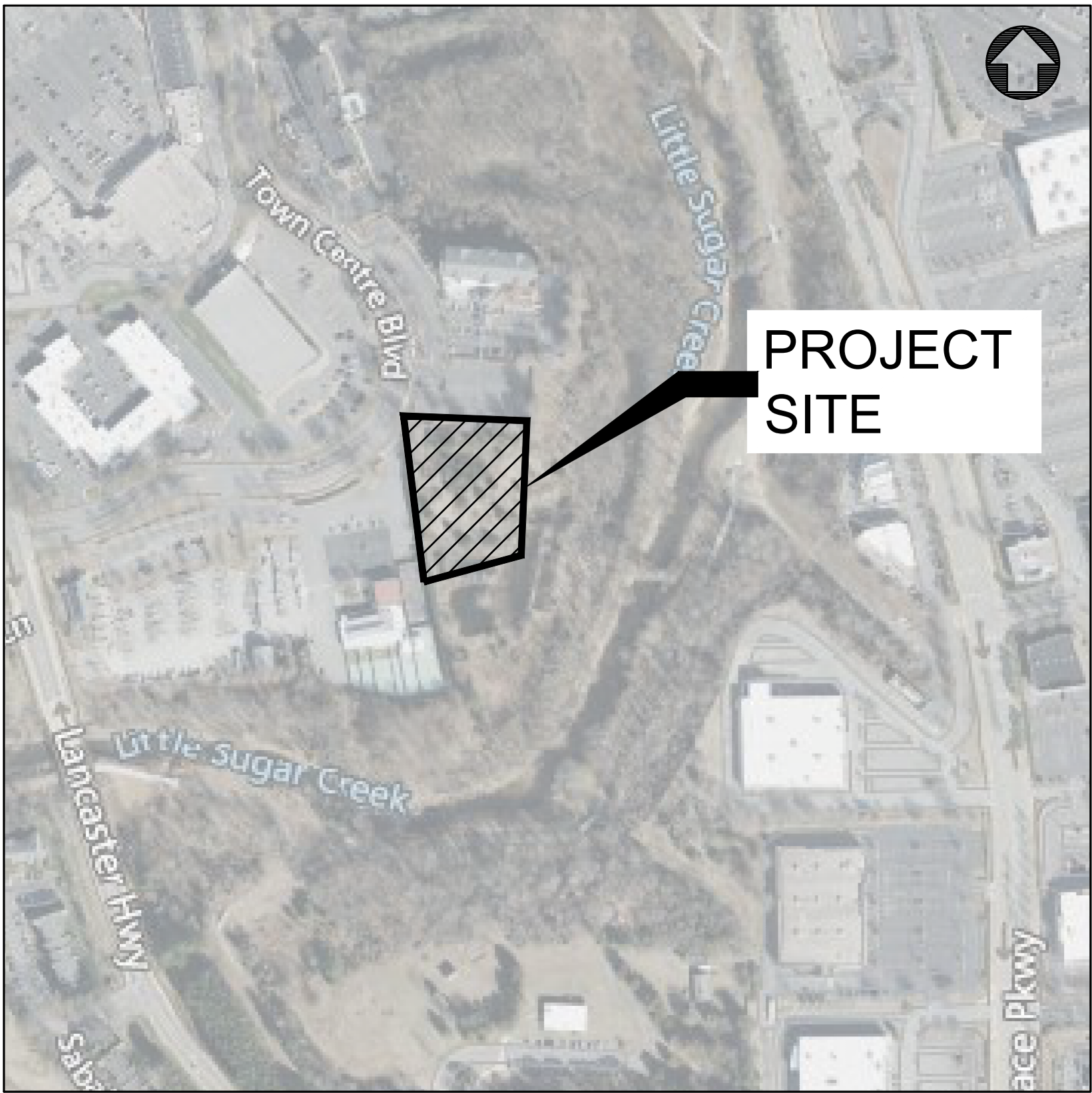


PROPOSED IMPROVEMENTS FOR
TREEHOUSE SCHOOL - PINEVILLE, NC

505 TOWN CENTRE BLVD
PINEVILLE, NC

ACCELA # CSP-500131

LOCATION MAP



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NOTE: APPROVAL OF THIS SKETCH / CONCEPT PLAN DOES NOT IMPLY OR GUARANTEE APPROVAL AND/OR VESTING OF THE FINAL CONSTRUCTION PLAN. FINAL CONSTRUCTION PLAN WILL BE REVIEWED FOR COMPLIANCE PER ALL TOWN, COUNTY AND STATE REGULATIONS IN EFFECT AT TIME OF SUBMITTAL.

NOTE: CONTRACTOR TO MAINTAIN RECORD DRAWINGS OF ALL CHANGES THROUGHOUT CONSTRUCTION. AFTER PROJECT COMPLETION THESE DRAWINGS SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE.

OWNER/DEVELOPER

ILIM SCHOOL
8228 MARSHALL BRIDGE RD #4108
CHARLOTTE, NC 28277

ENGINEER

CAGE ENGINEERING
1515 MOCKINGBIRD LN
CHARLOTTE, NC 28209
PHONE: 630.598.0007
JOHN NOWAK, P.E.

**TOWN OF PINEVILLE PUBLIC
WORKS DEPARTMENT**

505 MAIN STREET
PINEVILLE, NC 28134
PHONE: 704.889.7467
CHIP HILL - DIRECTOR

ARCHITECT

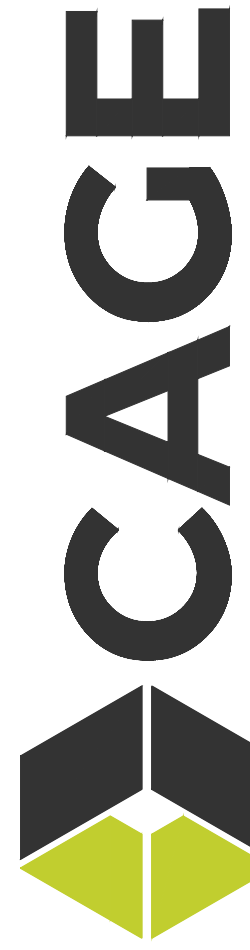
DW MUREE
8735 DUNWOODY PLACE STREET
ATLANTA, GA 30350
PHONE: 404.904.9922
ADEOLA FAMUREWA

EXISTING LEGEND	
	EXISTING TREE
	CURB & GUTTER
	EXISTING BUILDING
	PCC SIDEWALK
	GAS SERVICE
	ELECTRIC SERVICE
	STORM SEWER
	SANITARY SEWER
	WATER MAIN
	CABLE LINE
	OVERHEAD UTILITY LINE
	COMMUNICATION LINE
	FIBER OPTIC LINE
	FENCE
	STORM STRUCTURE
	SANITARY MANHOLE
	CLEANOUT
	WATER METER
	VALVE VAULT
	VALVE BOX
	HYDRANT
	GAS METER
	ELECTRIC METER
	PARKING LOT LIGHT
	UTILITY POLE
	GUY WIRE
	TRANSFORMER
	FIBER OPTIC BOX
	FIBER OPTIC PEDESTAL
	CABLE PEDESTAL
	PHONE PEDESTAL
	ELECTRIC PEDESTAL
	MAJOR CONTOUR
	MINOR CONTOUR

PROPOSED LEGEND	
	CURB & GUTTER
	REVERSE PITCH CURB & GUTTER
	DEPRESSED CURB & GUTTER
	PROPOSED BUILDING
	PCC SIDEWALK
	STANDARD DUTY PAVEMENT
	HEAVY DUTY PAVEMENT
	GAS SERVICE
	ELECTRIC SERVICE
	STORM SEWER
	SANITARY SEWER
	WATER MAIN
	FENCE
	STORM STRUCTURE
	DOWNSPOUT CONNECTION
	SANITARY MANHOLE
	CLEANOUT
	WATER METER
	VALVE VAULT
	VALVE BOX
	HYDRANT
	GAS METER
	ELECTRIC METER
	PARKING LOT LIGHT
	FLOW ARROW
	OVERLAND FLOOD ROUTE
	TOP OF SIDEWALK GRADE
	TOP OF CURB GRADE
	PAVEMENT GRADE
	GROUND GRADE
	MAJOR CONTOUR
	MINOR CONTOUR

SITE DATA TABLE	
PIN:	22113130
PROPERTY ADDRESS:	505 TOWNE CENTRE BV PINEVILLE, NC 28134
JURISDICTION:	TOWN OF PINEVILLE/MECKLENBURG COUNTY
ZONING:	B-4 / DOWNTOWN OVERLAY DISTRICT
PARCEL ACREAGE:	2.930 ACRES
UNDISTURBED OPEN SPACE REQ:	0.293 ACRES OR 10% OF TOTAL SITE
UNDISTURBED OPEN SPACE PROVIDED:	0.332 ACRES OR 11% OF TOTAL SITE
EXISTING LAND USE:	VACANT W/ PARKING LOT
PROPOSED LAND USE:	COMMERCIAL
EXISTING IMPERVIOUS:	26,380 SF OR 20.67% OF TOTAL SITE
PROPOSED IMPERVIOUS:	71,526 SF OR 56.04% OF TOTAL SITE
BUILDING COVERAGE:	33,014 SF OR 25.68% OF TOTAL SITE
PARKING REQ:	1 STALL PER 400 SQ. FT. OF GROSS BUILDING AREA
PARKING PROVIDED:	91 STANDARD STALLS / 4 ADA STALLS
UTILITIES:	
WATER PROVIDER:	CHARLOTTE WATER (CLT)
SEWER PROVIDER:	CHARLOTTE WATER (CLT)
ELECTRIC PROVIDER:	DUKE ENERGY

1515 MOCKINGBIRD LANE
SUITE 7107
CHARLOTTE, NC 28209
P: 630.598.0007
WWW.CAGECIVIL.COM



REVISIONS

REVISIONS

TREEHOUSE SCHOOL -
PINEVILLE, NC
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527

ENG: KHH

DATE: 2026.04.22

SHEET TITLE

COVER
SHEET

SHEET NUMBER

C0.0

1 OF 13



GENERAL REQUIREMENTS: 1. ALL WORK SHALL BE IN CONFORMANCE WITH THE APPLICABLE SECTIONS OF THE TOWN OF PINEVILLE STANDARD SPECIFICATIONS AND DETAILS MANUAL, NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" (HEREIN AFTER REFERRED TO AS STANDARD SPECIFICATIONS) ADOPTED JANUARY 1, 2018 AND SUPPLEMENTAL SPECIFICATIONS. 2. SCOPE OF WORK: THE PROPOSED IMPROVEMENTS CONSIST OF SUPPLYING ALL THE NECESSARY LABOR, MATERIAL AND EQUIPMENT TO SATISFACTORILY CONSTRUCT AND INSTALL ALL IMPROVEMENTS ACCORDING TO THE PLANS DESIGNATED HEREIN. 3. CONTRACTOR SHALL HAVE THE RESPONSIBILITY TO LOCATE AND PROTECT ALL UNDERGROUND FACILITIES/UTILITIES DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS AND CONTACT THE OWNER. ANY DAMAGE TO ANY UTILITIES SHALL BE PROMPTLY REPORTED TO THE OWNER. REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE UNDERGROUND UTILITIES SHOWN HEREIN ARE APPROXIMATE AND BASED ON THE ACTUAL LOCATION OF SURFACE STRUCTURES AND PLANS PROVIDED BY THE OWNER. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE GROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS. 4. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN MARKINGS AND ASSOCIATED HAZARD WARNING LIGHTS, DELINEATOR FENCE, AND OTHER ASSOCIATED FACILITIES AS REQUIRED FOR OPEN TRENCHES, EXCAVATIONS, TEMPORARY STOCK PILES, AND PARKED CONSTRUCTION EQUIPMENT THAT MAY POSE A POTENTIAL HAZARD AS PART OF THE DAILY OPERATIONS AT THIS SITE. CONTRACTOR IS SOLELY RESPONSIBLE FOR SITE SAFETY. 5. CONTRACTOR SHALL CONTINUOUSLY COMPARE ALL LINES, GRADES, AND OTHER INFORMATION APPEARING ON THE PLANS WITH THE ACTUAL LINES, GRADES, AND SITE CONDITIONS. ANY DISCREPANCIES THAT MAY AFFECT THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS SHALL BE IMMEDIATELY REPORTED TO THE OWNER AND ENGINEER IN WRITING FOR DISPOSITION BEFORE CONTRACTOR PROCEEDS WITH THE WORK. CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR THE WORK COMPLETED PRIOR TO THE REPORT TO THE OWNER AND ENGINEER, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR CORRECTION OF THE WORK PRIOR TO THE REPORT TO THE OWNER AND ENGINEER. 6. CONTRACTOR PARKING AND LAYDOWN AREAS SHALL BE COORDINATED WITH THE OWNER. 7. PRIOR TO PERFORMING ANY WORK IN OR ON THE RIGHT OF WAY OF ANY CITY OR STATE ROADWAY, THE CONTRACTOR SHALL NOTIFY THE CITY / STATE TRAFFIC ENGINEER'S OFFICE. THE CONTRACTOR SHALL ERECT WARNING SIGNS AND BARRICADES TO PROTECT THE TRAVELING PUBLIC AND HIS WORKERS. THE SIGNING AND BARRICADING SHALL CONFORM TO THE APPROPRIATE APPLICATIONS OUTLINED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES OR AS OTHERWISE DIRECTED BY THE CITY / STATE TRAFFIC ENGINEER. IF PERMITS ARE REQUIRED TO CONDUCT THE WORK, THE CONTRACTOR SHALL SECURE THE PERMITS AND SUPPLY THEM TO THE OWNER AT NO ADDITIONAL COST. ALL FULL WIDTH LANE CLOSURES, PARTIAL LANE CLOSURES, AND CONSTRUCTION ADJACENT TO PAVEMENT SHALL BE IDENTIFIED, SIGNED, AND BARRICADES ERECTED IN CONFORMANCE WITH THE APPLICABLE ARTICLES OF SECTION 1101 OF THE STANDARD SPECIFICATIONS AND THE MUNICIPALITY'S REQUIREMENTS. ALL TRAFFIC PROTECTION, BOTH ONSITE AND OFFSITE, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. 8. CONTRACTOR SHALL REMOVE EARTHEN MATERIALS, EXISTING SURFACES, AND STRUCTURES AS REQUIRED. ALL WASTE MATERIAL SHALL BE PROPERLY DISPOSED OFF-SITE AND SHALL BE INCIDENTAL TO THE CONTRACT. 9. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, UNLESS NOTED. THIS WILL INCLUDE BUT NOT BE LIMITED TO MUNICIPAL BUILDING PERMIT. THE OWNER WILL SECURE THE PERMIT. THE CONTRACTOR SHALL PROVIDE ANY FINANCIAL SURETIES REQUIRED AS PART OF ANY PERMIT. 10. WHEN CONCRETE IS PLACED ABUTTING STRUCTURES, FOUNDATIONS OR EXISTING SIDEWALKS, A BOND BREAKER CONSISTING OF 1" P.J.F. AND ELASTOMERIC JOINT SEALANT SHALL BE USED FULL DEPTH UNLESS OTHERWISE NOTED. 11. MAXIMUM CONTRACTION JOINT SPACING ON CONCRETE CURB AND GUTTER OR CONCRETE GUTTER SHALL NOT EXCEED 25'. 12. SIDEWALK RAMPS FOR ADA SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN HEREIN. DETECTABLE WARNINGS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. 13. HOT-MIX ASPHALT PAVEMENT PATCHING SHALL BE IN ACCORDANCE WITH SECTION 600 OF THE STANDARD SPECIFICATIONS. 14. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING ELECTRONIC AS-BUILT DRAWINGS, FOR UTILITIES AND DETENTION AREAS, TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PROJECT ACCEPTANCE. 15. CONSTRUCTION STAKING, LAYOUT, AND GRADING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR USING THE BASIC TOPOGRAPHIC SURVEY CONTROLS PROVIDED IN THE PLANS. CONTRACTOR SHALL VERIFY SURVEY CONTROLS PRIOR TO BEGINNING CONSTRUCTION. ANY DISCREPANCIES IN THE SURVEY CONTROLS SHALL BE REPORTED TO THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION. ANY ADDITIONAL SURVEY CONTROLS REQUIRED FOR CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. 16. CONTRACTOR SHALL COORDINATE ALL UTILITY LINE CLOSURES TO ENSURE ALL PIPES MAINTAIN MINIMUM COVER, MINIMUM CLEARANCES, AND PROPER SEPARATION. GRAVITY LINES SHALL HAVE PRECEDENCE OVER PRESSURIZED LINES. 17. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL ITEMS INCORPORATED INTO THE WORK FOR ENGINEER REVIEW AND APPROVAL A MINIMUM OF 4 WEEKS PRIOR TO ORDERING. 18. REFERENCES TO "INSPECTION" OR "INSPECTOR" IN THE SPECIFICATIONS SHALL NOT CREATE, IMPOSE, OR GIVE RISE TO ANY DUTY OWED BY THE OWNER OR ENGINEER TO THE CONTRACTOR, ANY SUBCONTRACTOR, OR ANY SUPPLIER. ALL IMPROVEMENTS SHALL BE SUBJECT TO INSPECTION BY A DULY AUTHORIZED AND QUALIFIED OWNER'S REPRESENTATIVE BOTH DURING THE COURSE OF CONSTRUCTION AND AFTER CONSTRUCTION IS COMPLETE. THE INSPECTOR SHALL HAVE AUTHORITY OVER MATERIALS OF CONSTRUCTION, METHODS OF CONSTRUCTION AND WORKSMANSHIP TO ENSURE COMPLIANCE WITH WORKING DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE FOR REASONABLE TESTS AND PROOF OF QUALITY OF MATERIALS AS REQUESTED BY THE INSPECTOR. UPON DUE CAUSE, WHICH SHALL INCLUDE WEATHER CONDITIONS, WORKMANSHIP OR NON-ADHERENCE TO THE APPROVED PLANS AND SPECIFICATIONS, THE INSPECTOR SHALL HAVE THE AUTHORITY TO STOP CONSTRUCTION. 19. WHERE SECTION, SUB-SECTION, SUBDIVISION, OR PROPERTY MONUMENTS ARE ENCOUNTERED, THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS UNTIL AN OWNER OR AUTHORIZED SURVEYOR HAS WITNESSED OR REFERENCED THEIR LOCATION. 20. ALL TRENCH BACKFILL SHALL BE IMPORTED GRANULAR MATERIAL UNLESS EXISTING GRANULAR MATERIALS ARE SPECIFICALLY APPROVED BY THE OWNER'S REPRESENTATIVE. 21. ALL AGGREGATE BASE COURSE SHALL BE COMPACTED TO 98% STANDARD PROCTOR DENSITY. 22. ALL AGGREGATE BASE AREAS TO BE PAVED (PAVEMENT, SIDEWALK, CURB, OR STRUCTURES) SHALL BE PROOF-ROLLED WITH SEVERAL PASSES OF A FULLY LOADED DUMP TRUCK. CONTRACTOR SHALL NOTIFY THE OWNER AND/OR ENGINEER 24 HOURS PRIOR TO PROOF ROLL AND SHALL MAKE ALL CORRECTIONS TO PROVIDE A SATISFACTORY SUBGRADE. 23. ANY UNCONTROLLED CRACKING THAT OCCURS IN CONCRETE PAVEMENT, SIDEWALK, CURB, OR CURB AND GUTTER PRIOR TO FINAL ACCEPTANCE SHALL BE ROUTED OR SAWED AND SEALED ACCORDING TO THE STANDARD SPECIFICATIONS. 24. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO ANY WORK IN AND AROUND UTILITY-OWNED INFRASTRUCTURE AND MAKE THEM AWARE OF WORK TO BE PERFORMED. 25. ALL SIDEWALKS SHALL BE 4 INCHES IN THICKNESS AND CONSTRUCTED TO THE WIDTH SHOWN ON THE PLANS. ALL SIDEWALKS SHALL BE CONSTRUCTED WITH A MIN. CROSS SLOPE OF 1% AND A MAX. CROSS SLOPE OF 2%. SIDEWALK THICKNESS SHALL BE INCREASED TO A MINIMUM 6" AT DRIVEWAYS OR AS REQUIRED BY THE MUNICIPALITY. 26. ANY SIDEWALKS, FENCES, AND OTHER ITEMS NOT SHOWN TO BE REMOVED, BUT DAMAGED DURING	CONSTRUCTION, SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER. 27. CONTRACTOR SHALL NOTIFY THE APPROPRIATE AGENCY A MINIMUM OF 48 HOURS PRIOR TO CONNECTING TO OR INSTALLING ANY PUBLIC SEWER OR WATER MAINS. 28. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE PROJECT SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE ENGINEER'S LINE AND GRADE STAKES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, THE CONTRACTOR MUST IMMEDIATELY PROVIDE THE INFORMATION TO THE ENGINEER BEFORE DOING ANY WORK. OTHERWISE, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK EFFECTED BY OMISSIONS OR DISCREPANCIES. IF THE CONTRACTOR FAILS TO SECURE WRITTEN INSTRUCTIONS FROM THE ENGINEER, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL. EXISTING TOPOGRAPHY: 1. ALL UTILITIES SHOWN ARE APPROXIMATE ONLY AND ARE DERIVED FROM EXISTING UTILITY MARKINGS, OLD SITE PLANS, UTILITY COMPANY MAPS, PRIVATE LOCATOR AND OBSERVED EVIDENCE. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND UTILITIES UPON MOBILIZATION 2. ALL PIPE SIZES REFERENCED HEREON ARE SHOWN ACCORDING TO UTILITY COMPANY MAPS, OLD SITE PLANS AND OBSERVED EVIDENCE. ALL PIPE SIZES AND INVERTS SHOULD BE VERIFIED PRIOR TO ANY CONSTRUCTION. 3. PRIOR TO ANY EXCAVATION CONTRACTORS SHALL CALL THE TOLL FREE NC811 TELEPHONE NUMBER 1-800-632-4949. ALLOW 48 HOURS FOR LOCATIONS OTHER THAN EMERGENCY ASSISTANCE. SITE DEMOLITION: 1. EXISTING UTILITIES TO REMAIN, WHICH ARE DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION, SHALL BE REPAIRED AND/OR REPLACED WITHOUT ADDITIONAL COMPENSATION. CONFLICTS WITH PROPOSED CONSTRUCTION AND UTILITIES TO REMAIN ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONSTRUCTION MANAGER FOR COORDINATION WITH THE OWNER'S REPRESENTATIVE, ENGINEER, AND UTILITY COMPANY. 2. NO DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL TAKE PLACE WITHIN PUBLIC RIGHT-OF-WAY UNTIL ALL PERMITS ARE SECURED. 3. ALL PAVEMENT TO BE REMOVED SHALL BE SAW CUT FULL DEPTH. 4. CONTRACTOR SHALL EMPLOY ALL MEASURES NECESSARY DURING DEMOLITION TO CONTROL EROSION AND INSURE THAT SEDIMENT DOES NOT LEAVE THE SITE. TRACKING OF DIRT ONTO PUBLIC STREETS AND EXISTING PARKING LOT SHALL BE CLEANED IMMEDIATELY, AND ALL SEDIMENT AND EROSION CONTROL ITEMS SHALL BE INSTALLED PRIOR TO CLEARING AND DEMOLITION WORK. 5. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS AND BECOMING FAMILIAR WITH ALL CONSTRUCTION DOCUMENTS. 6. ITEMS INDICATED TO BE REMOVED SHALL BE COMPLETELY REMOVED UNLESS INDICATED OTHERWISE. 7. ITEMS INDICATED TO BE SALVAGED SHALL BE CAREFULLY REMOVED AND STORED IN A LOCATION DESIGNATED BY THE OWNER. 8. ALL TREES AND BRUSH INDICATED TO BE REMOVED SHALL BE REMOVED COMPLETELY, INCLUDING ROOT BALLS. 9. UNLESS OTHERWISE IDENTIFIED AND/OR NOTED ON THE DEMOLITION PLAN, CONTRACTOR SHALL FULLY DEMOLISH, REMOVE, AND LAWFULLY DISPOSE OF ALL EXISTING BUILDINGS, IMPROVEMENTS, AND RELATED APPURTENANCES AT THIS SITE AND PROPERTY. CONTRACTOR SHALL ALSO DEMOLISH, REMOVE, AND LAWFULLY DISPOSE OF EXISTING IMPROVEMENTS AND CONSTRUCTIONS IN THE PUBLIC RIGHT-OF-WAY NECESSARY TO ACCOMPLISH THE NEW PROJECT WORK DESCRIBED ELSEWHERE IN THESE BIDDING AND CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL PROCURE ALL NECESSARY PERMITS AND APPROVALS FOR SUCH DEMOLITION WORK (BOTH INSIDE THE PROPERTY LINE AND IN THE PUBLIC RIGHT-OF-WAY) PRIOR TO COMMENCING ANY DEMOLITION OPERATIONS. 10. CONTRACTOR SHALL FULLY PROTECT ALL SURROUNDING PROPERTIES FROM ANY AND ALL DAMAGE DURING DEMOLITION OPERATIONS; AND SHALL BE FULLY RESPONSIBLE FOR REPAIRING (TO A CONDITION ACCEPTABLE TO THE OWNER AND ARCHITECT) ANY AND ALL DAMAGE THAT DOES OCCUR. 11. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROLS AND RELATED APPURTENANCES THAT ARE REQUIRED BY ANY APPLICABLE CODES AND ORDINANCES, DURING ALL DEMOLITION OPERATIONS. 12. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE SAFETY AND SECURITY OF THE PROJECT SITE AND ITS SURROUNDINGS DURING DEMOLITION OPERATIONS. 13. ALL DEMOLISHED EXISTING MATERIALS, SYSTEMS, AND CONSTRUCTIONS SHALL BE DISPOSED OF IN A LAWFUL MANNER, AND WRITTEN RECORDS OF THE FINAL DESTINATION FOR THESE MATERIALS, SYSTEMS, AND CONSTRUCTIONS (INCLUDING ANY IDENTIFIED HAZARDOUS ITEMS) SHALL BE PROVIDED TO THE OWNER AND ENGINEER. ADDITIONALLY, SOME EXISTING MATERIALS AND SYSTEMS MAY NEED TO BE RECYCLED AND/OR OTHERWISE SALVAGED IN ORDER TO MEET THE SUSTAINABILITY AND LEED REQUIREMENTS OF THIS PROJECT. SEE OTHER PORTIONS OF THESE BIDDING AND CONSTRUCTION DOCUMENTS FOR SUCH REQUIREMENTS. 14. EXISTING SITE SHALL BE CLEANED ON A DAILY BASIS THROUGHOUT THE DURATION OF DEMOLITIONS OPERATIONS; AND NO DEBRIS OR PRODUCTS OF DEMOLITION SHALL BE ALLOWED TO ACCUMULATE OUTSIDE THE BOUNDARIES OF THE SITE. 15. CONTRACTOR SHALL FULLY COORDINATE ALL PROJECT DEMOLITION OPERATIONS, INCLUDING THE REMOVAL AND LAWFUL DISPOSAL OF ALL IDENTIFIED HAZARDOUS MATERIALS AND SYSTEMS. 16. CONTRACTOR SHALL SUBMIT A COMPLETE WRITTEN PLAN AND SCHEDULE FOR ALL PROPOSED DEMOLITION WORK TO OWNER AND ARCHITECT FOR REVIEW AND COMMENT, PRIOR TO BEGINNING ANY SUCH OPERATIONS. DURING THE COURSE OF THIS DEMOLITION WORK, IF ANY ARTIFACTS OR OTHER UNUSUAL ITEMS ARE DISCOVERED, CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER IMMEDIATELY, BEFORE PROCEEDING ANY FURTHER. ANY EXPENSES RESULTING FROM THE FAILURE TO PROVIDE SUCH IMMEDIATE NOTIFICATION SHALL BE BORNE BY THE CONTRACTOR. SITE LAYOUT: 1. JOINTS IN SIDEWALK SHALL BE TOOLED AT 5' MAX. INTERVALS, UNLESS INDICATED OTHERWISE. 2. NORTHING-EASTING COORDINATES AND DIMENSIONS FOR CURB AND GUTTER ARE TO FACE OF CURB. 3. CONTRACTOR SHALL COORDINATE ALL WORK WITHIN PUBLIC RIGHT-OF-WAY WITH THE APPROPRIATE PUBLIC AGENCY. NOTIFICATION SHALL OCCUR A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK WITHIN PUBLIC RIGHT-OF-WAY. ALL PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR. 4. MIXES FOR ALL PORTLAND CEMENT CONCRETE SHALL BE DESIGNED BY A CERTIFIED CONCRETE MIX DESIGN TECHNICIAN OR AN ENGINEER LICENSED BY THE STATE OF NORTH CAROLINA, IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS. 5. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS AND BECOMING FAMILIAR WITH ALL CONSTRUCTION DOCUMENTS. 6. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND DOOR LOCATIONS. 7. CONTRACTOR SHALL COORDINATE EQUIPMENT PADS WITH EQUIPMENT MANUFACTURERS. SITE GRADING AND EROSION CONTROL: 1. ALL SUBGRADE EXCAVATION AND COMPACTION SHALL BE COMPLETED IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS AND THE SITE SPECIFIC GEOTECHNICAL REPORT. 2. ENGINEERED STRUCTURAL FILLS SHALL BE INCLUDED IN OVERALL SITE DEVELOPMENT TO PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR THE FLOOR SLABS ON GRADE AND ADJOINING PAVEMENT AREAS. REFER TO THE GEOTECHNICAL REPORT FOR APPROVED FILL MATERIALS. 3. WHERE FIRM FOUNDATION MATERIAL IS NOT ENCOUNTERED AT THE GRADE ESTABLISHED, DUE TO UNSUITABLE SOIL, ALL SUCH UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH	APPROVED COMPACTED GRANULAR MATERIAL. 4. TOPSOIL SHALL BE STRIPPED IN ALL STRUCTURAL FILL AREAS BEFORE PLACEMENT OF FILL MATERIAL AND SHALL BE STOCKPILED IN AREAS DESIGNATED BY THE OWNER OR PER PLAN. 5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM EARTHWORK CALCULATIONS BASED ON THE PROVIDED PLANS AND TO LAWFULLY DISPOSE OF AND REMOVE ANY EXCESS MATERIAL FROM THE PROJECT SITE, OR TO PROVIDE ANY NECESSARY FILL MATERIAL THAT MAY BE REQUIRED TO MEET THE FINAL PLAN GRADES. THE DISPOSAL OR PROVIDING OF MATERIAL SHALL BE INCIDENTAL TO THE CONTRACT. 6. ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "NCDEQ - EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL" 7. THE OWNER/ENGINEER SHALL PROVIDE THE SOIL EROSION AND SEDIMENT CONTROL PLANS INCLUDED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTATION OF THE STORMWATER POLLUTION PREVENTION PLAN BOOKLET AND ASSOCIATED DOCUMENTS. IN ACCORDANCE WITH THE "GENERAL NPDES PERMIT FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES," AND A COPY SHALL BE KEPT ONSITE AT ALL TIMES. 8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE INSTALLATION, ALL INSPECTIONS, AND MAINTENANCE OF ALL EROSION CONTROL FACILITIES REQUIRED BY THE GENERAL NPDES PERMIT UNTIL FINAL STABILIZATION OF ALL AREAS DISTURBED BY CONSTRUCTION OCCURS. MAINTENANCE AND REPLACEMENT OF EROSION CONTROL ITEMS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT. 9. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITY MUST BE SEEDED, SODDED, BLANKETED OR OTHERWISE PROTECTED WITHIN 14 DAYS OF FINAL DISTURBANCE. ALL AREAS DISTURBED BY THE CONTRACTOR DURING THE CONSTRUCTION OF THIS PROJECT WHICH ARE LOCATED OUTSIDE OF THE PROPOSED SEEDING LIMITS SHALL BE GRADED TO DRAIN, FERTILIZED, SEEDED, MULCHED AND WATERED. THE COST ASSOCIATED WITH THE PLACEMENT OF ADDITIONAL FERTILIZER, SEED, MULCH AND WATERING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. A MINIMUM OF 70% VEGETATIVE COVERAGE IS REQUIRED PRIOR TO ACCEPTANCE. SEE LANDSCAPE PLANS FOR ADDITIONAL REQUIREMENTS. 10. ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN ARE THE MINIMUM MEASURES REQUIRED. UNFORESEEN CHANGES IN SCOPE, SCHEDULE OR CONSTRUCTION METHODS MAY RESULT IN CHANGES OR ADDITIONS TO THIS PLAN AND THE SWPPP. ANY CHANGES OR ADDITIONS NECESSARY TO MAINTAIN COMPLIANCE WITH THE NPDES PERMIT SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER. 11. SHOULD PROJECT SCHEDULING PROHIBIT THE ABILITY TO SEED DISTURBED EARTH UPON COMPLETION OF GRADING, CONTRACTOR SHALL EMPLOY ALTERNATE SOURCE CONTROLS IN ADDITION TO THOSE ON THIS PLAN, INCIDENTAL TO THE CONTRACT. 12. DUST CONTROL MUST BE PROVIDED AS NEEDED, BY WATERING OR OTHER MEANS. 13. ALL AREAS WITH THE EXCEPTION OF PAVEMENT SHALL BE FINISHED IN ACCORDANCE WITH THE LANDSCAPE PLANS INCLUDED IN THE PLAN SET. 14. CONTRACTOR SHALL INSTALL INLET FILTER PROTECTION BASKETS INSIDE ALL EXISTING AND PROPOSED MANHOLES AND INLET FRAMES. 15. CONTRACTOR IS REQUIRED TO PROVIDE AND USE A CONCRETE WASHOUT AREA FOR RINSING CONCRETE TRUCKS. 16. CONTRACTOR IS REQUIRED TO PROVIDE AND USE A TEMPORARY CONSTRUCTION ENTRANCE FOR ALL CONSTRUCTION TRAFFIC PER PLAN. 17. CONTRACTOR SHALL PROVIDE AND USE A WHEEL WASH SYSTEM TO ENSURE THAT ALL CONSTRUCTION TRAFFIC ENTERING AND EXITING THE SITE MAINTAIN CLEAN TIRES. ANY SEDIMENT TRACKED ONTO ADJACENT ROADWAYS OR PAVED AREAS SHALL BE REMOVED BY THE CONTRACTOR BY THE END OF THE SAME WORK DAY. 18. ALL ELEVATIONS SHOWN ARE TO FINISHED PAVEMENT UNLESS SPECIFIED OTHERWISE. 19. ALL SLOPES GREATER THAN OR EQUAL TO 4:1 SHALL BE STABILIZED WITH NAG S75BN OR EQUIVALENT. 20. CONTRACTOR SHALL PROVIDE A MINIMUM OF 6" TOPSOIL IN ALL ISLANDS, LANDSCAPE AREAS, AND OPEN SPACES.
--	---	--

SITE UTILITIES:

1. THIS CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

A. "MINIMUM DESIGN CRITERIA FOR THE PERMITTING OF GRAVITY SEWERS" - NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES PUBLISHED 02/12/1996.

B. NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES"

C. MECKLENBURG COUNTY STANDARD SPECIFICATIONS AND DETAILS MANUAL.

2. ALL UTILITY TRENCHES UNDER OR WITHIN 2' OF EXISTING OR PROPOSED PAVEMENT OR BUILDING SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL IN ACCORDANCE WITH NCDOT SPECIFICATIONS. CONTROLLED LOW-STRENGTH MATERIAL (CLSM) SHALL BE USED TO BACKFILL TRENCHES WITHIN PUBLIC RIGHT OF WAY. THE CLSM SHALL EXTEND 2 FT PAST THE PROPOSED PAVEMENT, CURB, OR SIDEWALK.

3. OPEN CUT TRENCHES SHALL BE SHEETED AND BRACED AS REQUIRED BY THE GOVERNING STATE, FEDERAL LAWS AND MUNICIPAL ORDINANCES, AND AS MAY BE NECESSARY TO PROTECT LIFE, PROPERTY OR THE WORK.

4. CONTRACTOR SHALL AT ALL TIMES DURING CONSTRUCTION PROVIDE AND MAINTAIN SUFFICIENT MEANS AND DEVICES TO REMOVE AND PROPERLY DISPOSE OF ALL WATER ENTERING THE EXCAVATIONS. WATER SHALL BE FILTERED AND DISCHARGED IN ACCORDANCE WITH THE NPDES REQUIREMENTS.

5. ALL PIPE SHALL BE INSTALLED ON A BEDDING OF APPROVED, COMPACTED GRANULAR MATERIAL. UNLESS OTHERWISE APPROVED BY THE ENGINEER, THE BEDDING MATERIAL SHALL BE INSTALLED PER STANDARD SPECIFICATIONS AND PROVIDED PLAN DETAILS.

6. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN ALL WATER MAINS AND SEWERS. IF SEPARATION IS NOT POSSIBLE, WATER MAIN ENCASEMENT SHALL BE REQUIRED OR THE SEWER SHALL BE CONSTRUCTED OF WATER MAIN QUALITY PIPE (DUCTILE IRON PIPE OR EQUIVALENT).

7. WATER MAINS SHALL CROSS ABOVE SEWERS WITH A MINIMUM VERTICAL SEPARATION OF 18 INCHES WHILE STILL MAINTAINING THE REQUIRED DEPTH OF COVER. IF PROPER SEPARATION IS NOT POSSIBLE, OR IF THE WATER MAIN MUST BE ROUTED UNDER THE SEWER, WATER MAIN ENCASEMENT SHALL BE REQUIRED OR THE SEWER SHALL BE CONSTRUCTED OF WATER MAIN QUALITY PIPE (DUCTILE IRON PIPE OR EQUIVALENT).

8. ALL SANITARY SEWERS SHALL BE TESTED FOR EXFILTRATION OF AIR UNDER PRESSURE, INFILTRATION OF WATER, AND/OR EXFILTRATION OF WATER AS PER STANDARD SPECIFICATIONS. ALL SANITARY SEWERS SHALL BE DEFLECTION TESTED NO SOONER THAN 30 DAYS AFTER INSTALLATION. ALL MANHOLES SHALL BE TESTED FOR WATERTIGHTNESS BY EITHER ASTM C 969 OR ASTM C 1244.

9. STORM SEWER SHALL BE IN CONFORMANCE WITH THE FOLLOWING:

A. REINFORCED CONCRETE PIPE (RCP), ASTM C76

a. GASKETS - ASTM C443

b. FITTINGS - ASTM C443

B. SMOOTH INTERIOR WALLED HIGH DENSITY POLYETHYLENE PIPE (HDPE), ASTM D3212, N-12 WT

a. WATER TIGHT JOINTS

b. JOINT SHALL BE SEALED SUFFICIENTLY TO PREVENT JETTING OR LEAKING AT THE JOINT

C. PVC STORM SEWER PIPING, ASTM D 3034, SDR 35

a. BELL-AND-SPIGOT ENDS

b. ASTM F 477, ELASTOMERIC SEALS FOR GASKETED JOINTS

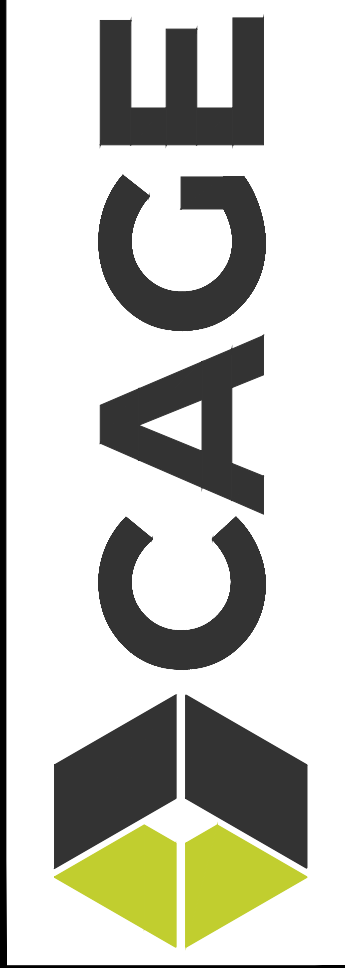
D. FRAME AND GRATES (OR APPROVED ALTERNATIVE)

a. TYPE 1 CLOSED LID = NEENAH R-1713

b. TYPE 1 OPEN LID = NEENAH R-2504

c. TYPE 3 = NEENAH R-3281-A

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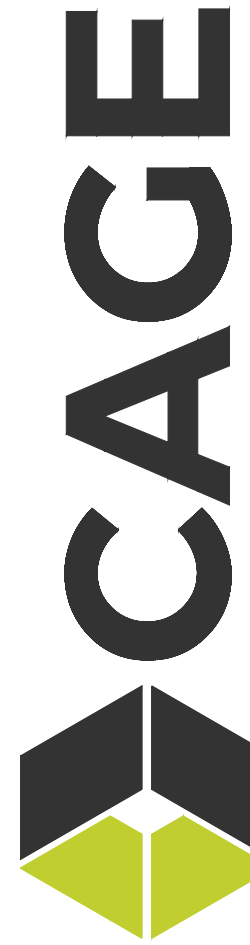
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MECK COUNTY COMMENTS
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PINEVILLE, NC
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527
ENG: KHH
DATE: 2026.04.22

SHEET TITLE
GENERAL
NOTES &
SPECIFICATIONS

SHEET NUMBER
C0.1
2 OF 13



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REVISIONS

16/10/2025
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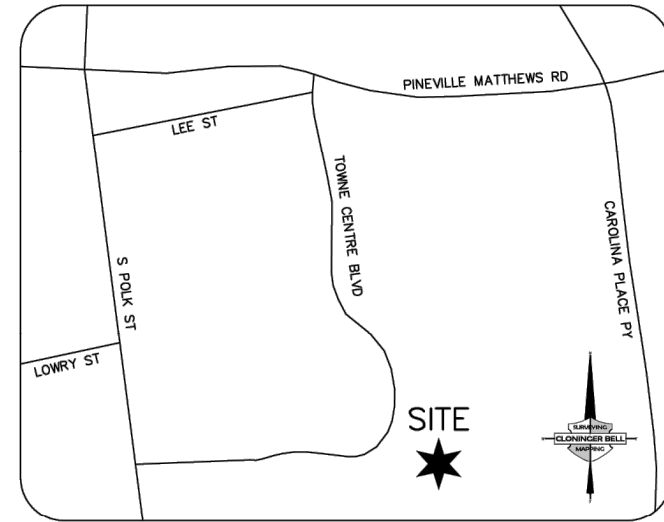
SHEET TITLE

EXISTING
CONDITIONS

SHEET NUMBER

C1.0

3 OF 13



VICINITY MAP
NOT TO SCALE

GPS CERTIFICATION:

I, JUSTIN F. CLONINGER, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

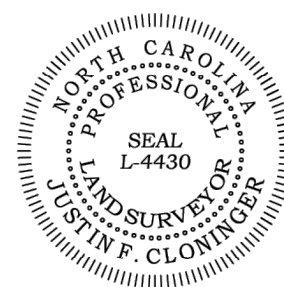
- (1) CLASS OF SURVEY: A(1-13,000)
- (2) POSITIONAL ACCURACY: HORIZONTAL N=0.0039", E=0.0032", VERTICAL=0.0106"
- (3) TYPE OF GPS FIELD PROCEDURE: REAL-TIME KINEMATIC
- (4) DATE OF SURVEY: MAY 4, 2025
- (5) DATUM/EPOCH: NAD83(CONUS), NAVD 88 LOCALIZATION=60, ZONE: NC 3200
- (6) PUBLISHED/FIXED-CONTROL USE: ON-SITE CONTROL
- (7) GRID/MODEL: GEOID16MCONUS
- (8) COMBINED GRID FACTORS(S): 0.99995339
- (9) UNITS: US SURVEY FEET

ALTA CERTIFICATION:

TO: ILM SCHOOL RESOURCE

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 6a, 6b, 7a, 7b(i), 7c, 8, 9, AND 13, OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MAY 6, 2025.

SIGNED: Justin F. Cloninger
JUSTIN F. CLONINGER
NCTLS L-4430
justinc@cloningerbell.com



THIS IS TO CERTIFY THAT ON THE 6th DAY OF MAY, 2025, AN ACTUAL SURVEY WAS MADE UNDER MY SUPERVISION OF THE PROPERTY SHOWN ON THIS PLAT AND THAT THE BOUNDARY LINES AND THE IMPROVEMENTS, IF ANY, ARE AS SHOWN HEREON. THIS PLAT MEETS THE MINIMUM STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA, BOARD RULE 1600 (1) NCAC 56 AND THE RATIO OF PRECISION DOES NOT EXCEED AN ERROR OF CLOSURE OF ONE (1) FOOT PER 10,000 FEET OF PERIMETER SURVEYED NOR 20 SECONDS TIMES THE SQUARE ROOT OF THE NUMBER OF ANGLES TURNED.

SIGNED: Justin F. Cloninger

ALTA/NSPS LAND TITLE SURVEY

PREPARED FOR

ILIM SCHOOL

LOT 4 - PANOS HOTEL PROPERTY MAP 4

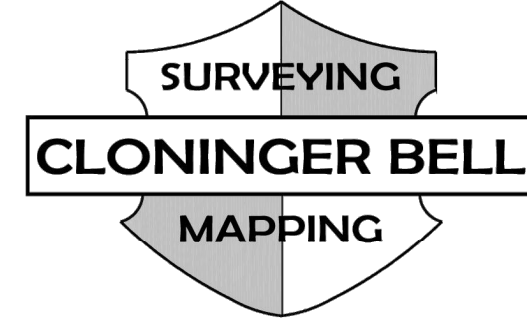
505 TOWNE CENTRE BOULEVARD

TOWN OF PINEVILLE, MECKLENBURG COUNTY, NC

DEED REFERENCE: 19389-661

MAP REFERENCE: 30-751

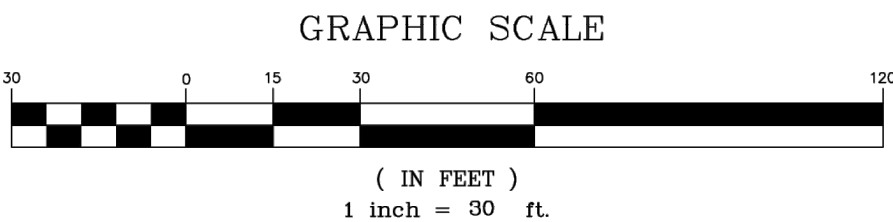
TAX PARCEL: 221-131-30



CLONINGER BELL
SURVEYING & MAPPING, PLLC
107 RIVERSIDE DR.
McADENVILLE, NC 28101
704.864.9007
LICENSE P-2326

DRAWN: CH
REVISED: 1" = 30'
DATE: MAY 6, 2025
FILE NO: 5129

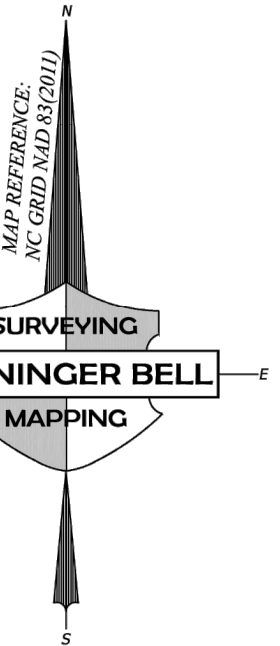
FLOOD CERTIFICATION
THIS IS TO CERTIFY THAT THE SUBJECT PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON MAPS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FEDERAL INSURANCE ADMINISTRATION, DATED SEPTEMBER 2, 2015
COMMUNITY PANEL NO: 3770443800L, ZONE AE



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	288.51	88.19	87.85	N 16°31'15" E	172°27'15"



Know what's below.
Call before you dig.



PARKING:

REGULAR PARKING SPACES: 80
HANDICAPPED PARKING SPACES: 0
TOTAL PARKING SPACES: 80

ZONING:

SUBJECT PROPERTY ZONED: B-4
SETBACKS AS PER MAP BOOK 30, PAGE 751.

MINIMUM SETBACK: 35'
MINIMUM SIDE YARD: 10'
MINIMUM REAR YARD: 10'

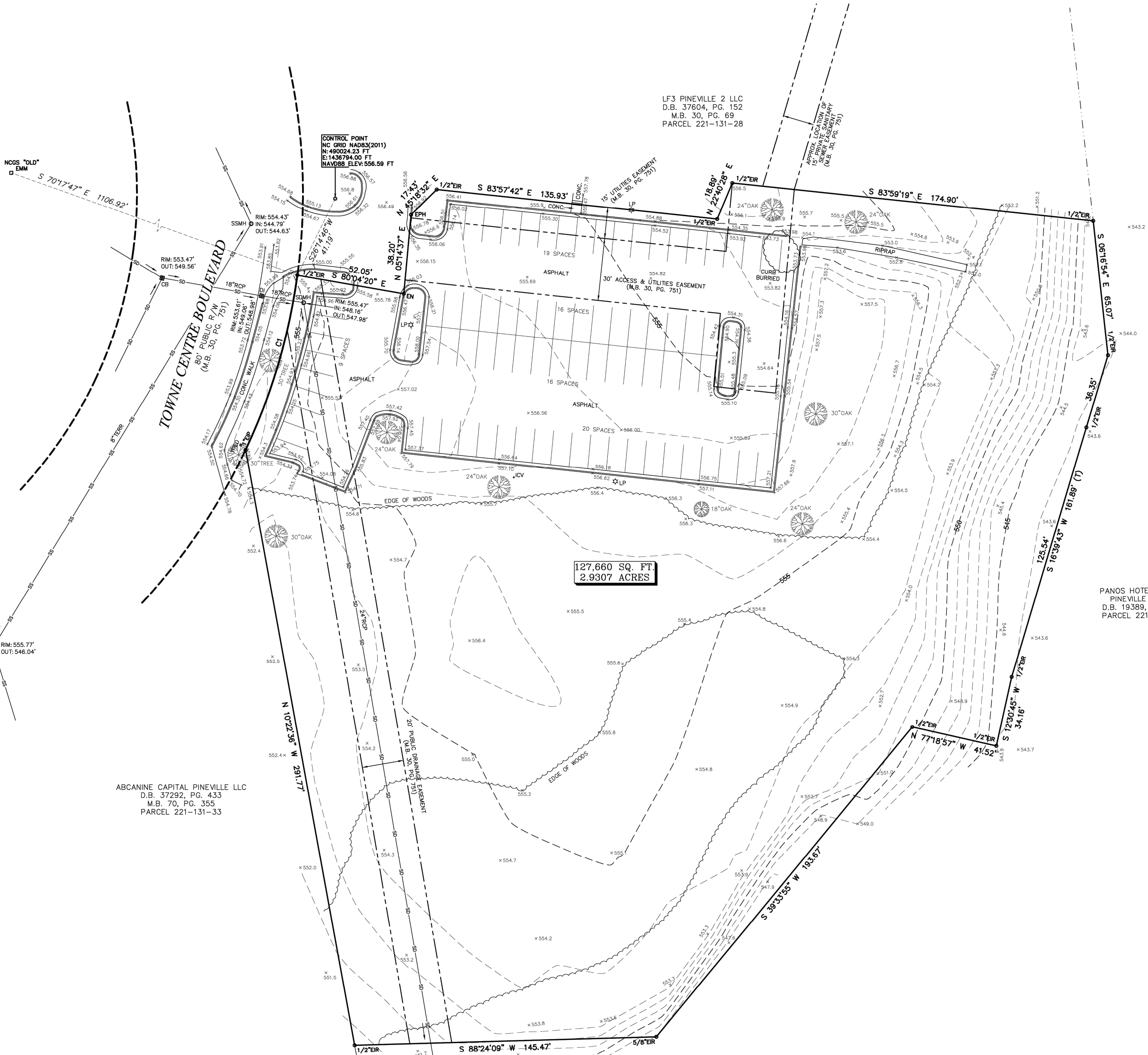
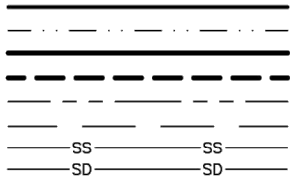
FOR FURTHER INFORMATION CONTACT THE TOWN OF PINEVILLE ZONING DEPARTMENT.

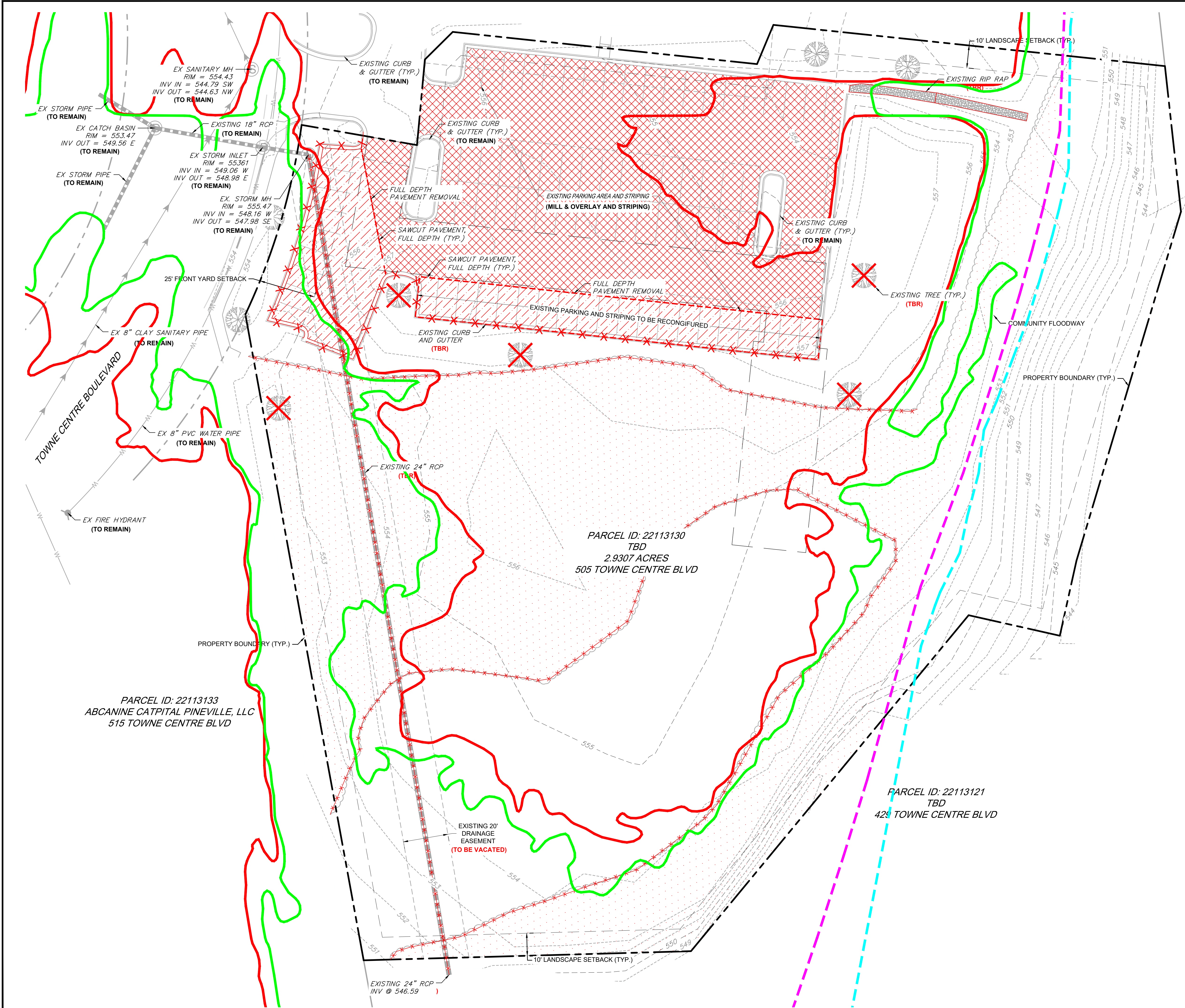
NOTES:

1. THIS PLAT IS NOT FOR RECORDATION AS PER G.S. 47-30 AS AMENDED.
2. ALL CORNERS MONUMENTED AS SHOWN.
3. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS MAP IS APPROXIMATE, BASED ON INFORMATION PROVIDED BY OTHERS OR BY FIELD LOCATION. UTILITY LOCATIONS AS SHOWN HEREON ARE INTENDED FOR PLANNING ONLY. ACTUAL LOCATION, SIZE, OR DEPTH OF LINE SHOULD BE VERIFIED WITH THE INDIVIDUAL UTILITY COMPANY BEFORE CONSTRUCTION.
4. THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A TITLE COMMITMENT REPORT. CLONINGER BELL SURVEYING & MAPPING, PLLC DOES NOT CLAIM THAT ALL MATTERS OF RECORD WHICH MAY OR MAY NOT AFFECT THE SUBJECT PROPERTY ARE SHOWN HEREON.
5. SITE LOCALIZED TO NC GRID NAD83(2011) COORDINATES AND NAVD88 ELEVATIONS AT AN ON-SITE CONTROL POINT SHOWN HEREON.
6. BROKEN LINES INDICATE PROPERTY LINES NOT SURVEYED.
7. THE OFF-SITE RIGHT-OF-WAY SHOWN HEREON IS FOR ILLUSTRATIVE PURPOSES ONLY. THE UNDERSIGNED CERTIFIES ONLY TO THE RIGHT-OF-WAYS SURVEYED, AND DOES NOT CERTIFY TO THE RIGHT-OF-WAY WIDTH OF ANY ADJACENT PROPERTIES.

LEGEND:

CB - CATCH BASIN
DB - DEED BOOK
DI - DROP INLET
EIP - EXISTING IRON PIPE
EIR - EXISTING IRON ROD
EMM - EXISTING METAL MONUMENT
EN - EXISTING NAIL
EPH - EXISTING PUNCH HOLE
ICTV - IRRIGATION CONTROL VALVE
INV - INVERT
LP - LIGHT POLE
MR - MAP BOOK
N.C.G.S. - NORTH CAROLINA GEODETIC SURVEY
PG - PAGE
RCP - REINFORCED CONCRETE PIPE
RW - RIGHT-OF-WAY
SDMH - STORM DRAIN MANHOLE
SSMH - SANITARY SEWER MANHOLE
(T) - TOTAL
TER - TERRACOTTA PIPE
TPED - TELEPHONE PEDESTAL
PROPERTY LINE
PROPERTY LINE (NOT SURVEYED)
RIGHT-OF-WAY
RIGHT-OF-WAY (NOT SURVEYED)
EASEMENT
SETBACK
SANITARY SEWER PIPE
STORM DRAIN PIPE





DEMOLITION LEGEND

- MILL & OVERLAY
- ASPHALT PAVEMENT REMOVAL, FULL DEPTH
- TREEWOODED AREA REMOVAL
- SAWCUT PAVEMENT, FULL DEPTH
- CURB & GUTTER REMOVAL
- UTILITY REMOVAL
- TREE/BUSH REMOVAL
- UTILITY STRUCTURE REMOVAL
- (TBR) TO BE REMOVED

SITE BENCHMARK:

DESCRIPTION: NORTHING: 490024.23
EASTING: 1436794.00
ELEVATION: 556.59 DATUM: NAD83 (2011)

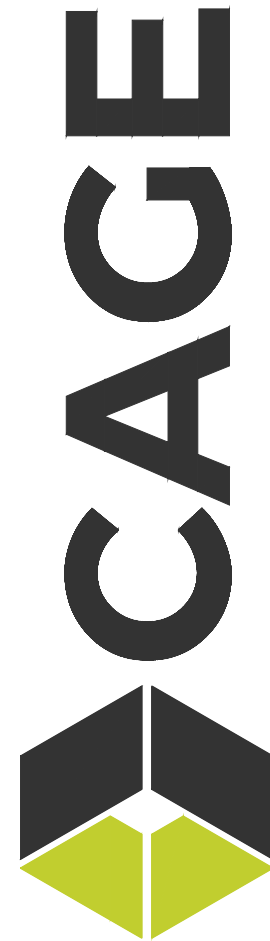
EXISTING CONDITIONS NOTES

- TOPOGRAPHIC SURVEY COMPLETED BY "ENTER NAME", ON "ENTER SURVEY DATE".
- THE UNDERGROUND UTILITY INFORMATION SHOWN HAS BEEN DERIVED FROM MULTIPLE SOURCES INCLUDING, BUT NOT LIMITED TO, TOPOGRAPHIC SURVEY AND THE MUNICIPALITY/DISTRICT. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION CANNOT BE GUARANTEED AND THE CONTRACTOR SHALL VERIFY UNDERGROUND UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

DEMOLITION PLAN NOTES

- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES FOR ANY REMOVAL AND/OR RELOCATION OF UTILITIES SHOWN ON THESE PLANS.
- SHOULD THE DEMOLITIONS/CONSTRUCTION ACTIVITIES DAMAGE ANY SITE FEATURES NOT INDICATED FOR REMOVAL, THE CONTRACTOR SHALL REPLACE AND/OR RESTORE THE DAMAGED FEATURES TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST.
- ALL EROSION AND SEDIMENT CONTROL BMPs SHALL BE INSTALLED PRIOR TO ANY DEMOLITION ACTIVITIES

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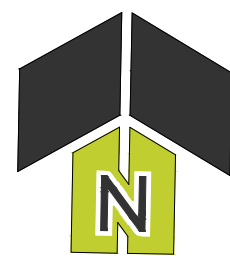
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TREEHOUSE SCHOOL -
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Pineville, NC



0 20' 40'
1" = 20' (HORIZONTAL)



PROJ NO: 250527

ENG: KHH

DATE: 2026.04.22

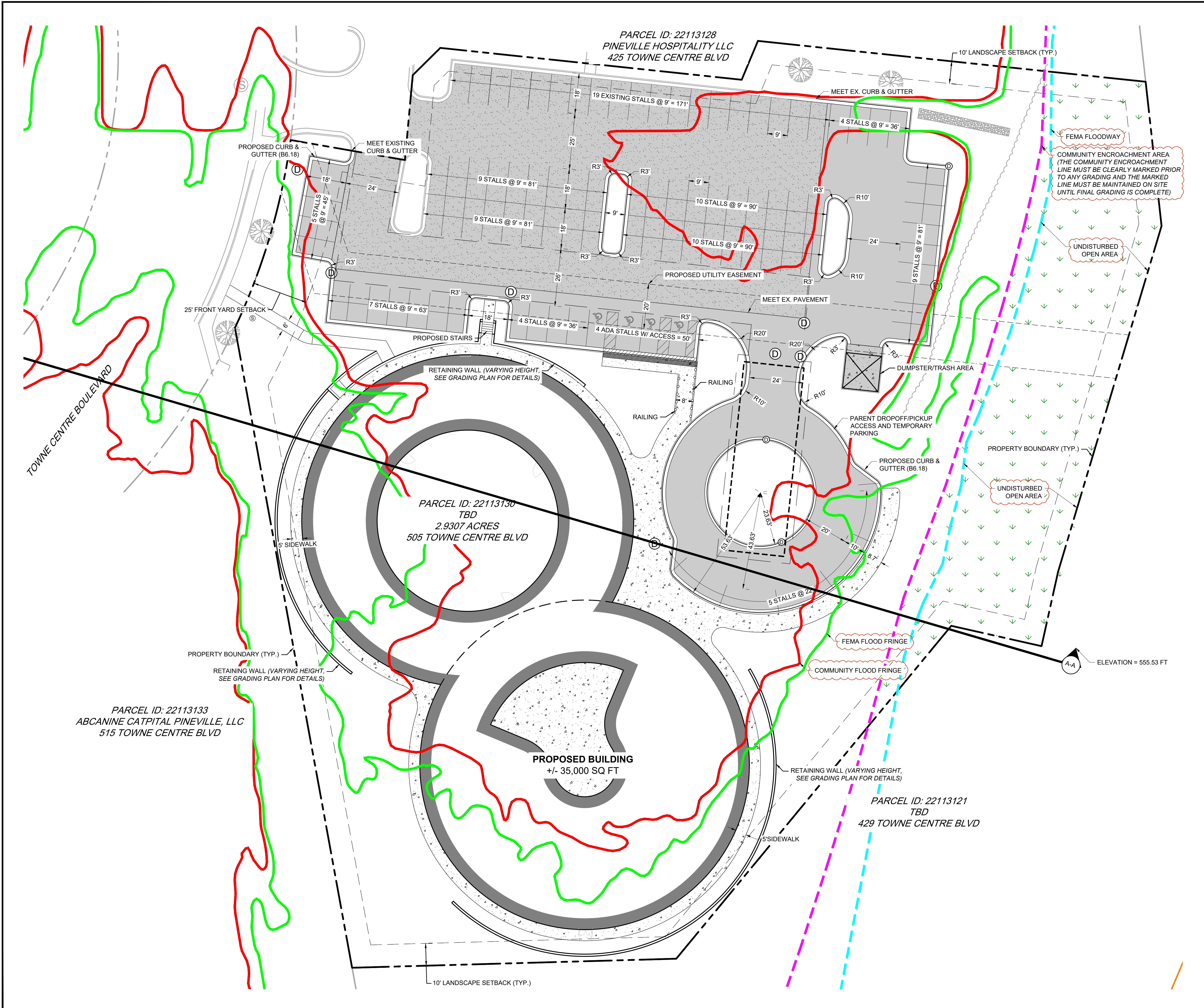
SHEET TITLE

DEMOLITION
PLAN

SHEET NUMBER

C1.1

4 OF 13



PAVEMENT LEGEND

- STANDARD DUTY BITUMINOUS PAVEMENT
- MILL & OVERLAY
- HEAVY DUTY CONCRETE PAVEMENT
- PCC SIDEWALK
- CURB & GUTTER
- REVERSE PITCH CURB & GUTTER
- DEPRESSED CURB & GUTTER
- PROPOSED BUILDING

SITE SUMMARY

ZONING
B4 - BUSINESS PERIMETER DISTRICT

PROPERTY AREA 2.93 AC
BUILDING AREA 34,921 FT

YARD REQUIREMENTS
FRONT BUILDING SETBACK 25'
REAR SETBACK NONE
SIDE SETBACK NONE

LANDSCAPE SETBACK 10'

FIRE ACCESS
PINEVILLE FIRE DEPARTMENT TURNING MOVEMENTS REQUIRE A MINIMUM 42' OUTER TURNING RADIUS FOR WALL-TO-WALL MOVEMENTS AND APPROXIMATELY 38' FOR CURB-TO-CURB TURNING MOVEMENTS

PARKING COUNT
1 PARKING STALL SHALL BE REQUIRED FOR EACH 400 SQ. FT. OF GROSS BUILDING AREA

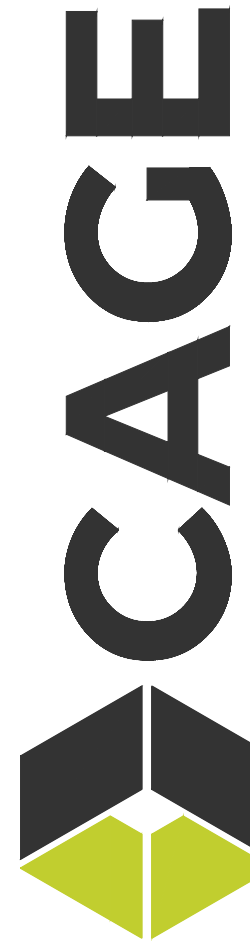
REQUIRED:
34,921 / 400 = 88 STALLS
ADA REQUIRED = 4 STALLS

PROPOSED:
19 EXISTING STANDARD STALLS
72 PROPOSED STANDARD STALLS
4 ADA STALLS
95 TOTAL STALLS

SITE PLAN NOTES

- ALL DIMENSIONS ARE FLOWLINE TO FLOWLINE OR BUILDING FOUNDATION UNLESS OTHERWISE NOTED.
- ALL CURB RADII SHALL BE 3' MEASURED TO FLOWLINE UNLESS OTHERWISE NOTED.
- BUILDING FOOTPRINTS AND APPURTANCES SHOWN ARE BASED UPON THE LATEST ARCHITECTURAL INFORMATION PROVIDED TO CAGE ENGINEERING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL DRAWINGS FOR PRECISE BUILDING DIMENSIONS AND LAYOUT AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

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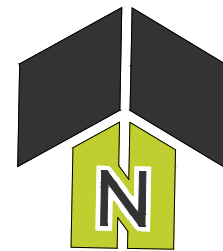
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Pineville, NC



0 20' 40'
1" = 20' (HORIZONTAL)



PROJ NO: 250527

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DATE: 2026.04.22

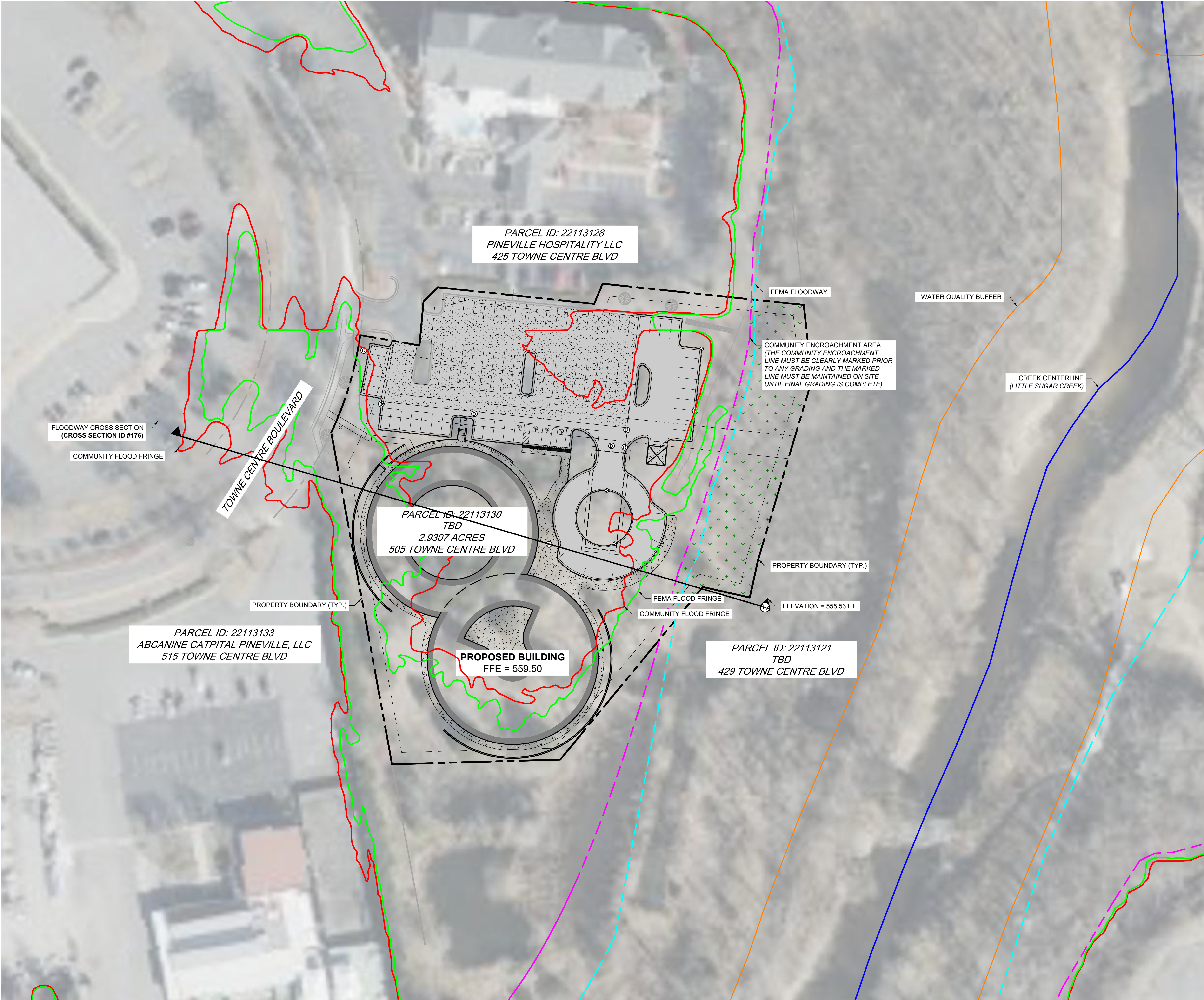
SHEET TITLE

SITE PLAN

SHEET NUMBER

C2.0

5 OF 13



PAVEMENT LEGEND

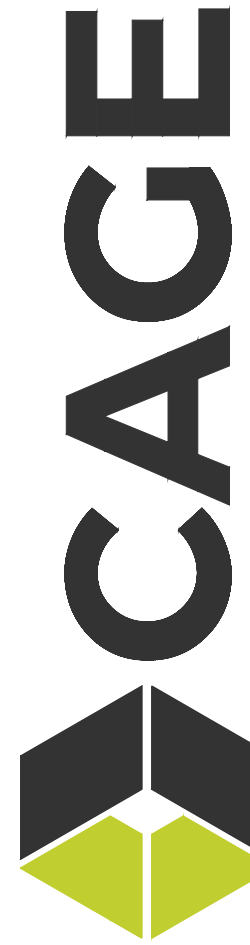
- CREEK CENTERLINE
- WATER QUALITY BUFFER
- FEMA FLOOD FRINGE
- COMMUNITY FLOOD FRINGE
- COMMUNITY ENCROACHMENT AREA
- FEMA FLOODWAY
- FLOODWAY CROSS SECTION LINE

NOTES:

FEMA BASE FLOOD ELEV. 555.53
COMMUNITY BASE FLOOD ELEV. 555.69
FLOOD PROTECTION ELEV. 558.00

NOTE: SCHOOLS ARE DEFINED AS CRITICAL FACILITIES, HENCE THE GROUND WHERE THE BUILDING IS LOCATED MUST BE ABOVE THE 500-YEAR ELEVATION WHICH IS 558.00 FEET.

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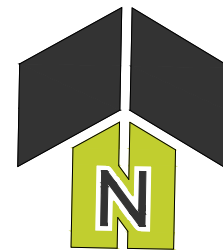
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0 20' 40'
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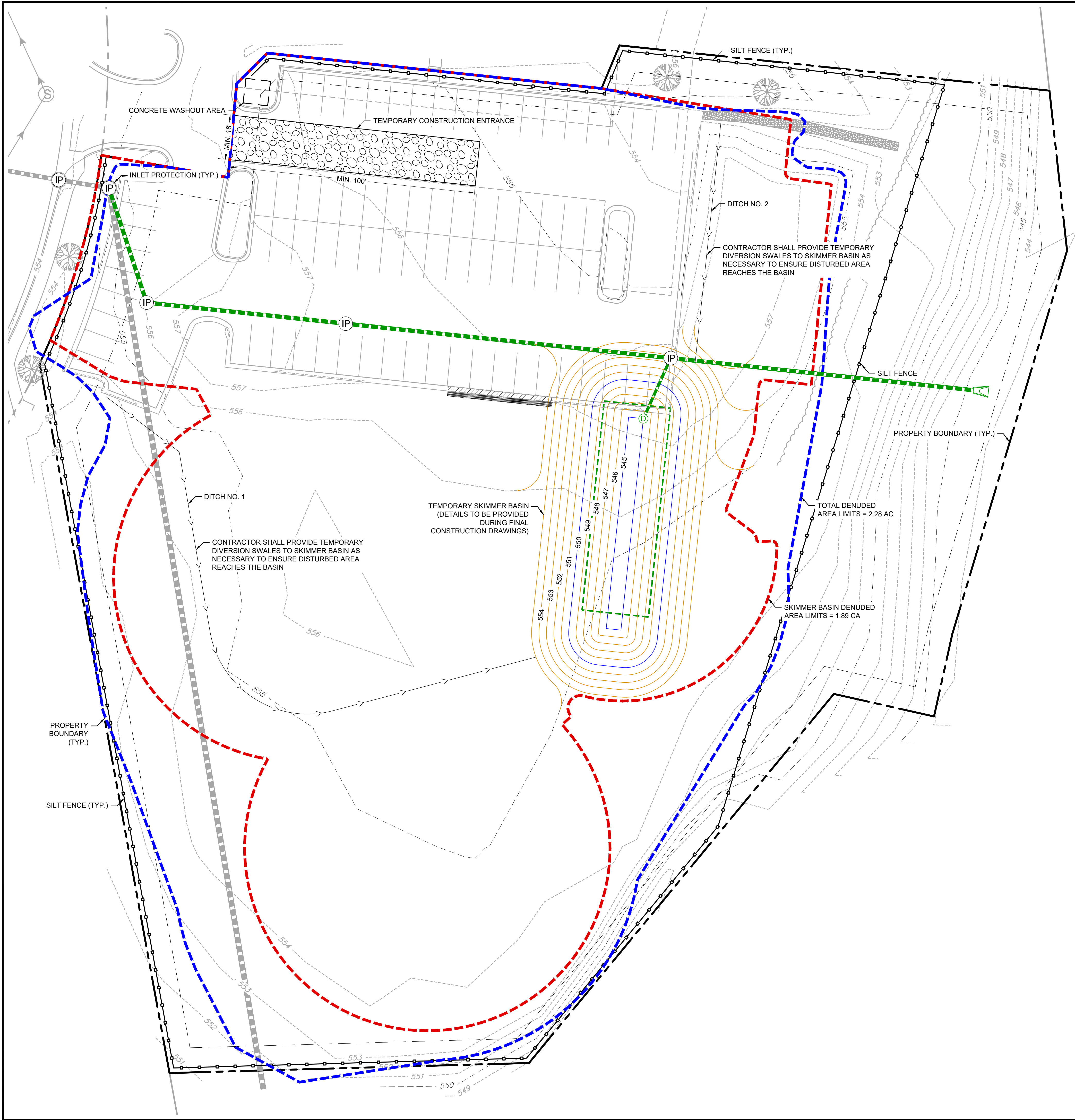
SHEET TITLE

OVERALL
SITE PLAN

SHEET NUMBER

C2.1

6 OF 13



EROSION CONTROL INSPECTOR:

CONTACT:
PHONE:

CONSTRUCTION SEQUENCE (PHASE 1):

- OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM MECKLENBURG COUNTY LUESA, NCDOT DRIVEWAY PERMIT APPROVAL, AND CERTIFICATION OF COVERAGE (COC) FROM NCDEQ.
- SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: LUESA EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR AND ZONING INSPECTOR. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
- INSTALL SILT FENCE, CONSTRUCTION ENTRANCE, SKIMMER AND OTHER MEASURES AS SHOWN ON THE PLANS. CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
- CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
- THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
- FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
- THE LAND DEVELOPMENT INSPECTOR SHOULD E CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION.
- STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
- COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
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- SEDIMENT LOG
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EROSION CONTROL NOTES

SHEET NOTES

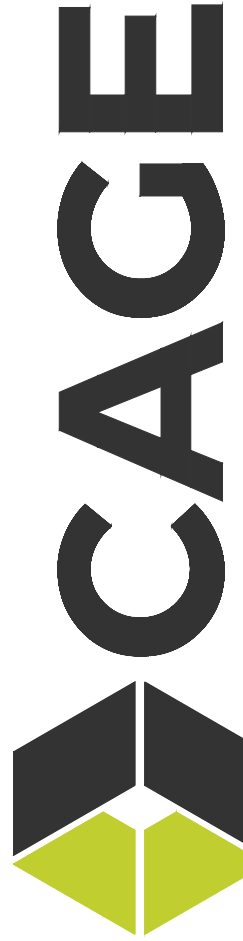
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- ALL PERIMETER AREAS AND SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITHIN 7 DAYS. GROUND STABILIZATION ON ALL OTHER AREAS MUST BE COMPLETED WITHIN 14 DAYS. REFER TO THE EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.
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SUITE 7107
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P. 630.598.0007
WWW.CAGECIVIL.COM



REVISIONS

16/10/2026
MECK COUNTY COMMENTS
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TREEHOUSE SCHOOL -
PINEVILLE, NC
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527

ENG: KHH

DATE: 2026.04.22

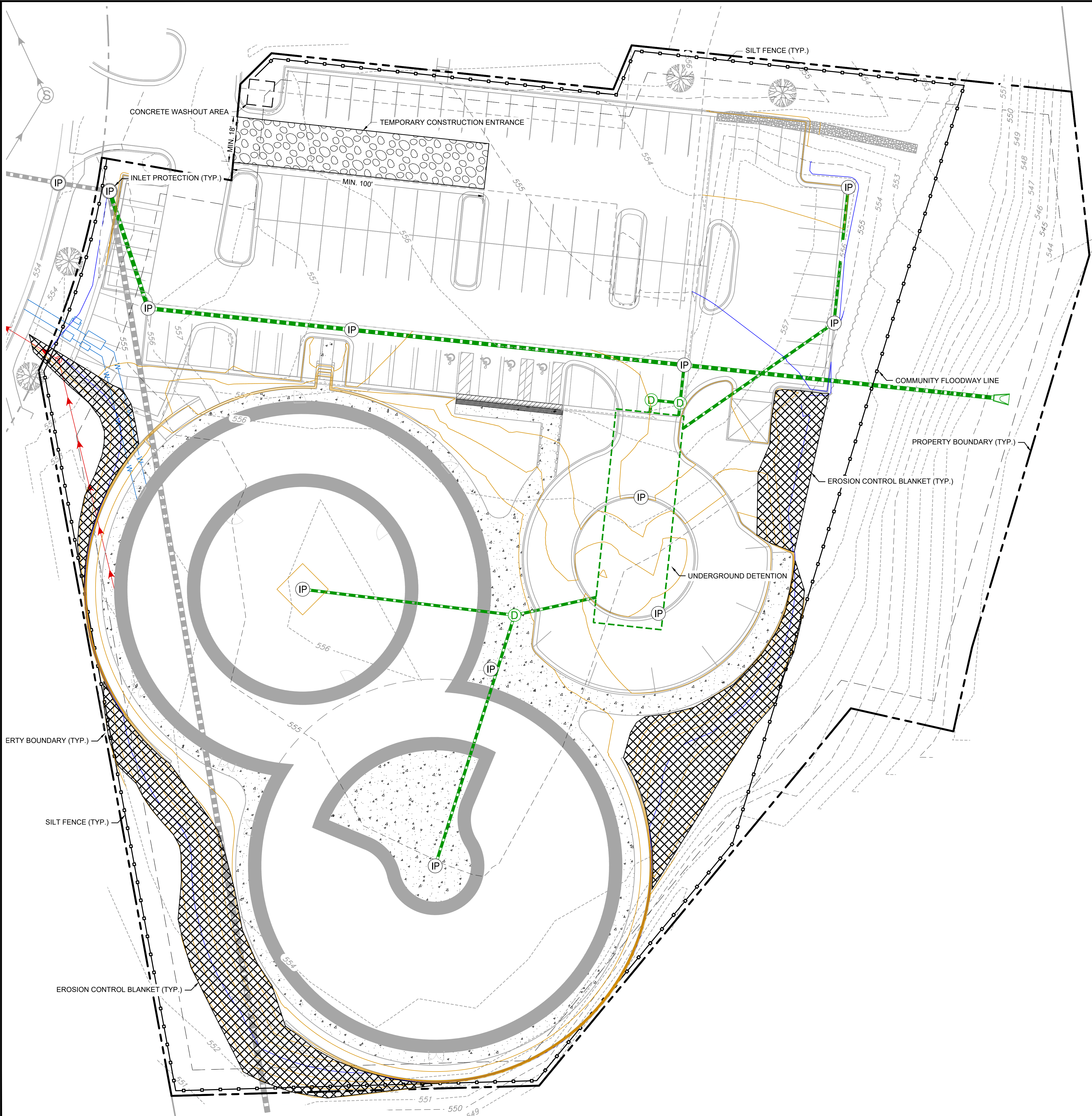
SHEET TITLE

PHASE 1 - SESC
PLAN

SHEET NUMBER

C3.0

7 OF 13



EROSION CONTROL INSPECTOR:

CONTACT:
PHONE:

CONSTRUCTION SEQUENCE (PHASE 1):

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM MECKLENBURG COUNTY LUESA, NCDOT DRIVEWAY PERMIT APPROVAL, AND CERTIFICATION OF COVERAGE (COC) FROM NCDEQ.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: LUESA EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR AND ZONING INSPECTOR. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL SILT FENCE, CONSTRUCTION ENTRANCE, SKIMMER AND OTHER MEASURES AS SHOWN ON THE PLANS. CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
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SHEET NOTES

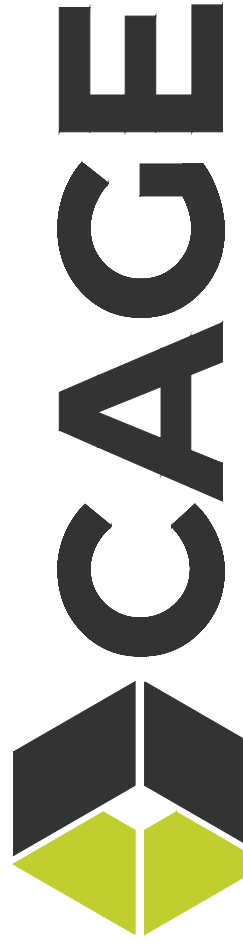
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REVISIONS

NO.	DESCRIPTION



16/10/2026
MECK COUNTY COMMENTS

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TREEHOUSE SCHOOL -
PINEVILLE, NC
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527

ENG: KHH

DATE: 2026.04.22

SHEET TITLE

PHASE 2 - SESC
PLAN

SHEET NUMBER

C3.1

8 OF 13

SECTION A: SELF-INSPECTION, RECORDKEEPING AND REPORTING

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend on holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those unattended days (this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "Zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours.	1. Identification of the measures inspected 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Indication of whether the measures were operating properly 5. Description of maintenance needs for the measure 6. Description, Evidence, and date of corrective actions taken
(3) Stormwater outfalls/SOOs	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours.	1. Identification of the discharge outfalls inspected 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration 5. Indication of visible sediment leaving the site 6. Description, Evidence, and date of corrective actions taken
(4) Perimeter of Site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours.	If visible Sedimentation is found outside site limits, then record of the following shall be made: 1) Actions taken to clean up or stabilize sediment that has left the site limits 2) Description, Evidence and date of corrective actions taken 3) An explanation as to the actions taken to control future releases
(5) Streams or wetlands on or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours.	If the stream or wetland has increased visible sedimentation or has visible increased turbidity from the construction activity, then a record of the following shall be made: 1) Description, Evidence and date of corrective actions taken 2) Records of required reports to the appropriate Division Regional Office per Part III, Section C, Item(2)(a) of this permit
(6) Ground Stabilization Measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

SECTION B: SELF-INSPECTION, RECORDKEEPING AND REPORTING

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Item to Document	Document Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report to indicate the completion of the corrective action.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

*All data used to complete the e-NOT and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:

- They are 25 gallons or more.
- They are less than 25 gallons but cannot be cleaned up within 24 hours.
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

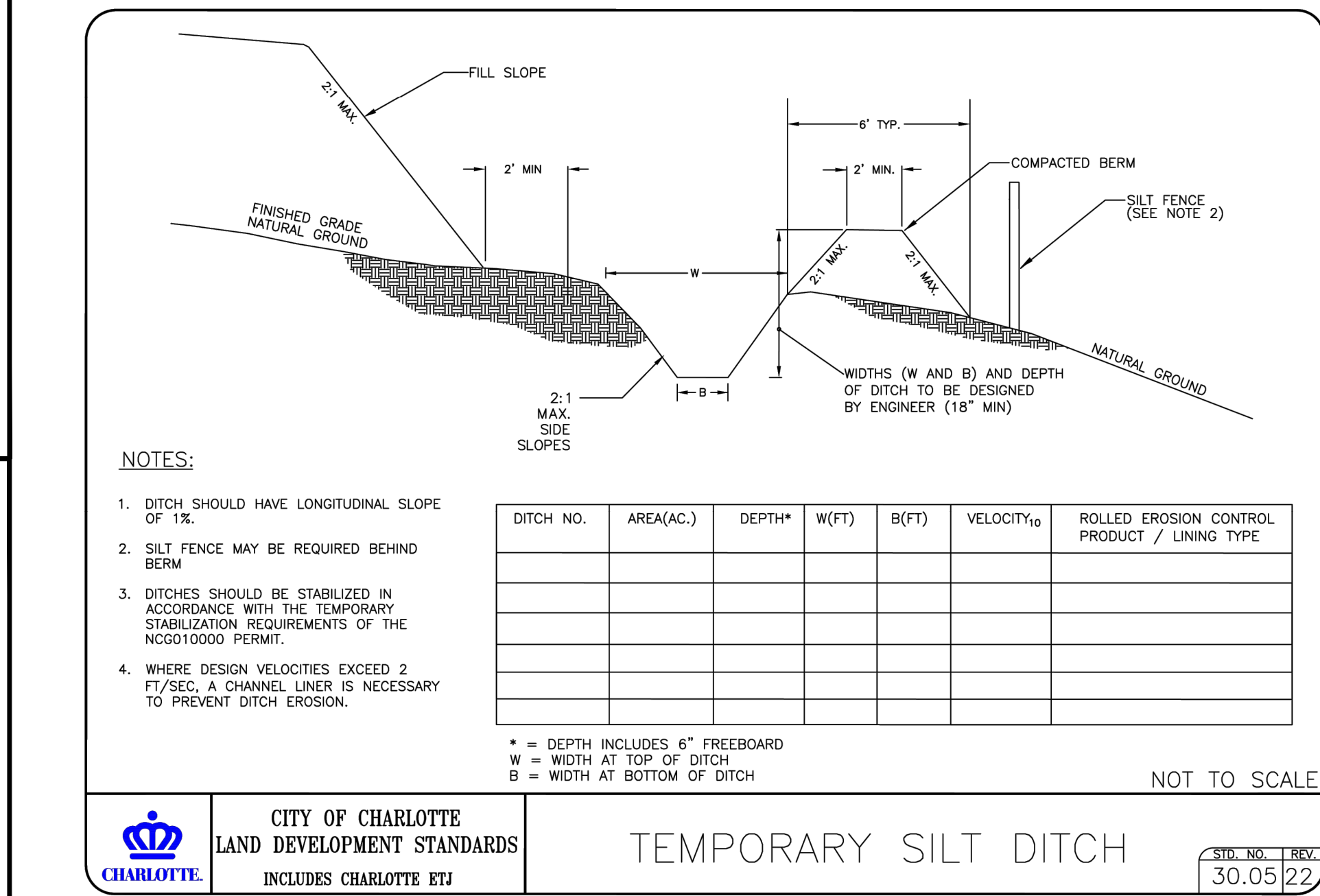
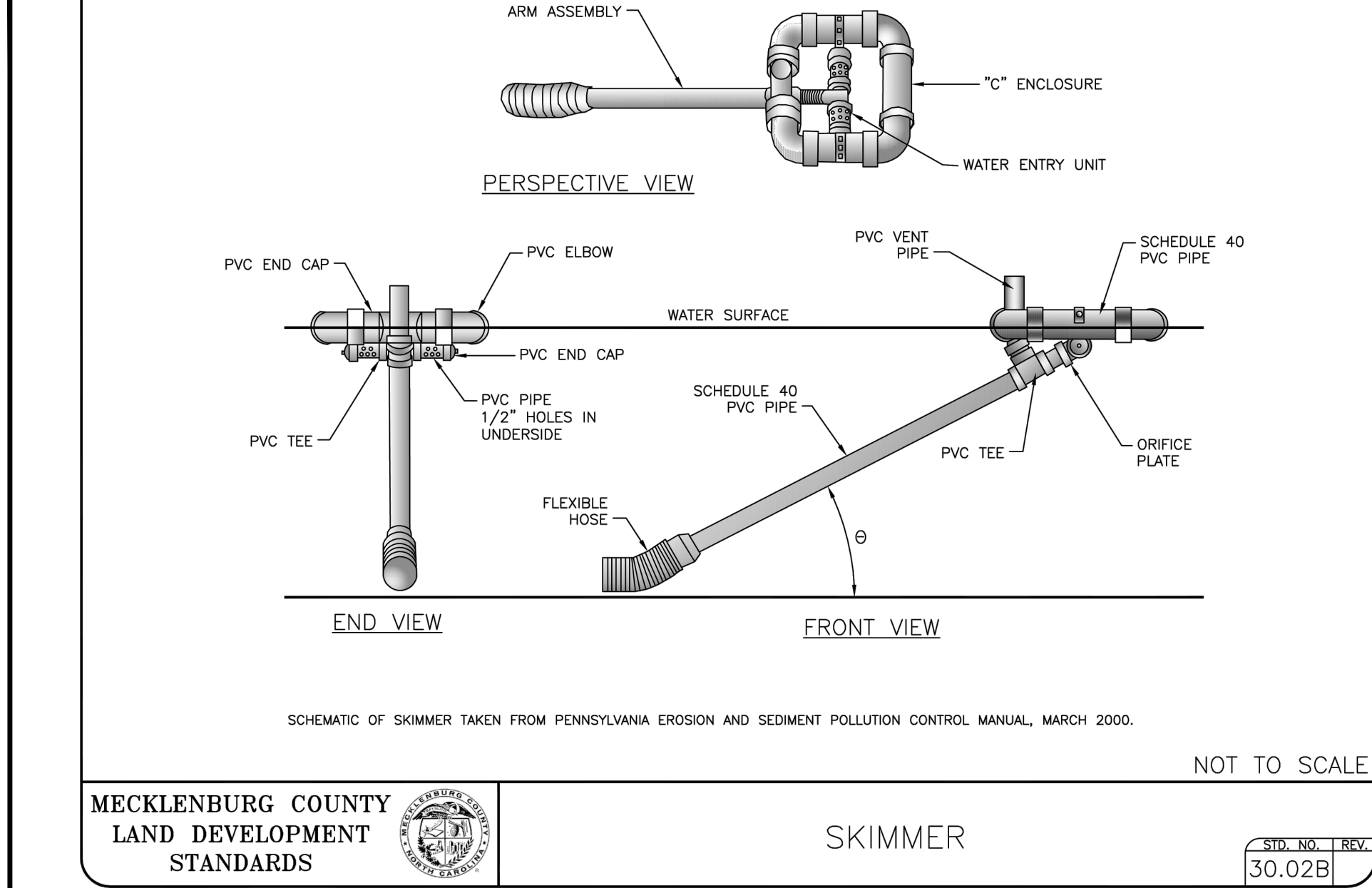
(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframe (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• Within 24 hours, an oral or electronic notification. • Within 7 Calendar Days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related caused, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per item 1(b)-(c) above	• Within 24 Hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• Within 24 Hours, an oral or electronic notification • Within 7 calendar days, a report that contains a description of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(h)(7)]	• Within 24 Hours, an oral or electronic notification • Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. [40 CFR 122.41(h)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.



GROUND STABILIZATION AND MATERIALS HANDLING PRATICES FOR COMPLIANCE WITH THE NCGO1 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCGO1 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

REQUIRED GROUND STABILIZATION

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10 feet or less in length and are not steeper than 2:1, 14 days are allowed. -7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones
(d) Slopes 3:1 to 4:1	14	-10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers. • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting (PRSM) • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

Note: The use of techniques listed above which promote and assist in establishment of vegetation does not constitute permanent stabilization prior to the establishment of permanent vegetation.

POLYACRYLAMIDES (PAMs) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMs/Flocculants

2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.

3. Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMs/Flocculants and in accordance with the manufacturer's instructions.

4. Provide ponding area for containment of treated Stormwater before discharging offsite.

5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection area on-site.

2. Place hazardous waste containers under cover or in secondary containment.

3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

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CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.

2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.

3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.

4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.

5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.

6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflows.

7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.

8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.

9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.

10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

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3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

HAZARDOUS AND TOXIC WASTE

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CAGE

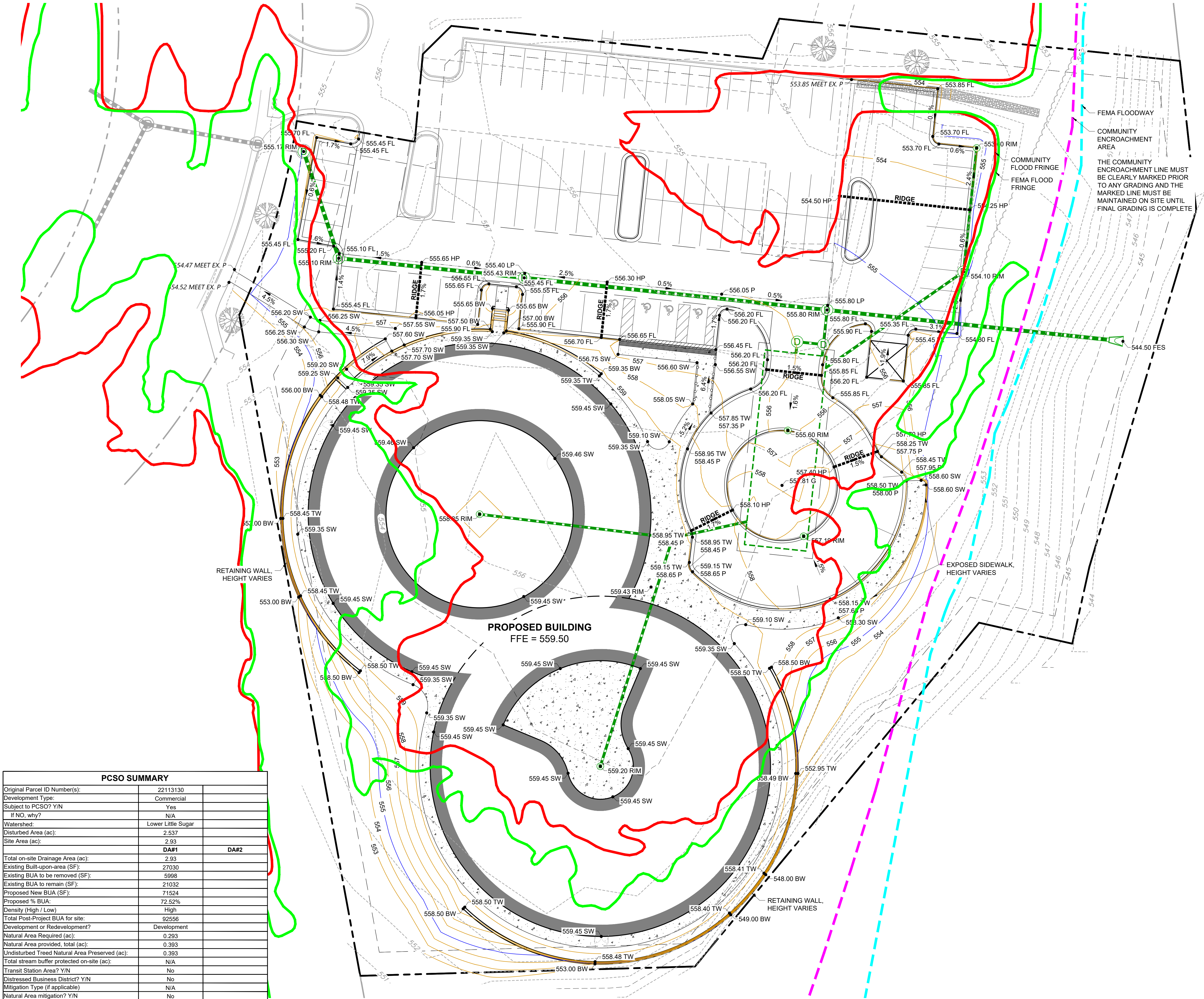
REVISIONS

6/10/2026
MECK COUNTY COMMENTS
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TREEHOUSE SCHOOL -
PINEVILLE, NC
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527
ENG: KHH
DATE: 2026.04.22
SHEET TITLE
SESC DETAILS
SHEET NUMBER
C3.3
10 OF 13

PCSO SUMMARY		
Original Parcel ID Number(s):	22113130	
Development Type:	Commercial	
Subject to PCSO? Y/N	Yes	
IF NO, why?	N/A	
Watershed:	Lower Little Sugar	
Disturbed Area (ac):	2.537	
Site Area (ac):	2.93	
	DA#1	DA#2
Total on-site Drainage Area (ac):	2.93	
Existing Built-upon-area (SF):	27030	
Existing BUA to be removed (SF):	5998	
Existing BUA to remain (SF):	21032	
Proposed New BUA (SF):	71524	
Proposed % BUA:	72.52%	
Density (High / Low)	High	
Total Post-Project BUA for site:	92556	
Development or Redevelopment?	Development	
Natural Area Required (ac):	0.293	
Natural Area provided, total (ac):	0.393	
Undisturbed Treed Natural Area Preserved (ac):	0.393	
Total stream buffer protected on-site (ac):	N/A	
Transit Station Area? Y/N	No	
Distressed Business District? Y/N	No	
Mitigation Type (if applicable)	N/A	
Natural Area mitigation? Y/N	No	
Buffer Mitigation? Y/N	No	
Total Phosphorous Mitigation? Y/N	No	



GRADING LEGEND

- 1.0% DRAINAGE ARROW
- OVERLAND FLOOD ROUTE
- 100.00 P SPOT ELEVATION
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

GRADING ABBREVIATIONS

- FL FLOWLINE
- P PAVEMENT
- G GROUND
- SW SIDEWALK
- TW TOP OF WALL
- BW BOTTOM OF WALL*
- GF GRADE AT FOUNDATION
- HP HIGH POINT
- LP LOW POINT
- M/E MEET EXISTING
- TF TOP OF FOUNDATION

* BOTTOM OF WALL GRADES INDICATE THE GROUND ELEVATION AT THE LOW SIDE OF THE RETAINING WALL.

GRADING PLAN NOTES

- CONTRACTOR TO REFER TO THE GEOTECHNICAL REPORT TO ENSURE ALL MINIMUM SLOPE REQUIREMENTS ARE MET.
- THE MAXIMUM SLOPE WITHIN ANY ADA PARKING AND/OR ADA ACCESS AREA SHALL BE 2.00% IN ANY DIRECTION.
- ALL SIDEWALKS (NOT INCLUDING STAIRS) SHALL HAVE A MAXIMUM 5% LONGITUDINAL SLOPE AND 2% CROSS SLOPE. ALL RAMPS SHALL HAVE A MINIMUM 8.33% LONGITUDINAL SLOPE AND 2% CROSS SLOPE.

SHEET NOTES

STORMWATER MANAGEMENT FACILITY SUMMARY
BOTTOM OF BASIN = 545.00
50-YR HWL = 556.79
EMERGENCY OVERFLOW WEIR = 557.00
STORAGE (545.00 - 554.00) = 16,704.50 CF

BUA SUMMARY CHART

PROJECT NAME	TREEHOUSE SCHOOL
SITE AREA	127,632 SF
ROAD/PARKING	33,107 SF
CURB & GUTTER	3,180 SF
CONCRETE PADS	320 SF
SIDEWALK	7,094 SF
BUILDING	27,825 SF
TOTAL BUA	71,526 SF
TOTAL MAX SITE BUA % SF	56.04%

NOTE THAT A BUA AS-BUILT SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF BMP AS-BUILT APPROVAL

OPEN SPACE REQUIREMENTS

REQUIRED AREA	12,763 SF
PROVIDED AREA	17,119 SF

BMP INSERT TABLE

UNDERGROUND DETENTION

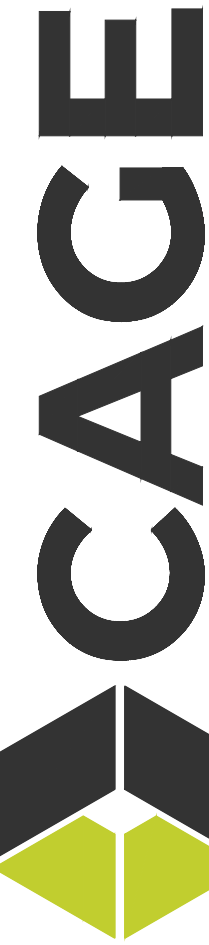
PROJECT NAME	TREEHOUSE SCHOOL
SEQUENCE ID	1
DRAINAGE AREA (ACRES)	2.93
LAND USE/DEVELOPMENT TYPE	COMMERCIAL
VEGETATION TYPE	GRASSED
PERCENT BUILT-UPON AREA	56.04%
MAXIMUM DEPTH (FT)	9
DETENTION BASIN TYPE	UNDERGROUND
FOREBAY PRESENT (Y/N)	N
FLOW DIVERTER PRESENT (Y/N)	N
REGULATED BY	PCSO & WATERSHED OVERLAY
TREATMENT EFFECTIVENESS	OPTIMAL



0 20' 40'
1" = 20' (HORIZONTAL)



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REVISIONS

16/10/2026
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TREEHOUSE SCHOOL -
PINEVILLE, NC
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527

ENG: KHH

DATE: 2026.04.22

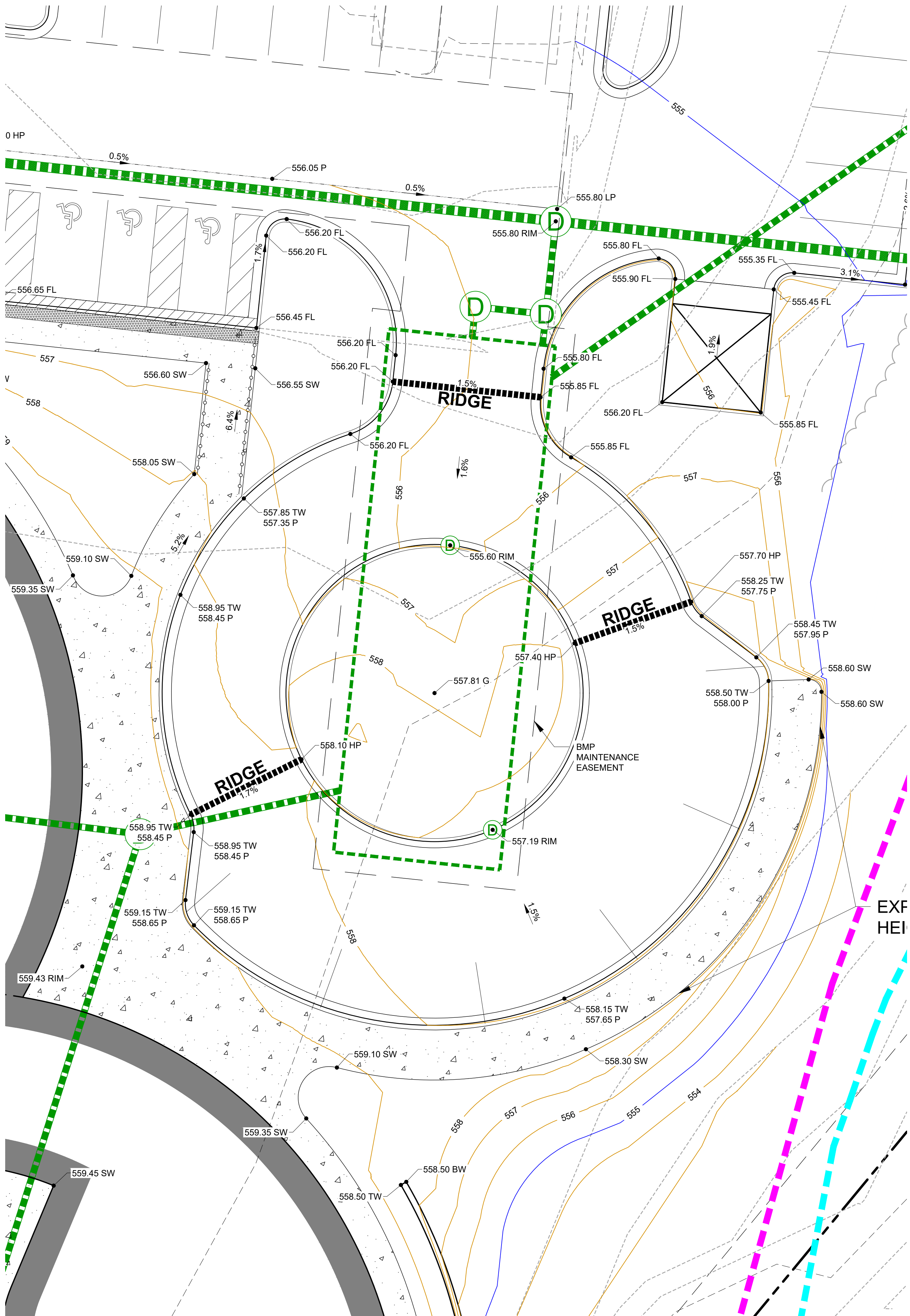
SHEET TITLE

GRADING
PLAN

SHEET NUMBER

C4.0

11 OF 13



SUMMARY OF CONTROLS			
CONTROL ELEMENT	TYPE/SIZE OF CONTROL	PEAK ELEVATION	Q (CFS)
WATER QUALITY VOLUME	CONTECH STORM FILTER	547.70	0.09
CHANNEL PROTECTION VOLUME	CONTECH STORM FILTER	550.11	3.89
10-YR STORM EVENT	CONTECH STORM FILTER, 10" ORIFICE @548.75, & 4" WEIR @ 551.25	550.46	4.19
50-YR STORM EVENT	CONTECH STORM FILTER, 10" ORIFICE @ 548.75, & 4" WEIR @551.25	552.20	23.99

UNDERGROUND DETENTION POND SUMMARY				
PEAK CONTROL STORM EVENT	PRE-DEVELOPMENT RUNOFF	POST-DEVELOPMENT RUNOFF	POST-ROUTING RUNOFF	ELEVATION
EMERGENCY OVERFLOW WEIR	--	--	--	551.25
50-YR, 6-HR	4.71	6.07	2.74	719.54
25-YR, 6-HR	6.35	7.44	5.33	551.17
10-YR, 6-HR	4.90	6.04	4.19	550.46
UNDERGROUND DETENTION POND MAX ALLOWABLE BUA				SF
BMP	REQUIRED	PROVIDED	ELEVATION	
CHANNEL PROTECTION VOLUME (CPV)	3,114	3,114	717.45	
WATER QUALITY VOLUME (WQV)	3,920	4,165	715.00	
SAND FILTER	4004	25	712.25	
TOTAL SITE MAX ALLOWABLE BUA				

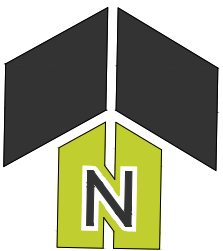
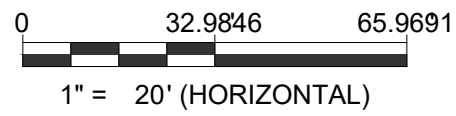
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TREATMENT EFFECTIVENESS	OPTIMAL

STORMWATER MANAGEMENT FACILITY SUMMARY

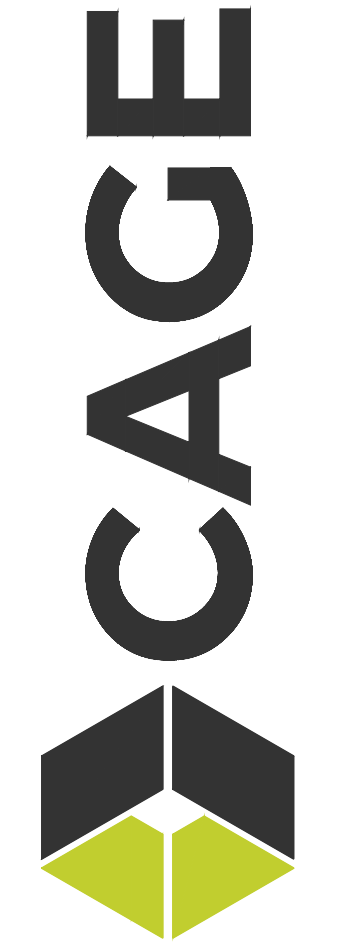
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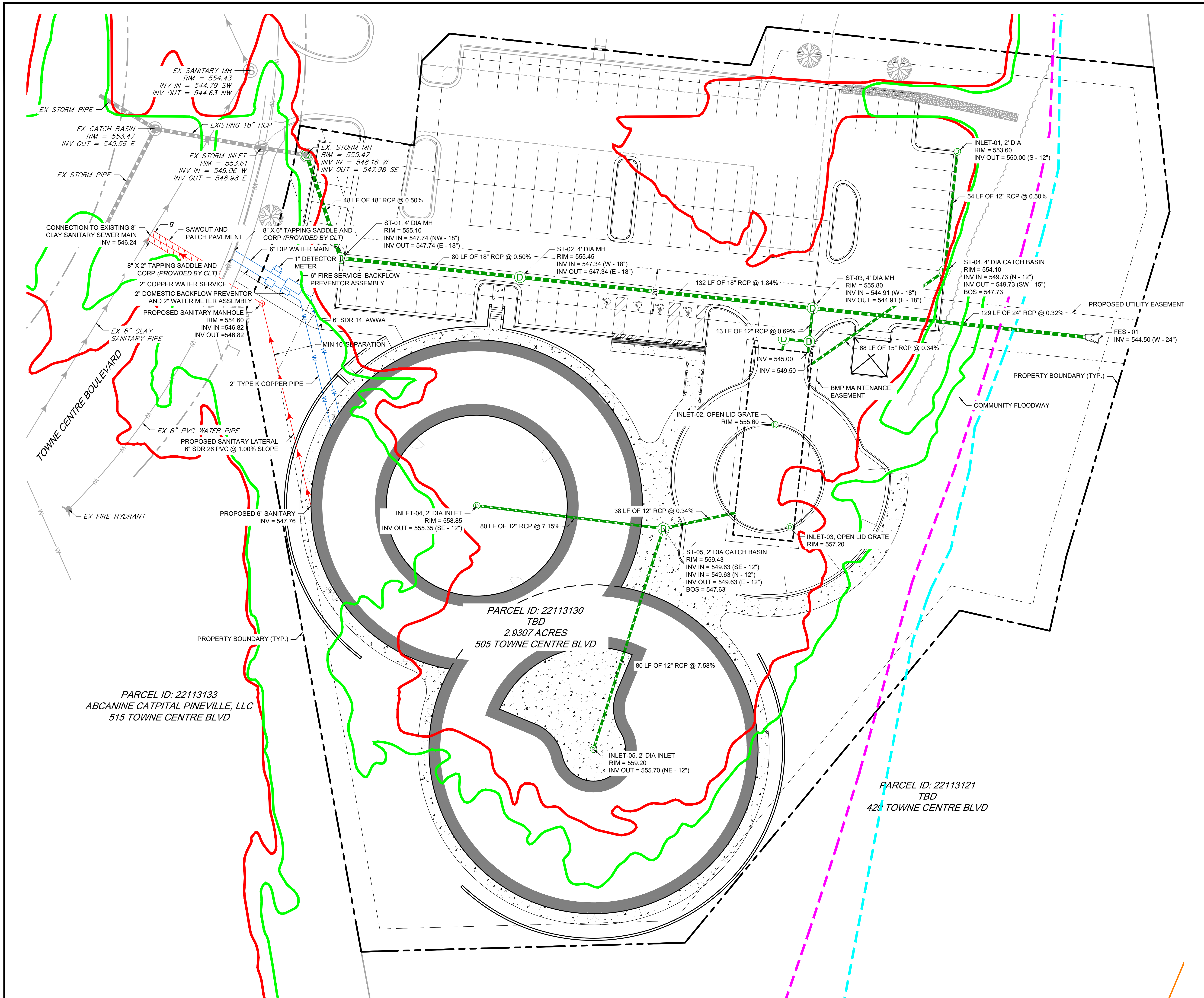
REVISIONS

TREEHOUSE SCHOOL -
PINEVILLE, NC
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527
ENG: KHH
DATE: 2026.04.22

SHEET TITLE
BMP
DETAILS

SHEET NUMBER
C4.1
12 OF 13



UTILITY LEGEND

PROPOSED SANITARY SEWER

PROPOSED SANITARY MANHOLE

PROPOSED SANITARY CLEANOUT

PROPOSED WATER LINE

PROPOSED WATER VALVE BOX

PROPOSED STORM PIPE

PROPOSED STORM STRUCTURE

EXISTING SANITARY SEWER LINE

EXISTING WATER LINE

EXISTING STORM PIPE

EXISTING FIRE HYDRANT

EXISTING WATER VALVE

EXISTING SANITARY MANHOLE

BACKFLOW PREVENTION NOTE(S)

1. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER-USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CLT WATER-REQUIRED BACKFLOW PREVENTOR.

2. EACH CHARLOTTE WATER-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CHARLOTTE WATER-APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE.

CLT WATER NOTE(S)

1. CUSTOMER IS RESPONSIBLE FOR STAKING AS NECESSARY TO DETERMINE SERVICE LOCATIONS & ELEVATIONS PRIOR TO CLT WATER CONTRACTOR MOBILIZING TO INSTALL SERVICES. SITE ADDRESS MUST BE VISIBLY POSTED AT SITE.

2. ON-SITE CONTRACTOR IS RESPONSIBLE FOR RELOCATING ANY APPLICABLE CONFLICTING UTILITIES NECESSARY TO COMPLETE SERVICE INSTALLATIONS. ADDITIONAL FEES MAY APPLY & CONSTRUCTION TIME LINES EXTENDED IF CONFLICTING UTILITIES ARE NOT SHOWN ON PLANS. WATER AND SEWER CONNECTIONS SHALL NOT BE LOCATED WITHIN PROPOSED CONSTRUCTION ENTRANCES.

3. PAVEMENT FOR QUOTED SERVICE CONNECTION SHALL BE CONSIDERED ACKNOWLEDGEMENT & APPROVAL OF CLT WATER COMMENTS BY THE APPLICANT; PAYMENT DOES NOT INCLUDE ANY ADDITIONAL FEES REQUIRED DUE TO UNFORESEEN CONDITIONS THAT ARE/WERE NOT DEPICTED ON THE SITE PLAN PROVIDED BY THE APPLICANT.

4. BACKFLOW PREVENTION REVIEW SHALL BE COORDINATED THROUGH MECKLENBURG COUNTY CODE ENFORCEMENT PERMITTING PROCESS AT TIME OF APPLICATION FOR BUILDING PERMITS. THESE REQUIREMENTS CAN BE FOUND AT [HTTP://WWW.CHARLOTTENC.GOV/WATER/CUSTOMER-CARE/BACKFLOW](http://www.charlottenc.gov/water/customer-care/backflow). ANY REVISION TO TAP AND/OR METER LOCATIONS MAY BE SUBJECT TO RE-SUBMITTAL TO BACKFLOW FOR REVIEW.

5. CLT WATER WILL INSTALL THE 8" LATERAL INTO THE EXISTING MANHOLE AND BRING INSIDE THE R/W AS SHOWN. CLT WATER WILL INSTALL A 4"x4" POST TO MARK THE LOCATION OF THE PRIVATE MANHOLE JUST BEYOND THE R/W.

6. IF YOUR WATER CONNECTION IS 2" OR LARGER AND SERVING MORE THAN ONE STRUCTURE, YOU MUST SUBMIT FOR A CLTW PRIVATE WATER PERMIT - VISIT WEBSITE FOR PRIVATE WATER PERMITTING INFORMATION [HTTP://WWW.CHARLOTTENC.GOV/WATER/DEVELOPMENT/BUSINESS/PRIVATE-WATER-PERMITTING](http://www.charlottenc.gov/water/development/business/private-water-permitting).

7. THE ALTERNATE INSTALL PROGRAM IS AVAILABLE PER THE OWNER'S REQUEST TO HELP EXPEDITE INSTALLATION AND CONSTRUCTION SCHEDULES. FOR MORE INFORMATION REGARDING THE ALTERNATE INSTALL PROGRAM PLEASE CONTACT MARCUS STALLINGS AT: [MARCUS.STALLINGS@CHARLOTTENC.GOV](mailto:marcus.stallings@charlottenc.gov)

ATTENTION:

CHARLOTTE WATER IS ENFORCING THE REQUIREMENTS OF THE NEW DESIGN MANUAL FOR THIS PROJECT.

NATE KAMPHAUS - PLANS REVIEW
CHARLOTTE WATER
5100 BROOKSHIRE BOULEVARD, CHARLOTTE, NC 28216
P: 980.346.1324 / CHALOTTewater.org

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REVISIONS

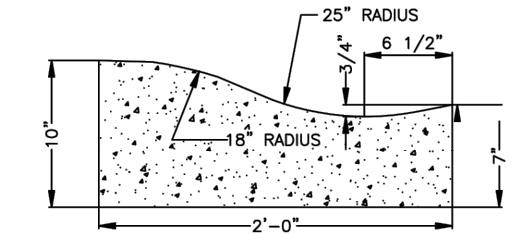
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MECKLENBURG COUNTY COMMENTS
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PINEVILLE, NC
505 Towne Centre Blvd
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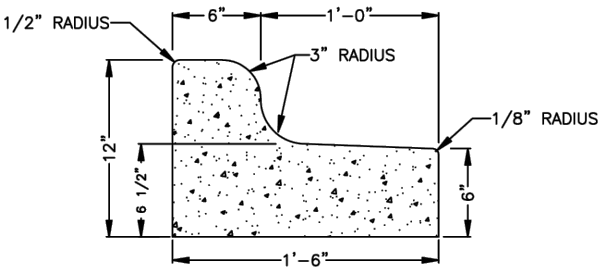
PROJ NO: 250527
ENG: KHH
DATE: 2026.04.22
SHEET TITLE
UTILITY PLAN
SHEET NUMBER
C5.0
12 OF 13

0 20' 40'
1" = 20' (HORIZONTAL)

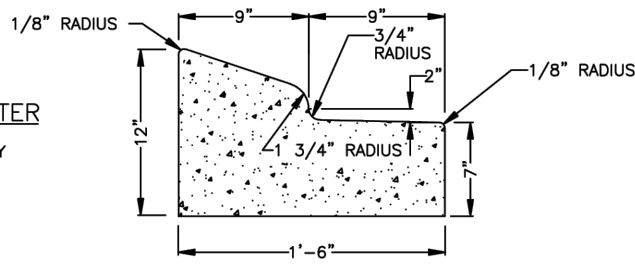
2'-0" VALLEY GUTTER



1'-6" MEDIAN CURB AND GUTTER
TO BE USED IN MEDIANS WHEN LANES ARE SLOPED FROM ISLAND OR AS SPECIFIED BY THE ENGINEER.



1'-6" MOUNTABLE CURB AND GUTTER
TO BE USED IN MEDIANS ONLY: WHEN SPECIFIED BY THE ENGINEER.



APPROVED DATE: 02/2007

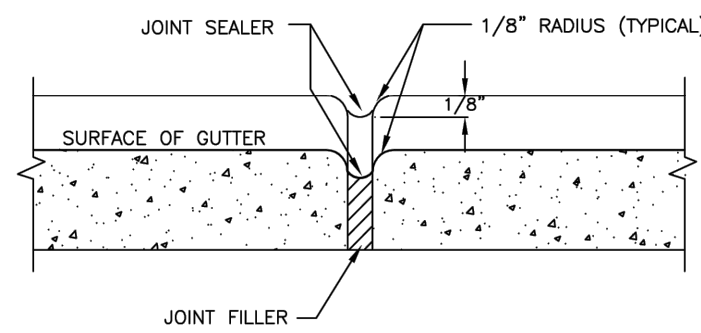
NOT TO SCALE

MECKLENBURG COUNTY
LAND DEVELOPMENT
STANDARDS



CURB AND GUTTER

STD. NO.	REV.
10.17B	



TRANSVERSE EXPANSION JOINT

NOTES:

- CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. FOR VALLEY GUTTER, A 10-FOOT SPACING MAY BE USED WHEN A MACHINE IS USED. JOINT SPACING MAY BE ALTERED BY THE COUNTY ENGINEER TO PREVENT UNCONTROLLED CRACKING.
- CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2" SHALL BE OBTAINED.
- ALL EXPANSION JOINTS SHALL BE SPACED AT 90-FOOT INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS. JOINTS SHALL MATCH LOCATIONS WITH JOINTS IN ABUTTING SIDEWALK.
- CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 P.S.I. IN 28 DAYS.
- CURB SHALL BE DEPRESSED AT INTERSECTIONS TO PROVIDE FOR FUTURE ACCESSIBLE RAMPS.
- TOP 6" OF SUBGRADE BENEATH THE CURB AND GUTTER SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY.

APPROVED DATE: 02/2007

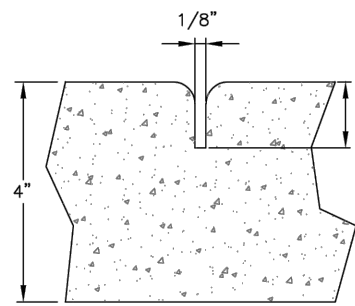
NOT TO SCALE

MECKLENBURG COUNTY
LAND DEVELOPMENT
STANDARDS

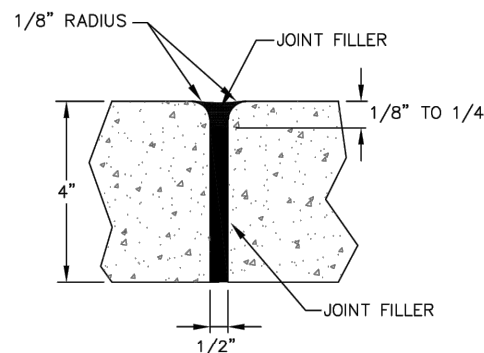


CONCRETE CONTRACTION JOINT

STD. NO.	REV.
10.17C	



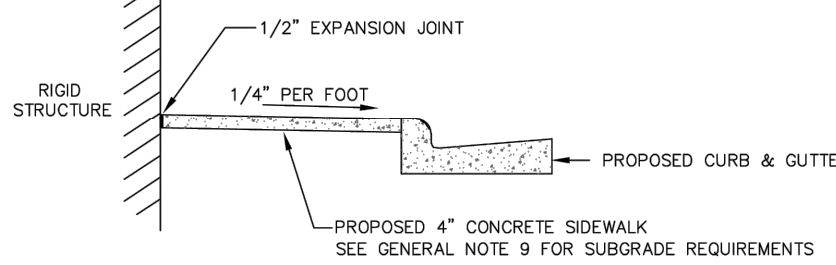
GROOVE JOINT IN SIDEWALK



TRANSVERSE EXPANSION JOINT IN SIDEWALK

GENERAL NOTES:

- A GROOVE JOINT 1" DEEP WITH 1/8" RADI SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS NOT TO EXCEED 50' AND MATCHING EXPANSION/CONSTRUCTION JOINT IN ADJACENT CURB. A SEALED 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
- SIDEWALK AT DRIVEWAY ENTRANCES TO BE 6" THICK.
- WIDTH OF SIDEWALK ON THOROUGHFARE STREETS SHALL BE A MINIMUM OF 5'. WIDTH OF SIDEWALKS IN THE CENTRAL BUSINESS DISTRICT WILL BE DETERMINED BY THE TOWN PLANNING DEPT..
- WIDTH OF SIDEWALKS ON NON-THOROUGHFARE STREETS SHALL BE A MINIMUM OF 5'.
- SIDEWALK TO BE POURED TO END OF RADIUS AT INTERSECTING STREETS.
- CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 PSI. IN 28 DAYS.
- ZONING CONDITIONS MAY REQUIRE ADDITIONAL WIDTH SIDEWALKS WHICH SHALL SUPERSEDE THESE STANDARD DIMENSIONS SHOWN.
- TRANSVERSE EXPANSION JOINTS SHALL BE FILLED WITH AN ELASTIC EPOXY FROM THE FILLER TO FLUSH WITH THE TOP OF THE SIDEWALK.
- CONCRETE SHALL BE PLACED ON MINIMUM 6" ABC STONE COMPACTED TO 95% DENSITY, OR PLACED ON SUBGRADE COMPACTED TO 95% DENSITY WITH GEOTEXT 1100 MAT.



DETAILS SHOWING EXPANSION JOINTS IN CONCRETE SIDEWALK

NOT TO SCALE

REV.	DATE
2/29/20	
STD. NO.	REV.
10.22	4

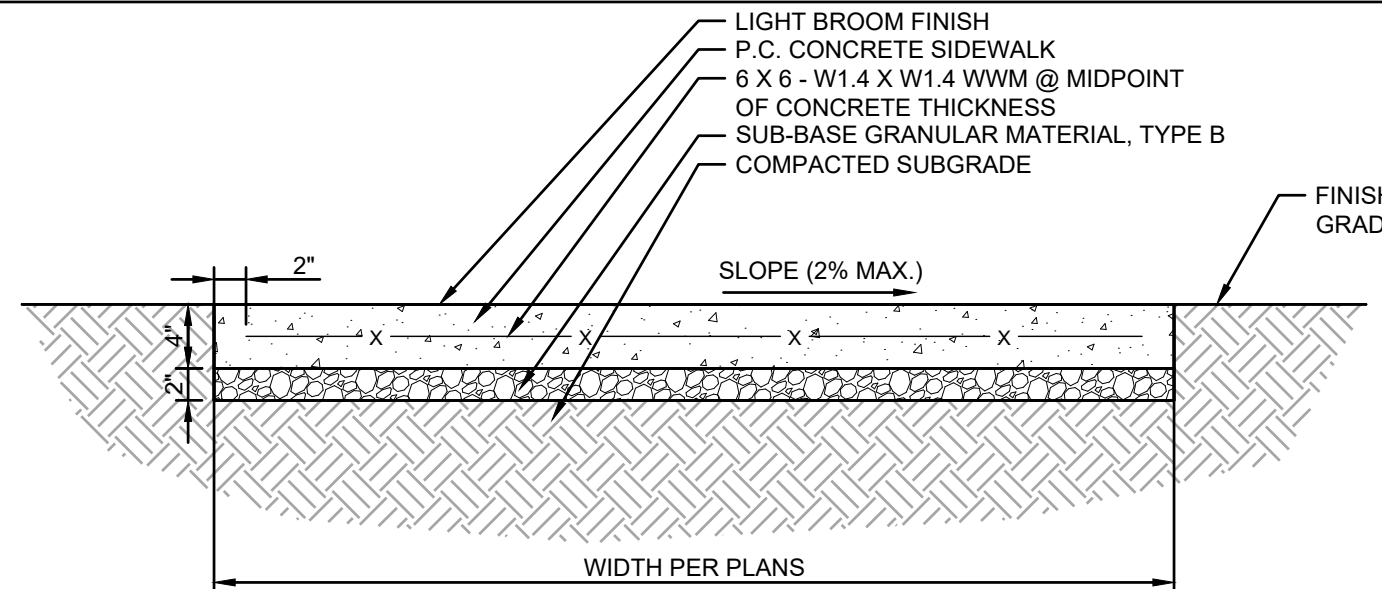
CONCRETE SIDEWALKS



TOWN OF PINEVILLE
LAND DEVELOPMENT
STANDARDS

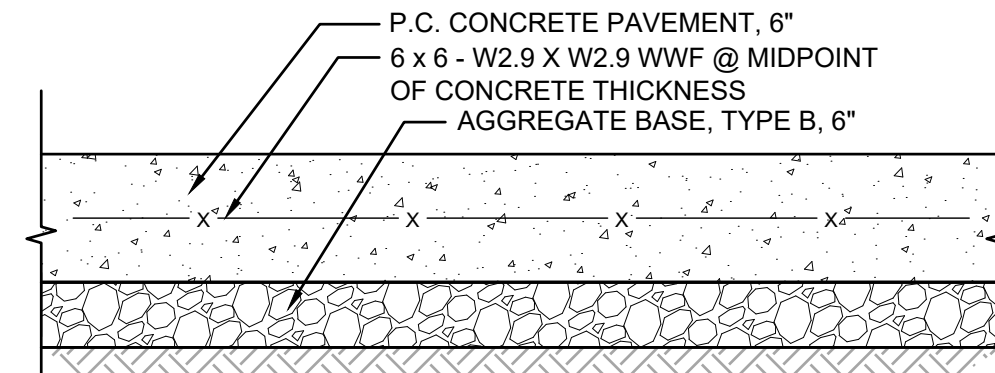
CONCRETE SIDEWALK JOINTING

Scale: NOT TO SCALE



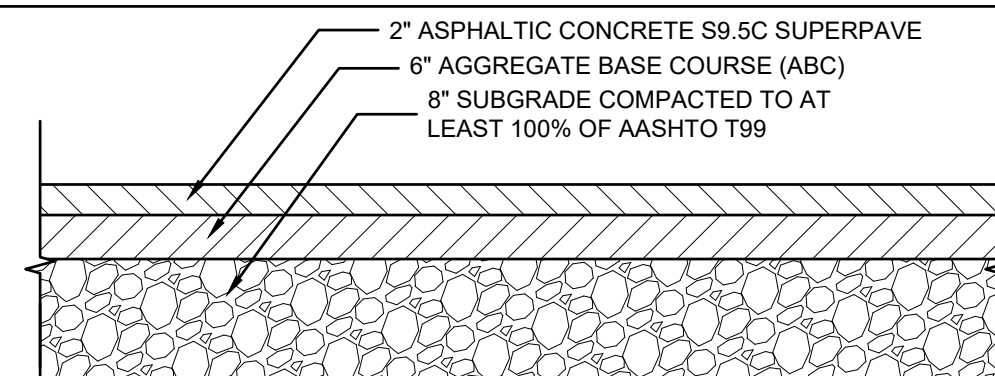
SIDEWALK STANDARD DETAIL

Scale: NOT TO SCALE



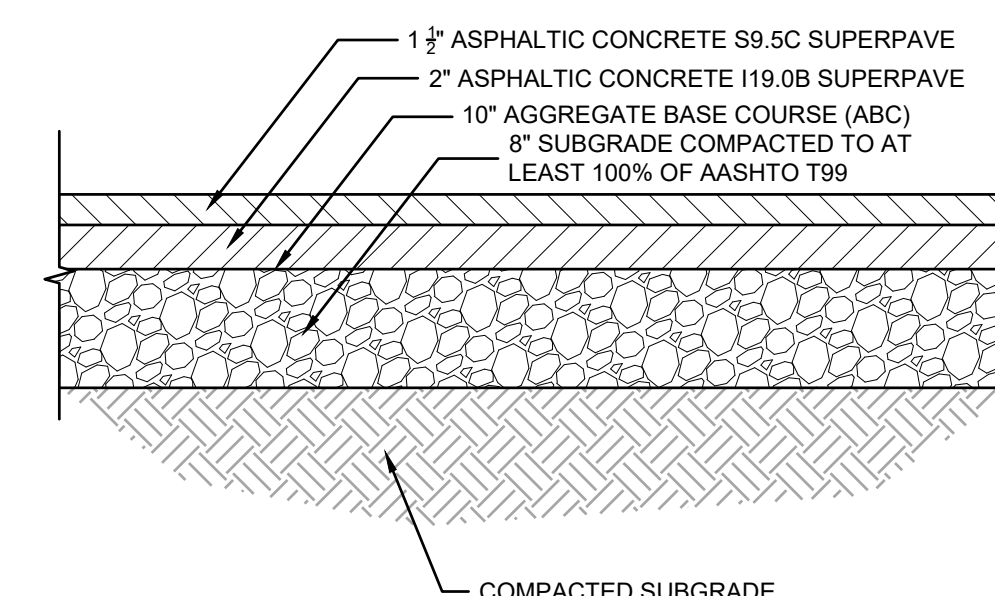
HEAVY DUTY PCC PAVEMENT DETAIL

Scale: NOT TO SCALE



STANDARD DUTY ASPHALT DETAIL

Scale: NOT TO SCALE



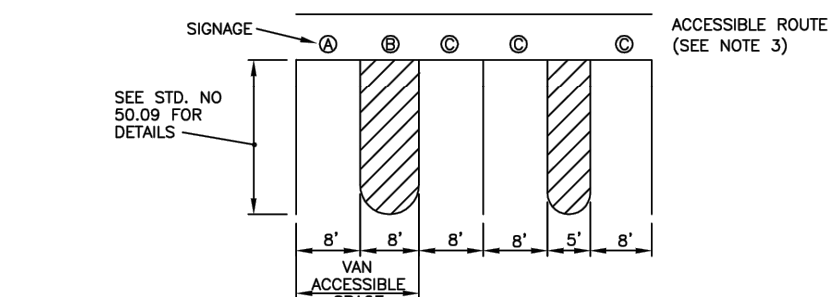
HEAVY DUTY ASPHALT PAVEMENT

Scale: NOT TO SCALE

ACCESSIBLE PARKING REQUIREMENTS

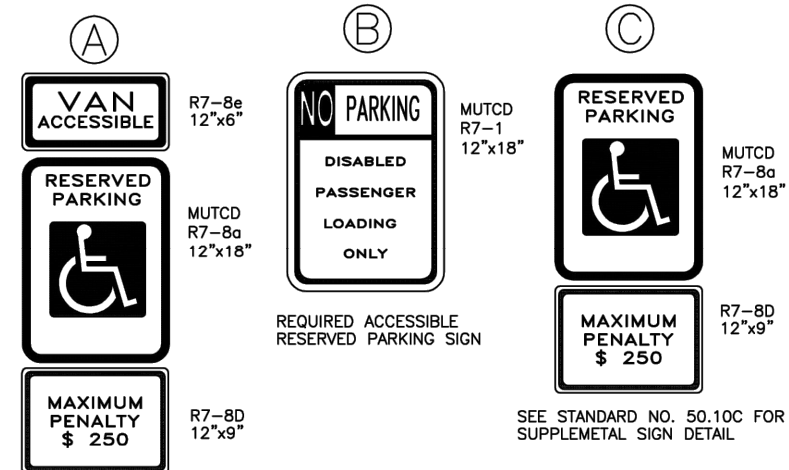
TOTAL PARKING SPACES PROVIDED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED TO BE VAN ACCESSIBLE
1 TO 25	1	1
26 TO 50	2	1
51 TO 75	3	1
76 TO 100	4	1
101 TO 150	5	1
151 TO 200	6	1
201 TO 300	7	1
301 TO 400	8	1
401 TO 500	9	2
501 TO 1000	2% OF TOTAL	1 IN EVERY 8 ACCESSIBLE SPACES
1001 AND OVER	20 PLUS 1 FOR EACH 100 OVER 1000	1 IN EVERY 8 ACCESSIBLE SPACES

- NOTES:
- ALL 12"x18" ACCESSIBLE SIGNS (R7-8a & R7-1) SHALL BE MOUNTED AT 7 FEET FROM GRADE TO BOTTOM EDGE OF SIGN FACE (MUTCD). MOUNTING HEIGHT CAN BE REDUCED TO 5 FEET IF PLACED IN AN AREA BETWEEN SIDEWALK AND BUILDING FACE IN WHICH PEDESTRIANS ARE NOT EXPECTED TO USE.
 - REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) U.S. DEPARTMENT OF TRANSPORTATION AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SUPPLEMENT.
 - IF ACCESSIBLE ROUTE IS A RAISED SIDEWALK AREA, THEN RAMPS ARE REQUIRED AT LOADING ZONE AREA.



ONE OUT OF EVERY EIGHT (8) ACCESSIBLE SPACES, BUT NOT LESS THAN ONE, IS REQUIRED TO BE VAN ACCESSIBLE.

PARKING SPACE PAVEMENT MARKINGS



SEE STANDARD NO. 50.10B & 50.10C FOR SUPPLEMENTAL SIGN DETAIL

APPROVED DATE: 02/2007

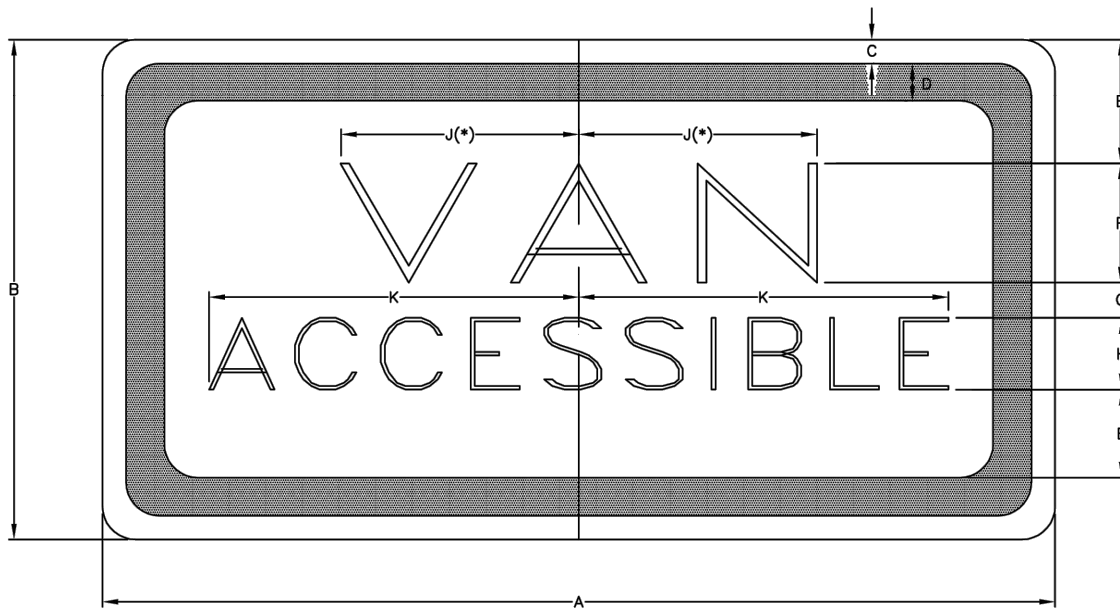
NOT TO SCALE

MECKLENBURG COUNTY
LAND DEVELOPMENT
STANDARDS



ACCESSIBLE PARKING AND SIGNAGE STANDARDS

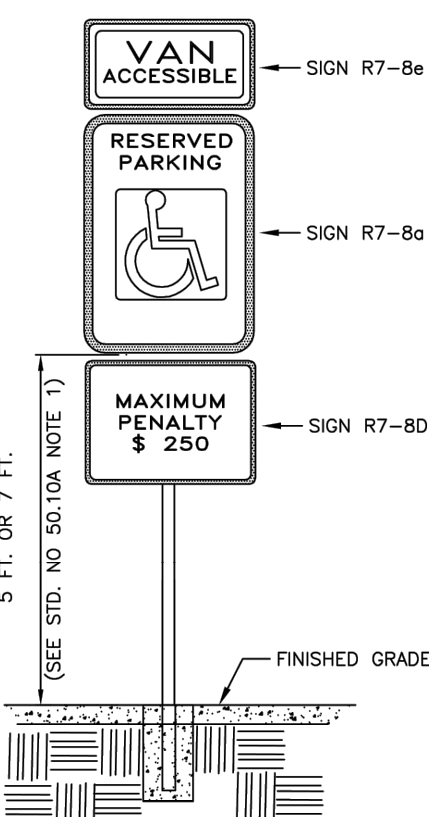
STD. NO.	REV.
50.10A	



R7-8e											
A	B	C	D	E	F	G	H	J	K	L	
12	6	3/8	3/8	1-1/2	1-1/2	1/2	10	2-1/2	4	1-1/2	

* INCREASE SPACING 50%
D-TYPICAL (FEDERAL HIGHWAY ADMINISTRATION/USDOT)
SERIES D LETTERS

LEGEND AND BORDER - GREEN
BACKGROUND - WHITE



APPROVED DATE: 02/2007

NOT TO SCALE

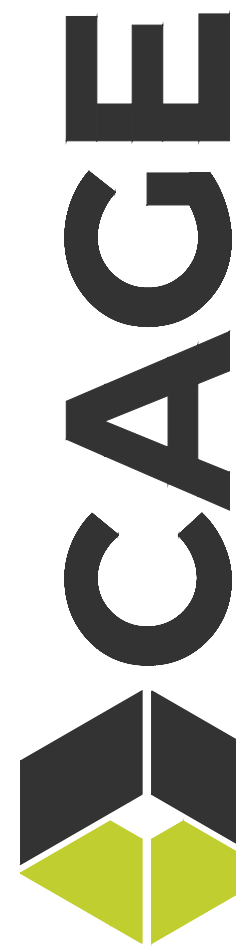
MECKLENBURG COUNTY
LAND DEVELOPMENT
STANDARDS



SUPPLEMENTAL ACCESSIBLE SIGN (R7-8e)

STD. NO.	REV.
50.10B	

1515 MOCKINGBIRD LANE
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16/10/2026
MECK COUNTY COMMENTS

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PINEVILLE, NC
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527

ENG: KHH

DATE: 2026.04.22

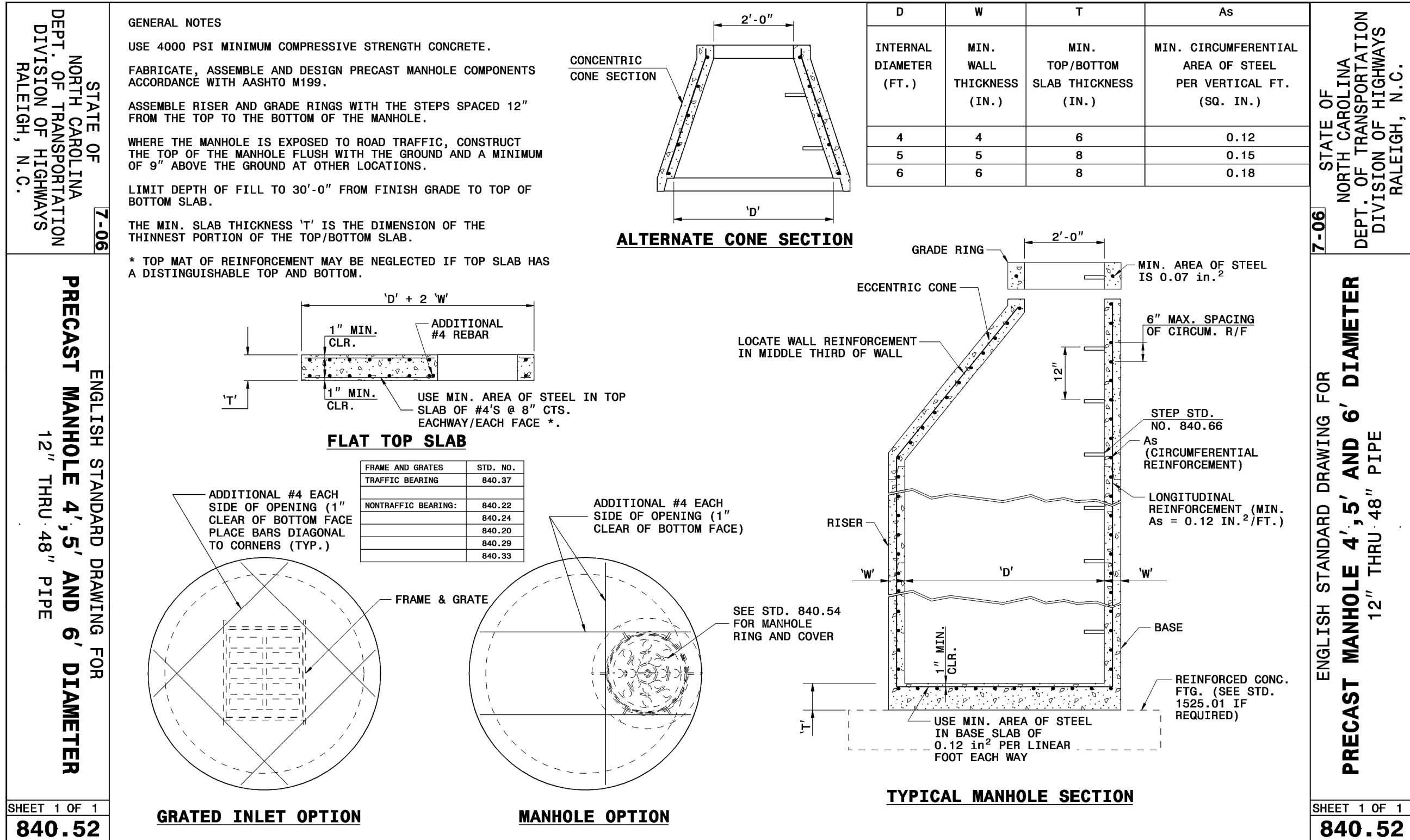
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CONSTRUCTION
DETAILS

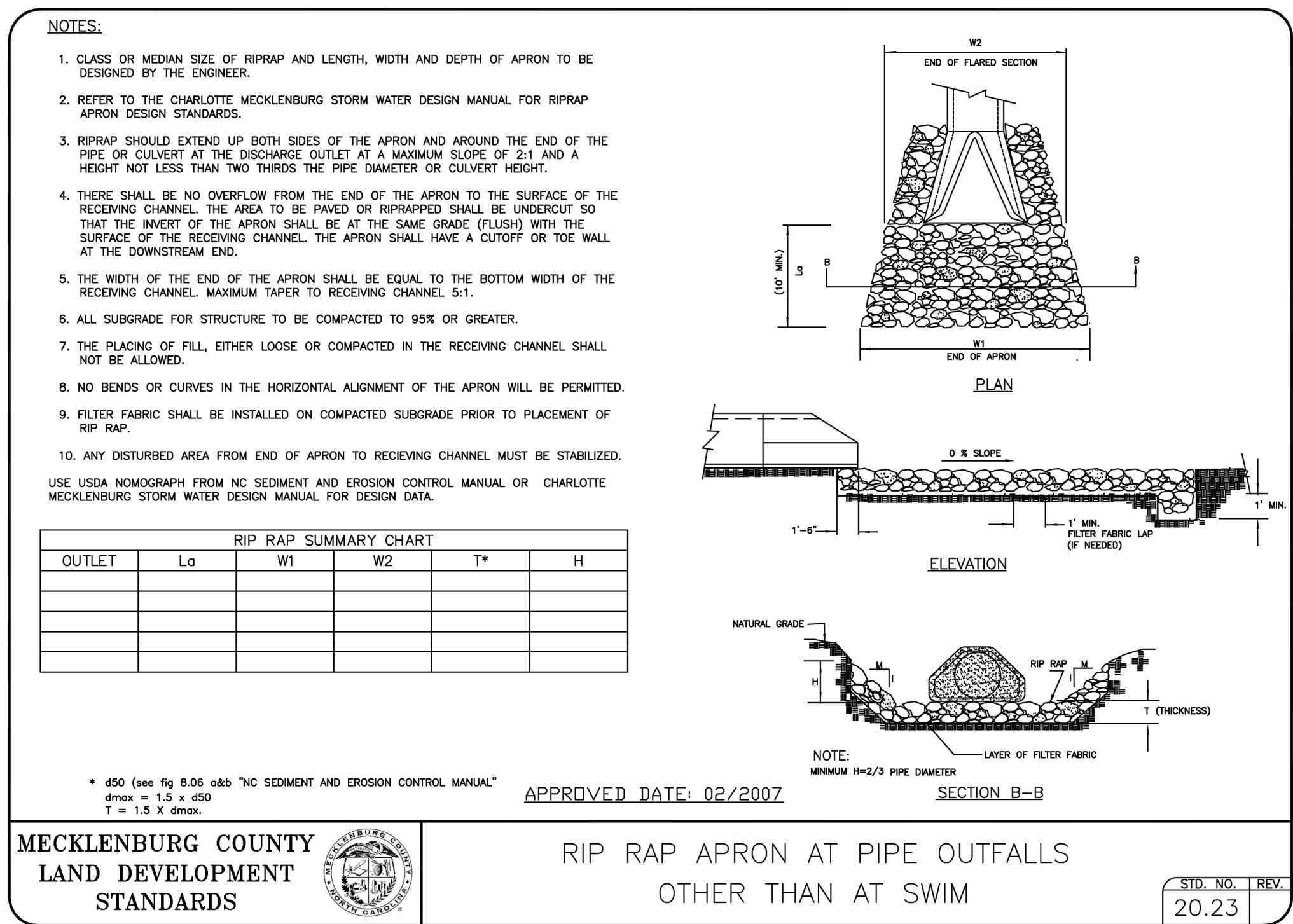
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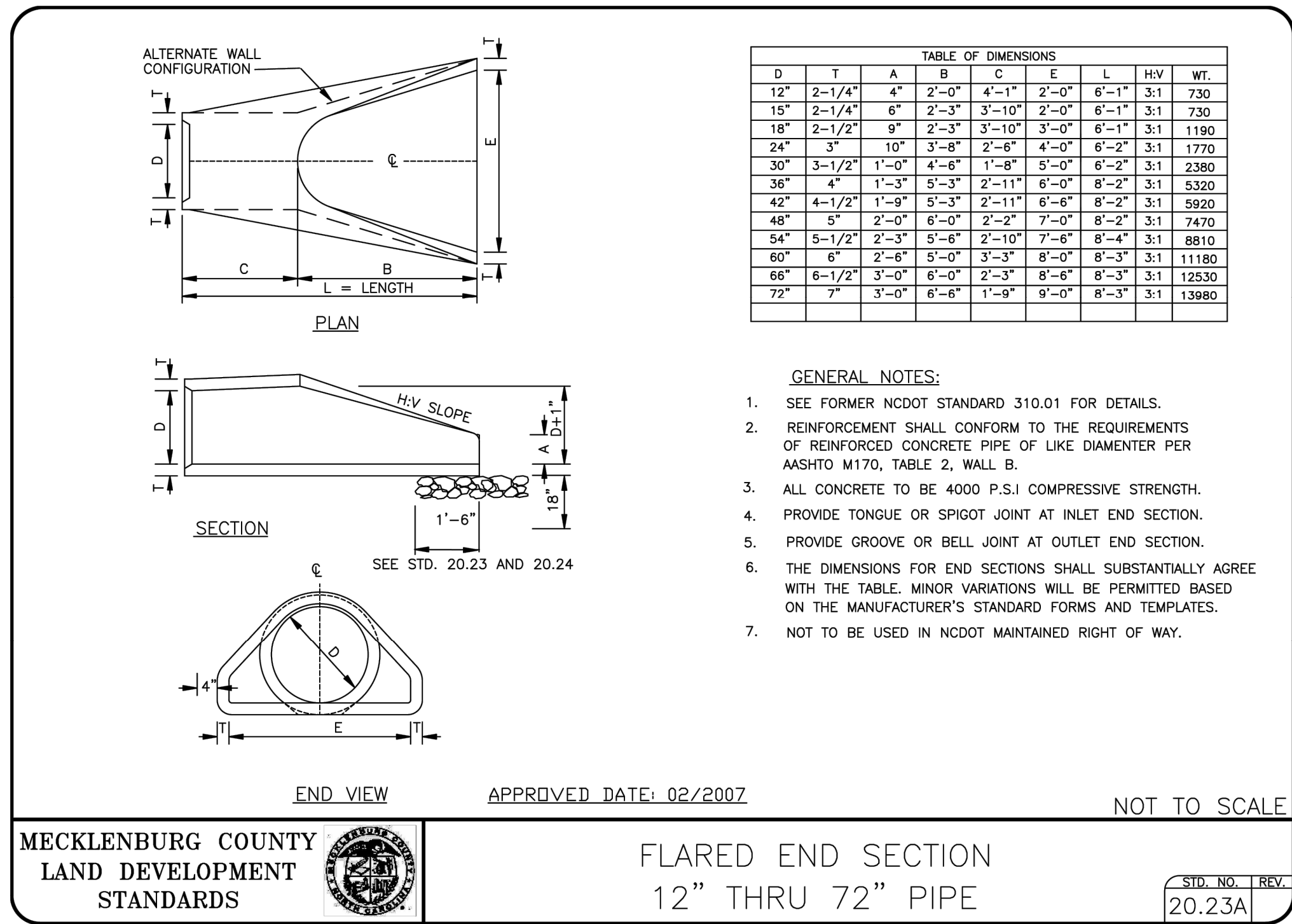
13 OF 13



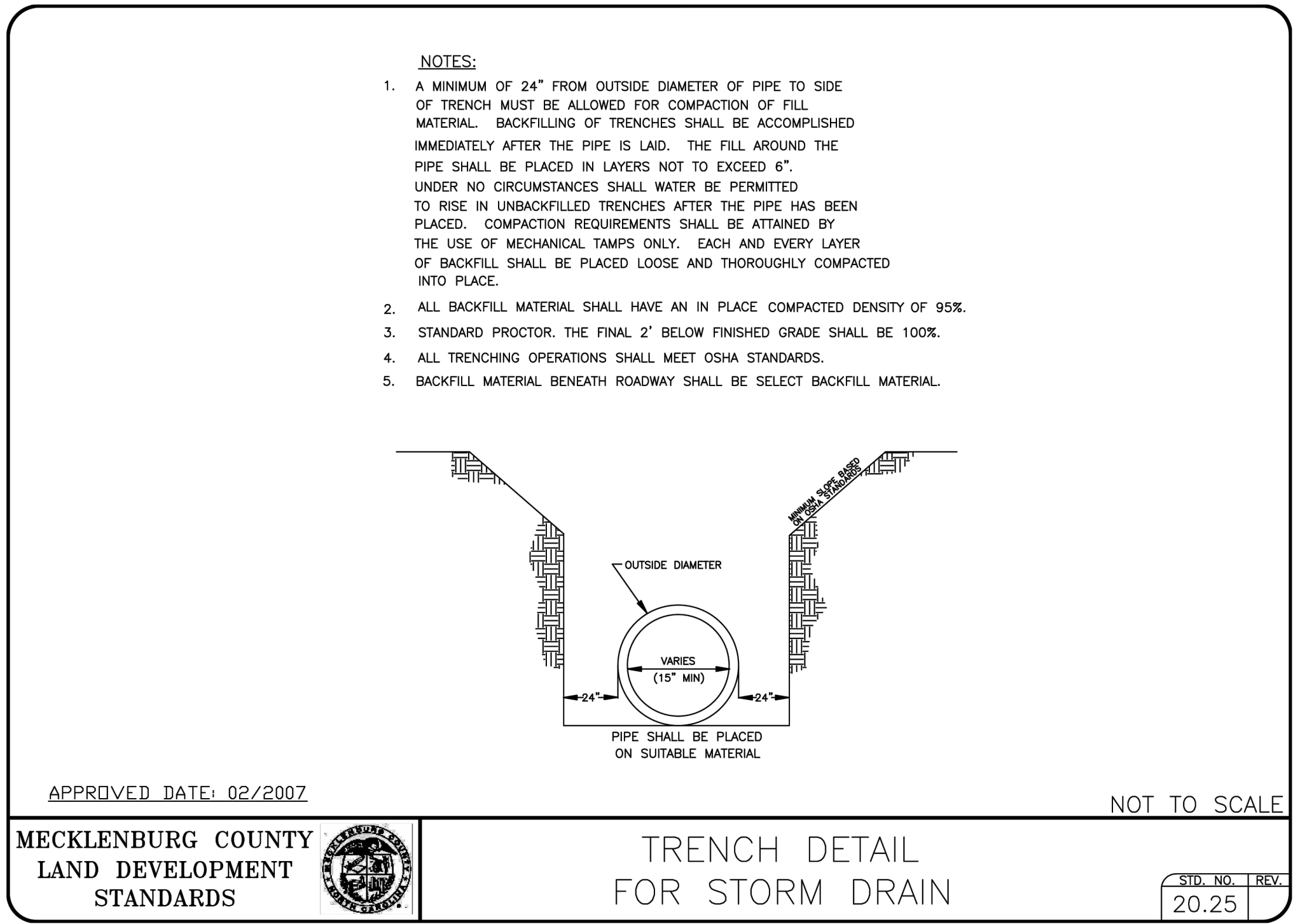
PRECAST MANHOLE DETAIL
Scale: NOT TO SCALE



RIP RAP APRON AT PIPE OUTFALLS
Scale: NOT TO SCALE



FLARED END SECTION DETAIL
Scale: NOT TO SCALE



TRENCH BACKFILL DETAIL
Scale: NOT TO SCALE

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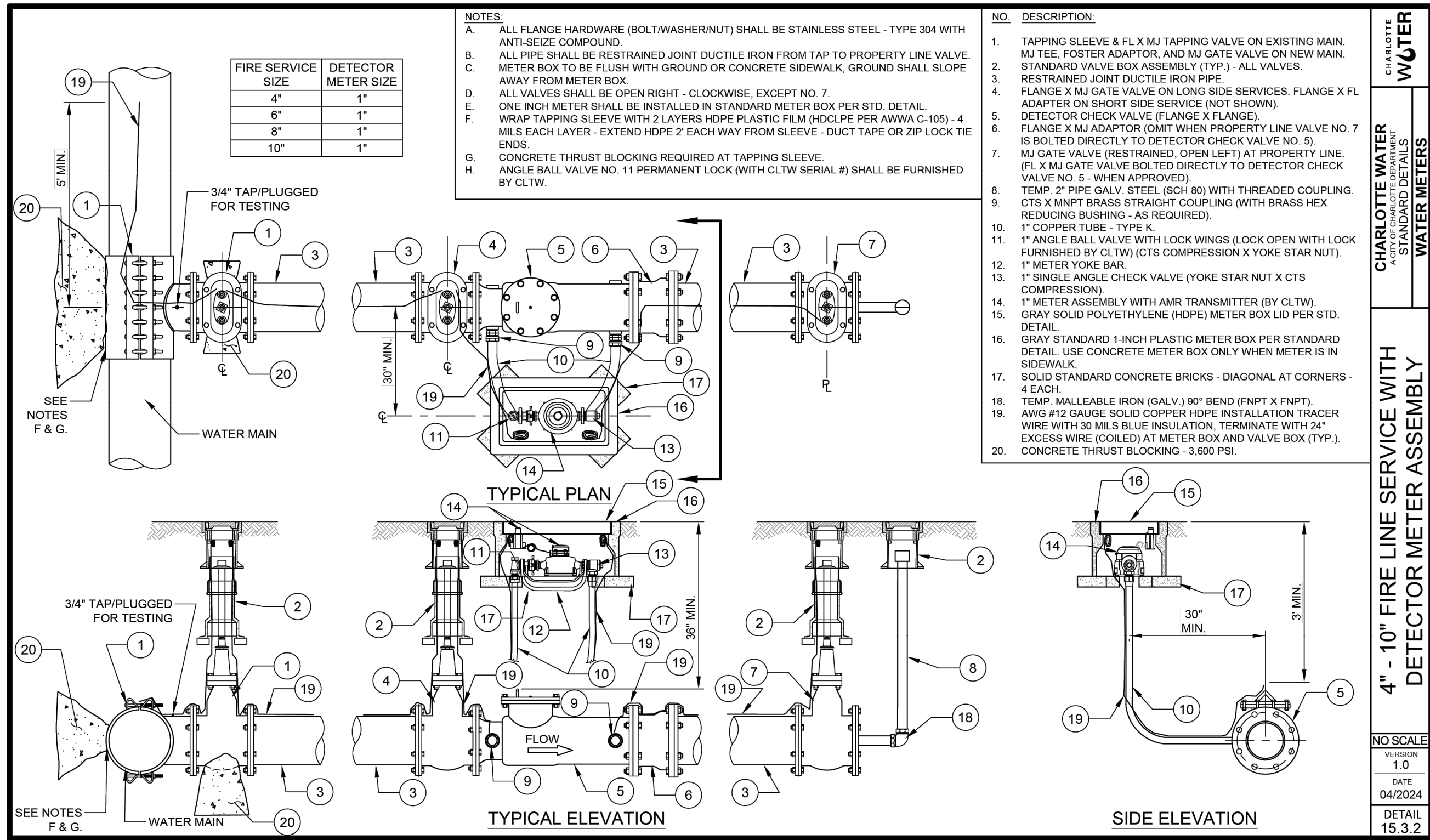
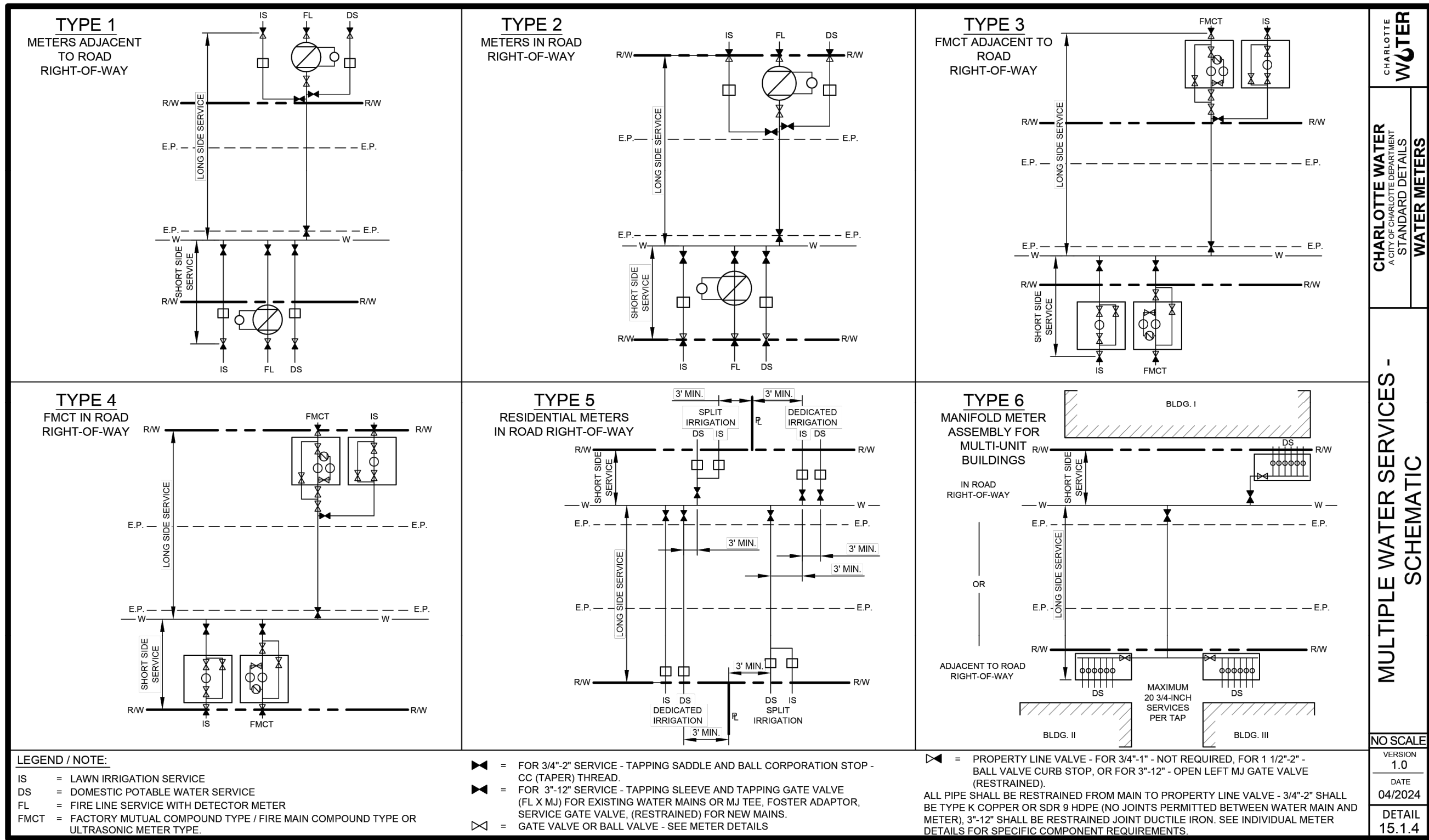
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ENG: KHH
DATE: 2026.04.22
SHEET TITLE
CONSTRUCTION
DETAILS
SHEET NUMBER
C6.1
14 OF 13

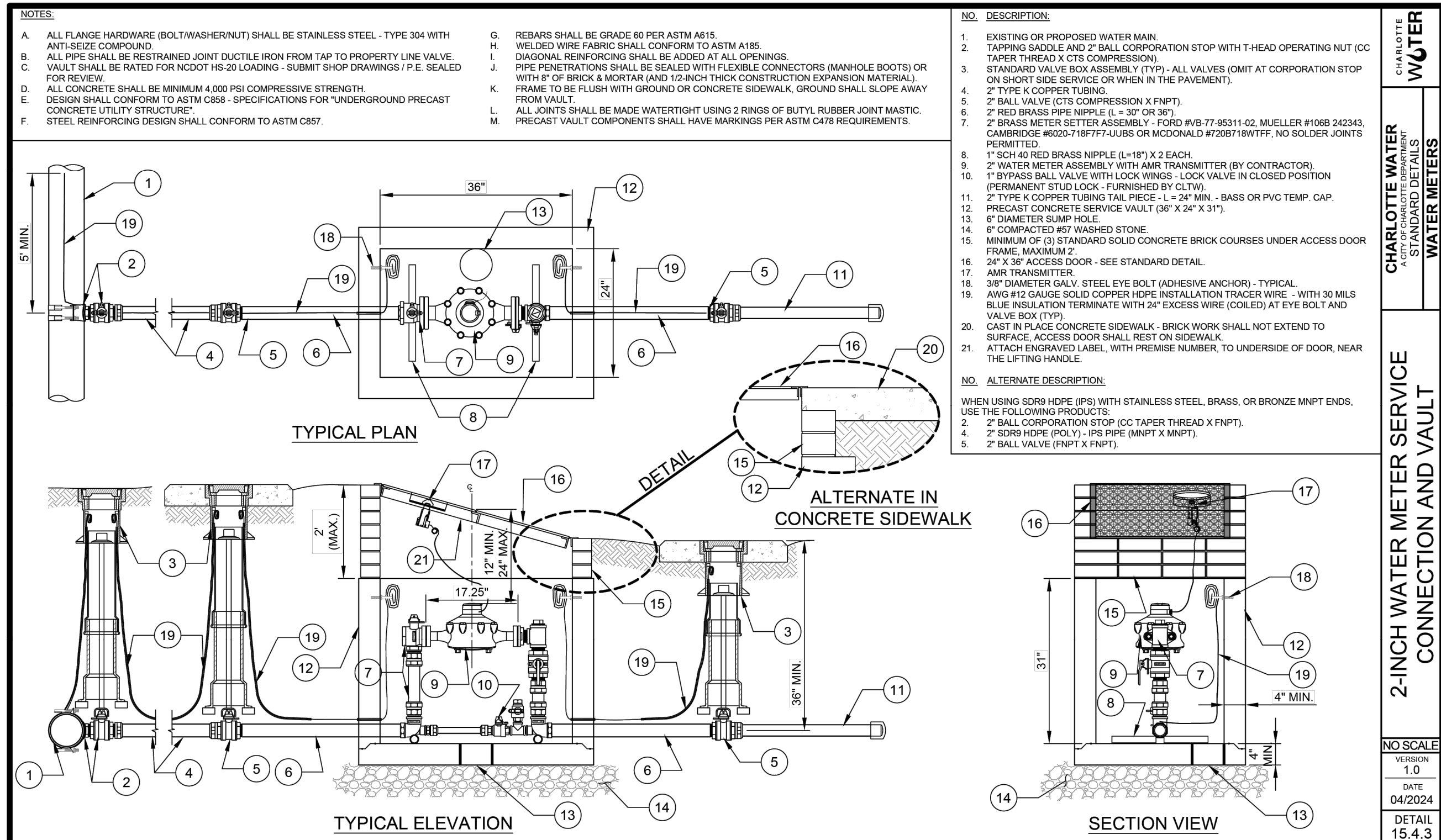
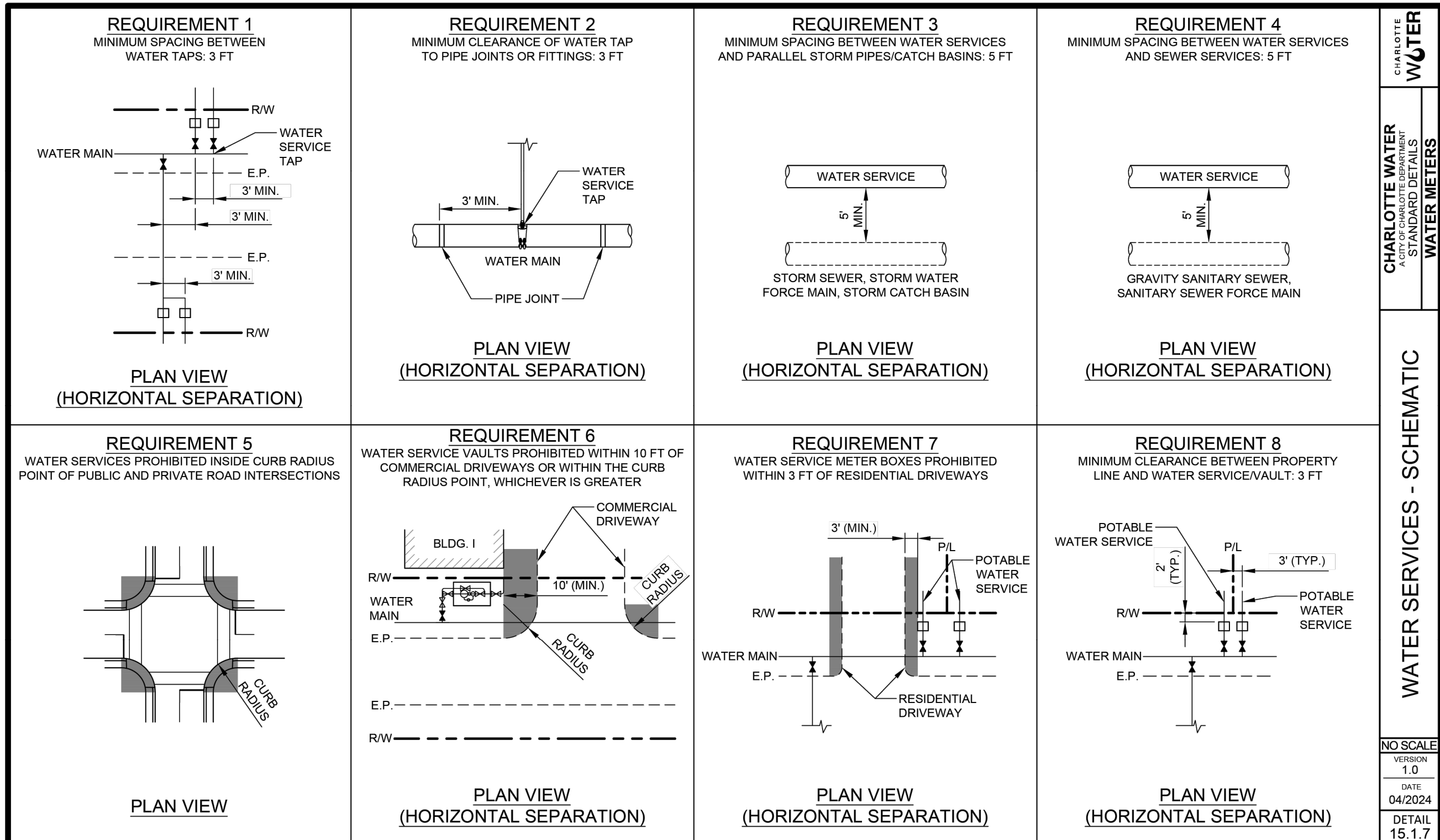


WATER SERVICE SCHEMATICS

Scale: NOT TO SCALE

CLT WATER - FIRE SERVICE DETAILS

Scale: NOT TO SCALE



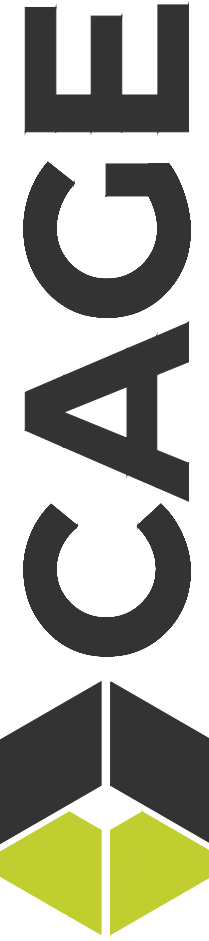
WATER SERVICE DETAILS

Scale: NOT TO SCALE

CLT WATER - 2" DOMESTIC SERVICE DETAIL

Scale: NOT TO SCALE

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DATE: 2026.04.22

SHEET TITLE

CONSTRUCTION
DETAILS

SHEET NUMBER

C6.2

15 OF 13

PROJECT SUMMARY

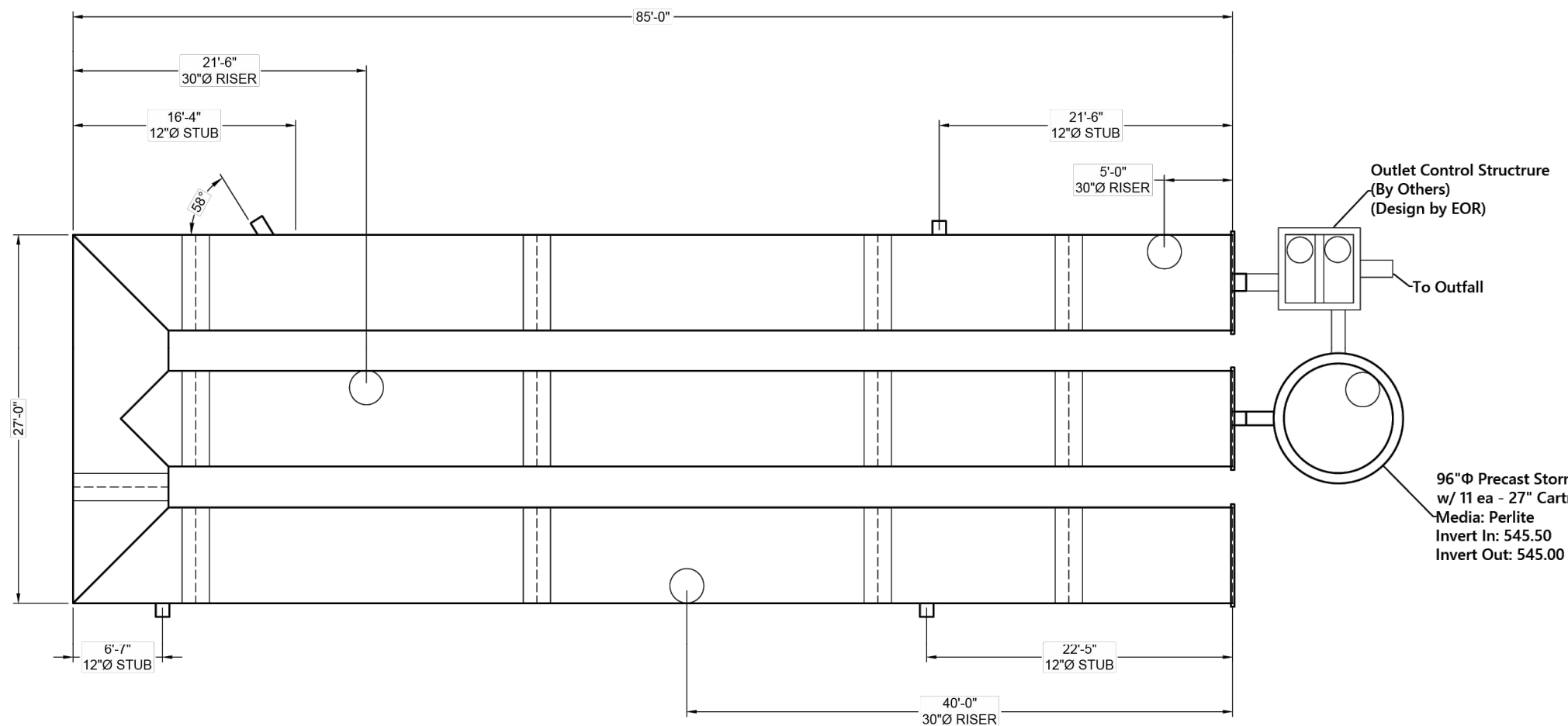
DESIGNATION DETAILS
 • LOADING = HS20/HS25

STORAGE SUMMARY

- PIPE STORAGE VOLUME = 10.04 CF
- BACKFILL STORAGE VOLUME = 0 CF
- TOTAL STORAGE PROVIDED = 10.044 CF

PIPE DETAILS

- DIAMETER = 84"
- CORRUGATION = 5x1
- GAGE = 14
- COATING = ALT2
- WALL TYPE = SOLID
- BARREL SPACING = 30"



NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 24" X 2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAIL PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYOOS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

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901872 Treehouse School
 84" CMP WQv + Main Detention
 Pineville, NC
 DETENTION SYSTEM

PROJECT NO.: 901872
 DES. NO.: 15
 DATE: 8/14/2026
 DESIGNED: DYO
 DRAWN: DYO
 CHECKED: DYO
 APPROVED: DYO
 SHEET NO.: 1

TABLE 1:

DIAMETER, D	MIN. COVER	CORR. PROFILE
6"-10"	12"	1 1/2" x 1/4"
12"-48"	12"	2 2/3" x 1/2"
>48"-86"	12"	3" x 1", 5" x 1"
>86"	D18	3" x 1", 5" x 1"

- STRUCTURAL BACKFILL MUST EXTEND TO LIMITS OF THE TABLE
- TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT
- ULTRAFLO ALSO AVAILABLE FOR SIZES 18" - 120" WITH 34X 3/4" X 1 1/2" CORRUGATION

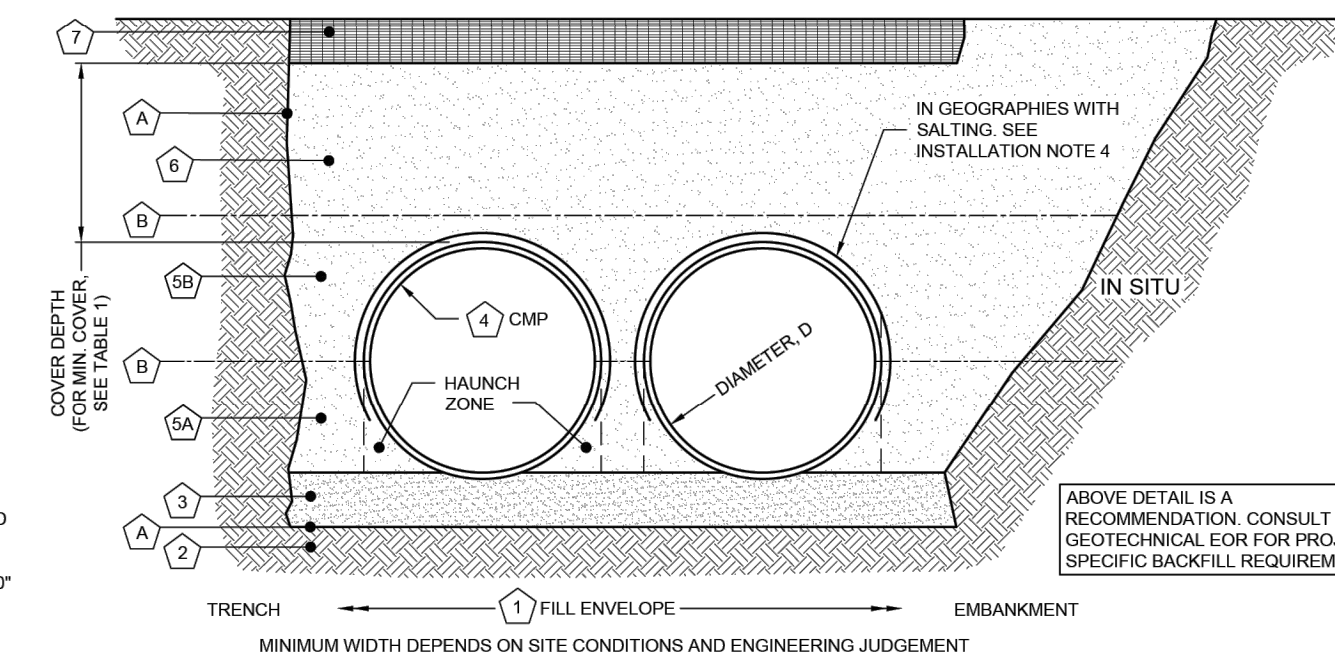


TABLE 2:

CMP DETENTION AND CMP DRAINAGE STANDARD BACKFILL SPECIFICATIONS			
MATERIAL LOCATION	MATERIAL SPECIFICATION	DESCRIPTION	
1	FILL ENVELOPE WIDTH	PER ENGINEER OF RECORD	MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE SUGGESTED MINIMUM TRENCH WIDTH OR EOR RECOMMENDATION: PIPE ≤ 12": D + 16" PIPE > 12": 1.5D + 12"
2	FOUNDATION	AASHTO 26.5.2 OR PER ENGINEER OF RECORD	MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE: PIPE < 24": 3.0D PIPE 24" - 144": D + 45" PIPE > 144": D + 100"
3	BEDDING	AASHTO M 42-3, 257, 4, 487, 6, 56, 57 (APPROVED REGIONAL EQUIVALENTS INCLUDE CA-7)	PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND FOUNDATION BROUGHT BACK TO GRADE WITH A FILL MATERIAL APPROVED BY THE ENGINEER OF RECORD.
4	CRITICAL BACKFILL	AASHTO M 145: A-1, A-2, A-3	ENGINEER OF RECORD TO DETERMINE IF BEDDING IS REQUIRED. PIPE MAY BE PLACED ON THE TRENCH BOTTOM OF A RELATIVELY LOOSE, NATIVE SUITABLE WELL GRADED GRANULAR MATERIAL, THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, 2" MIN DEPTH. THE BEDDING MATERIAL MAY BE SUITABLE FOUNDATION SOILS CONFORMING TO AASHTO SOIL CLASSIFICATIONS A1, A2, OR A3 WITH MAXIMUM PARTICLE SIZE OF 3" PER AASHTO 26.3.8.1 AND 12.4.1.3.
5A	BACKFILL	AASHTO M 145: A-1, A-2, A-3	CORRUGATED METAL PIPE
5B	COVER MATERIAL	UP TO MIN. COVER - SEE 5A AND 5B ABOVE ABOVE MIN. COVER - PER ENGINEER OF RECORD	HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION WITHOUT SOFT SPOTS. BACKFILL SHALL BE PLACED IN 6" LIFTES AND COMPACTED TO 90% STANDARD PROCTOR FOR NONSTANDARD SPACING. THERE IS NO MORE THAN A THREE LIFT (24") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHOULD BE ADVANCED ALONG THE LENGTH OF THE SYSTEM TO AVOID DIFFERENTIAL LOADING.
7	RIGID OR FLEXIBLE PAVEMENT (IF APPLICABLE)	PER ENGINEER OF RECORD	WELL GRADED GRANULAR MATERIAL, WHICH MAY CONTAIN SMALL AMOUNTS OF SILT OR CLAY AND MAXIMUM PARTICLE SIZE OF 3" PER AASHTO 26.3.8.1 AND 12.4.1.3.
A	OPTIONAL SIDE GEOTEXTILE	NONE	COVER MATERIAL MAY INCLUDE NON-BITUMINOUS, GRANULAR ROAD BASE MATERIAL WITHIN MIN COVER LIMITS
B	OPTIONAL GEOTEXTILE BETWEEN LAYERS	NONE	FLEXIBLE PAVEMENT SHOULD NOT BE COUNTED AS PART OF THE FILL HEIGHT OVER THE CMP. FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD.

NOTES:

- FOR MULTIPLE BARREL INSTALLATIONS, THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE THE PIPE DIAMETER 2 BUT NO LESS THAN 12" FOR DIAMETERS <72" FOR 72" AND LARGER DIAMETERS, THE MINIMUM SPACING SHALL BE 36" UNLESS OTHERWISE SPECIFIED.
- APPROVED REGIONAL EQUIVALENTS FOR SECTION 5A INCLUDE CA-7, C0DOT #67, M20T 2G, 34G, OR 21A STONE OR GRAVEL, #8, #67, M20T 6A, 2G, 3G, 34G.

MANUFACTURER RECOMMENDED BACKFILL

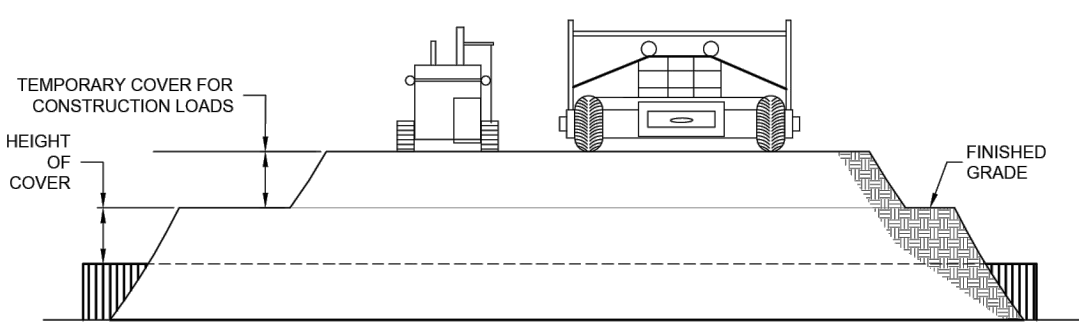
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901872 Treehouse School
 84" CMP WQv + Main Detention
 Pineville, NC
 DETENTION SYSTEM

PROJECT NO.: 901872
 DES. NO.: 15
 DATE: 8/14/2026
 DESIGNED: DYO
 DRAWN: DYO
 CHECKED: DYO
 APPROVED: DYO
 SHEET NO.: 2



PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-30	30-75	75-110	110-150
MINIMUM COVER (FT)				
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

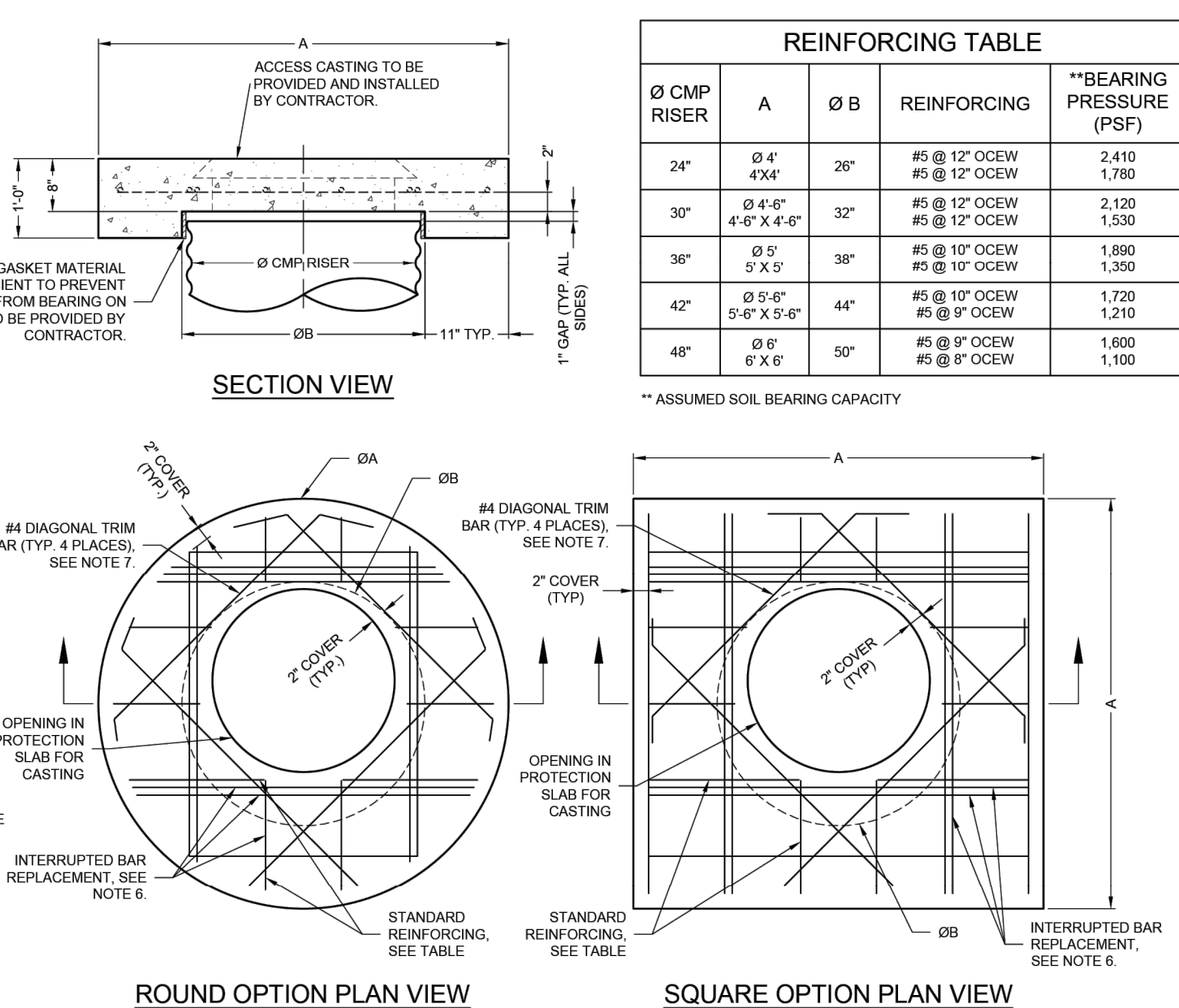
*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAIN DETENTION CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM

- SCOPE**
 THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.
- MATERIAL**
 THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW.
- ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760
 GALVANIZED: AASHTO M-36 OR ASTM A-760
 POLYMER COATED: AASHTO M-245 OR ASTM A-762
 ALUMINUM: AASHTO M-196 OR ASTM B-745
- CONSTRUCTION LOADS**
 CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NSCPA GUIDELINES.
- NOTE**
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NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL

SCALE: N.T.S.

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CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION. IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAYMENT AHEAD. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

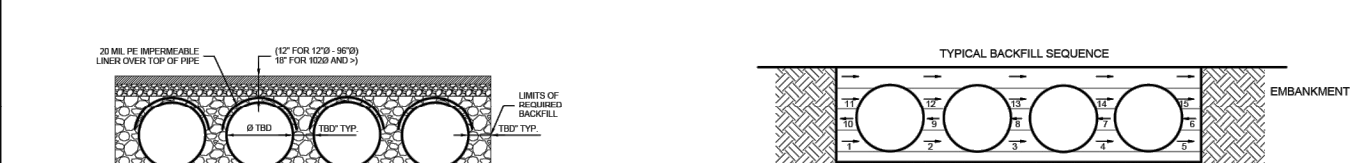
BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS. GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF THE SUBGRADE.

GEOMEMBRANE BARRIER

THE RESISTIVITY OF A PROJECT SITE MAY CHANGE OVER TIME DUE TO THE USE OF VARIOUS SALTING, DE-ICING, AND AGRICULTURAL AGENTS APPLIED ON OR NEAR THE AREA. TO MITIGATE THE POTENTIAL IMPACT OF THESE AGENTS, AN HDPE MEMBRANE LINER WILL BE INSTALLED ON THE CROWN OF EACH PIPE, CREATING AN IMPERMEABLE BARRIER. THIS MEASURE IS DESIGNED TO PROTECT THE SYSTEM FROM ENVIRONMENTAL CHANGES THAT COULD LEAD TO PREMATURE CORROSION AND REDUCE THE OVERALL SERVICE LIFE.

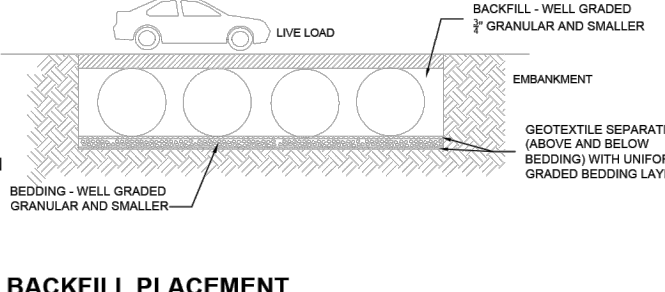
FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACHIEVED, THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10- FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER.



IN-SITU TRENCH WALL

IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE SPRING LINE TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.

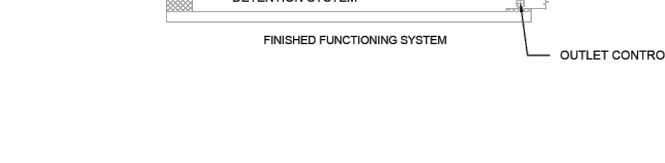


CONSTRUCTION LOADING

WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE EXCESS WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION, POTENTIALLY CAUSING FLOATATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.



CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOADS OR SMALL OUTLET CONTROL ORIFICES MAY REQUIRE MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM.

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALT/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

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 Pineville, NC
 DETENTION SYSTEM

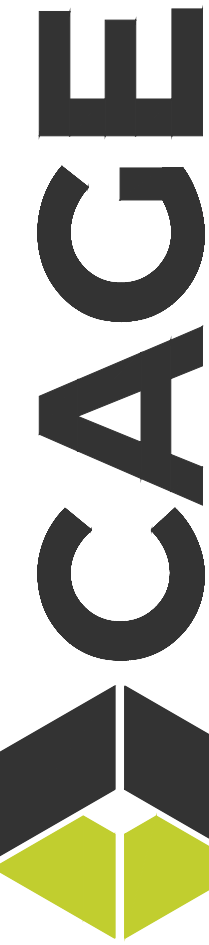
PROJECT NO.: 901872
 DES. NO.: 15
 DATE: 8/14/2026
 DESIGNED: DYO
 DRAWN: DYO
 CHECKED: DYO
 APPROVED: DYO
 SHEET NO.: 4



CONTECH UNDERGROUND DETAILS

Scale: NOT TO SCALE

1515 MOCKINGBIRD LANE
 SUITE 7107
 CHARLOTTE, NC 28209
 P. 630.598.0007
 WWW.CAGECIVIL.COM



REVISIONS

NO.	DESCRIPTION

REVISIONS

8/10/2026

HECK COUNTY COMMENTS

THIS REVISION AND THE REVISIONS AND THE PROJECTS OF THE CAGE ENGINEERING, INC. NO PART OF THIS WORK MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION FROM CAGE ENGINEERING, INC.

TREEHOUSE SCHOOL -
 PINEVILLE, NC
 505 Towne Centre Blvd
 Pineville, NC

PROJ NO: 250527

ENG: KHH

DATE: 2026.04.22

SHEET TITLE

CONSTRUCTION

DETAILS

SHEET NUMBER

C6.4

17 OF 13