CONSTRUCTION PLANS FOR #6112 MOYOCK MILLS ROAD

MOYOCK, NORTH CAROLINA

05/23/2025

SITE LOCATION MAP NORTH

KIMLEY-HORN SHALL HAVE NO LIABILITY WHATSOEVER FOR ANY COSTS ARISING OUT OF THE CLIENT'S DECISION TO OBTAIN BIDS OR PROCEED WITH CONSTRUCTION BEFORE KIMLEY-HORN HAS ISSUED FINAL, FULLY-APPROVED PLANS AND SPECIFICATIONS. THE CLIENT ACKNOWLEDGES THAT ALL PRELIMINARY PLANS ARE SUBJECT TO SUBSTANTIAL REVISION UNTIL PLANS ARE FULLY APPROVED AND ALL PERMITS OBTAINED.

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GEOMETRIC

HORIZONTAL DATUM: NAD 83 (2011)

VERTICAL DATUM:

DRAWING UNITS:

U.S. SURVEY FEET

SHEET NUMBER

CA001

SITE DEVELOPMENT SUMMARY

SITE DEVELOPMENT SUMMARY:

STORE NUMBER: PROJECT ENGINEER:

BUILDING TYPE:

TYPE OF MPDS:

SF OF LAWN AREA: SF OF MULCH AREAS:

CANOPY CONFIGURATION:

OF PARKING SPACES: # OF ADA SPACES:

TOTAL SITE ACREAGE:

NUMBER OF LOTS:

BUILDING SETBACKS:

TOTAL DISTURBED ACREAGE:

PARCEL IDENTIFICATION NUMBER:

MAXIMUM HEIGHT OF BUILDING:

IMPERVIOUS PERCENTAGES:

VEHICULAR DRIVE ASPHALT AREA

VEHICULAR DRIVE CONCRETE AREA 22,600 SF

WATERSHED DISTRICT: **DEVELOPMENT DENSITY:**

PRE-DEVELOPMENT:

POST-DEVELOPMENT:

OF TRUCK/OVERSIZED PARKING: SF OF ASPHALT INSIDE ROW:

PARCEL 1: 123 S MILLS RD MOYOCK NC 27958 USA PARCEL 2: 468 CARATOKE HWY MOYOCK NC 27958 USA PARCEL 3: 472 CARATOKE HWY MOYOCK NC 27958

PAYMAN NADIMI

WAWA, PA 19063

±2.81 AC 2 LOTS

25 FT

371 FT

35 FT

6.67%

63% 6,372 SF

38,865 SF

MOYOCK RUN

STACKED

260 WEST BALTIMORE PIKE

THREE PRODUCT DISPENSER

EMAIL: PAYMAN.NADIMI@WAWA.COM

PARCEL 1: PID 009A00000660000

20 FT FROM STREET SIDE

PARCEL 1: GB - GENERAL BUSINESS PARCEL 2: GB - GENERAL BUSINESS

DEVELOPER: FRONTIER DEVELOPMENT 2950 SW 27TH AVENUE, SUITE 300

MIAMI, FL 33133 PHONE (305) 692-9992 CONTACT: JONATHAN ESCARZA

ENGINEER:

KIMLEY—HORN AND ASSOCIATES, INC. 421 FAYETTEVILLE STREET, SUITE 600 RALEIGH, NC 27601 EOR: JEREMY YEE, P.E. TEL: 757-548-7306 EMAIL: JEREMY.YEE@KIMLEY-HORN.COM

CONTACT: ALLIE ZURAS TEL: 757-350-4608 EMAIL: ALLIE.ZURAS@KIMLEY-HORN.COM

SURVEYOR:

TIMMONS GROUP 1805 WEST CITY DRIVE, UNIT E ELIZABETH CITY, NC 27909 PHONE (252) 621-5030

CONTACT: JASON MIZELLE

KIMLEY-HORN AND ASSOCIATES, INC. 4525 MAIN STREET, SUITE 1000 VIRGINIA BEACH, VA 23462 CONTACT: JOE MATHEWS

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TEL: (757) 213-8600 EMAIL: JOE.MATHEWS@KIMLEY-HORN.COM

| | CITY | 'SUBMITTALS |
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| REVISION NO. | DATE | REMARKS |
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PROJECT OWNER AND CONSULTANT INFORMATION

CONSTRUCTION

- ALL NECESSARY PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND THE
- CONTRACTOR MUST OBTAIN ALL PERMITS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF PERMITS COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY REGULATORY AGENCY REPRESENTATIVES.
- THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING CONSTRUCTION
- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE
- CONSTRUCTED TO SAME SITE BOUNDARY, TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY TIMMONS GROUP. ALL INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO
- CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODE AND THE OWNER.
- THE CONTRACTOR AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE STATE DEPARTMENT OF TRANSPORTATION STRUCTURE STANDARDS AND REGULATIONS (LATEST EDITION) AND BECOME FAMILIAR WITH THE CONTENTS PRIOR TO COMMENCING WORK, AND, UNLESS OTHERWISE NOTED, ALL WORK SHALL CONFORM AS APPLICABLE TO THESE STANDARDS AND
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES. SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL
- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS AND CODES AND O.S.H.A. STANDARDS. IN THE EVENT THE REGULATIONS DO NOT AGREE, THE MOST STRINGENT SHALL GOVERN
- . CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION'S SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID. AREAS TO BE DISTURBED SHALL BE IMPROVED PER THE CIVIL PLANS OR RESTORED TO THEIR ORIGINAL OR BETTER CONDITION. CONTRACTOR SHALL REPAIR ANY EXISTING FEATURES THAT ARE DAMAGED DURING CONSTRUCTION TO THE EXISTING OR BETTER CONDITION.
- THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE, AT ALL TIMES, ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, GEOTECHNICAL REPORT AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
- ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT. TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER
- . THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED
- I. ALL WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
- TRAFFIC CONTROL ON ALL STATE, LOCAL, AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT. THE MOST STRINGENT SHALL GOVERN.
- 6. CONTRACTOR SHALL MAINTAIN AN ALL WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
- CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL COMMERCIAL BUILDINGS THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET SECTION 510 REQUIREMENTS OF THE 2018 NC FIRE CODE.
- 3. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE.

CONSTRUCTION TESTING

- IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL TESTS REQUIRED BY THE AUTHORITY
- IF DETERMINED BY THE OWNER, THE CONTRACTOR SHALL PROVIDE ADDITIONAL CONSTRUCTION TESTING. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR REQUIRED
- TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN APPROVED AGENCY FOR TESTING MATERIALS. THE TESTING LABORATORY AND THE PAYMENT OF SUCH TESTING SERVICES SHALL BE MADE BY THE OWNER. SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SHOW BY STANDARD TESTING PROCEDURES THAT THE WORK CONSTRUCTED DOES MEET THE REQUIREMENTS OF THE SPECIFICATIONS.
- ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST. RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
- EACH BACKFLOW PREVENTION ASSEMBLY IS REQUIRED TO BE TESTED BY A JURISDICTIONALLY-APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE.

AS-BUILTS/RECORD DRAWINGS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCLIMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE PROJECT STATE WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SEALED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE PROJECT STATE DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS. THE RECORD DRAWINGS SHALL BE PREPARED TO THE SAME LEVEL OF DETAILS AS PROVIDED ON THE DESIGN DRAWINGS.

GENERAL ACCESSIBILITY NOTES

- THE CONTRACTOR SHALL REVIEW ALL APPLICABLE STATE AND LOCAL GUIDELINES AS THEY APPLY TO THE ACCESSIBILITY AND SIGNAGE
- ALL CONSTRUCTION SHALL BE VERIFIED BY THE CONTRACTOR TO BE IN COMPLIANCE WITH LOCALLY ADOPTED ACCESSIBILITY REGULATIONS. ANYTHING FOUND NOT IN COMPLIANCE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED COMPLIANT WITH THE LATEST EDITION OF THE ADA STANDARDS FOR ACCESSIBLE DESIGN AS PUBLISHED BY THE **DEPARTMENT OF JUSTICE.** UNLESS AND EXCEPT IN AREAS WHERE AN APPROVED STATEMENT FROM A SITE ENGINEER, SURVEYOR, OR ARCHITECT VERIFIES THAT SITE CONDITIONS EXIST WHERE THE TOPOGRAPHY OF THE SITE IS EXTREME AND ONLY ALTERNATE METHODS OF COMPLIANCE ARE POSSIBLE
- CURB RAMPS ALONG PUBLIC STREETS AND IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BASED ON THE CITY STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS.
- ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMPS, CURB RAMPS. STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION.
- BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA AND FHA) EXIST TO AND FROM EVERY DOOR AND ALONG SIDEWALKS, ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ACCESSIBLE ROUTES. IN NO CASE SHALL AN ACCESSIBLE RAMP SLOPE EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPE EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPE EXCEED 5.0 PERCENT. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0 PERCENT SLOPE IN ANY DIRECTION.
- CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ACCESSIBLE SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA COMPLIANCE ISSUES.

GENERAL EROSION CONTROL NOTES

- PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST CLEARLY DELINEATE AND MARK OFF AREAS TO BE PROTECTED. AS IDENTIFIED IN THE SWPPP OR IN THE FIELD. (INCLUDING BUT NOT LIMITED TO STREAMS/WETLANDS, NATURAL BUFFERS, TREE, HABITATS OF ENDANGERED/THREATENED SPECIES, HISTORIC PROPERTIES, ETC.)
- THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS
- BMPS PROPOSED FOR SITE DEVELOPMENT HAVE BEEN DESIGNED TO ADDRESS CONSTRUCTION STORMWATER RUNOFF. IN THE EVENT THE BMPS BECOME INEFFECTIVE AT PREVENTING SEDIMENT FROM LEAVING THE SITE IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT ADDITIONAL BMPS THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN BMPS AS DESCRIBED IN THE GENERAL PERMIT. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY THE EROSION CONTROL INSPECTOR.
- CONTRACTOR SHALL REVIEW THE GENERAL PERMIT PRIOR TO COMMENCING CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL KEEP A COPY OF THE APPROVED PLANS AND GENERAL PERMIT ON SITE AT ALL TIMES.
- GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A **VIOLATION AND IS SUBJECT TO A FINE.**
- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE STATE WHICH THE WORK IS PERFORMED. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION

ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH

ALL CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT.

APPLICABLE STATE EROSION AND SEDIMENT CONTROL REGULATIONS.

- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
- 10. CONSTRUCTION ENTRANCE SHALL BE LOCATED SO AS TO PROVIDE THE LEAST AMOUNT OF DISTURBANCE TO THE FLOW OF TRAFFIC IN AND OUT OF THE SITE. ADDITIONALLY, CONSTRUCTION ENTRANCE SHALL BE LOCATED TO COINCIDE WITH THE PHASING OF THE PAVEMENT REPLACEMENT.
- . POST CONSTRUCTION STORM WATER POLLUTION CONTROL MEASURES INCLUDE STABILIZATION BY PERMANENT PAVING, DRAINAGE SYSTEM STRUCTURE, OR LANDSCAPING.
- TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED LINTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING. THE BUILDING(S). AND SITE PAVING.
- 13. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
- 14. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION.
- 15. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
- 16. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING. PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS. CONTACT PROJECT ENGINEER AND PROJECT EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING.
- ANY SPILLS OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF REPORTABLE QUANTITIES AS DEFINED BY EPA OR THE STATE OR LOCAL AGENCY REGULATIONS, SHALL BE IMMEDIATELY REPORTED TO THE EPA NATIONAL RESPONSE CENTER (1-800-424-8802), AND AS REQUIRED BY THE GENERAL PERMIT
- 18. THE CONTRACTOR SHALL MAINTAIN JURISDICTIONALLY REQUIRED BUFFERS OF UNDISTURBED NATURAL VEGETATION BETWEEN THE DISTURBED PORTIONS OF THE SITE AND SURFACES WATERS AT ALL TIMES. BUFFERS SHALL BE MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION
- 19. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS, STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
- 20. CONTRACTOR SHALL PLACE EROSION CONTROL BLANKET ON ALL SITE AREAS WITH SLOPES GREATER THAN 2:1, AND IN THE BOTTOM AND SIDE SLOPES OF ALL SWALES, UNLESS OTHERWISE
- ALL DRAINAGE SWALES MUST BE GRADED AND RIP-RAP MUST BE REPLACED AS REQUIRED TO CONTROL EROSION. RIP-RAP WILL CONSIST OF 50 - 125 POUND STONES PLACED AT ALL **OUTFALLS AND WHERE NOTED ON CONSTRUCTION DRAWINGS**
- 22. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED FOR ADDITIONAL CONTRACTOR LAYDOWN AREA. CONTRACTOR TO COORDINATE WITH ENGINEER DURING CONSTRUCTION. THE LIMITS OF DISTURBANCE SHOULD CONTAIN ANY ADDITIONAL LAYDOWN AREAS. IF ADDITIONAL LAYDOWN AREA IS NEEDED OUT SIDE THE LIMITS OF DISTURBANCE, A REVISED EROSION CONTROL PLAN SHOULD BE REVIEWED AND PERMITTED.
- 23. PUMPING SEDIMENT LADEN WATER INTO ANY STORMWATER FACILITY THAT IS NOT DESIGNATED. TO BE A SEDIMENT TRAP, DRAINAGEWAY, OR OFFSITE AREA EITHER DIRECTLY OR INDIRECTLY WITHOUT FILTRATION IS PROHIBITED. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET. WATER REMOVED FROM TRAPS. BASINS, AND OTHER WATER HOLDING DEPRESSIONS OR EXCAVATIONS MUST FIRST PASS THROUGH A SEDIMENT CONTROL AND/OR FILTRATION DEVICE WHEN DEWATERING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM
- 24. ALL TEMPORARY STORMWATER EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED.TRAPPED SEDIMENT AND OTHER DISTURBED SOILS RESULTING FROM TEMPORARY MEASURES SHALL BE PROPERLY DISPOSED OF PRIOR TO PERMANENT STABILIZATION.
- 25. SOIL STOCKPILES SHALL NOT BE LOCATED IN A DRAINAGE WAY, STOCKPILES , FLOOD PLAIN AREA, OR A DESIGNATED BUFFER. ALL STOCKPILES SHALL BE IMMEDIATELY STABILIZED AS REQUIRED BY THE GENERAL PERMIT.

STORMWATER NOTES

- REFER TO GENERAL UTILITY NOTES FOR ADDITIONAL REQUIREMENTS PERTAINING TO UNDERGROUND UTILITY AND STORMWATER PIPE INSTALLATION.
- ALL NECESSARY PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR MUST OBTAIN ALL PERMITS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- PIPE LENGTHS, GRADES, ELEVATIONS AND LOCATIONS SHOWN ARE APPROXIMATE ONLY. AS DIRECTED BY THE ENGINEER, THEY MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS.
- ALL STORM PIPE INSTALLED SHALL BE ADS N-12 UNLESS SPECIFICALLY NOTED OTHERWISE. EXISTING STORMWATER PIPE MATERIALS, MODIFIED, DAMAGED OR DEFORMED, ETC. SHALL NOT BE REUSED UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER.
- ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENT AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
- ALL PIPES SHALL BE BEDDED PER MANUFACTURER'S RECOMMENDATIONS. 7. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED WITH (4) SIDED BEARING HEAVY DUTY
- H-20 RATED TRAFFIC RIMS AND GRATES. 3. ALL CLEANOUT COVERS WITHIN THE PAVEMENT SECTIONS SHALL BE RATED FOR HEAVY DUTY TRAFFIC (H-20 RATED).
- WEEPHOLES ARE TO BE CONSTRUCTED IN ALL DRAINAGE STRUCTURES, A MINIMUM OF 1 WEEPHOLE PER STRUCTURE. WEEPHOLES ARE TO BE CONSTRUCTED IN THE BOTTOM 1/3 OF STRUCTURE AND COVERED ON THE OUTSIDE OF THE STRUCTURE BY A BAG MADE OF FILTER FABRIC AND FILLED WITH #78 STONE. 10. CONTRACTOR SHALL PROVIDE CATCH BASIN INLET PROTECTION ON ALL EXISTING AND
- PROPOSED INLETS UNTIL CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER
- MANUFACTURER'S RECOMMENDATIONS. GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.

13. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION BETWEEN PROPOSED PAVEMENT AND

EXISTING PAVEMENT AND STORM STRUCTURES 14. DURING CONSTRUCTION AND AFTER FINAL GRADING, NO SURFACE WATER RUNOFF MAY BE DIRECTED TO ADJACENT PROPERTIES, AND ALL SURFACE WATER RUNOFF MUST BE ROUTED TO APPROVED DRAINAGE FACILITIES OR BE RETAINED ON SITE. ALL RUNOFF FROM THE SITE, BOTH DURING AND AFTER CONSTRUCTION, MUST BE FREE OF POLLUTANTS, INCLUDING SEDIMENT PRIOR TO DISCHARGE

GENERAL DEMOLITION NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS AND PAY FEES REQUIRED FOR DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES. THESE FEES SHALL BE INCLUDED WITH THE BID. THE CONTRACTOR SHALL PREPARE ALL DOCUMENTS AND ACQUIRE APPROPRIATE PERMITS AS REQUIRED PRIOR TO THE COMMENCEMENT OF DEMOLITION.
- DEMOLITION AS DEPICTED ON THE DEMOLITION PLAN IS INTENDED TO DESCRIBE GENERAL DEMOLITION AND UTILITY WORK. IT IS NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY PRIOR TO WORK
- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND LAWFUL DISPOSAL OF ALL STRUCTURES, PAVING, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL AS
- ASBESTOS OR ANY OTHER HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL CONTRACTOR ONLY AFTER NOTIFICATION OF THE ENGINEER AND AUTHORIZATION TO PROCEED IS GIVEN BY THE OWNER.
- THE CONTRACTOR SHALL PUMP OUT BUILDING FUEL AND WASTE OIL TANKS (IF ANY ARE ENCOUNTERED) AND REMOVE FUEL TO AN APPROVED DISPOSAL AREA BY AN APPROPRIATELY LICENSED WASTE OIL HANDLING CONTRACTOR IN STRICT ACCORDANCE WITH FEDERAL AND STATE REQUIREMENTS ONLY AFTER NOTIFICATION OF THE ENGINEER AND AUTHORIZATION TO PROCEED IS GIVEN BY THE OWNER.
- THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO ALL EXISTING FACILITIES AND OUTLOTS AT ALL TIMES. UTILITY SERVICES SHALL NOT BE INTERRUPTED WITHOUT APPROVAL FROM THE SERVICE PROVIDERS AND COORDINATION THROUGH THE PROPERTY OWNER(S). THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN
- THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE ITEMS SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.
- ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE CONTRACTOR SHALL PAY CLOSE ATTENTION TO EXISTING UTILITIES WITHIN ANY ROAD RIGHT OF WAY DURING CONSTRUCTION.
- SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONTRACTOR SHALL CONSULT THE ENGINEER AND OWNER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
- CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES. ENCLOSURES, ETC., (AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES) AS APPROVED BY THE OWNER.
- CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING BUSINESSES AND PROPERTIES AT ALL TIMES DURING DEMOLITION OF THE EXISTING IMPROVEMENTS AND CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. CONTRACTOR SHALL COORDINATE WITH THE OWNER(S)/ LEASEE(S) PRIOR TO ANY CONSTRUCTION TO ESTABLISH CUSTOMER ACCESS AND TRAFFIC FLOW DURING ALL PHASES.
- SHOULD CONSTRUCTION ACTIVITIES DAMAGE EXISTING FEATURES, THE CONTRACTOR SHALL REPLACE THE FEATURES WITH NEW MATERIALS. DAMAGE TO ANY EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
- 4. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID UNNECESSARY DAMAGE TO EXISTING ROAD SURFACES. FINISHED SURFACES TO BE REMOVED OR DEMOLISHED SHALL BE CUT ALONG LINES OF JOINTS WHICH WILL PERMIT A NEAT SURFACE WHEN RESTORED. SAW CUT AT INTERFACE OF PAVEMENT OR CURB TO REMAIN. SAW CUT EXISTING PAVEMENT AT THE RIGHT-OF-WAY. SAW CUTS SHALL BE MADE FULL DEPTH THROUGH THE EXISTING PAVEMENT. DISCARDED PAVEMENT SHALL BE REMOVED WITHOUT UNDERMINING THE EXISTING PAVEMENT. IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE
- CONTRACTOR SHALL BE RESPONSIBLE FOR IT'S REMOVAL AND REPAIR. CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. CLEAR AND FREE FROM ANY CONSTRUCTION ACTIVITY AND/OR MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM THE SITE. CONTRACTOR SHALL COORDINATE/PHASE ALL CONSTRUCTION ACTIVITY WITHIN PROXIMITY OF THE BUILDING AND UTILITY INTERRUPTIONS WITH THE PROPERTY OWNERS AND UTILITY PROVIDERS TO MINIMIZE
- DISTURBANCE AND INCONVENIENCE. ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BI RESTORED TO ITS ORIGINAL CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR.
- ATTENTION IMMEDIATELY AND PROPERLY ABANDONED BY A LICENSED WELL DRILLER PER LOCAL AND STATE CODE. ANY SEPTIC SYSTEMS ENCOUNTERED SHALL BE BROUGHT TO THE THE PROJECT ENGINEER'S

ANY WATER WELLS ENCOUNTERED ARE TO BE BROUGHT TO THE PROJECT ENGINEER'S

- ATTENTION IMMEDIATELY AND SHALL BE PROPERLY DEMOLISHED PER LOCAL AND STATE 19. ALL MONITORING WELLS ENCOUNTERED ARE TO BE BROUGHT TO THE PROJECT ENGINEER'S
- ATTENTION IMMEDIATELY AND SHALL BE PROPERLY PROTECTED UNLESS OTHERWISE NOTED. 20. CALL TRAFFIC ENGINEERING AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN

GENERAL PAVING NOTES

- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION BETWEEN PROPOSED PAVEMENT, EXISTING PAVEMENT AND ANY STRUCTURES.
- THE PROPOSED SPOT ELEVATIONS SHOWN ARE FINISHED ELEVATIONS INCLUDING ASPHALT AND CONCRETE. REFER TO PAVEMENT SECTIONS AND CURB DETAILS TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS
- ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS. CONTRACTOR SHALL REVIEW
- THE RECCOMENDATIONS OF THE GEOTECHNICAL ENGINEER PRIOR TO PAVING. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED. THE CONTRACTOR SHALL SAW CUT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
- ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN JURISDICTIONAL RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR STATE DEPT. OF TRANSPORTATION SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.
- ALL ON-SITE STRIPING IS TO BE PAINTED, UNLESS OTHERWISE NOTED. ALL STRIPING IN PUBLIC RIGHT-OF-WAY TO BE THERMOPLASTIC STRIPING. TRANSVERSE EXPANSION JOINTS ARE TO BE PROVIDED IN CONCRETE SIDEWALKS AND
- COMBINED WALKS/CURBS WHERE SHOWN AND AT INTERVALS NOT TO EXCEED 12 X THE WIDTH OF THE WALK. EXPANSION JOINTS SHALL BE INSTALLED IN CONCRETE PAVEMENTS AND WALKS AT ALL
- LOCATIONS WHERE PAVEMENTS AND WALKS ABUT A VERTICAL SURFACE SUCH AS A CURB, WALL, COLUMN, ETC CONTRACTION JOINTS SHALL BE PROVIDED AT EQUAL INTERVALS BETWEEN EXPANSION JOINTS IN CONCRETE WALKS. INSTALL CONTRACTION JOINTS AS SHOWN BUT IN NO CASE AT INTERVALS
- GREATER THAN 1.5 X THE WIDTH OF THE WALK.). CONTRACTOR SHALL COORDINATE PAVING IMPROVEMENTS TO AVOID TIRE MARKS FROM CONSTRUCTION ACTIVITY. FINAL PAVING SHALL BE AS SMOOTH AS POSSIBLE AND FREE FROM
- ANY CRACKS, SCRAPES, GOUGES, TIRE MARKS, ETC. CAUSED DURING CONSTRUCTION. ALL NEW CONCRETE SHALL BE DOWELED INTO ALL EXISTING CONCRETE (PAVING, SIDEWALKS, CURB, ETC.). ALL STRUCTURES SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH FINAL PAVEMENT

GENERAL UTILITY NOTES

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS PRIOR TO CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN ENCROACHMENT AGREEMENT PERMIT, AS REQUIRED, TO CONSTRUCT UTILITY CONNECTIONS.
- ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS
- REFER TO ARCHITECTURAL /MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR CONTINUATION OF UTILITIES WITHIN 5 FEET OF STRUCTURES.
- THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING AND PROTECTING ALL PUBLIC OR PRIVATE UTILITIES (SHOWN OR NOT SHOWN) WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. AT LEAST 72 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL CONTACT 811 FOR THE IDENTIFICATION OF EXISTING UTILITIES WITHIN THE SITE
- EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCING ANY WORK IN THE VICINITY. FURTHERMORE. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES. NOR FOR TEMPORARY BRACING AND SHORING OF SAME IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED
- SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED UTILITIES BE ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE OWNER IMMEDIATELY FOR DIRECTIONS.

REGARDING THE METHOD TO USE FOR SUCH WORK.

- THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING LITILITIES DURING CONSTRUCTION, AT LEAST 72 HOURS PRIOR TO ANY DEMOLITION, GRADING OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY THE UTILITY PROVIDER FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE. THE CONTRACTOR SHALL COORDINATE ANY INTERRUPTION OF UTILITY SERVICE WITH OWNER(S) AND RESPECTIVE UTILITY COMPANY REPRESENTATIVE.
- CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
- CONTRACTOR SHALL SAW CUT, REMOVE, AND REPLACE ASPHALT PAVEMENT AS NECESSARY TO INSTALL UNDERGROUND ELECTRIC, TELEPHONE, SEWER, WATER, AND COMMUNICATION CONDUITS.PAVEMENTS, WALKS, CURBS AND OTHER SURFACE IMPROVEMENTS REQUIRING REMOVAL FOR INSTALLATION OF UNDERGROUND UTILITIES SHALL BE RESTORED TO THEIR PRESENT CONDITION UNLESS OTHERWISE SHOWN.
- 10. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL POWER COMPANY STANDARDS.
- . CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES.
- PRESSURE UTILITY MAINS AND SERVICE LINES MAY NEED TO BE INSTALLED AT A DEPTH GREATER THAN THAT SPECIFIED OR SHOWN ON THE DRAWINGS TO CLEAR EXISTING AND PROPOSED CROSSING UTILITIES. IN SUCH CASES, THE CONTRACTOR SHALL INSTALL VERTICAL BENDS AS REQUIRED TO ACHIEVE APPROPRIATE CLEARANCE BETWEEN THE CROSSING
- . WHERE GRADE MODIFICATIONS (CUT OR FILL) ARE SHOWN ADJACENT TO EXISTING VALVE BOX COVERS AND MANHOLE CASTINGS, THE VALVE BOX COVERS AND MANHOLE CASTINGS SHALL BE ADJUSTED FLUSH WITH THE PROPOSED GRADE
- THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS, ETC. WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE OWNER. UTILITY COMPANIES. AND GOVERNING AUTHORITIES. THE CONTRACTOR SHALL INSTALL AS NECESSARY, TEMPORARY SITE LIGHTING, GAS, SANITARY, WATER, STORM, ELECTRIC, TELEPHONE, AND CABLE SERVICES TO SERVICE BUILDING(S) TO REMAIN OPEN.
- 15. ALL PROPOSED STUBS SHALL BE CAPPED AND SHALL BE PROVIDED WITH FIELD MARKERS. 16. CONTRACTOR TO PROVIDE AND INSTALL CONDUIT FOR SITE LIGHTING PER SITE LIGHTING PLAN
- (BY OTHERS). 17. CONTRACTOR TO PROVIDE AND INSTALL CONDUIT FOR IRRIGATION PER IRRIGATION PLAN (BY
- 18. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED, SURVEYED, AND APPROVED BEFORE BACKFILLING.
- 19. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
- 20. ALL CONDUIT SHALL BE INSTALLED PER CURRENT NATIONAL ELECTRIC CODE (N.E.C.) AND MANUFACTURER REQUIREMENTS.
- 21. ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE) UNLESS WHERE SPECIFIED. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS. MANHOLES GRAVITY SEWE LINES AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY
- REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN. 23. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE
- 24. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY DUCTILE IRON PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER. OWNER. OR INSPECTOR RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S
- **EXPENSE** 25. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.
- 26. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT
- SHALL GOVERN.
- UNDERGROUND WATER AND SANITARY SEWER LINES SHALL BE SURVEYED BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE PROJECT STATE PRIOR TO BACK FILLING. 28. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE

SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT

MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION, PRESSURE

- TESTS, AND A MANDREL TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDERS, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED. 29. IF DETERMINED NECESSARY BY THE LOCAL JURISDICTION, THE CONTRACTOR SHALL ABANDON EXISTING WATER METERS. CUT THE CORP**ORATION STOP** OFF, AND AIR-GAP THE SERVICES.
- 30. UNDERGROUND UTILITY, INCLUDING STORMWATER PIPES, SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS: A. NO MORE THAN 500 LF OF TRENCH MAY BE OPENED AT ONE TIME.

B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.

TREE PROTECTION NOTES

- THE CONTRACTOR SHALL PROTECT ALL TREES AND SHRUBS OUTSIDE OF CUT/FILL LINES, IN ADDITION TO THOSE THAT RECEIVE TREE/SHRUB PROTECTION BARRIERS. THE CONTRACTOR IS ALSO REQUESTED TO SAVE ALL OTHER EXISTING TREES AND SHRUBS WHERE POSSIBLE.
- NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, BURIAL PITS, TRENCHING OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN THE TREE PROTECTION ZONE. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, GRADING OR CONSTRUCTION BEGINS, AND NOT REMOVED UNTIL FINAL INSPECTION.
- NO GRUBBING WITHIN TREE PROTECTION ZONE. LEAVE SOIL AND LEAF LITTER UNDISTURBED. SUPPLEMENT WITH 1-2 INCHES OF MULCH. RE-SEED WITH GRASS ONLY IN DISTURBED/GRADED
- TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, CLEARING, GRADING OR CONSTRUCTION BEGINS AND IS NOT TO BE REMOVED UNTIL AFTER CONSTRUCTION.
- PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GRIVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION

GENERAL GRADING NOTES

- ALL NECESSARY PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND THE
- CONTRACTOR MUST OBTAIN ALL PERMITS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.
- CONTRACTOR SHALL REVIEW, UNDERSTAND AND IMPLEMENT ALL REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO ANY DISTURBANCE.
- THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL A GRASS STAND IS WELL ESTABLISHED OR ADEQUATE STABILIZATION OCCURS.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR BLASTING ROCK IF BLAST ROCK IS ENCOUNTERED. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL BLASTING AND SAFETY REQUIREMENTS
- ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND SEEDED. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE
- CONDITION ALL FILL PER THE GEOTECHNICAL ENGINEERS SPECIFICATIONS. FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING,
- SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS. 0. FIELD ADJUSTMENTS OF RIM ELEVATIONS OF STRUCTURES MAY BE REQUIRED TO MEET FIELD
- CONDITIONS. MAXIMUM HEIGHT OF ADJUSTING RINGS SHALL NOT EXCEED 12-INCHES. ADJUSTMENTS OF CASTINGS WHERE THE TOTAL HEIGHT OF ADJUSTING RINGS WOULD EXCEED 12 INCHES SHALL BE MADE BY REPLACING THE CONE AND/OR BARREL SECTION OF THE
- I. WHERE GRADE MODIFICATIONS ARE SHOWN ADJACENT TO EXISTING VALVE BOX COVERS AND MANHOLE CASTINGS, THE VALVE BOX COVERS AND MANHOLE CASTINGS SHALL BE ADJUSTED FLUSH WITH THE PROPOSED GRADE.
- 12. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED UNLESS INDICATED OTHERWISE ON THE LANDSCAPE PLAN. 13. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER
- PRIOR TO ANY EXCAVATION. 14. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.
- 15 FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY OR TO STATE DEPARTMENT OF TRANSPORTATION STANDARDS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
- $\sf I6.~~ALL~SLOPES~AND~AREAS~DISTURBED~BY~CONSTRUCTION~SHALL~BE~GRADED~AS~PER~PLANS.~THE$ AREAS SHALL THEN BE SEEDED AS SPECIFIED IN THE PLANS, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE SEEDED AND MULCHED AS SHOWN ON THE LANDSCAPING PLAN. ALL CUT OR FILL SLOPES SHALL BE 3 (HORIZONTAL): 1 (VERTICAL) OR FLATTER UNI ESS.
- OTHERWISE SHOWN. THE CONTRACTOR SHALL COORDINATE WITH THE GEOTECHNICAL ENGINEER FOR APPROPRIATE SLOPE STABILIZATION ON ALL SLOPES STEEPER THAN 3:1 CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING
- COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES. 9. THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO

8. SEED MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF

- BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER. 20. GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.
- 21. ALL SOIL USED FOR PLANTING SHALL CONSIST OF REGIONALLY APPROPRIATE SOILS. 22. UNSUITABLE FILL BENEATH BUILDING PADS AND PAVED SURFACES MUST BE EXCAVATED AND
- REPLACED AS RECOMMENDED BY A GEOTECHNICAL ENGINEER. 23. ALL PAVEMENT SUB GRADES SHALL BE PREPARED PER THE GEOTECHNICAL REPORT.

WATER DISTRIBUTION NOTES

- CONTRACTOR TO LOCATE TIE-INS TO ALL BUILDINGS BASED ON ARCH / MECHANICAL, **ELECTRICAL AND PLUMBING PLANS.** IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATER LINES SANITARY LINES STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING. THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11
- (AWWA C-151) (CLASS 50). WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 48 INCHES OF COVER AS MEASURED
- FROM THE TOP OF THE PIPE TO THE FINAL FINISH GRADE ABOVE THE PIPE. THRUST BLOCKS OR JOINT RESTRAINTS SHALL BE INSTALLED ON ALL WATER LINES AT ALL BENDS, TEES AND HYDRANTS PER THE DETAILS.
- PIPE LENGTHS SHOWN ARE MEASURED FROM CENTER TO CENTER OF FITTINGS AND APPURTENANCES ROUNDED TO THE NEAREST FOOT. WATER LINES SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS:

6" AND LARGER, PVC C-900, DR-18, PER ASTM D 2241

6" AND LARGER DUCTILE IRON PIPE PER AWWA C150

- SMALLER THAN 6" EITHER COPPER TUBE TYPE "L" (SOFT) PER
- ANSI 816.22 OR PVC, 200 P.S.I., PER ASTM D1784 AND D2241. ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING IF DICTATED BY THE **AUTHORITY HAVING JURISDICTION.**

THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE

SHALL INCLUDE DRAIN PORT(S) FOR DISCHARGE WATER. CONTRACTOR SHALL ENSURE THE

- DEPT. CONNECTION POINTS, OR OTHER WATER USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS REQUIRED BACKFLOW PREVENTER. BACKFLOW PREVENTION ASSEMBLIES TO BE INSTALLED ABOVE-GROUND SHALL BE INSTALLED WITHIN INSULATED ENCLOSURE AND PER JURISDICTIONAL REQUIREMENTS. ENCLOSURES
- BACKFLOW PREVENTION ASSEMBLY AND ENCLOSURE IS INSTALLED OUTSIDE OF SIGHT DISTANCE TRIANGLES AT INTERSECTIONS WITH VEHICULAR TRAVEL WAYS. 10. ALL BACKFLOW PREVENTERS SHALL BE HEATED.

SANITARY SEWER NOTES

PLANS:

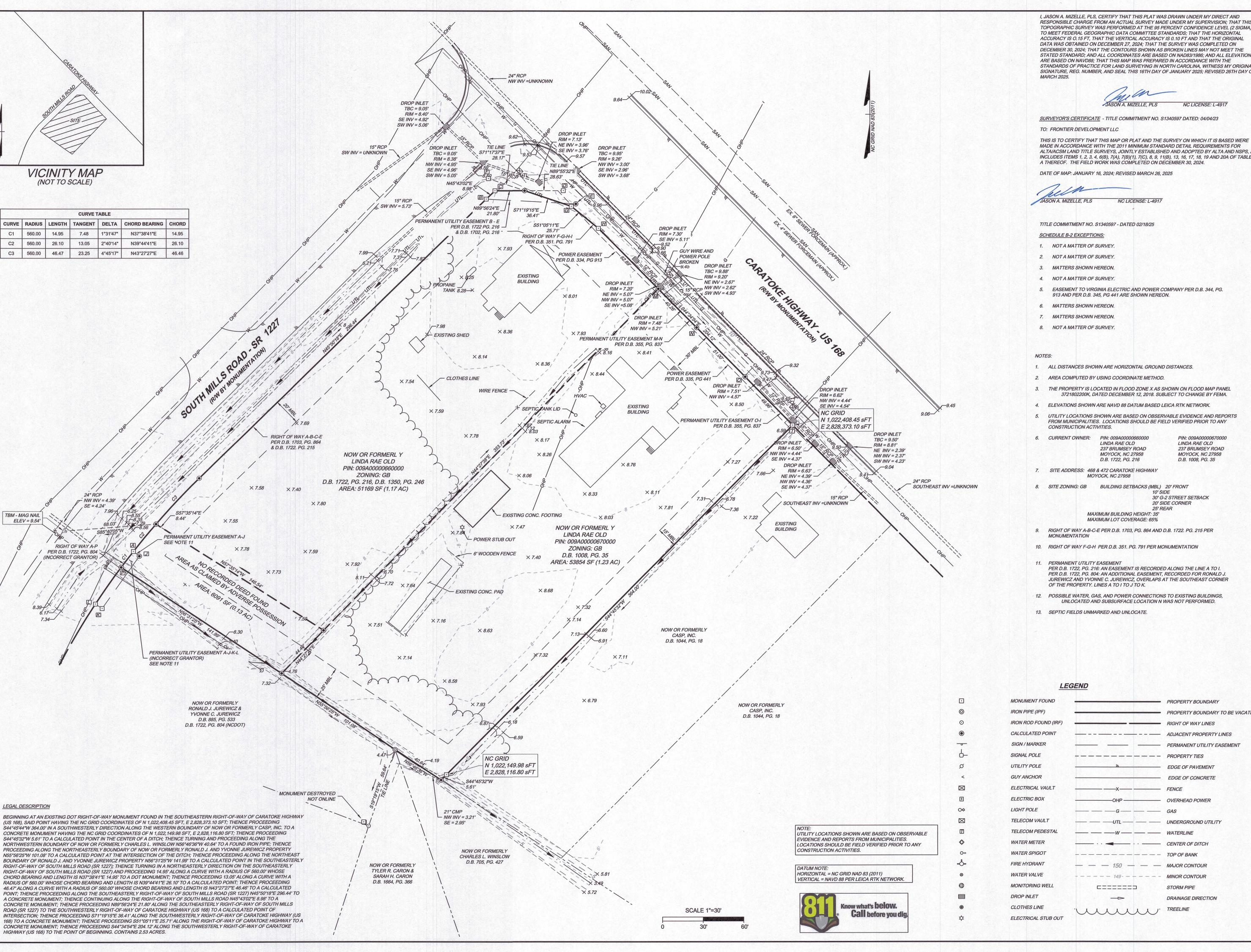
- 1. CONTRACTOR TO LOCATE LATERAL CONNECTIONS TO BUILDING PER PLUMBING PLANS. 2. PLACE CLEAN-OUTS ON SANITARY SEWER LATERALS AS REQUIRED BY PLUMBING CODE.
- ROUNDED TO THE NEAREST FOOT. 4. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET BETWEEN WATER LINES AND SEWERS SHALL BE MAINTAINED AT ALL TIMES. A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN WATER LINES AND SEWERS SHALL BE MAINTAINED AT CROSSINGS. IN THE EVENT THAT MINIMUM SEPARATION REQUIREMENTS CANNOT BE MET, THE CONTRACTOR SHALL UTILIZE PRESSURE-TYPE

3. PIPE LENGTHS SHOWN ARE MEASURED FROM CENTER TO CENTER OF **STRUCTURES** AND **ARE**

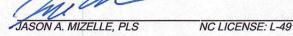
- WATER PIPE FOR THE SEWER PER DETAIL. 5. SANITARY SEWER PIPE SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS: 4" PVC SDR35 PER ASTM D 3034, FOR PIPES LESS THAN 12' DEEP 8" PVC SDR26 PER ASTM D 3034, FOR PIPES MORE THAN 12' DEEP 6" AND SMALLER PVC SCHEDULE 40
- DUCTILE IRON PIPE PER AWWA C150 5. WHENEVER VERTICAL DISTANCE BETWEEN OUTGOING AND INCOMING SEWERS IS MORE THAN 2 FEET AN OUTSIDE DROP MANHOLE SHALL BE INSTALLED. SANITARY SEWER STRUCTURES SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE

48" DIAMETER PRECAST CONCRETE MANHOLE PER ASTM C478.

48" DIAMETER PRECAST POLYETHYLENE IN ACCORDANCE WITH ASTM D1248. MANHOLES SHALL HAVE A COMPRESSIVE STRENGTH THAT MEETS ASTM D2412. 3. ALL MANHOLES AND CLEANOUTS SHALL BE H20 TRAFFIC GRADE AND RATED WITH HEAVY DUTY COVERS AND FRAMES PER THE SAME STANDARD



RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THIS TOPOGRAPHIC SURVEY WAS PERFORMED AT THE 95 PERCENT CONFIDENCE LEVEL (2 SIGMA) TO MEET FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS; THAT THE HORIZONTAL ACCURACY IS 0.15 FT, THAT THE VERTICAL ACCURACY IS 0.10 FT AND THAT THE ORIGINAL DATA WAS OBTAINED ON DECEMBER 27, 2024; THAT THE SURVEY WAS COMPLETED ON DECEMBER 30, 2024; THAT THE CONTOURS SHOWN AS BROKEN LINES MAY NOT MEET THE STATED STANDARD; AND ALL COORDINATES ARE BASED ON NAD83/1986; AND ALL ELEVATIONS ARE BASED ON NAVD88; THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA, WITNESS MY ORIGINAL SIGNATURE, REG. NUMBER, AND SEAL THIS 16TH DAY OF JANUARY 2025; REVISED 26TH DAY OF



SURVEYOR'S CERTIFICATE - TITLE COMMITMENT NO. S1340597 DATED: 04/04/23

MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 6(B), 7(A), 7(B)(1), 7(C), 8, 9, 11(B), 13, 16, 17, 18, 19 AND 20A OF TABLE

- EASEMENT TO VIRGINIA ELECTRIC AND POWER COMPANY PER D.B. 344, PG.
- 3. THE PROPERTY IS LOCATED IN FLOOD ZONE X AS SHOWN ON FLOOD MAP PANEL
- 4. ELEVATIONS SHOWN ARE NAVD 88 DATUM BASED LEICA RTK NETWORK.
- 5. UTILITY LOCATIONS SHOWN ARE BASED ON OBSERVABLE EVIDENCE AND REPORTS

LINDA RAE OLD 237 BRUMSEY ROAD MOYOCK, NC 27958 D.B. 1008, PG. 35

30' G-2 STREET SETBACK 20' SIDE CORNER

- 9. RIGHT OF WAY A-B-C-E PER D.B. 1703, PG. 864 AND D.B. 1722. PG. 215 PER
- 10. RIGHT OF WAY F-G-H PER D.B. 351. PG. 791 PER MONUMENTATION
- PER D.B. 1722, PG. 216: AN EASEMENT IS RECORDED ALONG THE LINE A TO I. PER D.B. 1722, PG. 804: AN ADDITIONAL EASEMENT, RECORDED FOR RONALD J. JUREWICZ AND YVONNE C. JUREWICZ, OVERLAPS AT THE SOUTHEAST CORNER
- 12. POSSIBLE WATER, GAS, AND POWER CONNECTIONS TO EXISTING BUILDINGS, UNLOCATED AND SUBSURFACE LOCATION N WAS NOT PERFORMED.

| NONUMENT FOUND | | PROPERTY BOUNDARY |
|---------------------|--|---------------------------------|
| RON PIPE (IPF) | | PROPERTY BOUNDARY TO BE VACATED |
| RON ROD FOUND (IRF) | | RIGHT OF WAY LINES |
| CALCULATED POINT | · | ADJACENT PROPERTY LINES |
| BIGN / MARKER | | PERMANENT UTILITY EASEMENT |
| IGNAL POLE | + | PROPERTY TIES |
| ITILITY POLE | | EDGE OF PAVEMENT |
| GUY ANCHOR | | EDGE OF CONCRETE |
| ELECTRICAL VAULT | | FENCE |
| ELECTRIC BOX | OHP | OVERHEAD POWER |
| IGHT POLE | —————————————————————————————————————— | GAS |
| ELECOM VAULT | —————————————————————————————————————— | UNDERGROUND UTILITY |
| ELECOM PEDESTAL | | WATERLINE |
| VATER METER | | CENTER OF DITCH |
| VATER SPIGOT | | TOP OF BANK |
| IRE HYDRANT | — — — 150 — — — | MAJOR CONTOUR |
| VATER VALVE | | MINOR CONTOUR |
| ONITORING WELL | ======= | STORM PIPE |
| PROP INLET | | DRAINAGE DIRECTION |
| CLOTHES LINE | | TREELINE |
| LECTRICAL STUR OUT | 5555555 | |



03/25/2025 DRAWN BY

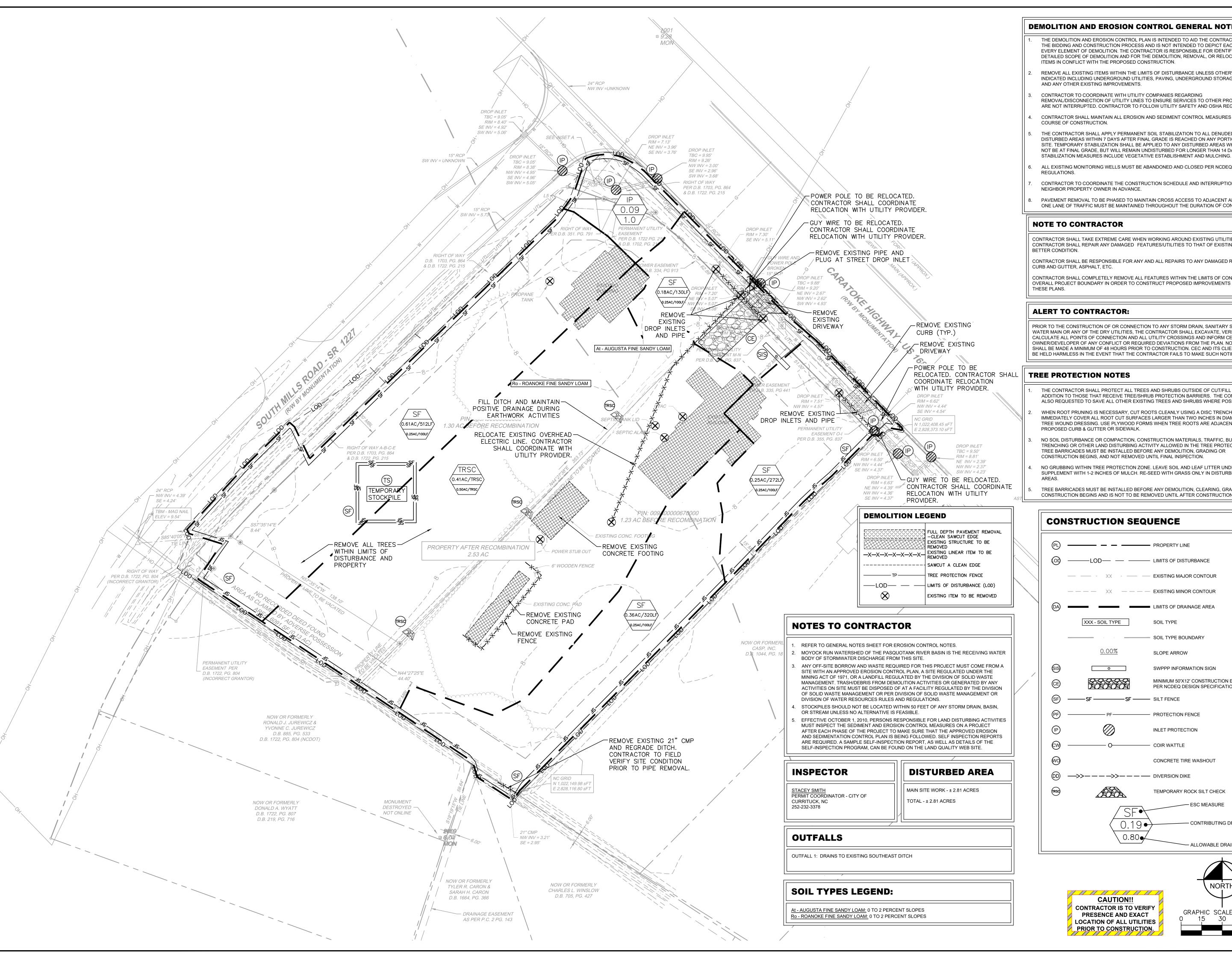
DESIGNED BY

CHECKED BY

SCALE

1'' = 30'

JOB NO. 70943 SHEET NO.



DEMOLITION AND EROSION CONTROL GENERAL NOTES

- THE DEMOLITION AND EROSION CONTROL PLAN IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION AND FOR THE DEMOLITION, REMOVAL, OR RELOCATIONS OF ITEMS IN CONFLICT WITH THE PROPOSED CONSTRUCTION.
- REMOVE ALL EXISTING ITEMS WITHIN THE LIMITS OF DISTURBANCE UNLESS OTHERWISE INDICATED INCLUDING UNDERGROUND UTILITIES, PAVING, UNDERGROUND STORAGE TANKS, AND ANY OTHER EXISTING IMPROVEMENTS.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES REGARDING REMOVAL/DISCONNECTION OF UTILITY LINES TO ENSURE SERVICES TO OTHER PROPERTIES ARE NOT INTERRUPTED. CONTRACTOR TO FOLLOW UTILITY SAFETY AND OSHA REGULATIONS.
- CONTRACTOR SHALL MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DURING THE COURSE OF CONSTRUCTION.
- THE CONTRACTOR SHALL APPLY PERMANENT SOIL STABILIZATION TO ALL DENUDED OR DISTURBED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY STABILIZATION SHALL BE APPLIED TO ANY DISTURBED AREAS WHICH MAY NOT BE AT FINAL GRADE, BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 14 DAYS. SOIL
- ALL EXISTING MONITORING WELLS MUST BE ABANDONED AND CLOSED PER NCDEQ
- CONTRACTOR TO COORDINATE THE CONSTRUCTION SCHEDULE AND INTERRUPTION WITH THE NEIGHBOR PROPERTY OWNER IN ADVANCE.
- PAVEMENT REMOVAL TO BE PHASED TO MAINTAIN CROSS ACCESS TO ADJACENT ALDI. MINIMUM ONE LANE OF TRAFFIC MUST BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.

CONTRACTOR SHALL TAKE EXTREME CARE WHEN WORKING AROUND EXISTING UTILITIES. CONTRACTOR SHALL REPAIR ANY DAMAGED FEATURES/UTILITIES TO THAT OF EXISTING OR

CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL REPAIRS TO ANY DAMAGED ROADWAYS,

CONTRACTOR SHALL COMPLETELY REMOVE ALL FEATURES WITHIN THE LIMITS OF CONSTRUCTION / OVERALL PROJECT BOUNDARY IN ORDER TO CONSTRUCT PROPOSED IMPROVEMENTS AS SHOWN IN

ALERT TO CONTRACTOR:

PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM CEC AND THE OWNER/DEVELOPER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. CEC AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

- THE CONTRACTOR SHALL PROTECT ALL TREES AND SHRUBS OUTSIDE OF CUT/FILL LINES, IN ADDITION TO THOSE THAT RECEIVE TREE/SHRUB PROTECTION BARRIERS. THE CONTRACTOR IS ALSO REQUESTED TO SAVE ALL OTHER EXISTING TREES AND SHRUBS WHERE POSSIBLE.
- WHEN ROOT PRUNING IS NECESSARY, CUT ROOTS CLEANLY USING A DISC TRENCHER AND IMMEDIATELY COVER ALL ROOT CUT SURFACES LARGER THAN TWO INCHES IN DIAMETER WITH TREE WOUND DRESSING. USE PLYWOOD FORMS WHEN TREE ROOTS ARE ADJACENT TO PROPOSED CURB & GUTTER OR SIDEWALK.
- NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, BURIAL PITS, TRENCHING OR OTHER LAND DISTURBING ACTIVITY ALLOWED IN THE TREE PROTECTION ZONE. TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, GRADING OR CONSTRUCTION BEGINS, AND NOT REMOVED UNTIL FINAL INSPECTION.
- NO GRUBBING WITHIN TREE PROTECTION ZONE. LEAVE SOIL AND LEAF LITTER UNDISTURBED. SUPPLEMENT WITH 1-2 INCHES OF MULCH. RE-SEED WITH GRASS ONLY IN DISTURBED/GRADED
- TREE BARRICADES MUST BE INSTALLED BEFORE ANY DEMOLITION, CLEARING, GRADING OR CONSTRUCTION BEGINS AND IS NOT TO BE REMOVED UNTIL AFTER CONSTRUCTION.



———LOD— — LIMITS OF DISTURBANCE --- - XX - - --- EXISTING MAJOR CONTOUR ---- XX --- EXISTING MINOR CONTOUR LIMITS OF DRAINAGE AREA SOIL TYPE XXX - SOIL TYPE SOIL TYPE BOUNDARY

SWPPP INFORMATION SIGN 0 MINIMUM 50'X12' CONSTRUCTION ENTRANCE -PER NCDEQ DESIGN SPECIFICATIONS —SF — SILT FENCE

SLOPE ARROW

· COIR WATTLE

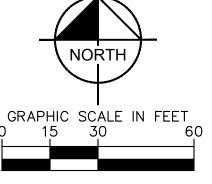
— PROTECTION FENCE INLET PROTECTION

0.00%

CONCRETE TIRE WASHOUT

TEMPORARY ROCK SILT CHECK - ESC MEASURE - CONTRIBUTING DRAINAGE AREA ALLOWABLE DRAINAGE AREA

CAUTION!! CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.



EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PROPOSED PROJECT SITE IS LOCATED AT THE INTERSECTION OF SOUTH MILLS ROAD AND CARATOKE HIGHWAY INMOYOCK, NC 27928, THE PROPOSED PROJECT IS TO DEVELOP A 6.372 S.F. WAWA CONVENIENCE STORE WITH FUEL SALES AND ITS ASSOCIATED INFRASTRUCTURE. THE PROJECT IS LOCATED ON 2 PARCELS, 2.51 ACRES OF LAND DISTURBANCE IS PROPOSED WITH THIS PROJECT WITH MINIMAL RIGHT OF WAY DISTURBANCES TO CONNECT UTILITIES AND AN ENTRANCE ON CARATOKE HIGHWAY.

EXISTING SITE CONDITIONS

THE EXISTING SITE IS OCCUPIED BY 2 RESIDENTIAL HOUSES AND FORESTED LAND. RUNOFF GENERATED ON THE SITE DRAINS INTO THE EXISTING DITCH BETWEEN THE TWO PARCELS. THE SITE ULTIMATELY DRAINS TO MOYOCK RUN BASED ON HUC12;0301020511

ADJACENT AREAS

THE SITE IS SURROUNDED BY CARATOKE HIGHWAY TO THE NORTH, RESIDENTIAL PROPERTY TO THE EAST, RESIDENTIAL PROPERTY TO THE SOUTH, AND SOUTH MILLS ROAD TO THE WEST.

OFF-SITE AREAS

OFF-SITE IMPROVEMENTS INCLUDE INSTALLATION OF AN ENTRANCE ON SOUTH MILLS ROAD AND AN ENTRANCE IN THE RIGHT OF WAY ON CARATOKE HIGHWAY.

A WEB SOIL SURVEY WAS CONDUCTED USING UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) SOIL MAPPING TOOL. THE FOLLOWING PREDOMINANT SOIL COMPONENTS ARE PRESENT ON SITE:

MAP UNIT: At - AUGUSTA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

COMPONENT: AUGUSTA, DRAINED, AND SIMILAR SOILS (80%)

THE AUGUSTA, DRAINED, AND SIMILAR SOILS COMPONENT MAKES UP 80 PERCENT OF THE MAP UNIT. SLOPES ARE 0 TO 2 PERCENT. THE PARENT MATERIAL CONSISTS OF SANDY AND LOAMY FLUVIOMARINE DEPOSITS AND/OR MARINE DEPOSITS. THE DEPTH TO A RESTRICTIVE FEATURE IS MORE THAN 80 INCHES. THE DRAINAGE CLASS IS SOMEWHAT POORLY DRAINED. WATER MOVEMENT IN THE MOST RESTRICTIVE LAYER IS MODERATELY HIGH TO HIGH. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS MODERATE. THE SOIL IS NEITHER FLOODED NOR PONDED. THE NON-IRRIGATED LAND CAPABILITY CLASSIFICATION FOR THIS SOIL IS 2W. THE SOIL FALLS INTO HYDROLOGIC SOIL GROUP B/D. IT HAS NO HYDRIC SOIL RATING.

MAP UNIT: Ro - ROANOKE FINE SANDY LOAM, O TO 2 PERCENT SLOPES

COMPONENT: ROANOKE, DRAINED, AND SIMILAR SOILS (80%)

THE ROANOKE, DRAINED, AND SILIAR SOILS COMPONENT MAKES UP 80 PERCENT OF THE MAP UNIT, SLOPES ARE 0 TO 2 PERCENT, THE PARENT MATERIAL CONSISTS OF CLAYEY MARINE DEPOSITS AND/OR FLUVIOMARINE DEPOSITS. DEPTH TO A RESTRICTIVE FEATURE IS MORE THAN 80 INCHES. THE NATURAL DRAINAGE CLASS IS POORLY DRAINED. WATER MOVEMENT IS THE MOST RESTRICTIVE LAYER IS VERY LOW TO MODERATELY HIGH. AVAILABLE WATER TO A DEPTH OF 60 INCHES IS HIGH. THIS SOIL FLOODS RARELY AND IS NOT PONDED. NON-IRRIGATED LAND CAPABILITY CLASSIFICATION IS 3W. THE HYDROLOGIC SOIL GROUP IS C/D. THIS SOIL DOES MEET HYDRIC SOIL RATING.

CRITICAL AREAS

THERE IS ONE CRITICAL AREA LOCATED WITHIN THE LIMITS OF DISTURBANCE. THE EXISTING DITCH RUNNING BETWEEN THE TWO PARCELS.

EROSION AND SEDIMENT CONTROL MEASURES

A STONE CONSTRUCTION ENTRANCE IS PROPOSED TO PROVIDE A BUFFER AREA WHERE VEHICLES CAN DROP THEIR MUD AND SEDIMENT TO AVOID TRANSPORTING IT ONTO PUBLIC ROADS, TO CONTROL EROSION FROM SURFACE RUNOFF, AND TO HELP CONTROL DUST

SILT FENCE (WITH WIRE SUPPORT)
SILT FENCE IS PROPOSED TO RETAIN SEDIMENT FROM SMALL DISTURBED AREAS BY REDUCING THE VELOCITY OF SHEET FLOWS TO ALLOW SEDIMENT DEPOSITION.

<u>SILT FENCE CULVERT INLET PROTECTION</u> SILT FENCE CULVERT INLET PROTECTION IS PROPOSED TO TRAP SEDIMENT AT THE APPROACH TO THE STORM DRAINAGE SYSTEM.

GRAVEL CURB INLET SEDIMENT FILTER
GRAVEL CURB INLET SEDIMENT FILTER IS PROPOSED TO PREVENT SEDIMENT AT THE APPROACH TO THE CURB INLET BY FILTERING RUNOFF THROUGH GRAVEL AND WIRE MESH. THIS INLET PROTECTION IS PROPOSED FOR ALL SITE PIPES INSTALLED DURING THE PHASE II ESCP.

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER
BLOCK & GRAVEL CURB INLET SEDIMENT FILTER IS PROPOSED TO PREVENT SEDIMENT AT THE APPROACH TO THE CURB INLET BY FILTERING RUNOFF THROUGH GRAVEL AND A WIRE SCREEN AND ALLOWING OVERFLOW DURING STORM EVENTS TO BYPASS THE FILTER. THIS INLET PROTECTION IS PROPOSED FOR ALL CURB INLETS IN THE RIGHT OF WAY.

DIVERSIONS IS PROPOSED TO CHANNEL RUNOFF FROM THE CONSTRUCTION AREA TO THE OUTLET.

TEMPORARY SEEDING IS PROPOSED TO TEMPORARY STABILIZE DENUDED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 21 CALENDAR DAYS. TEMPORARY SEEDING CONTROLS RUNOFF AND EROSION UNTIL PERMANENT VEGETATION OR OTHER EROSION CONTROL MEASURES CAN BE ESTABLISHED. IN ADDITION, IT PROVIDES RESIDUE FOR SOIL PROTECTION AND SEEDBED PREPARATION, AND REDUCES PROBLEMS OF MUD AND DUST PRODUCTION FROM BARE SOIL SURFACES DURING CONSTRUCTION.

PERMANENT SEEDING
PERMANENT SEEDING IS PROPOSED TO REDUCE EROSION AND DECREASE SEDIMENT YIELD FROM DISTURBED AREAS, TO PERMANENTLY STABILIZE SUCH AREAS IN A MANNER THAT IS ECONOMICAL, ADAPTS TO SITE CONDITIONS, AND ALLOWS SELECTION OF THE MOST APPROPRIATE PLANT MATERIALS

A TEMPORARY SEDIMENT TRAP IS PROPOSED TO TRAP SEDIMENT AT A SELECTED POINT IN THE CONSTRUCTION AREA AND REDUCE THE POTENTIAL FOR SEDIMENT DAMAGE.

MAINTENANCE OF ESC MEASURES

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROMLEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH 2-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,

SILT FENCE (WITH WIRE SUPPORT)
INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IS PROMPTLY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONSTRUCTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

CULVERT INLET PROTECTION
INSPECT, CLEAN, AND PROPERLY MAINTAIN THE EXCAVATED BASIN AFTER EVERY STORM UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED. TO PROVIDE SATISFACTORY BASIN EFFICIENCY, REMOVE SEDIMENT WHEN THE VOLUME OF THE BASIN HAS BEEN REDUCED BY ONE-HALF. SPREAD ALL EXCAVATED MATERIAL EVENLY OVER THE SURROUNDING LAND AREA OR STOCKPILE AND STABILIZE IT APPROPRIATELY.

RESEED AND MULCH AREAS WHERE SEEDLING EMERGENCE IS POOR, OR WHERE EROSION OCCURS, AS SOON AS POSSIBLE. DO NOT MOW. PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE.

<u>PERMANENT SEEDING</u> SEE LANDSCAPING PLAN.

MANAGEMENT STRATEGIES / SEQUENCE OF CONSTRUCTION

NOTE: SEE DIVISION OF WORK FOR DETAILED DELINEATION OF WAWA VS. LANDLORD WORK.

- PHASE 1 (BY LAND-LORD)

 1. OBTAIN NECESSARY PERMITS BEFORE THE START OF CONSTRUCTION. INSTALL SILT FENCE. PLACE INLET PROTECTION AND CULVERT INLET PROTECTION ON EXISTING STORM SEWER STRUCTURES.
- INSTALL CONSTRUCTION ENTRANCE.
- COMMENCE TREE CLEARING ROUGH GRADE THE SITE.
- STABILIZATION FOR ALL AREAS TO REMAIN DENUDED FOR A PERIOD OF 21 DAYS OR LONGER SHALL BE INITIATED WITHIN TWENTY-FOUR (24) HOURS AFTER
- CONSTRUCTION ACTIVITY CEASES IN THESE AREAS. TEMPORARY SEEDING STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS OF INITIATION.
- CONTRACTOR TO INSTALL WATER LINE, SANITARY SEWER, STORM SEWER, AND ALL UNDERGROUND UTILITIES. CONTRACTOR TO INSTALL POND OUTLET CONTROL STRUCTURE AND DOWNSTREAM STORM STRUCTURES.
- INSTALL INLET PROTECTION AT ALL STORM SEWER STRUCTURES AS EACH INLET STRUCTURE IS PLACED. 10. PREPARE BUILDING AND FUEL CANOPY PAD.
- 11. PROMPTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE. 12. PLACE TOPSOIL, SOD, OR MULCH ALL DENUDED AREAS OUTSIDE OF LEASE AREA.
- INSTALL CONSTRUCTION ENTRANCE
- CONTRACTOR TO INSTALL ONSITE UTILITIES CONSTRUCT BUILDING, CANOPY AND UNDERGROUND STORAGE TANKS.
- PREPARE THE SITE FOR PAVING AND INSTALL CURB AND GUTTER.
- PLACE TOPSOIL ON ALL LANDSCAPED AREAS. SOD OR MULCH ALL DENUDED AREAS INSIDE OF LEASE AREA REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. DO NOT REMOVE EROSION CONTROL MEASURES UNTIL THE ENTIRE SITE HAS BEEN PERMANENTLY STABILIZED.

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

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

SECTION E. GROUND STARILIZATION

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

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

- Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below
- Temporary grass seed covered with straw or Permanent grass seed covered with straw or other mulches and tackifiers
- Hydroseeding
- Rolled erosion control products with or
- reinforcement matting without temporary grass seed Hydroseeding Appropriately applied straw or other mulch
- Shrubs or other permanent plantings covered with mulch Uniform and evenly distributed ground cover
 - sufficient to restrain erosion Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

Geotextile fabrics such as permanent soil

- 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.

NORTH CAROLINA

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
- 4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem
- has been corrected.
- 6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

ITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

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

PAINT AND OTHER LIQUID WAST

- 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.
- 4. Containment must be labeled, sized and placed appropriately for the needs of site. 5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from

construction sites. PORTABLE TOILETS

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

EARTHEN STOCKPILE MANAGEMEN

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

erosion on disturbed soils for temporary or permanent control needs.



2. THE CONCRETE VASHOUT STRUCTURES SHALL BE HAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES 3.CONCRETE VASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED VITH SIGNAGE NOTING DEVICE. 3.CONCRETE VASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED VITI-SIGNAGE NOTING DEVICE.

CONCRETE WASHOUTS

Do not discharge concrete or cement slurry from the site. Dispose of, or recycle settled, hardened concrete residue in accordance with local

ABOVE GRADE WASHOUT STRUCTURE

- 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.
- 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout

IERBICIDES, PESTICIDES AND RODENTICIDES

- 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. . Do not stockpile these materials onsite.

- Create designated hazardous waste collection areas on-site.
- 2. Place hazardous waste containers under cover or in secondary containment. 3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

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 (1) Rain gauge maintained in good working order | Frequency (during normal business hours) Daily | Inspection records must include: Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division. |
|---|---|--|
| (2) E&SC Measures | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | 1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. 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 left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases. |
| (5) Streams or wetlands onsite or offsite (where accessible) (6) Ground stabilization measures | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours After each phase of grading | If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit. 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 |

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

measures have been provided within the required timeframe or an assurance that they will be provided as

SECTION B: RECORDKEEPING 1. E&SC Plan Documentatio

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

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

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

Initial and date a copy of the approved E&SC

report to indicate the completion of the

plan or complete, date and sign an inspection

- (a) This General Permit as well as the Certificate of Coverage, after it is received.
- (b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
- 3. Documentation to be Retained for Three Years All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART II, SECTION G, ITEM (4)

(e) Corrective actions have been taken

to E&SC measures.

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

DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

- (a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
- properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems, (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,

(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,

(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and (f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include

EFFECTIVE: 04/01/19

Permittees shall report the following occurrences: (a) Visible sediment deposition in a stream or wetland.

1. Occurrences that Must be Reported

SECTION C: REPORTING

- (b) Oil spills if: They are 25 gallons or more,
- They cause sheen on surface waters (regardless of volume), or They are within 100 feet of surface waters (regardless of volume).

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

(c) 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. (d) Anticipated bypasses and unanticipated bypasses.
- (e) 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 Department's Environmental Emergency Center personnel at (800)

Reporting Timeframes (After Discovery) and Other Requirements

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

| Stream of wedand | • | 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 sedime related causes, the permittee may be required to perform addition monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure com with the federal or state impaired-waters conditions. |
|--|---|--|
| (b) Oil spills and release of hazardous substances per Item | • | Within 24 hours , an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release. |

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

(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 bypas Within 24 hours, an oral or electronic notification Within 7 calendar days, a report that includes an evaluation of the 122.41(m)(3)] quality and effect of the bypass.

 Within 7 calendar days, a report that contains a description of the of this permit that noncompliance, and its causes; the period of noncompliance, may endanger including exact dates and times, and if the noncompliance has not health or the been corrected, the anticipated time noncompliance is expected to environment[40 continue; and steps taken or planned to reduce, eliminate, and CFR 122.41(I)(7)] prevent reoccurrence of the noncompliance. [40 CFR 122.41(I)(6). • Division staff may waive the requirement for a written report on a

case-by-case basis.



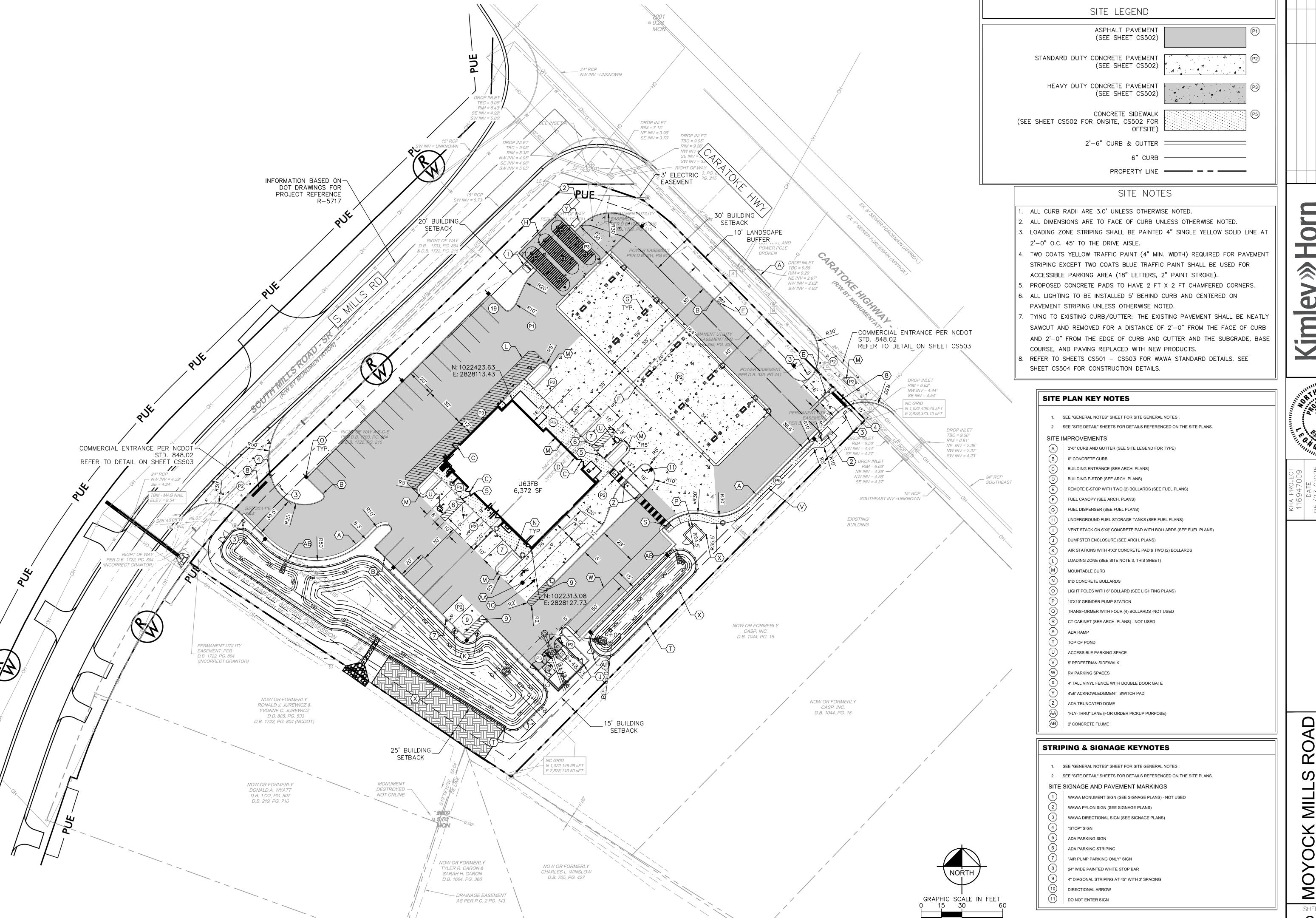
NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

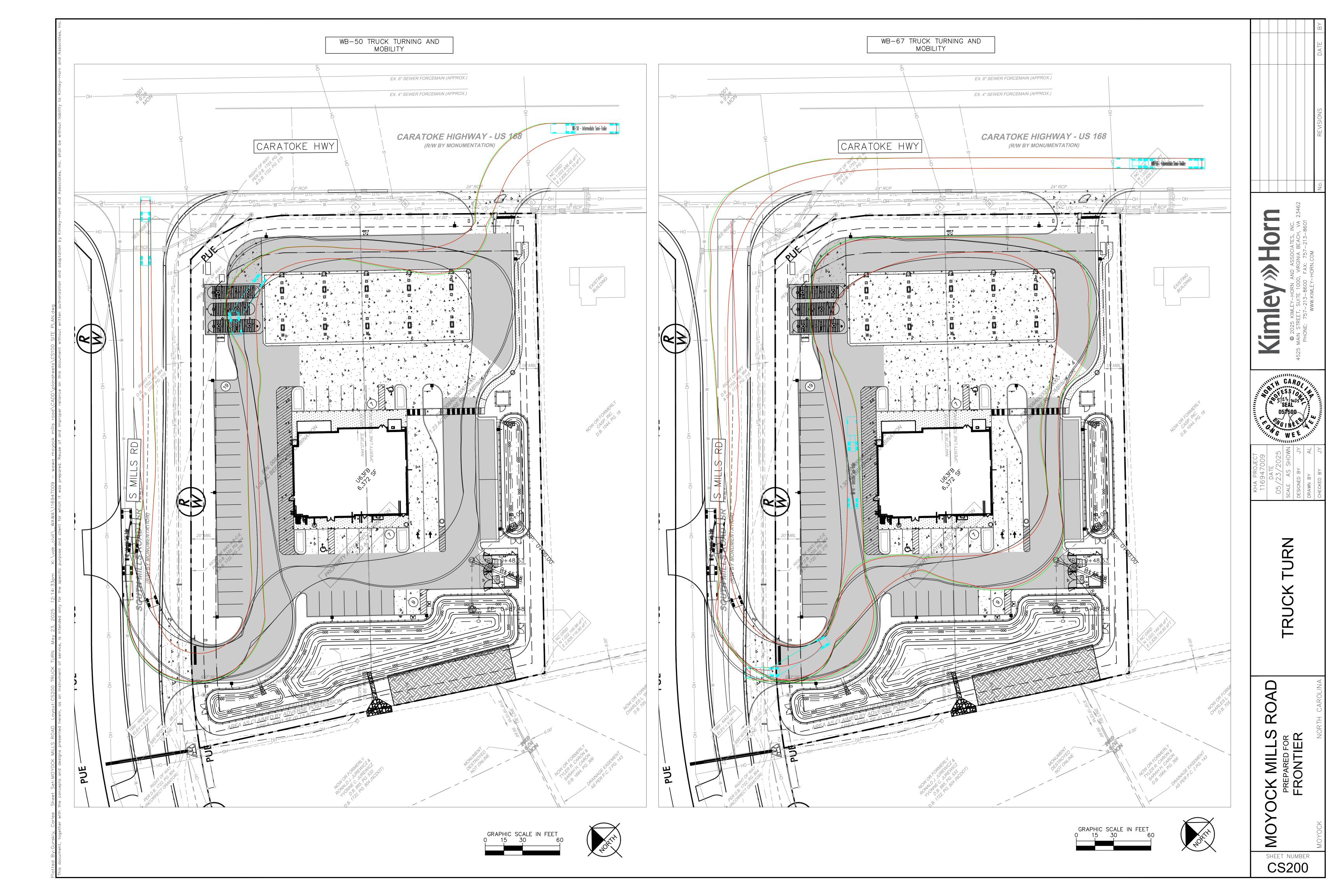
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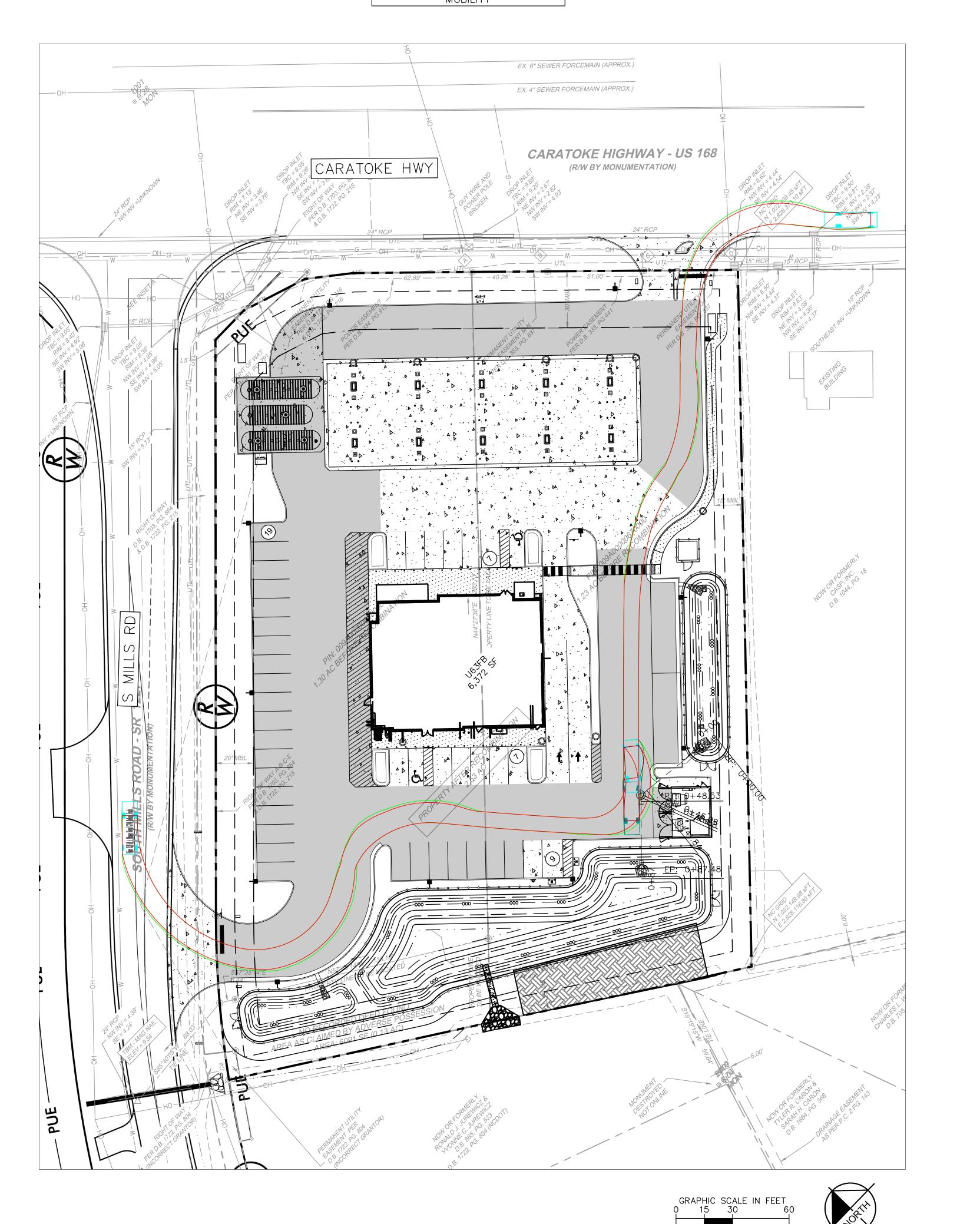
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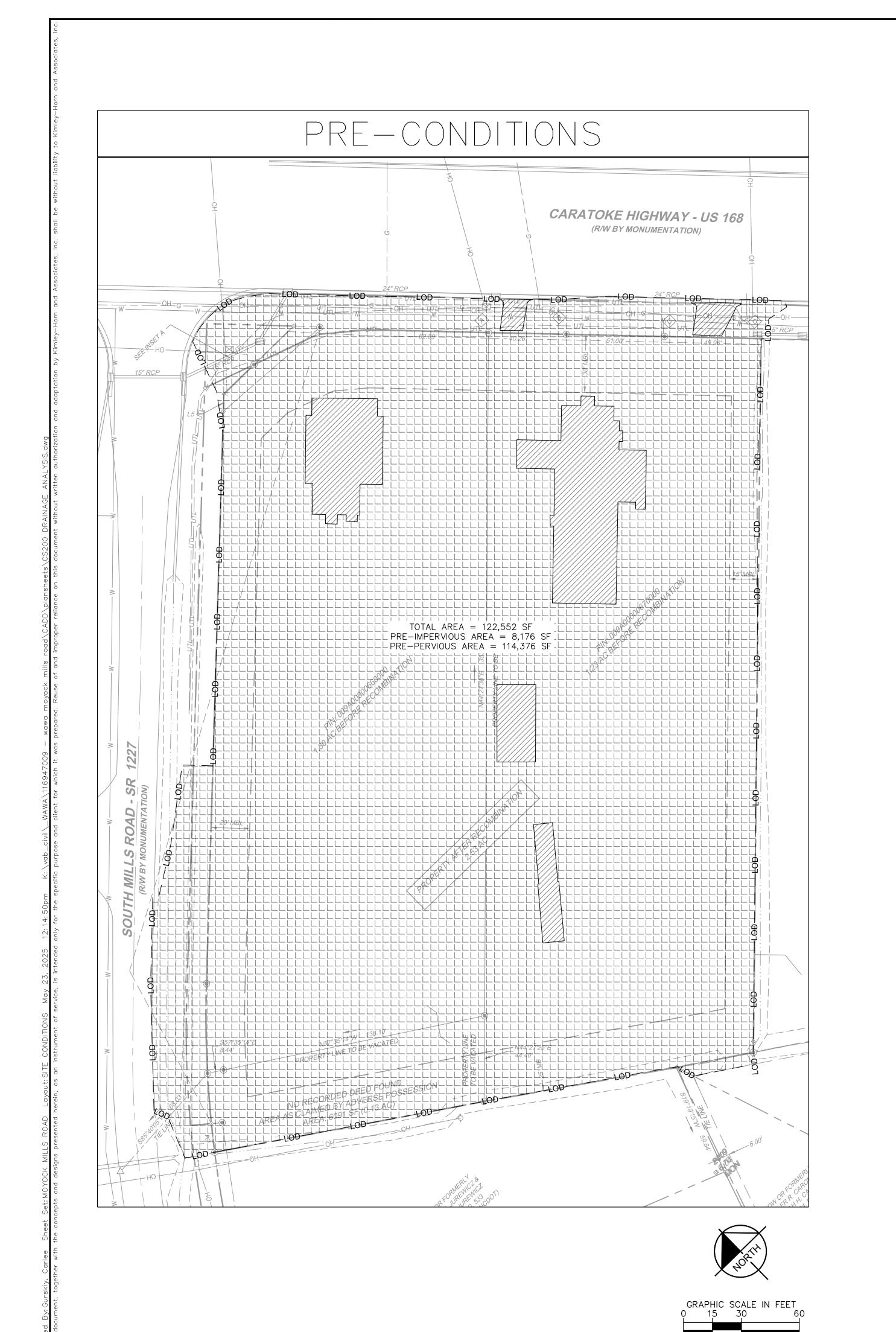
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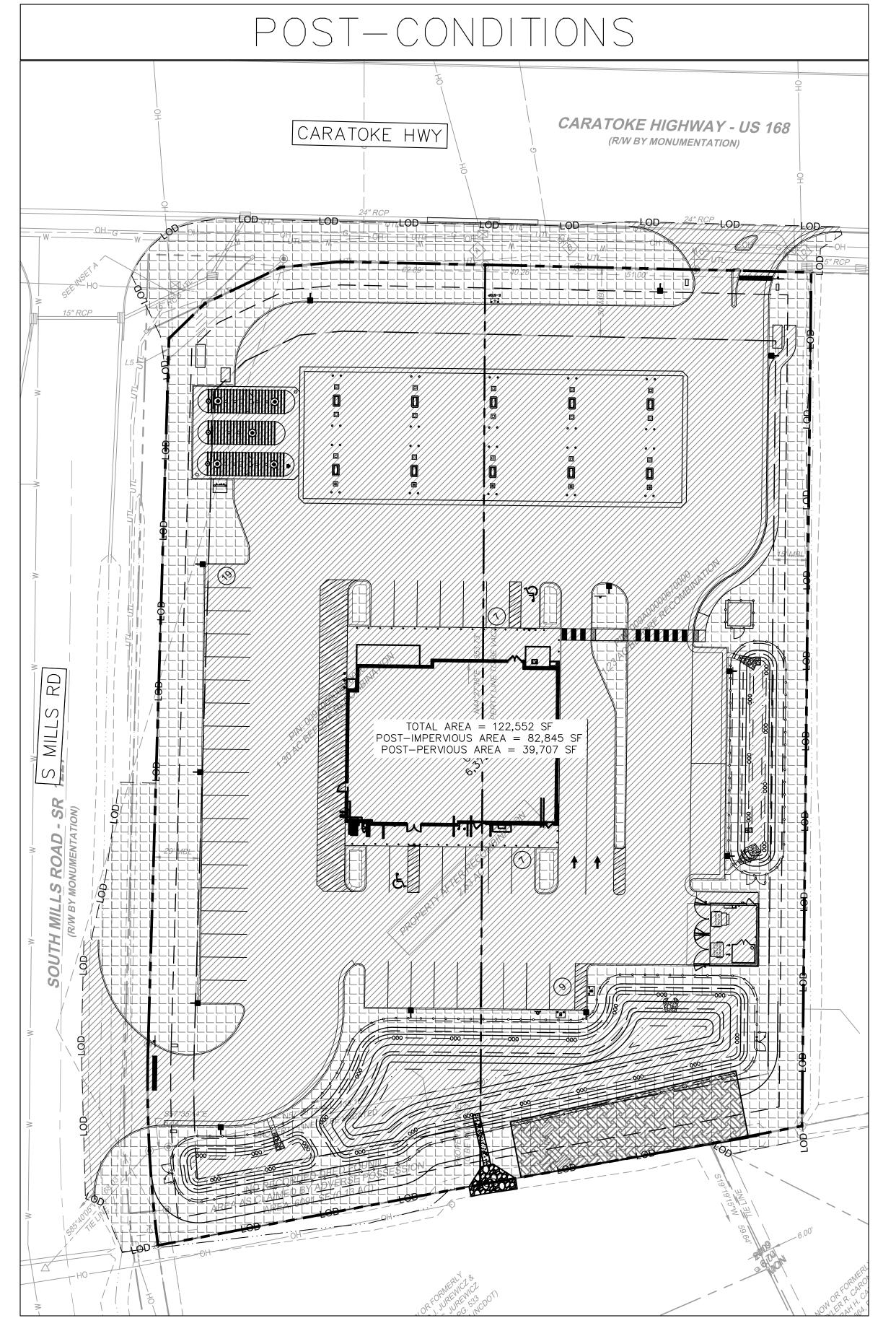


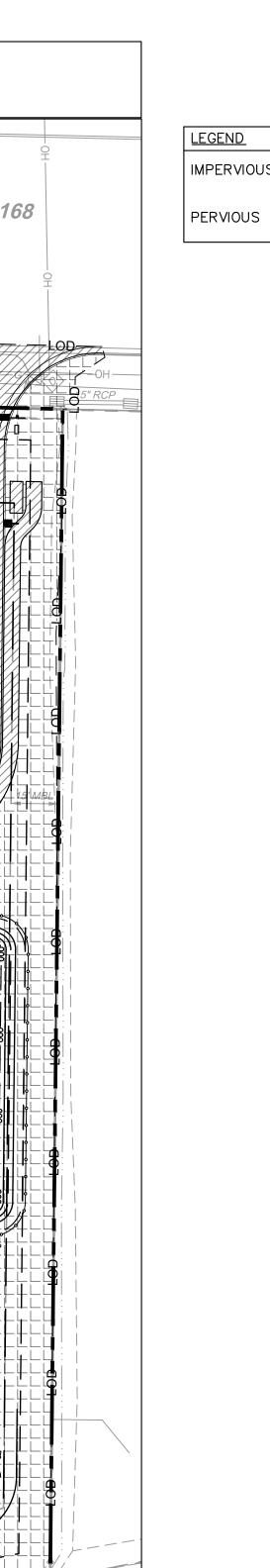


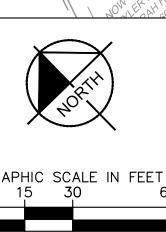


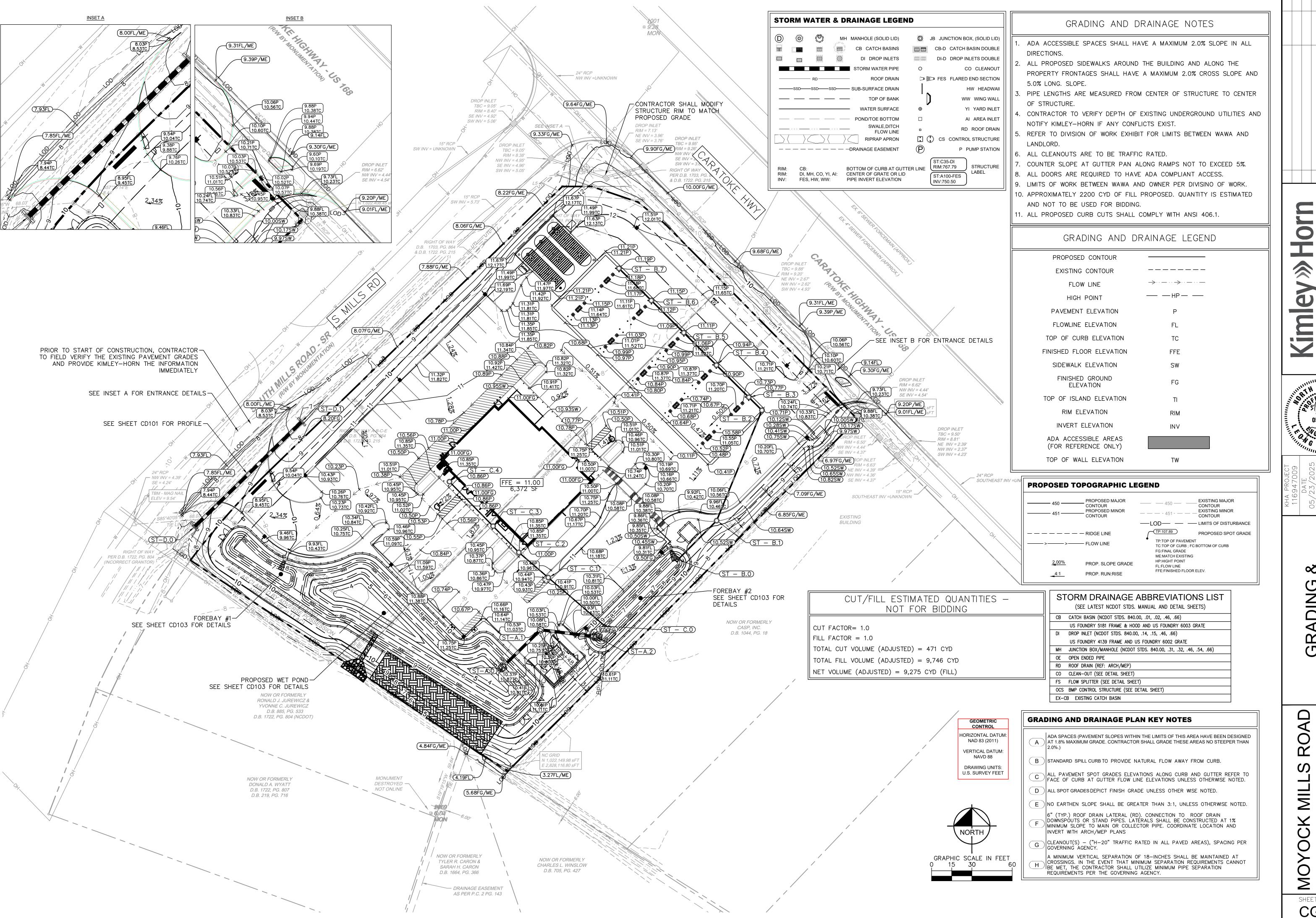
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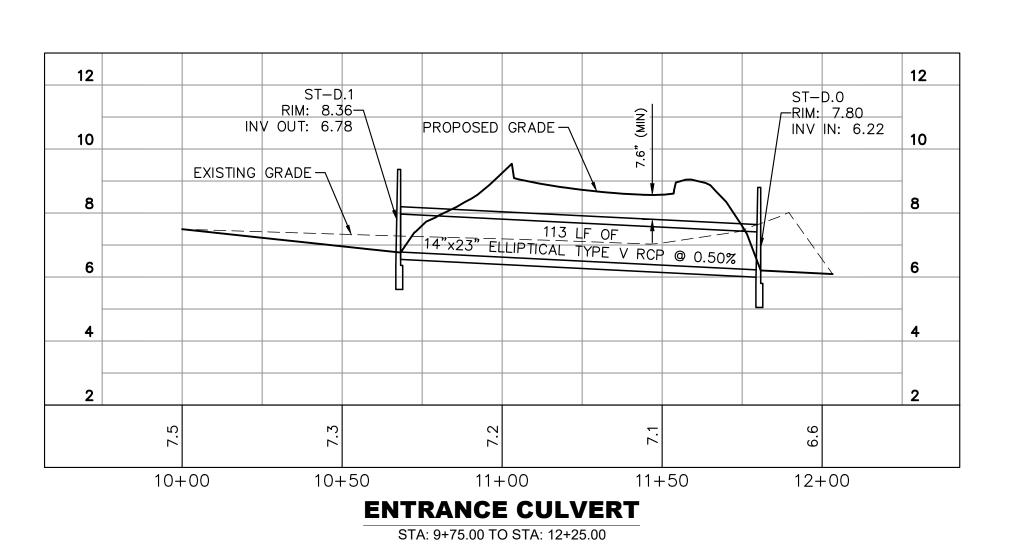


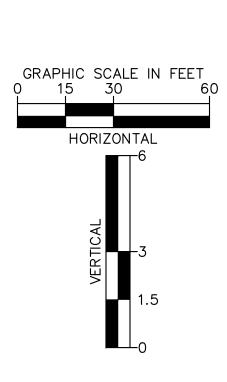


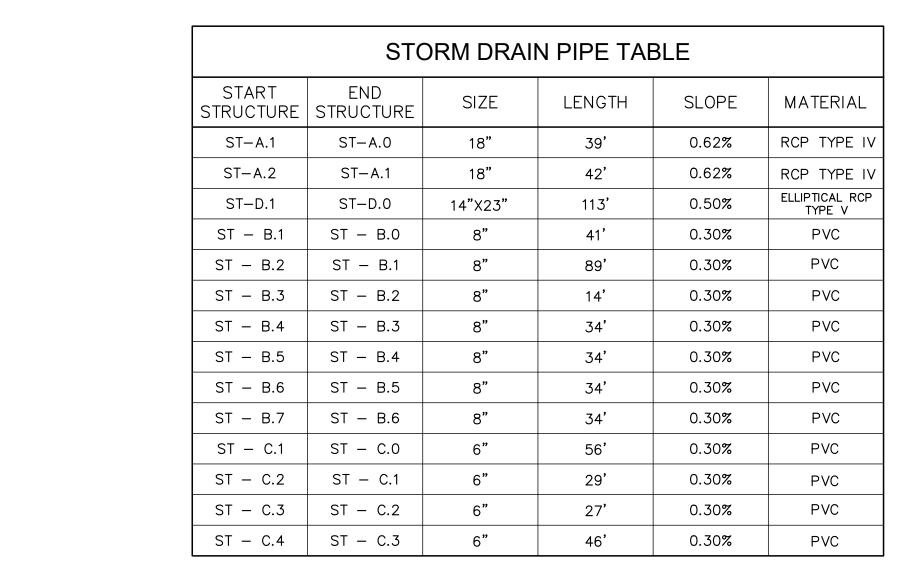




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| | | <u> </u> | |
|-----------------|---|---|--|
| | | STRUCTURE TABLE | |
| STRUCTURE NAME: | DETAILS: | PIPES IN: | PIPES OUT |
| ST-A.0 | 18" FES RIM: 8.79 INV IN: 7.00 | FROM ST-A.1, 18" RCP INV IN: 7.00 @ 0.62% | |
| ST-A.1 | NCDOT STD MH RIM: 10.27 INV IN: 7.24 INV OUT: 7.24 | FROM ST-A.2, 18" RCP INV IN: 7.24 @ 0.62% | TO ST-A.0, 18" RCP INV OUT: 7.24 @ 0.62% |
| ST-A.2 | 18" FES RIM: 9.29 INV OUT: 7.50 | | TO ST-A.1, 18" RCP INV OUT: 7.50 @ 0.62% |
| ST-D.0 | NCDOT 310.02 RIM: 7.80 INV IN: 6.22 | 14"x23" FROM ST-D.1,ELLIPTICAL INV IN: 6.22 © 0.50% RCP | |
| ST-D.1 | NCDOT 310.02 RIM: 8.36 INV OUT: 6.78 | | 14"x23" TO ST-D.0, ELLIPTICAL INV OUT: 6.78 © 0.50% RCP |
| ST - B.0 | PIPE END RIM: 8.69 INV IN: 7.50 | FROM ST - B.1, 8" PVC INV IN: 7.50 @ 0.30% | |
| ST - B.1 | 6" STORM CO RIM: 10.56 INV IN: 7.62 INV OUT: 7.62 | FROM ST - B.2, 8" PVC INV IN: 7.62 @ 0.30% | TO ST - B.O, 8" PVC INV OUT: 7.62 @ 0.30% |
| ST - B.2 | 6" STORM CO RIM: 10.69 INV IN: 7.89 INV OUT: 7.89 | FROM ST - B.3, 8" PVC INV IN: 7.89 @ 0.30% | TO ST - B.1, 8" PVC INV OUT: 7.89 @ 0.30% |
| ST - B.3 | 8" STORM CO RIM: 10.76 INV IN: 7.93 INV OUT: 7.93 | FROM ST - B.4, 8" PVC INV IN: 7.93 @ 0.30% | TO ST - B.2, 8" PVC INV OUT: 7.93 @ 0.30% |
| ST - B.4 | 8" STORM CO RIM: 10.93 INV IN: 8.03 INV OUT: 8.03 | FROM ST - B.5, 8" PVC INV IN: 8.03 @ 0.30% | TO ST - B.3, 8" PVC INV OUT: 8.03 @ 0.30% |
| ST - B.5 | 8" STORM CO RIM: 11.10 INV IN: 8.14 INV OUT: 8.14 | FROM ST - B.6, 8" PVC INV IN: 8.14 @ 0.30% | TO ST - B.4, 8" PVC INV OUT: 8.14 @ 0.30% |
| ST - B.6 | 8" STORM CO RIM: 11.14 INV IN: 8.24 INV OUT: 8.24 | FROM ST - B.7, 8" PVC INV IN: 8.24 @ 0.30% | TO ST - B.5, 8" PVC INV OUT: 8.24 @ 0.30% |
| ST - B.7 | 8" STORM CO RIM: 11.19 INV OUT: 8.34 | | TO ST - B.6, 8" PVC INV OUT: 8.34 @ 0.30% |
| ST - C.0 | PIPE END RIM: 8.52 INV IN: 7.50 | FROM ST - C.1, 6" PVC INV IN: 7.50 @ 0.30% | |
| ST - C.1 | 6" STORM CO RIM: 10.94 INV IN: 7.67 INV OUT: 7.67 | FROM ST - C.2, 6" PVC INV IN: 7.67 @ 0.30% | TO ST - C.O, 6" PVC INV OUT: 7.67 @ 0.30% |
| ST - C.2 | 6" STORM CO RIM: 10.88 INV IN: 7.75 INV OUT: 7.75 | FROM ST - C.3, 6" PVC INV IN: 7.75 @ 0.30% | TO ST - C.1, 6" PVC INV OUT: 7.75 @ 0.30% |
| ST - C.3 | 6" STORM CO RIM: 10.90 INV IN: 7.84 INV OUT: 7.84 | FROM ST - C.4, 6" PVC INV IN: 7.84 @ 0.30% | TO ST - C.2, 6" PVC INV OUT: 7.84 @ 0.30% |
| OT 2.1 | 6" STORM CO | | |

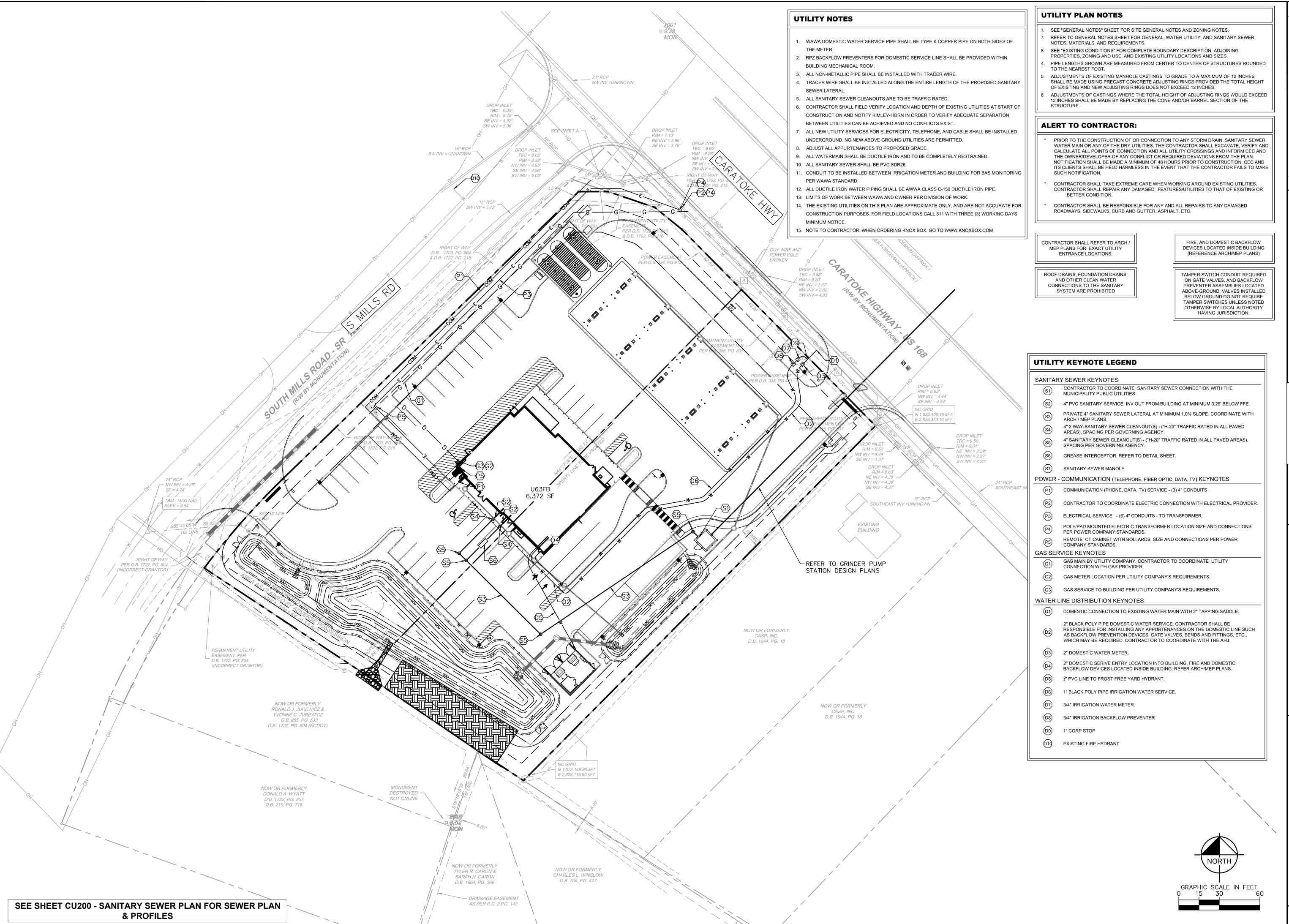
| 12 ST-A.2 RIM: 9.29— INV OUT: 7.50 10 8 8 42 LF OF 18" RCP 4 | | PROPOSED SUF 12 EXIS 10 6 39 LF OF 18" R | STING SURFACE ST-A.0 RIM: 8.79 INV IN: 7.00 | GRAPHIC SCALE IN FEET O ## ## ## HORIZONTAL 6 |
|--|----------------------|---|---|--|
| | | -50 O BMP | | VERTICAL 3 |
| | STA: -0+10.00 TO STA | | | 1.5 |

| 6" STORM CO RIM: 10.91 INV OUT: 7.97 | | | | | | | TO ST - C. | 3, 6" | PVC II | |
|--|---------------|-----|--------|------|------------|-------|--------------------------|-------|--------|--|
| | | | | | | | | | | |
| | | STO | ORM DE | RAIN | I PIPE TAE | BLE | | | | |
| T URE | END STRUCT | | SIZE | | LENGTH | SLOPE | MATERIAL | | | |
| .1 | ST-A | .0 | 18" | | 39' | 0.62% | RCP TYPE IV | / | | |
| .2 | ST-A | 1 | 18" | | 42' | 0.62% | RCP TYPE IV | / | | |
| .1 | ST-D. | .0 | 14"X23 | ,, | 113' | 0.50% | ELLIPTICAL RCP TYPE V | | | |
| B.1 | ST - E | B.0 | 8" | | 41' | 0.30% | PVC | | | |
| 3.2 | ST - | B.1 | 8" | | 89' | 0.30% | PVC | | | |
| 3.3 | ST - E | B.2 | 8" | | 14' | 0.30% | PVC | | | |
| 3.4 | ST - E | B.3 | 8" | | 34' | 0.30% | PVC | | | |
| 3.5 | ST – E | B.4 | 8" | | 34' | 0.30% | PVC | | | |
| 3.6 | ST – E | B.5 | 8" | | 34' | 0.30% | PVC | | | |
| 3.7 | ST - E | B.6 | 8" | | 34' | 0.30% | PVC | | | |
| C.1 | ST - 0 | C.0 | 6" | | 56' | 0.30% | PVC | | | |
| C.2 | ST - | C.1 | 6" | | 29' | 0.30% | PVC | | | |
| C.3 | ST - 0 | C.2 | 6" | | 27' | 0.30% | PVC | | | |
| C.4 | ST - 0 | C.3 | 6" | | 46' | 0.30% | PVC | | | |

DRAINAGE PROFILE AND DETAILS

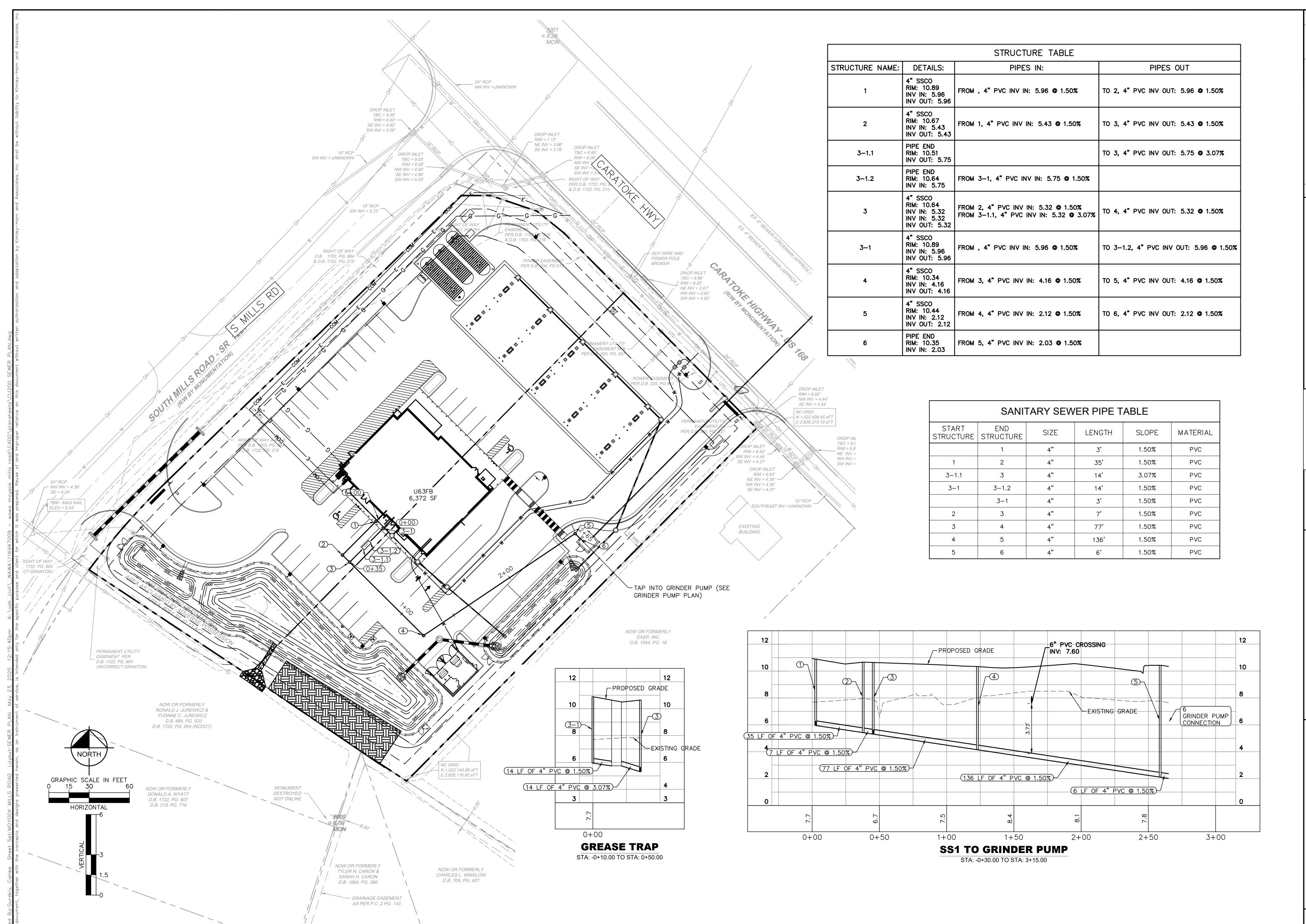
TO ST - C.3, 6" PVC INV OUT: 7.97 @ 0.30%

MOYOCK MILLS F PREPARED FOR FRONTIER



SHEET NUMBER

CU100



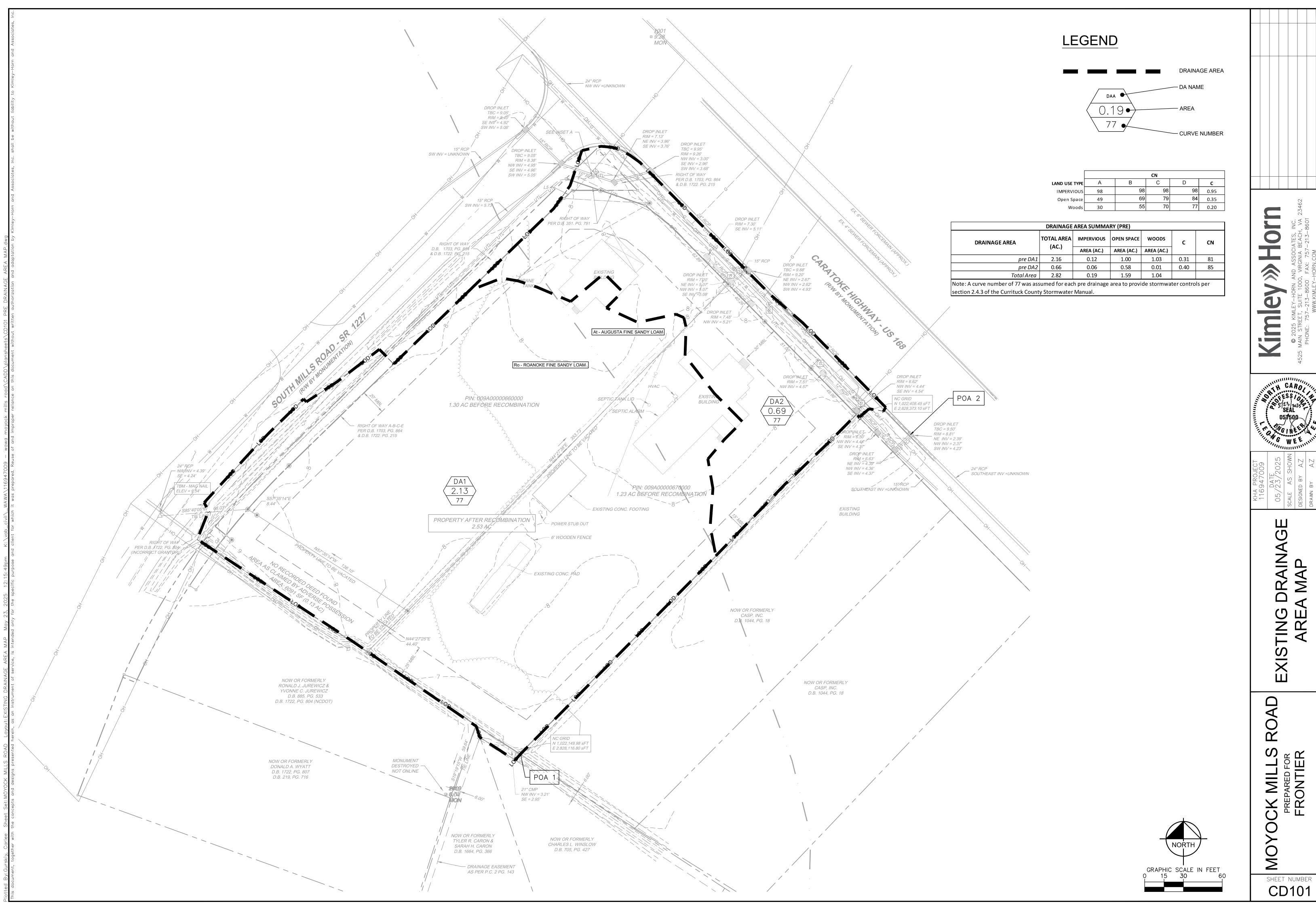
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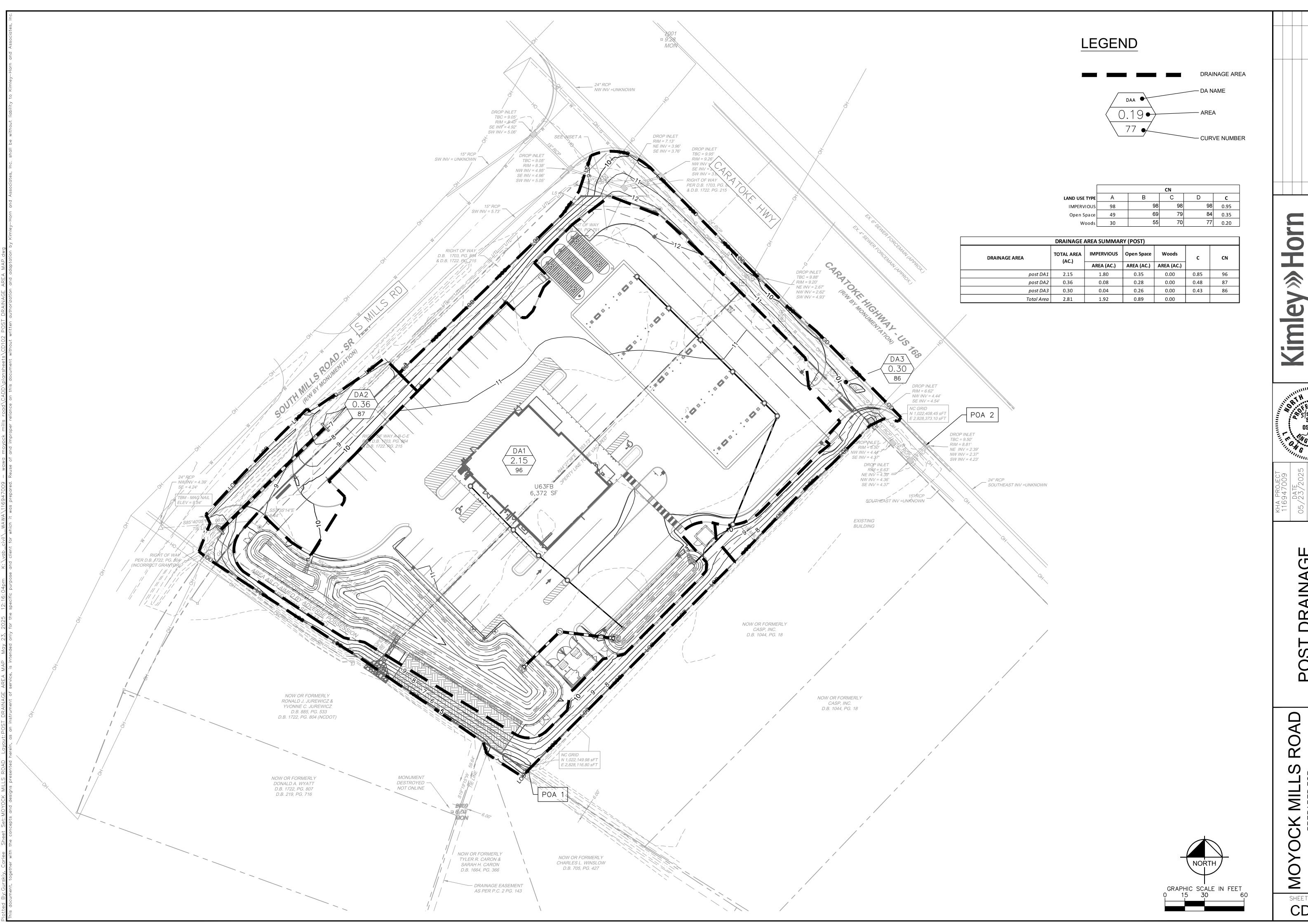
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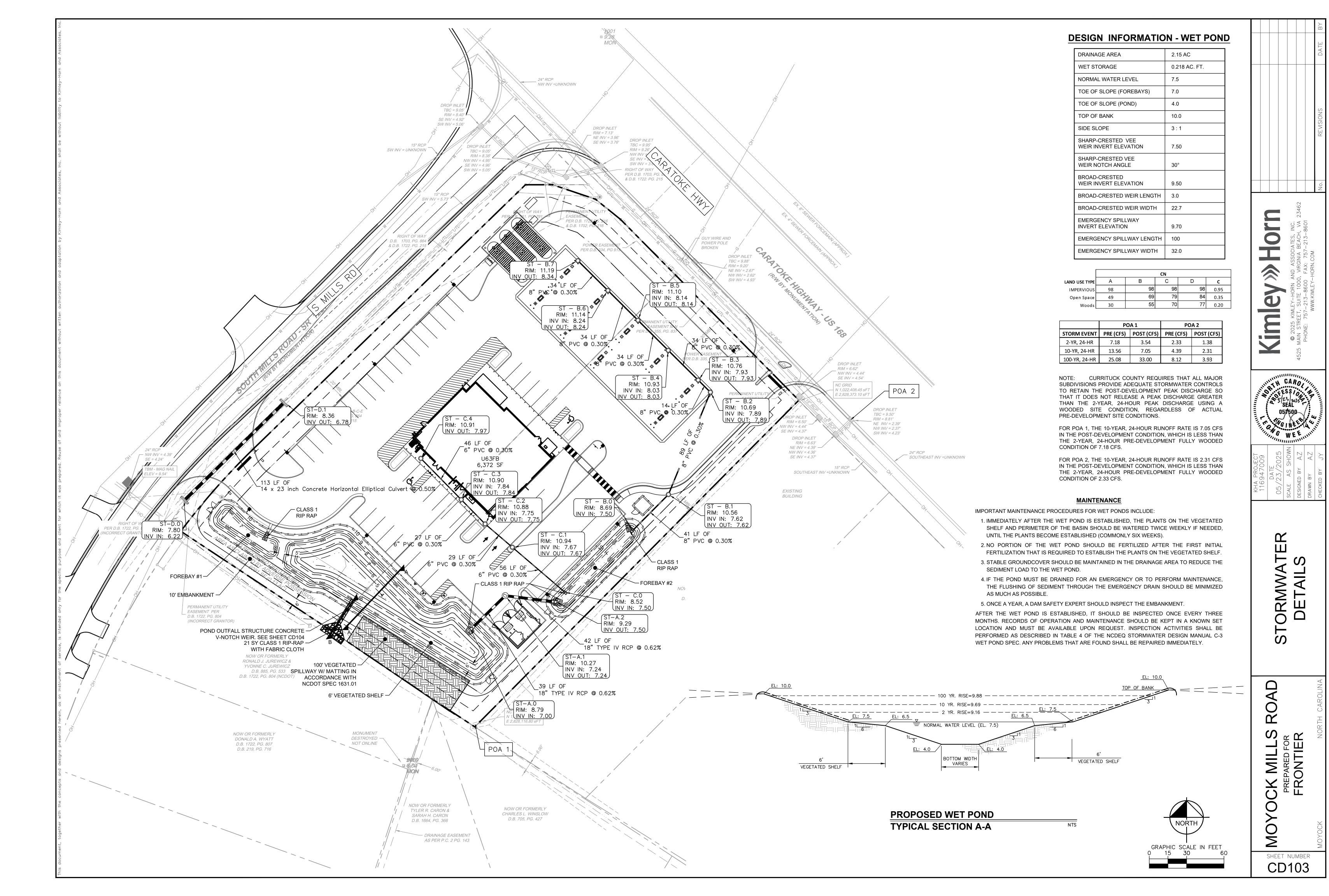
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S MILL





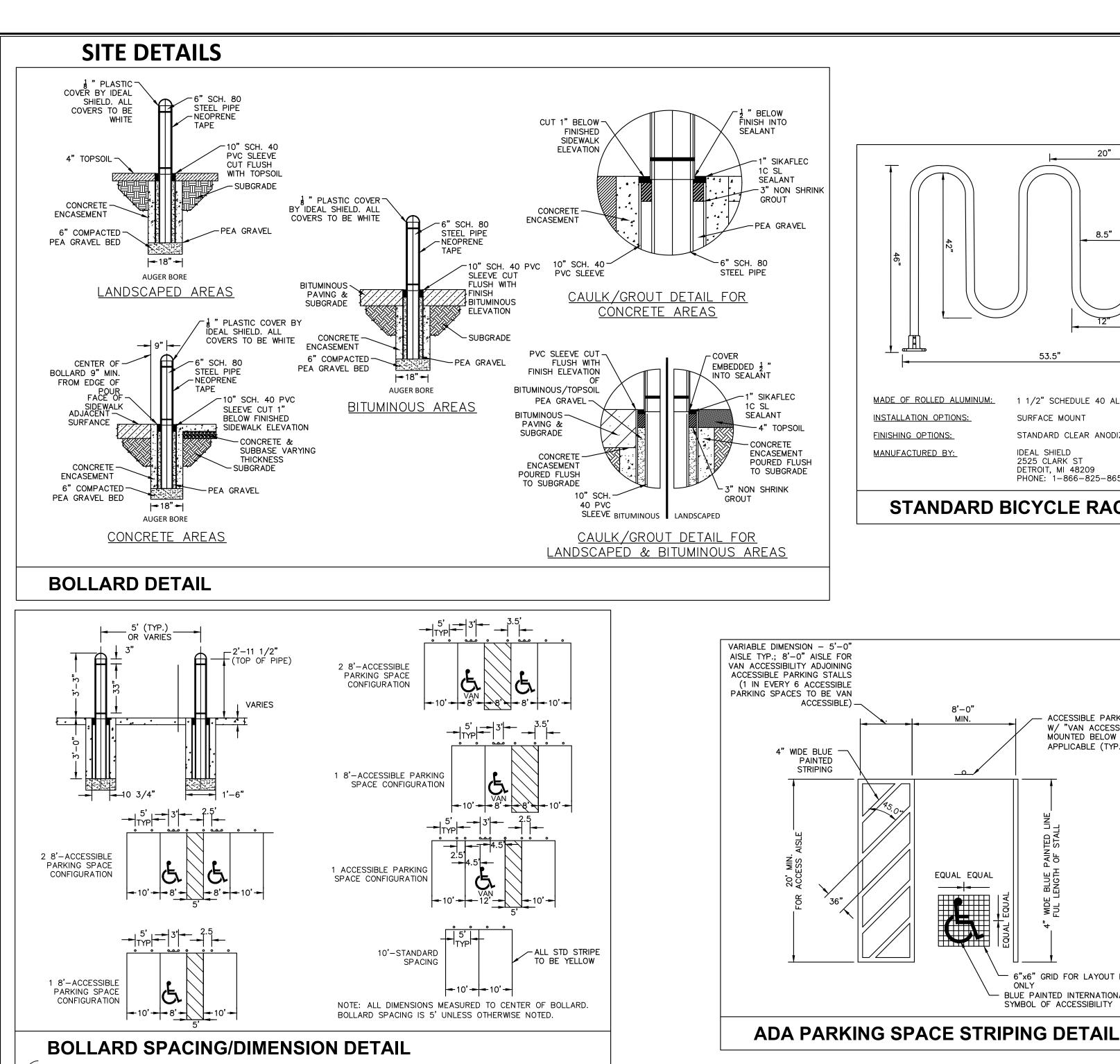
Kimley



STORMWATER DETAILS

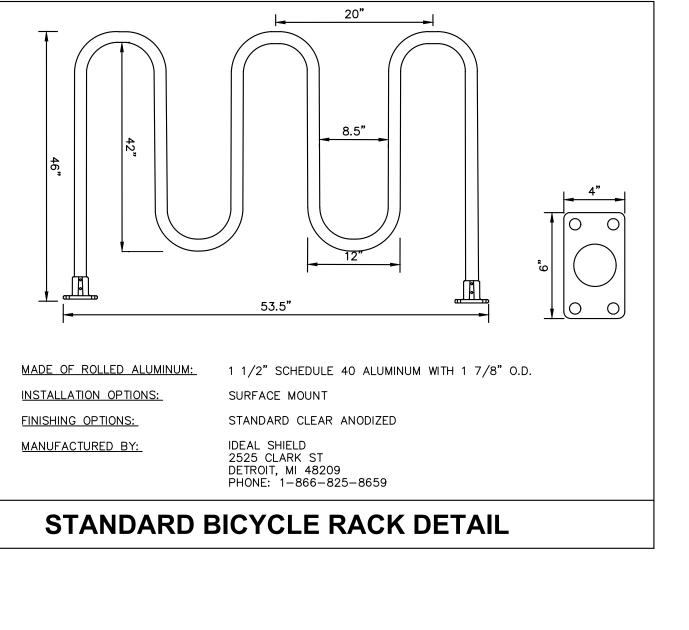
MOYOCK MILLS ROAD
PREPARED FOR FRONTIER

SHEET NUMBER CD104



SHUT-OFF

N.T.S.



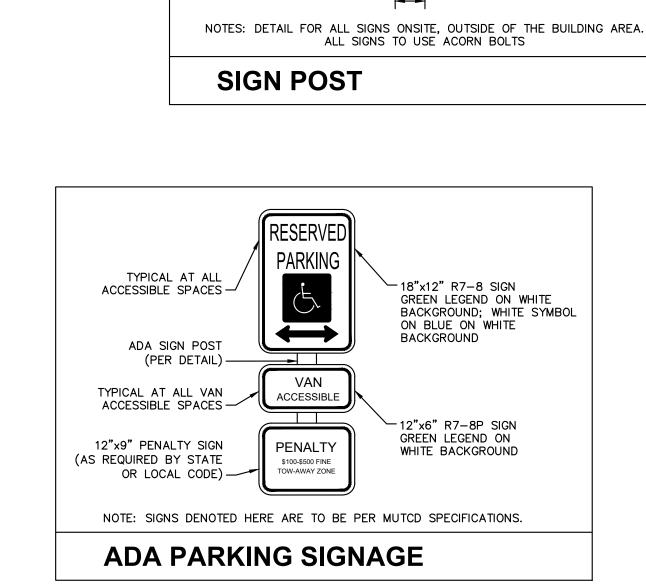
ACCESSIBLE PARKING SIGN R7-8 W/ "VAN ACCESSIBLE" SIGN

MOUNTED BELOW WHERE APPLICABLE (TYP.)

- 6"x6" GRID FOR LAYOUT PURPOSES

BLUE PAINTED INTERNATIONAL

SYMBOL OF ACCESSIBILITY



6" DIAMETER -

CONCRETE BASE

SIGN PER PLAN-

VARIES

(ALUMINUM, 0.08" THICK, SHAPE AND SIZE VARIES

2.0 MIN. IN

SIDEWALK

AND PAVEMENT

AREAS

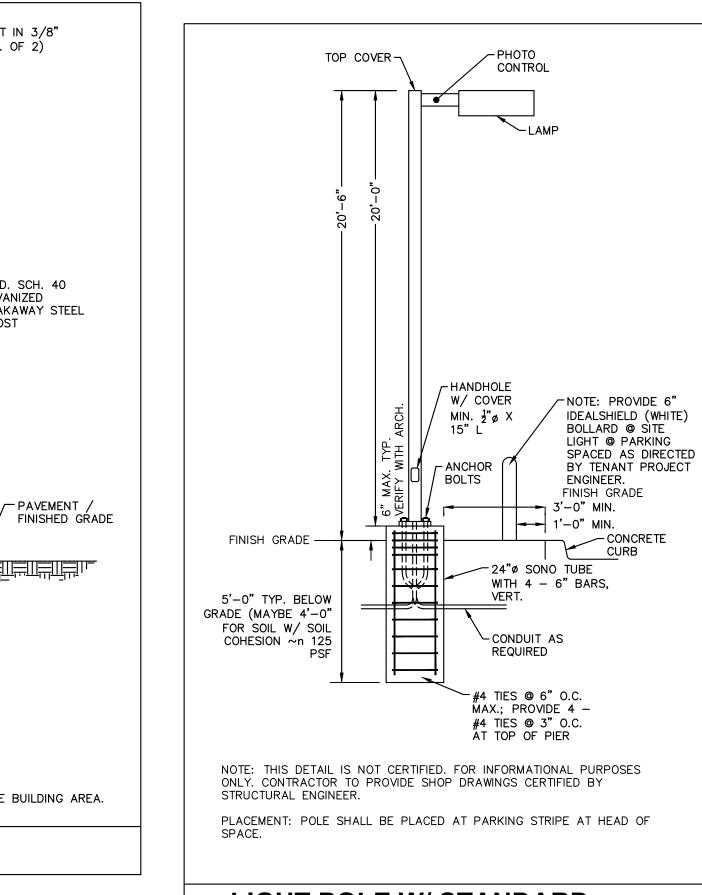
__5/16" BOLT IN 3/8"

HOLE (TYP. OF 2)

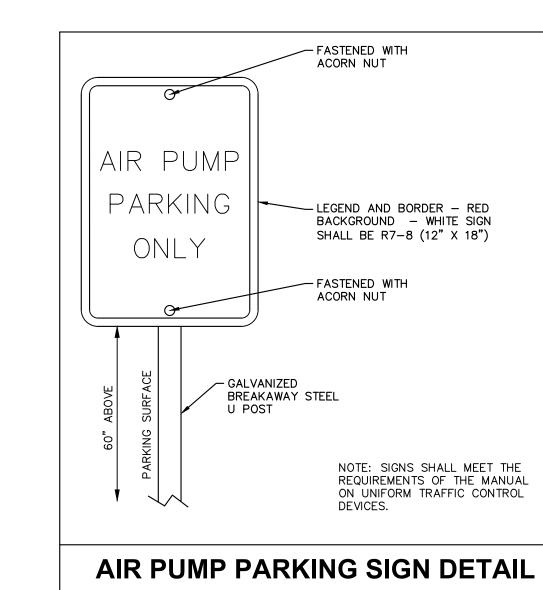
-2" I.D. SCH. 40

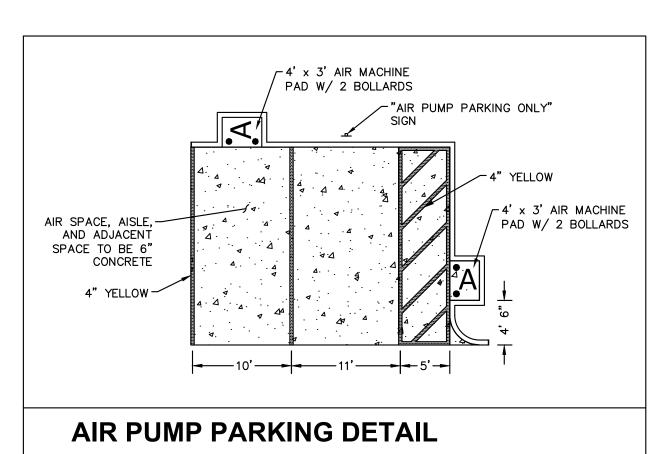
BREAKAWAY STEEL

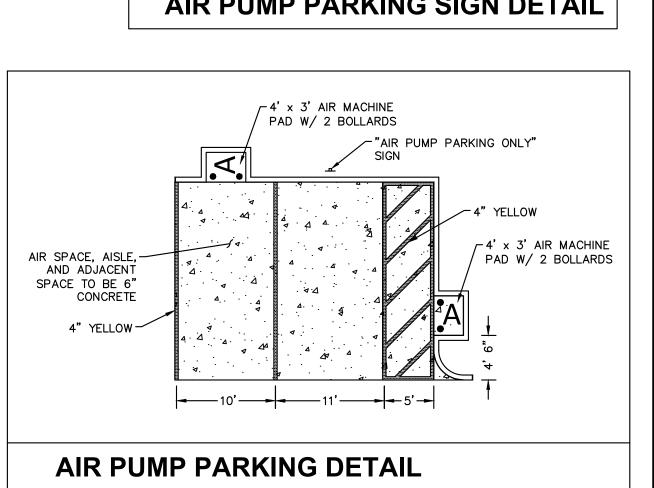
GALVANIZED

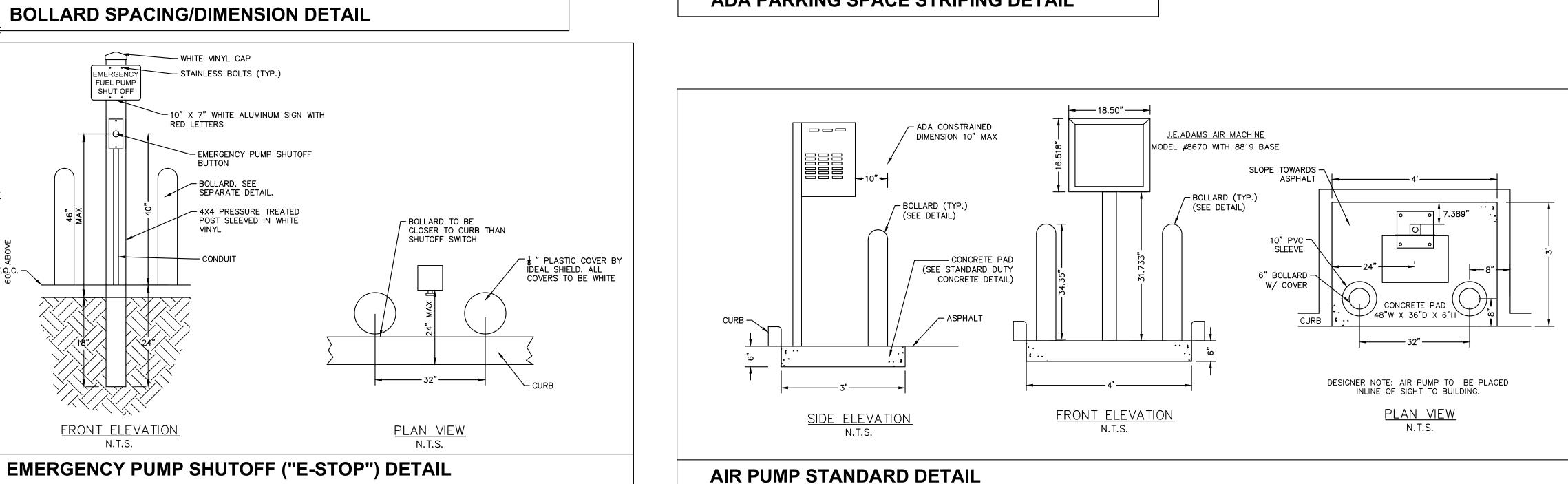




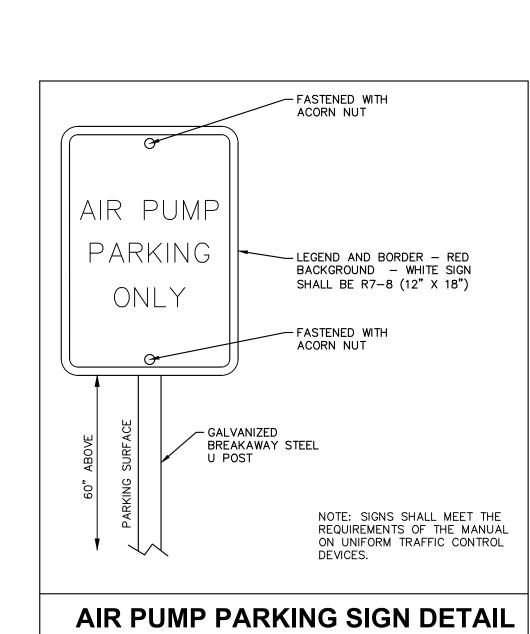








8'-0"





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CS501

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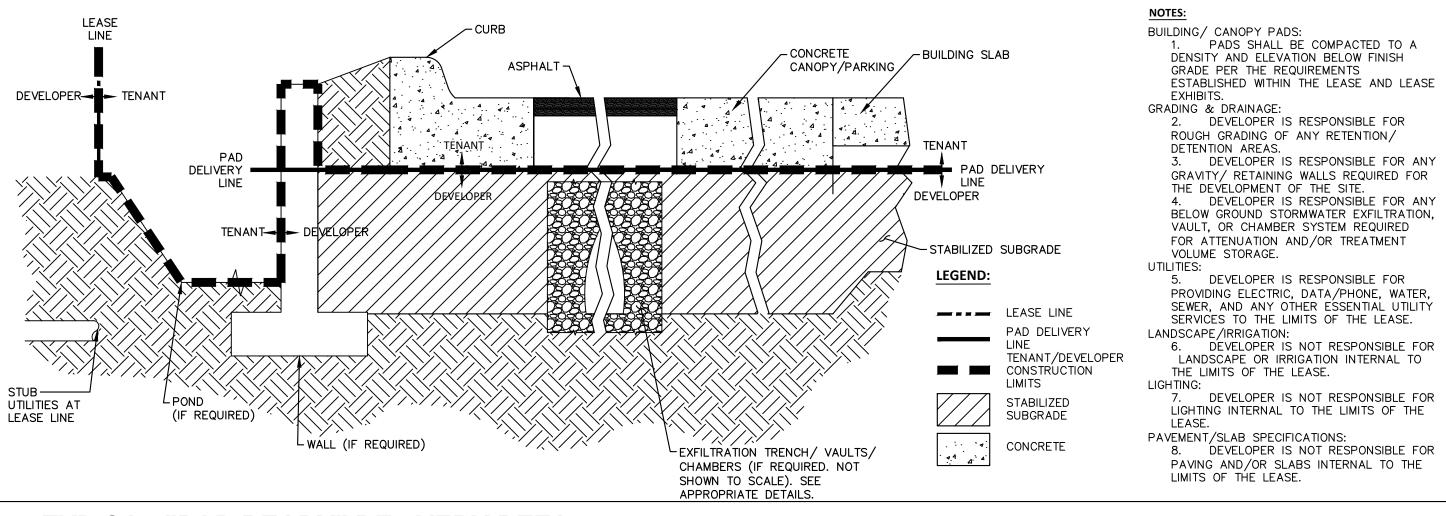
WARD,

LANDSPACE SPECIFICATIONS

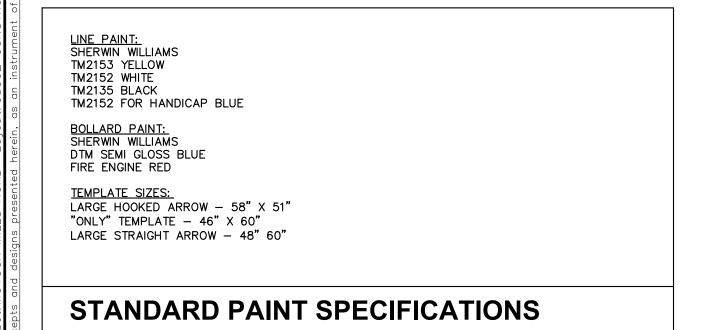
TENANT STANDARD LANDSCAPING SPECIFICATIONS:

- ALL TOPSOIL SHALL BE A MINIMUM 4"IN ALL SOD AREAS AND 10"- 12"IN TREE, SHRUB AND GROUND COVER BEDS, INCLUDING PARKING LOT ISLAND BEDS. IT SHALL BE APPROVED BY A TENANT CONSTRUCTION REPRESENTATIVE, PRIOR TO INSTALLATION.
- PLANTING BEHIND PERPENDICULAR PARKING IS TO BE LOCATED A MINIMUM OF 5' BEHIND THE CURB LINE.
- 3. ALL LANDSCAPE AND GRASS AREAS ARE TO BE HAND RAKED AND LEFT CLEAR OF ALL STONES, ROCK, CONSTRUCTION DEBRIS AND ANY UNSUITABLE
- 4. ALL LANDSCAPE AND GRASS AREAS ARE TO BE IRRIGATED BY AUTOMATIC SPRINKLER SYSTEM. (SEE IRRIGATION SPECIFICATION.)
- LANDSCAPE CONTRACTOR WILL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION AND PLANTING INSTALLATION.
- ALL AREAS TO BE LANDSCAPED OR COVERED WITH STONE MUST BE TREATED WITH A PRE-EMERGENCE HERBICIDE (SURFLAN, DACTAL OR APPROVED EQUAL) IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE REGULATIONS AND THE MANUFACTURER'S INSTRUCTIONS.
- MULCH BEDS ARE TO BE DELINEATED WITH HAND OR MACHINE DUG SHOVEL EDGING.
- RIVER ROCK BEDS ARE TO BE DELINEATED WITH 5 1/2" ALUMINUM LANDSCAPE EDGING, STAKED AT 3' INTERVALS. ALUMINUM EDGING IS TO BE CLEANLINE 3/16"X 5 1/2"X 16' BY PERMALOC. (800-356-9660, //WWW.PERMALOC.COM.) FOLLOW MANUFACTURERS INSTALLATION DIRECTIONS INCLUDED AT THE END OF
- 9. LANDSCAPE CONTRACTOR TO SUPPLY AND INSTALL A PERVIOUS WEED BARRIER (DEWITT, DUPONT OR APPROVED EQUAL) IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS WITHIN ALL LANDSCAPES, INCLUDING STONE AND MULCH BEDS. ALL WEED BARRIER WILL BE OVERLAPPED A MINIMUM OF 6" AT ALL SEAMS. AT PLANT LOCATIONS, BARRIER SHOULD BE CUT IN AN "X" PATTERN SO TO ACCOMMODATE ROOT BALL AND REPLACED AFTER PLANT HAS
- 10. WEED BARRIER SHALL NOT BE VISIBLE IN AREAS DESIGNATED FOR STONE MULCH. WHEN STONE IS CALLED FOR ADJACENT TO CURB OR SIDEWALKS, IT SHALL BE FEATHERED DOWN TO CURB LEVEL FROM A DISTANCE 24"FROM THE CURB.
- 1. ALL PROPOSED LANDSCAPING TO BE NURSERY GROWN, TYPICAL OF THEIR SPECIES OR VARIETY. THEY ARE TO HAVE NORMAL VIGOROUS ROOT SYSTEMS, FREE FROM DEFECTS AND INFECTIONS AND IN ACCORDANCE WITH ANSI Z60.1
- 12. ALL PROPOSED PLANTINGS SHOULD BE INSTALLED PER STANDARDS OF THE "AMERICAN ASSOCIATION OF NURSERYMEN" AND STATE NURSERY/ LANDSCAPE ASSOCIATIONS WITH REGARD TO PLANTING, PIT SIZE, BACKFILL MIXTURE, STAKING AND GUYING.
- 13. ALL PLANTING CONTAINERS AND BASKETS SHALL BE REMOVED DURING PLANTING. ALL PLANTS SHALL BE SET PLUMB AND POSITIONED SO THAT THE TOP OF THE ROOT COLLAR MATCHES OR IS NO MORE THAN TWO (2") INCHES ABOVE, FINISHED GRADE. REPLACE AMENDED BACKFILL IN 6-INCH LAYERS AND COMPACT BACKFILL TO ELIMINATE VOIDS. CONTRACTOR SHALL PROVIDE A FOURINCH HIGH EARTHEN WATERING SAUCER ALONG THE PERIMETER OF EACH PLANTING PIT. CONTRACTOR SHALL WATER NEWLY PLANTED VEGETATION PRIOR TO MULCHING PLANTING PIT. ALL VOIDS SHALL BE FILLED AND SETTLING MITIGATED AS REQUIRED. ALUMINUM EDGING SHALL BE INSTALLED AROUND ALL PLANTING AREAS TO DELINEATE BETWEEN DIFFERENT LANDSCAPE MATERIALS.
- 14. AFTER INITIAL WATERING AND PRIOR TO MULCHING, CONTRACTOR SHALL APPLY HERBICIDES AND PRE-EMERGENT HERBICIDES AS REQUIRED TO ELIMINATE ANY WEED SEEDS OR PLANTS PRESENT ON ROOT BALL.
- 15. ALL PLANTING BEDS AND PITS EXCEPT FOR LANDSCAPE ISLANDS ADJACENT TO THE BUILDING AND DESIGNATED AREA AT THE FUEL VENT STACKS, SHALL BE MULCHED WITH DOUBLE GROUND HARDWOOD MULCH AT A MINIMUM DEPTH OF 3". LANDSCAPE ISLANDS ADJACENT TO THE TANK MAT SHALL BE MULCHED WITH 1"-3" RIVER STONE" MULCH TO AT LEAST A DISTANCE OF 5' FROM THE TANK MAT AND VENT STACK. FOR LANDSCAPES ADJACENT TO BUILDING, CONTACT TENANT'S PROJECT ENGINEER.
- 16. TURF SPECIFICATION AND SEEDBED PREPARATION
- UNLESS REQUIRED FOR PARTICULAR BMP AREAS, ALL TURF ON TENANT'S LEASED PREMISES IS TO BE SOD. WHEN REQUIRED FOR BMP'S, SEED MIX IS TO MEET LOCAL REQUIREMENTS. SOD SHALL BE TURF TYPE TALL FESCUE AND INSTALLED ON A MINIMUM OF 4"OF TOPSOIL.
- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS OR FERTILIZER MAY BE APPLIED AT THE RATE OF 260 POUNDS PER ACRE OR 6 POUNDS PER 1000 SQUARE FEET USING 10-20-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS 4-1-2 PER ACRE OR EQUIVALENT OF SLOW-RELEASE NITROGEN MAY BE USED IN LIEU OF TOPDRESSING.
- WORK LIME AND FERTILIZER INTO THE SOIL AS PRACTICAL TO A DEPTH OF 4-INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD PARALLEL TO THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
- INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS OUTLINED BELOW.
- 17. PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETENESS. THE CONTRACTOR SHALL REPLACE PLANTS, DEAD, UNHEALTHY, DYING OR DAMAGED THROUGH LOSS OF BRANCHES AND/OR FOLIAGE. LAWNS THAT ARE NOT IN GOOD CONDITION AT THE END OF THE GUARANTEE PERIOD SHALL BE REPAIRED UNTIL A GOOD LAWN RESULTS. IT IS UNDERSTOOD THAT THE OWNER SHALL ASSUME RESPONSIBILITY FOR WATERING ALL PLANT MATERIAL AND LAWN AREA BEGINNING WITH THE DATE OF SUBSTANTIAL COMPLETENESS.

DEVELOPER DETAILS

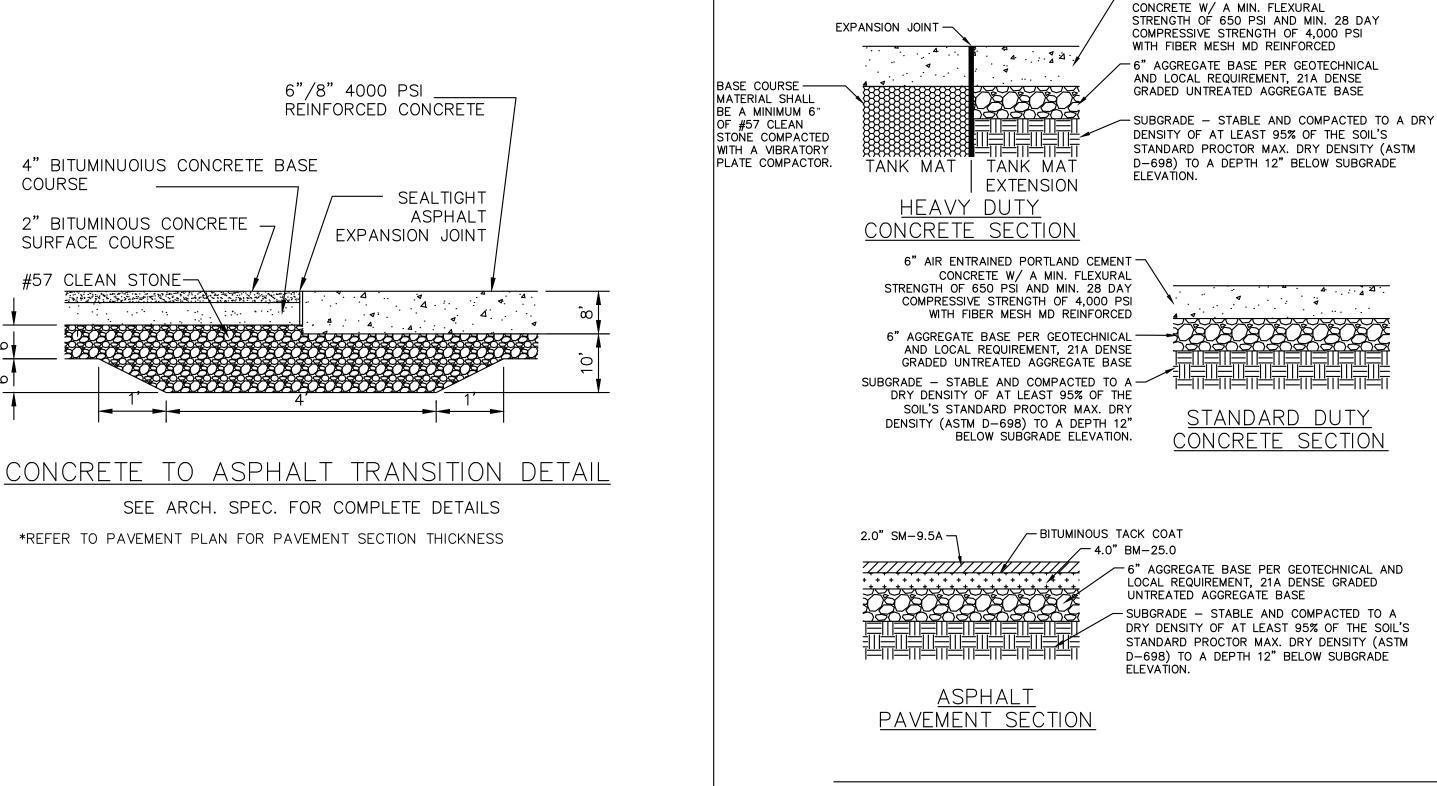


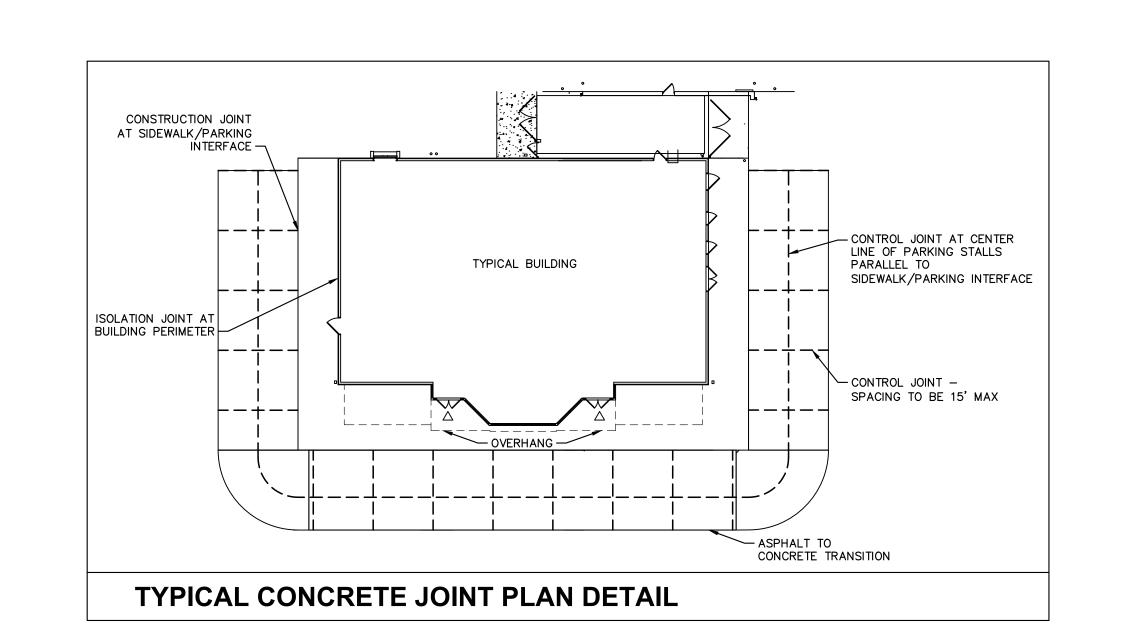
TYPICAL "PAD READY" DELIVERY DETAIL

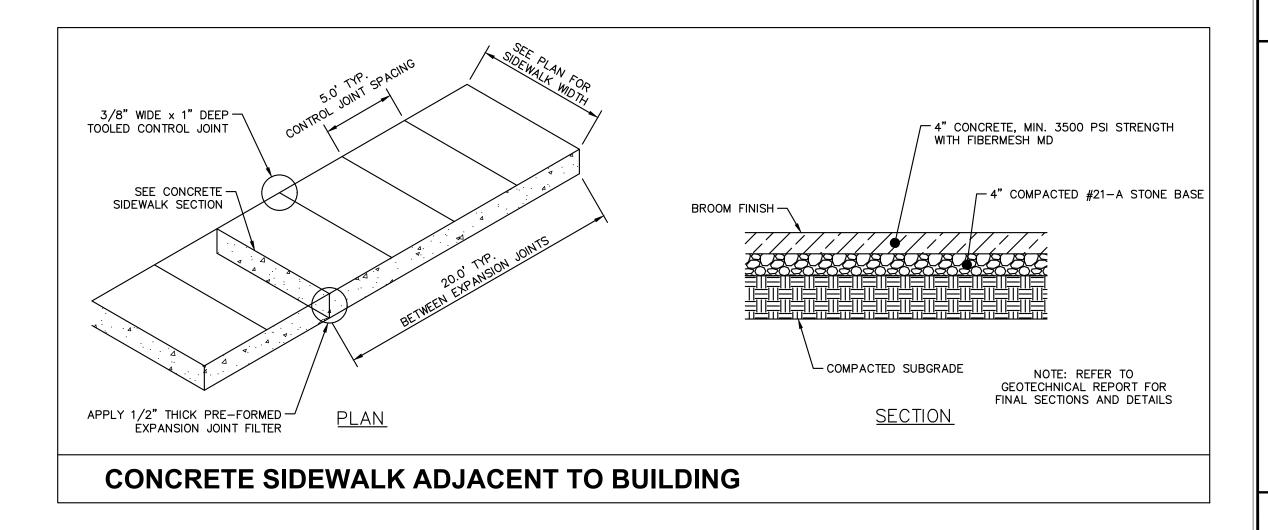


PAVEMENT DETAILS

PAVEMENT DETAILS



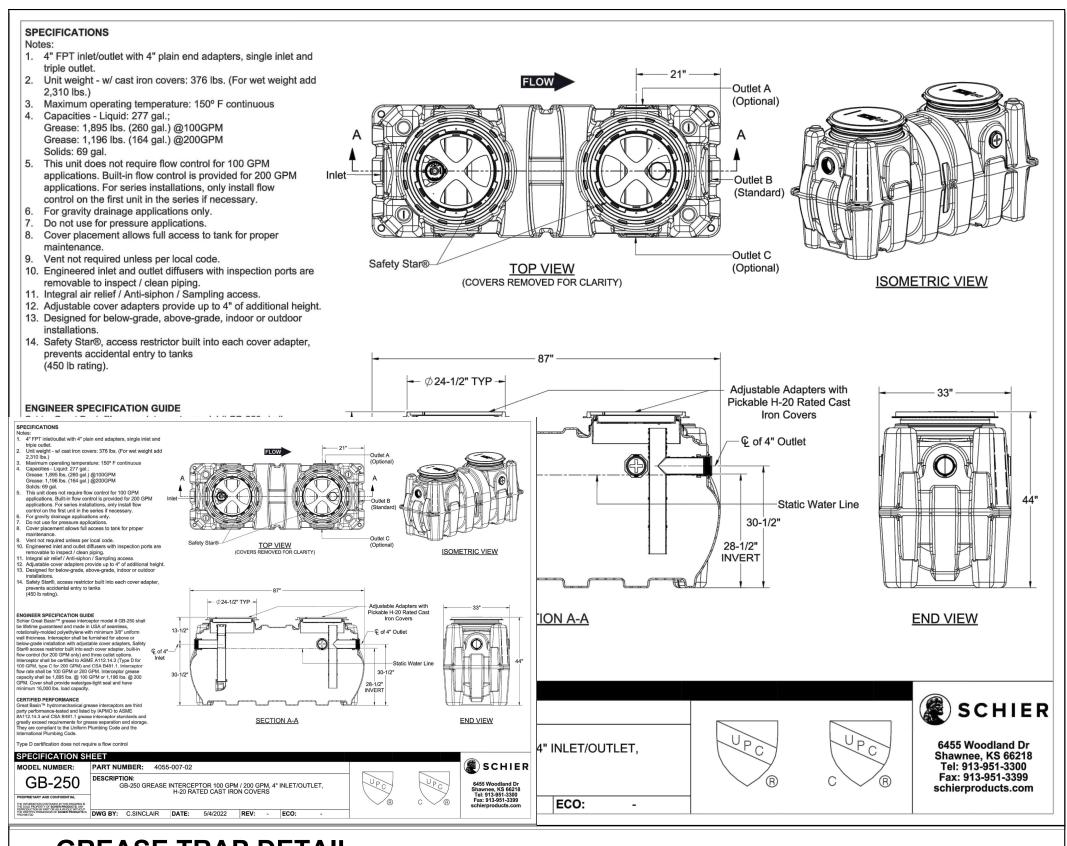




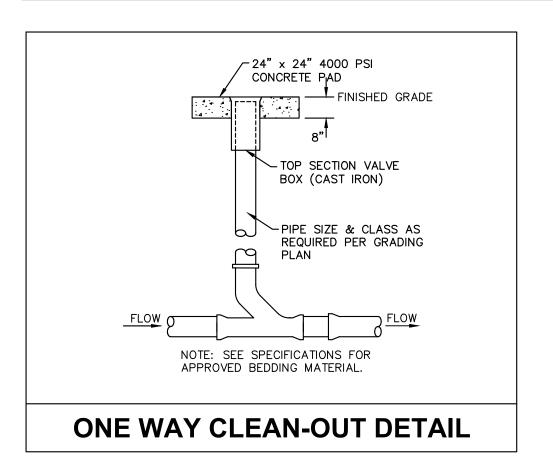
-8" AIR ENTRAINED PORTLAND CEMENT

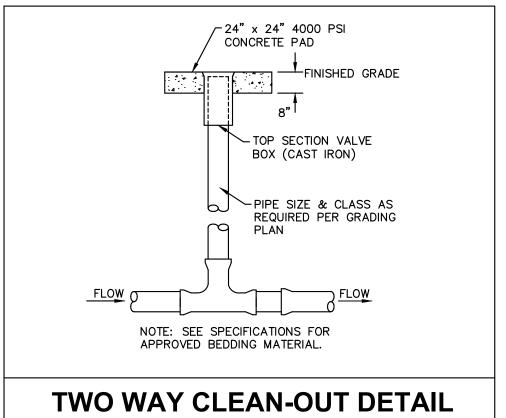
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UTILITY DETAILS

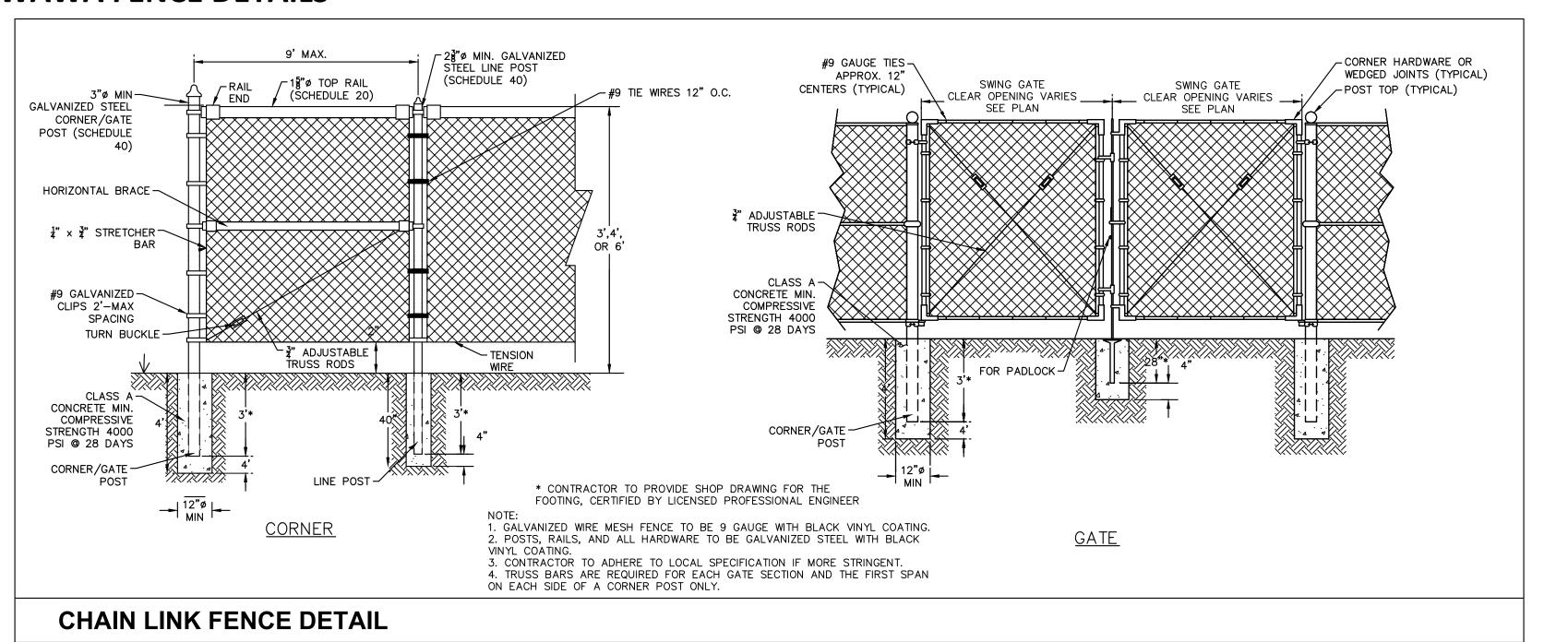


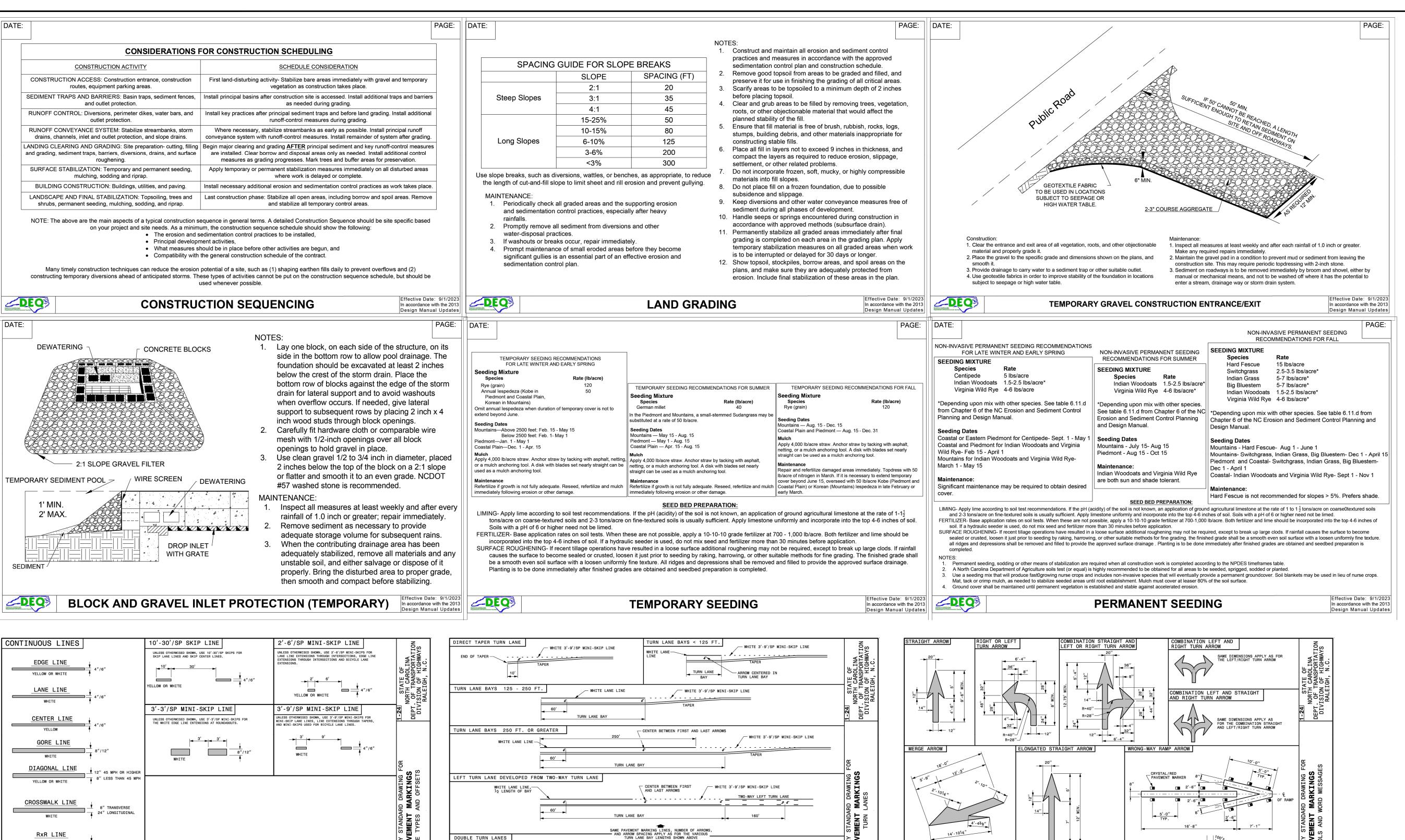
GREASE TRAP DETAIL

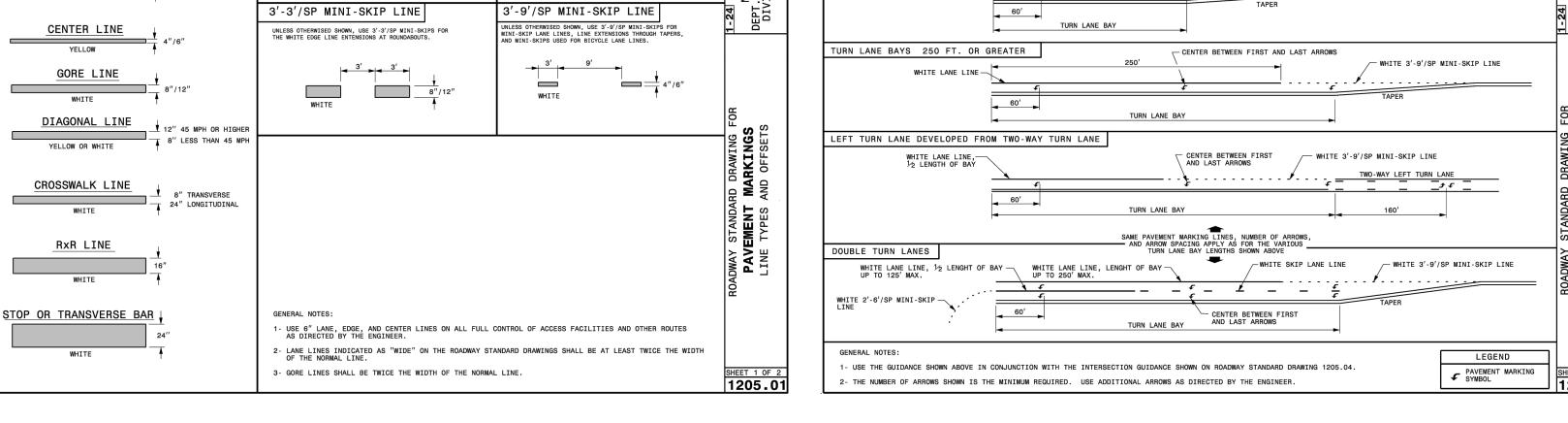


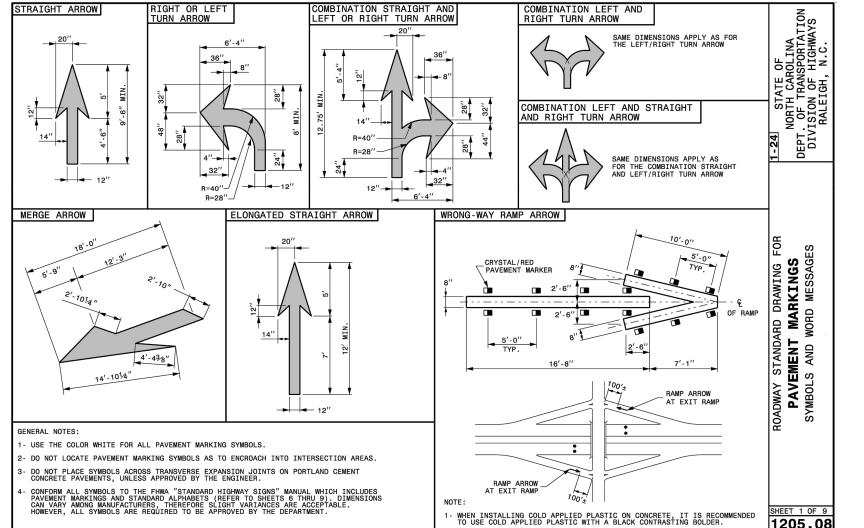


WAWA FENCE DETAILS









ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THESE DRAWINGS, PROJECT SPECIFICATIONS, STANDARDS WITH ALL CURRENT APPLICABLE CODES, AND, UNLESS OTHERWISE SPECIFIED, WITH THE CURRENT EDITIONS AND LATEST REVISIONS OF THE FOLLOWING REFERENCE DOCUMENTS:

- NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

SPECIFIC STANDARDS AND DETAILS FROM THE CURRENT AND OR REVISED VERSION OF THE 2024 NCDOT ROAD AND BRIDGE

STANDARDS INCLUDE:

- 310.02 PARALLEL PIPE END SECTION FOR ELLIPTICAL PIPE

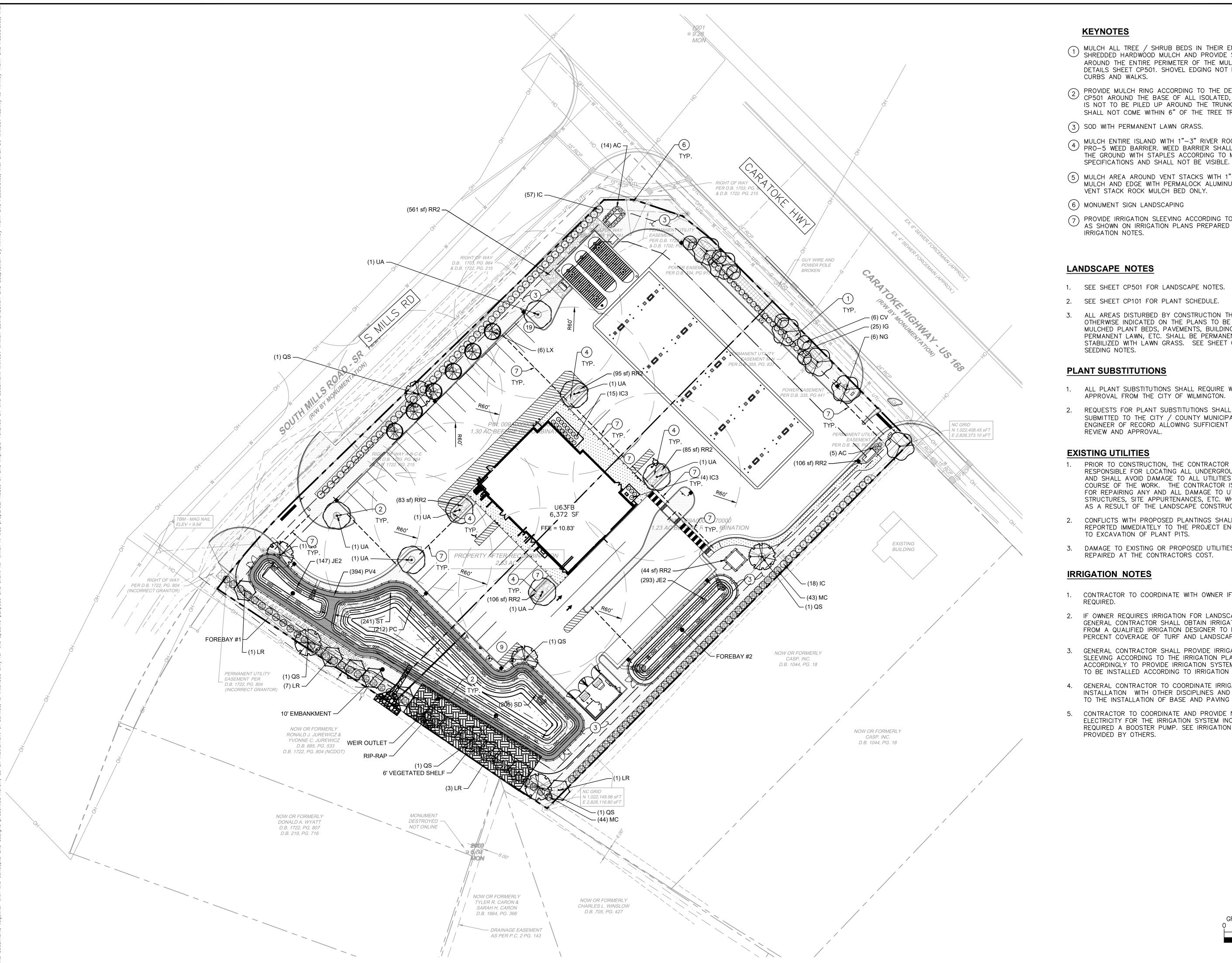
840.31 CONCRETE JUNCTION PIPE

— 848.02 DRIVEWAY TURNOUT

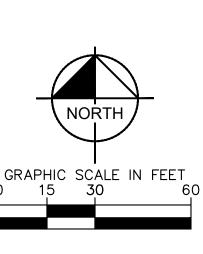
- 1631.01 MATTING INSTALLATION

2

HR



- 1 MULCH ALL TREE / SHRUB BEDS IN THEIR ENTIRETY WITH 3" OF SHREDDED HARDWOOD MULCH AND PROVIDE SHOVEL EDGING AROUND THE ENTIRE PERIMETER OF THE MULCH BED, (TYP.) SEE DETAILS SHEET CP501. SHOVEL EDGING NOT REQUIRED AGAINST
- PROVIDE MULCH RING ACCORDING TO THE DETAILS ON SHEET CP501 AROUND THE BASE OF ALL ISOLATED, NEW TREES. MULCH IS NOT TO BE PILED UP AROUND THE TRUNK OF THE TREE AND SHALL NOT COME WITHIN 6" OF THE TREE TRUNK.
- MULCH ENTIRE ISLAND WITH 1"-3" RIVER ROCK OVER DEWITT PRO-5 WEED BARRIER. WEED BARRIER SHALL BE ANCHORED TO THE GROUND WITH STAPLES ACCORDING TO MANUFACTURERS
- 5 MULCH AREA AROUND VENT STACKS WITH 1"-3" RIVER ROCK MULCH AND EDGE WITH PERMALOCK ALUMINUM EDGING AROUND VENT STACK ROCK MULCH BED ONLY.
- 7 PROVIDE IRRIGATION SLEEVING ACCORDING TO SIZE AND LOCATION AS SHOWN ON IRRIGATION PLANS PREPARED BY OTHERS. SEE
- 1. SEE SHEET CP501 FOR LANDSCAPE NOTES.
- 2. SEE SHEET CP101 FOR PLANT SCHEDULE.
- 3. ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE NOT OTHERWISE INDICATED ON THE PLANS TO BE COVERED BY MULCHED PLANT BEDS, PAVEMENTS, BUILDINGS, PERMANENT LAWN, ETC. SHALL BE PERMANENTLY STABILIZED WITH LAWN GRASS. SEE SHEET CP501 FOR
- 1. ALL PLANT SUBSTITUTIONS SHALL REQUIRE WRITTEN APPROVAL FROM THE CITY OF WILMINGTON.
- 2. REQUESTS FOR PLANT SUBSTITUTIONS SHALL BE SUBMITTED TO THE CITY / COUNTY MUNICIPALITY AND THE ENGINEER OF RECORD ALLOWING SUFFICIENT TIME FOR
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION.
- CONFLICTS WITH PROPOSED PLANTINGS SHALL BE REPORTED IMMEDIATELY TO THE PROJECT ENGINEER PRIOR
- 3. DAMAGE TO EXISTING OR PROPOSED UTILITIES SHALL BE
- 1. CONTRACTOR TO COORDINATE WITH OWNER IF IRRIGATION IS
- 2. IF OWNER REQUIRES IRRIGATION FOR LANDSCAPING THE GENERAL CONTRACTOR SHALL OBTAIN IRRIGATION PLANS FROM A QUALIFIED IRRIGATION DESIGNER TO PROVIDE 100 PERCENT COVERAGE OF TURF AND LANDSCAPED AREAS.
- 3. GENERAL CONTRACTOR SHALL PROVIDE IRRIGATION SLEEVING ACCORDING TO THE IRRIGATION PLANS SIZED ACCORDINGLY TO PROVIDE IRRIGATION SYSTEM COMPONENTS TO BE INSTALLED ACCORDING TO IRRIGATION PLANS.
- 4. GENERAL CONTRACTOR TO COORDINATE IRRIGATION SLEEVES INSTALLATION WITH OTHER DISCIPLINES AND INSTALL PRIOR TO THE INSTALLATION OF BASE AND PAVING MATERIALS.
- 5. CONTRACTOR TO COORDINATE AND PROVIDE NECESSARY ELECTRICITY FOR THE IRRIGATION SYSTEM INCLUDING IF REQUIRED A BOOSTER PUMP. SEE IRRIGATION PLAN



| PLANT | SCHI | EDULE | | | | | | |
|-------------------------|-----------------------------|----------------------------|--|--|---|--|--------------|----------|
| SYMBOL | CODE | QTY | BOTANICAL NAME | COMMON NAME | ROOT | CAL. | HT. | |
| TREES | CV | 6 | CHIONANTHUS VIRGINICUS SINGLE TRUNK / STEM | WHITE FRINGETREE | B&B | 2"CAL | | |
| $\langle \cdot \rangle$ | LR | 12 | LAGERSTROEMIA INDICA X FAURIEI 'TUSCARORA' | TUSCARORA CRAPE MYRTLE MULTI-TRUNK | B&B | 2.5" CAL. MIN. | 12`-14` MIN. | |
| | LX | 6 | LAGERSTROEMIA X `NATCHEZ` | CRAPE MYRTLE | B&B | | 8` HT. MIN. | |
| | NG | 6 | NYSSA SYLVATICA 'GREEN GABLE' TM | BLACK GUM | B & B | 3.5" CAL. MIN. | | |
| | QS | 7 | QUERCUS SHUMARDII | SHUMARD OAK | B&B | 2" CAL. MIN. | | |
| | UA | 7 | ULMUS PARVIFOLIA 'ALLEE' | ALLEE® LACEBARK ELM | B&B | 2" CAL. MIN. | 12`-14` MIN. | |
| YMBOL | CODE | QTY | BOTANICAL NAME | COMMON NAME | ROOT | SIZE | SPACING | |
| HRUBS O O O O | AC IC IG IC3 MC | 19 75 25 19 87 | ABELIA X GRANDIFLORA 'CONTI' ILEX CORNUTA `BURFORDII NANA` ILEX GLABRA ILEX VOMITORIA 'CONDEAUX' MYRICA CERIFERA | CONFETTI® VARIEGATED ABELIA DWARF BURFORD HOLLY INKBERRY HOLLY BORDEAUX® YAUPON HOLLY WAX MYRTLE | 3 GAL. MIN. CONT. CONT. 3 GAL. MIN. CONT. | 12" HT. MIN. 36" HT. MIN. 18" HT. MIN. 12" HT. MIN. 36" HT. MIN. | | |
| YMBOL | CODE | QTY | BOTANICAL NAME | COMMON NAME | CONT | SPACING | | SPACING |
| GROUND (| COVERS RR2 | 1,080 SF | RIVER ROCK MULCH PROVIDE SAMPLE TO OWNER FOR APPROVAL PRIOR TO PURCHASE. SEE NOTES. | 1"-3" RIVER ROCK | BULK | | | |
| | SH | 7,475 SF | SHREDDED HARDWOOD MULCH | | BULK | | | |
| | SOD | 19,188 SF | SOD OR EQUAL | TURF | SOD | | | |
| BMP PLAN | ITS PV4 | 394 | PANICUM VIRGATUM | SWITCH GRASS | 1.6" X 5" DEEP PLUG | | | 36" o.c. |
| ORBAY F | RINGE JE2 | 440 | JUNCUS EFFUSUS | COMMON RUSH | 1.6" X 5" DEEP PLUG | | | 24" o.c. |
| AQUATIC | SHELF PC | 212 | PONTEDERIA CORDATA UP TO 12" INUNDATION | PICKEREL WEED | QUART | | | 24" o.c. |
| | SD | 206 | SAGITTARIA LANCIFOLIA UP TO 24" INUNDATION | DUCK POTATO | QUART | | | 24" o.c. |
| /////// | | | SCHOENOPLECTUS TABERNAEMONTANI | OOSTOTEM BUILDING! | 4 0 W S B B B B B B B B B B B B B B B B B B | | | 0.411 |

SOFTSTEM BULRUSH

SCHOENOPLECTUS TABERNAEMONTANI UP TO 12" INUNDATION

1.6" X 5" DEEP PLUG

| Currituck County UDO | | | | | | |
|--|-------------------------|--|-----------------------------|-------------------------------------|-------------------------|-----------------|
| AREA TO BE LANDSCAPED | LOCATION | CODE REQUIREMENT | SQUARE FEET/ LINEAR FEET | TOTAL QUANTITY REQUIRED | TOTAL QUANTITY PROVIDED | CODE SECTION |
| | | NO PARKING SPACE SHALL BE SEPARATED FROM THE TRUNK OF A CANOPY TREE BY MORE THAN 60' | N/A | AS NEEDED TO FULFILL REQUIREMENT | AS SHOWN | |
| VEHICULAR USE AREA LANDSCAPING | VEHICULAR USE AREA | WHERE A VEHICULAR USE AREA ABUTS A STREET RIGHT-OF-WAY, VACANT LAND, OR ANY OTHER DEVELOPMENT, PERIMETER LANDSCAPING STRIPS SHALL BE PROVIDED: VISUAL SCREEN 36" MIN HT. AND 5' MIN WIDTH OF EVERGREEN SHRUBS SPACED 5' O.C. BUFFER SHALL CREATE SLIGHT VISUAL OBSTRUCTION | N/A | AS NEEDED TO FULFILL REQUIREMENT | AS SHOWN | 5.2.5 |
| | CARATOKE HWY | 8 ACI* CANOPY TREES + 4.5 ACI UNDERSTORY TREES + 10 SHRUBS PER 100 LF WTHIN 100' OF HIGHWAY | 247.44LF | 20 ACI CANOPY TREES | 21 ACI CANOPY TREES | 5.2.8 |
| MAJOR ARTERIAL STREETSCAPE LANDSCAPING | | | | 12 ACI UNDERSTORY TREES | 12 ACI UNDERSTORY TREES | |
| | | ROW | | 25 SHRUBS | 25 SHRUBS | |
| | | 2 ACI* CANOPY TREES PER ACRE = AT LEAST 1 | 2.54AC. | 6 ACI CANOPY TREES | 8 ACI CANOPY TREES | |
| ITE AREA LANDSCAPING FOR COMMERCIAL USE | SITE | SHRUB PER 5 FEET OF BUILDING FAÇADE FACING A STREET. SITE LANDSCAPING IS LANDSCAPING THAT IS NOT: 1. REQUIRED VEHICULAR USE AREA LANDSCAPING. 2. LOCATED | 91.9 LF NC-168 | 19 SHRUBS | 19 SHRUBS | 5.2.4 |
| | | WITHIN A REQUIRED PERIMETER BUFFER. 3. REQUIRED SCREENING. | 68.0 LF S. MILLS RD. | 14 SHRUBS | SEE BELOW*** | |
| | | 10' OPTION 2 TYPE B BUFFER (AESTHETIC BUFFER): | | 6 ACI CANOPY TREES | 6 ACI CANOPY TREES | |
| TYPE B: AESTHETIC BUFFER LONG SFM ZONED PROPERTY | SOUTHWEST PROPERTY LINE | 2 ACICANOPY TREES + 10 ACI UNDERSTORY TREES | 291.00LF | 30 ACI UNDERSTORY TREES | 30 ACI UNDERSTORY TREES | 5.2.6 |
| ALONG OF WIZONED FROM EICH | | 15 SHRUBS PER 100 LF | | 44 SHRUBS | 44 SHRUBS | |

*** (6) 8' HIGH AT INSTALLATION CREPE MYRTLES PROPOSED ALONG SOUTH MILLS FOR ALTERMATE FOUNDATION.

24" o.c.

MOYOCK MILLS ROAD
PREPARED FOR FRONTIER

5) Cation exchange capacity shall be a minimum of 8 meg/100g.

B. Clay Loam to Sandy Clay Loam Soil: shall be a fertile, friable natural loam, uniform in composition, free of stones, lumps, plants and their roots,

debris and other extraneous matter over 1 inch in diameter, capable of sustaining vigorous plant growth. 1) Soil shall have a pH range of 5.5 to 6.5. 2) Soil shall contain 2-5% organic content by volume. 3) Soil Texture: Clay loam to sandy clay loam with the following particle size distribution: Less than 10% 20-50% <35%%

Clay 20-40% 4) Chemical Levels shall be Magnesium Mg100+ units Phosphorus P205 150+ units Potassium - K20 120+ units 5) Soluble Salts/ Conductivity - Not to exceed 900 ppm/0.9 mmhos/cm (in soil); not to exceed 3000 ppm/2.5 mmhos/cm (in high organic mix)

6) Cation exchange capacity shall be 20-35 meq/100g. C. Compost: Compost shall be mature, stable, weed free, and produced by aerobic decomposition of organic matter. Compost feedstock shall be plant matter, such as high lignin forestry products or yard waste (leaves, brush and yard trimmings).

1) The product must not contain any visible refuse or other physical contaminants, substances toxic to plants, or over 5% sand, silt, clay or rock material by dry weight. 2) Compost shall be sampled and tested as required by the Seal of Testing Assurance Program of the United States Composting Council (USCC)

and shall meet the physical requirements for compost as determined by USCC. 3) The product shall possess no objectionable odors. The product must meet all applicable USEPA CFR, Title 40, Part 503 Standards for Class A

4) The moisture level shall be such that no visible water or dust is produced when handling the material. D. Composted Pine Bark Fines: Shall be approved composted, ground pine bark having no particle with a dimension greater than 3/4 inch. No more

E. Sand: Shall be quartz based sharp concrete sand, ASTM C-33 Fine Aggregate, with a Fines Modulus Index between 2.8 and 3.2. F. Perlite: Coarse horticultural grade expanded, volcanic perlite. Maximum density shall be 8 lb./ft3.

1) pH shall be 6.5 to 7.5. 2) Perlite shall be meet the Perlite Institute's Standards for Gradation for Horticultural Perlite for Coarse Perlite with no more than 70% passing through a #16 Standard Sieve. G. Humus: Shall be mature, stable, weed free, and produced by aerobic decomposition of organic matter. Compost feedstock shall be plant matter,

such as high lignin forestry products or yard waste (leaves, brush and yard trimmings). 1) Humus shall have a pH between 6 and 7.5. 2) Soluble Salt Concentration shall be less than 10dS/m.

3) Cation exchange capacity rate shall be 100-250.

4) The product must not contain any visible refuse or other physical contaminants, substances toxic to plants, or over 5% sand, silt, clay or rock material by dry weight.

5) The product shall possess no objectionable odors. The product must meet all applicable USEPA CFR, Title 40, Part 503 Standards for Class A 6) The moisture level shall be such that no visible water or dust is produced when handling the material.

H. Trace Elements: Shall be commercially available slow release materials containing zinc (Zn), Molybdenum (Mo), Copper (Cu), Boron (B), and

. Fertilizer: A commercial fertilizer for ornamental trees, shrubs and ground cover with an analysis of 10% Nitrogen, 6% Phosphorus and 4% Potassium shall be used. This fertilizer shall be granular with a minimum of 50% of the total Nitrogen in organic form. 14-14-14-Osmocote (or approved equal) shall be applied at a rate of 10 lbs. per square foot, tilled to a depth of 8 inch, shall be used for perennials.

6. PLANT MATERIALS: (Refer to the PLANT LIST on the drawings for specific types and quantities of plants): which have soil and climatic conditions similar to those in the locality of the project.

A. Plants shall be nursery grown in accordance with good horticultural practices. Plants shall either be obtained from local nurseries and/or others, B. Plants shall be true to species and variety and unless specifically noted otherwise, all plants shall be of specimen quality, exceptionally heavy,

symmetrical, tightly-knit plants, so trained or favored in their development and appearance as to be superior in form, number of branches, C. Plants shall be sound, healthy and vigorous, well branched and densely foliated when in leaf, free of disease, insect pests, eggs or larvae and shall

have healthy, well-developed root systems. They shall be free from physical damage or any conditions that would prevent thriving health and the D. Trees, which have a damaged or crooked leader, or multiple leaders, unless specified in the plant list, will be rejected. Trees with abrasion of the

bark, sun scald, disfiguring knots, or pruning cuts more than 1 1/4 inch diameter which have not completely callused, will be rejected. E. Plants shall conform to measurements specified in the plant schedules except that plants larger than specified may be used if acceptable to the

Landscape Architect or owner. Use of such plants shall not increase the contract price. If larger plants are accepted, the root ball shall be sized for F. Caliper Measurement: Shall be taken at a point on the trunk 6 inches above natural ground line for trees up to 4 inches diameter, and at a point 12

inches above the natural ground line for trees over 4 inches diameter G. Plants shall be measured when branches are in the normal position. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to tip.

. SOIL MIXING PROCEDURES:

A. Topsoil used in sand/soil mixes shall be screened or shredded prior to mixing in sands. Maximum clod inclusion for soil mixes shall not exceed: Clod size (largest dimension) % of the soil mix volume

20% 1 to 3 inches 3 to 6 inches >6 inches Less than 2% A. Source material and soil mix stockpiles shall be protected from rain by covering with filter cloth.

A EXAMINE THE AREAS AND CONDITIONS WHERE SOIL MIX IS TO BE INSTALLED AND NOTIFY THE ENGINEER OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK. DO NOT PROCEED WITH THE WORK UNTIL UNSATISFACTORY CONDITIONS ARE CORRECTED TO PERMIT PROPER INSTALLATION OF THE WORK.

B. COOPERATE WITH OTHER CONTRACTORS AND TRADES WORKING IN AND ADJACENT TO OTHER WORK AREAS. EXAMINE DRAWINGS WHICH SHOW DEVELOPMENT OF ENTIRE PROJECT AND BECOME FAMILIAR WITH SCOPE OF OTHER WORK REQUIRED.

9. SOIL INSTALLATION - GENERAL PROCEDURES: G. IF SUBGRADE SOIL COMPACTION EXCEEDS 80%, EXISTING SOIL SHALL BE RIPPED TO A DEPTH OF 12 INCH TO ALLEVIATE COMPACTION WHICH HAS TAKEN PLACE DURING CONSTRUCTION. PRIOR TO LOOSENING OF SOIL, CONTRACTOR MUST LOCATE EXISTING UTILITIES AND COORDINATE WITH OWNER OR OWNERS REPRESENTATIVE ANY UNDERGROUND ELECTRIC LINES, DRAINAGE PIPES, CONDUITS,

H. PREPARE THE SUBGRADE BY ROUGHENING THE TOP 3" OF THE SUBSOIL BY DRAGGING THE TEETH OF A BACKHOE BUCKET ACROSS THE SURFACE.

I. BEGIN SOIL INSTALLATION AS SOON AS SUBSOIL IS PREPARED. USE LOW IMPACT EQUIPMENT WITH TRACK BELTS, LARGE TIRES, OR LOW TIRE PRESSURE TO LOWER COMPACTION AND SOIL DAMAGE DURING INSTALLATION. J. MONITOR COMPACTION DURING INSTALLATION AND LOOSEN SOILS AS NEEDED IF COMPACTION EXCEEDS 80%.

K. Install specified soil in 12"-18" thick lifts. Compact each lift sufficiently to reduce settling but not enough to prevent the movement of water and feeder roots through the soil. The soils in each lift should feel firm to the foot in all areas and make only slight heel prints.

11. INSTALLATION OF SOIL MIX FOR LAWN AREAS ON GRADE

10. SOIL INSTALLATION - GENERAL PROCEDURES CONTINUED:

A. Soil Mix for Lawns on Grade: shall consist of 10% compost and 90% topsoil, by volume. These materials must meet specifications described in

B. Loosen subgrade lawn areas to a minimum of 3". Remove stones more than 1-1/2" in any dimension and sticks, roots, rubbish, and other extraneous matter. Limit preparation to areas which will be planted promptly after preparation. C. Spread soil mix for lawn areas on grade to a minimum depth of 4" as required to meet grade and elevations shown on drawings, after lightly rolling and

12. INSTALLATION OF SOIL MIX FOR TREE PITS ON GRADE

natural settlement. Allow for sod thickness in areas to be sodded.

A. Confirm that native subsoil drains at a rate of at least ½" per hour. If drainage is less than ½" per hour, provide subsurface drainage lines. B. Install 30-36" of Soil Mix for Tree Pit Backfill on Grade:

1) Shall consist of clay loam to sandy clay loam soil, sand, and composted pine bark fines at a rate of 5:5:1 to 10:5:1.5 to achieve the following: (a) Clay content of Soil Mix shall be 10-20% of the soil mix, by volume. (b) Minimum amount of coarse to medium sand in the mix shall be 55% (c) Minimum infiltration rate at 80-85% compaction shall be 1-3 inches per hour

C. Composted pine bark fines shall not exceed 10% of the total soil mix by volume. D. Till 4" of compost into the top 6" of the installed Soil Mix for Tree Pit Backfill on Grade.

13. INSTALLATION OF SOIL MIX FOR MULCHED SHRUB AND PERENNIAL BEDS: A. Confirm that native subsoil drains at a rate of at least ½" per hour. If drainage is less than ½" per hour, provide subsurface drainage lines.

B. Install 4" of Soil Mix for Mulched Shrub and Perennial Beds on Grade: 1) Shall consist of clay loam to sandy clay loam soil, sand, and composted pine bark fines at a rate of 5:5:1 to 10:5:1.5 to achieve the following: (a) Clay content of Soil Mix shall be 10-20% of the soil mix, by volume.

(b) Minimum amount of coarse to medium sand in the mix shall be 55% (c) Minimum infiltration rate at 80-85% compaction shall be 1-3 inches per hour.

2) Composted pine bark fines shall not exceed 10% of the total soil mix by volume. C. Till 4" of compost into the top 6" of the installed Soil Mix for Tree Pit Backfill on Grade.

14. GENERAL PLANT INSTALLATION:

A. Excavation: Excavate all tree pits and planting areas to the width and depth shown in the planting details. B. Center plant in pit and orient for the best visual effect. Set plants plumb and hold rigidly in position until soil has been tamped firmly around root ball. C. Mulch within 48 hours after planting and after applying the pre-emergent herbicide, except ground cover areas (which shall have organic material placed before planting) with a 3" layer of mulch immediately after planting. All bed lines shall be cut with a smooth consistent edge to a minimum depth of 3 inches. Keep mulch out of the crowns of shrubs and off buildings, sidewalks, light standards, and other structures.

D. All planting areas to conform to specified grades after full settlement has occurred and mulch has been applied. Provide saucers around tree pits as shown on planting details. Remove all tags, labels, strings, etc. from all plants.

15. MAINTENANCE AND GUARANTEE:

A. The landscape contractor shall be responsible for maintaining his work until final acceptance by the owner or the owner's representative. Maintenance shall include watering, weeding, cultivating, mulching, removal of dead materials, resetting of plants to proper grades or upright positions, restoration of earth berms, and other necessary operations. adequate protection for lawn areas against trespassing during planting operations and against damage of any kind shall be provided. nothing in these notes is intended to relieve the contractor of his responsibility to repair existing lawn areas damaged by workmen engaged in the completion of this project.

B. Inspection of the work to determine completion of the contract exclusive of the possible replacement of plantings during the warranty period, will be made by the owner or the owner's representative at the conclusion of the installation period upon written notice requesting such inspection. Request shall be submitted by contractor at least ten days prior to the anticipated date for inspection. After inspection, the contractor will be notified in writing by the owner or the owner's representative of acceptance of the work or, if there are any deficiencies, the contractor will be notified of the requirements necessary for completion of the work. Plantings shall not be considered accepted until all deficiencies have been corrected and approved in writing.

C. Nursery stock shall be fully guaranteed for one full year. All plants that fail to make new growth from a dormant condition or that die during the first yea after planting shall be replaced. All replacements shall conform with the original specifications as to size and type. All costs of replacements shall be

D. The contractor shall be responsible for the removal of all unused materials, rubbish, debris, or plant material not planted from

the site upon completion of his work.

E. All other items necessary to make work complete shall be finalised prior to final inspection.

16. PERMANENT SODDING FOR LAWN AREAS: A. Sod varieties shall be an improved variety turf-type sod known to perform well in the project area. Sod shall be chosen from the recommended varieties listed in the latest version of Warm Season Turf Varieties as published by the North Carolina Crop Improvement Association (NCCIA): http://www.nccrop.com/varieties.php/14/Warm Season Turf

B. Prior to laying sod contractor shall provide 4 inches of topsoil as specified on all areas to receive seed or sod. C. The contractor shall sod all areas that are not paved or planted and mulched as designated on the drawings within the contract limits, unless specifically

D. The sod shall be certified to meet local state plant board specifications, absolutely true to varietal type, and free from weeds, fungus, insects and disease E. Sod panels shall be laid tightly together so as to make a solid sodded lawn area. Sod shall be laid uniformly against the edges of all curbs and other hardscape elements, paved and planted areas. Immediately following sod laying, the lawn areas shall be rolled with a lawn roller customarily used for such purposes, and then thoroughly irrigated. After rolling of sod any voids created by rolling shall be filled with strips of sod and rolled. Fertilize installed

sod as allowed by property's jurisdictional authority. F. During delivery, prior to, and during the planting of the lawn areas, the sod panels shall at all times be protected from excessive drying and unnecessary exposure of the roots to the sun. All sod shall be stored so as not to be damaged by sweating or excessive heat and moisture. Sod shall not be left

PERMANENT SEEDING

stacked or rolled.

A. Prior to seeding contractor shall provide and spread 4" of topsoil as specified on all areas to receive permanent seeding. B. The contractor shall seed all denuded areas and areas disturbed by construction that are not otherwise stabilized with paving, buildings, or planted and mulched within the contract limits, unless specifically noted otherwise.

C. If a utility line is installed through a landscaped lawn the seeding shall be modified to restore ground cover comparable to the existing lawn D. Seeding includes seedbed preparation, liming, fertilizing, seeding, and mulching of disturbed areas.

E. Lawn Seed varieties shall be an improved turf-type variety known to perform well in the project area. Seed mixture shall be chosen to ensure the development of plants during the season of planting, and to ensure future growth and permanent stabilization. Seed shall be certified and shall conform to the requirements of the North Carolina Crop Improvement Association (NCCIA).

F. All seed shall conform to the current rules and regulations of the state where it is being used and shall be from the latest crop available. The seed shall be State-certified to meet North Carolina seed certification standards and specifications, absolutely true to varietal type, and free from weeds, fungus, insects

G. Seed shall be labeled in accordance with the state laws and the U.S. Department of Agriculture rules and regulations under the Federal Seed Act in effect on the date of invitations for bids. Bag tag figures are evidence of purity and germination. No seed will be accepted with a test date of more than 9 months

H. Seed that has become wet, moldy, or otherwise damaged in transit or storage will not be accepted. The percent of noxious weed seed allowable shall be as defined in the current State laws relating to agricultural seeds. I. LIMING: Lime shall be applied separately and prior to the application of any fertilizer or seed and only on seedbeds, which have previously been prepared.

The lime shall be worked into the top 3 inches of soil after which the seedbed shall again be properly graded and dressed to a smooth finish. Lime shall be applied at the rate specified on TABLE 6.11.b, North Carolina Environmental Quality, Erosion and Sediment Control Planning and Design Manual or soil test report recommendations.

J. FERTILIZING: Following advance preparations and cleanup, fertilizer shall be uniformly spread at the rate specified on on TABLE 6.11.b, North Carolina Environmental Quality, Erosion and Sediment Control Planning and Design Manual or soil test report recommendations. K. SEEDING: Grass seed shall be sown at the rate specified on TABLE 6.11.b, North Carolina Environmental Quality, Erosion and Sediment Control

Planning and Design Manual immediately after fertilizing and the fertilizer and seed raked into the soil. Seeds shall be inoculated before mixing or sowing in accordance with the instructions of the seed provider and manufacturer of the inoculant. When seeding is required at other than the seasons shown TABLE 6.11.b, North Carolina Environmental Quality, Erosion and Sediment Control Planning and Design Manual, a cover crop shall be sown by the same methods required for grass seeding. L. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal

quantities in two directions at right angles to each other. Do not seed against existing trees. M. Rake seed and fertilizer lightly into top 1/8 inch of soil and water with fine spray. N. MULCHING: Protect seeded areas with slopes not exceeding 1:3 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment. Protect slopes 1:3 and

greater with erosion control mats and fasten as recommended by material manufacturer. O. Straw mulch material--Straw mulch shall consist of wheat, barley, oat or rye straw. The mulch material shall be air-dry, reasonably light in color, and shall not be musty, moldy, caked, or otherwise of low quality. The use of mulch that contains noxious weeds is not permitted. P. Other mulch materials--Mulching materials, such as wood cellulose fiber mulch, synthetic fiber mulch, netting, and mesh, are other mulching materials that

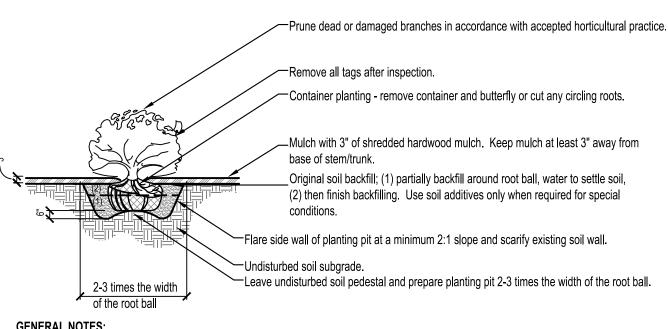
Q. After the seed has been properly covered, the seedbed shall be immediately compacted by means of an approved lawn roller weighing 40 to 65 pounds per foot of width for clay soil (or any soil having a tendency to pack) or weighing 150 to 200 pounds per foot of width for sandy or light soils.

may be required for specialized locations and conditions. These materials must be installed according to the manufacturer's recommendations for

A. Within the contract limits, the contractor shall produce a dense, well established lawn. The contractor shall be responsible for maintaining the lawn until

acceptance by the owner or owner's authorized representative. B. Maintenance shall include but may not be limited to watering, weeding, and fertilizing as necessary as well as the repair and re-seeding of all eroded, sunken or bare spots (larger than 12"x12") until certification of acceptability by the owner or owner's representative. Repaired seeding shall be accomplished as in the original work (including re-grading if necessary).

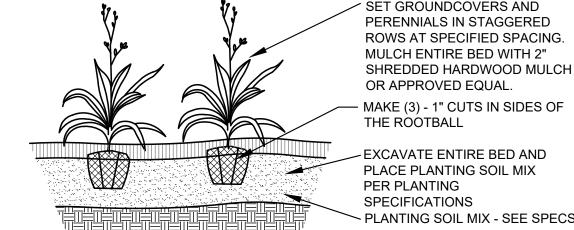
A stand of grass shall be considered acceptable when the turf cover is at least 95%. The Contractor shall overseed, and otherwise maintain the grassed areas until the stand of grass has reached a uniform height of 3 to 4 inches and a state of uniform species maturity. Annual grasses and grain weeds shall not be considered part of the cover percentage, and seeding stands shall not be considered acceptable until the stand reaches a state of uniform post-seeding maturity for the specified species.



-THIS DETAIL IS THE MINIMUM PLANTING STANDARD FOR CONTAINER SHRUBS LESS THAN 48" IN HEIGHT AT

-ALL SHRUBS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT COLLAR IS AT THE SAME GRADE, OR SLIGHTLY HIGHER, THAN EXISTING GRADE IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICE

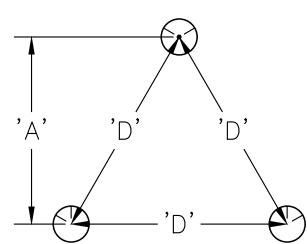
SET GROUNDCOVERS AND PERENNIALS IN STAGGERED



SPECIFICATIONS PLANTING SOIL MIX - SEE SPECS GROUNDCOVER PLANTING

NOTE: GROUNDCOVERS AND PERENNIALS TO BE INSTALLED

WITH TRIANGULAR SPACING

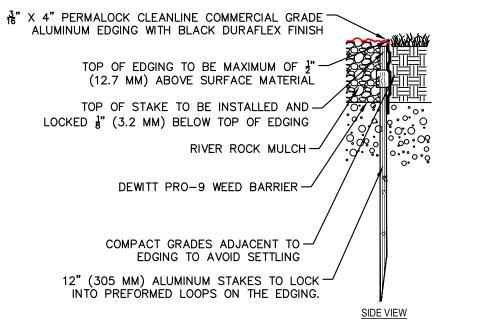


| PLANT SPACING | ROW 'A' |
|---------------|------------|
| 8" O.C. | 6.93" O.C. |
| 10" O.C. | 8.66" O.C. |
| 12" O.C. | 10.4" O.C. |
| 18" O.C. | 15.6" O.C. |
| 24" O.C. | 20.8" O.C. |
| 36" O.C. | 30.0" O.C. |
| 48" O.C. | 31.5" O.C. |

SCALE: N.T.S.

GROUNDCOVER SPACING MULCH 3" DEPTH ANTING BED TRENCH EDGING NOTE: TRENCH EDGE SHALL BE LOCATED BETWEEN PLANTING BED AND ALL TURF / MAINTAIN POSITIVE DRAINAGE IN ALL PLANTING BEDS. SEE NOTES THIS SHEET FOR TYPE OF MULCH.

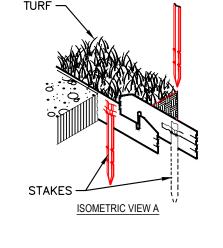
TRENCH EDGE DETAIL AT LAWN / MULCH BED INTERFACE



NOTE: ALUMINUM EDGING SHALL ONLY BE USED TO EDGE RIVER ROCK MULCH BEDS.

PERMALOC CORPORATION 13505 BARRY ST HOLLAND, MI 49424 TOLL FREE: 1-800-356-9660 MPM/000 (2009) -9600 FAX: (616) 399-9770

SCALE: N.T.S.



CLEANLINE INSTALLATION INSTRUCTIONS 1. Dig landscape trench 1" (25mm) deeper than the edging being set.

2-3 times the width

of the root ball

Evergreen Tree Planting

SECTION

TREES UP TO 2-1/2" IN CALIPER

GENERAL NOTES:

2. Set the edging into the landscape trench with the top 1/2" (12.5cm) above what will become the compacted finish grade. (The installer can connect the adjacent sections of the edging prior to or after the sections are placed in the trench.) Where connections are needed on curves, the installer will find

3. Start at the beginning of the bed area and begin driving the 12" (30.5cm) aluminum stakes. (NOTE: There are more loops per section than stakes. The additional loops are provided for greater versatility of staking based on the design and application.)

4. Snap down the adjacent sections. (See ISOMETRIC VIEW A)

that connecting sections prior to installing will allow for faster completion.

5. At the end of the bed area, cut the section to the desired length and stake down. Begin your next bed area with the remaining portion of the cut section. FORMING ANGLES: Cut the bottom of the edging halfway up using a hacksaw, lay on a hard surface placing a brick or 4 x 4 over the cut.

Bend up to the desired angle using a hammer to stiffen angle. This forms a 1/2" radius on top avoiding sharp corners. area, cut the section to the desired length and stake down. Begin your next bed area with the remaining portion of the cut section. (See Diagram B) FORMING ANGLES: Cut the bottom of the edging halfway up using a hacksaw, lay on a hard surface placing a brick or 4 x 4 over the cut. Bend up to the desired angle using a hammer to stiffen angle. This forms a 1/2" radius on top avoiding sharp

Landscape Bed Edging Detail permaloc cleanline commercial grade aluminum landscape edging

DO NOT CUT CENTRAL LEADER

acceptable horticultural practice.

—Remove all tags after inspection.

delete use in planting beds.

—Prune to remove suckers.

Provide single, straight dominant central leader.

Install per manufacturers recommendation.

- Flag all tree ties with brightly colored flagging.

base of trunk, mulch entire planting bed.

stake. See typical staking layout.

DO NOT CUT CENTRAL LEADER

acceptable horticultural practice.

Remove all tags after inspection.

Provide single, straight dominant central leader.

Install per manufacturers recommendation.

—Flag all tree ties with brightly colored flagging.

base of trunk, mulch entire planting bed.

special conditions.

Jndisturbed soil subgrade.

-CONTRACTOR SHALL HAVE MISS UTILITIES LOCATE ALL UTILITIES IN THE PLANTING AREA PRIOR TO BEGINNING PLANTING

ENGINEER / LANDSCAPE ARCHITECT BEFORE ANY PLANTING OPERATIONS ARE TO BEGIN.

OPERATIONS. ANY CONFLICTS WITH PROPOSED PLANTING SHALL BE REPORTED IMMEDIATELY TO THE STORE MANAGER AND

-THESE DETAILS ARE THE MINIMUM PLANTING STANDARD FOR CONTAINER or BALLED & BURLAPPED DECIDUOUS AND EVERGREEN

-ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT COLLAR IS APPROXIMATELY 1" HIGHER THAN EXISTING GRADE.

Set tree above original grade 1/8 depth of root ball

—Prune dead or damaged branches in accordance with

__ArborTie green staking and guying material is to be flat woven

B&B planting - remove ropes, top half of burlap and entire wire basket.

—2" X 2"X 24" P.T. wood stakes. provide 3 in a radial pattern. See typical

Original soil backfill; (1) partially backfill around root ball, water to settle

soil, (2) then finish backfilling. Use soil additives only when required for

Leave undisturbed soil pedestal and prepare planting pit 2-3 times the width of the root ball.

lare side wall of planting pit at a minimum 2:1 slope and scarify existing soil wall.

Container planting - remove container and butterfly or cut any circling roots.

—Mulch with 3" of shredded hardwood mulch. Keep mulch at least 3" away from

polypropylene material. 3/4" (19.05mm) wide 900 lb. break strength.

special conditions

Indisturbed soil subgrade.

2-3 times the width

of the root ball

-Prune dead or damaged branches in accordance with

ArborTie green staking and guying material is to be flat woven

—B&B planting - remove ropes, top half of burlap and entire wire basket.

Container planting - remove container and butterfly or cut any circling roots.

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Original soil backfill; (1) partially backfill around root ball, water to settle

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Leave undisturbed soil pedestal and prepare planting pit 2-3 times the width of the root ball.

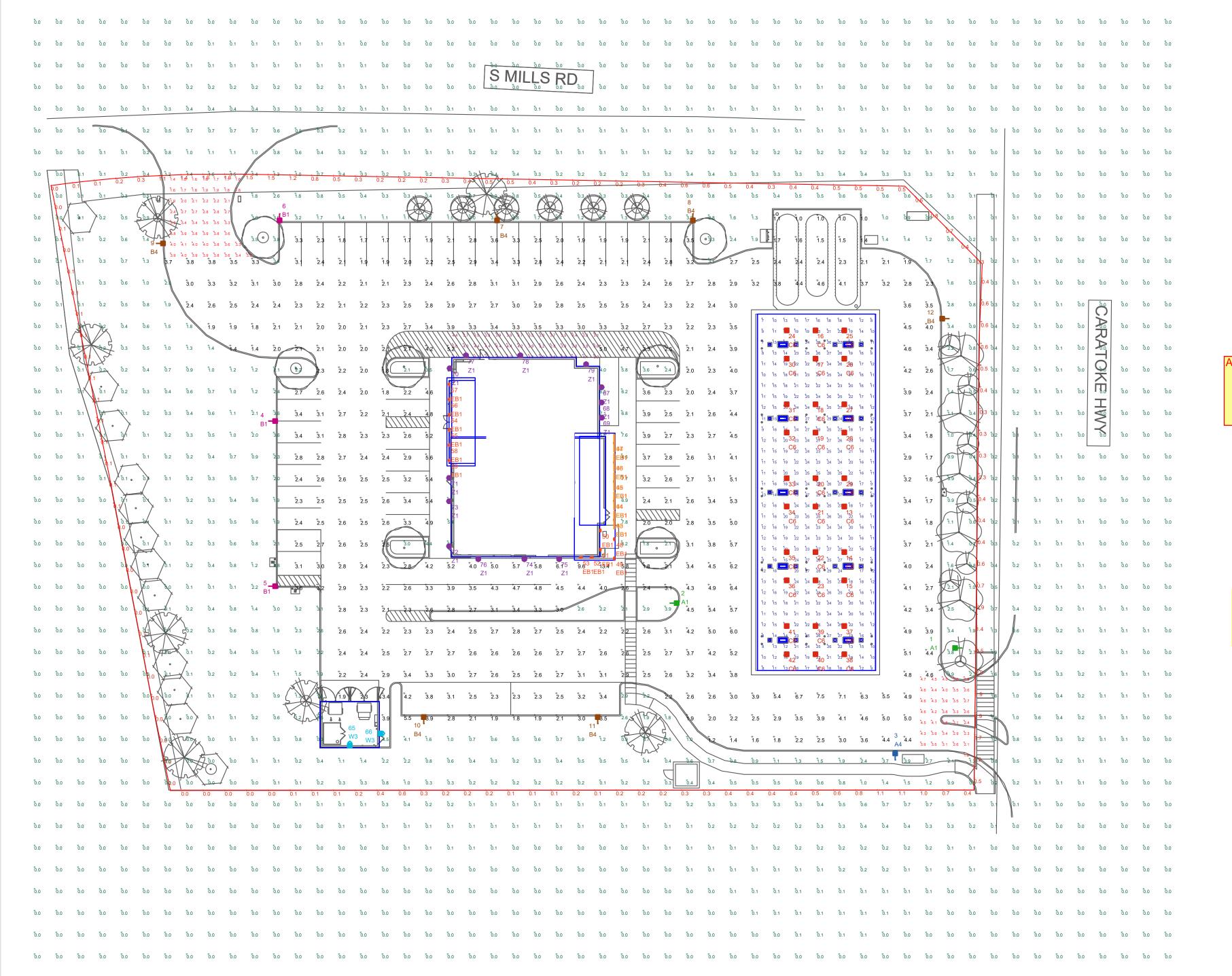
SCALE: N.T.S.

Flare side wall of planting pit at a minimum 2:1 slope and scarify existing soil wall.

polypropylene material. 3/4" (19.05mm) wide 900 lb. break strength.

Form soil saucer to retain water, minimum of 4" ht. continuous around planting pit.

(L)



ANY ILLUMINATED SIGNS?

THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCES

RED LEONARD ASSOCIATES IS NOT RESPONSIBLE FOR INCIDENTS CAUSED BY INSUFFICIENT LIGHTING AND DOES NOT RECOMMEND THESE LEVELS FOR SECURITY AND SAFETY REASONS

NOTES:

- ALL AREA LIGHTS ON 20 FT. POLES MOUNTED ON 6 IN. CONCRETE BASES
- ALL CONCRETE POLE BASES TO BE LOCATED 5 FT. BEHIND CURB - FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES

| LUMINAIRE LOCATION SUMMARY LUMINA | | | | |
|-----------------------------------|-------|----------|--------|--|
| LUM NO. | LABEL | MTG. HT. | LUM NO | |
| 1 | A1 | 20.5 | 40 | |
| 2 | A1 | 20.5 | 41 | |
| 3 | A4 | 20.5 | 42 | |
| 4 | B1 | 20.5 | 43 | |
| 5 | B1 | 20.5 | 44 | |
| 6 | B1 | 20.5 | 45 | |
| 7 | B4 | 20.5 | 46 | |
| 8 | B4 | 20.5 | 47 | |
| 9 | B4 | 20.5 | 48 | |
| 10 | B4 | 20.5 | 49 | |
| 11 | B4 | 20.5 | 50 | |
| 12 | B4 | 20.5 | 51 | |
| 13 | C6 | 17.11 | 52 | |
| 14 | C6 | 17.11 | 53 | |
| 15 | C6 | 17.11 | 54 | |
| 16 | C6 | 19.32 | 55 | |
| 17 | C6 | 19.32 | 56 | |
| 18 | C6 | 19.32 | 57 | |
| 19 | C6 | 19.32 | 58 | |
| 20 | C6 | 19.32 | 59 | |
| 21 | C6 | 19.32 | 60 | |
| 22 | C6 | 19.32 | 61 | |
| 23 | C6 | 19.32 | 62 | |
| 24 | C6 | 21.53 | 63 | |
| 25 | C6 | 17.11 | 64 | |
| 26 | C6 | 17.11 | 65 | |
| 27 | C6 | 17.11 | 66 | |
| 28 | C6 | 17.11 | 67 | |
| 29 | C6 | 17.11 | 68 | |
| 30 | C6 | 21.53 | 69 | |
| 31 | C6 | 21.53 | 70 | |
| 32 | C6 | 21.53 | 71 | |
| 33 | C6 | 21.53 | 72 | |
| 34 | C6 | 21.53 | 73 | |
| 35 | C6 | 21.53 | 74 | |
| 36 | C6 | 21.53 | 75 | |
| 37 | C6 | 17.11 | 76 | |
| 38 | C6 | 17.11 | 77 | |
| 39 | C6 | 19.32 | 78 | |
| | • | • | 79 | |

| ION SUN | MMARY | LUMINAIRE | LOCATION SU | JMMARY |
|---------|----------|-----------|-------------|----------|
| EL | MTG. HT. | LUM NO. | LABEL | MTG. HT. |
| | 20.5 | 40 | C6 | 19.32 |
| | 20.5 | 41 | C6 | 21.53 |
| | 20.5 | 42 | C6 | 21.53 |
| | 20.5 | 43 | EB1 | 10.5 |
| | 20.5 | 44 | EB1 | 10.5 |
| | 20.5 | 45 | EB1 | 10.5 |
| | 20.5 | 46 | EB1 | 10.5 |
| | 20.5 | 47 | EB1 | 10.5 |
| | 20.5 | 48 | EB1 | 10.5 |
| | 20.5 | 49 | EB1 | 10.5 |
| | 20.5 | 50 | EB1 | 10.5 |
| | 20.5 | 51 | EB1 | 10.5 |
| | 17.11 | 52 | EB1 | 10.5 |
| | 17.11 | 53 | EB1 | 10.5 |
| | 17.11 | 54 | EB1 | 10.5 |
| | 19.32 | 55 | EB1 | 10.5 |
| | 19.32 | 56 | EB1 | 10.5 |
| | 19.32 | 57 | EB1 | 10.5 |
| | 19.32 | 58 | EB1 | 10.5 |
| | 19.32 | 59 | EB1 | 10.5 |
| | 19.32 | 60 | EF1 | 12 |
| | 19.32 | 61 | EF1 | 12 |
| | 19.32 | 62 | EF1 | 12 |
| | 21.53 | 63 | EF1 | 12 |
| | 17.11 | 64 | EF1 | 12 |
| | 17.11 | 65 | W3 | 8 |
| | 17.11 | 66 | W3 | 8 |
| | 17.11 | 67 | Z1 | 15 |
| | 17.11 | 68 | Z1 | 15 |
| | 21.53 | 69 | Z1 | 15 |
| | 21.53 | 70 | Z1 | 15 |
| | 21.53 | 71 | Z1 | 15 |
| | 21.53 | 72 | Z1 | 15 |
| | 21.53 | 73 | Z1 | 15 |
| | 21.53 | 74 | Z1 | 15 |
| | 21.53 | 75 | Z1 | 15 |
| | 17.11 | 76 | Z1 | 15 |
| | 17.11 | 77 | Z1 | 15 |
| | 19.32 | 78 | Z1 | 15 |
| | | 79 | Z1 | 15 |

| CALCULATION SUMMARY | | | | | |
|---------------------------------|-------|------|-----|---------|---------|
| LABEL | AVG | MAX | MIN | AVG/MIN | MAX/MIN |
| CANOPY | 18.88 | 29 | 7 | 2.70 | 4.14 |
| DELIVERY AREA | 3.73 | 5.0 | 1.8 | 2.07 | 2.78 |
| ENTRANCES & EXIT DRIVES | 3.14 | 4.7 | 1.4 | 2.24 | 3.36 |
| PARKING & INTERIOR DRIVE AISLES | 3.03 | 13.4 | 1.0 | 3.03 | 13.40 |
| PROPERTY LINES | 0.42 | 2.0 | 0.0 | N.A. | N.A. |
| UNDEFINED | 0.39 | 8.6 | 0.0 | N.A. | N.A. |

| LUMINAIRE SCHEDULE | | | | | | | | | | | |
|--------------------|-----|-------|-------------|--------|-------|----------------|------------|-----------------|-------------|---|---|
| SYMBOL | QTY | LABEL | ARRANGEMENT | LUMENS | LLF | DIMMING FACTOR | BUG RATING | WATTS/LUMINAIRE | TOTAL WATTS | MANUFACTURER | CATALOG LOGIC |
| | 2 | A1 | SINGLE | 17468 | 1.030 | 0.730 | B3-U0-G4 | 90.42 | 180.84 | Lithonia Lighting | DSX0LED-P6-50K-70CRI-T3M-MVOLT-FAO-XX (SW. POS. 5) |
| - | 1 | A4 | SINGLE | 15141 | 1.030 | 0.730 | B2-U0-G3 | 90.42 | 90.42 | Lithonia Lighting | DSX0LED-P6-50K-70CRI-T3M-MVOLT-FAO-HS-XX (SW. POS. 5) |
| | 3 | B1 | SINGLE | 17728 | 1.030 | 0.730 | B3-U0-G5 | 90.42 | 271.26 | Lithonia Lighting | DSX0LED-P6-50K-70CRI-T4M-MVOLT-FAO-XX (SW. POS. 5) |
| - | 6 | B4 | SINGLE | 15251 | 1.030 | 0.730 | B2-U0-G3 | 90.42 | 542.52 | Lithonia Lighting | DSX0LED-P6-50K-70CRI-T4M-MVOLT-FAO-HS-XX (SW. POS. 5) |
| P | 30 | C6 | Single | 6780 | 1.030 | 1.000 | B2-U0-G1 | 40.4989 | 1214.967 | Lithonia Lighting | RCNYLED-ALO1-50K-80CRI-SYMC-MVOLT-BZS-XX (SW. POS. 4) |
| | 17 | EB1 | Single | 1388 | 1.000 | 1.000 | B1-U1-G0 | 19 | 323 | WAC Lighting | WP-LED119-30 |
| | 5 | EF1 | SSL-4_1 | 992 | 1.000 | 1.000 | B1-U1-G0 | 17.444 | 348.88 | FC Lighting | CVLWET1.5-4-4K-80CRI-1040 |
| | 2 | W3 | Single | 1994 | 1.010 | 1.000 | B0-U0-G1 | 14.58 | 29.16 | Lithonia Lighting | DSXW1 LED- P2-50K-70CRI-T3M-MVOLT-XXX-HS |
| | 13 | Z1 | Single | 3348 | 1.000 | 1.000 | B1-U0-G1 | 25.4 | 330.2 | COOPER LIGHTING SOLUTIONS - McGRAW-EDISON | ISC-SA1B-740-U-SL4-WH |

| | REDLEONARD ASSOCIATES |
|----------|---------------------------------------|
| 1340 Ken | nper Meadow Dr. Forest Park. OH 45240 |

513-574-9500 | redleonard.com

| REV. | BY | DATE | DESCRIPTION |
|------|----|------|-------------|
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| | | | |

DISCLAIMER

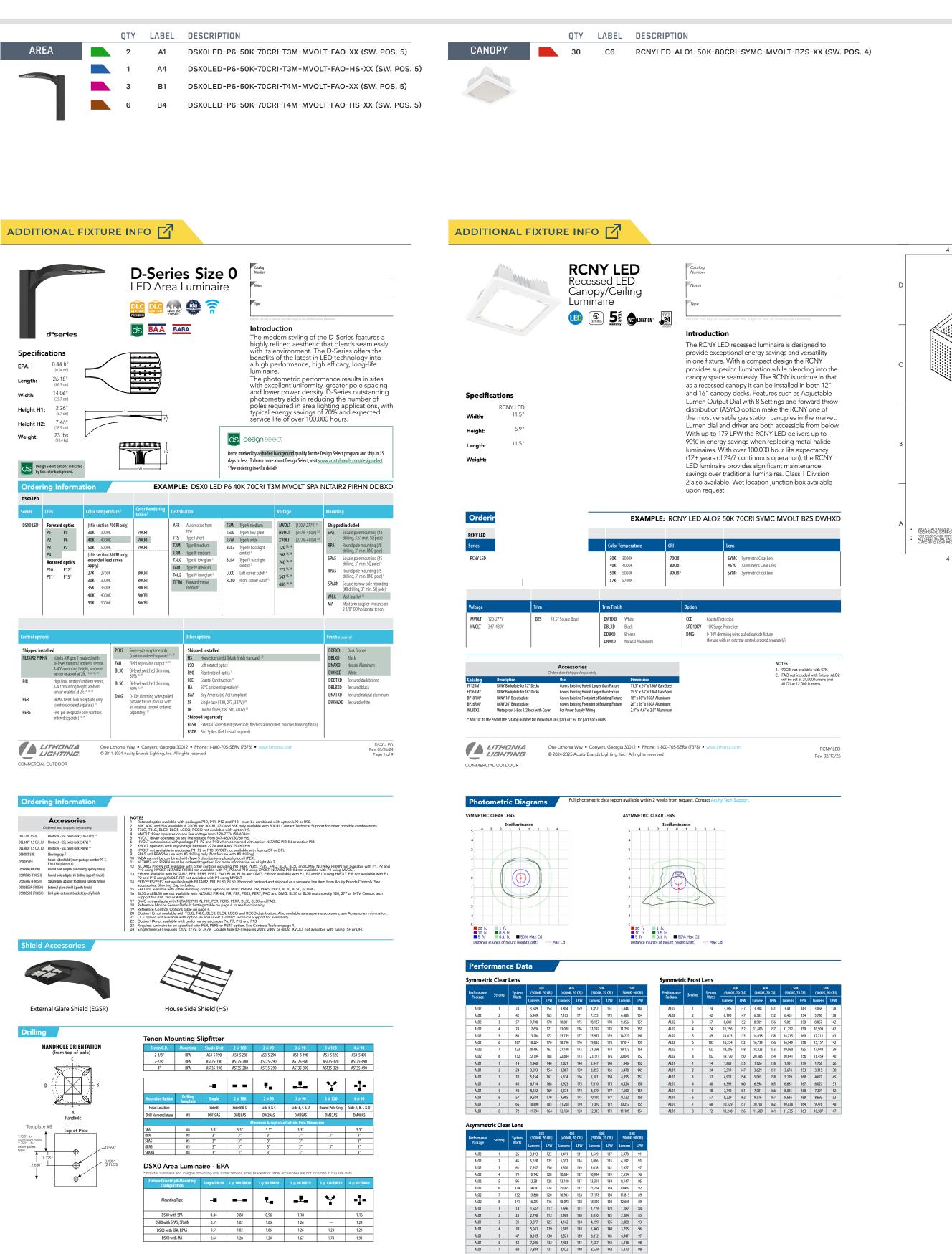
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SCALE: LAYOUT BY: 1" = 30' LMP DWG SIZE: DATE: D 04/17/25

MOYOCK, NC DRAWING NUMBER: RL-10215-S1

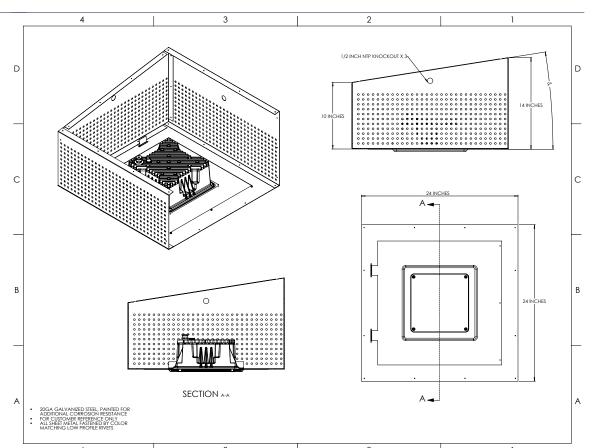
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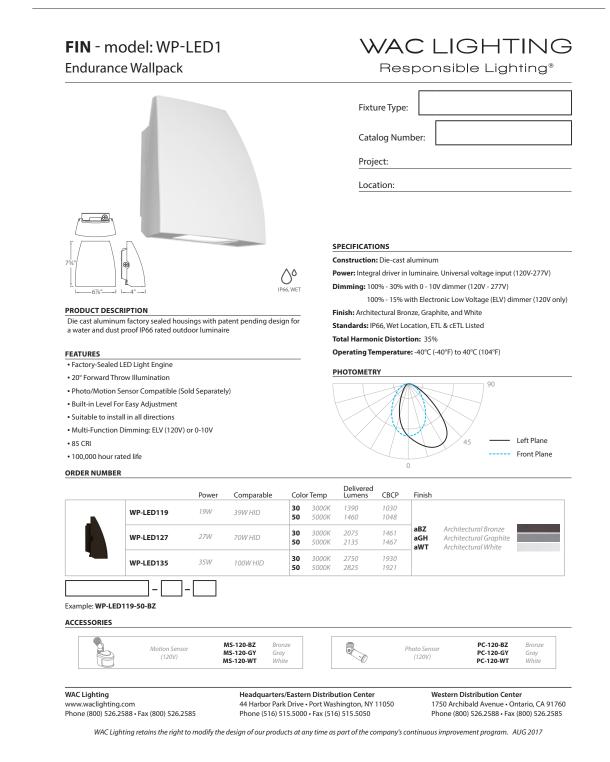


COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com

Rev. 02/13/25





QTY LABEL DESCRIPTION

17 EB1 WP-LED119-30

WALL MOUNTED

55 Project: COVELINE WET 1.5 is a powerful and versatile interior / exterior cove luminaire. The COVELINE WET 1.5 comes in a 1 ft, 4 ft or 6 ft nominal lengths and 27K, **COVELINE WET 1.5** 3K, 35K, 4K or 5K color temperatures, as well as static color choices. The housing is constructed of extruded aluminum with tooled end caps and is IP66 rated for interior & exterior use. Features IP68 line voltage Plug N Play connectors for easy installation. Power supply is integral, no remote driver required. Universal orientation fixture; up, down, horizontal or vertical positioning and 9 optical solutions. Flicker free dimmable to 5% full brightness ELV trailing edge dimming. | 10° | 10° x 40° | 120° | 25° | 30° x 60° | 40° | 80° | 67° x 140° | 21° x 56° asymmetric LEDs per foot weight extruded aluminum housing with moulded end caps clear, tempered glass with a frosted edge standard: surface mount bracket with (+/- 45° from center) optional: ADBW2-90 full 180° rotation (+/- 90° from center) IP66 rated for wet, exterior location (Connectors IP68) ingress protection compliant with 3G ANSI C136.31 Twist-lock IP68 rated, CCC 2700K color temperature lumen output (per foot) 865 lm 893 lm > 70,000 hours / L70 or better color consistency 3 SDCM / standard: 87CRI | optional: 90CRI -13°F to 104°F (-25°C to 40°C) operating temperature 69°C @ T^A 25°C 5 year limited warranty (refer to website for details) warranty Universal 120-277V AC input voltage power supply integral Class II, electronic high-power factor > 94% @120V certification ETL / cETL listed, CEC Title 24 - JA8 Compliant standards UL1598/CSA C22.2 No. 250.0; IESLM-79/LM-80; FCC Part 15 power consumption 9W/ft @ 120V ELV (reverse phase/trailing edge) ≤ 5%

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US Commercial Lighting Manufacturer Since 1982

TCAPW Terminator Cap

QTY LABEL DESCRIPTION

5 EF1 CVLWET1.5-4-4K-80CRI-1040

Approved:

Specification Sheet

20190

COVELINE

COVELINE WET 1.5 Ordering Information CVLWET1.5 CVLWET1.5 COVELINE WET 1.5 1 12 in. [305 mm] WHITE LIGHT MONO COLOR 80 CRI 10 10° beam WCL Black Louver 4 46.8 in. [1189 mm] 27K 2700K RED Red 90CRI 90 CRI 1040 10°x 40° beam WCHS Black Louver w/House Shield 6 70 in. [1778 mm] 3K 3000K GRN Green 35K 3500K BLU Blue 120 120° beam 25° beam 4K 4000K AMB Amber 3060 30°x60° beam 5K 5000K 40 40° beam 80 80° beam 67140 67°x140° ASY 21°x56° asymmetric

SC10W 10 ft. Starter Connection Cord _____EC12W 12 in. Extension Cord _____MC-10VELDIM 0-10V ELV Dim Module w/Interior Rated Enclosure (1 module per run)

_____ADBW2-90 90° Adjustable Bracket (Bi-directional) ______CA2-6 Cantilever Arm - 6" _____LS-6 Landscape Spike - 6" CA2-12 Cantilever Arm - 12" HLS Heavy Duty Landscape Spike _____ CA2-18 Cantilever Arm - 18"

_____ EC24W 24 in. Extension Cord

EC60W 60 in. Extension Cord

Due to continuous development and improvements, specifications are subject to change without notice. Solid State Luminaires reserves the right to change lab test details or specifications without notice. Product use certifies agreement to Solid State Luminaires terms and conditions.

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COMMERCIAL OUTDOOR

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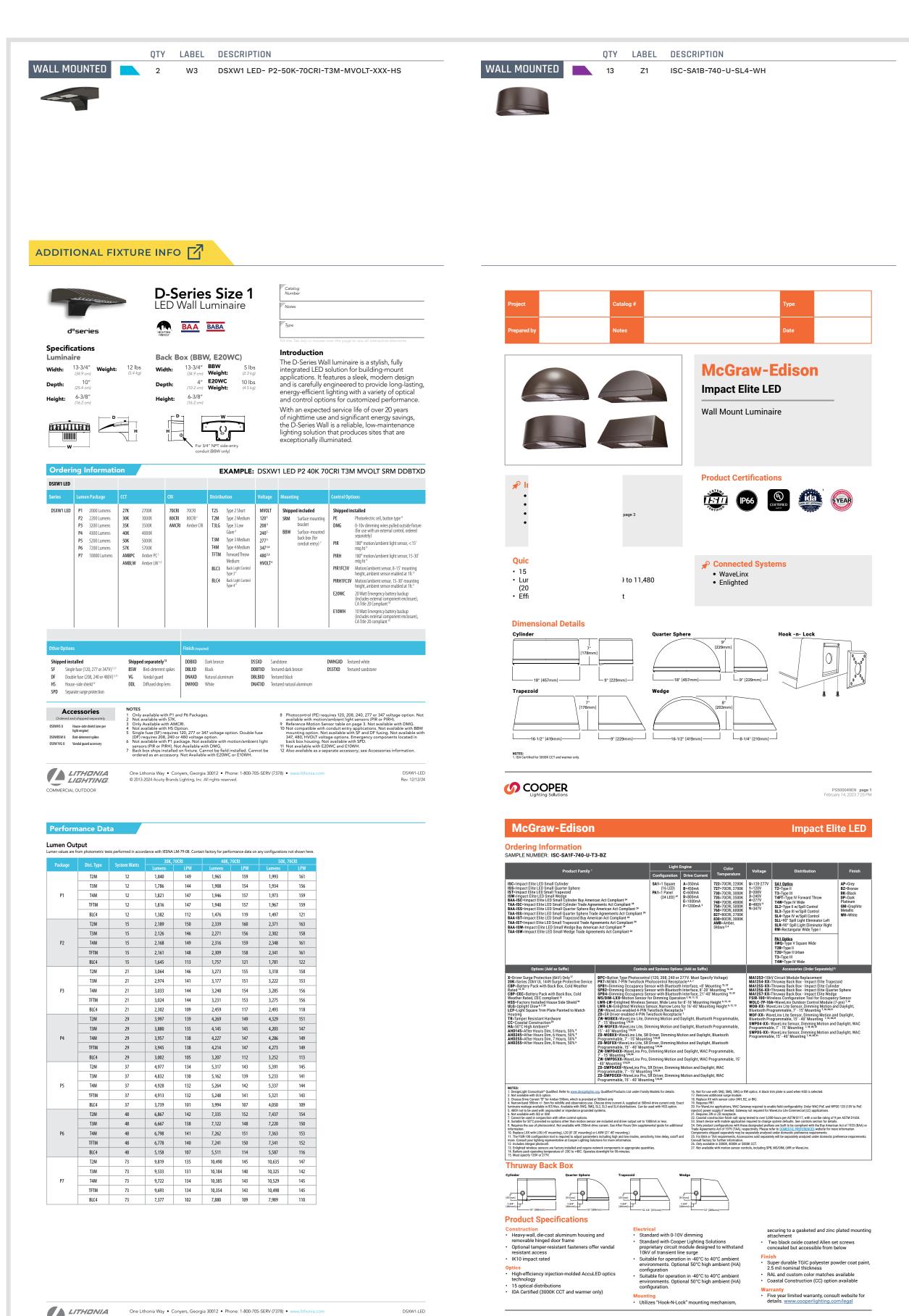
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MOYOCK, NC DRAWING NUMBER: RL-10215-S1

PROJECT NAME:

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OOOPER

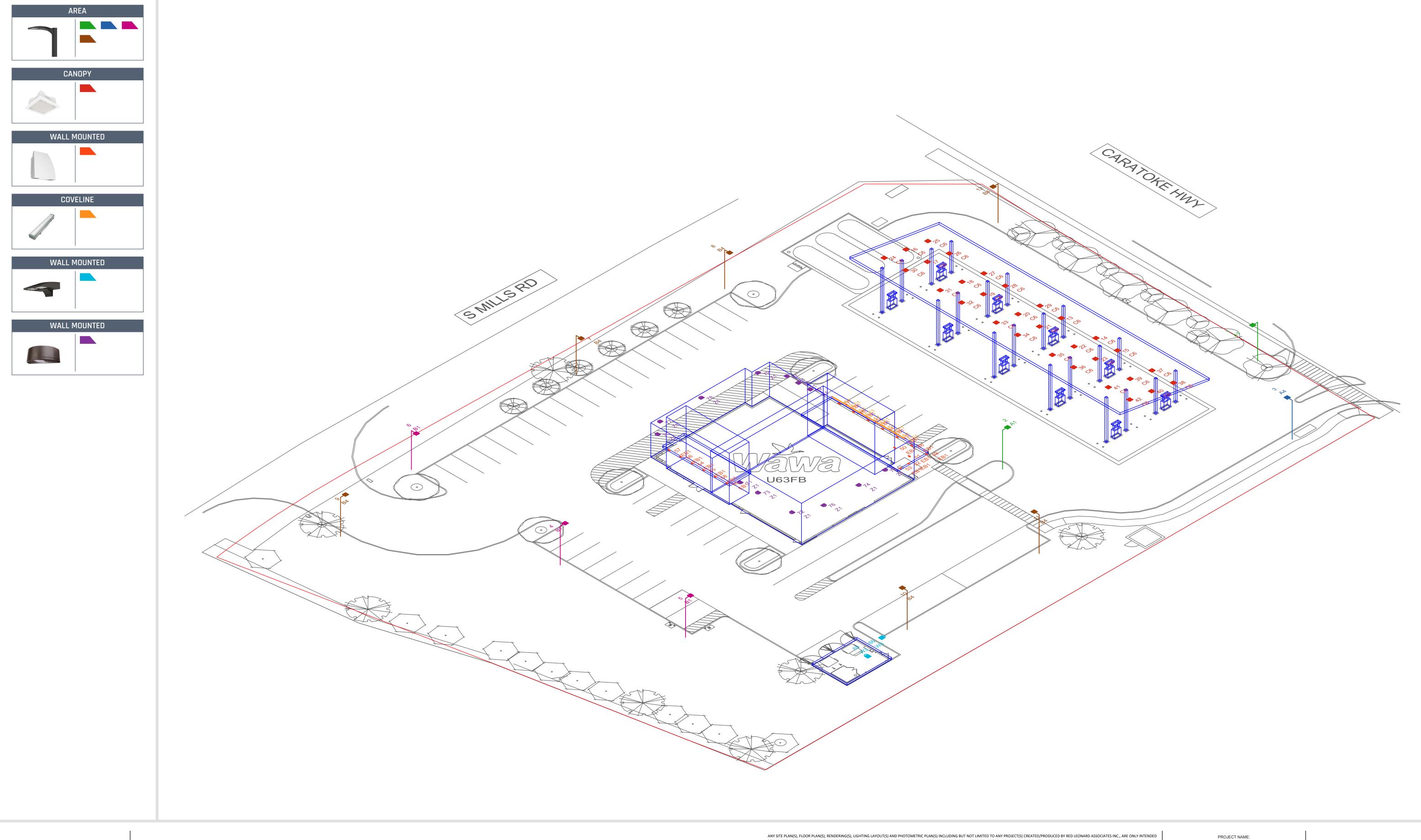
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REDLEONARD
ASSOCIATES

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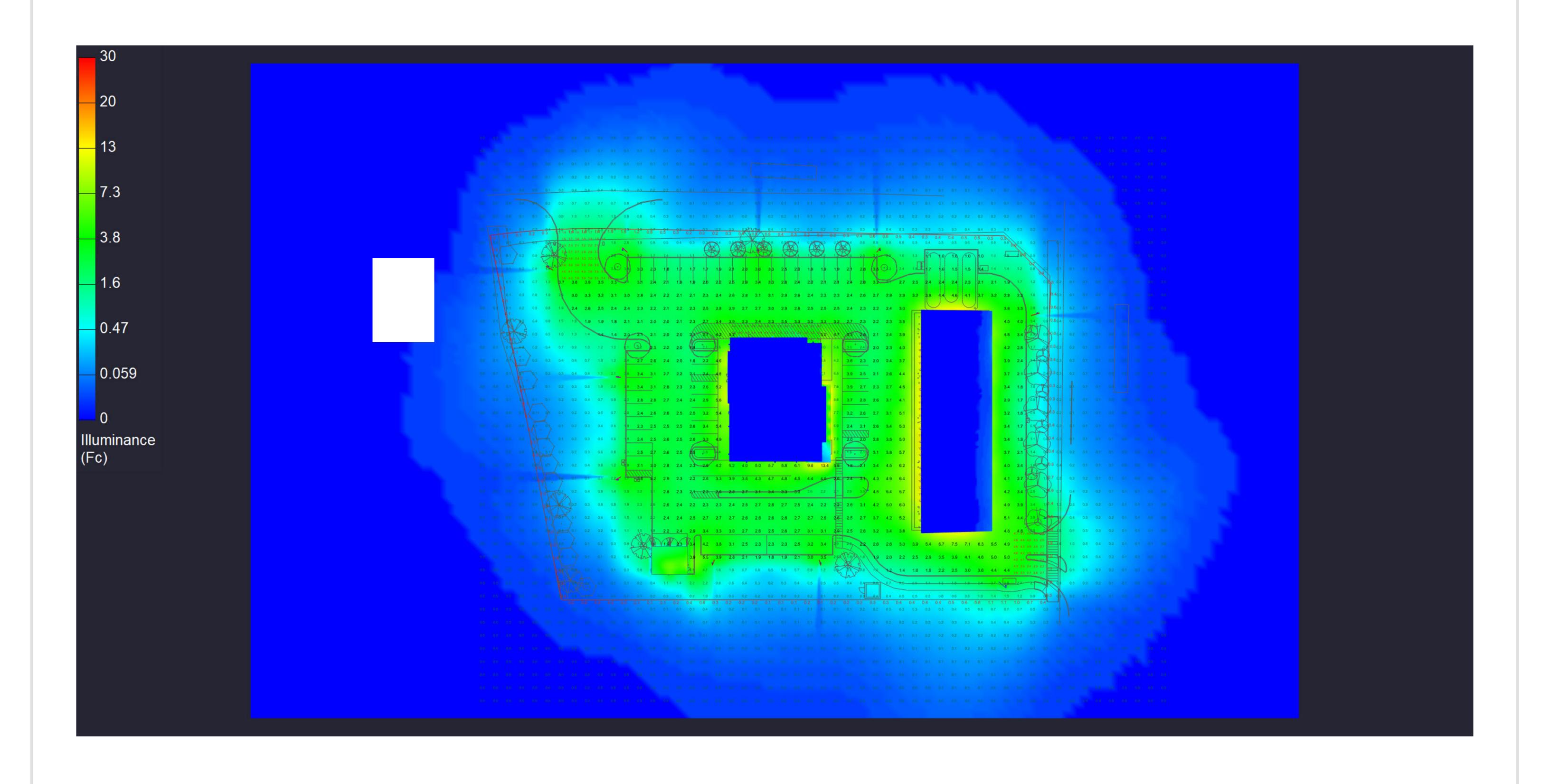
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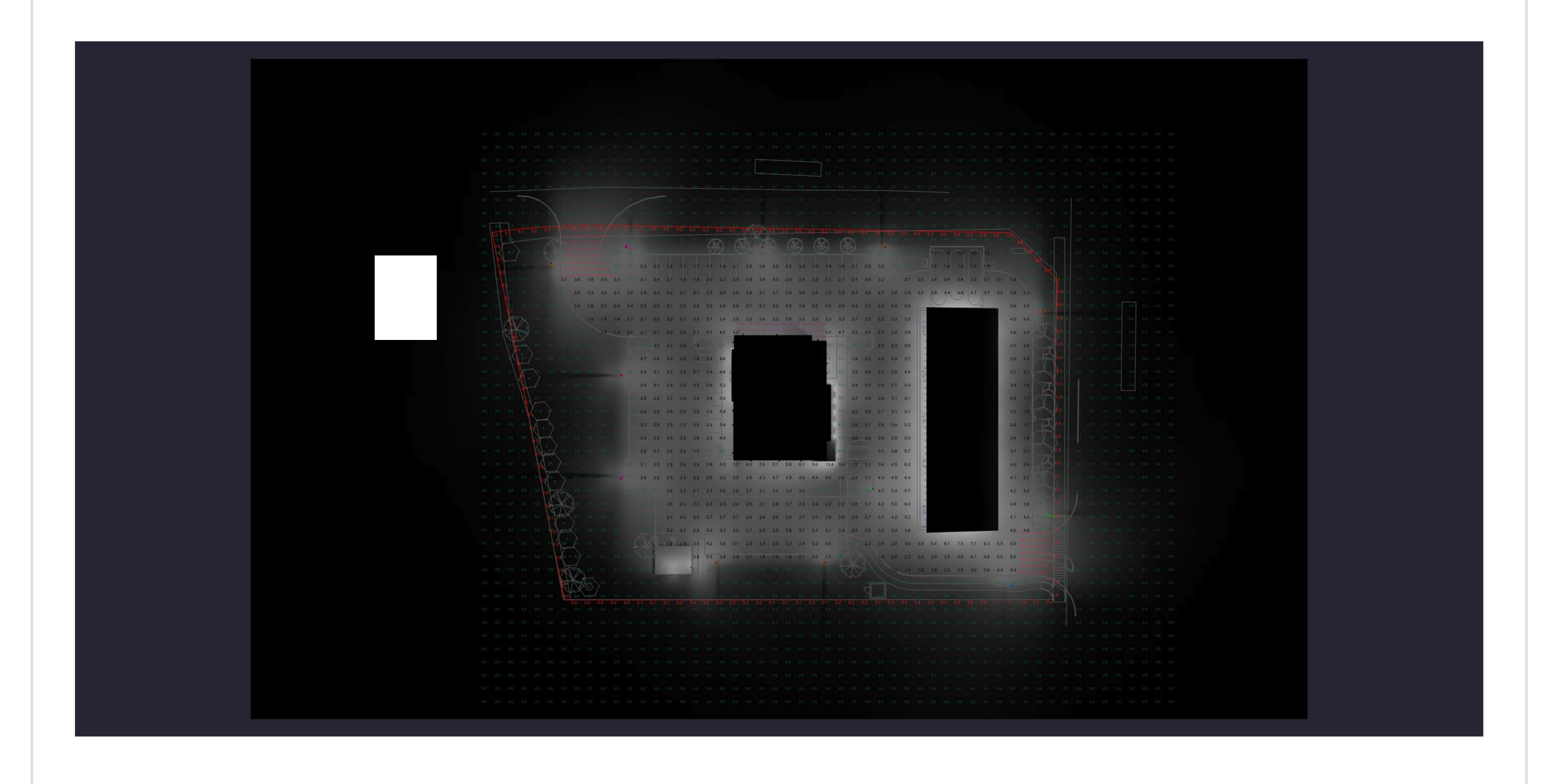
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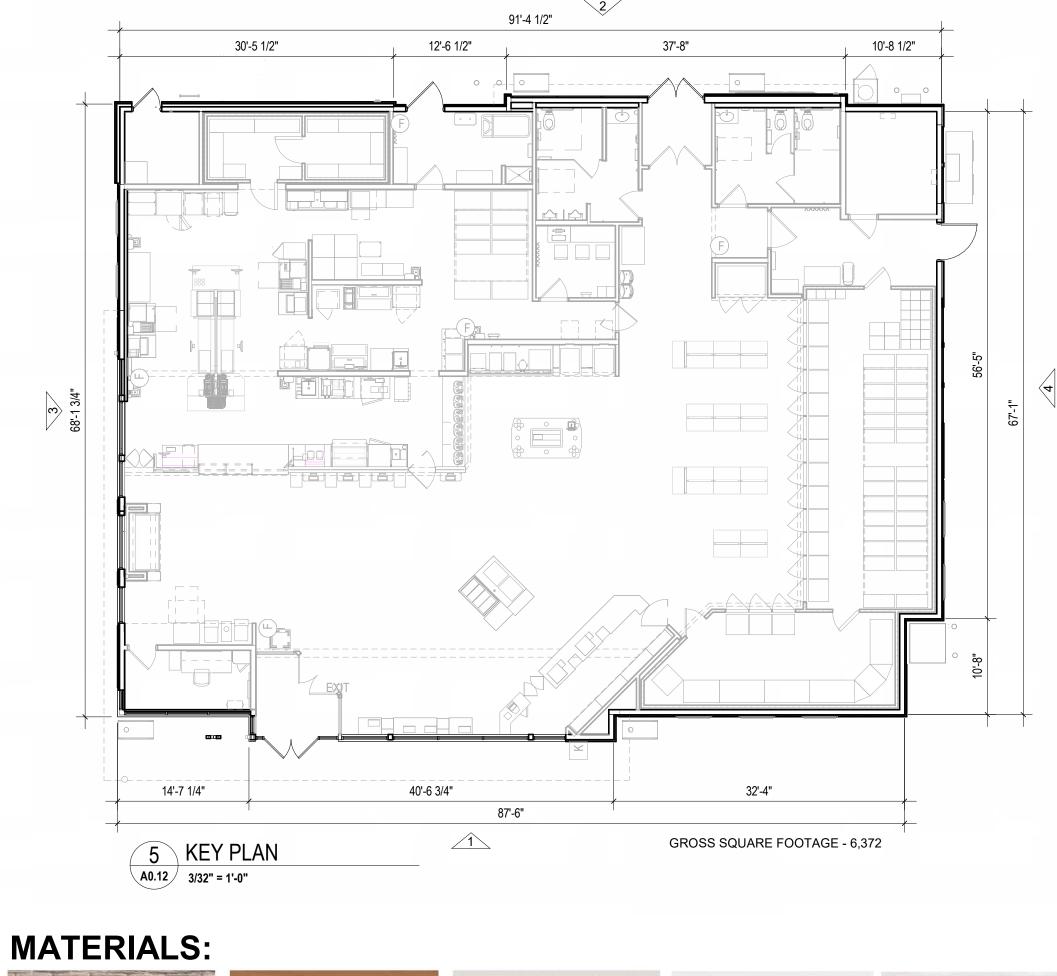




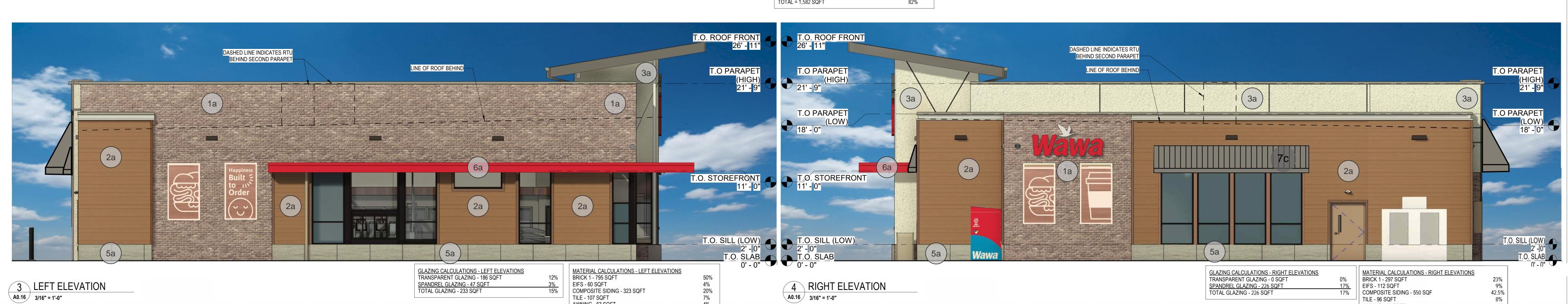
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PROJECT NAME:









A0.16 3/16" = 1'-0"

TILE - 76 SQFT

MATERIAL CALCULATIONS - REAR ELEVATIONS
BRICK 1 - 394 SQFT
EIFS - 557 SQFT
COMPOSITE SIDING - 506 SQFT



T.O. SILL (LOW)

A0.16 3/16" = 1'-0"

2 REAR ELEVATION



T.O. SILL (LOW) 2' - 0" T.O. SLAB 0' - 0"

6062 INDIAN RIVER DRIVE MOYOCK, NY

GLAZING CALCULATIONS- REAR ELEVATION TRANSPARENT GLAZING - 68 SQFT SPANDREL GLAZING - 284 SQFT

TOTAL= 353 SQFT

TILE - 107 SQFT <u>AWNING - 63 SQFT</u> TOTAL = 1,350 SQFT



TILE - 96 SQFT AWNING - 11 SQFT TOTAL = 1,066 SQFT



MATERIALS:



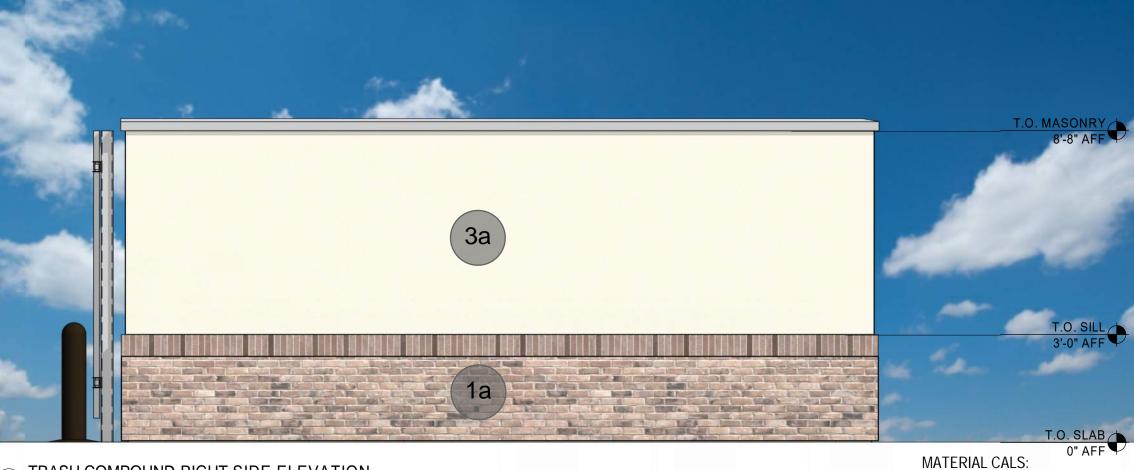
ROOF: SLATE

GREY









7 TRASH COMPOUND RIGHT SIDE ELEVATION 3/8" = 1'-0"

| | 0" AFF | |
|-----------------------|--------|--------|
| <u>MATERIAL CALS:</u> | | |
| EIFS/ STUCCO - 118 | 3SF | 65.2% |
| BRICK (1) - 63 SF | | 34.8% |
| TOTAL - 181 SF | 1 | 100.0% |



6 TRASH COMPOUND LEFT SIDE ELEVATION 3/8" = 1'-0"

| MATERIAL CALS: | |
|----------------------|--------|
| EIFS/ STUCCO - 100SF | 55.4% |
| BRICK (1) - 51 SF | 28.1% |
| MTL DOOR - 30SF | 16.5% |
| TOTAL - 181 SF | 100.0% |



TRASH COMPOUND FRONT ELEVATION 3/8" = 1'-0"

