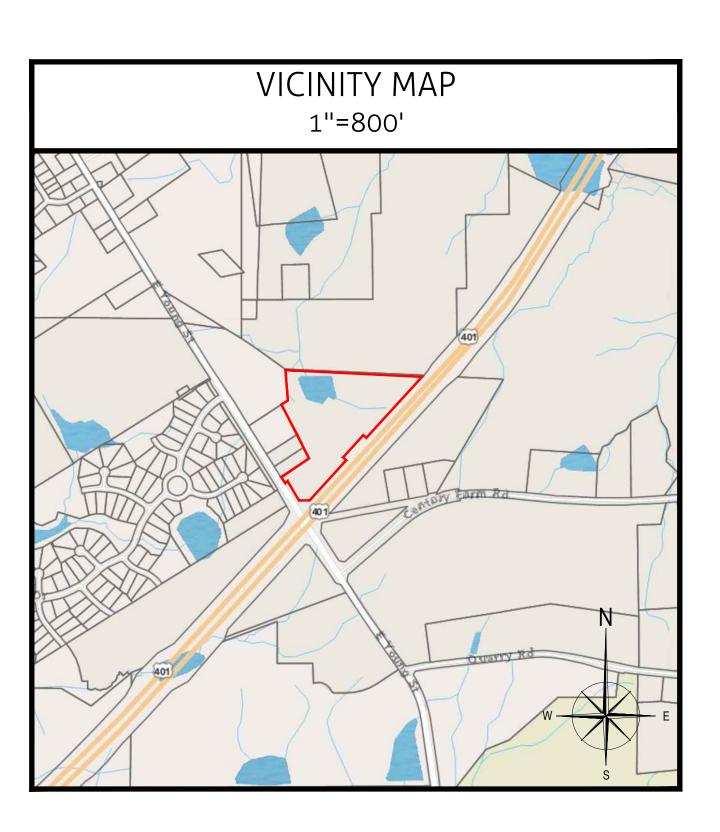
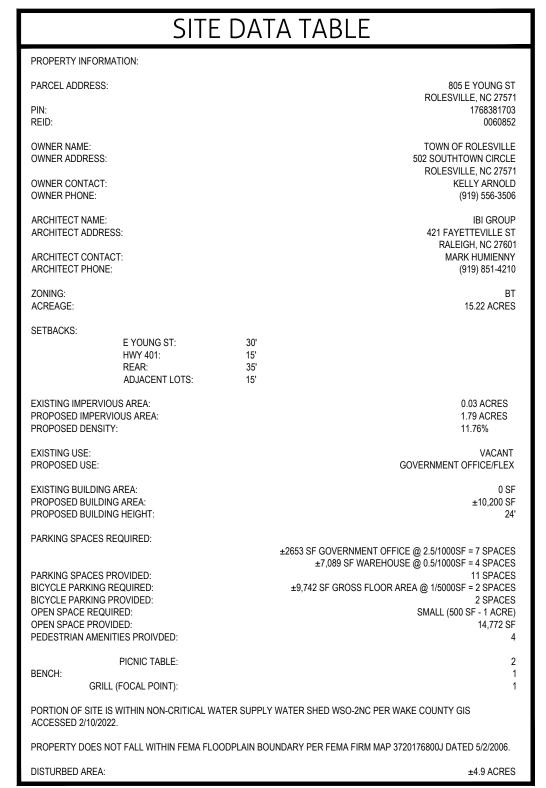
PROJECT # SP 22-02

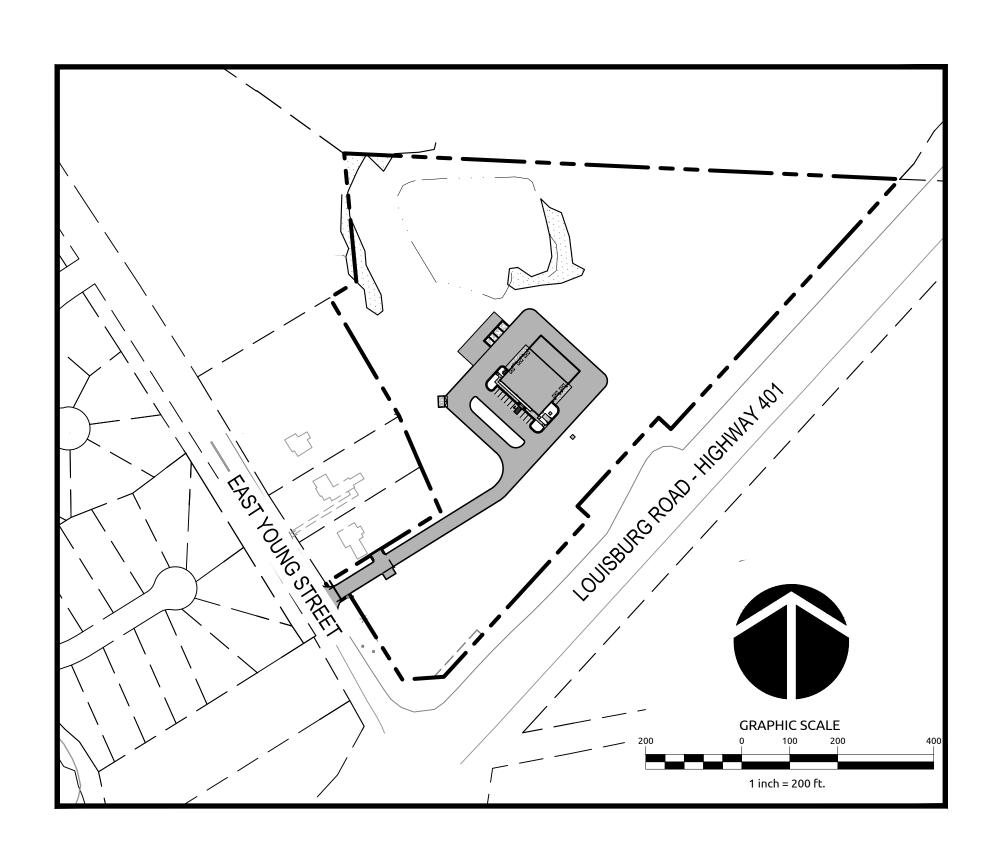
# E PLAN & CONSTRUCTION DRAWINGS FOF ROLESVILLE

# SITE PLAN & CONSTRUCTION DRAWINGS FOR ROLESVILLE PUBLIC WORKS FACILITY

805 EAST YOUNG STREET ROLESVILLE, NC, 27571
OCTOBER 21, 2022







DEVELOPER/OWNER	SEAL
TOWN OF ROLESVILLE 502 SOUTHTOWN CIRCLE ROLESVILLE, NC 27571 (919) 556-3506 ATTN: KELLY ARNOLD	Docusigned by 00,000,000,000,000,000,000,000,000,000
PREPARED BY:	
WithersRave Engineers   Planners  137 S Wilmington Street   Suite 200   Raleigh, NC 27601   t: 919.469.3340   license #: F-:	

IN	DEX OF SHEETS
SHEET NUMBER	SHEET TITLE
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C0.01	GENERAL NOTES
C0.02	GENERAL NOTES AND LEGEND
C0.03	SIGNED SURVEY
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C2.00	SITE PLAN
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C7.00	SITE DETAILS
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L1.00	LANDSCAPE PLAN
L1.01	LANDSCAPE DETAILS
SL1.00	LIGHTING PLAN AND DETAIL
A201	BUILDING ELEVATIONS

# 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 *twenty four hours* prior to beginning any of their construction.

**Failure** to notify both *City Departments* in advance of beginning construction, will result in the issuance of *monetary fines*, and require 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

Rolesville

Genuine Community - Capital Connection
Est. 1837

APPROVED

Case: SP 22-02

Date: 11/9/2022

DocuSigned by:

Meredith Gruber
Town of Rolesville
Planning Department

# Public

Sewer Collection / Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh

Public Utilities Department Permit # S-5071

Authorization to Construct See digital signature



EROSION CONTROL S- N/A
STORMWATER MGMT. S-WF-0081866-2022

FLOOD STUDY S-N/A
DATE 11/9/2022

future work in the City of Raleigh.

Docusigned by:

Januar Boyur

OF08190D0EDEW DRONMENTAL CONSULTANT SIGNATURE

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Plans for the proposed use have been reviewed for general compliance with applicable codes. This

Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be considered to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractors are each responsible for compliance with all applicable City, State and Federal laws. This specific authorization below is not a permit, nor shall it be construed to permit any violation of City, State or Federal Law. All Construction must be in accordance with all Local, State, and Federal Rules and Regulations. This approval of this electronic document is only valid if the document has not been modified and the digital signature below is valid:

City of Raleigh Development Approval

- 1. PROPERTY BOUNDARY SHOWN AS PROVIDED BY WITHERSRAVENEL, DATED APRIL 2021.
- 2. TOPOGRAPHIC SURVEY SHOWN AS PROVIDED BY WITHERSRAVENEL, DATED APRIL 2021. SUPPLEMENTED BY WITHERSRAVENEL IN FEBRUARY 2022.
- 3. TREE SURVEY SHOWN AS PROVIDED BY WITHERSRAVENEL, DATED OCTOBER 2021.
- 4. WETLANDS SHOWN AS PROVIDED BY WITHERSRAVENEL, DATED JULY 2020.
- 5. PROPERTY DOES NOT FALL WITHIN FEMA FLOODPLAIN BOUNDARY PER FEMA FIRM MAP 3720176800J DATED 5/2/2006.
- SOIL TYPES INCLUDE WeB, W, HeB PER WAKE COUNTY GIS ACCESSED 2/10/2022.
- 7. PORTION OF SITE IS WITHIN NON-CRITICAL WATER SUPPLY WATER SHED WSO-2NC PER WAKE COUNTY GIS ACCESSED 2/10/2022.
- 8. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS AND NCDOT STANDARD DETAILS AND SPECIFICATIONS, LATEST REVISIONS, AS APPLICABLE.
- 9. WORK ON THIS PROJECT SHALL CONFORM TO THESE PLANS, THE LATEST EDITIONS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) ROAD AND BRIDGE SPECIFICATIONS, THE NCDOT ROAD AND BRIDGE STANDARDS, THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK, THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS, MUNICIPAL STANDARDS AND SPECIFICATIONS, ANY GEOTECHNICAL REPORTS, AND ANY OTHER APPLICABLE DESIGN STANDARDS. IN THE EVENT OF CONFLICT BETWEEN ANY OF THESE STANDARDS, SPECIFICATIONS, OR PLANS, THE MOST STRINGENT SHALL GOVERN, UNLESS OTHERWISE NOTED IN THESE PLANS.
- 10. ANY DISCREPANCIES, INCONSISTENCIES OR AMBIGUITIES FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS AND SITE CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER IN WRITING AND PRIOR TO BIDDING IF APPLICABLE. WORK DONE BY THE CONTRACTOR AFTER THE DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES WITHOUT WRITTEN CLARIFICATION FROM THE ENGINEER AND APPROVAL BY OWNER SHALL BE DONE AT THE CONTRACTOR'S RISK.
- 11. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL JOBSITE SAFETY DURING ALL PHASES OF CONSTRUCTION. ALL WORK SHALL COMPLY WITH MUNICIPAL, COUNTY AND STATE REGULATIONS, AND O.S.H.A. STANDARDS. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).
- 12. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING, AND SUBSEQUENTLY PROTECTING, ALL PUBLIC OR PRIVATE UTILITIES (SHOWN OR NOT SHOWN) THAT LIE IN OR ADJACENT TO THE PROJECT SITE. THE CONTRACTOR SHALL CALL "811" FOR PROPER IDENTIFICATION OF EXISTING UTILITIES AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
- 13. THE CONTRACTOR SHALL PROTECT ALL EXISTING SITE ELEMENTS, INCLUDING BUT NOT LIMITED TO SIGNS, ROADWAYS, PATHS, STRUCTURES, ELECTRICAL, COMMUNICATION, AND OTHER DRY UTILITIES, WET UTILITIES (SEWER, WATER, STORM SEWER), NATURAL VEGETATION, AND OTHER EXISITNG PROPERTY ITEMS, DURING ALL CONSTRUCTION PHASES. THE CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ANY EXISTING ITEMS DAMAGED DURING CONSTRUCTION.
- 14. CONTRACTOR SHALL MAKE EVERY EFFORT TO SAVE PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. A LICENSED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE SHALL REPLACE PROPERTY IRONS, MONUMENTS, AND OTHER PERMANENT POINTS OF REFERENCE DESTROYED BY THE CONTRACTOR.
- 15. TRAFFIC CONTROL ON PUBLIC STREETS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN CONFORMANCE WITH THESE PLANS, THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES," AND/OR AS FURTHER DIRECTED BY THE MUNICIPALITY AND/OR NCDOT.
- 16. CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN SUITABLE BARRIERS, FENCES, SIGNS, FLAGMEN, WATCHMEN, AND OTHER ADEQUATE PROTECTION AS NECESSARY TO ENSURE THE SAFETY OF THE PUBLIC AND THOSE ENGAGED IN THE CONSTRUCTION WORK. ALL SAFETY MEASURES SHALL BE MAINTAINED AT ALL TIMES DURING THE PROGRESS OR TEMPORARY SUSPENSION OF WORK. CONSTRUCTION SIGNING SHALL BE CLEARLY LEGIBLE, PROMINENTLY DISPLAYED, AND IN ACCORDANCE WITH THE LATEST EDITION OF "CONSTRUCTION AND MAINTENANCE OPERATIONS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", UNLESS OTHERWISE NOTED ON THE PLANS.
- 17. CONTRACTOR SHALL PLAN AND CONSTRUCT WORK IN ORDER TO CAUSE MINIMUM INCONVENIENCE TO THE OWNER AND THE PUBLIC AND SHALL COORDINATE WITH AND OBTAIN APPROVAL FROM STATE AND LOCAL REGULATORY AGENCIES ON TRAFFIC CONTROL PLANS.
- 18. ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF-SITE AND IF APPLICABLE AT AN APPROVED DISPOSAL FACILITY.
- 19. THE CONTRACTOR SHALL HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS ALL PERMIT APPROVALS AND EASEMENTS ON THE JOB SITE AT ALL TIMES.
- 20. WETLANDS SHOWN WILL HAVE DEED RESTRICTION PROHIBITING GRADING OR FILLING OF LOTS UNLESS SPECIFICALLY PERMITTED BY THE USACOE & NCEDNR-DWQ.
- 21. DELINEATED WETLAND AREAS SHALL NOT BE CLEARED, DRAINED, OR OTHERWISE DISTURBED UNLESS SPECIFICALLY PERMITTED BY THE U.S. ARMY CORPS OF ENGINEERS AND NCDENR-DWQ.
- 22. CONSTRUCTION STAKEOUT FOR THIS PROJECT MAY BE PERFORMED BY THE CONTRACTOR, USING A DIGITAL (CADD) FILE PROVIDED BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND BETWEEN THE DIGITAL FILE AND THE CRITICAL STAKING DIMENSIONS SHOWN ON THIS PLAN (I.E. PAVEMENT WIDTHS, CURB RADII, BUILDING SETBACKS, BUILDING FOOTPRINTS, ETC.). ANY MODIFICATIONS MADE BY OTHERS TO THE DIGITAL FILE PROVIDED BY THE ENGINEER SHALL RENDER IT VOID.
- 23. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, ACCESSIBLE PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDINGS AS SHOWN ON THE PLANS. ALL PAINT FOR PAVEMENT MARKINGS SHALL ADHERE TO NCDOT STANDARDS, UNLESS NOTED OTHERWISE.
- 24. TESTING OF MATERIAL REQUIRED FOR THE CONSTRUCTION OF THE IMPROVEMENTS SHALL BE PERFORMED BY AN APPROVED AGENCY FOR TESTING MATERIALS. THE NOMINATION OF THE TESTING LAB AND THE PAYMENT OF EACH TESTING SERVICES SHALL BE MADE BY THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY

TO SHOW BY STANDARD TESTING PROCEDURES THAT THE WORK CONSTRUCTED MEETS THE REQUIREMENT OF THE NCDOT AND MUNICIPAL SPECIFICATIONS.

### **DEMOLITION NOTES:**

- 1. CONTRACTOR TO COORDINATE WITH THE OWNER TO PROPERLY MAINTAIN OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
- 2. CONTRACTOR IS TO WALK THE SITE AND BECOME FAMILIAR WITH THE SCOPE OF DEMOLITION REQUIRED. ALL DEMOLITION WORK REQUIRED TO CONSTRUCT NEW SITE IMPROVEMENTS WILL BE PERFORMED BY THE CONTRACTOR AND WILL BE UNCLASSIFIED EXCAVATION.
- 3. DEMOLITION SHALL INCLUDE, BUT IS NOT LIMITED TO, THE EXCAVATION, HAULING AND OFFSITE DISPOSAL OF CONCRETE PADS, CONCRETE DITCHES, FOUNDATIONS, SLABS, STEPS, AND STRUCTURES; ABANDONED UTILITIES, BUILDINGS, PAVEMENTS AND ALL MATERIALS CLEARED AND STRIPPED TO THE EXTENT NECESSARY AS DIRECTED BY THE SOILS ENGINEER FOR THE INSTALLATION OF THE NEW IMPROVEMENTS AND WITHIN THE LIMITS OF CLEARING AND GRADING AND AS SHOWN ON THESE PLANS.
- 4. THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES ON THE PROPERTY NOT TO BE DEMOLISHED. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO COST TO OWNER.
- 5. ELECTRIC, TELEPHONE, SANITARY SEWER, WATER AND STORM SEWER UTILITIES THAT SERVICE OFF-SITE PROPERTIES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR.
- 6. EXISTING UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING DEMOLITION.
- 7. ALL EXISTING IMPROVEMENTS INDICATED OR REQUIRED TO BE DEMOLISHED SHALL INCLUDE REMOVAL FROM THE PROPERTY AND PROPER DISPOSAL.
- 8. CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING OVER HEAD AND UNDERGROUND UTILITIES INCLUDING CABLE, GAS, TELEPHONE AND ELECTRIC AND ANY OTHER UTILITIES THROUGH THE SITE WITH THE RESPECTIVE COMPANIES.
- 9. PROVIDE SMOOTH SAW CUT OF EXISTING PAVEMENTS, CURBS AND GUTTERS AND SIDEWALKS TO BE DEMOLISHED.
- 10. ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AS WELL AS OSHA REGULATIONS.
- 11. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS OF THE MAINS BY DIGGING TEST PITS BY HAND.

# STORM DRAINAGE NOTES:

- 1. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF CURB INLETS AND GRATE INLETS AND ALL UTILITIES CROSSING THE STORM SEWER.
- 2. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER.
- 3. ALL RCP STORM SEWER SHALL BE MINIMUM CLASS III REINFORCED CONCRETE PIPE, UNLESS OTHERWISE NOTED.
- 4. THE LOCATIONS OF STORM SEWER STRUCTURES SHOWN ON THESE PLANS ARE APPROXIMATE. WHERE PROPOSED STORM SEWER PIPING TIES TO EXISTING STRUCTURES, PIPES, SWALES, ETC., THE CONTRACTOR SHALL FIELD ADJUST PROPOSED STORM SEWERS TO MATCH THE LOCATIONS OF THESE EXISTING FEATURES.
- 5. UPON COMPLETION OF A PROJECT, AND BEFORE A CERTIFICATE OF OCCUPANCY SHALL BE GRANTED, THE APPLICANT SHALL CERTIFY THAT THE COMPLETED PROJECT IS IN ACCORDANCE WITH THE APPROVED STORMWATER MANAGEMENT PLANS AND DESIGNS, AND SHALL SUBMIT ACTUAL "AS BUILT" PLANS FOR ALL STORMWATER MANAGEMENT FACILITIES OR PRACTICES AFTER FINAL CONSTRUCTION IS COMPLETED."
- 6. ALL STORM DRAINAGE PIPE SHALL HAVE A MINIMUM COVER OF 2 FEET FROM FINISHED SUBGRADE TO THE PIPE CROWN IN TRAFFIC, UNLESS APPROVED BY TOWN OF ROLESVILLE AND/OR NCDOT.
- 7. ALL STORM DRAINAGE PIPE SHALL HAVE A MINIMUM COVER OF 1 FOOT TO THE PIPE CROWN IN NON-TRAFFIC AREAS.
- 8. STORM SEWER PIPE ENDS SHALL BE FURNISHED WITH REINFORCED CONCRETE PIPE FLARED END SECTION UNLESS OTHERWISE SPECIFIED ON PLANS.
- 9. 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.

# **GRADING NOTES:**

- 1. REFER TO SITE CONSTRUCTION PLANS FOR CLEARING LIMITS AND TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION.
- 2. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE, AND AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. IN ADDITION TO THE MEASURES SHOWN IN THESE PLANS, THE CONTRACTOR SHALL USE INTERIM DIVERSION DITCHES, BERMS, OR OTHER METHODS AS REQUIRED TO DIRECT DRAINAGE AS SHOWN ON THESE PLANS AND TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES, ROADWAYS, AND ENVIRONMENTALLY SENSITIVE AREAS SUCH AS BUFFERS AND WETLANDS.
- 3. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS.
- 4. ALL MATERIALS USED FOR BACKFILL SHALL BE FREE OF WOOD, ROOTS, ROCKS, BOULDERS, OR ANY OTHER NON-COMPATIBLE SOIL TYPE MATERIAL. UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS AND REFUSE DEBRIS DERIVED FROM ANY SOURCE. REFER TO FINAL GEOTECHNICAL REPORT FOR ANY SPECIAL FILL MATERIAL REQUIRED FOR THIS PROJECT, IF ANY.
- 5. MATERIALS USED TO CONSTRUCT EMBANKMENTS FOR ANY PURPOSE, BACKFILL AROUND DRAINAGE STRUCTURES, OR IN UTILITY TRENCHES FOR ANY OTHER DEPRESSION REQUIRING FILL OR BACKFILL SHALL MEET THE REQUIREMENTS OF THE FINAL GEOTECHNICAL REPORT RECOMMENDATIONS, AND SHALL AT A MINIMUM BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST AS SET OUT IN ASTM STANDARD D-1557.

- 6. THE CONTRACTOR SHALL, PRIOR TO ANY OPERATIONS INVOLVING FILLING OR BACKFILLING, SUBMIT THE RESULTS OF THE PROCTOR TEST TOGETHER WITH A CERTIFICATION THAT THE SOIL TESTED IS REPRESENTATIVE OF THE MATERIALS TO BE USED ON THE PROJECT. TESTS SHALL BE CONDUCTED BY A CERTIFIED MATERIALS TESTING LABORATORY AND CERTIFICATIONS MADE BY A LICENSED PROFESSIONAL ENGINEER REPRESENTING
- 7. RETAINING SYSTEMS PROVIDING A CUMULATIVE VERTICAL RELIEF GREATER THAN FIVE FEET IN HEIGHT WITHIN A HORIZONTAL DISTANCE OF 50 FEET OR LESS, INCLUDING RETAINING WALLS OR MECHANICALLY STABILIZED EARTH WALLS SHALL BE DESIGNED AND CONSTRUCTED UNDER THE RESPONSIBLE CHARGE OF A REGISTERED PROFESSIONAL ENGINEER AND COMPLY IN ALL ASPECTS WITH THE NC BUILDING CODE SECTION 1610. RETAINING SYSTEMS MEETING THESE CRITERIA WILL REQUIRE A SEPARATE BUILDING PERMIT PRIOR TO THE
- 8. ALL DEMOLITION DEBRIS AND OTHER EXCESS MATERIAL SHALL BE HAULED OFF-SITE.
- 9. REFERENCE STRUCTURAL DRAWINGS AND SPECIFICATIONS AND GEOTECHNICAL REPORT FOR BUILDING PAD AND PAVING SUBGRADE INFORMATION.
- 10. PROPOSED CONTOURS AND GUTTER GRADIENTS ARE APPROXIMATE. PROPOSED SPOT ELEVATIONS ARE TO BE USED IN CASE OF DISCREPANCY.
- 11. CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR BLASTING ROCK IF BLASTING ROCK IS ENCOUNTERED. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL BLASTING AND SAFETY REQUIREMENTS.
- 12. CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DEWATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.
- 13. ACCESSIBLE ROUTES AND PARKING AREAS MUST BE PROVIDED IN ACCORDANCE WITH THE CURRENT ADA REQUIREMENTS. THE RUNNING SLOPE OF WALKING SURFACES CANNOT BE STEEPER THAN 1:20 AND CROSS SLOPE OF WALKING SURFACES CANNOT BE STEEPER THAN 1:48, WHICH INCLUDES CROSSWALKS.
- 14. THE PLACEMENT OF ANY FILL MATERIAL MUST BE CONDUCTED UNDER THE OBSERVATION OF A QUALIFIED LICENSED GEOTECHNICAL ENGINEER AND UPON COMPLETION OF THE EARTHWORK ACTIVITIES THE TOWN MUST BE PROVIDED WITH A FINAL GRADING REPORT THAT INCLUDES THE CORRESPONDING COMPACTION TEST RESULTS AND CERTIFIES THE TYPE OF FILL MATERIAL AND ITS PROPER PLACEMENT.
- 15. MASS GRADING OPERATIONS SHALL BE PHASED TO LIMIT EXPOSED AREAS. PRIOR TO PROCEEDING TO ANOTHER PHASE, THE PRESENT PHASE SHALL BE STABILIZED WITH ADEQUATE GROUND COVER SUFFICIENT TO RESTRAIN EROSION AND HAVE ALL INFRASTRUCTURE INSTALLED. MASS GRADING AND CLEARING SHALL NOT EXCEED 20 ACRES PER PHASE INCLUDING GRADING NECESSARY FOR INFRASTRUCTURE, EXCEPT WHERE THE TECHNICAL REVIEW COMMITTEE APPROVES AN INCREASE SUBJECT TO REVIEW OF AN EROSION CONTROL PLAN SUBMITTED WITH THE CONSTRUCTION DRAWINGS.
- 16. WETLANDS SHOWN WILL HAVE DEED RESTRICTION PROHIBITING GRADING OR FILLING OF LOTS UNLESS SPECIFICALLY PERMITTED BY THE USACOE & NCEDNR-DWQ.
- 17. DELINEATED WETLAND AREAS SHALL NOT BE CLEARED, DRAINED, OR OTHERWISE DISTURBED UNLESS SPECIFICALLY PERMITTED BY THE U.S. ARMY CORPS OF ENGINEERS AND NCDENR-DWQ.
- 18. CONSTRUCTION STAKEOUT FOR THIS PROJECT MAY BE PERFORMED BY THE CONTRACTOR, USING A DIGITAL (CADD) FILE PROVIDED BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND BETWEEN THE DIGITAL FILE AND THE CRITICAL STAKING DIMENSIONS SHOWN ON
- THIS PLAN (I.E. PAVEMENT WIDTHS, CURB RADII, BUILDING SETBACKS, BUILDING FOOTPRINTS, ETC.). ANY MODIFICATIONS MADE BY OTHERS TO THE DIGITAL FILE PROVIDED BY THE ENGINEER SHALL RENDER IT VOID.
- 19. THE FRAMES AND COVERS OF ALL EXISTING AND PROPOSED DRAINAGE, SANITARY SEWER, WATER MAIN, GAS AND WIRE UTILITY STRUCTURES SHALL BE ADJUSTED TO MATCH PROPOSED FINISHED ELEVATIONS AND SLOPES.
- 20. WHERE PROPOSED CURB AND GUTTER TIES TO EXISTING CURB OR CURB AND GUTTER, A TRANSITION OF 10' SHALL BE MADE TO CONFORM TO THE EXISTING HEIGHTS AND SHAPES.
- 21. BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF PAVEMENT AND OTHER ITEMS ESTABLISHED IN THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
- 22. ALL PAVEMENT SUBGRADES SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES AND COMPACTED TO A MINIMUM DENSITY OF 100 PERCENT OF ASTM D-1557 DENSITY AT OPTIMUM MOISTURE CONTENT UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- 23. FILL SHALL BE PLACED AND COMPACTED AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- 24. ALL CURB JOINTS SHALL EXTEND THROUGH THE CURB. MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS IS 1.5'. ALL JOINTS SHALL BE SEALED WITH JOINT SEALANT.
- 25. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL SOIL TESTING IS PERFORMED AND THE RESULTS FORWARDED TO THE ENGINEER AND OWNER.
- 26. TREE PROTECTION FENCING SHALL BE INSTALLED AND INSPECTED PRIOR TO ISSUANCE OF A GRADING PERMIT. FENCING SHALL NOT BE REQUIRED ADJACENT TO AREAS WITHOUT WOODED VEGETATION. FENCING SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION PRIOR TO THE CERTIFICATE OF OCCUPANCY (CO) IS SCHEDULED. THE FENCING SHALL BE REMOVED PRIOR TO FINAL SITE INSPECTION FOR THE CO.

# **EROSION & SEDIMENT CONTROL NOTES:**

- 1. CONTRACTOR SHALL CONSTRUCT DIVERSION DITCHES AS NECESSARY TO ENSURE ALL SEDIMENT IS DIRECTED INTO EROSION CONTROL MEASURES.
- 2. CONTRACTOR SHALL CLEAR ONLY AS REQUIRED TO INSTALL EROSION AND SEDIMENT CONTROL MEASURES. CONTRACTOR SHALL INSTALL SILT FENCE, SEDIMENT BASINS, DIVERSION DITCHES, AND THEN BEGIN GRADING ROADWAYS.
- 3. IF STORM CROSS DRAINAGE CAN NOT BE INSTALLED PRIOR TO GRADING, TEMPORARY HDPE SHALL BE USED TO CROSS WET WEATHER CHANNELS.
- 4. CONTRACTOR SHALL ENSURE GRADING OPERATION IS CONDUCTED IN A MANNER THAT DOES NOT ALLOW ANY SEDIMENT INTO CREEKS.
- 5. ALL STORM DRAINAGE PIPE SHALL BE PROTECTED DURING CONSTRUCTION.
- 6. CONTRACTOR SHALL PROVIDE RIP RAP LINED TAIL DITCHES AT THE STORM DRAINAGE PIPE DISCHARGE POINTS AS REQUIRED TO ENSURE POSITIVE DRAINAGE.

- 7. TO AVOID SLOPE EROSION, CONTRACTOR SHALL INSTALL TEMPORARY SLOPE DRAINS PER DETAIL AT LOCATIONS WHERE TEMPORARY DIVERSION DITCHES DISCHARGE INTO A SKIMMER BASIN.
- 8. SEDIMENT BASINS SHALL BE KEPT OUT OF WETLAND AREAS.
- 9. PERMANENT GROUND COVER SHALL BE ESTABLISHED PER NPDES LATEST REQUIREMENTS. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 SHALL BE PROVIDED GROUND COVER WITHIN 7 CALENDAR DAYS FROM THE LAST DISTURBANCE. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED GROUND COVER WITHIN 14 CALENDAR DAYS FROM THE LAST DISTURBANCE. TOPSOIL SHALL BE WASTED OFFSITE OR IN FILL AREAS AS SHOWN.
- 10. TEMPORARY DIVERSIONS ARE TO REMAIN IN PLACE UNTIL THE STORM DRAINAGE SYSTEM IS IN PLACE AND THE UPSTREAM AREA IS STABILIZED.
- 11. THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION PRIOR TO THE CERTIFICATE OF OCCUPANCY (CO) IS SCHEDULED. THE FENCING SHALL BE REMOVED PRIOR TO FINAL SITE INSPECTION FOR THE CO.
- 12. A GRAVEL CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH POINT OF CONSTRUCTION ACCESS.
- 13. THE CONTRACTOR SHALL MARK THE LIMITS OF THE BUFFER WITH ORANGE TREE PROTECTION FENCE WITH APPROPRIATE SIGNAGE. TREE PROTECTION FENCE SHALL BE INSTALLED ALONG THE OUTER ZONE OF ANY STREAM BUFFERS IF THERE IS ANY CONSTRUCTION WITHIN 50 FEET OF THE EDGE OF THE BUFFER. THIS MUST BE DONE PRIOR TO STARTING ANY CLEARING, AND MUST BE DONE TO OBTAIN A CERTIFICATE OF COMPLIANCE. IF THE DEVELOPER HAS RECEIVED APPROVAL TO WORK IN THE FIRST 20 FEET OF THE BUFFER, THEN THE LAST 30 FEET BOUNDARY SHALL BE MARKED IN THE AREA ADJACENT TO THIS WORK. OTHERWISE THE ENTIRE 50 FEET SHALL BE MARKED. THIS MARKING SHALL REMAIN IN PLACE UNTIL ALL ADJACENT DISTURBED AREAS HAVE BEEN COMPLETED AND STABILIZED.

# GENERAL LANDSCAPE NOTES:

- 1. THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS NOT TO DAMAGE EXISTING PLANTS, FACILITIES AND STRUCTURES THAT ARE TO REMAIN. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER. ADJACENT STREETS AND SIDEWALKS SHALL BE MAINTAINED IN A CLEAN CONDITION, MUD AND DUST-FREE
- 2. ALL CONSTRUCTION IS TO BE IN ACCORDANCE WITH MUNICIPAL STANDARDS AND SPECIFICATIONS, AND NCDOT, STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- 3. NO CHANGES TO ANY ASPECT OF APPROVED SITE PLAN, INCLUDING BUT NOT LIMITED TO LANDSCAPING, GRADING, BUILDING ELEVATIONS, LIGHTING, OR UTILITIES SHALL BE MADE WITHOUT THE APPROVAL OF THE GOVERNING MUNICIPALITY.
- 4. ALL PLANTS PROVIDED BY THE CONTRACTOR SHALL MEET OR SURPASS THE SPECIFICATIONS GIVEN IN THE PLANT TABLE AND CONFORM TO THE AMERICAN STANDARD OF NURSERY STOCK, ANSI Z601-1973 IN REGARD TO SIZING, GROWING AND B&B SPECIFICATIONS. PLANTS SHALL BE FULL AND HEAVY, AND IN HEALTHY CONDITION AT THE TIME OF PLANTING. LANDSCAPE ARCHITECT SHALL REJECT ANY PLANT NOT MEETING THESE GUIDELINES AND REQUIRE REPLACEMENT.
- 5. ALL PLANTS ARE TO BE FULLY GUARANTEED (INCLUDING LABOR AND MATERIALS) FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM FINAL ACCEPTANCE.
- 6. [PLANTING SHALL FOLLOW NCDOT STANDARD SPECIFICATIONS AS OUTLINED IN SECTION 1670. PLANTING SEASON IS OCTOBER 15 - MARCH 15, UNLESS OTHERWISE NOTED OR APPROVED BY NCDOT ENGINEER.] ALL PLANTS THAT ARE UNABLE TO BE IMMEDIATELY PLANTED SHALL BE STORED IN A PROTECTED AREA OUT OF DIRECT SUN AND WIND. PLANTS SHALL BE EVENLY AND CONSISTENTLY WATERED, AS NEEDED, TO PREVENT DRYING OF ROOTS. ROOT BALLS OF B&B STOCK SHALL BE COVERED WITH AT LEAST 4 INCHES OF HARDWOOD MULCH TO MAINTAIN MOISTURE IN ROOTS.
- 7. THE CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES SHOWN ON PLANS AND CLARIFY ANY DISCREPANCIES WITH LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS. CONTRACTOR SHALL TAG ALL TREES (AS DESIGNATED IN THE MASTER PLANT LIST) AT THE NURSERY FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS.
- 8. LANDSCAPE ARCHITECT SHALL BE NOTIFIED IN WRITING OF ANY PROPOSED PLANT SUBSTITUTIONS BY THE CONTRACTOR. NO SUBSTITUTIONS SHALL BE MADE UNDER ANY CIRCUMSTANCES WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- 9. ALL PLANTS AND PLANTING BEDS ARE TO BE LOCATED BY SCALED DIMENSIONS FROM BUILDINGS, CURBS, PAVEMENTS, ETC. SPECIFIC ATTENTION SHALL BE GIVEN TO ENSURE THAT PLANTS INDIVIDUALLY SHOWN ON THE PLAN ARE ACCURATELY LOCATED. LOCATION OF ALL PLANTS SHALL BE REVIEWED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE FOR REVIEW.
- 10. A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL NEW PLANTING BEDS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ALLOWED TO DISSIPATE PRIOR TO INSTALLATION OF ANY PLANT
- 11. ALL LANDSCAPE AREAS ARE TO BE GRADED FOR POSITIVE DRAINAGE AND TO ENSURE NO STANDING WATER. SEE GRADING PLAN FOR SPECIFIC GRADING INFORMATION.
- 12. ESTABLISH AND MAINTAIN TOP OF GRADE BELOW ADJACENT CURBS, WALKWAYS AND OTHER HARDSCAPE AREAS TO ALLOW FOR INSTALLATION OF MULCH.
- 13. ALL PLANTING BEDS ARE TO BE COVERED WITH MULCH TO A MINIMUM DEPTH OF 3 INCHES. MULCH SHALL BE DARK BROWN, DESIGNER-GRADE, DOUBLE-SHREDDED HARDWOOD. NO PINE STRAW IS PERMITTED. CONTRACTOR TO SUBMIT A SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND DELIVERY TO PROJECT SITE.
- 14. FINISH OFF 2-4' CLEAR ZONE AROUND TREES WITH A 3" LAYER OF MULCH, BUT DO NOT PLACE UP AGAINST OR MOUND AROUND THE ROOT FLARE.
- 15. MIXED GROUNDCOVER AND PLANTS SPECIFIED FOR MASS PLANTINGS SHALL BE PLANTED IN GROUPS OF 3-7 AND LOCATED AS REQUIRED TO PROVIDE A GENERAL MIXING OF SPECIES. DO NOT PLANT IN ROWS OR REPETITIVE PATTERNS UNLESS OTHERWISE DIRECTED.
- 16. ALL TREES ADJACENT TO PEDESTRIAN WALKWAYS AND IN SIGHT TRIANGLES SHALL BE UNDER-TRIMMED SUFFICIENTLY TO ALLOW CLEAR SIGHT AND PEDESTRIAN ACCESS UP TO 6 FEET ABOVE SIDEWALK ELEVATION. ALL PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST, AND ADHERE TO THE ANSI A300 PRUNING STANDARD. PRUNING CUTS ARE TO BE DELIBERATE AND TARGETED ONLY TO THE NECESSARY BRANCHES IN ORDER TO SATISFY SIGHT AND CLEARANCE REQUIREMENTS WHILE MAINTAINING THE INTEGRITY OF THE TREES.

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- 18. ANY PLANT WHICH DIES, TURNS BROWN OR DEFOLIATES PRIOR TO FINAL ACCEPTANCE OF THE WORK SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, IN ACCORDANCE WITH THE APPROPRIATE PLANTING SEASON, QUANTITY AND SIZE TO MEET PLAN SPECIFICATIONS.
- 19. UTILITIES SHOWN ON THE LANDSCAPE DRAWINGS ARE FOR REFERENCE ONLY. SEE UTILITY DRAWINGS FOR EXISTING AND PROPOSED UTILITY LOCATIONS. THE CONTRACTOR MUST LOCATE AND VERIFY ALL SUCH INFORMATION, INCLUDING INFORMATION NOT SHOWN ON THE PLANS, BY CONTACTING THE INDIVIDUAL UTILITY COMPANY & INVESTIGATING THE SITE TO DETERMINE THE EXACT LOCATION OF UTILITY LINES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS OWN EXPENSE, AND TO THE SATISFACTION OF THE PROJECT OWNER AND THE UTILITY OWNER, DAMAGE TO ANY UTILITY CAUSED BY HIS WORK. HE SHALL IMMEDIATELY NOTIFY THE OWNER AND THE UTILITY OWNER OF ANY DAMAGE TO ANY UTILITY BY HIS OPERATION.
- 20. THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).
- 21. ALL ABOVE-GROUND HVAC EQUIPMENT AND UTILITY DEVICES (TO INCLUDE, BUT NOT LIMITED TO TELEPHONE AND CABLE PEDESTALS; ELECTRICAL TRANSFORMERS; BACKFLOW-DEVICE HOTBOX; ETC) SHALL BE SCREENED FROM OFF-SITE VIEW BY EVERGREEN SHRUBS, FENCE, OR WALL.

### TREE PROTECTION NOTES:

- 1. ALL TREES THAT ARE TO REMAIN, WITHIN OR DIRECTLY ADJACENT TO THE LIMITS OF WORK, MUST BE PROTECTED WITH 6' TALL CHAIN LINK FENCE TO THE EXTENT OF THE TREE BOX OR THE DRIP LINE IN A PLANTING STRIP. THE DRIP LINE IS DEFINED AS THE GROUND AREA UNDER THE CANOPY OF THE TREE. FENCING IS TO BE INSTALLED PRIOR TO CONSTRUCTION, MAINTAINED THROUGHOUT, AND REMOVED ONLY AT THE END OF THE PROJECT.
- 2. NONE OF THE FOLLOWING SHALL OCCUR WITHIN THE ROOT ZONE OF A TREE WITHOUT PERMISSION OF LANDSCAPE ARCHITECT OR PROJECT ARBORIST: ALTERATION OR DISTURBANCE TO EXISTING GRADE; STAGING OR STORAGE OF CONSTRUCTION MATERIALS, EQUIPMENT, SOIL OR DEBRIS; TRENCHING; OR DISPOSAL OF ANY
- 3. NO HEAVY EQUIPMENT SHALL BE USED WITHIN THE DRIP LINE OF AN EXISTING TREE.
- 4. APPROVED EXCAVATIONS WITHIN THE DRIP LINE SHALL PROCEED WITH CARE BY USE OF HAND TOOLS OR EQUIPMENT THAT WILL NOT CAUSE INJURY TO TREE TRUNKS, BRANCHES AND ROOTS.
- 5. NO ROOTS GREATER THAN 2 INCHES IN DIAMETER SHALL BE CUT WITHOUT PERMISSION OF LANDSCAPE ARCHITECT OR PROJECT ARBORIST. EXPOSED ROOTS 2 INCHES AND LARGER IN DIAMETER SHALL BE WRAPPED IN BURLAP OR OTHER APPROVED MATERIAL AND KEPT MOIST AT ALL TIMES.
- 6. IF THERE ARE ANY TREE CONFLICTS ON THIS JOB SITE, PERMIT HOLDER MUST SUSPEND ALL WORK THAT CONTRIBUTES TO THE CONFLICT AND IMMEDIATELY CONTACT LANDSCAPE ARCHITECT OR PROJECT ARBORIST FOR DIRECTION AND CLEARANCE TO CONTINUE THE CONFLICTING WORK.
- 7. TREES THAT ARE PROTECTED SHALL BE THOROUGHLY WATERED AS REQUIRED TO KEEP ROOT BALLS FROM DRYING OUT, ESPECIALLY BETWEEN APRIL THROUGH SEPTEMBER.

# **UTILITIES NOTES:**

- 1. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- 2. ALL NECESSARY INSPECTIONS, CERTIFICATIONS, OR TESTING REQUIRED BY CODES OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO MUNICIPAL APPROVAL FOR THE FINAL CONNECTION OF SERVICE.
- 3. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE IMPROVEMENTS SHOWN.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF EXISTING UTILITIES IF REQUIRED DURING INSTALLATION OF NEW WORK. THERE WILL BE NO ADDITIONAL OR SEPARATE PAY ITEM FOR THIS WORK UNLESS SPECIFICALLY CALLED OUT IN THE BID FORM. ANY RELOCATION OF EXISTING UTILITIES MUST BE COORDINATED WITH THE AFFECTED UTILITY COMPANY.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND FEES FOR THE ABANDONMENT OF WELLS AND SEPTIC SYSTEMS.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE NCDEQ WELL AND SEPTIC SYSTEM STANDARDS. AN ABANDONMENT PERMIT SHALL BE OBTAINED FROM THE COUNTY ENVIRONMENTAL HEALTH DIVISION PRIOR TO COMMENCING ABANDONMENT WORK.
- 7. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT (3') CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF ANY HYDRANT, FDC OR OTHER FIRE DEPARTMENT EQUIPMENT.
- 8. HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
- 9. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
- 10. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
- 11. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING
- 12. ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- 13. ALL ISOLATION VALVES WITHIN THE "HOT BOX" SHALL BE ELECTRICALLY SUPERVISED. PLEASE WORK WITH YOUR FIRE SPRINKLER AND ALARM INSTALLER IN REGARDS TO RUNNING WIRE FOR TAMPER SWITCH.
- 14. ROADWAYS AND BUILDINGS MUST BE CAPABLE OF SUPPORTING FIRE APPARATUS DURING CONSTRUCTION.
- 15. FIRE FLOW ANALYSIS MUST BE PROVEN AT TIME OF BUILDING PERMITS PER THE 2012 NCFPC, SECTION 507.3. THIS IS THE AVAILABLE FIRE FLOW FROM THE HYDRANT AND THE MINIMUM REQUIRED FIRE FLOW CALCULATION FROM 2012 NCFPC APPENDIX B OR OTHER APPROVED METHOD.
- 16. PLANS TO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.

- 17. CONTRACTOR SHALL REPLACE WITH NEW ALL DRIVEWAY PIPES AND OTHER DRAINAGE PIPES/CULVERTS THAT ARE DISTURBED WHILE INSTALLING THE UTILITIES. ALL PIPE/CULVERTS SHALL MEET THE REQUIREMENTS OF NCDOT.
- 18. ALL ROADWAY DITCHES DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION OR BETTER AND CONFORM TO NCDOT REQUIREMENTS. ALL DITCHES SHALL BE LINED WITH EROSION CONTROL MATTING UNLESS OTHERWISE NOTED.
- 19. ALL EXCAVATED MATERIAL SHALL BE PLACED WITHIN THE LIMITS OF DISTURBANCE DURING UTILITY INSTALLATION. THE CONTRACTOR SHALL PROVIDE THE NECESSARY SEDIMENT AND EROSION CONTROL MEASURES TO CONTROL RUN-OFF. ALL EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF LEGALLY.

### CONSTRUCTION SEQUENCE:

- 1. NOTIFY THE STATE OF NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES RRO LQS AT (919) 791-4200 OF CONSTRUCTION COMMENCEMENT AND SCHEDULE PRE-CONSTRUCTION CONFERENCE.
- 2. INSTALL CONSTRUCTION ENTRANCES, SILT FENCE, STONE DRAINS, AND OTHER MEASURES AS SHOWN ON THE APPROVED PLAN. CLEAR ONLY AS REQUIRED TO INSTALL THESE DEVICES.
- 3. BEGIN LIMITED CLEARING AND GRUBBING ACTIVES AS DIRECTED BY THE ENGINEER.
- 4. STOCKPILE TOPSOIL AND SUITABLE FILL MATERIAL. INSTALL SILT FENCE AROUND STOCKPILE AREAS. DISPOSE OF UNSUITABLE SOILS AND ALL OTHER WASTE MATERIALS OFF-SITE IN A LEGAL MANNER. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATIONS OF ALL STOCKPILES AND ALL ADDITIONAL SEDIMENT AND EROSION CONTROLS
- 5. BEGIN EXCAVATION AND TRENCHING ACTIVITIES ONLY AFTER ALL REQUIRED EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- 6. BEGIN CONSTRUCTION AND INSTALLATION OF UTILITY LINE.
- 7. BACKFILL AND ESTABLISH FINISHED GRADE IMMEDIATELY AFTER PIPES HAVE BEEN INSTALLED.
- 8. CONTRACTOR TO CONDUCT A WEEKLY SITE INSPECTION AND AFTER EACH RAINFALL EVENT TO DETERMINE WHICH AREAS CAN BE TEMPORARILY OR PERMANENTLY SEEDED, WHICH DEVICES NEED MAINTENANCE, REPAIR, ETC., AND TO ENSURE THAT THE EROSION CONTROL MEASURES ARE PERFORMING ADEQUATELY. PERFORM ANY NECESSARY MAINTENANCE.
- 9. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE WITH VEGETATION OR STONE BASE. ALL AREAS INDICATED TO BE PAVED SHALL BE STABILIZED WITH STONE AS SOON AS THEY ARE BROUGHT TO FINAL GRADE. MAINTAIN DIVERSIONS, INLET PROTECTION, AND SEDIMENT BASINS UNTIL SITE IS COMPLETELY STABILIZED.
- 10. REMOVE STOCKPILES AND MATERIALS AND DECOMMISSION STAGING AND LAYDOWN AREAS.
- 11. SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS, INCLUDING ALL STORAGE, STAGING, AND OFF-SITE STAGING, IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH ON THE PLANS.
- 12. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED, CALL FOR AN INSPECTION BY AN ENVIRONMENTAL INSPECTOR.
- 13. IF SITE IS APPROVED, REMOVE ANY TEMPORARY DIVERSIONS, SILT FENCES, SEDIMENT TRAPS, ETC., AND RE-GRADE AND SEED OR STABILIZE ANY RESULTING BARE AREAS.
- 14. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY AN ENVIRONMENTAL INSPECTOR. OBTAIN CERTIFICATE OF COMPLETION.

# FIRE & LIFE SAFETY NOTES:

- 1. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE THE FDC OR FIRE HYDRANTS. A 3-FOOT (3') CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF ANY HYDRANT, FDC OR OTHER FIRE DEPARTMENT EQUIPMENT.
- 2. HYDRANTS MUST BE LOCATED WITHIN 8' OF THE CURB.
- 3. A MINIMUM OF 5' SHALL SEPARATE UNDERGROUND FIRE LINES OR PRIVATE WATER MAINS FROM OTHER UNDERGROUND UTILITIES.
- 4. NEW HYDRANTS MUST BE AVAILABLE FOR USE PRIOR TO CONSTRUCTION OF THE BUILDING(S).
- 5. CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- 6. TEMPORARY STREET SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF
- NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
- 7. HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE).
- 8. FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- 9. ADDITIONAL FIRE PROTECTION AND ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- 10. ALL ISOLATION VALVES WITHIN THE "HOT BOX" SHALL BE ELECTRICALLY SUPERVISED. PLEASE WORK WITH YOUR FIRE SPRINKLER AND ALARM INSTALLER IN REGARD TO RUNNING WIRE FOR TAMPER SWITCH.
- 11. ROADWAYS AND BUILDINGS MUST BE CAPABLE OF SUPPORTING FIRE APPARATUS DURING CONSTRUCTION.
- 12. FIRE FLOW ANALYSIS MUST BE PROVEN AT TIME OF BUILDING PERMITS PER THE 2012 NCFPC, SECTION 507.3. THIS IS THE AVAILABLE FIRE FLOW FROM THE HYDRANT AND THE MINIMUM REQUIRED FIRE FLOW CALCULATION FROM 2012 NCFPC APPENDIX B OR OTHER APPROVED METHOD.
- 13. PLANS TO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.
- 14. CONTRACTOR SHALL REPLACE WITH NEW ALL DRIVEWAY PIPES AND OTHER DRAINAGE PIPES/CULVERTS THAT ARE DISTURBED WHILE INSTALLING THE UTILITIES. ALL PIPE/CULVERTS SHALL MEET THE REQUIREMENTS OF NCDOT.
- 15. ALL ROADWAY DITCHES DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION OR BETTER AND CONFORM TO NCDOT REQUIREMENTS. ALL DITCHES SHALL BE LINED WITH EROSION CONTROL MATTING UNLESS OTHERWISE NOTED.
- 16. ALL EXCAVATED MATERIAL SHALL BE PLACED WITHIN THE LIMITS OF DISTURBANCE DURING UTILITY INSTALLATION. THE CONTRACTOR SHALL PROVIDE THE NECESSARY SEDIMENT AND EROSION CONTROL MEASURES TO CONTROL RUN-OFF. ALL EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF LEGALLY.

(UNLESS OTHERWISE DENOTED)

DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED
1' CONTOUR INTERVAL			WOODS LINE		N/A
5' CONTOUR INTERVAL			WATERWAYS	., , , , , , , , , , , , , , , , , , ,	N/A
PROPERTY LINE			TREE PROTECTION FENCE	N/A	TD
ROADWAY CENTERLINE			SILT FENCE	N/A	SF
RIGHT OF WAY LIMITS		N/A	SPOT ELEVATION	(340.17)	339.92
EASEMENT LINE			SFOT ELEVATION	CL	EP EP
CURB & GUTTER			GUY ANCHOR	- <b>⊕</b>	N/A
EDGE OF PAVEMENT			POWER POLE	©	N/A
SANITARY SEWER FACILITIES	——————————————————————————————————————		LIGHT POLE	<b>\$</b>	N/A
STORM SEWER FACILITIES			PROPERTY IRON		N/A
WATERLINE			CURB INLET		N/A
FIRE HYDRANT ASSEMBLY	 <b>⊘</b> —⋈	<del></del>	STORM DRAIN JUNCTION BOX	<u> </u>	N/A
FORCE MAIN	——————————————————————————————————————	FM	YARD INLET		N/A
ELECTRIC		N/A	WATER METER		N/A
OVERHEAD ELECTRIC	—— —— OHE ——	N/A	CONCRETE MONUMENT	·	N/A
GAS MAIN	—— — G ——	N/A	TELEPHONE PEDESTAL	∆ TEL	N/A
TELEPHONE	T	N/A	MAIL BOX	TEL  MB	N/A
STRUCTURES			WATER VALVE	™в Ж	<b>₩</b>
FENCING STRUCTURE	— XX XX XX XX		CHECK DAM	N/A	
TELEVISION PEDESTAL		N/A	INLET PROTECTION	N/A	$\overline{\bigcirc}$
WATER MANHOLE	₩	N/A	SILT FENCE	N/A	<b>Q</b>
TELEPHONE MANHOLE	①	N/A	SILT FENCE OUTLET	N/A	
FLARED END SECTION		N/A	OILT I LITOL OUTLLT	14//	''
SANITARY SEWER MANHOLE	<u> </u>	N/A			
GAS VALVE	×	N/A			
UTILITY MANHOLE	0	N/A			
ELECTRICAL PEDESTAL	<b>⊕</b>	N/A			
SIGN		N/A			
FIBER OPTIC MARKER	App	N/A			
. IDER OF HO WITH CITE	FO				

# CORPUD UTILITY NOTES

- BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
- 2. UTILITY SEPARATION REQUIREMENTS:
- 2.1. A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC 2.2. WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF
- 2.3. ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE 2.4. SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL
- 3. NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL
- 4. 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
- 5. 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
- 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER
- 7. 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)
- 8. ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED
- 9. 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 10. 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
- 11. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS
- 12. 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
- 13. INSTALL ¾" 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
- 14. INSTALL 4" PVC\* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM
- 15. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT **UPSTREAM MANHOLE**
- 16. 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
- 17. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION
- 18. 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
- 19. 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 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

EXISTING CONDITION	ONS LEG	=ND			
EXISTING IRON PIPE IRON PIPE SET	○EIP ○IPS		WATER MI WATER VA	· ·	$\bowtie$
SOLID IRON BAR CONCRETE MONUMENT FOUND	○ IRON BAR		TELEPHON CATCH BA	NE PEDESTAL	△ TL
RAILROAD SPIKE LIGHT POLE	CMF RR		DROP INLI		
PHONE BOX UNDERGROUND	$\bigcirc$				
TRAFFIC SIGNAL BOX	8				
ELECTRIC BOX	E				
ELECTRIC METER	3				
POWER POLE	•				
FIRE HYDRANT	0				
LINETYPES					
PROPERTY LINE				_	
LINE NOT SURVEYED -				_	
WATER LINE -			— W —	_	
RECLAIM WATER	R	R	R	_	
GAS -			- G	_	
TELEPHONE -			– т ———	_	

# ABBREVIATIONS

FDC - FIRE DEPARTMENT CONNECTION BFP - BACKFLOW PREVENTER

MH - MANHOLE

CABC - COMPACTED AGGREGATE BASE COUSE

7

ACCESS EASEMENT RECORDATION SIGNATURE SUBMITTAL 10/21/20

Withers Ravenel Engineers | Planners

ROLESVILLE PUBLIC WORKS FACILITY

VED SURVEY

02210710.00 Drawn By 3/1/2022

25/2022 Designer
PED PED/I

visions

1 TOWN COMMENTS 5/2/202

2 NCDEQ COMMENTS 6/17/202 3 TOWN COMMENTS 7/1/202

4 TOWN COMMENTS 8/12/202

ACCESS EASEMENT RECORDATION 8/23/202

6 SIGNATURE SUBMITTAL 10/21/202

Sheet No.

C0.03

2.10. GRID/GROUND POINT: Y(N) 788,839.69 X(E) 2,162,652.50 ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED. REFERENCES: ALL AREAS DERIVED BY THE COORDINATE COMPUTATION METHOD. DEED BOOK 77 PAGE 521 PROPERTY SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD. THIS DEED BOOK 4836 PAGE 652 PLAT IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND HAS BEEN PREPARED IN CONFORMITY WITH NORTH CAROLINA STANDARDS, G.S. 47-30, AND REQUIREMENTS OF LAW, BUT A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING CORRECT OWNERSHIP, WIDTH, AND LOCATION OF EASEMENTS AND OTHER TITLE QUESTIONS REVEALED BY TITLE EXAMINATION. DEED BOOK 14019 PAGE 601 DEED BOOK 14774 PAGE 682 15.221 ACRES DEED BOOK 14835 PAGE 1205 DEED BOOK 14987 PAGE 2228 663,038 S.F. DEED BOOK 15713 PAGE 1537 LINES NOT SURVEYED ARE SHOWN AS BROKEN LINES FROM INFORMATION DEED BOOK 17536 PAGE 1012 REFERENCED ON THE FACE OF THIS PLAT. DEED BOOK 17687 PAGE 1025 BOOK OF MAPS 1992 PAGE 1175 SUBJECT PROPERTY IS NOT LOCATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FLOOD INSURANCE RATE MAP 3720176800J DATED MAY, 02, 2006. BOOK OF MAPS 1996 PAGE 1213 NCDOT PROJECT PLAN R-2814B CAMERON EDWIN SHEARON & BEVERLY W SHEARON 701 EAST YOUNG STREET LOCATION OF UTILITIES, WHETHER PUBLIC OR PRIVATE, IS BASED UPON FIELD PIN 1768286603 LOCATION OF VISIBLE APPURTENANCES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. WITHERSRAVENEL CANNOT ASSUME RESPONSIBILITY FOR DEED BOOK 17687 PAGE 1025 LAND USE: RESIDENTIAL MISIDENTIFICATION OR OMISSION OF UNDERGROUND UTILITIES. RR SPIKE IN 36" PINE TREE ACCESS EASEMENT 1" = 100' ACCESS EASEMENT AREA = 4590.55 S.F., 0.1054 ACRES <u>LEGEND:</u> PIN = PARCEL IDENTIFICATION NUMBER TYPE OF PLAT D.B. = DEED BOOK P.B. = PLAT BOOK  $\blacksquare$  1. This survey creates a subdivision of Land in an area covered by a subdivision ordinance. PG. = PAGE THIS SURVEY IS OF A LAND IN AN UNREGULATED AREA. S.F. = SQUARE FEET ● IPS = IRON PIPE SET 3. THIS SURVEY IS OF AN EXISTING PARCEL OR PARCELS. O EIP = EXISTING IRON PIPE  $\square$  4. This survey is of another category, such as the recombination of an existing parcel or RW DISK = IRON REBAR SET W/ RIGHT OF WAY DISK ■ CMF = CONCRETE MONUMENT FOUND ☐ 5. FROM INFORMATION AVAILABLE, THE SURVEYORS IS UNABLE TO MAKE A DETERMINATION FROM PROVISION 1-4. EXISTING RIGHT OF WAY (R/W) LINE EXISTING PROPERTY LINE LINE NOT SURVEYED SURVEYOR'S CERTIFICATION FENCE I, STEPHEN B. MULLINS, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN POND / EDGE OF WATER ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED AS SHOWN ON PAE = PROPOSED ACCESS EASEMENT 1 inch = 100 ft. HEREON): THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION SHOWN ON THE FACE OF THIS MAP; THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY AS CALCULATED IS 1:25,000+; AND THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 27th FP 22-10 DAY OF JUNE, A.D. 2022. DocuSigned by: 8/19/2022 DATE: 6-29-2022 Styppen B Millins VISIONS: A BOUNDARY SURVEY OF: SCALE: 1"=100' Tomments 8-8-2022 ─ DFS年官PP1在4中25年4月21上INS, PROFESSIONAL LAND SURVEYOR ROLESVILLE PUBLIC WORKS FACILITY LICENSE NUMBER L-3059. SURVEYED BY: ANDY B

OWNED BY: THE TOWN OF ROLESVILLE

OWNSHIP: WAKE FOREST

P.I.N.: 1768381703

COUNTY: WAKE

ZONING: RW40

805 EAST YOUNG STREET, DEED BOOK 18520 PAGE 2293

SHEET: 1 of 1

STATE: NORTH CAROLINA

115 MacKenan Drive | Cary, NC 27511

t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

DRAWN BY: BURB

CHECK & CLOSURE BY: BURB

PROJECT NO: 02210710

CAD FILE: Rolesville PW Plat.dwg

Submitted electronically by "WithersRavenel" in compliance with North Carolina statutes governing recordable documents and the terms of the submitter agreement with the Wake County Register of Deeds.

K:121/21-0710/210710-Rolesville Public Works Facility/Geomatics/Survey/Res-Com/Drawings/Rolesville PW Plat.dwg- Friday, August 19, 2022 10:19:42 AM - MULLINS, BURB

LESVILLI ORKS F ROLE

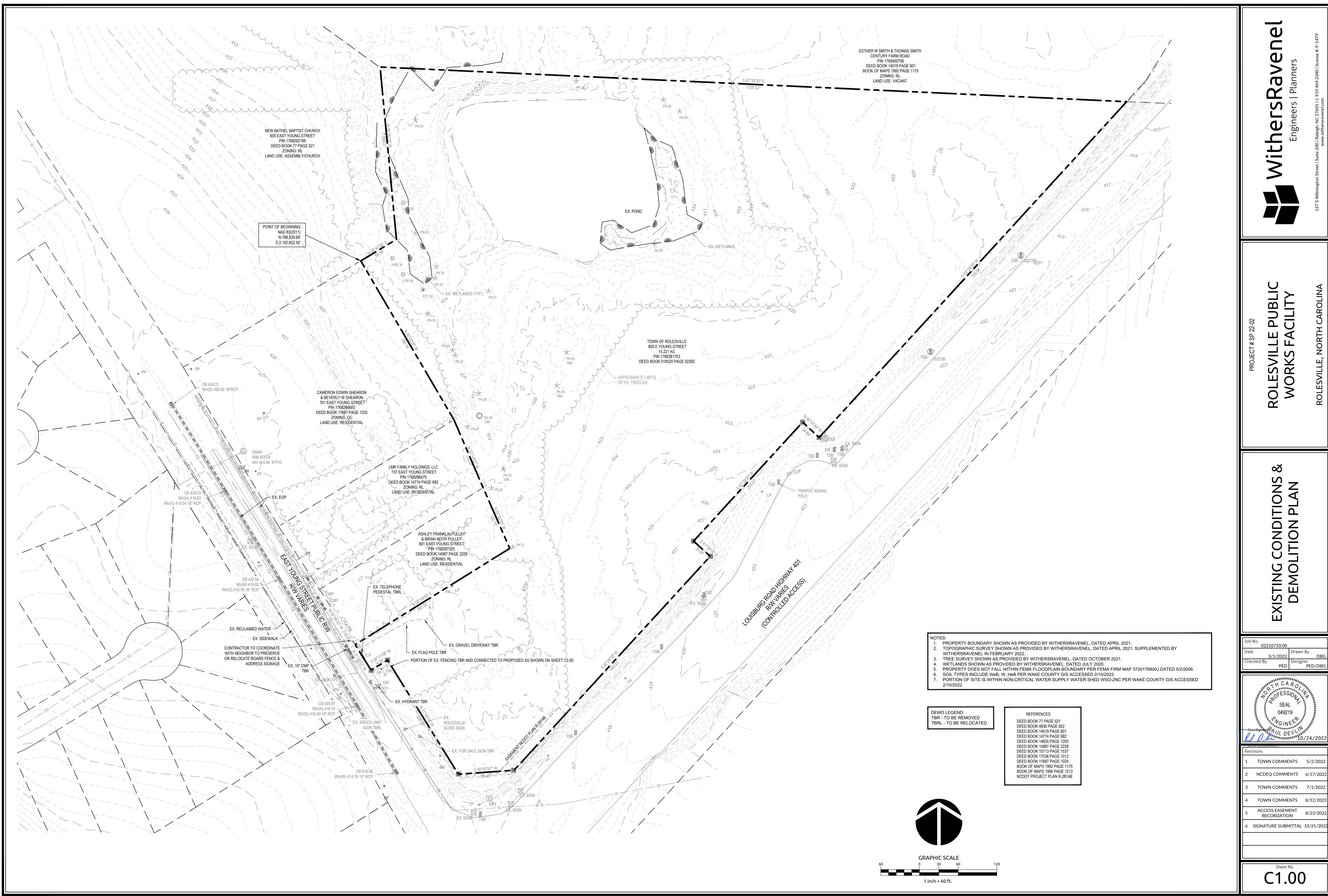
TOWN COMMENTS 5/2/202 NCDEQ COMMENTS 6/17/202

3 TOWN COMMENTS 7/1/202

TOWN COMMENTS 8/12/202 ACCESS EASEMENT 8/23/2022

RECORDATION 6 SIGNATURE SUBMITTAL 10/21/202

C0.04

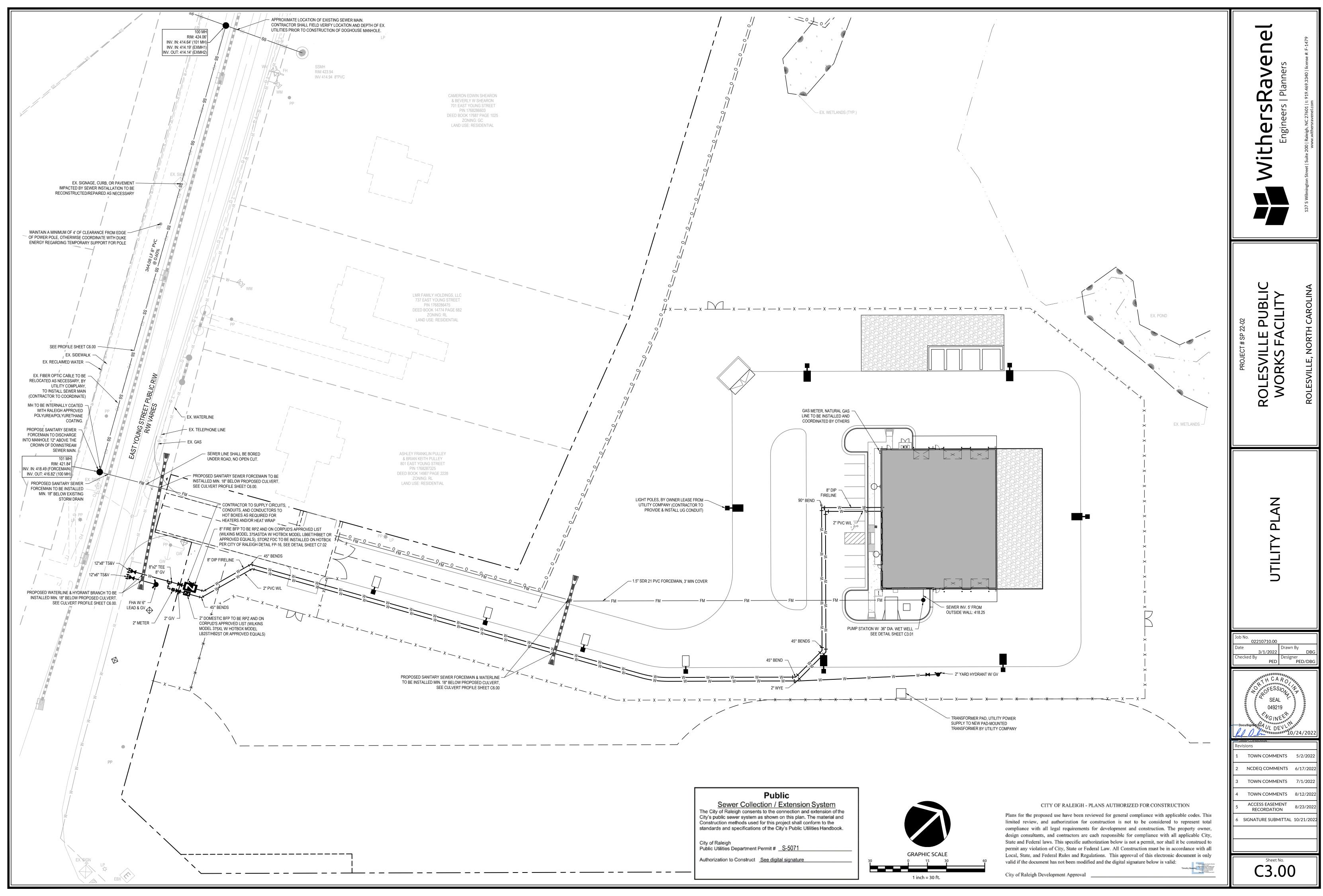


C2.00

1 inch = 30 ft.

S 42°30'38" W

EASEMENT NCDOT PLAN R-2814B



PLAN

PUMP STATION PARAMETERS

25 GPM

208 V

63 INCHES

00 INCHES

06 INCHES

06 INCHES

06 INCHES

18 INCHES

36 INCHES

36 INCHES (MIN)

PANEL 40A

**∠** 230V-1Ø

COVER

3,500 RPM (MAX)

PUMPING RATE

MOTOR SPEED

Α

С

WEATHERPROOF

WEATHERPROOF

WEATHERPROOF

POWER RISER DETAIL

BREAKER BOX

WIRED TO PANEL

GENERATOR PLUG

(TWIST LOCK)

(INSTALL 25A 2P BREAKER)

2#12 W#8 GR IN 2" CONDUIT

POWER VOLTAGE

PHASE

TOTAL DYNAMIC HEAD 34 FT

	NEMA 3R LOCKABLE FIBERGLASS CONTROL PANEL
	LOCKABLE FIBERGLASS ACCESS COVER  VENT WITH 304 SS INSECT SCREEN  SEAL OFF FITTING  PVC CONDUIT AND  FITTINGS AS REQUIRED  UPPER RAIL BRACE  304 SS EXTENSION HANDLE  REQUIRED TO BRING HANDLE TO WITHIN 6" OF TOP OF BASIN  304 SS EXTENSION BRACE REQUIRED  FOR USE WITH EXTENSION HANDLE
	A SCH 80 GALVANIZED LIFTOUT RAILS INLET PIPE INLET GROMMET INVERT IN  INVERT IN  PVC TRUE UNION BALL VALVE  REDUCER AS REQUIRED DISCHARGE HUB PVC CHECK VALVE
ONTROL ANEL IA IOV-1Ø E RATED OCKING OVER	ALARM ON  B  PVC UNION  SCH 80 PVC DISCHARGE PIPE  LEAD PUMP ON  D  304 SS PIPE SUPPORT FOR VERTICAL PIPE LENGTH > 10 FT  304 SS LIFTING CHAIN  GRINDER PUMP
OMNI-SITE OMNI-BEACON ALARM DIALER/LIGHT OR APPROVED EQUAL	FIBERGLASS PUMP BASIN  E  DISCHARGE ELBOW  PUMP OFF
#8 COPPER GROUNDING ELECTRODE CONDUCTOR BONDED TO DRIVEN 10'X3/4" GROUND ROD. GROUND TO EQUIPMENT GROUNDING CONDUCTOR.	G CONCRETE ANTI-FLOTATION BASE 10 CU FT MIN

DUPLEX GRINDER PUMP STATION NOT TO SCALE

<u>SECTION</u>

- 1. THE BEDDING AND EMBEDMENT MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY FOR CLASS I
- 2. A MINIMUM COVER OF 36" SHALL BE MAINTAINED OVER ALL INSTALLED
- 4. DUPLEX PUMP CONTROL PANEL INCLUDES INDIVIDUAL CIRCUIT BREAKERS, MOTOR STARTER, TERMINAL STRIP AND GROUND BUS IN A LOCKABLE NEMA 3R ENCLOSURE. THE CONTROLLER SHALL HAVE THREE LEVEL SENSING POINTS: PUMP OFF, PUMP ON, AND HIGH WATER ALARM. CONTROL PANEL AND CONTROLS SHALL BE SUPPLIED
- EXTERIOR AT THE OWNERS OPTION OR POST-MOUNTED 36" ABOVE
- 6. THE ALARM CIRCUIT SHALL SENSE HIGH WATER LEVEL AND INITIATE THE ALARM. AN ALARM RESET SWITCH AND ALARM TEST SWITCH SHALL BE PROVIDED ON THE CONTROL PANEL DOOR. A HIGH VISIBILITY RED ALARM LIGHT AND AUDIBLE ALARM SHALL BE MOUNTED ON THE EXTERIOR OF THE PANEL.

- SWITCH SUPPLIED BY THE MANUFACTURER.
- RECOMMENDATIONS. 7. A RECEPTACLE (120 VOLTS) WITH GROUND FAULT PROTECTION AND A
- 8. UNDERGROUND ELECTRICAL CONDUIT SHALL BE SCHEDULE 40 PVC
- 6. THE ELECTRICAL COMPONENTS SHALL BE CONNECTED TO THE PROPERTY OWNER'S MAIN CONTROL PANEL IN ACCORDANCE WITH NEC AND ANY APPLICABLE STATE AND LOCAL CODES. CONTRACTOR
- 7. ACCEPTABLE PUMP MANUFACTURERS ARE ABS, HYDROMATIC,
- 8. THE ALARM DIALER/LIGHT SHALL BE THE OMNI-SITE OMNI-BEACON OR APPROVED EQUAL.

- 3. SHOP DRAWINGS OF PUMP STATION MUST BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- BY PUMP MANUFACTURER.
- 5. THE CONTROL PANEL AND ALARM MAY BE ATTACHED TO THE BUILDING GRADE AT A LOCATION CONVENIENT TO THE OWNER.
- 7. LAG PUMP TO HAVE A STAGGERED START SO BOTH PUMPS CANNOT BE STARTED SIMULTANEOUSLY.
- 8. LIQUID LEVEL SENSOR SHALL BE ADJUSTABLE LEVEL MERCURY FLOAT
- 6. POSITION THE FLOATS IN ACCORDANCE WITH MANUFACTURER'S
- WATER PROOF COVER SHALL BE MOUNTED ON THE EXTERIOR OF THE PUMP CONTROL PANEL.
- DIRECT BURIAL WITH A MINIMUM DEPTH OF 30". ABOVE GROUND ELECTRICAL CONDUIT SHALL BE RIGID GALVANIZED STEEL.
- 9. WET WELL SHALL BE ATTACHED TO THE CONCRETE ANCHOR TO PREVENT FLOTATION.
- 10. ALL CONTROLS AND WIRING SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ANY APPLICABLE STATE AND LOCAL CODES.
- TO OBTAIN ALL LOCAL PERMITS REQUIRED.
- LIBERTY, OR APPROVED EQUAL.

# Public

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

Public Utilities Department Permit # S-5071

Authorization to Construct See digital signature

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be considered to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractors are each responsible for compliance with all applicable City, State and Federal laws. This specific authorization below is not a permit, nor shall it be construed to permit any violation of City, State or Federal Law. All Construction must be in accordance with all Local, State, and Federal Rules and Regulations. This approval of this electronic document is only valid if the document has not been modified and the digital signature below is valid:

City of Raleigh Development Approval

PUBLIC CILITY

SOLESVILLE WORKS FA

TOWN COMMENTS 5/2/202

NCDEQ COMMENTS 6/17/202

TOWN COMMENTS 7/1/2022

TOWN COMMENTS 8/12/202

ACCESS EASEMENT 8/23/2022 SIGNATURE SUBMITTAL 10/21/202

EASEMENT NCDOT PLAN R-2814B

S 42°30'38" W

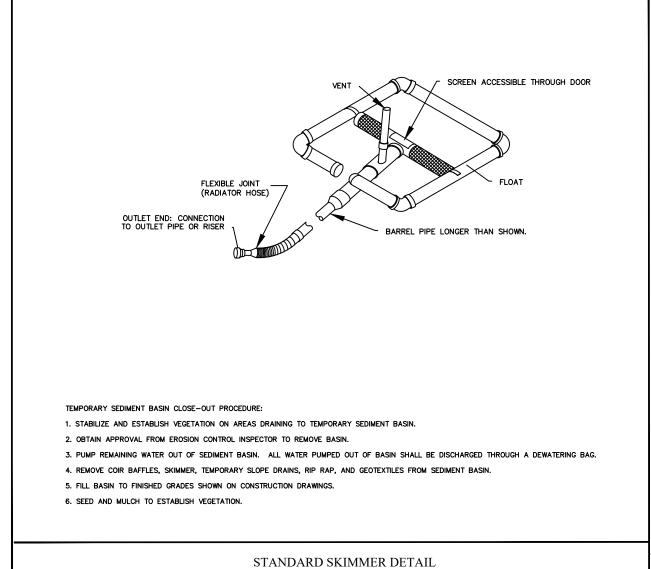
CLEAN WATER DIVERSION (CWD 2) -

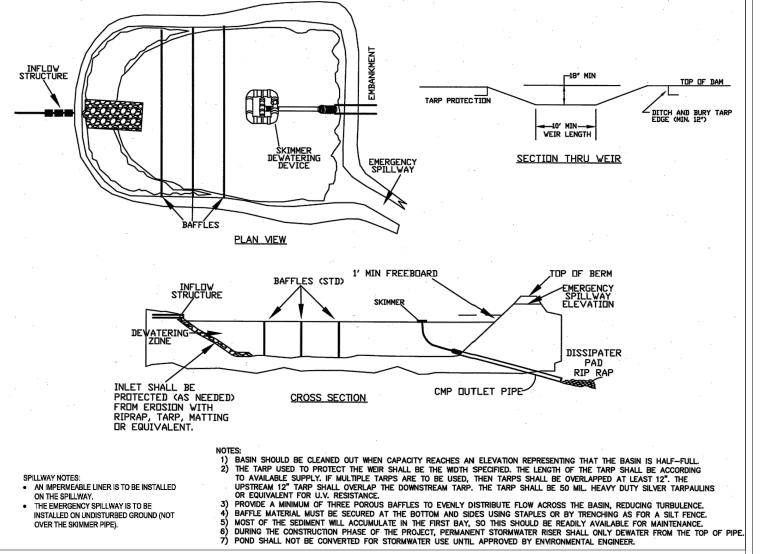
TOWN COMMENTS 5/2/202

NCDEQ COMMENTS 6/17/202 TOWN COMMENTS 7/1/202

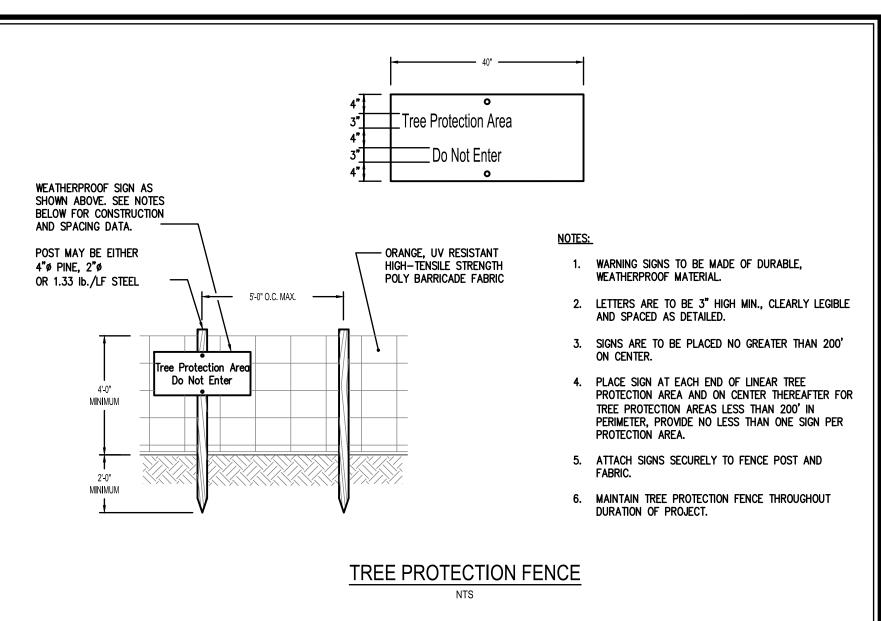
TOWN COMMENTS 8/12/202

RECORDATION





STANDARD SKIMMER BASIN DETAIL



BACKFILL TRENCH

AND COMPACT THOROUGHLY

> FILTER FABRIC TO BE BURIED UNDER EXISTING GRADE

8' MAX CENTER STANDARD STRENGTH FABRIC WITH WIRE FENCE

WIRE FENCE

MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

HAS BEEN PROPERLY STABILIZED.

6' MAX CENTER EXTRA STRENGTH FABRIC WITHOUT WIRE FENCE

FILTER FABRIC

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL.

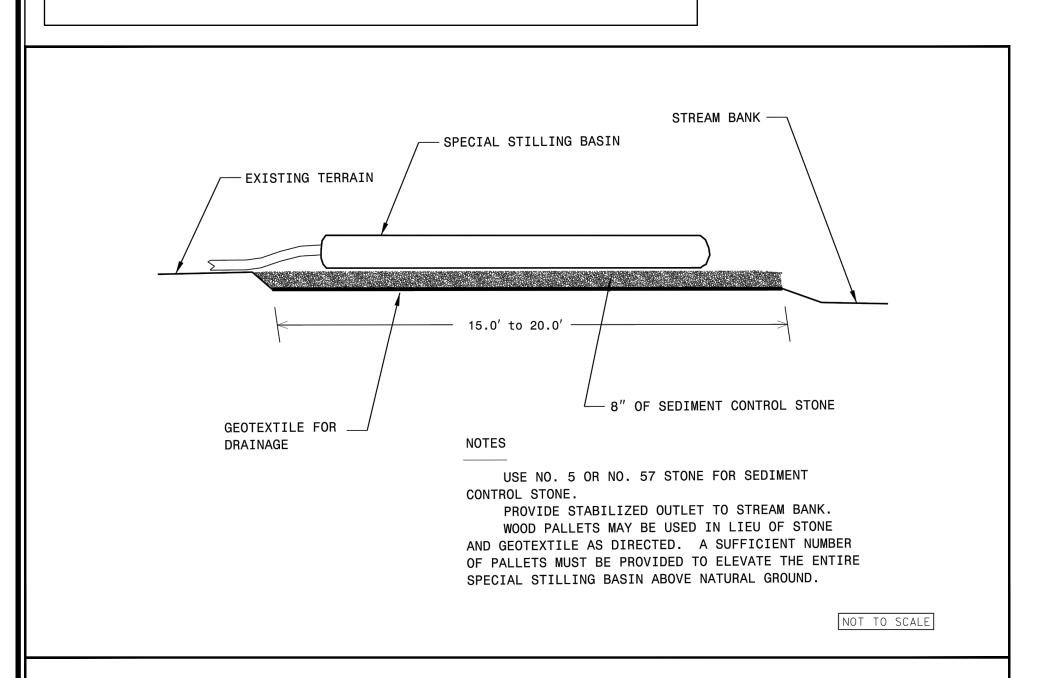
REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE

VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE

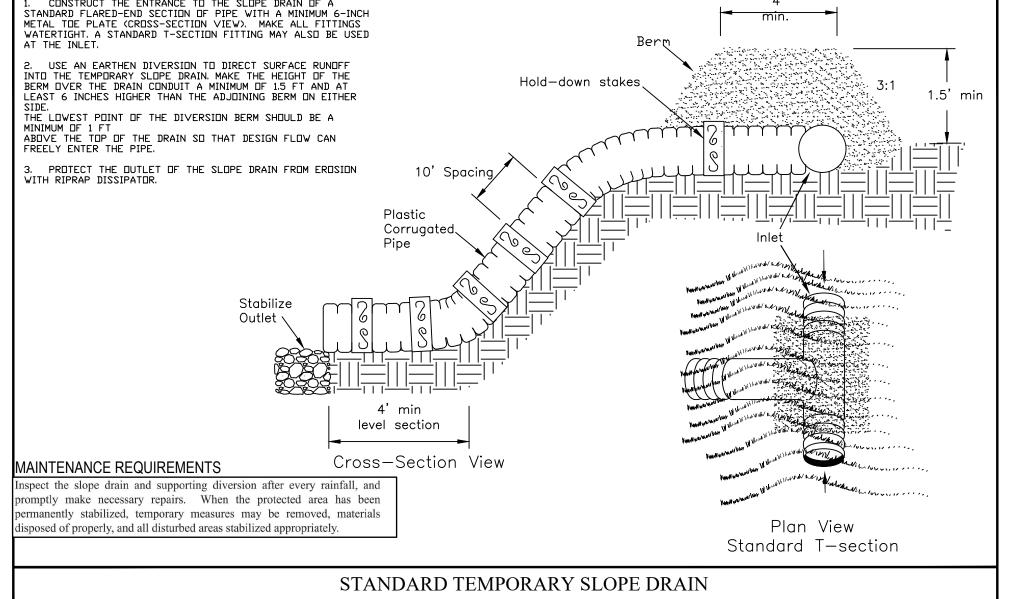
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA

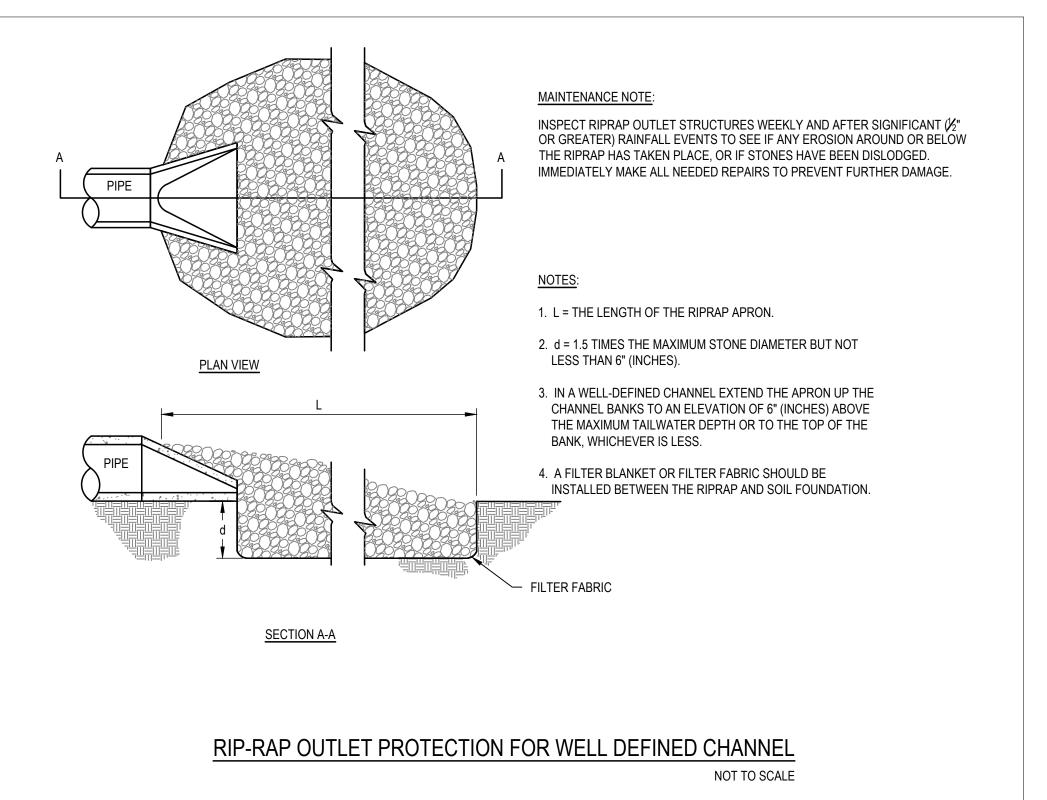
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR

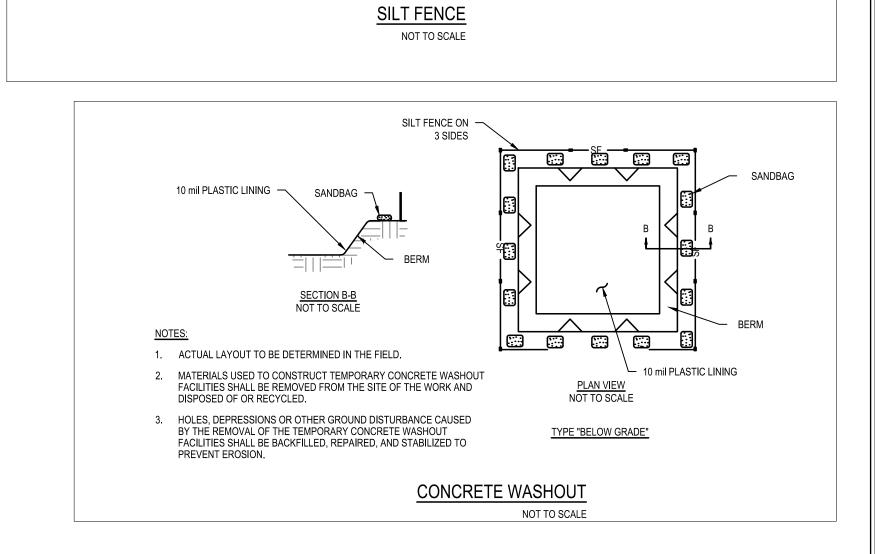
CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.

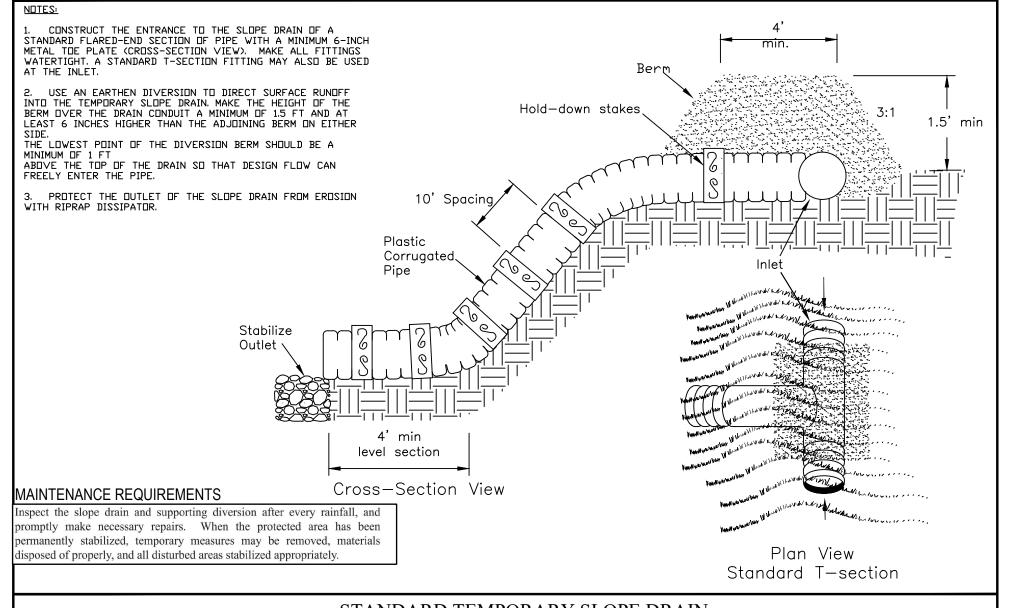


SILT BAG STILLING BASIN FOR SKIMMER BASIN DECOMISSIONING





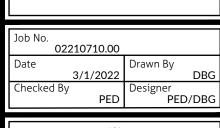


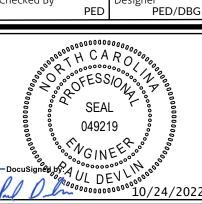




**PUBLI** 

OLESVI WORK!



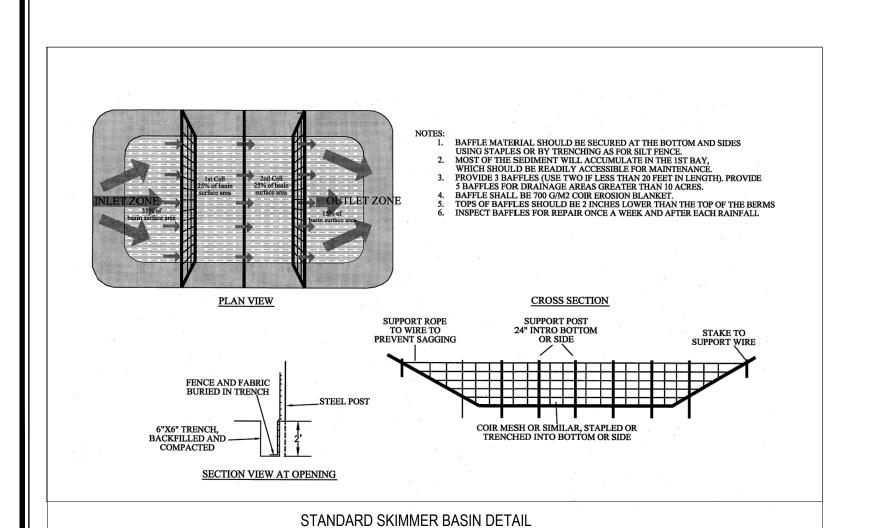


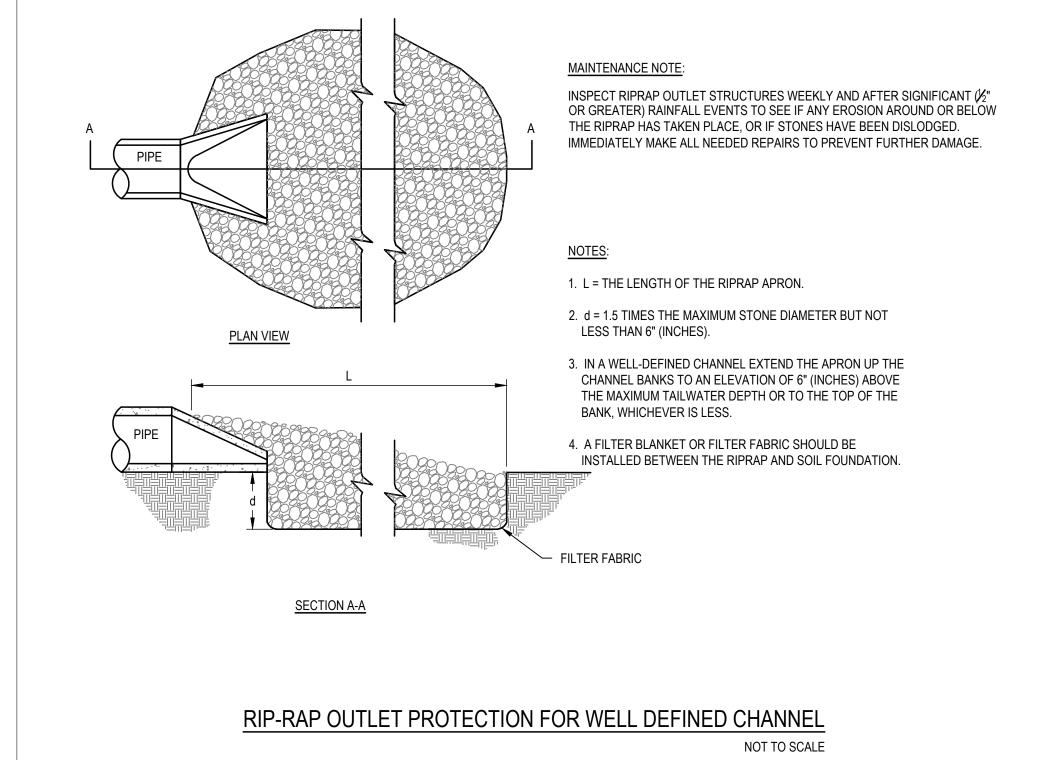
TOWN COMMENTS 5/2/202 NCDEQ COMMENTS 6/17/202

TOWN COMMENTS 7/1/202

TOWN COMMENTS 8/12/202

ACCESS EASEMENT RECORDATION





- ALL LAND DISTURBING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL STANDARDS AND PRACTICES PRESCRIBED BY NCDEQ.
- NOTIFY NCDEQ AT 919-791-4200 OF CONSTRUCTION COMMENCEMENT AND SCHEDULE PRE-CONSTRUCTION CONFERENCE IF REQUIRED BY STORMWATER MANAGER.
- EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED
- BEFORE ANY LAND DISTURBING ACTIVITIES (INCLUDING TIMBERING AND DEMOLITION) OCCUR. FLAG PROPERTY LINES, EASEMENTS, BUFFERS, AND TREE PROTECTION AREAS.
- INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCE, SILT FENCE, AND SILT FENCE OUTLETS PRIOR TO ANY LAND DISTURBING ACTIVITIES (INCLUDING ANY TREE CLEARING OR DEMOLITION). CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES AS SPECIFIED ON THE APPROVED PLAN SHEET. INSTALL ALL OTHER EROSION CONTROL MEASURES AS REQUIRED BY NCDENR INCLUDING SEDIMENT BASINS, BARRIERS, AND DIVERSION DITCHES AS NEEDED. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. INSTALL DITCH LINERS AND TEMPORARY CULVERT PIPE AS NOTED ON PLANS. SEED TEMPORARY DIVERSIONS, BERMS, AND BASINS IMMEDIATELY AFTER INSTALLATION. INSTALL COIR WATTLES OR CHECK DAMS IN TEMPORARY DIVERSIONS.
- BEGIN LIMITED CLEARING AND GRUBBING ACTIVES AS DIRECTED BY THE OWNER AND ROUGH GRADE SITE
- STOCKPILE TOPSOIL AND SUITABLE FILL MATERIAL. INSTALL SILT FENCE AROUND STOCKPILE AREAS. DISPOSE OF UNSUITABLE SOILS AND ALL OTHER WASTE MATERIALS OFF-SITE IN A LEGAL MANNER. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATIONS OF ALL STOCKPILES AND ALL ADDITIONAL SEDIMENT AND EROSION CONTROLS MEASURERS REQUIRED.
- 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.
- ONCE STORM SEWER IS INSTALLED AND INLETS ARE PROTECTED, REMOVE/REVISE TEMPORARY DIVERSIONS AS SHOWN ON THE PLANS.
- 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.
- 11. GROUNDCOVER SHALL BE PROVIDED IN ACCORDANCE TO THE GROUND STABILIZATION CHART.
- SELF-INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL ESC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING.
- MAINTENANCE TO CONSIST OF REMOVE SEDIMENT FROM CHECK DAMS AND FROM BEHIND SILT FENCES, MAKE NECESSARY REPAIRS AS DIRECTED BY INSPECTOR, OWNER, OR ENGINEER.
- THE CONTRACTOR SHALL FAITHFULLY MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO ENSURE THAT NO SILT LEAVES THE PROJECT SITE AND ENTERS ANY NATURAL STREAM OR WATERWAY AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES AND COMPETE THE FOLLOWING COMBINED SELF-INSPECTION FORM FOUND ON THE DEMLR WEBSITE (HTTPS://DEQ.NC.GOV/ABOUT/DIVISIONS/ENERGY-MINERAL-LAND-RESOURCES/EROSION-SEDIMENT-CONTROL/FORMS.) TWELVE MONTHS OF COMPLETE INSPECTION FORMS SHALL BE KEPT ON-SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS RECOMMENDED A COPY BE KEPT IN A PERMITS BOX.
- ALL EXISTING VEGETATION NOT SCHEDULED FOR REMOVAL SHALL BE PROTECTED VIA TREE PROTECTION FENCING. LOCATE FENCING AS FAR AS PRACTICABLE FROM THE VEGETATION THE FENCE IS TO PROTECT.
- STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE WITH VEGETATION OR STONE BASE. ALL AREAS INDICATED TO BE PAVED SHALL BE STABILIZED WITH STONE AS SOON AS THEY ARE BROUGHT TO FINAL GRADE. MAINTAIN DIVERSIONS, INLET PROTECTION AND SEDIMENT BASINS UNTIL SITE IS COMPLETELY STABILIZED.
- 18. SLOPES SHALL BE NO STEEPER THAN 2:1 FOR VEGETATIVE COVER.
- 19. SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS, INCLUDING ALL STORAGE, STAGING, AND OFF SITE STAGING. IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH ON THE PLANS.
- PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE. SEDIMENT BASINS MAY NOT BE REMOVED OR CONVERTED TO PERMANENT SCMS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. NC DEQ SHOULD BE NOTIFIED 10-DAYS PRIOR TO REMOVAL OF A BASIN.
- WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED, CALL NCDEQ @ 919-791-4200 FOR AN INSPECTION BY AN ENVIRONMENTAL INSPECTOR.
- 22. IF SITE IS APPROVED, REMOVE ANY TEMPORARY DIVERSIONS, SILT FENCES, SEDIMENT TRAPS, ETC., AND REGRADE AND SEED OR STABILIZE ANY RESULTING DISTURBED AREAS.
- 23. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL NCDEQ @ 919-791-4200 FOR A FINAL SITE INSPECTION.
- 24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES SHOWN ON THE DRAWINGS. UTILIZE SILT BAG FOR DECOMISSIONING OF PROPOSED SKIMMER SEDIMENT BASIN. SEE DETAIL SHEET C5.03. THE SILT BAG SHALL BE CONTINUOUSLY MONITORED DURING OPERATION.
- 25. THE CONTRACTOR SHALL PROVIDE ADDITIONAL SILT FENCING AROUND SPOIL PILES AT BORING PITS IF PIT IS LEFT OPEN OVERNIGHT OR IF A RAIN EVEN IS EMINENT. PLASTIC SHEETING MAY ALSO BE USED TO COVER PILES.
- 26. WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN.

# NARRATIVE:

## PROJECT DESCRIPTION

ROLESVILLE PUBLIC WORKS FACILITY IS LOCATED ON THE NORTHWEST CORNER OF LOUISBURG ROAD (HIGHWAY 401) AND EAST YOUNG STREET. THE PURPOSE OF THIS PROJECT IS TO PROVIDE CLEARING, GRUBBING, INSTALLATION OF EROSION CONTROL DEVICES, GRADING, AND INSTALLATION OF UTILITIES AS REQUIRED FOR THE AFOREMENTIONED DEVELOPMENT.

ALL AREAS DISTURBED BY CONSTRUCTION WILL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING WILL CONSIST OF GRASSES TYPICAL OF THE AREA AND INSPECTION AND MAINTENANCE PERFORMED TO CONFIRM ESTABLISHMENT.

# 3. PLANNED EROSION AND SEDIMENTATION CONTROL PRACTICES

# A. STOCKPILES

STOCKPILES WILL BE USED WHEN THE STORAGE OF EXCESS FILL MATERIAL IS NECESSARY. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATIONS OF ALL STOCKPILES AND ALL ADDITIONAL SEDIMENT AND EROSION CONTROLS MEASURERS REQUIRED. STOCKPILES SHOULD BE STABILIZED AND/OR SURROUNDED WITH SEDIMENT FENCE TO PREVENT RUNOFF.

# B. CONSTRUCTION ENTRANCES

CONSTRUCTION ENTRANCES WILL BE PROVIDED TO REDUCE EROSION OF SEDIMENT INTO WETLANDS AND WATERWAYS CAUSED BY HEAVY TRUCKS AND MACHINERY ENTERING AND LEAVING THE PROJECT SITE. THIS PRACTICE ALSO PLAYS AN IMPORTANT ROLE IN COMMUNITY PERCEPTION OF THE PROJECT BY MINIMIZING THE DIRT AND MUD THAT IS TRACKED ONTO STREETS.

### C. SILT FENCE

SEDIMENT FENCE WILL BE CONSTRUCTED AS NECESSARY TO PREVENT SEDIMENT FROM ENTERING DITCHES AND ADJACENT WATERWAYS.

# D. SILT FENCE OUTLETS/STONE DRAINS

SILT FENCE OUTLETS SHALL BE INSTALLED ALONG THE SILT FENCE AT LOCATIONS WERE SIGNS OF CONCENTRATED FLOW OCCUR AND WILL BE FIELD ADJUSTED AS REQUIRED. THE STONE DRAINS ARE USED TO LET WATER TRAPPED BEHIND THE SILT FENCE TO ESCAPE DOWNSTREAM HELPING TO PREVENT THE WEIGHT OF DETAINED WATER FROM COLLAPSING THE SILT FENCE AND ALLOWING TRAPPED SEDIMENT TO ENTER ADJACENT PROPERTY, WETLANDS, AND WATERWAYS.

### E. EROSION CONTROL MATTING

EROSION CONTROL MATTING SHALL BE USED ON DISTURBED DITCHES AND SWALES. MATTING IS INTENDED TO STABILIZE SOIL ON DISTURBED SLOPES WHILE HOLDING SEED AND MULCH IN PLACE ALLOWING VEGETATION TO BECOME ESTABLISHED. DEPENDING UPON THE SLOPE AND DEPTH OF ANTICIPATED RUNOFF, DIFFERENT MATTING TYPES MAY BE NECESSARY FOR DIFFERENT APPLICATIONS.

### F. EROSION CONTROL STONE

EROSION CONTROL STONE SHALL BE USED ON DISTURBED CREEK AND STREAM CROSSINGS. EROSION CONTROL STONE IS INTENDED TO STABILIZE SIDES AND BOTTOMS ON DISTURBED CREEK AND STREAM CROSSINGS WHILE ALLOWING VEGETATION TO BECOME ESTABLISHED. DEPENDING UPON THE SLOPE AND DEPTH OF ANTICIPATED RUNOFF, DIFFERENT GRADES OF EROSION CONTROL STONE MAY BE NECESSARY FOR DIFFERENT APPLICATIONS.

## G. SEEDING, FERTILIZING, AND MULCHING

SEEDING, FERTILIZING, AND MULCHING ARE A PERMANENT FORM OF EROSION CONTROL. GROUNDCOVER SHALL BE PROVIDED WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. PERMANENT GROUNDCOVER SHALL BE PROVIDED FOR ALL DISTURBED AREAS WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES.

# **EROSION CONTROL NOTES:**

- 1. RECEIVING WATERSHED: NEUSE RIVER BASIN
- 2. TOTAL LIMITS OF CONSTRUCTION/LIMITS OF DISTURBANCE = ±4.9 ACRES.
- 3. ANY AREA DISTURBANCES BY CONTRACTOR NOT SHOWN ON THE CONSTRUCTION DRAWINGS ARE TO BE PERMITTED THROUGH THE APPROPRIATE PERMITTING AGENCY.
- 4. PURSUANT TO G.S. 113A-57(2), THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT
- CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICE OR STRUCTURE. 5. PROVIDE A ROLLED EROSION CONTROL PRODUCT (RECP) TO STABILIZE DISTURBED DITCHES IF ANY SIGNS OF SCOURING
- ARE EVIDENT EVEN IF NO RECP HAS BEEN SHOWN ON THE CONSTRUCTION DRAWINGS.
- NO STOCK OR WASTE PILES ARE ALLOWED WITHIN 50' OF STREAMS OR DRAINAGE STRUCTURES.
- 7. WHERE DEWATERING OF TRENCHES, PITS, AND OTHER EXCAVATIONS BECOMES NECESSARY THE DISCHARGE MUST BE DIVERTED TO A SEDIMENT FILTER BAG BEFORE BEING DISCHARGED TO THE GROUND.
- 8. ADEQUATE EROSION CONTROL MEASURES MUST BE INSTALLED, MAINTAINED, AND ADJUSTED AS NEEDED DURING THE DEMOLITION OR CLEARING AND GRUBBING PHASES AS WELL AS THROUGHOUT THE LIFE OF THE PROJECT AND UNTIL PERMANENT VEGETATION IS ESTABLISHED.

# **SEED BED PREPARATION:**

- 1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, WITH STOCKPILED TOPSOIL. CONTRACTOR SHALL RESERVE SUFFICIENT TOPSOIL FOR SEEDBED PREPARATION.
- 2. RIP THE ENTIRE AREA TO 6 INCH DEPTH.
- REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
- APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPER-PHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW\*).
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
- 6. 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 IS LESS THAN 60% ESTABLISHED, THE ENTIRE AREA SHALL BE RESEEDED ACCORDING TO SPECIFICATIONS USING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- 9. CONSULT A CONSERVATION INSPECTOR ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

# \*APPLY:AGRICULTURAL LIMESTONE - 2 TONS/ACRE (3 TONS/ACRE IN CLAY SOILS) FERTILIZER - 1,000 LB/ACRE -

SUPER-PHOSPHATE - 500 LB/ACRE - 20% ANALYSIS MULCH - 2 TONS/ACRE - SMALL GRAIN STRAW ANCHOR - ASPHALT EMULSION @ 300 GALS/ACRE

# SEEDING AND MULCHING:

SEEDING AND MULCHING SHALL BE CARRIED OUT IMMEDIATELY BEHIND CONSTRUCTION IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

# SHOULDERS, SIDE DITCHES, SLOPES (3:1 MAX.)

DATE	TYPE	PLANTING/ACRE
AUG 15 - NOV 1	TALL FESCUE	300 LBS
NOV 1 - MAR 1	TALL FESCUE & ABRUZZI RYE	300 LBS.
MAR 1 - APR 15	TALL FESCUE	300 LBS.
APR 15 - JUNE 30	HULLED COMMON BERMUDA GRASS	25 LBS.
JULY 15 - AUG 15	TALL FESCUE AND	35 LBS.
	*** BROWN TOP MILLET OR	
	*** SORGHUM-SUDAN HYBRIDS	3

# SLOPES (3:1 TO 2:1)

	010. 10 (0)	
DATE	TYPE	PLANTING/ACRE
MAR 1 - JUNE 1	SERICEA LESPEDEZA (SCARIFIED) AND	50 LBS.
MAR 1 - APRIL 15	ADD TALL FESCUE AND	120 LBS.
MAR 1 - JUNE 30	ADD HULLED COMMON BERMUDA GRASS	25 LBS.
JUNE 1 - SEP 1	*** TALL FESCUE AND	120 LBS.
	*** BROWN TOP MILLET OR	35 LBS.
	*** SORGHUM-SUDAN HYBRIDS	30 LBS.
SEP 1 - MAR 1	SERICEA LESPEDEZA (UNHULLED-UNSCARIFIED)AND	70 LBS.
	TALL FESCUE	120 LBS.
NOV 1 - MAR 1	ADD ABRUZZI RYE	25 LBS.

\*\*\*TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO

NOT ALLOW TEMPORARY COVER TO GROW OVER 12 INCHES IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED

A CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE SHALL BE CONSULTED FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS: OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE. ANY VARIATION FROM THIS LIST SHALL BE PRE-APPROVED BY THE TOWN.

# **EROSION CONTROL SELF INSPECTION:**

NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS MUST BE CONDUCTED AFTER EACH PHASE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 AND 15A NCAC 4B.0131. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION\_NEW.HTML. IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE

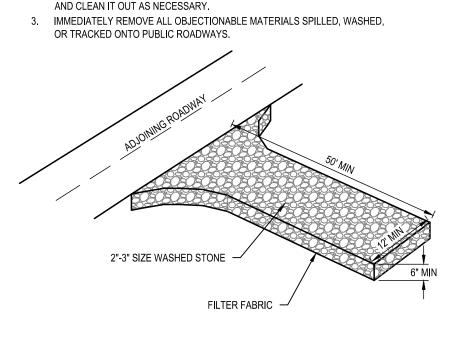
FORM, PLEASE CONTACT THIS OFFICE AT (919) 791-4200.

GROUND STABILIZATION CHART								
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS						
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' IN LENGTH.						
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.						

- 1. USE 2"-3" WASHED STONE. PAD TO BE 100'L X 15'W X 8"D AT A
- TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE
- ENTRANCE SHOULD BE LOCATED TO PROVIDE FOR MAXIMUM
- UTILITY BY ALL CONSTRUCTION VEHICLES.
- APPLICABLE AT ALL POINTS OF INGRESS EGRESS UNTIL SITE IS STABILIZED, FREQUENT CHECKS OF THE DEVICE & TIMELY MAINTENANCE MUST BE PROVIDED.
- WHEN TEMPORARY CONSTRUCTION ENTRANCES ARE LOCATED ON PAVED SURFACES, PLACE MINIMUM OF 2" OF SCREENINGS OR SAND TO HELP FACILITATE IN CLEAN-UP & SITE

# MAINTENANCE NOTES:

- 1. MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC
- TOPDRESSING WITH 2-INCH STONE
- 2. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT



CONSTRUCTION ENTRANCE

# TEMPORARY SKIMMER BASIN AND ORIFICE DESIGN SUMMARY DRAINAGE DENUDED C PEAK DEPTH LENGTH WIDTH WIDTH WEIR VOLUME VOLUME SURFACE SURFACE SKIMMER ORIFICE SIZE BASIN (AC) (AC) (CFS) (FT) (FT) (FT) (CF) (CF) (SF) (SF) (IN) (IN) SSB #1 SKIMMER 3.60 2.54 0.40 10.38 2.0 SEE EC PLANS 12 4,572 6,177 3,374 3,569 2 1.5

NOTES: 1' OF FREEBOARD PROVIDED

SURFACE AREA REQUIREMENT FOR SKIMMER SEDIMENT BASIN = 325 SF/CFS VOLUME REQUIREMENT FOR SKIMMER SEDIMENT BASIN & SEDIMENT BASIN = 1,800 CF/AC DRAINAGE AREA

RAINFALL INTENSITY = 7.19 IN/HR

SKIMMER SIZ	ING
ORIFICE EQUATION	Cd = 0.60
$Q = Cd^*A^*(2gh)^{(1/2)}$	g = 32.2ft/s2
VOLUME PROVIDED =	6,177.00 CF
DRAWDOWN TIME =	3 days
SKIMMER SIZE =	2.0 IN
HEAD =	0.167 FT
ORIFICE AREA =	0.012 SF
GIAIT TOE / INE/	1.746 sq. in
MIN ORIFICE DIAMETER =	1.49 IN
ORIFICE DIAMETER USED =	1.50 IN
ACTUAL DRAWDOWN TIME =	2.91 days

TOP OF SILT FENCE MUST BE AT LEAST 1' ABOVE THE TOP OF THE WASHED STONE	4' MIN.  SILT FENCE  AD MARIA AND AD	
STEEL FENCE POST  WIRE FENCE  HARDWARE CLOTH  FILTER OF #57	FRONT VIEW  BURY WIRE FENCE, FILTER FABRIC, AND HARDWARE CLOTH IN TRENCH  STEEL FENCE POST SET MAX 2' APART MIN. 18' INTO SOLID GROUND	
BURY WIRE FENCE AND HARDWARE CLOTH  WASHED STONE  16"  3' FILTER FAE ON GROUND  BURY 6" OF UPI FILTER FABRIC	NOTES:  1. REMOVE SEDIMENT WHEN HALF OF STONE OUTLET IS 2. REPLACE STONE AS NEEDED TO ENSURE DEWATERING 3. SEDIMENT SHALL BE REMOVED FROM SILT FENCE OUT WHEN STORAGE CAPACITY HAS BEEN APPROXIMATELY FILLED. GRAVEL WILL BE CLEANED OR REPLACED WHEN STORAGE TO BE PLACED TO A MINIMUM HEIGHT 16" WITH AT LEAST 1' OF SILT FENCE ABOVE THE WASTONE.	G. TLETS 50% HEN T OF
SECTION		
STANDA	ARD SILT FENCE OUTLET	

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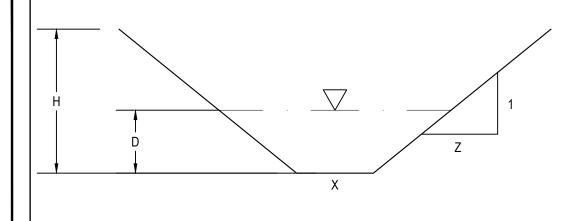
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TOWN COMMENTS 7/1/202 TOWN COMMENTS 8/12/202

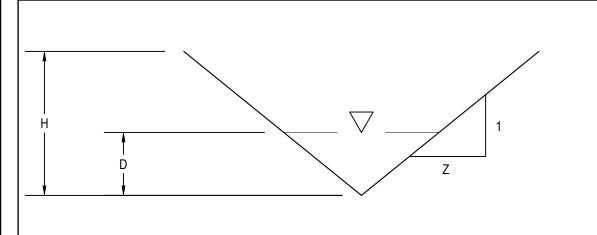
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Inspect check dams and channels at least weekly and after each significant (1/2 inch or greater) rainfall event and repair immediately. Clean out sediment, STANDARD CHECK DAM straw, limbs, or other debris that could clog the channel when needed.

Anticipate submergence and deposition above the check dam and erosion from high flows around the edges of the dam. Correct all damage immediately. If significant erosion occurs between dams, additional measures can be taken such as, installing a protective riprap liner in that portion of the channel



TRAPEZOIDAL DITCH CROSS SECTION TYPICAL DETAIL



V- DITCH CROSS SECTION TYPICAL DETAIL

CROSS SECTION

NOT TO SCALE

MAINTENANCE NOTE:

WASTE MATERIAL-COMPACT, -SEED & MULCH AFTER

CONSTRUCTION OF DITCH

INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND

REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE

PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO

BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE

P

7

With

ROLESVILLE PUBLIC WORKS FACILITY

TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS

TEMPORARY DIVERSION OR CLEAN WATER DIVERSION

1. TEMPORARY DIVERSION DITCH TO BE USED TO INTERCEPT

2. SILT SHALL BE REMOVED WHEN DITCH IS ONE-HALF FULL.

3. DITCH SHALL BE RECONSTRUCTED WHEN DAMAGED BY

4. STABILIZE DIVERSION DITCH BERM WITH TEMPORARY

SEEDING, MULCH WITH TAC, AND/OR EROSION CONTROL

EQUIPMENT OR COVERED BY FILL.

FLOW AND/OR DIVERT TO A SEDIMENT CONTROL MEASURE OR

CHANNEL DESIGN INFORMATION											
Channel I. D.	Drainage Area (ac)	Weighted 'c' Coefficient	Channel Flow (cfs)	Channel Slope (%)	Channel Flow Depth (ft)	Channel Minimum Depth (ft)	Channel Bottom Width (ft)	Channel Side Slopes	Channel Velocity (fps)	Channel Shear Stress (psf)	Ditch Lining
TD 1	2.56	0.88	12.72	1.00	1.26	1.76	2.00	2 :1	2.23	0.79	NAG S75BN or equal
TD 2	0.57	0.60	1.92	1.00	0.49	0.99	2.00	2:1	1.33	0.30	None required
CWD 1	1.45	0.33	2.69	2.80	0.44	0.94	2.00	2:1	2.12	0.77	NAG S75BN or equal
CWD 2	0.57	0.30	0.96	1.20	0.32	0.82	2.00	2:1	1.15	0.24	None required
A-A'	2.55	0.43	6.16	5.70	0.54	1.04	0.50	2:1	7.14	1.93	NAG SC150BN or equal
B-B'	3.39	0.49	9.34	1.00	1.27	1.77	0.00	3 :1	1.93	0.79	None required
C-C'	0.43	0.48	1.16	5.50	0.42	0.92	0.00	3 :1	2.17	1.45	NAG S75BN or equal
D-D'	0.38	0.47	1.00	1.30	0.52	1.02	0.00	3 :1	1.22	0.43	None required
E-E'	2.11	0.43	5.10	0.80	0.61	1.11	4.00	3 :1	1.43	0.31	None required
F-F'	0.97	0.57	3.11	1.00	0.84	1.34	0.00	3 :1	1.46	0.52	None required
G-G'	1.41	0.65	5.15	1.00	0.58	1.08	4.00	3 :1	1.55	0.36	None required



# Specification Sheet – BioNet® SC150BN™ Erosion Control Blanket

The extended-term double net erosion control blanket shall be a machine-produced mat of 70% agricultural straw and 30% coconut fiber with a functional longevity of up to 18 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw and coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with a 100% biodegradable woven natural organic fiber netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as Leno weave) to form an approximate 0.50 x 1.0 in. (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent

The SC150BN shall meet Type 3.B specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17

	Materia	l Content			
Matrix	70% Straw Fiber	0.35 lbs/sq yd (0.19 kg/sm)			
	30% Coconut Fiber		0.15 lbs. kg/sm)	/sq yd (0.08	
Netting	Top: Leno woven 100° biodegradable jute Bottom: 100% biodeg	9.35 lb/1000 sq ft (4.5 kg/100 sm)			
	organic jute		7.7 lb/1000 sq ft (3.76 kg/100 sm)		
Γhread	Biodegradable				
	Standard	Roll Sizes			
Nidth	6.67 ft (2.03 m)	8.0 ft (2.4 m)	15.	5 ft (4.72 m)	
ength.	108 ft (32.92 m)	112 ft (34.14 m)	90	ft (27.43 m)	
Neight ± 10%	52.22 lbs (23.69 kg)	65.28 lbs (29.61	kg) 101	.2 lbs (45.9 kg)	
Area	80 sq yd (66.9 sm)	100 sq yd (83.61 sm)		sq yd 3.6 sm)	
	Leno weave top only	Leno top and bottom		o top and tom	



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0.25 in. ASTM D6525 (6.35 mm) ECTC Guidelines 86% Water Absorbency ASTM D1117 311% 8.32 oz/sv ASTM D6475 (282.9 g/sm) ECTC Guidelines 46% ECTC Guidelines Yes Smolder Resistance 0.42 oz-in ASTM D1388 ASTM D6567 Light Penetration 7.6% 201.6 lbs/ft Tensile Strength - MD ASTM D6818 (2.99 kN/m) ASTM D6818 13.4% 164.4 lbs/ft ASTM D6818 (2.44 kN/m) ASTM D6818 14.2% Elongation - TD ASTM D7322 641 %

Design Permissible Shear Stress **Unvegetated Shear Stress** 2.10 psf (100 Pa) 8.00 fps (2.44 m/s) **Unvegetated Velocity** 

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 - 2:1	≥ 2:1
≤ 20 ft (6 m)	0.001	0.029	0.063
20-50 ft	0.051	0.055	0.092
≥ 50 ft (15.2 m)	0.10	0.080	0.120
Roughness Coefficients - Unveg.			g.
Flow Donth	Manning's n		

Roughness Coefficients - Offveg.		
Manning's n		
0.050		
0.050-0.018		
0.018		
	Manning's n 0.050 0.050-0.018	

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EC\_RMX\_MPDS\_BSC150BN\_6.13



# Specification Sheet – BioNet® S75BN™ Erosion Control Blanket

The short-term single net erosion control blanket shall be a machineproduced mat of 100% agricultural straw with a functional longevity of up to 12 months. (NOTE: functional longevity may vary depending upon **Thi** climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with a 100% biodegradable woven natural organic fiber net. The netting shall consist of machine directional strands formed from two intertwined yarns with across directional strands interwoven through the twisted machine strands (commonly referred to as a Leno weave) to form approximate 0.50 x 1.0 in. (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The S75BN shall meet Type 2.C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17

	Material Content		
Matrix	100% straw fiber	0.5 lbs/sq yd (0.27 kg/sm)	
Netting	Top side only: Leno woven 100% biodegradable natural organic fiber	9.3 lbs/1000 sq ft (4.5 kg/100 sm)	
Thread	Biodegradable		
Standard Roll Size			
Width	6.67 ft (2.0 m)		
Length	108 ft (32.92 m)		
Weight ± 10%	46.4 lbs (21.05 kg)		

80 sq yd (66.9 sm)

North American Green

Poseyville, Indiana 47633

800-772-2040

Design Pe	ermissible Shear Stress
Unvegetated Shear Stress	1.60 psf (76 Pa)
Unvegetated Velocity	5.00 fps (1.52 m/s)

Index Property	Test Method	Турісаі
nickness	ASTM D6525	0.29 in. (7.37 mm)
esiliency	ECTC Guidelines	81.4%
ater Absorbency	ASTM D1117	440%
ass/Unit Area	ASTM D6475	9.12 oz/sy (310 g/sm)
vell	ECTC Guidelines	15.7%
nolder Resistance	ECTC Guidelines	Yes
iffness	ASTM D1388	6.92 oz-in
ght Penetration	ASTM D6567	9.1%
ensile Strength - MD	ASTM D6818	146.4 lbs/ft (2.17 kN/m)
ongation - MD	ASTM D6818	10.9%
ensile Strength - TD	ASTM D6818	109.2 lbs/ft (1.62 kN/m)
ongation - TD	ASTM D6818	14.3%
omass Improvement	ASTM D7322	398%

Slope Design Data: C Factors			
Slope Gradients (S)			
Slope Length (L)	≤ 3:1	3:1 - 2:1	≥ 2:1
≤ 20 ft (6 m)	0.029	N/A	N/A
20-50 ft	0.11	N/A	N/A
≥ 50 ft (15.2 m)	0.19	N/A	N/A
Roughness Coefficients – Unveg.			eg.

Roughness Coefficients - Unveg.		
Flow Depth	Manning's n	
≤ 0.50 ft (0.15 m)	0.055	
0.50 - 2.0 ft	0.055-0.021	
≥ 2.0 ft (0.60 m)	0.021	



EC\_RMX\_MPDS\_BS75BN\_6.13

TOWN COMMENTS 5/2/202 NCDEQ COMMENTS 6/17/202 TOWN COMMENTS 7/1/202 TOWN COMMENTS 8/12/202 ACCESS EASEMENT 8/23/202

SIGNATURE SUBMITTAL 10/21/20

C5.05

mplementing the details and specifications on this plan sheet will result in the construction 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.

Required Ground Stabilization Timeframes			
Site 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 Zones -10 days for Falls Lake Watershed unless there is zero slope	

Note: After the permanent cessation of construction activities, any areas with temporary 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

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

# 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. 3. Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- 4. Provide ponding area for containment of treated Stormwater before discharging offsite.

# 5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

- QUIPMENT AND VEHICLE MAINTENANCE Maintain vehicles and equipment to prevent discharge of fluids.
- 2. Provide drip pans under any stored equipment.
- 3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project. 4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- 5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- 6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

# LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.

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

- 2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes. 3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 4. 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
- 5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers. 6. Anchor all lightweight items in waste containers during times of high winds.
- 7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow. 8. Dispose waste off-site at an approved disposal facility.

## **PAINT AND OTHER LIQUID WASTE**

- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- 2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area. 4. Containment must be labeled, sized and placed appropriately for the needs of site.

hauler to remove leaking portable toilets and replace with properly operating unit.

# 5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

- 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

# **EARTHEN STOCKPILE MANAGEMENT**

- 1. 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 available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of
- stockpile. 3. Provide stable stone access point when feasible.
- 4. 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.

# **CONCRETE WASHOUTS**

- Do not discharge concrete or cement slurry from the site.
- 2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations
- 3. 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 lot perimeter silt fence. 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.
- 6. 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 approving authority. 8. 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

# HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- 2. 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.
- 1. Do not stockpile these materials onsite.

IAZARDOUS AND TOXIC WASTE

Create designated hazardous waste collection areas on-site.

. Place hazardous waste containers under cover or in secondary containment.

# 3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

### ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER SANDBAGS (TYP.) COHESIVE & OR STAPLES LOW FILTRATION HIGH SOIL BERM OR STAPLES COHESIVE & LOW FILTRATION SOIL BERM SANDBAGS (TYP.) OR STAPLES - SANDBAGS (TYP.) OR STAPLES 1. ACTUAL LOCATION DETERMINED IN FIELD CLEARLY MARKED SIGNAGE SECTION A-A NOTING DEVICE (18"X24" MIN.) CONCRETE 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE WASHOUT NOTES: 1. ACTUAL LOCATION DETERMINED IN FIELD MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES - CLEARLY MARKED SIGNAGE NOTING DEVICE (18"X24" MIN.) 75% OF THE STRUCTURES CAPACITY TO PROVIDE CONCRETE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 WASHOUT 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE INCHES OF FREEBOARD. MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY. 3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE. 3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE. ABOVE GRADE WASHOUT STRUCTUR BELOW GRADE WASHOUT STRUCTUR NOT TO SCALE

# NCGO1-SELF INSPECTION, RECORDKEEPING & REPORTING

### SELF-INSPECTION, RECORDKEEPING AND REPORTING

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

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

### PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

# SECTION C: REPORTING

1. Occurrences that must be reported Permittees shall report the following occurrences: (a) Visible sediment deposition in a stream or wetland.

# (b) Oil spills if:

- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).
- (a) 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 (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (b) Anticipated bypasses and unanticipated bypasses.
- (c) Noncompliance with the conditions of this permit that may endanger health or the environment.

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 Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>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 case-by-case basis.</li> <li>If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.</li> </ul>
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	A report at least ten days before the date of the bypass, if possible.  The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(I)(7)]	<ul> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6).</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

# SELF-INSPECTION, RECORDKEEPING AND REPORTING

## **SECTION B: RECORDKEEPING**

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.

and available for agency 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:

- 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
- (c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

1. E&SC Plan Documentation 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 documented in the manner described:

(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.			

# 2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site

- (a) This general permit as well as the certificate of coverage, after it is received.
- (b) Records of inspections made during the previous 30 days. The permittee shall record the required copies will be allowed if shown to provide equal access and utility as the hard-copy records.

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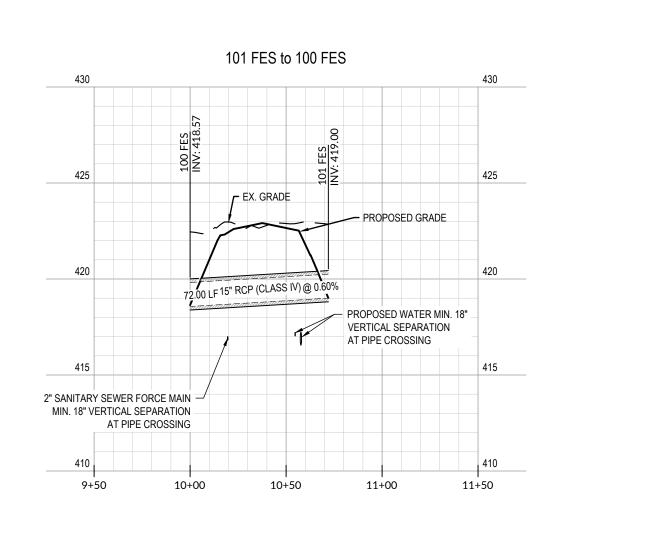


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TOWN COMMENTS 7/1/202 TOWN COMMENTS 8/12/202

ACCESS EASEMENT 8/23/202 SIGNATURE SUBMITTAL 10/21/20

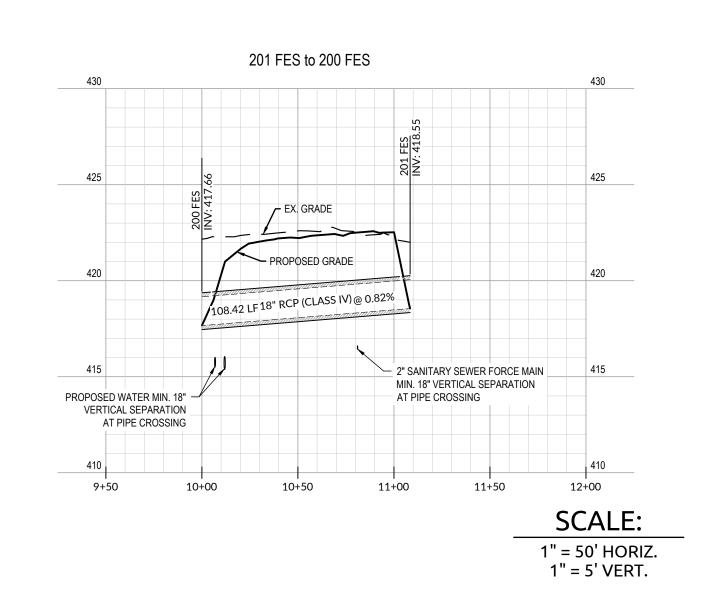
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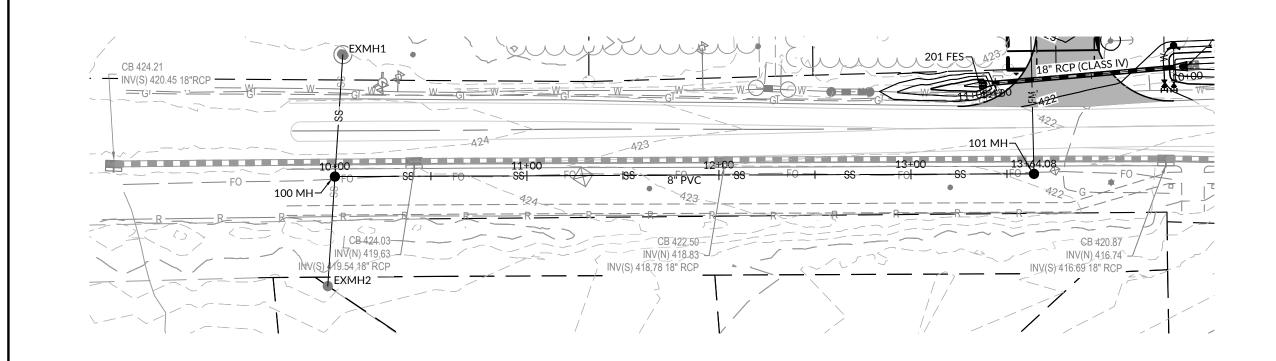


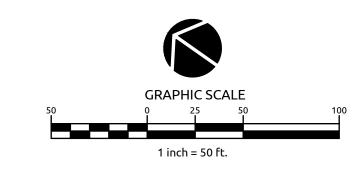
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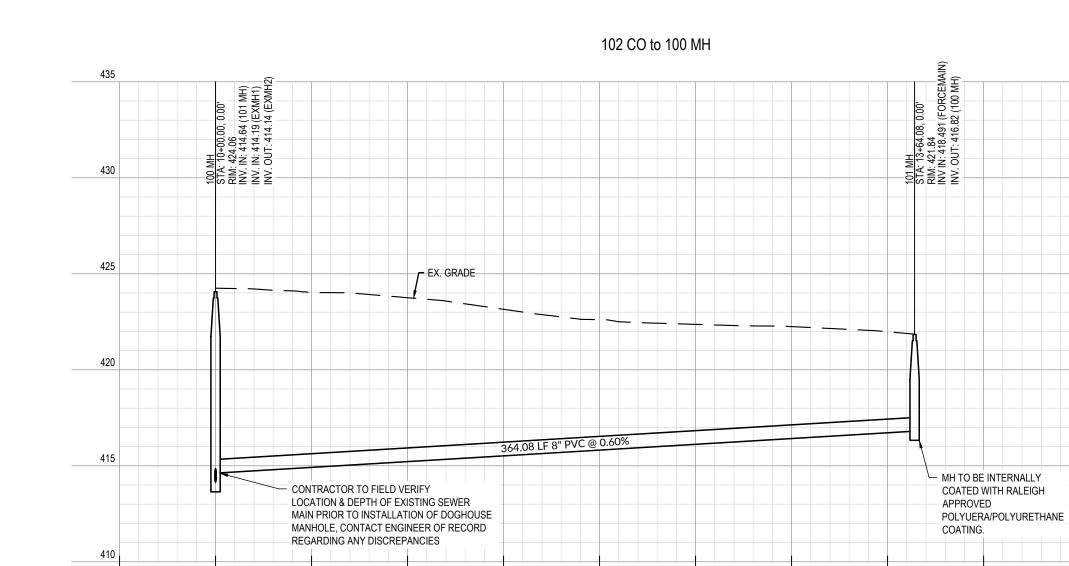
1" = 50' HORIZ.

1" = 5' VERT.









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

# Public

Sewer Collection / Extension System

The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and Construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

Authorization to Construct See digital signature

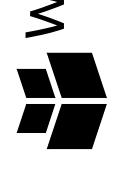
City of Raleigh
Public Utilities Department Permit # \_\_S-5071\_

# CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

14+00

Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be considered to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractors are each responsible for compliance with all applicable City, State and Federal laws. This specific authorization below is not a permit, nor shall it be construed to permit any violation of City, State or Federal Law. All Construction must be in accordance with all Local, State, and Federal Rules and Regulations. This approval of this electronic document is only valid if the document has not been modified and the digital signature below is valid:

City of Raleigh Development Approval



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STORM PROFILI

Designer PED/DBG PED



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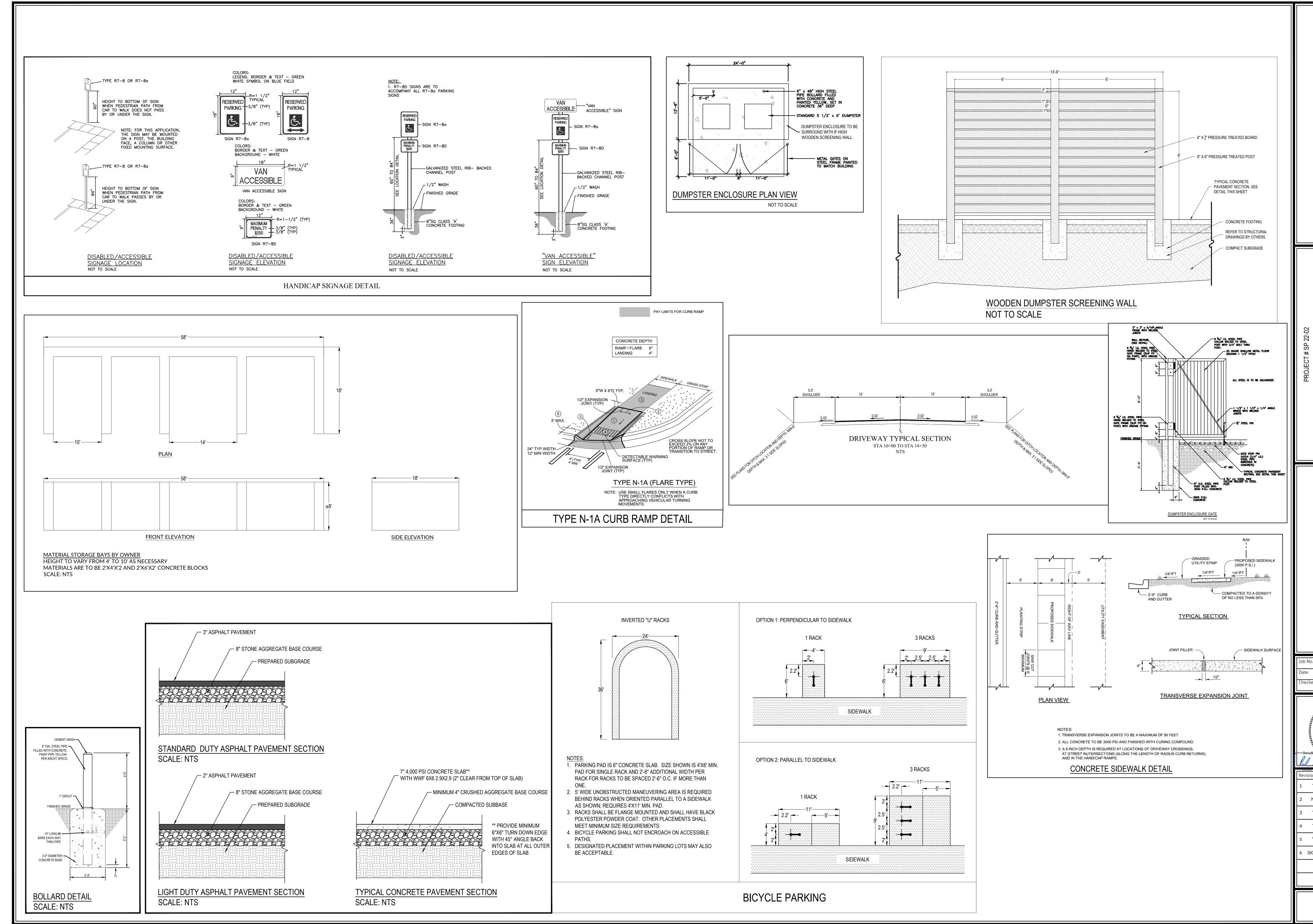
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Docusigned by AUL DEN

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Revisions

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2 NCDEQ COMMENTS 6/17/20

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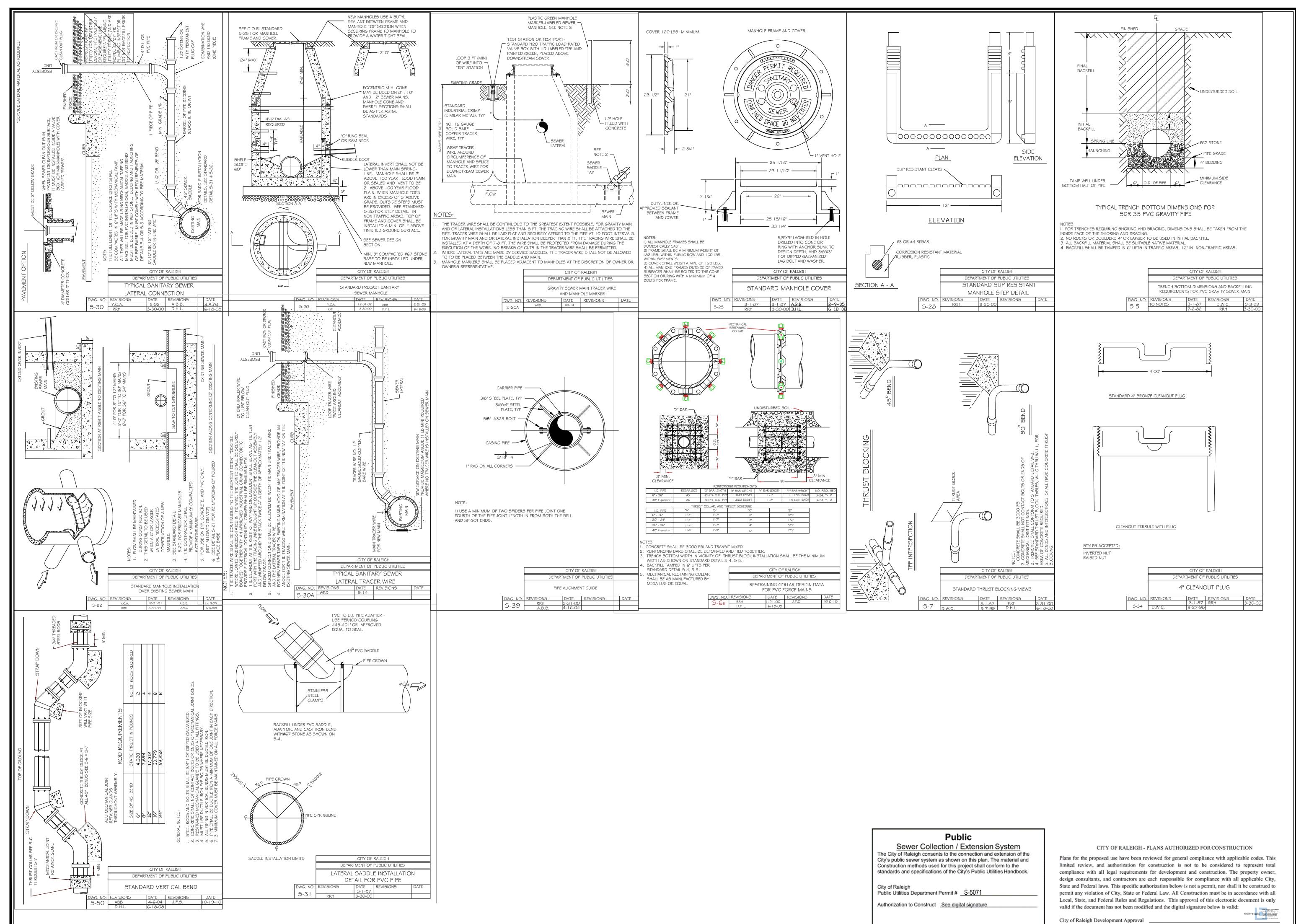
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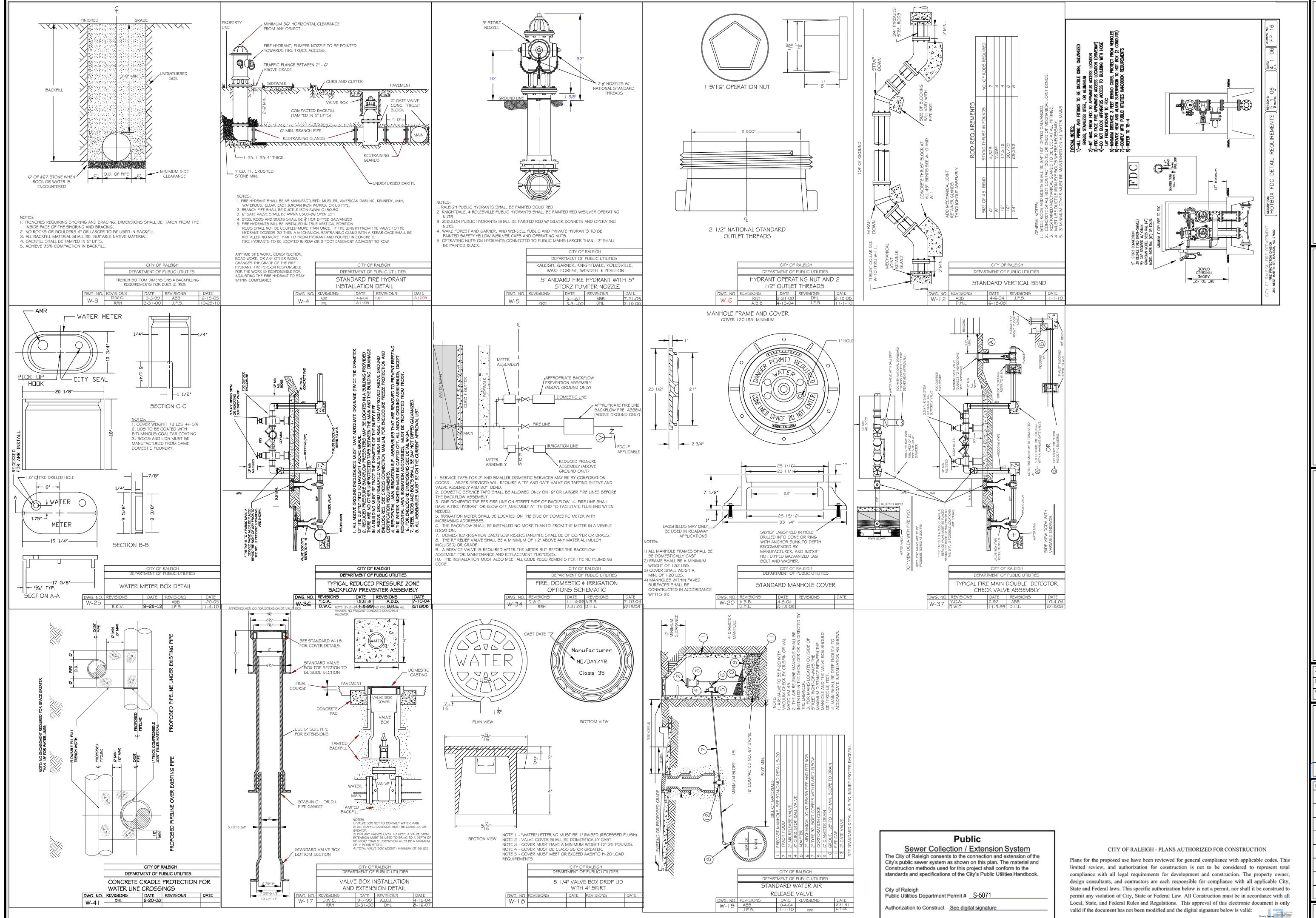
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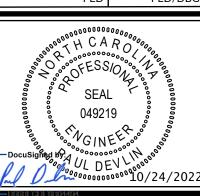
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VATER DETAILS

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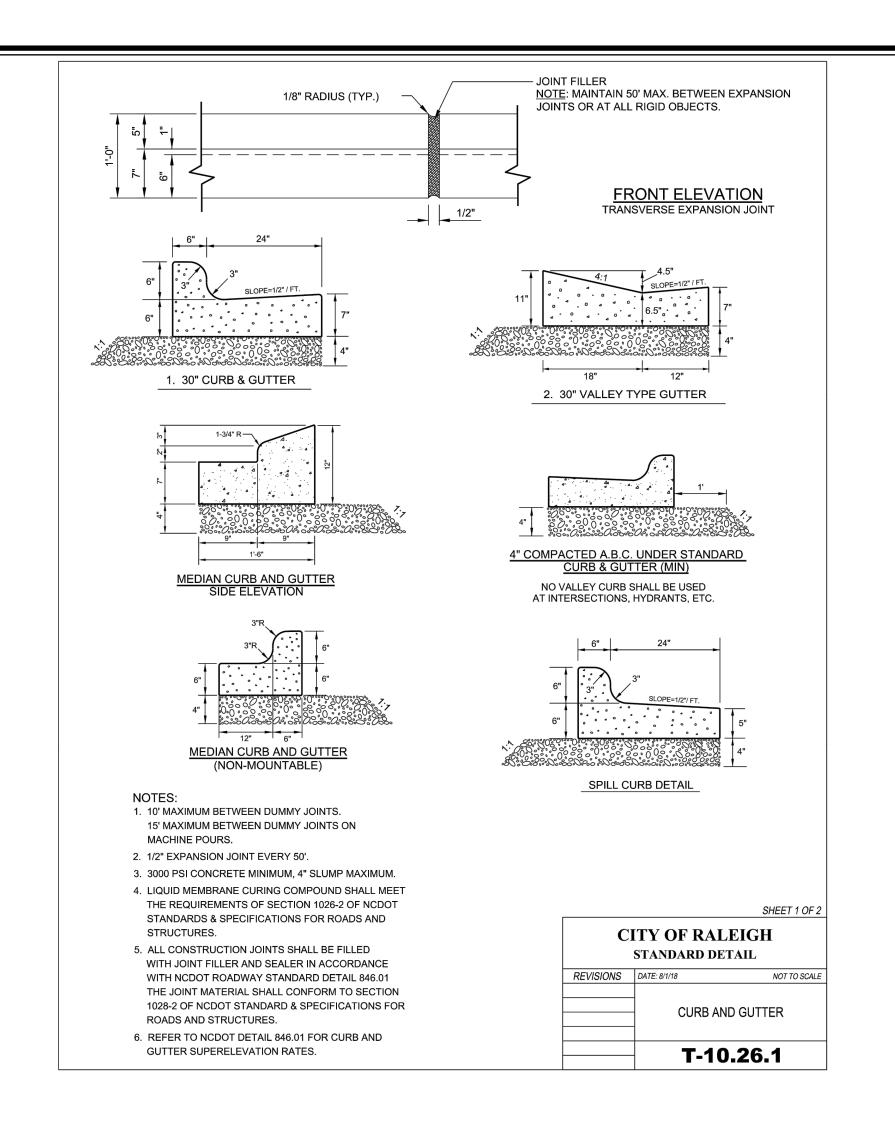
TOWN COMMENTS 8/12/202

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RECORDATION 8/23/2022

SIGNATURE SUBMITTAL 10/21/2022

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City of Raleigh Development Approval



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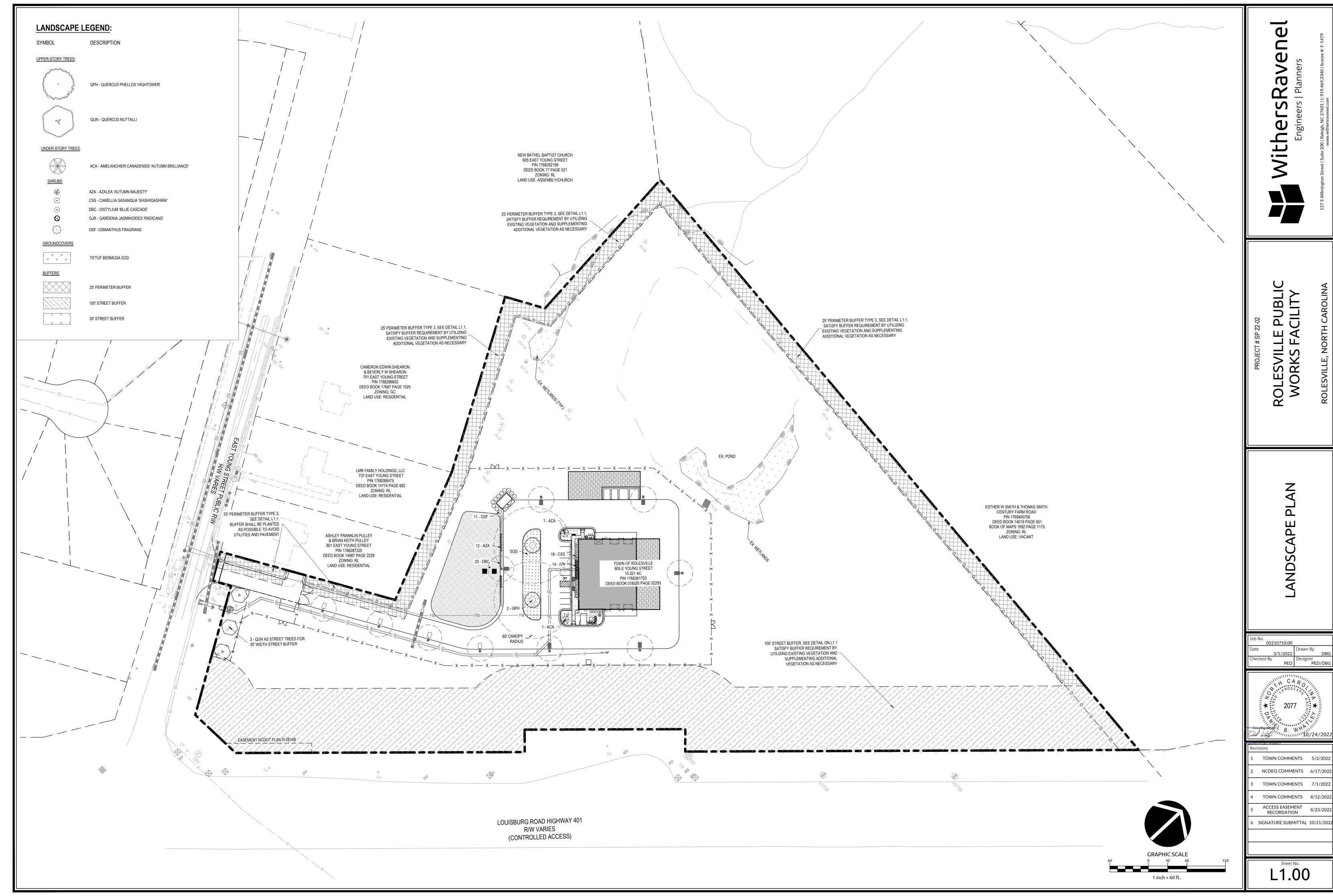
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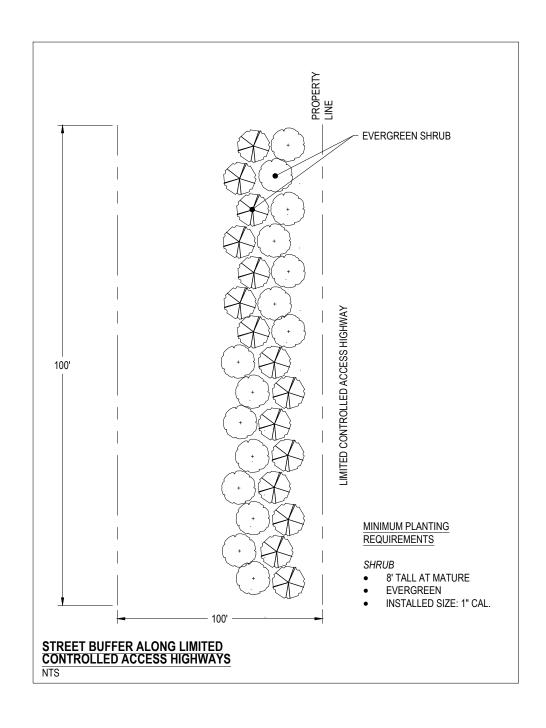
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NCDEQ COMMENTS 6/17/202 TOWN COMMENTS 7/1/2022

TOWN COMMENTS 8/12/2022 ACCESS EASEMENT 8/23/2022





## LANDSCAPE NOTES:

- 1. ALL OPAQUE FENCES (SOLID, WOOD, BRICK, ETC.) MUST INCLUDE AT INSTALLATION EVERGREEN SHRUB PLANTINGS WHICH WILL REACH A MINIMUM HEIGHT OF 3' AT MATURITY AND 5' O.C. ALL PLANTINGS MUST FACE TOWARDS THE PUBLIC
- 2. IF EXISTING SIGNIFICANT VEGETATION AND OTHER SITE FEATURES DO NOT FULLY MEET THE STANDARDS FOR THE TYPE OF BUFFER REQUIRED, THEN ADDITIONAL VEGETATION AND / OR SITE FEATURES (INCLUDING FENCES) SHALL BE PLANTED OR INSTALLED WITHIN THE REQUIRED BUFFER AREA. 3. ALL LARGE TREES WHICH THIS SECTION REQUIRES TO BE PLANTED SHALL BE AT LEAST 8' IN HEIGHT ABOVE GROUND LEVEL
- AND AT LEAST  $2\frac{1}{2}$  CALIPER AT THE TIME OF INSTALLATION AND SHALL HAVE AN EXPECTED MATURE HEIGHT OF AT LEAST 30'. 4. ALL SMALL ORNAMENTAL TYPE TREES SHALL BE AT LEAST 8' ABOVE GROUND LEVEL AND AT LEAST 1 # CALIPER AT
- INSTALLATION AND SHALL HAVE AN EXPECTED MATURE HEIGHT AT TIME OF PLANTING AND SHALL REACH THE HEIGHT REQUIRED FOR PERFORMANCE WITHIN (3) YEARS OF INSTALLATION. 5. THE STANDARDS FOR ALL TREES AND SHRUBS IN THE BUFFER, INCLUDING THE MINIMUM HEIGHT, ROOT BALL SIZE, NUMBER
- OF BRANCHES, AND WIDTH SHALL CONFORM WITH THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN FOR THAT TYPE OF TREE OR SHRUB AT THE TIME OF INSTALLATION. 6. THE REQUIRED BUFFER SHALL NOT CONTAIN ANY DEVELOPMENT, IMPERVIOUS SURFACES OR SITE FEATURES THAT DO NOT FUNCTION TO MEET THE STANDARDS OF THIS SECTION OR THAT REQUIRE REMOVAL OR EXISTING VEGETATION. NO GRADING DEVELOPMENT OR LAND DISTURBING ACTIVITIES SHALL OCCUR WITHIN THE BUFFER UNLESS APPROVED BY THE TOWN STAFF
- AND THE PLANNING BOARD AT THE TIME OF SITE PLAN OR SUBDIVISION PLAN REVIEW. NOTHING SHALL BE PLANTED OR INSTALLED WITHIN AN UNDERGROUND OR OVERHEAD UTILITY EASEMENT OR DRAINAGE EASEMENT WITHOUT THE CONSENT OF THE TOWN AND THE EASEMENT HOLDER AT THE TIME OF A SITE PLAN OR SUBDIVISION PLAN APPROVAL.

- INSTALLATION, INSPECTIONS AND MAINTENANCE:

  1. ALL LANDSCAPING, INCLUDING MULCHING AND SEEDING, SHALL BE COMPLETED IN ACCORDANCE WITH THE APPROVED SITE OR SUBDIVISION PLAN AND BE IN COMPLIANCE WITH THE STANDARDS SET FORTH IN THIS SECTION, PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR THE SITE OR RECORDING OF A FINAL SUBDIVISION PLAT.
- 2. THE TOWN STAFF MAY GRANT EXCEPTIONS AND EXTENSIONS TO THE TIME LIMITS UNDER NOTED ORDINANCE CONDITIONS IN
- 3. WAKE COUNTY INSPECTORS, IN COORDINATION WITH THE TOWN STAFF, SHALL INSPECT THE SITE ONE YEAR AFTER THE ISSUANCE OF A PERMANENT CERTIFICATE OF OCCUPANCY OR RECORDING OF THE FINAL SUBDIVISION PLAT IN ORDER TO ENSURE COMPLIANCE WITH THE APPROVED SITE PLAN OR SUBDIVISION PLAN AND TO ENSURE THAT THE LANDSCAPE IS
- 4. THE DISTURBANCE OF ANY LANDSCAPE AREA OR VEGETATION REQUIRED BY THE TOWN ORDINANCE SHALL CONSTITUTE A VIOLATION OF THE SITE PLAN OR SUBDIVISION PLAN. ALL DISTURBED LANDSCAPED AREAS AND VEGETATION SHALL BE REPLANTED SO AS TO MEET THE STANDARDS AS WELL AS THE APPROVED SITE PLAN OR SUBDIVISION PLAN.

PLANT SCHEDULE								
QTY	KEY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	HEIGHT	NOTES	
CANOPY TR	EES							
2	QPH	Quercus phellos	Willow Oak	B&B	2" CAL. MIN.	10' HT. MIN	MATCHED	
3	QUN	Quercus nuttallii	Nuttall Oak	B&B	3" CAL. MIN.	10' HT. MIN	MATCHED	
UNDERSTOR	Y TREES		•	•	•	,		
2	ACA	Amelancier canadensis 'Autumn Brilliance'	Serviceberry	B&B	2" CAL. MIN.	8' HT. MIN	MATCHED	
SHRUBS	•			•				
12	AZA	Azalea 'Autumn Majesty'	Enocre Azalea spp.	CONT.		24" Ht. MIN.	MATCHED	
18	CSS	Camellia sasanqua 'Shishigashira'	Dward Camellia	CONT.		24" Ht. MIN.	MATCHED	
20	DBC	Disty lium 'Blue Cascade'	Disty Ilium	CONT.		24" Ht. MIN.	MATCHED	
14	IVN	llex vomitoria 'Nana'	Dwarf Yaupon Holly	CONT.		24" Ht. MIN.	MATCHED	
11	OSF	Os manthus fragrans	Tea Olive	CONT.		24" Ht. MIN.	MATCHED	
GROUNDCO	/ER	-	•	<u>'</u>				
4,300 SF		Cy nodon dactylon	Tif Tuf Bermuda	SOD				



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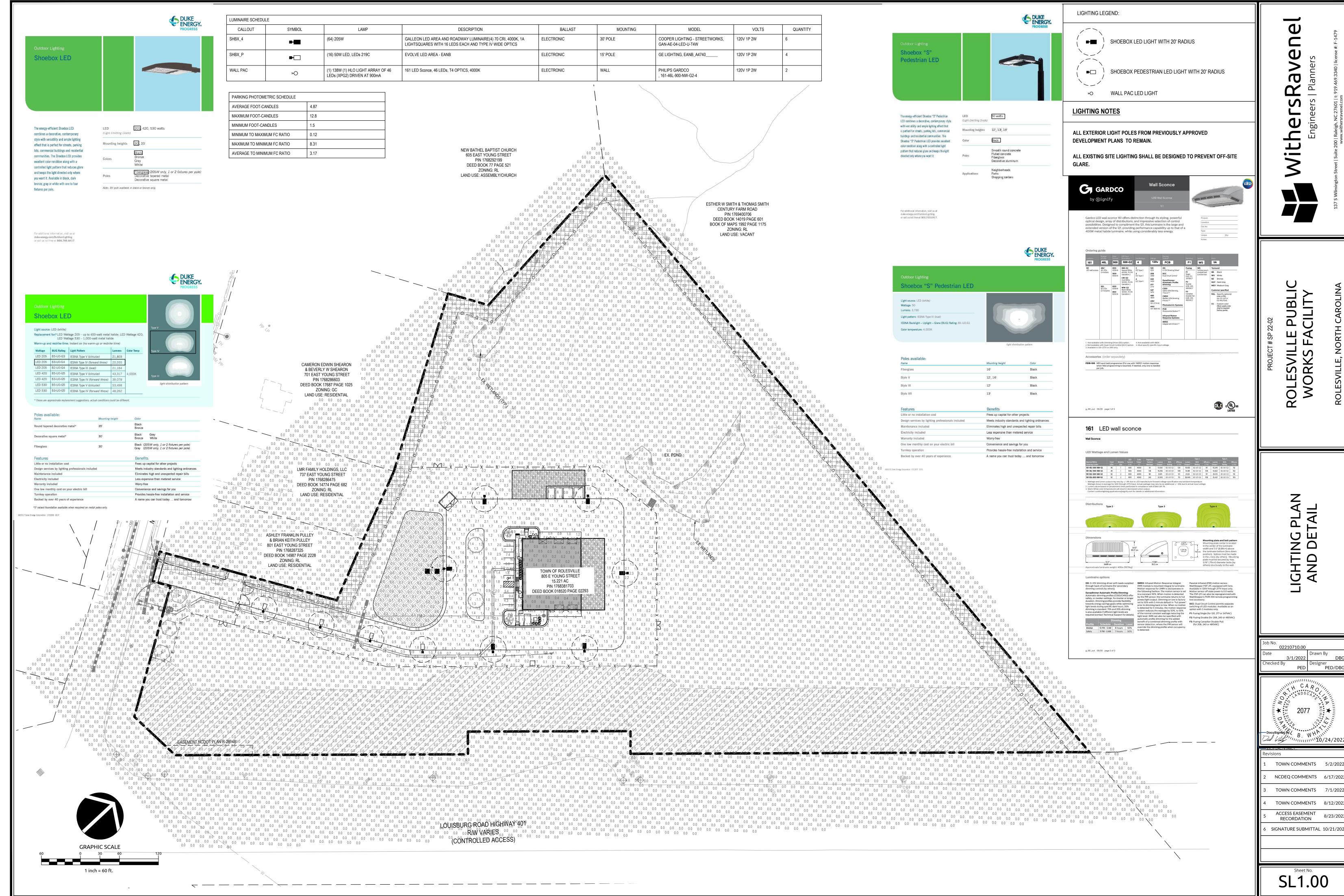
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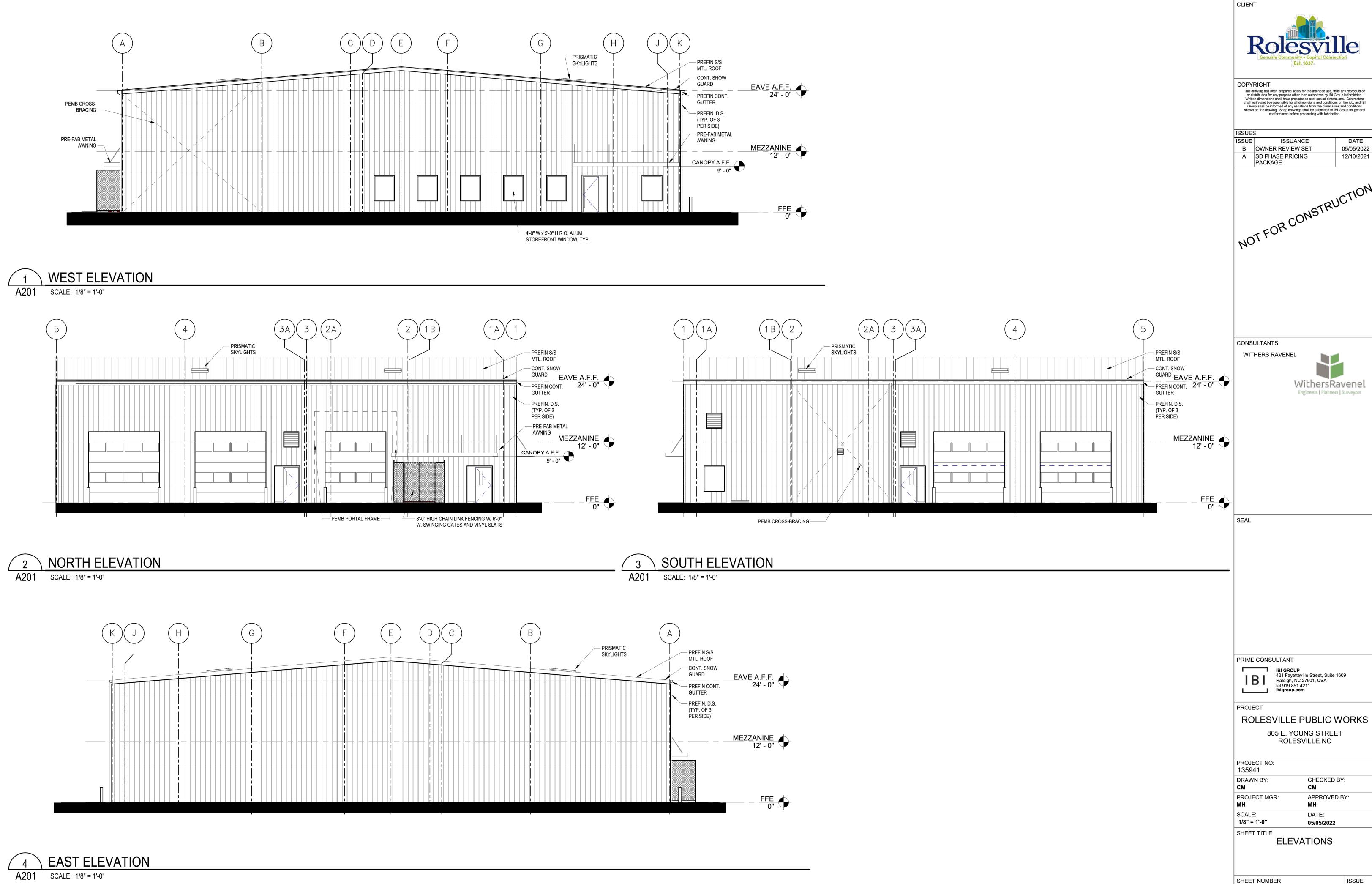
2 NCDEQ COMMENTS 6/17/2022 3 TOWN COMMENTS 7/1/2022 4 TOWN COMMENTS 8/12/2022

> 8/23/2022 RECORDATION

6 SIGNATURE SUBMITTAL 10/21/202

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