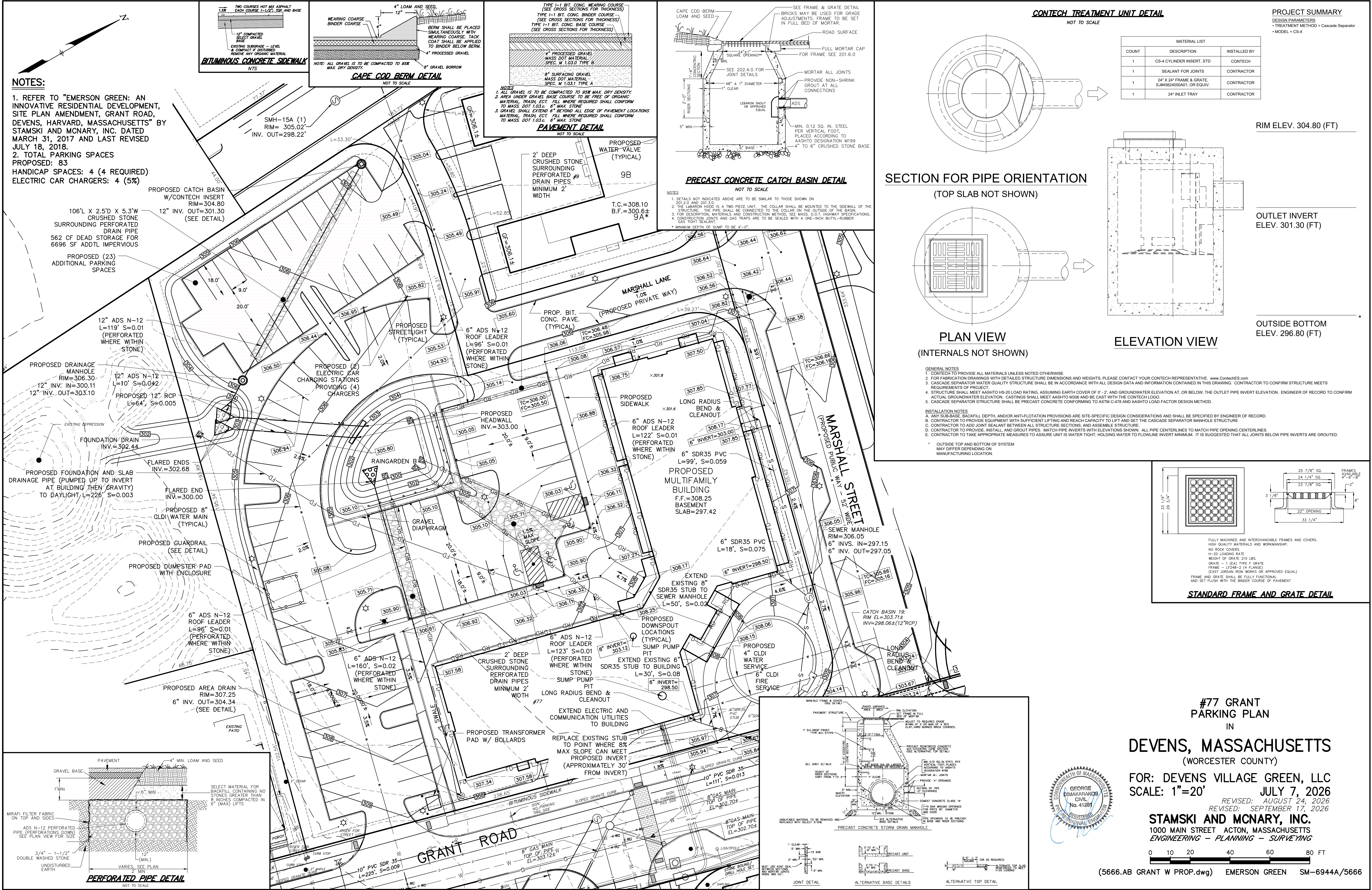




1. NOTIFY DIG-SAFE AT 1-888-DIG-SAFE AND LOCAL AUTHORITIES PERTAINING TO ANY TYPE OF SITE PREPARATION OR CONSTRUCTION.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL AND MULCH IN SUFFICIENT QUANTITIES TO COMPLETE PLANTING AS SHOWN ON THE DRAWINGS.
3. DRAWING QUANTITIES TAKE PRECEDENCE OVER PLANT LIST QUANTITIES.
4. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES SET FORTH BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
5. ALL TREES AND SHRUBS SHALL BE PLANTED WITH THE "BEST FACE" SHOWING. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN, UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
6. ALL CONTAINER GROWN STOCK SHALL BE HEALTHY, VIGOROUS, WELL ROOTED AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE GROWING. THEY SHALL HAVE TOPS OF GOOD QUALITY, NO APPARENT INJURY AND BE IN A HEALTHY GROWING CONDITION. A CONTAINER GROWN PLANT SHALL HAVE A WELL ESTABLISHED ROOT SYSTEM REACHING THE SIDES OF THE CONTAINER TO MAINTAIN A FIRM BALL.
7. THE QUALITY OF ALL TREES & SHRUBS IS TO BE NORMAL FOR THE SPECIES. ALL PLANTS ARE TO HAVE DEVELOPED ROOT SYSTEMS, TO BE FREE OF INSECTS AND DISEASES AS WELL AS MECHANICAL INJURIES, AND IN ALL RESPECTS BE SUITABLE FOR PLANTINGS.
8. PLANT SUBSTITUTIONS ARE NOT ALLOWED UNLESS APPROVED BY THE PROJECT LANDSCAPE ARCHITECT.
9. ALL DISTURBED AREAS NOT SHOWN OTHERWISE SHALL BE LOAMED AND SEEDED AND BLENDED INTO EXISTING GRADE AND SLOPE.
10. PRIOR TO INSTALLING ANY PLANT MATERIAL, THE CONTRACTOR SHALL SUBMIT A LOAM SOIL SAMPLE FOR A ROUTINE, ORGANIC, SALTS, AND NITRATE SOIL TEST. UPON THE RESULTS OF THIS TEST, THE SITE CONTRACTOR SHALL AMEND THE LOAM AS RECOMMENDED. LAWN SEED MIX SHALL BE THE PREVIOUS YEARS CROP: 35% JEFFERSON KENTUCKY BLUEGRASS, 35% CARMEN CHEWING FESCUE AND 30% STALLION PERENNIAL RYEGRASS, OR APPROVED EQUAL. PLANT AT A RATE OF 1 LB. PER 150 SQUARE FEET.
11. ALL SLOPE STABILIZATION FOR SLOPES IN EXCESS OF 3:1 SHALL BE A COMBINATION OF JUTE NETTING AND A NATIVE NEW ENGLAND EROSION CONTROL OR CONSERVATION WILDLIFE SEED MIX (FOR LOW-NO MAINTENANCE SLOPE AREAS).
12. LAWN SEED AREAS SHALL BE DEEP TILLED, ACCEPTABLE UNTIL IN EXCESS OF 90% OF EACH AREA, IDENTICALLY, GERMINATED, GROWING AND DISPLAYING HEALTHY, UNIFORM GROWTH AND HAS BEEN CUT TWICE. THE SITE CONTRACTOR IS RESPONSIBLE FOR APPLYING AT A MINIMUM 1" OF WATER A WEEK UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED. THE WATERING SHALL OCCUR IN SMALL DOSES. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY WEEDS (CRAB GRASS) WITHIN THE SEEDED AREAS UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED.
13. THE HYDRO SEED SLURRY SHALL BE A WOOD BASED BONDED FIBER MATRIX. THE APPLICATION RATE SHALL BE 2,500-3,000LB. PER ACRE SPRAYED IN A LEAST TWO DIRECTIONS. DO NOT APPLY HYDRO SEED SLURRY IF RAIN IS EXPECTED WITHIN 12 HOURS, AND WHEN TEMPERATURES ARE BELOW 50 DEGREES.
14. PRICE AT PLANTING, THE LANDSCAPE SHALL REVIEW AND COORDINATE WITH THE SITE UTILITY PLAN AND GRADING PLAN.
15. THE ROOTS OF NEWLY PLANTED TREES AND SHRUBS MUST BE KEPT STEADILY MOIST, AS THE DEVELOPING ROOTS ESTABLISH IN THE NEW SOIL. AT PLANTING, WATER THOROUGHLY TO SOAK THE ROOTS AND TO SETTLE THE NEW SOIL AROUND THE ROOT BALL. THE AMOUNT OF SUPPLEMENTAL WATER NEEDED EACH WEEK DURING THE FIRST GROWING SEASON AFTER PLANTING DEPENDS ON RECENT RAINFALL, TEMPERATURE, AND WIND. IF LESS THAN ONE-INCH OF RAIN HAS FALLEN OVER THE PAST FIVE TO SEVEN DAYS, THE NEW PLANTINGS MUST BE WATERED. LAWNS, TREES, AND SHRUBS WATERING SHALL OCCUR AT A MINIMUM OF TWO (2) TIMES A DAY FOR THE FIRST TWO (2) MONTHS; ONCE IN THE EARLY MORNING AND THEN THE OTHER IN THE LATE AFTERNOON. IN GENERAL TEN GALLONS OF WATER APPLIED TWICE A WEEK WILL WEAR A 20"-24" ROOT BALL AND PROVIDE THE EQUIVALENT OF ONE INCH OF RAIN FALL. NEW LAWNS SHALL BE WATERED SO THAT IT RECEIVES AT A MINIMUM OF ONE INCH (1") OF WATER EVERY WEEK.
16. ALL LANDSCAPE BEDS SHALL RECEIVE THREE-INCHES OF BARK MULCH.
17. LANDSCAPE AREAS SHALL BE DEEP TILLED TO A DEPTH OF TWELVE INCHES TO FACILITATE DEEP WATER PENETRATION.
18. ALL TREE AND VEGETATION REMOVAL SHALL BE IN COORDINATION WITH THE PROJECT LANDSCAPE ARCHITECT.

PROTECT TREE HEALTH AND STABILITY DURING EXCAVATION, FOLLOW THESE PROTOCOLS, PARTICULARLY WITHIN THE CRITICAL ROOT ZONE (CRZ):

1. DEFINING THE CRITICAL ROOT ZONE (CRZ) AND TREE PROTECTION ZONE (TPZ)
 - a. CRITICAL ROOT ZONE (CRZ): THIS AREA SURROUNDS THE TREE TRUNK AND EXTENDS OUTWARD, TYPICALLY MEASURED AS ONE FOOT IN RADIUS FOR EVERY INCH OF THE TREE'S DIAMETER AT BREAST HEIGHT (DBH).
 - b. TREE PROTECTION ZONE (TPZ): THIS IS A LARGER ZONE, DETERMINED BY AN ARBORIST, THAT AIMS TO SAFEGUARD THE ROOTS AND SOIL CRUCIAL FOR THE TREE'S FUTURE HEALTH.
 - c. THE TPZ SHOULD IDEALLY EXTEND BEYOND THE DRIPLINE (THE EDGE OF THE TREE'S CANOPY).
2. PLANNING AND PREPARATION
 - a. EARLY ASSESSMENT: BEFORE ANY EXCAVATION, ASSESS THE TREE'S HEALTH AND CONDITION WITH AN ARBORIST.
 - b. TREE PROTECTION PLAN (TPP): DEVELOP A TPP DETAILING PROTECTIVE MEASURES, INCLUDING THE DEFINED TPZ AND PROPOSED EXCAVATION METHODS.
 - c. COMMUNICATE THE PLAN: ENSURE ALL CONTRACTORS AND WORKERS UNDERSTAND THE TPZ AND THE IMPORTANCE OF TREE PROTECTION.
3. SITE PROTECTION
 - a. FENCING: INSTALL STURDY FENCING AROUND THE TPZ TO PREVENT MACHINERY AND FOOT TRAFFIC FROM ENTERING THE AREA.
 - b. SIGNS: CLEARLY MARK THE TPZ WITH VISIBLE SIGNS INDICATING THAT IT IS A PROTECTED AREA.
 - c. BARRIERS: IF NECESSARY, USE STEM, BRANCH, AND ROOT PADDING OR WRAPS FOR HIGH-VALUE TREES IN ADDITION TO FENCING.
 - d. MATERIAL STORAGE: DESIGNATE AREAS OUTSIDE THE TPZ FOR STORING MATERIALS AND EQUIPMENT.
4. EXCAVATION TECHNIQUES WITHIN THE ROOT ZONE
 - a. AVOID TRENCHING WITHIN THE CRZ: WHEREVER POSSIBLE, ALTER TRENCH ROUTES OR USE TRENCHLESS TECHNIQUES LIKE TUNNELING OR BORING TO INSTALL UTILITIES AND MINIMIZE ROOT DAMAGE.
 - b. MINIMUM TUNNELING DEPTH: TUNNEL AT LEAST 1.6 INCHES TO TWO FEET BENEATH THE CRZ.
 - c. TUNNELING DISTANCE: IT'S BEST TO TUNNEL AT LEAST 1 TO 2 FEET AWAY FROM THE TREE'S CENTER TO AVOID THE TAPROOT.
 - d. HAND EXCAVATION: FOR EXCAVATION WITHIN THE CRZ, PRIORITIZE HAND TOOLS OR SPECIALIZED EQUIPMENT LIKE AIR-SPADES™ OR OTHER AIR OR HYDRO EXCAVATION TOOLS.
 - e. SHARP, CLEAN CUTS: IF ROOTS MUST BE CUT, MAKE SHARP, CLEAN CUTS WITH APPROPRIATE TOOLS (ROOT SAWS, LOPPERS) TO PROMOTE HEALING AND REDUCE THE RISK OF DECAY AND INSTABILITY.
 - f. PROFESSIONAL ROOT PRUNING: CONSULT WITH AN ARBORIST FOR GUIDANCE AND SUPERVISION WHEN PRUNING ROOTS, ESPECIALLY LARGER ONES, TO AVOID COMPROMISING TREE STABILITY.
5. SOIL MANAGEMENT
 - a. MINIMIZE COMPACTION: AVOID DRIVING HEAVY MACHINERY OR COMPACTING SOIL WITHIN THE TPZ.
 - b. BACKFILLING: REPLACE SOIL AS SOON AS POSSIBLE AFTER ROOT EXPOSURE. COVERING EXPOSED ROOTS WITH WET BURLAP OR MULCH CAN PREVENT THEM FROM DRYING OUT.
 - c. SOIL PERMEABILITY: CHOOSE PERMEABLE MATERIALS FOR WALKWAYS OR PAVED SURFACES WITHIN THE TPZ, ALLOWING WATER AND AIR TO REACH THE ROOTS.
 - d. GRADE CHANGES: AVOID SIGNIFICANT GRADE CHANGES (MORE THAN 3 INCHES) WITHIN THE TREE'S DRIPLINE, AS THEY CAN NEGATIVELY IMPACT THE ROOT SYSTEM.
6. POST-EXCAVATION CARE
 - a. WATERING: ENSURE ADEQUATE MOISTURE, ESPECIALLY IF THERE'S INSUFFICIENT RAINFALL, SAYS CASTINE.ME.US.
 - b. MULCHING: APPLY A LAYER OF WOOD CHIPS OR MULCH OVER THE ROOT ZONE TO CONSERVE MOISTURE AND REGULATE SOIL TEMPERATURE.
 - c. MONITOR HEALTH: OBSERVE THE TREE FOR SIGNS OF STRESS, LIKE BRANCH DIEBACK, WHICH MIGHT INDICATE ROOT DAMAGE.
 - d. FERTILIZATION AND AERATION: CONSIDER HIGH-PRESSURE, SOIL-INJECTED DEEP-ROOT FERTILIZATION AND AERATION IF RECOMMENDED BY AN ARBORIST.

No.	Date	Revision
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Drawn By: LCG Designed By: LCG Checked By: _____

Emerson Green
77 Grant Road,
Devens, MA

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Date: September 17, 2026
Scale: 1"=40'

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