COMMON EARTHWORK NOTES

1. VERIFICATION OF CONDITIONS:
   A. FORTY-EIGHT (48) HOURS MINIMUM BEFORE PERFORMING ANY WORK ON SITE, CONTACT THE APPROPRIATE UNDERGROUND UTILITY SERVICE AGENCY TO ARRANGE FOR UTILITY LOCATION SERVICES.
   B. PERFORM MINOR, INVESTIGATIVE EXCAVATIONS TO VERIFY LOCATION OF VARIOUS EXISTING UNDERGROUND FACILITIES AT SUFFICIENT LOCATIONS TO ASSURE THAT NO CONFLICT WITH THE PROPOSED WORK EXISTS AND SUFFICIENT CLEARANCE IS AVAILABLE TO AVOID DAMAGE TO EXISTING FACILITIES.
   C. PERFORM INVESTIGATIVE EXCAVATING TEN (10) DAYS MINIMUM IN ADVANCE OF PERFORMING ANY EXCAVATION OR UNDERGROUND WORK.
   D. UPON DISCOVERY OF CONFLICTS OR PROBLEMS WITH EXISTING FACILITIES, NOTIFY ARCHITECT BY PHONE OR FAX WITHIN TWENTY-FOUR (24) HOURS. FOLLOW TELEPHONE OR FAX NOTIFICATION WITH LETTER AND DIAGRAMS INDICATING CONFLICT OR PROBLEM AND SUFFICIENT MEASUREMENTS AND DETAILS TO EVALUATE PROBLEM.

2. PROTECTION:
   A. SPILLAGE:
      1. AVOID SPILLAGE BY COVERING AND SECURING LOADS WHEN HAULING ON OR ADJACENT TO PUBLIC STREETS OR HIGHWAYS.
      2. REMOVE SPILLAGE AND SWEEP, WASH, OR OTHERWISE CLEAN PROJECT, STREETS, AND HIGHWAYS.
   B. DUST CONTROL:
      1. TAKE PRECAUTIONS NECESSARY TO PREVENT DUST NUISANCE, BOTH ON-SITE AND ADJACENT TO PUBLIC AND PRIVATE PROPERTIES.
      2. CORRECT OR REPAIR DAMAGE CAUSED BY DUST.
   C. EXISTING PLANTS AND FEATURES:
      1. DO NOT DAMAGE TOPS, TRUNKS, AND ROOTS OF EXISTING TREES AND SHRUBS ON SITE THAT ARE INTENDED TO REMAIN.
      2. DO NOT USE HEAVY EQUIPMENT WITHIN BRANCH SPREAD.
      3. INTERFERING BRANCHES MAY BE REMOVED ONLY WITH PERMISSION OF ARCHITECT.
      4. DO NOT DAMAGE OTHER PLANTS AND FEATURES THAT ARE TO REMAIN.
      5. PROTECT UTILITIES AND SITE ELEMENTS FROM DAMAGE.
      6. LIMIT USE OF HEAVY EQUIPMENT TO AREAS NO CLOSER THAN 6 FEET (1.80 METER) FROM BUILDING OR OTHER PERMANENT STRUCTURES.

3. REPAIR / RESTORATION:
   A. ADJUST EXISTING COVERS, BOXES, AND VAULTS TO GRADE.
   B. REPLACE BROKEN OR DAMAGED COVERS, BOXES, AND VAULTS.
   C. INDEPENDENTLY CONFIRM SIZE, LOCATION, AND NUMBER OF COVERS, BOXES, AND VAULTS THAT REQUIRE ADJUSTMENT.

4. NON-CONFORMING WORK:
   A. IF SPECIFIED PROTECTION PRECAUTIONS ARE NOT TAKEN OR CORRECTIONS AND REPAIRS NOT MADE PROMPTLY, OWNER MAY TAKE SUCH STEPS AS MAY BE DEEMED NECESSARY AND DEDUCT COSTS OF SUCH FROM MONIES DUE TO CONTRACTOR. SUCH ACTION OR LACK OF ACTION ON OWNER'S PART DOES NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR PROPER PROTECTION OF THE WORK.

TOPSOIL & GRADING NOTES

1. IMPORT AND INSTALL TOPSOIL AS NEEDED TO FILL ALL PLANTING AREAS. SUBMIT TEST BY LICENSED LABORATORY TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. TOPSOIL USED IN LANDSCAPED AREAS SHALL BE WEED FREE, FERTILE, LOOSE, FRIABLE SOIL MEETING THE FOLLOWING CRITERIA:

   1) CHEMICAL CHARACTERISTICS:
      a) SOLUBLE SALTS: LESS THAN 3.0 MMHOS/CM.
      b) PH 5.5 TO 8.0.
      c) SODIUM ABSORPTION RATIO (SAR): LESS THAN 6.0.
      d) ORGANIC MATTER: GREATER THAN ONE PERCENT.
   2) PHYSICAL CHARACTERISTICS:
      a) GRADATION AS DEFINED BY USDA TRIANGLE OF PHYSICAL CHARACTERISTICS AS MEASURED BY HYDROMETER.
         (1) SAND: 15 TO 60 PERCENT.
         (2) SILT: 10 TO 60 PERCENT.
         (3) CLAY: 5 TO 30 PERCENT.
      b) CLEAN AND FREE FROM TOXIC MINERALS AND CHEMICALS, NOXIOUS WEEDS, ROCKS LARGER THAN OR EQUAL TO 1-1/2 INCH (38 MM) IN ANY DIMENSION, AND OTHER OBJECTIONABLE MATERIALS.
      c) SOIL:
         (1) SOIL SHALL NOT CONTAIN MORE THAN FIVE (5) PERCENT BY VOLUME OF ROCKS MEASURING OVER 1/4 INCH (6 MM) IN LARGEST SIZE.
         (2) SOIL SHALL BE TOPSOIL IN NATURE.
         (3) SOIL RESEMBLING ROAD BASE OR OTHER LIKE MATERIALS ARE NOT ACCEPTABLE.

2. INSTALL A MINIMUM DEPTH OF 5 INCHES TOPSOIL IN LAWN AND GROUND COVER PLANTING AREAS. NO TOPSOIL REQUIRED IN TREE AND SHRUB PLANTING AREAS OR NATIVE GRASS, SHRUB, OR TREE AREAS AS LONG AS WHAT IS IN PLACE IS NOT EXCESSIVELY ROCKY OR OTHERWISE UNFAVORABLE TO HEALTHY PLANT GROWTH. IF IT IS UNFAVORABLE, INSTALL A MINIMUM DEPTH OF 12 INCHES. PROVIDE NO LESS THAN QUANTITY REQUIRED TO ACHIEVE TOLERANCES OUTLINED IN PLANTING NOTE 5. INSTALLER OF THIS SECTION IS RESPONSIBLE FOR PROVIDING SUFFICIENT TOPSOIL MATERIAL.

3. FINISH TOPSOIL GRADE OF PLANTING AREAS BEFORE PLANTING AND AFTER ADDITION OF SOIL ADDITIVES SHALL BE SPECIFIED DISTANCES BELOW TOP OF ADJACENT PAVEMENT OF ANY KIND:
   a) GROUND COVER AREAS: 2 INCHES BELOW.
   b) SEEDED AREAS: ONE INCH BELOW.
   c) SODDED AREAS: 2 INCHES BELOW.
   d) TREE AND SHRUB AREAS (NOT INDIVIDUAL TREES): 4 INCHES BELOW.

4. RAKE THE FINISH GRADE OF THE TOPSOIL WITHIN THE PLANTING AREAS TO REMOVE CLODS, ROCKS, WEEDS, ROOTS, DEBRIS OR OTHER MATERIAL 1-1/2" OR MORE IN ANY DIMENSION. GRADE AND SHAPE LANDSCAPE AREA TO BRING SURFACE TO TRUE UNIFORM PLANES FREE FROM IRREGULARITIES AND TO PROVIDE PROPER SLOPE FOR DRAINAGE.

IRRIGATION NOTES

1. FURNISH AND INSTALL LANDSCAPE IRRIGATION SYSTEM AS DESCRIBED IN CONTRACT DOCUMENTS COMPLETE WITH ACCESSORIES NECESSARY FOR PROPER FUNCTION.

2. FIELD TESTS AND INSPECTIONS:
   A. IRRIGATION SYSTEM:
      1. SYSTEM PRESSURE TEST:
         a) NOTIFY LANDSCAPE ARCHITECT TWO (2) WORKING DAYS MINIMUM BEFORE CONDUCTING TEST.
         b) IN PRESENCE OF LANDSCAPE ARCHITECT, PRESSURE TEST MAIN LINE WITH ALL VALVES INSTALLED.
         c) TEST PRESSURE AT 100 PSI (690 KPA) MINIMUM FOR TWO (2) HOURS MINIMUM.
         d) VERIFY THERE ARE NO LEAKS.
         e) RECEIVE LANDSCAPE ARCHITECT APPROVAL TO PROCEED PRIOR TO BACKFILLING.
      2. TEST REPORT:
         a) FOLLOWING PRESSURE TEST, CREATE PRESSURE TEST REPORT. DOCUMENT PRESSURE TEST RESULTS THROUGH PROVIDING PHOTOS, LISTING PROCESSES USED, ISSUES ENCOUNTERED, AND MEASURES TAKEN TO CORRECT PROBLEMS.
   B. SUBSTANTIAL COMPLETION WALKTHROUGH:
      1. LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE(S) WILL INSPECT SITE AND CREATE LIST OF NON-CONFORMING ITEMS TO BE RESOLVED PRIOR TO LANDSCAPE FINAL ACCEPTANCE. DATE ON THIS LIST WILL ACT AS DATE OF LANDSCAPE SUBSTANTIAL COMPLETION.
      2. INSTALLATIONS COMPLETED AFTER WATER SOURCE HAS BEEN TURNED OFF FOR SEASON, AS DETERMINED BY LANDSCAPE ARCHITECT, WILL BE INSPECTED FOLLOWING SPRING AFTER SYSTEM CAN BE CHECKED FOR PROPER OPERATION.
   C. IRRIGATION APPROVAL:
      1. IRRIGATION WILL BE APPROVED WHEN ALL NON-CONFORMING WORK IS BROUGHT INTO CONFORMANCE.
      2. CORRECT ANY WORK FOUND DEFECTIVE OR NOT COMPLYING WITH CONTRACT DOCUMENT REQUIREMENTS AT NO ADDITIONAL COST TO OWNER.

3. WINTERIZATION AND SPRING START-UP:
   DURING FIRST YEAR OF OPERATION, INSTALLER SHALL SHUT-DOWN IRRIGATION SYSTEM PRIOR TO FREEZING TEMPERATURES AND RE-START IRRIGATION SYSTEM AT BEGINNING OF GROWING SEASON:
   A. WINTER SHUT-DOWN IS INTENDED TO REMOVE ALL POTENTIALLY DAMAGING WATER FROM IRRIGATION SYSTEM. PERFORM FOLLOWING AS WELL AS ANY OTHER EFFORTS NECESSARY TO PROPERLY WINTERIZE SYSTEM:
      1) TURN OFF WATER SOURCE AT POINT OF CONNECTION.
      2) BLOW OUT SYSTEM WITH PRESSURIZED AIR, TURNING ON EACH VALVE UNTIL WATER IS CLEARED OUT OF SYSTEM. RUN THROUGH SYSTEM TWICE. ONLY BLOW OUT COMPONENTS SUITABLE TO RECEIVE PRESSURIZED AIR. HYDROMETERS, FOR INSTANCE, SHOULD NOT BE BLOWN OUT. DO NOT USE EXCESSIVE AIR PRESSURE THAT WILL DAMAGE PIPES AND PARTS.
      3) TURN CONTROLLER OFF OR IF AVAILABLE TURN TO PERTINENT WINTERIZATION.
      4) OPEN ALL MANUAL DRAIN VALVES.
      5) DRAIN, WRAP, PROTECT, OR REMOVE ANY BACKFLOW DEVICE EXPOSED TO FREEZING TEMPERATURES USING MANUFACTURER'S RECOMMENDATIONS AND BEST PRACTICES. COORDINATE METHOD WITH OWNER'S REPRESENTATIVE.
      6) DRAIN AND REMOVE PUMPS FOR OWNER'S REPRESENTATIVE STORAGE.
      7) DRAIN FILTERS USING MANUFACTURER'S RECOMMENDATIONS.
      8) CHECK SPRINKLER HEADS TO MAKE SURE THEY ARE BELOW SIDEWALK AND CURB LEVELS AND NOT VULNERABLE TO SNOWPLOW DAMAGE. LOWER HEADS TO PROPER ELEVATION.
      9) NOTIFY OWNER'S REPRESENTATIVE WHEN SYSTEM HAS BEEN TURNED OFF.
   B. SPRING START-UP SHALL INCLUDE FOLLOWING:
      1) CLOSE ALL MANUAL VALVES.
      2) CLEAN PUMP FILTERS AND REPLACE IF NECESSARY.
      3) REMOVE FREEZE PROTECTION AS REQUIRED.
      4) TURN ON WATER SOURCE AT POINT OF CONNECTION.
      5) VERIFY THAT CONTROLLER(S) AND RAIN SENSOR ARE PROPERLY OPERATING. CHANGE BATTERY IN CONTROLLER(S) AND SENSOR(S) AS REQUIRED.
      6) FLUSH ENTIRE SYSTEM. RUN EACH VALVE FOR TWO (2) MINUTES TO CHECK FOR DAMAGE, LEAKS, AND COVERAGE.
      7) REPAIR AND ADJUST SYSTEM AS NEEDED. FINE TUNE HEADS FOR EFFICIENT COVERAGE.
      8) NOTIFY OWNER'S REPRESENTATIVE WHEN SYSTEM HAS BEEN CHARGED AND IS IN FULL REPAIR.

4. SUBMIT MANUFACTURER'S CUT SHEETS FOR EACH ELEMENT OF SYSTEM TO THE LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE(S) FOR REVIEW AND APPROVAL PRIOR TO BEGINNING INSTALLATION.

5. CLOSEOUT SUBMITTALS:
   A. SUBMITTAL FORMAT: DIGITAL FORMAT ONLY.
   B. OPERATIONS AND MAINTENANCE DATA:
      1) PROVIDE IRRIGATION SYSTEM OPERATION AND MAINTENANCE RECOMMENDATIONS.
      2) PROVIDE IRRIGATION SYSTEM OPERATION AND MAINTENANCE RECOMMENDATIONS FROM MANUFACTURERS.
      3) PROVIDE IRRIGATION SYSTEM WINTERIZATION INSTRUCTIONS.
      4) PROVIDE PLANT ESTABLISHMENT PERIOD WATERING SCHEDULE.
      5) PROVIDE POST PLANT ESTABLISHMENT PERIOD WATERING SCHEDULE.
   C. IRRIGATION SYSTEM WARRANTY DOCUMENTATION.
   D. RECORD DOCUMENTATION:
      1) PROVIDE MANUFACTURER'S PRINTED LITERATURE AND CUT SHEETS FOR EACH ELEMENT OF SYSTEM.
      2) TESTING AND INSPECTION REPORTS
      3) IRRIGATION RECORD DRAWINGS. AS INSTALLATION OCCURS, PREPARE ACCURATE RECORD DRAWING TO BE SUBMITTED BEFORE FINAL INSPECTION, INCLUDING:
         A) DETAIL AND DIMENSION CHANGES MADE DURING CONSTRUCTION. RECORD AT TIME OF INSTALLATION.
         B) SIGNIFICANT DETAILS AND DIMENSIONS NOT SHOWN IN ORIGINAL CONTRACT DOCUMENTS.
         C) FIELD DIMENSIONED LOCATIONS OF VALVE BOXES, MANUAL DRAINS, QUICK-COUPLER VALVES, CONTROL WIRE RUNS NOT IN MAINLINE DITCH AND BOTH ENDS OF SLEEVES.
         D) TAKE DIMENSIONS FROM PERMANENT CONSTRUCTED SURFACES OR EDGES LOCATED AT OR ABOVE FINISH GRADE.
         E) TAKE AND RECORD DIMENSIONS AT TIME OF INSTALLATION.
      4) PROVIDE PHOTOGRAPHS PRIOR TO BURIAL OF KEY ELEMENTS.

   E. FINAL PAYMENT FOR SYSTEM WILL NOT BE AUTHORIZED UNTIL CLOSEOUT SUBMITTALS ARE RECEIVED AND ACCEPTED BY ARCHITECT AND LANDSCAPE ARCHITECT..

6. REGULATORY REQUIREMENTS:
   A. WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH LATEST RULES AND REGULATIONS, AND OTHER APPLICABLE STATE OR LOCAL LAWS.
   B. NOTHING IN CONTRACT DOCUMENTS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

7. QUALIFICATIONS:
   A. IRRIGATION SUBCONTRACTOR:
      1. COMPANY SPECIALIZING IN PERFORMING WORK OF THIS SECTION.
      2. MINIMUM FIVE (5) YEARS EXPERIENCE IN IRRIGATION SPRINKLER INSTALLATIONS.
      3. MINIMUM FIVE (5) SATISFACTORILY COMPLETED IRRIGATION SPRINKLER INSTALLATIONS IN PAST THREE (3) YEARS OF PROJECTS SIMILAR IN SIZE, SCOPE, AND COMPLEXITY REQUIRED FOR THIS PROJECT BEFORE BIDDING.
      4. USE TRAINED PERSONNEL FAMILIAR WITH REQUIRED IRRIGATION SPRINKLER PROCEDURES AND WITH CONTRACT DOCUMENTS.
      5. FOREMAN OR SUPERVISOR REQUIRED TO ATTEND SITE MEETINGS.
   F. UPON REQUEST, SUBMIT DOCUMENTATION.
   B. IRRIGATION INSTALLER:
      1. PERFORM INSTALLATION UNDER DIRECTION OF FOREMAN OR SUPERVISOR.
      2. MINIMUM THREE (3) YEARS EXPERIENCE IN IRRIGATION SPRINKLER INSTALLATIONS SIMILAR IN SIZE, SCOPE, AND COMPLEXITY.

8. WARRANTY:
   WARRANTY IRRIGATION SYSTEM FOR PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION. AS PART OF WARRANTY, INSTALLER SHALL PERFORM FOLLOWING:
      1) FILLING AND REPAIRING DEPRESSIONS AND REPLACING PLANTINGS DUE TO SETTLEMENT OF IRRIGATION SYSTEM TRENCHES.
      2) REPAIRING FAULTY EQUIPMENT, WIRING AND PIPE INSTALLATIONS.
      3) REPAIRING EQUIPMENT AND PIPE NOT PROPERLY WINTERIZED.

9. VERIFICATION OF CONDITIONS:
   A. PERFORM SOURCE PRESSURE TEST AT STUB-OUT ON MAIN WATER LINE PROVIDED FOR IRRIGATION SYSTEM, OR AT NEAR-BY FIRE HYDRANT.
   B. NOTIFY ARCHITECT IF PRESSURES OVER 70 PSI (480 KPA) OR UNDER 55 PSI (379 KPA) ARE FOUND TO DETERMINE IF SOME RE-DESIGN OF SYSTEM IS NECESSARY BEFORE BEGINNING WORK ON SYSTEM.

10. PROTECTION:
   A. REPAIR OR REPLACE WORK DAMAGED DURING COURSE OF WORK AT NO ADDITIONAL COST TO OWNER. IF DAMAGED WORK IS NEW, INSTALLER OF ORIGINAL WORK SHALL PERFORM REPAIR OR REPLACEMENT.
   B. DO NOT CUT EXISTING TREE ROOTS MEASURING OVER 2 INCHES (50 MM) IN DIAMETER IN ORDER TO INSTALL IRRIGATION LINES.

11. LAYOUT OF IRRIGATION SYSTEM:
   A. LOCATION OF IRRIGATION EQUIPMENT SHOWN ON CONTRACT DRAWINGS IS APPROXIMATE. ACTUAL PLACEMENT MAY VARY SLIGHTLY AS IS REQUIRED TO ACHIEVE FULL, EVEN COVERAGE WITHOUT SPRAYING ONTO BUILDINGS, SIDEWALKS, FENCES, ETC.
   B. DURING LAYOUT, CONSULT WITH ARCHITECT TO VERIFY PROPER PLACEMENT AND MAKE RECOMMENDATIONS, WHERE REVISIONS ARE ADVISABLE.
   C. MINOR ADJUSTMENTS IN SYSTEM LAYOUT WILL BE PERMITTED TO AVOID EXISTING FIXED OBSTRUCTIONS.
   D. MAKE CERTAIN CHANGES FROM CONTRACT DOCUMENTS ARE SHOWN ON RECORD DRAWINGS.

12. TRENCHING AND BACKFILLING:
   A. PULLING OF PIPE IS NOT PERMITTED.
   B. EXCAVATE TRENCHES TO SPECIFIED DEPTH. REMOVE ROCKS LARGER THAN 1-1/2 INCH (38 MM) IN ANY DIRECTION FROM BOTTOM OF TRENCH. SEPARATE OUT ROCKS LARGER THAN 1-1/2 INCH (38 MM) IN ANY DIRECTION UNCOVERED IN TRENCHING OPERATION FROM EXCAVATED MATERIAL AND REMOVE FROM AREAS TO RECEIVE LANDSCAPING.
   C. COVER PIPE BOTH TOP AND SIDES WITH 2 INCHES (50 MM) OF ROCK-FREE SOIL OR SAND. REMAINDER OF BACKFILL TO TOPSOIL DEPTH USING NATIVE MATERIAL.
   D. DO NOT COVER PRESSURE MAIN, IRRIGATION PIPE, OR FITTINGS UNTIL LANDSCAPE ARCHITECT HAS INSPECTED AND APPROVED SYSTEM.

13. SLEEVING:
   A. SLEEVE WATER LINES AND CONTROL WIRES UNDER WALKS AND PAVING. EXTEND SLEEVES 6 INCHES (150 MM) MINIMUM BEYOND WALK OR PAVEMENT EDGE. COVER SLEEVE ENDS UNTIL PIPES AND WIRES ARE INSTALLED TO KEEP SLEEVE CLEAN AND FREE OF DIRT AND DEBRIS.
   B. POSITION SLEEVES WITH RESPECT TO BUILDINGS AND OTHER OBSTRUCTIONS SO PIPE CAN BE EASILY REMOVED.
   C. INSTALL SLEEVES AND CONDUIT BEFORE INSTALLATION OF CAST-IN-PLACE CONCRETE SITE ELEMENTS AND PAVING. COORDINATE WITH APPROPRIATE SUB-CONTRACTOR AS NEEDED FOR TIMELY INSTALLATION.

14. GRADES AND DRAINING:
   IN LOCALITIES WHERE WINTERIZATION IS REQUIRED, GRADE PIPING SO SYSTEM CAN BE COMPLETELY DRAINED OR BLOWN OUT WITH COMPRESSED AIR. IF SYSTEM IS NOT DESIGNED TO BE BLOWN OUT WITH COMPRESSED AIR:
      1. SLOPE PIPE TO DRAIN TO CONTROL VALVE BOX WHERE POSSIBLE.
      2. WHERE THIS IS NOT POSSIBLE, SLOPE PIPE TO MINIMUM NUMBER OF LOW POINTS. AT THESE LOW POINTS, INSTALL:
         a) 3/4 INCH (19 MM) BRASS BALL VALVE FOR MANUAL DRAIN. DO NOT USE AUTOMATIC DRAIN VALVES.
         b) INSTALL 2 INCH (50 MM) CLASS 200 PVC PIPE OVER TOP OF DRAIN AND CUT AT FINISH GRADE.
         c) PROVIDE RUBBER VALVE CAP MARKER.
         d) PROVIDE ONE CU FT (0.03 CU M) PEA GRAVEL SUMP AT OUTLET OF EACH DRAIN.
      3. SLOPE PIPES UNDER PARKING AREAS OR DRIVEWAYS TO DRAIN OUTSIDE THESE AREAS.
      4. PROVIDE AND INSTALL QUICK-COUPLING VALVE OR VALVES IN LOCATION FOR EASY BLOWOUT OF ENTIRE SYSTEM. INSTALL QUICK COUPLER VALVES WITH 2 LINEAL FEET (0.60 M) MINIMUM OF GALVANIZED PIPE BETWEEN VALVE AND MAIN LINE.

15. INSTALLATION OF PIPE:
   A. INSTALL PIPE IN MANNER TO PROVIDE FOR EXPANSION AND CONTRACTION AS RECOMMENDED BY MANUFACTURER.
   B. UNLESS OTHERWISE INDICATED ON CONTRACT DRAWINGS, INSTALL MAIN LINES WITH MINIMUM COVER OF 18 INCHES (450 MM) BASED ON FINISHED GRADE. INSTALL LATERAL LINES, INCLUDING THOSE CONNECTING DRIP TUBING, WITH MINIMUM OF 12 INCHES (300 MM) OF COVER BASED ON FINISH GRADE.
   C. INSTALL PIPE AND WIRES UNDER DRIVEWAYS OR PARKING AREAS IN SPECIFIED SLEEVES 18 INCHES (450 MM) BELOW FINISH GRADE OR AS SHOWN ON CONTRACT DRAWINGS.
   D. LOCATE PIPE SO NO SPRINKLER HEAD WILL BE CLOSER THAN 12 INCHES (300 MM) FROM BUILDING FOUNDATION.
   E. CUT PLASTIC PIPE SQUARE. REMOVE BURRS AT CUT ENDS BEFORE INSTALLATION SO UNOBSTRUCTED FLOW WILL RESULT.
   F. MAKE SOLVENT WELD JOINTS AS FOLLOWS:
      1. DO NOT MAKE SOLVENT WELD JOINTS IF AMBIENT TEMPERATURE IS BELOW 35 DEG F (2 DEG C).
      2. CLEAN MATING PIPE AND FITTING WITH CLEAN, DRY CLOTH AND APPLY ONE (1) COAT OF PRIMER TO EACH SURFACE.
      3. APPLY UNIFORM COAT OF SOLVENT CEMENT TO OUTSIDE OF PIPE.
      4. APPLY SOLVENT CEMENT TO FITTING IN SIMILAR MANNER.
      5. INSERT PIPE COMPLETELY INTO FITTING.
      6. GIVE PIPE OR FITTING QUARTER TURN TO INSURE EVEN DISTRIBUTION OF SOLVENT AND MAKE SURE PIPE IS INSERTED TO FULL DEPTH OF FITTING SOCKET.
      7. ALLOW JOINTS TO SET AT LEAST TWENTY-FOUR (24) HOURS BEFORE APPLYING PRESSURE TO PVC PIPE.
   G. TAPE THREADED CONNECTIONS WITH TEFLON TAPE.
   H. IF PIPE IS LARGER THAN 3 INCHES (75 MM), INSTALL JOINT RESTRAINTS WHEREVER CHANGE OF DIRECTION OCCURS ON PVC MAIN LINES.

16. CONTROL VALVES AND CONTROL VALVE WIRING:
   A. INSTALL VALVES IN PLASTIC BOXES WITH REINFORCED HEAVY-DUTY PLASTIC COVERS. LOCATE VALVE BOXES WITHIN 12 INCHES (300 MM) TO 24 INCHES (600 MM) OF SIDEWALKS AND SHRUB BED EDGES WITH TOPS AT FINISH GRADE. DO NOT INSTALL MORE THAN ONE (1) VALVE IN SINGLE BOX.
   B. INSTALL EQUIPMENT FOR EASE OF REMOVAL.
   C. PLACE 3 INCHES (75 MM) MINIMUM OF PEA GRAVEL BELOW BRICKS SUPPORTING VALVE BOXES TO DRAIN BOX. SET VALVE BOXES OVER VALVE SO ALL PARTS OF VALVE CAN BE REACHED FOR SERVICE. SET COVER OF VALVE BOX EVEN WITH FINISH GRADE. VALVE BOX CAVITY SHALL BE REASONABLY FREE FROM DIRT AND DEBRIS.
   D. WIRING:
      1. USE WATERPROOF WIRE CONNECTORS CONSISTING OF PROPERLY-SIZED WIRE NUT AND GREASE CAP AT SPLICES AND LOCATE ALL SPLICES WITHIN VALVE BOXES.
         a) WIRE LENGTH FROM ANY DECODER TO THE CONTROLLER SHALL BE NO MORE THAN 8,500 FT (2 590 M).
         b) DO NOT LOOP WIRING.
         c) INSTALL LIGHTNING ARRESTOR(S) AS PER MANUFACTURER'S RECOMMENDATIONS.
         d) FOLLOW ALL OTHER MANUFACTURER RECOMMENDATIONS WHEN INSTALLING WIRE.
      2. TRADITIONAL WIRING:
         a) TAPE CONTROL WIRE TO SIDE OF MAIN LINE EVERY 10 FEET (3.050 M). WHERE CONTROL WIRE LEAVES MAIN OR LATERAL LINE, ENCLOSE IT IN GRAY CONDUIT.
         b) USE WHITE OR GRAY COLOR FOR COMMON WIRE AND OTHER COLORS FOR ALL OTHER WIRE. EACH COMMON WIRE MAY SERVE ONLY ONE (1) CONTROLLER.
         c) RUN ONE (1) SPARE CONTROL WIRE FROM PANEL CONTINUOUSLY FROM VALVE TO VALVE THROUGHOUT SYSTEM SIMILAR TO COMMON WIRE FOR USE AS REPLACEMENT IF WIRE FAILS:
            1) RUN SPARE WIRE TO EACH BRANCH OF SYSTEM.
            2) SPARE WIRE SHALL BE DIFFERENT COLOR THAN OTHER WIRES. USE OF GREEN WIRE IS NOT ACCEPTABLE.
            3) MARK SPARE CONTROL WIRE VISIBLY WITHIN VALVE BOX AS AN 'UN-CONNECTED WIRE'. EXTEND SPARE CONTROL WIRES 24 INCHES (600 MM) AND LEAVE COILED IN EACH VALVE BOX. MARK SPARE WIRE VISIBLY WITHIN CONTROLLER AS 'UN-CONNECTED WIRE'.
   E. ARRANGE VALVE STATIONS TO OPERATE IN AN EASY-TO-VIEW PROGRESSIVE SEQUENCE AROUND BUILDING. TAG VALVES WITH WATERPROOF LABELS SHOWING FINAL SEQUENCE STATION ASSIGNMENTS.

17. SPRINKLER HEADS AND ROTOR POP-UPS:
   A. SET SPRINKLER HEADS AND QUICK-COUPLING VALVES PERPENDICULAR TO FINISH GRADE.
   B. DO NOT INSTALL SPRINKLERS USING SIDE INLETS. INSTALL USING BASE INLETS ONLY.
   C. HEADS IMMEDIATELY ADJACENT TO MOW STRIPS, WALKS, OR CURBS SHALL BE

PLANTING NOTES:

1. BEFORE PROCEEDING WITH WORK, CHECK AND VERIFY DIMENSIONS AND QUANTITIES. REPORT VARIATIONS BETWEEN DRAWINGS AND SITE TO LANDSCAPE ARCHITECT BEFORE PROCEEDING.

2. PLANT TOTALS ARE FOR CONVENIENCE ONLY AND ARE NOT GUARANTEED. VERIFY AMOUNTS SHOWN ON CONTRACT DOCUMENTS. ALL PLANTING INDICATED ON CONTRACT DOCUMENTS IS REQUIRED UNLESS INDICATED OTHERWISE.

3. LAYOUT INDIVIDUAL TREE AND SHRUB LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS:
   A. STAKE LOCATIONS AND OUTLINE AREAS.
   B. SECURE LANDSCAPE ARCHITECT'S APPROVAL BEFORE PLANTING.
   C. MAKE MINOR ADJUSTMENTS AS MAY BE REQUESTED.

4. MAINTENANCE:
   A. GENERAL:
      1. BEFORE BEGINNING MAINTENANCE PERIOD, PLANTS SHALL BE IN AT LEAST AS SOUND, HEALTHY, VIGOROUS, AND IN APPROVED CONDITION AS WHEN DELIVERED TO SITE, UNLESS ACCEPTED BY ARCHITECT IN WRITING AT FINAL LANDSCAPE INSPECTION.
      2. MAINTAIN LANDSCAPING FOR THIRTY (30) CONTINUOUS DAYS MINIMUM AFTER SUBSTANTIAL COMPLETION. IF MAINTENANCE PERIOD IS INTERRUPTED BY NON-GROWING SEASON OR IRRIGATION WINTER SHUT-DOWN, BEGIN MAINTENANCE PERIOD AFTER START OF GROWING SEASON AS AGREED WITH ARCHITECT, AND CONTINUE ONE (1) CONTINUOUS MONTH THEREFROM.
      3. REPLACE LANDSCAPING THAT IS DEAD OR APPEARS UNHEALTHY OR NON-VIGOROUS AS DIRECTED BY ARCHITECT BEFORE END OF MAINTENANCE PERIOD. MAKE REPLACEMENTS WITHIN TEN (10) DAYS OF NOTIFICATION. LAWN BEING REPLACED SHALL BE GUARANTEED AND MAINTAINED AN ADDITIONAL THIRTY (30) DAYS FROM DATE OF REPLACEMENT.
   B. SEEDED LAWN:
      1. SEEDED LAWN AREAS WILL NOT BE ACCEPTED AS COMPLETE AND THIRTY (30) DAY MAINTENANCE PERIOD WILL NOT BEGIN UNTIL UNIFORM STAND OF GRASS AT LEAST 3 INCHES (75 MM) TALL HAS BEEN OBTAINED.
      2. AFTER GRASS IS ESTABLISHED AND 3 INCHES (75 MM) TALL, MOW LAWN AREAS AT LEAST WEEKLY TO A HEIGHT OF 2 INCHES (50 MM). DURING THIS PERIOD, PERFORM WORK NECESSARY TO MAINTAIN A FULL, EVEN STAND OF GRASS.
      3. AT END OF THIRTY (30) DAYS OF MAINTENANCE PERIOD, FERTILIZE LAWNS.
      4. APPLY HERBICIDES AS NECESSARY IN ORDER TO OBTAIN WEED FREE LAWN. APPLY HERBICIDE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS DURING CALM WEATHER WHEN AIR TEMPERATURE IS BETWEEN 50 AND 80 DEG F (10 AND 27 DEG C).
   C. SODDED LAWN:
      1. MAINTAIN SODDED LAWN AREAS UNTIL LAWN COMPLIES WITH SPECIFIED REQUIREMENTS AND THROUGHOUT MAINTENANCE PERIOD.
      2. WATER SODDED AREAS IN SUFFICIENT QUANTITIES AND AT REQUIRED FREQUENCY TO MAINTAIN SUB-SOIL IMMEDIATELY UNDER SOD CONTINUOUSLY MOIST 3 TO 4 INCHES (75 TO 100 MM) DEEP.
      3. CUT GRASS FIRST TIME WHEN IT REACHES 3 INCHES (75 MM) HIGH. CONTINUE TO MOW AT LEAST ONCE EACH WEEK THROUGHOUT MAINTENANCE PERIOD. REMOVE CLIPPINGS.
      4. APPLY HERBICIDE AS NECESSARY TO MAINTAIN WEED-FREE LAWN. APPLY HERBICIDE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS DURING CALM WEATHER WHEN AIR TEMPERATURE IS BETWEEN 50 AND 80 DEG F (10 AND 27 DEG C).
      5. AT END OF THIRTY (30) DAY MAINTENANCE PERIOD, FERTILIZE LAWNS.
   D. TREES, SHRUBS, AND PLANTS:
      1. MAINTAIN BY PRUNING, CULTIVATING, AND WEEDING AS REQUIRED FOR HEALTHY GROWTH.
      2. RESTORE PLANTING BASINS.
      3. TIGHTEN AND REPAIR STAKE AND GUY SUPPORTS AND RESET TREES AND SHRUBS TO PROPER GRADES OR VERTICAL POSITIONS AS REQUIRED.
      4. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
      5. PROVIDE SUPPLEMENTAL WATER BY HAND AS NEEDED IN ADDITION TO WATER FROM SPRINKLING SYSTEM.

5. PROTECTION:
   A. PROTECT PLANTED AREAS AGAINST TRAFFIC OR OTHER USE IMMEDIATELY AFTER PLANTING IS COMPLETED BY PLACING ADEQUATE WARNING SIGNS AND BARRICADES.
   B. PROVIDE ADEQUATE PROTECTION OF PLANTED AREAS AGAINST TRESPASSING, EROSION, AND DAMAGE OF ANY KIND. REMOVE THIS PROTECTION AFTER ARCHITECT HAS ACCEPTED PLANTED AREAS.
   C. TAKE CARE IN PERFORMING LANDSCAPING WORK TO AVOID CONDITIONS THAT WILL CREATE HAZARDS. POST SIGNS OR BARRIERS AS REQUIRED.
   D. PROVIDE ADEQUATE MEANS FOR PROTECTION FROM DAMAGE THROUGH EXCESSIVE EROSION, FLOODING, HEAVY RAINS, ETC. REPAIR OR REPLACE DAMAGED AREAS.
   E. KEEP SITE WELL DRAINED AND LANDSCAPE EXCAVATIONS DRY.

6. WARRANTY:
   1. PROVIDE WRITTEN WARRANTIES AS FOLLOWS:
      A. WARRANTY WILL EXTEND THIRTY (30) CONTINUOUS DAYS MINIMUM AFTER SUBSTANTIAL COMPLETION. IF A CONTINUOUS FIRST THIRTY (30) DAYS OF THE WARRANTY PERIOD IS INTERRUPTED BY NON-GROWING SEASON OR IRRIGATION WINTER SHUT-DOWN, BEGIN WARRANTY PERIOD AFTER START OF GROWING SEASON AS AGREED ON WITH ARCHITECT. THEREAFTER, CONTINUE WARRANTY PER THE PERIOD DESCRIBED HEREIN.
      B. WARRANTY SHRUBS, GROUND COVERS, AND VINES TO LIVE AND REMAIN IN STRONG, VIGOROUS, AND HEALTHY CONDITION FOR 90 DAYS MINIMUM FROM DATE OF SUBSTANTIAL COMPLETION.
      C. WARRANTY TREES TO LIVE AND REMAIN IN STRONG, VIGOROUS, AND HEALTHY CONDITION FOR ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
      D. WHEN TREES ARE COMPLETELY ACCEPTED AT END OF WARRANTY PERIOD, REMOVE STAKING.

7. DELIVERY, STORAGE, AND HANDLING:
   A. DELIVERY AND ACCEPTANCE REQUIREMENTS:
      1. DELIVER TREES, SHRUBS, GROUND COVERS, AND PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND INSTALL IMMEDIATELY.
      2. DO NOT PRUNE BEFORE DELIVERY, EXCEPT AS APPROVED BY LANDSCAPE ARCHITECT.
      3. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE.
      4. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY NATURAL SHAPE.
      5. PROVIDE PROTECTIVE COVERING DURING DELIVERY.
   B. STORAGE AND HANDLING REQUIREMENTS;
      1. HANDLE BALLED STOCK BY ROOT BALL OR CONTAINER. DO NOT DROP TREES AND SHRUBS DURING DELIVERY.
      2. IF PLANTING IS DELAYED MORE THAN SIX HOURS AFTER DELIVERY, SET PLANTING MATERIALS IN SHADE AND PROTECT FROM WEATHER AND MECHANICAL DAMAGE.
      3. SET BALLED STOCK ON GROUND AND COVER BALL WITH SOIL, SAW DUST, OR OTHER ACCEPTABLE MATERIAL APPROVED BY LANDSCAPE ARCHITECT.
      4. DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING.
      5. DO NOT STORE PLANT MATERIAL ON PAVEMENT.
      6. WATER ROOT SYSTEMS OF TREES AND SHRUBS STORED ON SITE WITH FINE SPRAY. WATER AS OFTEN AS NECESSARY TO MAINTAIN ROOT SYSTEMS IN MOIST CONDITION. DO NOT ALLOW PLANT FOLIAGE TO DRY OUT.

8. PLANT MATERIAL:
   A. CONFORM TO REQUIREMENTS OF PLANT LIST AND KEY ON CONTRACT DOCUMENTS AND TO ANLA / ANSI Z60.1.
   B. PLANT NAMES USED IN PLANT LIST CONFORM TO 'STANDARDIZED PLANT NAMES' BY AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE EXCEPT IN CASES NOT COVERED. IN THESE INSTANCES, FOLLOW CUSTOM OF NURSERY TRADE. PLANTS SHALL BEAR TAG SHOWING GENUS, SPECIES, AND VARIETY OF AT LEAST 10 PERCENT OF EACH SPECIES DELIVERED TO SITE.
   C. QUALITY:
      1. PLANTS SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM PLANT DISEASE, INSECT PESTS OR THEIR EGGS, NOXIOUS WEEDS, AND HAVE HEALTHY, NORMAL ROOT SYSTEMS. CONTAINER STOCK SHALL BE WELL ESTABLISHED AND FREE OF EXCESSIVE ROOT-BOUND CONDITIONS.
      2. DO NOT PRUNE PLANTS OR TOP TREES PRIOR TO DELIVERY.
      3. PLANT MATERIALS SHALL BE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT AS TO SIZE, HEALTH, QUALITY, AND CHARACTER.
      4. BARE ROOT TREES ARE NOT ACCEPTABLE.
      5. PROVIDE PLANT MATERIALS FROM LICENSED NURSERY OR GROWER.
   D. MEASUREMENTS:
      1. MEASURE HEIGHT AND SPREAD OF SPECIMEN PLANT MATERIALS WITH BRANCHES IN THEIR NORMAL POSITION AS INDICATED ON CONTRACT DOCUMENTS OR PLANT LIST.
      2. MEASUREMENT SHOULD BE AVERAGE OF PLANT, NOT GREATEST DIAMETER. FOR EXAMPLE, PLANT MEASURING 15 INCHES (375 MM) IN WIDEST DIRECTION AND 9 INCHES (225 MM) IN NARROWEST WOULD BE CLASSIFIED AS 12 INCH (300 MM) STOCK.
      3. PLANTS PROPERLY TRIMMED AND TRANSPLANTED SHOULD MEASURE SAME IN EVERY DIRECTION.
      4. MEASURE CALIPER OF TREES 6 INCHES (150 MM) ABOVE SURFACE OF GROUND.
      5. WHERE CALIPER OR OTHER DIMENSIONS OF PLANT MATERIALS ARE OMITTED FROM PLANT LIST, PLANT MATERIALS SHALL BE NORMAL STOCK FOR TYPE LISTED.
      6. PLANT MATERIALS LARGER THAN THOSE SPECIFIED MAY BE SUPPLIED, WITH PRIOR WRITTEN APPROVAL OF LANDSCAPE ARCHITECT, AND:
         a) IF COMPLYING WITH CONTRACT DOCUMENT REQUIREMENTS IN ALL OTHER RESPECTS.
         b) IF AT NO ADDITIONAL COST TO OWNER.
         c) IF SIZES OF ROOTS OR BALLS ARE INCREASED PROPORTIONATELY.
   E. SHAPE AND FORM:
      1. PLANT MATERIALS SHALL BE SYMMETRICAL OR TYPICAL FOR VARIETY AND SPECIES AND CONFORM TO MEASUREMENTS SPECIFIED IN PLANT LIST.
      2. WELL GROWN MATERIAL WILL GENERALLY HAVE HEIGHT EQUAL TO OR GREATER THAN SPREAD. HOWEVER, SPREAD SHALL NOT BE LESS THAN 2/3'S OF HEIGHT.

9. EXCAVATION:
   A. IF UNDERGROUND CONSTRUCTION WORK OR OBSTRUCTIONS ARE ENCOUNTERED IN EXCAVATION OF PLANTING HOLES, LANDSCAPE ARCHITECT WILL SELECT ALTERNATE LOCATIONS.
   B. PLANT EXCAVATION SIZE:
      1. DIAMETER: TWICE DIAMETER OF ROOT BALL OR CONTAINER MINIMUM.
      2. DEPTH: EQUAL TO CONTAINER OR ROOTBALL DEPTH.
   C. UNLESS EXCAVATED MATERIAL MEETS TOPSOIL REQUIREMENTS AS SPECIFIED IN "TOPSOIL & GRADING NOTES", REMOVE FROM LANDSCAPE AREAS AND DO NOT USE FOR LANDSCAPING PURPOSES.
   D. ROUGHEN SIDES AND BOTTOMS OF EXCAVATIONS.
   E. WITH APPROVAL OF LANDSCAPE ARCHITECT, SELECT FIVE (5) TYPICAL PLANTING EXCAVATIONS THROUGHOUT SITE FOR DRAINAGE TESTING.
      1. THAT WATER DRAINS AWAY AT RATE OF 3 INCHES (75 MM) PER HOUR MINIMUM. INFORM LANDSCAPE ARCHITECT IN WRITING OF EXCAVATIONS WHERE WATER DOES NOT DRAIN PROPERLY.
      2. SELECT THREE (3) EXCAVATIONS APPROXIMATELY 5 FEET (1 500 MM) AWAY FROM EACH NON-DRAINING EXCAVATION AND REPEAT TESTS. CONTINUE TESTING PROCESS UNTIL NON-DRAINING AREAS HAVE BEEN IDENTIFIED.
      3. IN EXCAVATIONS LOCATED IN IDENTIFIED NON-DRAINING AREAS, AUGER 6 INCH (150 MM) DIAMETER HOLE 4 FEET (1 200 MM) DEEP IN LOW POINT OF EACH EXCAVATION AND FILL WITH TAMPED PLANTING MIX.
      4. DO NOT PLANT TREES OR SHRUBS IN HOLES THAT DO NOT PROPERLY DRAIN.

10. PLANTING:
   1. REMOVING BINDERS AND CONTAINERS:
      A. REMOVE TOP ONE / THIRD OF WIRE BASKET AND BURLAP BINDERS.
      B. REMOVE PLASTIC AND TWINE BINDERS FROM AROUND ROOT BALL AND TREE TRUNK.
      C. REMOVE PLASTIC CONTAINERS.
      D. REMOVE WOOD BOXES FROM AROUND ROOT BALL. REMOVE BOX BOTTOMS BEFORE POSITIONING PLANT IN HOLE. AFTER PLANT IS PARTIALLY PLANTED, REMOVE REMAINDER OF BOX WITHOUT INJURING ROOT BALL.
   2. PLANT IMMEDIATELY AFTER REMOVING BINDING MATERIAL AND CONTAINERS:
      A. PLACE TREE AND SHRUB ROOT BALLS ON UNDISTURBED SOIL.
      B. AFTER WATERING AND SETTLING, TOP OF TREE ROOT BALLS SHALL BE APPROXIMATELY TWO INCHES (50 MM) HIGHER THAN FINISHED GRADE AND TRUNK FLARE IS VISIBLE.
      C. SHRUB ROOT BALLS SHALL BE APPROXIMATELY ONE INCH (25 MM) HIGHER THAN FINISHED GRADE.
   3. PROPERLY CUT OFF BROKEN OR FRAYED ROOTS.
   4. CENTER PLANT IN HOLE, REMOVE REMAINING WIRE BASKET AND BURLAP TAKING CARE NOT DO DAMAGE ROOT BALL:
      A. REPLACE DAMAGED MATERIAL.
      B. BACKFILL WITH SPECIFIED PLANTING MIX.
      C. EXCEPT IN HEAVY CLAY SOILS, MAKE RING OF MOUNDED SOIL AROUND HOLE PERIMETER TO FORM WATERING BASIN.
   5. ADD FERTILIZER IN PLANT PIT AS PER 'TOPSOIL TESTING REPORT' AND DURING PROPER SEASON.
   6. FILL LANDSCAPE EXCAVATIONS WITH TAMPED PLANTING MIX AND RECOMMENDED FERTILIZER:
      A. COMPACT IN 6 INCH (150 MM) LIFTS.
      B. SETTLE BY WATERING TO ENSURE TOP OF ROOT BALL IS 2 INCHES (50 MM) HIGHER FOR TREES AND ONE INCH (25 MM) HIGHER FOR SHRUBS THAN SURROUNDING SOIL FOLLOWING COMPACTION AND SETTLING.
   7. DO NOT USE MUDDY SOIL FOR BACKFILLING.
   8. MAKE ADJUSTMENTS IN POSITIONS OF PLANTS AS DIRECTED BY LANDSCAPE ARCHITECT.
   9. THOROUGHLY WATER TREES AND SHRUBS IMMEDIATELY AFTER PLANTING.
   10. AT BASE OF EACH TREE, LEAVE 36 INCH (900 MM) DIAMETER CIRCLE FREE OF ANY GRASS.

DRAWING INDEX

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STATE OF UTAH
02/09/2026
SCOTT A. SCHOONOVER
349757
LICENSED LANDSCAPE ARCHITECT

LIFE TIME - HOLLADAY
1975 E. RODEO WALK DRIVE
HOLLADAY, UTAH

REVISIONS

REV	DATE	DESCRIPTION

PROJECT NO: 23301.E
DRAWN BY: TG
CHECKED BY: SS
DATE: 02/09/26
SUBMISSION: ISSUE FOR PERMIT/BID

LANDSCAPE NOTES & SPECIFICATIONS

L0.01

LANDSCAPE SCHEDULE

SYMBOL	QTY.	COMMON NAME	BOTANICAL NAME	SIZE	DETAIL
DECIDUOUS TREES					
	7	QUEEN ELIZABETH HEDGE MAPLE	ACER CAMPESTRE 'EVELYN'	2" CAL.	D/L5.01
	10	AUTUMN BRILLIANCE SERVICEBERRY	AMELANCHIER x GRANDIFLORA 'AUTUMN BRILLIANCE'	2" CAL.	D/L5.01
1	12	SPRING SNOW CRABAPPLE	MALUS x 'SPRING SNOW'	2" CAL.	D/L5.01
	4	SKINNY GENES® OAK	QUERCUS x BIMUNDORUM 'JFS-KW2QX'	3"-4" CAL.	D/L5.01
	16	FRONTIER ELM	ULMUS 'FRONTIER'	3"-4" CAL.	D/L5.01
	4	ALLEE LACEBARK ELM	ULMUS PARVIFLORA 'ELMER II'	2" CAL.	D/L5.01
×	3	LACEBARK ELM (BY OTHERS)			
EVERGREEN TREES					
	15	BLUE NOOTKA CYPRESS	CHAMAECYPARIS NOOTKATENSIS 'GLAUCA'	6' HT MIN.	E/L5.01
	12	ROCKY MOUNTAIN JUNIPER	JUNIPERUS SCOPULORUM	6' HT MIN.	E/L5.01
	29	MOONGLOW JUNIPER	JUNIPERUS SCOPULORUM 'MOONGLOW'	8' HT MIN.	E/L5.01
	9	BUSH'S LACE ENGLEMAN SPRUCE	PICEA ENGELMANNII 'BUSH'S LACE'	8' HT MIN.	E/L5.01
	7	BONNY BLUE COLORADO BLUE SPRUCE	PICEA PUNGENS GLAUCA 'BONNY BLUE'	8' HT MIN.	E/L5.01
	5	PINYON PINE	PINUS EDULIS	8' HT MIN.	E/L5.01
SHRUBS					
	18	SASKATOON SERVICEBERRY	AMELANCHIER ALNIFOLIA	5 GAL.	B/L5.01
1	40	PANCHITO MANZANITA	ARCTOSTAPHYLOS x COLORADOENSIS 'PANCHITO'	5 GAL.	B/L5.01
	40	WYOMING BIG SAGEBRUSH	ARTEMISIA TRIDENTATA 'WYOMINGENSIS'	5 GAL.	B/L5.01
1	25	RED TWIG DOGWOOD	CORNUS SERICEA 'BAILEYI'	5 GAL.	B/L5.01
	34	DWARF RUBBER RABBITBRUSH	ERICAMERIA NAUSEOSA NAUSEOSUS	5 GAL.	B/L5.01
	8	JELENA WITCH HAZEL	HAMAMELIS x INTERMEDIA 'JELENA'	5 GAL.	E/L5.01
1	12	ROSE OF SHARON	HIBISCUS SYRIACUS 'ARDENS'	5 GAL.	B/L5.01
	89	BROADMOOR JUNIPER	JUNIPERUS SABINA 'BROADMOOR'	5 GAL.	B/L5.01
	77	SCHIPKA LAUREL	PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	6" HT.	B/L5.01
	45	GRO-LOW FRAGRANT SUMAC	RHUS AROMATICA 'GRO-LOW'	5 GAL.	B/L5.01
	21	TIGER EYES SUMAC	RHUS TYPHINA 'BAILTIGER'	10 GAL.	B/L5.01
	90	GRO-LOW SUMAC (BY OTHERS)			
	46	BROADMOOR JUNIPER (BY OTHERS)			
	49	DWARF BURNING BUSH (BY OTHERS)			
PERENNIALS					
	149	BLANKET FLOWER	GAILLARDIA ARISTATA	1 GAL.	A/L5.01
	275	JOHNSON'S BLUE CRANESBILL	GERANIUM 'JOHNSON'S BLUE'	3 GAL.	A/L5.01
	30	PRAIRIE SMOKE	GEUM TRIFLORUM 'PRAIRIE SMOKE'	1 GAL.	A/L5.01
	40	AIRBRUSH EFFECT HARDY HIBISCUS	HIBISCUS 'AIRBRUSH EFFECT'	5 GAL.	A/L5.01
	170	STEPPSUNS SUNSET GLOW PENSTEMON	PENSTEMON PINIFOLIUS 'P019S'	3 GAL.	A/L5.01
1	56	ROCKY MOUNTAIN BEARDTONGUE	PENSTEMON STRICTUS	5 GAL.	A/L5.01
ORNAMENTAL GRASSES					
	126	BLONDE AMBITION BLUE GRAMA GRASS	BOUTELOUA GRACILIS 'BLONDE AMBITION'	1 GAL.	A/L5.01
	21	HARDY PAMPUS GRASS	ERIANTHUS RAVENNAE	5 GAL.	A/L5.01
1	233	ATLAS FESCUE	FESTUCA MAIREI	1 GAL.	A/L5.01
	141	BLUE OAT GRASS	HELICTOTRICHON SEMPERVIRENS	5 GAL.	A/L5.01

SYMBOL	QTY.	DESCRIPTION	INSTRUCTIONS	SIZE	SOURCE	DETAIL
BOULDERS						
	78	"BROWNS CANYON" BOULDERS	BURY 1/3 THE DEPTH OF THE BOULDER INTO FINISH GRADE. DO NOT USE BOULDERS THAT ARE LESS THAN 24" DIAMETER. BOULDER SHALL BE WASHED AND FREE OF DIRT AND OTHER FOREIGN DEBRIS	2'-4' DIAMETER IN ALL DIRECTIONS	BOULDERS FROM BROWN'S CANYON QUARRY. CONTACT ONE SOURCE MATERIALS, ONESOURCEMATERIALS.COM, (385) 447-9374.	H/L5.01
CRUSHED ROCK						
1	3,004 S.F.	"BROWNS CANYON" CRUSHED ROCK	INSTALLED A MINIMUM 3" DEEP. INSTALL OVER DEWITTS 4.1 WEED BARRIER FABRIC. CRUSHED ROCK SHALL BE FREE OF DIRT & OTHER FOREIGN DEBRIS.	2"-4" DIAMETER	CRUSHED ROCK FROM BROWN'S CANYON QUARRY. CONTACT ONE SOURCE MATERIALS, ONESOURCEMATERIALS.COM, (385) 447-9374.	G/L5.01
1	22,528 S.F.	"BROWNS CANYON" CRUSHED ROCK	INSTALLED A MINIMUM 3" DEEP. INSTALL OVER DEWITTS 4.1 WEED BARRIER FABRIC. CRUSHED ROCK SHALL BE FREE OF DIRT & OTHER FOREIGN DEBRIS.	3/4" DIAMETER	CRUSHED ROCK FROM BROWN'S CANYON QUARRY. CONTACT ONE SOURCE MATERIALS, ONESOURCEMATERIALS.COM, (385) 447-9374.	G/L5.01
MULCH						
1	8,272 S.F.	SOIL PEP	INSTALLED A MINIMUM 3" DEEP. INSTALL OVER DEWITTS 4.1 WEED BARRIER FABRIC. BARK MULCH SHALL BE FREE OF DIRT, ROCK AND OTHER FOREIGN DEBRIS.		MILLER COMPANIES (435) 245-3157 OR APPROVED EQUAL	G/L5.01
	484 S.F.	PREMIUM DARK BROWN BARK MULCH (TO MATCH EXISTING)	INSTALLED A MINIMUM 3" DEEP. INSTALL OVER DEWITTS 4.1 WEED BARRIER FABRIC. BARK MULCH SHALL BE FREE OF DIRT, ROCK AND OTHER FOREIGN DEBRIS.		MILLER COMPANIES (435) 245-3157 OR APPROVED EQUAL	G/L5.01
LAWN						
	4,032 S.F.	"DESERT SAGE" LAWN SOD - TWCA CERTIFIED	INSTALL OVER MINIMUM 5" TOPSOIL LAYER.		CHANSHARE FARMS (866) SOD-EASY OR APPROVED EQUAL	F/L5.01
	3,065 S.F.	"BIO-NATIVE" NATIVE GRASS SOD	INSTALL OVER MINIMUM 5" TOPSOIL LAYER.		BIOGRASS SOD FARMS, (801)562-9090, BIOGRASS.COM	F/L5.01

REFERENCE NOTES

L-1. METAL EDGING
DETAIL I/L5.01

L-2. SITE LIGHTING - SEE LIGHTING SCHEDULE ON SHEET L4.01

L-3. CONCRETE MOWSTRIP - SEE ARCHITECTURAL SITE PLAN FOR DETAILS AND SPECIFICATIONS

L-4. ARTIFICIAL TURF AREA - SEE ARCHITECTS PLANS FOR DETAILS & SPECIFICATIONS

GENERAL NOTE

1. REFER TO COMMON EARTHWORK, TOPSOIL & GRADING, AND PLANTING NOTES ON SHEET L0.01
2. ALL NEW LAWN SOD SHALL BE A TWCA CERTIFIED VARIETY - SEE LANDSCAPE SCHEDULE.

ALWAYS PLANT ACCORDING TO CENTER POINT OF THE SYMBOL

AVOID CUTTING UNDERGROUND UTILITIES. IT'S COSTLY.
Call BEFORE YOU Dig
1-800-662-4111

NOTICE!
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND RESTORATION OF ALL BURIED OR ABOVE GROUND UTILITIES, SHOWN OR NOT SHOWN ON THE PLANS.

NORTH

0 20 40 60 ft

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LIFE TIME - HOLLADAY
1975 E. RODEO WALK DRIVE
HOLLADAY, UTAH

REVISIONS

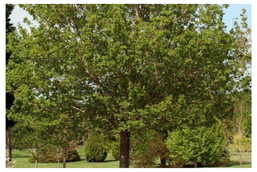
REV	DATE	DESCRIPTION
	26-04-17	ADDENDUM 01.5

PROJECT NO:	23301.E
DRAWN BY:	TG
CHECKED BY:	SS
DATE:	02/09/26
SUBMISSION:	ISSUE FOR PERMIT/BID

LANDSCAPE PLANTING PLAN

L2.01

DECIDUOUS TREES



QUEEN ELIZABETH HEDGE MAPLE
ACER CAMPESTRE 'EVELYN'

SIZE: 25-35' H x 25-35' W
WATER ZONE: Td3

AUTUMN BRILLIANCE SERVICEBERRY
AMELANCHIER x GRANDIFLORA 'AUTUMN BRILLIANCE'

SIZE: 25' H x 20' W
WATER ZONE: Sd1

SPRING SNOW CRABAPPLE
MALUS x 'SPRING SNOW'

SIZE: 20' H x 16' W

SKINNY GENES COLUMNAR OAK
QUERCUS X BIMUNDORUM 'JFS-KW2QX'

SIZE: 20-35' H x 8-16' W
WATER ZONE: Td3

FRONTIER ELM
ULMUS 'FRONTIER'

SIZE: 30-40' H x 20-30' W

ALLEE LACEBARK ELM
ULMUS PARVIFLORA 'ELMER II'

SIZE: 50-60' H x 20' W
WATER ZONE: Td3

EVERGREEN TREES

BUSH'S LACE ENGELMANN SPRUCE
PICEA ENGELMANNII 'BUSH'S LACE'

SIZE: 15' H x 6' W

ROCKY MOUNTAIN JUNIPER
JUNIPERUS SCOPULORUM

SIZE: 20' H x 10' W
WATER ZONE: Te2

BLUE NOOTKA CYPRESS
CHAMAECYPARIS NOOTKATENSIS 'GLAUCA'

SIZE: 15-20' H x 5-6' W

MOONGLOW JUNIPER
JUNIPERUS SCOPULORUM 'MOONGLOW'

SIZE: 15-20' H x 8' W
WATER ZONE: Te2

BONNY BLUE SPRUCE
PICEA PUNGENS GLAUCA 'BONNY BLUE'

SIZE: 30-40' H x 20' W
WATER ZONE: Te3

PINYON PINE
PINUS EDULIS

SIZE: 15' H x 12' W
WAATER ZONE: Te1

SHRUBS

SASKATOON SERVICEBERRY
AMELANCHIER ALNIFOLIA

SIZE: 6-15' H x 8' W
WATER ZONE: Sd2

PANCHITO MANZANITA
ARCTOSTAPHYLOS x COLORADOENSIS 'PANCHITO'

SIZE: 2' H x 5' W
WATER ZONE: Se1

WYOMING BIG SAGEBRUSH
ARTEMISIA TRIDENTATA 'WYOMINGENSIS'

SIZE: 4-6' H x 4-6 W
WATER ZONE: Sd1

JELENA WITCH HAZEL
HAMAMELIS x INTERMEDIA 'JELENA'

SIZE: 8-12' H x 8-12' W

RED TWIG DOGWOOD
CORNUS SERICEA 'BAILEYI'

SIZE: 8' H x 5' W

DWARF RUBBER RABBITBRUSH
ERICAMERIA NAUSEOSA NAUSEOSUS

SIZE: 4-6' H x 6' W

ROSE OF SHARON
HIBISCUS SYRIACUS 'ARDENS'

SIZE: 10-12' H x 10' W
WATER ZONE: Sd3

BROADMOOR JUNIPER
JUNIPERUS SABINA 'BROADMOOR'

SIZE: 2-3' H x 4-6' W
WATER ZONE: Se1

SCHIPKA LAUREL
PRUNUS LAUROCERASUS 'SCHIPKAENSIS'

SIZE: 8-10' H x 6' W

GRO-LOW SUMAC
RHUS AROMATICA 'GRO-LOW'

SIZE: 2' H x 6-8' W
WATER ZONE: GV1

TIGER EYES SUMAC
RHUS TYPHINA 'Bailtiger' PP16185'

SIZE: 6' H x 5-8' W
WATER ZONE: Sd2

PERENNIALS

BLANKET FLOWER
GAILLARDIA ARISTATA

SIZE: 18-24" H x 2' W
WATER ZONE: P1

JOHNSON'S BLUE CRANESBILL
GERANIUM 'JOHNSON'S BLUE'

SIZE: 1-2' H x 2-3' W
WATER ZONE: P3

PRAIRIE SMOKE
GEUM TRIFLORUM 'PRAIRIE SMOKE'

SIZE: 18-24" H x 12" W

AIRBRUSH EFFECT HARDY HIBISCUS
HIBISCUS 'AIRBRUSH EFFECT' PP29295

SIZE: 3' H x 3' W
WATER ZONE: Sd3

STEPPSUNS SUNSET GLOW PENSTEMON
PENSTEMON PINIFOLIUS 'P019S'

SIZE: 18" H x 2' W
WATER ZONE: P1

ROCKY MOUNTAIN PENSTEMON
PENSTEMON STRICTUS

SIZE: 3' H x 3' W
WATER ZONE: P2

ORNAMENTAL GRASSES

BLUE GRAMA GRASS
BOUTELONA GRACILIS

SIZE: 1-2' H x 1-2' W
WATER ZONE: Tw0

HARDY PAMPUS GRASS
ERIANTHUS RAVENNAE

SIZE: 8-10' H x 4-6' W

ATLAS FESCUE
FESTUCA MAIREI

SIZE: 2-3' H x 2-3' W
WATER ZONE: Tw1

SAPPHIRE BLUE OAT GRASS
HELICTOTRICHON SEMPERVIRENS 'SAPHIRSPRUDEL'

SIZE: 2-3' H x 2-3' W
WATER ZONE: Tw1

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STATE OF UTAH
02/09/2026
SCOTT A. SCHOONOVER
349757
LICENSED LANDSCAPE ARCHITECT

LIFE TIME - HOLLADAY
1975 E. RODEO WALK DRIVE
HOLLADAY, UTAH

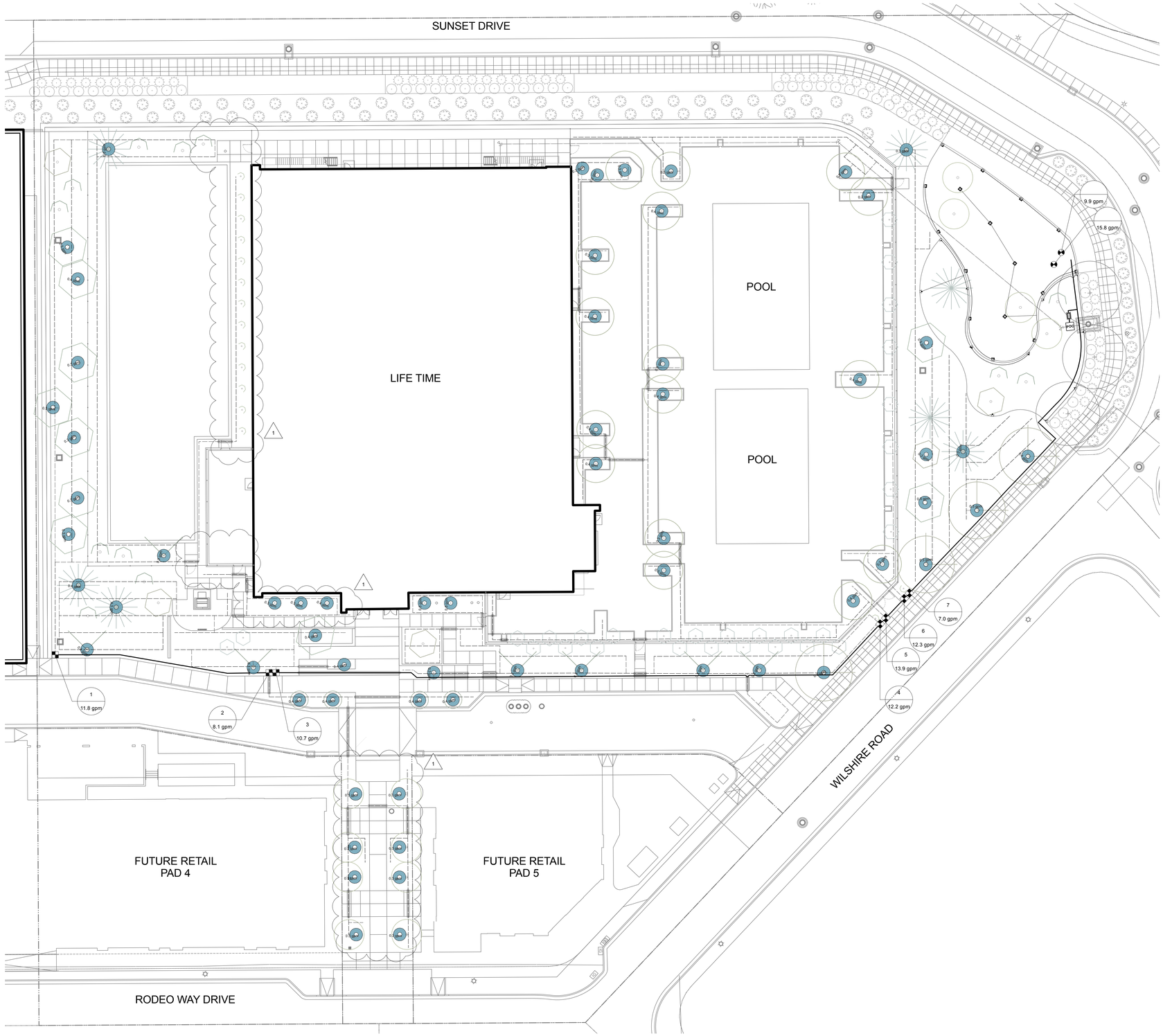
REVISIONS

REV	DATE	DESCRIPTION

PROJECT NO:	23301.E
DRAWN BY:	TG
CHECKED BY:	SS
DATE:	02/09/26
SUBMISSION:	ISSUE FOR PERMIT/BID

PLANT DESCRIPTIONS

L2.02



IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER	SERIES	DETAIL
OUTLETS				
	5000 Series 04in. Pop-Up MPR	RAIN BIRD	5004-PCR-25F	F/L5.02
	5000 Series 04in. Pop-Up MPR	RAIN BIRD	5004-PCR-25H	F/L5.02
	5000 Series 04in. Pop-Up MPR	RAIN BIRD	5004-PCR-25Q	F/L5.02
	5000 Series 04in. Pop-Up MPR	RAIN BIRD	5004-PCR-25Q+	F/L5.02
	5000 Series 04in. Pop-Up MPR	RAIN BIRD	5004-PCR-25TQ	F/L5.02
	5000 Series 12in. Pop-Up MPR	RAIN BIRD	5012-PCR-30H	F/L5.02
	5000 Series 12in. Pop-Up MPR	RAIN BIRD	5012-PCR-30Q	F/L5.02
	5000 Series 12in. Pop-Up MPR	RAIN BIRD	5012-PCR-30Q+	F/L5.02
	5000 Series 12in. Pop-Up MPR	RAIN BIRD	5012-PCR-30TQ	F/L5.02
SYMBOL	**DESCRIPTION**	**MANUFACTURER**	**MODEL**	**DETAIL**
DRIP AREAS				
	TREE DRIP RING W/ ROWS SPACED @ 24" APART	NETAFIM	TLCV9-12	A/L5.04
VALVES				
	LAWN CIRCUIT CONTROL VALVE	RAIN BIRD	150-PEB	H/L5.02
	DRIP CIRCUIT CONTROL VALVE	RAIN BIRD	XCZ-100-PRB-COM DRIP ZONE KIT WITH 100-PEB CONTROL VALVE AND BASKET FILTER WITH BUILT-IN PRV	C/L5.02
OTHER EQUIPMENT				
C	IRRIGATION CONTROLLER WITH RAIN SHUTOFF DEVICE	RAIN BIRD	ESP8LXME	G/L5.03
POC	POINT OF CONNECTION			A/L5.03
	CONCRETE PAD FOR BACKFLOW PREVENTER			C/L5.03
SYMBOL	**TYPE**		**MATERIAL**	**DETAIL**
PIPE				
	1" DRIP SUPPLY LINE. 1/2" SWING PIPE (FUNNY PIPE) AND EMITTERS NOT SHOWN ON PLAN FOR GRAPHIC CLARITY.		SCHEDULE 40 PVC PIPE WITH SCHEDULE 40 PVC FITTINGS.	A/L5.02
	1-1/2" MAIN LINE		SCHEDULE 40 PVC PIPE WITH SCHEDULE 80 PVC FITTINGS.	A/L5.02
	3/4" - 1-1/2" LATERAL LINE		SCHEDULE 40 PVC PIPE WITH SCHEDULE 40 PVC FITTINGS.	A/L5.02
	PIPE SLEEVE UNDER NEW PAVING		SCHEDULE 40 PVC	B/L5.02
	PIPE SLEEVE UNDER EXISTING PAVING		SCHEDULE 40 PVC	B/L5.02

VALVE NUMBER
gpm VALVE FLOW

EMITTER SCHEDULE

PLANT NAME	DRIP EMISSION DEVICE	MANUFACTURER	MODEL	DETAIL
ALLEE LACEBARK ELM	TREE DRIP RING	NETAFIM	TLCV9-12	A/L5.04
AUTUMN BRILLIANCE SERVICEBERRY	TREE DRIP RING	NETAFIM	TLCV9-12	A/L5.04
BLUE NOOTKA CYPRESS	(2) 5-GPH Emitter	RAINBIRD IRRIGATION	PCT05 (BEIGE)	E/L5.02
BONNY BLUE COLORADO BLUE SPRUCE	TREE DRIP RING	NETAFIM	TLCV9-12	A/L5.04
BUSH'S LACE ENGLEMAN SPRUCE	(2) 5-GPH Emitter	RAINBIRD IRRIGATION	PCT05 (BEIGE)	E/L5.02
FRONTIER ELM	TREE DRIP RING	NETAFIM	TLCV9-12	A/L5.04
MOONGLOW JUNIPER	(2) 5-GPH Emitter	RAINBIRD IRRIGATION	PCT05 (BEIGE)	E/L5.02
PINYON PINE	TREE DRIP RING	NETAFIM	TLCV9-12	A/L5.04
QUEEN ELIZABETH HEDGE MAPLE	TREE DRIP RING	NETAFIM	TLCV9-12	A/L5.04
ROCKY MOUNTAIN JUNIPER	(2) 5-GPH Emitter	RAINBIRD IRRIGATION	PCT05 (BEIGE)	E/L5.02
SKINNY GENES® OAK	TREE DRIP RING	NETAFIM	TLCV9-12	A/L5.04
SPRING SNOW CRABAPPLE	TREE DRIP RING	NETAFIM	TLCV9-12	A/L5.04
AIRBRUSH EFFECT HARDY HIBISCUS	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
ATLAS FESCUE	(1) 1-GPH Emitter	RAINBIRD IRRIGATION	XBT10 (BLACK)	D/L5.02
BLANKET FLOWER	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
BLONDE AMBITION BLUE GRAMA GRASS	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
BLUE OAT GRASS	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
BROADMOOR JUNIPER	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
DWARF RUBBER RABBITBRUSH	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
GRO-LOW FRAGRANT SUMAC	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
HARDY PAMPUS GRASS	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
JELENA WITCH HAZEL	(1) 5-GPH Emitter	RAINBIRD IRRIGATION	PCT05 (BEIGE)	D/L5.02
JOHNSON'S BLUE CRANESBILL	(1) 1-GPH Emitter	RAINBIRD IRRIGATION	XBT10 (BLACK)	D/L5.02
PANCHITO MANZANITA	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
PRAIRIE SMOKE	(1) 1-GPH Emitter	RAINBIRD IRRIGATION	XBT10 (BLACK)	D/L5.02
RED TWIG DOGWOOD	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
ROCKY MOUNTAIN BEARDTONGUE	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
ROSE OF SHARON	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
SASKATOON SERVICEBERRY	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
SCHIPKA LAUREL	(1) 2-GPM Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
STEPPSUNS SUNSET GLOW PENSTEMON	(1) 1-GPH Emitter	RAINBIRD IRRIGATION	XBT10 (BLACK)	D/L5.02
TIGER EYES SUMAC	(2) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02
WYOMING BIG SAGEBRUSH	(1) 2-GPH Emitter	RAINBIRD IRRIGATION	XBT20 (RED)	D/L5.02

GENERAL NOTE

1.REFER TO IRRIGATION NOTES ON SHEET L0.01

AVOID CUTTING UNDERGROUND UTILITIES. IT'S COSTLY.
Call BEFORE YOU Dig
1-800-662-4111

NOTICE!
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND RESTORATION OF ALL BURIED OR ABOVE GROUND UTILITIES, SHOWN OR NOT SHOWN ON THE PLANS.

NORTH

0 20 40 60 ft

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LIFE TIME - HOLLADAY
1975 E. RODEO WALK DRIVE
HOLLADAY, UTAH

REVISIONS		
REV	DATE	DESCRIPTION
	26-04-17	ADDENDUM 01.5

PROJECT NO:	23301.E
DRAWN BY:	TG
CHECKED BY:	SS
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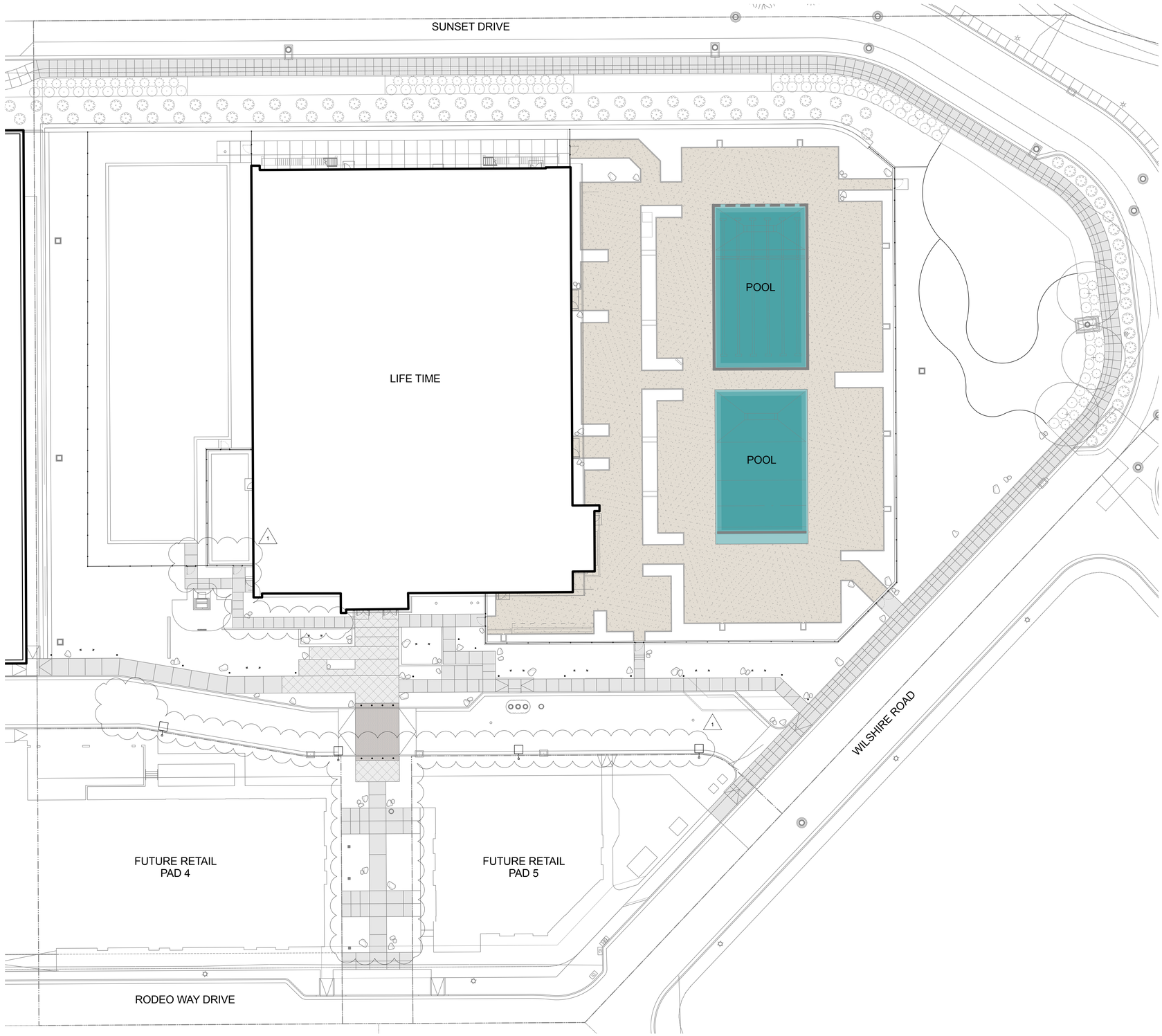
SUBMISSION:	ISSUE FOR PERMIT/BID

LANDSCAPE IRRIGATION PLAN

L3.01



PAVING SCHEDULE

SYMBOL	AREA	DESCRIPTION	SIZE	COLOR	DETAIL
	556 S.F.	'HOLLAND' BRICK PAVERS FROM BELGARD - RUNNING BOND	4" x 8" (80mm THICK)	ROSEWOOD	H/L5.01
1	1,666 S.F.	SPECIAL PAVING IN PLAZA AREAS	3' x 3' SQUARE DIAGONAL SCORE JOINTS	DUNE SMOOTH (DAVIS COLORS)	
	22,529 S.F.	POOL SURFACE - SEE ARCHITECTURAL SITE PLAN FOR DETAILS AND SPECIFICATIONS			

LIGHTING SCHEDULE

SYMBOL	QTY.	DESCRIPTION	MANUFACTURER
•	22	ILLUMINATED IMPACT BOLLARD	SEE ELECTRICAL PLAN
+	16	UP-LIGHTS AT TREE	SEE ELECTRICAL PLAN
	4	VEHICULAR LIGHTING	SEE ELECTRICAL PLAN

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NORTH

0 20 40 60 ft

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LIFE TIME - HOLLADAY

1975 E. RODEO WALK DRIVE
HOLLADAY, UTAH

REVISIONS		
REV	DATE	DESCRIPTION
	26-Feb-26	ADDENDUM 01.5

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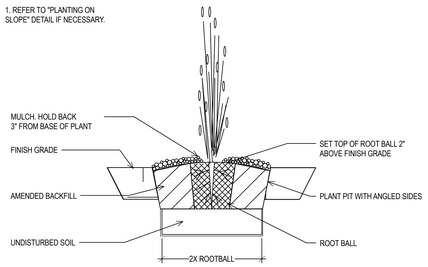
LANDSCAPE SITE DESIGN PLAN

L4.01

NOTE:

1. REFER TO "PLANTING ON SLOPE" DETAIL IF NECESSARY.

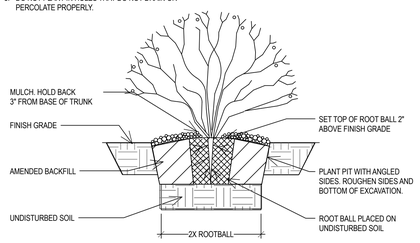


A GRASSES AND PERENNIALS

NO SCALE

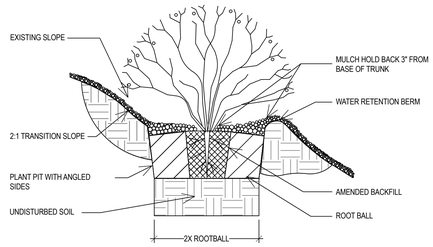
NOTES:

1. REFER TO "PLANTING ON SLOPE" DETAIL IF NECESSARY.
2. AMENDED BACKFILL SHALL BE A BLENDED MIXTURE OF THREE (3) PARTS EXCAVATED SOIL OR IMPORTED TOPSOIL AND ONE (1) PART WELL ROTTED COMPOSTED MANURE, APPROVED COMMERCIAL MIX, OR OTHER AMENDMENT RECOMMENDED IN TOPSOIL TESTING REPORT.
3. DO NOT PLANT IN HOLES THAT DO NOT DRAIN OR PERCOLATE PROPERLY.



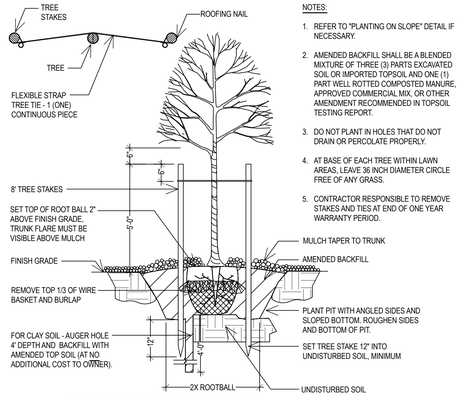
B SHRUB PLANTING

NO SCALE



C PLANTING ON SLOPE

NO SCALE



NOTES:

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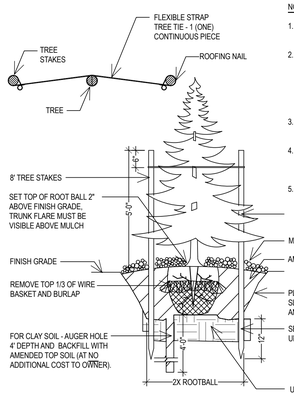
2. AMENDED BACKFILL SHALL BE A BLENDED MIXTURE OF THREE (3) PARTS EXCAVATED SOIL OR IMPORTED TOPSOIL AND ONE (1) PART WELL ROTTED COMPOSTED MANURE, APPROVED COMMERCIAL MIX, OR OTHER AMENDMENT RECOMMENDED IN TOPSOIL TESTING REPORT.
3. DO NOT PLANT IN HOLES THAT DO NOT DRAIN OR PERCOLATE PROPERLY.
4. AT BASE OF EACH TREE WITHIN LAWN AREAS, LEAVE 36 INCH DIAMETER CIRCLE FREE OF ANY GRASS.
5. CONTRACTOR RESPONSIBLE TO REMOVE STAKES AND TIES AT END OF ONE YEAR WARRANTY PERIOD.

D DECIDUOUS TREE

NO SCALE



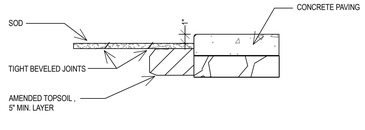
NOTES:

1. REFER TO "PLANTING ON SLOPE" DETAIL IF NECESSARY.
2. AMENDED BACKFILL SHALL BE A BLENDED MIXTURE OF THREE (3) PARTS EXCAVATED SOIL OR IMPORTED TOPSOIL AND ONE (1) PART WELL ROTTED COMPOSTED MANURE, APPROVED COMMERCIAL MIX, OR OTHER AMENDMENT RECOMMENDED IN TOPSOIL TESTING REPORT.
3. DO NOT PLANT IN HOLES THAT DO NOT DRAIN OR PERCOLATE PROPERLY.
4. AT BASE OF EACH TREE WITHIN LAWN AREAS, LEAVE 36 INCH DIAMETER CIRCLE FREE OF ANY GRASS.
5. CONTRACTOR RESPONSIBLE TO REMOVE STAKES AND TIES AT END OF ONE YEAR WARRANTY PERIOD.

E EVERGREEN TREE

NO SCALE

A. LAYING OF SOD:
   1. LAY SOD DURING GROWING SEASON AND WITHIN 48 HOURS OF BEING LIFTED.
   2. LAY SOD WHILE TOP 6 INCHES OF SOIL IS DAMP, BUT NOT MUDDY. SODDING DURING FREEZING TEMPERATURES OR OVER FROZEN SOIL IS NOT ACCEPTABLE.
   3. LAY SOD IN ROWS PERPENDICULAR TO SLOPE WITH JOINTS STAGGERED. BUTT SECTIONS CLOSELY WITHOUT OVERLAPPING OR LEAVING GAPS BETWEEN SECTIONS. CUT OUT IRREGULAR OR THIN SECTIONS WITH A SHARP KNIFE.
   4. LAY SOD FLUSH WITH ADJOINING EXISTING SODDED SURFACES.
   5. DO NOT SOD SLOPES STEEPER THAN 3:1. CONSULT WITH ARCHITECT FOR ALTERNATE TREATMENT.
B. AFTER LAYING OF SOD IS COMPLETE:
   1. ROLL HORIZONTAL SURFACE AREAS IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER.
   2. REPAIR AND RE-ROLL AREAS WITH DEPRESSIONS, LUMPS, OR OTHER IRREGULARITIES. HEAVY ROLLING TO CORRECT I RREGULARITIES IN GRADE WILL NOT BE PERMITTED.
   3. WATER SODDED AREAS IMMEDIATELY AFTER LAYING SOD TO OBTAIN MOISTURE PENETRATION THROUGH SOD INTO TOP 6 NCHES OF TOPSOIL.

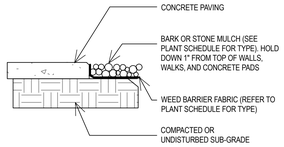


F SOD INSTALLATION

NO SCALE

NOTES:

1. APPLY PRE-EMERGENT HERBICIDE TO SHRUB AND GROUND COVER PLANTING AREAS AND GRASS-FREE AREAS AT TREES IN LAWN PRIOR TO PLACEMENT OF WEED BARRIER FABRIC AND MULCH.
2. PRE-EMERGENT SHALL BE "SURFLAN AS" (LIQUID) BY UNITED PHOSPHORUS INC, TRENTON, NJ, OR APPROVED EQUAL.
3. INSTALL MULCH TO UNIFORM DEPTH AND RAKE TO NEAT FINISHED APPEARANCE FREE OF HUMPS AND DEPRESSIONS.



G MULCH

NO SCALE

H BOULDER

NO SCALE

NOTE:

EDGING SHALL BE COL-MET COMMERCIAL EDGING WITH BLACK POWDER COATING FINISH. MINIMUM 16" LONG STAKES - 4 STAKES PER 10'-0" SECTION.

I METAL EDGING

NO SCALE

NOTES:

1. REFER TO SPECIFICATION SECTION 32 1413 INTERLOCKING CONCRETE PAVERS.
2. GEOTEXTILE SEPARATION FABRIC SHALL BE MIRAFI RS280i OR APPROVED EQUAL.
3. INSTALL "HP2 POLYMERIC SAND" (WITH APPROV. COLOR) FROM TECHNISEAL AS PER MANUFACTURER SPECIFICATIONS.

H PRECAST CONCRETE PAVERS

SCALE: 1"=1'-0"

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LIFE TIME - HOLLADAY

1975 E. RODEO WALK DRIVE
HOLLADAY, UTAH

REVISIONS		
REV	DATE	DESCRIPTION

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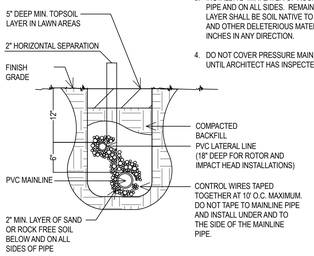
CHECKED BY:	SS
DATE:	02/09/26
SUBMISSION:	ISSUE FOR PERMIT/BID

LANDSCAPE DETAILS

L5.01

NOTES:

1. PULLING OF PIPE IS NOT PERMITTED.
2. EXCAVATE TRENCHES TO SPECIFIED DEPTH. REMOVE ROCKS LARGER THAN 1-1/2 INCH IN ANY DIRECTION FROM BOTTOM OF TRENCH. SEPARATE OUT ROCKS LARGER THAN 1-1/2 INCH IN ANY DIRECTION UNCOVERED IN TRENCHING OPERATION FROM EXCAVATED MATERIAL AND REMOVE FROM AREAS TO RECEIVE LANDSCAPING.
3. INSTALL A 2" MIN. LAYER OF ROCK-FREE SOIL OR SAND UNDER THE PIPE AND ON ALL SIDES. REMAINDER OF BACKFILL TO THE TOPSOIL LAYER SHALL BE SOIL NATIVE TO THE PROJECT SITE FREE OF WOOD AND OTHER DELETERIOUS MATERIALS AND ROCKS OVER 1-1/2 INCHES IN ANY DIRECTION.
4. DO NOT COVER PRESSURE MAIN, IRRIGATION PIPE, OR FITTINGS UNTIL ARCHITECT HAS INSPECTED AND APPROVED SYSTEM.

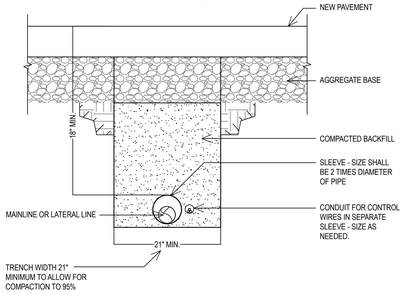


A TRENCH

NO SCALE

NOTES:

1. SLEEVE WATER LINES AND CONTROL WIRES UNDER WALKS AND PAVING. EXTEND SLEEVES 6 INCHES MINIMUM BEYOND WALK OR PAVEMENT EDGE. COVER SLEEVE ENDS UNTIL PIPES AND WIRES ARE INSTALLED TO KEEP SLEEVE CLEAN AND FREE OF DIRT AND DEBRIS.
2. POSITION SLEEVES WITH RESPECT TO BUILDINGS AND OTHER OBSTRUCTIONS SO PIPE CAN BE EASILY REMOVED.

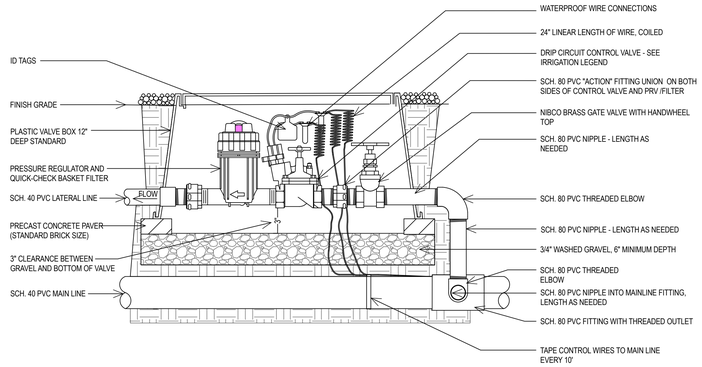


B TRENCH UNDER NEW PAVEMENT

NO SCALE

NOTES:

1. LIMIT (1) DRIP VALVE ASSEMBLY PER BOX.
2. INSTALL GREEN COLORED VALVE BOXES AND LIDS IN THE LAWN AREAS AND TAN COLORED BOXES AND LIDS IN THE PLANTING BEDS
3. ALL FITTINGS WITHIN VALVE BOX SHALL BE SCH. 80 PVC AND SAME SIZE AS THE VALVE
4. CONTRACTOR TO REPLACE EXISTING 200 MESH (WHITE) SCREEN WITH A NEW 100 MESH (RED) SCREEN

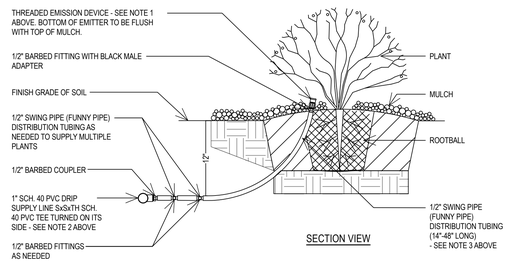


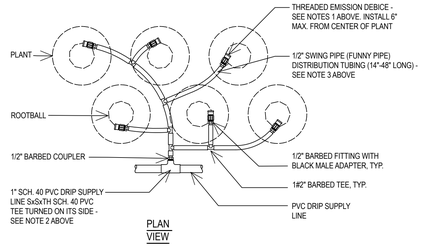
C CONTROL VALVE - DRIP CIRCUIT

NO SCALE

NOTES:

1. SEE EMISSION DEVICE SCHEDULE ON IRRIGATION PLAN FOR TYPE, QUANTITY AND SIZE OF EMISSION DEVICE PER PLANT.
2. INSTALL A MAX. OF (6) EMISSION DEVICES PER PVC CONNECTION.
3. DISTRIBUTION TUBING SHALL BE INSTALLED A MINIMUM OF 12" BELOW FINISHED GRADE AND ONLY BE BROUGHT TO THE SURFACE AT EACH PLANT.



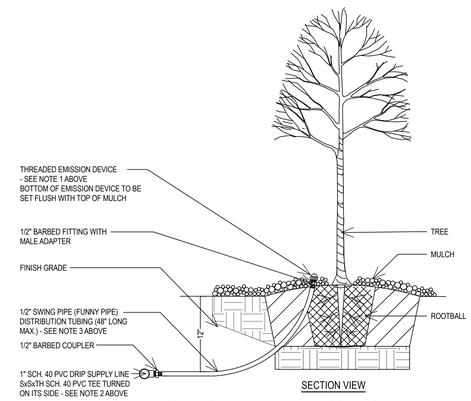


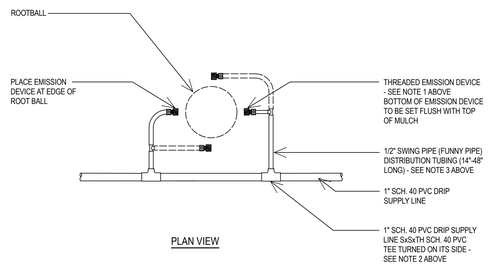
D DRIP EMISSION DEVICE @ SHRUBS

NO SCALE

NOTES:

1. SEE EMISSION DEVICE SCHEDULE ON IRRIGATION PLAN FOR TYPE, QUANTITY AND SIZE OF EMISSION DEVICE PER PLANT.
2. INSTALL A MAX. OF (2) EMISSION DEVICES PER PVC CONNECTION.
3. DISTRIBUTION TUBING SHALL BE INSTALLED A MINIMUM OF 12" BELOW FINISHED GRADE AND ONLY BE BROUGHT TO THE SURFACE AT EACH PLANT.



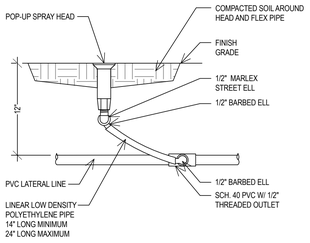


E DRIP EMISSION DEVICE @ TREES

NO SCALE

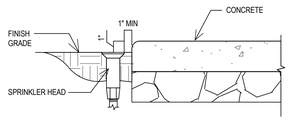
NOTES:

A. LOCATION OF HEADS AND PIPING SHOWN ON CONTRACT DRAWINGS IS APPROXIMATE. ACTUAL PLACEMENT MAY VARY SLIGHTLY AS IS REQUIRED TO ACHIEVE FULL, EVEN COVERAGE WITHOUT SPRAYING ONTO BUILDINGS, SIDEWALKS, FENCES, ETC.
B. DURING LAYOUT, CONSULT WITH ARCHITECT TO VERIFY PROPER PLACEMENT AND MAKE RECOMMENDATIONS, WHERE REVISIONS ARE ADVISABLE.
C. MINOR ADJUSTMENTS IN SYSTEM LAYOUT WILL BE PERMITTED TO AVOID EXISTING FIXED OBSTRUCTIONS.
D. MAKE CERTAIN CHANGES FROM CONTRACT DOCUMENTS ARE SHOWN ON RECORD DRAWINGS.
E. LOCATE PIPE SO NO SPRINKLER HEAD WILL BE CLOSER THAN 12 INCHES (300 MM) FROM BUILDING FOUNDATION.
F. SET SPRINKLER HEADS PERPENDICULAR TO FINISH GRADE.
G. DO NOT INSTALL SPRINKLERS USING SIDE INLETS. INSTALL USING BASE INLETS ONLY.
H. HEADS IMMEDIATELY ADJACENT TO MOW STRIPS, WALKS, OR CURBS SHALL BE ONE INCH BELOW TOP OF MOW STRIP, WALK, OR CURB AND HAVE ONE INCH TO 3 INCH CLEARANCE BETWEEN HEAD AND MOW STRIP, WALK, OR CURB.



F SPRAY HEAD ASSEMBLY

NO SCALE

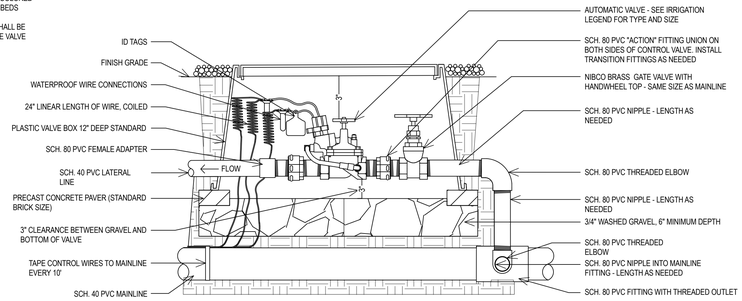


G SPRINKLER HEAD NEXT TO PAVING

NO SCALE

NOTES:

1. LIMIT (2) 1" VALVES PER VALVE BOX AND (1) 1-1/2" OR 2" VALVE PER BOX
2. INSTALL GREEN COLORED VALVE BOXES AND LIDS IN THE LAWN AREAS AND TAN COLORED BOXES AND LIDS IN THE PLANTING BEDS
3. ALL FITTINGS WITHIN VALVE BOX SHALL BE SCH. 80 PVC AND SAME SIZE AS THE VALVE



H CONTROL VALVE - LAWN CIRCUIT

NO SCALE

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STATE OF UTAH
02/09/2026
SCOTT A. SCHOONOVER
349757
LICENSED LANDSCAPE ARCHITECT

LIFE TIME - HOLLADAY

1975 E. RODEO WALK DRIVE
HOLLADAY, UTAH

REVISIONS

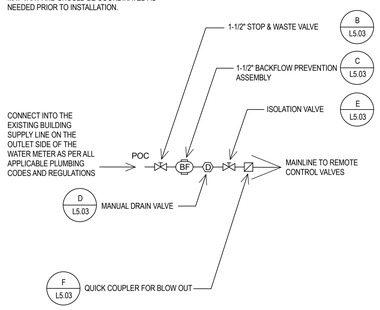
REV	DATE	DESCRIPTION

PROJECT NO:	23301.E
DRAWN BY:	TG
CHECKED BY:	SS
DATE:	02/09/26
SUBMISSION:	ISSUE FOR PERMIT/BID

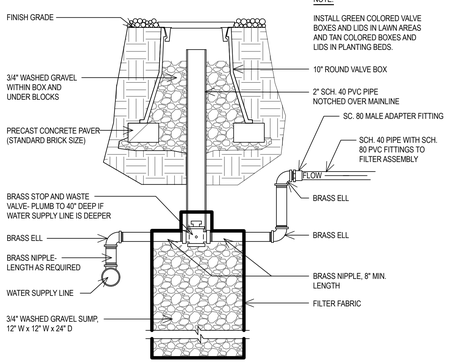
LANDSCAPE IRRIGATION DETAILS

L5.02

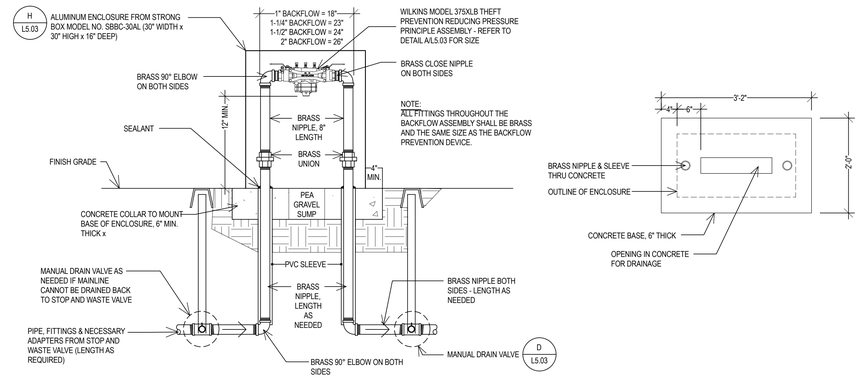
NOTE:
THE POINT OF CONNECTION DETAIL IS SCHEMATIC ONLY AND MEANT TO CONVEY THE ORDER OF THE COMPONENTS. ACTUAL LAYOUT MAY VARY AND SHOULD BE COORDINATED AS NEEDED PRIOR TO INSTALLATION.



A POC SCHEMATIC LAYOUT
NO SCALE



B STOP & WASTE VALVE
NO SCALE



C BACKFLOW PREVENTER
NO SCALE

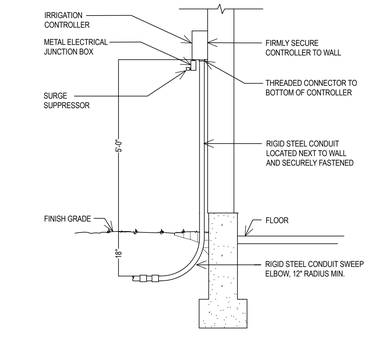
SECTION VIEW

TOP VIEW

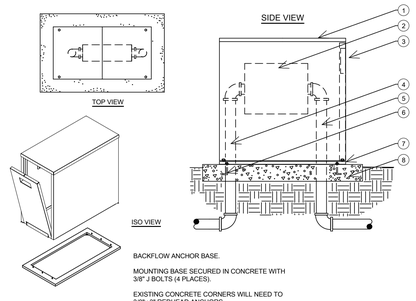
D MAINLINE DRAIN VALVE
NO SCALE

E ISOLATION VALVE - THREADED
NO SCALE

F QUICK COUPLER VALVE
NO SCALE



G CONTROLLER - EXTERIOR MOUNT
NO SCALE



BACKFLOW ANCHOR BASE.

MOUNTING BASE SECURED IN CONCRETE WITH 3/8" J BOLTS (4 PLACES).

EXISTING CONCRETE CORNERS WILL NEED TO 3/8"x 3" REDHEAD ANCHORS.

LEGEND

1. ALUMINUM BACKFLOW ENCLOSURE.
2. BACKFLOW PREVENTER.
3. HINGED DROP DOWN DOOR,PADLOCK AT TOP.
4. WATER SERVICE INLET PIPING.
5. WATER SERVICE OUTLET PIPING.
6. 3/8" "L" STYLE ANCHOR BOLTS.
7. ANCHOR PLATE MOUNTING.
8. POURED CONCRETE BASE - 6" MIN. THICKNESS - EXTEND 4" BEYOND OUTSIDE DIMENSIONS OF ENCLOSURE.

H BACKFLOW ENCLOSURE
NO SCALE

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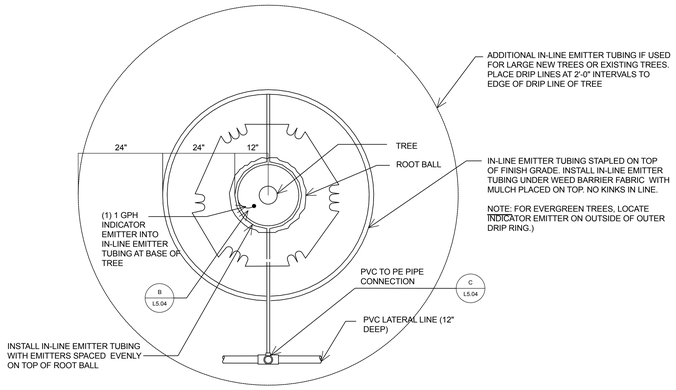
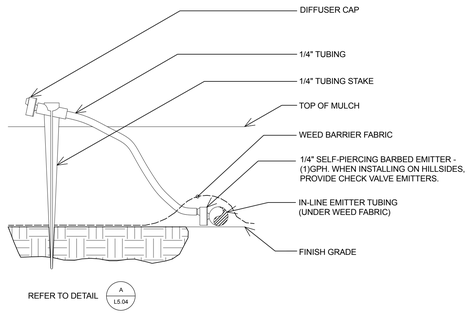
L5.03



A TREE DRIP - PLAN VIEW (Planter Areas)

NO SCALE

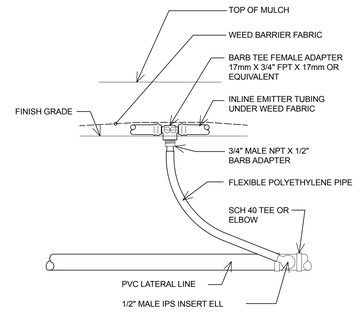
NOTE: FITTINGS TO INLINE DRIP TUBING TO BE INSERT FITTINGS. USE OETICKER CLAMPS FOR NON-NETAFIM FITTINGS.



NOTE:
1. CONNECT SELF-PIERCING EMITTER DIRECTLY INTO IN-LINE EMITTER TUBING.
2. THIS IS AN INDICATOR ONLY EMITTER TO BE USED AT EACH TREE RING AND AREA WHERE IN-LINE EMITTER TUBING IS INSTALLED.
3. 1/4" TUBING LENGTH: MINIMUM 14", MAXIMUM 24".

B INDICATOR EMITTER

NO SCALE



NOTE:
1. USE AT TREE RINGS AND AS CONNECTION FROM SUPPLY AND EXHAUST HEADERS.
2. DO NOT EXCEED (3) GPM FLOW THROUGH SINGLE CONNECTION.

C PVC TO IN-LINE EMITTER

NO SCALE

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