERTIES GROUP LLC
4050 WAKE FOREST RD, SUITE 100
RALEIGH, NC 27609
919-621-4668

REVISIONS

NO.	DATE	DESCRIPTION
1	2023-07-10	ISSUED FOR PERMITS AND SUBMITTAL TO TOWN OF ZEBULON

401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS

ZEBULON, NC
SCM GRADING AND DETAILS



PROJECT NO: ---

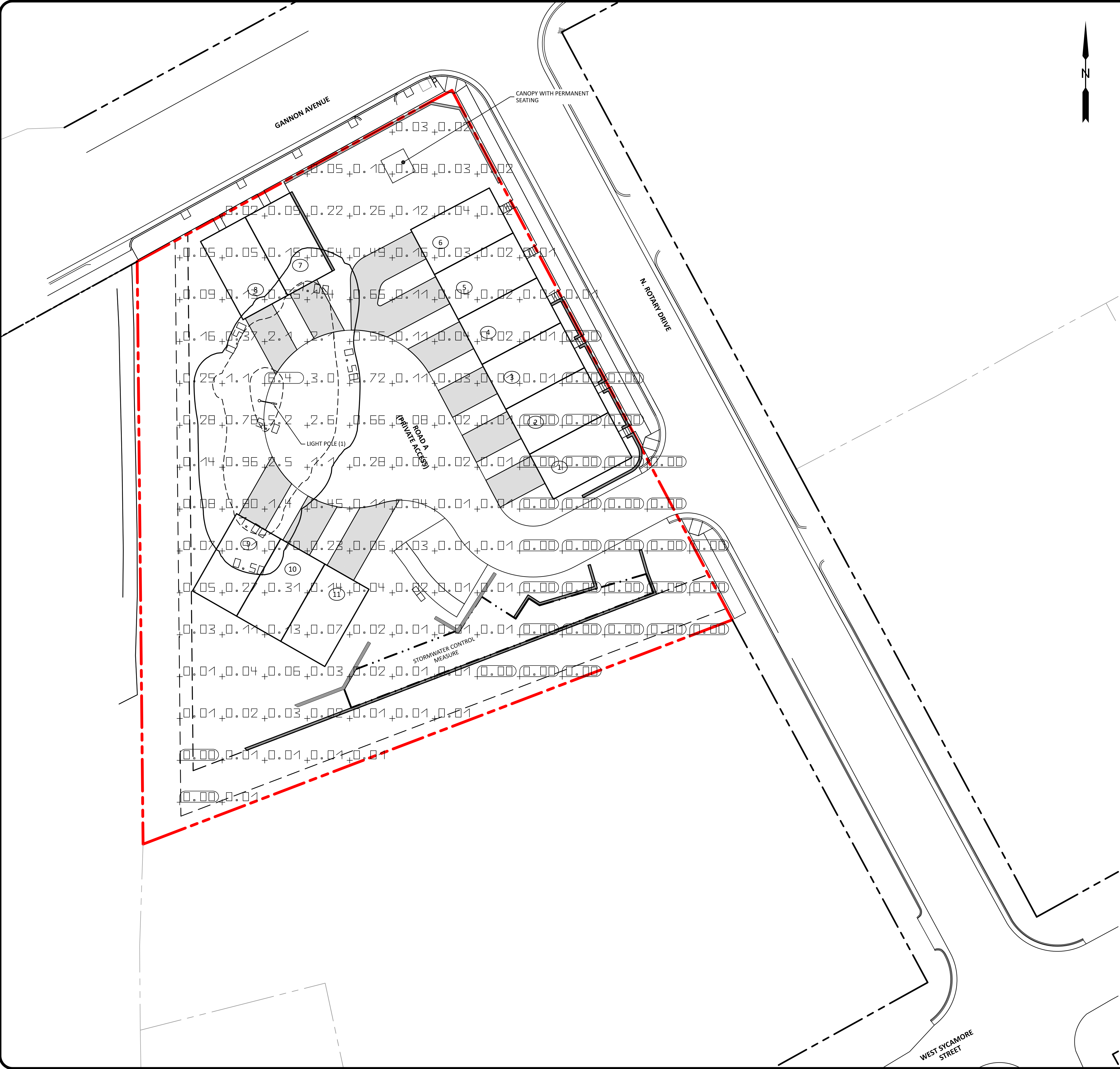
DESIGN BY: JPE

DRAWN BY: JPE

SCALE: AS NOTED

DATE: 2023-03-01

SHEET NO: C8.1



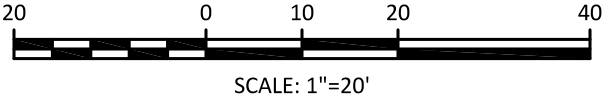
LIGHTING SCHEDULE			
ID	MODEL	HEIGHT	
1	AMERICAN ELECTRIC ATB2 SERIES LED 1000ma TYPE 2	20 FEET	

LIGHTING DATA				
	AVG	MAX	MAX @ BOUNDARY	MAX @ R/W
LUMENS (fc)	0.26	5.4	0.15	0.04

NOTE
ALL LUMINARIES SHALL BE A FULL-CUTOFF TYPE FIXTURE MOUNTED AT 90 DEGREES

TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS



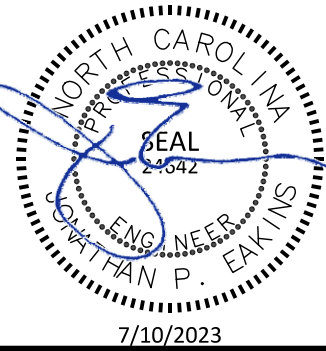
PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

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NCBELS License P-0751

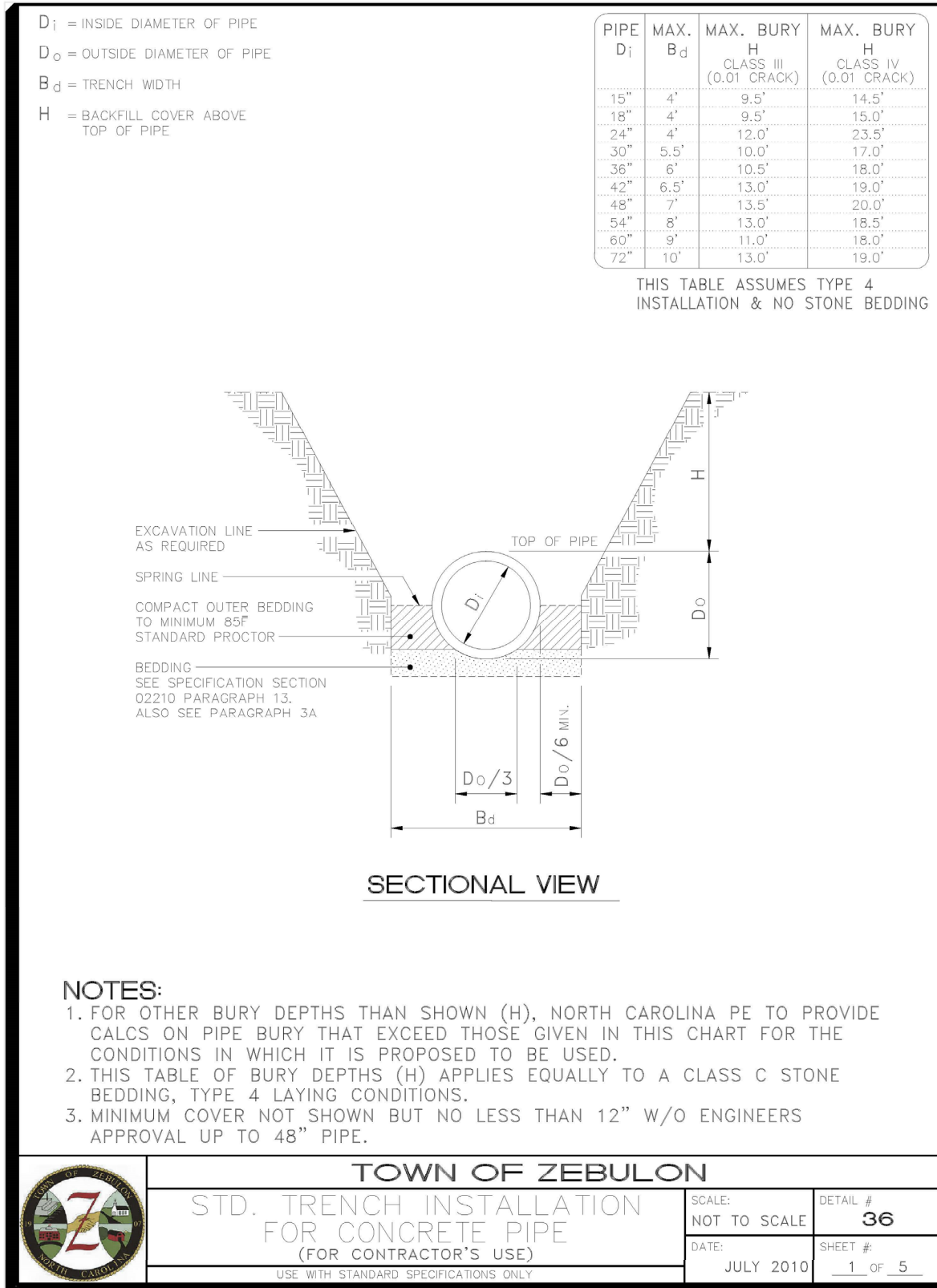
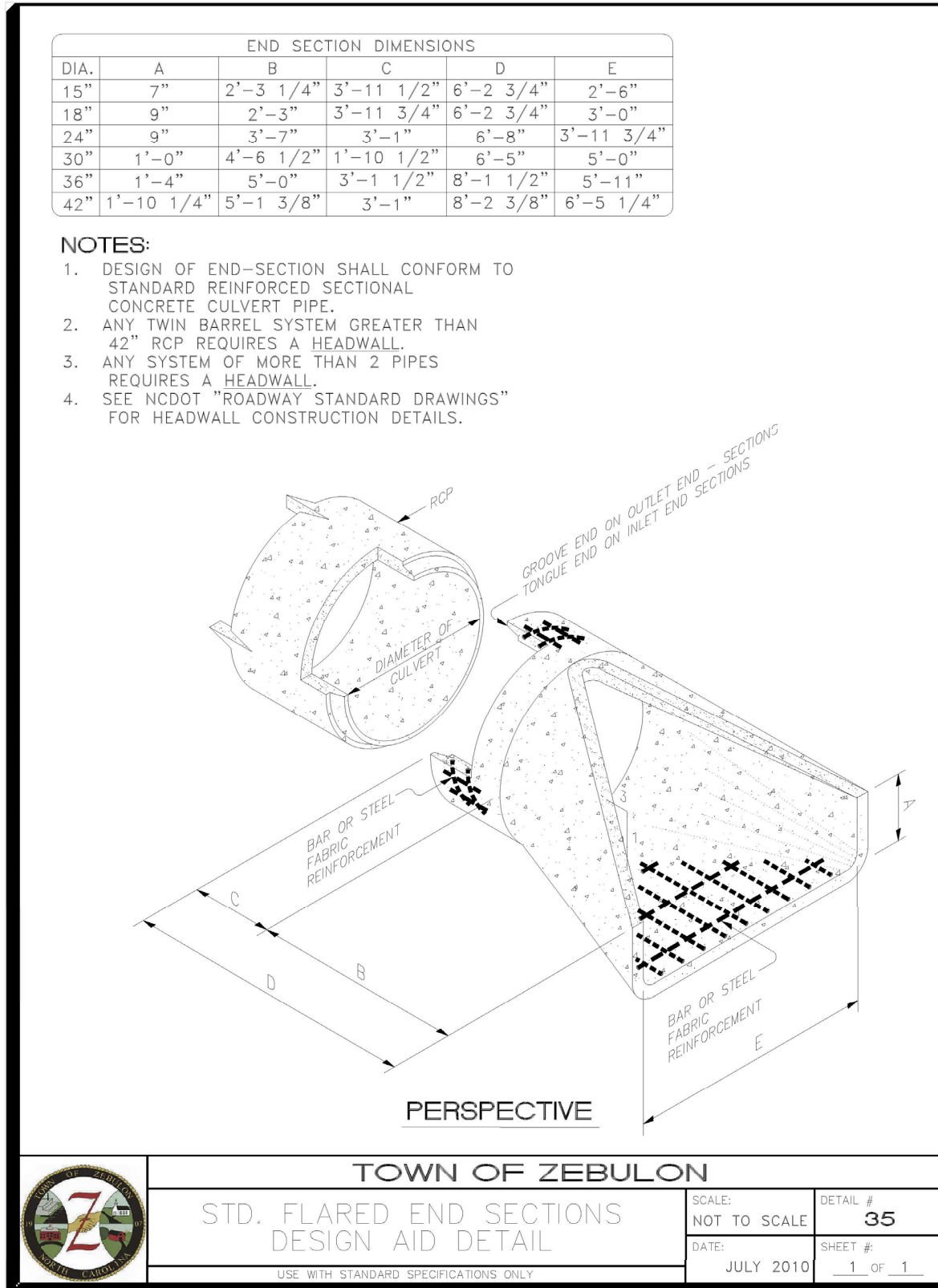
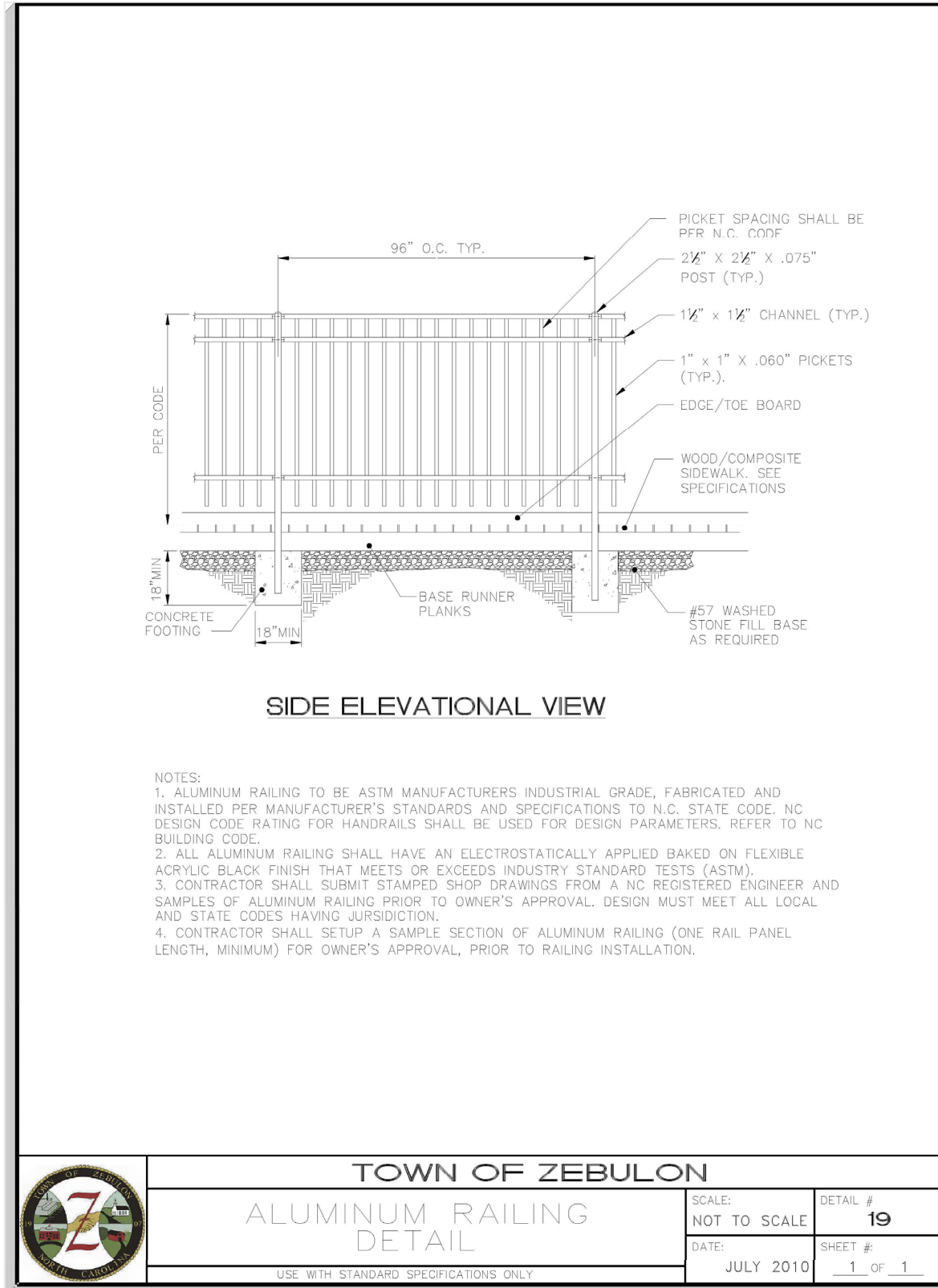
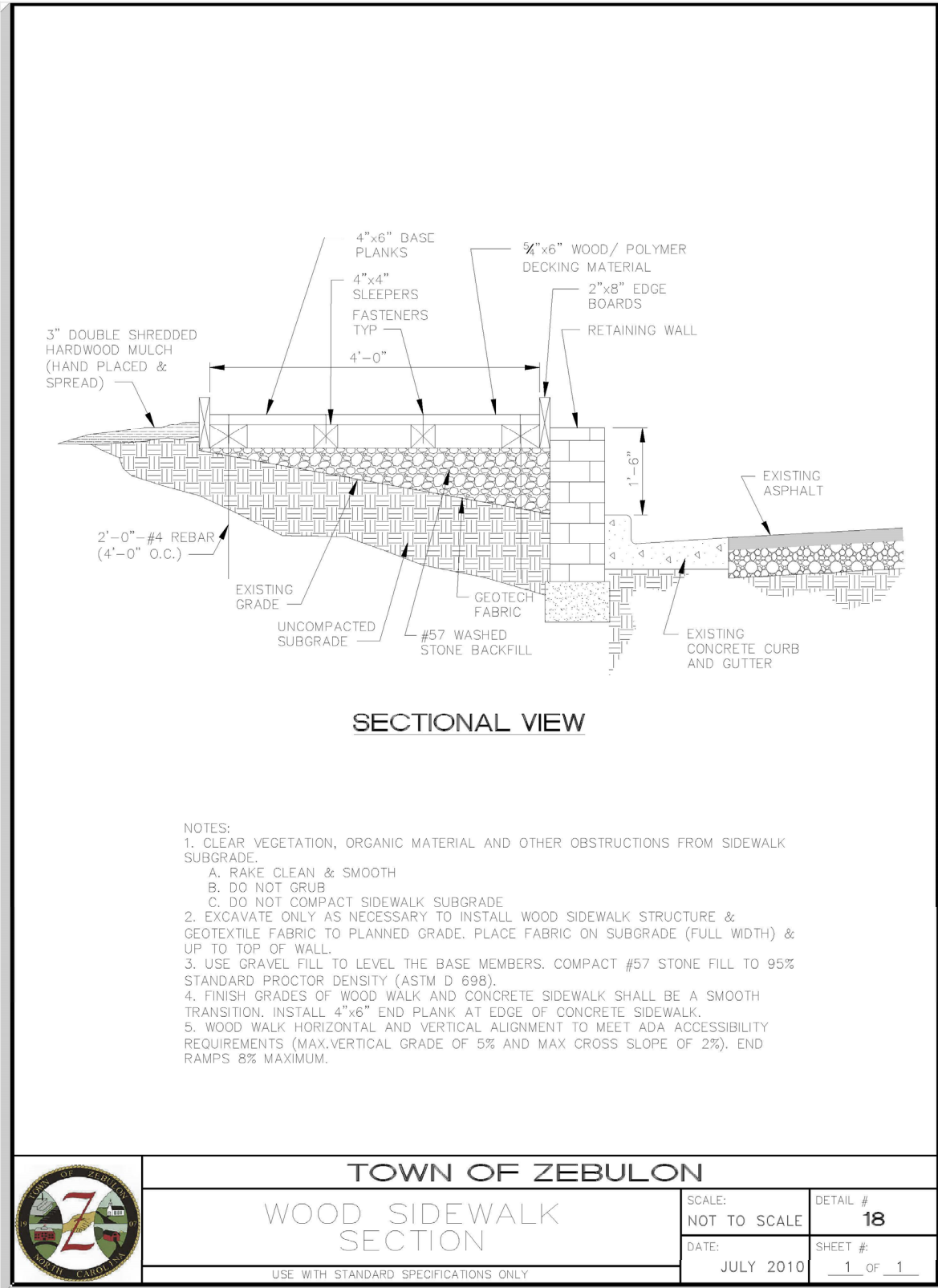
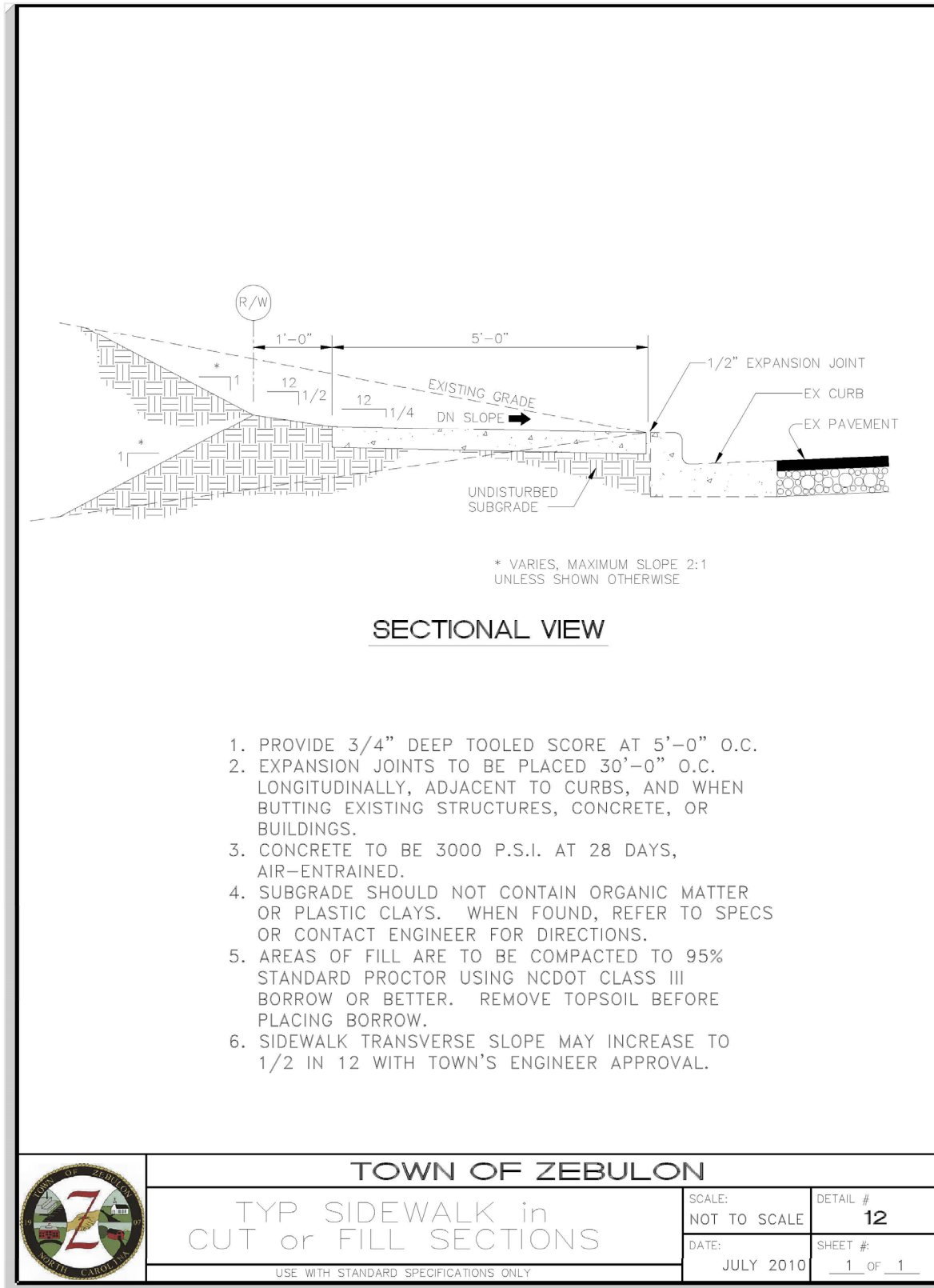
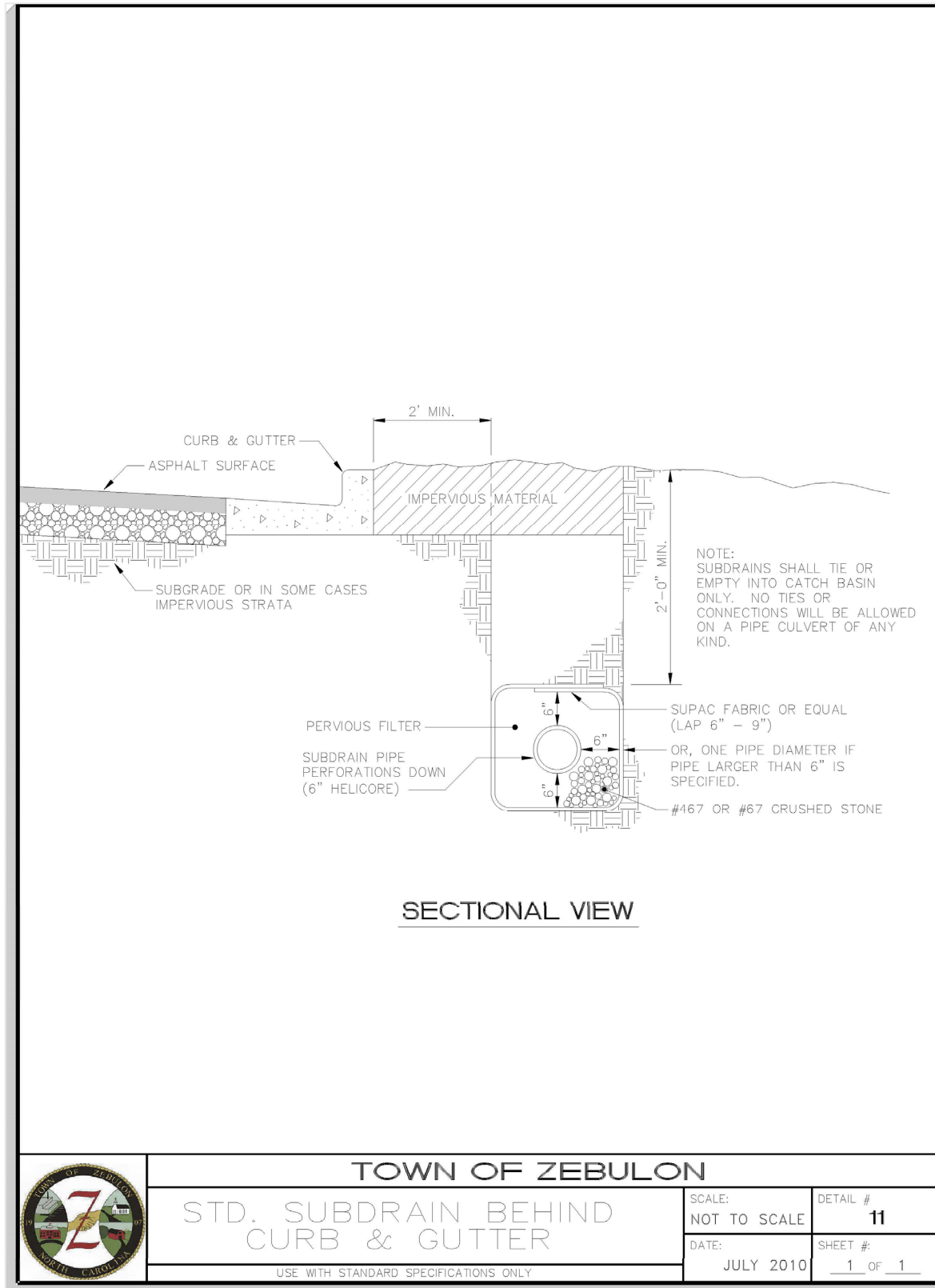
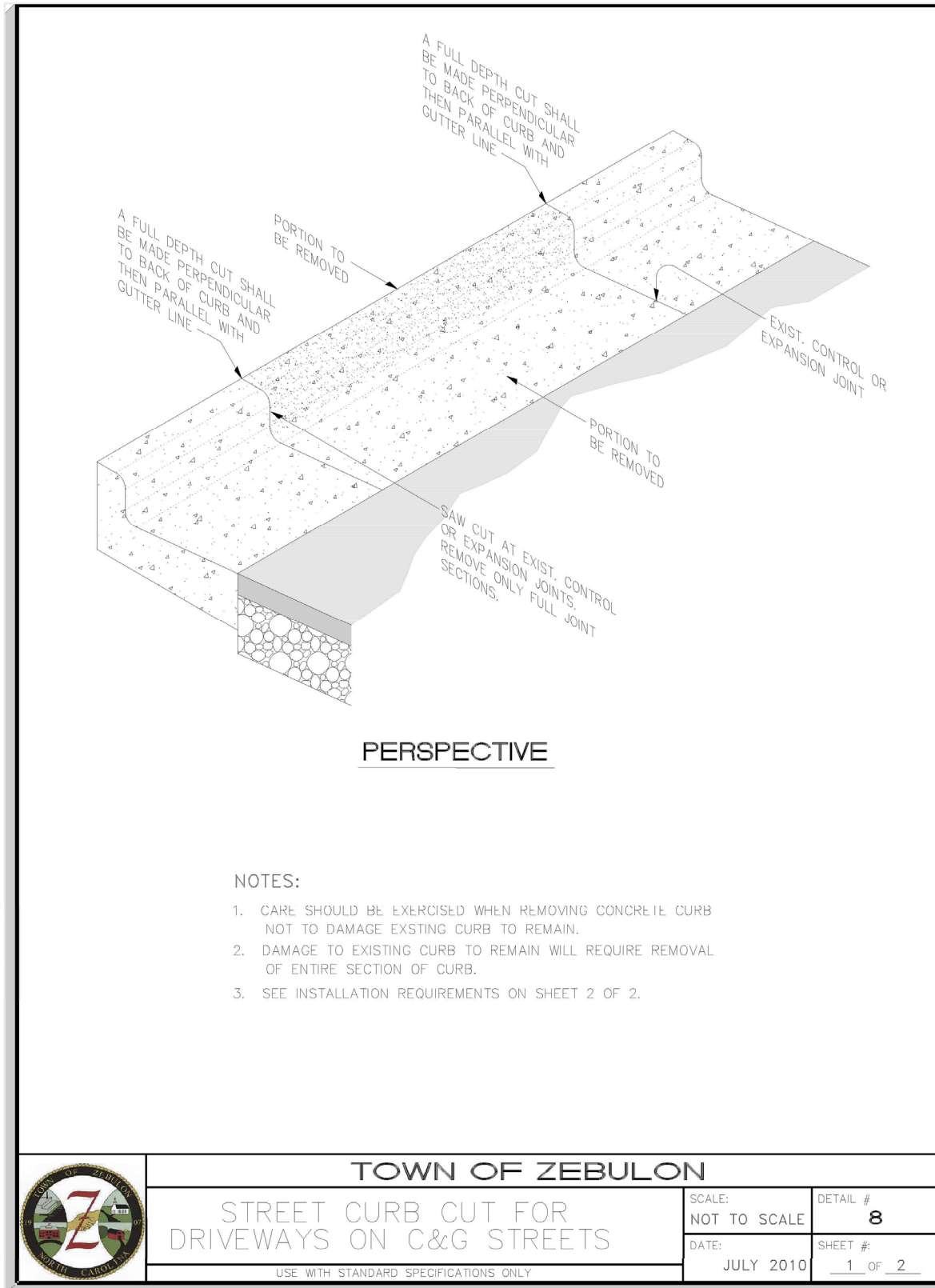
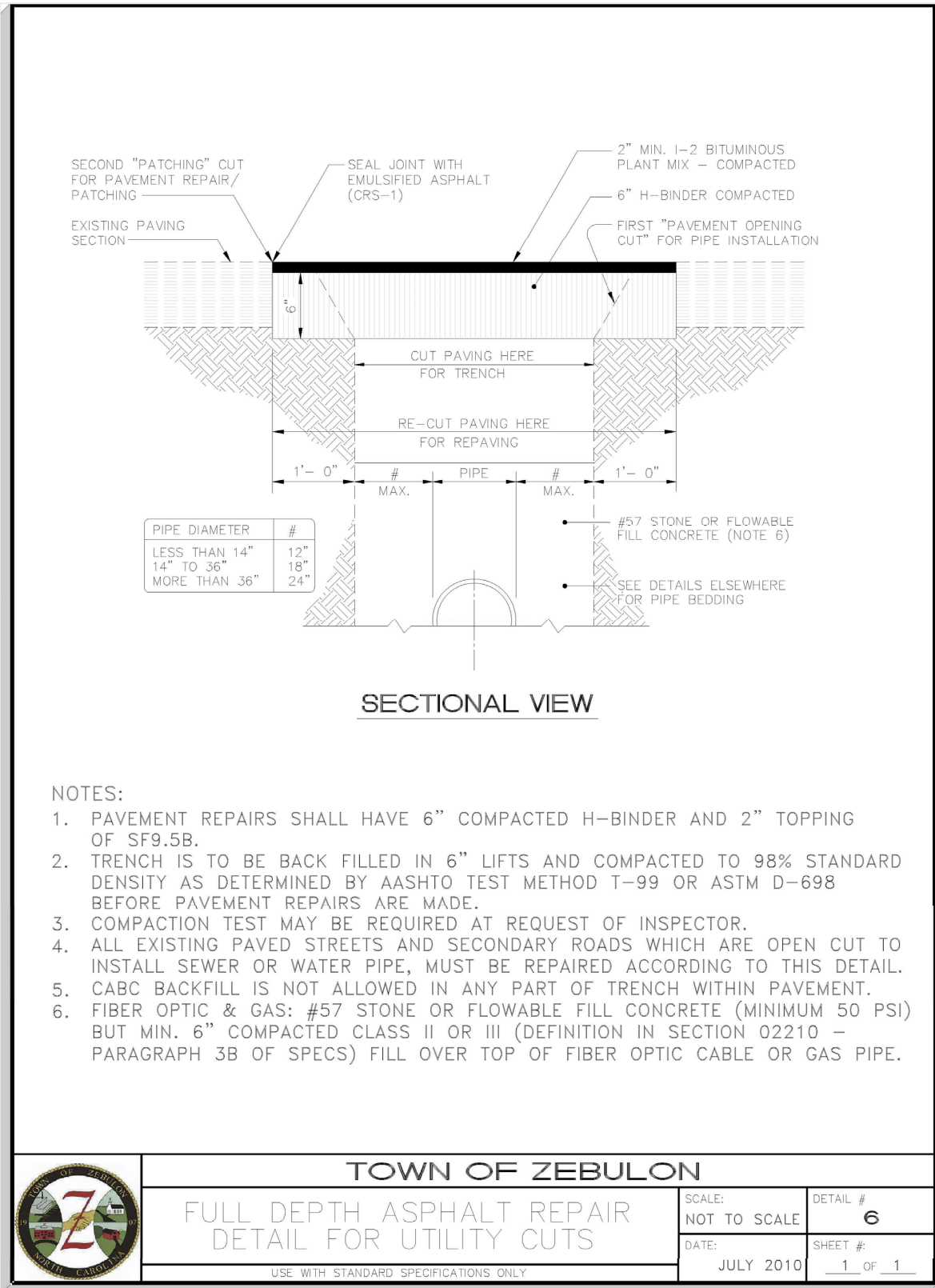
OWNER/DEVELOPER:
MERIDIAN PROPERTIES GROUP LLC
4030 WAKE FOREST ROAD, SUITE 100
RALEIGH, NC 27609
919-621-4646

REVISIONS		NOVIT, UPDATES AND REVISIONS PER TOWN COMMENTS	
1	2023-07-10		

401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS
ZEBULON, NC
LIGHTING PLAN



PROJECT NO:	---
DESIGN BY:	JPE
DRAWN BY:	JPE
SCALE:	1"=20'
DATE:	2023-03-01
SHEET NO:	C9.1



REVISIONS	DATE	DESCRIPTION
1	2023-07-10	ISSUE FOR PERMITS AND REVISIONS PER TOWN COMMENTS



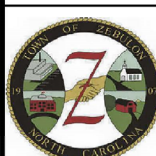
PROJECT NO:	---
DESIGN BY:	JPE
DRAWN BY:	JPE
SCALE:	NTS
DATE:	2023-03-01
SHEET NO:	D1.1

Installation Type *	Bedding Thickness	Haunch and Outer Bedding	Lower Side
Type 1	D ₅₀ 24 minimum, not less than 75 mm (3"). If rock foundation use D ₅₀ 12 minimum, not less than 150 mm (6").	98% Category I	90% Category I, 90% Category II, 100% Category III
Type 2	D ₅₀ 24 minimum, not less than 75 mm (3"). If rock foundation, use D ₅₀ 12 minimum, not less than 150 mm (6").	80% Category I or 95% Category II	85% Category I, 80% Category II, 95% Category III
Type 3	D ₅₀ 24 minimum, not less than 75 mm (3"). If rock foundation, use D ₅₀ 12 minimum, not less than 150 mm (6").	85% Category I, 90% Category II, 85% Category III	85% Category I, 90% Category II, 95% Category III
Type 4	D ₅₀ 24 minimum, not less than 75 mm (3"). If rock foundation, use D ₅₀ 12 minimum, not less than 150 mm (6").	No compaction required, except if Category III, use 80% Category III	No compaction required, except if Category III, use 100% Category III



STD. TRENCH INSTALLATION
(TRENCH CONDITION SHOWN)

USE WITH STANDARD SPECIFICATIONS ONLY



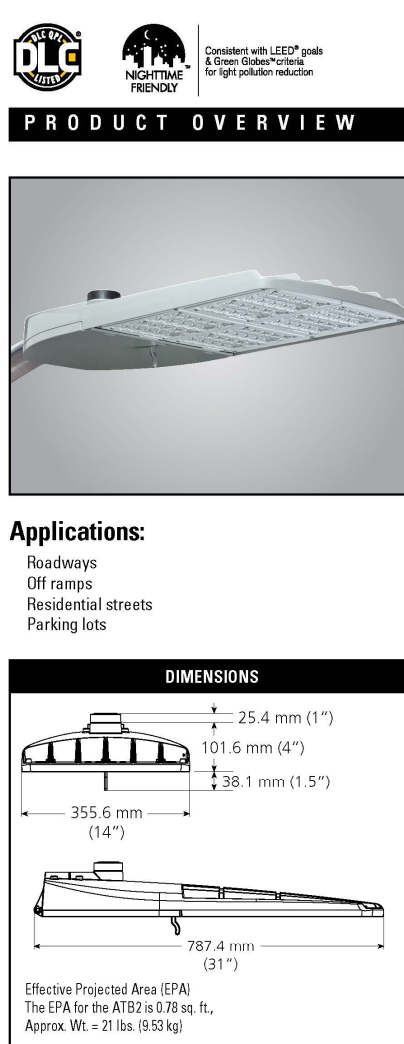
STD. TRENCH INSTALLATION
(TRENCH CONDITION SHOWN)

USE WITH STANDARD SPECIFICATIONS ONLY



STD. TRENCH INSTALLATION
(TRENCH CONDITION SHOWN)

USE WITH STANDARD SPECIFICATIONS ONLY



AEL American Electric Lightening

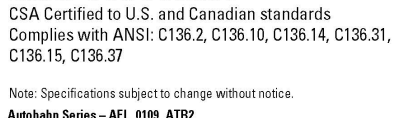


Diagram illustrating the dimensions for a 12' x 12' pergola structure:

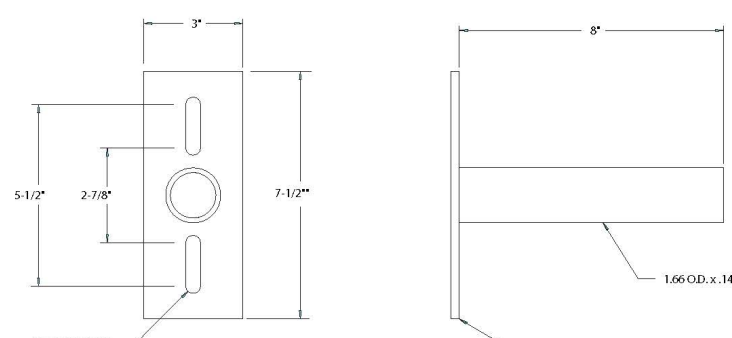
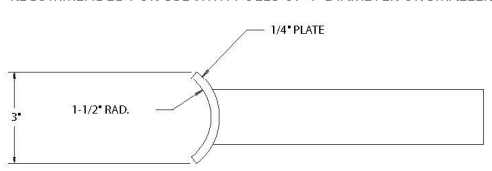
- Length of Lumber 60 3/4"
- Overall Height 17' 6"
- Length of Lumber 10'
- Recommended Length of Lumber 8'

figure .

2

figure 1

UMR POLE ADAPTOR
RECOMMENDED FOR USE WITH POLES OF 4" DIAMETER OR SMALLER



UMS POLE ADAPTOR

Warranty: Five-year limited warranty. Complete warranty terms located at: www.asus.com/Support/ASUS_Support_Banner_and_Software. Actual performance may differ as a result of end user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

Please contact your sales representative for the latest product information.



Warranty Five-year limited warranty. Complete warranty terms located at: www.pentairfiltrands.com/support/customer-support/terms-and-conditions. Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

Please contact your sales representative for the latest product information.

The Nau Company
Consulting Civil Engineers

PO Box 810 Rolesville, NC 27571
919-435-6395
NCBELS License P-0751

MERIDIAN PROPERTIES GROUP, LLC
4030 WAKE FOREST ROAD, SUITE 100

OWNER/DEVELOPER:

REVISIONS

401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS

ZEBULON, NC

TOWN OF ZEBULON & SITE DETAILS



PROJECT NO:

DESIGN BY: JP

DRAWN BY: JP

SCALE: NT

DATE: 2023-03-01

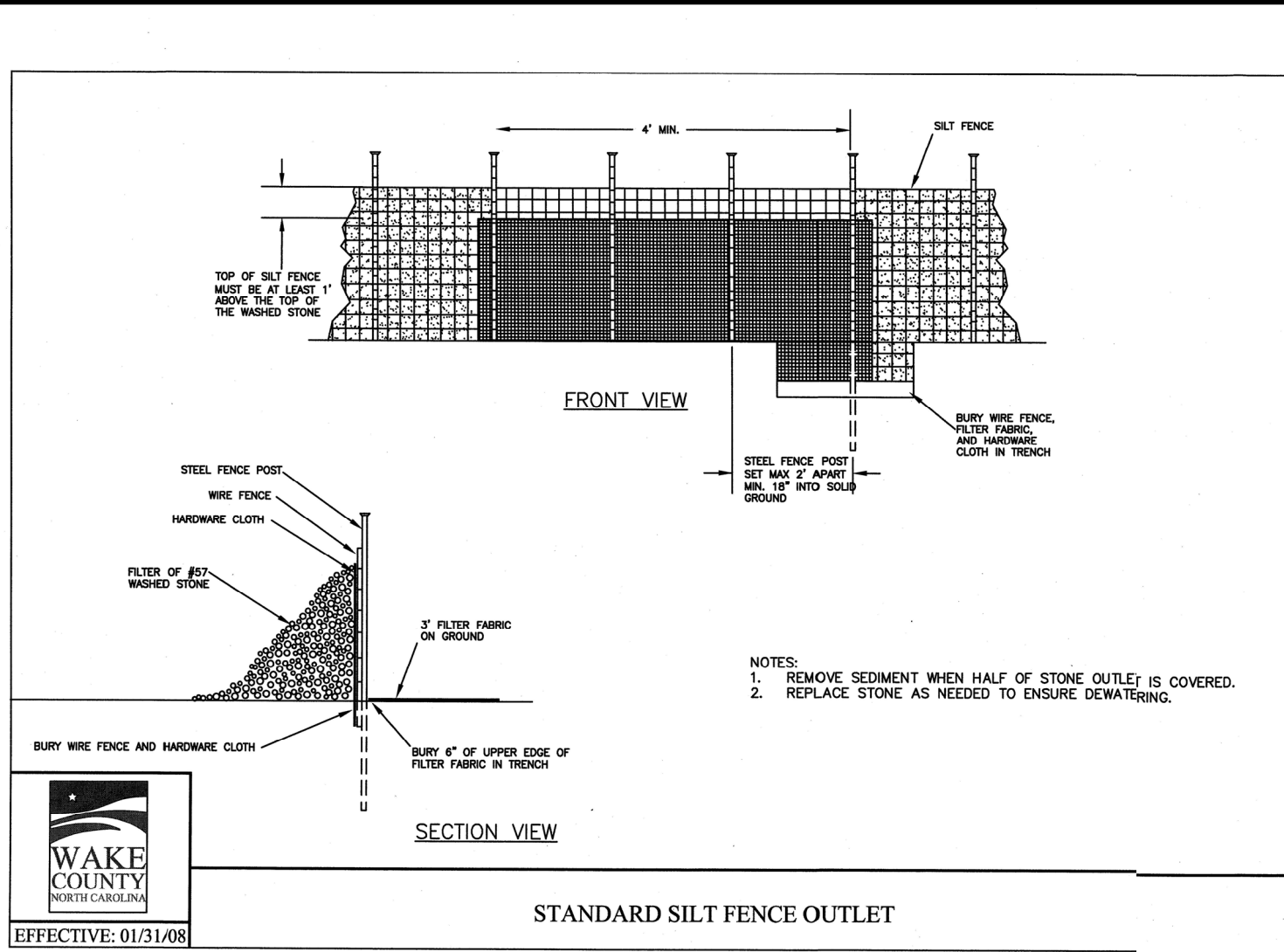
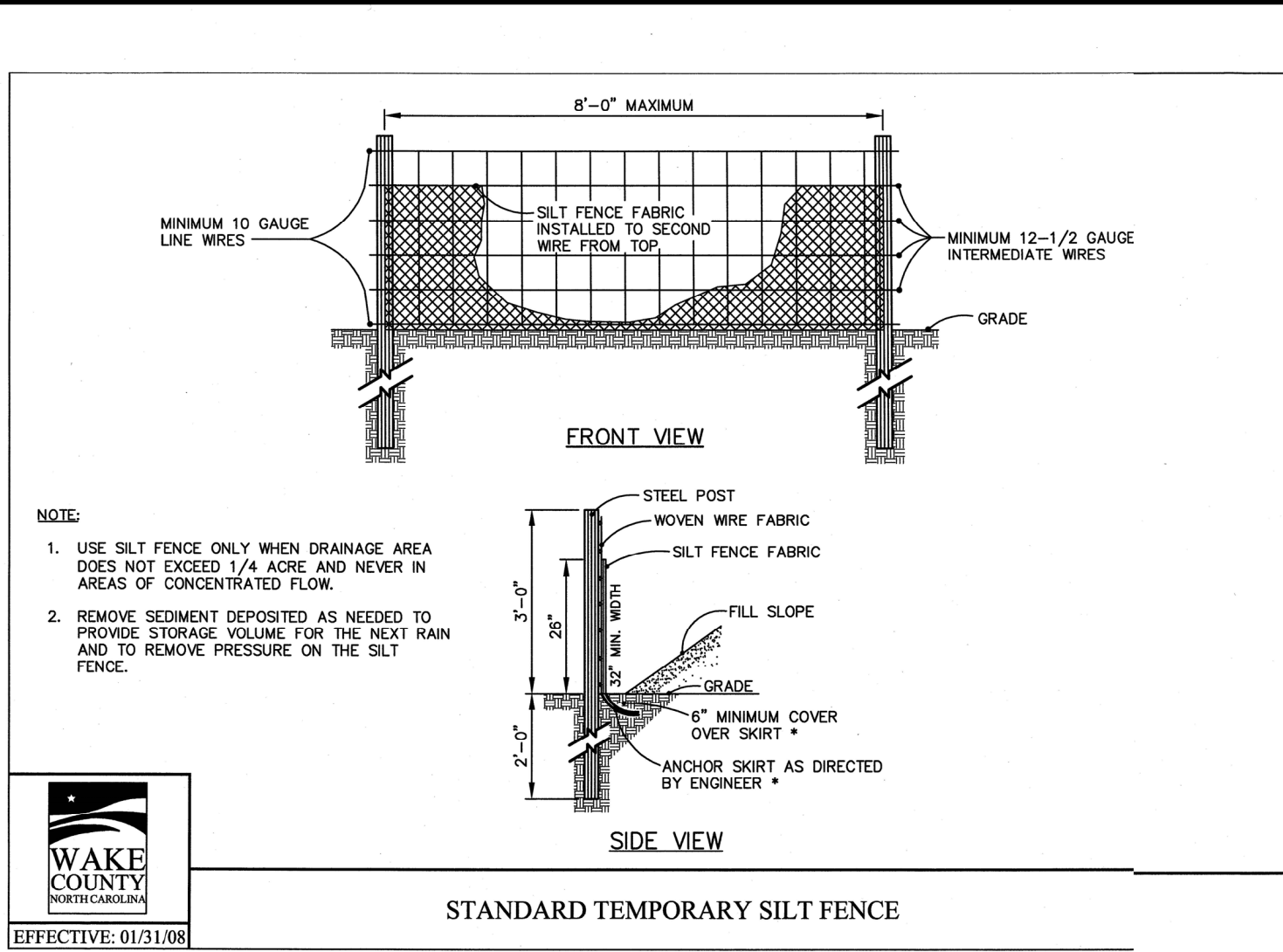
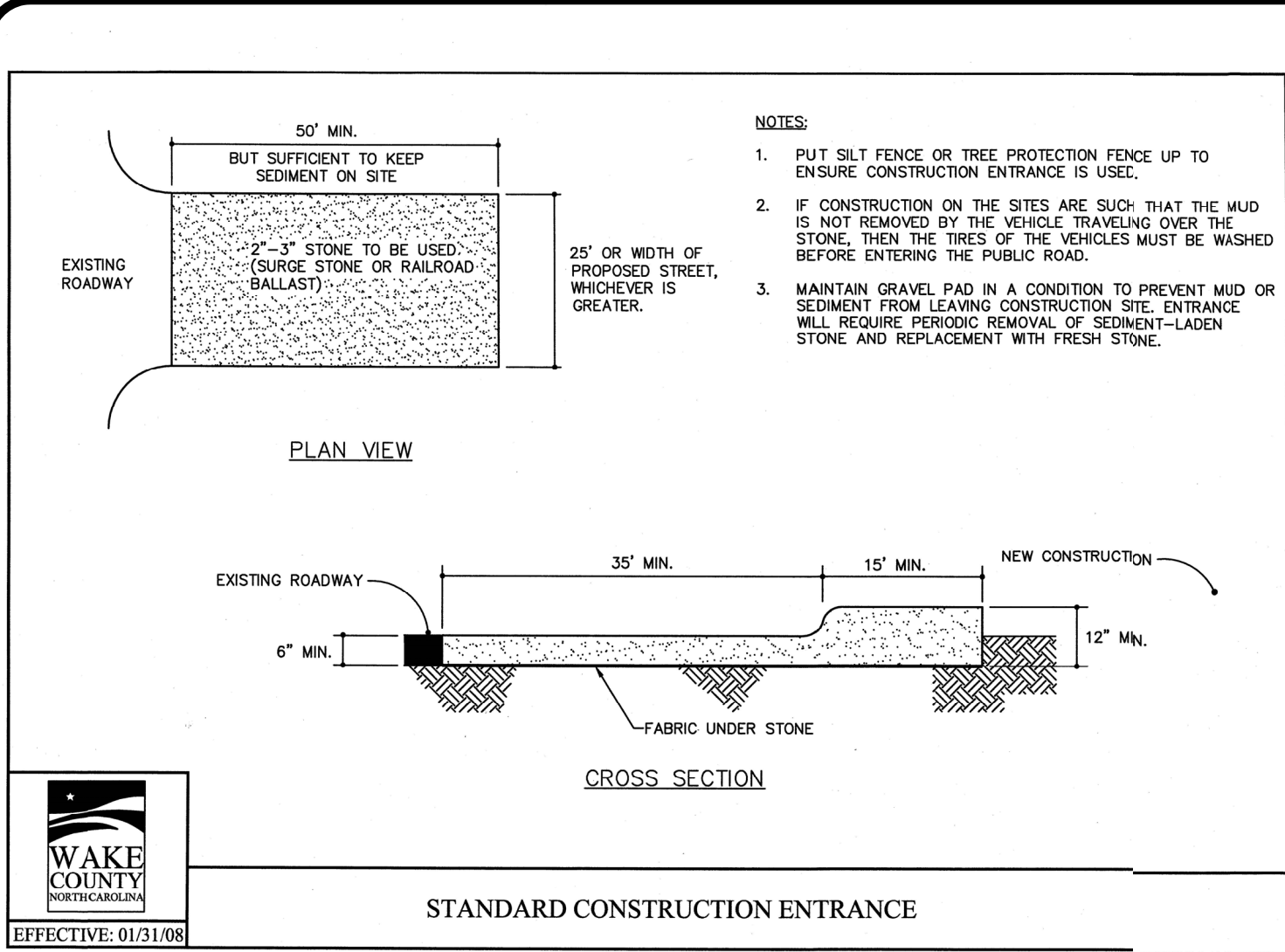
SHEET NO: 513

D1.2

TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TOWN OF
ZEBULON STANDARDS AND
SPECIFICATIONS

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



NPDES Stormwater Discharge Permit for Construction Activities (NCGO1)
NCDENR/Division of Water Quality
NEW STABILIZATION TIMEFRAMES
(Effective Aug. 3, 2011)

SITE AREA DESCRIPTION	STABILIZATION TIMEFRAME	STABILIZATION TIMEFRAME EXCEPTIONS
Perimeter dikes, swales, ditches, slopes	7 days	None
High Quality Water (H2O) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length.
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HOW Zones.

Seedbed Preparation:

- Chisel compacted areas and spread topsoil three inches deep over adverse soil conditions, if available.
- Rip the entire area to six inches deep.
- Remove all loose rock, roots and other obstructions, leaving surface reasonably smooth and uniform.
- Apply agricultural lime, fertilizer and superphosphate uniformly and mix with soil (see mixture below).
- Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared four to six inches deep.
- Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
- Mulch immediately after seeding and anchor mulch.
- Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be more than 60% damaged, re-establish following the original line, fertilizer and seeding rates.
- Consult S&EC Environmental Engineers on maintenance treatment and fertilization after permanent cover is established.

Mixture

Agricultural Limestone	2 tons/acre (3 tons/acre in clay soils)
Fertilizer	1,000 lbs/acre - 10-10-10
Superphosphate	500 lbs/acre - 20% analysis
Mulch	2 tons/acre - small grain straw
Anchor	Asphalt emulsion at 300 gals/acre

Seeding Schedule

For Shoulders, Side Ditches, Slopes (Max 3:1):

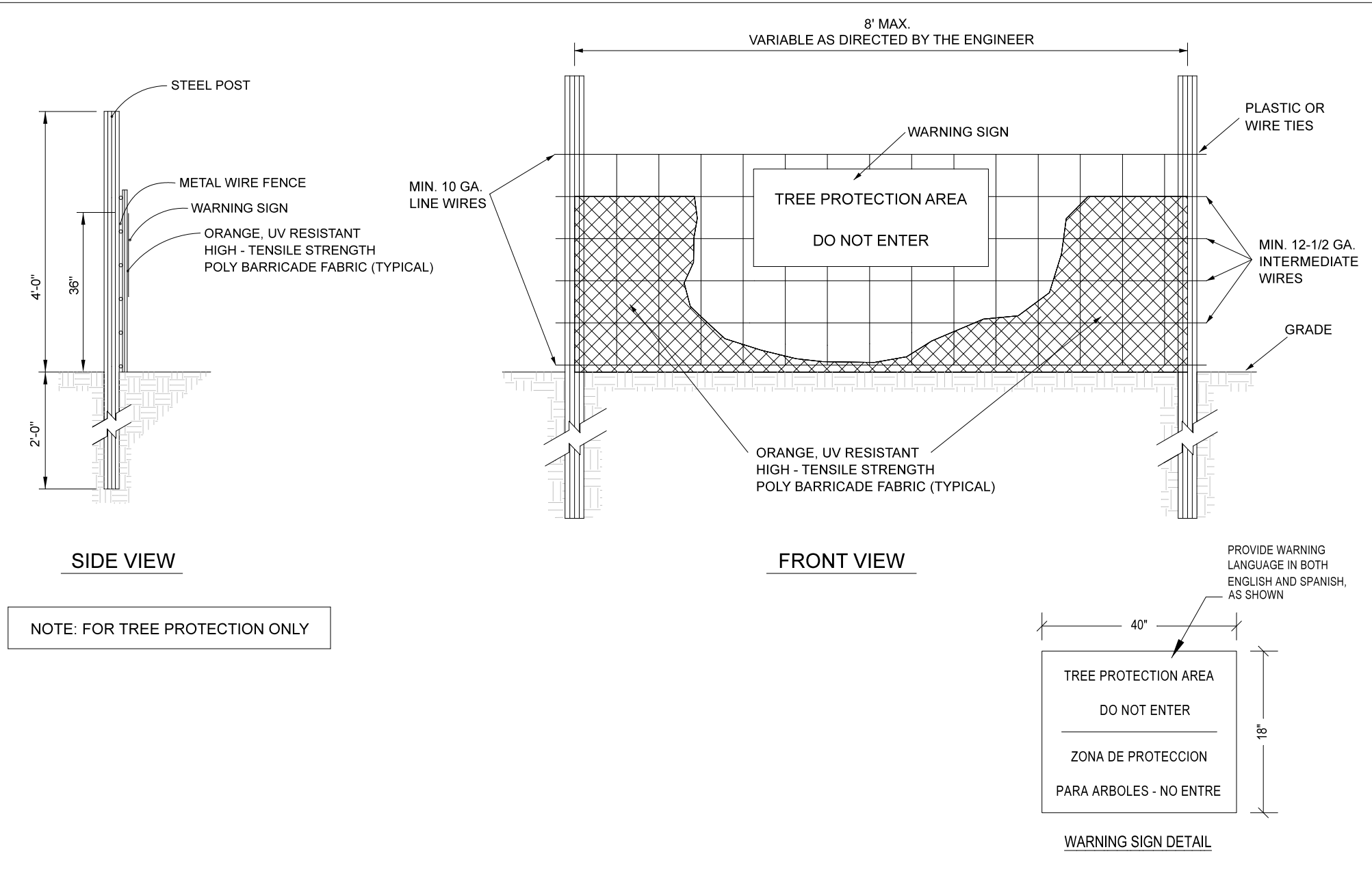
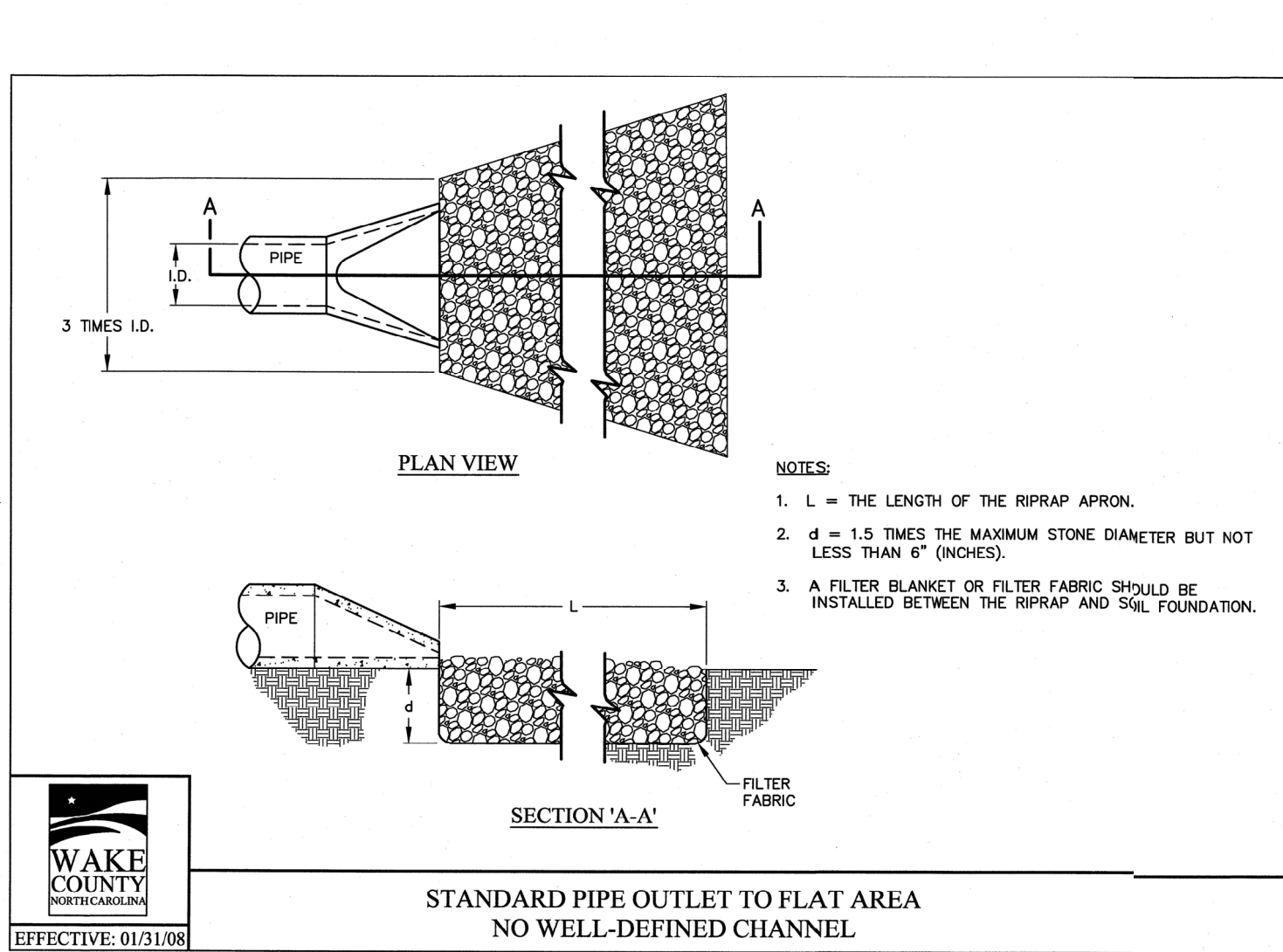
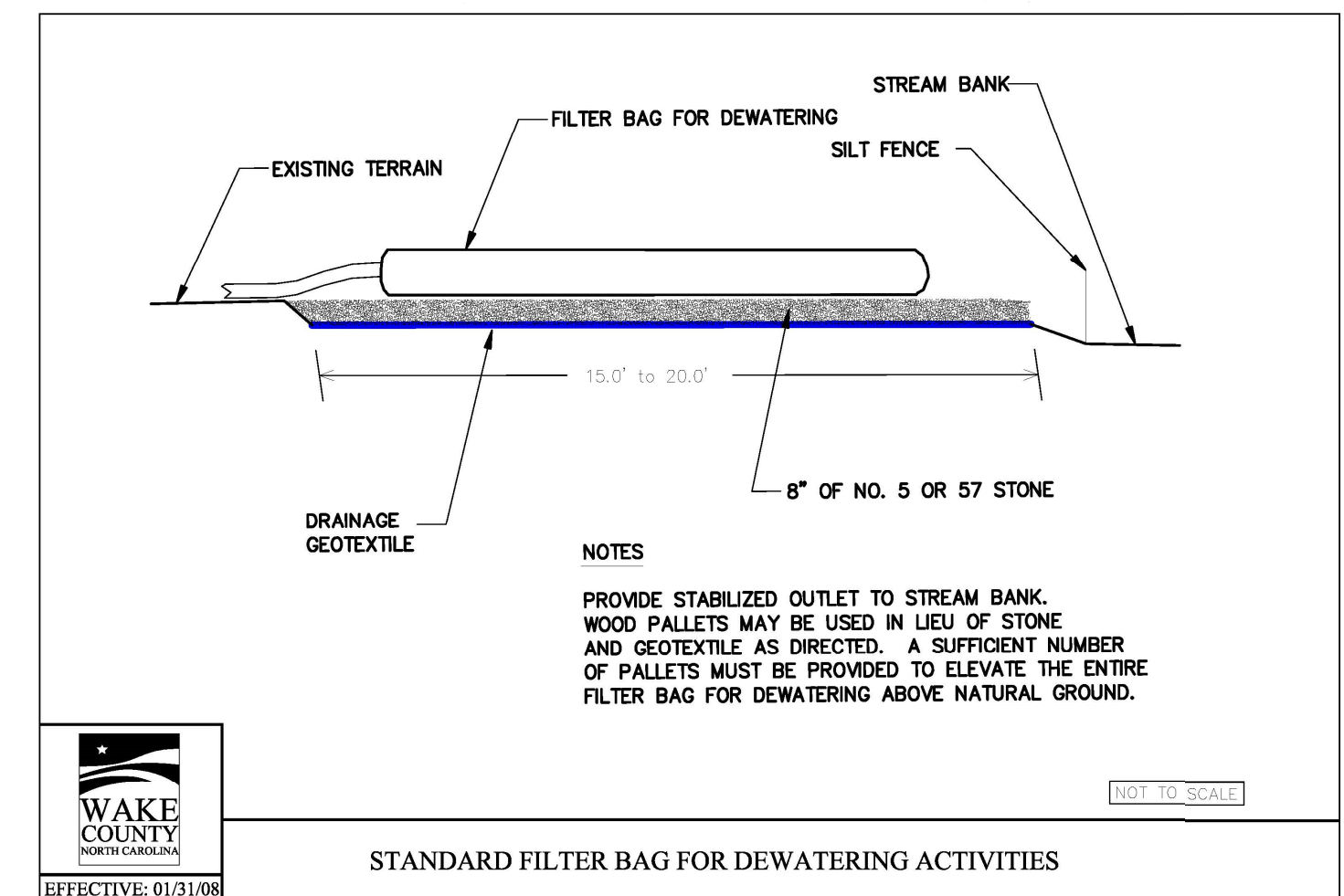
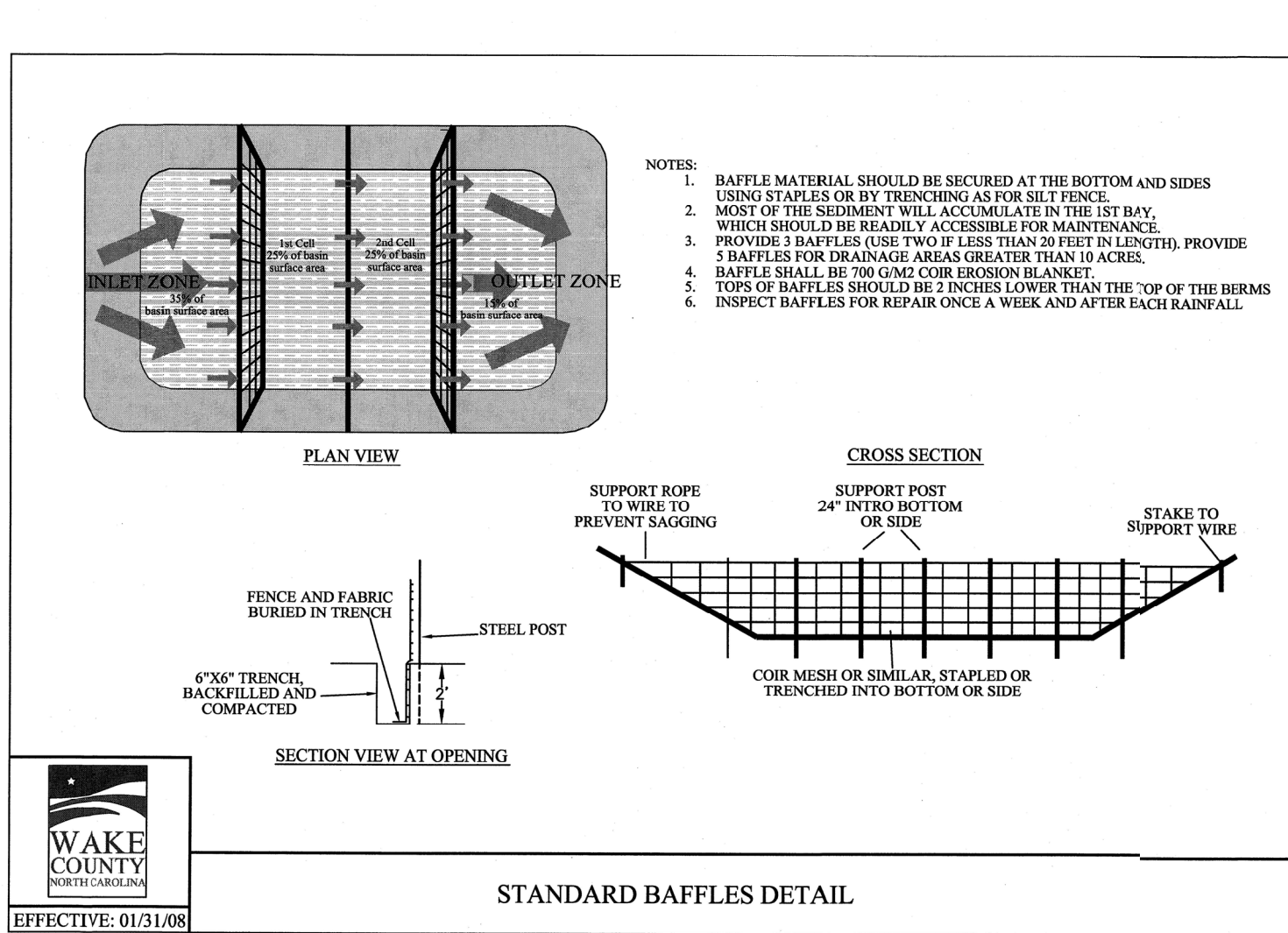
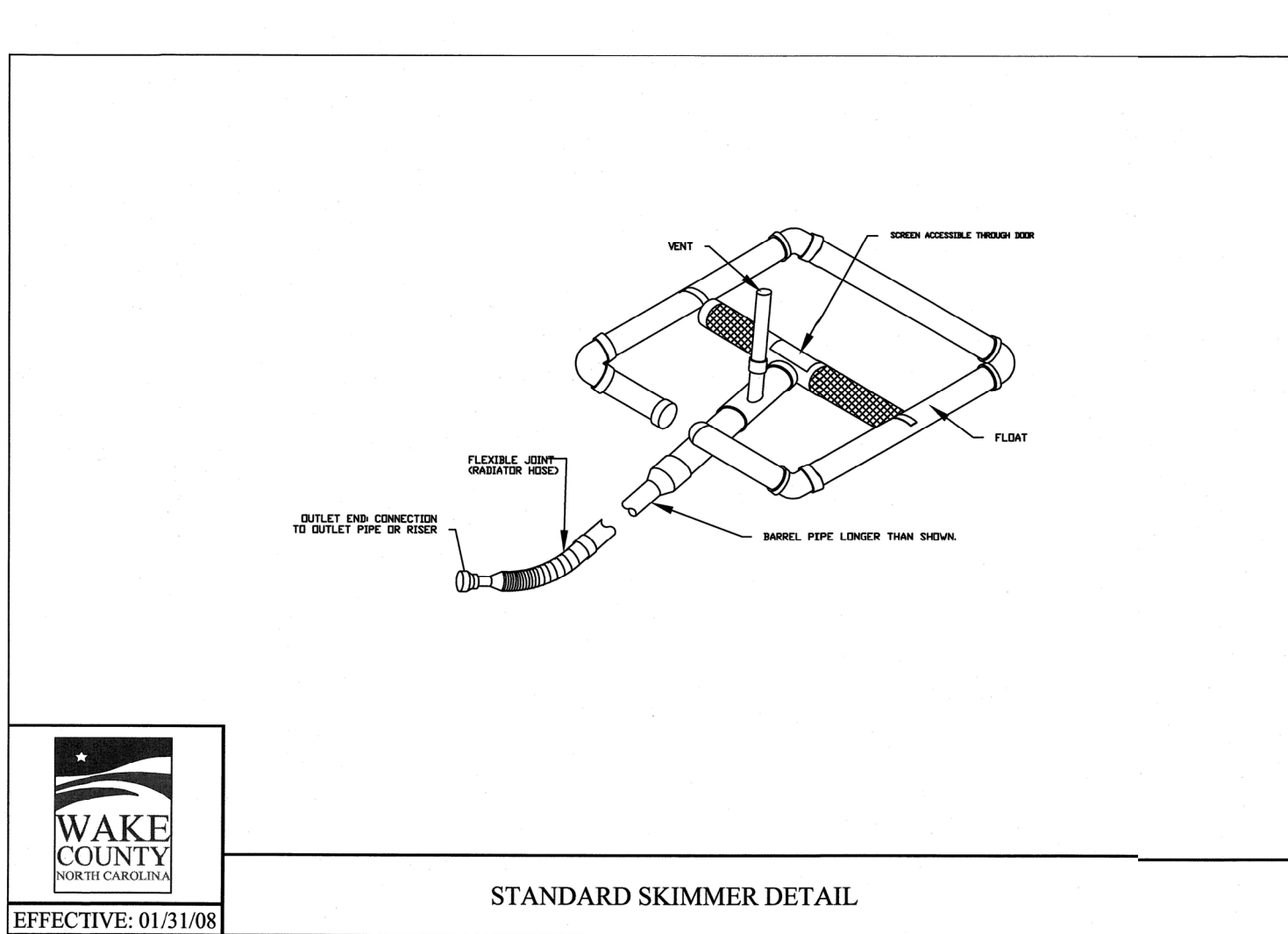
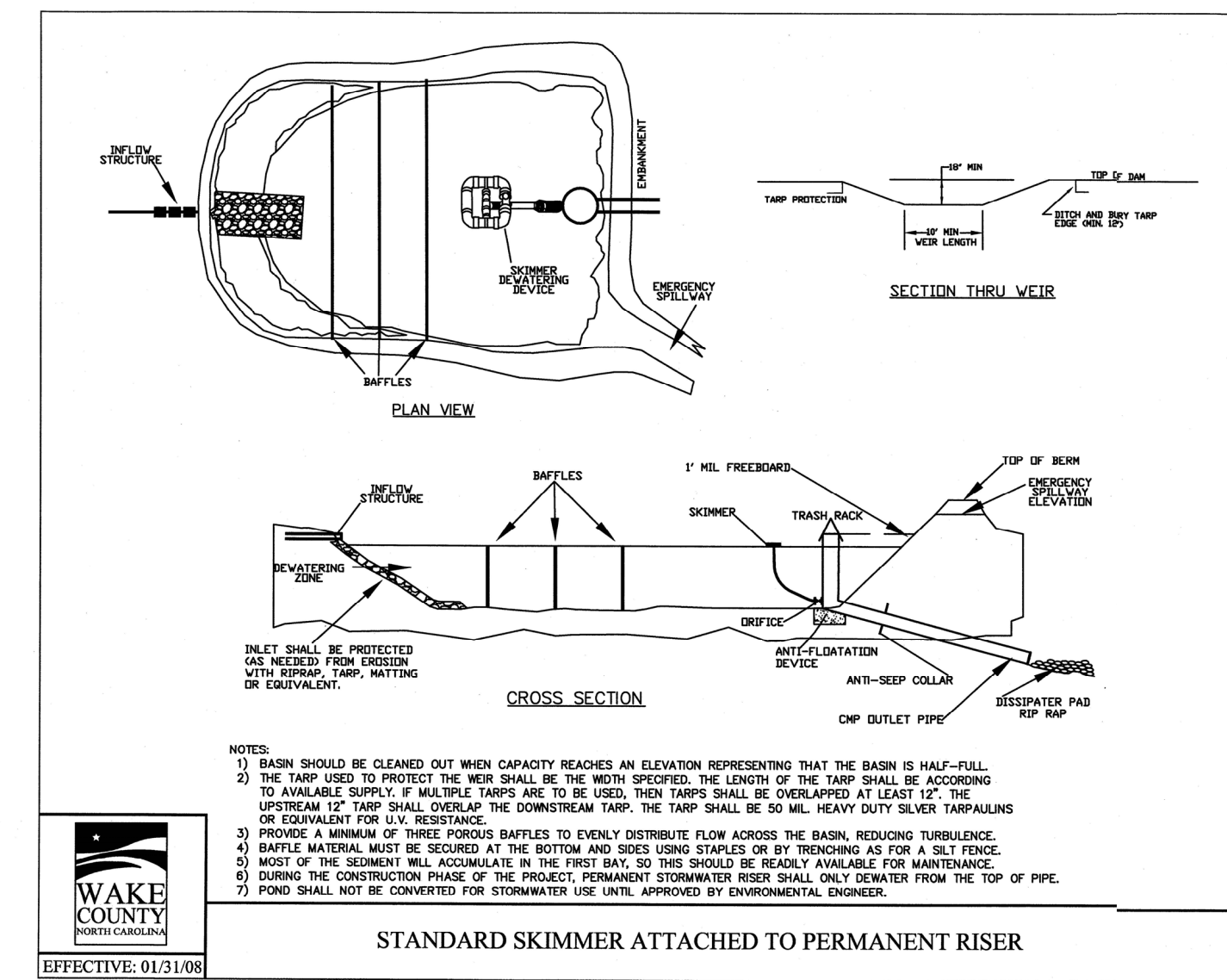
Date	Type	Planting Rate
Aug 15- Nov 1	Tall Fescue	300 lbs/acre
Nov 1-Mar 1	Tall Fescue & Abruzzi Rye	300 lbs/acre
Mar 1-Apr 15	Tall Fescue	300 lbs/acre
Apr 15-Jun 30	Hulled Common Bermudagrass	25 lbs/acre
Jul 1-Aug 15	Tall Fescue AND Browntop Millet or Sorghum-Sudan Hybrids***	125 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Millet); 30 lbs/acre (Sorghum-Sudan Hybrids)

For Shoulders, Side Ditches, Slopes (3:1 to 2:1):

Date	Type	Planting Rate
Mar 1-Jun 1	Sericea Lespedeza (scarified)	50 lbs/acre (Sericea Lespedeza); 1
Mar 1-Jun 1	Or add Tall Fescue	120 lbs/acre
Mar 1-Jun 30	Or add Weeping Love grass	10 lbs/acre
Mar 1-Jun 30	Or add Hulled Common Bermudagrass	25 lbs/acre
Jun 1-Sep 1	Tall Fescue AND Browntop Millet or Sorghum-Sudan Hybrids***	120 lbs/acre (Tall Fescue); 35 lbs/acre (Browntop Millet); 30 lbs/acre (Sorghum-Sudan Hybrids)
Sept 1-Mar 1	Sericea Lespedeza (unhulled - unscarified) AND Tall Fescue	70 lbs/acre (Sericea Lespedeza); 120 lbs/acre (Tall Fescue)
Nov 1-Mar 1	AND Abruzzi Rye	25 lbs/acre

Consult S&EC Environmental Engineers for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those that do well under local conditions; other seeding rate combinations are possible.

*** TEMPORARY: Reseed according to optimum season for desired permanent vegetation. Do not allow temporary cover to grow more than 12" in height before mowing; otherwise, fescue may be shaded out.



TOWN OF ZEBULON
PROJECT ID: 964220

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH TOWN OF
ZEBULON STANDARDS AND
SPECIFICATIONS

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

The Nau Company
Consulting Civil Engineers
PO Box 810, Rolesville, NC 27571
919-435-6395
NCBELS License P-0751

OWNER/DEVELOPER:
MERIDIAN PROPERTIES GROUP LLC
4030 WAKE FOREST ROAD, SUITE 100
RALEIGH, NC 27609
919-621-4666

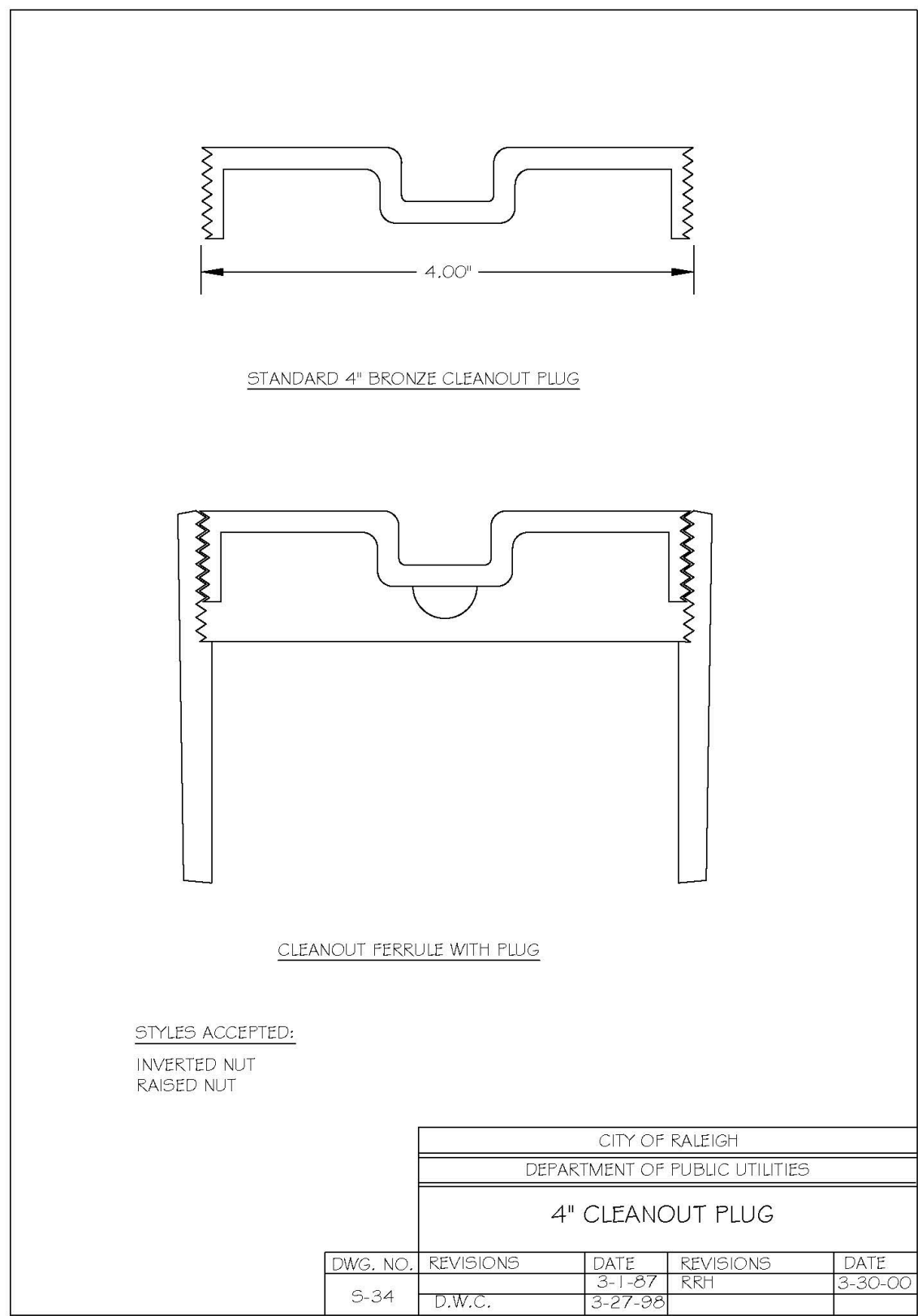
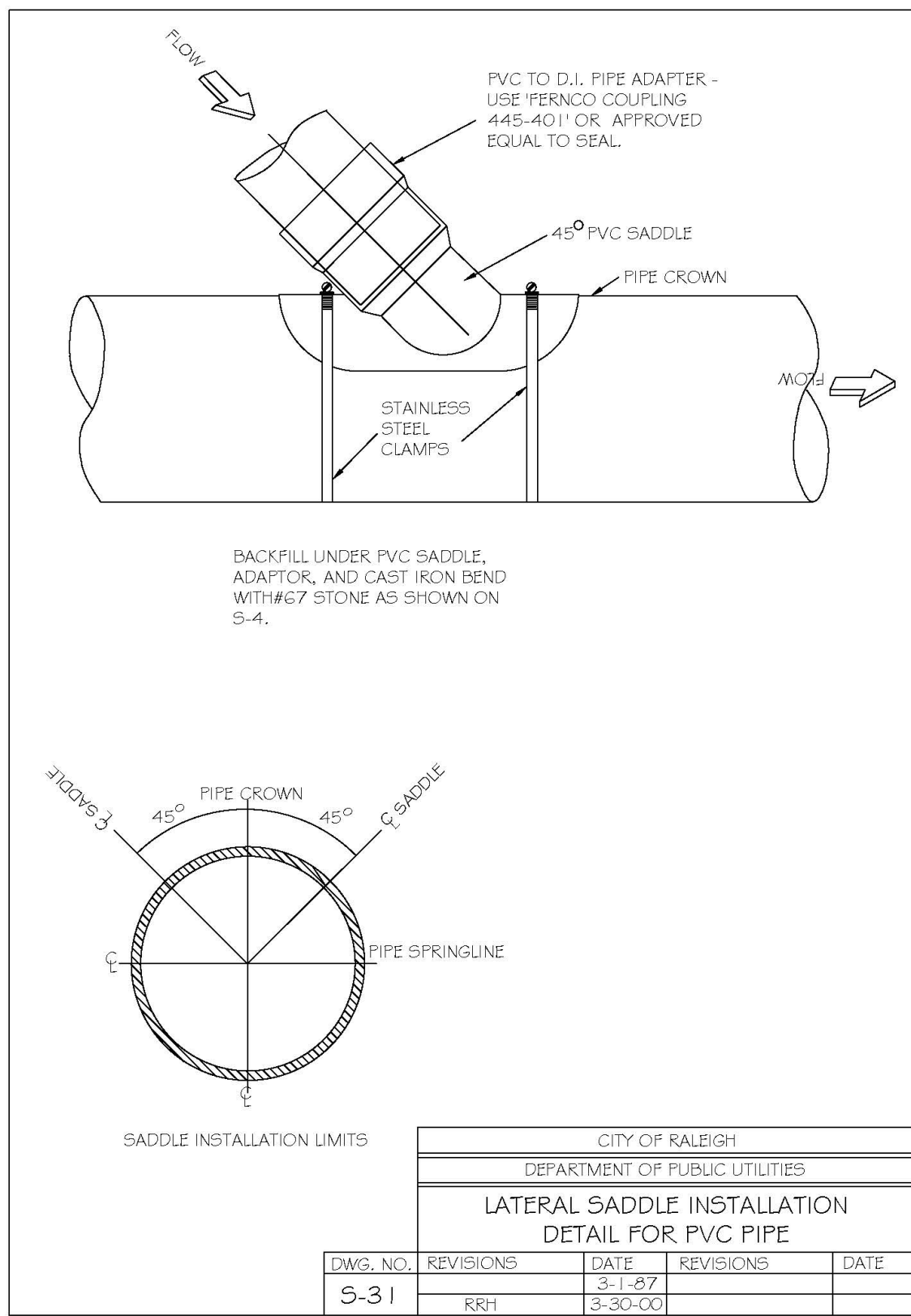
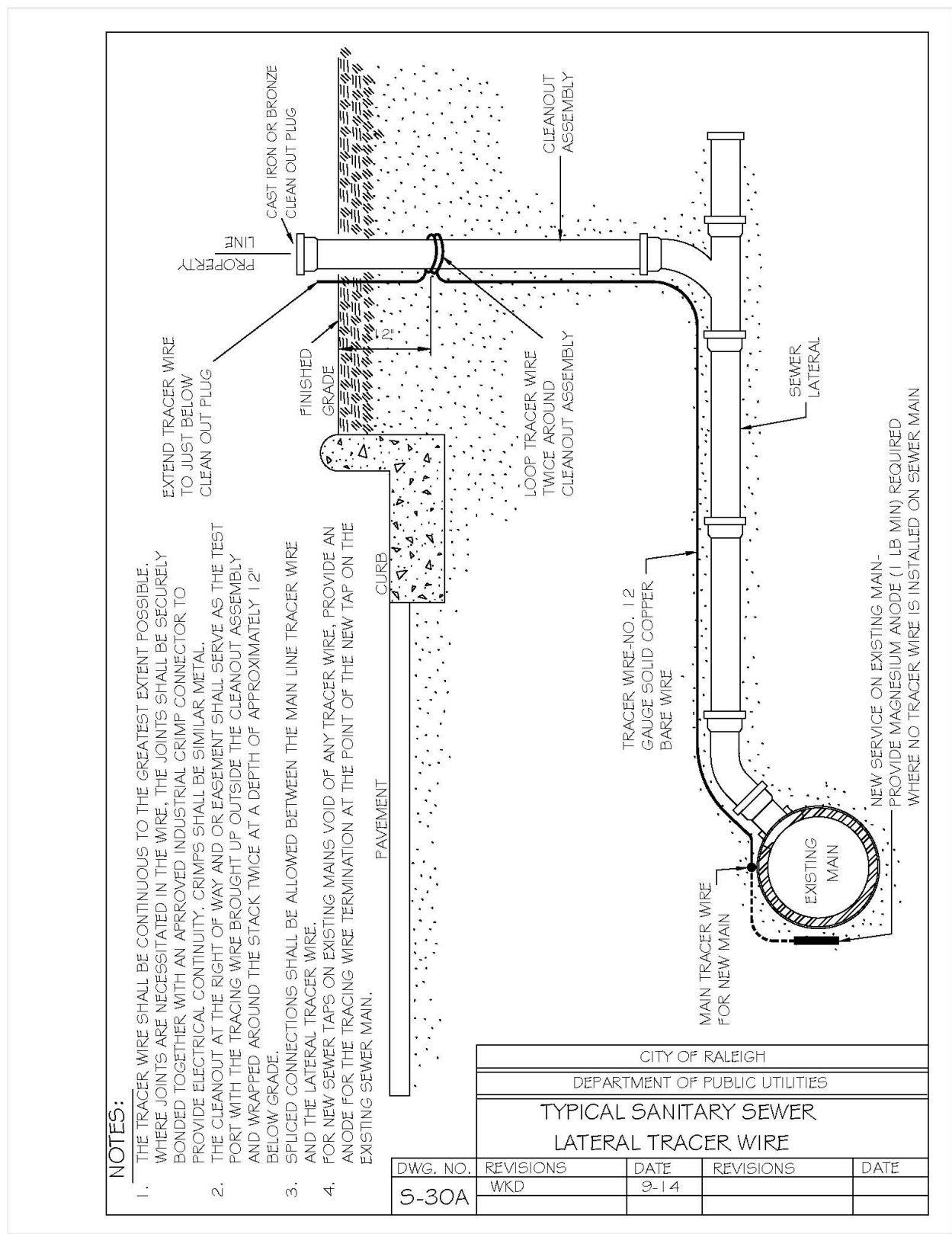
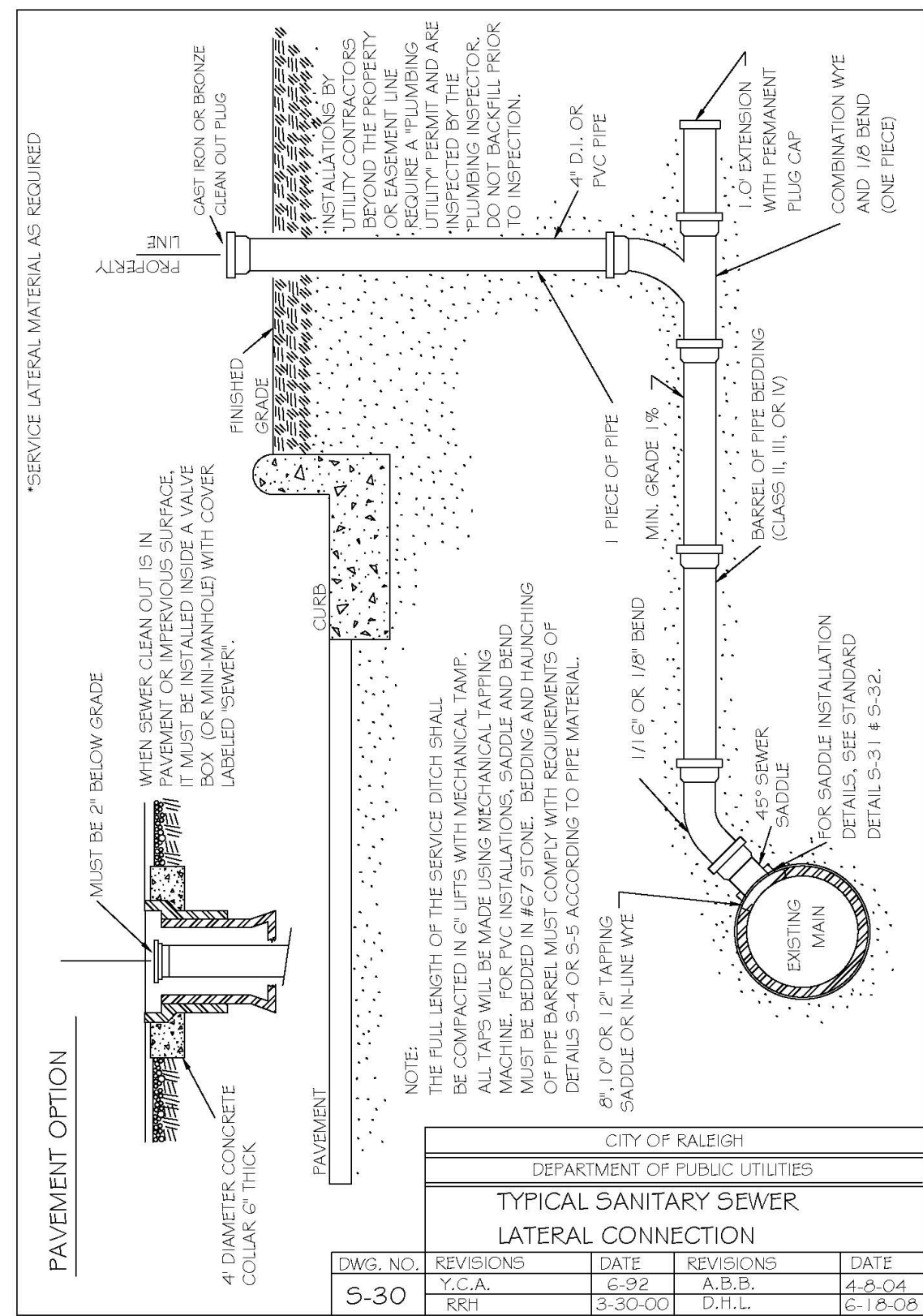
REVISIONS

NO.	DATE	DESCRIPTION
1	2023-07-10	ISSUE FOR TOWN COMMENTS

401 GANNON AVENUE
SITE PLAN AND CONSTRUCTION DRAWINGS
ZEBULON, NC
EROSION CONTROL DETAILS

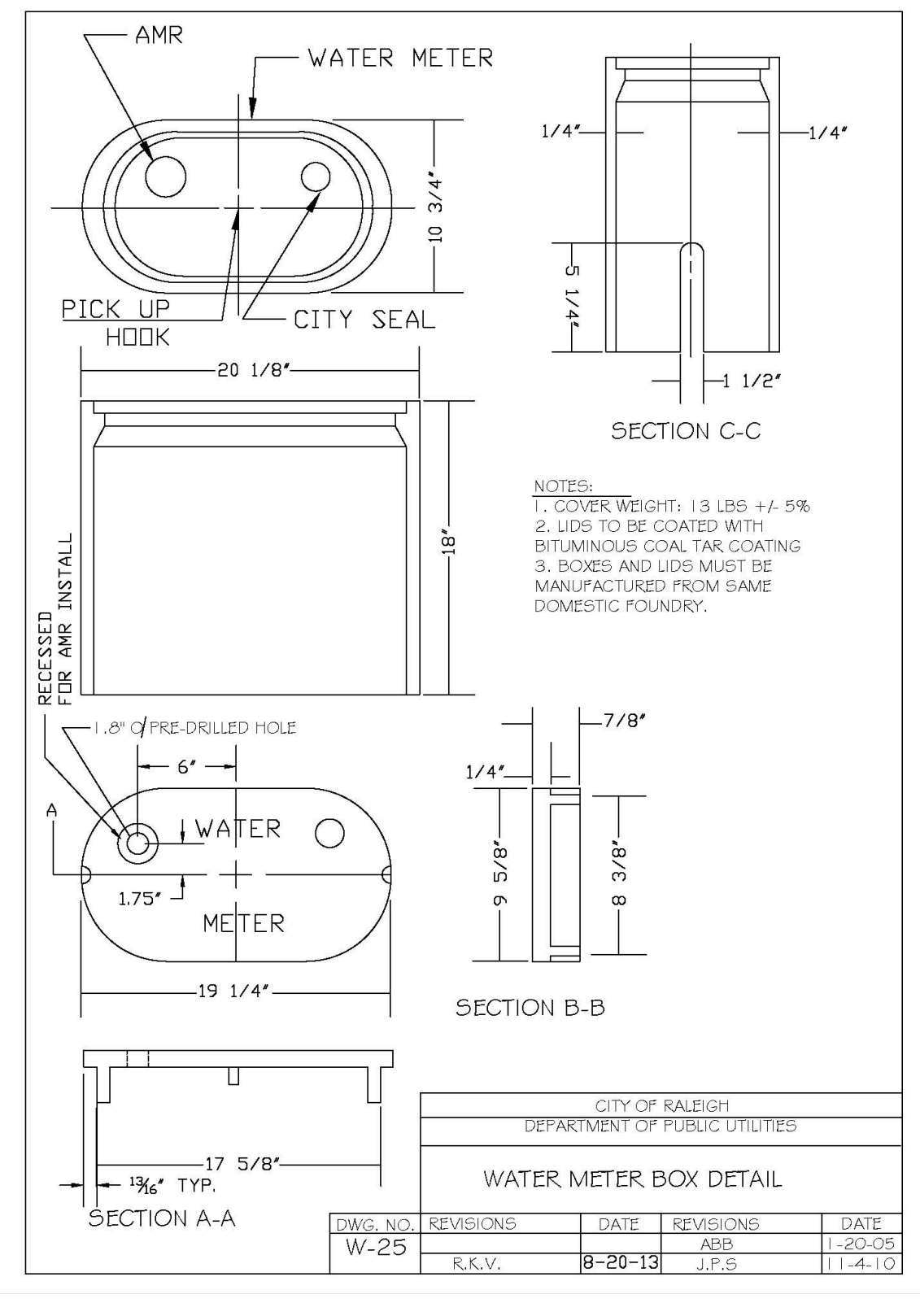
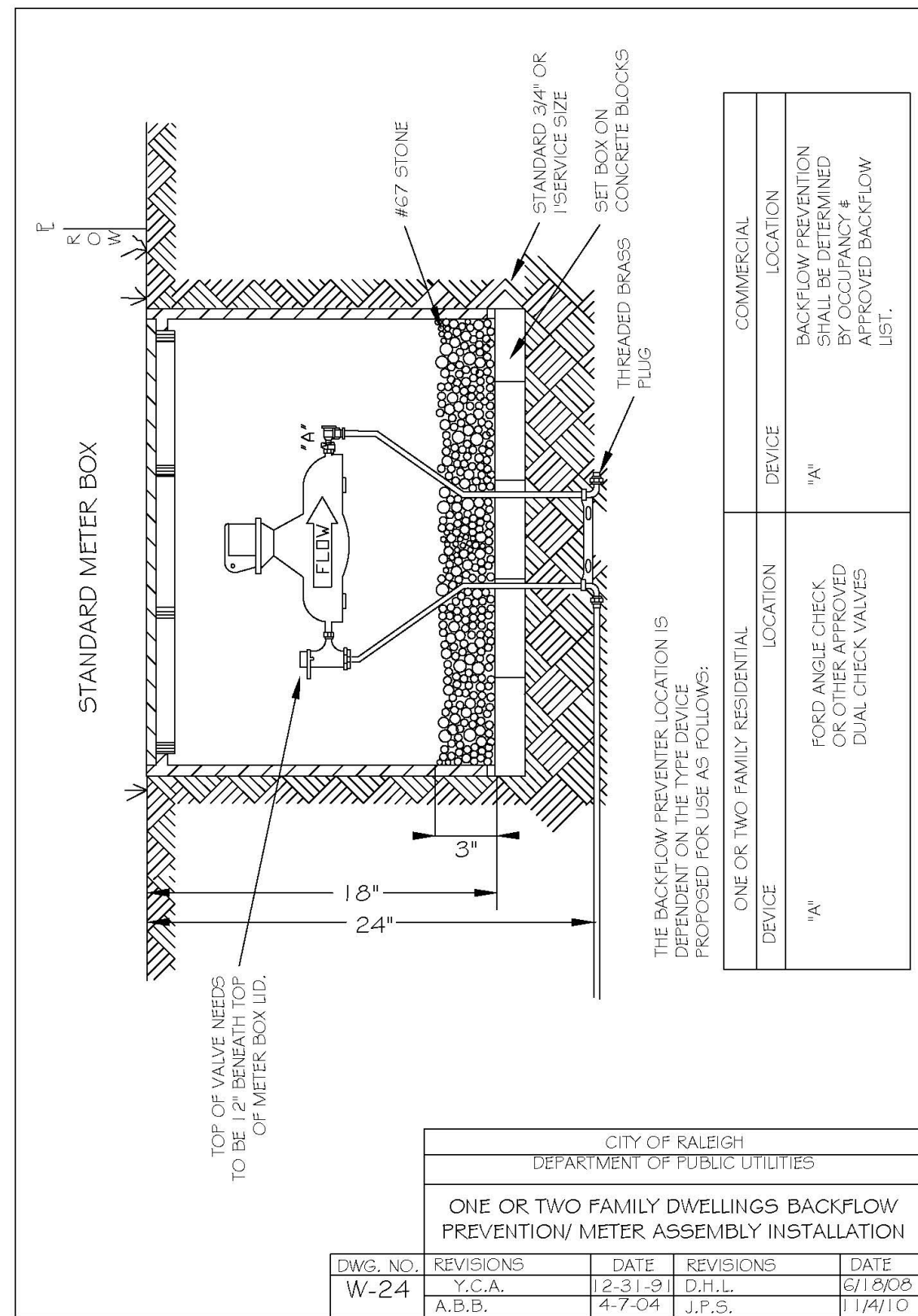
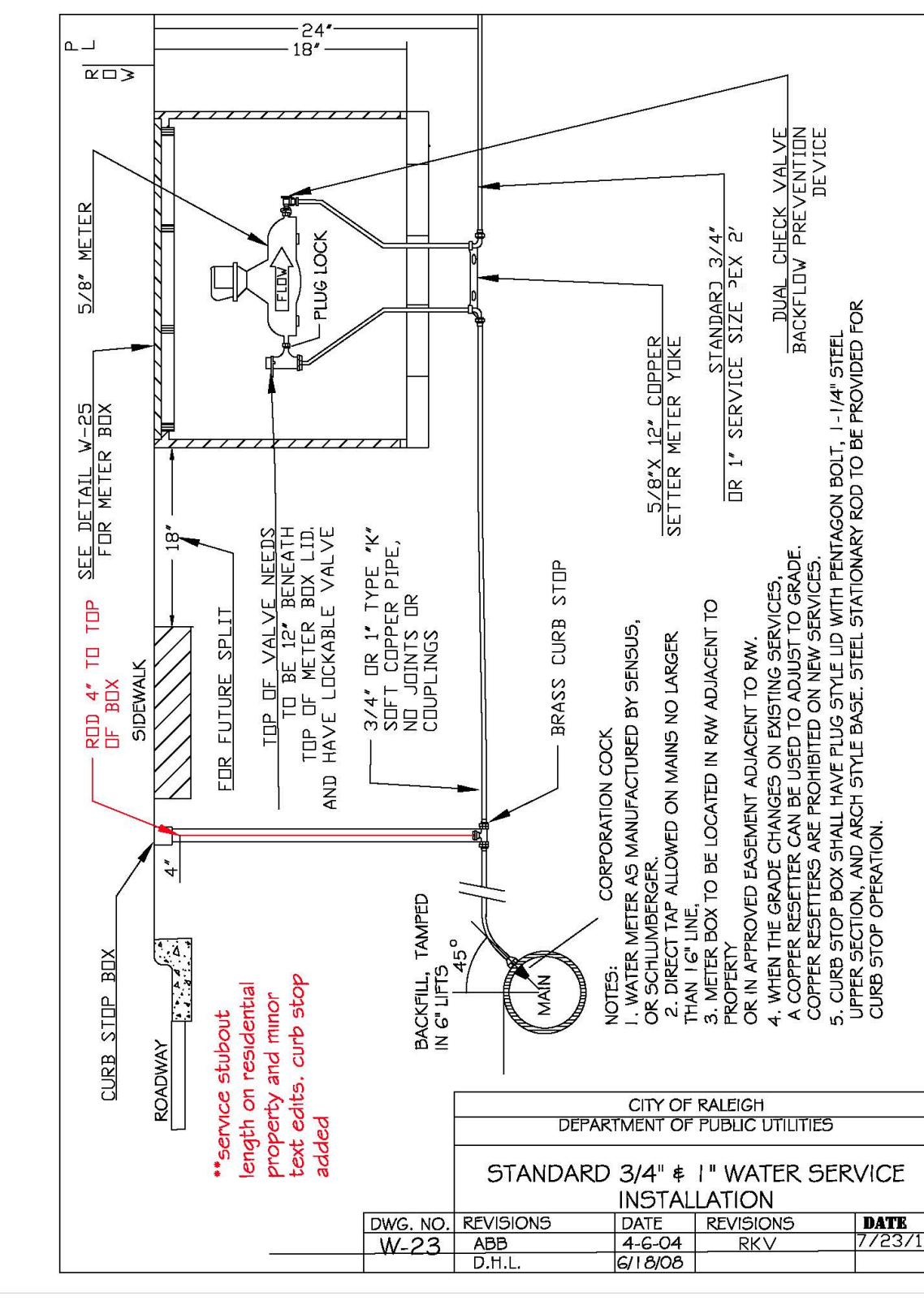
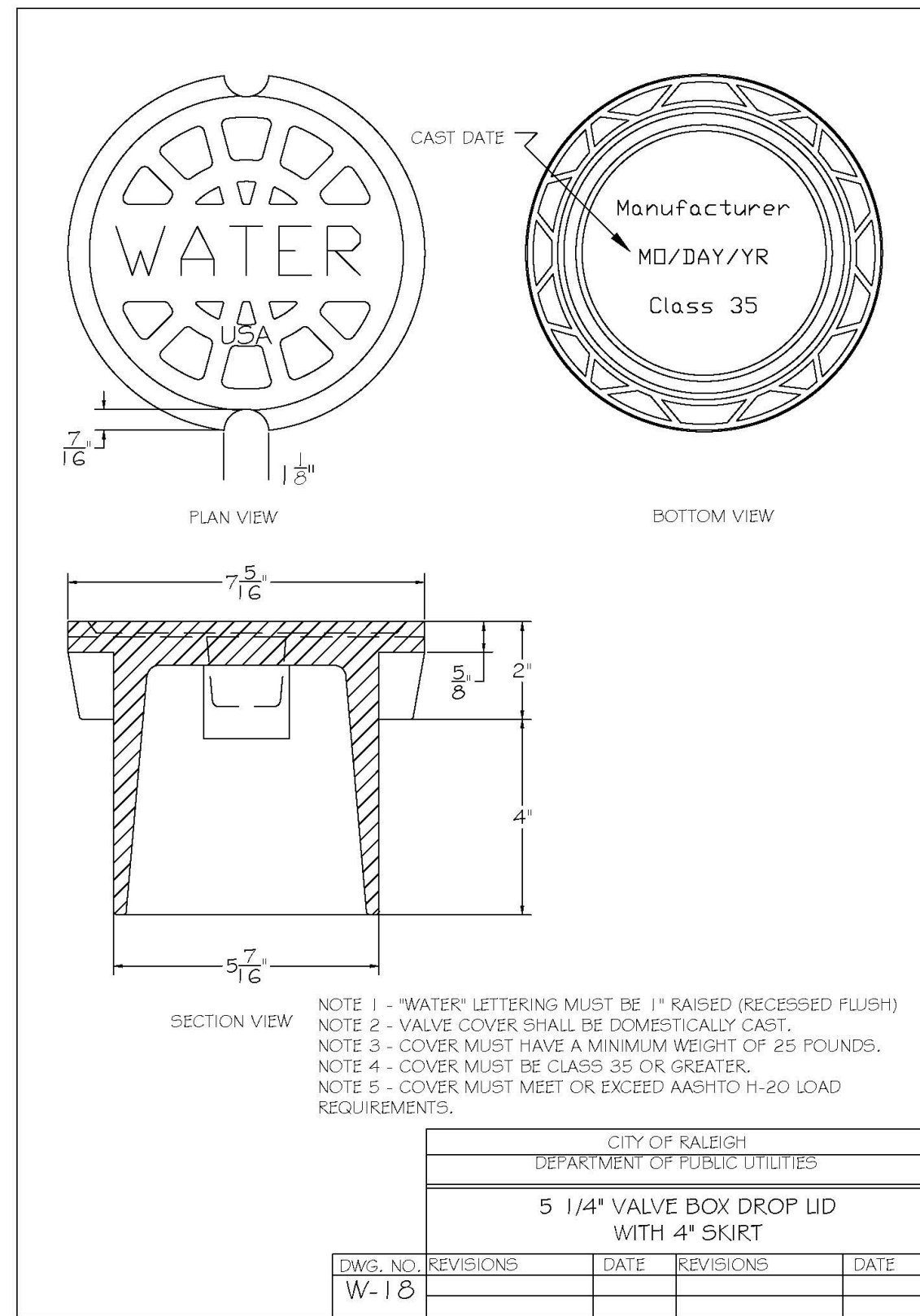
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DESIGN BY: JPE
DRAWN BY: JPE
SCALE: NTS
DATE: 2023-03-01
SHEET NO: **D2.1**

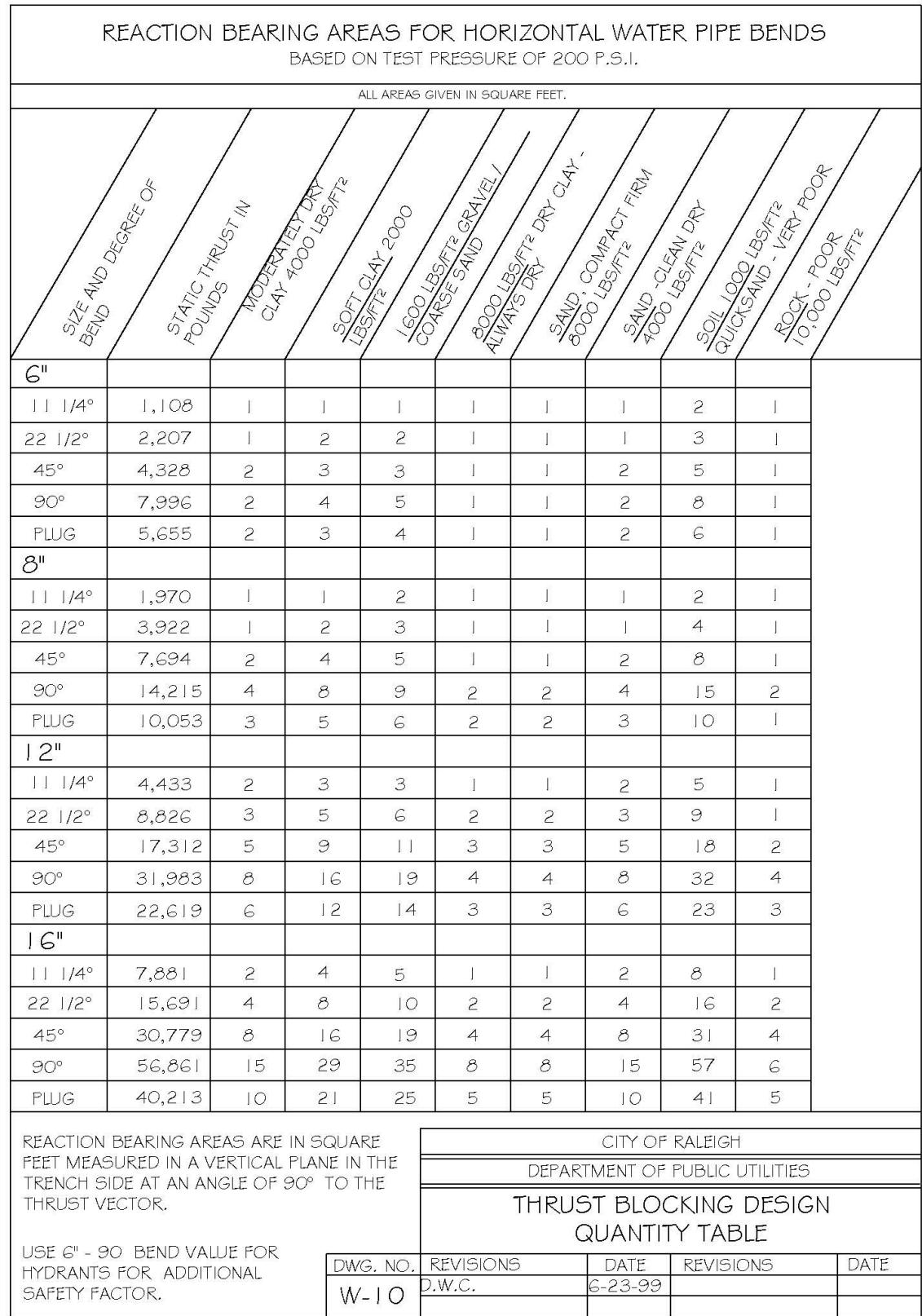
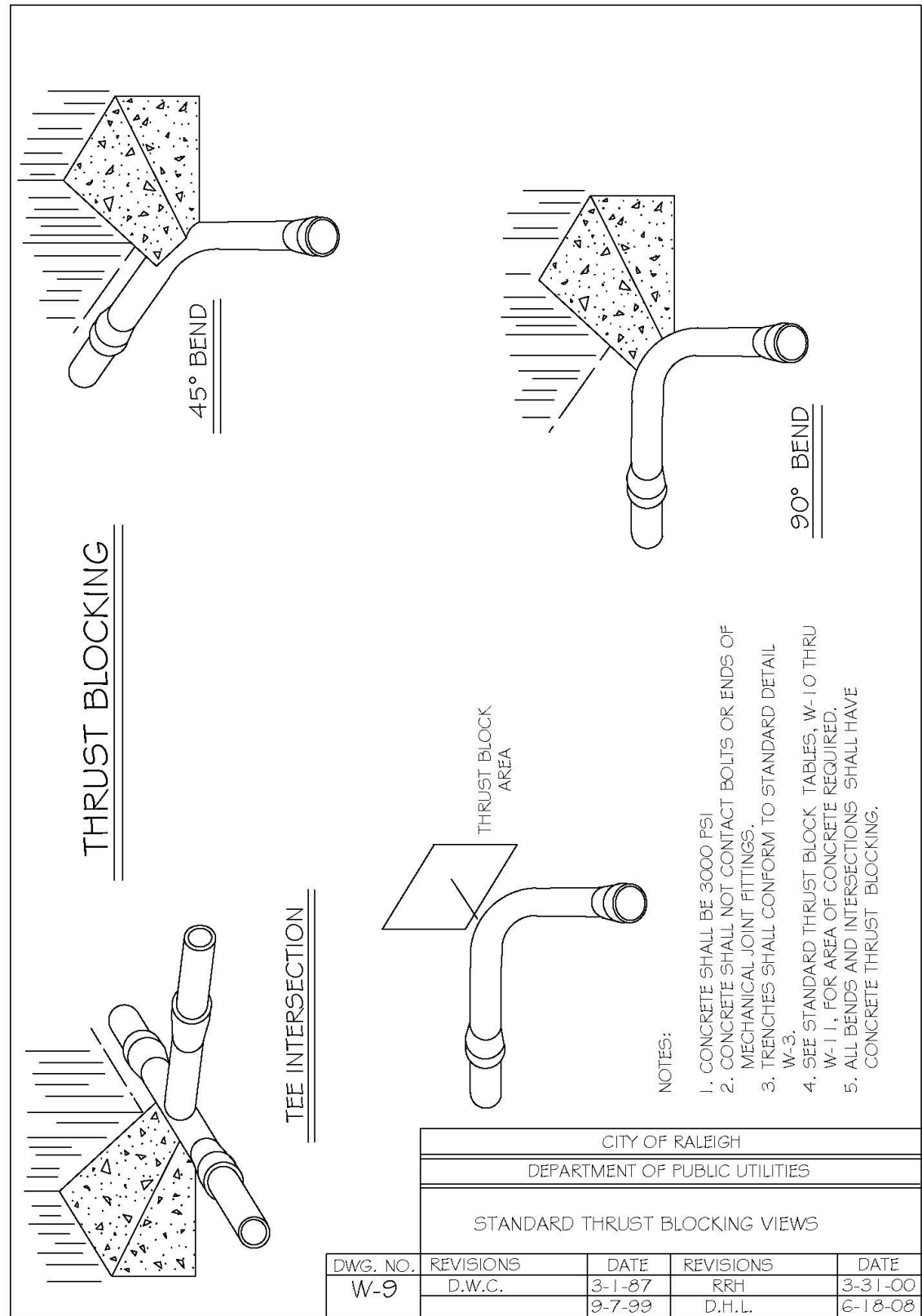
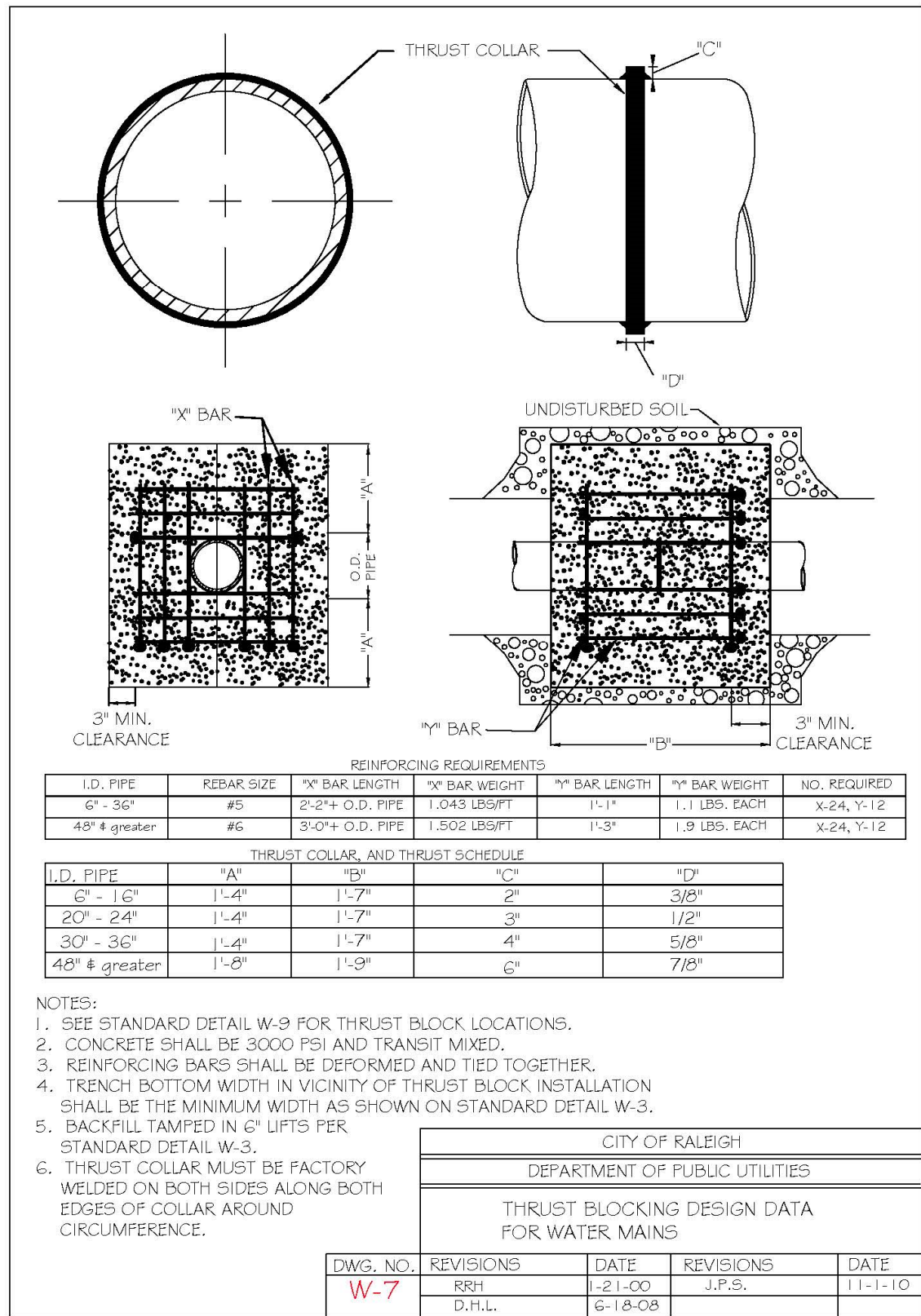
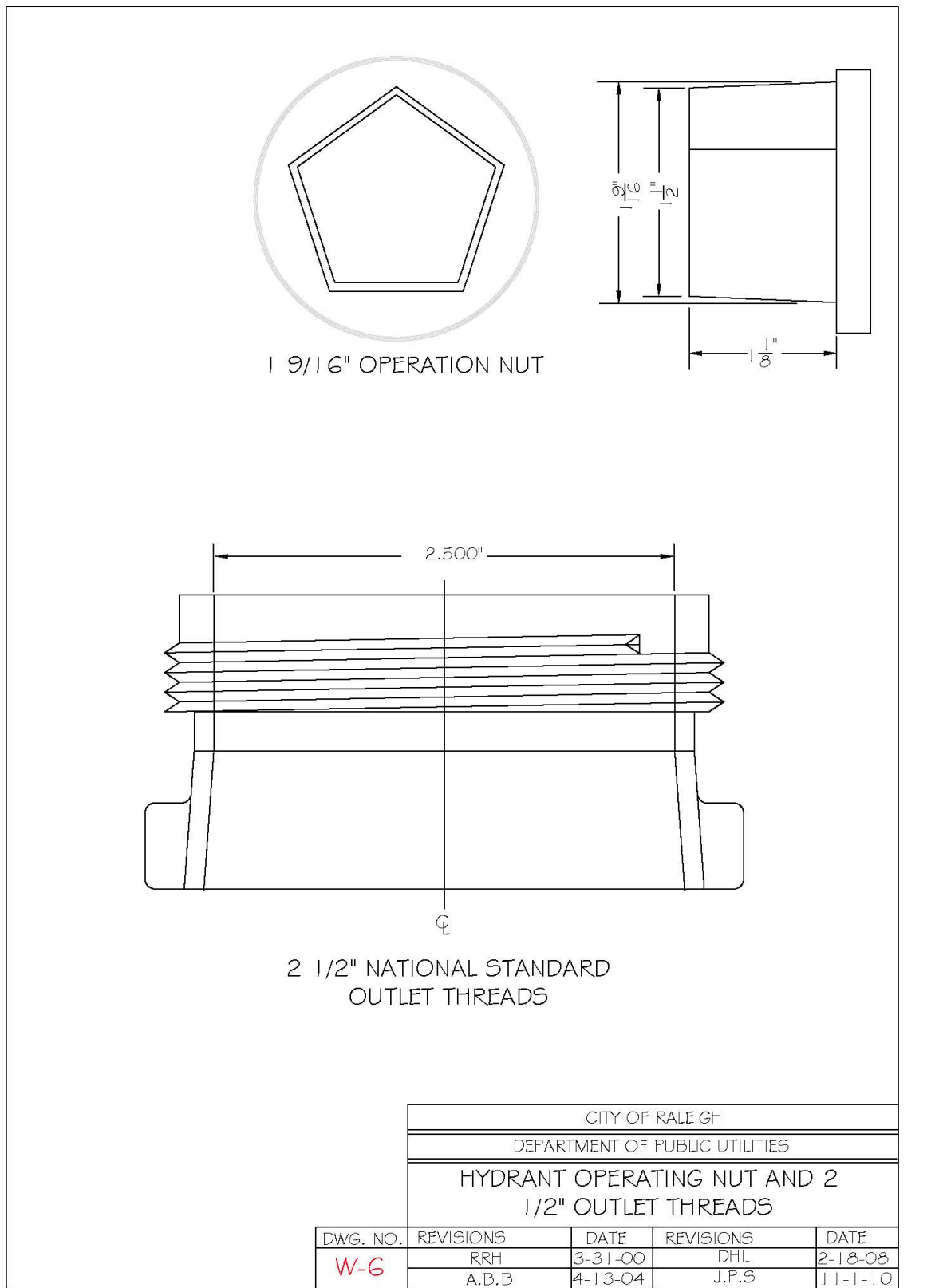
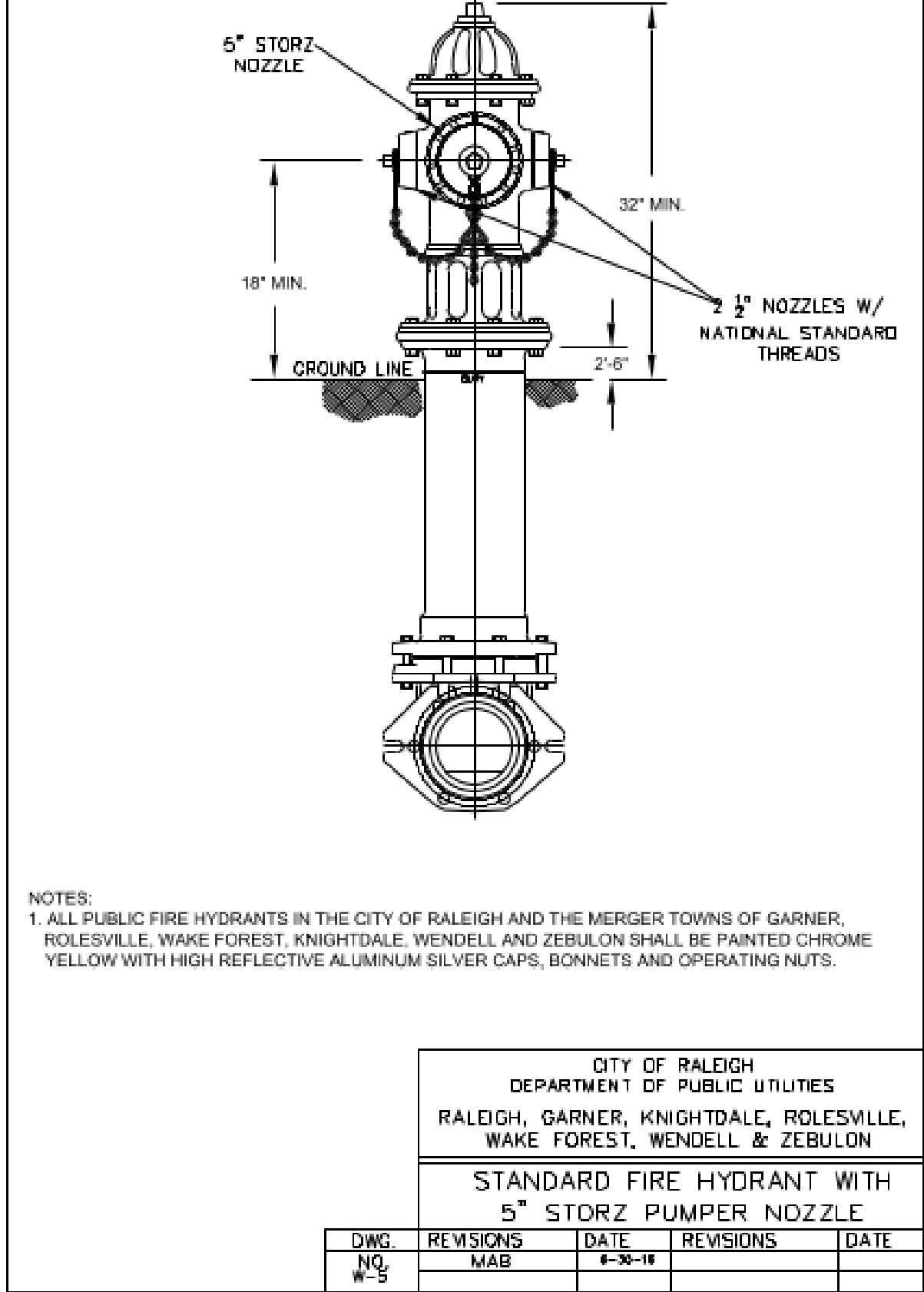
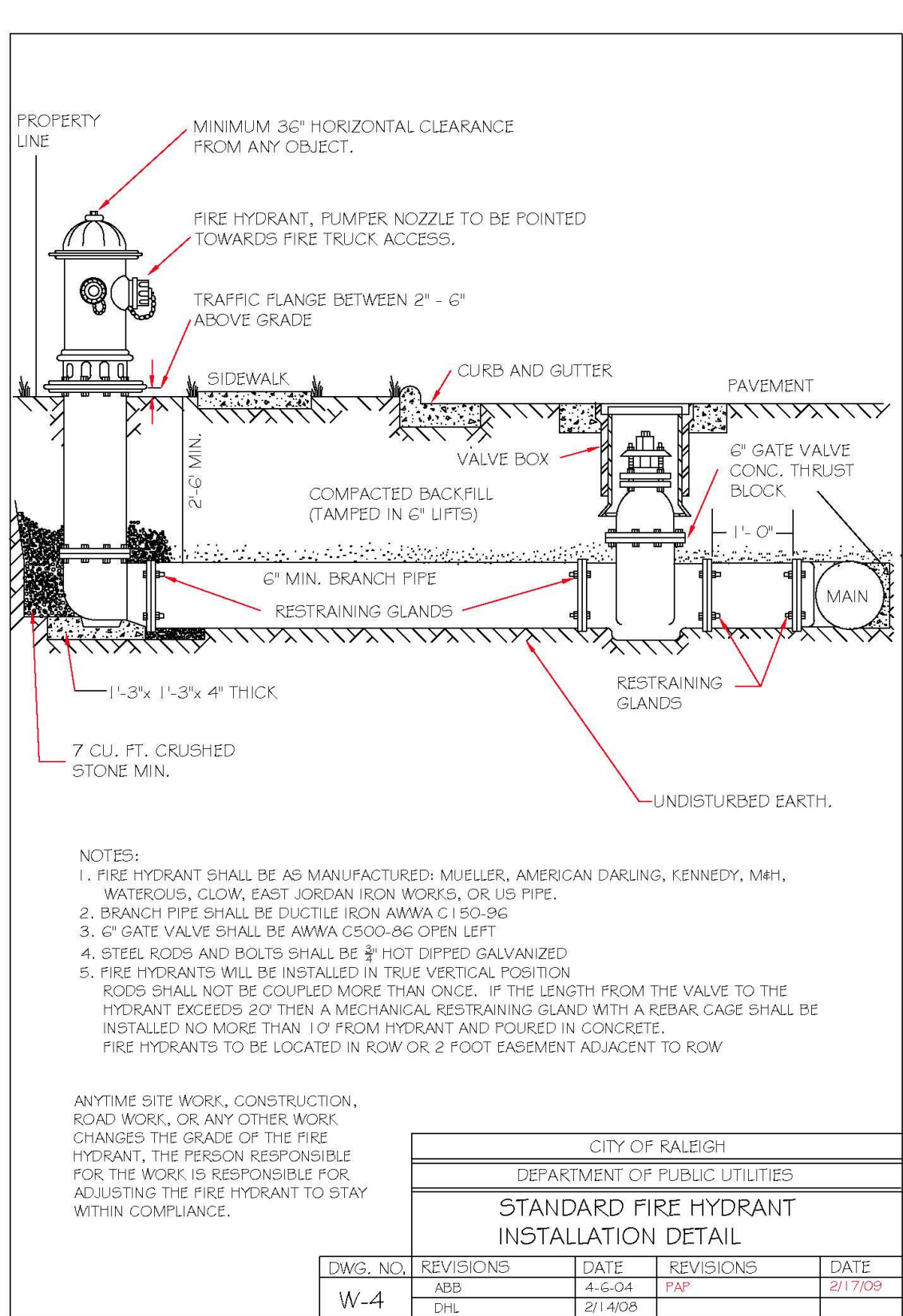
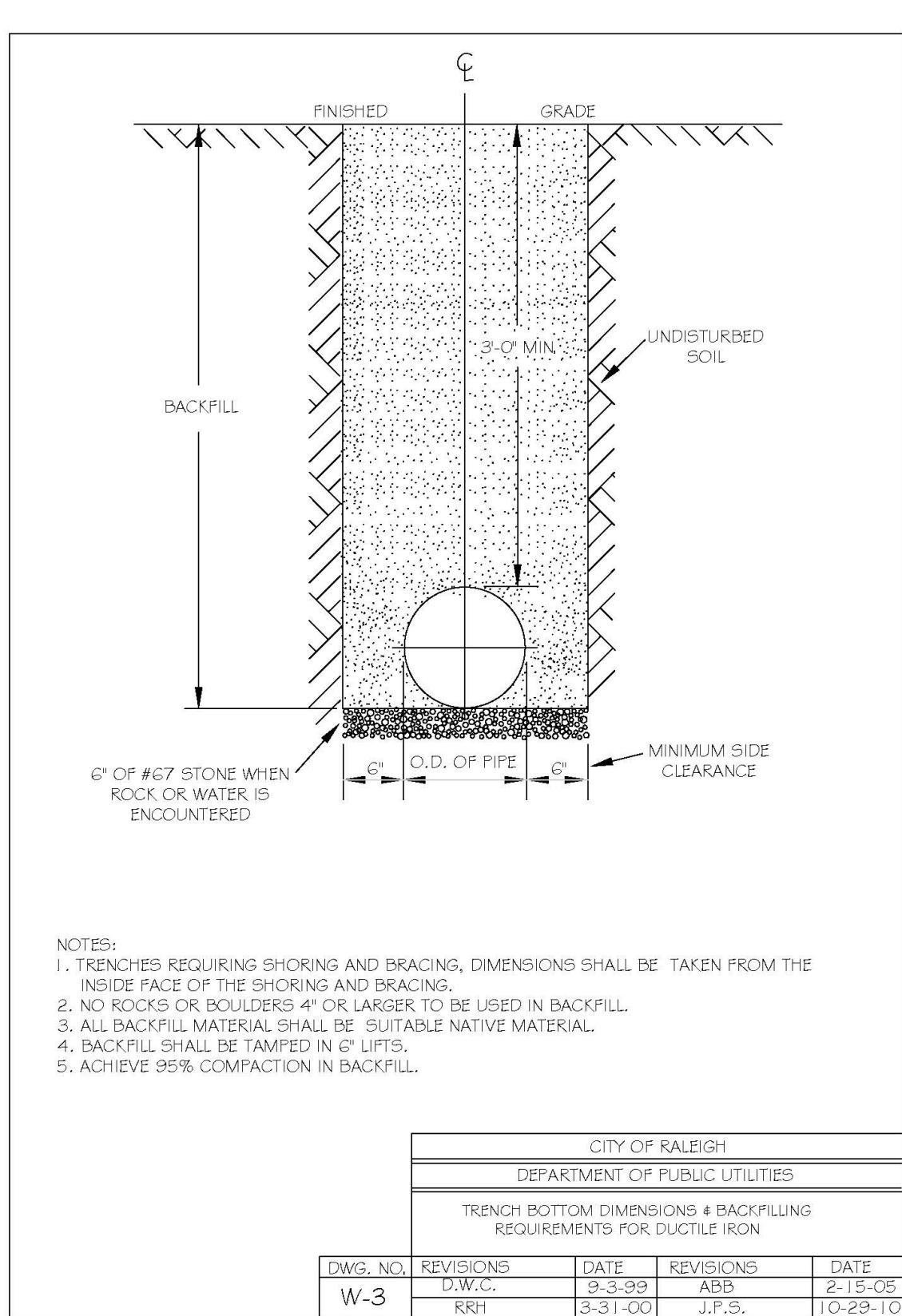
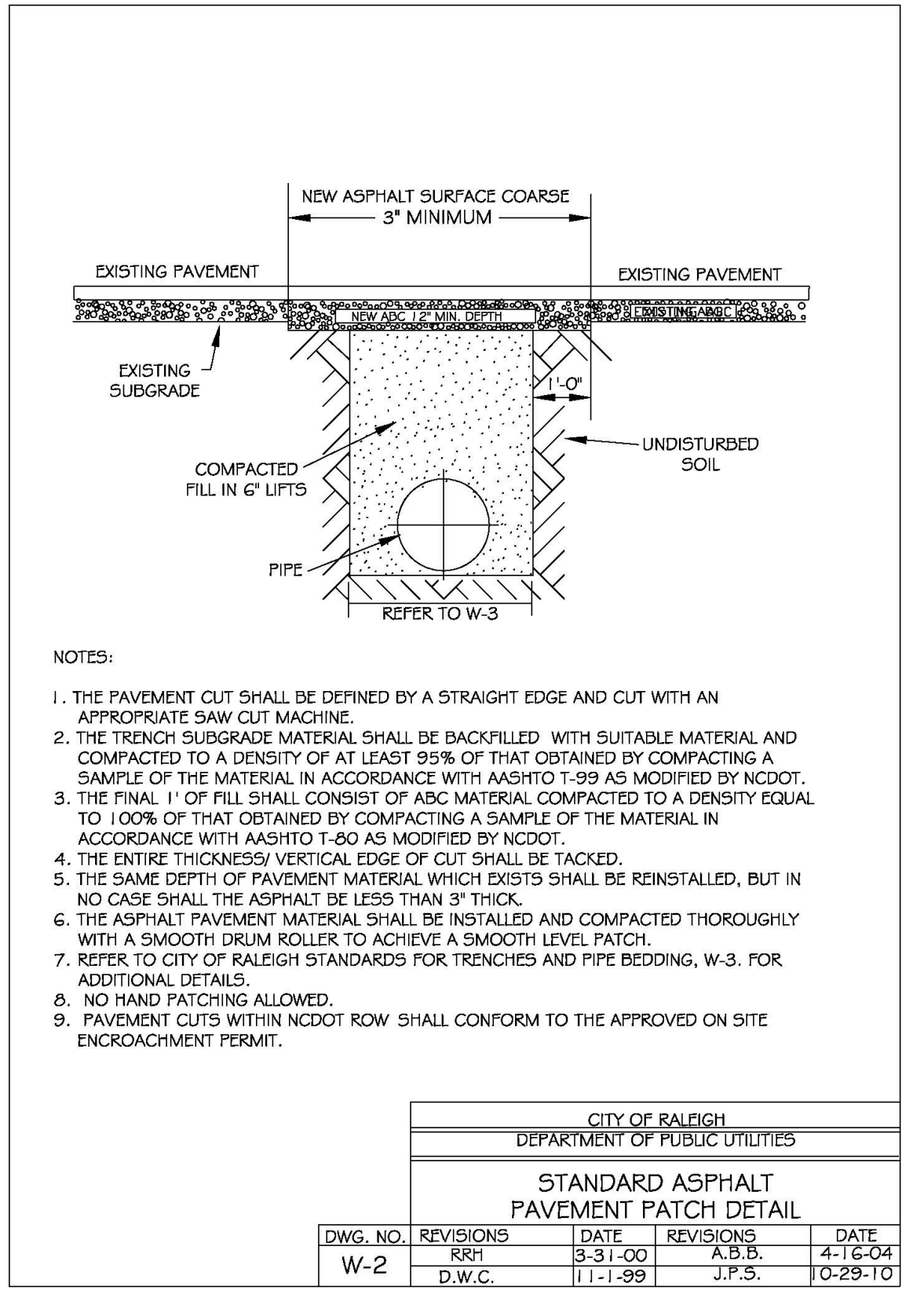
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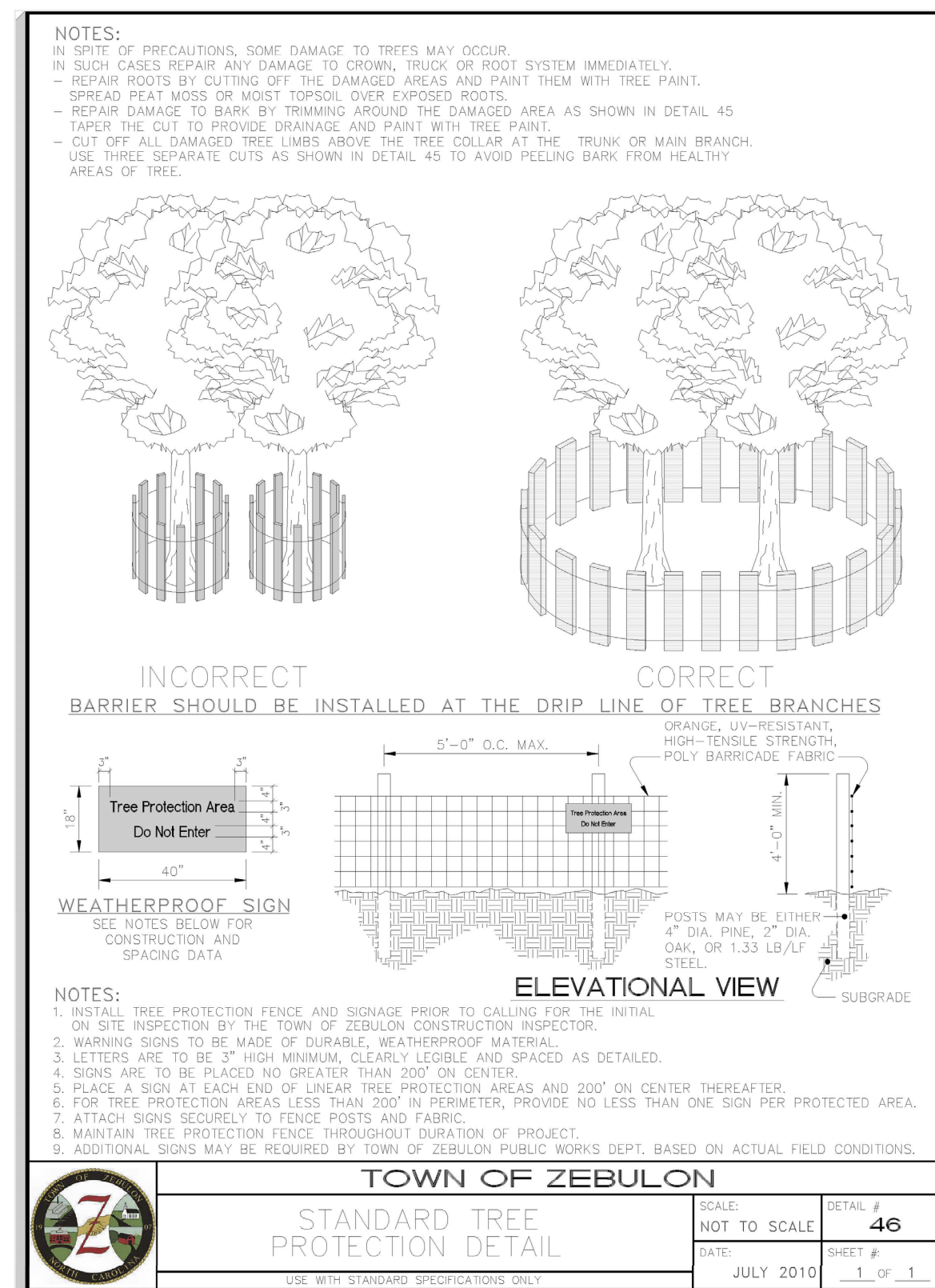
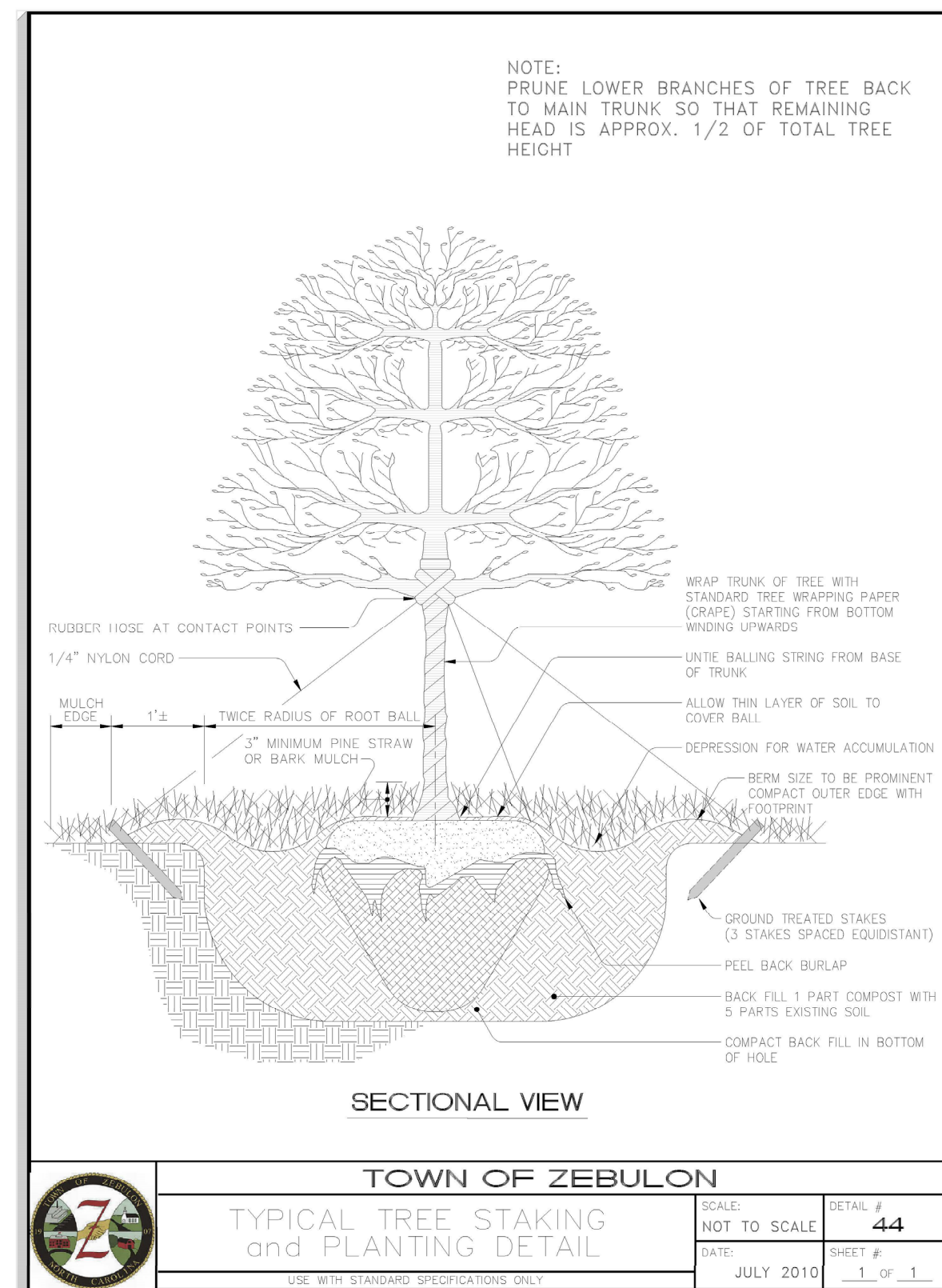
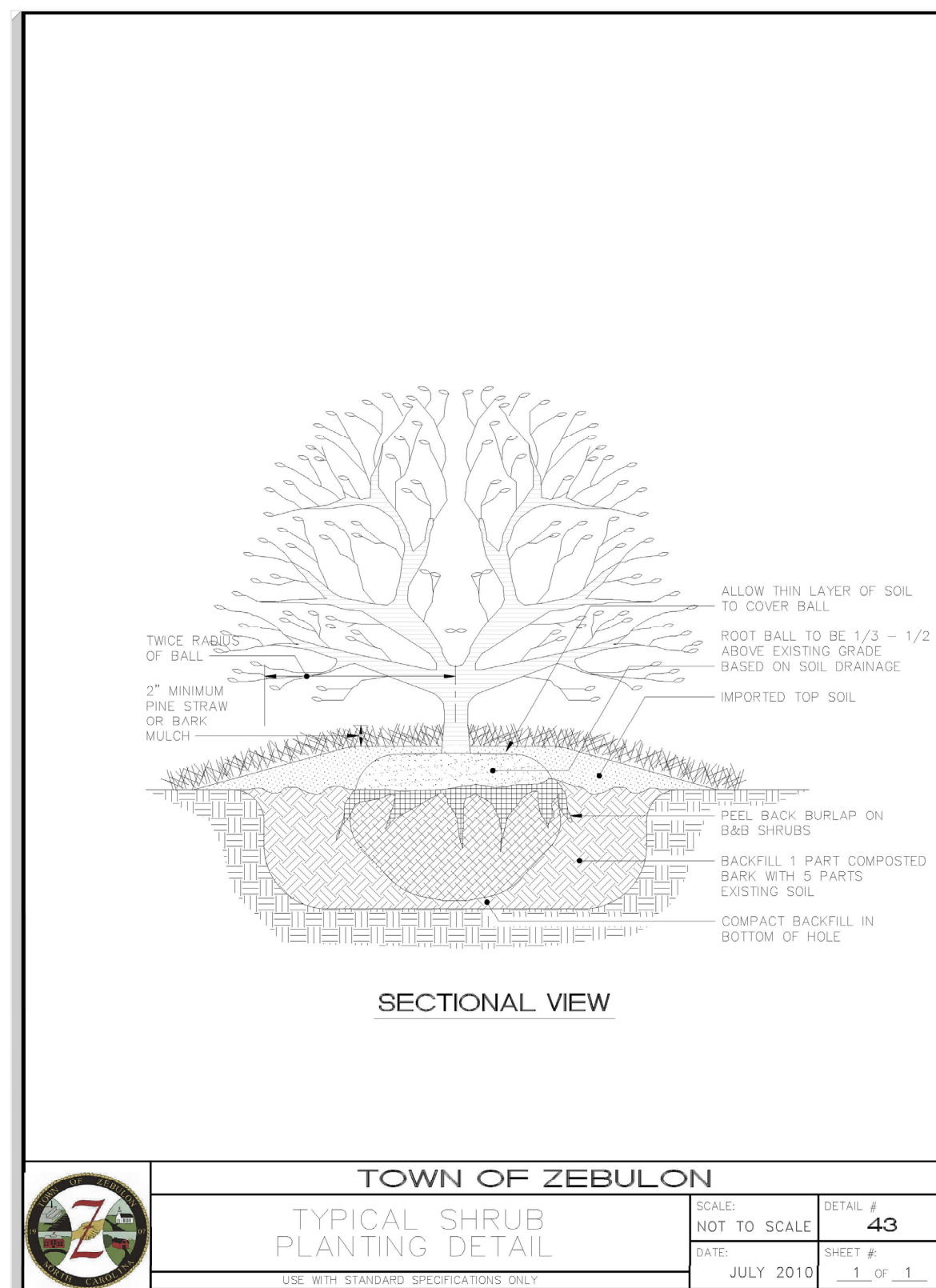
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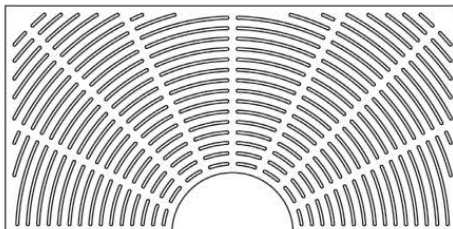
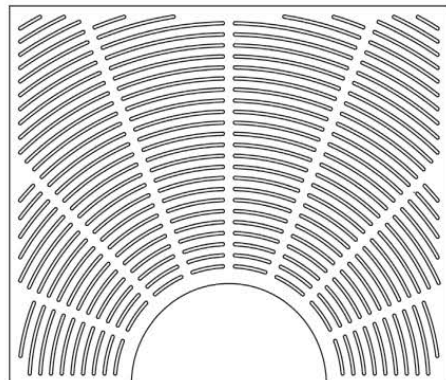
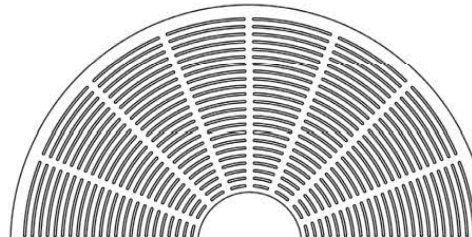
The Nau Company
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PO Box 810 Rolesville, NC 27571
919-435-6395
NCBELS License P-0751

MERIDIAN PROPERTIES GROUP, LLC
 4030 WAKE FOREST ROAD, SUITE 100
 RALEIGH, NC 27609
 919-621-4648







AVENUE COLLECTION			
SQUARE			
SERIES NO.	GRATE SIZE	AVAILABLE TREE OPENING SIZES	SLOT SIZE
R-8704	48" x 36"	12", 14" dia.	0.375"
R-8704-A	36" x 36"	12", 16" dia.	0.25"
R-8710	48" x 60"	12", 14", 16" dia.	0.375"
R-8712	60" x 60"	16" dia.	0.375"
R-8715	72" x 72"	16" dia.	0.25"
DETAILS			
Available with light openings: R-8704-A, R-8710, R-8712, R-8715			
			
			R-8712
RECTANGLE			
SERIES NO.	GRATE SIZE	AVAILABLE TREE OPENING SIZES	SLOT SIZE
R-8810	36" x 60"	16" dia.	0.25"
DETAILS			
Available with light openings: R-8810			
			
			R-8810
CIRCLE			
SERIES NO.	GRATE SIZE	AVAILABLE TREE OPENING SIZES	SLOT SIZE
R-8881	30" round	12" dia.	0.25"
R-8872	55.25" round	12" dia.	0.25"
R-8876	72" round	16", 18" dia.	0.25"
DETAILS			
Available with light openings: R-8881, R-8876			
			
			R-8876

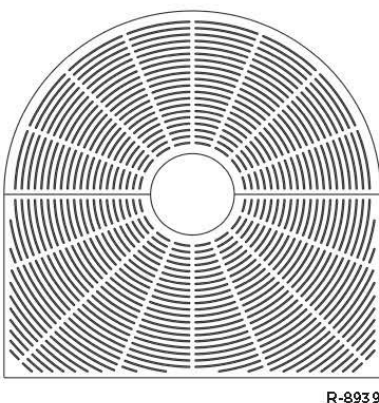
AVENUE COLLECTION

COMBO

SERIES NO.	GRATE SIZE	AVAILABLE TREE OPENING SIZES	SLOT SIZE
R-8909	72" Combo	16" dia.	0.25"

DETAILS

Available with light openings: R-8909



R-8909



INSTALLATION PROCEDURES

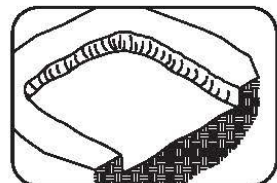
Neenah's tree grate frames are designed to make the installation job easy and accurate. Our frames can be incorporated into your forms in just minutes. The seat of the frame should be cleaned prior to setting the grate. Grate halves are to be bolted together on the underside using the bolt slots provided.

ALL OR ANY PART OF THE PRECEDING SPECIFICATIONS AND PROCEDURES MAY BE INCORPORATED IN YOUR PROJECT DOCUMENTS.

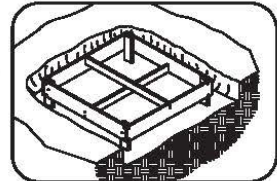
FOR POURED CONCRETE INSTALLATIONS

(Neenah tree grates and R-8500 Type U frames)

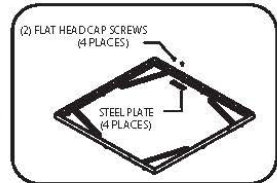
STEP 1:
Excavate tree pit.



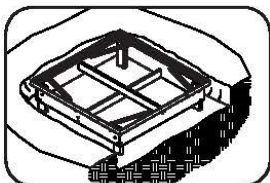
STEP 2:
Place wood frame within excavation. Set at proper grade. Make form outside dimension 45.75" x 45.75" for 48" x 48" grate, 57.75" x 57.75" for 60" x 60" grate or 69.75" x 69.75" for 72" x 72" grate.



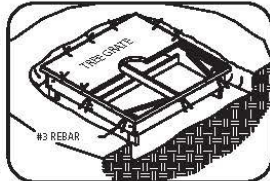
STEP 3:
Assemble the R-8500 Type U tree grate frame using the hardware provided. Make sure to tighten the countersunk flat head screws so they are flush or below the bearing surface of the frame.



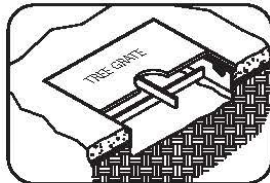
STEP 4:
Place frame on wood form. Place both tree grate halves within the frame.



STEP 5:
IMPORTANT: Wire grates, frames and form together. Check and adjust frame alignment and elevation if needed. Install #3 rebar through lugs on frame and support as required. Ensure there is a 1875" spacing between vertical faces of the frame and grate.



STEP 6:
Pour and finish concrete. Do not remove tree grate or trim alignment wires until concrete has set up.



NOTE: FAILURE TO FOLLOW THESE FORMING PROCEDURES COULD RESULT IN AN UNSATISFACTORY INSTALLATION.

If you have any questions regarding installation or if you must deviate from the above instructions, contact the Neenah Product Engineering Department. Additional detailed installation information is available from your Neenah sales representative or from our website at www.neenahfoundry.com.