



**SURVEY NOTES:**

- THE FOLLOWING INFORMATION WAS USED FOR THE EXISTING SURVEY:
  - COORDINATE SYSTEM: NORTH CAROLINA STATE PLANE FOOT
  - PROJECT HORIZONTAL DATUM: NAD 83/2011
  - VERTICAL DATUM: NAVD 88
  - COORDINATE UNITS: US SURVEY FEET
  - VERTICAL UNITS: US SURVEY FEET
- PROPERTY BOUNDARY SHOWN AS PROVIDED BY MSS LAND CONSULTANTS, DATED 03/07/2023.
- TOPOGRAPHIC SURVEY SHOWN AS PROVIDED BY WITHERSRAVENEL, DATED 04/11/2024.
- WETLANDS, STREAMS, AND RIPARIAN BUFFERS SHOWN AS PROVIDED BY WITHERSRAVENEL ENVIRONMENTAL DEPARTMENT, DATED 01/12/2023, AND APPROVED BY USACE ON 09/28/2023 (SAW-2023-01242) AND NCDWR ON 08/28/2023 (INBR0 #23-170V2).
- TREE SURVEY SHOWN AS PROVIDED BY WITHERSRAVENEL, DATED 12/23/2023.
- PROPERTY DOES FALL WITHIN FEMA FLOODPLAIN PER FEMA FIRM 3720174800K, EFFECTIVE DATE 07/19/2022, AND 3720174600K, EFFECTIVE DATE 07/19/2022.
- NO DETERMINATION HAS BEEN MADE BY THE SURVEYOR AS TO THE FOLLOWING: UNDERGROUND STORAGE FACILITIES, UNDERGROUND UTILITIES, GRAVES, CEMETERIES, BURIAL GROUNDS, HAZARDOUS WASTE DEPOSITS OR MATERIALS.
- THE UNDERGROUND UTILITIES SHOWN HEREON WERE MARKED BY WITHERSRAVENEL ON 03/05/2024 AND THOSE MARKS WERE FIELD LOCATED BY WITHERSRAVENEL ON 03/05/2024. THE ACCURACY OF THE FIELD MARKED UNDERGROUND UTILITIES IS ± 24" INCHES, UNLESS OTHERWISE INDICATED. THE DEPTH OF THESE UTILITIES IS UNKNOWN, UNLESS OTHERWISE INDICATED.
- SURVEY CONTROL POINTS PROVIDED IN NC STATE PLANE COORDINATES. ALL PROPOSED COORDINATES ARE GROUND COORDINATES. THE CONTRACTOR'S SURVEYOR IS RESPONSIBLE FOR ANY CONVERSIONS NEEDED FOR THE STAKEOUT OF THE PROPOSED GROUND COORDINATES SHOWN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING ADDITIONAL CONTROLS THAT MAY BE NEEDED THROUGHOUT THE PROJECT.

**GENERAL NOTES:**

- WORK ON THIS PROJECT SHALL CONFORM TO THE LATEST NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, TOWN OF ROLESVILLE STANDARDS AND SPECIFICATIONS, GEOTECHNICAL REPORTS, AND ANY OTHER APPLICABLE DESIGN STANDARDS AT THE TIME OF PLAN APPROVAL. IN THE EVENT OF CONFLICT BETWEEN ANY OF THESE STANDARDS, SPECIFICATIONS OR PLANS, THE MOST STRINGENT SHALL GOVERN, UNLESS OTHERWISE NOTED IN THESE PLANS.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR HAVING VISITED THE SITE AND HAVING FAMILIARIZED THEMSELVES WITH THE EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
- ANY DISCREPANCIES, INCONSISTENCIES OR AMBIGUITIES FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER IN WRITING, WORK DONE BY THE CONTRACTOR AFTER THE DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES WITHOUT WRITTEN CLARIFICATION FROM THE ENGINEER AND APPROVAL BY OWNER SHALL BE DONE AT THE CONTRACTOR'S RISK AND EXPENSE.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL JOBSITE SAFETY DURING ALL PHASES OF CONSTRUCTION. ALL WORK SHALL COMPLY WITH MUNICIPAL, COUNTY AND STATE REGULATIONS, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS. CONTRACTOR SHALL COMPLY WITH THE LATEST REVISIONS AND INTERPRETATIONS OF THE DEPARTMENT OF LABOR SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION PROMULGATED UNDER THE OSHA ACT.
- THE CONTRACTOR SHALL CALL "811" FOR PROPER IDENTIFICATION OF EXISTING UTILITIES AT LEAST 72 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY.
- THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING, AND SUBSEQUENTLY PROTECTING, ALL PUBLIC AND PRIVATE UTILITIES (SHOWN OR NOT SHOWN) THAT LE IN OR ADJACENT TO THE PROJECT SITE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE UNDERGROUND UTILITIES. ALL UTILITIES AND FACILITIES ARE NOT NECESSARILY SHOWN. HAND DIGGING TO PROTECT UTILITIES FROM DAMAGE MAY BE REQUIRED.
- ANY UTILITIES AND EXISTING SITE ELEMENTS (I.E. SIGNS, ROADWAYS, PATHS, STRUCTURES, NATURAL VEGETATION, OTHER EXISTING PROPERTY ITEMS, ETC.) DAMAGED DURING THE PROJECT BY THE CONTRACTOR'S WORKERS OR EQUIPMENT SHALL BE PROMPTLY REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER, UTILITY OWNER, REGULATORY AGENCY, AND ENGINEER.
- CONTRACTOR SHALL MAKE EVERY EFFORT TO PRESERVE PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES. A NORTH CAROLINA LICENSED LAND SURVEYOR SHALL REPLACE, AT THE CONTRACTOR'S EXPENSE, PROPERTY IRONS, MONUMENTS, OTHER PERMANENT POINTS AND LINES OF REFERENCE AND CONSTRUCTION STAKES DESTROYED BY THE CONTRACTOR.
- CONTRACTOR SHALL PLAN AND CONSTRUCT WORK IN ORDER TO CAUSE MINIMUM DISTURBANCE TO THE OWNER, ADJACENT PROPERTIES AND THE PUBLIC. CONTRACTOR SHALL COORDINATE WITH AND OBTAIN APPROVAL FROM STATE AND LOCAL REGULATORY AGENCIES ON TRAFFIC CONTROL PLANS.
- ADJACENT STREETS AND SIDEWALKS SHALL BE MAINTAINED IN AN UNOBSTRUCTED, CLEAN CONDITION, MUD AND DUST-FREE.
- THE CONTRACTOR SHALL HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS ALL PERMIT APPROVALS AND EXECUTED EASEMENTS ON THE JOB SITE AT ALL TIMES.
- CONSTRUCTION STAKEOUT FOR THIS PROJECT MAY BE PERFORMED BY THE CONTRACTOR, USING A DIGITAL (CAD) FILE PROVIDED BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FOUND BETWEEN THE DIGITAL FILE AND THE CRITICAL STAKING DIMENSIONS SHOWN ON THIS PLAN (I.E. PAVEMENT WIDTHS, CURB RADII, BUILDING SETBACKS, BUILDING FOOTPRINTS, ETC.). ANY MODIFICATIONS MADE BY OTHERS TO THE DIGITAL FILE PROVIDED BY THE ENGINEER SHALL RENDER IT VOID.
- WETLANDS SHOWN WILL HAVE DEED RESTRICTION AND SHALL NOT BE CLEARED, DRAINED, OR OTHERWISE DISTURBED UNLESS SPECIFICALLY PERMITTED BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) OR NC DIVISION OF COASTAL MANAGEMENT (DCM) OR NC DIVISION OF WATER RESOURCES (DWR), AS APPLICABLE.
- ANY WETLANDS THAT ARE TEMPORARILY IMPACTED DUE TO CONSTRUCTION ACTIVITIES SHALL BE RETURNED TO PRE-CONSTRUCTION GRADE AND SEEDED WITH A WETLAND SEED MIX IN ACCORDANCE WITH THE SEDIMENT & EROSION CONTROL PLAN.
- CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LANES, PARKING STALLS, ACCESSIBLE PARKING SYMBOLS, AND MISCELLANEOUS STRIPING LOT AND AROUND BUILDINGS AS SHOWN ON THE PLANS. ALL PAVEMENT MARKING MATERIALS SHALL ADHERE TO NCDOT STANDARDS, UNLESS NOTED OTHERWISE.
- ACCESSIBLE ROUTES AND PARKING AREAS MUST BE PROVIDED IN ACCORDANCE WITH THE CURRENT NORTH CAROLINA BUILDING CODE AND ADA STANDARDS FOR ACCESSIBLE DESIGN.
- WHERE PROPOSED CURB AND GUTTER TIES TO EXISTING CURB OR CURB AND GUTTER, A TRANSITION OF 10' SHALL BE MADE TO CONFORM TO THE EXISTING HEIGHTS AND SHAPES, UNLESS OTHERWISE SHOWN ON THE PLANS.
- ALL EXPANSION CURB JOINTS SHALL EXTEND THROUGH THE CURB. MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS IS 15', UNLESS OTHERWISE SHOWN ON PLANS. ALL JOINTS SHALL BE SEALED WITH JOINT SEALANT.
- TESTING OF MATERIAL REQUIRED FOR THE CONSTRUCTION OF THE IMPROVEMENTS SHALL BE PERFORMED BY AN APPROVED AGENCY FOR TESTING MATERIALS. THE NOMINATION OF THE TESTING LAB AND THE PAYMENT OF EACH TESTING SERVICES SHALL BE MADE BY THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SHOW BY STANDARD TESTING PROCEDURES THAT THE WORK CONSTRUCTED MEETS THE REQUIREMENT OF THE NCDOT AND MUNICIPAL SPECIFICATIONS.

**DEMOLITION NOTES:**

- CONTRACTOR SHALL COORDINATE WITH THE OWNER AND UTILITY OWNER TO PROPERLY MAINTAIN, REMOVE OR RELOCATE EXISTING SERVICE CONNECTIONS WHEN NECESSARY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING SURROUNDING NEIGHBORS ABOUT ANY POTENTIAL INTERRUPTION TO SERVICE OF ANY KIND.
- EXISTING UTILITIES NOT INTENDED FOR DEMOLITION SHALL BE MAINTAINED, PROTECTED AND UNDISTURBED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTY, STRUCTURES AND UTILITIES. DAMAGE TO PROPERTIES OF OTHERS DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
- ALL MATERIAL CLEARED OR DEMOLISHED BY THE CONTRACTOR IN ORDER TO CONSTRUCT THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED AND SHALL BE PROPERLY DISPOSED OF OFF-SITE.
- SAW CUTS OF EXISTING PAVEMENTS, CURBS, GUTTERS AND SIDEWALKS SHALL PRODUCE A NEAT VERTICAL EDGE.
- ALL DEMOLITION WORK SHALL BE DONE IN STRICT ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION.
- ALL PERMITS REQUIRED FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PRIOR TO THE START OF DEMOLITION ACTIVITIES.

**STORM DRAINAGE NOTES:**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT TOWN OF ROLESVILLE STANDARDS AND NCDOT STANDARD SPECIFICATIONS AND DETAILS.
- ALL PUBLIC STORM DRAINAGE FRAMES, GRATES, AND HOODS SHALL BE STAMPED WITH "DRAINS TO RIVER" IN ACCORDANCE WITH TOWN OF ROLESVILLE AND NCDOT STANDARDS.
- RIM ELEVATION GIVEN FOR CATCH BASIN (CB) IS TOP OF CURB, YARD INLET (YI) IS OPENING INVERT FOR SLAB TOP, DROP INLET (DI) IS TOP OF GRATE AND JUNCTION BOX (JB) IS TOP OF RIM.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING, BUT NOT LIMITED TO THE HORIZONTAL AND VERTICAL LOCATION OF STRUCTURES AND UTILITIES CROSSING THE STORM SEWER PIPE.

- CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER DRAINAGE SYSTEM.
- ALL STORM SEWER PIPE SHALL BE MINIMUM CLASS III REINFORCED CONCRETE PIPE (RCP), UNLESS OTHERWISE NOTED.
- IF THERE ARE DISCREPANCIES BETWEEN THE PLAN AND FIELD CONDITIONS RELATED TO WHERE THE PROPOSED STORM SEWER PIPING TIES TO EXISTING STRUCTURES, PIPES, SWALES, ETC., THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER. AFTER NOTIFICATION TO THE ENGINEER AND OWNER, THE CONTRACTOR SHALL PERFORM THE AGREED UPON FIELD ADJUSTMENTS TO MATCH THE LOCATIONS OF THESE EXISTING FEATURES.
- ALL STORM SEWER PIPE SHALL HAVE A MINIMUM COVER OF 2 FEET FROM FINISHED SUBGRADE TO THE PIPE CROWN IN TRAFFIC BEARING AREAS, UNLESS APPROVED BY AUTHORITIES HAVING JURISDICTION.
- ALL STORM SEWER PIPE SHALL HAVE A MINIMUM COVER OF 1 FOOT TO THE PIPE CROWN IN NON-TRAFFIC BEARING AREAS.
- THE STORM PIPE LENGTHS AS SHOWN ON THE DRAWINGS REPRESENTS THE DISTANCE FROM CENTER TO CENTER OF THE RESPECTIVE STRUCTURES.
- STORM SEWER UTILITY STRUCTURE TABLES ARE AVAILABLE UPON REQUEST.

**GRADING NOTES:**

- ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE, AND AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. IN ADDITION TO THE MEASURES SHOWN IN THESE PLANS, THE CONTRACTOR SHALL USE INTERIM DIVERSION DITCHES, BERMS, OR OTHER METHODS AS REQUIRED TO DIRECT DRAINAGE AS SHOWN ON THESE PLANS AND TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES, ROADWAYS, AND ENVIRONMENTALLY SENSITIVE AREAS SUCH AS BUFFERS AND WETLANDS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OWNER IN WRITING OF ANY DISCREPANCIES OR CONCERNS.
- ALL SOILS USED FOR BACKFILL SHALL BE FREE OF UNSATISFACTORY MATERIALS INCLUDING ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION AND OTHER DELETERIOUS MATTER. ROCK OR GRAVEL LARGER THAN 2 INCHES IN ANY DIMENSION SHALL NOT BE PLACED IN THE IN THE FINAL LIFT (MINIMUM OF 6 INCHES). UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS AND REFUSE DEBRIS DERIVED FROM ANY SOURCE. REFER TO FINAL GEOTECHNICAL REPORT FOR ANY SPECIAL FILL MATERIAL REQUIRED FOR THIS PROJECT. IF ANY, THE CONTRACTOR SHALL CONSULT WITH THE SITE GEOTECHNICAL ENGINEER PRIOR TO BACKFILL PLACEMENT TO VERIFY BACKFILL MEETS PROJECT REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL SOIL TESTING IS PERFORMED AND THE RESULTS FORWARDED TO THE ENGINEER AND OWNER.
- MATERIALS USED TO CONSTRUCT EMBANKMENTS FOR ANY PURPOSE, BACKFILL AROUND DRAINAGE STRUCTURES, OR IN UTILITY TRENCHES FOR ANY OTHER DEPRESSION REQUIRING FILL OR BACKFILL SHALL MEET THE REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER RECOMMENDATIONS.
- THE CONTRACTOR SHALL, PRIOR TO ANY OPERATIONS INVOLVING FILLING OR BACKFILLING, SUBMIT TO THE OWNER AND PROJECT GEOTECHNICAL ENGINEER THE RESULTS OF THE PROCTOR TEST TOGETHER WITH A CERTIFICATION THAT THE SOIL TESTED IS REPRESENTATIVE OF THE MATERIALS TO BE USED ON THE PROJECT. TESTS SHALL BE CONDUCTED BY A NORTH CAROLINA CERTIFIED MATERIALS TESTING LABORATORY AND CERTIFICATIONS MADE BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA REPRESENTING THE LABORATORY.
- ALL PAVEMENT SUBGRADES SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES AND COMPACTED TO A MINIMUM DENSITY OF 100 PERCENT OF ASTM D1557 DENSITY AT OPTIMUM MOISTURE CONTENT UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- RETAINING SYSTEMS PROVIDING A CUMULATIVE VERTICAL RELIEF GREATER THAN FOUR FEET (4') IN HEIGHT WITHIN A HORIZONTAL SEPARATION DISTANCE OF 50 FEET OR LESS, INCLUDING RETAINING WALLS OR MECHANICALLY STABILIZED EARTH WALLS, SHALL BE DESIGNED UNDER THE RESPONSIBLE CHARGE OF A REGISTERED DESIGN PROFESSIONAL. RETAINING WALL SYSTEMS SHALL MEET THE REQUIREMENTS OF THE NC BUILDING CODE AND LOCAL JURISDICTION.
- CONTOURS AND GUTTER GRADIENTS ARE APPROXIMATE. SPOT ELEVATIONS ARE TO BE USED IN CASE OF DISCREPANCY.
- CONTRACTOR SHALL OBTAIN ALL PERMITS AS REQUIRED FOR BLASTING ROCK IF BLASTING ROCK IS REQUIRED. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION RELATED TO BLASTING AND SAFETY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS. DEWATERING SHALL BE INCIDENTAL TO GRADING OPERATIONS.
- MASS GRADING OPERATIONS SHALL BE PHASED TO LIMIT EXPOSED AREAS. PRIOR TO PROCEEDING TO ANOTHER PHASE, THE PRESENT PHASE SHALL BE STABILIZED WITH ADEQUATE GROUND COVER SUFFICIENT TO RESTRAIN EROSION AND HAVE ALL INFRASTRUCTURE INSTALLED. SEE GROUND COVER REQUIREMENTS WITHIN THESE PLANS OR CONSULT THE MUNICIPAL EROSION CONTROL SPECIALIST.
- THE FRAMES AND COVERS OF ALL EXISTING AND PROPOSED DRAINAGE, SANITARY SEWER, WATER MAIN, GAS AND ELECTRIC UTILITY STRUCTURES SHALL BE ADJUSTED TO MATCH PROPOSED FINISHED ELEVATIONS AND SLOPES UNLESS OTHERWISE SHOWN ON THE PLANS.
- BEFORE ANY EARTHWORK COMMENCES, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF CONSTRUCTION AND OTHER ITEMS ESTABLISHED IN THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
- ZONE 1 NEUSE RIPARIAN BUFFER SHALL NOT BE DISTURBED DURING CONSTRUCTION, UNLESS OTHERWISE NOTED. ZONE 1 NEUSE RIPARIAN BUFFER SHALL EXTEND 30' FROM TOP OF BANK AS SHOWN ON THE PLANS. ZONE 2 NEUSE RIPARIAN BUFFER SHALL BE CLEARED AND GRUBBED IN THE AREAS SHOWN ON THE PLANS. ZONE 2 NEUSE RIPARIAN BUFFER SHALL EXTEND 20' INLAND FROM THE ZONE 1 NEUSE RIPARIAN PERIMETER (50' FROM TOP OF BANK). CONSTRUCTION ACTIVITY SHALL BE KEPT AT A MINIMUM IN THIS AREA. ALL TREES WITHIN ZONE 2 NEUSE RIPARIAN BUFFER SHALL BE FELLE AWAY FROM ZONE 1 NEUSE RIPARIAN BUFFER.
- THE PLACEMENT OF ANY FILL MATERIAL MUST BE CONDUCTED UNDER THE OBSERVATION OF A QUALIFIED LICENSED GEOTECHNICAL ENGINEER AND UPON COMPLETION OF THE EARTHWORK ACTIVITIES THE OWNER AND JURISDICTION MUST BE PROVIDED WITH A FINAL GRADING REPORT THAT INCLUDES THE CORRESPONDING COMPACTION TEST RESULTS AND CERTIFIES THE TYPE OF FILL MATERIAL AND ITS PROPER PLACEMENT.
- REFERENCE STRUCTURAL DRAWINGS, SPECIFICATIONS, GEOTECHNICAL REPORT, AND/OR DIRECTIVES PROVIDED BY THE PROJECT GEOTECHNICAL ENGINEER FOR BUILDING PAD AND PAVING SUBGRADE INFORMATION.
- ALL PROPOSED SLOPES SHALL BE GRADED TO 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

**GENERAL LANDSCAPE NOTES:**

- THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS NOT TO DAMAGE EXISTING PLANTS, FACILITIES AND STRUCTURES THAT ARE TO REMAIN. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER.
- UTILITIES SHOWN ON THE LANDSCAPE DRAWINGS ARE FOR REFERENCE ONLY. SEE UTILITY DRAWINGS FOR EXISTING AND PROPOSED UTILITY LOCATIONS. SEE UTILITY NOTES FOR ADDITIONAL INFORMATION.
- NO CHANGES TO ANY ASPECT OF APPROVED PLAN, INCLUDING BUT NOT LIMITED TO LANDSCAPING, GRADING, BUILDING ELEVATIONS, LIGHTING, OR UTILITIES SHALL BE MADE WITHOUT THE APPROVAL OF THE GOVERNING MUNICIPALITY, ENGINEER, LANDSCAPE ARCHITECT AND OWNER.
- ALL PLANTS PROVIDED BY THE CONTRACTOR SHALL MEET OR SURPASS THE SPECIFICATIONS GIVEN IN THE PLANT TABLE AND CONFORM TO THE AMERICAN STANDARD OF NURSERY STOCK, ANSI Z601-1973 IN REGARD TO SIZING, GROWING AND BALLED AND BURLAPPED (B&B) SPECIFICATIONS. PLANTS SHALL BE FULL AND HEAVY, AND IN HEALTHY CONDITION AT THE TIME OF PLANTING. LANDSCAPE ARCHITECT SHALL REJECT ANY PLANT NOT MEETING THESE GUIDELINES AND REQUIRE REPLACEMENT.
- ALL PLANTS ARE TO BE FULLY WARRANTED (INCLUDING LABOR AND MATERIALS) FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM FINAL ACCEPTANCE.
- PLANTING SHALL BE INSTALLED DURING THE IDEAL SEASON BASED ON THE TYPE OF PLANT.
- ALL PLANTS THAT ARE UNABLE TO BE IMMEDIATELY PLANTED SHALL BE STORED IN A PROTECTED AREA OUT OF DIRECT SUN AND WIND. PLANTS SHALL BE EVENLY AND CONSISTENTLY WATERED, AS NEEDED, TO PREVENT DRYING OF ROOTS. ROOT BALLS OF B&B STOCK SHALL BE COVERED WITH AT LEAST 4 INCHES OF HARDWOOD MULCH TO MAINTAIN MOISTURE IN ROOTS.
- THE CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES SHOWN ON PLANS AND CLARIFY ANY DISCREPANCIES WITH LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS. CONTRACTOR SHALL TAG ALL TREES (AS DESIGNATED IN THE MASTER PLANT LIST) AT THE NURSERY FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS.
- LANDSCAPE ARCHITECT SHALL BE NOTIFIED IN WRITING OF ANY PROPOSED PLANT SUBSTITUTIONS BY THE CONTRACTOR. NO SUBSTITUTIONS SHALL BE MADE UNDER ANY CIRCUMSTANCES WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- ALL PLANTS AND PLANTING BEDS ARE TO BE LOCATED BY SCALED DIMENSIONS FROM BUILDINGS, CURBS, PAVEMENTS, ETC. SPECIFIC ATTENTION SHALL BE GIVEN TO ENSURE THAT PLANTS INDIVIDUALLY SHOWN ON THE PLAN ARE ACCURATELY LOCATED. LOCATION OF ALL PLANTS SHALL BE REVIEWED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE FOR REVIEW.
- NO PLANTINGS SHALL BE REQUIRED WHEN A PRESERVED WETLAND OR REQUIRED RIPARIAN BUFFER EXISTS WITHIN A REQUIRED BUFFER YARD.
- EXISTING SIGNIFICANT VEGETATION THAT IS PRESERVED WITHIN ANY REQUIRED BUFFER YARD SHALL BE CREDITED TOWARD STANDARDS FOR THE TYPE OF BUFFER REQUIRED AT THE TIME OF MUNICIPAL APPROVALS. IF EXISTING VEGETATION DOES NOT FULLY MEET THE STANDARDS FOR THE TYPE OF BUFFER REQUIRED, SUPPLEMENTAL VEGETATION AND/OR SITE FEATURES (INCLUDING FENCES) SHALL BE PLANTED OR INSTALLED WITHIN THE REQUIRED BUFFER AREA TO MEET MINIMUM STANDARDS.
- A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL NEW PLANTING BEDS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ALLOWED TO DISSIPATE PRIOR TO INSTALLATION OF ANY PLANT MATERIAL.
- ALL LANDSCAPE AREAS ARE TO BE GRADED FOR POSITIVE DRAINAGE AND TO ENSURE NO STANDING WATER. SEE GRADING PLAN FOR SPECIFIC GRADING INFORMATION. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AND/OR ENGINEER OF ANY GRADING DISCREPANCIES OR CONCERNS.

- ESTABLISH AND MAINTAIN TOP OF GRADE BELOW ADJACENT CURBS, WALKWAYS AND OTHER HARDSCAPE AREAS TO ALLOW FOR INSTALLATION OF MULCH.
- ALL PLANTING BEDS ARE TO BE COVERED WITH MULCH TO A MINIMUM DEPTH OF 2-3 INCHES, UNLESS INDICATED OTHERWISE. MULCH SHALL BE AS SELECTED BY THE LANDSCAPE ARCHITECT. CONTRACTOR SHALL SUBMIT A SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND DELIVERY TO PROJECT SITE.
- FINISH OFF 2-4 FOOT CLEAR ZONE AROUND TREES WITH A 2-3-INCH LAYER OF MULCH, BUT DO NOT PLACE UP AGAINST OR MOUND AROUND THE ROOT FLARE.
- MIXED GROUND COVER AND PLANTS SPECIFIED FOR MASS PLANTINGS SHALL BE PLANTED IN ODD GROUPINGS AND LOCATED AS REQUIRED TO PROVIDE A GENERAL MIXING OF SPECIES. DO NOT PLANT IN ROWS OR REPETITIVE PATTERNS UNLESS OTHERWISE DIRECTED.
- ALL TREES ADJACENT TO PEDESTRIAN WALKWAYS AND IN SIGHT TRIANGLES SHALL BE UNDER-TRIMMED SUFFICIENTLY TO ALLOW CLEAR SIGHT AND PEDESTRIAN ACCESS UP TO 6 FEET ABOVE SIDEWALK ELEVATION. ALL PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST AND ADHERE TO THE ANSI A800 PRUNING STANDARD. PRUNING CUTS ARE TO BE DELIBERATE AND TARGETED ONLY TO THE NECESSARY BRANCHES IN ORDER TO SATISFY SHED AND CLEARANCE REQUIREMENTS WHILE MAINTAINING THE INTEGRITY OF THE TREES.
- THE SITE SHALL BE STABILIZED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).
- CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING (INCLUDING, BUT NOT LIMITED TO WATERING, MULCHING, SPRAYING, FERTILIZING, ETC.) OF THE PLANTING AREAS UNTIL FINAL ACCEPTANCE.
- ANY PLANT WHICH DIES, TURNS BROWN OR DEFOLIATES PRIOR TO FINAL ACCEPTANCE OF THE WORK SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, IN ACCORDANCE WITH THE APPROPRIATE PLANTING SEASON, QUANTITY AND SIZE TO MEET PLAN SPECIFICATIONS.

**TREE PROTECTION NOTES:**

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

**UTILITIES NOTES:**

- GENERALLY, FILL MATERIAL SHALL BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- ALL NECESSARY INSPECTIONS, CERTIFICATIONS, AND TESTING REQUIRED BY CODES AND UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO MUNICIPAL APPROVAL FOR THE FINAL CONNECTION OF SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF TESTING SERVICES AND COORDINATION WITH UTILITY OWNER.
- CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE IMPROVEMENTS SHOWN.
- THE CONTRACTOR SHALL REPORT, IN WRITING ANY UTILITY CONFLICTS TO THE ENGINEER IMMEDIATELY UPON DISCOVERING CONFLICTS.
- THE SANITARY SEWER PIPE LENGTHS AS SHOWN ON THE DRAWINGS REPRESENTS THE DISTANCE FROM CENTER TO CENTER OF THE RESPECTIVE STRUCTURES.
- PRIOR TO UTILITY RELOCATION, REMOVAL OR ABANDONMENT, THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY PROVIDERS, LOCAL MUNICIPALITY, AND NCDOT.
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM COVER OF 5 FEET MEASURED FROM FINISHED GRADE IN TRAFFIC AREAS TO THE PIPE CROWN UNLESS DUCTILE IRON PIPE IS PROVIDED IN CLASS I BEDDING WHERE MINIMUM COVER SHALL BE THREE FEET.
- THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR INSTALLATION OF ALL PROPOSED POWER AND COMMUNICATION LINES AND ASSOCIATED APPURTENANCES.

**WELL ABANDONMENT NOTES:**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND PAYING APPLICABLE FEES FOR THE ABANDONMENT OF WELLS.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCEQ) WELL STANDARDS (15A NCEQ 02C 0113). AN ABANDONMENT PERMIT SHALL BE OBTAINED BY A CERTIFIED NC WELL CONTRACTOR FROM THE COUNTY ENVIRONMENTAL HEALTH DIVISION PRIOR TO COMMENCING ABANDONMENT WORK. USE FORM GW-20 PROVIDED BY NCEQ.

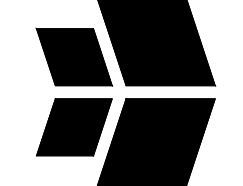
**SEPTIC SYSTEM ABANDONMENT NOTES:**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND PAYING APPLICABLE FEES FOR THE ABANDONMENT OF SEPTIC TANKS AND SEPTAGE. ALL WORK SHALL BE DONE IN ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION.
  - THE CONTRACTOR SHALL PROVIDE TEMPORARY CONTAINMENT AND PROPER DISPOSAL OF THE WASTEWATER COMING FROM THE RESIDENCE PRIOR TO DISCONNECTING THE SEPTIC SYSTEM TO BE ABANDONED.
  - FOR SEPTIC SYSTEMS CONTAINING A SEPTIC PUMP, THE CONTRACTOR SHALL DISCONNECT THE SEPTIC PUMP PRIOR TO ABANDONING THE SEPTIC SYSTEM. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT NC ELECTRICAL CODE BY A LICENSED ELECTRICAL CONTRACTOR IN THE STATE OF NORTH CAROLINA.
  - ALL DEBRIS AND MATERIALS FROM THE ABANDONED SEPTIC SYSTEM ARE TO BE DISPOSED OF PROPERLY IN AN APPROVED OFF-SITE FACILITY AND THE CONSTRUCTION AREA RESTORED TO PRE-CONSTRUCTION CONDITIONS OR BETTER.
  - NO SEPTAGE SHALL BE DISCHARGED TO THE EXISTING SEWER SYSTEM.
- RETAINING WALL NOTES:**
- THE CONTRACTOR SHALL ADHERE TO THE HORIZONTAL AND VERTICAL LOCATION OF THE WALLS SHOWN ON THE PLANS. THE STRUCTURAL WALL DESIGN SHALL BE COMPLETED BY OTHERS, UNLESS OTHERWISE NOTED.
  - TFW REFERS TO TOP FACE OF WALL ELEVATION. BWV REFERS TO THE BOTTOM FACE OF WALL ELEVATION AT FINISHED GRADE, NOT FOOTING GRADE.
  - IF STAKED BY WITHERSRAVENEL INC., BOTTOM OF WALL GRADE AT FINISHED GRADE WILL BE STAKED. ANY DIFFERENCES BETWEEN FOUNDATION OF WALL AS COMPARED TO FINISHED GRADE BOTTOM IS TO BE STATED SO ON RETAINING WALL PLANS BY OTHERS.
  - IF WALL CONTRACTOR REQUIRES ADDITIONAL STAKING BEYOND WALL AT FINISHED GRADE, THE ENGINEER MAY PROVIDE A CAD FILE NOTING LOCATION OF THE ITEMS TO BE STAKED. LOCATIONS WHERE WALL BREAKS OR CHANGES IN WALL ANGLES ARE TO BE NOTED ON THE CAD FILE.
  - WALL BATTER ASSUMPTIONS
    - 1/2" PER 8' VERTICAL RISE
    - THE WALL CONTRACTOR OR ENGINEER OF RECORD FOR THE PROPOSED WALL SHALL NOTIFY WITHERSRAVENEL, INC. IF THE RETAINING WALL BATTER MUST DEVIATE FROM THE ABOVE WALL ASSUMPTIONS AT THE TIME OF DESIGN FOR VERIFICATION TO MEET SITE DESIGN CRITERIA.
  - PRIOR TO WALL STAKING, A MEETING SHALL BE HELD BY THE SURVEYOR AND WALL CONTRACTOR TO DETERMINE STAKING CRITERIA.
  - CONTRACTOR TO INSTALL TEMPORARY FENCING/BARRICADES DURING CONSTRUCTION UNTIL PERMANENT FENCING IS INSTALLED.
  - CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES TO PERMANENT FENCING DURING CONSTRUCTION. REPAIR OF DAMAGES SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER AND SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER AND OWNER.

**CITY OF RALEIGH STANDARD UTILITY NOTES:**

- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
- UTILITY SEPARATION REQUIREMENTS:
  - A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PUBLIC WELL.
  - WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
  - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
  - 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES. UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER
  - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & 5-49).
  - ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
- DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO OWNER FOR ANY WORK REQUIRED WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT TRAVERSING PRIVATE PROPERTY.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24-HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
- SEWER BYPASS PUMPING - A BYPASS PLAN SEALED BY AN NC PROFESSIONAL ENGINEER SHALL BE PROVIDED TO RALEIGH WATER PRIOR TO PUMPING OPERATIONS FOR APPROVAL. THE OPERATIONS AND EQUIPMENT SHALL COMPLY WITH THE PUBLIC UTILITIES HANDBOOK.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE MAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
- INSTALL 1/2" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE
- INSTALL 4" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
- NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE RW FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A UC AND/OR BUILDING PERMIT. CONTACT (919) 996-4516 OR [FOG@RALEIGHNC.GOV](mailto:FOG@RALEIGHNC.GOV) FOR MORE INFORMATION.
- CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON THE DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA.
- THE DEVICES SHALL MEET THE AMERICAN SOCIETY OF SANITARY ENGINEERING (ASAE) STANDARDS AND BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST.
- THE DEVICE AND INSTALLATION SHALL MEET THE GUIDELINES OF APPENDIX A - GUIDELINES AND REQUIREMENTS FOR THE CROSS CONNECTION PROGRAM IN RALEIGH'S SERVICE AREA.
- THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT [CROSS.CONNECTION@RALEIGHNC.GOV](mailto:CROSS.CONNECTION@RALEIGHNC.GOV) FOR MORE INFORMATION.
- NOTICE FOR PROJECTS THAT INVOLVE AN OVERSIZED MAIN OR URBAN MAIN REPLACEMENT, ANY CITY REIMBURSEMENT GREATER THAN \$250,000.00 MUST UNDERGO THE PUBLIC BIDDING PROCESS.

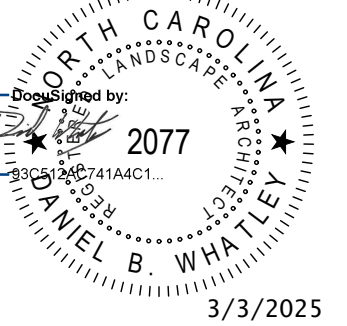
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 License #: F-1479 | t: 919-469-2340 | www.withersravenel.com



**PULTEGROUP**  
 1225 CRESCENT GREEN DRIVE, SUITE 200  
 CARY, NC 27518



CONSTRUCTION DRAWINGS  
**BROADMOOR CLUBHOUSE AMENITY**  
 ROLESVILLE ROAD | ROLESVILLE, NC 27587 | WAKE COUNTY



3/3/2025

INITIAL PLAN DATE: 03/05/2025  
REVISIONS:

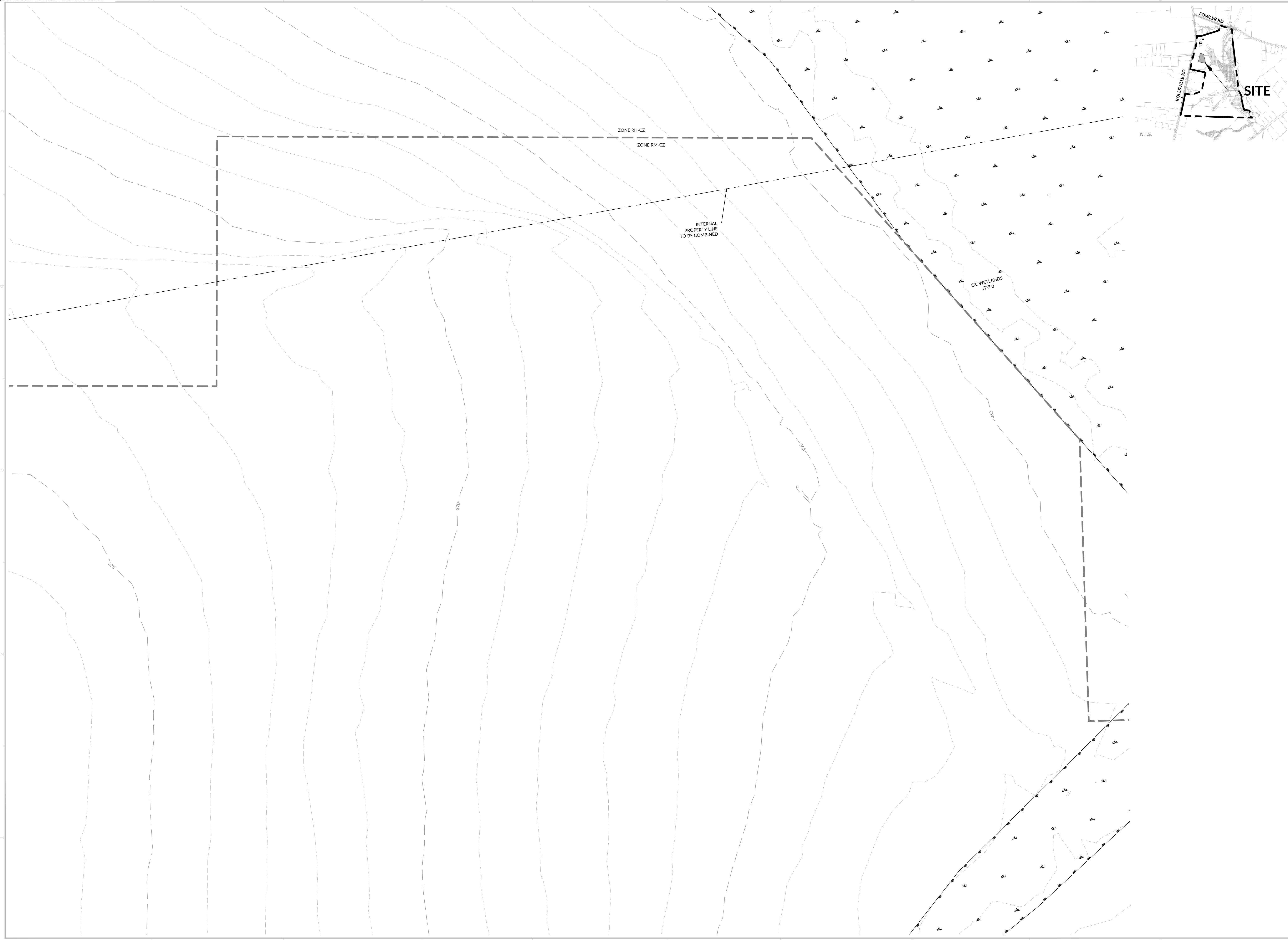
WR JOB NUMBER 23-0045  
DRN: WR DGN: WR CKD: WR

**GENERAL NOTES**

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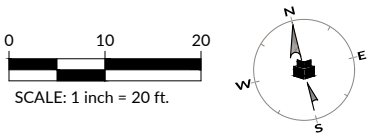
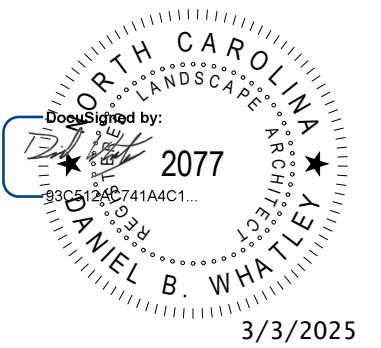




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CONSTRUCTION DRAWINGS  
**BROADMOOR CLUBHOUSE AMENITY**  
 ROLESVILLE ROAD | ROLESVILLE, NC 27587 | WAKE COUNTY



INITIAL PLAN DATE: 03/05/2025

REVISIONS:

WR JOB NUMBER	23-0045
DRN: WR	DGN: WR
	CKD: WR

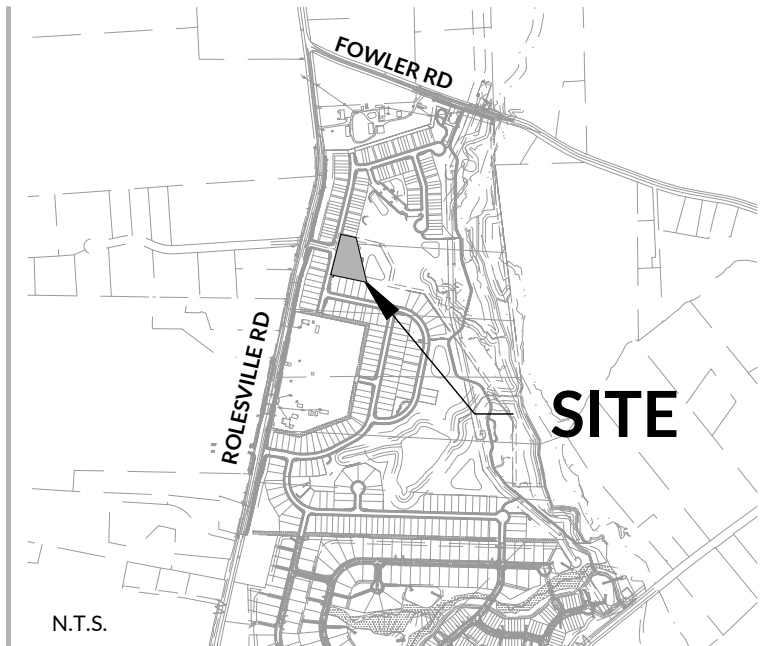
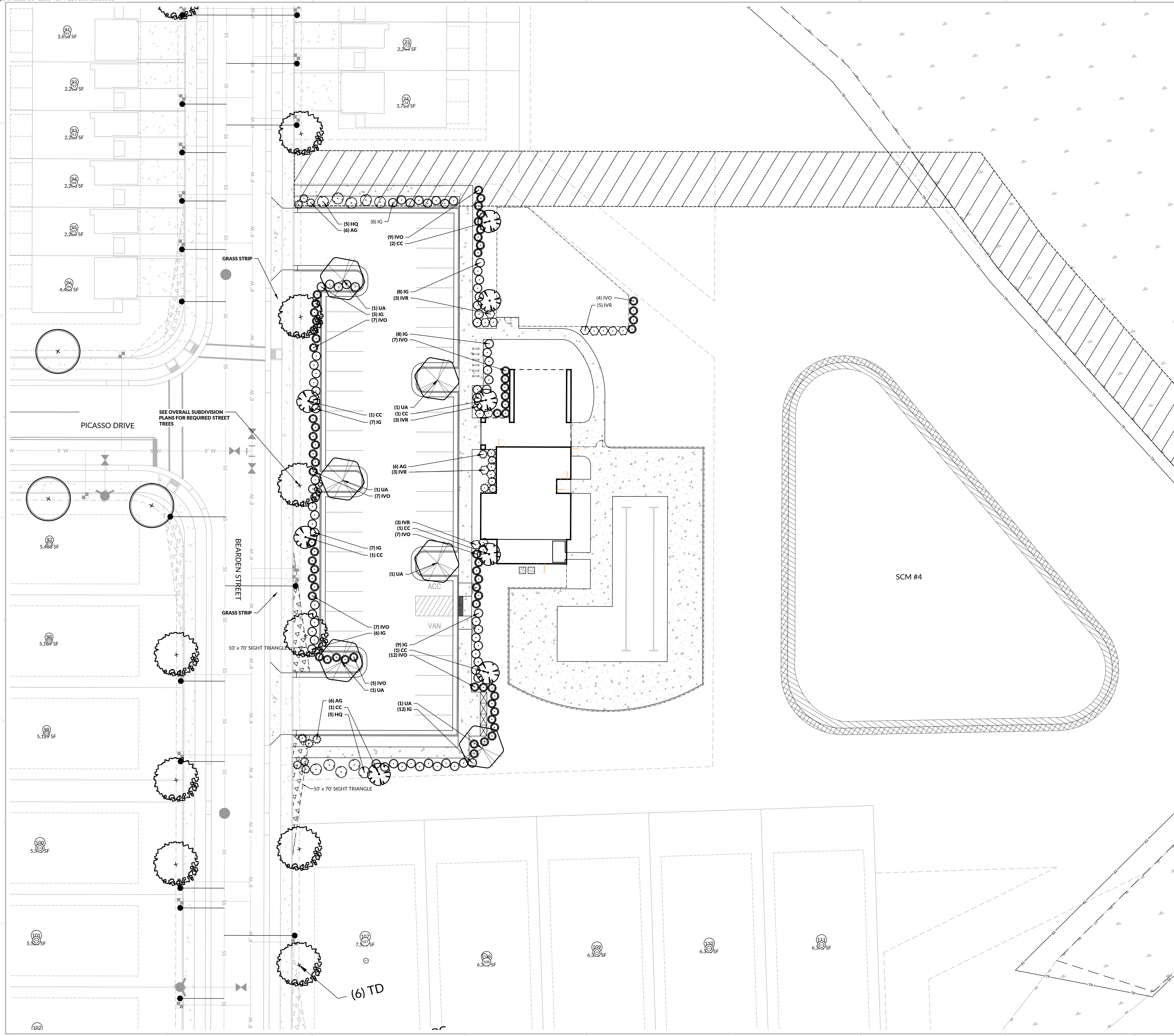
EXISTING CONDITIONS

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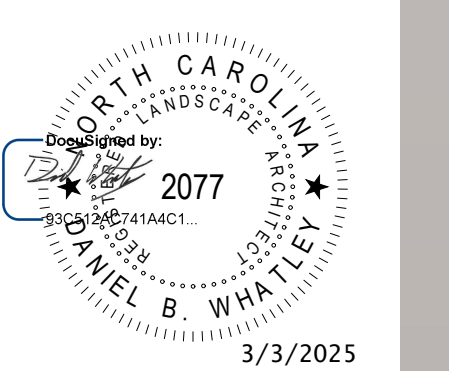






**PLANT LEGEND**

SYMBOL	CODE	BOTANICAL NAME
<b>TREES</b>		
	AR	Acer rubrum
	CC	Cercis canadensis
	CV	Chionanthus virginicus
	NS	Nyssa sylvatica
	PC	Pistacia chinensis
	PO	Platanus occidentalis
	QP	Quercus phellos
	TD	Taxodium distichum
	UA	Ulmus americana
<b>SHRUBS</b>		
	AG	Abelia x grandiflora
	HQ	Hydrangea quercifolia
	IC	Ilex cornuta 'Needlepoint'
	IG	Ilex glabra 'Shamrock'
	IVO	Ilex vomitoria
	IVR	Itea virginica
<b>GROUND COVERS</b>		
	POLL	Pollinator Mix



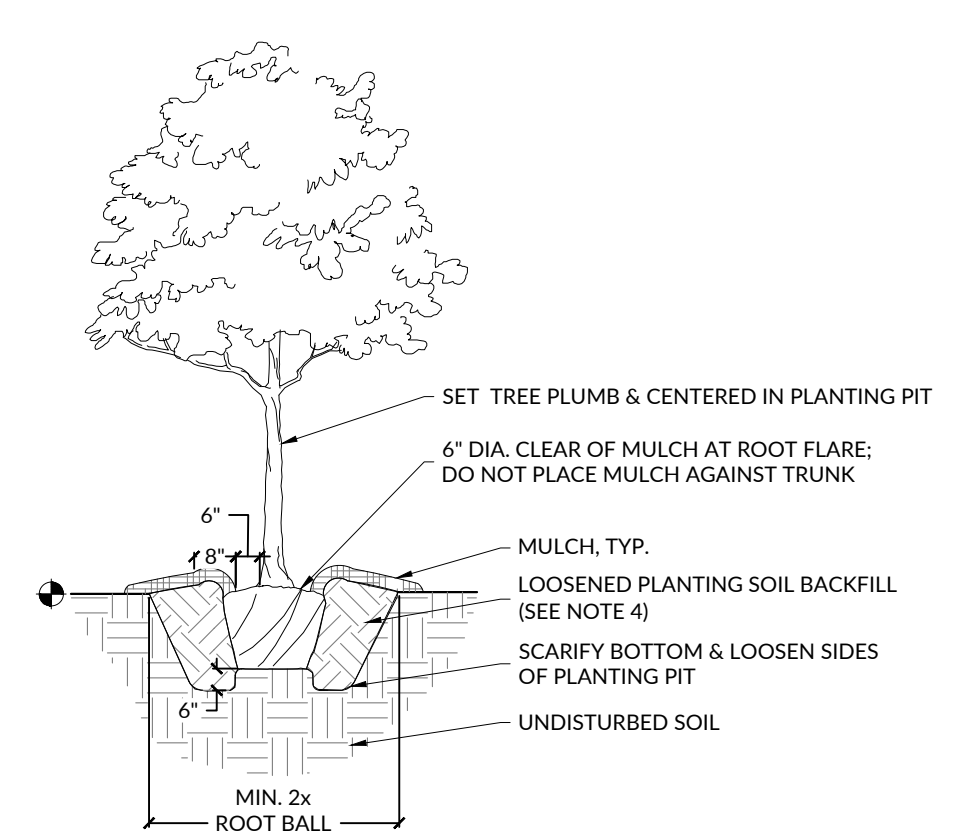
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 INITIAL PLAN DATE: 03/05/2025  
 REVISIONS:

WR JOB NUMBER	23-0045
DRN: WR	DGN: WR
	CKD: WR

**AMENITY LANDSCAPE PLAN**

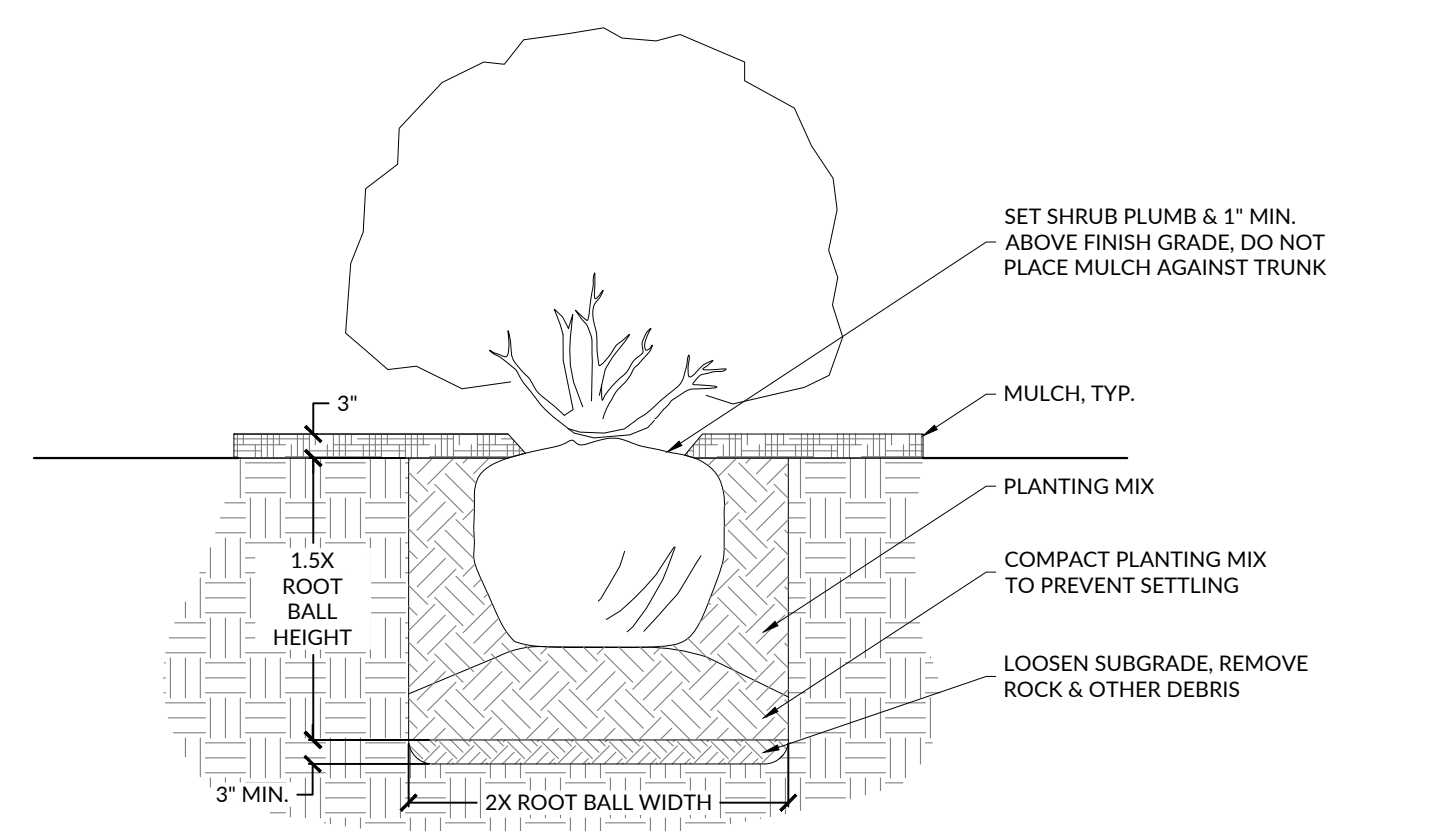
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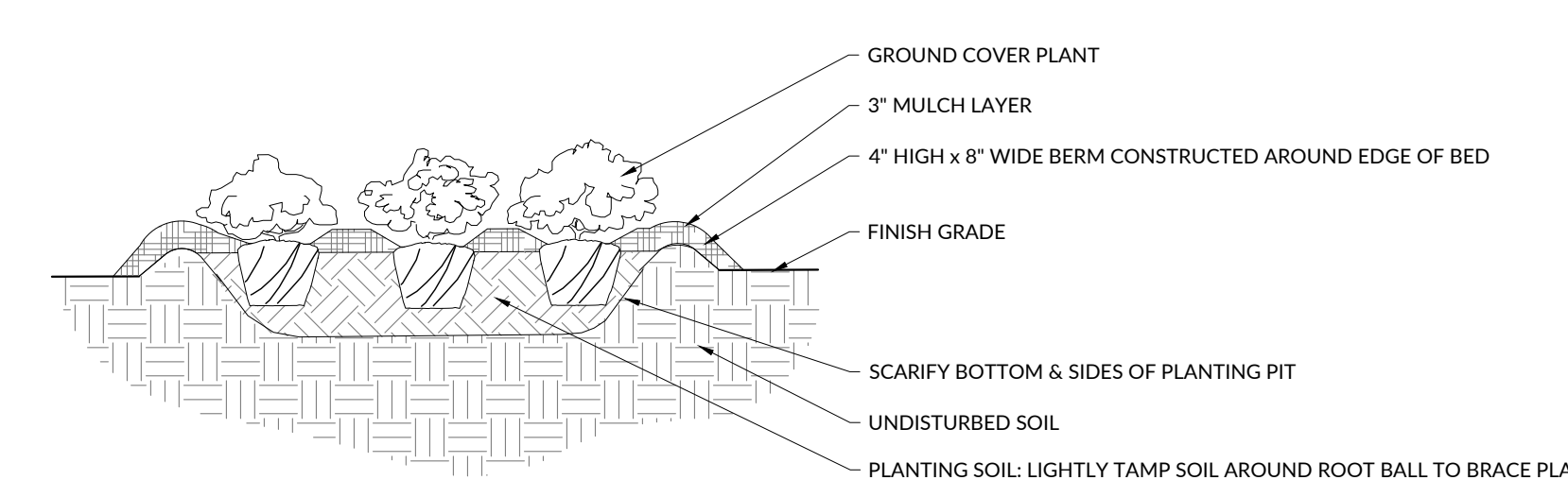
- NOTES:
1. FOR CONTAINER PLANTS, REMOVE CONTAINER & SCARIFY ROOT MASS PRIOR TO PLANTING.
2. FOR B&B PLANTS, COMPLETELY REMOVE WIRE BASKET AND BURLAP MATERIAL...

1 TREE PLANTING SECTION
SCALE: 1/4" = 1'-0"



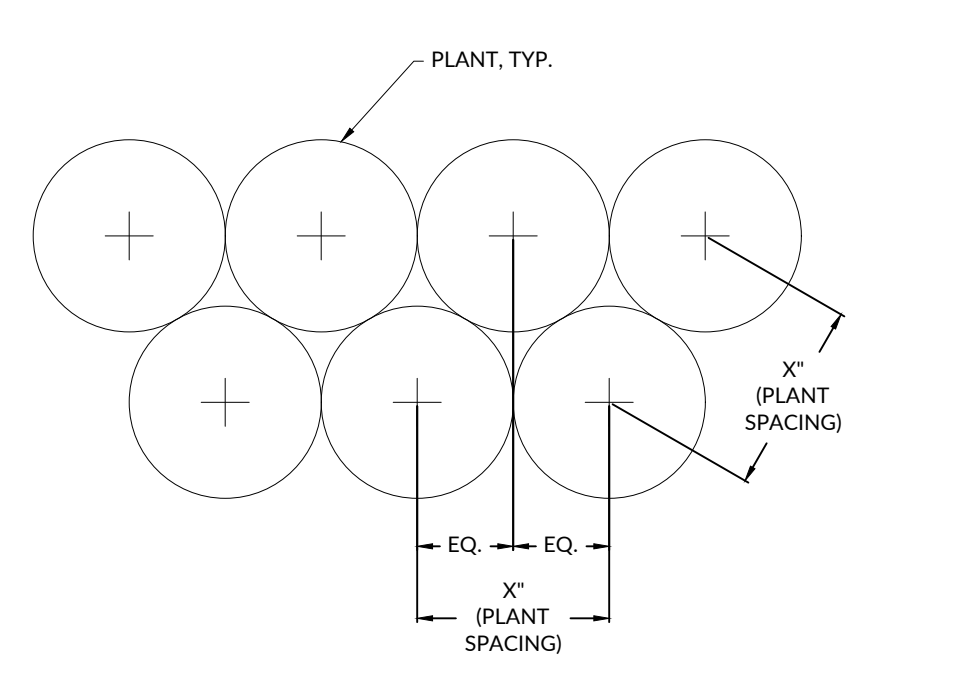
- NOTES:
1. FOR CONTAINER PLANTS, SPLIT THE ROOT BALL WITH 4 EQUALLY SPACED VERTICAL CUTS & SCARIFY ROOT MASS PRIOR TO PLANTING.
2. FOR B&B PLANTS, REMOVE ALL TWINE, ROPE, WIRE AND BURLAP FROM ROOT BALL...

2 SHRUB PLANTING SECTION
SCALE: 1/2" = 1'-0"



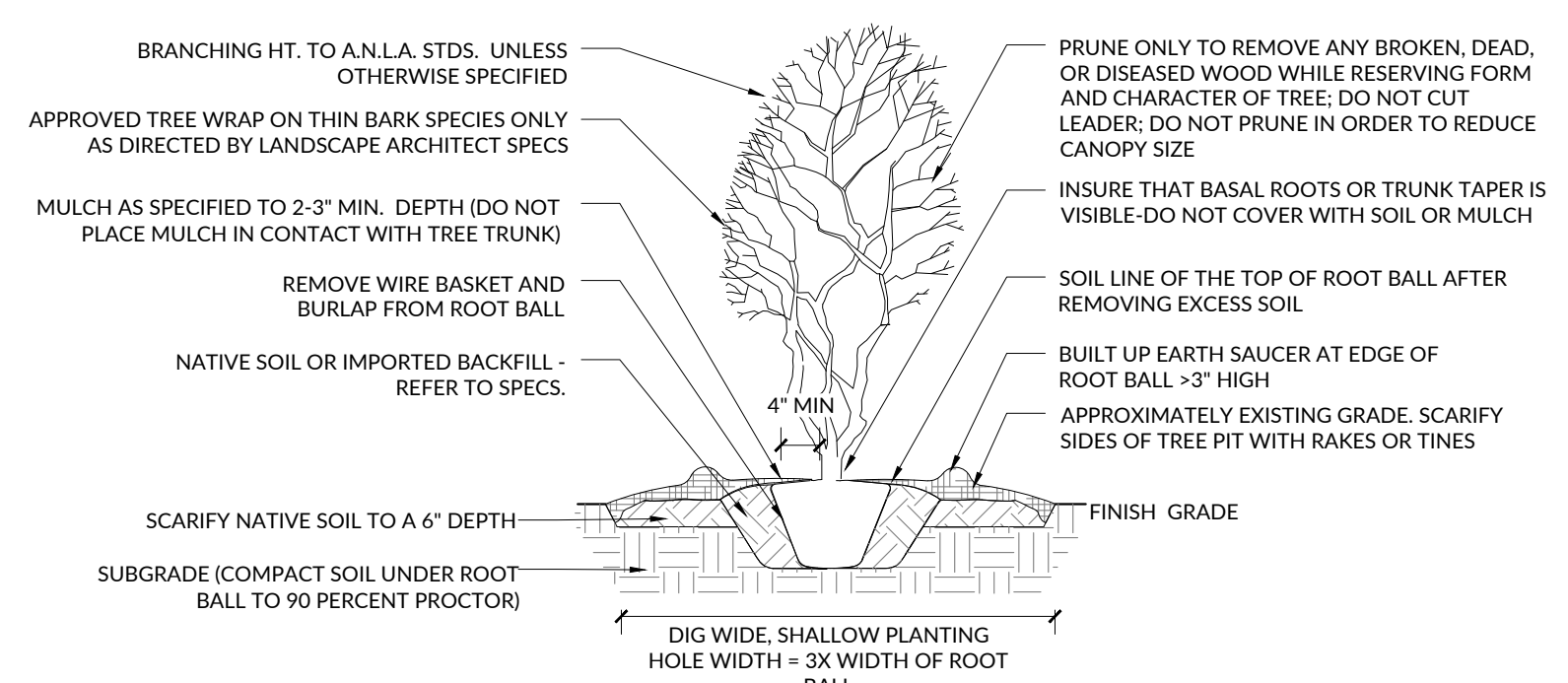
- PLANTING NOTES:
1. SPLIT PLANT ROOTS WITH 2-3 EQUALLY-SPACED VERTICAL CUTS.

3 GROUND COVER PLANTING SECTION
SCALE: 3/8" = 1'-0"



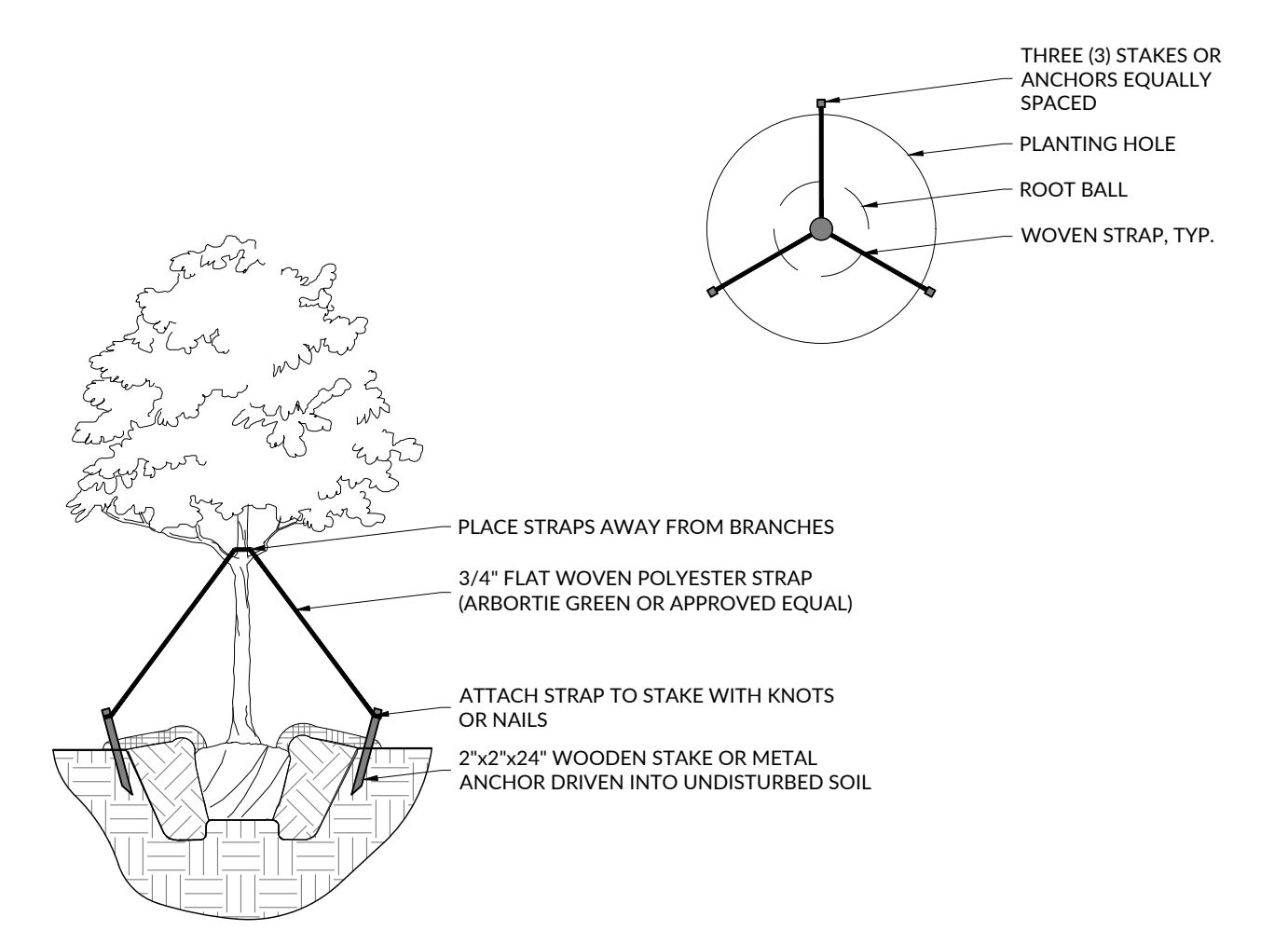
- NOTES:
1. REFER TO PLANT SCHEDULE FOR SPACING REQUIREMENTS FOR EACH SPECIES.
2. PLANTS SHALL BE INSTALLED IN STRAIGHT AND PARALLEL ROWS FOLLOWING THIS PATTERN UNLESS OTHERWISE SHOWN ON DRAWINGS.

4 TYPICAL PLANT SPACING SECTION
SCALE: 1/2" = 1'-0"



- TREE PLANTING NOTES:
1. IF TREES SETTLE OR ARE BLOWN OUT OF PLUMB POSITION, THEY SHOULD BE STRAIGHTENED BY MAKING ADJUSTMENTS TO THE POSITION OF THE ROOTBALL...
2. BALL DEPTHS ON SOME TREES IN A SINGLE GROUP MAY VARY...

5 MULTI-STEM TREE PLANTING SECTION
SCALE: 1/4" = 1'-0"

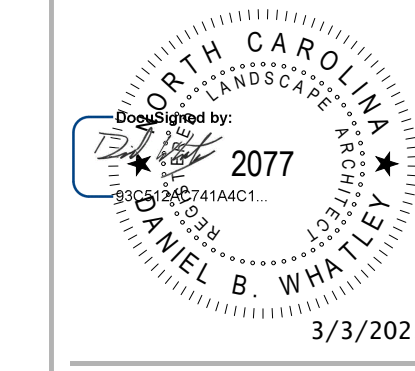


6 TREE STAKING SECTION
SCALE: 1/4" = 1'-0"

Table with 6 columns: SYMBOL, CODE, BOTANICAL / COMMON NAME, SIZE, CONTAINER, QTY. Lists trees and shrubs with their respective codes and quantities.

- GENERAL LANDSCAPE NOTES:
1. THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS NOT TO DAMAGE EXISTING PLANTS, FACILITIES AND STRUCTURES THAT ARE TO REMAIN...
2. ALL CONSTRUCTION IS TO BE IN ACCORDANCE WITH MUNICIPAL STANDARDS AND SPECIFICATIONS...

- INSTALLATION OF ANY PLANT MATERIAL.
11. ALL LANDSCAPE AREAS ARE TO BE GRADED FOR POSITIVE DRAINAGE AND TO ENSURE NO STANDING WATER...
12. ESTABLISH AND MAINTAIN TOP OF GRADE BELOW ADJACENT CURBS, WALKWAYS AND OTHER HARDSCAPE AREAS...



INITIAL PLAN DATE: 03/05/2025

- REVISIONS:
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WR JOB NUMBER 23-0045
DRN: WR DGN: WR CKD: WR

LANDSCAPE DETAILS

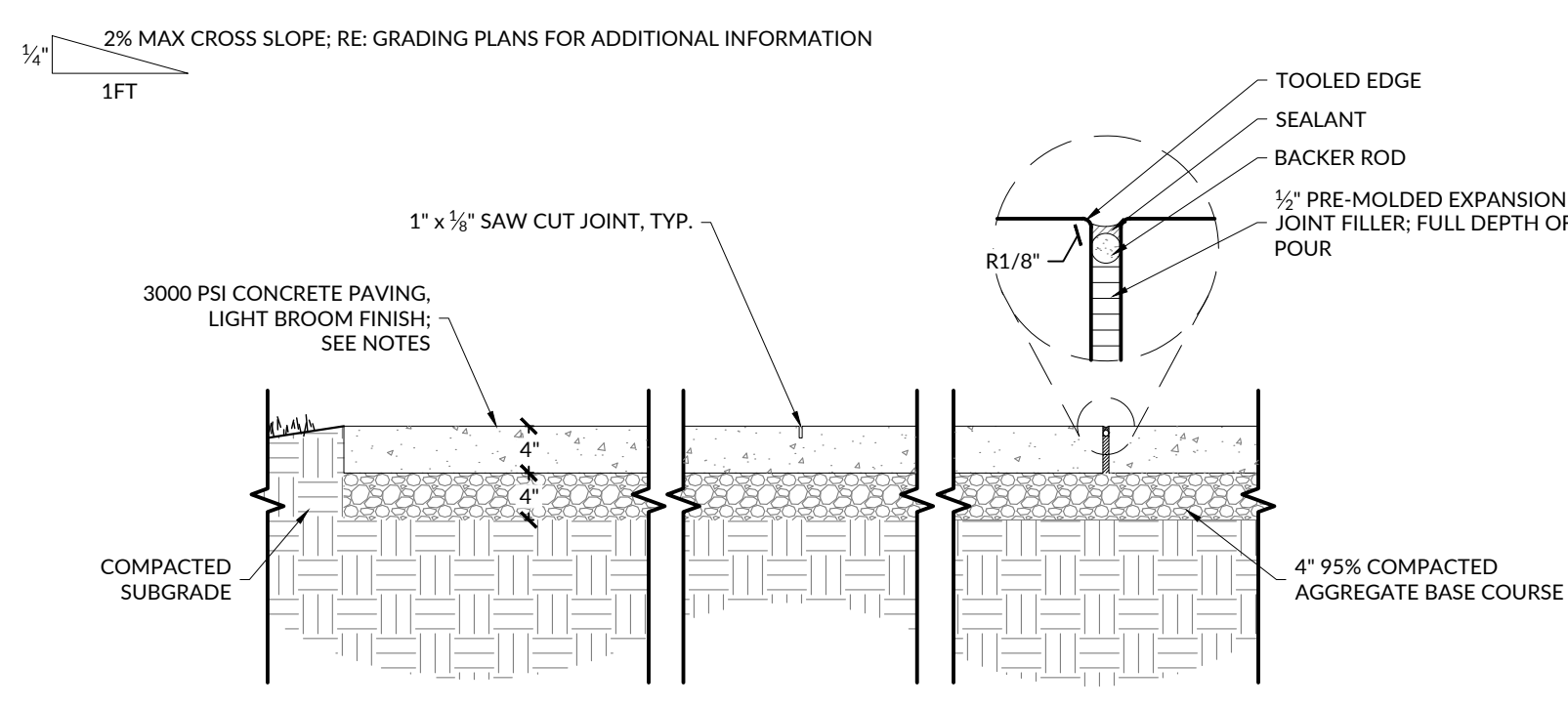
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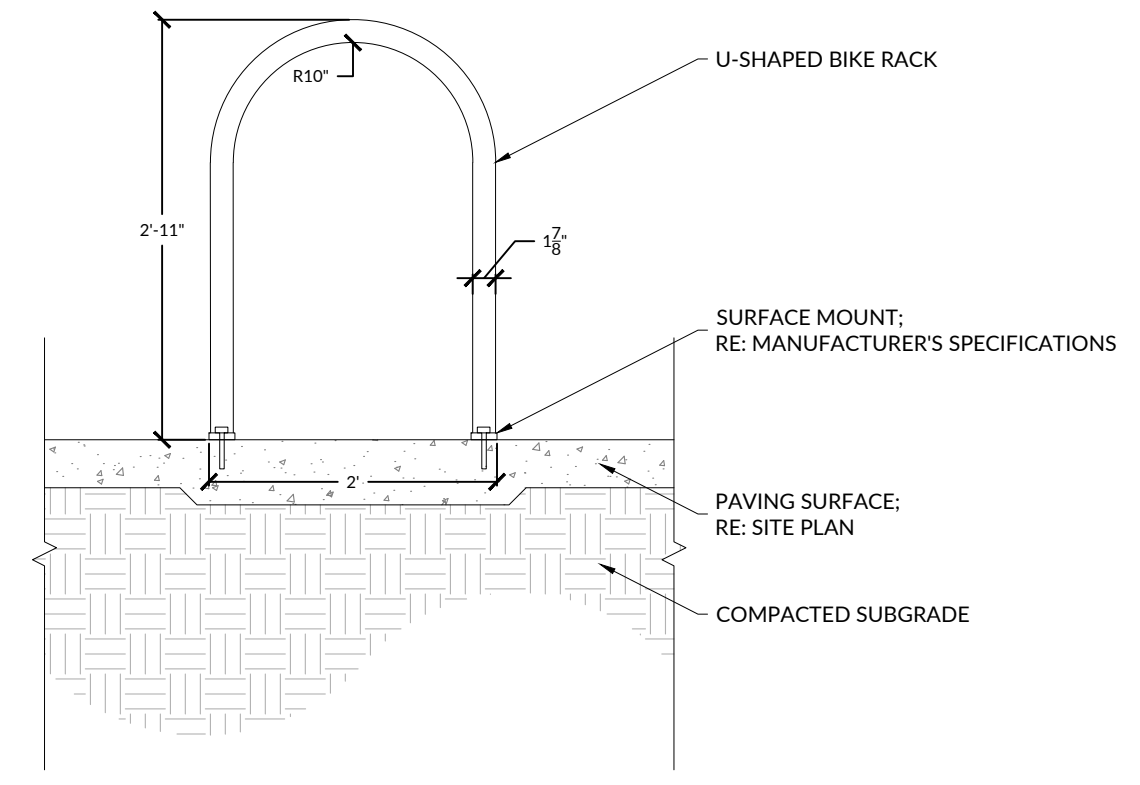
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our people • your success



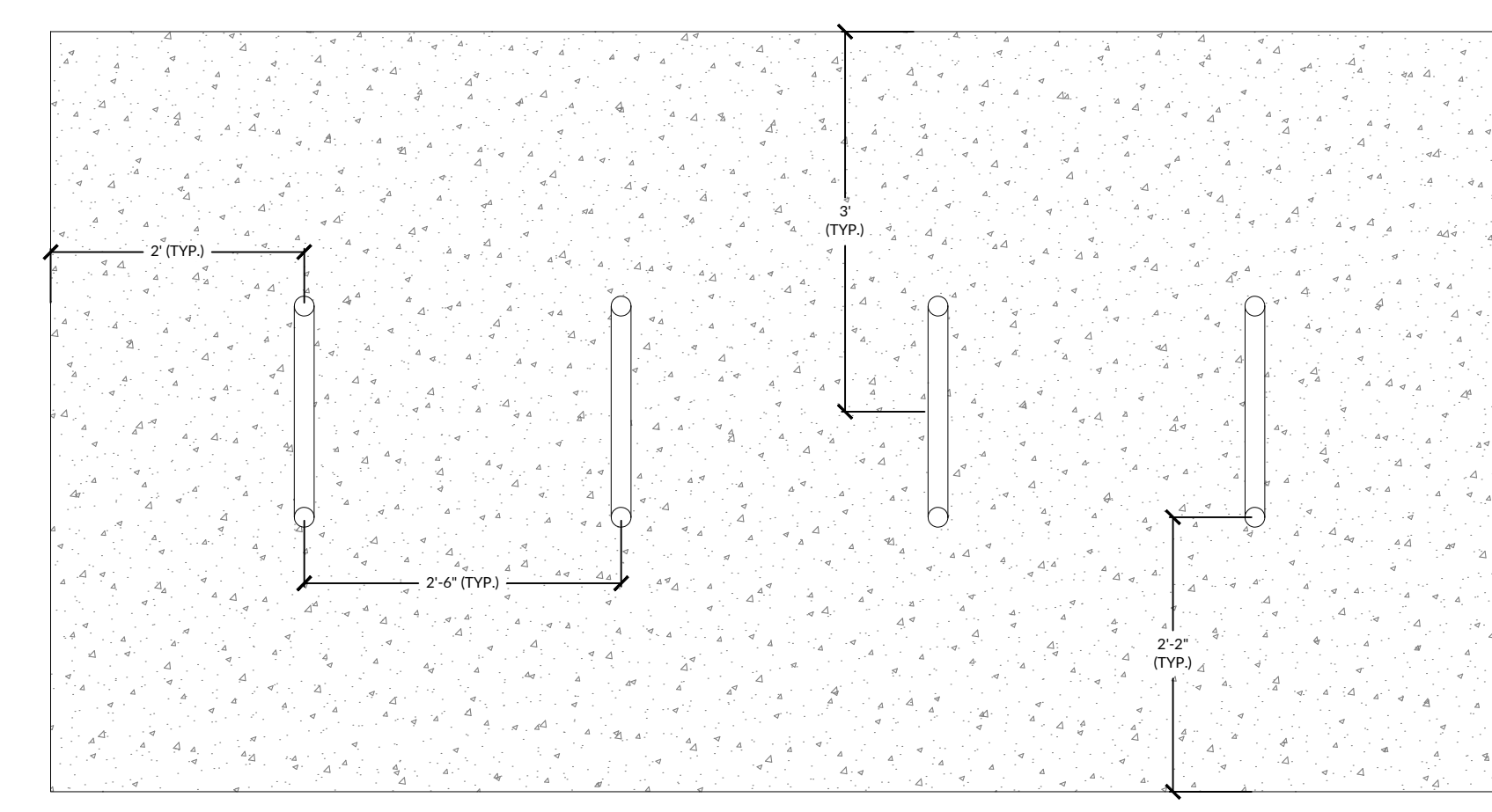
- NOTES:**
1. PROVIDE EXPANSION JOINT WHERE WALKS ARE POURED AGAINST VERTICAL SURFACES AND/OR DIFFERENT PAVING MATERIALS & AS SPECIFIED ON PLANS OR 25'-0" MAX O.C.
  2. PROVIDE CONTRACTION JOINT AT 5' INTERVALS UNLESS OTHERWISE SPECIFIED (SEE PLAN).
  3. CONTRACTOR TO PROVIDE MOCK-UP OF CONCRETE FINISH, COLOR, AND SCORING FOR OWNERS APPROVAL. MOCK-UP CAN BE USED AS PART OF FINAL PROJECT.

**1 CONCRETE PAVING**  
SCALE: 3/4" = 1'-0" SECTION



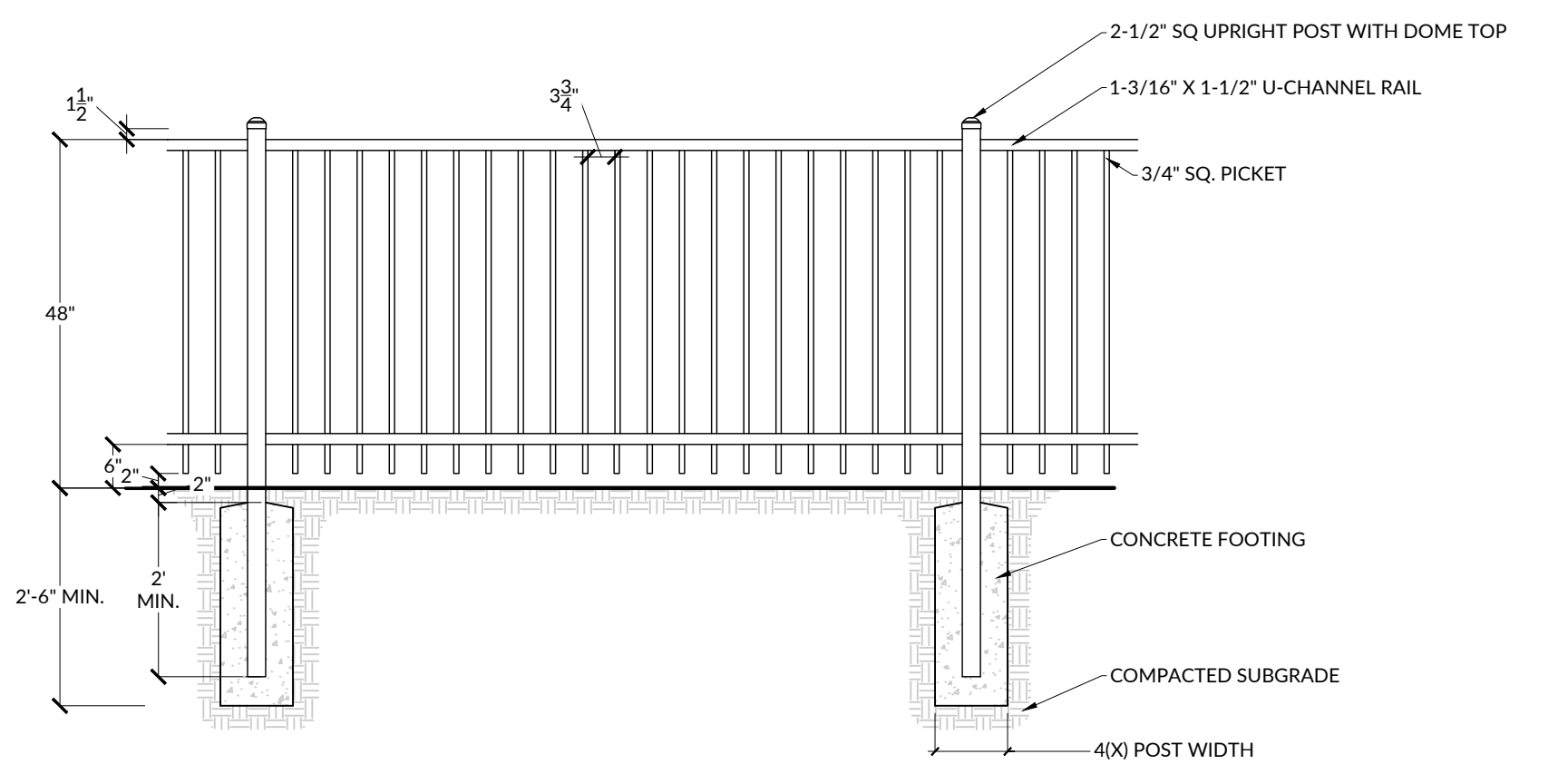
- NOTES:**
1. BIKE RACK SHALL BE FABRICATED WITH 1-1/2" SCH. 40 STEEL PIPE (1.9" O.D.)
  2. INCLUDE CORROSION RESISTANCE UNDERCOAT FINISH.
  3. OUTER FINISH SHALL BE POWDER COAT. COLOR AS SELECTED BY OWNER.

**2 BIKE RACK**  
SCALE: 3/4" = 1'-0" SECTION



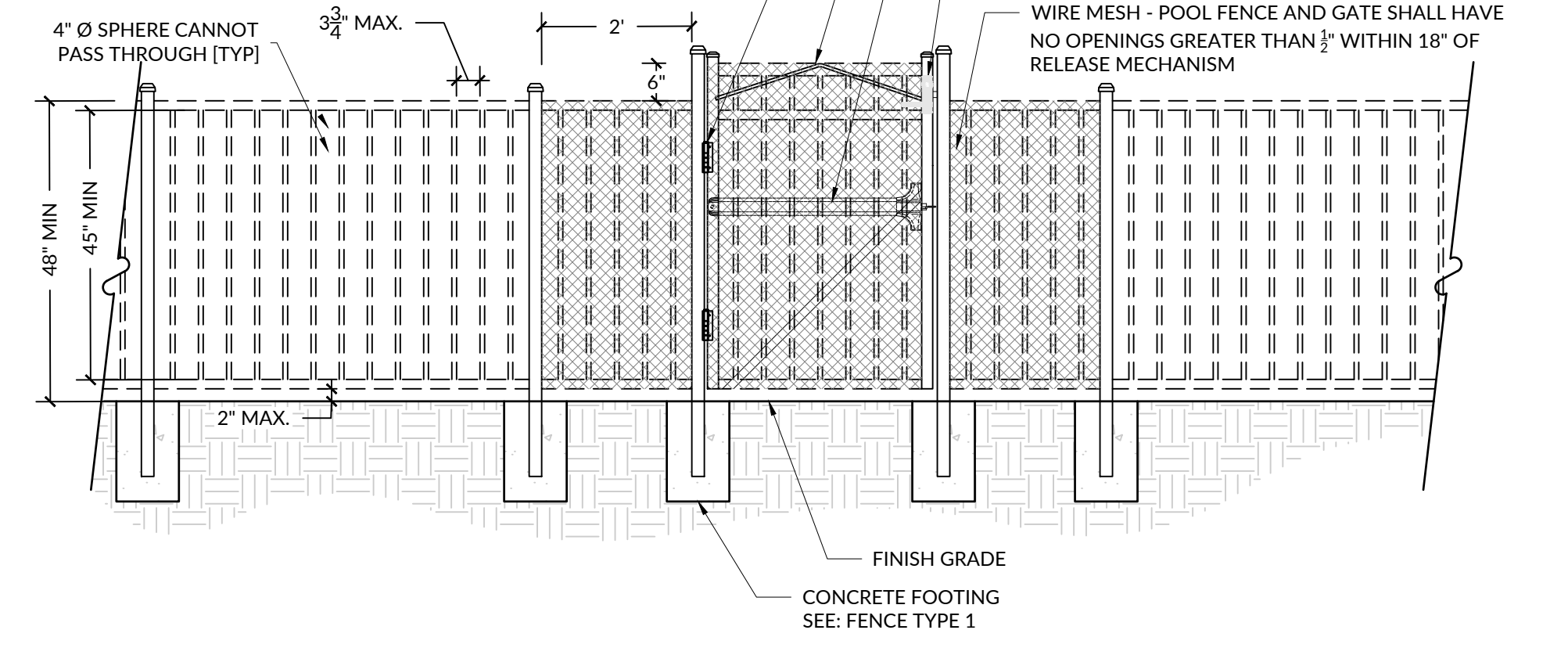
PLAN VIEW

- NOTES:**
1. COLOR: BLACK
  2. DETAIL SPECIFICS MAY DEVIATE BASED ON FENCE PRODUCT SELECTED BY CONTRACTOR. THIS DETAIL PROVIDES DESIGN INTENT ONLY.
  3. FENCE HEIGHT AND COLOR SHALL REMAIN AS SPECIFIED



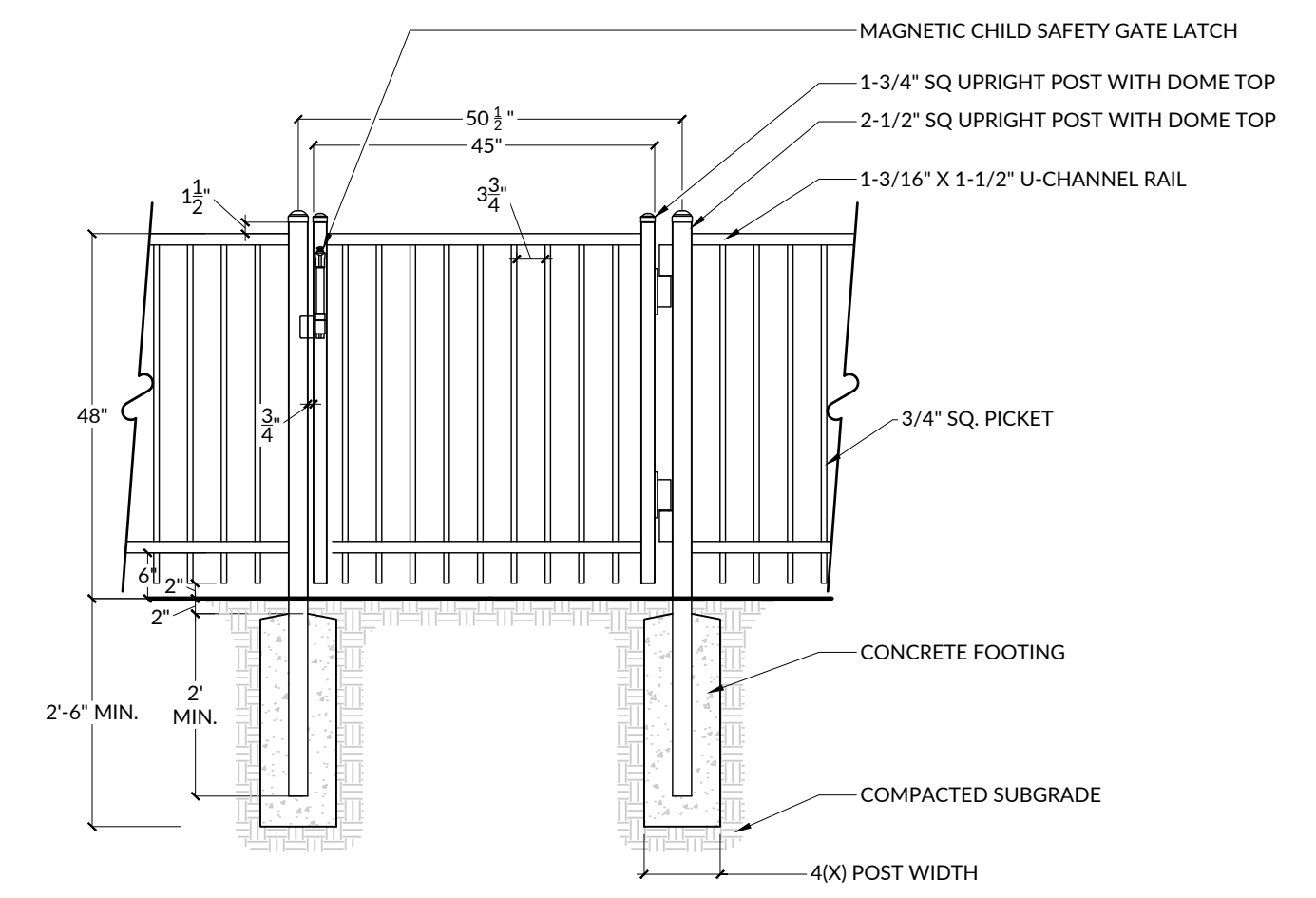
**3 FENCE TYPE 1**  
SCALE: 1/2" = 1'-0" SECTION

- NOTES:**
1. FENCE AND GATE TO MEET 15A NCAC 18A.2528 FENCE STANDARDS.
  2. PEDESTRIAN ACCESS GATES SHALL OPEN OUTWARD AWAY FROM THE POOL AND SHALL BE SELF-CLOSING AND HAVE A SELF LATCHING DEVICE.
  3. ADA COMPLIANT PANIC BAR RELEASE MECHANISM SHALL BE MOUNTED ON THE POOL SIDE OF THE GATE.
  4. ACCESS TO THE POOL DECK MAY REQUIRE THE USE OF A KEY OR CARD READER AND SHALL BE ADA COMPLIANT.
  5. POOL GATE HARDWARE IS TO BE SELECTED BY OWNER FROM MANUFACTURER'S FULL RANGE AND SHALL MEET REQUIREMENTS STATED HEREIN.
  6. FOR FOOTING DETAILS SEE FENCE TYPE 1.
  7. CONTRACTOR TO SUBMIT SHOP DRAWINGS PRIOR TO CONSTRUCTION.
  8. POOL GATE IS TO MATCH FENCE TYPE 1 IN MATERIAL AND FINISH.
  9. COLOR: BLACK



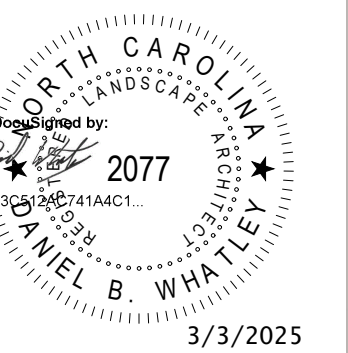
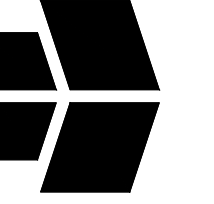
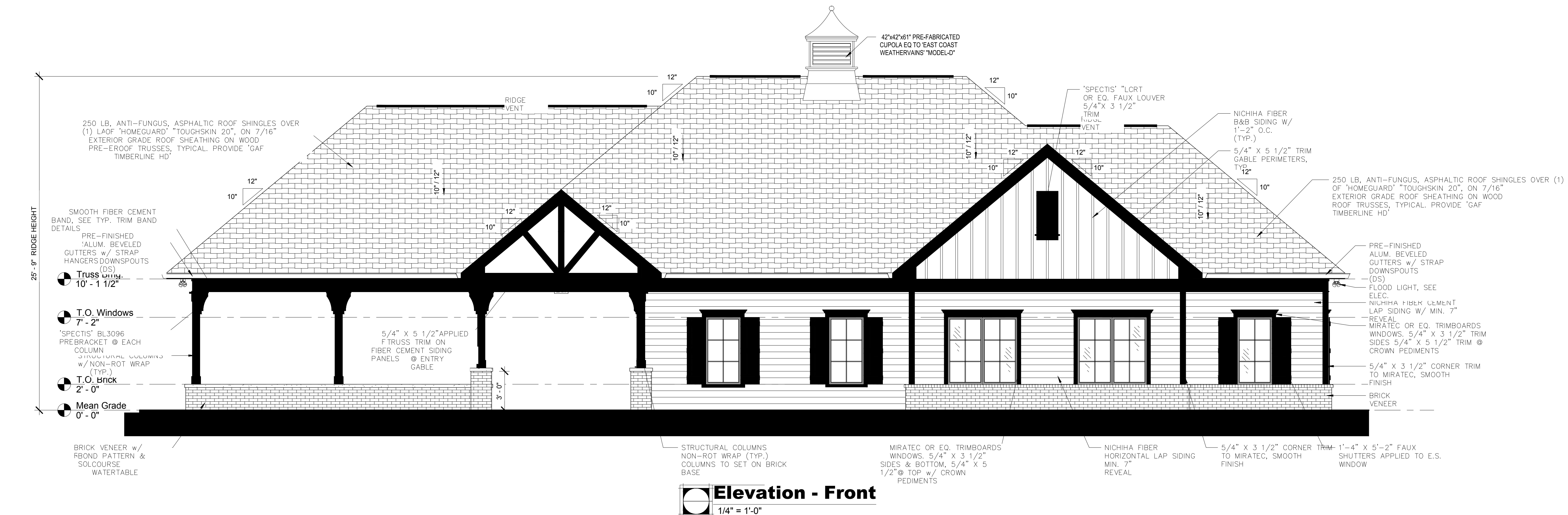
**4 GATE TYPE 1**  
SCALE: 1/2" = 1'-0" SECTION

- NOTES:**
1. COLOR: BLACK
  2. DETAIL SPECIFICS MAY DEVIATE BASED ON GATE PRODUCT SELECTED BY CONTRACTOR. THIS DETAIL PROVIDES DESIGN INTENT ONLY.
  3. GATE HEIGHT AND COLOR SHALL REMAIN AS SPECIFIED



**5 GATE TYPE 2**  
SCALE: 1/2" = 1'-0" SECTION

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INITIAL PLAN DATE: 03/05/2025  
REVISIONS: