

CLIENT

WOODFIELD INVESTMENTS
11425 HORSEMAN'S TRAIL
RALEIGH, NC 27613
PHONE: 919. 535. 8947

PARK APARTMENTS - PHASE II

PHASE II FORM DISTRICT PERMIT
0 ELLIOTT ROAD

CHAPEL HILL, NORTH CAROLINA, 27517



REVISIONS

NO. DATE

PLAN INFORMATION

PROJECT NO. WDF22001
FILENAME WDF22001-D1
CHECKED BY DCB
DRAWN BY SME
SCALE N/A
DATE 04. 14. 2023

SHEET

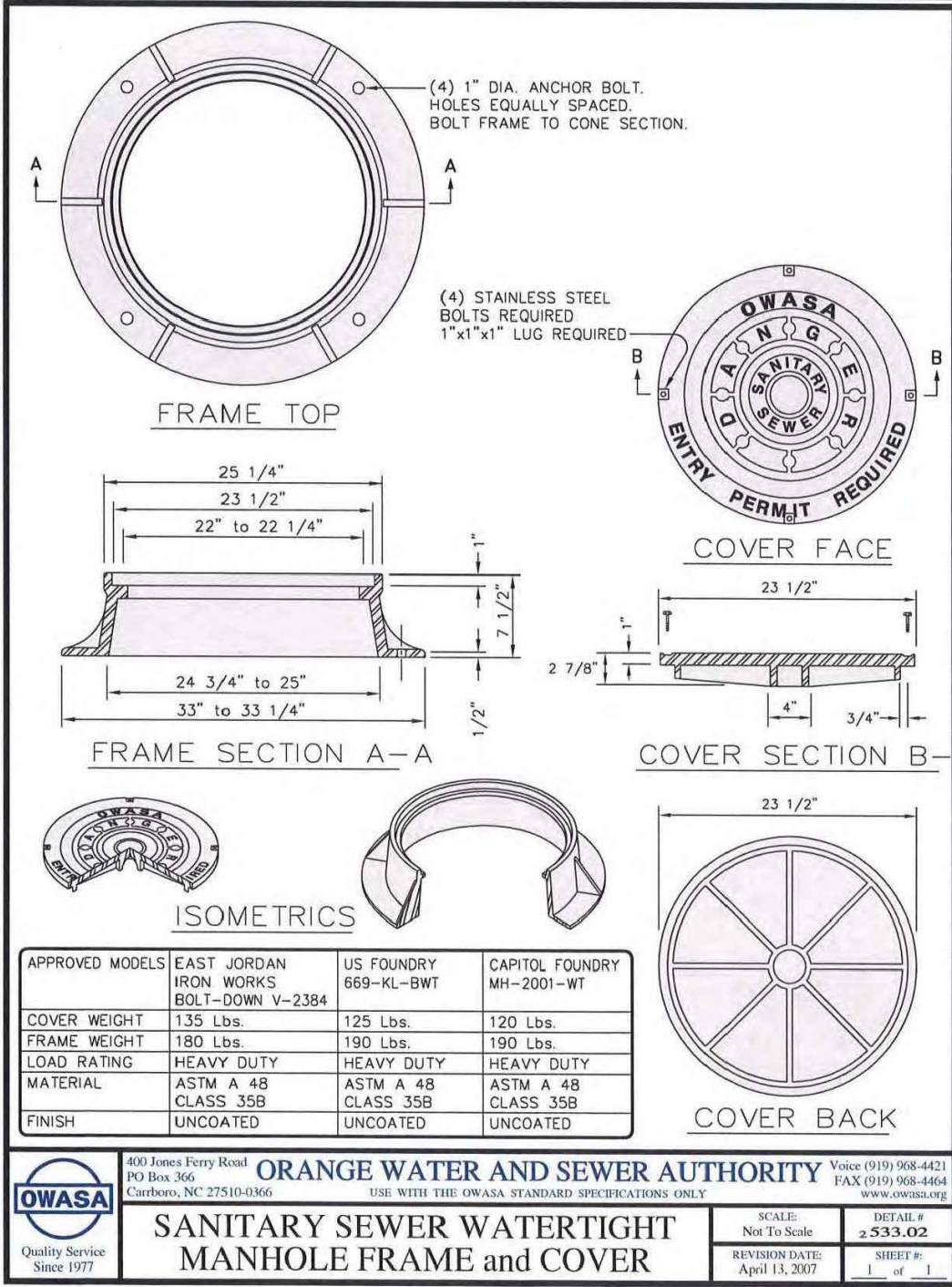
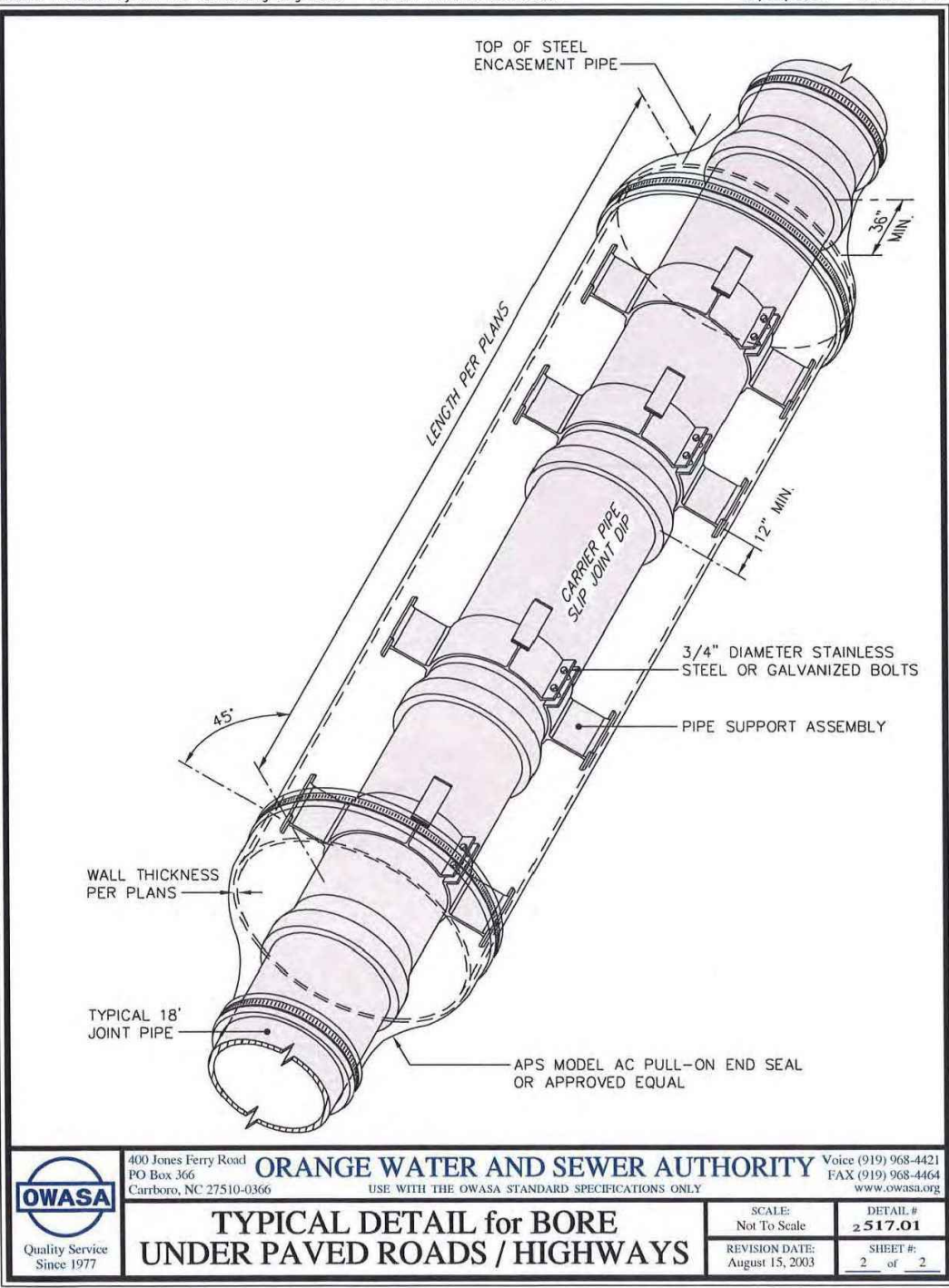
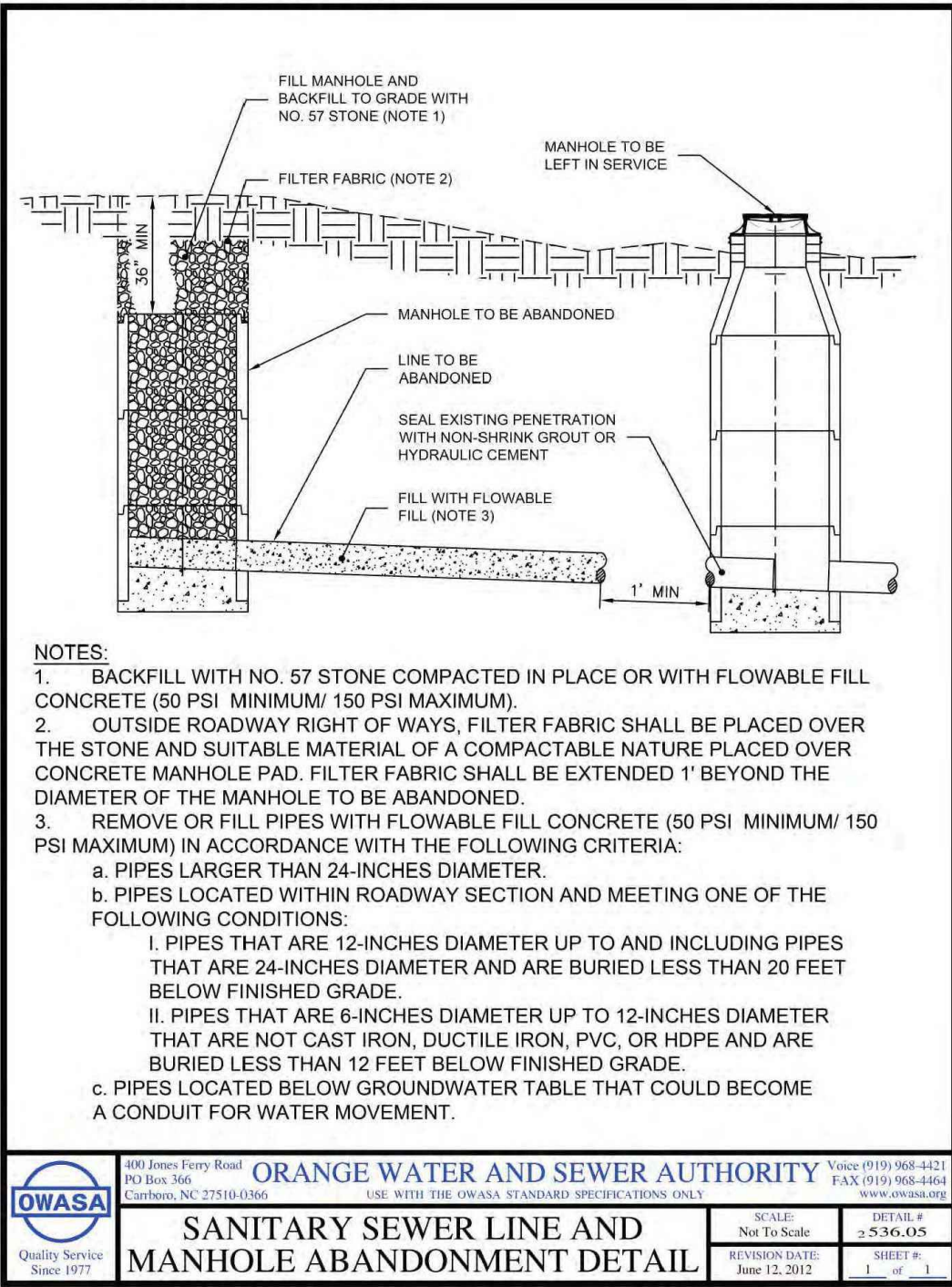
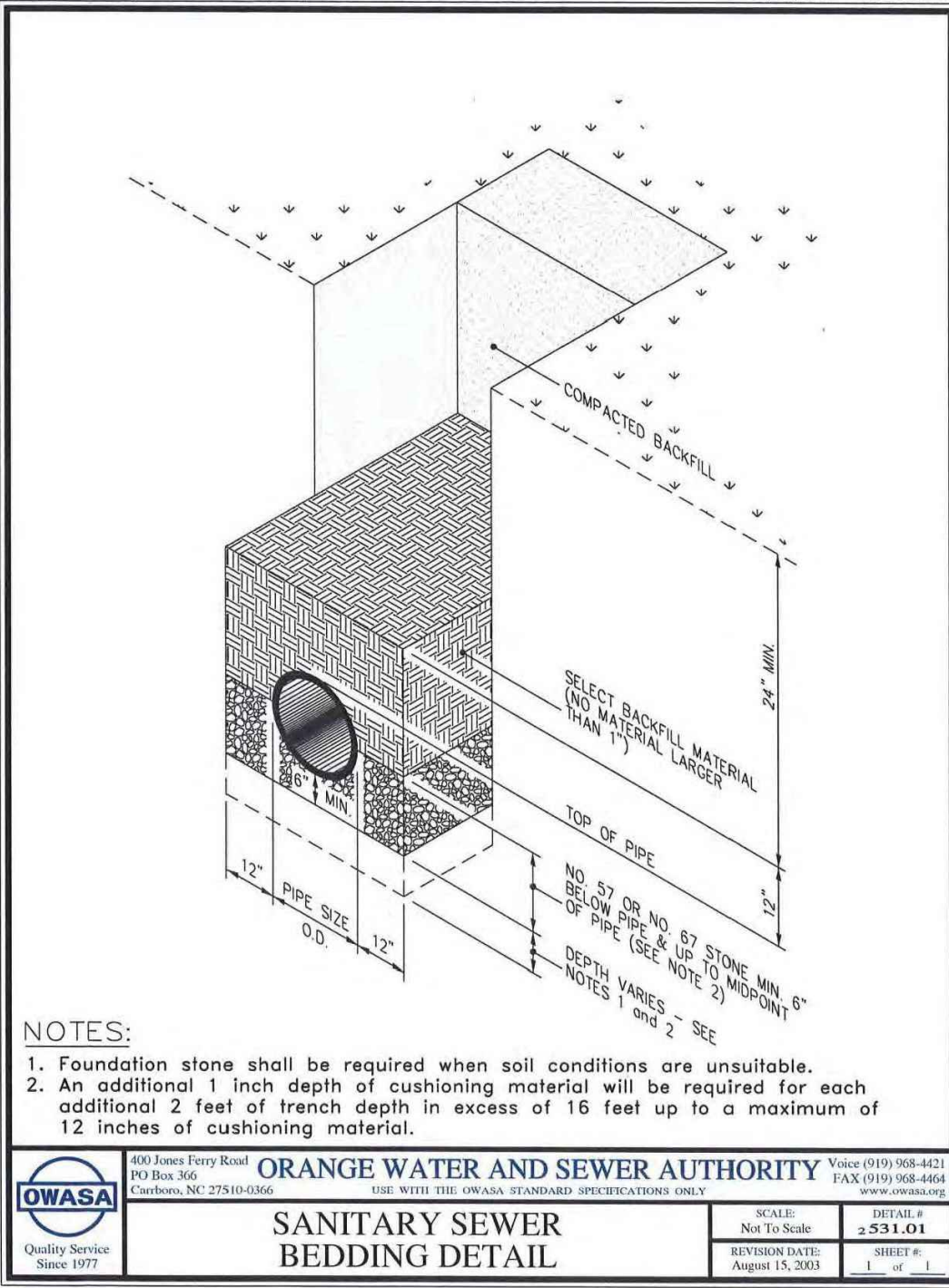
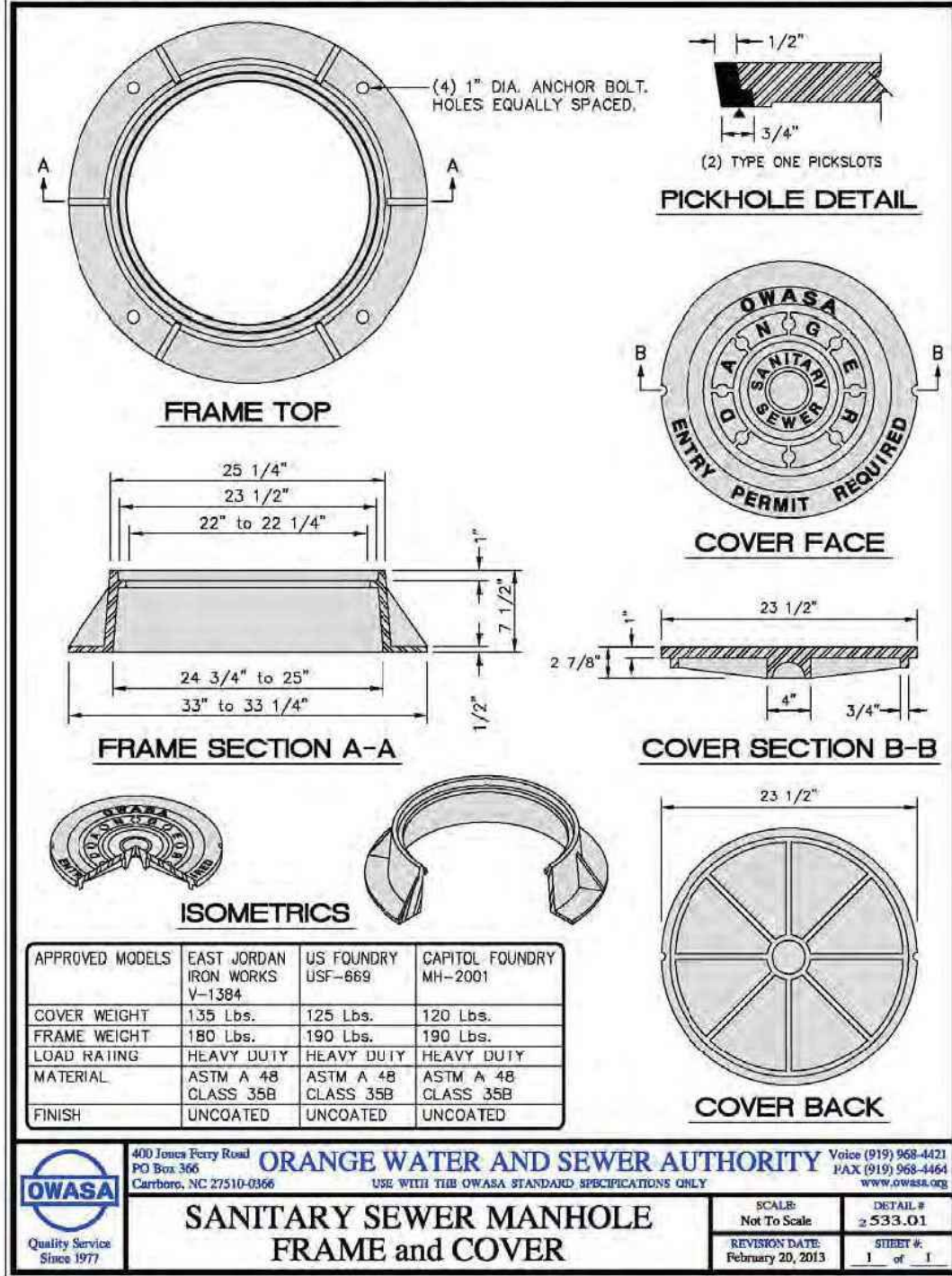
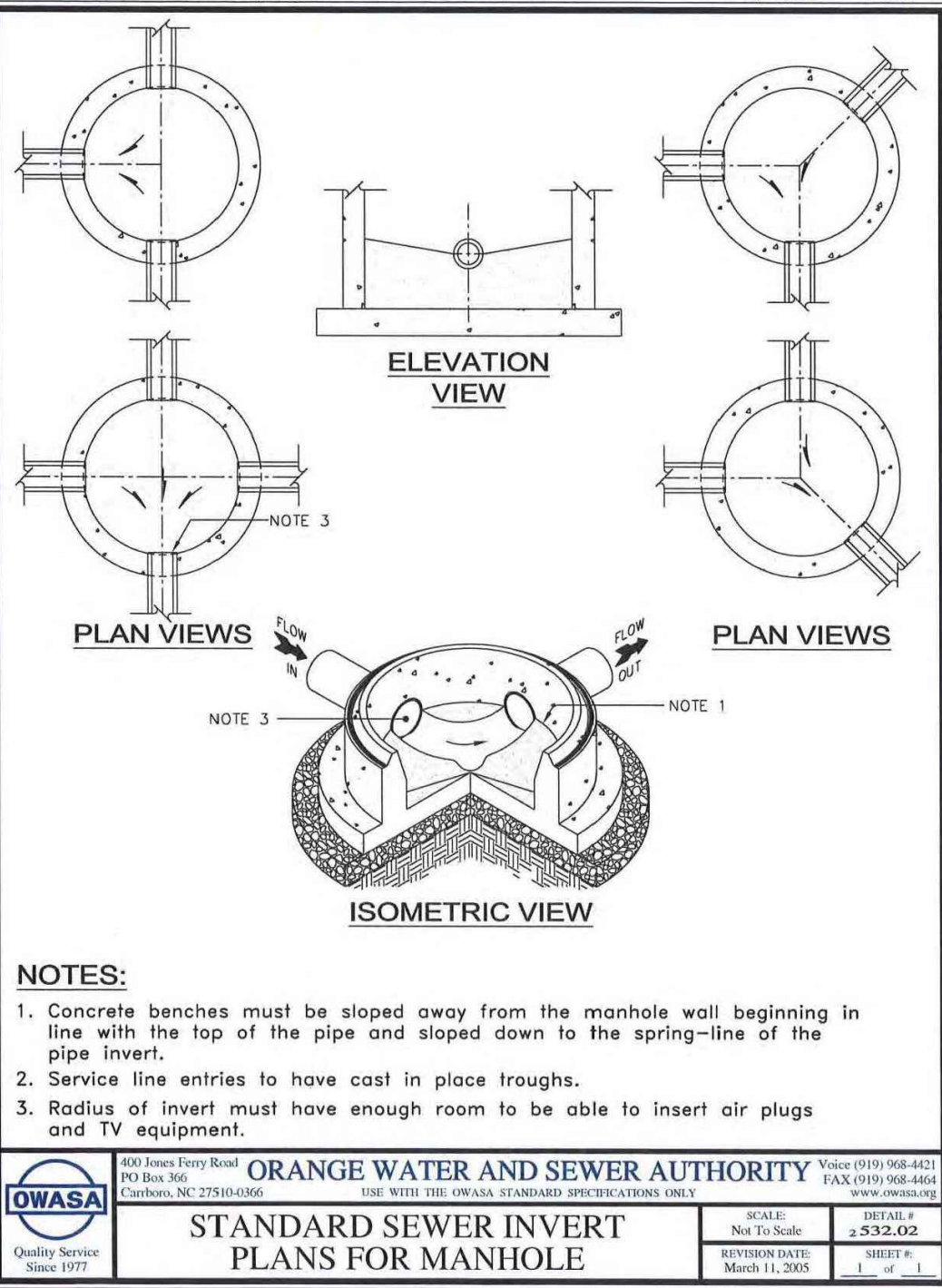
OWASA DETAILS

C8.05

SEE SHEET C0.00 FOR ALL PROJECT, SITE,
GRADING, STORM DRAINAGE AND UTILITY
NOTES

ALL CONSTRUCTION SHALL BE IN
ACCORDANCE WITH THE CURRENT TOWN
OF CHAPEL HILL AND OWASA DESIGN AND
CONSTRUCTION STANDARDS

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



STORMWATER CONTROL MEASURE 'C' CONSTRUCTION SPECIFICATIONS

GENERAL NOTES

- PRIOR TO CONSTRUCTION, ANY DISCREPANCIES IN THE PLANS AND NOTES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION.
- PRIOR TO ANY CONSTRUCTION OR PLACEMENT OF ANY BACKFILL, THE ONSITE GEOTECHNICAL ENGINEER SHALL INSPECT THE EXCAVATION AREA FOR THE UNDERGROUND SCM WITHIN THIS AREA TO ASSESS WHETHER SUITABLE SOILS EXIST AT THE SUBGRADE LEVEL. IF THE CONTRACTOR CONSTRUCTS AND COVERS UP THE UNDERGROUND SCM PRIOR TO INSPECTION, THEN THIS AREA SHALL BE UNCOVERED AND TESTED (TO THE ENGINEER'S AND OWNER'S APPROVAL) AT THE CONTRACTOR'S EXPENSE.
- THE FACILITY SHALL NOT BE USED AS A TEMPORARY EROSION CONTROL DEVICE (I.E. SEDIMENT TRAP OR SEDIMENT BASIN) DURING CONSTRUCTION.
- PRIOR TO PLACING STORMFILTER CARTRIDGES WITHIN THE UNDERGROUND SYSTEM, THE CONTRACTOR SHALL REQUEST AN ONSITE MEETING WITH THE DESIGN ENGINEER AND THE EROSION CONTROL INSPECTOR TO ENSURE THE UPSTREAM DRAINAGE AREA IS COMPLETELY STABILIZED (I.E. GOOD VEGETATIVE COVER). IF THE CONTRACTOR DECIDES TO PLACE THE STORMFILTER CARTRIDGES PRIOR TO APPROVAL FROM THE DESIGN ENGINEER AND THE EROSION CONTROL INSPECTOR, THEN THE CONTRACTOR SHALL EXCAVATE/REPLACE, AS NECESSARY, THE COMPONENTS NEEDED FOR THE SYSTEM TO FUNCTION PROPERLY AT HIS / HER EXPENSE SHOULD THE STORMFILTER CARTRIDGES NOT FUNCTION PROPERLY (I.E. WILL NOT DRAIN DUE TO SEDIMENT DEPOSITION) DUE TO AN UNSTABILIZED UPSTREAM DRAINAGE AREA.
- ONCE CONSTRUCTED, THE STORMFILTER CARTRIDGES SHALL NOT RECEIVE STORMWATER RUNOFF UNTIL THE ENTIRE CONTRIBUTING DRAINAGE AREA TO THE UNDERGROUND SYSTEM HAS BEEN COMPLETELY STABILIZED AND SITE CONSTRUCTION IS COMPLETE.
- ALL COMPONENTS OF THE UNDERGROUND SCM SYSTEM (CMP SECTIONS, JOINT / RISER CONNECTIONS, ENDCAPS, ACCESS MANHOLES, ETC.) SHALL BE DESIGNED BY OTHERS. ANY VARIATIONS OR CHANGES MADE FROM THESE SPECIFICATIONS AND DRAWINGS DURING THE ORDERING AND/ OR INSTALLATION OF ALL COMPONENTS MUST BE APPROVED BY THE DESIGN ENGINEER. THE STRUCTURAL DESIGN OF THE UNDERGROUND SCM, ALONG WITH ITS ASSUMPTIONS, IS ALSO BY OTHERS. THE JOHN R. MCADAMS COMPANY, INC. AND ITS EMPLOYEES ASSUME NO LIABILITY WITH RESPECT TO ANY ASPECT OF THE STRUCTURAL DESIGN FOR THE UNDERGROUND SCM SYSTEM.
- ALL PIPE / RISER CONNECTIONS AND JOINTS ASSOCIATED WITH THE UNDERGROUND SCM SYSTEM SHALL BE WATER TIGHT. THE MECHANISM FOR ACHIEVING THIS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR REVIEW.
- THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ANY PUMPING EQUIPMENT, ETC. NEEDED FOR REMOVAL OF WATER FROM VARIOUS PARTS OF THE UNDERGROUND SCM SYSTEM SITE. IT IS ANTICIPATED THAT PUMPING WILL BE NECESSARY IN THE EXCAVATION AREAS. DURING PLACEMENT OF FILL WITHIN THIS AREA (OR OTHER AREAS AS NECESSARY), THE CONTRACTOR SHALL KEEP THE WATER LEVEL BELOW THE BOTTOM OF THE EXCAVATION. THE MANNER IN WHICH THE WATER IS REMOVED SHALL BE SUCH THAT THE EXCAVATION BOTTOM AND SIDE SLOPES ARE STABLE.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADHERE TO ALL CURRENT OSHA REGULATIONS FOR CONFINED SPACE ENTRY AND PROVIDE SUCH DURING ENGINEER WALK-THROUGH/INSPECTION.
- ALL PIPE PENETRATIONS THROUGH A CONCRETE OR CMP STRUCTURE (I.E. STORMFILTER CARTRIDGE / DETENTION SYSTEM, STORM DRAINAGE MANHOLES, ETC.) SHALL BE MADE WATERTIGHT USING NON-SHRINK CEMENTIOUS GROUT.
- EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.

STORMWATER MANAGEMENT SYSTEM MATERIAL SPECIFICATIONS

- THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM IS TO BE DESIGNED BY OTHERS. ANY CHANGES TO THE PLANS SHALL BE PROVIDED TO THE DESIGN ENGINEER FOR REVIEW. PRIOR TO INSTALLATION, SHOP DRAWINGS OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE PROVIDED TO THE DESIGN ENGINEER AND TO THE TOWN OF CHAPEL HILL FOR REVIEW.
- FILTER CARTRIDGES SHALL BE CONTECH STORMFILTERS WITH PHOSPHOSORB MEDIA. STORAGE PIPE SHALL BE CONTECH ALUMINIZED TYPE II (ALT2) CORRUGATED METAL PIPE. INSTALLATION OF THE STORMWATER DEVICE SHALL BE PER THE MANUFACTURER'S INSTALLATION GUIDELINES AND SPECIFICATIONS.
- ACCESS RISERS SHALL BE INSTALLED PER STRUCTURAL SPECIFICATIONS. ACCESS STEPS / LADDERS SHALL BE ATTACHED TO THE RISERS TO ALLOW FOR ACCESS INTO THE STORMWATER MANAGEMENT SYSTEM.
- THE 24"Ø RCP OUTLET BARREL OF THE DETENTION SYSTEM SHALL BE CLASS III RCP, MODIFIED BELL AND SPIGOT, MEETING THE REQUIREMENTS OF ASTM C76-LATEST. THE PIPE JOINTS SHALL BE TYPE R-4.
- GEOTEXTILE FABRIC FOR THE 24"Ø OUTLET BARREL JOINTS SHALL BE MIRAFI 180N OR ENGINEER APPROVED EQUAL (NON-WOVEN FABRIC). THE ONSITE GEOTECHNICAL ENGINEER SHALL APPROVE FABRIC FOR USE.
- ALL POURED CONCRETE SHALL BE MINIMUM 3000 PSI (28 DAY) UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL INSTALL THE DETENTION UNIT PER MANUFACTURERS' SPECIFICATIONS. CONTRACTOR TO PROVIDE A LETTER FROM MATERIAL SUPPLIER(S) STATING MATERIALS MEET THE SPECIFIED STANDARDS PRIOR TO INSTALLATION.
- COVER AND REVIEW OF SITE CONDITIONS TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE SYSTEM TO BE THE RESPONSIBILITY OF THE MANUFACTURER.

FOUNDATION NOTES

- ONCE THE EXCAVATION IS COMPLETE AND PRIOR TO INSTALLATION OF THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM, THE ONSITE GEOTECHNICAL ENGINEER SHALL VERIFY THE BEARING CAPACITY OF THE UNDERLYING SOILS TO SERVE AS A FOUNDATION FOR THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM. IF THE ONSITE GEOTECHNICAL ENGINEER DEMS THE FOUNDATION SOILS AS UNSUITABLE, THEN THE UNSUITABLE MATERIAL SHOULD BE REMOVED DOWN TO A SUITABLE DEPTH AND THEN BUILT BACK UP TO THE CORRECT ELEVATION WITH A COMPACTED BACKFILL MATERIAL THAT IS APPROVED BY THE ONSITE GEOTECHNICAL ENGINEER. THE APPROVED BACKFILL MATERIAL SHOULD HAVE A GRADATION THAT WILL NOT ALLOW THE MIGRATION OF FINES, WHICH COULD CAUSE SETTLEMENT OF THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM. IF NECESSARY, A GEOTEXTILE FABRIC CAN BE USED TO SEPARATE THE UNDERLYING SOILS AND THE BACKFILL MATERIAL. THIS GEOTEXTILE FABRIC (IF USED) IS TO BE SPECIFIED BY THE ON-SITE GEOTECHNICAL ENGINEER.
- PLEASE NOTE THAT IF THE CONTRACTOR CONSTRUCTS AND COVERS UP THE EXCAVATION FOR THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM PRIOR TO INSPECTION, THEN THIS AREA SHALL BE UNCOVERED AND TESTED (TO THE ENGINEER'S AND OWNER'S APPROVAL) AT THE CONTRACTOR'S EXPENSE.
- THE FOUNDATION SUBGRADE SHALL BE GRADED TO A UNIFORM OR SLIGHTLY SLOPING GRADE PRIOR TO PLACEMENT OF THE BEDDING MATERIAL. IF THE FOUNDATION SUBGRADE WILL BE EXPOSED FOR AN EXTENDED PERIOD OF TIME DURING CONSTRUCTION, THEN IT SHOULD BE GRADED TO A SLIGHT SLOPE SUCH THAT SATURATION OF THE SUBGRADE DOES NOT OCCUR.
- THE BEDDING MATERIAL FOR THE UNDERGROUND STORMWATER MANAGEMENT SYSTEM SHALL BE SPECIFIED BY THE ON-SITE GEOTECHNICAL ENGINEER. TYPICALLY, A WELL-GRADED GRANULAR MATERIAL WILL BE USED FOR THE BEDDING. PLEASE NOTE THAT IF CONSTRUCTION EQUIPMENT WILL BE OPERATING FOR AN EXTENDED PERIOD OF TIME ON THE BEDDING, THEN THE APPROPRIATE MEASURES (E.G. ENGINEERED FABRIC, STIFF GEOGRID, ETC.) SHALL BE TAKEN TO ENSURE THE INTEGRITY OF THE BEDDING IS NOT COMPROMISED.
- THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ANY PUMPING EQUIPMENT, ETC. NEEDED FOR REMOVAL OF WATER FROM THE EXCAVATION. IT IS BEST TO BEGIN THE CONSTRUCTION OF THE DETENTION SYSTEMS AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR WATER TO ESCAPE.
- FOUNDATION DRAINS ARE REQUIRED FOR THE UNDERGROUND SCM SYSTEM. THE FOUNDATION DRAINS ARE TO BE DESIGNED ENTIRELY BY THE ONSITE GEOTECHNICAL ENGINEER. THE FOUNDATION DRAIN SYSTEMS SHALL TIE TO THE NEAREST STORM SEWER INLET / JUNCTION BOX WITH INVERT LOWER THAN THE INVERT OF THE FOUNDATION DRAIN. FOUNDATION DRAIN SYSTEM SHALL NOT TIE INTO THE UNDERGROUND SCM AT ANY POINT.

BEDDING NOTES

- THE EXCAVATION SUB GRADE MUST BE TRANSIT LEVEL.
- THE EXCAVATION PIT SHALL BE LINED (ON THE BOTTOM AND ALL FOUR SIDES) WITH A NON-WOVEN GEO-TEXTILE (GEOTEX 401 OR APPROVED EQUIVALENT). THE ONSITE GEOTECHNICAL ENGINEER SHALL APPROVE FABRIC FOR USE.
- THE SUBGRADE FOR THE DETENTION SYSTEM CAN BE A CONCRETE SLAB, OR CLEAN GRANULAR MATERIAL WITH A MAXIMUM AGGREGATE SIZE OF 3/4". THE BEDDING SHALL BE FREE FROM ROCK FORMATIONS, PROTRUDING STONES, FROZEN LUMPS, ROOTS, AND OTHER FOREIGN MATERIAL.
- PREPARE THE SUBGRADE PER THE ONSITE GEOTECHNICAL ENGINEER'S DIRECTION (APPROXIMATELY 5'-6" BELOW GRADE ON WHICH SLAB WILL SET). THE BEDDING MATERIAL SHOULD BE GRADED SUCH THAT A SMOOTH UNIFORM GRADE IS ESTABLISHED TO ALLOW FOR OPTIMUM PLACEMENT OF THE SAND FILTER.
- THE SUBGRADE MUST SUPPORT THE DETENTION SYSTEM WITHOUT DIFFERENTIAL SETTLEMENT BETWEEN PIECES.
- IF CONSTRUCTION EQUIPMENT WILL BE OPERATING FOR AN EXTENDED PERIOD OF TIME ON THE BEDDING, THEN THE APPROPRIATE MEASURES (E.G. STIFF GEOGRID, ETC.) SHALL BE TAKEN TO ENSURE THE INTEGRITY OF THE BEDDING IS NOT COMPROMISED.

BACKFILL MATERIAL NOTES

- THE ON-SITE GEOTECHNICAL ENGINEER SHALL SPECIFY THE BACKFILL MATERIAL FOR THE STORMWATER MANAGEMENT SYSTEM.
- THE BACKFILL MATERIAL SHOULD BE FREE OF ROCKS, FROZEN LUMPS, AND OTHER FOREIGN MATTER THAT COULD CAUSE HARD SPOTS WITHIN THE BACKFILL MATERIAL, OR THAT COULD DECOMPOSE AND CREATE VOIDS.
- HIGHLY PLASTIC SILTS, HIGHLY PLASTIC CLAYS, ORGANIC SILTS, ORGANIC CLAYS, AND PEATS SHOULD NOT BE USED AS A BACKFILL MATERIAL.
- THE BACKFILL MATERIAL SHOULD BE PLACED IN 6" LOOSE LIFTS AND COMPACTED TO 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM-D698). THE FILL SOILS SHALL BE COMPACTED AT A MOISTURE CONTENT WITHIN +/- TWO PERCENT OF ITS OPTIMUM MOISTURE CONTENT.
- ANY MATERIAL STOCKPILING ON TOP OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE APPROVED BY THE STRUCTURAL DESIGN ENGINEER OR DETENTION SYSTEM MANUFACTURER.

STORMFILTER VAULT CONSTRUCTION NOTES

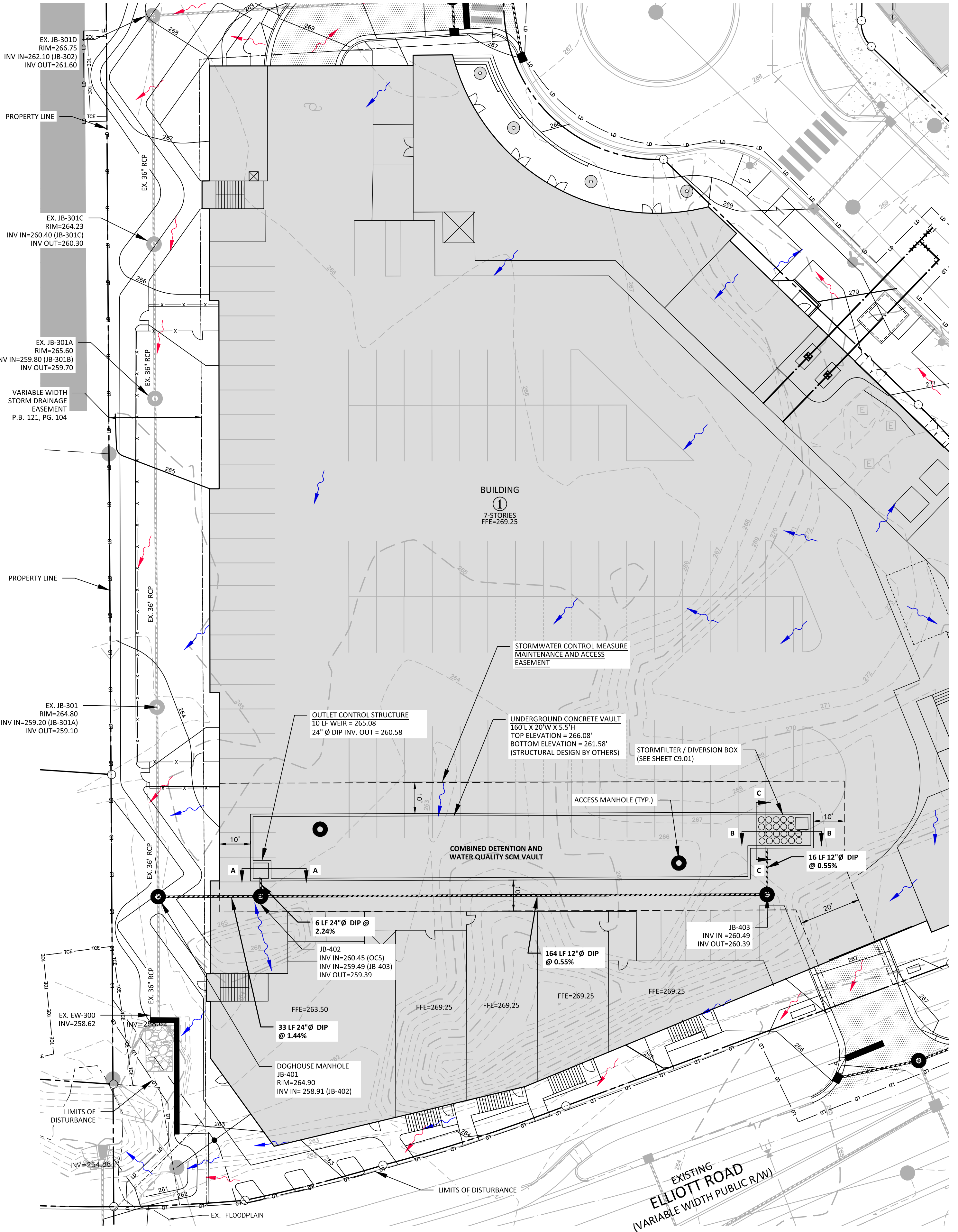
- STORMFILTER VAULT CONFIGURATION IS PROVIDED ON SHEETS C9.01.
- ABSOLUTELY NO RUNOFF SHALL ENTER THE STORMFILTER VAULTS UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.
- MANHOLE ACCESS SHALL BE PROVIDED FOR THE STORMFILTER VAULTS. MANHOLES SHALL BE IN COMPLIANCE WITH TOWN OF CHAPEL HILL STANDARD DETAILS BUT SHALL BE A MINIMUM OF 24 INCHES IN DIAMETER TO COMPLY WITH OSHA CONFINED SPACE REQUIREMENTS (OR MINIMUM OSHA REQUIREMENTS APPLICABLE AT TIME OF CONSTRUCTION). CONTRACTOR SHALL PROVIDE ACCESS LADDERS FOR ACCESS BELOW ALL MANHOLES. MANHOLE COVERS SHALL ALLOW FOR PROPER VENTILATION.

SYSTEM TESTING NOTES

- PRIOR TO PLACEMENT OF THE BACKFILL MATERIAL AND STORM FILTER CARTRIDGES, CONTRACTOR SHALL TEST FOR WATER TIGHTNESS. ENTRANCES AND EXITS SHALL BE PLUGGED AND THE SYSTEM COMPLETELY FILLED WITH WATER TO DEMONSTRATE WATER TIGHTNESS. WATER TIGHTNESS MEANS NO SIGNIFICANT LEAKAGE FOR A PERIOD OF 8 HOURS. SIGNIFICANT LEAKAGE TO BE DETERMINED BY THE CERTIFYING ENGINEER. CONTRACTOR SHALL CALL AND SCHEDULE THE FIELD TESTING OF THE SYSTEM (WATER-TIGHTNESS) WITH THE ENGINEER AT LEAST 2 WORKING DAYS PRIOR TO THE TEST. THE CONTRACTOR SHALL PROVIDE WRITTEN REPORTS TO THE ENGINEER VERIFYING THE WATER TIGHTNESS OF THE STORMWATER VAULT.

STATEMENT OF RESPONSIBILITY

- ALL REQUIRED MAINTENANCE AND INSPECTIONS OF THIS FACILITY SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER, PER THE EXECUTED OPERATION AND MAINTENANCE AGREEMENT FOR THIS FACILITY.

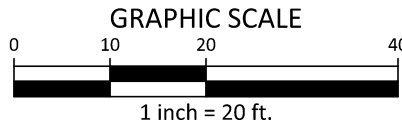
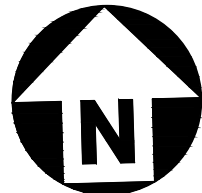


NOTE:

- PLEASE SEE SHEET C9.01 FOR DETAILED INFORMATION RELATED TO THE CROSS SECTIONS SHOWN ABOVE.

LEGEND

- EXISTING DRAINAGE FLOW
- PROPOSED DRAINAGE FLOW



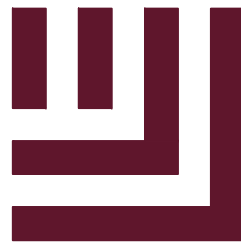
STORMWATER CONTROL MEASURE 'C' PLAN VIEW

1" = 20'

SEE SHEET C0.00 FOR ALL PROJECT, SITE, GRADING, STORM DRAINAGE AND UTILITY NOTES

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PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION



McADAMS

The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713

phone 919. 361. 5000

fax 919. 361. 2269

license number: C-0293, C-187

www.mcadamsco.com

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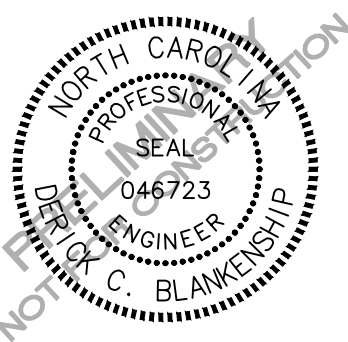
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PARK APARTMENTS - PHASE II

PHASE II FORM DISTRICT PERMIT

0 ELLIOTT ROAD

CHAPEL HILL, NORTH CAROLINA, 27517



REVISIONS

NO. DATE

PLAN INFORMATION

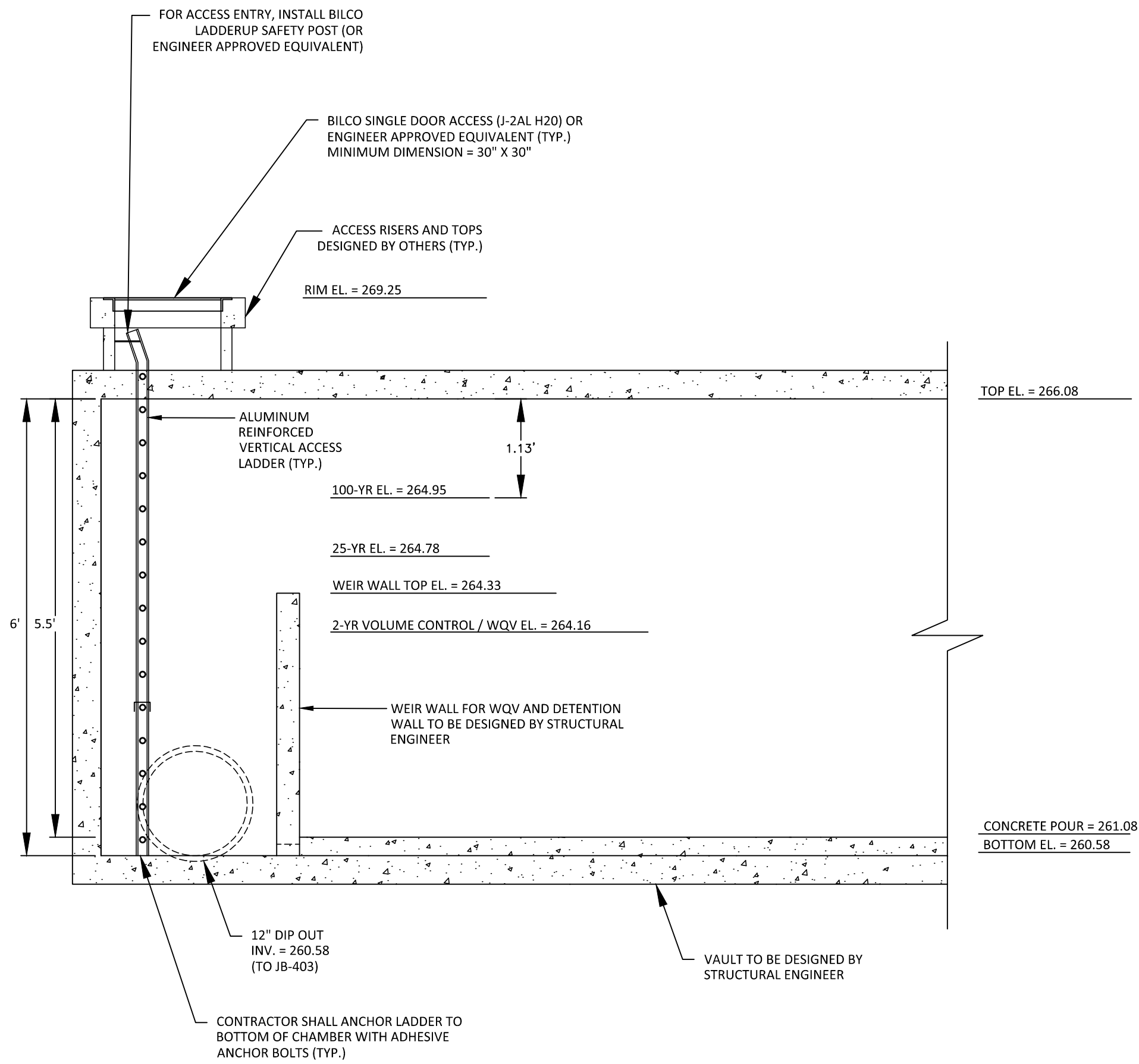
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FILENAME WDF22001-SWC
CHECKED BY DCB
DRAWN BY MRO
SCALE 1"=20'
DATE 04. 14. 2023

SHEET

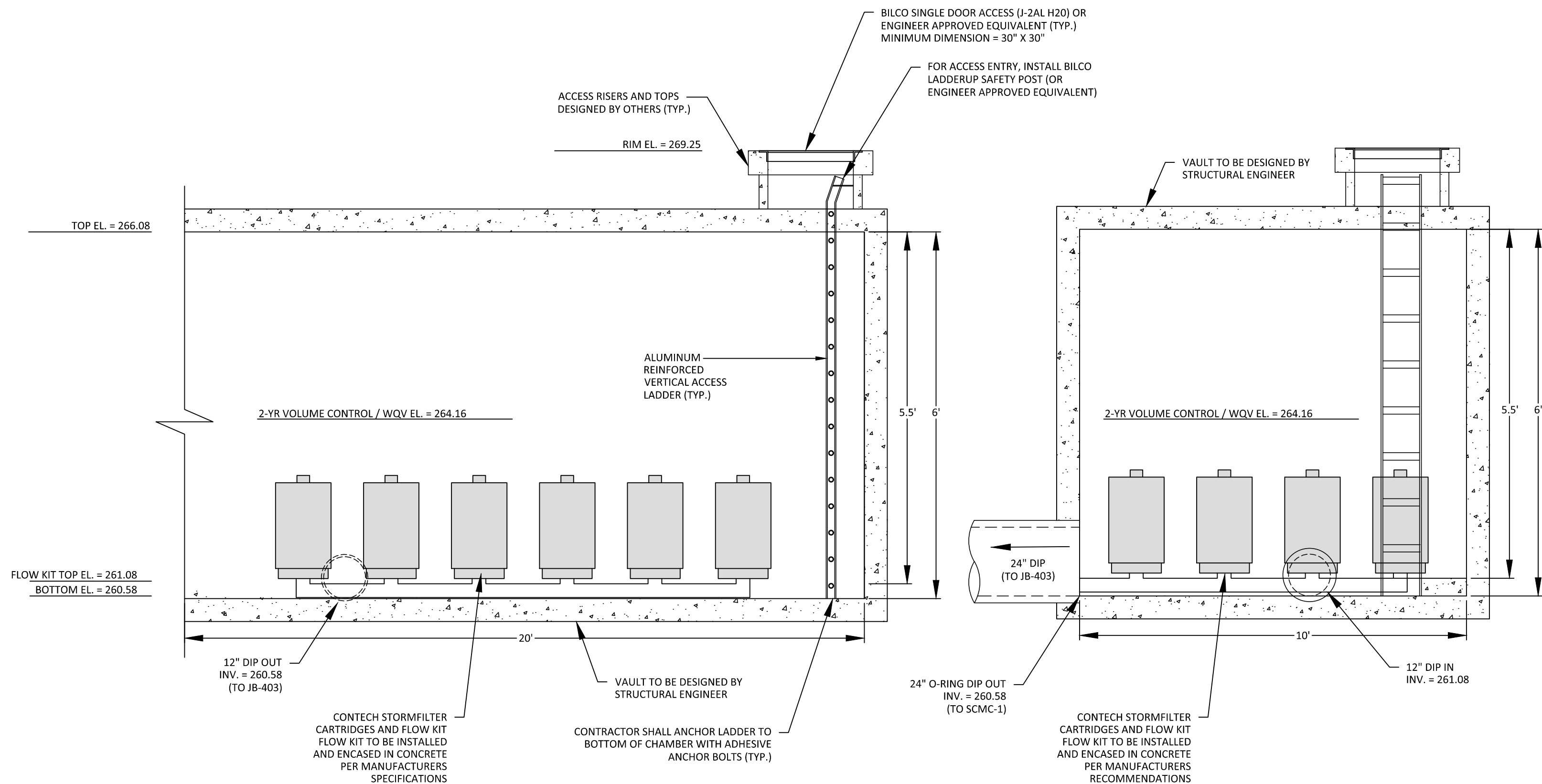
SCM 'C' PLAN VIEW

C9.00

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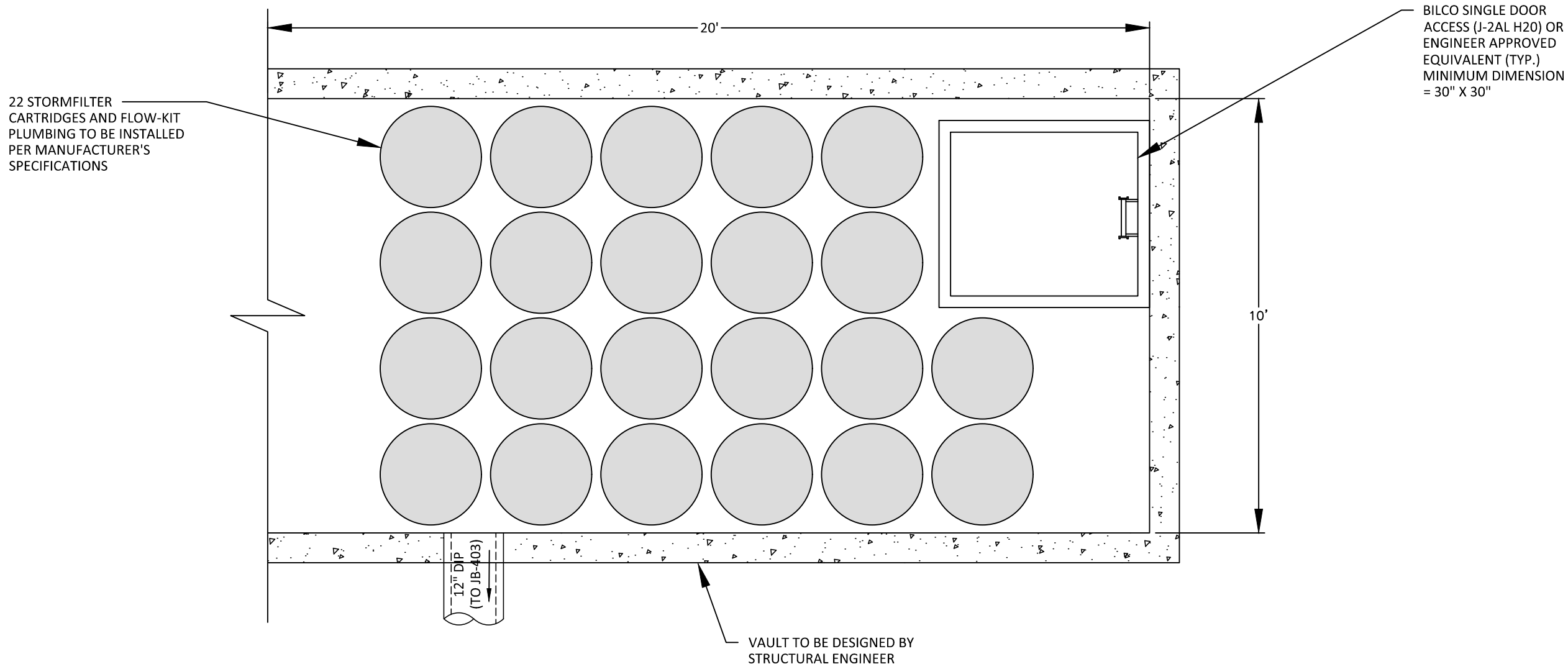


DETENTION VAULT SECTION A - A
N.T.S.



STORMFILTER VAULT SECTION B - B
N.T.S.

STORMFILTER VAULT SECTION C - C
N.T.S.

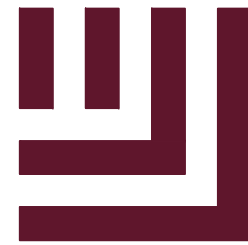


STORMFILTER BOX DETAILS
N.T.S.

SEE SHEET C0.00 FOR ALL PROJECT, SITE,
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NOTES

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PARK APARTMENTS - PHASE II

PHASE II FORM DISTRICT PERMIT

0 ELLIOTT ROAD

CHAPEL HILL, NORTH CAROLINA, 27517



REVISIONS

NO. DATE

PLAN INFORMATION

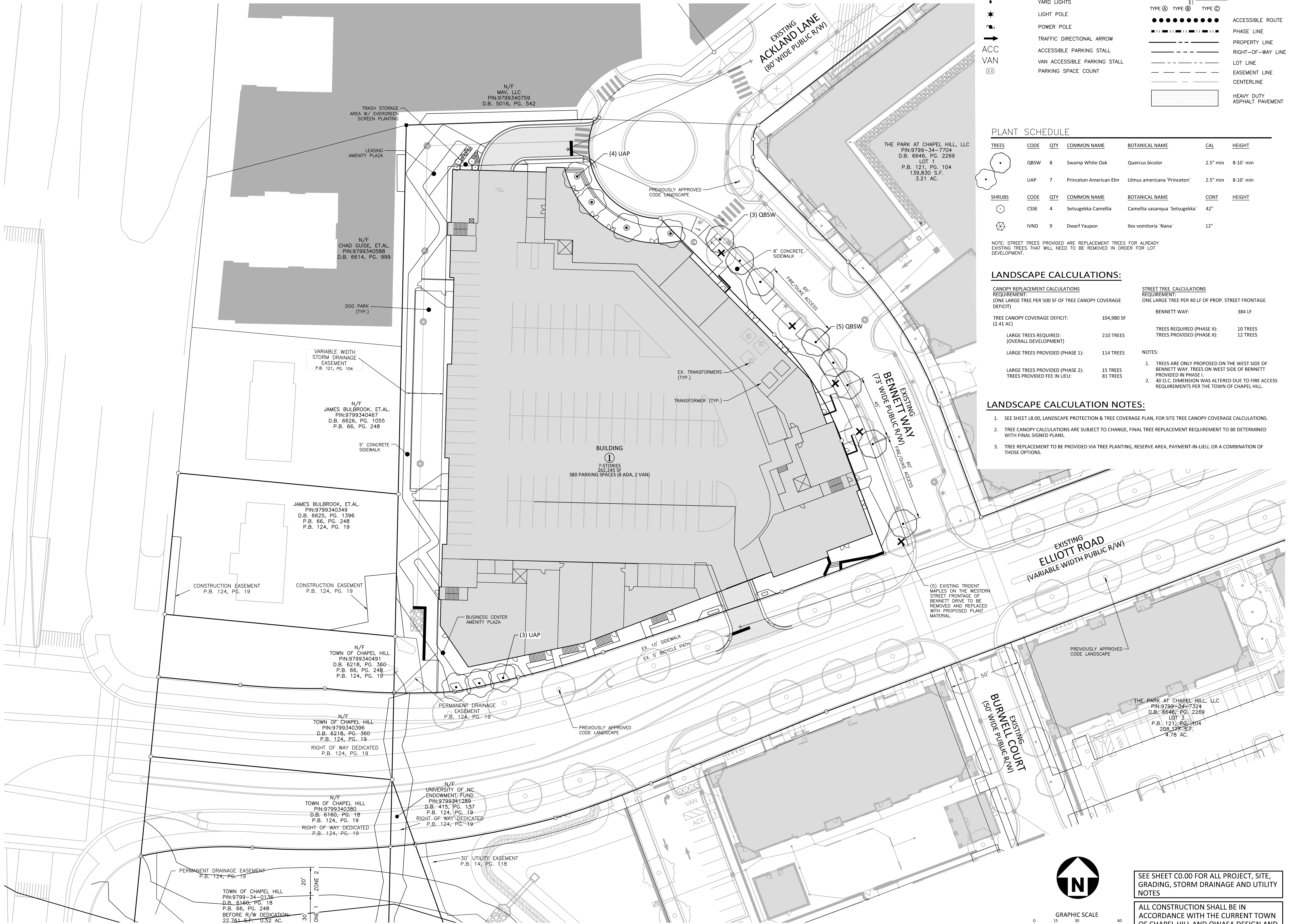
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SHEET

SCM 'C' DETAILS

C9.01

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Durham, NC 27713

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fax 919. 361. 2269
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RALEIGH, NC 27613
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PARK APARTMENTS - PHASE II

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CHAPEL HILL, NORTH CAROLINA, 27517



REVISIONS	
NO.	DATE

PLAN INFORMATION	
PROJECT NO.	WDF22001
FILENAME	WDF22001-L5
CHECKED BY	DCB
DRAWN BY	MRO
SCALE	1"=30'
DATE	04.14.2023

SHEET

LANDSCAPE PLAN

L5.00

SEE SHEET C0.00 FOR ALL PROJECT, SITE, GRADING, STORM DRAINAGE AND UTILITY NOTES

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PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

GENERAL

1. REFER TO CIVIL DRAWINGS FOR NOTES AND DETAILS ON SITE GRADING AND EROSION AND SEDIMENT CONTROL. REFER TO SEEDING AND SODDING NOTES FOR TURF GRASS INSTALLATION.
2. CONTRACTOR TO SUBMIT A LIST OF PLANT MATERIALS AND SOURCES FOR REVIEW BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND INSTALLATION. CONTRACTOR TO COORDINATE ANY DISCREPANCIES OR SUBSTITUTIONS WITH LANDSCAPE ARCHITECT.
3. DURING DELIVERY, STORAGE AND HANDLING, CONTRACTOR TO PROTECT AND MAINTAIN PLANT LIFE UNTIL PLANTED. PROVIDE PROTECTIVE COVERING OVER ALL PLANTINGS DURING PLANTING. IMMEDIATELY PROTECT PLANTS FROM DRYING OUT; EXPOSURE OF ROOTS TO SUN, WIND OR EXTREMES OF HEAT AND COLD TEMPERATURES. IF PLANTING IS DELAYED MORE THAN 24 HOURS AFTER DELIVERY, STORE PLANTS IN LOCATION PROTECTED FROM SUN AND WIND AND PROVIDE ADEQUATE WATER TO THE ROOT BALL PACKAGE. IF PLANT MATERIAL DAMAGED AS A RESULT OF DELIVERY, STORAGE OR HANDLING WILL BE REJECTED.
4. PLANTS, INCLUDING TREES, SHRUBS, GROUNDCOVERS, VINES AND ORNAMENTAL GRASSES, TO BE INSTALLED BEFORE THE FOLLOWING DATES:
SPRING PLANTING SEASON: MAY 15 TO JUNE 15
FALL PLANTING SEASON: SEPTEMBER 15 TO DECEMBER 1

1. TREE AND SHRUB MATERIAL: FURNISH NURSERY-GROWN, TYPICAL OF THEIR SPECIES OR VARIETY WITH NORMAL GROWING HABIT, WELL DEVELOPED BRANCH STRUCTURE, HEALTHY FOLIAGE, AND VIGOROUS ROOT SYSTEMS IN ACCORDANCE WITH APPLICABLE REQUIREMENTS IN ANSIC210 3 "AMERICAN STANDARD FOR NURSERY STOCK" PLANTS SHALL BE FREE OF DEFECTS, INCLUDING BUT NOT LIMITED TO DISCOLORATION, KNOTS, SUNKEN INJURIES, FROST CRACKS, ABRASION OF THE BARK, PLANT DISEASES, INSECT GEGS, BORERS, FIRE ANTS, AND ALL FORMS OF INFESTATION.
2. SOIL: ASTM D 5268 TOPSOIL, pH RANGE OF 5.5 TO 7.1, MINIMUM OF 6 PERCENT ORGANIC MATERIAL CONTENT; FREE OF STONES 1 INCH OR LARGER IN ANY DIMENSION AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH.
3. SOIL AMENDMENTS:
 - A. ORGANIC COMPOST: WELL-COMPOSTED, STABLE AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/8" SIEVE; TOTAL SALT CONTENT OF 0.5 TO 10 DECISEMS/CM; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS.
 - B. INORGANIC SOIL AMENDMENTS: COMMERCIAL GRADE, FREE OF TOXIC MATERIALS.
4. FERTILIZER: GRANULAR OR PELLET-SLOW-RELEASE FERTILIZER CONSISTING OF 50 PERCENT WATER-INSOLUBLE NITROGEN, PHOSPHORUS AND POTASSIUM IN THE COMPOSITION AS DIRECTED BY SOIL ANALYSIS TESTING.
5. ORGANIC MULCH: SHREDED HARDWOOD IN NATURAL BROWN COLOR; 3" MAXIMUM SIZE AND MINIMUM 1/4" THICKNESS; FREE OF DELETERIOUS MATERIALS AND SUITABLE FOR A TOP DRESSING OF TREES AND SHRUBS.
6. STAKES AND GUYS: DEEPODOT ABORTIVE STEAKING AND GUYING MATERIAL OR APPROVED EQUAL.

WARRANTY
 INSTALLER SHALL REPAIR OR REPLACE ANY PLANTINGS THAT FAIL IN MATERIALS,
 WORKMANSHIP, OR GROWTH WITHIN ONE YEAR AFTER THE DATE OF SUBSTANTIAL
 COMPLETION. FAILURES INCLUDE BUT ARE NOT LIMITED TO:

1. DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE, NEGLECT OR ABUSE BY OWNER, OR INCIDENTS THAT ARE BEYOND THE CONTRACTOR'S CONTROL
2. STRUCTURAL FAILURES INCLUDING PLANTINGS FALLING OR BLOWING OVER.

INITIAL MAINTENANCE SHALL BE PROVIDED IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUED THROUGH THE FIRST YEAR. MAINTENANCE SHALL BE PROVIDED THROUGH THE SECOND YEAR FOR ALL PLANT MATERIAL SHALL BE PROVIDED FOR ONE YEAR AT A MINIMUM AND SHALL INCLUDE:

- 1. TREE AND SHRUB MAINTENANCE: MAINTAIN PLANTINGS BY PRUNING, CUTTING, AND TRIMMING. WEEDING, FERTILIZING, RESTORING PLANTING SAUCERS, AND RESETTling TO PROPER GRADES OR VERTICAL POSITION AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS. SPRAY OR TREAT AS REQUIRED TO KEEP TREES AND SHRUBS FREE TO INSECTS AND DISEASE. TREES AND SHRUBS TO BE PRUNED TO RESTORE NATURAL SHAPE OR FORM OF THE SPECIES. VARIATIONS IN PRUNING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND APPLICABLE REFERENCES IN ANSIZ60-1 "AMERICAN STANDARD FOR NURSERY STOCK".
- 2. GROUNDCOVER AND PLANT MAINTENANCE: MAINTAIN ESTABLISHED PLANTINGS BY WEEDING, FERTILIZING, MULCHING, AND OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS.
- 3. PROTECT EXTERIOR PLANTS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND OTHERS. MAINTAIN PROTECTION DURING MAINTENANCE AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED PLANTINGS.

GENERAL

1. PROVIDE A COMPLETE AND OPERATING LAWN SPRINKLER INSTALLATION AS SHOWN ON THE PLANS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING ITEMS:

1.1 PIPE AND FITTINGS

1.2 SPRINKLER HEADS

1.3 CONTROL SYSTEM AND CONNECTION TO ELECTRICAL SUPPLY

1.4 TRENCHING, INSTALLATION OF SYSTEM, CONNECTION TO WATER SOURCE, TESTING, AND BACKFILLING

1. THE CONTRACTOR WILL FLAG THE LOCATION OF ALL HEADS, ELECTRIC VALVES, QUICK COUPLER VALVES, GATE VALVES, AND OTHER EQUIPMENT LOCATED ON THE PROPERTY. THE CONTRACTOR SHALL OBTAIN THE LOCATION OF THE REPRESENTATIVE'S APPROVAL. THE CONTRACTOR SHALL REPORT TO THE REPRESENTATIVE ANY DEVIATIONS BETWEEN THE IRRIGATION PLAN, SPECIFICATIONS, AND TO THE SITE. FAILURE TO DO SO PROPER TO THE REPRESENTATIVE'S APPROVAL OF THE IRRIGATION PLAN SHALL CONSTITUTE A BREACH OF THE CONTRACT. THE LOCATION OF THE EQUIPMENT WILL RESULT IN THE WORK BEING DONE AT THE CONTRACTOR'S EXPENSE.

2. ALL LOCAL, MUNICIPAL AND STATE LAWS, ORDINANCES, CODES AND REGULATIONS RELATING TO, OR AFFECTING THE CONSTRUCTION OF THE IRRIGATION SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THESE SPECIFICATIONS WILL BE CARRIED OUT BY THE CONTRACTOR. THE CONTRACTOR MUST HAVE A VALID LICENSE, AS ISSUED BY THE TEXAS BOARD OF IRRIGATORS, MUST CARRY SUFFICIENT INSURANCE COVERAGE, AND MUST BE A MEMBER OF THE TEXAS BOARD OF IRRIGATORS.

3. ANY PERMITS NEEDED FOR CONSTRUCTION OF THE WORK INCLUDED IN THIS CONTRACT, WHICH IS REQUIRED BY ANY LEGALLY CONSTITUTED AUTHORITY HAVING JURISDICTION, SHALL BE OBTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND COPIES OF THE PERMITS REQUIRED BY THESE AUTHORITIES. THE REPRESENTATIVE WILL BE NOTIFIED WHEN THESE INSPECTIONS ARE REQUIRED, ANY NECESSARY WORK NEEDED TO BE DONE BY THE CONTRACTOR AS A RESULT OF THESE INSPECTIONS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. COPIES OF ALL PERMITS AND INSPECTIONS REPORTS SHALL BE FORWARDED TO THE REPRESENTATIVE.

1. MATERIAL AND WORKMANSHIP SHALL BE FULLY GUARANTEED FOR ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION INSPECTION; REPLACEMENT OF DEFECTIVE MATERIAL OR REPAIR OF WORK SHALL BE DONE AT NO EXPENSE TO THE OWNER DURING THE FIRST YEAR, EXCEPT FOR REPAIRS OR REPLACEMENTS NECESSITATED BY DAMAGE OF ANY KIND NOT OF THE CONTRACTOR'S MAKING. ANY REIMBURSEMENT FOR REPAIRS MUST HAVE PRIOR APPROVAL OF THE REPRESENTATIVE.

THE SPRINKLER SYSTEM HAS BEEN DESIGNED ACCORDING TO THE OPERATING CHARACTERISTICS OF THE SPECIFIED EQUIPMENT. THEREFORE, NO SUBSTITUTIONS OF EQUIPMENT WILL BE ALLOWED EXCEPT WITH WRITTEN APPROVAL.

POLYVINYL CHLORIDE PIPE (HEREINAFTER REFERRED TO AS PVC PIPE) SHALL HAVE BEEN MANUFACTURED IN ACCORDANCE WITH THE PRODUCT STANDARDS AS FOLLOWS: PRODUCT STANDARD PS-22-0 SHALL APPLY AND BE THE GOVERNING AUTHORITY AS APPLICABLE TO MAIN LINE PIPING AND SHALL BE SDR-21 (CLASS 200) SPECIFICATION. 2 1/2" AND SMALLER MAIN LINE AND LATERAL LINE PIPING WILL BE SOLVENT WELD JOINTS.

2 1/2" AND SMALLER PIPE FITTINGS SHALL BE PVC SCHEDULE 40, AS MANUFACTURED BY THE LASCO COMPANY, OR EQUAL. ALL PVC FITTINGS SHALL BE OF THE SAME MATERIAL AS THE PVC PIPE SPECIFIED AND SHALL BE COMPATIBLE WITH THE PVC PIPE FURNISHED. ONLY SOLVENT RECOMMENDED BY THE MANUFACTURER OF THE PVC PIPE AND THE MANUFACTURER OF THE PVC FITTINGS SHALL BE USED.

ALL VALVE WIRING SHALL BE 14 GAUGE COPPER SINGLE-CONDUCTOR WIRE WITH 4/64" VINYL INSULATION AS APPROVED FOR DIRECT UNDERGROUND BURIAL IN 30 VOLT AC OR LESS SERVICE BY THE NATIONAL ELECTRICAL CODE. WHERE VALVE WIRED FROM TWO OR MORE CONTROLLERS ARE IN THE SAME DITCH, WIRE ARE TO BE COLOR CODED. THIS COLOR CODING TO BE NOTED ON RECORD DRAWINGS.

EXPANSION COILS, WHICH ARE TO CONSIST OF APPROXIMATELY 10 WRAPS OF WIRE AROUND 1" PIPE, WILL BE PROVIDED ON EACH WIRE APPROXIMATELY EVERY 100 FEET. WIRES ARE TO BE BUNDLED AND TAPED TOGETHER EVERY 10 FEET. PROVIDE EXPANSION COIL AT EACH ELECTRIC VALVE INSIDE THE VALVE BOX

ALL WIRE SPLICES SHALL BE MADE WITH A MECHANICAL CONNECTOR AND WATERPROOFED ACCORDING TO THE MANUFACTURER'S SPECIFICATION. THE WIRE SPlice SHALL BE SPEAR'S "DRY SPlice", 3M "SCOTCH LOCK", OR 3M DBY WIRE SPlice. ALL WIRE SPLICES SHALL BE IN VALVE BOXES, AND NO DIRECTLY BURIED OR UNDERGROUND SPLICES WILL BE ACCEPTED.

INSTALLATION GENERAL

1. BEFORE INSTALLATION IS STARTED, THE CONTRACTOR SHALL PLACE A FLAG WHERE EACH SPRINKLER HEAD, SIGNALING VALVE, AND ELECTRICAL VALVES ARE TO BE LOCATED IN ACCORDANCE WITH THE PLANS. THE FLAGGING SHALL BE APPROVED BY THE REPRESENTATIVE BEFORE THE INSTALLATION IS STARTED. SHOULD A DISCREPANCY IN THE PLANS BECOME APPARENT AT THIS TIME, SUCH DISCREPANCY SHALL BE POINTED OUT TO THE REPRESENTATIVE. WORK MUST NOT PROCEED UNTIL THE REPRESENTATIVE APPROVES ANY DESIGN CHANGES. THE REPRESENTATIVE NEED NOT SIGN OFF ON EACH DISCREPANCY. THE CONTRACTOR SHALL OBTAIN THE CONTRACTOR APPROVAL FOR EXTRA COMPENSATION SHALL BE OBTAINED IN WRITING FROM THE REPRESENTATIVE BEFORE COMMENCING WORK. SHOULD SUCH CHANGES CREATE A SAVINGS IN COST TO THE OWNER, THE WRITING SHALL BE IN THE CONTRACT PRICE SHALL BE APPROVED BY THE REPRESENTATIVE IN WRITING BEFORE COMMENCING WORK.
2. THE CONTRACTOR IS CAUTIONED TO PROVIDE ADEQUATE PROTECTION TO THOSE USING THE SITE. PROVIDE BARRICADES AS NECESSARY.
3. THE GENERAL SHALL BE INSTALLED IN STRICT ACCORDANCE TO THE MANUFACTURER'S INSTALLATION SPECIFICATIONS THAT SHALL BE CONSIDERED A SUPPLEMENT TO THESE SPECIFICATIONS.
4. PIPING LAYOUT INDICATED IS DIAGRAMMATIC ONLY. ROUTE PIPING TO AVOID PLANTS AND STRUCTURES.
5. REVIEW LAYOUT REQUIREMENTS WITH OTHER EFFECTED WORK. COORDINATE LOCATIONS OF SLEEVES (UNDER PAVING) TO ACCOMMODATE SYSTEM.

ANY EXCAVATION IN THIS CONTRACT SHALL BE UNCLASSIFIED AND IS TO INCLUDE EARTH, LOOSE ROCK, ROCK, OR ANY COMBINATION THEREOF, IN WET OR DRY STATE. ALL TRENCHES SHALL BE BACKFILLED WITH THE MATERIAL REMOVED, EXCEPT THAT NO ROCK OR DEBRIS THAT CAN DAMAGE THE PIPE SHALL BE USED AS BACKFILL IN THIS CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL EXCESS MATERIAL. SECTION 3.07: ALL TRENCH BACKFILL SHALL BE WATER SETTLED AND COMPACTED IN ORDER TO PREVENT AFTER SETTING. USE ONLY THE MINIMUM AMOUNT OF WATER NECESSARY TO SETTLE DITCHES. FLOODING DITCHES WITHOUT COMPACTION WILL NOT BE PERMITTED.

ALL TRENCHES AND ADJOINING AREAS SHALL BE HAND RAKED TO FINISH GRADE. REMOVE ROCKS, EXCESS DIRT, AND DEBRIS FROM THE SITE.

1. MAIN LINE PIPING SHALL BE INSTALLED IN A 4" WIDE (MINIMUM) TRENCH WITH A MINIMUM OF 18" COVER OVER THE TOP OF THE PIPE.

2. LATERAL PIPING- ALL PVC LATERAL LINE PIPING SHALL BE SOLVENT WELD TYPE. INSTALL IN A 4" WIDE (MINIMUM) TRENCH DEEP ENOUGH TO ALLOW FOR INSTALLATION OF SPRINKLER HEADS AND VALVES, BUT IN NO CASE LESS THAN 12" OF COVER FOR ROTARY AND JOE SPRAY ZONE LATERALS.

3. FIRE PROTECTION LATERALS SHALL BE INSTALLED WITH AT LEAST 12" OF COVER (7" IN DIAMETER) SHALL BE REMOVED FROM THE LINE TO PREVENT UNEVEN SETTLEMENT. PIPE SHALL HAVE A FIRM UNIFORMED BEARING FOR THE ENTIRE LENGTH OF EACH PIPE LINE TO PREVENT UNEVEN SETTLEMENT. WEDGING OR BLOCKING OF PIPE WILL NOT BE ACCEPTED. IF THERE IS ANY SIGN OF SETTLING OR SINKING OF THE PIPE, IT MUST BE REPAIRED IMMEDIATELY.

4. IF THERE IS WATER IN THE TRENCH, NEVER LAID PIPE WHEN THE TEMPERATURE IS 32 DEGREES F, OR BELOW, EXCEED MAXIMUM 2 PIPES PER TRENCH, WITH 1" HORIZONTAL CLEARANCE BETWEEN PIPES.

THE PVC PIPE TO BE INSTALLED ON THIS PROJECT SITE TO MAKE ANY SOLVENT WELDED JOINTS. THE PIPE AND FITTINGS SHALL BE THOROUGHLY CLEANED OF DIRT, DUST AND MOISTURE BEFORE APPLYING SOLVENT. PVC PIPE AND FITTINGS SHALL BE CLEANED WITH PVC PRIMER OR SANDED WITH PLUMBER'S CLOTH BEFORE SOLVENT WELDING. THE CONTRACTOR SHALL MAKE SOLVENT WELDS WITH A NON-SYNTHETIC BRISTLY BRUSH. WHERE THREADED PVC CONNECTIONS ARE REQUIRED, USE THREADED PVC ADAPTERS INTO WHICH THE PIPE MAY BE WELDED. TEFLON TAPE WILL BE USED ON THREADS.

AUTOMATIC CONTROLLER SHALL BE SUPPLIED IN ACCORDANCE WITH THE MATERIALS LIST AND SHALL BE LOCATED AS SHOWN ON THE PLAN. CONTRACTOR SHALL PROVIDE SERVICE INTO THE CONTROLLERS AS PART OF THIS CONTRACT.

ELECTRIC REMOTE VALVES SHALL BE SUPPLIED IN ACCORDANCE WITH THE SPECIFICATIONS VALVES SHALL BE INSTALLED DEEP ENOUGH SO THAT THERE WILL BE AT LEAST 10" OF COVER FOR THE VALVE SUPPLIED SHALL BECOME PART OF THESE SPECIFICATIONS. A GREEN PLASTIC TOP SHALL BE INSTALLED ON THE VALVE BOX FLUSH WITH THE FINAL GRADE. PLACE 6" OF GRAVEL UNDER EACH VALVE BEFORE INSTALLING VALVE BOX.

IMPORTANT: BACKFILL SHALL BE SPECIALLY TAMPED UNDER THE HEAD FLANGE AND AROUND THE HEAD FOR A DISTANCE OF ONE FOOT BY A SUITABLE MEANS, AFTER TRENCH BACKFILL HAS DRIED FROM WATER SETTLING. THE PURPOSE IS TO ELIMINATE LOOSE HEADS IN THE GROUND THAT WOULD MOVE WHEN RUN OVER WITH MOWERS THEREBY CREATING A POSSIBLE SOURCE OF DAMAGE. ALL SPRINKLER HEADS SHALL BE LOCATED 4" FROM BACK OF VEHICULAR CURB USING A FULL SWING JOINT WITH SCHEDULE 40 PVC THREADED FITTINGS AND SCHEDULE 80 PVC NIPPLES. THE TOP OF THE HEAD SHALL BE NO MORE THAN 1/4" ABOVE FINISHED GRADE. ADJUST PARTIAL CIRCLE ARCS AS REQUIRED TO COMPLETE COVERAGE.

UPON COMPLETION OF THE WORK AND BEFORE ACCEPTANCE AND FINAL PAYMENT WILL BE MADE, THE CONTRACTOR SHALL CLEAN AND REMOVE FROM THE SITE OF THE WORK, HIS SURPLUS AND DISCARDED MATERIALS, TEMPORARY STRUCTURES AND DEBRIS OF EVERY KIND. HE SHALL LEAVE THE SITE OF THE WORK IN A NEAT AND ORDERLY CONDITION EQUAL THE SITE SHALL BE DISPOSED AT LOCATIONS SATISFACTORY TO THE REPRESENTATIVE.

INSTRUCT OWNER'S PERSONNEL IN OPERATION AND MAINTENANCE OF SYSTEM, INCLUDING ADJUSTING OF SPRINKLER HEADS. USE OPERATION AND MAINTENANCE MATERIAL AS BASIS FOR DEMONSTRATION.

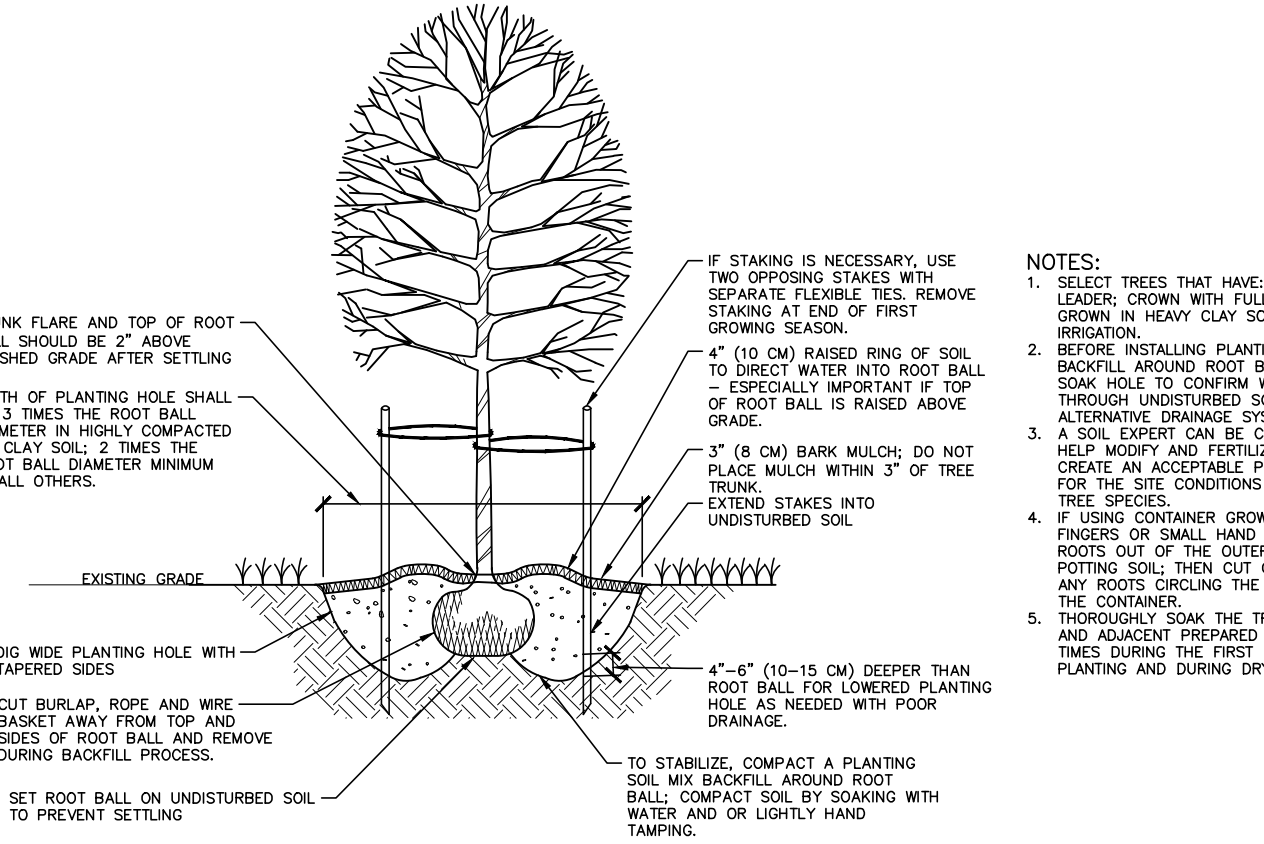
EXAMINATION AND PREPARATION

1. INSTALLER TO EXAMINE AREAS TO RECEIVE EXTERIOR PLANTS FOR COMPLIANCE WITH REQUIREMENTS AND CONDITIONS AFFECTING INSTALLATION AND PERFORMANCE. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
2. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES, AND LAWNS AND EXISTING PLANTINGS FROM DAMAGE CAUSED BY PLANTING OPERATIONS REFER TO CIVIL DRAWINGS FOR EROSION AND SEDIMENT CONTROL MEASURES.
3. LAY OUT INDIVIDUAL TREE AND SHRUB LOCATIONS PER PLANTING PLAN. OBTAIN LANDSCAPE ARCHITECT'S ACCEPTANCE OF LAYOUT BEFORE PLANTING AND MAKE MINOR ADJUSTMENTS AS NEEDED.

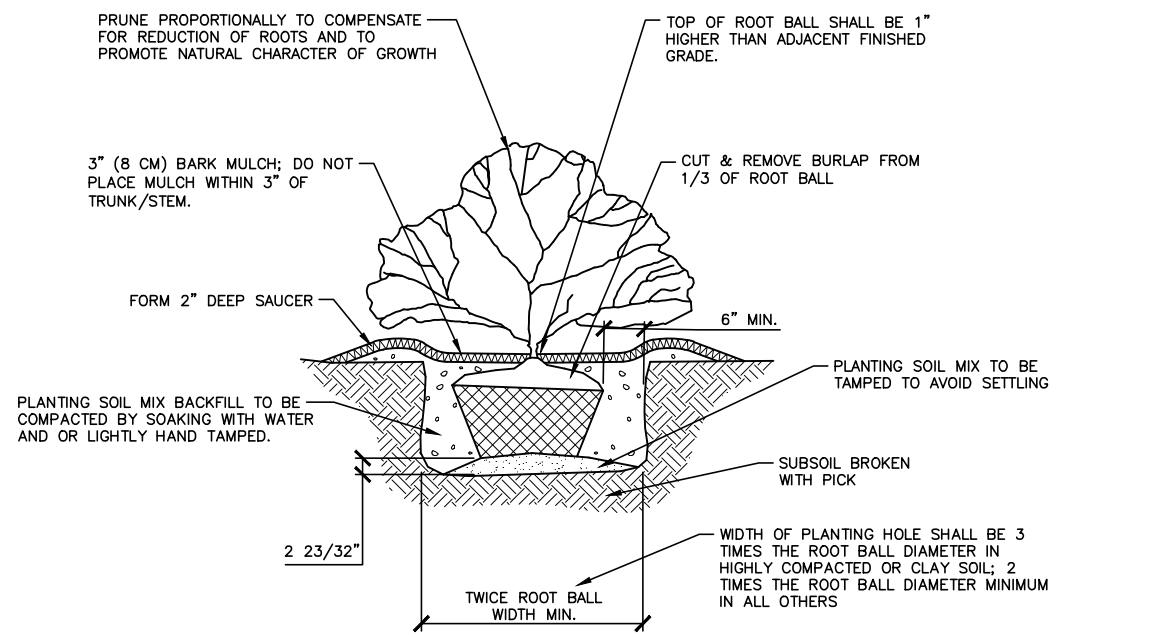
1. VERIFY SITE GRADING PRIOR TO DIGGING. LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 8 INCHES. REMOVE STONES LARGER THAN 1 INCH IN ANY DIMENSION AND STICKS, ROOTS, AND OTHER DEBRIS. EXPOSE TOP SOIL. ADD TOP SOIL, COMPOST, LIME AND SOIL AMENDMENTS AND THOROUGHLY BLEND PLANTING MIX TO CREATE ACCEPTABLE PLANTING SOIL AS DESCRIBED THROUGH ANLA.
2. EXCAVATE CIRCULAR PITS AND TRENCHES WITH SIDES SLOPED INWARD, LEAVING THE CENTER AREA RAISED SLIGHTLY TO SUPPORT THE ROOT BALL AND ASSIST IN DRAINAGE. EXCAVATE APPROXIMATELY THREE TIMES AS WIDE AS BALL DIAMETER FOR BALLED AND BURLAPPED AND CONTAINER-GROWN STOCK. SCARIFY PIT OR TRENCH WALLS.

1. SET BAILED AND BURGLARIED OR CONTAINER-GROWN STOCKPLUMS AND CENTER OF PIT OR HOLE TO BE REMOVED.
2. REMOVE WIRE AND PANELS ENTIRELY FROM ROOF BALL. REMOVE BURLAR FROM TOPS OF ROOF BALLS AND PARTIALLY FROM SIDES BUT DO NOT REMOVE FROM UNDER MICH. PLANT PLANTING SOIL MIX AROUND ROOF BALL IN LAYERS, TAMPING TO SETTLE MIX AND COVER WITH 1/2" LAYER OF PLANTING SOIL MIX. WATER THOROUGHLY AFTER PLACING REMAINDER OF BACKFILL. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF PLANTING SOIL MIX.
3. APPLY 3/4" MINIMUM AVERAGE THICKNESS OF ORGANIC MULCH EXTENDING 12 INCHES FROM EDGE OF PLANTING SOIL MIX TO EDGE OF BEDLINE. DO NOT PLACE MULCH WITH 3 INCHES OF ROOT FLARE, TRUNK OR STEMS.
4. PRUNE, THIN AND SHAPE TREES AND SHRUBS ACCORDING TO STANDARD HORTICULTURAL PRACTICE AND TO RETAIN NATURAL CHARACTER. DO NOT CUT TREE LEADERS. REMOVE BRANCHES AND LIMBS OF TREES AND SHRUBS TO BE REMOVED.
5. INSTALL GUYING AND STAKING PER MANUFACTURER'S SPECIFICATIONS. REMOVE GUY WIRES AND STAKES AFTER TWO PLANTING ESTABLISHMENT SEASONS.
7. DISPOSAL: REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSIVO, UNUSABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.

NOTE: STREET TREES PROVIDED ARE REPLACEMENT TREES FOR ALREADY EXISTING TREES THAT WILL NEED TO BE REMOVED IN ORDER FOR LOT DEVELOPMENT.



SCALE: 3/8"=1'-0"



SCALE: 3/8"=1'-0"

PARK APARTMENTS - PHASE II
PHASE II FORM DISTRICT PERMIT
O ELLIOTT ROAD
 CHAPEL HILL, NORTH CAROLINA, 27517

NO.	DATE
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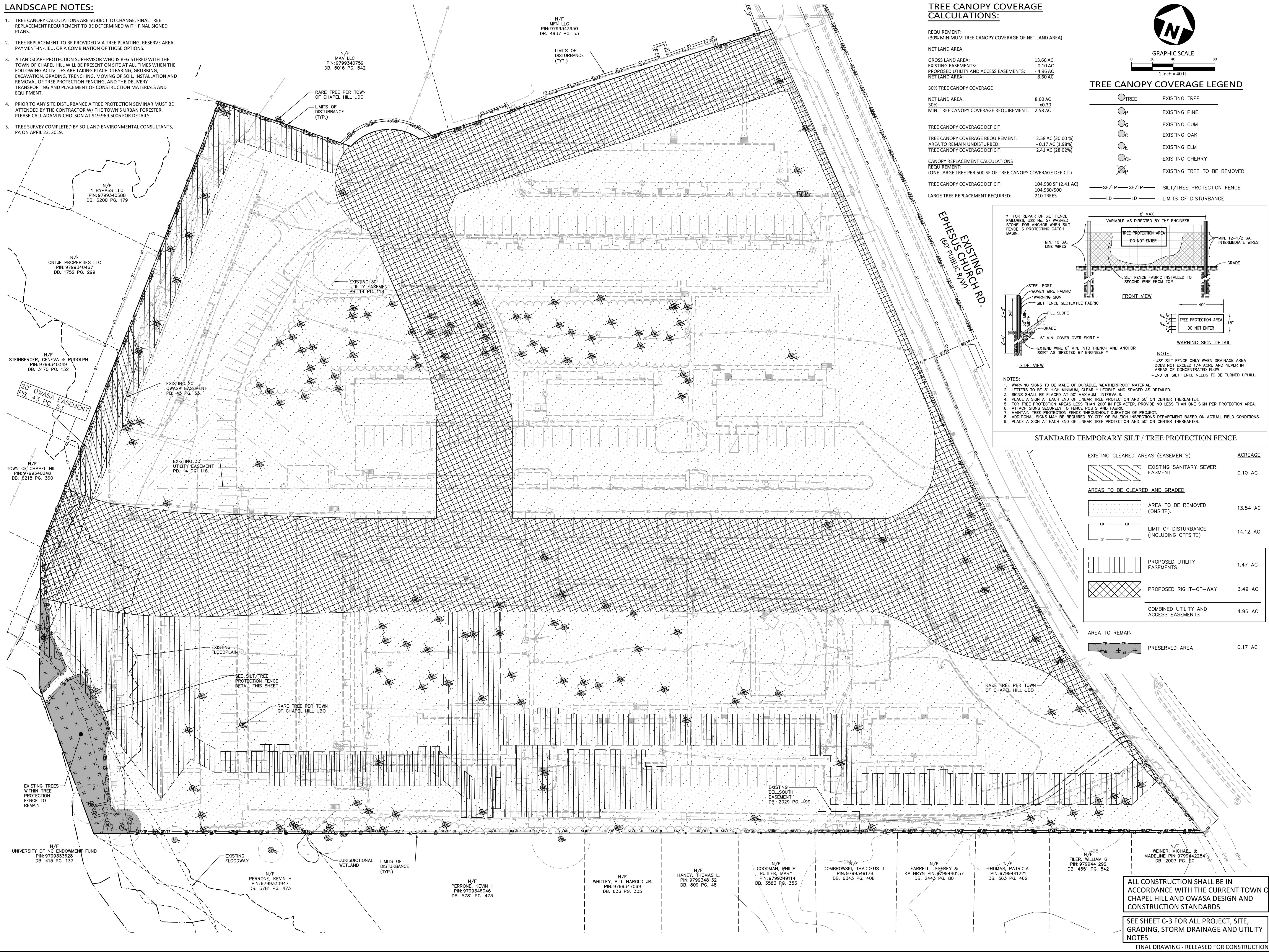
PROJECT NO.	WDF22001
FILENAME	WDF22001-S
CHECKED BY	DCB
DRAWN BY	MRO
SCALE	1"=30'
DATE	04. 14. 2023

LANDSCAPE DETAILS

L5.01

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

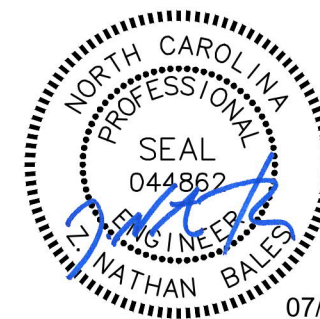
1. TREE CANOPY CALCULATIONS ARE SUBJECT TO CHANGE, FINAL TREE REPLACEMENT REQUIREMENT TO BE DETERMINED WITH FINAL SIGNED PLANS.
2. TREE REPLACEMENT TO BE PROVIDED VIA TREE PLANTING, RESERVE AREA, PAYMENT-IN-LIEU, OR A COMBINATION OF THOSE OPTIONS.
3. A LANDSCAPE PROTECTION SUPERVISOR WHO IS REGISTERED WITH THE TOWN OF CHAPEL HILL WILL BE PRESENT ON SITE AT ALL TIMES WHEN THE FOLLOWING ACTIVITIES ARE TAKING PLACE: CLEARING, GRUBBING, EXCAVATION, GRADING, TRENCHING, MOVING OF SOIL, INSTALLATION AND REMOVAL OF TREE PROTECTION FENCING, AND THE DELIVERY TRANSPORTING AND PLACEMENT OF CONSTRUCTION MATERIALS AND EQUIPMENT.
4. PRIOR TO ANY SITE DISTURBANCE A TREE PROTECTION SEMINAR MUST BE ATTENDED BY THE CONTRACTOR W/ THE TOWN'S URBAN FORESTER. PLEASE CALL ADAM NICHOLSON AT 919.969.5006 FOR DETAILS.
5. TREE SURVEY COMPLETED BY SOIL AND ENVIRONMENTAL CONSULTANTS, PA ON APRIL 23, 2019.



www.mcadamsco.com

WOODFIELD INVESTMENTS
11425 HORSEMAN'S TRAIL
RALEIGH, NC 27613
PHONE: 919. 535. 8947

PARK APARTMENTS
FORM DISTRICT PERMIT
11250 EPHEBUS CHURCH ROAD
CHAPEL HILL, NORTH CAROLINA, 27517

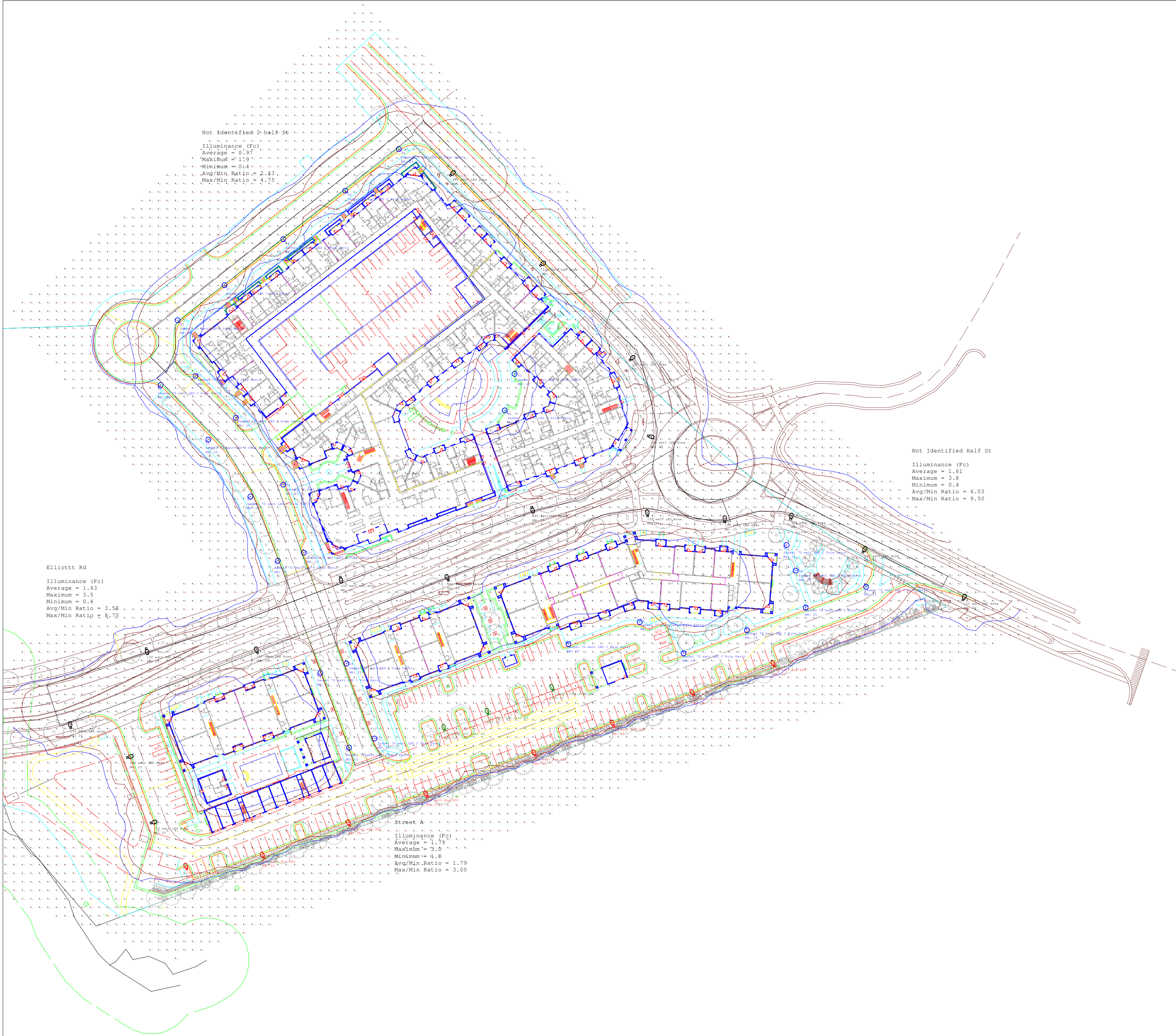


NO.	DATE	
1	06. 12. 2020	ISSUED FOR CONSTRUCTION
2	07. 02. 2020	ZCP REVISION #2

PROJECT NO.	WDF-17000
FILENAME	WDF17000-TC1
CHECKED BY	SRD
DRAWN BY	AMR
SCALE	1"=40'
DATE	06. 12. 2020

LANDSCAPE PROTECTION & TREE COVERAGE PLAN

TC-1



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens LLF		Description
	17	150 watt LED Area	SINGLE	N.A.	0.850	ATB2 40B LED E10 XXXXX R3
	27	Sanibel 70 watt LED C Pole Davit	SINGLE	N.A.	0.850	GBLF 070 4K XXXX L3
	3	150 watt LED Area AB	SINGLE	N.A.	0.850	ATB2 40B LED E10 XXXXX R3
	8	150 watt Are HSS	SINGLE	N.A.	0.850	ATB2 40BLEDE10 XXXXX R3 HS

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
site	Illuminance	Fc	0.53	3.8	0.0	N.A.	N.A.
Elliott Rd	Illuminance	Fc	1.43	3.5	0.4	3.58	8.75
Not Identified 2 half St	Illuminance	Fc	0.97	1.9	0.4	2.43	4.75
Not Identified Half St	Illuminance	Fc	1.61	3.8	0.4	4.03	9.50
Street A	Illuminance	Fc	1.79	3.0	1.0	1.79	3.00

Sanibel

20'
25'

70W
150W

Roadway

15'
20'
25'
30'
35'

50W
70W
110W
150W
220W
280W



Revisions	
#	Comments

Drawn By: Tom Grantham, LC, CEM
Checked By:
Date: 5/2/2019
Scale: 1" = 80'

Park Apartments
Chapel Hill