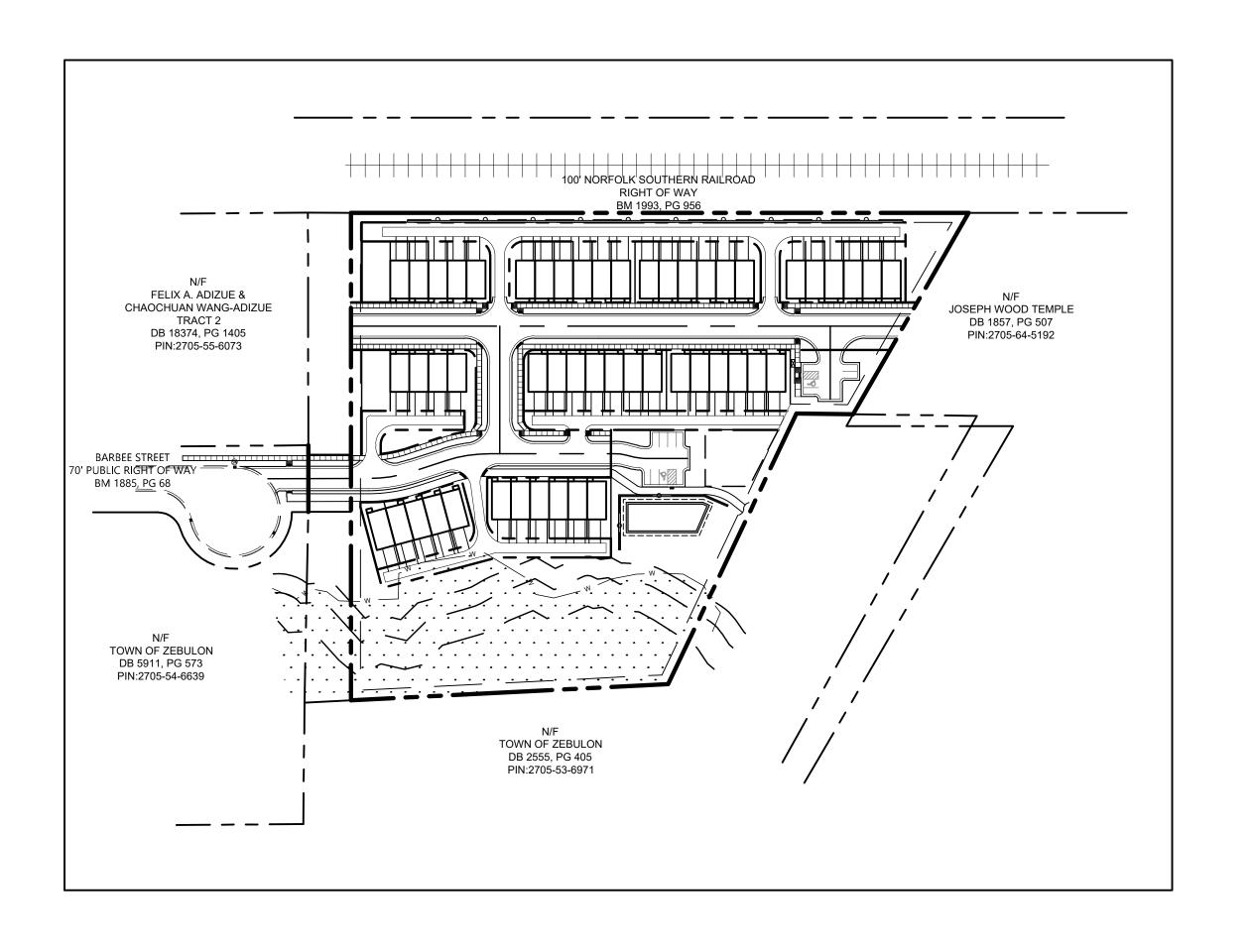
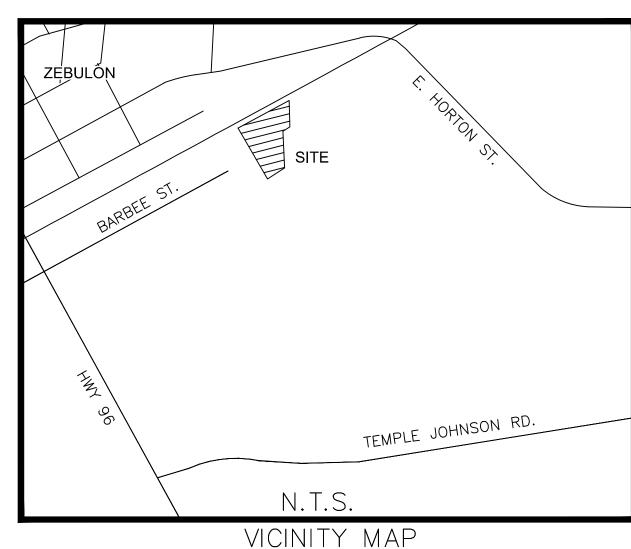
BARBEE ST. SUBDIVISION

O EAST BARBEE STREET ZEBULON, NORTH CAROLINA

CONSTRUCTION DRAWINGS





SITE DATA SUMMARY

| PROJECT NAME: | |
|--------------------------------------|--|
| PIN(S): | 2705-65-023 2705-55-707 |
| SITE ADDRESS: | 0 E. BARBEE STREE 413 E. BARBEE STREE |
| JURISDICTION: | WAKE COUNT |
| ZONING: | DT |
| RIVER BASIN: | NEUS |
| TOTAL EXISTING ACREAGE: | 246,114 SF / 5.65 ACRE |
| CURRENT USE: | VACAN |
| PROPOSED USE: | SINGLE-FAMILY ATTACHED DWELLIN |
| BUILDING SETBACKS: | |
| STREET: | NON |
| SIDE: | 5 F |
| REAR: | 15 F |
| TOTAL NUMBER OF UNITS: | 53 UNIT |
| MINIMUM LOT AREA: | 3,000 S |
| AVERAGE LOT AREA: | |
| REQUIRED PARKING (2/UNIT+0.25/UNIT): | 106 RESIDENT, 13 GUES |
| PROVIDED PARKING: | 106 RESIDENT, 14 GUES |
| | |

GENERAL NOTES

- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ZEBULON AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- 2. CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (811) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- 3. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
- 4. BOUNDARY AND SURVEY INFORMATION IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING, PLLC DATED JUNE 1, 2022.
- 5. ALL CONSTRUCTION SHALL CONFORM TO A.D.A. STANDARDS.
- 6. NO PORTION OF THE PROPERTY IS LOCATED WITHIN A FEMA AE FLOOD ZONE BASED ON THE MAP #3720270500J MAP REVISED MAY 6, 2006.

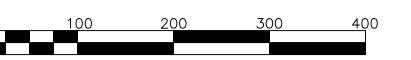
DRAWINGS INDEX: SITE 001 COVER SHEET BOUNDARY SURVEY SITE 100 EXISTING CONDITIONS PLAN SITE 200 SITE LAYOUT PLAN SITE 300 GRADING & DRAINAGE PLAN SITE 301 WET DETENTION POND PLAN SITE 302 INITIAL EROSION CONTROL PLAN SITE 303 FINAL EROSION CONTROL PLAN SITE 304 NPDES PLAN SITE 400 UTILITY PLAN SITE 500 LANDSCAPE PLAN SITE 700 SITE DETAILS SITE 701 SITE DETAILS SITE 702 SITE DETAILS SITE 703 SITE DETAILS SITE 704 SITE DETAILS SITE 705 SITE DETAILS SITE 706 SITE DETAILS SITE 707 SITE DETAILS SITE 708 SITE DETAILS

CONTACT/CIVIL ENGINEER: THE SITE GROUP, PLLC ATTN: SAMUEL R. NYE, P.E. 1111 OBERLIN ROAD RALEIGH, NC 27605 PHONE: (919) 835-4787 FAX: (919) 839-2255 EMAIL: srn@thesitegroup.net

SOCIETY REAL ESTATE, LLC ATTN: SHERRY CASE 4030 WAKE FOREST RD. STE 100 RALEIGH, NC 27609 PHONE: 910-621-4648 EMAIL: sherry@societyrealtygroup.com



SCALE: 1" = 100'(DRAWING SCALED FOR 24x36 INCH PLOTS)



FLOODPLAIN NOTE:

THIS SITE IS NOT IN ANY SPECIAL FLOOD HAZARD AREAS OR FUTURE CONDITIONS FLOOD HAZARD AREAS, AS SHOWN ON FIRM PANEL 3720270500K DATED JULY 19, 2022.





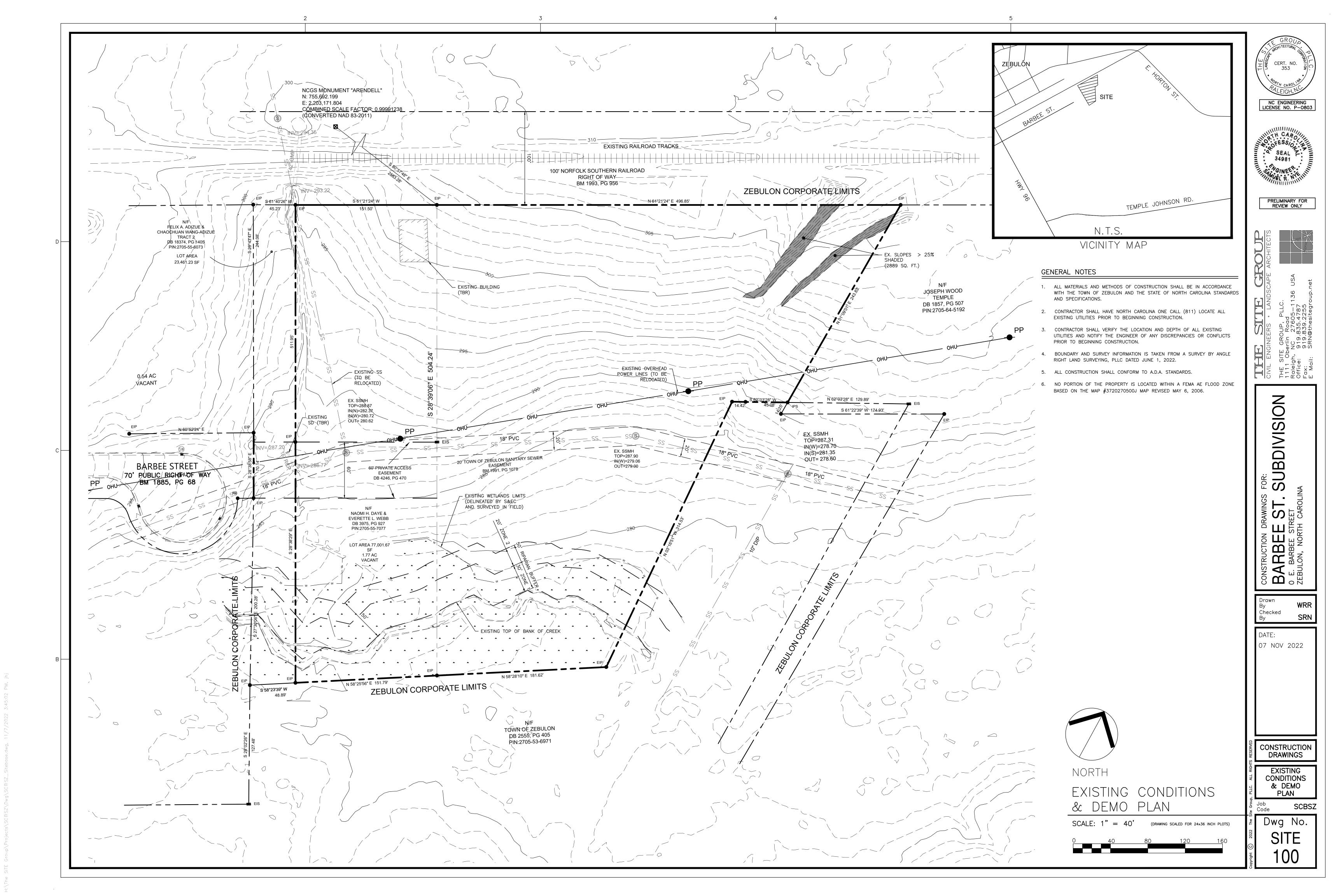


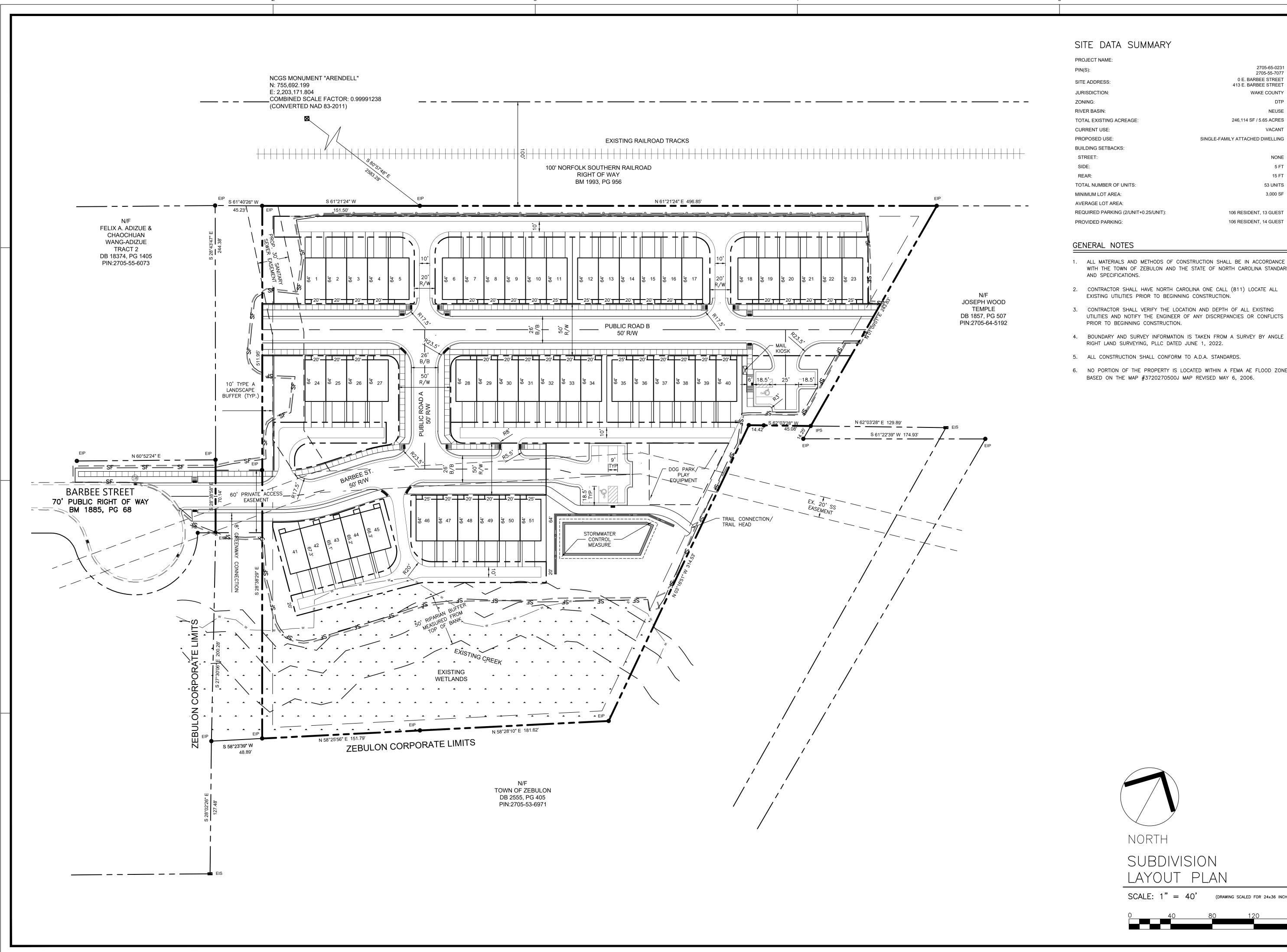
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CONSTRUCTION DRAWINGS

> COVER SHEET





2705-65-0231 2705-55-7077 0 E. BARBEE STREET 413 E. BARBEE STREET WAKE COUNTY NEUSE 246,114 SF / 5.65 ACRES SINGLE-FAMILY ATTACHED DWELLING NONE

15 FT 53 UNITS 3,000 SF

> 106 RESIDENT, 13 GUEST 106 RESIDENT, 14 GUEST

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ZEBULON AND THE STATE OF NORTH CAROLINA STANDARDS

2. CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (811) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.

3. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING

4. BOUNDARY AND SURVEY INFORMATION IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING, PLLC DATED JUNE 1, 2022.

5. ALL CONSTRUCTION SHALL CONFORM TO A.D.A. STANDARDS.

6. NO PORTION OF THE PROPERTY IS LOCATED WITHIN A FEMA AE FLOOD ZONE BASED ON THE MAP #3720270500J MAP REVISED MAY 6, 2006.

CERT. NO.

NC ENGINEERING LICENSE NO. P-0803



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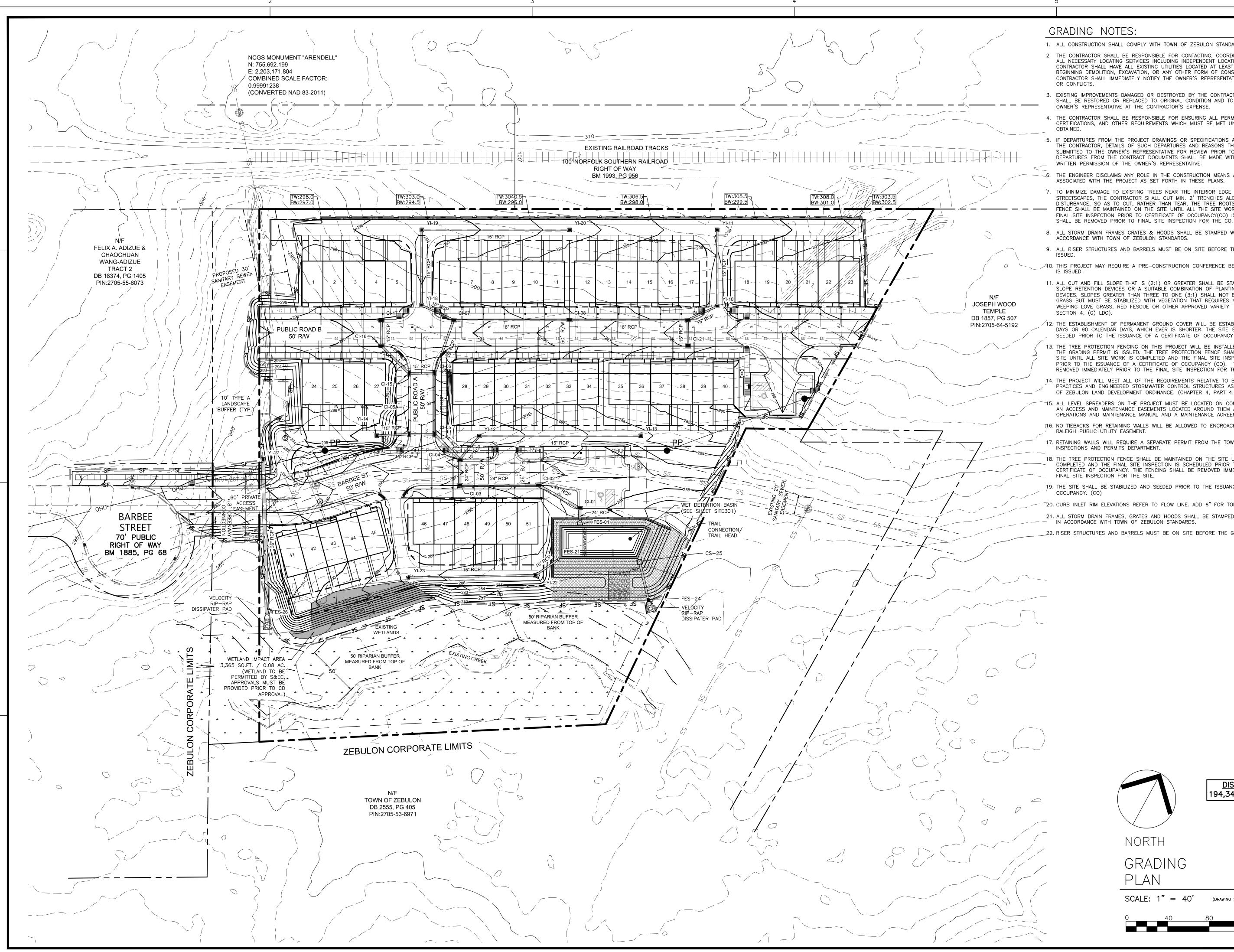
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CONSTRUCTION DRAWINGS

SUBDIVISION LAYOUT

Dwg No. SITE 200

(DRAWING SCALED FOR 24x36 INCH PLOTS)





- 1. ALL CONSTRUCTION SHALL COMPLY WITH TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS. 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING, AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO BEGINNING DEMOLITION, EXCAVATION, OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES
- 3. EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL PERMITS, INSPECTIONS. CERTIFICATIONS, AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT ARE
- 5. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREFORE SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS
- 6. THE ENGINEER DISCLAIMS ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS
- 7. TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE INTERIOR EDGE OF BUFFERS AND STREETSCAPES, THE CONTRACTOR SHALL CUT MIN. 2' TRENCHES ALONG THE LIMITS OF DISTURBANCE, SO AS TO CUT, RATHER THAN TEAR, THE TREE ROOTS. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL THE SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION PRIOR TO CERTIFICATE OF OCCUPANCY(CO) IS SCHEDULED. THE FENCING
- 8. ALL STORM DRAIN FRAMES GRATES & HOODS SHALL BE STAMPED WITH "DRAINS TO RIVER" IN
- 9. ALL RISER STRUCTURES AND BARRELS MUST BE ON SITE BEFORE THE GRADING PERMIT IS
- 10. THIS PROJECT MAY REQUIRE A PRE-CONSTRUCTION CONFERENCE BEFORE THE GRADING PERMIT
- 11. ALL CUT AND FILL SLOPE THAT IS (2:1) OR GREATER SHALL BE STABILIZED WITH PERMANENT SLOPE RETENTION DEVICES OR A SUITABLE COMBINATION OF PLANTINGS AND RETENTION DEVICES. SLOPES GREATER THAN THREE TO ONE (3:1) SHALL NOT BE STABILIZED WITH TURF GRASS BUT MUST BE STABILIZED WITH VEGETATION THAT REQUIRES MINIMAL MAINTENANCE. WEEPING LOVE GRASS, RED FESCUE OR OTHER APPROVED VARIETY. (CHAPTER 7, PART 2,
- /12. THE ESTABLISHMENT OF PERMANENT GROUND COVER WILL BE ESTABLISHED IN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICH EVER IS SHORTER. THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).
- 13. THE TREE PROTECTION FENCING ON THIS PROJECT WILL BE INSTALLED AND INSPECTED BEFORE THE GRADING PERMIT IS ISSUED. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
- 14. THE PROJECT WILL MEET ALL OF THE REQUIREMENTS RELATIVE TO BEST MANAGEMENT PRACTICES AND ENGINEERED STORMWATER CONTROL STRUCTURES AS OUTLINED IN THE TOWN OF ZEBULON LAND DEVELOPMENT ORDINANCE. (CHAPTER 4, PART 4.6, LDO).
- 15. ALL LEVEL SPREADERS ON THE PROJECT MUST BE LOCATED ON COMMON OPEN SPACE, HAVE AN ACCESS AND MAINTENANCE EASEMENTS LOCATED AROUND THEM AND INCLUDE AN OPERATIONS AND MAINTENANCE MANUAL AND A MAINTENANCE AGREEMENT.
- (16. NO TIEBACKS FOR RETAINING WALLS WILL BE ALLOWED TO ENCROACH INTO THE CITY OF
- 17. RETAINING WALLS WILL REQUIRE A SEPARATE PERMIT FROM THE TOWN OF ZEBULON
- 18. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE
- 19. THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF
- 21. ALL STORM DRAIN FRAMES, GRATES AND HOODS SHALL BE STAMPED WITH "DRAINS TO RIVER"
- STRUCTURES AND BARRELS MUST BE ON SITE BEFORE THE GRADING PERMIT IS ISSUED.



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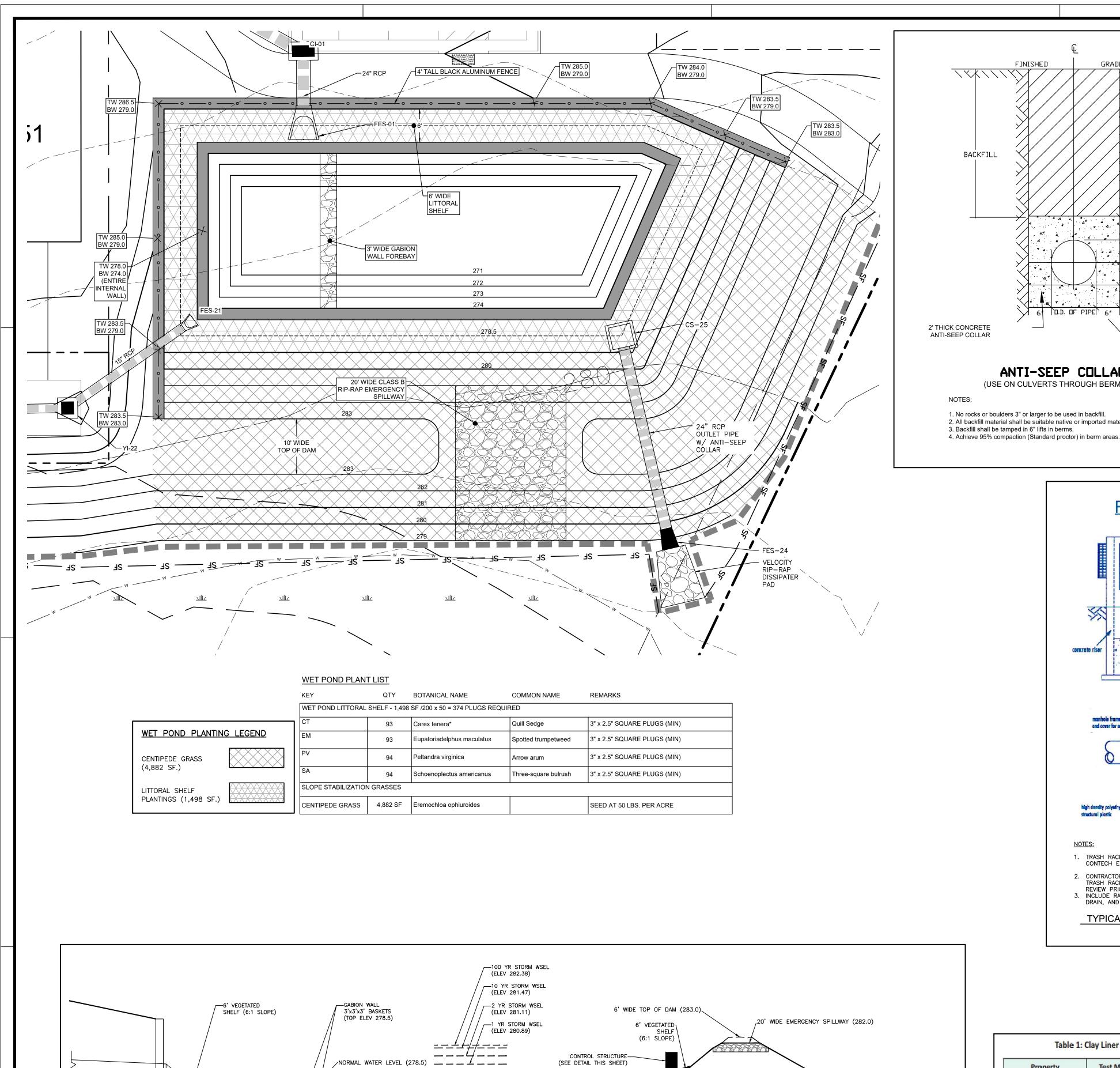
CONSTRUCTION

DRAWINGS

DISTURBED AREA 194,349 SF / 4.46 AC

(DRAWING SCALED FOR 24x36 INCH PLOTS)

GRADING



37.5 LF. 24" RCP-

ANTI-SEEP COLLAR-

CLASS B RIPRAP-

DISSIPATOR PAD

PROVIDE 6" CLAY LINER TO-

WET DETENTION BASIN DETAIL

BOTTOM OF VEGETATED SHELF

SEDIMENT CLEAN OUT

POND BOTTOM (270.5)

INLET PIPE -

SEGMENTAL BLOCK -RETAINING WALL W/ RAILING

(HEIGHT VARIES)

CLASS B RIPRAP-

SEGMENTAL BLOCK-

RETAINING WALL (TOP ELEV. 278.0)



/UNDISTURBED SOIL

—SPRING LINE ___FLOW LINE

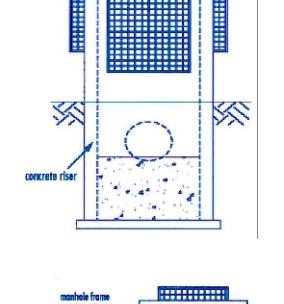
CLEARANCE ANTI-SEEP COLLAR

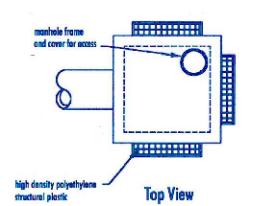
(USE ON CULVERTS THROUGH BERMS)

1. No rocks or boulders 3" or larger to be used in backfill. 2. All backfill material shall be suitable native or imported material. 3. Backfill shall be tamped in 6" lifts in berms.

Flat Series

MINIMUM SIDE





- 1. TRASH RACK SHOWN IS STORMRAXTM BY CONTECH ENGINEERED SOLUTIONS.
- 2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF TRASH RACK TO DESIGN ENGINEER FOR
- REVIEW PRIOR TO FABRICATION.

DRAIN, AND PRIMARY SPILLWAY WEIRS.

TYPICAL TRASH RACK DETAIL

Table 1: Clay Liner Specifications (Source: VADCR, 1999).

| Property | Test Method | Unit | Specification |
|--------------------------|----------------|--------|--------------------------------|
| Permeability | ASTM D-2434 | Cm/sec | 1 x 10 ⁻⁶ |
| Plasticity Index of Clay | ASTM D-423/424 | % | Not less than 15 |
| Liquid Limit of Clay | ASTM D-2216 | % | Not less than 30 |
| Clay Particles Passing | ASTM D-422 | % | Not less than 30 |
| Clay Compaction | ASTM D-2216 | % | 95% of standard proctor densit |

GRADING CONTRACTOR MUST DOCUMENT CLAY LINER AND VERIFY MATERIAL WITH GEOTECHNCIAL ENGINEER DURING CONSTRUCTION TO ENSURE POND HOLDS WATER. STRUCTURAL ENGINEER FOR RETAINING WALLS AND GEOTECHNICAL ENGINEER TO DESIGN CLAY LINER LOCATION SUCH THAT SEGMENTAL WALL BACKFILL DOES NOT DRAIN POND.

SCM CONSTRUCTION NOTES:

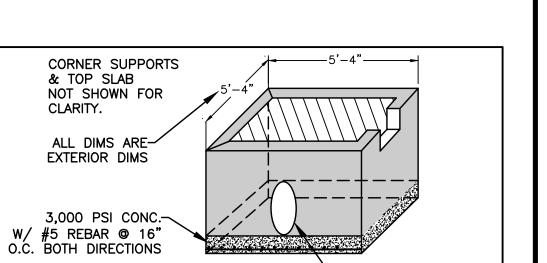
- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF ZEBULON AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- 2. THE PROJECT WILL MEET ALL REQUIREMENTS RELATIVE TO BEST MANAGEMENT PRACTICES AND ENGINEERED
- STORMWATER CONTROL STRUCTURES AS OUTLINED IN THE NCDWQ BMP MANUAL. 3. THE CONTRACTOR SHALL WARRANTY ALL PLANTED MATERIALS FOR A PERIOD OF 2 YEARS FROM DATE OF INSTALLATION. AT THE END OF THE FIRST YEAR AND AT THE END OF THE SECOND YEAR, THE CONTRACTOR SHALL REPLACE ALL PLANTS WHICH DO NOT SURVIVE. ANY HEALTHY PLANTS DAMAGED DURING PLANT REPLACEMENT
- SHALL ALSO BE REPLACED. 4. SOIL BELOW ELEVATION 345.00 SHALL BE TESTED BY THE USDA AGRICULTURAL EXTENSION OFFICE FOR pH, WHICH MUST FALL BETWEEN 5.5 AND 7.0. TESTS SHALL ALSO BE PERFORMED FOR NUTRIENTS SUCH AS NITROGEN, PHOSPHORUS, AND POTASSIUM, AND FOR MINERALS SUCH AS CHELATED IRON AND LIME, AMENDMENTS TO SOIL RECOMMENDED BY USDA SHALL BE INCORPORATED INTO SOIL TO PROMOTE VIGOROUS VEGETATION AND PLANT
- 5. LANDSCAPING PLANTINGS SHOWN HEREON SHALL BE INSTALLED DURING FALL SEASON OR EARLY WINTER IF

OWNER SHALL HAVE DOCUMENTATION OF THESE TESTS AVAILABLE UPON REQUEST.

GROWTH. RECORDS OF TESTS AND AMENDMENTS PROVIDED BY CONTRACTOR SHALL BE PROVIDED TO THE

POSSIBLE FOR MAXIMUM PLANT SURVIVABILITY. 6. THE CONTRACTOR OR OWNER SHALL EMPLOY A GEOTECHNICAL ENGINEER TO TEST ALL EMBANKMENTS AND FILL PLACEMENT FOR PROPER COMPACTION. PROPER COMPACTION SHALL BE PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS OR THESE PLANS, WHICHEVER IS MORE STRINGENT. EMBANKMENTS FOR BASINS SHALL BE PLACED IN 6 INCH LOOSE LAYERS AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698. THE CONTRACTOR SHALL TAKE PHOTOGRAPHS OF THE OUTLET STRUCTURE AT ALL PHASES OF INSTALLATION AND SHALL RETAIN WITH GEOTECHNICAL TESTING DATA. THE CONTRACTOR SHALL ALSO RETAIN ALL SHIPPING RECORDS AND SPECIFICATIONS FOR THE OUTLET STRUCTURE MATERIALS AND STRUCTURES. ALL OF THE ABOVE DATA MAY BE REQUIRED AS PART OF THE MUNICIPALITY

AS-BUILT PROCESS AND SHALL DE MADE AVAILABLE TO THE ENGINEER UPON REQUEST. THE CONTRACTOR AND

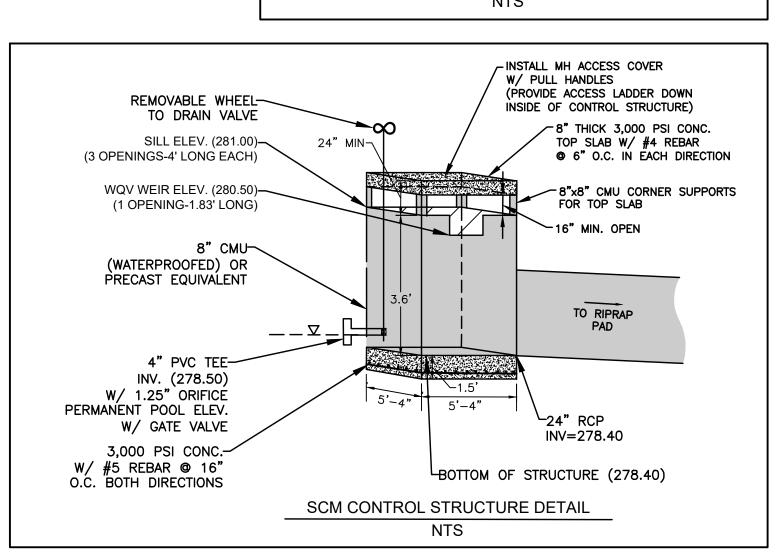


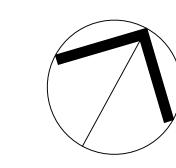
DISPLACED VOLUME V=(5.3')(5.3')(3.6'+1.5')=144 C.F. DISPLACE WATER=(144 CF)(62.4 PCF)=8,986 LBS ADD 15% FACTOR OF SAFETY=10,334 LBS

WEIGHT OF STRUCTURE WALLS=(2)(5.3'+4')(3.6')(8")(150 PCF)=6,696 LBS BASE=(5.3')(5.3')(1.5')(150 PCF)=6,320 LBS 24" $RCP=(3.14)(1^2)(8")(150 PCF)=-314 LBS$ WEIR NOTCH=(1.83')(1.5')(8")(150 PCF)=-276 LBSSTRUCTURE WEIGHT=12,426 LBS > 10,334 LBS

WT. OF TOP SLAB=(5.3')(5.3')(8")(150 PCF)=2,809 LBS

CONCRETE ANTI-BOUYANCY FOOTING





(DRAWING SCALED FOR 24x36 INCH PLOTS)



CERT. NO.

NC ENGINEERING LICENSE NO. P-0803



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F. E. E. S. Drawn **WRR** Checked

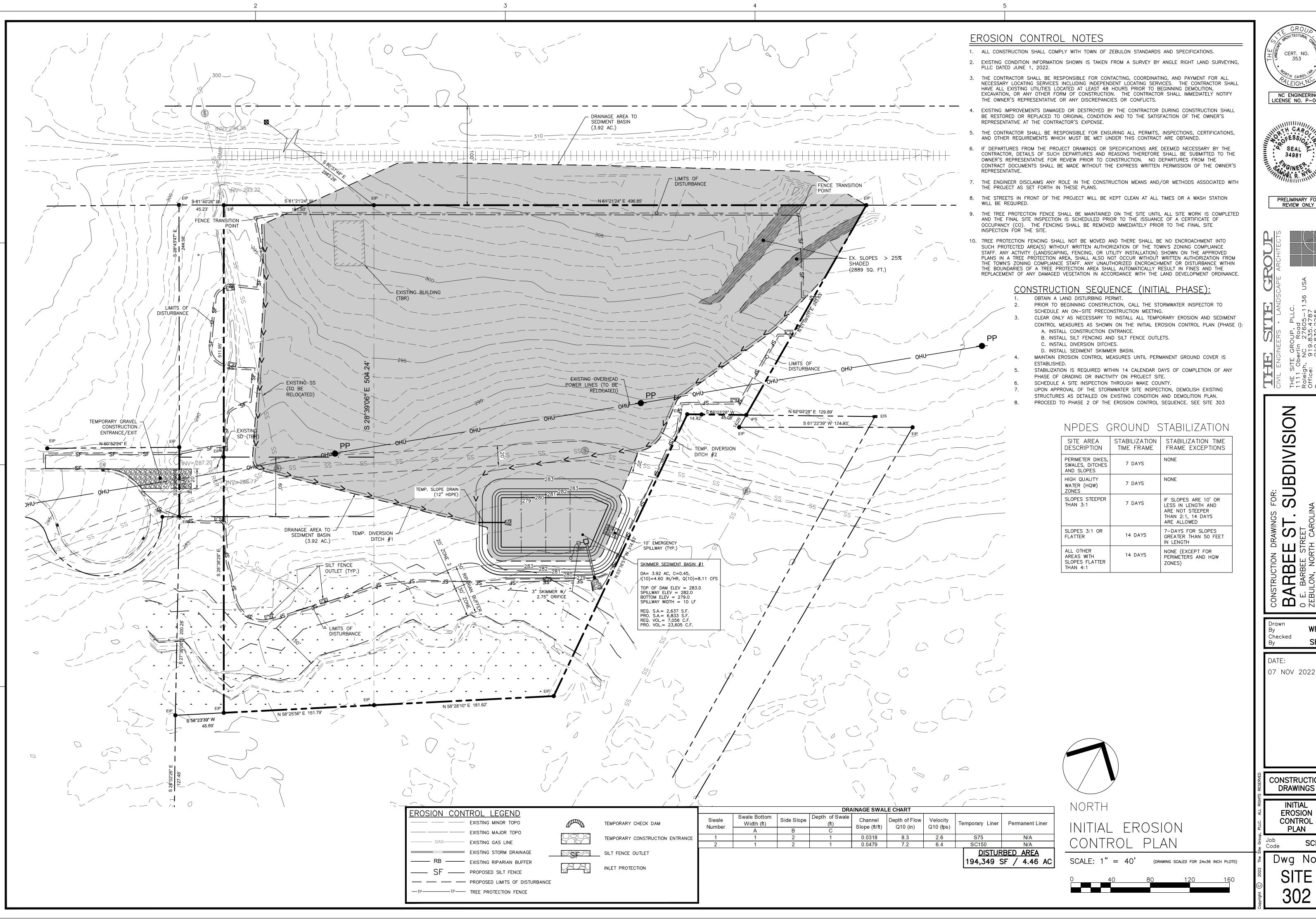
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CONSTRUCTION

DRAWINGS

PLAN

SCBSZ Dwg No.





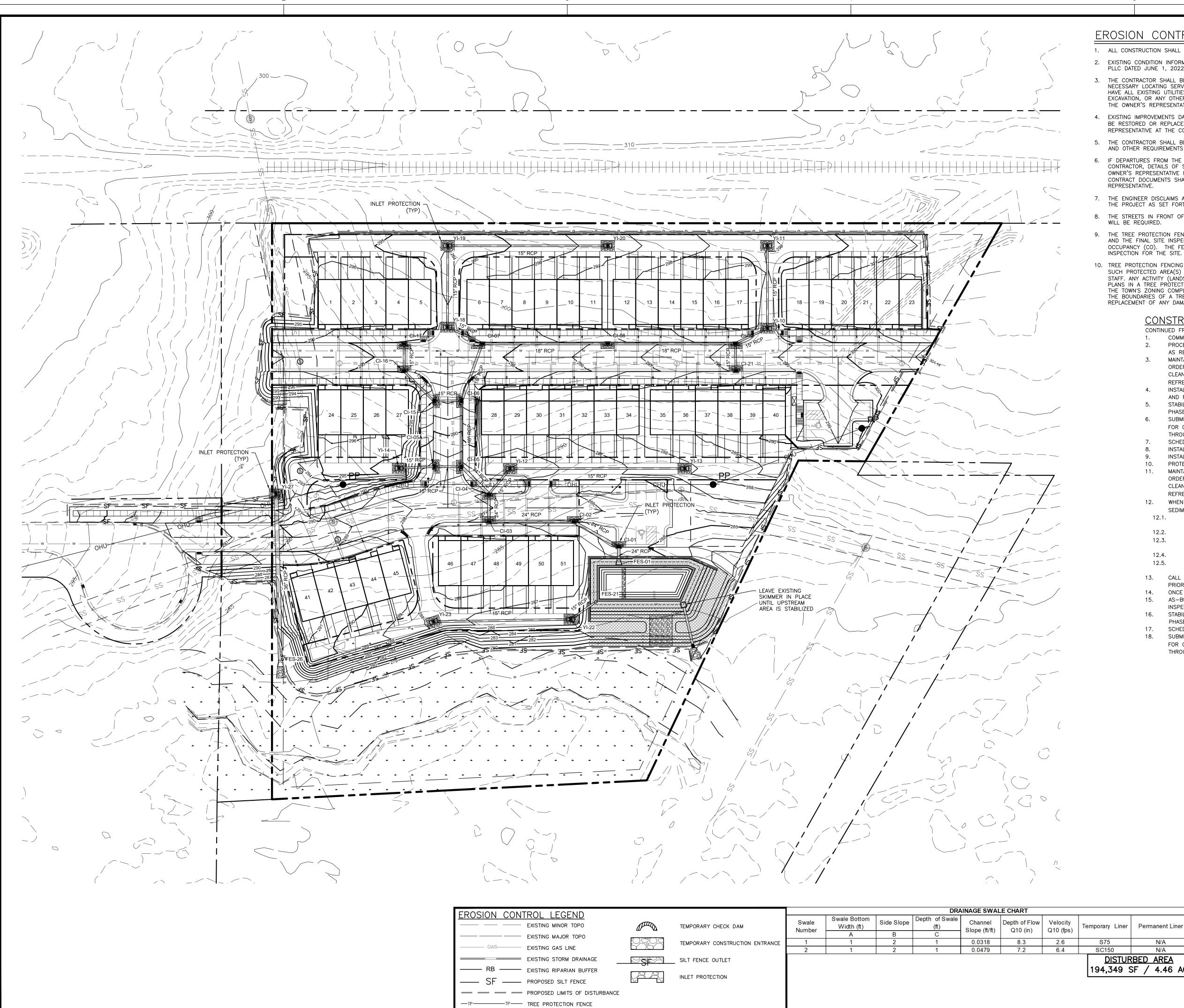
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CONSTRUCTION

INITIAL **EROSION** CONTROL

PLAN SCBSZ



EROSION CONTROL NOTES

- 1. ALL CONSTRUCTION SHALL COMPLY WITH TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS.
- 2. EXISTING CONDITION INFORMATION SHOWN IS TAKEN FROM A SURVEY BY ANGLE RIGHT LAND SURVEYING, PLLC DATED JUNE 1, 2022.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING, AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES LOCATED AT LEAST 48 HOURS PRIOR TO BEGINNING DEMOLITION, EXCAVATION, OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OR ANY DISCREPANCIES OR CONFLICTS.
- EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL PERMITS, INSPECTIONS, CERTIFICATIONS, AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT ARE OBTAINED.
- 6. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREFORE SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO CONSTRUCTION. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE OWNER'S
- 7. THE ENGINEER DISCLAIMS ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- 8. THE STREETS IN FRONT OF THE PROJECT WILL BE KEPT CLEAN AT ALL TIMES OR A WASH STATION WILL BE REQUIRED.
- 9. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE
- 10. TREE PROTECTION FENCING SHALL NOT BE MOVED AND THERE SHALL BE NO ENCROACHMENT INTO SUCH PROTECTED AREA(S) WITHOUT WRITTEN AUTHORIZATION OF THE TOWN'S ZONING COMPLIANCE STAFF. ANY ACTIVITY (LANDSCAPING, FENCING, OR UTILITY INSTALLATION) SHOWN ON THE APPROVED PLANS IN A TREE PROTECTION AREA, SHALL ALSO NOT OCCUR WITHOUT WRITTEN AUTHORIZATION FROM THE TOWN'S ZONING COMPLIANCE STAFF. ANY UNAUTHORIZED ENCROACHMENT OR DISTURBANCE WITHIN THE BOUNDARIES OF A TREE PROTECTION AREA SHALL AUTOMATICALLY RESULT IN FINES AND THE REPLACEMENT OF ANY DAMAGED VEGETATION IN ACCORDANCE WITH THE LAND DEVELOPMENT ORDINANCE.

CONSTRUCTION SEQUENCE (FINAL PHASE):

CONTINUED FROM SITE 302 COMMENCE PERMITTED LAND DISTURBING ACTIVITY.

- PROCEED WITH CLEARING, GRUBBING AND GRADING. ADJUST TEMPORARY DIVERSIONS AS REQUIRED.
- MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING ORDER. SILT FENCE, INLET PROTECTION AND OTHER SIMILAR MEASURES MUST BE CLEANED OUT BEFORE THEY ARE HALF FULL. CLOGGED STONE FILTERS MUST BE REFRESHED/REPLACED. SILT FENCE CAN NOT HAVE HOLES OR TEARS. INSTALL ALL UTILITIES, STORMWATER PIPES, INLETS, ROAD BEDS, CURB AND GUTTER
- AND RETAINING WALLS. STABILIZATION IS REQUIRED WITHIN 14 CALENDAR DAYS OF COMPLETION OF ANY
- PHASE OF GRADING OR INACTIVITY ON PROJECT SITE. SUBMIT DOCUMENTATION REQUIRED UNDER THE SITE NPDES STORMWATER PERMIT
- FOR CONSTRUCTION ACTIVITY (CNG010000) TO STORMWATER INSPECTIONS THROUGHOUT THE PROJECT.
- SCHEDULE A SITE INSPECTION THROUGH WAKE COUNTY. INSTALL RESIDENTIAL CONSTRUCTION ENTRANCES AT EACH BUILDING.
- INSTALL SILT FENCE WITH SILT FENCE OUTLETS AROUND EACH BUILDING. PROTECT ALL INLETS AS INSTALLED.
- MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING ORDER. SILT FENCE, INLET PROTECTION AND OTHER SIMILAR MEASURES MUST BE CLEANED OUT BEFORE THEY ARE HALF FULL. CLOGGED STONE FILTERS MUST BE REFRESHED/REPLACED. SILT FENCE CAN NOT HAVE HOLES OR TEARS.
- WHEN AREA TRIBUTARY TO SEDIMENT BASIN #1 HAS BEEN STABILIZED, CONVERT SEDIMENT BASIN #1 TO FINAL CONFIGURATION.
- DEWATER BASIN AND REMOVE ACCUMULATED SEDIMENT. UTILIZE SILT BAG FOR DEWATERING.
- 12.2. INSTALL INTERIOR RETAINING WALL.
- REMOVE TEMPORARY SLOPE DRAIN AND INSTALL FES #1, FES#21 & RIP-RAP DISSIPATER PAD
- SET GRADES TO FINAL ELEVATIONS. REMOVE SKIMMER AND SET OUTLET STRUCTURE WEIRS/ORIFICES TO FINAL
- CONFIGURATION. 13. CALL SAM NYE AT 919-835-4787 FOR SITE INSPECTION A MINIMUM TWO WEEKS
- PRIOR TO REQUESTING TOWN FINAL INSPECTION. ONCE APPROVED, SURVEY EXISTING SCM TOPO AND STRUCTURE ELEVATIONS.
- AS-BUILTS MUST BE COMPLETED AND SUBMITTED ONE WEEK PRIOR TO FINAL
- STABILIZATION IS REQUIRED WITHIN 14 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING OR INACTIVITY ON PROJECT SITE.
- SCHEDULE THE FINAL SITE INSPECTION THROUGH WAKE COUNTY. SUBMIT DOCUMENTATION REQUIRED UNDER THE SITE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY (CNG010000) TO STORMWATER INSPECTIONS THROUGHOUT THE PROJECT.

NPDES GROUND STABILIZATION

| - 111 220 0 | | |
|---|-----------------------------|---|
| SITE AREA DESCRIPTION | STABILIZATION TIME FRAME | STABILIZATION TIME FRAME EXCEPTIONS |
| PERIMETER DIKES, SWALES, DITCHES AND SLOPES | 7 DAYS | NONE |
| HIGH QUALITY WATER (HQW) 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 FEET IN LENGTH |
| ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1 | 14 DAYS | NONE (EXCEPT FOR PERIMETERS AND HQW ZONES) |

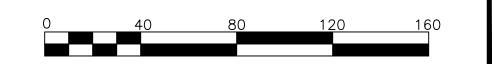
Temporary Liner Permanent Liner N/A

<u>DISTURBED AREA</u> 194,349 SF / 4.46 A(

NORTH EROSION

CONTROL PLAN

(DRAWING SCALED FOR 24x36 INCH PLOTS)





NC ENGINEERING LICENSE NO. P-0803



PRELIMINARY FOR REVIEW ONLY

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Checked

07 NOV 2022

CONSTRUCTION DRAWINGS

EROSION CONTROL PLAN

SCBSZ Dwg No.

activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

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

ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION tabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the

| Temporary Stabilization | Permanent Stabilization |
|---|--|
| Temporary grass seed covered with straw or other mulches and tackifiers Hydroseeding Rolled erosion control products with or without temporary grass seed Appropriately applied straw or other mulch Plastic sheeting | Permanent grass seed covered with straw of other mulches and tackifiers Geotextile fabrics such as permanent soil reinforcement matting Hydroseeding Shrubs or other permanent plantings covere with mulch Uniform and evenly distributed ground cover sufficient to restrain erosion Structural methods such as concrete, aspharetaining walls Rolled erosion control products with grass s |

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

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

EQUIPMENT AND VEHICLE MAINTENANCE

Maintain vehicles and equipment to prevent discharge of fluids.

to a recycling or disposal center that handles these materials.

Provide drip pans under any stored equipment.

- Identify leaks and repair as soon as feasible, or remove leaking equipment from the Collect all spent fluids, store in separate containers and properly dispose as
- hazardous waste (recycle when possible)
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products

ITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers. Provide a sufficient number and size of waste containers (e.g dumpster, trash
- receptacle) on site to contain construction and domestic wastes. Locate waste containers at least 50 feet away from storm drain inlets and surface
- waters unless no other alternatives are reasonably available. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers. Anchor all lightweight items in waste containers during times of high winds.

Empty waste containers as needed to prevent overflow. Clean up immediately if

Do not dump paint and other liquid waste into storm drains, streams or wetlands.

containers overflow. 3. Dispose waste off-site at an approved disposal facility.

9. On business days, clean up and dispose of waste in designated waste containers.

- PAINT AND OTHER LIQUID WASTE
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 3. Contain liquid wastes in a controlled area.
- 4. Containment must be labeled, sized and placed appropriately for the needs of site. 5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from

construction sites

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

EARTHEN STOCKPILE MANAGEMENT

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

3.CONCRETE WASHOUT STRUCTURE NEE TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE. ABOVE GRADE WASHOUT STRUCTURE BELOW GRADE WASHOUT STRUCTURE

CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location. Remove leavings from the washout when at approximately 75% capacity to limit

overflow events. Replace the tarp, sand bags or other temporary structural

- components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions. 10. At the completion of the concrete work, remove remaining leavings and dispose of
- in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

ERBICIDES, PESTICIDES AND RODENTICIDES

SECTION C: REPORTING

(b) Oil spills if:

deposition in a

(b) Oil spills and

substances per Item

hazardous

1(b)-(c) above

(c) Anticipated

122.41(m)(3)]

122.41(m)(3)]

bypasses [40 CFR

(d) Unanticipated

bypasses [40 CFR

of this permit that

may endanger

health or the

environment[40]

(CFR 122.41(I)(7)]

stream or wetland

1. Occurrences that Must be Reported

They are 25 gallons or more,

(Ref: 40 CFR 302.4) or G.S. 143-215.85.

2. Reporting Timeframes and Other Requirements

(d) Anticipated bypasses and unanticipated bypasses.

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

- Store and apply herbicides, pesticides and rodenticides in accordance with label
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water
- or surface water. If a spill occurs, clean area immediately. Do not stockpile these materials onsite.
- HAZARDOUS AND TOXIC WASTE
- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment. B. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

They are less than 25 gallons but cannot be cleaned up within 24 hours,

 Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA

(e) Noncompliance with the conditions of this permit that may endanger health or the

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

Reporting Timeframes (After Discovery) and Other Requirements

Within 7 calendar days, a report that contains a description of the

with the federal or state impaired-waters conditions.

Within 24 hours, an oral or electronic notification.

with the conditions | • Within 7 calendar days, a report that contains a description of the

sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a

If the stream is named on the <u>NC 303(d) list</u> as impaired for sediment-

related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff

Within 24 hours, an oral or electronic notification. The notification

· A report at least ten days before the date of the bypass, if possible

Within 7 calendar days, a report that includes an evaluation of the

noncompliance, and its causes; the period of noncompliance,

including exact dates and times, and if the noncompliance has not

continue; and steps taken or planned to reduce, eliminate, and

prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).

Division staff may waive the requirement for a written report on a

been corrected, the anticipated time noncompliance is expected to

The report shall include an evaluation of the anticipated quality and

shall include information about the date, time, nature, volume and

determine that additional requirements are needed to assure compliance

• They cause sheen on surface waters (regardless of volume), or • They are within 100 feet of surface waters (regardless of volume).

(a) Visible sediment • Within 24 hours, an oral or electronic notification.

location of the spill or release.

quality and effect of the bypass.

(e) Noncompliance • Within 24 hours, an oral or electronic notification.

case-by-case basis.

effect of the bypass.

case-by-case basis.

EFFECTIVE: 04/01/19

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

SELF-INSPECTION. RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection

personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

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

SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING . E&SC Plan Documentatio

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

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

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

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall

- record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- Documentation to be Retained for Three Years All data used to complete the e-NOI and all inspection records shall be maintained for a perio of three years after project completion and made available upon request. [40 CFR 122.41]

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

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

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

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

NPDES GROUND STABILIZATION SCHEDULE

| SITE AREA DESCRIPTION | STABILIZATION TIME FRAME | STABILIZATION TIME FRAME EXCEPTIONS | AREAS ON THIS SITE |
|---|-----------------------------|---|---|
| PERIMETER DIKES, SWALES, DITCHES AND | 7 DAYS | NONE | TEMPORARY DIVERSION DITCHES |
| 制留码UALITY WATER (HQW) ZONES | 7 DAYS | NONE | 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 | NONE |
| SLOPES 3:1 OR FLATTER | 14 DAYS | 7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH | REMAINDER OF PROJECT AREA |
| ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1 | 14 DAYS | NONE (EXCEPT FOR PERIMETERS AND HQW ZONES) | INCLUDED W/ 3:1 OR FLATTER SLOPES |

- THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG010000. THIS PAGE CAN BE APPROVED BY THE CITY PURSUANT TO NPDES GENERAL STORMWATER PERMIT
- THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000.

| SITE AREA DESCRIPTION | STABILIZATION TIME FRAME | STABILIZATION TIME FRAME EXCEPTIONS | AREAS ON THIS SITE |
|---|-----------------------------|---|---|
| PERIMETER DIKES, SWALES, DITCHES AND | 7 DAYS | NONE | TEMPORARY DIVERSION DITCHES |
| ALGREQUALITY WATER (HQW) ZONES | 7 DAYS | NONE | 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 | NONE |
| SLOPES 3:1 OR FLATTER | 14 DAYS | 7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH | REMAINDER OF PROJECT AREA |
| ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1 | 14 DAYS | NONE (EXCEPT FOR PERIMETERS AND HQW ZONES) | INCLUDED W/ 3:1 OR FLATTER SLOPES |

NCG010000 ONLY.

LICENSE NO. P-0803



PRELIMINARY FOR REVIEW ONLY

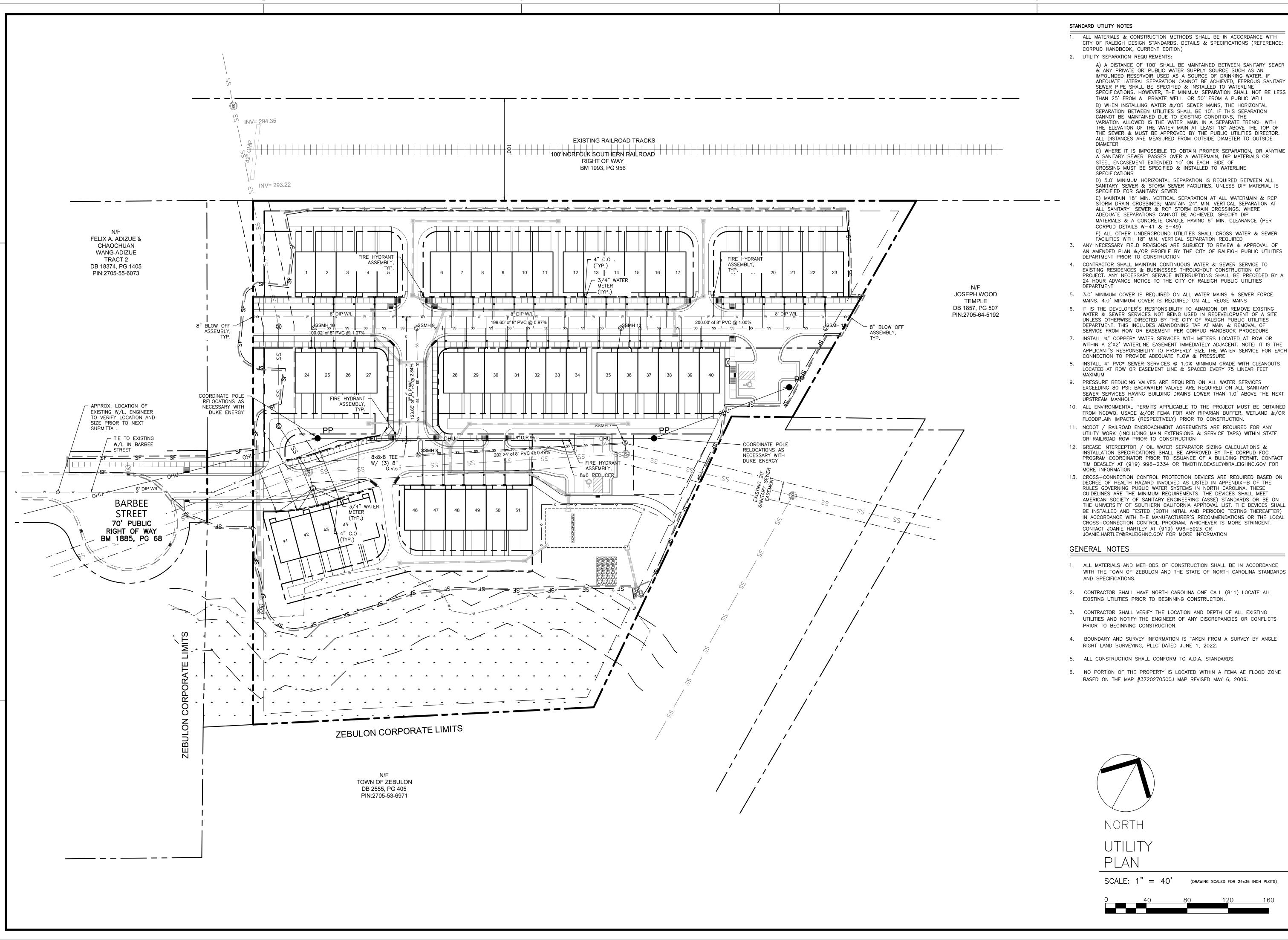


07 NOV 2022

CONSTRUCTION

DRAWINGS

NPDES



ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)



NC ENGINEERING LICENSE NO. P-0803



PRELIMINARY FOR REVIEW ONLY

F) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES

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

5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE

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 34" 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

EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT 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 SPECIFICÁTIONS 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

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 MEE 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

- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ZEBULON AND THE STATE OF NORTH CAROLINA STANDARDS
- 2. CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (811) LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- 3. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
- 4. BOUNDARY AND SURVEY INFORMATION IS TAKEN FROM A SURVEY BY ANGLE
- 5. ALL CONSTRUCTION SHALL CONFORM TO A.D.A. STANDARDS.
- 6. NO PORTION OF THE PROPERTY IS LOCATED WITHIN A FEMA AE FLOOD ZONE

SCALE: 1'' = 40'(DRAWING SCALED FOR 24x36 INCH PLOTS)



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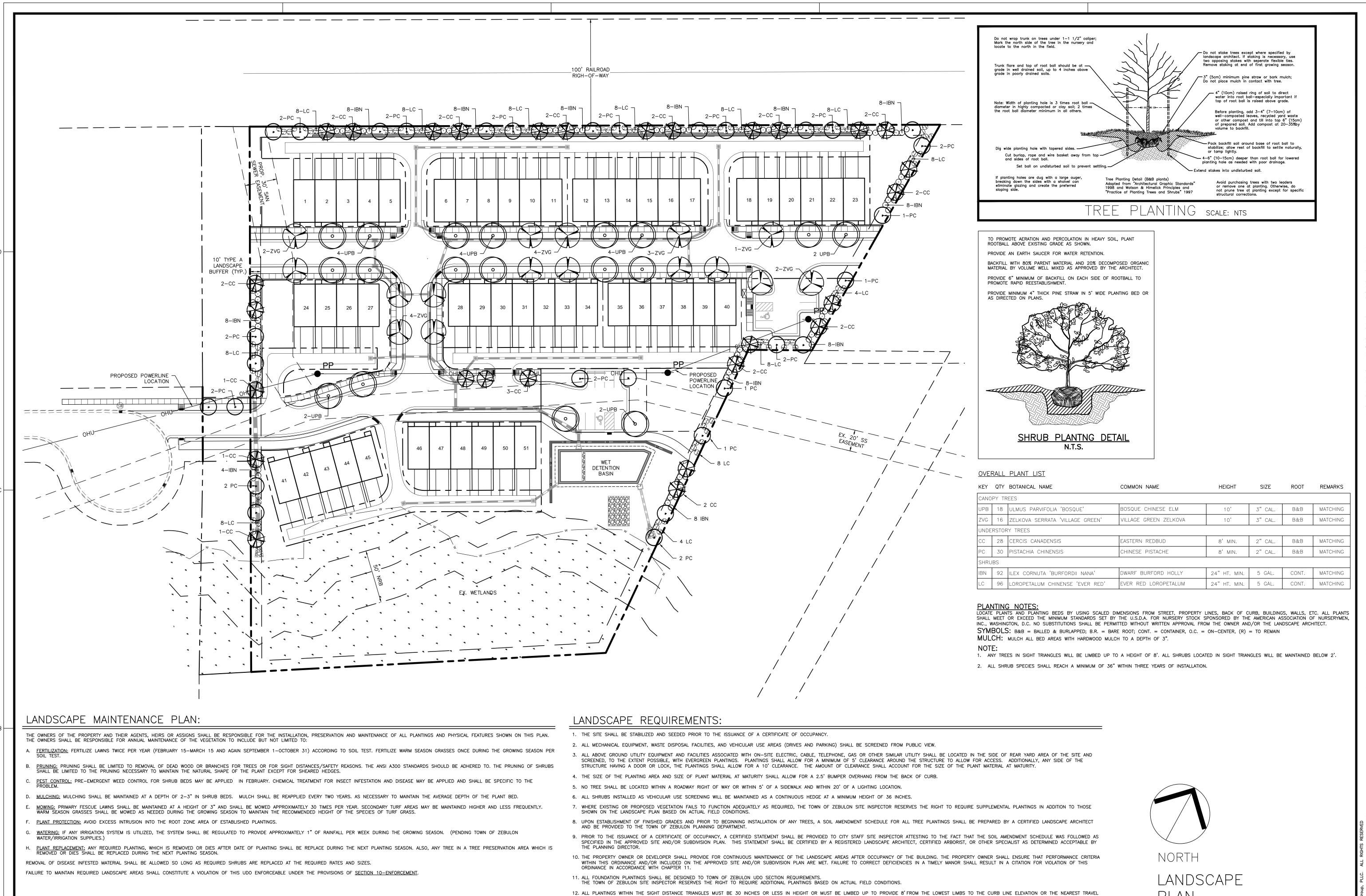
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07 NOV 2022

CONSTRUCTION **DRAWINGS**

UTILITY PLAN

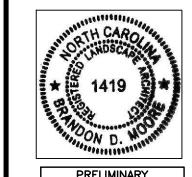
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WAY IF NO CURBING EXISTS.

CERT. NO. 353

LICENSE NO. P-0803



FOR REVIEW ONLY

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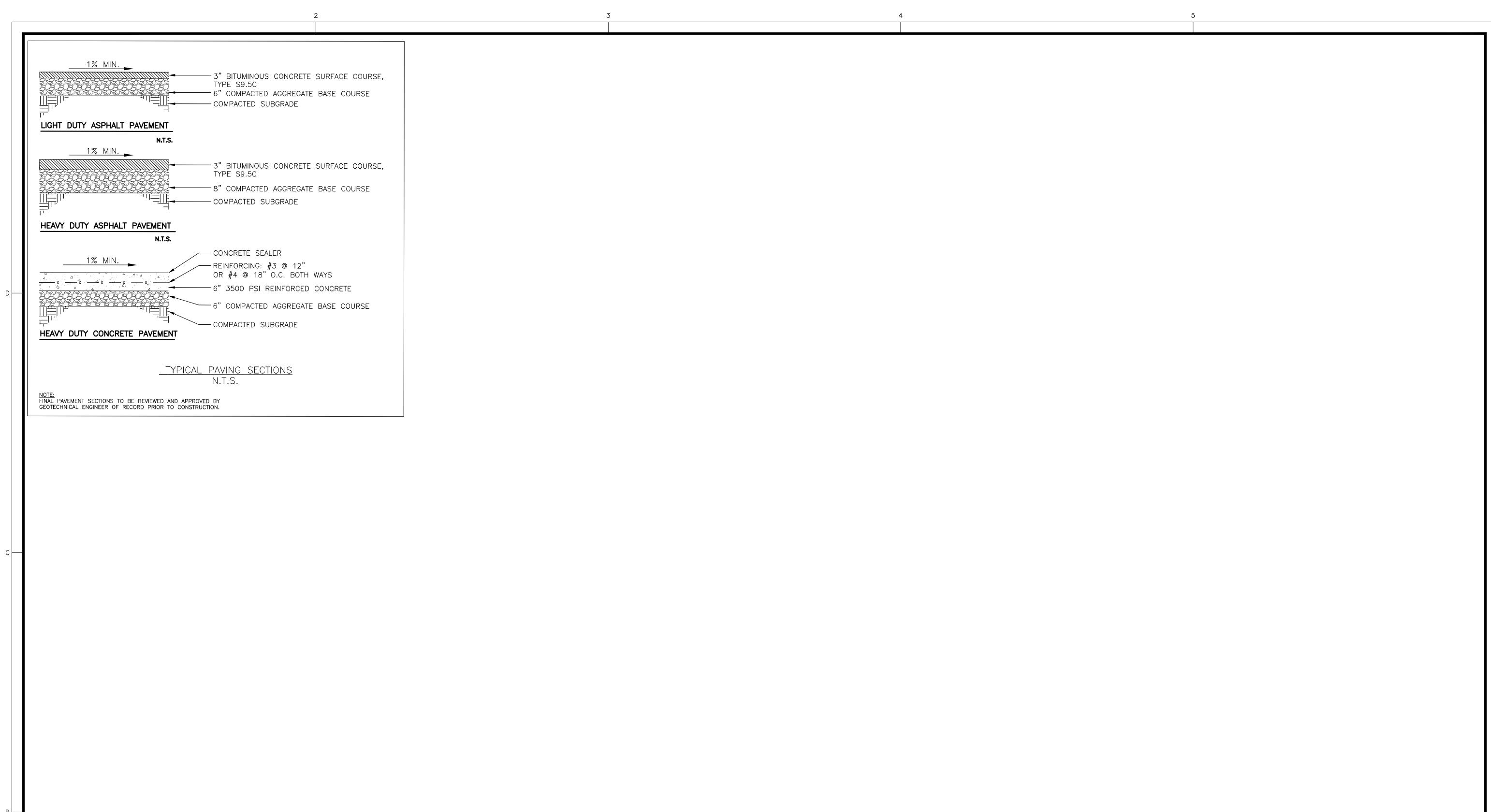
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DRAWING

LANDSCAPE

Dwg No.

(DRAWING SCALED FOR 24x36 INCH PLOTS)



GROUD

LE GROUD

NC ENGINEERING LICENSE NO. P-0803



PRELIMINARY FOR REVIEW ONLY

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JDSCAPE ARCHITEC

CIVIL ENGINEERS • LANDSCA
THE SITE GROUP, PLLC.
1111 Oberlin Road
Raleigh, NC 27605-1136 US
Office: 919.835.4787
Fax: 919.839.2255
E Mail: SRN@thesitegroup.net

AWINGS FOR:
ST. SUBDIVISION

BARBEE STREET

O E. BARBEE STREET

ZEBULON, NORTH CAROLINA

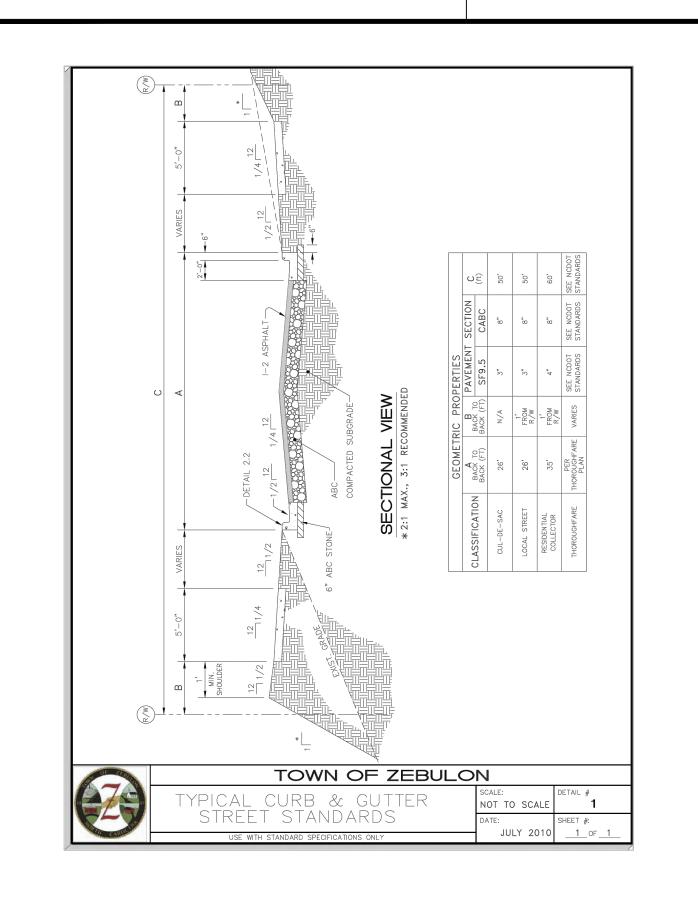
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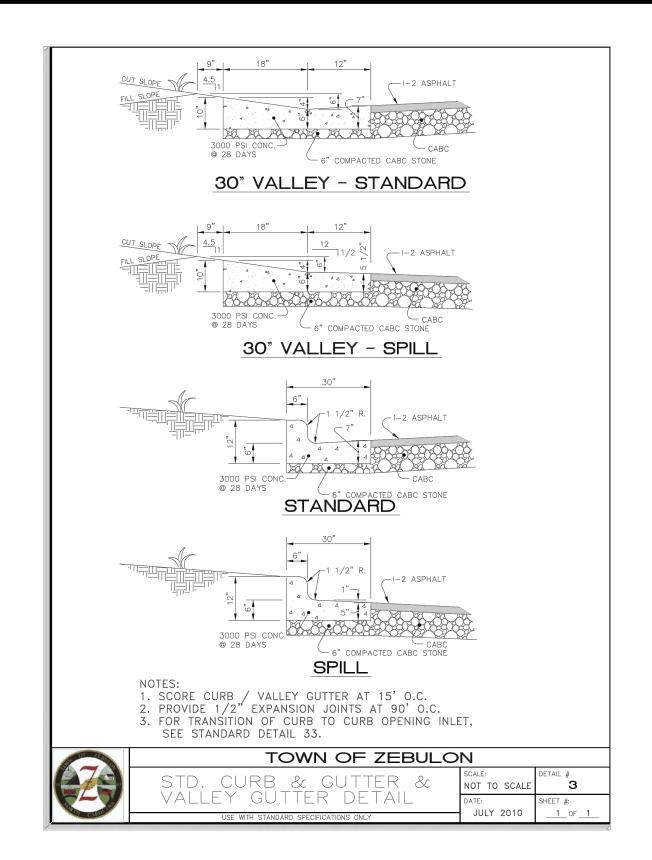
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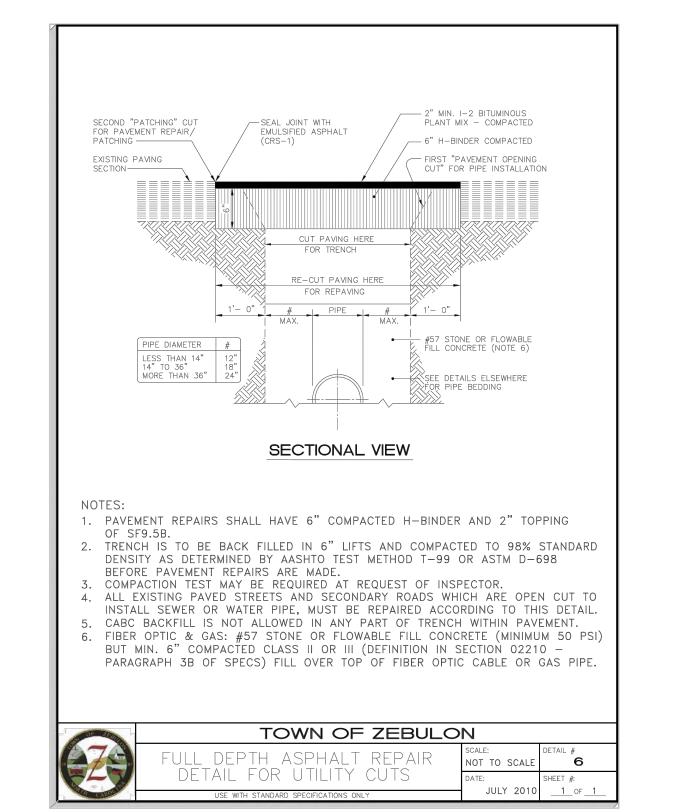
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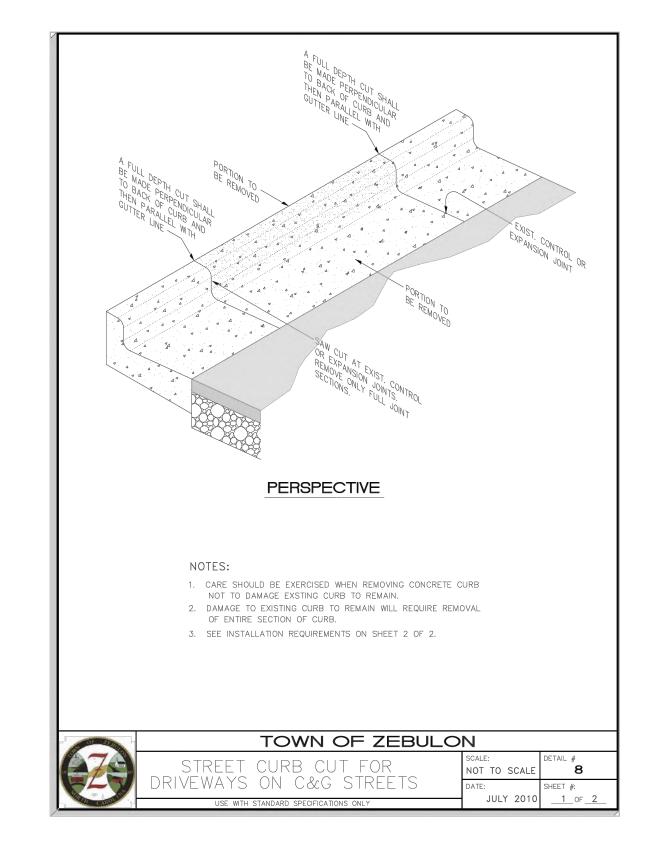
SITE DETAILS

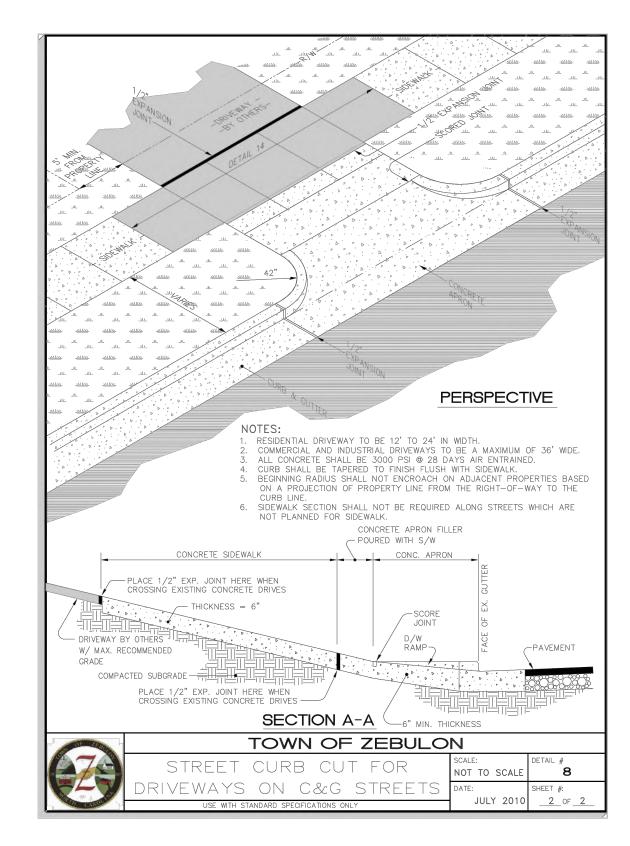
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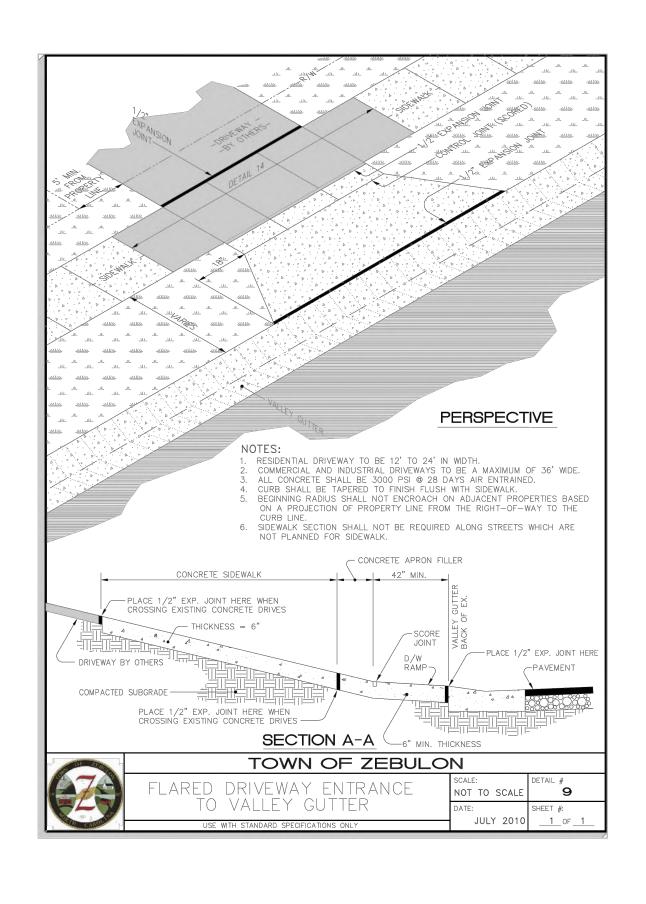


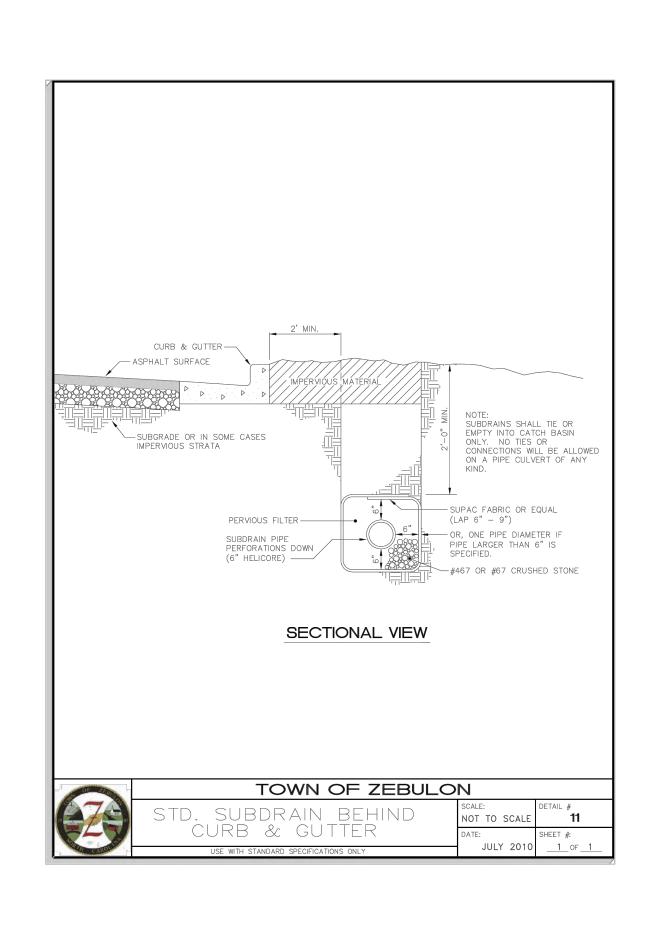


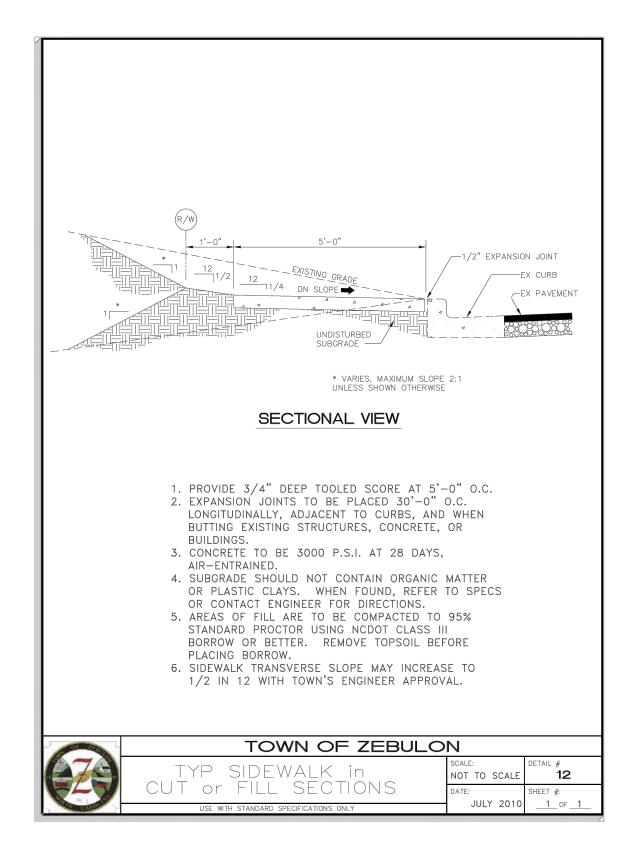


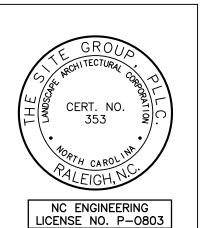














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Raleigh, NC 27605–1136
Office: 919.835.4787
Fax: 919.839.2255
F MAIL SRN@thesitedroup.

CONSTRUCTION DRAWINGS FOR:

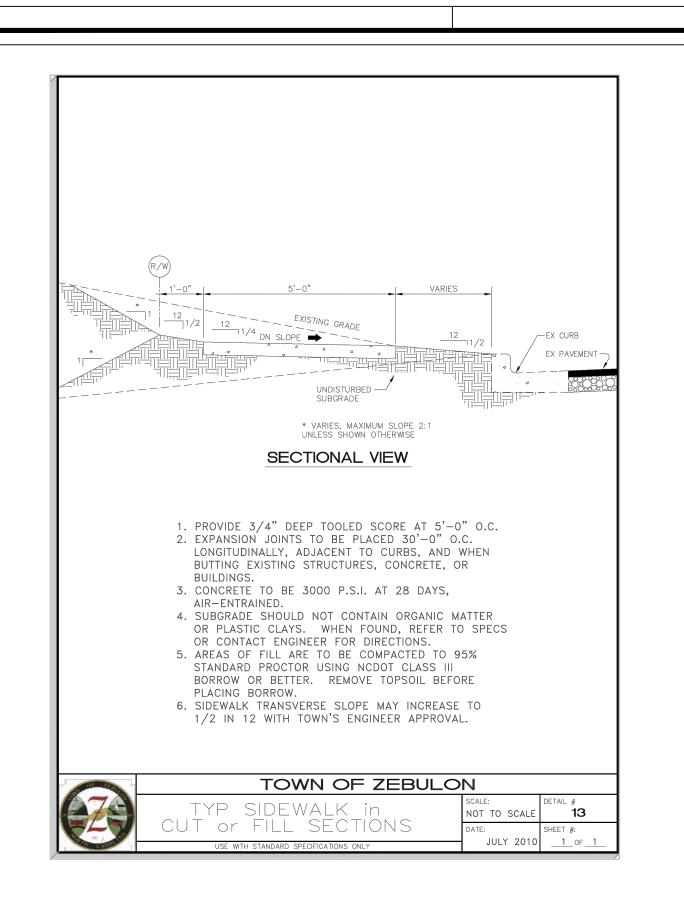
BARBEE ST. SUBDIVISI
O E. BARBEE STREET
ZEBULON, NORTH CAROLINA

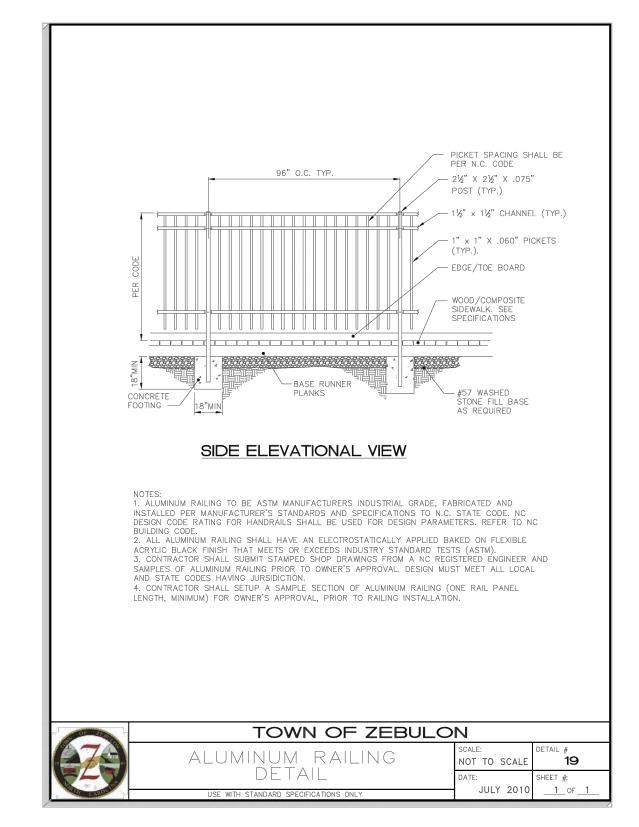
Drawn
By
Checked
By
SRN

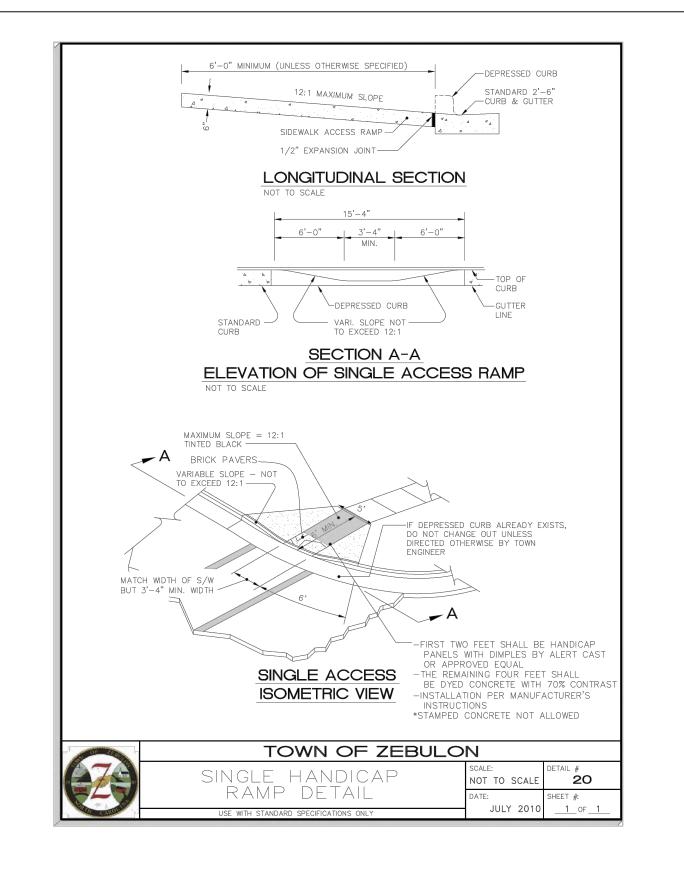
DATE: 07 NOV 2022

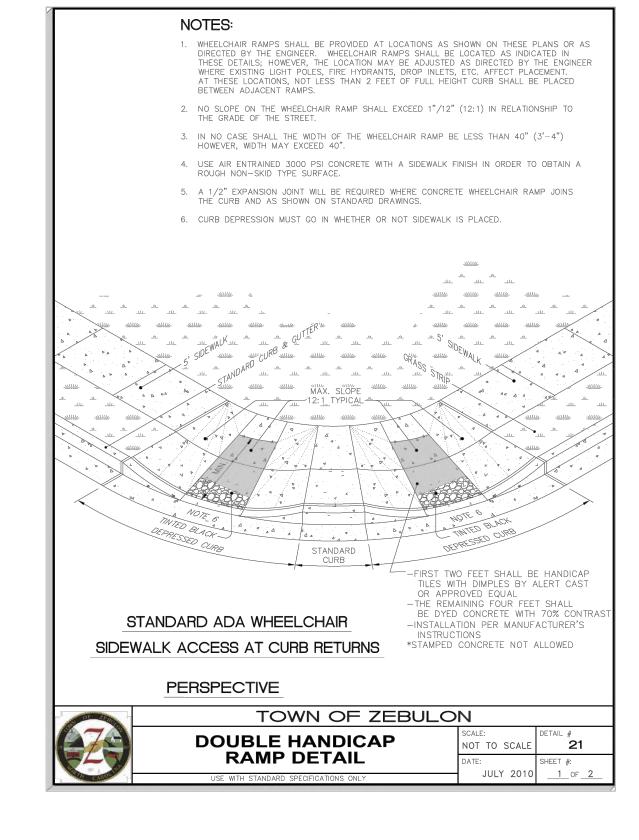
CONSTRUCTION DRAWING

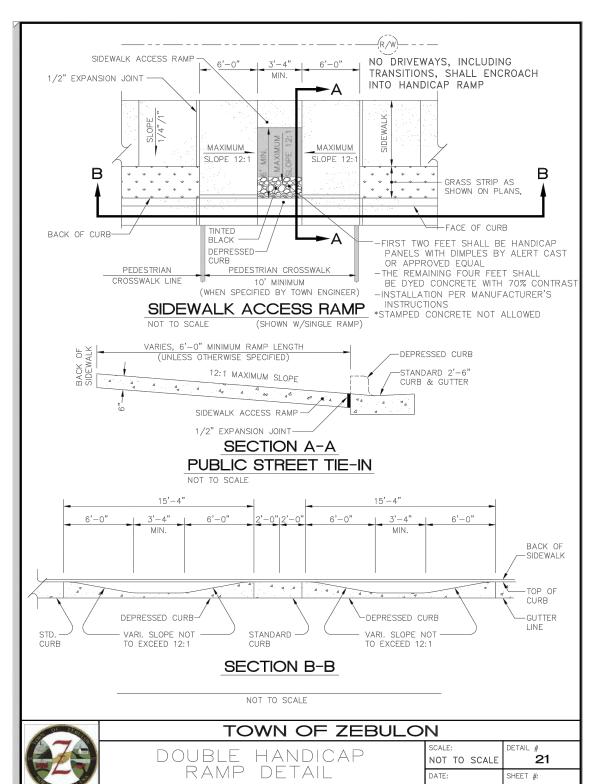
SITE DETAILS

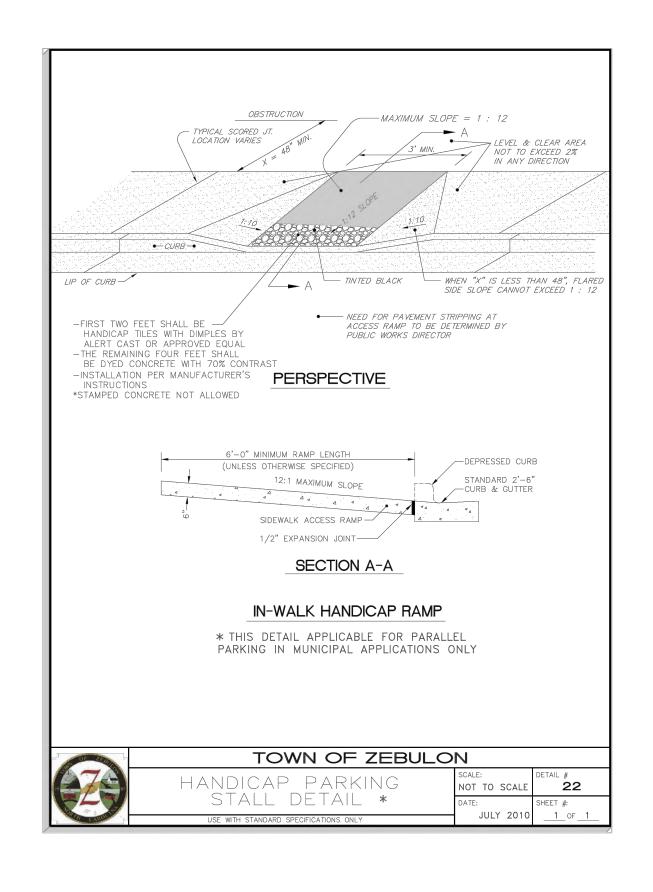


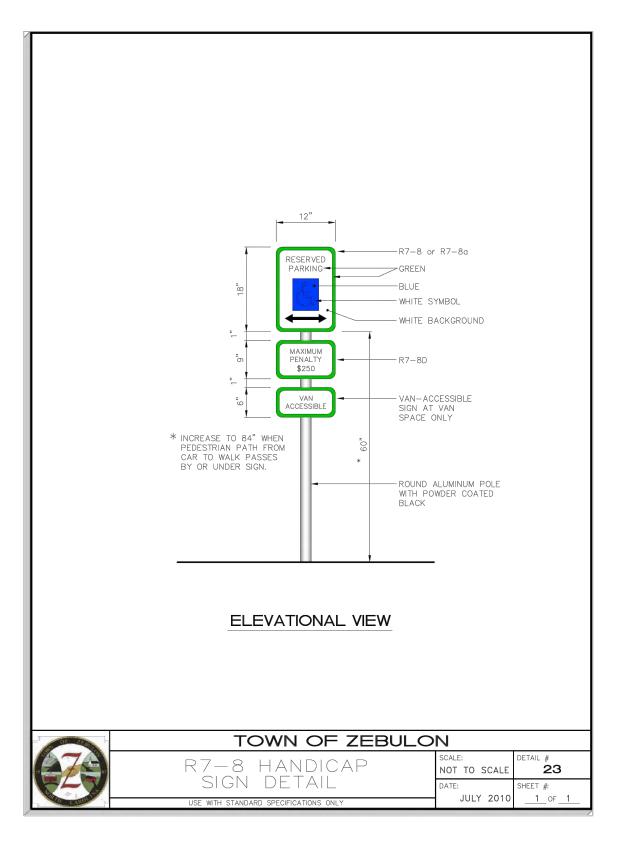


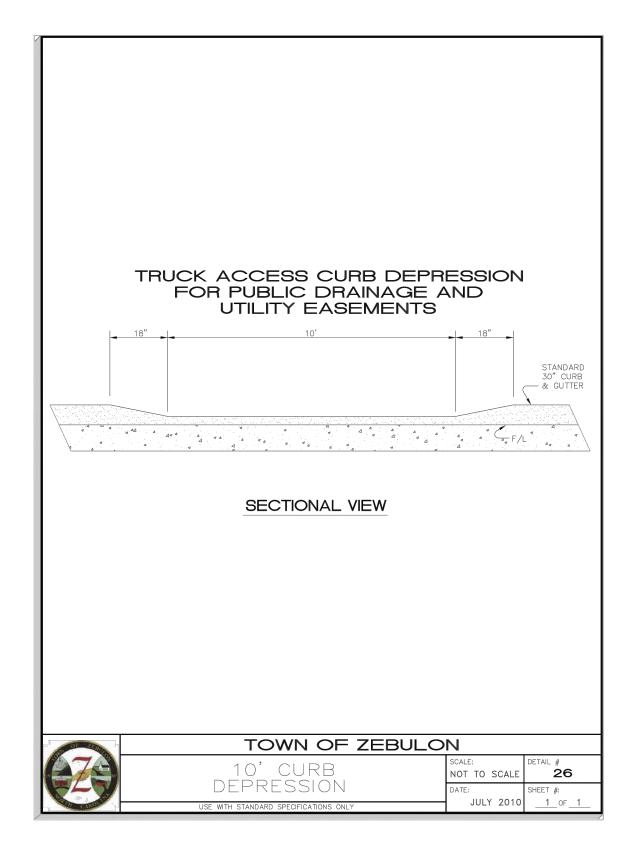
















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SRN@thesitegroup.net

JBDIVISION
THE 3 1111 Raleig Office Office

CONSTRUCTION DRAWINGS FOR:

BARBEE STREET

O E. BARBEE STREET
ZEBULON, NORTH CAROLINA

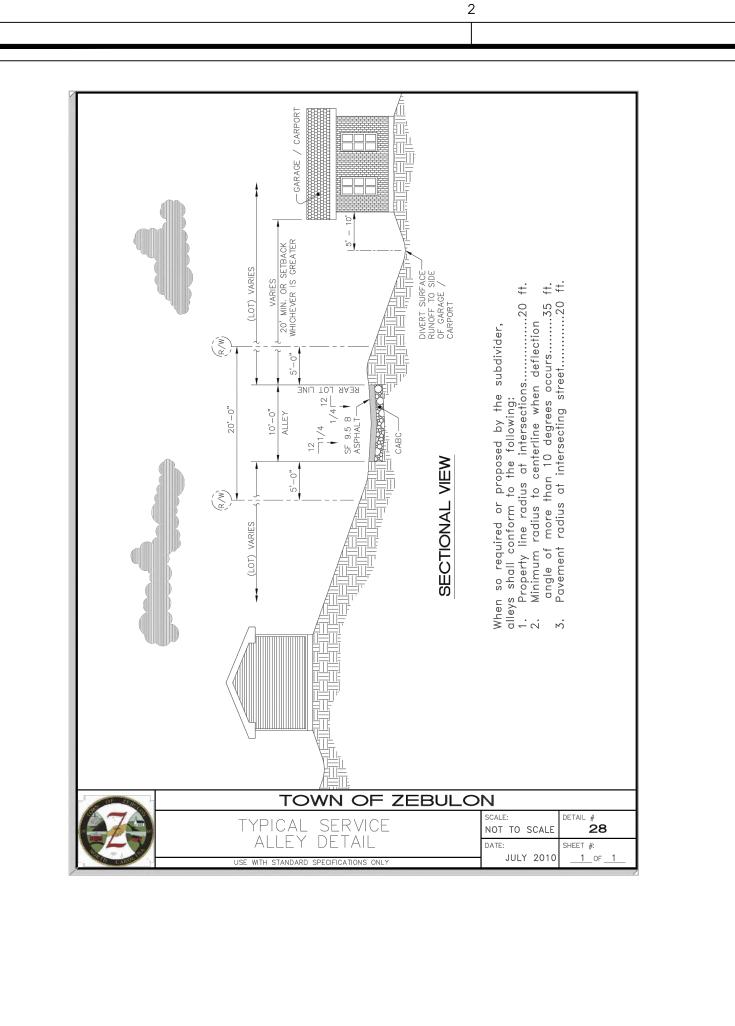
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SRN

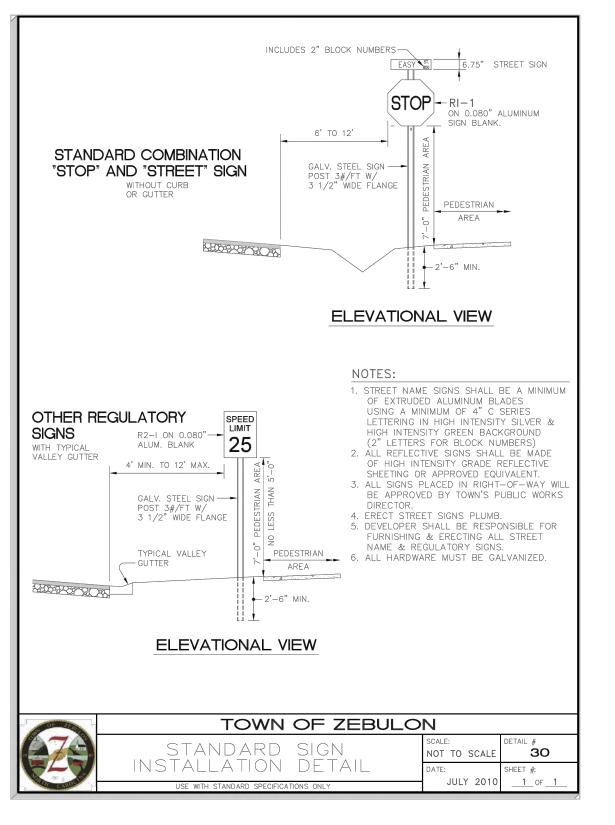
DATE: 07 NOV 2022

CONSTRUCTION DRAWING

SITE DETAILS

Code









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Office: 919.835.4787
Fax: 919.839.2255
E Mail: SRN@thesitegroup.n.

S FOR: SUBDIVISION CONSTRUCTION DRAWINGS

BARBEE STREET

O E. BARBEE STREET

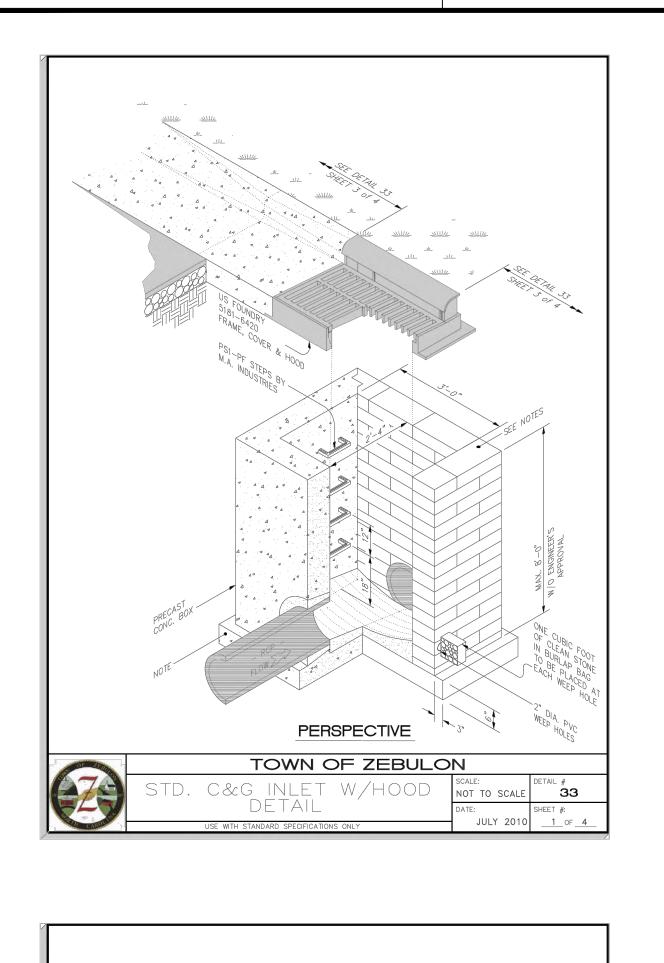
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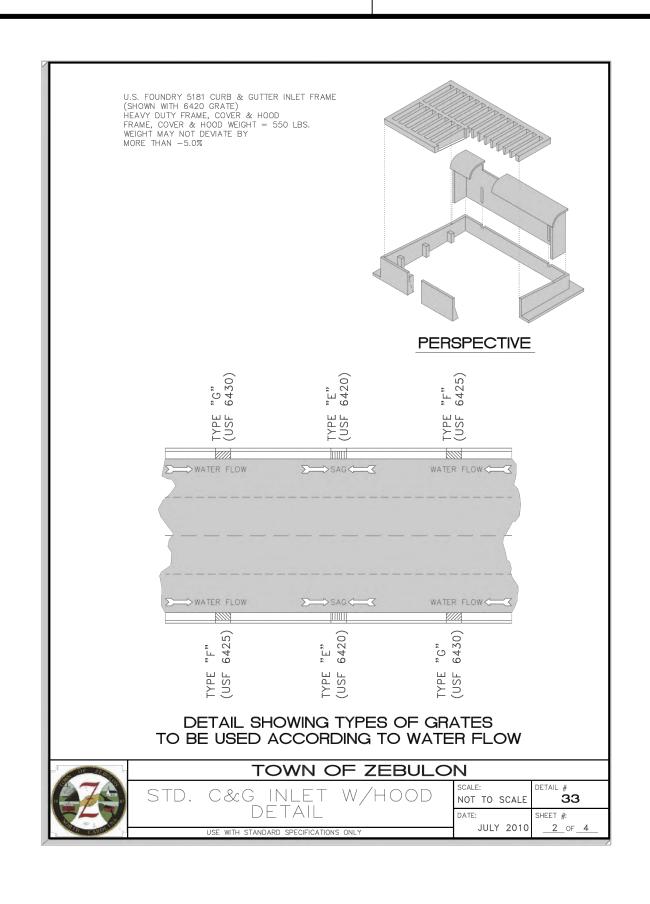
07 NOV 2022

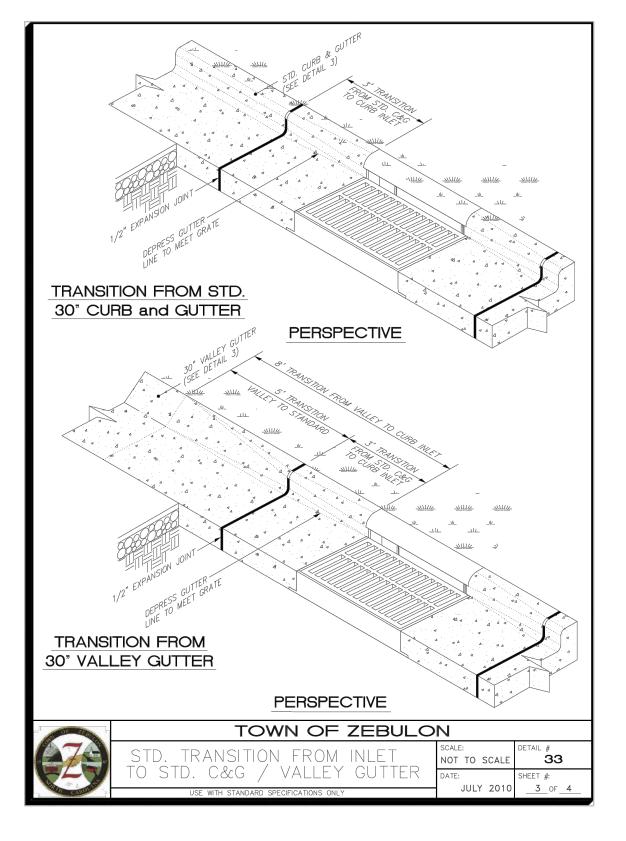
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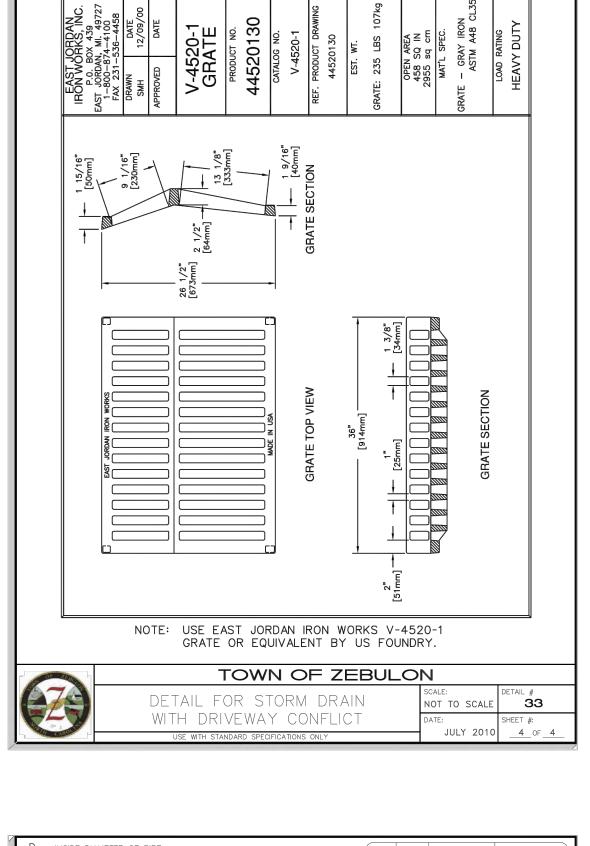
SITE DETAILS

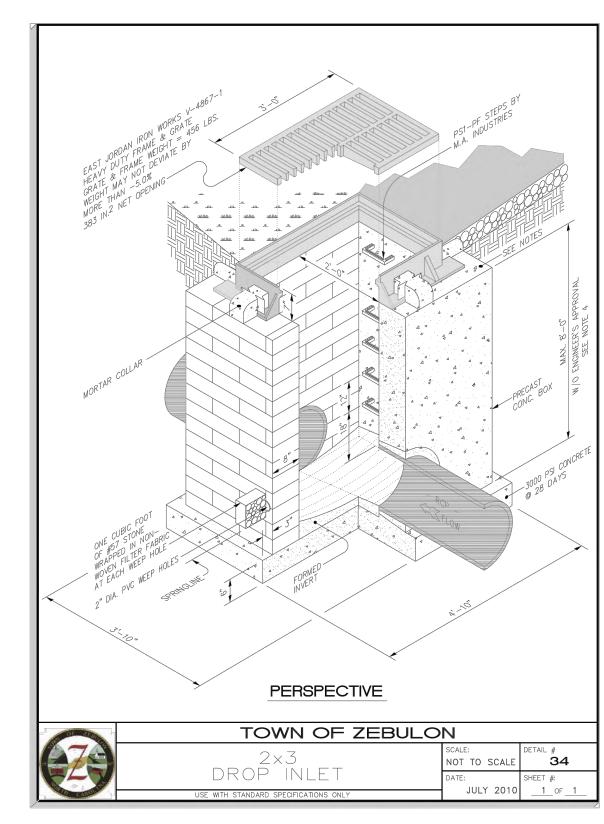
SCBSZ Dwg No.

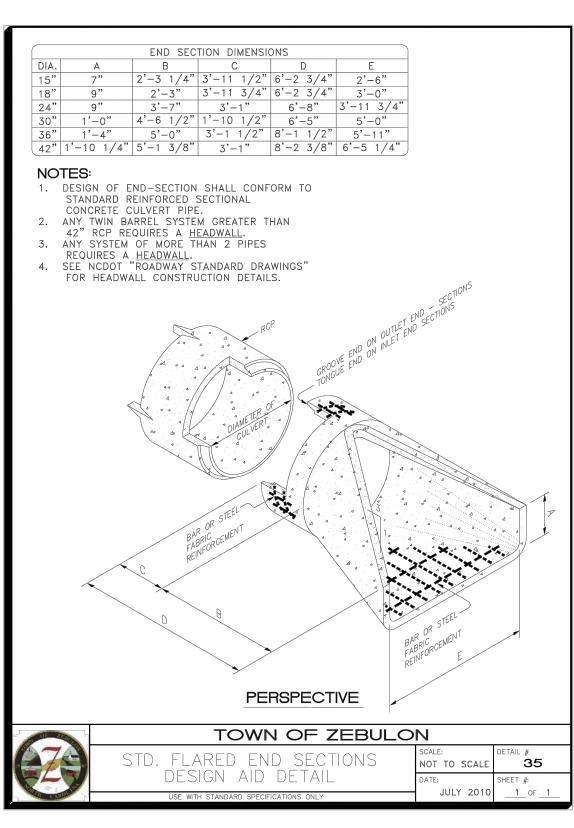


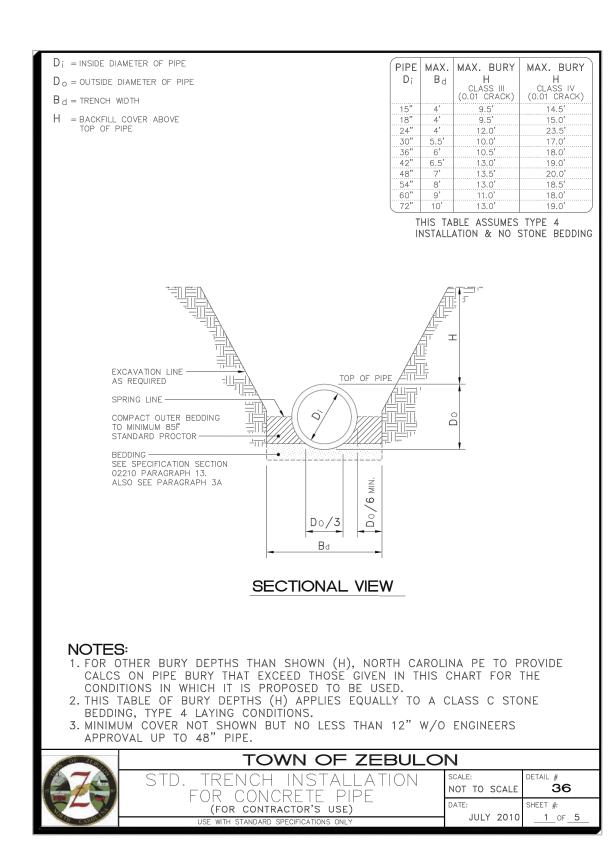


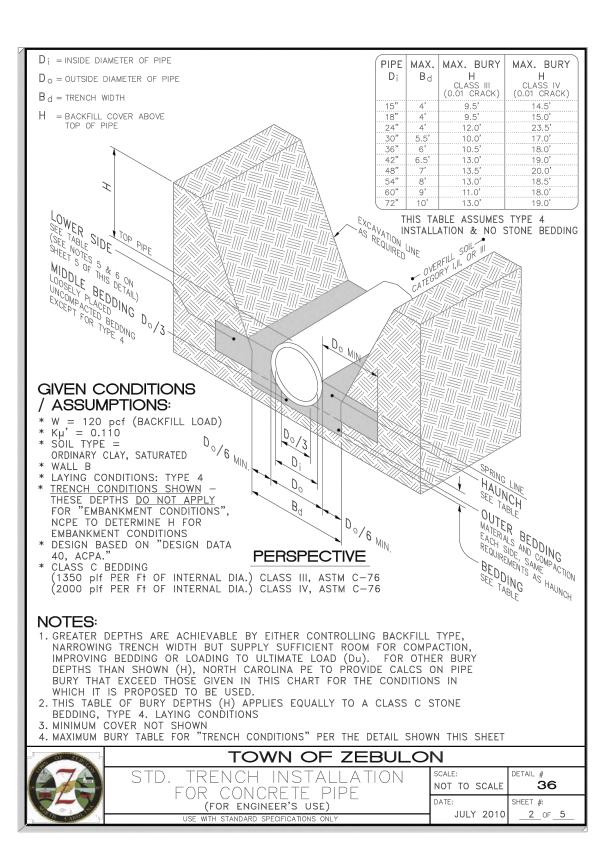


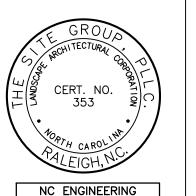


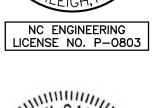




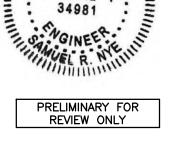














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CONSTRUCTION DRAWINGS FOR:

BARBEE ST. SUBDIVISIO

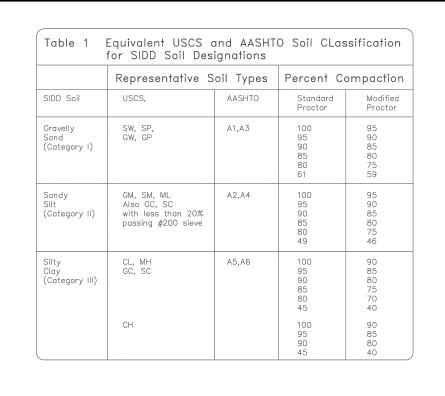
0 E. BARBEE STREET
ZEBULON, NORTH CAROLINA

Drawn
By WRR
Checked
By SRN

DATE: 07 NOV 2022

CONSTRUCTION DRAWING

SITE DETAILS



| O Alman | TOWN OF ZEBULC | N | |
|-----------|---------------------------------------|------------------------|------|
| A7 | STD. TRENCH INSTALLATION | SCALE: NOT TO SCALE | DETA |
| | (TRENCH CONDITION SHOWN) | DATE: | SHEE |
| CAROL | USE WITH STANDARD SPECIFICATIONS ONLY | JULY 2010 | _ |

| Table 2 | Standard EMBANKMEN Compaction Requirer | | ana minimani |
|---------------------|--|--|---|
| Installation Type 4 | Bedding Thickness | Haunch and Outer Bedding | Lower Side |
| Type 1 | D _O /24 minimum, not less than 75 mm (3"). If rock foundation,use D _O /12 minimum, not less than 150 mm (6"). | 98% Category I | 90% Category I, 95% Category II, or 100% Category III |
| Type 2 | D _o /24 minimum, not les than 75 mm (3"). If rock foundation, use D _o /12 minimum,not less than 150 mm (6"). | 90% Category I or 95% Categiry II | 85% Category I, 90% Category II, or 95% Category III |
| Type 3 | D _O /24 minimum, not less than 75 mm (3"). If rock foundation, use D _O /12 minimum, not less than 150 mm (6"). | 85% Category I, 90% Category II, or 95% Category III | 85% Category I, 90% Category II, or 95% Category III |
| Type 4 | D _O /24 minimum, not less than 75 mm (3"). If rock foundation, use D _O /12 minimum, not less than 150 mm (6"). | No compaction required, except if Category III, use 85% Category III | No compaction required, except i Category III, use 85% Category III |

Notes:

- Compaction and soils symbols i.e. "98% Category I' refers to Category 1 soil material with a minimum standard Proctor compaction of 98%. See Table 1 for equivalent modified Proctor values.
- Soil in the outer bedding, haunch, and lower side zones, except within D0/3 from the pipe springline, shall be compacted to at least the same compaction as the majority of the soil in the overfill zone.
 Subtrenches
- 3.1 A subtrench is defined as a trench with its top below finished grade by more than 0.1 H or, for roadways, its top is at an elevation lower than 0.3 m (1')
- below the bottom of the pavement base material. 3.2 The minimum width of a subtrench shall be 1.33 D $_{\circ}$ or wider if required for
- adequate space to attain the specified compaction in the haunch and bedding zones.
 3.3 For subtrenches with wall of natural soil, any portion of the lower side zone in the subtrench wall shall be at least as firm as an equivalent soil placed to the compaction requirements specified for the lower side zone and as firm as the
- majority of soil in the overfill zone, or shall be removed and replaced with soil compacted to the specified level.

 4. Type 1 installation = relatively high quality material & high compaction effort.

Type 4 installation = little or no control over material and compaction.

| OF ZIMME | TOWN OF ZEBULO | N | |
|------------|---|------------------------|----------------|
| 279 | STD. TRENCH INSTALLATION | SCALE: NOT TO SCALE | DETAIL # 36 |
| CAROLLES . | (TRENCH CONDITION SHOWN) use with standard specifications only | DATE: JULY 2010 | SHEET #:4_ OF5 |

| Table 3 Standard TRENCH Installations Soils and Minimum Compaction Requirements | | | | |
|---|--|--|--|--|
| Installation ⁷ Type | Bedding Thickness | Haunch Outer Bedding | Lower Side | |
| Type 1 | $D_{\rm o}/24$ minimum, not less than 75 mm (3"). If rock foundation, use $D_{\rm o}/12$ minimum, not less than 150 mm (6"). | 98% Category I | 90% Category I, 95% Category II, or 100% Category III | |
| Type 2 | ${\rm D_{0}/24}$ minimum, not less than 75 mm (3"). If rock foundation, use ${\rm D_{0}/12}$ minimum, not less than 150 mm (6"). | 90% Category I or 95% Category II | 85% Category I, 90% Category II, or 95% Category III | |
| Type 3 | ${\rm D_{0}/24}$ minimum, not less than 75 mm (3"). If rock foundation, use ${\rm D_{0}/12}$ minimum, not less than 150 mm (6"). | 85% Category I, 90% Category II, or 95% Category III | 85% Category I, 90% Category II, or 95% Category III | |
| Type 4 | $D_{\rm o}/24$ minimum, not less than 75 mm (3"). If rock foundation, use $D_{\rm o}/12$ minimum, not less than 150 mm (6"). | No compaction required, except if Category III, use 85% Category III | No compaction required, except if Category III, use 85% Category III | |

Notes:

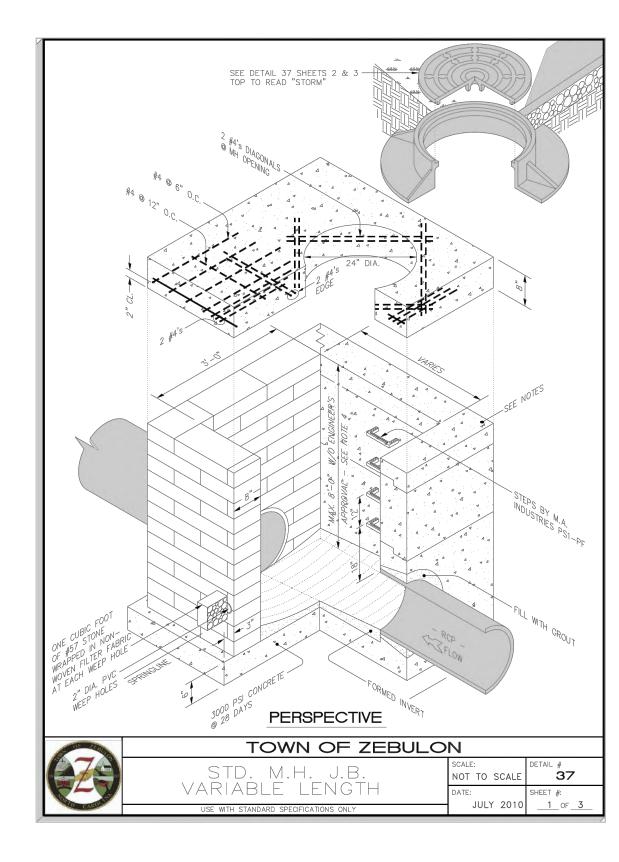
- 1. Compaction and soils symbols i.e. "98% Category I" refers to Category I soil materials with minimum standard Proctor compaction of 98%. See Table 1 for
- equivalent modified Proctor values. 2. The trench top elevation shall be no lower than 0.1 H below finished grade or, for roadways, its top shall be no lower than an elevation of 0.3 m (1') below
- the bottom of the pavement base material.

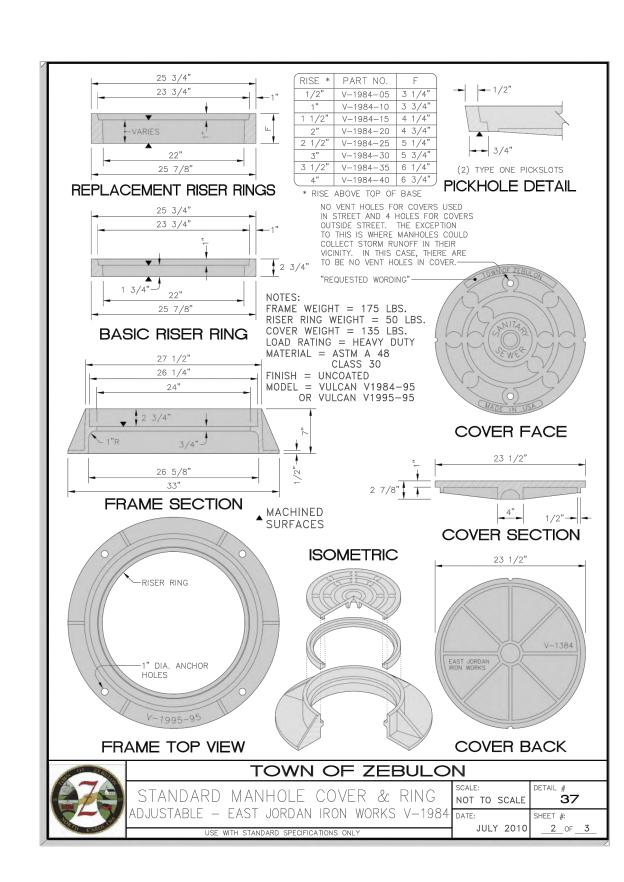
 3. Soil in bedding and haunch zones shall be compacted to at least the same
- compaction as specified for the majority of soil in the backfill zone.
- 4. The trench width shall be wider than shown if required for adequate space to
- attain the specified compaction in the haunch and bedding zone.

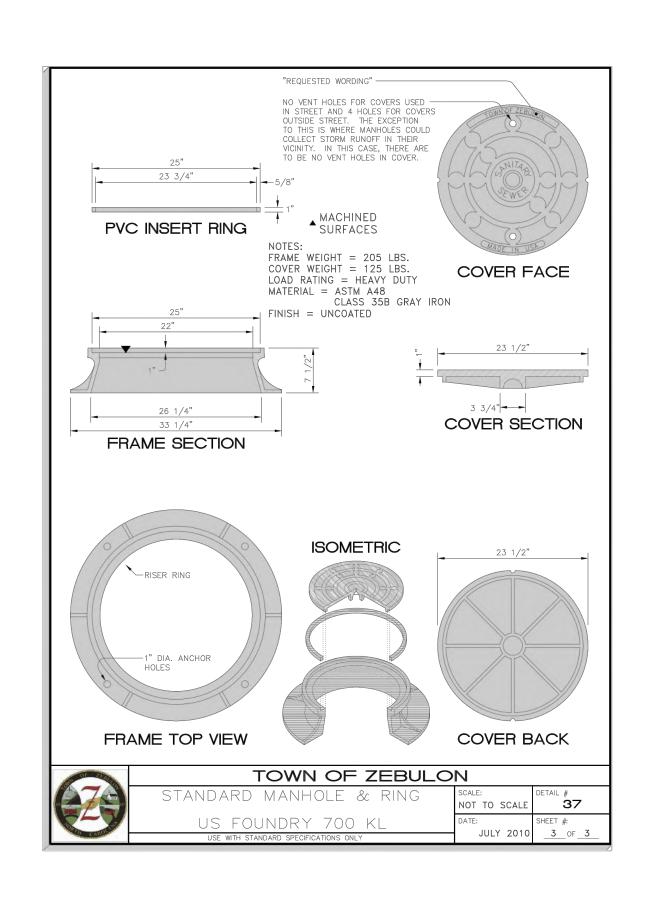
 5. For trench walls that are within 10 degrees of vertical, the compaction or firmness
- of the soil in the trench walls and lower side zone need not be considered.
- 6. For trench walls with greater than 10 degrees slopes that consist of embankment, the lower side shall be compacted to at least the same compaction as specified
- for the soil in the backfill zone.
- Type 1 installation = relatively high quality material & high compaction effort.
 Type 4 installation = little or no control over material and compaction.

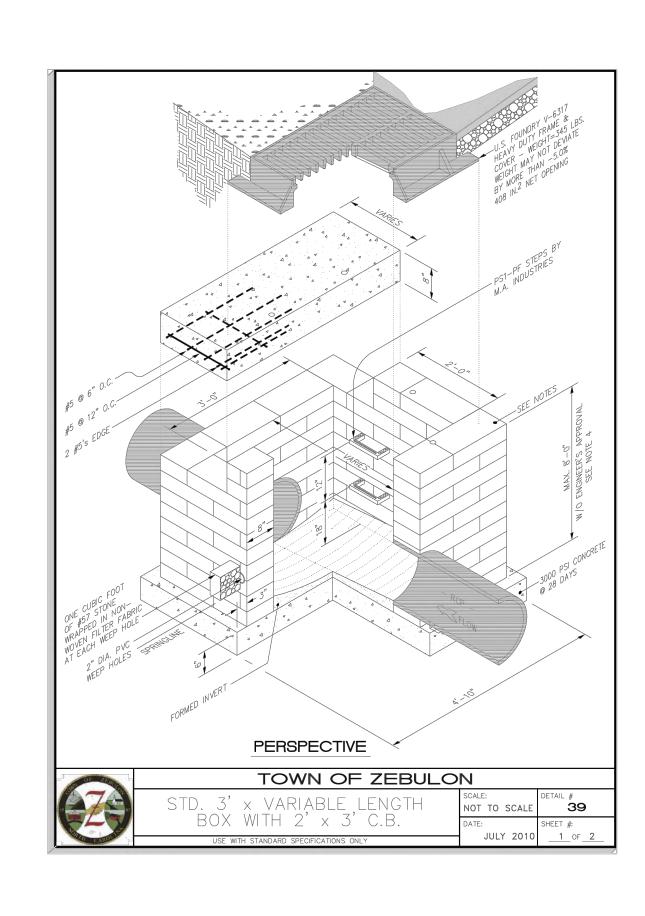
| OF ZHARD | TOWN OF ZEBULON | | |
|----------|-----------------|--------|--|
| | | SCALE: | |

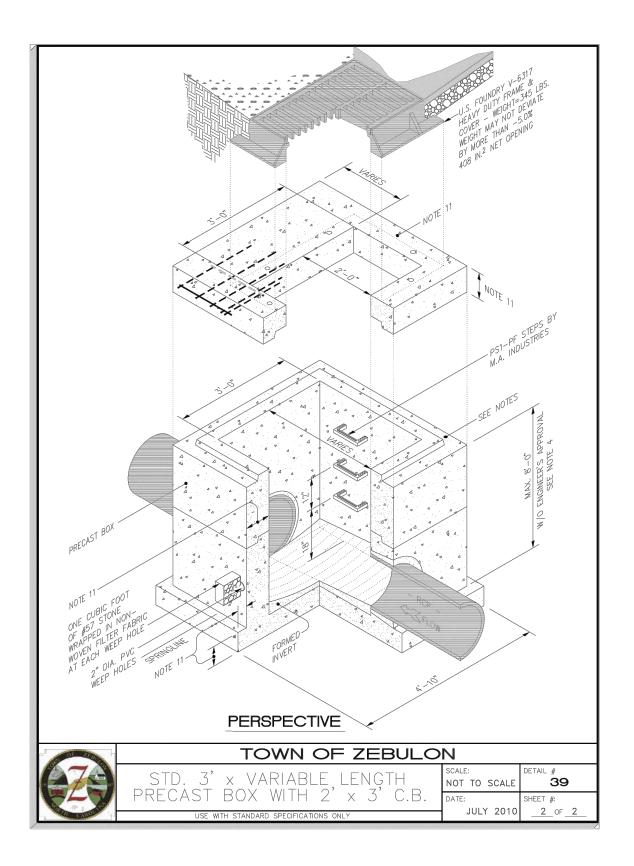
TRENCH CONDITION SHOWN)













NC ENGINEERING LICENSE NO. P-0803



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BDIVISION THE 1111 Ralei Office

BARBEE STREET

O E. BARBEE STREET
ZEBULON, NORTH CAROLINA

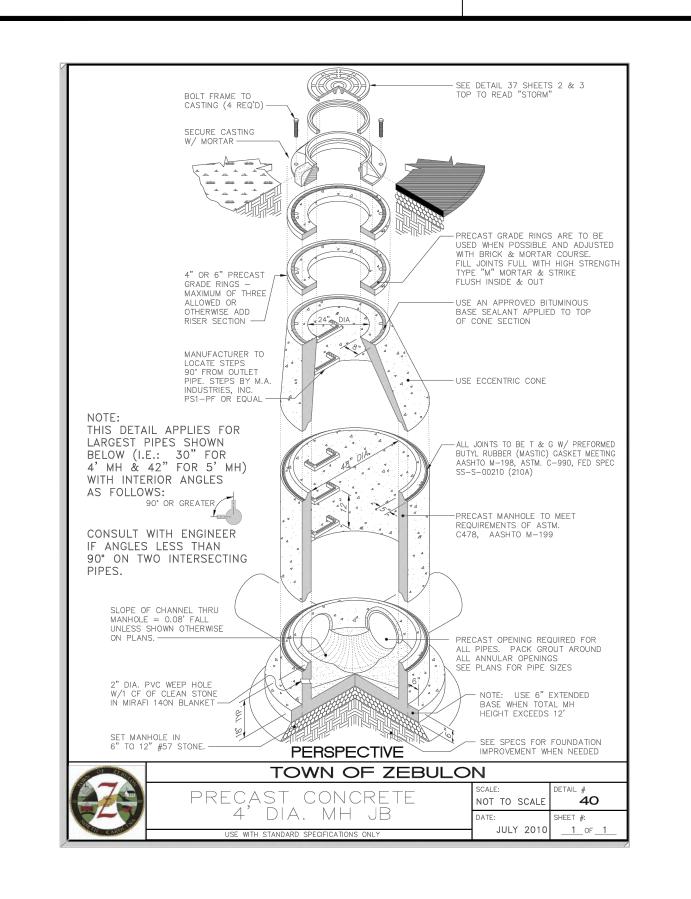
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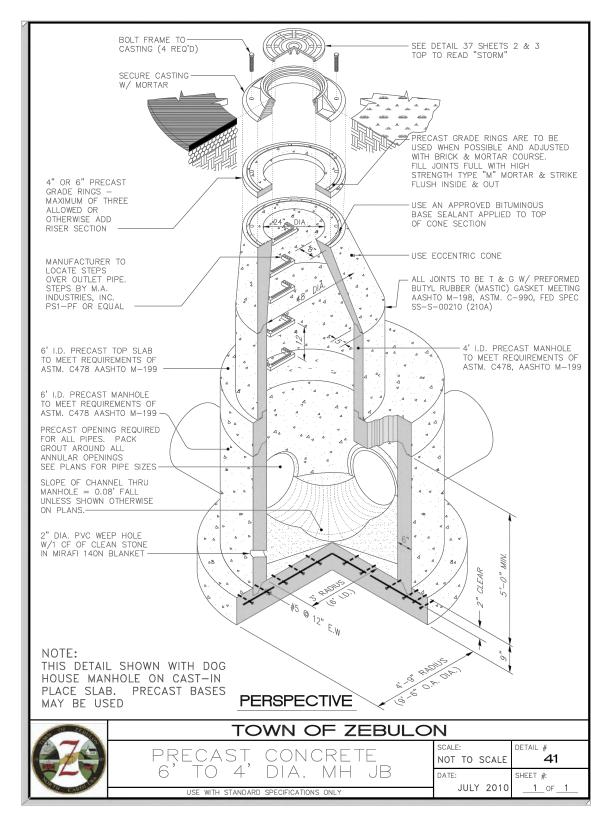
07 NOV 2022

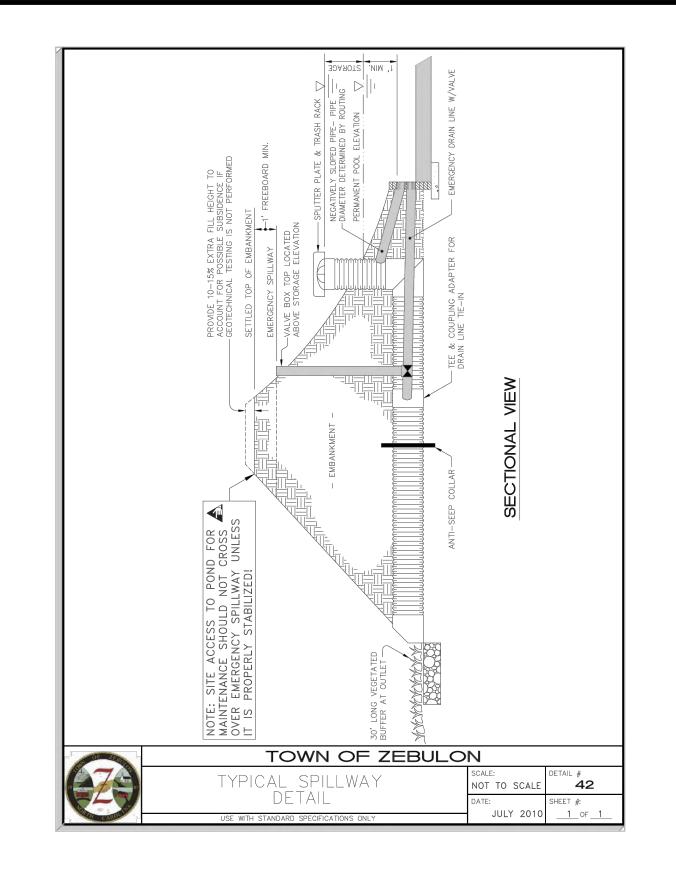
CONSTRUCTION DRAWING

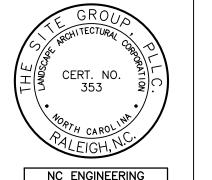
SITE DETAILS

Dwg No.













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E Mail: SRN®

S FOR:
SUBDIVISION CONSTRUCTION DRAWINGS

BARBEE STREET

O E. BARBEE STREET

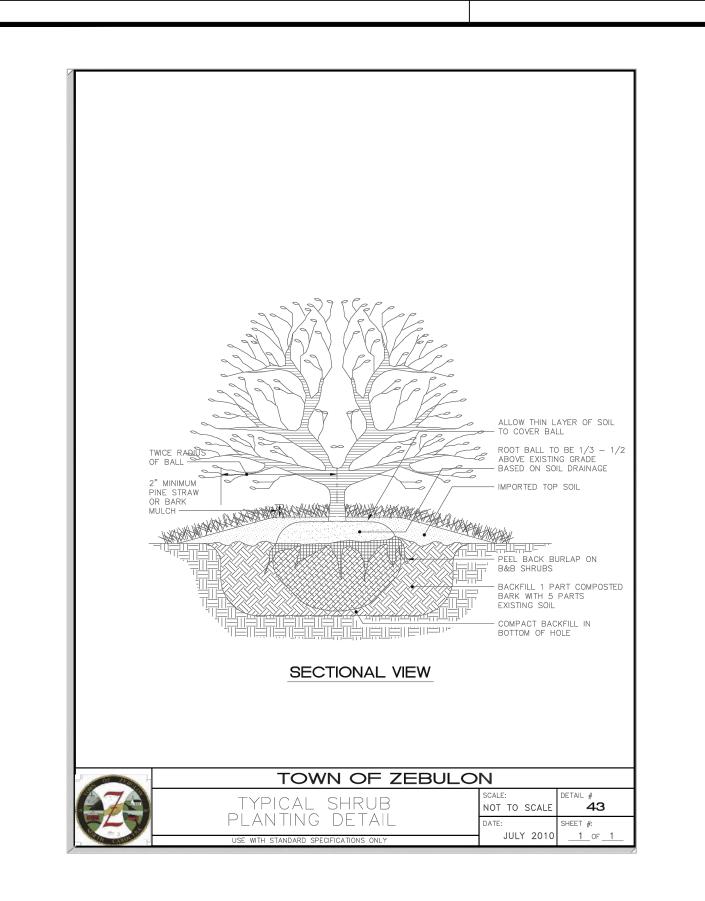
ZEBULON, NORTH CAROLIN,

07 NOV 2022

CONSTRUCTION DRAWING

SITE DETAILS

SCBSZ Dwg No.



SOME MUNICIPALITIES DO NOT ALLOW GUTTER PROTECTION ON PUBLIC ROADS. SILT BAGS SHOULD BE USED WITH THESE CASES.

2. BAGS SHOULD BE CLEANED OUT AFTER EVERY RAIN EVENT AND/OR AS NEEDED.

INSTALLATION DETAIL

SCALE: DETAIL #
NOT TO SCALE 50

TOWN OF ZEBULON

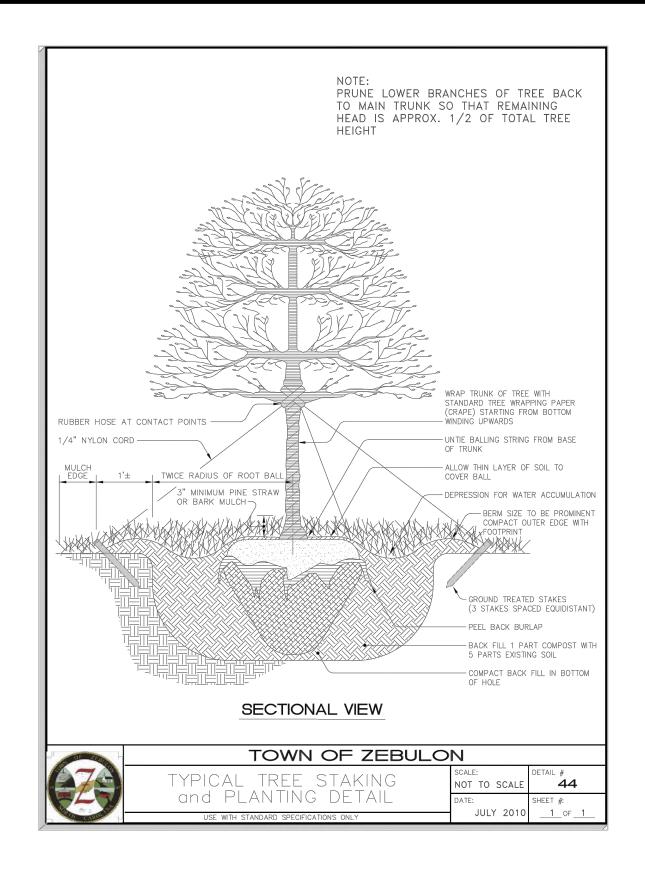
CH BASIN — SEDIMENT CONTROL DEVICES

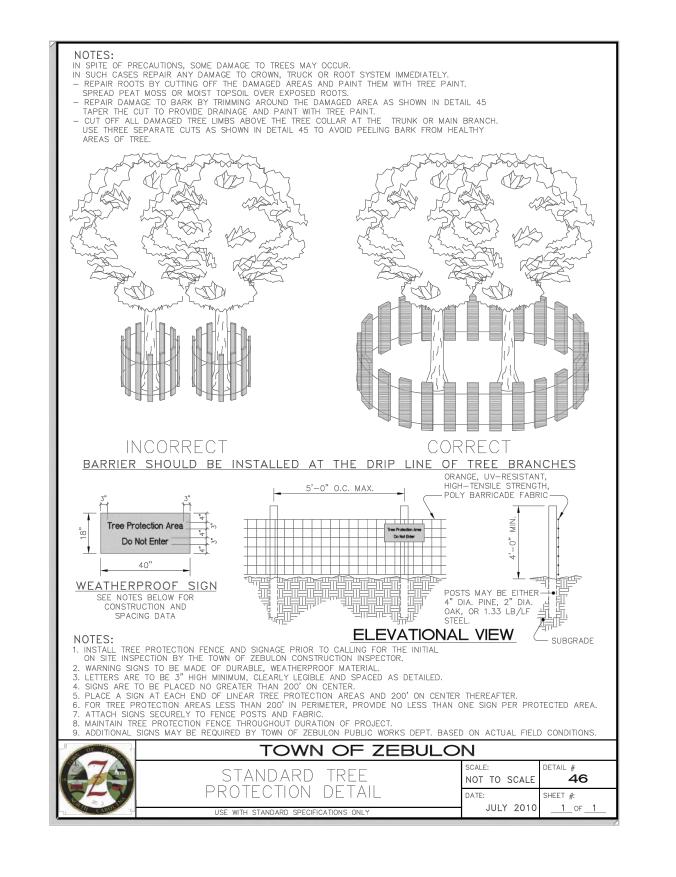
DUMP STRAP -

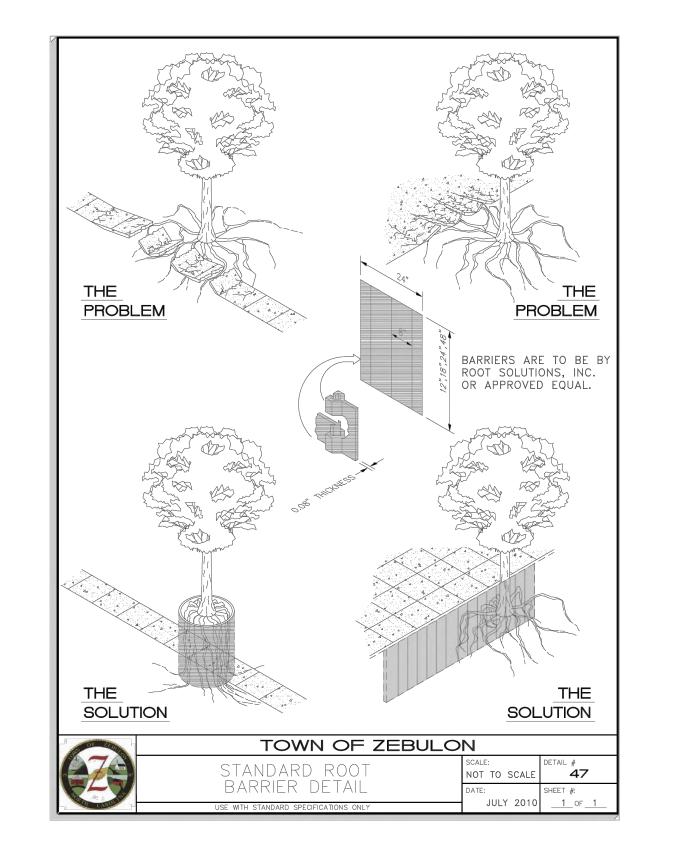
1" REBAR FOR BAG REMOVAL FORM INLET -

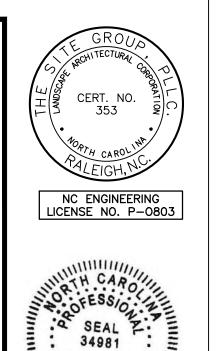
EXPANSION RESTRAINT —— (1/4" NYLON ROPE, 2" FLAT WASHERS)

BAG DETAIL















erlin SC 919. SRN

SDIVISIO FOR:

Checked

07 NOV 2022

CONSTRUCTION DRAWING

> SITE DETAILS

