ZEBULON ANIMAL HOSPITAL

SITE PLAN SUBMITTAL

PROJECT ID: 1130505

1620 N. ARENDELL AVE. ZEBULON, NC

OCTOBER 2, 2023 REVISED: NOVEMBER 20, 2023

CONTACT INFORMATION

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ATTENTION CONTRACTORS The Construction Contractor responsible for the extension of water,

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 future work in the City of Raleigh.



HEAVY COMMERCIAL (HC) DISTRICT DIMENSIONAL STANDARDS FOR NON-RESIDENTIAL DEVELOPMENT

STANDARDS FOR NON-RESIDENTIAL DEVELOPMENT							
STANDARD	REQUIRED	PROVIDED					
MINIMUM LOT AREA (SQUARE FEET)	6,000	48,650					
MINIMUM LOT WIDTH (LINEAR FEET)	50	193					
MINIMUM STREET SETBACK (FEET)	30	30					
MINIMUM SIDE SETBACK (FEET)	0, 5 IF PROVIDED						
MINIMUM REAR SETBACK (FEET)	0 IF ABUTTED BY AN ALLEY; OTHERWISE 25	25					
MAXIMUM BUILDING HEIGHT (FEET)	50; HEIGHT MAY INCREASE BY 2 FEET FOR EACH ADDITIONAL FOOT OF SETBACK UP TO 100 FEET IN HEIGHT						
MINIMUM SPACING BETWEEN PRINCIPAL BUILDINGS ON THE SAME LOT (FEET)	25	N/A					

UTILITY ALLOCATION POLICY COMPLIANCE

BASE POINTS: SINGLE USE OFFICE - 30 POINTS

BONUS POINTS:

CATEGORY 1 - NON-CONFORMITY ABATEMENT AND PUBLIC INFRASTRUCTURE IMPROVEMENTS (0)

CATEGORY 2 - GREEN DEVELOPMENT STANDARDS/BUILDING AND SITE DESIGN (10)

SECTION 2B - PARKING

-EV CHARGING STATION (TWO PORT) - 5 POINTS (SEE SHEET L200)

SECTION 2C - STORMWATER SCM'S (MAX 10)
 BIORETENTION - 5 POINTS. (SEE SHEET L300)

CATEGORY 3 - OUTDOOR ENHANCEMENT (12)

SECTION 3A - OUTDOOR ENHANCEMENT (MAX 12)
 -PLANTING POLLINATOR GARDEN - 3 POINTS (SEE SHEET L400)

-INSTALLATION OF NATIVE SHADE TREE SPECIES - 9 POINTS (SEE SHEET L400)

CATEGORY 4 - AMENITIES (8)

ATEGORY 4 - AMENTIES (8)
■ SECTION 4G - ADDITIONAL URBAN OPEN SPACE ENHANCEMENTS (WITHIN NON-RESIDENTIAL

ZONING DISTRICTS) - MAX 10 POINTS

-FOUNTAIN (DECORATIVE) - 2 POINTS (SEE SHEET L200)
-CANOPY INCLUDING FIXED PERMANENT SEATING - 2 POINTS (SE

-CANOPY INCLUDING FIXED PERMANENT SEATING - 2 PÓINTS (SEE SHEET L200)
-DRINKING FOUNTAIN WITH PET FOUNTAIN - 2 POINTS (SEE SHEET L200)

-LITTLE FREE LIBRARY - 1 POINT (SEE SHEET L200)

-ALL WEATHER BULLETIN BOARD - 1 POINT (SEE SHEET L200)

CATEGORY 5 - AFFORDABLE HOUSING - MAX 10 POINTS (0)
CATEGORY 6 - OTHER - MAX 5 POINTS (0)

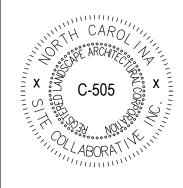
POINT SUMMARY:

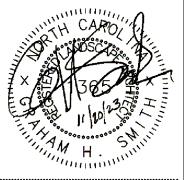
BASE CATEGORY 1 CATEGORY 2 CATEGORY 3 CATEGORY 4	30 POINT 0 POINT 10 POINT 12 POINT 8 POINT
CATEGORY 5 CATEGORY 6	0 POINT 0 POINT 0 POINT

60 POINTS

SHEET INDEX COVER ZONING CONDITIONS AND TOWN OF ZEBULON STANDARD NOTES **EXISTING CONDITIONS** LAYOUT AND HARDSCAPE PLAN HARDSCAPE LEGEND HARDSCAPE DETAILS HARDSCAPE DETAILS **GRADING PLAN** PLANTING PLAN PLANT SCHEDULE AND NOTES PLANTING DETAILS UTILITY PLAN PRE-DEVELOPMENT DRAINAGE AREAS POST-DEVELOPMENT DRAINAGE AREAS STORMWATER PLAN BIORETENTION CELL PLANS SEDIMENTATION AND EROSION CONTROL PLAN SITE DETAILS SEDIMENTATION AND EROSION CONTROL DETAILS SEDIMENTATION AND EROSION CONTROL NCG01

SITE DATA	SUMMARY		
EXISTING DATA			
PROJECT NAME	ZEBULON ANIMAL HOSPITAL		
STREET ADDRESS	1620 N. ARENDELL AVENUE, ZEBULON, NC		
ZONING	R2		
PIN	1796922199		
REAL ID NUMBER	0030585		
DEED BOOK / DEED PAGE	DB 2050, PG 630		
LAND USE	SINGLE FAMILY RESIDENTIAL		
LOT AREA	1.12 AC (48,650 SF)		
PROPOSED DATA			
ZONING	HEAVY COMMERCIAL CONDITIONAL (HC-C)		
PROPOSED USE	VETERINARY CLINIC		
R/W DEDICATION	N/A		
NET LOT AREA	1.12 AC (48,650 SF)		
OPEN SPACE SET-ASIDE REQUIRED	1,459.50 SF (3% OF SITE)		
OPEN SPACE SET-ASIDE PROVIDED	4,400 SF (9.04% OF SITE)		
PARKING SUMMARY			
PARKING REQUIRED (4 PER DOCTOR)	12 OR 16 SPACES (3 OR 4 DOCTORS)		
PARKING PROVIDED	32 SPACES (INCLUDING 1 STD, 1 VAN ACCESSIBLE ADA SPACE)		
LOT COVERAGE			
EXISTING LOT COVERAGE	4,010 SF (0.09 AC) (8.24%)		
LOT COVERAGE PROPOSED	24,939 SF (0.57 AC) (51%)		
LOT COVERAGE ALLOWED	80% OF LOT AREA		
CALCULATED LOT COVERAGE ALLOWED	0.8 X 48,650 SF = 38,920 SF (0.89 AC)		
NET CHANGE IN LOT COVERAGE	+ 20,929 SF (0.48 AC)		
OT COVERAGE ALLOWED ALCULATED LOT COVERAGE ALLOWED	80% OF LOT AREA 0.8 X 48,650 SF = 38,920 SF (0.89 AC)		





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ZAH REALTY, LLC
1620 N. ARENDELL AVE., ZEBULON, NC

PROJECT NUMBER: 22091

SITE PLAN
SUBMITTAL
DATE: 10.02.2023

REVISED: 11.20.2023

SHEET TITLE:

COVER

SHEET NUMBER:

ZONING CONDITIONS

- 1. Use of the property shall be limited to Veterinary Clinic. Such use will comply with section 4.3.5.RR of the Town Zebulon Unified Development Ordinance, except that outdoor exercise area may be located closer than 200 feet from a lot in a residential zone, provided that it is enclosed by a six-foot tall opaque fence as shown on sheet L400 Planting Plan of the Zebulon Animal Hospital Conditional Zoning Plan Dated June 1, 2023.
- 2. In order to accommodate the shallow lot width, the 40-wide buffers required along the residentially zoned properties have been reduced; however, in these locations a six-foot tall opaque fence and enhanced landscaping will be provided as shown on Sheet L400 Planting Plan Zebulon Animal Hospital Conditional Zoning Plan Dated June 1, 2023.

TOWN OF ZEBULON STANDARD CONSTRUCTION NOTES

- ALL ROADWAY AND GREENWAY INFRASTRUCTURE CONSTRUCTION SHALL CONFORM TO THE TOWN OF ZEBULON STANDARDS AND SPECIFICATIONS.
- 2. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING A TRAFFIC CONTROL PLAN TO THE TOWN OF ZEBULON CONSTRUCTION INSPECTOR FOR APPROVAL. THE GOAL IS NOT TO RESTRICT TRAFFIC DURING PEAK BUSINESS HOURS OF 6:00 AM AND UNTIL 8:00 AM AND 4:30 TO 6:30 PM MONDAY THROUGH FRIDAY.
- 3. ALL TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 4. ALL FLAGGING OPERATIONS WITHIN THE TOZ ROW REQUIRE QUALIFIED AND TRAINED WORK ZONE FLAGGERS. THE CONTRACTOR SHALL PROVIDE ALL BARRICADES, SIGNS, ETC., TO PROTECT AND SECURE THE CONSTRUCTION AREA, EQUIPMENT, AND MATERIALS FROM THE PUBLIC.
- 5. ALL EXISTING ROADWAYS, DRIVEWAYS, CURB AND GUTTER, SIDEWALK, SIGNAGE OR DRAINAGE STRUCTURES THAT ARE DAMAGED DURING THE CONSTRUCTION SHALL BE REPAIRED TO ORIGINAL CONDITION. THE CONTRACTOR SHALL KEEP THE ROADWAY CLEAN OF DIRT AND DEBRIS AT ALL TIMES THROUGHOUT THE DURATION OF THE PROJECT. EXCAVATION MATERIAL SHALL NOT BE PLACED ON THE ROADWAY AT ANY
- TIME. EXCAVATIONS SHALL NOT BE LEFT OPEN OR UNSAFE DURING OVERNIGHT HOURS
 6. AT THE END OF EACH WORKING DAY, EQUIPMENT SHALL BE PARKED A MINIMUM OF 15'
 FROM THE BACK OF THE CURB TO ENSURE SAFETY OF THE VEHICLE TRAFFIC.
- 7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF OTHER UTILITIES WITHIN THE PROJECT SCOPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING OTHER UTILITIES OWNERS AND PROVIDE PROTECTION AND SAFEGUARDS TO PREVENT DAMAGE OF INTERRUPTION TO EXISTING FACILITIES AND TO MAINTAIN ACCESSIBILITY TO EXISTING UTILITIES.
- 8. CONTRACTOR SHALL CONTRACT JASON BROWN AT 919-795-5640 WITH THE TOWN OF ZEBULON TO SCHEDULE A PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL PROVIDE A MINIMUM OF 72 HOURS OF NOTICE TO THE TOWN PRIOR TO BEGINNING CONSTRUCTION.
- 9. ALL ROADWAY, GREENWAY, SIDEWALK AND STORM DRAINAGE IMPROVEMENTS IN ROW OR DEDICATED PUBLIC EASEMENTS WILL BE REQUIRED TO BE DEDICATED TO THE TOWN OF ZEBULON AT COMPLETION OF THE PROJECT.
- 10. AS-BUILT SITE PLANS FOR ROADWAY, GREENWAY AND UTILITY WORK MUST BE SUBMITTED AND APPROVED PRIOR TO FINAL ACCEPTANCE. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING REDLINE LINE DRAWINGS.
- 11. DEVELOPER/OWNER IS RESPONSIBLE FOR CONTRACTING WITH THIRD PARTY NCDOT CERTIFIED TESTING FIRM. TOWN OF ZEBULON MUST APPROVE THE FIRM IN ADVANCE. MATERIAL TESTING IS REQUIRED FOR ALL ROADWAY AND GREENWAY TRAIL WORK. FINAL REPORTING AND SEALED CERTIFICATION IS REQUIRED AT COMPLETION OF THE PROJECT BY THE GEO-TECHNICAL ENGINEER. TESTING IS REQUIRED FOR SUBGRADE, ROADWAY/GREENWAY STONE, AND ASPHALT, CURB, AND GUTTER PER TOWN OF ZEBULON SPECS.
- 12. AT THE COMPLETION OF THE PROJECT, THE DEVELOPER SHALL PROVIDE THE TOWN A ONE-YEAR WARRANTY ON ALL IMPROVEMENTS DEDICATED TO THE TOWN OF ZEBULON.

TOWN OF ZEBULON STANDARD CONSTRUCTION NOTES: CONCRETE

- 1. ALL DEDICATED CONCRETE SIDEWALK REQUIRES CONCRETE TESTING FOR THE FOLLOWING REQUIREMENTS SECTION 2.1.1
- FOLLOWING REQUIREMENTS SECTION 2.1.1
 2. 4" CONCRETE SLUMP
- 3. TEMPERATURE 50 AND 90 DEGREES
- 4. AIR MIXTURE RANGE 3.5% TO 6.5%
- 5. STRUCTURAL STRENGTH BREAK TEST 7,14,28 DAYS @ 3000 PSI @ 28 DAYS
- S. SAMPLES EVERY 1000 LF OF CURB AND GUTTER TO ENSURE QUALITY
 7. MAX WATER -CEMENT RATIO BY WEIGHT: 0.594
- 8. MINIMUM CEMENT CONTENT (LBS/CY): 602
- 9. CONCRETE SIDEWALK TESTING IS NOT REQUIRED, UNLESS CONSTRUCTION INSPECTOR DETERMINES THAT THE QUALITY IS INFERIOR AND DOES NOT MEET INDUSTRY STANDARDS. CONTRACTOR MUST MAINTAIN A 4-INCH SLUMP FOR ALL SIDEWALK WORK. AIR TEMPERATURES AT PLACEMENT MUST BE 40 DEGREES AND RISING. SURFACE TEMPERATURES SHALL BE 50 DEGREES OR GREATER. (SECTION 2.2.2 E)

TOWN OF ZEBULON STANDARD CONSTRUCTION NOTES: STORM DRAINAGE INFRASTRUCTURE

1. ALL STORMWATER SYSTEM DRAINAGE WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER LESS THE AREA IS IN A PUBLIC DEDICATED DRAINAGE EASEMENT

TOWN OF ZEBULON STANDARD CONSTRUCTION NOTES: ROADWAY/GREENWAY SUBGRADE, ROADWAY ABC AND ASPHALT

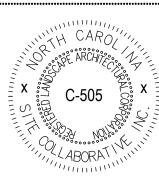
- ROADWAY/GREENWAY SUB-GRADE: THE BASE SOIL ELEVATION DETERMINED BY APPROVED ENGINEERED DRAWINGS PRIOR TO PLACEMENT OF ROADWAY ABC AND ASPHALT.
- ROADWAY/GREENWAY STONE GRADE: THE APPROVED COMPACTED ROADWAY SUB-GRADE PLUS THE COMPACTED STONE GRADE PRIOR TO PLACEMENT OF ASPHALT.
- 3. IN ALL CASES, THE ROADWAY/GREENWAY SUB-GRADE MUST PAST A PROOF-ROLL TEST BEFORE PLACEMENT OF STONE. THE DEVELOPER/OWNER/CONTRACTOR SHOULD PROVIDE THIRD PARTY NCDOT CERTIFIED GEOTECHNICAL FIRM TO PERFORM DENSITY TESTING OF SUB-GRADE EVERY 300 FEET AND ROADWAY/GREENWAY ABC EVERY 150 FEET VIA A NUCLEAR GAUGE. THE TOWN OF ZEBULON CONSTRUCTION INSPECTOR WILL SELECT VARIOUS LOCATIONS OF THE DENSITY TESTING. IT IS RECOMMENDED THAT TESTING BE PERFORMED AT FILL LOCATIONS OR UTILITY CUTS. A TOWN OF ZEBULON CONSTRUCTION INSPECTOR MUST BE PRESENT DURING ALL TESTING. ALL TEST RESULTS SHALL BE SUBMITTED TO AND APPROVED BY THE TOWN OF ZEBULON PUBLIC WORKS DIRECTOR BEFORE ROADWAY STONE IS INSTALLED.
- 4. PROOF ROLL STANDARD- A FULLY LOADED DUMP TRUCK/MOTOR GRADER THAT HAS A MINIMUM GROSS WEIGHT OF AT LEAST 40,000 POUNDS (20 TONS) UNDER THE OBSERVATION OF THE TOWN OF ZEBULON REPRESENTATIVE. NO OTHER METHOD WILL BE ACCEPTED. ALL AREAS OF THE ROADWAY/GREENWAY SUB-GRADE OR ROADWAY STONE SHALL BE COVERED BY THE WHEELS OF THE PROOF-ROLLER OPERATING AT WALKING SPEED (TWO TO THREE MILES PER HOUR) OR 225 TO 300 FEET PER MINUTE.
- 5. IT IS THE CONTRACTOR RESPONSIBILITY TO PROTECT ALL STRUCTURAL FACILITIES ON THE PROJECT SUCH AS BRIDGES, BOX CULVERTS, PIPE CULVERTS, AND UTILITIES FROM DAMAGE FROM PROOF ROLLING EQUIPMENT.
- 6. PROOF ROLLS ARE REQUIRED AT THE ROADWAY/GREENWAY SUB-GRADE CONSTRUCTION PHASE AND ROADWAY/GREENWAY STONE CONSTRUCTION PHASE
- 7. ANY AND ALL AREAS, WHICH RUT OR PUMP EXCESSIVELY UNDER THE WHEELS OF THE PROOF-ROLLER SHALL BE REPAIRED BY THE DEVELOPER/CONTRACTOR BEFORE ROADWAY STONE OR ASPHALT IS INSTALLED
- 8. PROOF ROLL AREAS AGAIN FOLLOWING THE COMPLETION OF THE NECESSARY CORRECTIONS. ALL COST ASSOCIATED WITH THE PROOF ROLLING PROCESS IS THE RESPONSIBILITY OF DEVELOPER/OWNER OR CONTRACTOR.
- 9. THE TOWN SHALL NOT BE RESPONSIBLE FOR ENSURING PROPER GRADES AND ALIGNMENT OF ROADWAY/GREENWAY AND CURB AND GUTTER. IF THE ALIGNMENT AND GRADES ARE INCORRECT; IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER/OWNER TO MAKE CORRECTIVE REPAIRS AT THEIR OWN EXPENSE.
- 10. REQUIREMENTS: 98% STANDARD PROCTOR ON ALL SOILS EVERY 300'. ALL LOCATIONS TESTED SHALL MEET THE 98% TESTING REQUIREMENTS. AVERAGING OF DENSITY SCORES TO MEET STANDARD IS NOT ALLOWED.
- 11. SUCCESSFUL PROOF-ROLLS REQUIRED FOR ALL SUB-GRADE SOILS. ALL ROADWAY
- SUBGRADE MUST PASS A PROOF-ROLL TEST (NO EXCEPTIONS).

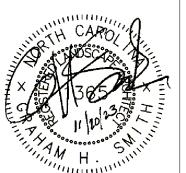
 12. ROADWAY/GREENWAY SUB GRADE THAT DOES NOT PASS THE PROOF ROLL TEST OR DENSITY TEST WILL REQUIRE REMEDIAL REPAIRS. REPAIR RECOMMENDATIONS FROM GEO-TECHNICAL FIRM CAN BE MADE BY USING SEVERAL METHODS INCLUDING THE USE OF GEO-GRID/STABILIZATION FABRIC AND ADDITIONAL ABC STONE, CEMENT STABILIZATION, LIME STABILIZATION OR REPLACEMENT OF UNSUITABLE SOILS WITH DRIER/MORE SUITABLE SOILS. REGARDLESS OF THE METHOD CHOSEN BY THE CONTRACTOR, GEOTECHNICAL FIRM, DEVELOPER OR OWNER FOR REMEDIAL REPAIRS; A SUCCESSFUL PROOF-ROLL MUST BE OBTAINED PRIOR TO PLACEMENT OF ABC STONE CAN BEGIN.
- 13. IF REPAIRS WERE MADE TO THE ROADWAY/GREENWAY SUB GRADE INVOLVE USING GEO-GRID/STABILIZATION FABRIC AND ADDITIONAL STONE; NO DENSITY ADDITIONAL TESTING IS REQUIRED. IF REPAIRS TO THE ROADWAY SUB GRADE INVOLVE UNDERCUTTING UNSUITABLE SOILS AND REPLACEMENT WITH OTHER SOILS THAT ARE MORE SUITABLE THEN DENSITY TESTING IS REQUIRED TO VERIFY COMPLIANCE OF 98% COMPACTION REQUIREMENT. THE CONTRACTOR/GEO-TECHNICAL FIRM MUST PROVIDE THE TOWN OF ZEBULON INSPECTOR WITH DENSITY TEST RESULTS PRIOR TO PLACEMENT OF ABC STONE WERE REQUIRED. ALL COST OF DENSITY TESTING SHALL BE BY THE DEVELOPER OR OWNER.
- 14. NOTE: IF THE ROADWAY/GREENWAY SUB-GRADE IS EXPOSED TO PRECIPITATION (RAIN, SNOW, ICE, ETC.) GREATER THAN A 1/10 OF INCH BEFORE IT IS COVERED WITH ABC STONE, THE EXPOSED SUB-GRADE MUST PASS AN ADDITIONAL PROOFROLL. ADDITIONAL DENSITY TESTING IS NOT REQUIRED UNDER THESE CONDITIONS.
- 15. REQUIREMENTS: 98% STANDARD PROCTOR ON ALL ROADWAY/GREENWAY ABC EVERY 150' ALL LOCATIONS TESTED SHALL MEET THE 98% TESTING REQUIREMENTS. AVERAGING OF DENSITY SCORES TO MEET STANDARD IS NOT ALLOWED. SUCCESSFUL PROOF-ROLLS REQUIRED FOR ALL ROADWAY/GREENWAY ABC STONE.
- 16. ROADWAY/GREENWAY ABC STONE MUST BE INSTALLED PER TOWN OF ZEBULON MINIMUM REQUIREMENTS AND/OR APPROVED ENGINEERING ROADWAY DRAWINGS. ROADWAY ABC STONE SHALL BE INSTALLED IN COMPACTED LIFTS PER MANUFACTURE EQUIPMENT RECOMMENDATIONS. A MINIMUM OF SIX INCHES OF COMPACTED ABC STONE SHALL BE INSTALLED UNDER CURB AND GUTTER. ALL ROADWAYS WILL HAVE A MINIMUM OF EIGHT INCHES OF COMPACTED ABC STONE. THE PLACEMENT OF ROADWAY ABC STONE IS REQUIRED TO PASS A PROOFROLL AND PASS DENSITY TESTING OF 98% MINIMUM EVERY 150' FEET. THE ZEBULON CONSTRUCTION INSPECTOR MUST HAVE DENSITY TESTING RESULTS PRIOR TO START OF PAVING. THE ROADWAY STONE CROSS-SLOPE, FROM CROWN TO CURB, SHALL BE CHECKED WITH A STRING LINE PRIOR TO THE PLACEMENT OF ASPHALT.
- 17. THE ROADWAY/GREENWAY STONE SHALL BE PROOF ROLLED JUST PRIOR TO THE PLACEMENT OF ASPHALT. IF A SECTION OF ROADWAY FAILS PRIOR TO PLACEMENT OF ASPHALT AFTER ALL OTHER SUCCESSFUL TESTS; ADDITIONAL ASPHALT AT THE DIRECTION OF THE CONSTRUCTION INSPECTOR MAY BE ALLOWED. ONE INCH OF ASPHALT MAY BE SUBSTITUTED FOR EVERY TWO INCHES OF STONE.
- 18. NOTE: IF THE ROADWAY/GREENWAY ABC IS EXPOSED TO PRECIPITATION (RAIN, SNOW, ICE, ETC.) GREATER THAN 1/10 INCH BEFORE IT IS COVERED WITH ABC STONE, THE EXPOSED SUB-GRADE MUST PASS AN ADDITIONAL PROOF-ROLL. ADDITIONAL DENSITY TESTING IS NOT REQUIRED UNDER THESE CONDITIONS.
- 19. ASPHALT PLACEMENT SHOULD BE IN ACCORDANCE WITH ENGINEERING DRAWINGS, SIGNED AND SEALED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL INSTALL ASPHALT IN MULTIPLE LAYERS/LIFTS. THE FINAL 1" OR 1.5" OVERLAY WILL BE AT THE 80% BUILDING PERMIT LEVEL FOR EACH PHASE OR AT THE DIRECTION OF THE PUBLIC WORKS DIRECTOR. ASPHALT CORES WILL BE TAKEN AT BOTH OVERLAYS TO INSURE COMPLIANCE WITH ENGINEERING DRAWINGS FOR THICKNESS AND DENSITY.

Mix Type	Single Lift Depths - min/max	Max layer total depths	Density
SF4.75A	0.5-1.0 inches	2" Depth	85%
SF9.5C & D	1.5-2.0 inches	3" Depth	92%
SF9.5B	1.0-1.5 inches	3" Depth	90%
I-19.0C	2.5-4.0 inches	4" Depth	92%
B25.0C	3.0-5.5 inches	No limit	92%

- 20. ASPHALT MIXTURES SHALL NOT BE PLACED DURING RAINY WEATHER, WHEN SUBGRADE OR COURSE IS FROZEN, OR WHEN THE MOISTURE ON THE SURFACE TO BE PAVED WOULD PREVENT A PROPER BOND. ASPHALT MATERIAL MUST NOT BE PLACED WHEN THE AIR TEMPERATURE MEASURED IN THE SHADE AWAY FROM ARTIFICIAL HEAT AT THE LOCATION OF THE PAVING OPERATION AND THE ROAD SURFACE TEMPERATURE IN THE SHADE AT THE PAVING SITE IS BELOW 40 DEGREES AIR TEMPERATURE AND 50 DEGREES MINIMUM SURFACE TEMPERATURE.
- 21. ASPHALT CORE SAMPLES SHOULD BE SELECTED EVERY 300' FEET OR MINIMUM OF TWO CORES PER ROADWAY FOR ANALYSIS OF THICKNESS AND DENSITY.
- 22. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING/CREATING A CHART/MAP IF THE CORED LOCATIONS FOR SUBMITTAL WITH THE TESTING. CORES WILL BE RANDOMLY TAKEN
- CORED LOCATIONS FOR SUBMITTAL WITH THE TESTING. CORES WILL BE RANDOMLY TAKEN ALONG THE LONGITUDINAL DIRECTIONS ACROSS THE ROADWAY/GREENWAY BUT NOT WITHIN ONE FOOT OF THE EDGE OF PAVEMENT. THE RESULTS OF SAMPLES GREATER THAN 10 FEET APART WILL NOT BE AVERAGE AND USED TO VERIFY COMPLIANCE WITH THE TOWN OF ZEBULON SPECIFICATIONS. (SECTION 2.6.H)







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ZEBULON ANIMAL HOSPIIAL ZAH REALTY, LLC 1620 N. ARENDELL AVE., ZEBULON, NC

PROJECT NUMBER: **2209**1

project phase: SITE PLAN SUBMITTAL

DATE: 10.02.2023 REVISED: 11.20.2023

ZONING
CONDITIONS &
TOWN OF ZEBULON
STANDARD NOTES

ZONING CONDITIONS

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- 3. ALL TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
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- 7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF OTHER UTILITIES WITHIN THE PROJECT SCOPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING OTHER UTILITIES OWNERS AND PROVIDE PROTECTION AND SAFEGUARDS TO PREVENT DAMAGE OF INTERRUPTION TO EXISTING FACILITIES AND TO MAINTAIN ACCESSIBILITY TO EXISTING UTILITIES.
- CONTRACTOR SHALL CONTRACT JASON BROWN AT 919-795-5640 WITH THE TOWN OF ZEBULON TO SCHEDULE A PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL PROVIDE A MINIMUM OF 72 HOURS OF NOTICE TO THE TOWN PRIOR TO BEGINNING CONSTRUCTION.
- ALL ROADWAY, GREENWAY, SIDEWALK AND STORM DRAINAGE IMPROVEMENTS IN ROW OR DEDICATED PUBLIC EASEMENTS WILL BE REQUIRED TO BE DEDICATED TO THE TOWN OF ZEBULON AT COMPLETION OF THE PROJECT.
- 10. AS-BUILT SITE PLANS FOR ROADWAY, GREENWAY AND UTILITY WORK MUST BE SUBMITTED AND APPROVED PRIOR TO FINAL ACCEPTANCE. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING REDLINE LINE DRAWINGS.
- 11. DEVELOPER/OWNER IS RESPONSIBLE FOR CONTRACTING WITH THIRD PARTY NCDOT CERTIFIED TESTING FIRM. TOWN OF ZEBULON MUST APPROVE THE FIRM IN ADVANCE. MATERIAL TESTING IS REQUIRED FOR ALL ROADWAY AND GREENWAY TRAIL WORK. FINAL REPORTING AND SEALED CERTIFICATION IS REQUIRED AT COMPLETION OF THE PROJECT BY THE GEO-TECHNICAL ENGINEER. TESTING IS REQUIRED FOR SUBGRADE, ROADWAY/GREENWAY STONE, AND ASPHALT, CURB, AND GUTTER PER TOWN OF ZEBULON SPECS.
- 12. AT THE COMPLETION OF THE PROJECT, THE DEVELOPER SHALL PROVIDE THE TOWN A ONE-YEAR WARRANTY ON ALL IMPROVEMENTS DEDICATED TO THE TOWN OF ZEBULON.

TOWN OF ZEBULON STANDARD CONSTRUCTION NOTES: CONCRETE

- 1. ALL DEDICATED CONCRETE SIDEWALK REQUIRES CONCRETE TESTING FOR THE FOLLOWING REQUIREMENTS - SECTION 2.1.1
- 4" CONCRETE SLUMP
- TEMPERATURE 50 AND 90 DEGREES
- AIR MIXTURE RANGE 3.5% TO 6.5%
- STRUCTURAL STRENGTH BREAK TEST 7,14,28 DAYS @ 3000 PSI @ 28 DAYS
- SAMPLES EVERY 1000 LF OF CURB AND GUTTER TO ENSURE QUALITY MAX WATER -CEMENT RATIO BY WEIGHT: 0.594
- MINIMUM CEMENT CONTENT (LBS/CY): 602
- 9. CONCRETE SIDEWALK TESTING IS NOT REQUIRED, UNLESS CONSTRUCTION INSPECTOR DETERMINES THAT THE QUALITY IS INFERIOR AND DOES NOT MEET INDUSTRY STANDARDS. CONTRACTOR MUST MAINTAIN A 4-INCH SLUMP FOR ALL SIDEWALK WORK. AIR TEMPERATURES AT PLACEMENT MUST BE 40 DEGREES AND RISING. SURFACE TEMPERATURES SHALL BE 50 DEGREES OR GREATER. (SECTION 2.2.2 E)

TOWN OF ZEBULON STANDARD CONSTRUCTION NOTES: STORM DRAINAGE INFRASTRUCTURE

1. ALL STORMWATER SYSTEM DRAINAGE WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER LESS THE AREA IS IN A PUBLIC DEDICATED DRAINAGE EASEMENT

TOWN OF ZEBULON STANDARD CONSTRUCTION NOTES: ROADWAY/GREENWAY SUBGRADE. ROADWAY ABC AND ASPHALT

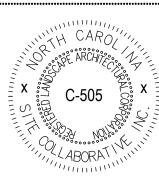
ROADWAY/GREENWAY SUB-GRADE: THE BASE SOIL ELEVATION DETERMINED BY APPROVED ENGINEERED DRAWINGS PRIOR TO PLACEMENT OF ROADWAY ABC AND ASPHALT

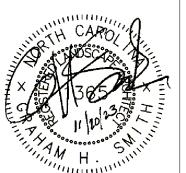
- ROADWAY/GREENWAY STONE GRADE: THE APPROVED COMPACTED ROADWAY SUB-GRADE PLUS THE COMPACTED STONE GRADE PRIOR TO PLACEMENT OF ASPHALT.
- 3. IN ALL CASES, THE ROADWAY/GREENWAY SUB-GRADE MUST PAST A PROOF-ROLL TEST BEFORE PLACEMENT OF STONE. THE DEVELOPER/OWNER/CONTRACTOR SHOULD PROVIDE THIRD PARTY NCDOT CERTIFIED GEOTECHNICAL FIRM TO PERFORM DENSITY TESTING OF SUB-GRADE EVERY 300 FEET AND ROADWAY/GREENWAY ABC EVERY 150 FEET VIA A NUCLEAR GAUGE. THE TOWN OF ZEBULON CONSTRUCTION INSPECTOR WILL SELECT VARIOUS LOCATIONS OF THE DENSITY TESTING. IT IS RECOMMENDED THAT TESTING BE PERFORMED AT FILL LOCATIONS OR UTILITY CUTS. A TOWN OF ZEBULON CONSTRUCTION INSPECTOR MUST BE PRESENT DURING ALL TESTING. ALL TEST RESULTS SHALL BE SUBMITTED TO AND APPROVED BY THE TOWN OF ZEBULON PUBLIC WORKS DIRECTOR BEFORE ROADWAY STONE IS INSTALLED.
- 4. PROOF ROLL STANDARD- A FULLY LOADED DUMP TRUCK/MOTOR GRADER THAT HAS A MINIMUM GROSS WEIGHT OF AT LEAST 40,000 POUNDS (20 TONS) UNDER THE OBSERVATION OF THE TOWN OF ZEBULON REPRESENTATIVE. NO OTHER METHOD WILL BE ACCEPTED. ALL AREAS OF THE ROADWAY/GREENWAY SUB-GRADE OR ROADWAY STONE SHALL BE COVERED BY THE WHEELS OF THE PROOF-ROLLER OPERATING AT WALKING SPEED (TWO TO THREE MILES PER HOUR) OR 225 TO 300 FEET PER MINUTE.
- 5. IT IS THE CONTRACTOR RESPONSIBILITY TO PROTECT ALL STRUCTURAL FACILITIES ON THE PROJECT SUCH AS BRIDGES, BOX CULVERTS, PIPE CULVERTS, AND UTILITIES FROM
- DAMAGE FROM PROOF ROLLING EQUIPMENT. 6. PROOF ROLLS ARE REQUIRED AT THE ROADWAY/GREENWAY SUB-GRADE CONSTRUCTION
- PHASE AND ROADWAY/GREENWAY STONE CONSTRUCTION PHASE ANY AND ALL AREAS, WHICH RUT OR PUMP EXCESSIVELY UNDER THE WHEELS OF THE PROOF-ROLLER SHALL BE REPAIRED BY THE DEVELOPER/CONTRACTOR BEFORE ROADWAY STONE OR ASPHALT IS INSTALLED
- 8. PROOF ROLL AREAS AGAIN FOLLOWING THE COMPLETION OF THE NECESSARY CORRECTIONS. ALL COST ASSOCIATED WITH THE PROOF ROLLING PROCESS IS THE RESPONSIBILITY OF DEVELOPER/OWNER OR CONTRACTOR.
- THE TOWN SHALL NOT BE RESPONSIBLE FOR ENSURING PROPER GRADES AND ALIGNMENT OF ROADWAY/GREENWAY AND CURB AND GUTTER. IF THE ALIGNMENT AND GRADES ARE INCORRECT; IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER/OWNER TO MAKE CORRECTIVE REPAIRS AT THEIR OWN EXPENSE.
- 10. REQUIREMENTS: 98% STANDARD PROCTOR ON ALL SOILS EVERY 300'. ALL LOCATIONS TESTED SHALL MEET THE 98% TESTING REQUIREMENTS. AVERAGING OF DENSITY SCORES TO MEET STANDARD IS NOT ALLOWED.
- 11. SUCCESSFUL PROOF-ROLLS REQUIRED FOR ALL SUB-GRADE SOILS. ALL ROADWAY
- SUBGRADE MUST PASS A PROOF-ROLL TEST (NO EXCEPTIONS). 12. ROADWAY/GREENWAY SUB GRADE THAT DOES NOT PASS THE PROOF ROLL TEST OR DENSITY TEST WILL REQUIRE REMEDIAL REPAIRS. REPAIR RECOMMENDATIONS FROM GEO-TECHNICAL FIRM CAN BE MADE BY USING SEVERAL METHODS INCLUDING THE USE OF GEO-GRID/STABILIZATION FABRIC AND ADDITIONAL ABC STONE, CEMENT STABILIZATION, LIME STABILIZATION OR REPLACEMENT OF UNSUITABLE SOILS WITH DRIER/MORE SUITABLE SOILS. REGARDLESS OF THE METHOD CHOSEN BY THE CONTRACTOR, GEOTECHNICAL FIRM, DEVELOPER OR OWNER FOR REMEDIAL REPAIRS; A SUCCESSFUL PROOF-ROLL MUST BE OBTAINED PRIOR TO PLACEMENT OF ABC STONE CAN BEGIN.
- 13. IF REPAIRS WERE MADE TO THE ROADWAY/GREENWAY SUB GRADE INVOLVE USING GEO-GRID/STABILIZATION FABRIC AND ADDITIONAL STONE; NO DENSITY ADDITIONAL TESTING IS REQUIRED. IF REPAIRS TO THE ROADWAY SUB GRADE INVOLVE UNDERCUTTING UNSUITABLE SOILS AND REPLACEMENT WITH OTHER SOILS THAT ARE MORE SUITABLE THEN DENSITY TESTING IS REQUIRED TO VERIFY COMPLIANCE OF 98% COMPACTION REQUIREMENT. THE CONTRACTOR/GEO-TECHNICAL FIRM MUST PROVIDE THE TOWN OF ZEBULON INSPECTOR WITH DENSITY TEST RESULTS PRIOR TO PLACEMENT OF ABC STONE WERE REQUIRED. ALL COST OF DENSITY TESTING SHALL BE BY THE DEVELOPER OR OWNER
- 14. NOTE: IF THE ROADWAY/GREENWAY SUB-GRADE IS EXPOSED TO PRECIPITATION (RAIN. SNOW, ICE, ETC.) GREATER THAN A 1/10 OF INCH BEFORE IT IS COVERED WITH ABC STONE. THE EXPOSED SUB-GRADE MUST PASS AN ADDITIONAL PROOFROLL. ADDITIONAL DENSITY TESTING IS NOT REQUIRED UNDER THESE CONDITIONS.
- 15. REQUIREMENTS: 98% STANDARD PROCTOR ON ALL ROADWAY/GREENWAY ABC EVERY 150' ALL LOCATIONS TESTED SHALL MEET THE 98% TESTING REQUIREMENTS. AVERAGING OF DENSITY SCORES TO MEET STANDARD IS NOT ALLOWED. SUCCESSFUL PROOF-ROLLS REQUIRED FOR ALL ROADWAY/GREENWAY ABC STONE
- 16. ROADWAY/GREENWAY ABC STONE MUST BE INSTALLED PER TOWN OF ZEBULON MINIMUM REQUIREMENTS AND/OR APPROVED ENGINEERING ROADWAY DRAWINGS. ROADWAY ABC STONE SHALL BE INSTALLED IN COMPACTED LIFTS PER MANUFACTURE EQUIPMENT RECOMMENDATIONS. A MINIMUM OF SIX INCHES OF COMPACTED ABC STONE SHALL BE INSTALLED UNDER CURB AND GUTTER. ALL ROADWAYS WILL HAVE A MINIMUM OF EIGHT INCHES OF COMPACTED ABC STONE. THE PLACEMENT OF ROADWAY ABC STONE IS REQUIRED TO PASS A PROOFROLL AND PASS DENSITY TESTING OF 98% MINIMUM EVERY 150' FEET. THE ZEBULON CONSTRUCTION INSPECTOR MUST HAVE DENSITY TESTING RESULTS PRIOR TO START OF PAVING. THE ROADWAY STONE CROSS-SLOPE. FROM CROWN TO CURB, SHALL BE CHECKED WITH A STRING LINE PRIOR TO THE PLACEMENT OF ASPHALT.
- 17. THE ROADWAY/GREENWAY STONE SHALL BE PROOF ROLLED JUST PRIOR TO THE PLACEMENT OF ASPHALT. IF A SECTION OF ROADWAY FAILS PRIOR TO PLACEMENT OF ASPHALT AFTER ALL OTHER SUCCESSFUL TESTS: ADDITIONAL ASPHALT AT THE DIRECTION OF THE CONSTRUCTION INSPECTOR MAY BE ALLOWED. ONE INCH OF ASPHALT MAY BE SUBSTITUTED FOR EVERY TWO INCHES OF STONE
- 18. NOTE: IF THE ROADWAY/GREENWAY ABC IS EXPOSED TO PRECIPITATION (RAIN, SNOW, ICE ETC.) GREATER THAN 1/10 INCH BEFORE IT IS COVERED WITH ABC STONE, THE EXPOSED SUB-GRADE MUST PASS AN ADDITIONAL PROOF-ROLL. ADDITIONAL DENSITY TESTING IS NOT REQUIRED UNDER THESE CONDITIONS.
- ASPHALT PLACEMENT SHOULD BE IN ACCORDANCE WITH ENGINEERING DRAWINGS. SIGNED AND SEALED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL INSTALL ASPHALT IN MULTIPLE LAYERS/LIFTS. THE FINAL 1" OR 1.5" OVERLAY WILL BE AT THE 80% BUILDING PERMIT LEVEL FOR EACH PHASE OR AT THE DIRECTION OF THE PUBLIC WORKS DIRECTOR. ASPHALT CORES WILL BE TAKEN AT BOTH OVERLAYS TO INSURE COMPLIANCE WITH ENGINEERING DRAWINGS FOR THICKNESS AND

Mix Type	Single Lift Depths - min/max	Max layer total depths	Density
SF4.75A	0.5-1.0 inches	2" Depth	85%
SF9.5C & D	1.5-2.0 inches	3" Depth	92%
SF9.5B	1.0-1.5 inches	3" Depth	90%
I-19.0C	2.5-4.0 inches	4" Depth	92%
B25.0C	3.0-5.5 inches	No limit	92%

- 20. ASPHALT MIXTURES SHALL NOT BE PLACED DURING RAINY WEATHER, WHEN SUBGRADE OR COURSE IS FROZEN, OR WHEN THE MOISTURE ON THE SURFACE TO BE PAVED WOULD PREVENT A PROPER BOND. ASPHALT MATERIAL MUST NOT BE PLACED WHEN THE AIR TEMPERATURE MEASURED IN THE SHADE AWAY FROM ARTIFICIAL HEAT AT THE LOCATION OF THE PAVING OPERATION AND THE ROAD SURFACE TEMPERATURE IN THE SHADE AT THE PAVING SITE IS BELOW 40 DEGREES AIR TEMPERATURE AND 50 DEGREES MINIMUM SURFACE TEMPERATURE.
- 21. ASPHALT CORE SAMPLES SHOULD BE SELECTED EVERY 300' FEET OR MINIMUM OF TWO CORES PER ROADWAY FOR ANALYSIS OF THICKNESS AND DENSITY.
- 22. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING/CREATING A CHART/MAP IF THE
- CORED LOCATIONS FOR SUBMITTAL WITH THE TESTING. CORES WILL BE RANDOMLY TAKEN ALONG THE LONGITUDINAL DIRECTIONS ACROSS THE ROADWAY/GREENWAY BUT NOT WITHIN ONE FOOT OF THE EDGE OF PAVEMENT. THE RESULTS OF SAMPLES GREATER THAN 10 FEET APART WILL NOT BE AVERAGE AND USED TO VERIFY COMPLIANCE WITH THE TOWN OF ZEBULON SPECIFICATIONS. (SECTION 2.6.H)







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PROJECT NUMBER: 22091

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SITE PLAN SUBMITTAL

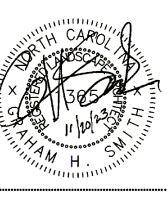
DATE: 10.02.2023 **REVISED:** 11.20.2023

SHEET TITLE: ZONING CONDITIONS & TOWN OF ZEBULON

STANDARD NOTES

1620 Hillsborough St | Suite 100 Raleigh, NC 27605 919.805.3586





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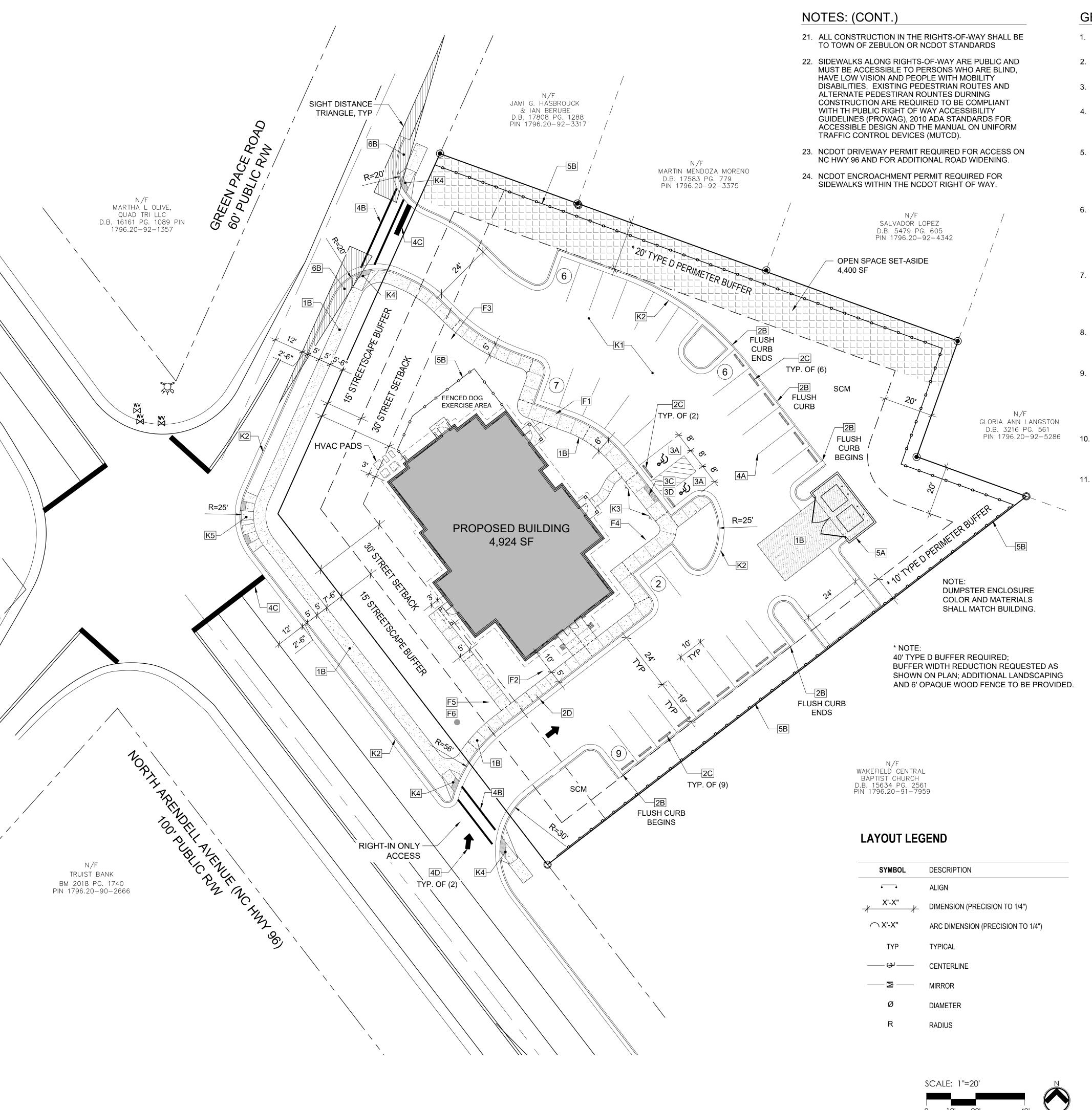
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SITE PLAN SUBMITTAL

DATE: 10.02.2023 REVISED: 11.20.2023

> **EXISTING** CONDITONS

L100



GENERAL SITE NOTES

UNLESS OTHERWISE NOTED.

- 1. ALL PAVEMENTS TO SLOPE POSITIVELY AWAY FROM ALL BUILDINGS. PONDING OF WATER IS PROHIBITED.
- 2. ALL DIMENSIONS ARE TO BACK OF CURB OR EDGE OF SIDEWALK UNLESS OTHERWISE NOTED.
- 3. ALL CURB RADII ARE 4'-6" AT BACK OF CURB UNLESS
- OTHERWISE NOTED. 4. PROVIDE CONSTRUCTION JOINTS IN CONCRETE WALKWAYS AS SHOWN IN PLANS. IF NOT SHOWN ON
- JOINT MAX SPACING @ 50'. 5. THROUGHOUT PROJECT SITE, ALL DIMENSIONS TO BE FIELD VERIFIED. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCY. ALL DIMENSIONS ARE TO OUTSIDE FACE OF BUILDING, TO CENTERLINE, CENTER

PLANS, SCORE JOINT - MAX SPACING @ 10', EXPANSION

6. THE CONTRACTOR, AT ALL TIMES, MUST KEEP THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS OR RUBBISH CAUSED BY THE CONTRACTOR, THE CONTRACTOR'S EMPLOYEES OR THE CONTRACTOR'S SUBCONTRACTOR. ALL DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE ON A DAILY

TO CENTER ON STRIPES, AND/OR FACE OF CURB,

- 7. IF DEPARTURES FROM THE DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE ONLY WITH THE EXPRESSED WRITTEN PERMISSION OF THE
- 8. LANDSCAPE ARCHITECT AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- 9. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE, ARE BASED ON A FIELD DATA PROVIDED TO LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES, UNDERGROUND LINES, AND STRUCTURES AS NECESSARY TO AVOID DAMAGING OR DESTROYING EXISTING SERVICES.
- CONTRACTOR SHALL NOTIFY THE NORTH CAROLINA ONE CALL CENTER AT 811 OR 1-800-632-4949 PRIOR TO STARTING WORK. ALL UTILITIES SHALL BE MARKED PRIOR TO STARTING WORK.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING THE ACTUAL AND EXACT LOCATION, SIZE,

- AND MATERIAL COMPOSITION OF ANY EXISTING WATER OR SEWER SERVICE PROPOSED FOR CONNECTION OR USE ON THIS PROJECT AND FOR THE RELOCATION OF ANY UTILITY SERVICES REQUIRED TO COMPLETE ANY PORTION OF THESE CONSTRUCTION PLANS.
- 12. CONTRACTOR SHALL MAINTAIN AN "AS BUILT" SET OF DRAWINGS TO RECORD ANY FIELD CHANGES, ALONG WITH ANY PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE OWNER AT THE END OF THE
- 13. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH PERMITS AS ISSUED, AND ANY AND ALL APPLICABLE STATE, COUNTY AND LOCAL CODES.
- 14. EXISTING IMPROVEMENTS DAMAGED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED OR RESTORED TO THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE OWNER OF THE IMPROVEMENTS
- 15. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, AND/OR ANY OTHER REQUIREMENTS WHICH MUST BE MET UNDER CONTRACT.
- 16. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR DETAILS OF BUILDINGS AND BUILDING DIMENSIONS
- 17. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF ALL UNDERGROUND UTILITIES FOR THIS PROJECT WITH THE OWNER'S REPRESENTATIVE PER ALL APPLICABLE REGULATIONS.
- 18. CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ON SITE AND UTILITY PROVIDERS DURING CONSTRUCTION TO ENSURE SMOOTH TRANSITION BETWEEN DISCIPLINES.
- 19. ALL DEMOLITION, AND ANY SUBSEQUENT CONSTRUCTION, SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. ALL TREE PROTECTION FENCING SHALL REMAIN IN PLACE DURING CONSTRUCTION.
- 20. THIS SITE SHALL BE FULLY COMPLIANT WITH THE CURRENT EDITION OF THE NORTH CAROLINA ACCESSIBILITY CODES (ANSI 117.1 AND CHAPTER 11 OF THE NCBC) UNLESS AND EXCEPT IN AREAS WHERE AN APPROVED STATEMENT FROM A SITE ENGINEER. SURVEYOR OR LANDSCAPE ARCHITECT VERIFIES THAT SITE CONDITIONS EXIST WHERE THE TOPOGRAPHY OF THE SITE IS EXTREME AND ONLY ALTERNATE METHODS OF COMPLIANCE ARE POSSIBLE.

4/L202

4/L202

HARDSCAPE LEGEND

	SYMBOL	PROPOSED SITE ITEM	DETAIL/SHEET
VÉH PED.	1B	C.I.P. CONCRETE PAVING	2/L202
	2B	6" WIDE FLUSH CONCRETE CURB	6/L202
<u> </u>	2C	CONCRETE WHEELSTOP	3/L202
	2D	"DO NOT ENTER - WRONG WAY" SIGN	
	3A	ADA PARKING	1/L203
	3C	ADA DETECTABLE WARNING SURFACE	2/L203
	3D	ADA RAMP	4/L203
	4A	4" THERMOPLASTIC PARKING STRIPE	
	4B	CROSSWALK	
	4C	STOP BAR	
	4D	DIRECTIONAL ARROW	
	5A	DUMPSTER ENCLOSURE WITH GATE	3/L203
	5B	6' HT. OPAQUE FENCE	1/L202
	SYMBOL	SITE FURNITURE	
	F1	2 PORT EV CHARGING STATION	
	F2	DECORATIVE FOUNTAIN	
	F3	CANOPY WITH PERMANENT SEATING	
	F4	DRINKING FOUNTAIN WITH PET FOUNTAIN	
	F5	LITTLE FREE LIBRARY	
	F6	ALL-WEATHER BULLETIN BOARD	
	SYMBOL	BY OTHER CONSULTANTS	
	K1	ASPHALT PAVING	PER CIVIL
	K2	STANDARD CURB & GUTTER	PER CIVIL
	K3	HANDICAP SIGN	PER CIVIL
	K4	SINGLE HANDICAP RAMP	PER CIVIL
	K5	DOUBLE HANDICAP RAMP	PER CIVIL
	SYMBOL	OTHER	
	PA	PLANTING AREA	
	TYP.	TYPICAL	

---- EXPANSION JOINT

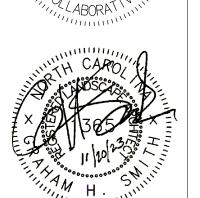
SCORE JOINT

OPEN SPACE SET-ASIDE

10'x70' SIGHT TRIANGLE







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> $\mathbf{\Omega}$ ARENDELL

ZEB ZAH PROJECT NUMBER: 22091

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SITE PLAN SUBMITTAL

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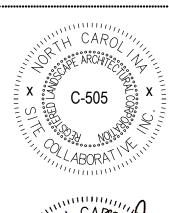
LAYOUT AND HARDSCAPE PLAN

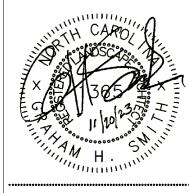
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HARDSCAPE LEGEND

SYMBO	DL PROPOSED SITE ITEM	DETAIL/SHEET	MANUFACTURER	MODEL #	COLOR	FINISH	NOTE
VEH PED 1B	C.I.P. CONCRETE PAVING	2/L202	LOCAL BATCH PLANT	N/A	NATURAL GRAY	MED. BROOM FINISH	
2B	6" WIDE FLUSH CONCRETE CURB	6/L202	LOCAL BATCH PLANT	N/A	NATURAL GRAY	MED. BROOM FINISH	
2C	CONCRETE WHEELSTOP	3/L202	LOCAL SUPPLIER	CODE COMPLIANT	NATURAL GRAY		
2D	"DO NOT ENTER - WRONG WAY" SIGN		LOCAL SUPPLIER	CODE COMPLIANT	CODE COMPLIANT		
3A	ADA PARKING	1/L203	LOCAL SUPPLIER	CODE COMPLIANT	CODE COMPLIANT		
3C	ADA DETECTABLE WARNING SURFACE	2/L203	WASAU TILE (715.259.3121), OAE	A-90, 24" X 24"	A-90, SRI 03	TRUNCATED DOMES, ADA COMPLIANT	
3D	ADA RAMP	4/L203	LOCAL BATCH PLANT	N/A	NATURAL	MED. BROOM FINISH	
4A	4" THERMOPLASTIC PARKING STRIPE		LOCAL SUPPLIER				
4B	CROSSWALK		LOCAL SUPPLIER				
4C	STOP BAR		LOCAL SUPPLIER				
4D	DIRECTIONAL ARROW		LOCAL SUPPLIER				
5A	DUMPSTER ENCLOSURE WITH GATE	3/L203	LOCAL SUPPLIER		TO MATCH ARCHITECTURE	TBD	
5B	6' HT. OPAQUE FENCE	1/L202	LOCAL SUPPLIER		TBD	TBD	
SYMBO	DL SITE FURNITURE						
F1	2 PORT EV CHARGING STATION		BOSCH, OAE	EL-50650-GNTD-A	N/A	N/A	INSTALLATION BY QUALIFIED LICENSED ELECTRICIAN
F2	DECORATIVE FOUNTAIN		TBD				
F3	CANOPY WITH PERMANENT SEATING		TBD				
F4	DRINKING FOUNTAIN WITH PET FOUNTAIN		TBD				
F5	LITTLE FREE LIBRARY		TBD				
F6	ALL-WEATHER BULLETIN BOARD		TBD				
SYMBO	DL BY OTHER CONSULTANTS						
K1	ASPHALT PAVING	PER CIVIL					
K2	STANDARD CURB & GUTTER	PER CIVIL					
K3	HANDICAP SIGN	PER CIVIL					
K4	SINGLE HANDICAP RAMP	PER CIVIL					
K5	DOUBLE HANDICAP RAMP	PER CIVIL					
SYMRO	DL OTHER						
PA							
TYP.							
	EXPANSION JOINT	4/L202					
	SCORE JOINT	4/L202					
	OPEN SPACE SET-ASIDE	-					
	10'x70' SIGHT TRIANGLE						

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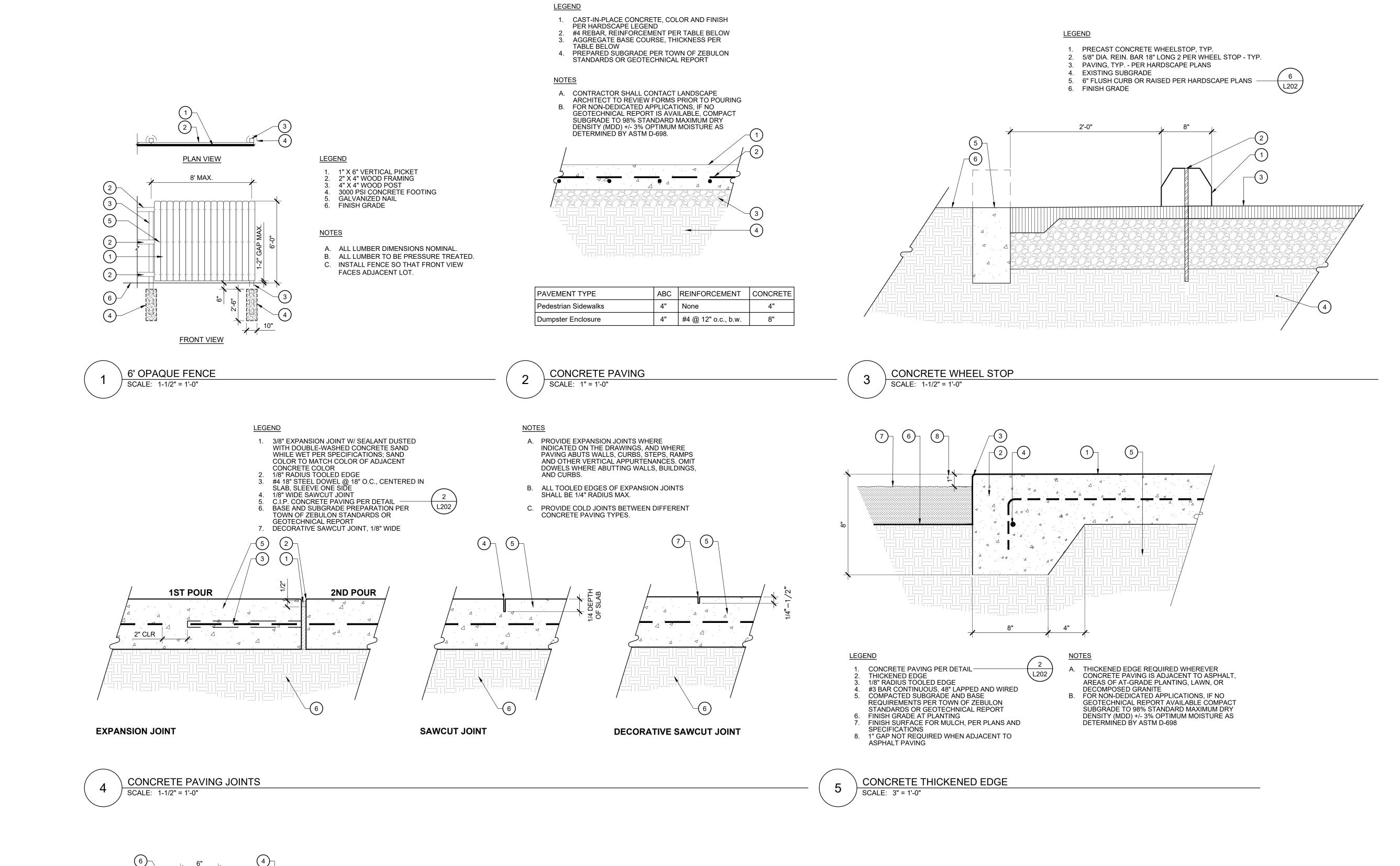
ZEBULON, NC ALTY, LLC ARENDELL, ZEBULON ZAH REALTY, 1620 N. AREN PROJECT NUMBER: 22091

project phase: SITE PLAN SUBMITTAL

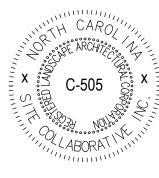
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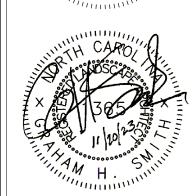
HARDSCAPE LEGEND

SHEET NUMBER:









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A REALTY, LLC

20 N. ARENDELL AVE., ZEBULON, NC

PROJECT NUMBER:

PROJECT PHASE:

9

PROJECT PHASE: SITE PLAN SUBMITTAL

DATE: 10.02.2023 REVISED: 11.20.2023

SHEET TITLE:
HARDSCAPE

DETAILS

L202

SHEET NUMBER:

SECTION

2

3

ALIGN

<u>LEGEND</u>

CONCRETE PER HARDSCAPE LEGEND #4 REBAR HORIZ., CONTINUOUS.

ADJACENT FINISH GRADE PER PLANS

A. IF NO GEOTECHNICAL REPORT IS AVAILABLE COMPACT SUBGRADE TO 98% STANDARD MAXIMUM DRY DENSITY (MDD) +/- 3% OPTIME OF THE COMPACT OF THE COMP

B. PROVIDE EXPANSION JOINT 30' O.C.
THROUGH LENGTH OF CURB AND WHEN
ADJACENT TO CONCRETE PAVING.

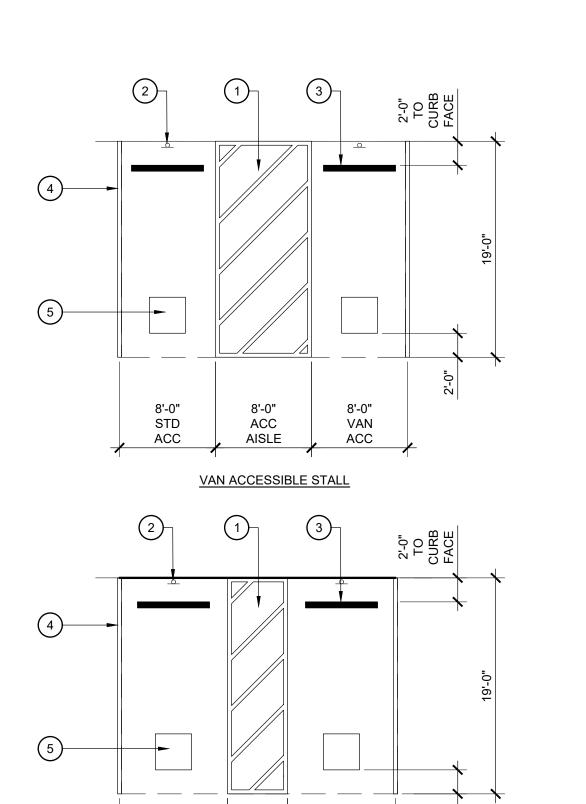
12" MIN. LAP AT SPLICE ASPHALT PAVING PER CIVIL PLANS

6. 1/4" RADIUS AT ALL EXPOSED EDGES

COMPACTED SUBGRADE PER

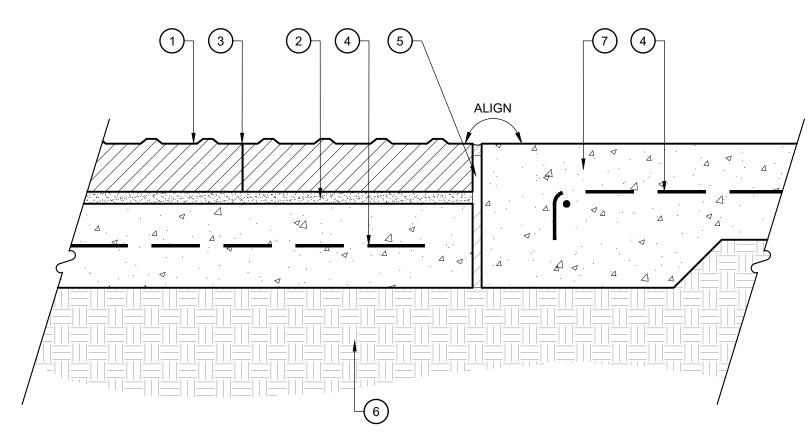
GEOTECHNICAL REPORT

ASTM D-698.



- ACCESSIBLE AISLE TO BE CLEAR OF ALL OBSTRUCTIONS
- 2. ACCESSIBLE SIGN, SEE HARDSCAPE PLAN FOR LOCATION CONCRETE WHEELSTOP
- 4" WIDE WHITE STRIPE 5. 36" X 36" INTERNATIONAL SIGN OF ACCESSIBILITY EMBLEM

A. CONTRACTOR SHALL VERIFY A MAX. SLOPE OF 2% IN ALL DIRECTIONS. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION



<u>LEGEND</u>

- PRECAST CONCRETE DETECTABLE WARNING PAVERS PER HARDSCAPE LEGEND
 MORTAR SETTING BED PER MANUFACTURER'S
- RECOMMENDATION BUTT JOINT BETWEEN PAVERS
- CONCRETE REINFORCEMENT PER GEOTECHNICAL REPORT

GEOTECHNICAL REPORT

EXPANSION JOINT PER DETAIL BASE AND SUBGRADE PREPARATION PER TOWN OF ZEBULON STANDARDS OR

7. CONCRETE THICKENED EDGE PER DETAIL

<u>NOTES</u>

- REFER TO HARDSCAPE PLAN AND LEGEND FOR LAYOUT AND PATTERN OF PAVERS.
 CONTRACTOR SHALL SUBMIT PAVER SAMPLE TO LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO ORDERING AND
- INSTALLATION. C. FINISH SURFACE OF DETECTABLE WARNING PAVERS SHALL BE LEVEL WITH ADJACENT PAVING.

ADA PARKING SCALE: 1/8" = 1'-0"

9'-0"

STD ACC

5'-0"

ACC

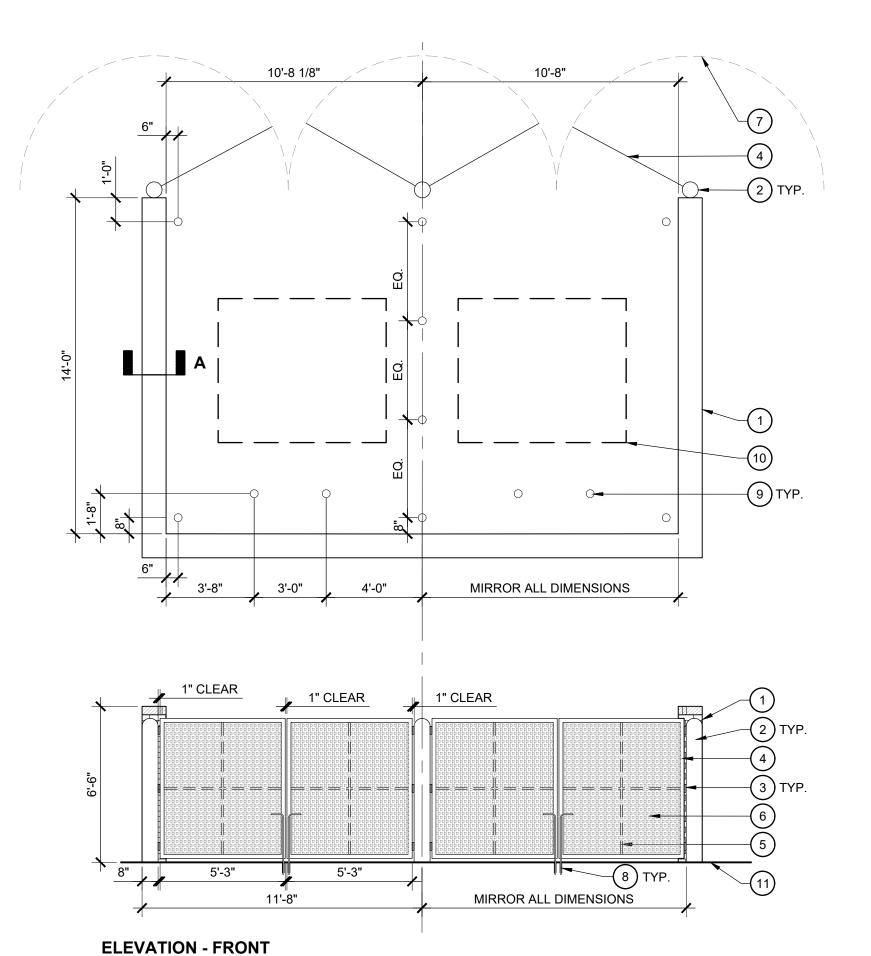
AISLE

STANDARD ACCESSIBLE STALL

9'-0"

STD

ADA DETECTABLE WARNING SURFACE SCALE: 1-1/2" = 1'-0"



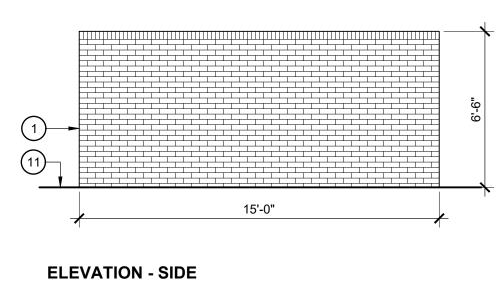
<u>LEGEND</u>

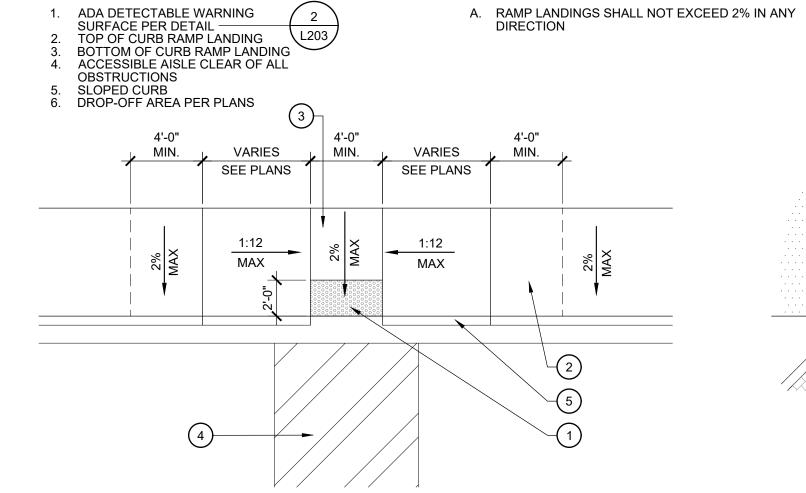
- 1. CMU BLOCK WALL WITH BRICK CLADDING, BRICK TO MATCH ARCHITECTURE.
- 2. 8" DIA. GALVANIZED STEEL GATE POST
 3. HEAVY DUTY GALVANIZED STEEL GATE HINGES, THREE (3)
 AT EACH GATE EQUALLY SPACED.
 4. 2"X2" SQ. GALVANIZED H.S.S. EXTERIOR SUPPORT GATE
- 5. 1"X1" SQ. GALVANIZED H.S.S. INTERIOR SUPPORT GATE
- STANDING SEAM METAL PANEL WELDED TO H.S.S. FRAME.
 GATE HINGES SHALL ALLOW FOR 180° SWING
 1/2" DIA. SOLID STOCK STEEL DROP ROD
- 9. 4" DIA. HOLLOW CORE GALVANIZED STEEL BOLLARD, EMBED INTO PAVEMENT AND FILL SOLID WITH GROUT 10. 8 YARD DUMPSTER BY OTHERS (SHOWN FOR REFERENCE
- 11. FINISH SURFACE
- 12. BRICK ROWLOCK COURSE. BRICK TO MATCH
- ARCHITECTURE.

 13. (2) BRICK SHINER COURSES. BRICK TO MATCH ARCHITECTURE.
- 14. 1/2" TOOLED JOINT. GROUT TO MATCH ARCHITECTURE.
 15. BRICK CLADDING IN RUNNING BOND PATTERN. BRICK TO MATCH ARCHITECTURE.
 16. ADJACENT PAVING PER HARDSCAPE PLAN. PROVIDE EXPANSION JOINT IF ADJACENT TO CONCRETE PAVING.
 17. BYSONYAGE CAME BLOOK PER PER STRUCTURAL
- 17. 8"X8"X16" CMU BLOCK. REINFORCEMENT PER STRUCTURAL. 18. 4"X8"X16" CMU BLOCK. REINFORCEMENT PER STRUCTURAL. 19. COMPACTED SUBGRADE
- 20. CAST-IN-PLACE CONCRETE FOOTING. SIZING AND REINFORCEMENT PER STRUCTURAL.

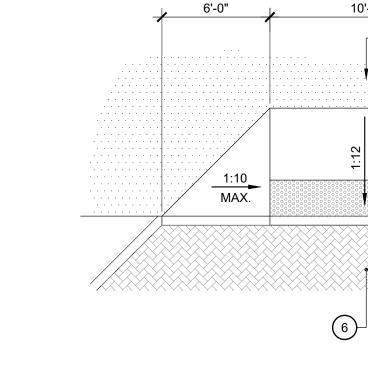
A. ALL MOUNTING HARDWARE TO BE GALVANIZED STEEL.
B. PROVIDE SHOP DRAWINGS PRIOR TO INSTALLATION.

C. ALL BRICK TO MATCH ARCHITECTURE.





PLAN - PARALLEL CURB RAMP



PLAN - PERPENDICULAR CURB RAMP

10'-9"

6'-0"

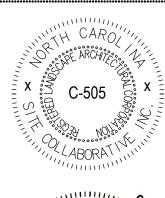
1:10 MAX.

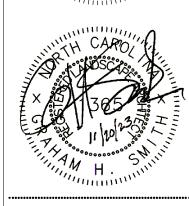
DUMPSTER ENCLOSURE WITH GATE SCALE: 1/4" = 1'-0"

ADA RAMP SCALE: 3/16" = 1'-0"

<u>LEGEND</u>

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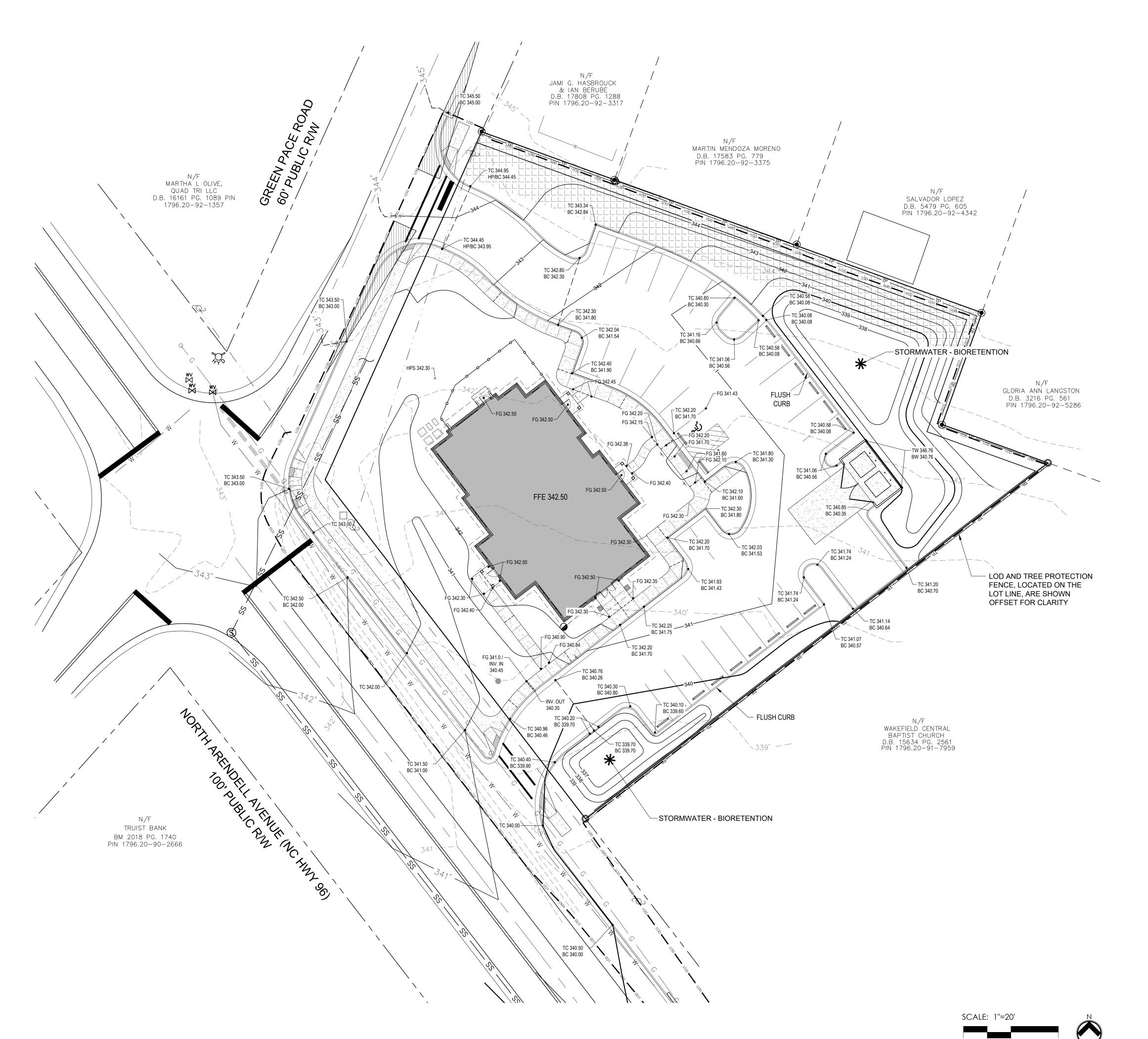
PROJECT NUMBER: 22091 SITE PLAN

SUBMITTAL DATE: 10.02.2023

REVISED: 11.20.2023

SHEET TITLE: HARDSCAPE **DETAILS**

L203



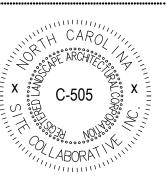
GRADING NOTES

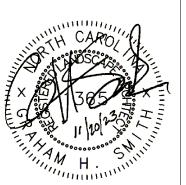
- 1. CONTRACTOR TO FIELD VERIFY ALL INFORMATION AND REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT PRIOR TO ANY CONSTRUCTION ACTIVITY.
- 2. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- 3. ALL PAVEMENTS TO SLOPE POSITIVELY AWAY FROM ALL BUILDINGS. PONDING OF WATER IS PROHIBITED.
- 4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF EROSION CONTROL METHODS DURING CONSTRUCTION, AND THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL PERMANENT EROSION CONTROL METHODS AFTER CONSTRUCTION IS COMPLETE, IF ANY PERMANENT METHODS ARE REQUIRED.
- 5. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE CITY OF RALEIGH EROSION AND SEDIMENT CONTROL MANUAL.
- 6. INSPECTOR REFERS TO AUTHORIZED REGULATORY AGENCY SEDIMENTATION AND EROSION CONTROL INSPECTOR OR HIS/HER REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE INSPECTOR, CLIENT, AND/OR CLIENT'S REPRESENTATIVES.
- 7. WHEN HAND PLANTING, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING.
- 8. DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER ON SLOPES THAT ARE 4:1 OR STEEPER, MULCH WILL BE ANCHORED.
- 9. EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY GRADING ON SITE. PLEASE CALL THE REGULATORY AUTHORITY FOR AN INSPECTION.
- 10. INSPECT AND MAINTAIN ALL EROSION CONTROL MEASURES EVERY 7 DAYS AND AFTER EACH SIGNIFICANT RAINFALL (0.5 INCHES OR GREATER) AND DOCUMENT WITH INSPECTION REPORTS.
- 11. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE.
- 12. LOCATE STOCKPILES UPSLOPE FROM EROSION CONTROL MEASURES. ALL SOIL STOCK PILES SHALL HAVE APPROPRIATE EROSION CONTROL PER THE LATEST VERSION OF THE CITY OF RALEIGH EROSION AND SEDIMENT CONTROL MANUAL INCLUDING SEEDING AND SILT FENCE AROUND THE BASE OF THE STOCK PILE.

GRADING LEGEND				
KEY	DESCRIPTION			
FG	FINISH GRADE			
MG	MEET EXISTING GRADE			
HP	HIGH POINT			
HPS	HIGH POINT OF SWALE			
LP	LOW POINT			
BS	BOTTOM OF STAIRS			
TS	TOP OF STAIRS			
BR	BOTTOM OF RAMP			
TR	TOP OF RAMP			
BC	BOTTOM OF CURB			
TC	TOP OF CURB			
BW	BOTTOM OF WALL			
TW	TOP OF WALL			
	ACCESSIBLE ROUTE			
——ТР ——	TREE PROTECTION FENCE			
—LOD —	LIMITS OF DISTURBANCE			

ROADWAY GRADING WILL BE COORDINATED DURING SITE PLAN APPROVAL.







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ARENDELL ZEBUL Δ 620 ZAH PROJECT NUMBER:

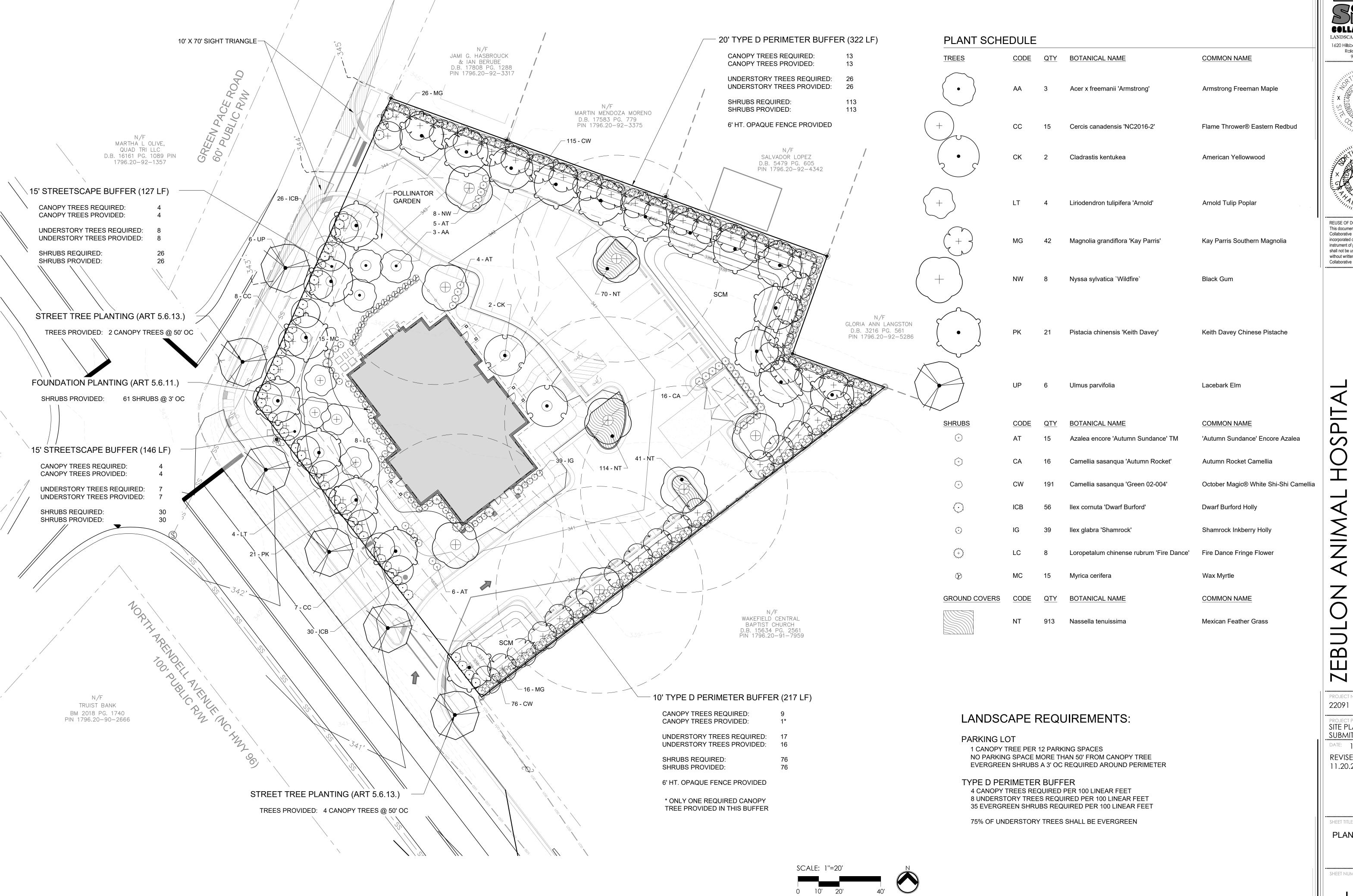
22091

SITE PLAN SUBMITTAL

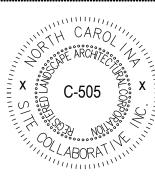
DATE: 10.02.2023 **REVISED:** 11.20.2023

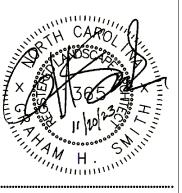
GRADING PLAN

SHEET NUMBER:









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PROJECT NUMBER:

SITE PLAN

SUBMITTAL DATE: 10.02.2023

REVISED: 11.20.2023

SHEET TITLE: PLANTING PLAN

SHEET NUMBER:

PLANT SCHEDULE

	FLAINT SCHE	DULL								
	TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	B&B OR CONT.	SPACING (O.C.)	REMARKS
	•	AA	3	Acer x freemanii 'Armstrong'	Armstrong Freeman Maple	2 1/2"	8`	B&B	AS SHOWN	UTILITY ALLOCATION POLICY COMPLIANCE - CATEGORY 3
+		CC	15	Cercis canadensis 'NC2016-2'	Flame Thrower® Eastern Redbud	1 1/2"	4`	CONTAINER	AS SHOWN	
		СК	2	Cladrastis kentukea	American Yellowwood	2 1/2"	8`	B&B	AS SHOWN	UTILITY ALLOCATION POLICY COMPLIANCE - CATEGORY 3
+		LT	4	Liriodendron tulipifera 'Arnold'	Arnold Tulip Poplar	2 1/2"	8`	B&B	AS SHOWN	UTILITY ALLOCATION POLICY COMPLIANCE - CATEGORY 3
	+	MG	42	Magnolia grandiflora 'Kay Parris'	Kay Parris Southern Magnolia		6`	B&B	AS SHOWN	
+		NW	8	Nyssa sylvatica `Wildfire`	Black Gum	2 1/2"	8`	B&B	AS SHOWN	
{		PK	21	Pistacia chinensis 'Keith Davey'	Keith Davey Chinese Pistache	2 1/2"	8`	B&B	AS SHOWN	
		UP	6	Ulmus parvifolia	Lacebark Elm	2 1/2"	8`	B&B	AS SHOWN	
	SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	<u>HEIGHT</u>	SPREAD	SPACING (O.C.)	REMARKS
	+	AT	15	Azalea encore 'Autumn Sundance' TM	'Autumn Sundance' Encore Azalea	3 GAL.	18" MIN.	18" MIN.	AS SHOWN	
	+	CA	16	Camellia sasanqua 'Autumn Rocket'	Autumn Rocket Camellia	5 GAL.	24" MIN.	24" MIN.	AS SHOWN	
	+	CW	191	Camellia sasanqua 'Green 02-004'	October Magic® White Shi-Shi Camellia	3 GAL.	18" MIN.	18" MIN.	AS SHOWN	
	\odot	ICB	56	llex cornuta 'Dwarf Burford'	Dwarf Burford Holly	3 GAL.	18" MIN.	18" MIN.	AS SHOWN	
	\odot	IG	39	llex glabra 'Shamrock'	Shamrock Inkberry Holly	3 GAL.	18" MIN.	18" MIN.	AS SHOWN	
	3 + X	LC	8	Loropetalum chinense rubrum 'Fire Dance'	Fire Dance Fringe Flower	5 GAL.	24" MIN.	24" MIN.	AS SHOWN	
	②	MC	15	Myrica cerifera	Wax Myrtle	3 GAL.	18" MIN.	18" MIN.	AS SHOWN	
	GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	<u>HEIGHT</u>	SPREAD	SPACING (O.C.)	REMARKS
		NT	913	Nassella tenuissima	Mexican Feather Grass	FLAT				

PLANTING NOTES

- 1. ROUGH GRADING TO BE COMPLETED PRIOR TO THE START OF PLANT INSTALLATION. SUBSTANTIAL COMPLETION SIGN-OFF BY LANDSCAPE ARCHITECT CONTRACTOR TO ENSURE NO CHANNELIZED FLOWS AROUND THE SITE.
- 2. CONTRACTOR RESPONSIBLE FOR LOCATING ALL UTILITIES AND UNDERGROUND IMPEDIMENTS PRIOR TO BEGINNING PLANTING.
- 3. ALL WEEDS, NON-NATIVE INVASIVE SPECIES, AND EXOTIC SPECIES LOCATED WITHIN THE PROJECT CONTRACTOR LIMITS SHALL BE ELIMINATED PRIOR TO PLANTING BED CREATION, PLANTING, AND SEEDING/SODDING OPERATIONS.
- 4. PLANTING SHOULD OCCUR IMMEDIATELY AFTER CONSTRUCTION TO STABILIZE AREAS OF BARE SOIL.
- 5. IT SHALL BE NOTED THAT ALL SECTIONS OF THE SITE THAT ARE SLOPED 3:1 OR HIGHER WILL BE COVERED WITH EROSION CONTROL STABILIZATION COIR FABRIC (WITH 1" SQUARE OPENINGS) PRIOR TO PLANTING TO ENSURE IMMEDIATE STABILIZATION. LANDSCAPE CONTRACTOR SHALL CUT FABRIC AT EACH PLANT LOCATION AND PLACE PLANTS ACCORDING TO PLAN. ALL FABRIC SHALL BE RE-STAKED PER ENGINEERS ORIGINAL DRAWINGS IMMEDIATELY AFTER PLANTING.
- 6. PLANTS ARE TO BE PURCHASED BY BOTANICAL NAMES. THEY SHALL BE REPRESENTATIVE OF THEIR SPECIES, MEET ALL NOTED CONDITIONS OF SPECIFICATIONS, AND SHALL BE IN VIGOROUS GROWING CONDITION MEETING ANSI STANDARD Z60.
- 7. LANDSCAPE ARCHITECT OR OWNER MAINTAINS RIGHT TO REJECT ANY PLANT DUE TO AESTHETICS OR STRUCTURAL DEFICIENCY AT ANY TIME.
- 8. CONTRACTOR RESPONSIBLE FOR FURNISHING AND INSTALLING ALL PLANTS SHOWN ON PLANS IN LOCATIONS SHOWN. QUANTITIES GIVEN ON THE PLANT LEGEND ARE FOR CONTRACTOR'S CONVENIENCE ONLY. IF DISCREPANCIES OCCUR, THE PLANS SHALL OVERRULE THE PLANT LEGEND. CONTRACTOR SHALL LOCATE ALL PLANTS AWAY FROM KNOWN PERMANENT FIXTURES. IF CONFLICT ARISES WITH PLAN, CONTRACTOR SHALL NOTIFY PROJECT MANAGER OR DESIGNEE PRIOR TO PROCEEDING.
- 9. ALL PLANT MATERIAL SHALL CONFORM TO OR EXCEED THE AMERICAN STANDARD FOR NURSERY STOCK (LATEST EDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- 10. ALL PLANT MATERIAL SHALL BE FREE OF ALL PESTS, DISEASES, AND CANKERS, IN HEALTHY CONDITION, AND FREE OF MECHANICAL DAMAGE AT THE TIME OF PLANTING.
- 11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE A HEALTHY AND VIABLE PLANT AND THE PLANT SHALL BE REJECTED IF DEEMED UNHEALTHY OR UNFIT AT ANY TIME DURING THE CONTRACT OR WARRANTY DURATION.
- 12. IF ANY PLANT/MATERIAL SUBSTITUTIONS ARE REQUESTED BY CONTRACTOR, THEN NOTICE SHALL BE GIVEN TO PROJECT MANAGER OR DESIGNEE AT MINIMUM SEVENTY-TWO (72) HOURS (NOT INCLUDING WEEKENDS) PRIOR TO DESIRED ORDERING DATE/TIME. WHEN SUBSTITUTIONS ARE REQUESTED BY CONTRACTOR, SUGGESTED ACCEPTABLE REPLACEMENTS SHALL ALSO BE PRESENTED AT TIME FOR FULL AND COMPLETE REVIEW BY LANDSCAPE ARCHITECT OR
- 13. BALLED AND BURLAPPED PLANTS/TREES TO BE PLANTED PRIOR TO CONTAINER OR BEDDING PLANTS.
- 14. BALLED AND BURLAPPED MATERIAL SHALL COMPLY WITH THE **FOLLOWING GUIDELINES:**
- 14.1. TREES DESIGNATED B&B SHALL BE PROPERLY DUG WITH FIRM, NATURAL BALLS OF SOIL RETAINING AS MANY FIBROUS ROOTS AS POSSIBLE. IN SIZES AND SHAPES AS SPECIFIED IN THE AMERICAN
- STANDARD FOR NURSERY STOCK ANSI Z60.1. 14.2. ROOT BALLS SHALL BE FIRMLY WRAPPED WITH NONSYNTHETIC. ROTTABLE BURLAP AND SECURED WITH NAILS AND HEAVY,
- NONSYNTHETIC TWINE. 14.3. ROOT COLLAR SHALL BE APPARENT AT SURFACE OF BALL. OR THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING EXCESS SOIL FROM THE TOP OF THE ROOTBALL
- 14.4. REMOVE ALL BURLAP, LACING, AND WIRE BASKET FROM AT LEAST THE TOP 1/2 OF THE ROOTBALL AND DISCARD FROM PLANTING HOLE. 14.5. DO NOT MANEUVER BY TRUNK. HANDLE BY ROOT BALL ONLY.
- 15. CONTAINERIZED PLANTS SHALL COMPLY WITH THE FOLLOWING 15.1. MATERIAL SHALL HAVE FIRM, NATURAL BALLS OF SOIL RETAINING AS
- MANY FIBROUS ROOTS AS POSSIBLE. IN SIZES AND SHAPES AS SPECIFIED IN THE AMERICAN STANDARD FOR NURSERY STOCK ANSI
- 15.2. ROOT COLLAR SHALL BE APPARENT AT SURFACE OF BALL. OR THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING EXCESS SOIL FROM THE TOP OF THE ROOTBALL.
- 15.3. REMOVE CONTAINER PRIOR TO PLANTING.
- 16. TREES TO BE STAKED WILL BE DESIGNATED BY THE LANDSCAPE ARCHITECT. TREE STAKING FOR CANOPY AND LARGE EVERGREEN TREES SHALL NOT EXCEED 90 DAYS.
- 17. PLANT BED PREPARATION:
- 17.1. ALL PLANT BEDS ARE TO RECEIVE A MINIMUM OF 4" OF APPROVED TOPSOIL TILLED IN TO A DEPTH OF 8" TO ENSURE INTEGRATION WITH EXISTING SOIL.
- 17.2. APPROVED TOPSOIL IS TO BE PREFERABLY FROM ON-SITE STOCKPILE FROM STRIPPING OPERATIONS - SEE EROSION AND SEDIMENT CONTROL PLANS.
- 17.3. IF ON-SITE TOPSOIL IS NOT AVAILABLE, CONTRACTOR SHALL PROVIDE TO SITE ACCORDINGLY.
- 18. ALL MULCH TO BE CERTIFIED TO BE FREE OF WEEDS, NON-NATIVE INVASIVE SPECIES AND THEIR LARVAE. MULCH SAMPLE SUBMITTAL SHALL BE PROVIDED TO LANDSCAPE ARCHITECT BEFORE SITE DELIVERY.

SEEDING/SODDING NOTES

- 1. ROUGH GRADING TO BE COMPLETED PRIOR TO THE START OF PLANT INSTALLATION. SUBSTANTIAL COMPLETION SIGN-OFF BY LANDSCAPE ARCHITECT CONTRACTOR TO ENSURE NO CHANNELIZED FLOWS AROUND THE SITE.
- 2. ALL SEEDED/SODDED AREAS SHALL BE FINISHED GRADE AT THE THICKNESS OF THE SOD.
- 3. NO SEEDED/SODDED AREAS SHALL BE SODDED UNTIL ALL OTHER CONSTRUCTION ACTIVITIES, INCLUDING PLANTING AND MULCHING HAVE OCCURRED AND LANDSCAPE ARCHITECT HAVE REVIEWED THE FINAL GRADING.
- 4. SOD AREAS WILL BE ACCEPTED WHEN IN COMPLIANCE WITH ALL THE **FOLLOWING CONDITIONS:**
- 4.1. ROOTS ARE THOROUGHLY KNIT TO THE SOIL
- 4.2. ABSENCE OF VISIBLE JOINTS 4.3. ALL AREAS SHOW A UNIFORM STAND OF SPECIFIED GRASS IN
- HEALTHY CONDITION 4.4. AT LEAST 30 DAYS HAVE ELAPSED SINCE THE COMPLETION OF WORK UNDER THIS SECTION.

- 5. QUALITY GUARANTEE: 5.1. SOD SHALL BE UNIFORM IN COLOR, LEAF TEXTURE, LEAF AND ROOD DENSITY, AND FREE FROM WEED, DISEASES, AND OTHER VISIBLE IMPERFECTIONS AT TIME OF FINAL ACCEPTANCE. GUARANTEE DOES NOT COVER DAMAGE AS A RESULT OF FERTILIZERS, PESTICIDES, OR OTHER APPLICATIONS NOT SUPERVISED BY THE CONTRACTOR OR AS A RESULT OF ACTS OF GOD OR VANDALISM.
- 5.2. SEED SHALL BE UNIFORM IN COLOR, LEAF TEXTURE, LEAF AND ROOT DENSITY, AND FREE FROM WEED, DISEASES, AND OTHER VISIBLE IMPERFECTIONS AT TIME OF FINAL ACCEPTANCE. GUARANTEE DOES NOT COVER DAMAGE AS A RESULT OF FERTILIZERS, PESTICIDES, OR OTHER APPLICATIONS NOT SUPERVISED BY THE CONTRACTOR OR AS A RESULT OF ACTS OF GOD OR VANDALISM.
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE SEED/SOD IS PROPERLY IRRIGATED DURING THE GROW-IN PERIOD AND SHALL BE RESPONSIBLE IF THE SOD SUFFERS IRREPARABLE HARM.
- 7. SEED/SOD IS SUBJECT TO INSPECTION AND ACCEPTANCE. LANDSCAPE ARCHITECT AND/OR CLIENT RESERVES THE RIGHT TO REJECT AT ANY TIME OR PLACE PRIOR TO ACCEPTANCE, ANY WORK AND SOD WHICH IN THE LANDSCAPE ARCHITECTS OPINION FAILS TO MEET THESE SPECIFICATIONS REQUIREMENTS.

8. SOD STANDARDS:

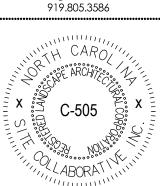
- 8.1. GENERAL: HEALTHY, THICK TURF HAVING UNDERGONE A PROGRAM OF REGULAR FERTILIZATION, MOWING AND WEED CONTROL; FREE OF OBJECTABLE WEEDS; UNIFORM IN GREEN COLOR, LEAF TEXTURE AND DENSITY; HEALTHY, VIGOROUS ROOT SYSTEM; INSPECTED AND FOUND FREE OF DISEASE, NEMATODES, PEST AND PEST LARVAE BY THE ENTOMOLOGIST OF THE STATE DEPARTMENT OF AGRICULTURE.
- 8.2. EACH PIECE OF SOD: SANDY-LOAM SOIL BASE THAT WILL NOT BREAK, CRUMBLE OR TEAR DURING SOD INSTALLATION.
- 8.3. THICKNESS: MINIMUM 3/4" THICK, EXCLUDING THE TOP GROWTH
- THATCH. 8.4. THATCH: NOT TO EXCEED 1/2" UNCOMPRESSED.
- 8.5. SIZE: CUT IN STRIPS 18" WIDE NO MORE THAN 24 HOURS PRIOR TO DELIVERY.
- 9. SOD DELIVERY, STORAGE AND HANDLING GUIDELINES ARE AS FOLLOWS: 9.1. SOD SHALL BE DELIVERED ON PALLETS PROPERLY LOADED ON VEHICLES AND WITH ROOT SYSTEM PROTECTED FROM EXPOSURE TO SUN, WIND, AND HEAT IN ACCORDANCE WITH STANDARD PRACTICE AND LABELED WITH BOTANICAL AND COMMON NAME OF EACH GRASS SPECIES IN ACCORDANCE WITH FEDERAL SEED ACT. SOD THAT HAS BEEN DAMAGED BY POOR HANDLING OR IMPROPER STORAGE IS SUBJECT TO REJECTION BY THE LANDSCAPE
- ARCHITECT OR OWNER. 9.2. PROTECT FROM DEHYDRATION, CONTAMINATION, FREEZING AND HEATING AT ALL TIMES. KEEP STORED SOD MOIST AND UNDER
- SHADE OR COVERED WITH MOISTENED BURLAP. 9.3. DO NOT DROP SOD ROLLS FROM CARTS, TRUCKS OR PALLETS.
- 9.4. DO NOT DELIVER MORE SOD THAN CAN BE INSTALLED WITHIN 36 HOURS.
- 9.5. DO NOT STACK SOD MORE THAN 2 FEET DEEP.

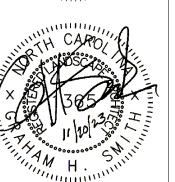
10. SEED/SODDED BED PREPARATION:

- 10.1. ALL DEBRIS, ROCKS, ETC. LARGER THAN .5" ARE TO BE REMOVED PRIOR TO SEEDING/SODDING OR PLANTING.
- 10.2. ALL AREAS TO BE SEEDED/SODDED ARE TO RECEIVE A MINIMUM OF 2" OF APPROVED TOPSOIL TILLED INTO A DEPTH OF 4" TO ENSURE INTEGRATION WITH EXISTING SOIL.
- 10.3. APPROVED TOPSOIL IS TO BE PREFERABLY FROM ON-SITE STOCKPILE FROM STRIPPING OPERATIONS - SEE EROSION AND SEDIMENT CONTROL PLANS.
- 10.4. IF ON-SITE TOPSOIL IS NOT AVAILABLE, CONTRACTOR SHALL PROVIDE TO SITE ACCORDINGLY.



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PROJECT NUMBER:

SITE PLAN

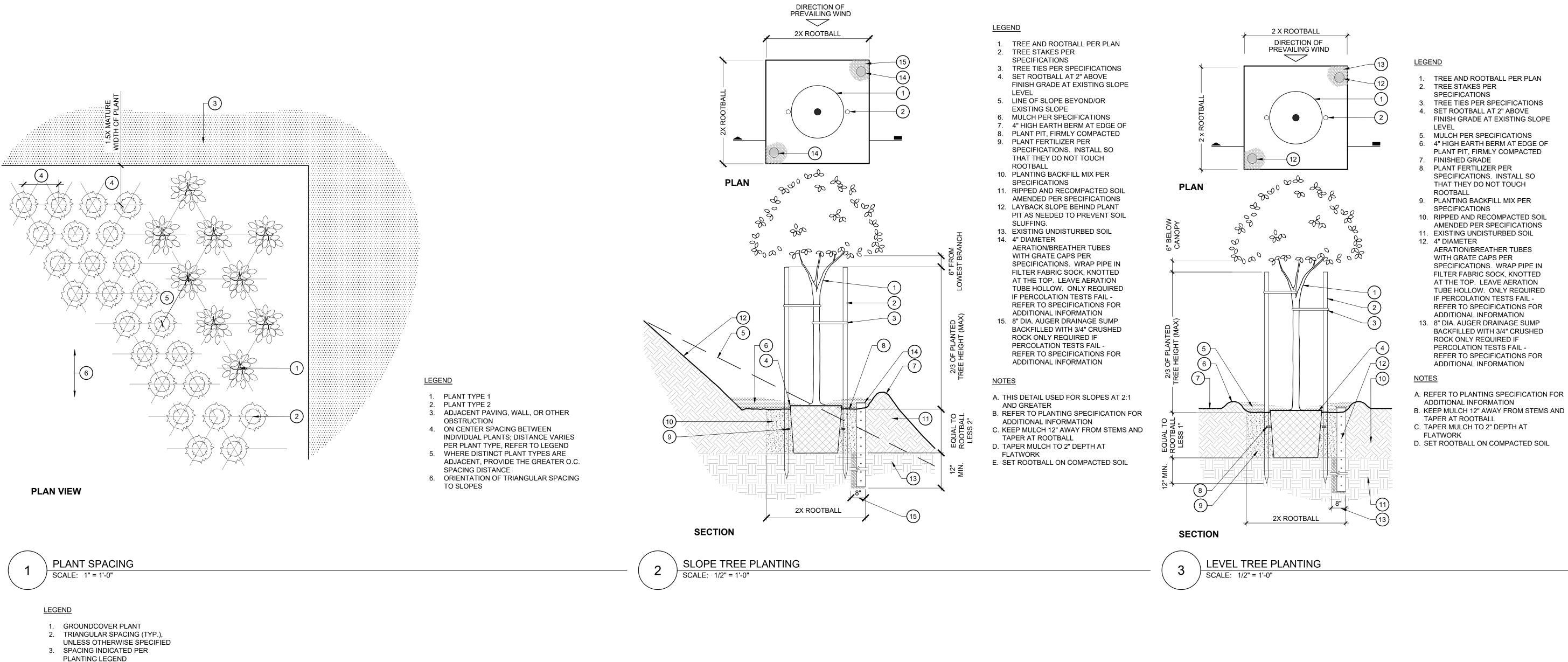
SUBMITTAL DATE: 10.02.2023

REVISED: 11.20.2023

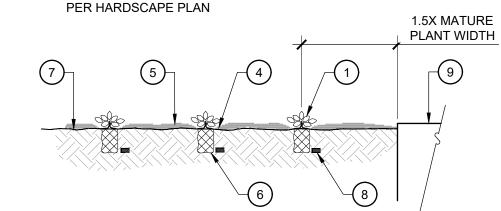
SHEET TITLE: PLANT SCHEDULE

AND NOTES

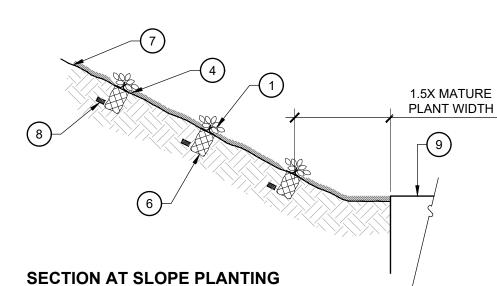
SHEET NUMBER:

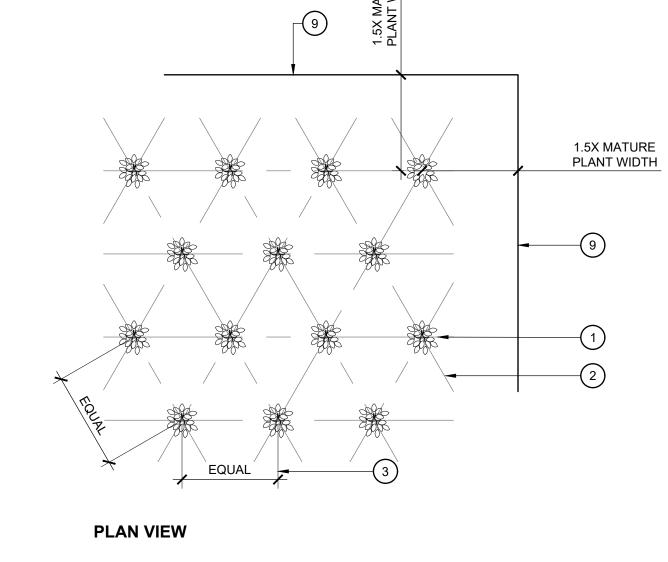


- 4. SET ROOTCROWN ABOVE FINISH
- GRADE 5. MULCH PER SPECIFICATIONS
- 6. ROOTBALL
- 7. FINISH GRADE
- 8. PLANT FERTILIZER PER
- SPECIFICATIONS. INSTALL SO THAT THEY DO NOT TOUCH
- ROOTBALL 9. ADJACENT FINISHED SURFACE



SECTION AT FLAT AREAS





SPECIFICATIONS. INSTALL SO STEMS, AND TAPER AT THAT THEY DO NOT TOUCH ROOTBALL ROOTBALL 12. AMENDED PLANTING SOIL PER SPECIFICATIONS

2 X ROOTBALL SECTION

6. AMENDED BACKFILL MIX PER

9. COMPACTED SUBGRADE PER

GEOTECHNICAL REPORT

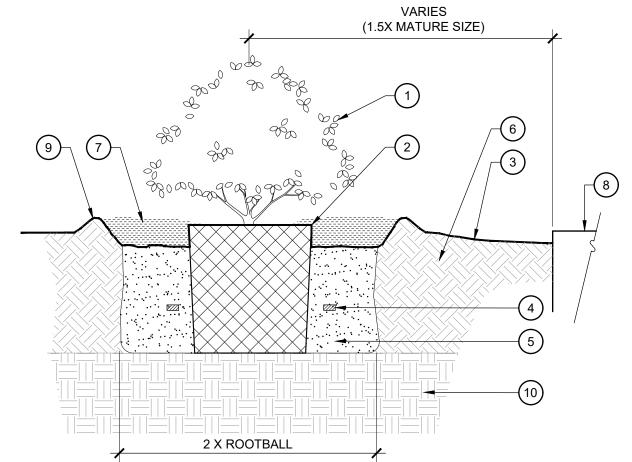
10. MULCH PER SPECIFICATIONS;

11. KEEP MULCH 4" - 6" FROM TRUNK,

7. LAYBACK SLOPE BEHIND PLANT

SPECIFICATIONS

8. LINE OF SLOPE BEYOND



1. SHRUB PER PLANS

<u>LEGEND</u>

- 2. SET ROOTBALL CROWN 1" ABOVE
- FINISH GRADE
- 3. FINISH GRADE 4. PLANT FERTILIZER PER
- SPECIFICATIONS. INSTALL SO THAT
- THEY DO NOT TOUCH ROOTBALL AMENDED BACKFILL MIX PER
- SPECIFICATIONS COMPACTED SUBGRADE PER GEOTECHNICAL REPORT
- MULCH PER SPECIFICATIONS; KEEP MULCH 4" - 6" FROM
- TRUNK, STEMS, AND TAPER AT
- ROOTBALL 8. ADJACENT FINISHED SURFACE PER
- HARDSCAPE PLAN 9. 4" TALL EARTH BERM @ EDGE OF
- PLANT PIT, FIRMLY COMPACTED.

10. AMENDED PLANTING SOIL PER **SPECIFICATIONS**

> SHEET TITLE: PLANTING DETAILS

> > SHEET NUMBER:

PROJECT NUMBER:

SITE PLAN

SUBMITTAL

REVISED:

11.20.2023

DATE: 10.02.2023

22091

L402

COLLABORATIVE

LANDSCAPE ARCHITECTURE

1620 Hillsborough St | Suite 100

Raleigh, NC 27605

919.805.3586

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instrument of professional service and

shall not be used for any other project

ZEB

RENDELL

20

9

without written authorization of Site

SLOPE SHRUB PLANTING SCALE: 1" = 1'-0"

LEVEL SHRUB PLANTING SCALE: 1" = 1'-0"

SECTION

GROUNDCOVER PLANTING SCALE: 1" = 1'-0"

<u>LEGEND</u>

1. SHRUB PER PLANS

FINISH GRADE

5. PLANT FERTILIZER PER

PLANT PIT

4. FINISH GRADE

2. SET ROOTBALL CROWN 1" ABOVE

3. 6" TALL EARTH BERM @ EDGE OF

(IN FEET)
1 inch = 20 ft.

GOLLABORATIVE
LANDSCAPE ARCHITECTURE
821 Wake Forest Road
Raleigh, NC 27604 |
919.805.3586



PRELIMINARY
PLAN
NOT FOR
RECORDATION,
SALES OR
CONVEYANCES

ZEBULON ANIMAL HOSPITA DVM SERVICES REALTY, LLC

PROJECT NUMBER:

PROJECT PHASE:

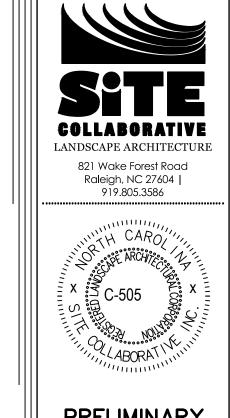
DATE: 11.21.2023

SHEET TITLE:

UTILITY PLAN

SHEET NUMBER:

UP1



PRELIMINARY
PLAN
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RECORDATION,
SALES OR
CONVEYANCES

ZEBULON ANIMAL HOSPITAL

BOWN SERVICES REALTY, LLC

.....

DATE: 11.21.2023

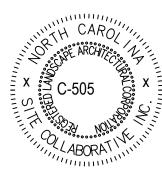
SHEET TITLE:

DRAINAGE AREAS PRE-DEVELOPMENT

SHEET NUMBER:

DA1





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PLAN
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RECORDATION,
SALES OR
CONVEYANCES

ZEBULON ANIMAL HOSPITA

DVM SERVICES REALTY, LLC

PROJECT PHASE:

DATE: 11.21.2023

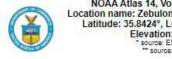
11.21.2023

DRAINAGE AREAS POST-DEVELOPMENT

SHEET NUMBER:

DA2

(IN FEET) 1 inch = 20 ft.



NOAA Atlas 14, Volume 2, Version 3 Location name: Zebulon, North Carolina, USA* Latitude: 35.8424°, Longitude: -78.3275° Elevation: 342 ft** * source: ESRI Maps **source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M. Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland PF tabular | PF graphical | Maps & aerials

		ed point precipitation frequency estimates with 90% confidence intervals (in inches/hour) ¹ Average recurrence interval (years)								
Duration	1	2	5	10	25	50	100	200	500	10
5-min	4.85 (4.43-5.33)	5.60 (5.14-6.14)	6.36 (5.82-6.96)	7.20 (6.58-7.87)	8.03 (7.30-8.77)	8.72 (7.90-9.53)	9.34 (8.40-10.2)	9.90 (8.84-10.8)	10.5 (9.34-11.5)	11 (9.78-
10-min	3.88 (3.54-4.25)	4.48 (4.10-4.91)	5.09 (4.86-5.57)	5.76 (5.26-6.30)	6.40 (5.81-6.99)	6.95 (6.28-7.58)	7.42 (6.67-8.09)	7.85 (7.01-8.57)	8.33 (7,39-9.11)	8.7 (7.70-
15-min	3.23 (2.95-3.55)	3.76 (3.44-4.12)	4.30 (3.93-4.70)	4.86 (4.43-5.31)	5.41 (4.91-5.90)	5,86 (5.30-6.40)	6.25 (5.82-8.82)	6.60 (5.90-7.21)	6.99 (8.20-7.85)	7.:
30-min	2.21 (2.02-2.43)	2,60 (2.38-2.84)	3.05 (2.79-3.34)	3.52 (3.21-3.85)	4.00 (3.64-4.37)	4.41 (3.99-4.82)	4,79 (4,30-5.22)	5.14 (4.59-5.61)	5.56 (4.93-6.08)	5.5
60-min	1.38 (1.26-1.52)	1.63 (1.49-1.78)	1.96 (1.79-2.14)	2.29 (2.09-2.50)	2.67 (2.42-2.91)	2.99 (2.71-3.27)	3.30 (2.96-3.60)	3.60 (3.22-3.94)	3.99 (3.54-4.36)	4.3
2-hr	0.807 (0.731-0.893)	0.955 (0.870-1.05)	1.16 (1.08-1.28)	1.38 (1.25-1.51)	1.63 (1.47-1.79)	1.87 (1.67-2.04)	2.09 (1.86-2.29)	2.32 (2.08-2.54)	2.63 (2.31-2.88)	(2.53-
3-hr	0.569	0.674	0.823	0.984	1.18 (1.06-1.30)	1.36 (1.21-1.49)	1.53 (1.36-1.69)	1.72	1.98 (1.72-2.18)	2.3
6-hr	0.342 (0.311-0.378)	0.405	0.495	0.592	0.711 (0.642-0.780)	0.823 (0.738-0.901)	0.935 (0.831-1.02)	1.06 (0.929-1.15)	1.22 (1.08-1.33)	1.18
12-hr	0.200	0.237	0.291 (0.266-0.320)	0.350	0.423 (0.383-0.463)	0,493 (0.442-0.538)	0.564	0.641	0.749 (0.646-0.815)	0.8
24-hr	0.118	0.143 (0.133-0.155)	0.182	0.213 (0.197-0.230)	0.257 (0.237-0.278)	0,293 (0.269-0.317)	0.332 (0.302-0.358)	0,372 (0.337-0.403)	0.431 (0.387-0.467)	0.4
2-day	0.068	0.082	0.104 (0.098-0.112)	0.121	0.145	0.165	0.186	0.208	0,240 (0.216-0.261)	0.2
3-day	0.048	0.058	0.073	0.085	0.101 (0.094-0.109)	0,115 (0.108-0.124)	0.129	0.144	0.165 (0.149-0.179)	0.1
4-day	0.038 (0.036-0.041)	0.046	0.057 (0.053-0.061)	0.066	0.079	0.090	0.101	0.112	0.128 (0.116-0.138)	0.1
7-day	0.025 (0.023-0.027)	0.030	0.037	0.043	0.051 (0.047-0.054)	0.057 (0.053-0.081)	0.064	0.071 (0.085-0.078)	0.080 (0.073-0.087)	0.0
10-day	0.020	0.024 (0.022-0.028)	0.029 (0.027-0.031)	0.033	0.039 (0.036-0.041)	0.043	0.048	0.053	0.059 (0.054-0.064)	0.0
20-day	0.013	0.016	0.019 (0.018-0.020)	0.021	0.025 (0.023-0.028)	0.028	0.030	0.033	0.037 (0.034-0.040)	0.0
30-day	0.011	0.013	0.015	0.017	0.019 (0.018-0.021)	0,021	0.023	0.025	0.028	0.0
45-day	0.009	0.011	0.013	0.014	0.016 (0.015-0.017)	0.017	0.018	0.020	0.022 (0.020-0.023)	0.0
60-day	0.008	0.010	0.011	0.012	0.014 (0.013-0.014)	0.015	0.016	0.017	0.018	0.0

PRELIMINARY PEAK FLOW REDUCTION

	PREDEVELOPED	POST DEVELOPED	
RETURN EVENT	PEAK RUN-OFF	PEAK RUN-OFF	REDUCTION
(YEARS)	(CFS)	(CFS)	(%)
1	1.36	0.77	43.4%
2	2.10	1.05	50.0%
10	4.97	2.69	45.9%
25	6.38	4.53	29.0%

* Note - 1 year post dev. peak run-off must not exceed 1 year pre-dev. peak run-off and 10 year and 25 year post dev. peak run-ff must be 10% less than 10 year and 25 year pre-dev. peak run-off

STAGE-STORAGE (NORTH BIORETENTION CELL)						
ELEVATION AREA VOLUME (FEET) (FT^2) (FT^3)						
338	1200.0	0.0				
339 340	2305.0 3420.0	1752.5 4615.0				

	STAGE-STORA	
ELEVATION	AREA	VOLUME
(FEET)	(FT^2)	(FT^3)
337	355.0	0.0
338	694.0	1752.5
339	1167.0	

PIPE TIME INVERT INVERT (CFS) (FT/FT) (INCHES) (INCHES) (FT/SEC) (CFS) (FT) (MIN)

PROJECT NUMBER:

PROJECT PHASE:

DATE: 11.21.2023

SHEET TITLE:

STORMWATER PLAN

SHEET NUMBER:

SW1

EBULON

COLLABORATIVE

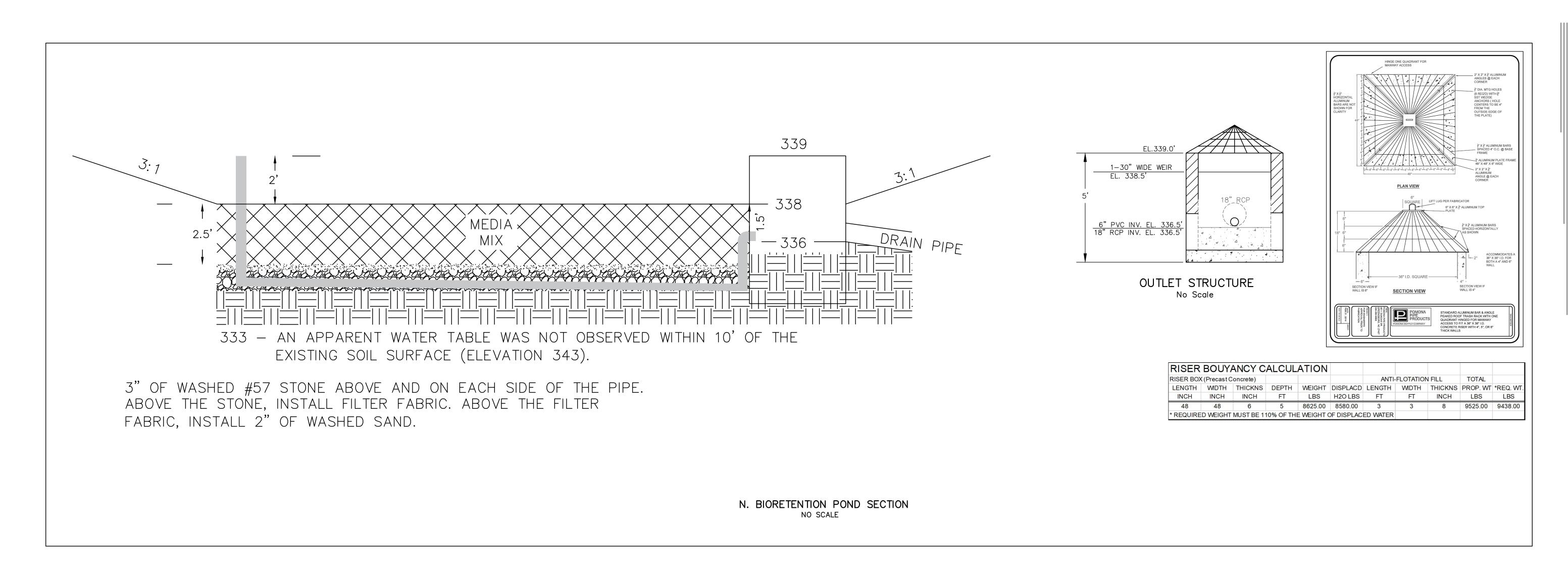
LANDSCAPE ARCHITECTURE

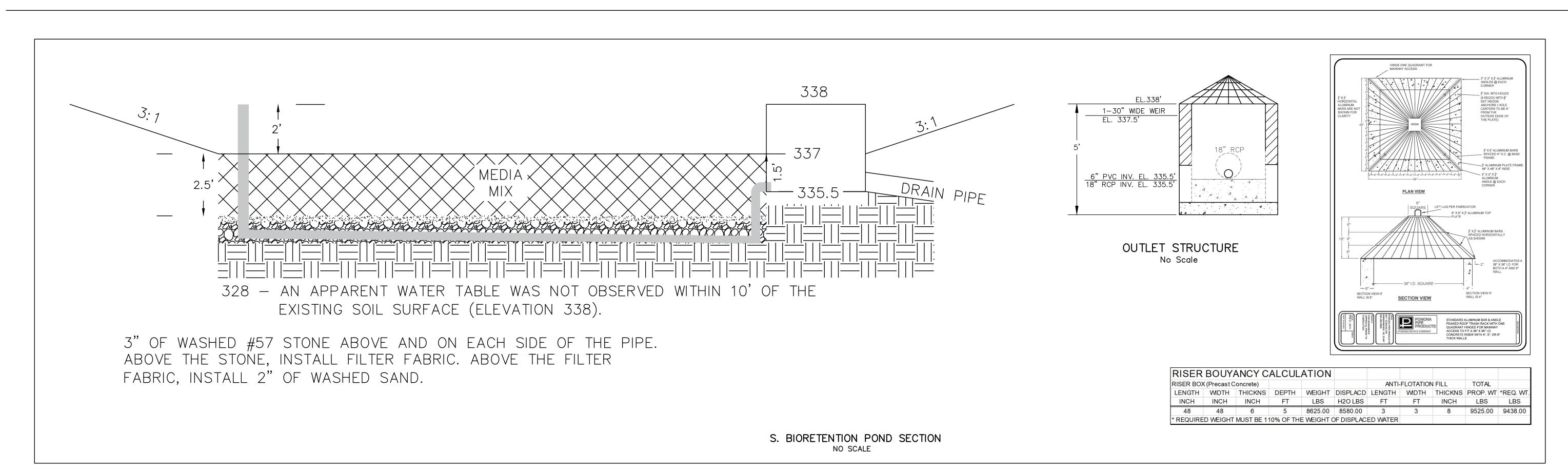
821 Wake Forest Road Raleigh, NC 27604 | 919.805.3586

PRELIMINARY PLAN NOT FOR

RECORDATION,

SALES OR CONVEYANCES





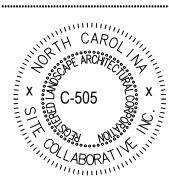
NOTE: MEDIA MIX SHALL BE A HOMOGENEOUS SOIL MIX ENGINEERED MEDIA BLEND WITH APPROXIMATE VOLUMES OF: NOTE: PLANTINGS FOR THE BIORETENTION CELLS SHALL ACHIEVE A MINIMUM (A) 75-85 PERCENT MEDIUM TO COARSE WASHED SAND (ASTM C33, AASHTO M 6/M 80, ASTM C330, AASHTO M195, OR EQUIVALENT)

(B) 8-15 PERCENT FINES (SILT AND CLAY)

(C) 5-15 PERCENT ORGANIC MATTER (SUCH AS PINE BARK FINES)

OF 75 PERCENT PLANT COVERAGE AT FIVE YEARS AFTER PLANTING. IF SOD IS USED, THEN IT SHALL BE A NON-CLUMPING, DEEP-ROOTED SPECIES.





PRELIMINARY PLAN NOT FOR RECORDATION, SALES OR **CONVEYANCES**

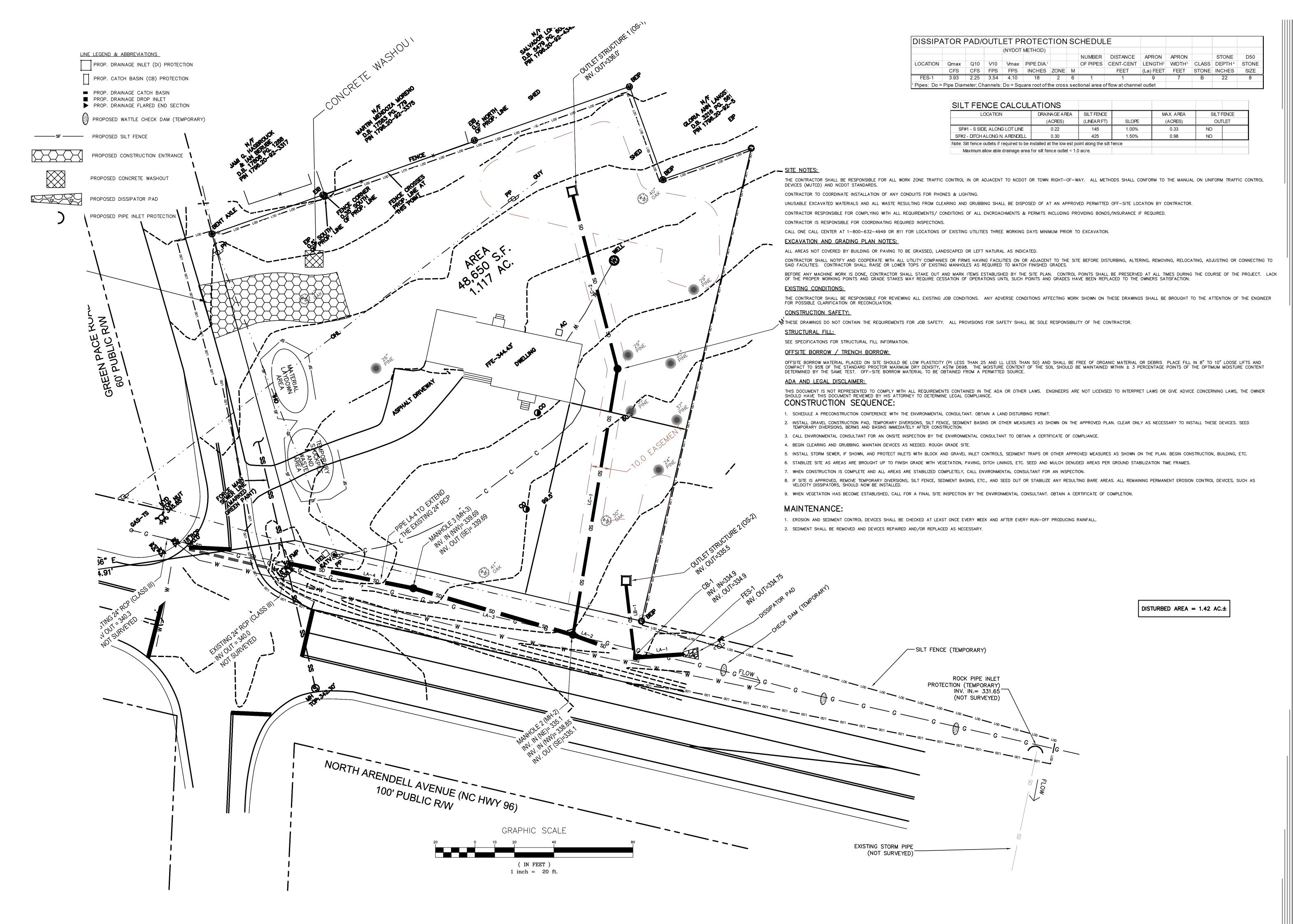
ZEBULON DVM SERVIC

DATE: 11.23.2023

BIORETENTION CELL PLANS

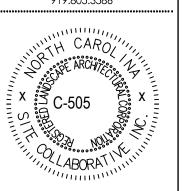
SHEET NUMBER:

SW2



GOLLABORATIVE
LANDSCAPE ARCHITECTURE

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Raleigh, NC 27604 |
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SALES OR
CONVEYANCES

ZEBULON ANIMAL HOSPIT
DVM SERVICES REALTY, LLC

DATE: 11.21.2023

PROJECT PHASE:

11.21.2023

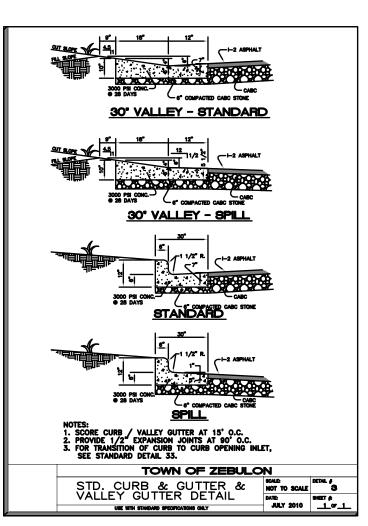
SEDIMENTATION AND EROSION CONTROL

PLAN

SHEET NUMBER:

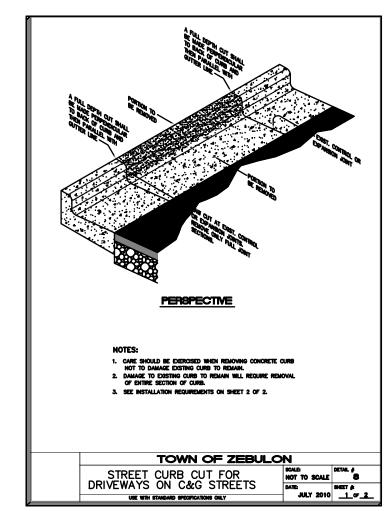
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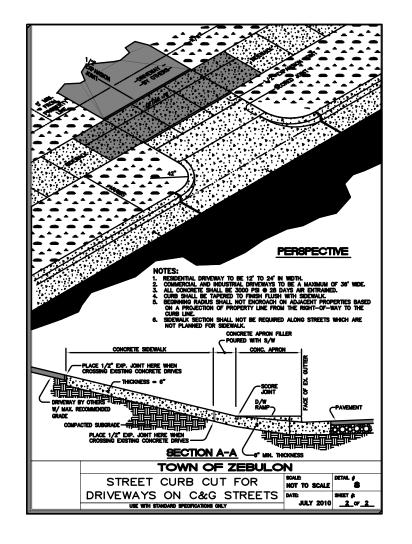
SE1

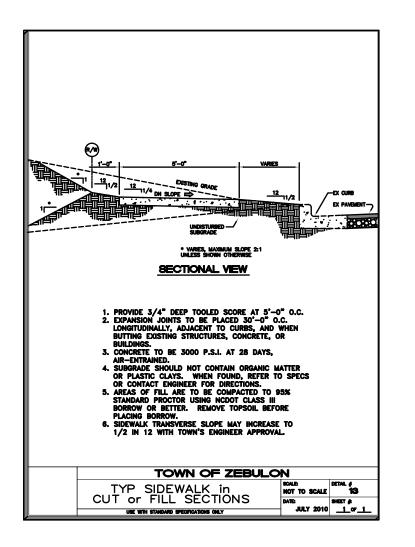


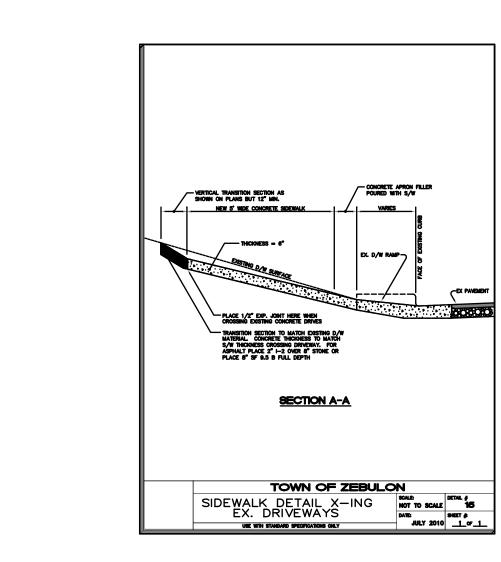
SIDEWALK ACCESS RAMP-1/2" EXPANSION JOINT-

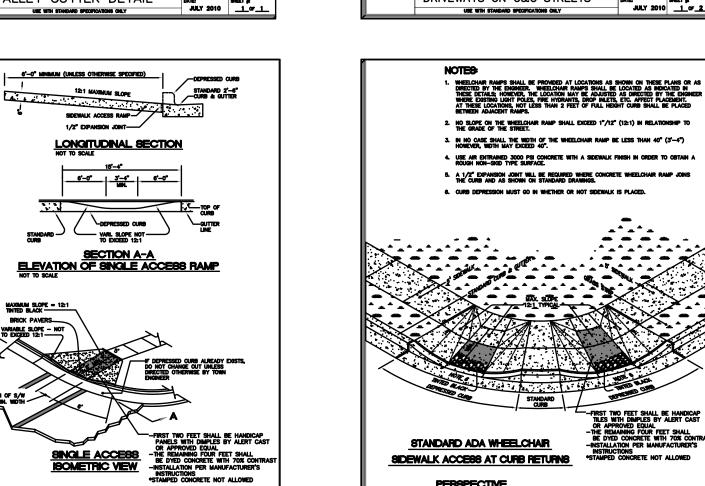
MAXIMUM SLOPE = 12:1 TINTED BLACK

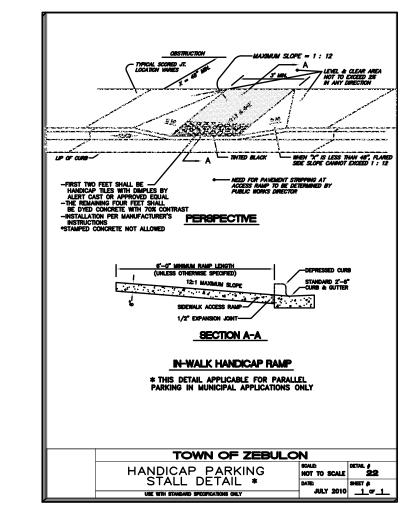


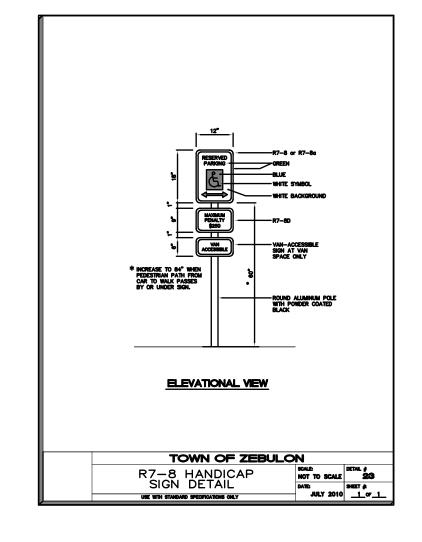


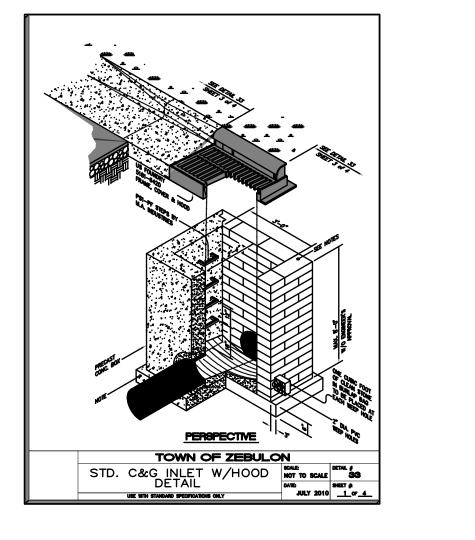












PLAN VIEW

SIDEWALK DETAIL X—ING
EX. DRIVEWAYS

USE WITH STANDARD SPECIFICATIONS ORLY

SIDEWALK DETAIL & DATE

AULY 2010

LOT 1.

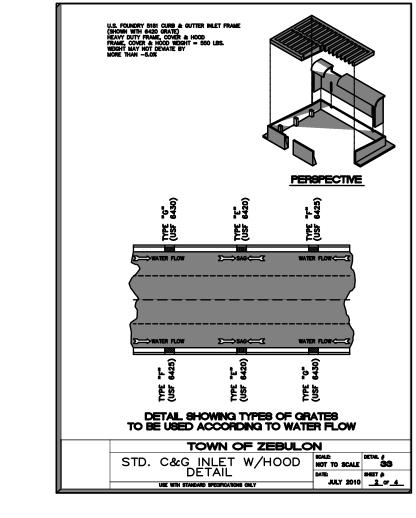
CONCRETE FILLER
APRON & W/S
(INTEGRAL POUR)

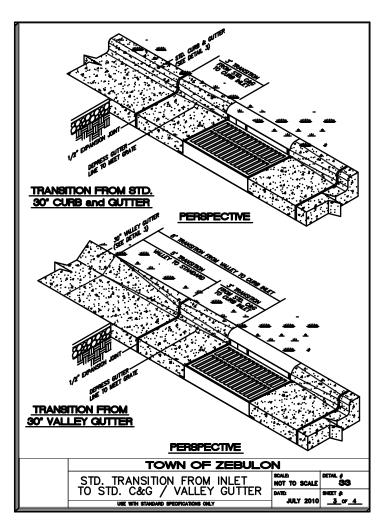
Existing concrets
 D/W RAMP

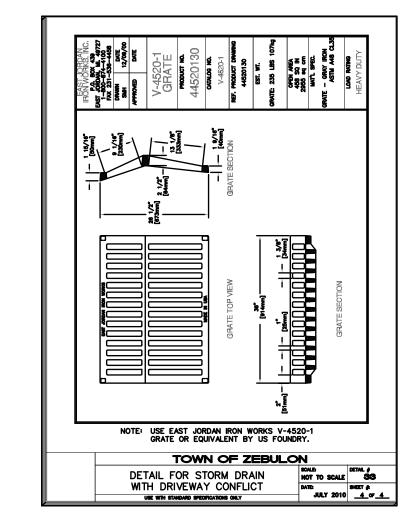
AS SHOWN ON PLAN BUT 12" MIN. -VERTICAL TRANSITION SECTION. PLACE -CONCRETE AT CONCRETE DRIVES OR ASPHALT AT ASPHALT DRIVES

THICKEN S/W APPROACH TO 6°, 5' to BACK FROM EDGE OF DRIVE -

A PLACE 1/2" EIP. JOINT HERE WHEN CROSSING EXISTING CONCRETE DRIVES







TOWN OF ZEBULON

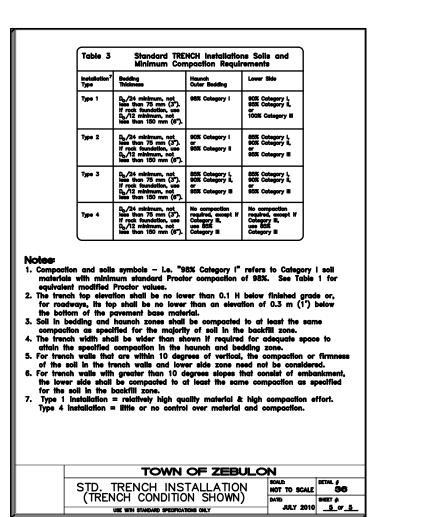
DOUBLE HANDICAP PAMP DETAIL

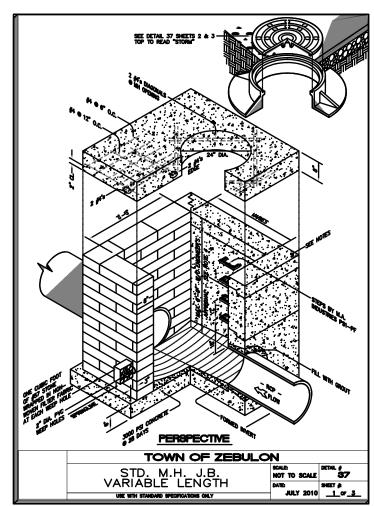
END SECTION DIMENSIONS	
DIA. A B C D	<u>E</u>
	<u>'-6"</u>
	'-0°
	1 3/4"
	<u>'-0"</u> -11"
36	
(42 1 10 174 0 1 070 3 = 1 0 2 070 0 0	,.
NOTES 1. DESIGN OF END-SECTION SHALL CONFORM TO STANDARD REINFORCED SECTIONAL CONCRETE CULVERT PIPE. 2. ANY TYMIN BARREL SYSTEM GREATER THAN 42" RCP REQUIRES A HEADWALL STANDARD DRAWINGS" REQUIRES A HEADWALL SEE MOOT "ROADWAY STANDARD DRAWINGS" FOR HEADWALL CONSTRUCTION DETAILS.	Sa Maria de Santos
V V	and the second
	SUPERIOR C
	i in the second
PERSPECTIVE	
	r
TOWN OF ZEE	
IOWN OF ZEE	
STD. FLARED END SECTION	SCALE: DETAL #
DESIGN AID DETAIL	110. 10 00
I DE SUSIN ALL LIPTAL	DATE: SHEET &
USE WITH STANDARD SPECIFICATIONS ONLY	JULY 2010 _1_0r_1_

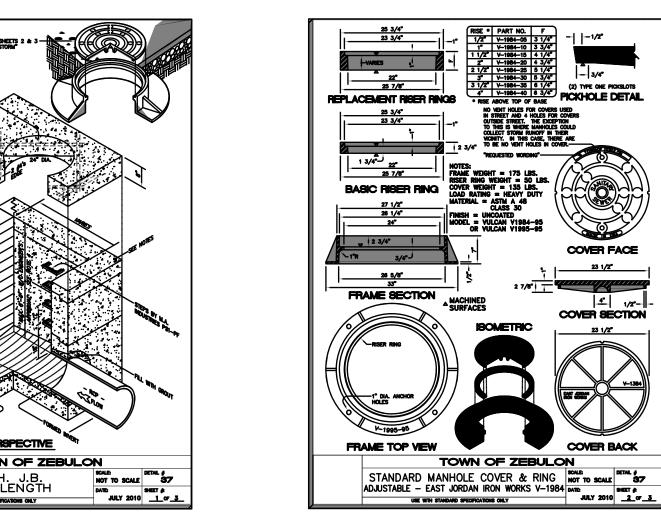
D; - INSIDE DIAMETER OF PIPE	PIPE	MAX.	MAX. BURY	MAX. BUR
Do = outside diameter of PIPE	Di	Bd	CLASS III (0.01 GRACK)	CLASS IV (0.01 CRAC
Bd = TRENCH WIDTH	15"	4'	9.5'	(0.01 CRAC
H - BACKFILL COVER ABOVE	18"	7	9.5'	15.0
TOP OF PIPE	24°	4'	12.0	23.5
	30° 36°	<u> 5.5'</u>	10.0	17.0° 18.0°
	42"	6.5	13.0	19.0
	48"	7	13.5	20.0
z <i>`@</i>	54° 60°	8 ,	13.0	18.5°
	72"	10"	13.0	19.0
	AS REGULARD	HIS TA	BLE ASSUMES	TYPE 4
	AS CAVADA IN	ISTALL		STONE BEDD
\$6.50 to 10.00 to 10.	TEGUND!	_		
	, "	◥.∠	ALL OF	700
	Δ	- 20		
	\rightarrow	CATE	ATION & NO	剎
	/ A			<u>u</u>
			#####################################	₩\
" na od			######################################	#
				<u>#</u>
			<i>````````````</i>	M
		///	***************************************	#
GIVEN CONDITIONS				<u>#</u>
/ ASSUMPTIONS:		K		#
* W = 120 pef (BACKFILL LOAD)		∅≝	المهالية	
			<u>#####################################</u>	<i>!!!!</i> !
* SOIL TYPE = 00/0 1/2/3 1/2/3			ور المراجع ا	
ORDINARY CLAY, SATURATED 76 MILL DI		(4) E		
		200		
* TRENCH CONDITIONS SHOWN - L '\u00a7	"			
THESE DEPTHS DO NOT APPLY		•	11. B.	Ch'
THESE DEPTHS DO NOT APPLY FOR "EMBANKMENT CONDITIONS",	l.		1 7 OIL	
NCPE TO DETERMINE H FOR EMBANKMENT CONDITIONS	U ₀ / ₀		OUTE MATERI ESC	R .
* DESIGN BASED ON "DESIGN DATA	Do/6 MM		(201	G TEDW.
40, ACPA." PERSPECT	ME `		1	R BEDOING
* CLASS C BEDDING	4 C-76		₩.Dr	R BEDDING See AND COMPAC SECTION AC
DESIGN BASED ON "DESIGN DATA 40, ACPA." CLASS C BEDDING (1950 PIF PER PF OF INTERNAL DIA.) CLASS IV, ASTI (2000 PIF PER PF OF INTERNAL DIA.) CLASS IV, ASTI	M C-76		BEDU	SAME AS HAVE
• • • • • • • • • • • • • • • • • • • •				T. 3F
NOTES:				
1. GREATER DEPTHS ARE ACHIEVABLE BY EITHER CONTR	OLLING BACK	FILL '	TYPE.	
NARROWING TRENCH WIDTH BUT SUPPLY SUFFICIENT	ROOM FOR C	COMPA	CTION.	
MPROVING BEDDING OR LOADING TO ULTIMATE LOAD DEPTHS THAN SHOWN (H), NORTH CAROLINA PE TO BURY THAT EXCEED THOSE GIVEN IN THIS CHART FO	(Du). FOR	OTHE	R BURY	
DEPTHS THAN SHOWN (H), NORTH CAROLINA PE TO I	PROVIDE CAL	US 0	N PIPE	
WHICH IT IS PROPOSED TO BE USED.	* INE COMD	HUN	, 14	
WHICH IT IS PROPOSED TO BE USED. 2. THIS TABLE OF BURY DEPTHS (H) APPLIES EQUALLY	TO A CLASS	C S	TONE	
BEDDING, TYPE 4. LAYING CONDITIONS 3. MINIMUM COVER NOT SHOWN				
3. MINIMUM COVER NOT SHOWN 4. MAXIMUM BURY TABLE FOR "TRENCH CONDITIONS" PER	THE DETAM S	SHOW.	THIS SHEET	
TOWN OF				1
	LATION		CALE	DETAIL #
STD. TRENCH INSTALI		1.0	OT TO SCALE	36
STD. TRENCH INSTALI	PE			
	PE		ATE: JULY 2010	SHEET &

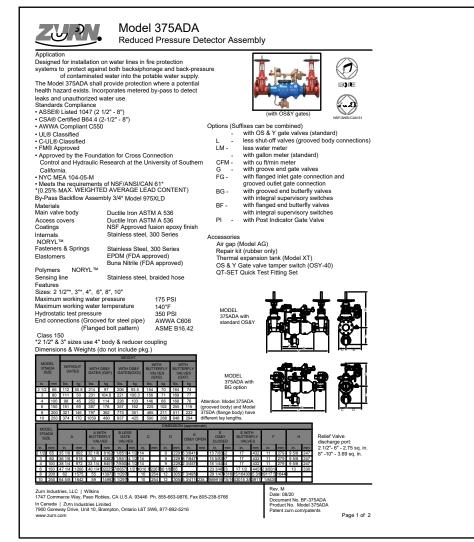
SIDD Soil USCS, AASHTO Standard Modified Provider		Representative S	Soil Types	Percent Co	mpaction
Cortegory () 90 85 85 80 75 80 80 80 85 80 80 80 80 80 80 80 80 80 80 80 80 80	SIDD Soil	USCS,	AASHTO	Standard Proctor	Modified Proctor
CL MH A5,A6 100 90	Gravelly Sand (Category I)	SW, SP, GW, GP	A1,A3	100 95 90 85 80 61	95 90 85 80 75 59
Clay (Cotegory III)	SIN	GM, SM, ML Also GC, SC with less than 20% passing #200 sleve	A2,A4	100 95 90 85 80 49	95 90 85 80 75 46
CH 100 90 95 95 90 90 45 45	Silty Clay (Category III)	CL, MH OC, SC	A5,A6	100 95 90 85 80 45	90 85 80 75 70 40
		СН		100 95 90	90 85 80
				EBULO	
STD. TRENCH INSTALLATION (TRENCH CONDITION SHOWN)	STD. 1	RENCH INS	TALLA	TION	SCALE

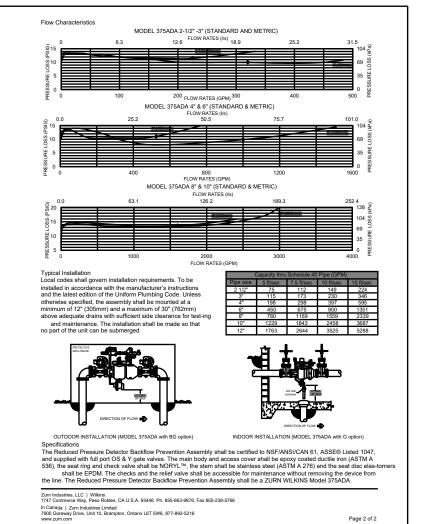
Table 2	Standard EMBANKMEI Compaction Requirer		and Minimum
Installation Type	Bedding Thickness	Haunch and Outer Bedding	Lower Side
Туре 1	D ₀ /24 minimum, not less than 75 mm (3"). If rook foundation,use D ₀ /12 minimum, not less than 150 mm (6").	98% Category I	90% Category I, 95% Category II, or 100% Category II
Type 2	$D_0/24$ minimum, not lee than 75 mm (3"). If rook foundation, use $D_0/12$ minimum,not less than 150 mm (6").	90% Category I or 95% Category II	85% Category I, 90% Category II, or 95% Category III
Туре З	D ₀ /24 minimum, not less than 75 mm (3°). If root foundation, use D ₀ /12 minimum, not less than 150 mm (6°).	85% Category I, 90% Category II, or 95% Category III	85% Category I, 90% Category II, or 95% Category III
Type 4	D ₀ /24 minimum, not less than 75 mm (3 ⁷). If rock foundation, use D ₀ /12 minimum, not less than 150 mm (6°).	No compaction required, except If Category III, use 85% Category III	No compaction required, except Category III, use 85% Category III
1. Compaction and	soils symbols — i.e. "? minimum standard Pro		
material with a equivalent modi 2. Soil in the outsethe pipe spring majority of the 3. Subtrenches 3.1 A subtrench is than 0.1 H or, below the botto 3.2 The minimum adequate space zones. 3.3 For subtrenche the subtrench vompaction required majority of soil compacted to the 4. Type 1 installer		lower side zones, of to at least the sa. Ith its top below fins at an elevation to ematerial, and be 1.33 Do or compaction in the boil, any portion of a firm as an equivate lower side zone; shall be removed wallty material & high	98%. See Tab except within DO me compaction whiched grade by wer than 0.3 m wider if require haunch and be the lower side ient soil placed o and as firm a and replaced w ph compaction of
Compaction and material with a equivalent modi Soil in the outer the pipe spring majority of the S. Subtrenches S.1 A subtrench is than 0.1 H or, below the botto 3.2 The minimum adequate space zones. For subtrench the subtrench vompaction required to it ompacted to it 4. Type 1 installer	minimum standard Pro filed Proctor values. r bedding, haunch, and line, shall be compacted soil in the overfill zone defined as a trench w for roadways, its top is m of the pavement bas width of a subtrench st to attain the specified s with wall of natural s vall shall be at least a ulrements specified for in the overfill zone, or he specified level. lion = little or no control	ictor compaction of lower side zones, of to at least the sale. Ith its top below fines at an elevation lose material. Ith its 1.33 Do or compaction in the compaction in the soll, any portion of a firm as an equivative lower side zone shall be removed acity material & high over material and	98%. See Tab except within Do me compaction lished grade by wer than 0.3 m wider if require haunch and be the lower side lent soil placed o and as firm a and replaced w the compaction of compaction.
Compaction and material with a equivalent modi Soil in the outer the pipe springi majority of the Subtrenches 1 A subtrench is than 0.1 H or, below the botto 2 The minimum address space zones. 3 For subtrenche the subtrench vecompaction required processing majority of soil compacted to the subtrench vecompacted vecompacted to the subtrench vecompacted vecompa	minimum standard Pro filed Proctor values. r bedding, haunch, and line, shall be compacted soil in the overfill zone defined as a trench w for roadways, its top is m of the pavement bas width of a subtrench st to attain the specified s with wall of natural s vall shall be at least a ulrements specified for in the overfill zone, or he specified level. lion = little or no control	lower side zones, of to at least the sale. Ith its top below fines at an elevation to be material. Ith its 1,33 Do or compaction in the boil, any portion of a firm as an equivalent lower side zone shall be removed until y material & high over material and of ZEBULC FALLATION	98%. See Tab except within Do me compaction lished grade by wer than 0.3 m wider if require haunch and be the lower side lent soil placed o and as firm a and replaced w the compaction of compaction.

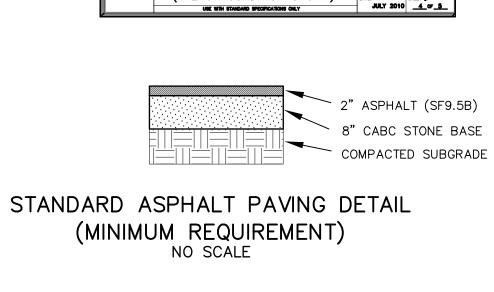


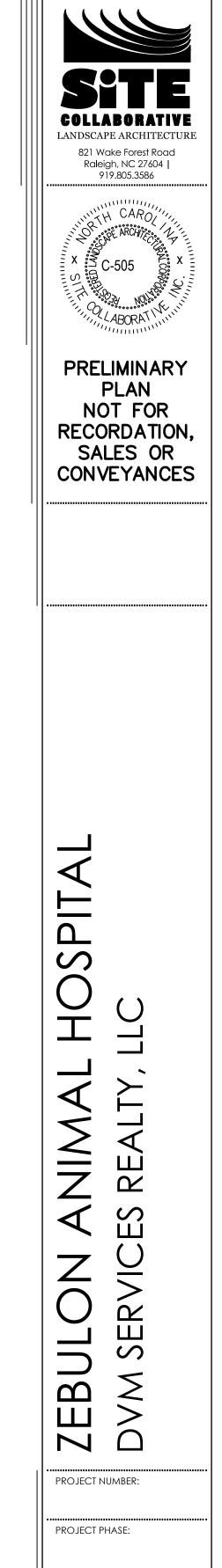












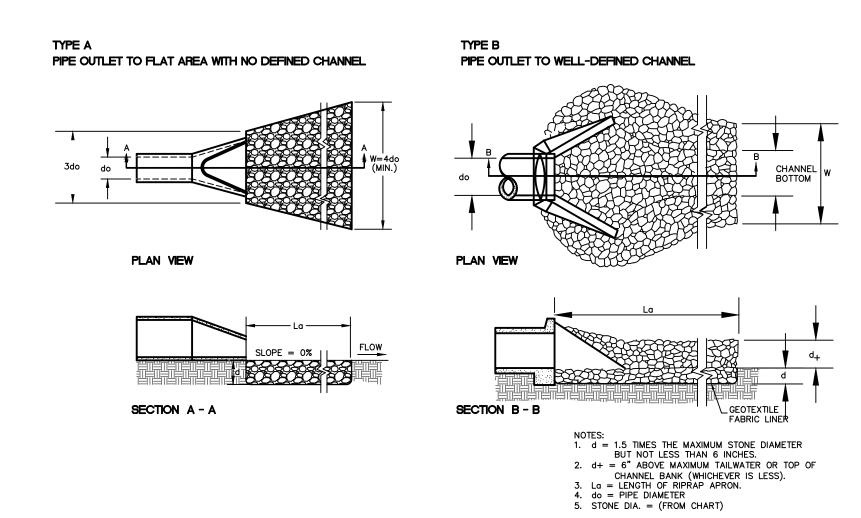
DATE: 09.05.2023

SHEET TITLE:

SHEET NUMBER:

SITE DETAILS

DT1



CONSTRUCTION SPECIFICATION:

- 1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS. ALSO BE FILLED BY INVERSING THE KIFKAF INICANESS.

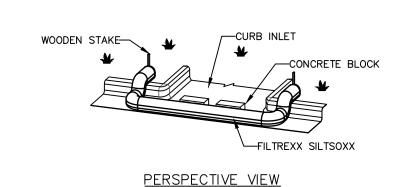
 THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.

 FILTER CLOTH, WHEN USED MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER CLOTH OVER THE DAMAGED AREA. ALL CONNNECTING JOINTS SHOULD OVERLAP SO THE TOP LAYER IS ABOVE THE DOWNSTREAM LAYER A MINIMUM OF 1 FOOT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE
- . RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
 . THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
 . RIPRAP MAY BE FIELD STONE OR ROUGH QUARRY STONE. IT SHOULD BE HARD ANGULAR, HIGHLY WEATHER—RESISTANT AND WELL GRADED. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFILL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE
- 8. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON. 9. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.

MAINTENANCE:

INSPECT RIPRAP OUTLET STRUCTURE WEEKLY AND AFTER SIGNIFICANT (1/2 INCH OR GREATER RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLOGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

DISSIPATOR PAD/OUTLET PROTECTION NO ŚCALE



- 1. INSTALL FILTREXX SILTSOXX IN FRONT OF CURB OPENING TO A MINIMUM OF 12" BEYOND THE OPENING, EACH SIDE.
- 2. ANCHOR THE FILTREXX SILTSOXX BEHIND THE CURB WITH A WOODEN STAKE. STAKES SHALL BE ANCHORED A MINIMUM
- 3. STANDARD INLET PROTECTION FOR CURB INLET PROTECTION AND CURB SEDIMENT CONTAINMENT WILL USE 8" DIAMETER INLET PROTECTION. DURING CURB INSTALLATION, INLET PROTECTION SHALL BE COMPACTED TO BE SLIGHTLY SHORTER
- 4. IF INLET PROTECTION BECOMES CLOGGED WITH DEBRIS AND SEDIMENT, THEY SHALL BE MAINTAINED SO AS TO ASSURE PROPER DRAINAGE AND WATER FLOW INTO THE STORM DRAIN. IN SEVERE STORM EVENTS, OVERFLOW OF THE INLET
- PROTECTION MAY BE ACCEPTABLE TO KEEP THE AREA FROM FLOODING 5. CURB AND DRAIN INLET PROTECTION SHALL BE POSITIONED SO AS TO PROVIDE A PERMEABLE PHYSICAL BARRIER TO

CONCRETE BLOCKS SHALL BE USED AT BOTH ENDS OF THE OPENING AND EVERY 4'.

6. CONCRETE BLOCKS SHALL BE USED A SPACER TO KEEP THE FILTREXX SILTSOXX FROM BLOCKING THE CURB OPENING.

FILTREXX SILTSOXX CURB CUT INLET PROTECTION

CONSTRUCTION SPECIFICATION:

- 1. MATERIALS USED IN THE COMPOST SOCK MUST MEET THE SPECIFICATIONS OUTLINED IN THE NC EROSION CONTROL AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL FOR COMPOST SOCKS AND COMPOST BLANKETS. COMPOST SOCKS SHOULD BE LOCATED AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND OTHER DEBRIS GREATER THAN
- ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF THE COMPOST SOCK.

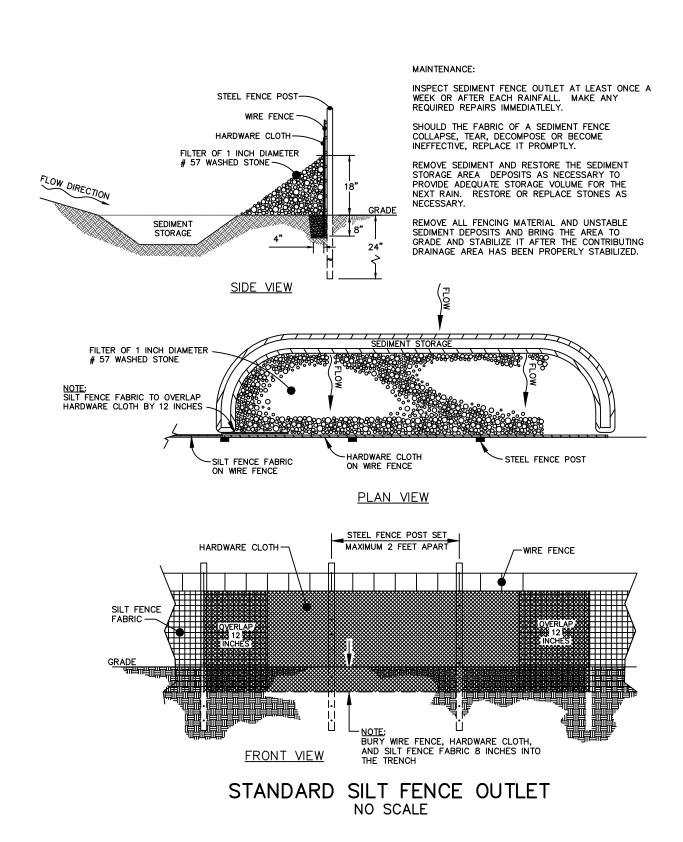
 4. COMPOST SOCKS SHOULD BE INSTALLED PARALLEL TO THE TOE OF A GRADED SLOPE, A MINIMUM OF 10 FEET BEYOND THE TOE OF THE SLOPE. SOCKS LOCATED BELOW FLAT AREAS SHOULD BE LOCATED AT THE EDGE OF THE LAND-DISTURBANCE. THE ENDS OF THE SOCKS SHOULD BE TURNED SLIGHTLY UP SLOPE TO PREVENT RUNOFF FROM
- GOING AROUND THE END OF THE SOCKS. 5. FILL SOCK NETTING UNIFORMLY WITH COMPOST TO THE DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM. 6. OAK OR OTHER DURABLE HARDWOOD STAKES 2" X 2" IN CROSS SECTION SHOULD BE DRIVEN VERTICALLY PLUMB, THROUGH THE CENTER OF THE COMPOST SOCK. STAKES SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 4 FEET, OR A MAXIMUM INTERVAL OF 8 FEET IF THE SOCK IS PLACED IN A 4 INCH TRENCH. THE STAKES SHOULD BE
- DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCK. 7. IN THE EVENT STAKING IS NOT POSSIBLE (i.e. WHEN SOCKS ARE USED ON PAVEMENT) HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE SOCK TO HOLD IT IN PLACE DURING RUNOFF EVENTS.
- 8. IF THE COMPOST SOCK IS TO BE LEFT AS PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION USING THE SEEDING SPECIFICATION IN THE EROSION AND SEDIMENTATION CONTROL PLAN. 9. COMPOST SOCKS ARE NOT BE BE USED IN PERENNIAL OR INTERMITTENT STREAMS.

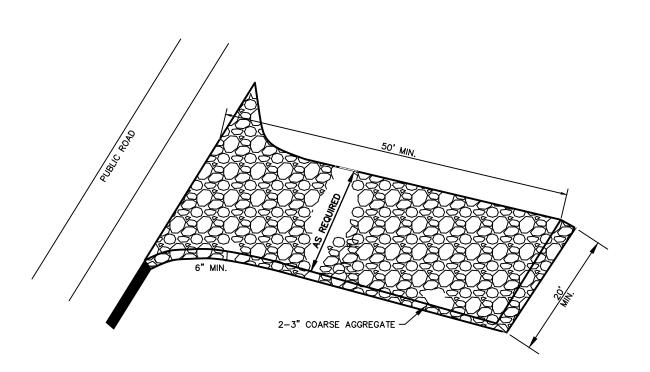
MAINTENANCE:

INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1 INCH OR GREATER). REMOVE ACCUMULATED SEDIMENT AND ANY DEBRIS. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN. IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OF A DIFFERENT MEASURE. THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY ESTABLISHED.

DISPOSAL/RECYCLING:

COMPOST MEDIA IS A COMPOSTED ORGANIC PRODUCT RECYCLED AND MANUFACTURED FROM LOCALLY GENERATED ORGANIC, NATURAL, AND BIOLOGICALLY BASED MATERIALS. ONCE ALL SOIL HAS BEEN STABILIZED AND CONSTRUCTION ACTIVITY HAS BEEN COMPLETED, THE COMPOST MEDIA MAY BE DISPERSED WITH A LOADER, RAKE, BULLDOZER OR SIMILAR DEVICE AND MAY BE INCORPORATED INTO THE SOIL AS AN AMENDMENT OR LEFT ON THE SOIL SURFACE TO AID IN PERMANENT SEEDING OR LANDSCAPING. LEAVING THE COMPOST MEDIA ON SITE REDUCES REMOVAL AND DISPOSAL COSTS COMPARED TO OTHER SEDIMENT CONTROL DEVICES. THE MESH NETTING MATERIAL WILL BE EXTRACTED FROM THE MEDIA AND DISPOSED OF PROPERLY. THE PHOTODEGRADABLE MESH NETTING MATERIAL WILL DEGRADE IN 2 TO 5 YEARS IF LEFT ON SITE. BIODEGRADABLE MESH NETTING MATERIAL IS AVAILABLE AND DOES NOT NEED TO BE EXTRACTED AND DISPOSED OF, AS IT WILL COMPLETELY DECOMPOSE IN APPROXIMATELY 6 TO 12 MONTHS. USING BIODEGRADABLE COMPOST SOCKS COMPLETELY ELIMINATES THE NEED AND COST OF REMOVAL AND DISPOSAL.





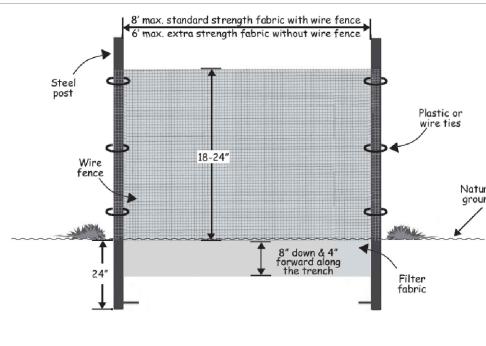
CONSTRUCTION SPECIFICATION:

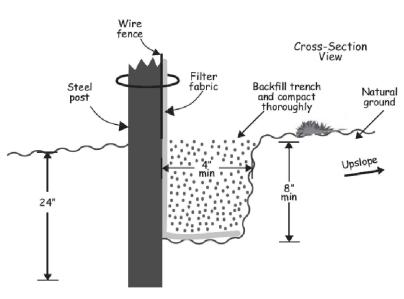
- 1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND
- . PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT. PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET. USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO
- SEEPAGE OR HIGH WATER TABLE

MAINTENANCE: MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-3 INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL

OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS. FOR CROSSINGS OVER CHANNELS/DITCH, INSPECT BLOCKAGE, EROSION OF ABUTMENTS, CHANNEL SCOUR, RIPRAP DISPLACEMENT, OR PIPING. MAKE ALL REPAIRS IMMEDIATELY TO PREVENT FURTHER DAMAGE TO THE INSTALLATION.

> CONSTRUCTION ENTRANCE NO SCALE





SILT FENCE DETAIL NO SCALE

INSTALLATION SPECIFICATION:

1. THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.

- 2. INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD APPLICATIONS.
- 3. INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
- 4. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.

Figure 6.62a Installation detail of a sediment fence.

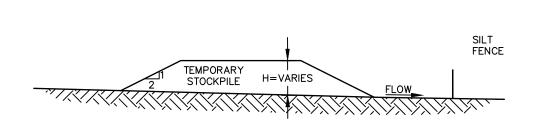
- 5. ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO
- 6. WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
- 7. NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE GROUND LEVEL.
- 8. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
- 9. COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST, AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS

SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INNEFECTIVE, REPLACE IT

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. SEDIMENTS BEHIND THE FENCE MUST NOT BE ALLOWED TO GO BEYOND 1/3 OF THE FENCE HEIGHT. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.

REMOVE ALL FENCING MATERIALS AND UNUSABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



TEMPORARY STOCKPILE WITH SILT FENCE

STOCKPILE STABILIZATION

STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES TO REMAIN IN PLACE FOR 30 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING. COLLABORATIVE 821 Wake Forest Road Raleigh, NC 27604 919.805.3586 "TH CARO. ؞ۥڔٷڐٛ ÅRCH/}ڮؿ C-505 **PRELIMINARY** PLAN NOT FOR RECORDATION, SALES OR

CONVEYANCES

 Δ Δ PROJECT NUMBER:

PROJECT PHASE:

DATE: 08.01.2023

SEDIMENTATION AND **EROSION CONTROL**

SHEET NUMBER:

DETAILS

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT mplementing the details and specifications on this plan sheet will result in the constructic

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

nay not apply depending on site conditions and the delegated authority having jurisdiction.							
ECTION E: GROUND STABILIZATION							
	Required Ground Stabilization Timeframes						
Si	te Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations				
(a)	Perimeter dikes, swales, ditches, and perimeter slopes	7	None				
(b)	High Quality Water (HQW) Zones	7	None				
(c)	Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed				
(d)	Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW				

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

GROUND STABILIZATION SPECIFICATION

Areas with slopes

flatter than 4:1

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

H	Temporary Stabilization
	• Temporary grass seed covered with straw
	other mulches and tackifiers
	Hydroseeding
	Rolled erosion control products with or
	without temporary grass seed

Plastic sheeting

v or Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting

-10 days for Falls Lake Watershed

7 days for perimeter dikes, swales,

ditches, perimeter slopes and HOW Zones

-10 days for Falls Lake Watershed unless

 Appropriately applied straw or other mulch
 Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover • Structural methods such as concrete, asphalt or retaining walls Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

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

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids. Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible). Remove leaking vehicles and construction equipment from service until the problem
- 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

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

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

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

PAINT AND OTHER LIQUID WASTE

PORTABLE TOILETS

- Do not dump paint and other liquid waste into storm drains, streams or wetlands. 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.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- 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
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace

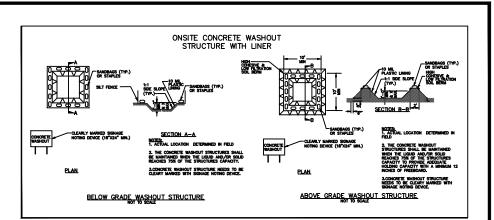
EARTHEN STOCKPILE MANAGEMENT

with properly operating unit.

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

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

Do not stockpile these materials onsite.

- Store and apply herbicides, pesticides and rodenticides in accordance with label
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of
- 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.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment. . Do not store hazardous chemicals, drums or bagged materials directly on the ground.

EFFECTIVE: 04/01/19

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 weeken holiday periods, and no individual-day rainfall informatio available, record the cumulative rain measurement for those attended days (and this will determine if a site inspectio needed). Days on which no rainfall occurred shall be recorde "zero." The permittee may use another rain-monitoring de approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	Identification of the measures inspected, Date and time of the inspection, Name of the person performing the inspection, Indication of whether the measures were operating properly, Description of maintenance needs for the measure, Description, evidence, and date of corrective actions taken.
(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	Identification of the discharge outfalls inspected, Date and time of the inspection, Name of the person performing the inspection, Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, Indication of visible sediment leaving the site, Description, evidence, and date of corrective actions taken.
(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	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has the site limits, 2. Description, evidence, and date of corrective actions taken, 3. An explanation as to the actions taken to control future releases.
(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 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 the seconds of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. 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.

SELF-INSPECTION, RECORDKEEPING AND REPORTING

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:

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.

requirement not practical:

upon request. [40 CFR 122.41]

- In addition to the E&SC Plan documents above, the following items shall be kept on the 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
- (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 observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

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

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).
- 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

2. Reporting Timeframes and Other Requirements

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	Within 24 hours, an oral or electronic notification.
deposition in a	Within 7 calendar days, a report that contains a description of the
stream or wetland	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.
	 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 compli- with the federal or state impaired-waters conditions.
(b) Oil spills and release of	Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and
hazardous	location of the spill or release.
substances per Item	
1(b)-(c) above	
(c) Anticipated	A report at least ten days before the date of the bypass, if possible.
bypasses [40 CFR	The report shall include an evaluation of the anticipated quality and
122.41(m)(3)]	effect of the bypass.
(d) Unanticipated	Within 24 hours, an oral or electronic notification.
bypasses [40 CFR	Within 7 calendar days, a report that includes an evaluation of the
122.41(m)(3)]	quality and effect of the bypass.
(e) Noncompliance	Within 24 hours, an oral or electronic notification.
with the conditions	Within 7 calendar days, a report that contains a description of the
of this permit that	noncompliance, and its causes; the period of noncompliance,
	I ' '

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

case-by-case basis.

health or the

CFR 122.41(I)(7)]

EFFECTIVE: 04/01/

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).

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

821 Wake Forest Road

919.805.3586

PRELIMINARY

PLAN

NOT FOR

RECORDATION,

SALES OR

CONVEYANCES

Raleigh, NC 27604

PROJECT NUMBER:

PROJECT PHASE:

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DATE: 08.01.2023

SEDIMENTATION AND **EROSION CONTROL** DETAILS

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