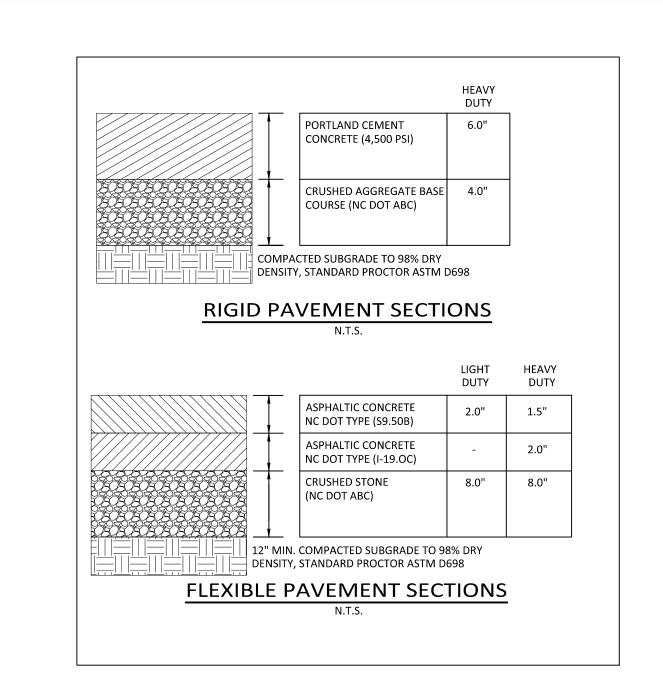


16. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE CURB RAMP JOINS THE CURB AS SHOWN IN ROADWAY STANDARD DRAWING 848.01

17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.

18. CURB RAMPS THROUGH MEDIAN ISLANDS, SINGLE RAMPS AT DUAL CROSSWALKS OR LIMITED R/W SITUATIONS, WILL BE HANDLED BY SPECIAL DETAILS. CONTACT THE CONTRACT STANDARDS AND DEVELOPMENT UNIT FOR THE DETAILS OR FOR A SPECIAL DESIGN.





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

CLIENT

LOCK7 DEVELOPMENT 1101 CONNECTICUT AVENUE NW #450 WASHINGTON, DC 20036 DAVID GORMAN PHONE: 202.670.1360



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REVISIONS

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1 04. 13. 2022 REVISED PER 1ST ZCP COMMENTS
2 06. 21. 2022 REVISED PER 2ND ZCP COMMENTS

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PLAN INFORMATION

PROJECT NO. LKD-21001
FILENAME LKD21001-D1
CHECKED BY SJC / ZNB
DRAWN BY WHM
SCALE N/A
DATE 12. 30. 2021

SITE DETAILS

C8.00

STORMWATER CONTROL MEASURE 'A' CONSTRUCTION SPECIFICATIONS

GENERAL NOTES

- 1. 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.
- 3. THE FACILITY SHALL NOT BE USED AS A TEMPORARY EROSION CONTROL DEVICE (I.E. SEDIMENT TRAP OR SEDIMENT BASIN) DURING CONSTRUCTION
- 4. 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.
- 5. 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.
- 6. ALL COMPONENTS OF THE UNDERGROUND SCM SYSTEM (STORMFILTER MANHOLE, CONCRETE VAULT, 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.
- 7. ALL PIPE / RISER CONNECTIONS AND JOINTS ASSOCIATED WITH THE UNDERGROUND SCM SYSTEM SHALL BE WATER TIGHT. THE MECHANISM FOR
- 8. 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 STARLE.
- 9. 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.
- 10. ALL PIPE PENETRATIONS THROUGH A CONCRETE STRUCTURE (I.E. STORMFILTER CARTRIDGE / DETENTION SYSTEM, STORM DRAINAGE MANHOLES, ETC.) SHALL BE MADE WATERTIGHT USING NON-SHRINK CEMENTIOUS GROUT.
- 11. 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.
- 2. FILTER CARTRIDGES SHALL BE CONTECH STORMFILTERS WITH PHOSPHOSORB MEDIA. INSTALLATION OF THE STORMWATER DEVICE SHALL BE PER THE MANUFACTURER'S INSTALLATION GUIDELINES AND SPECIFICATIONS.
- 3. 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.
- 4. THE 24"Ø DIP OUTLET BARREL OF THE DETENTION SYSTEM SHALL BE CLASS 350 DIP, MEETING THE REQUIREMENTS OF ASTM A716. THE PIPE JOINTS SHALL BE LOCKING JOINTS PER ANSI/AWWA C110/A21.10 OR ANSI/AWWA C153/A21.53 STANDARDS.
- 5. THE CONTRACTOR SHALL INSTALL THE STORMFILTER SYSTEM PER MANUFACTURERS' SPECIFICATIONS. CONTRACTOR TO PROVIDE A LETTER FROM MATERIAL SUPPLIER(S) STATING MATERIALS MEET THE SPECIFIED STANDARDS PRIOR TO INSTALLATION.
- 6. COVER AND REVIEW OF SITE CONDITIONS TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE SYSTEM TO BE THE RESPONSIBILITY OF THE MANUFACTURER.

STATEMENT OF RESPONSIBILITY

1. 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.

FOUNDATION NOTES

- 1. 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 DEEMS 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.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. THE ONSITE GEOTECHNICAL ENGINEER SHALL DETERMINE IF FOUNDATION DRAINS ARE REQUIRED FOR THE UNDERGROUND SCM SYSTEM. THE DESIGN ENGINEER SHALL BE NOTIFIED FOLLOWING THIS DETERMINATION. IF REQUIRED, THE FOUNDATION DRAINS ARE TO BE DESIGNED ENTIRELY BY THE ONSITE GEOTECHINCAL 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

- 1. THE EXCAVATION SUB GRADE MUST BE TRANSIT LEVEL.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. THE SUBGRADE MUST SUPPORT THE DETENTION SYSTEM WITHOUT DIFFERENTIAL SETTLEMENT BETWEEN PIECES.
- 6. 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

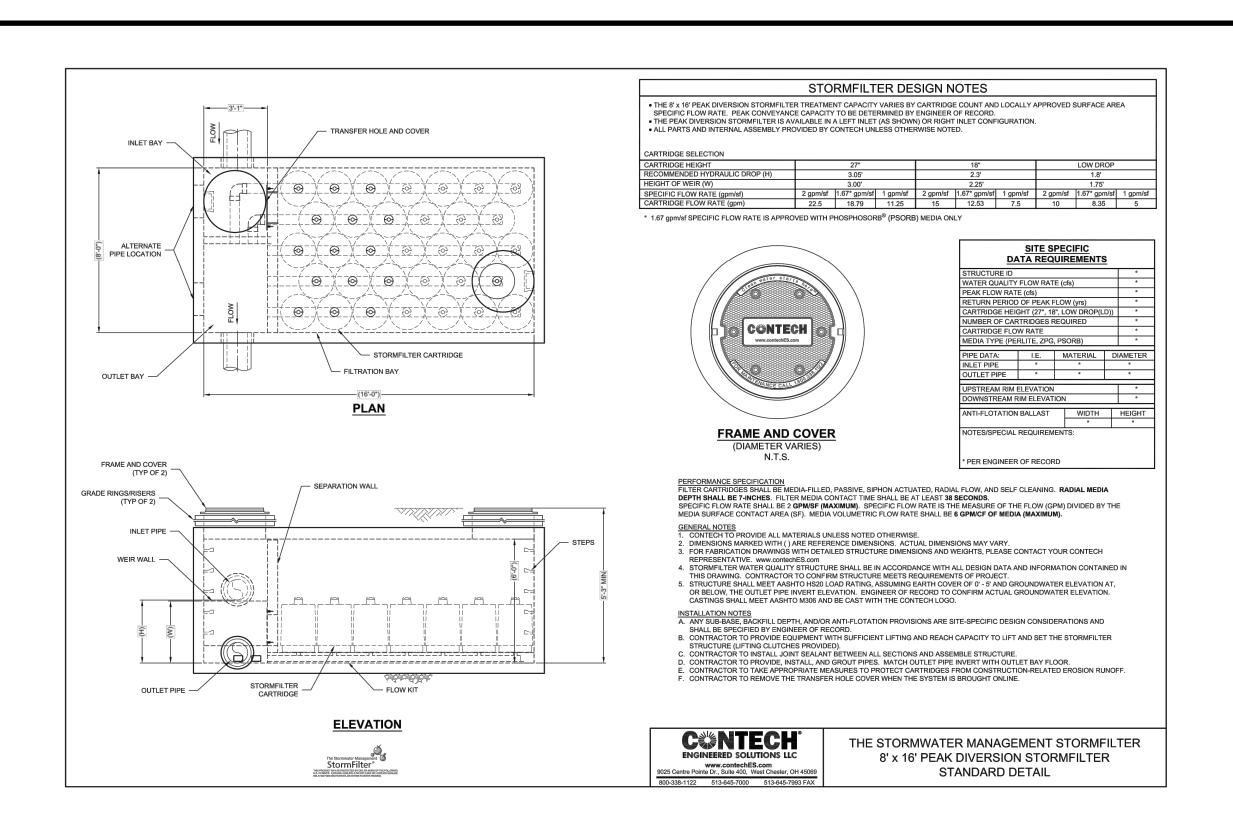
- 1. THE ON-SITE GEOTECHNICAL ENGINEER SHALL SPECIFY THE BACKFILL MATERIAL FOR THE STORMWATER MANAGEMENT SYSTEM.
- 2. THE BACKFILL MATERIAL SHOULD BE FREE OF ROCKS, FROZEN LUMPS, AND OTHER FOREIGN MATTER THAT COULD CAUSE HARD SPOTS WITHIN THE BACKFILL MATERIAL, OR THAT COULD DECOMPOSE AND CREATE VOIDS.
- 3. HIGHLY PLASTIC SILTS, HIGHLY PLASTIC CLAYS, ORGANIC SILTS, ORGANIC CLAYS, AND PEATS SHOULD NOT BE USED AS A BACKFILL MATERIAL.
- 4. 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.
- 5. ANY MATERIAL STOCKPILING ON TOP OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE APPROVED BY THE STRUCTURAL DESIGN ENGINEER OR DETENTION SYSTEM MANUFACTURER.

UNDERGROUND VAULT CONSTRUCTION NOTES

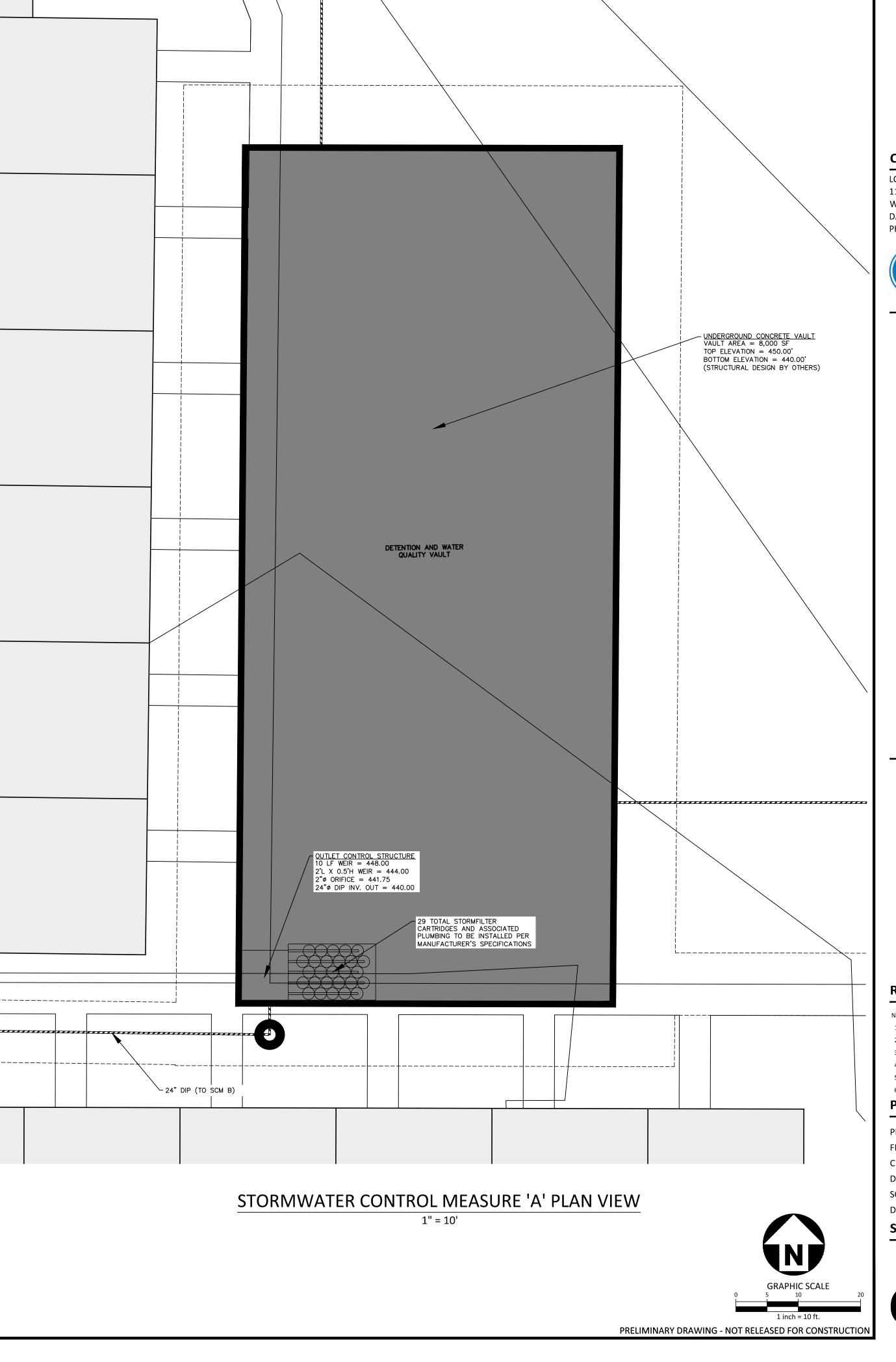
- 1. UNDERGROUND VAULT CONFIGURATION IS TO BE DESIGNED AND PROVIDED BY OTHERS.
- 2. ABSOLUTELY NO RUNOFF SHALL ENTER THE UNDERGROUND VAULT UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.
- 3. MANHOLE ACCESS SHALL BE PROVIDED FOR THE UNDERGROUND VAULT. MANHOLES SHALL BE IN COMPLIANCE WITH 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

1. 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 FOR A PERIOD OF 24 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.



STORMFILTER MANHOLE N.T.S.





McAdams

The John R. McAdams Company, Ir 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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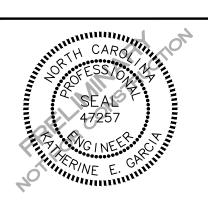
LOCK7 DEVELOPMENT 1101 CONNECTICUT AVENUE NW #450 WASHINGTON, DC 20036 DAVID GORMAN PHONE: 202.670.1360



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REVISIONS

NO DATE

1 04. 13. 2022 REVISED PER 1ST ZCP COMMENTS
2 06. 21. 2022 REVISED PER 2ND ZCP COMMENTS
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PLAN INFORMATION

PROJECT NO. LKD-21001

FILENAME LKD21001-SCM A

CHECKED BY KEG

DRAWN BY TAP

SCALE 1" = 10'

SCALE 1" = 10'
DATE 12. 30. 2021

SCM A PLAN VIEW &

C9.00A

STORMWATER CONTROL MEASURE 'B' CONSTRUCTION SPECIFICATIONS

GENERAL NOTES

- 1. 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.
- 3. THE FACILITY SHALL NOT BE USED AS A TEMPORARY EROSION CONTROL DEVICE (I.E. SEDIMENT TRAP OR SEDIMENT BASIN) DURING CONSTRUCTION.
- 4. 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.
- 6. ALL COMPONENTS OF THE UNDERGROUND SCM SYSTEM (STORMFILTER MANHOLE, CONCRETE VAULT, 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.
- 8. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ANY PUMPING FOUIPMENT, FTC. NEFDED 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
- 9. 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.
- 10. ALL PIPE PENETRATIONS THROUGH A CONCRETE STRUCTURE (I.E. STORMFILTER CARTRIDGE / DETENTION SYSTEM, STORM DRAINAGE MANHOLES, ETC.) SHALL BE MADE WATERTIGHT USING NON-SHRINK CEMENTIOUS GROUT
- 11. 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.
- 2. FILTER CARTRIDGES SHALL BE CONTECH STORMFILTERS WITH PHOSPHOSORB MEDIA. INSTALLATION OF THE STORMWATER DEVICE SHALL BE PER THE MANUFACTURER'S INSTALLATION GUIDELINES AND SPECIFICATIONS.
- 3. 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
- 4. THE 24"Ø DIP OUTLET BARREL OF THE DETENTION SYSTEM SHALL BE CLASS 350 DIP, MEETING THE REQUIREMENTS OF ASTM A716. THE PIPE JOINTS SHALL BE LOCKING JOINTS PER ANSI/AWWA C110/A21.10 OR ANSI/AWWA C153/A21.53 STANDARDS.
- 5. THE CONTRACTOR SHALL INSTALL THE STORMFILTER SYSTEM PER MANUFACTURERS' SPECIFICATIONS. CONTRACTOR TO PROVIDE A LETTER FROM MATERIAL SUPPLIER(S) STATING MATERIALS MEET THE SPECIFIED STANDARDS PRIOR TO INSTALLATION.
- 6. COVER AND REVIEW OF SITE CONDITIONS TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE SYSTEM TO BE THE RESPONSIBILITY OF THE MANUFACTURER.

STATEMENT OF RESPONSIBILITY

1. 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.

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 DEEMS 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
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- 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
- THE ONSITE GEOTECHNICAL ENGINEER SHALL DETERMINE IF FOUNDATION DRAINS ARE REQUIRED FOR THE UNDERGROUND SCM SYSTEM. THE DESIGN ENGINEER SHALL BE NOTIFIED FOLLOWING THIS DETERMINATION. IF REQUIRED, THE FOUNDATION DRAINS ARE TO BE DESIGNED ENTIRELY BY THE ONSITE GEOTECHINCAL 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

- 1. THE EXCAVATION SUB GRADE MUST BE TRANSIT LEVEL.
- 2. 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
- 4. 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.
- 6. 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

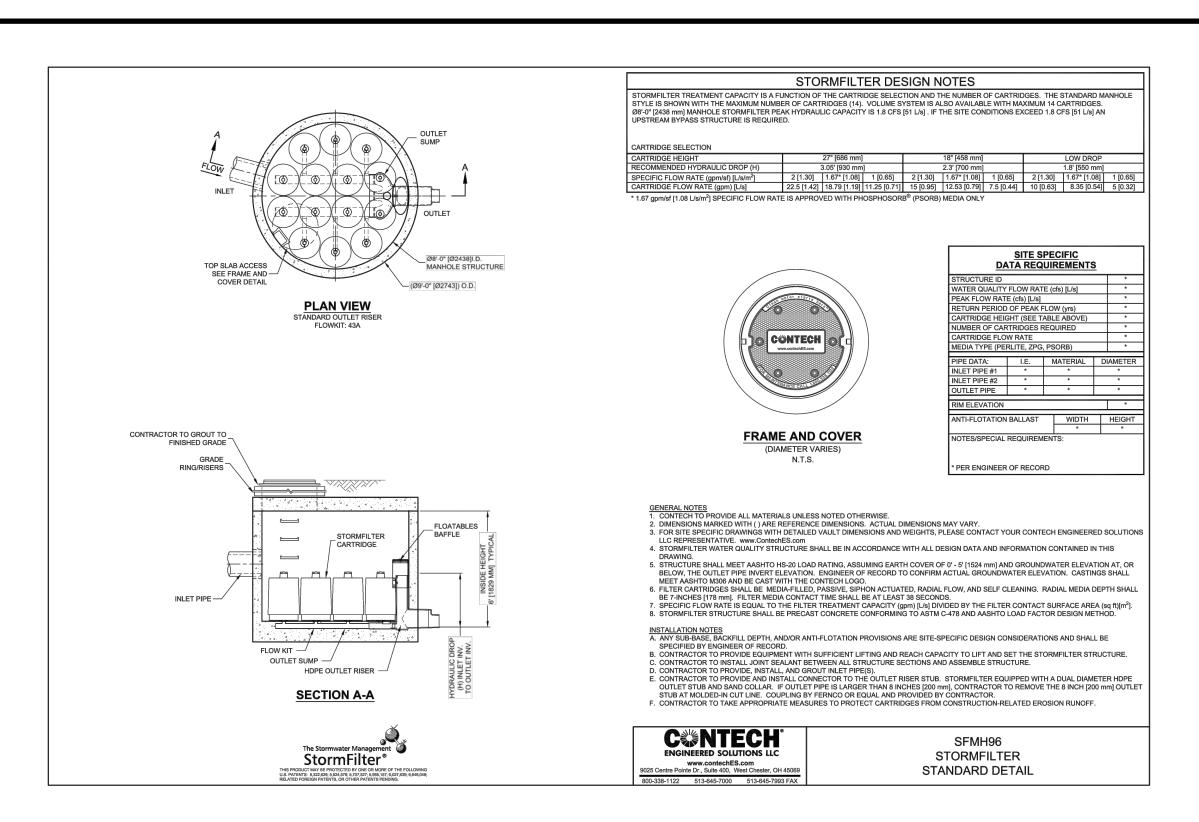
- 1. THE ON-SITE GEOTECHNICAL ENGINEER SHALL SPECIFY THE BACKFILL MATERIAL FOR THE STORMWATER MANAGEMENT SYSTEM.
- 2. THE BACKFILL MATERIAL SHOULD BE FREE OF ROCKS, FROZEN LUMPS, AND OTHER FOREIGN MATTER THAT COULD CAUSE HARD SPOTS WITHIN THE BACKFILL MATERIAL, OR THAT COULD DECOMPOSE AND CREATE VOIDS.
- 3. HIGHLY PLASTIC SILTS, HIGHLY PLASTIC CLAYS, ORGANIC SILTS, ORGANIC CLAYS, AND PEATS SHOULD NOT BE USED AS A BACKFILL MATERIAL.
- 4. 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
- ANY MATERIAL STOCKPILING ON TOP OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE APPROVED BY THE STRUCTURAL DESIGN ENGINEER OR DETENTION SYSTEM MANUFACTURER.

UNDERGROUND VAULT CONSTRUCTION NOTES

- 1. UNDERGROUND VAULT CONFIGURATION IS TO BE DESIGNED AND PROVIDED BY OTHERS.
- 2. ABSOLUTELY NO RUNOFF SHALL ENTER THE UNDERGROUND VAULT UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.
- MANHOLE ACCESS SHALL BE PROVIDED FOR THE UNDERGROUND VAULT. 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.

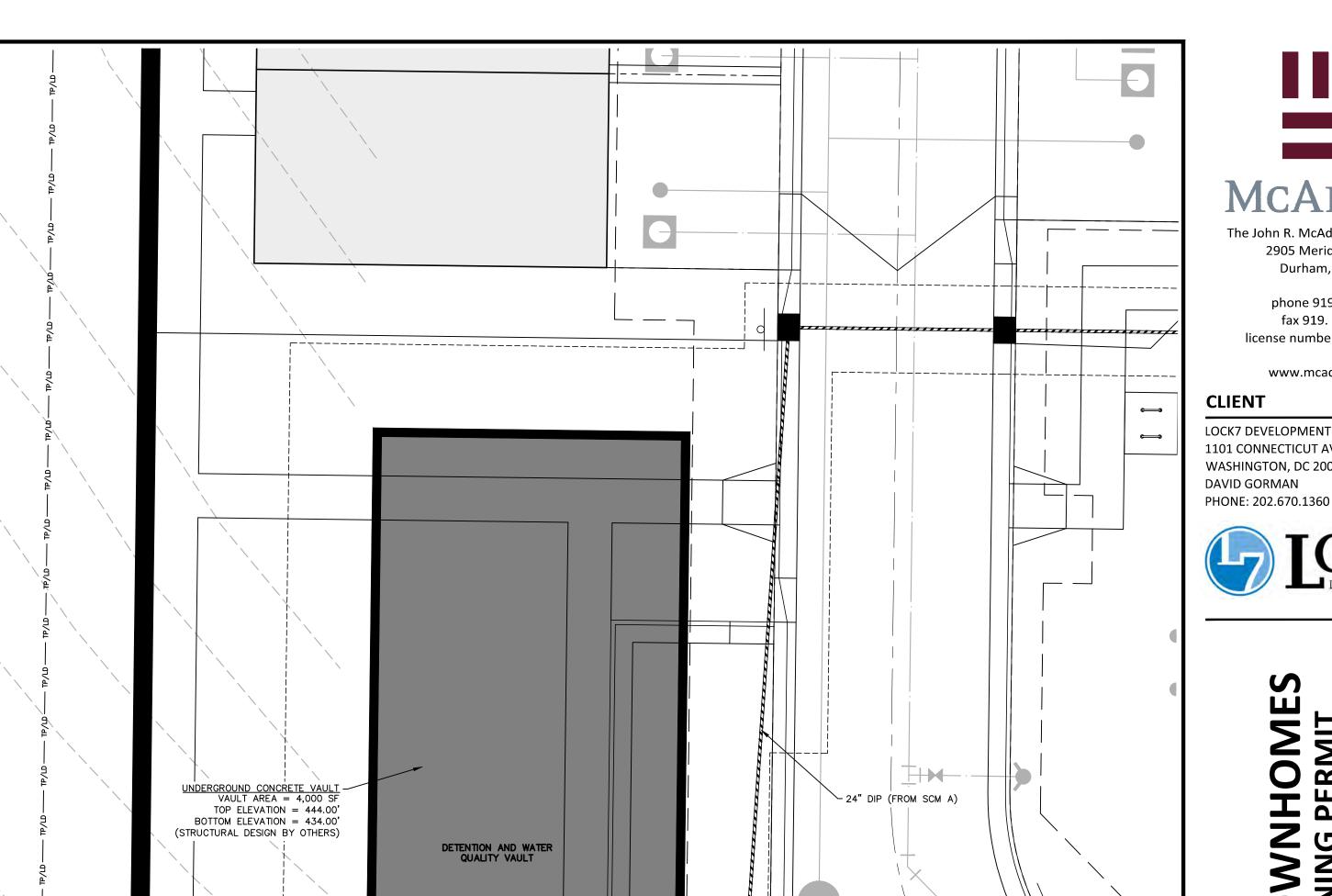
SYSTEM TESTING NOTES

1. 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 FOR A PERIOD OF 24 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.



STORMFILTER MANHOLE

N.T.S.



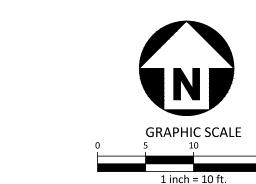
STORMWATER CONTROL MEASURE 'B' PLAN VIEW 1" = 10'

TOTAL STORMFILTER

CARTRIDGES AND ASSOCIATED PLUMBING TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS

UTLET CONTROL STRUCTURE
O LF WEIR = 442.00 $2'L \times 0.5'H \text{ WEIR} = 437.00$ 2"ø ORIFICE = 435.50

24"ø DIP INV. OUT = 434.00



PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

2905 Meridian Parkway Durham, NC 27713

phone 919. 361. 5000

www.mcadamsco.com

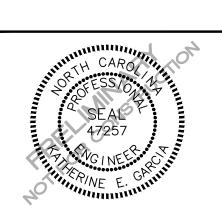
fax 919. 361. 2269

license number: C-0293, C-187

CLIENT

LOCK7 DEVELOPMENT 1101 CONNECTICUT AVENUE NW #450 WASHINGTON, DC 20036 DAVID GORMAN





REVISIONS

NO. DATE

1 04. 13. 2022 REVISED PER 1ST ZCP COMMENTS 2 06. 21. 2022 REVISED PER 2ND ZCP COMMENTS

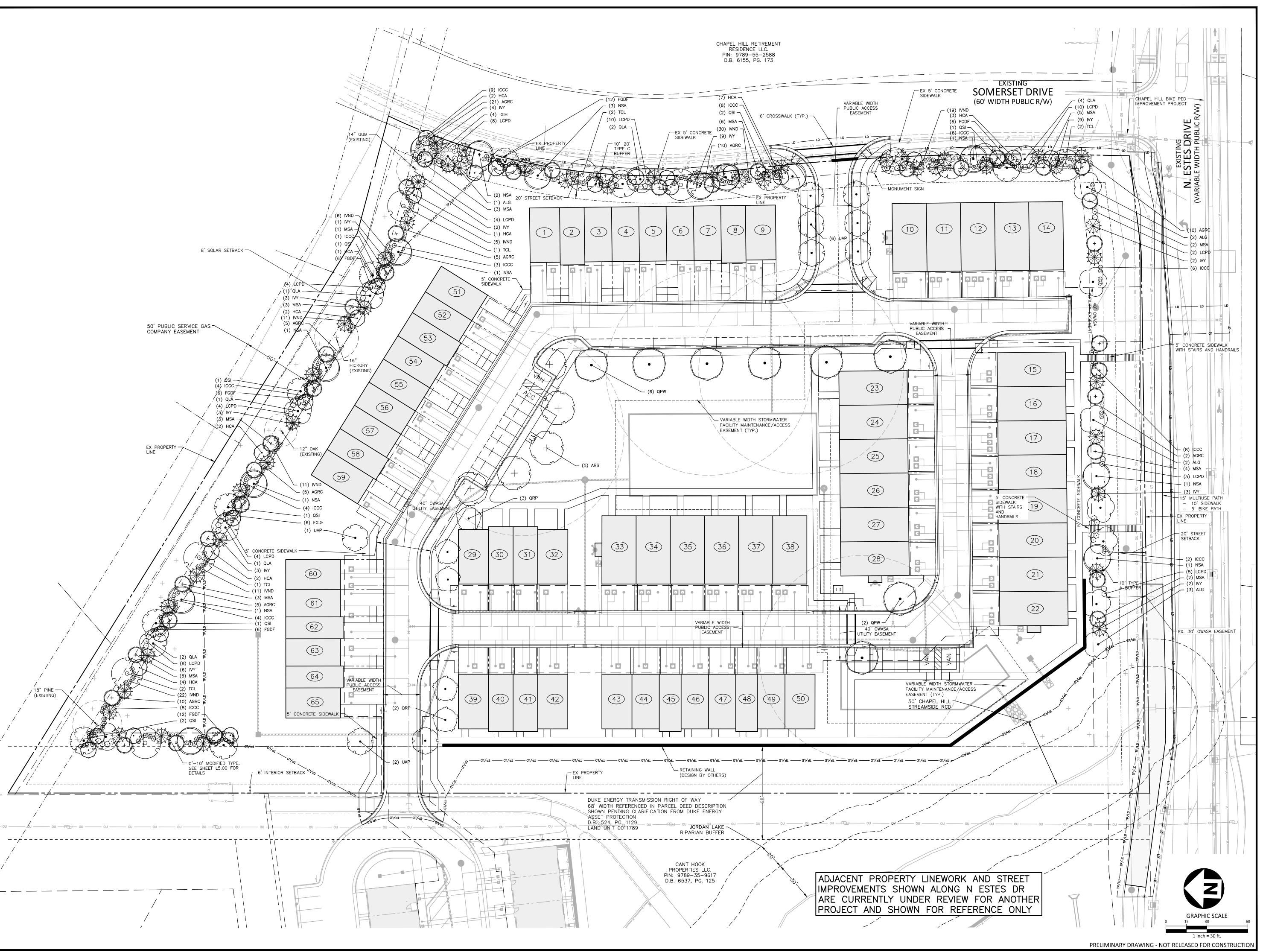
PLAN INFORMATION

PROJECT NO. LKD-21001 FILENAME LKD21001-SCM B CHECKED BY DRAWN BY SCALE

DATE **SHEET**

SCM B PLAN VIEW & DETAILS

12. 30. 2021





ACADAMS

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

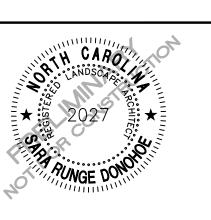
CLIENT

LOCK7 DEVELOPMENT 1101 CONNECTICUT AVENUE NW #450 WASHINGTON, DC 20036 DAVID GORMAN PHONE: 202.670.1360



DEVELOPMENT

CONDITIONAL ZONING PERMIT
710 N ESTES DR



REVISIONS

NO. DATE

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2 06. 21. 2022 REVISED PER 2ND ZCP COMMENTS

PLAN INFORMATION

PROJECT NO. LKD-21001
FILENAME LKD21001-LS1
CHECKED BY SRD
DRAWN BY CMXY
SCALE 1"=30'

DATE 12. 30. 2021 **SHEET**

LANDSCAPE PLAN

L5.00

PLANT S	CHED)ULE				
LARGE TREES	CODE	<u>QTY</u>	COMMON NAME	BOTANICAL NAME	<u>CAL</u>	<u>HEIGHT</u>
4 + 5	ARS	5	Summer Red Red Maple	Acer rubrum 'Summer Red'	2.5" min	
•)	ALG	8	Legacy Sugar Maple	Acer saccharum 'Legacy'	2.5" min	
	NSA	14	Black Gum	Nyssa sylvatica	2.5" min	
	QLA	11	Highbeam Overcup Oak	Quercus lyrata 'QLFTB' TM	2.5" min	
	QPW	8	Willow Oak	Quercus phellos	2.5" min	
3 • 3	QSI	9	Shumard Oak	Quercus shumardii	2.5" min	
	QRP	5	Regal Prince Oak	Quercus x warei 'Long' TM	2.5" min	
	TCL	8	Littleleaf Linden	Tilia cordata	2.5" min	
	UAP	9	American Elm	Ulmus americana 'Princeton'	2.5" min	
SMALL TREES	CODE	QTY	COMMON NAME	BOTANICAL NAME	<u>CAL</u>	<u>HEIGHT</u>
\odot	HCA	24	Silverbell	Halesia carolina	1.5" min	8' min
	IVY	47	Yaupon Holly	llex vomitoria	1.5" min	8' min
·	MSA	38	Sweetbay Magnolia	Magnolia virginiana	1.5" min	8' min
<u>SHRUBS</u>	CODE	QTY	COMMON NAME	BOTANICAL NAME	<u>HEIGHT</u>	<u>SPACING</u>
\odot	AGRC	73	Rose Creek Abelia	Abelia x grandiflora 'Rose Creek'	18" min	
60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FGDF	54	Dwarf Fothergilla	Fothergilla gardenii	18" min	
	ICCC	63	Carissa Holly	llex cornuta 'Carissa'	18" min	
\otimes	IGIH	4	Inkberry Holly	llex glabra	18" min	
\bigotimes	IVND	115	Dwarf Yaupon	llex vomitoria 'Nana'	18" min	
\odot	LCPD	64	Fringe Flower	Loropetalum chinense 'Purple Diamond'	18" min	

LANDSCAPE CALCULATIONS:

		EAST 10' -20' TYPE 'C' BUFFER	
PARKING LOT SHADING	4 600 05	REQUIREMENT:	
	4,692 SF	(5 LARGE TREES, 10 SMALL TREES, 36 S	3HRUBS / 100
LARGE TREES REQUIRED:	· · · · ·		
TREES PROVIDED:	4	LINEAR FOOTAGE:	475'
DUITEED OAL OUR ATIONS		LESS UTILITY EASEMENT:	-22'
BUFFER CALCULATIONS		TOTAL LINEAR FOOTAGE:	453'
NORTH 10' TYPE 'C' BUFFFER			
REQUIREMENT:		LARGE TREES REQUIRED:	22
(4 LARGE TREES, 8 SMALL TRI	EES, 30 SHRUBS / 100 LF)	LARGE TREES PROVIDED:	22
TOTAL LINEAR FOOTAGE:	500'	SMALL TREES REQUIRED:	45
		SMALL TREES PROVIDED:	45
LARGE TREES REQUIRED:	20	SHRUBS REQUIRED:	163
LARGE TREES PROVIDED:	20	SHRUBS PROVIDED:	163
SMALL TREES REQUIRED:	40	WEST 0' -10' TYPE 'C' BUFFER	
SMALL TREES PROVIDED:	40	REQUIREMENT:	
SWALL TREES PROVIDED.	40	(4 LARGE TREES, 8 SMALL TREES, 30 SF	-IRLIBS / 100 I
SHRUBS REQUIRED:	150	(1 E MOE 1 NEES, 0 SW/ NEE 1 NEES, 50 SI	11000
SHRUBS PROVIDED:	150	LINEAR FOOTAGE: 100'	
51111055 1 110 VID 251	130		
SOUTH 10' TYPE 'A' BUFFER		LARCE TREES REQUIRED.	4
REQUIREMENT:	FFC C CURURE / 400 LF)	LARGE TREES REQUIRED:	4
(2 LARGE TREES, 4 SMALL TRI	:ES, 6 SHKUBS / 100 LF)	LARGE TREES PROVIDED:	4
LINEAR FOOTAGE:	466'	SMALL TREES REQUIRED:	8
LESS UTILITY EASEMENT:	-131'	SMALL TREES PROVIDED:	8
TOTAL LINEAR FOOTAGE:	335'		
		SHRUBS REQUIRED:	30
		SHRUBS PROVIDED:	30
LARGE TREES REQUIRED:	7		
LARGE TREES PROVIDED:	9		
SMALL TREES REQUIRED:	13		
SMALL TREES PROVIDED:	15		

CANOPY REPLACEMENT CALCULATIONS
REQUIREMENT:
(ONE LARGE TREE PER 500 SF OF TREE CANOPY COVERAGE DEFICIT)

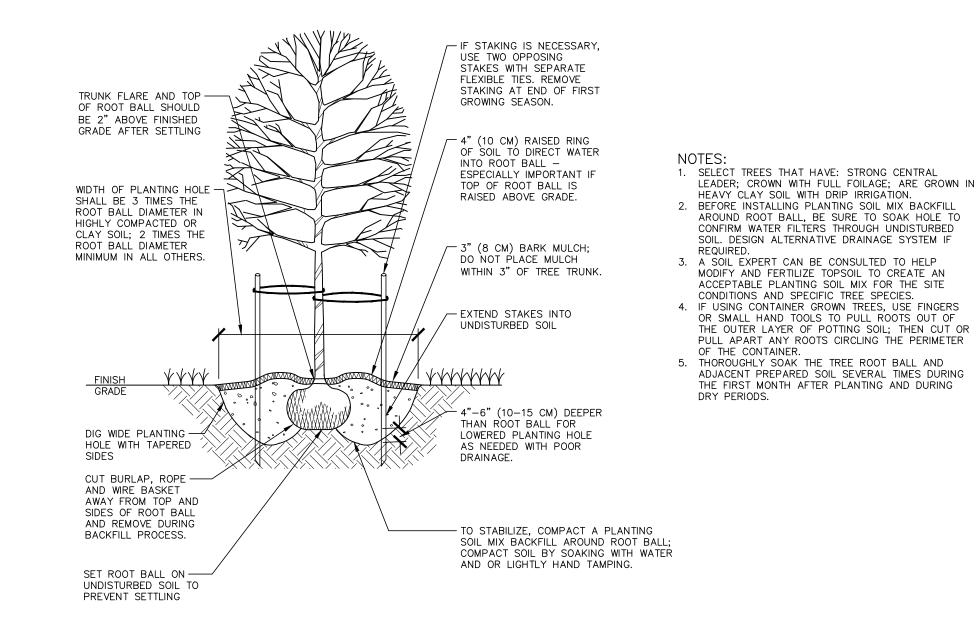
TREE CANOPY COVERAGE DEFICIT:

39,204 SF (0.90 AC)
39,204/500
179 TREES
LARGE TREES REQUIRED:
179 TREES
79 TREES

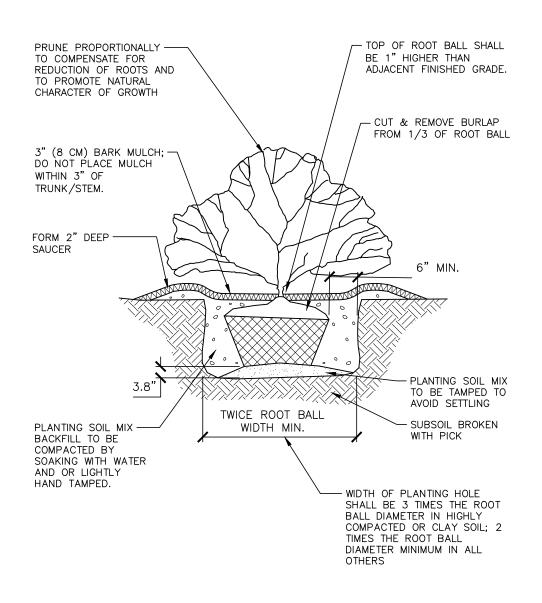
- 1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF CHAPEL HILL, THE BLUE HILL FORM DISTRICT AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- 2. CONTRACTOR IS RESPONSIBLE FOR THE SITE INSPECTION BEFORE LANDSCAPE CONSTRUCTION AND INSTALLATION IN ORDER TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS.
- 3. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE BEGINNING DEMOLITION OR INSTALLATION.
- CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE NOTES, SPECIFICATIONS, DRAWINGS OR SITE CONDITIONS FOR RESOLUTION PRIOR TO
- 5. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

LANDSCAPE NOTES

- 6. THIS PLAN IS FOR PLANTING PURPOSES ONLY. FOR INFORMATION REGARDING BUILDINGS, GRADING, WALLS, ETC., REFER TO ARCHITECTURE, SITE AND GRADING PLANS.
- 7. VERIFICATION OF TOTAL PLANT QUANTITIES AS SHOWN IN THE PLANT SCHEDULE SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
- 8. CONTRACTOR TO ENSURE PROPER STABILIZATION AND SEEDING OF THE SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
- 9. LANDSCAPE MATERIAL SHALL BE WELL FORMED, VIGOROUS, GROWING SPECIMENS WITH GROWTH TYPICAL OF VARIETIES SPECIFIED AND SHALL BE FREE FROM DAMAGE, INSECTS AND DISEASES. MATERIAL SHALL EQUAL OR SURPASS #1 QUALITY AS DEFINED IN THE CURRENT ISSUE OF "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
- 10. ALL PLANT MATERIAL IS TO BE CAREFULLY HANDLED BY THE ROOT BALL, NOT THE TRUNK, BRANCHES AND/OR FOLIAGE OF THE PLANT. MISHANDLED PLANT MATERIAL MAY BE REJECTED BY THE LANDSCAPE ARCHITECT.
- 11. ALL PLANT MATERIAL IS TO BE WELL ROOTED, NOT ROOT BOUND, SUCH THAT THE ROOT BALL REMAINS INTACT THROUGHOUT THE PLANTING PROCESS. DEFICIENT PLANT MATERIAL MAY BE REJECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
- 12. ALL PLANTS TO BE A MINIMUM OF WHAT IS SPECIFIED IN THE PLANT SCHEDULE. ANY CHANGES OR SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND GOVERNING JURISDICTION PRIOR TO ANY HOLE BEING DUG.
- 13. CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE AND LANDSCAPE
 ARCHITECT TO ESTABLISH THE EXTENTS OF MULCH/SEED/SOD IF NOT SPECIFICALLY SHOWN
 ON PLANS
- 14. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE IN ALL PLANTING AREAS.
- 15. PROPOSED TREES TO BE PLANTED A MINIMUM 10 FEET FROM ANY LIGHT POLE AS MEASURED FROM TRUNK OF THE TREE TO THE POLE.
- 16. PROPOSED TREES TO BE PLANTED A MINIMUM 5 FEET FROM ANY FIRE HYDRANT AS MEASURED FROM TRUNK OF THE TREE TO THE HYDRANT.
- 17. CONTRACTOR SHALL COMPLETE SOIL TEST IN ALL PLANTING AREAS TO DETERMINE SOIL AMENDMENT REQUIREMENTS UNLESS WAIVED BY OWNER'S REPRESENTATIVE. CONTRACTOR SHALL ADJUST PH AND FERTILITY BASED UPON THE SOIL TEST RESULTS.
- 18. TOPSOIL SHALL BE FREE OF MATERIAL LARGER THAN 1.0 INCH IN DIAMETER OR LENGTH AND SHALL NOT CONTAIN SLAG, CINDERS, STONES, LUMPS OF SOIL, STICKS, ROOTS, TRASH, OR OTHER EXTRANEOUS MATERIAL.
- 19. LOOSEN SUBGRADE / SURFACE SOIL TO A MINIMUM DEPTH OF 6 INCHES. APPLY SOIL AMENDMENTS AND FERTILIZERS AS REQUIRED BY THE SOIL TEST RESULTS TO ACHIEVE A HEALTHY GROWING MEDIA AND MIX THOROUGHLY INTO TOP 4 INCHES OF SOIL. SPREAD PLANTING SOIL MIX TO A DEPTH OF 6 INCHES BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLEMENT. DO NOT SPREAD IF PLANTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
- 20. IF IMPORTED TOPSOIL IS REQUIRED, THE SUBGRADE SHALL BE SCARIFIED OR TILLED TO A DEPTH OF AT LEAST 6 INCHES PRIOR TO INSTALLATION OF IMPORTED TOPSOIL. FOLLOWING INSTALLATION OF IMPORTED TOPSOIL, THE TOPSOIL SHALL BE TILLED TO INTEGRATE THE SOIL PROFILES.
- 21. PLANT MATERIALS ARE TO BE GUARANTEED FOR A PERIOD OF 12 MONTHS. PLANT MATERIALS WHICH REMAIN UNHEALTHY WILL BE REPLACED BY THE LANDSCAPE CONTRACTOR BEFORE THE EXPIRATION OF THE GUARANTEE PERIOD OR IMMEDIATELY IF SO DIRECTED BY THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT.
- 22. ALL TREE PLANTINGS SHALL BE MULCHED TO A DEPTH OF 3 INCHES, AND WITH A MINIMUM 3 FOOT RADIUS FROM BASE OF TREE OR TO DRIPLINE. MULCH SHALL BE FREE OF TRASH AND MAINTAINED WEED FREE. MULCH SHALL NOT COVER THE ROOT FLARE. CONFIRM MULCH SPECIFICATIONS WITH OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT.
- 23. DO NOT PRUNE TREES AND SHRUBS BEFORE DELIVERY. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY THEIR NATURAL SHAPE. PROVIDE PROTECTIVE COVERING OF EXTERIOR PLANTS DURING DELIVERY. DO NOT DROP EXTERIOR PLANTS DURING DELIVERY AND HANDLING.
- 24. DELIVER EXTERIOR PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND INSTALL IMMEDIATELY. IMMEDIATELY AFTER UNLOADING, STAND THE TREES UP TO REDUCE THE RISK OF SUN SCALD. PROPERLY STAGED TREES ARE STANDING, UNTIED AND SPACED. UNLESS IMMEDIATELY INSTALLED, SET EXTERIOR PLANTS AND TREES IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.
- 25. SEE LANDSCAPE DETAILS FOR TREE STAKING REQUIREMENTS.
- 26. EXCAVATE EDGES OF ALL PLANTING BEDS TO 2 INCH DEPTH TO FORM A NEAT AND CRISP DEFINITION
- 27. CONTRACTOR SHALL REMOVE DEBRIS AND FINE GRADE ALL PLANTING AREAS PRIOR TO
- 28. REMOVE GUY WIRES AND STAKES AT END OF WARRANTY PERIOD OR ESTABLISHMENT.
- 29. FINISH GRADING: GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN PLUS OR MINUS 1/2 INCH OF FINISH ELEVATION. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES. LIMIT FINISHED GRADING TO AREAS THAT CAN BE PLANTED IN THE IMMEDIATE



O1 TREE PLANTING



SHRUB PLANTING

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



McAdams

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phone 919. 361. 5000 fax 919. 361. 2269 license number: C-0293, C-187

www.mcadamsco.com

CLIENT

LOCK7 DEVELOPMENT
1101 CONNECTICUT AVENUE NW #450
WASHINGTON, DC 20036
DAVID GORMAN
PHONE: 202.670.1360



DEVELOPMENT

10 N ESTES TOWNHOM CONDITIONAL ZONING PERMITON ESTES DR CHAPEL HILL, NORTH CAROLINA 27514



REVISIONS

NO. DATE

SHEET

1 04. 13. 2022 REVISED PER 1ST ZCP COMMENTS 2 06. 21. 2022 REVISED PER 2ND ZCP COMMENTS

PLAN INFORMATION

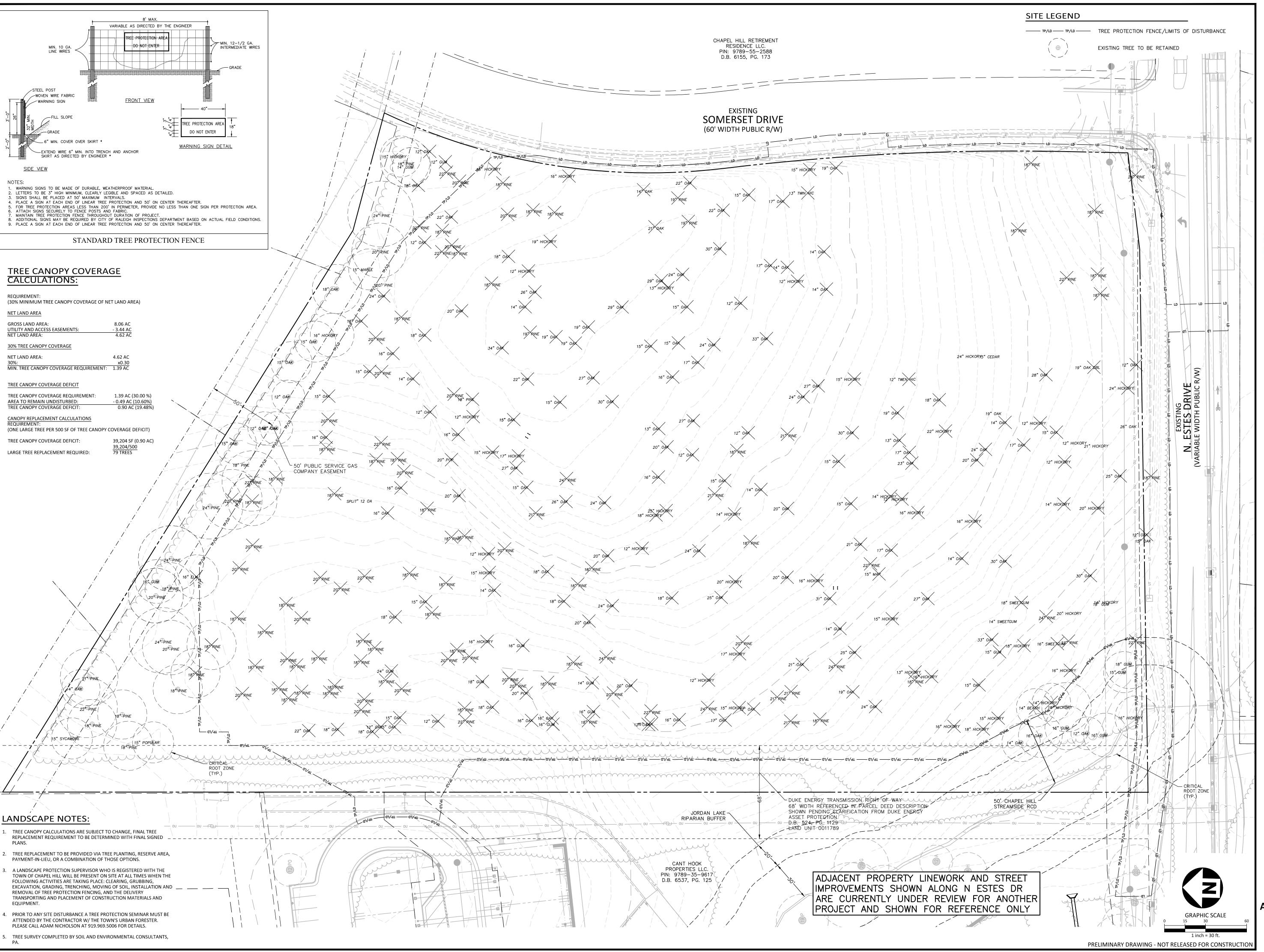
PROJECT NO. LKD-21001
FILENAME LKD21001-LS1
CHECKED BY SRD
DRAWN BY CMXY
SCALE 1"=30'
DATE 12. 30. 2021

LANDSCAPE DETAILS

LANDSCAPE CALCULATION NOTES:

SHRUBS REQUIRED: SHRUBS PROVIDED:

- SEE SHEET L8.00, LANDSCAPE PROTECTION & TREE COVERAGE PLAN, FOR SITE TREE CANOPY COVERAGE CALCULATIONS.
 TREE CANOPY CALCULATIONS ARE SUBJECT TO CHANGE, FINAL TREE REPLACEMENT REQUIREMENT TO BE DETERMINED
- 2. TREE CANOPY CALCULATIONS ARE SUBJECT TO CHANGE, FINAL TREE REPLACEMENT REQUIREMENT TO BE DETERMINED WITH FINAL SIGNED PLANS.
- 3. TREE REPLACEMENT TO BE PROVIDED VIA TREE PLANTING, RESERVE AREA, PAYMENT-IN-LIEU, OR A COMBINATION OF THOSE OPTIONS





McAdam

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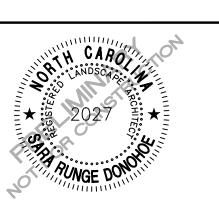
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1101 CONNECTICUT AVENUE NW #450
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2 06. 21. 2022 REVISED PER 2ND ZCP COMMENTS

PLAN INFORMATION

PROJECT NO. LKD-21001

FILENAME LKD21001-TC1

CHECKED BY SRD

DRAWN BY AAL

DRAWN BY AAL

SCALE 1"=30'

DATE 12. 30. 2021

HEET

LANDSCAPE PROTECTION
AND TREE COVERAGE PLAN

L8.00