

PROPOSED IMPROVEMENTS FOR TREEHOUSE - PINEVILLE, NC

505 TOWN CENTRE BLVD
PINEVILLE, NC

LOCATION MAP



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SITE DATA TABLE	
PIN:	22113130
PROPERTY ADDRESS:	505 TOWN 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:	TBD
UNDISTURBED OPEN SPACE PROVIDED:	TBD
EXISTING LAND USE:	VACANT W/ PARKING LOT
PROPOSED LAND USE:	COMMERCIAL
EXISTING IMPERVIOUS:	26,380 SF OR 20.67% OF TOTAL SITE
PROPOSED IMPERVIOUS:	72,000 SF OR 56.41% OF TOTAL SITE
BUILDING COVERAGE:	127,631 SF OR 18.02% OF TOTAL SITE
PARKING REQ:	1 STALL PER 400 SQ. FT. OF GROSS BUILDING AREA
PARKING PROVIDED:	64 STANDARD STALLS / 2 ADA STALLS
UTILITIES:	
WATER PROVIDER:	CHARLOTTE WATER (CLT)
SEWER PROVIDER:	CHARLOTTE WATER (CLT)
ELECTRIC PROVIDER:	DUKE ENERGY

OWNER/DEVELOPER
VIRTUE VENTURES REAL ESTATE GROUP
PHONE: 678.551.3646
DRIA ETIENNE - PRINCIPAL

ENGINEER
CAGE ENGINEERING
2200 CABOT DRIVE, SUITE 25
LISLE, IL 60532
PHONE: 630.598.0007
FREDERICK THAETE, 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		PROPOSED LEGEND	
	EXISTING TREE		CURB & GUTTER
	CURB & GUTTER		REVERSE PITCH CURB & GUTTER
	EXISTING BUILDING		DEPRESSED CURB & GUTTER
	PCC SIDEWALK		PROPOSED BUILDING
	GAS SERVICE		PCC SIDEWALK
	ELECTRIC SERVICE		STANDARD DUTY PAVEMENT
	STORM SEWER		HEAVY DUTY PAVEMENT
	SANITARY SEWER		GAS SERVICE
	WATER MAIN		ELECTRIC SERVICE
	CABLE LINE		STORM SEWER
	OVERHEAD UTILITY LINE		SANITARY SEWER
	COMMUNICATION LINE		WATER MAIN
	FIBER OPTIC LINE		FENCE
	FENCE		STORM STRUCTURE
	STORM STRUCTURE		DOWNSPOUT CONNECTION
	SANITARY MANHOLE		SANITARY MANHOLE
	CLEANOUT		CLEANOUT
	WATER METER		WATER METER
	VALVE VAULT		VALVE VAULT
	VALVE BOX		VALVE BOX
	HYDRANT		HYDRANT
	GAS METER		GAS METER
	ELECTRIC METER		ELECTRIC METER
	PARKING LOT LIGHT		PARKING LOT LIGHT
	UTILITY POLE		FLOW ARROW
	TRANSFORMER		OVERLAND FLOOD ROUTE
	FIBER OPTIC BOX		100.00 TW TOP OF SIDEWALK GRADE
	FIBER OPTIC PEDESTAL		100.00 TC TOP OF CURB GRADE
	CABLE PEDESTAL		100.00 P PAVEMENT GRADE
	PHONE PEDESTAL		100.00 G GROUND GRADE
	ELECTRIC PEDESTAL		100 MAJOR CONTOUR
	MAJOR CONTOUR		100 MINOR CONTOUR
	MINOR CONTOUR		

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



REVISIONS

TREEHOUSE SCHOOL -
PINEVILLE
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527
ENG: KH
DATE: 2026.02.02

SHEET TITLE
COVER SHEET

SHEET NUMBER
C0.0
1 OF TNS

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.



GENERAL REQUIREMENTS:

- ALL WORK SHALL BE IN CONFORMANCE WITH THE APPLICABLE SECTIONS OF THE TOWN OF PINEVILLE STANDARD SPECIFICATIONS AND DETAILS MANUAL, NCDCE 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.
- 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.
- 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.
- 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.
- 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.
- CONTRACTOR PARKING AND LAYDOWN AREAS SHALL BE COORDINATED WITH THE OWNER.
- 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.
- 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.
- 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.
- 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.
- MAXIMUM CONTRACTION JOINT SPACING ON CONCRETE CURB AND GUTTER OR CONCRETE GUTTER SHALL NOT EXCEED 25'.
- SIDEWALK RAMPS FOR ADA SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN HEREIN. DETECTABLE WARNINGS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- HOT-MIX ASPHALT PAVEMENT PATCHING SHALL BE IN ACCORDANCE WITH SECTION 600 OF THE STANDARD SPECIFICATIONS.
- 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.
- 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.
- CONTRACTOR SHALL COORDINATE ALL UTILITY LINE CROSSINGS TO ENSURE ALL PIPES MAINTAIN MINIMUM COVER, MINIMUM CLEARANCES, AND PROPER SEPARATION. GRAVITY LINES SHALL HAVE PRECEDENCE OVER PRESSURIZED LINES.
- 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.
- 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.
- 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.
- ALL TRENCH BACKFILL SHALL BE IMPORTED GRANULAR MATERIAL UNLESS EXISTING GRANULAR MATERIALS ARE SPECIFICALLY APPROVED BY THE OWNER'S REPRESENTATIVE.
- ALL AGGREGATE BASE COURSE SHALL BE COMPACTED TO 98% STANDARD PROCTOR DENSITY.
- 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.
- 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.
- 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.
- 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.
- 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.
- CONTRACTOR SHALL NOTIFY THE APPROPRIATE AGENCY A MINIMUM OF 48 HOURS PRIOR TO CONNECTING TO OR INSTALLING ANY PUBLIC SEWER OR WATER MAINS.
 - 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:

- 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
- 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.
- 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:

- 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.
- NO DEMOLITION OR CONSTRUCTION ACTIVITIES SHALL TAKE PLACE WITHIN PUBLIC RIGHT-OF-WAY UNTIL ALL PERMITS ARE SECURED.
- ALL PAVEMENT TO BE REMOVED SHALL BE SAW CUT FULL DEPTH.
- 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.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS AND BECOMING FAMILIAR WITH ALL CONSTRUCTION DOCUMENTS.
- ITEMS INDICATED TO BE REMOVED SHALL BE COMPLETELY REMOVED UNLESS INDICATED OTHERWISE.
- ITEMS INDICATED TO BE SALVAGED SHALL BE CAREFULLY REMOVED AND STORED IN A LOCATION DESIGNATED BY THE OWNER.
- ALL TREES AND BRUSH INDICATED TO BE REMOVED SHALL BE REMOVED COMPLETELY, INCLUDING ROOT BALLS.
- 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.
- 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.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROLS AND RELATED APPURTENANCES THAT ARE REQUIRED BY ANY APPLICABLE CODES AND ORDINANCES, DURING ALL DEMOLITION OPERATIONS.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE SAFETY AND SECURITY OF THE PROJECT SITE AND ITS SURROUNDINGS DURING DEMOLITION OPERATIONS.
- 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.
- 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.
- CONTRACTOR SHALL FULLY COORDINATE ALL PROJECT DEMOLITION OPERATIONS, INCLUDING THE REMOVAL AND LAWFUL DISPOSAL OF ALL IDENTIFIED HAZARDOUS MATERIALS AND SYSTEMS.
- 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:

- JOINTS IN SIDEWALK SHALL BE TOOLED AT 5' MAX. INTERVALS, UNLESS INDICATED OTHERWISE.
- NORTHING-EASTING COORDINATES AND DIMENSIONS FOR CURB AND GUTTER ARE TO FACE OF CURB.
- 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.
- 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.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SITE CONDITIONS AND BECOMING FAMILIAR WITH ALL CONSTRUCTION DOCUMENTS.
- SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS AND DOOR LOCATIONS.
- CONTRACTOR SHALL COORDINATE EQUIPMENT PADS WITH EQUIPMENT MANUFACTURERS.

SITE GRADING AND EROSION CONTROL:

- ALL SUBGRADE EXCAVATION AND COMPACTION SHALL BE COMPLETED IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS AND THE SITE SPECIFIC GEOTECHNICAL REPORT.
- 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.
- 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.
- 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.
 - 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.
 - 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 "NCDCE - EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL"
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - DUST CONTROL MUST BE PROVIDED AS NEEDED, BY WATERING OR OTHER MEANS.
 - ALL AREAS WITH THE EXCEPTION OF PAVEMENT SHALL BE FINISHED IN ACCORDANCE WITH THE LANDSCAPE PLANS INCLUDED IN THE PLAN SET.
 - CONTRACTOR SHALL INSTALL INLET FILTER PROTECTION BASKETS INSIDE ALL EXISTING AND PROPOSED MANHOLES AND INLET FRAMES.
 - CONTRACTOR IS REQUIRED TO PROVIDE AND USE A CONCRETE WASHOUT AREA FOR RINSING CONCRETE TRUCKS.
 - CONTRACTOR IS REQUIRED TO PROVIDE AND USE A TEMPORARY CONSTRUCTION ENTRANCE FOR ALL CONSTRUCTION TRAFFIC PER PLAN.
 - 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.
 - ALL ELEVATIONS SHOWN ARE TO FINISHED PAVEMENT UNLESS SPECIFIED OTHERWISE.
 - ALL SLOPES GREATER THAN OR EQUAL TO 4:1 SHALL BE STABILIZED WITH NAG S758N OR EQUIVALENT.
 - CONTRACTOR SHALL PROVIDE A MINIMUM OF 6" TOPSOIL IN ALL ISLANDS, LANDSCAPE AREAS, AND OPEN SPACES.

SITE UTILITIES:

- THIS CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
 - "MINIMUM DESIGN CRITERIA FOR THE PERMITTING OF GRAVITY SEWERS" - NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES PUBLISHED 02/12/1996.
 - NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES"
 - MECKLENBURG COUNTY STANDARD SPECIFICATIONS AND DETAILS MANUAL.
- 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.
- 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.
- 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.
- 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.
- 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).
- 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).
- 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.
- STORM SEWER SHALL BE IN CONFORMANCE WITH THE FOLLOWING:
 - REINFORCED CONCRETE PIPE (RCP), ASTM C76
 - GASKETS - ASTM C443
 - FITTINGS - ASTM C443
 - SMOOTH INTERIOR WALLED HIGH DENSITY POLYETHYLENE PIPE (HDPE), ASTM D3212, N-12 WT
 - WATER TIGHT JOINTS
 - JOINT SHALL BE SEALED SUFFICIENTLY TO PREVENT JETTING OR LEAKING AT THE JOINT
 - PVC STORM SEWER PIPING, ASTM D 3034, SDR 35
 - BELL-AND-SPIGOT ENDS
 - ASTM F 477, ELASTOMERIC SEALS FOR GASKETED JOINTS
 - FRAME AND GRATES (OR APPROVED ALTERNATIVE)
 - TYPE 1 CLOSED LID = NEENAH R-1713
 - TYPE 1 OPEN LID = NEENAH R-2504
 - TYPE 3 = NEENAH R-3281-A

- DITCH GRATE = NEENAH R-4342
- ALL CLEANOUT RIMS SHALL BE CONSTRUCTED FLUSH WITH THE FINISHED GROUND SURFACE. IF CONSTRUCTED IN HARDSCAPE IT MUST BE A CONCRETE COLLAR
- GENERAL CONTRACTOR SHALL COORDINATE ALL UTILITY LINES THAT ENTER THE BUILDING. IN GENERAL, PLUMBING PLANS SHOW ALL INTERIOR BUILDING PIPING AND PIPING UP TO 5-FEET OUTSIDE THE BUILDING. CIVIL PLANS SHOW SITE PIPING BEGINNING FROM 5-FEET OUTSIDE THE BUILDING. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONNECTIONS.
- CONTRACTOR SHALL COORDINATE ALL UTILITY LINE CROSSINGS TO ENSURE ALL PIPES MAINTAIN MINIMUM COVER, MINIMUM CLEARANCES, AND PROPER SEPARATION. GRAVITY LINES SHALL HAVE PRECEDENCE OVER PRESSURIZED LINES.
- ALL TRENCH BACKFILL SHALL BE IMPORTED GRANULAR MATERIAL UNLESS EXISTING GRANULAR MATERIALS ARE SPECIFICALLY APPROVED BY THE OWNER'S REPRESENTATIVE.
- ALL MANHOLES AND INLET CASTINGS LOCATED WITHIN BITUMINOUS ASPHALT PAVEMENT SHALL BE CONSTRUCTED WITH A CONCRETE APRON AT THE SURFACE.

INDEMNIFICATION:

- THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, THE CITY OF CHARLOTTE NC, AND CAGE ENGINEERING, INC. FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE CONTRACTOR'S WORK. IN ANY AND ALL CLAIMS AGAINST THE OWNER OR CAGE ENGINEERING, INC. BY ANY EMPLOYEE OF THE CONTRACTOR, OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THE CONTRACTOR, OR ANYONE FOR WHOSE ACTS THE CONTRACTOR MAY BE LIABLE, THE INDEMNIFICATION OBLIGATION SHALL NOT BE LIMITED IN ANY WAY BY ANY LIMITATION ON THE AMOUNT OF DAMAGES, COMPENSATION OR BENEFITS PAYABLE BY OR FOR THE CONTRACTOR UNDER WORKER'S COMPENSATIONS ACTS, DISABILITY BENEFIT ACTS OR OTHER EMPLOYEE BENEFIT ACTS.

INSURANCE REQUIREMENTS

- THE CONTRACTOR SHALL PURCHASE AND MAINTAIN COMPREHENSIVE GENERAL LIABILITY AND OTHER INSURANCE SET FORTH BELOW WHICH WILL PROVIDE PROTECTION FROM CLAIMS WHICH MAY ARISE OUT OF OR RESULTING FROM THE PERFORMANCE OF WORK BY ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THE CONTRACTOR OR BY ANYONE FOR WHOSE ACTS THE CONTRACTOR MAY BE LIABLE.
 - COMPREHENSIVE AUTOMOBILE LIABILITY INSURANCE COVERING ALL AUTOMOBILES, TRUCKS, TRAILERS AND ANY OTHER MOTORIZED EQUIPMENT OWNED OR LEASED BY THE CONTRACTOR.
 - WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY INSURANCE IN ANY AMOUNT NOT LESS THAN STATUTORY LIMITS REQUIRED BY LAW.
 - COMPREHENSIVE GENERAL LIABILITY INSURANCE INCLUDING COVERAGE IN THE AMOUNT OF \$500,000 PER ACCIDENT FOR PROPERTY DAMAGE AND \$1,000,000 PER PERSON AND \$3,000,000 AGGREGATE PER ACCIDENT FOR BODILY INJURY, SICKNESS OR DISEASE, OR DEATH OF ANY PERSON.
- CERTIFICATE OF INSURANCE
 - THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL HE HAS FILED WITH THE MUNICIPALITY AND ITS INSPECTOR A CERTIFICATE OF INSURANCE SHOWING COMPLETE COVERAGE OF ALL INSURANCE REQUIRED, SIGNED BY THE INSURANCE COMPANIES OR THEIR AUTHORIZED AGENTS. EACH CERTIFICATE SHALL PROVIDE THAT COVERAGE SHALL NOT BE TERMINATED OR REDUCED WITHOUT 30 DAYS ADVANCE WRITTEN NOTICE TO THE MUNICIPALITY AND ITS INSPECTOR. THE CONTRACTOR SHALL NAME THE OWNER, THE TOWN OF MINT HILL NC AND CAGE ENGINEERING, INC. AS ADDITIONAL INSURED ON THE COMPREHENSIVE GENERAL LIABILITY AND AUTOMOBILE LIABILITY POLICIES.

CONSTRUCTION MEANS, METHODS, SAFETY

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS, INCLUDING OSHA STANDARDS AND WITH ANY OTHER APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR TO PROTECT THEM FROM DAMAGE, INJURY OR LOSS. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT AND SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS UTILIZED BY THE CONTRACTOR AND HIS SUB-CONTRACTORS IN THE PERFORMANCE OF THEIR WORK AND SHALL TAKE ANY OTHER ACTIONS NECESSARY TO PROTECT THE LIFE AND HEALTH OF EMPLOYEES ON THE JOB AND THE SAFETY OF THE PUBLIC AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES, EQUIPMENT, AND FOR SAFETY PRECAUTIONS OR PROGRAMS, UNLESS SUCH MEANS AND EQUIPMENT ARE SPECIFIED IN THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COMPLY WITH SECTION 108.06 LABOR, METHODS, AND EQUIPMENT OF THE "STANDARD SPECIFICATIONS."

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



REVISIONS	△

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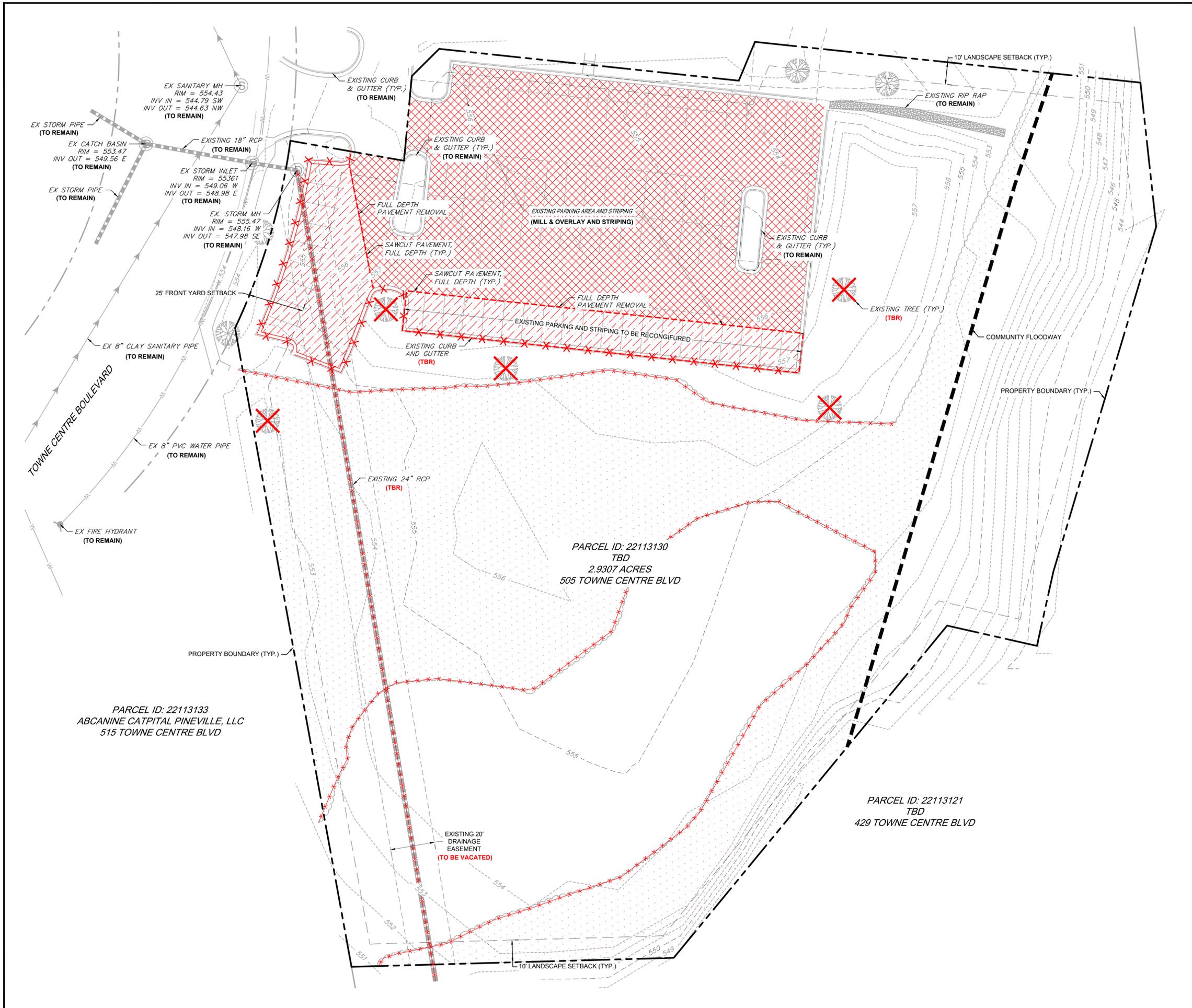
TREEHOUSE SCHOOL -
PINEVILLE
505 Towne Centre Blvd
Pineville, NC

PROJ NO: 250527
ENG: KH
DATE: 2026.02.02

SHEET TITLE
GENERAL NOTES & SPECIFICATIONS

SHEET NUMBER

2 OF TNS



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

1. TOPOGRAPHIC SURVEY COMPLETED BY "ENTER NAME", ON "ENTER SURVEY DATE".
2. 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

1. 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.
2. 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.
3. ALL EROSION AND SEDIMENT CONTROL BMPs SHALL BE INSTALLED PRIOR TO ANY DEMOLITION ACTIVITIES

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REVISIONS 

NO.	DESCRIPTION

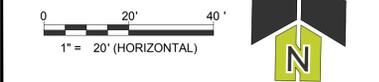
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TREEHOUSE SCHOOL -
 PINEVILLE
 505 Towne Centre Blvd
 Pineville, NC



PROJ NO: 250527
 ENG: KH
 DATE: 2026.02.02

SHEET TITLE
 EXISTING CONDITIONS AND DEMO PLAN



SHEET NUMBER
C1.0
 3 OF TNS



REVISIONS	DATE

TREEHOUSE SCHOOL -
 PINEVILLE
 505 Towne Centre Blvd
 Pineville, NC

PROJ NO: 250527
 ENG: KH
 DATE: 2026.02.02

SHEET TITLE
 SITE PLAN

SHEET NUMBER
 C2.0
 4 OF TNS

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 23,000 SQ FT

YARD REQUIREMENTS
FRONT BUILDING SETBACK 25'
REAR SETBACK NONE
SIDE SETBACK NONE
LANDSCAPE SETBACK 10'

FIRE ACCESS
 CHARLOTTE 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

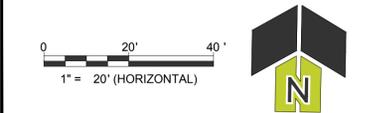
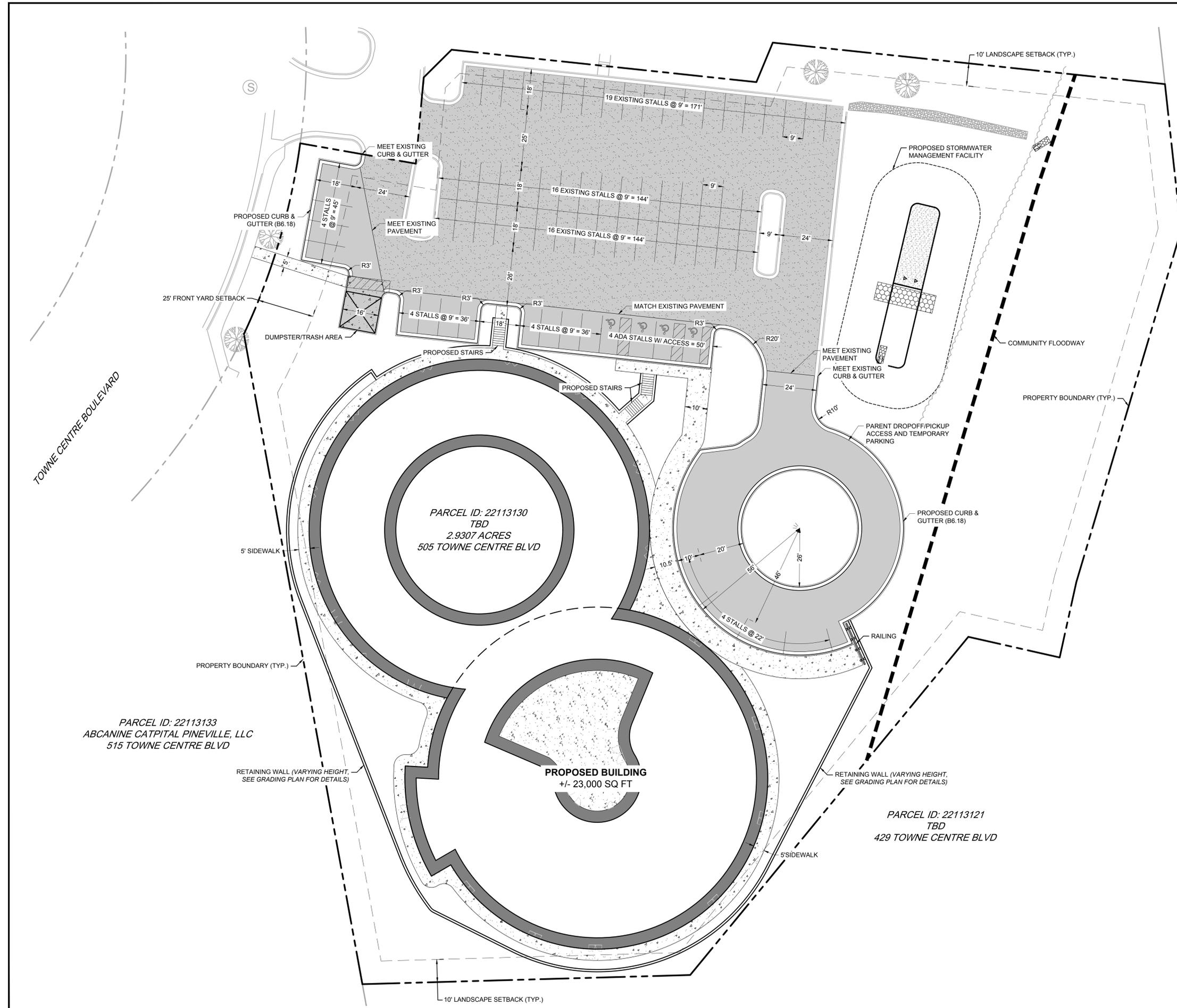
PARKING COUNT
 1 PARKING STALL SHALL BE REQUIRED FOR EACH 400 SQ. FT. OF GROSS BUILDING AREA

REQUIRED:
 22,600 / 400 = 57 STALLS
 ADA REQUIRED = 3 STALLS

PROPOSED:
 51 EXISTING STANDARD STALLS
 12 PROPOSED STANDARD STALLS
 4 ADA STALLS
 67 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 APERTANCES 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.





REVISIONS	DATE	DESCRIPTION

TREEHOUSE SCHOOL -
 PINEVILLE
 505 Towne Centre Blvd
 Pineville, NC

PROJ NO: 250527
 ENG: KH
 DATE: 2026.02.02

SHEET TITLE
 UTILITY PLAN

SHEET NUMBER
 C5.0
 8 OF TNS

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)

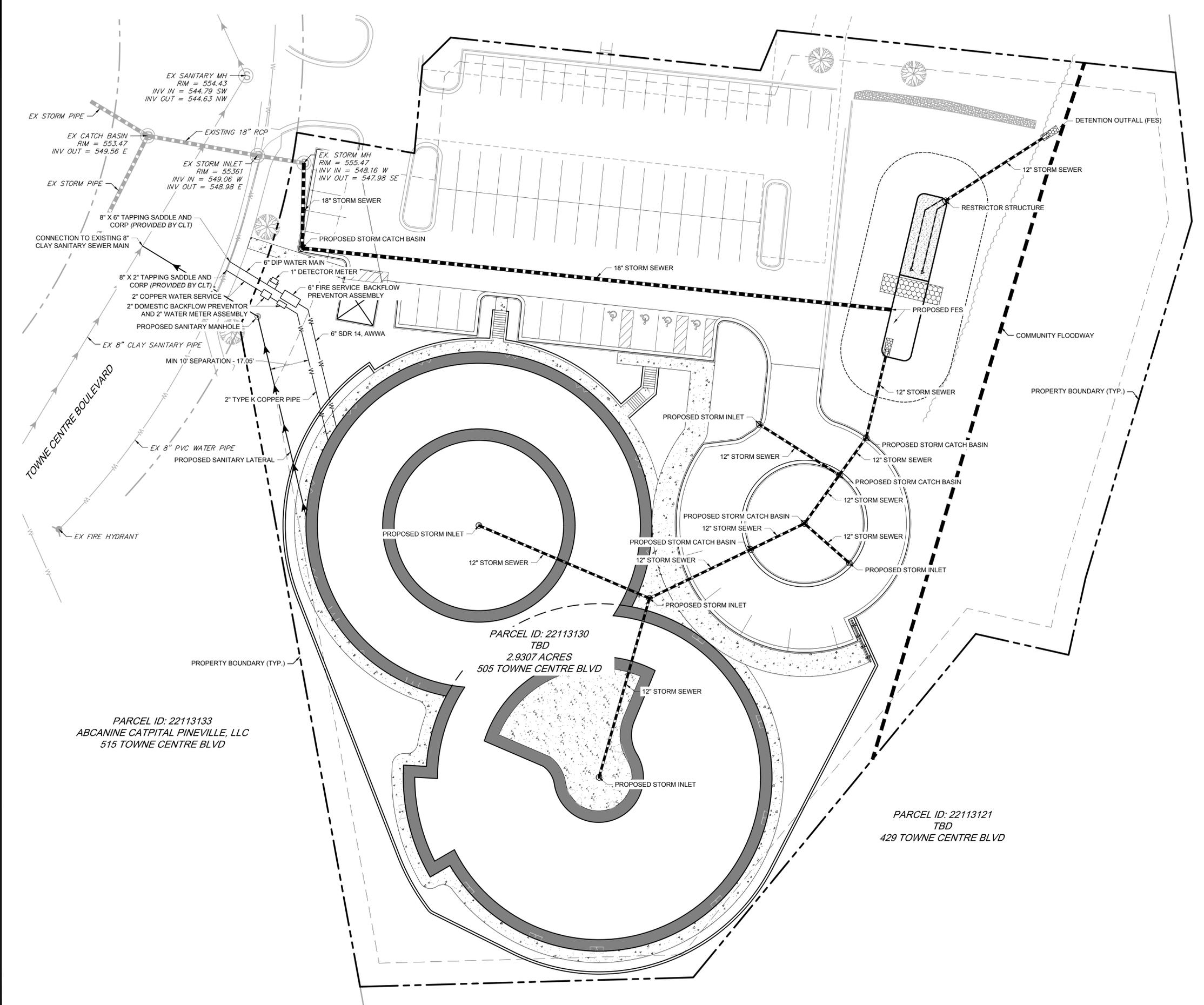
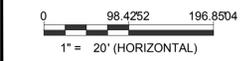
- THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER-USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CLT WATER-REQUIRED BACKFLOW PREVENTOR. EACH CHARLOTTE WATER-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CHARLOTTE WATER-APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE.

CLT WATER NOTE(S)

- 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.
- 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.
- 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.
- 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.
- 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.
- 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).
- 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.

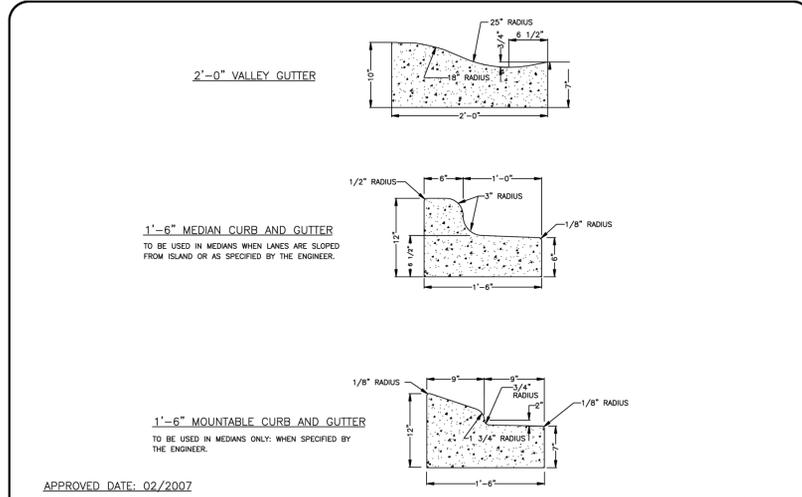
NATE KAMPHAUS - PLANS REVIEW
 CHARLOTTE WATER
 5100 BROOKSHIRE BOULEVARD, CHARLOTTE, NC 28216
 P. 980.346.1324 / CHALOTTewater.org



PARCEL ID: 22113133
 ABCANINE CATPITAL PINEVILLE, LLC
 515 TOWNE CENTRE BLVD

PARCEL ID: 22113130
 TBD
 2.9307 ACRES
 505 TOWNE CENTRE BLVD

PARCEL ID: 22113121
 TBD
 429 TOWNE CENTRE BLVD



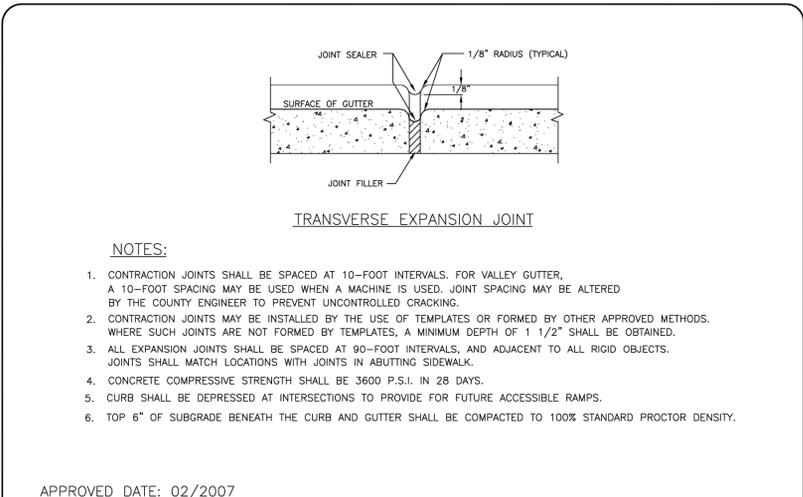
MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

CURB AND GUTTER

STANDARD NO. 10.17B

APPROVED DATE: 02/2007

NOT TO SCALE



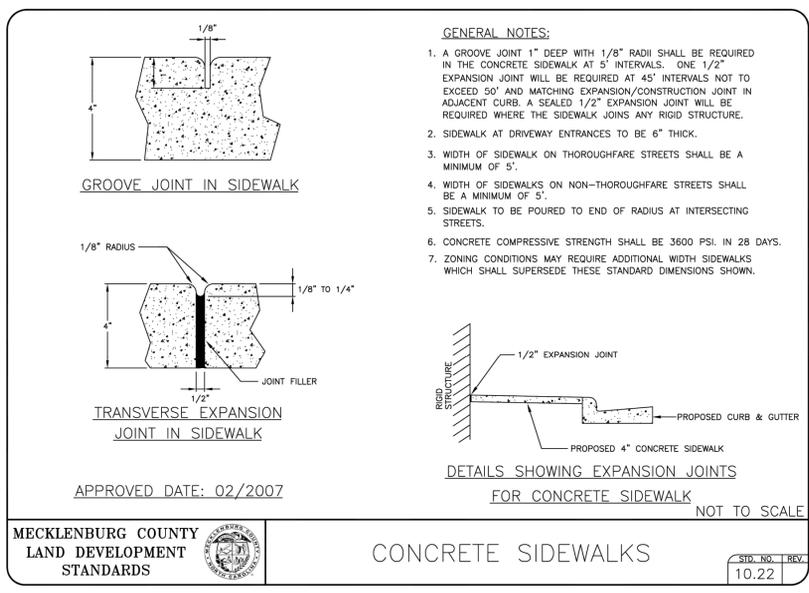
MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

CONCRETE CONTRACTION JOINT

STANDARD NO. 10.17C

APPROVED DATE: 02/2007

NOT TO SCALE



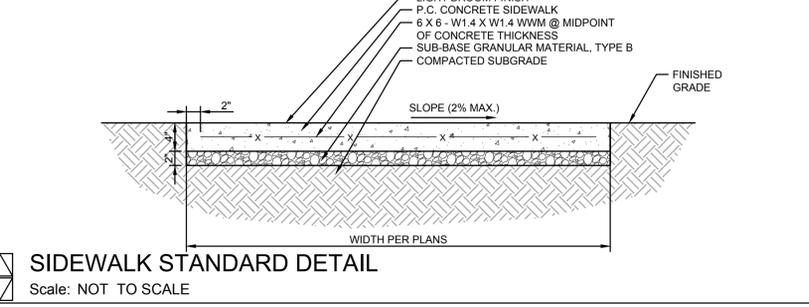
MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

CONCRETE SIDEWALK JOINTING

STANDARD NO. 10.22

APPROVED DATE: 02/2007

NOT TO SCALE



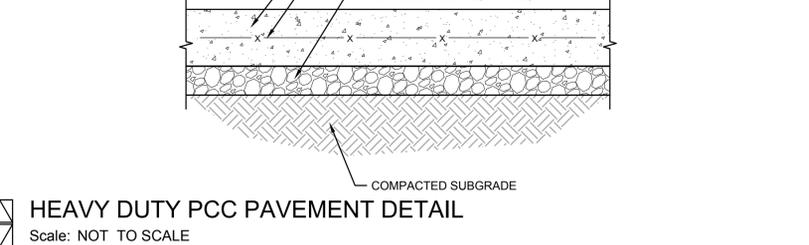
MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

SIDEWALK STANDARD DETAIL

STANDARD NO. 10.17D

APPROVED DATE: 02/2007

NOT TO SCALE



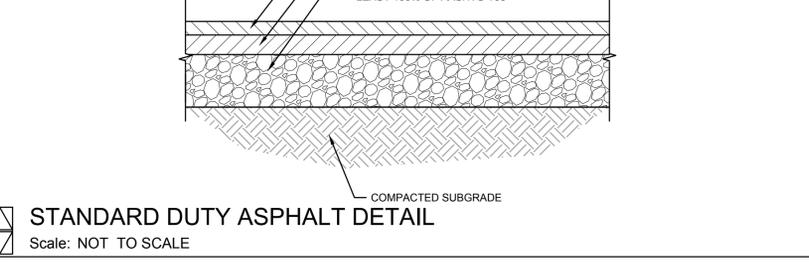
MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

HEAVY DUTY PCC PAVEMENT DETAIL

STANDARD NO. 10.17E

APPROVED DATE: 02/2007

NOT TO SCALE



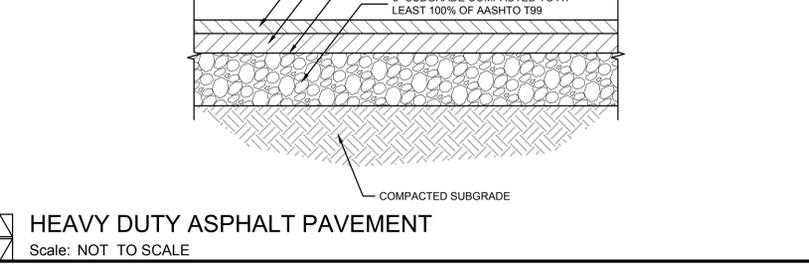
MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

STANDARD DUTY ASPHALT DETAIL

STANDARD NO. 10.17F

APPROVED DATE: 02/2007

NOT TO SCALE



MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

HEAVY DUTY ASPHALT PAVEMENT

STANDARD NO. 10.17G

APPROVED DATE: 02/2007

NOT TO SCALE

MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

CURB AND GUTTER

Scale: NOT TO SCALE

MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

CONCRETE CONTRACTION JOINT

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

SECTION 4.1.2 (b) OF THE AMERICANS WITH DISABILITIES ACT (ADA), SEE 4.1.2.3 (g) FOR MEDICAL CARE FACILITIES.

NOTES:
 1. ALL 12"x18" ACCESSIBLE SIGNS (R7-8a & R7-1) SHALL BE MOUNTED AT 7 FEET FROM GRANDED 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.
 2. REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) U.S. DEPARTMENT OF TRANSPORTATION AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SUPERVISOR.
 3. IF ACCESSIBLE ROUTE IS A BASED SIDEWALK AREA, THEN RAMPS ARE REQUIRED AT LOADING ZONE AREA.

SEE STANDARD NO. 50.109 & 50.10C FOR SUPPLEMENTAL SIGN DETAIL.

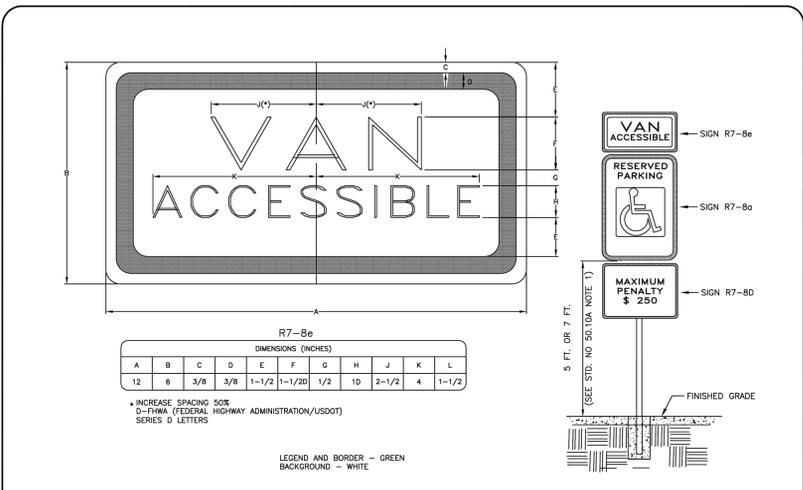
MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

ACCESSIBLE PARKING AND SIGNAGE STANDARDS

STANDARD NO. 50.10A

APPROVED DATE: 02/2007

NOT TO SCALE



MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

SUPPLEMENTAL ACCESSIBLE SIGN (R7-8e)

STANDARD NO. 50.10B

APPROVED DATE: 02/2007

NOT TO SCALE

MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

ADA PARKING STANDARDS

Scale: NOT TO SCALE

MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

ADA SIGN DETAIL

Scale: NOT TO SCALE

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



REVISIONS

NO.	DATE	DESCRIPTION

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TREEHOUSE SCHOOL - PINEVILLE
 505 Towne Centre Blvd
 Pineville, NC

PROJ NO: 250527
 ENG: KH
 DATE: 2026.02.02

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER
C6.0
 11 OF TNS

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
PRECAST MANHOLE 4', 5' AND 6' DIAMETER
12" THRU 48" PIPE

GENERAL NOTES:
USE 4000 PSI MINIMUM COMPRESSIVE STRENGTH CONCRETE.
FABRICATE, ASSEMBLE AND DESIGN PRECAST MANHOLE COMPONENTS ACCORDANCE WITH AASHTO M199.
ASSEMBLE RISER AND GRADE RINGS WITH THE STEPS SPACED 12" FROM THE TOP TO THE BOTTOM OF THE MANHOLE.
WHERE THE MANHOLE IS EXPOSED TO ROAD TRAFFIC, CONSTRUCT THE TOP OF THE MANHOLE FLUSH WITH THE GROUND AND A MINIMUM OF 9" ABOVE THE GROUND AT OTHER LOCATIONS.
LIMIT DEPTH OF FILL TO 30'-0" FROM FINISH GRADE TO TOP OF BOTTOM SLAB.
THE MIN. SLAB THICKNESS 'T' IS THE DIMENSION OF THE THINNEST PORTION OF THE TOP/BOTTOM SLAB.
* TOP MAT OF REINFORCEMENT MAY BE NEGLECTED IF TOP SLAB HAS A DISTINGUISHABLE TOP AND BOTTOM.

D	W	T	As
INTERNAL DIAMETER (FT.)	MIN. WALL THICKNESS (IN.)	MIN. TOP/BOTTOM SLAB THICKNESS (IN.)	MIN. CIRCUMFERENTIAL AREA OF STEEL PER VERTICAL FT. (SQ. IN.)
4	4	6	0.12
5	5	8	0.15
6	6	8	0.18

MECKLENBURG COUNTY
LAND DEVELOPMENT
STANDARDS

APPROVED DATE: 02/2007

NOT TO SCALE

SHEET 1 OF 1
840.52

PRECAST MANHOLE DETAIL
Scale: NOT TO SCALE

FLARED END SECTION DETAIL
Scale: NOT TO SCALE

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
PRECAST MANHOLE 4', 5' AND 6' DIAMETER
12" THRU 48" PIPE

NOTES:
1. CLASS OR MEDIAN SIZE OF RIPRAP AND LENGTH, WIDTH AND DEPTH OF APRON TO BE DESIGNED BY THE ENGINEER.
2. REFER TO THE CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR RIPRAP APRON DESIGN STANDARDS.
3. RIPRAP SHOULD EXTEND UP BOTH SIDERS OF THE APRON AND AROUND THE END OF THE PIPE OR CULVERT AT THE DISCHARGE OUTLET AT A MAXIMUM SLOPE OF 2:1 AND A HEIGHT NOT LESS THAN TWO THIRDS THE PIPE DIAMETER OR CULVERT HEIGHT.
4. THERE SHALL BE NO OVERFLOW FROM THE END OF THE APRON TO THE SURFACE OF THE RECEIVING CHANNEL. THE AREA TO BE PAVED OR RIPRAPPED SHALL BE UNDERCUT SO THAT THE INVERT OF THE APRON SHALL BE AT THE SAME GRADE (FLUSH) WITH THE SURFACE OF THE RECEIVING CHANNEL. THE APRON SHALL HAVE A CUTOFF OR TOE WALL AT THE DOWNSTREAM END.
5. THE WIDTH OF THE END OF THE APRON SHALL BE EQUAL TO THE BOTTOM WIDTH OF THE RECEIVING CHANNEL. MAXIMUM TAPER TO RECEIVING CHANNEL 5:1.
6. ALL SUBGRADE FOR STRUCTURE TO BE COMPACTED TO 95% OR GREATER.
7. THE PLACING OF FILL, EITHER LOOSE OR COMPACTED IN THE RECEIVING CHANNEL SHALL NOT BE ALLOWED.
8. NO BENDS OR CURVES IN THE HORIZONTAL ALIGNMENT OF THE APRON WILL BE PERMITTED.
9. FILTER FABRIC SHALL BE INSTALLED ON COMPACTED SUBGRADE PRIOR TO PLACEMENT OF RIP RAP.
10. ANY DISTURBED AREA FROM END OF APRON TO RECEIVING CHANNEL MUST BE STABILIZED.
USE USDA NOMOGRAPH FROM NC SEDIMENT AND EROSION CONTROL MANUAL OR CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR DESIGN DATA.

OUTLET	Ld	W1	W2	T*	H

MECKLENBURG COUNTY
LAND DEVELOPMENT
STANDARDS

APPROVED DATE: 02/2007

RIP RAP APRON AT PIPE OUTFALLS
OTHER THAN AT SWIM

SHEET 1 OF 1
840.52

RIP RAP APRON AT PIPE OUTFALLS
Scale: NOT TO SCALE

NOTES:
1. A MINIMUM OF 24" FROM OUTSIDE DIAMETER OF PIPE TO SIDE OF TRENCH MUST BE ALLOWED FOR COMPACTION OF FILL MATERIAL. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER THE PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE PLACED IN LAYERS NOT TO EXCEED 6". UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES AFTER THE PIPE HAS BEEN PLACED. COMPACTION REQUIREMENTS SHALL BE ATTAINED BY THE USE OF MECHANICAL TAMPS ONLY. EACH AND EVERY LAYER OF BACKFILL SHALL BE PLACED LOOSE AND THOROUGHLY COMPACTED INTO PLACE.
2. ALL BACKFILL MATERIAL SHALL HAVE AN IN PLACE COMPACTED DENSITY OF 95%.
3. STANDARD PROCTOR. THE FINAL 2' BELOW FINISHED GRADE SHALL BE 100%.
4. ALL TRENCHING OPERATIONS SHALL MEET OSHA STANDARDS.
5. BACKFILL MATERIAL BENEATH ROADWAY SHALL BE SELECT BACKFILL MATERIAL.

MECKLENBURG COUNTY
LAND DEVELOPMENT
STANDARDS

APPROVED DATE: 02/2007

TRENCH DETAIL
FOR STORM DRAIN

SHEET 1 OF 1
20.25

TRENCH BACKFILL DETAIL
Scale: NOT TO SCALE

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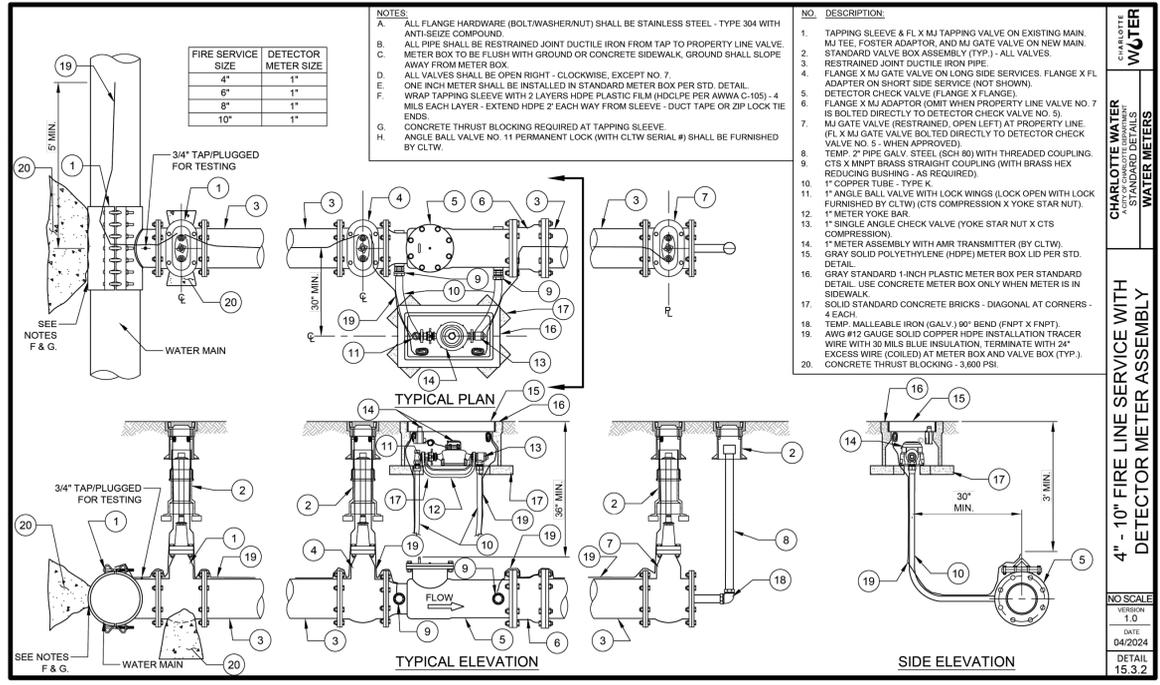
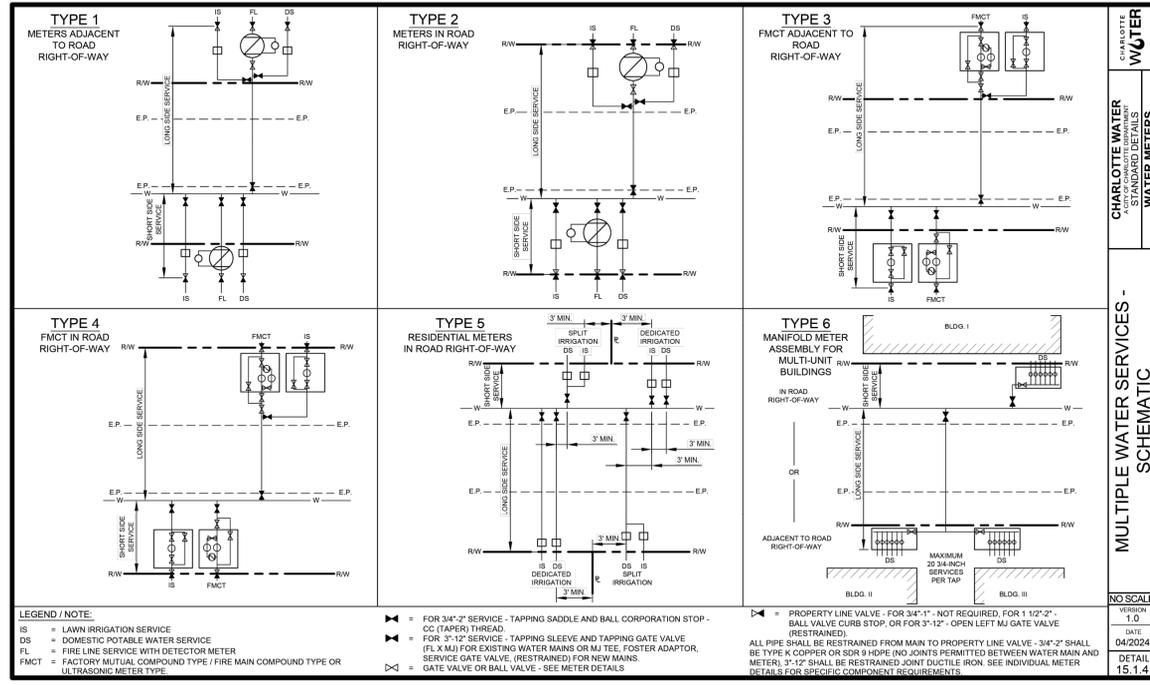
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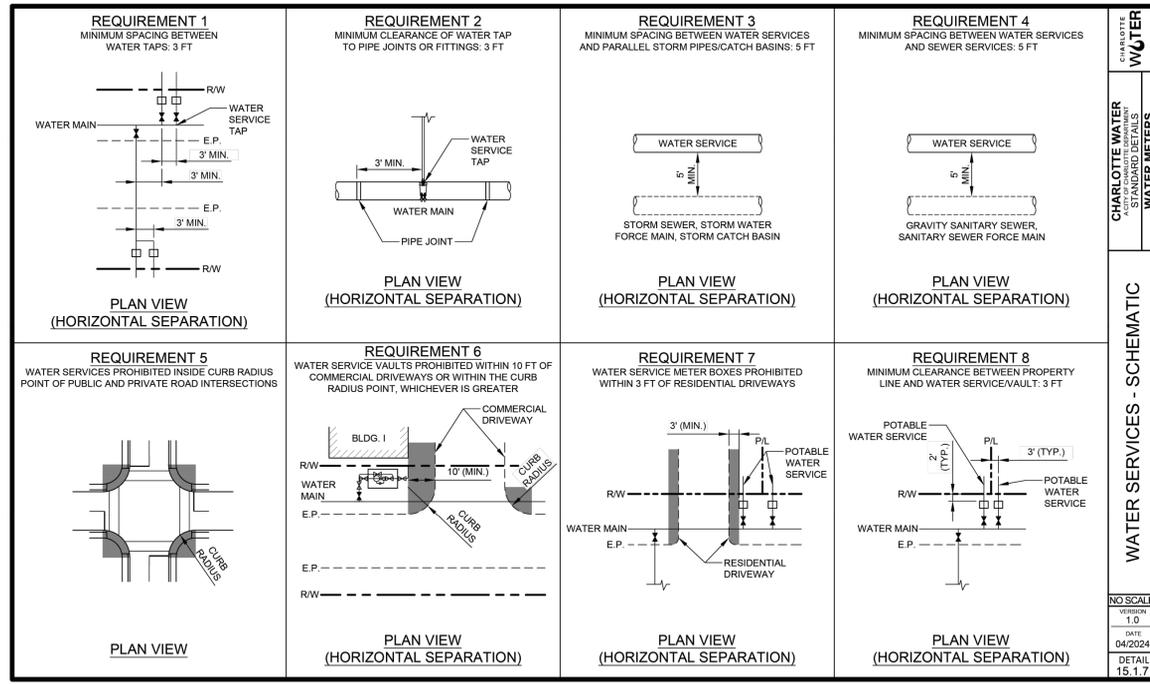
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CONSTRUCTION
DETAILS

SHEET NUMBER
C6.1
12 OF TNS

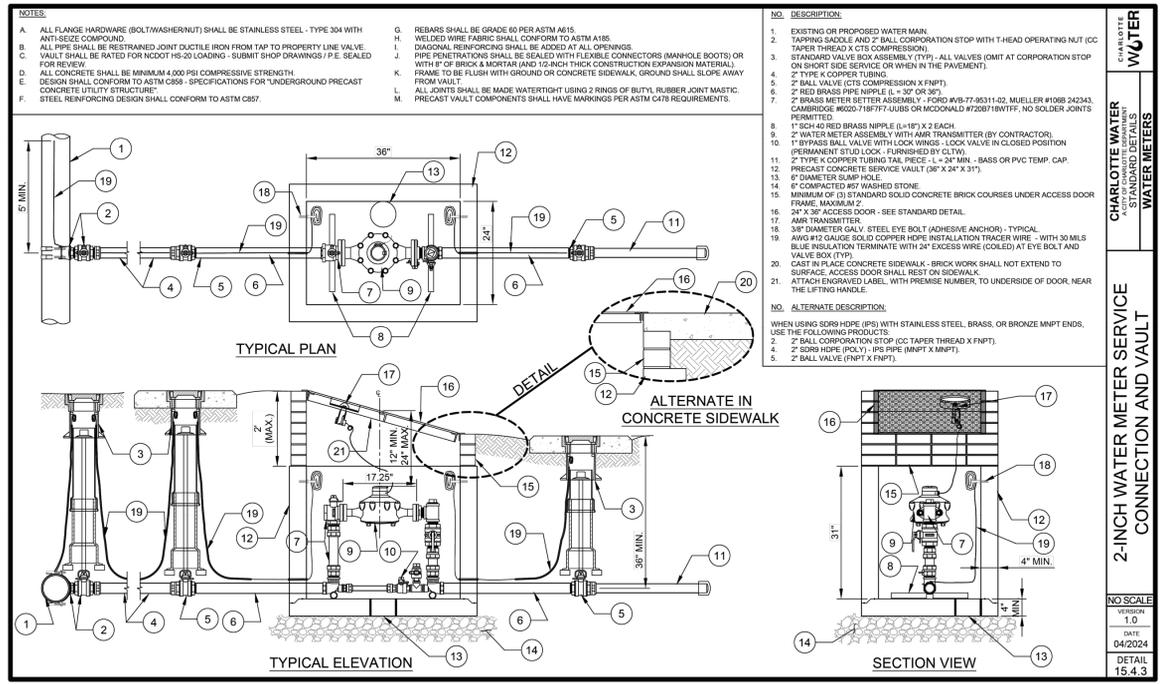


WATER SERVICE SCHEMATICS
Scale: NOT TO SCALE

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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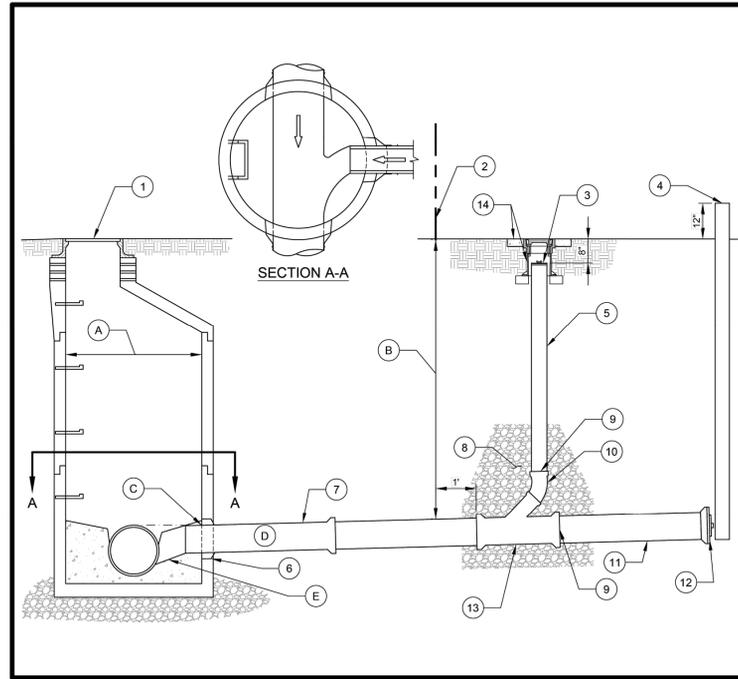
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CONSTRUCTION DETAILS

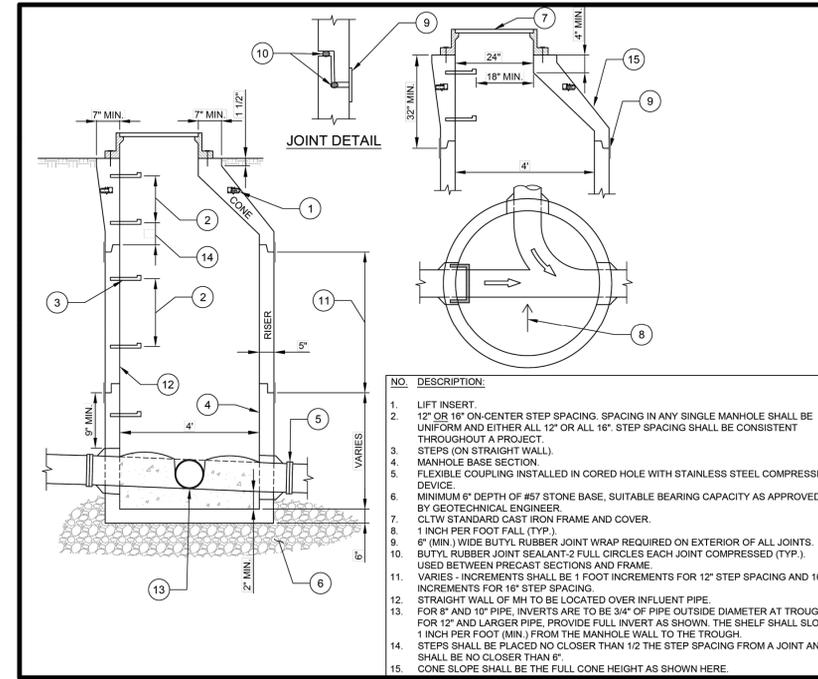
SHEET NUMBER
C6.2
13 OF TNS



NO.	DESCRIPTION
1.	EXISTING OR PROPOSED MANHOLE CLTW STANDARD CAST IRON FRAME AND COVER
2.	PROPERTY LINE, ROAD R/W OR CLTW EASEMENT LINE
3.	GRIPPER (END OF PIPE-TYPE) PLUG SHALL BE SCH 40 FIFT ADAPTER WITH SCREW CAP
4.	4" X 4" PRESSURE TREATED LUMBER POST
5.	4" OR 6" SCH 40 PVC VERTICAL STANDPIPE
6.	MANHOLE/PIPE BOOT ON PRECAST MANHOLES AND CONCRETE COLLARS ON BRICK OR BLOCK MANHOLES
7.	4" OR 6" DIP, OR 4" OR 6" DR 18 PVC
8.	#57 STONE EMBEDMENT
9.	IPS (SCH 40 PVC) TRANSITION GASKET
10.	4" OR 6" 5X8 45° BEND (C900 DR18 PVC)
11.	4" OR 6" PVC PIPE TAILPIECE (SCH 40 PVC - LL * 36" MIN.)
12.	TEST-KAP OR END-CAP TEST CAP BY CHERNE INDUSTRIES OR APPROVED EQUAL SCH 40 GLUE ON CAP
13.	4" X 4" X 4" OR 6" X 6" X 6" 45° ALL BELL WYE (C900 DR18 PVC)
14.	VALVE BOX ASSEMBLY (TYP.) FOR 6" CLEANOUTS AND CONCRETE PAD, VALVE BOX TO BE REPLACED WITH US FOUNDRY MODEL 7610 COVER, EJ CORP #15702, OR APPROVED EQUAL

NOTES:	
A.	4" MIN. DIAMETER (5" MIN. DIAMETER FOR INSIDE DROP)
B.	MINIMUM DEPTH OF COVER AT PROPERTY LINE SHALL BE 4" UNLESS GREATER DEPTH IS REQUIRED TO SERVE THE BUILDING. MINIMUM DEPTH AT SIDE DITCH SHALL BE 2.5'
C.	MATCH CROWNS UNLESS THE LATERAL IS THE SAME DIAMETER AS THE MAIN LINE PIPE. THEN A DROP OF 0.2" BETWEEN INVERTS WILL BE PROVIDED.
D.	MINIMUM PIPE SLOPES: 4" PIPE IS 1.50% AND 6" PIPE IS 1.25%. MAXIMUM SLOPE FOR ALL PIPE SHALL BE 10%.
E.	CONCRETE THROUGH TO BE CUT TO DIRECT FLOW FROM PIPE CONNECTION TO EFFLUENT PIPE
F.	TRACER WIRE INSTALLED PER CLTW TRACER WIRE DETAIL AS APPLICABLE
G.	CUT LETTER "S" IN CURB WHERE PIPE CROSSING UNDER CURB AND PAINT WITH GREEN PAINT. IF NO CURB, PAINT "S" IN P.V.M.T.
H.	TYPE 3 GRANULAR BEDDING REQUIRED IF GROUNDWATER, ROCK, OR UNSTABLE SOIL IS ENCOUNTERED.

NO SCALE	REVISION	4
VERSION	1.0	
DATE	04/2024	
DETAIL	11.1.4	



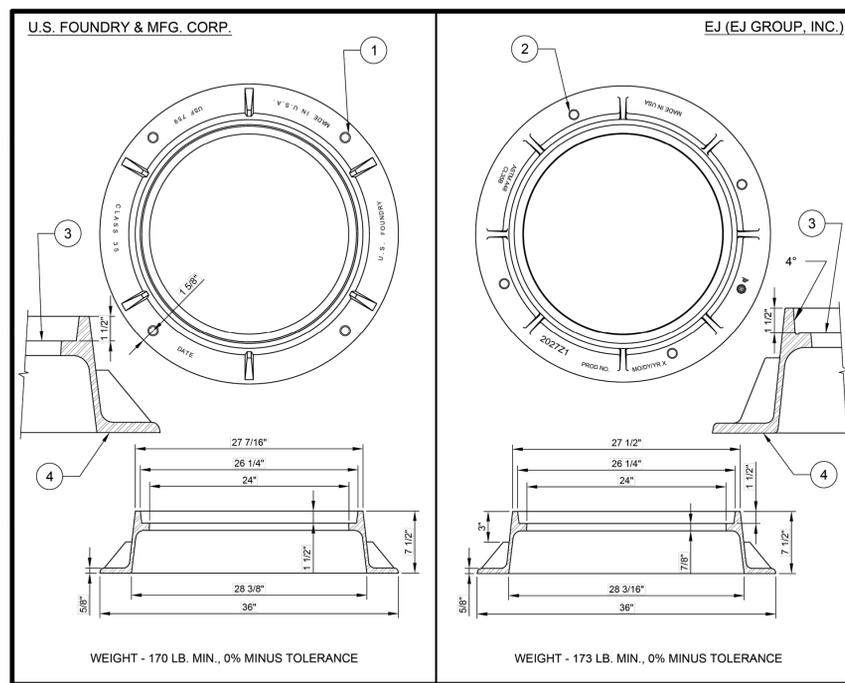
NO.	DESCRIPTION
1.	LIFT INSERT
2.	12" OR 16" ON-CENTER STEP SPACING. SPACING IN ANY SINGLE MANHOLE SHALL BE UNIFORM AND EITHER ALL 12" OR ALL 16". STEP SPACING SHALL BE CONSISTENT THROUGHOUT A PROJECT
3.	STEPS (ON STRAIGHT WALL)
4.	MANHOLE BASE SECTION
5.	FLEXIBLE COUPLING INSTALLED IN CORED HOLE WITH STAINLESS STEEL COMPRESSION DEVICE
6.	MINIMUM 6" DEPTH OF #57 STONE BASE, SUITABLE BEARING CAPACITY AS APPROVED BY GEOTECHNICAL ENGINEER
7.	CLTW STANDARD CAST IRON FRAME AND COVER
8.	1 INCH PER FOOT FALL (TYP.)
9.	6" (MIN.) WIDE BUTYL RUBBER JOINT WRAP REQUIRED ON EXTERIOR OF ALL JOINTS. BUTYL RUBBER JOINT SEALANT-2 FULL CIRCLES EACH JOINT COMPRESSED (TYP.)
10.	USED BETWEEN PRECAST SECTIONS AND FRAME
11.	VARIABLE INCREMENTS SHALL BE 1 FOOT INCREMENTS FOR 12" STEP SPACING AND 16" INCREMENTS FOR 16" STEP SPACING
12.	STRAIGHT WALL OF MH TO BE LOCATED OVER INFLUENT PIPE
13.	FOR 8" AND 10" PIPE, INVERTS ARE TO BE 3/4" OF PIPE OUTSIDE DIAMETER AT TROUGH. FOR 12" AND LARGER PIPE, PROVIDE FULL INVERT AS SHOWN. THE SHELFF SHALL SLOPE 1 INCH PER FOOT (MIN.) FROM THE MANHOLE WALL TO THE TROUGH
14.	STEPS SHALL BE PLACED NO CLOSER THAN 1/2 THE STEP SPACING FROM A JOINT AND SHALL BE NO CLOSER THAN 6" CONE SLOPE SHALL BE THE FULL CONE HEIGHT AS SHOWN HERE

NOTES:	
A.	MANHOLE TO CONFORM WITH ASTM C478 EXCEPT AS MODIFIED BELOW
B.	MANHOLE BASE TO BE REINFORCED WITH A MINIMUM AREA OF 0.20 SQ. IN PER LINEAR FOOT EACH WAY. WALL REINFORCING TO BE MINIMUM OF 0.12 SQ. IN PER VERTICAL FOOT EITHER TONGUE OR GROOVE SHALL HAVE REINFORCING EQUAL IN AREA TO MINIMUM OF WALL SECTION
C.	ALL JOINTS SHALL CONFORM WITH ASTM C990
D.	STEPS TO CONFORM TO CLTW STANDARD DETAIL
E.	ALL PIPE OPENINGS TO BE NO GREATER THAN 4" LARGER THAN OUTSIDE DIAMETER OF PIPE AND ADDITIONALLY REINFORCED WITH A MINIMUM OF 0.20 SQ. IN. OF STEEL AT 90°. ADDITIONAL REINFORCING NOT REQUIRED FOR CORED OPENINGS
F.	ALL SURFACES SHALL BE SMOOTH EVEN TEXTURED WITH A MINIMUM OF HONEYCOMB, FINS AND OTHER IMPERFECTIONS
G.	PENETRATING LIFTING HOLES SHALL BE PLUGGED WITH EXPANSION GROUT OR HAVE WATERTIGHT PLASTIC INSERTS
H.	INVERTS TO BE PRECAST CONCRETE
I.	ALL MANHOLE SECTIONS SHALL BE DESIGNED FOR H-20 LOADING AND A MINIMUM HEIGHT OF 40 VERTICAL FEET
J.	WIRE TO CONFORM WITH ASTM A1064, LOCATED IN CENTER 1/3 OF WALL
K.	REBAR TO CONFORM WITH ASTM A615 OR A706, GRADE 60
L.	PRODUCT MARKINGS REQUIRED BY ASTM C478 SHALL BE MARKED ON BOTH THE INTERIOR AND EXTERIOR OF EACH PRECAST SECTION
M.	ALL STEPS SHALL BE PULLOUT TESTED TO A MINIMUM LOAD OF 1,000 LBS. TEST REPORTS REQUIRED
N.	PRECAST PRODUCT SHALL NOT BE SHIPPED FROM THE MANUFACTURER UNTIL IT HAS REACHED A MINIMUM OF 4,000 PSI COMPRESSIVE STRENGTH AND NO LESS THAN 7 DAYS AFTER CASTING, WHICHEVER IS GREATER

NO SCALE	REVISION	1
VERSION	1.0	
DATE	04/2024	
DETAIL	11.2.1	

CLT WATER - SANITARY CONNECTION TO EXISTING MANHOLE
Scale: NOT TO SCALE

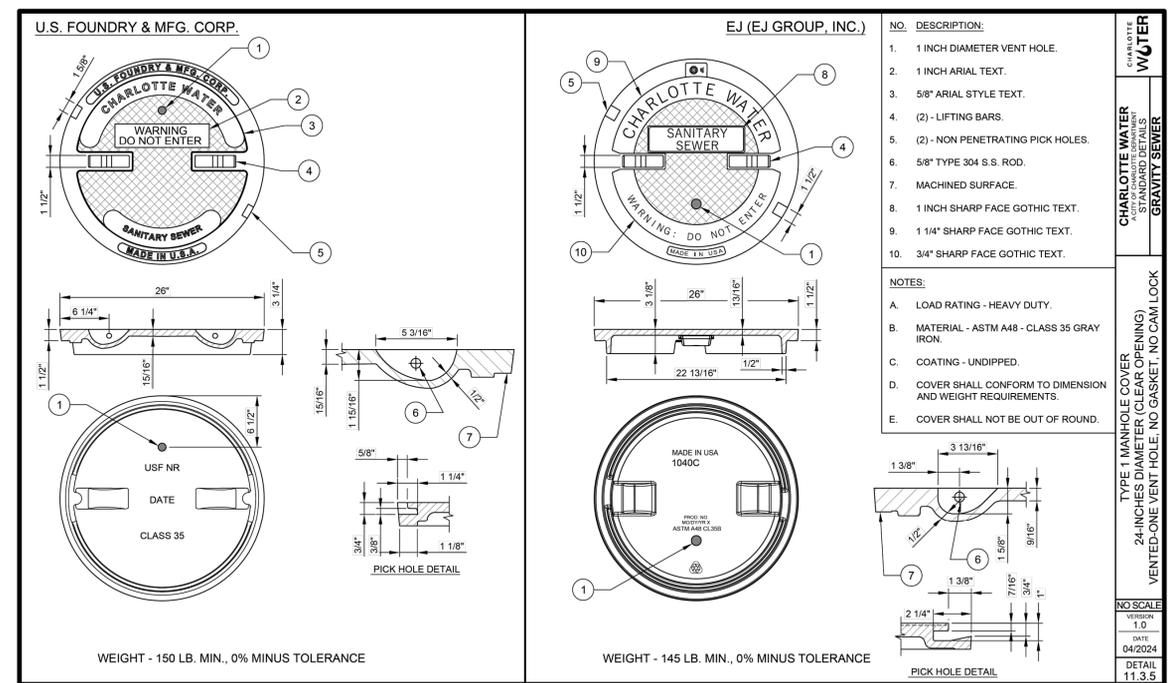
CLT WATER - PRECAST 4' SANITARY MANHOLE
Scale: NOT TO SCALE



NO.	DESCRIPTION
1.	(4) - 1 INCH DIAMETER ANCHOR HOLES ON A 32 3/4" DIAMETER B.C.D.
2.	(4) - 1 INCH DIAMETER ANCHOR HOLES ON A 31" DIAMETER B.C.D.
3.	MACHINED SURFACE
4.	FRAME

NOTES:	
A.	LOAD RATING - HEAVY DUTY
B.	MATERIAL - ASTM A48 - CLASS 35 GRAY IRON
C.	COATING - UNDIPPED
D.	FRAME SHALL CONFORM TO DIMENSION AND WEIGHT REQUIREMENTS
E.	FRAME SHALL NOT BE OUT OF ROUND

NO SCALE	REVISION	1
VERSION	1.0	
DATE	04/2024	
DETAIL	11.3.1	



NO.	DESCRIPTION
1.	1 INCH DIAMETER VENT HOLE
2.	1 INCH ARIAL TEXT.
3.	5/8" ARIAL STYLE TEXT.
4.	(2) - LIFTING BARS
5.	(2) - NON PENETRATING PICK HOLES
6.	5/8" TYPE 304 S.S. ROD
7.	MACHINED SURFACE
8.	1 INCH SHARP FACE GOTHIC TEXT.
9.	1 1/4" SHARP FACE GOTHIC TEXT.
10.	3/4" SHARP FACE GOTHIC TEXT.

NOTES:	
A.	LOAD RATING - HEAVY DUTY
B.	MATERIAL - ASTM A48 - CLASS 35 GRAY IRON
C.	COATING - UNDIPPED
D.	COVER SHALL CONFORM TO DIMENSION AND WEIGHT REQUIREMENTS
E.	COVER SHALL NOT BE OUT OF ROUND

NO SCALE	REVISION	1
VERSION	1.0	
DATE	04/2024	
DETAIL	11.3.5	

CLT - FRAME DETAIL
Scale: NOT TO SCALE

CLT WATER - GRATE DETAIL
Scale: NOT TO SCALE

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SHEET TITLE
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DETAILS

SHEET NUMBER
C6.3
14 OF TNS