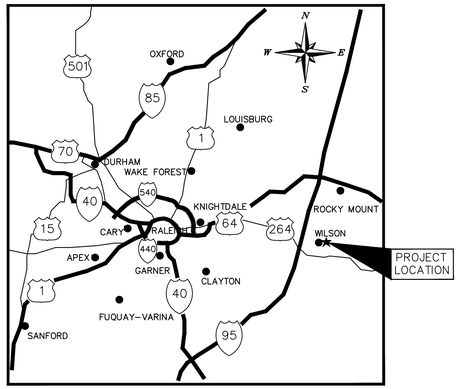

PROJECT LOCATION
NTS

CONSTRUCTION DOCUMENT SUBMITTAL FOR
WILSON BALLPARK UTILITIES EXPANSION
REVIEW NUMBER TBD

CORNER OF GOLDSBORO ST. & HINES ST.
WILSON, NORTH CAROLINA 27893

A DEVELOPMENT BY: CITY OF WILSON
112 GOLDSBORO ST. EAST
WILSON, NC 27983

VICINITY MAP N.T.S

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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF WILSON AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

SURVEY NOTE:

EXISTING INFORMATION TAKEN FROM BOUNDARY/TOPOGRAPHIC SURVEY PROVIDED BY BARTLETT ENGINEERING AND SURVEYING, PC, 1906 NASH ST. N., WILSON, NC 27893. PHONE: 252-205-1856 AND DATED AUGUST 25, 2023 AND GIS/AERIAL IMAGERY.

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JANUARY 26, 2024

JOB NUMBER:
268255002

811
Know what's below.
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No.	REVISIONS	DATE	BY

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DATE	01/26/2024
SCALE	AS SHOWN
DESIGNED BY:	SRH
DRAWN BY:	SRH
CHECKED BY:	TRC

COVER SHEET

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C0.0

GENERAL NOTES:

1. WORK IN THIS PROJECT SHALL CONFORM TO THESE PLANS, THE LATEST EDITIONS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) ROAD AND BRIDGE SPECIFICATIONS, THE NCDOT ROAD AND BRIDGE STANDARDS, THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK, THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS, THE CITY OF WILSON DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT, AND GENERAL DESIGN STANDARDS. IN THE EVENT OF CONFLICT BETWEEN ANY OF THESE STANDARDS, SPECIFICATIONS, OR PLANS, THE MOST STRINGENT SHALL GOVERN. ALL UTILITIES TO BE DEDICATED TO THE CITY OF WILSON MUNICIPAL WATER AND/OR SANITARY SEWER SYSTEM SHALL BE CONSTRUCTED AND TESTED TO CONFORM TO STATE OF NORTH CAROLINA/STATE BOARD OF HEALTH WATERWORKS AND/OR SEWAGE REGULATIONS AND THE CITY OF WILSON DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS.
2. THE TERM "CONTRACTOR" AS REFERENCED HERE-IN SHALL ALSO INCLUDE THE SUBCONTRACTOR OR PRINCIPAL TRADE CONTRACTOR, UNDER CONTRACT TO THE GENERAL CONTRACTOR TO PROVIDE LABOR, MATERIALS, AND/OR SERVICES TO THE PROJECT.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL JOBSITE SAFETY, INCLUDING BUT NOT LIMITED TO TRENCH SAFETY, DURING ALL PHASES OF CONSTRUCTION.
4. THE LOCATION AND SIZE OF EXISTING UTILITIES AS SHOWN IS APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING AND PROTECTING ALL PUBLIC OR PRIVATE UTILITIES (SHOWN OR NOT SHOWN) WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE NORTH CAROLINA 811 UTILITIES LOCATION SERVICE (NC811) AT 1-800-632-4949 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE SITE.
5. THE CONTRACTOR SHALL SALVAGE AND PROTECT ALL EXISTING POWER POLES, SIGNS, MANHOLES, TELEPHONE RISERS, WATER VALVES, ETC. DURING ALL CONSTRUCTION PHASES. THE CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
6. TRAFFIC CONTROL WITHIN ALL VEHICULAR AREAS IS THE RESPONSIBILITY OF THE CONTRACTOR, SHALL BE IN CONFORMANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES," AND AS FURTHER DIRECTED BY CITY AND STATE INSPECTORS.
7. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS OR ANY INCONSISTENCIES OR AMBIGUITIES IN DRAWINGS OR SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER, IN WRITING, WHO SHALL PROMPTLY ADDRESS SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR AFTER HIS DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES SHALL BE DONE AT THE CONTRACTOR'S RISK.
8. CONSTRUCTION STAKEOUT FOR THIS PROJECT SHALL BE PER A DIGITAL (CAD) FILE PROVIDED BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE LEAD ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES FOUND BETWEEN THE DIGITAL FILE AND THE CRITICAL STAKING DIMENSIONS SHOWN ON THIS PLAN. ANY MODIFICATIONS MADE BY OTHERS TO THE DIGITAL FILE PROVIDED BY THE ENGINEER SHALL RENDER IT VOID.
9. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ARRANGE THE MEETING WITH THE CITY OF WILSON ENGINEERING DIVISION AND THE OWNER.
10. CONTRACTOR IS RESPONSIBLE FOR VERIFYING OR OBTAINING ALL REQUIRED PERMITS AND APPROVALS PRIOR TO COMMENCING CONSTRUCTION.
11. THE FRAMES AND COVERS OF ALL EXISTING AND PROPOSED DRAINAGE, SANITARY SEWER, WATER MAIN, GAS, AND WIRE UTILITY STRUCTURES SHALL BE ADJUSTED TO MATCH PROPOSED FINISHED ELEVATIONS AND SLOPES.
12. ROADWAYS AND BUILDINGS MUST BE CAPABLE OF SUPPORTING FIRE APPARATUS DURING CONSTRUCTION.
13. EXISTING INFORMATION TAKEN FROM AN ALTA/ACSM LAND TITLE SURVEY PROVIDED BY BARTLETT ENGINEERING AND SURVEYING, PC, 1906 NASH ST. S., WILSON, NC 27893. PHONE: 252-205-1856 AND DATED AUGUST 25, 2023 AND GIS/AERIAL IMAGERY.
14. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NC DOT AND CITY OF WILSON STANDARDS, SPECIFICATIONS, & DETAILS IF APPLICABLE.

SANITARY SEWER

1. GRAVITY SANITARY SEWER MAINS SHALL BE SDR-35 PVC PIPE OR DIP AS SPECIFIED IN THESE PLANS AND CITY OF WILSON STANDARDS AND SPECIFICATIONS. SANITARY SEWER SERVICES SHALL BE SCHEDULE 40 PVC.
2. CLEANOUT SYMBOLS SHOWN ON THESE PLANS REPRESENT LOCATION OF SURFACE ACCESS POINT. CONTRACTOR SHALL LOCATE WYE APPROPRIATELY BASED ON PIPE DEPTH.
3. ALL MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WILSON STANDARDS. MANHOLE DIAMETER SHALL VARY DEPENDING ON PIPE DIAMETER AND DEPTH, PER CITY OF WILSON STANDARDS.
4. SANITARY SEWER CLEAN-OUTS LOCATED IN PAVEMENT AREAS SHALL BE HEAVY-DUTY TRAFFIC BEARING CASTINGS.
5. ALL SEWER MAINS IN TRAFFIC AREAS SHALL HAVE MINIMUM COVER OF 5' MEASURED FROM FINISHED GRADE TO PIPE CROWN UNLESS DUCTILE IRON PIPE IS PROVIDED IN CLASS 1 BEDDING WHERE A MINIMUM COVER SHALL BE 3'.
6. SEWER MANHOLES LOCATED IN NON-PAVED AREAS SHALL HAVE RIM ELEVATION A MINIMUM OF 1' ABOVE FINISHED GRADE.
7. ALL DIP SHALL BE PROTECTO 401 LINED OR EQUIVALENT.

WATER

1. WATERLINES, LARGER THAN 2" SHALL BE DUCTILE IRON PIPE MEETING THE REQUIREMENTS OF ANSI-AWWA C151 PRESSURE CLASS 350. WATERLINES 3/4" TO 2" SHALL BE TYPE "K" SOFT COPPER.
2. ALL UNDERGROUND UTILITIES AND FIRE HYDRANTS MUST BE FUNCTIONALLY APPROVED PRIOR TO STRUCTURAL CONSTRUCTION.
3. NATIONAL STANDARD THREADS SHALL BE INSTALLED ON FIRE HYDRANTS.
4. ALL FIRE HYDRANTS AND FDC CONNECTIONS TO HAVE STORZ TYPE CONNECTION PER CITY OF WILSON FIRE DEPARTMENT STANDARDS.
5. ALL WATER MAINS SHALL BE C-900 OR DIP AS SPECIFIED.

BACKFLOW PREVENTION:

1. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPARTMENT CONNECTION POINTS OR OTHER WATER-USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS REQUIRED BACKFLOW PREVENTER.
2. EACH BACKFLOW PREVENTER ASSEMBLY IS REQUIRED TO BE TESTED BY AN APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM INTO SERVICE. CONTRACTOR SHALL PERFORM TESTING IN ACCORDANCE WITH THE CITY OF WILSON ENGINEERING DEPARTMENT.

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL CONDUCT THE WORK IN A SAFE MANNER AND WITH A MINIMUM AMOUNT OF INCONVENIENCE TO TRAFFIC.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL AND SHALL ADHERE TO THE PROVISIONS OF THE MUTCD (MOST CURRENT EDITION).
3. PRIOR TO CONSTRUCTION BEGINNING, ALL SIGNAGE AND TRAFFIC CONTROL SHALL BE IN PLACE.
4. THE CONTRACTOR SHALL HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS ALL APPROVALS AND EASEMENTS ON THE JOB SITE AT ALL TIMES.
5. THE CONTRACTOR SHALL REPAIR ALL DRIVEWAYS, DRIVEWAY PIPES, CURB AND GUTTER, SIDEWALKS AND STREET TO EXISTING CONDITION OR BETTER.
6. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER, CITY OF WILSON, AND DOT (AS APPROPRIATE) PRIOR TO STARTING CONSTRUCTION.

STANDARD UTILITY NOTES

1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF WILSON DESIGN STANDARDS & SPECIFICATIONS
2. UTILITY SEPARATION REQUIREMENTS:
   A) A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
   B) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
   C) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATER MAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
   D) 24" MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
   E) MAINTAIN 18"MIN. VERTICAL SEPARATION AT ALL WATER MAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24"MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6"MIN. CLEARANCE.
   F) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18"MIN. VERTICAL SEPARATION REQUIRED.
3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF WILSON PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF WILSON PUBLIC UTILITIES DEPARTMENT.
5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE MAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
6. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF WILSON PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT.
7. INSTALL 6" WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2'x2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
8. INSTALL 8" PVC SEWER SERVICES @ 2.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
9. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE
10. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
11. NCDOT ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE ROW PRIOR TO CONSTRUCTION.
12. CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT.
13. THE STATE OF NORTH CAROLINA AND C.O.W. PUBLIC WORKS DEPT. SHALL BE NOTIFIED IN WRITING PRIOR TO UTILITY INSTALLATION AND FOR SCHEDULING INSPECTIONS.
14. TRAFFIC CONTROLS FOR ANY UTILITY WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE IN COMPLIANCE WITH STANDARDS OF THE NORTH CAROLINA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
15. IN THE EVENT AN ITEM IS NOT COVERED BY THESE PLANS, THEN THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE CITY OF WILSON PUBLIC UTILITIES DEPARTMENT HANDBOOK COVERING SUCH ITEMS SHALL APPLY.
16. IF NCDEQ WATER AND SANITARY SEWER PERMITS ARE REQUIRED, CONTRACTOR IS RESPONSIBLE FOR ALL PERMIT FEES.
17. LOCATIONS AND SIZES OF EXISTING WATER AND SEWER LINES SHOWN ON THESE PLANS WITHIN THE PROPERTY LIMITS OF THE SITE ARE ASSUMED BASED ON SURVEY OF SURFACE FEATURES (MANHOLES, VALVES, VAULTS, METERS, ETC.) PREPARED BY BARTLETT ENGINEERING AND SURVEYING, PC, 1906 NASH ST. N., WILSON, NC 27893. IT IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING UTILITIES PRIOR TO COMMENCING WORK. ANY DEVIATIONS FROM WHAT IS INDICATED ON THESE PLANS SHALL BE REPORTED TO THE DEVELOPER AND ENGINEER, IN WRITING, IMMEDIATELY.
18. CONTRACTOR SHALL PROVIDE A MEANS TO KEEP ALL NEW PIPING ISOLATED FROM EXISTING PIPING UNTIL ALL NEW PIPING HAS BEEN TESTED, AND ACCEPTED FOR SERVICE.
19. EXISTING UTILITIES SHALL BE PROTECTED DURING ALL CONSTRUCTION.
20. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE UTILITIES. ALL PUBLIC PIPE, STRUCTURES, AND FITTINGS SHALL BE INSPECTED BY THE CITY INSPECTOR PRIOR TO BEING COVERED. THE INSPECTOR MUST ALSO BE PRESENT DURING DISINFECTION AND PRESSURE TESTING OF ALL MAINS. THE CONTRACTOR'S BID PRICE SHALL INCLUDE ALL INSPECTION FEES.
21. UTILITY WORK SHALL BE INSPECTED AND ACCEPTED BY CITY OF WILSON PRIOR TO PLACING INTO SERVICE.
22. THERE SHALL BE A MINIMUM 3' CLEAR DISTANCE AROUND ALL FIRE HYDRANTS.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING "AS-BUILT" PLANS, PER CITY OF WILSON REQUIREMENTS, TO THE ENGINEER SHOWING THE LOCATION OF WATER AND SEWER SERVICES AND ANY DEVIATIONS FROM PLANS MADE DURING CONSTRUCTION. THE ENGINEER WILL PROVIDE THESE RECORD PLANS TO THE CITY OF WILSON.
24. A SANITARY SEWER BYPASS PLAN IS REQUIRED TO BE APPROVED BY THE ENGINEER AND CITY OF WILSON PRIOR TO THE START OF ANY BYPASS OPERATION.

PAVING/CURBING

1. WHERE PROPOSED CURB AND GUTTER TIES TO EXISTING CURB OR CURB AND GUTTER, A TRANSITION OF 10' SHALL BE MADE TO CONFORM TO THE EXISTING HEIGHTS AND SHAPES.
2. BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF PAVEMENT AND OTHER ITEMS ESTABLISHED IN THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
3. ALL PAVEMENT SUB GRADES (EVEN WHEN ROCK IS ENCOUNTERED) SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES AND COMPACTED TO A MINIMUM DENSITY OF 98 PERCENT OF ASTM D-698 DENSITY AT OPTIMUM MOISTURE CONTENT UNLESS OTHERWISE SHOWN IN THE CONSTRUCTION DOCUMENTS OR AS DIRECTED BY THE CERTIFIED MATERIALS TESTING AGENT. FILL SHALL BE PLACED AND COMPACTED IN MAXIMUM 8" LIFTS.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS AND MISCELLANEOUS STRIPING AS SHOWN ON THE PLANS. ALL ROADWAY PAVEMENT MARKINGS SHALL BE THERMOPLASTIC AND ADHERE TO NCDOT STANDARDS.
5. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE CONDITION ALL FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
6. ALL CURB JOINTS SHALL EXTEND THROUGH THE CURB. MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS IS 1.5 FEET. ALL JOINTS SHALL BE SEALED WITH JOINT SEALANT.
7. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN APPROVED AGENCY FOR TESTING MATERIALS. THE TESTING LABORATORY AND THE PAYMENT OF SUCH TESTING SERVICES SHALL BE MADE BY THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY THAT THE CERTIFIED MATERIAL TESTING AGENT HAS PERFORMED THE WORK AND THAT THE WORK CONSTRUCTED DOES MEET THE REQUIREMENTS OF THE CITY'S SPECIFICATIONS AND/OR THE PROJECT SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
8. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES ON PUBLIC STREETS SHALL CONFORM TO MUTCD, NCDOT, AND CITY OF WILSON STANDARDS.

STORM DRAINAGE

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF CURB INLETS AND GRATE INLETS AND ALL UTILITIES CROSSING THE STORM SEWER.
2. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER.
3. THE CITY OF WILSON INSPECTOR SHALL INSPECT ALL "PUBLIC" CONSTRUCTION. THE CONTRACTOR'S PRICE SHALL INCLUDE ALL INSPECTION FEES.
4. ALL RCP STORM SEWER MAINS AND LATERALS SHALL BE MINIMUM CLASS III REINFORCED CONCRETE PIPE.
5. ALL PVC TO RCP CONNECTIONS SHALL BE CONSTRUCTED WITH CONCRETE COLLARS.
6. THE LOCATIONS OF STORM SEWER STRUCTURES SHOWN ON THESE PLANS (AND PROVIDED IN ASSOCIATED CAD FILES) ARE APPROXIMATE. THE CONTRACTOR SHALL STAKE ALL CURB INLET STRUCTURES SUCH THAT INLET TOPS ALIGN HORIZONTALLY WITH PROPOSED CURB LOCATIONS (PER DETAIL, IF PROVIDED). WHERE PROPOSED STORM SEWERS TIE TO EXISTING STRUCTURES, PIPES, ETC., THE CONTRACTOR SHALL FIELD ADJUST PROPOSED STORM SEWERS TO MATCH THE LOCATIONS OF THESE EXISTING FEATURES.
7. RIM ELEVATIONS FOR STORM CATCH BASINS ARE MEASURED TO THE GUTTER FLOW LINE.

TRAFFIC CONTROL NOTES

1. WITHIN THE SIGHT TRIANGLES AND SIGHT EASEMENTS SHOWN ON THESE PLANS, NO OBSTRUCTION SHALL BE LOCATED IN WHOLE OR PART BETWEEN (2) FEET AND (8) FEET IN HEIGHT ABOVE THE CURB LINE ELEVATION OR THE NEAREST TRAVELED WAY, IF NO CURBING EXISTS. OBSTRUCTIONS INCLUDE, BUT ARE NOT LIMITED TO, ANY BERM, FOLIAGE, FENCE, WALL, SIGN, PARKED VEHICLE OR OTHER OBJECT.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILSON AND/OR N.C.D.O.T. STANDARDS AND SPECIFICATIONS.
3. REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION) FOR DETAILS OF STANDARD TRAFFIC CONTROL SIGNS AND STANDARDS.

SEEDBED PREPARATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO SIX INCHES DEEP.
3. REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE MIXTURE BELOW).*
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT S&EC ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.
10. *AGRICULTURAL LIMESTONE – 2 TONS/ ACRES (3 TONS/ACRE IN CLAY SOILS) FERTILIZER – 1,000 LBS. / ACRE –10-10-10 SUPERPHOSPHATE– 500 LBS> / ACRE –20% ANALYSIS MULCH –2 TONS / ACRE – SMALL GRAIN STRAW ANOTHER – ASPHALT EMULSION @ 300 GALS./ ACRE

SEEDING SCHEDULE

DATE	TYPE	PLANTING RATE
	SHOULDERS, SIDE DITCHES, SLOPES (MAX 3:1)	
AUG 15 – NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1 – MAR 1	TALL FESCUE	300 LBS/ACRE
	& ABRUZZI RYE	25 LBS/ACRE
MAR 1 – APR 15	TALL FESCUE	300 LBS/ACRE
APR 15 – JUN 30	HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1 – AUG 15	TALL FESCUE AND	120 LBS/ACRE
	***BROWNTOP MILLET	35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE
	SLOPES (3:1 TO 2:1)	
MAR 1 – JUN 1	SERICEA LESPEDEZA (SCARIFIED)	50 LBS/ACRE
(MAR 1 – APR 15)	AND ADD TALL FESCUE	120 LBS/ACRE
(MAR 1 – JUN 30)	OR ADD WEEPING LOVEGRASS	10 LBS/ACRE
(MAR 1 – JUN 30)	OR ADD HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUN 1 – SEP 1	***TALL FESCUE AND	120 LBS/ACRE
	***BROWNTOP MILLET	35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE
SEP 1 – MAR 1	SERICEA LESPEDEZA (UNHULLED-	70 LBS/ACRE
	UNSCARIFED) AND TALL FESCUE	120 LBS/ACRE
(NOV 1 – MAR 1)	ADD ABRUZZI RYE	25 LBS/ACRE

CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

***TEMPORARY – RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED OUT.

*NOTE: THIS SEEDING SCHEDULE IS FOR EROSION AND SEDIMENT CONTROL ONLY.

THE CONTRACTOR SHALL PROVIDE GROUND COVER ON DESIGNATED AREAS AND SLOPES GREATER THAN 3:1 WITHIN 7 DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. CONTRACTOR SHALL PROVIDE GROUND COVER IN 14 DAYS ON ALL OTHER AREAS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION.

NURSE CROP: WHEN SEEDING BERMUDA GRASS SEED CONTRACTOR SHALL ADD 25 LB/AC OF ANNUAL RYE GRASS AS NURSE CROP UNTIL PERMANENT ESTABLISHMENT OF BERMUDA GRASS

EROSION CONTROL NOTES

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK.
2. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ) AND CITY OF WILSON EROSION AND SEDIMENT CONTROL REGULATIONS.
3. ALL CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT.
4. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
5. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
6. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDENR EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
7. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS. CONTACT PROJECT ENGINEER AND PROJECT EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING.
8. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS, STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO THE CITY OF WILSON FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
9. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL. SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RESEEDED AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS.
10. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. ALL DISTURBED AREAS WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEEDED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE NORTH CAROLINA SEDIMENT CONTROL REGULATIONS. PERMANENT SEEDING AND GRASS ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.
11. CONTRACTOR TO ENSURE THAT SEDIMENT LADEN RUNOFF DOES NOT LEAVE SITE LIMITS OR ENTER PROTECTED AREAS. ANY SEDIMENT DEPOSITED BEYOND DISTURBED AREA WITHIN SITE LIMITS SHALL BE REMOVED.
12. ROLLED EROSION CONTROL PRODUCTS (RECP'S) SHOULD BE USED TO AID PERMANENT VEGETATED STABILIZATION OF SLOPES 2:1 OR GREATER AND WITH MORE THAN 10' OF VERTICAL RELIEF. RECP'S SHOULD ALSO BE USED WHEN MULCH CANNOT BE ADEQUATELY TACKED AND WHERE IMMEDIATE GROUND COVER IS REQUIRED TO PREVENT EROSION DAMAGE.
13. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 21 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
14. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
15. WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.
16. TEMPORARY CONSTRUCTION ENTRANCES SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREAS. TWO TO THREE INCH STONE SHALL BE USED FOR THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE.
17. ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SILTATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING.
18. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
19. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
20. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
21. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.
22. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
23. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY CONTRACTOR ONCE STABILIZATION OR A SUFFICIENT GROUND COVER HAS BEEN ESTABLISHED OR AS DIRECTED BY THE ENGINEER. CITY OF WILSON INSPECTOR'S FINAL APPROVAL IS REQUIRED.
24. STABILIZATION MEASURES SHALL BE APPLIED TO STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
25. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDING UPON FIELD CONDITIONS.
26. LIMITS OF GRADING SHOWN ON THE PLAN ARE MAXIMUM LIMITS FOR EROSION CONTROL PURPOSES ONLY. SURVEYOR TO DETERMINE ACTUAL LIMIT.
27. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE NCDEQ SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE, AND IS SUBJECT TO A FINE.
28. GRADING MORE THAN 43,560 SF WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE NCDEQ SOIL EROSION AND SEDIMENTATION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.

ABBREVIATIONS

*NOT ALL ABBREVIATIONS MAY BE USED FOR THIS PROJECT.

CB – CATCH BASIN
YI – YARD INLET
CO – CLEAN OUT
DI – DROP INLET
EX – EXISTING
FES – FLARED-END-SECTION
JB – JUNCTION BOX
LOD – LIMITS OF DISTURBANCE
PVC – POLYVINYL CHLORIDE
RCP – REINFORCED CONCRETE PIPE
TYP. – TYPICAL

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WWW.KIMLEY-HORN.COM

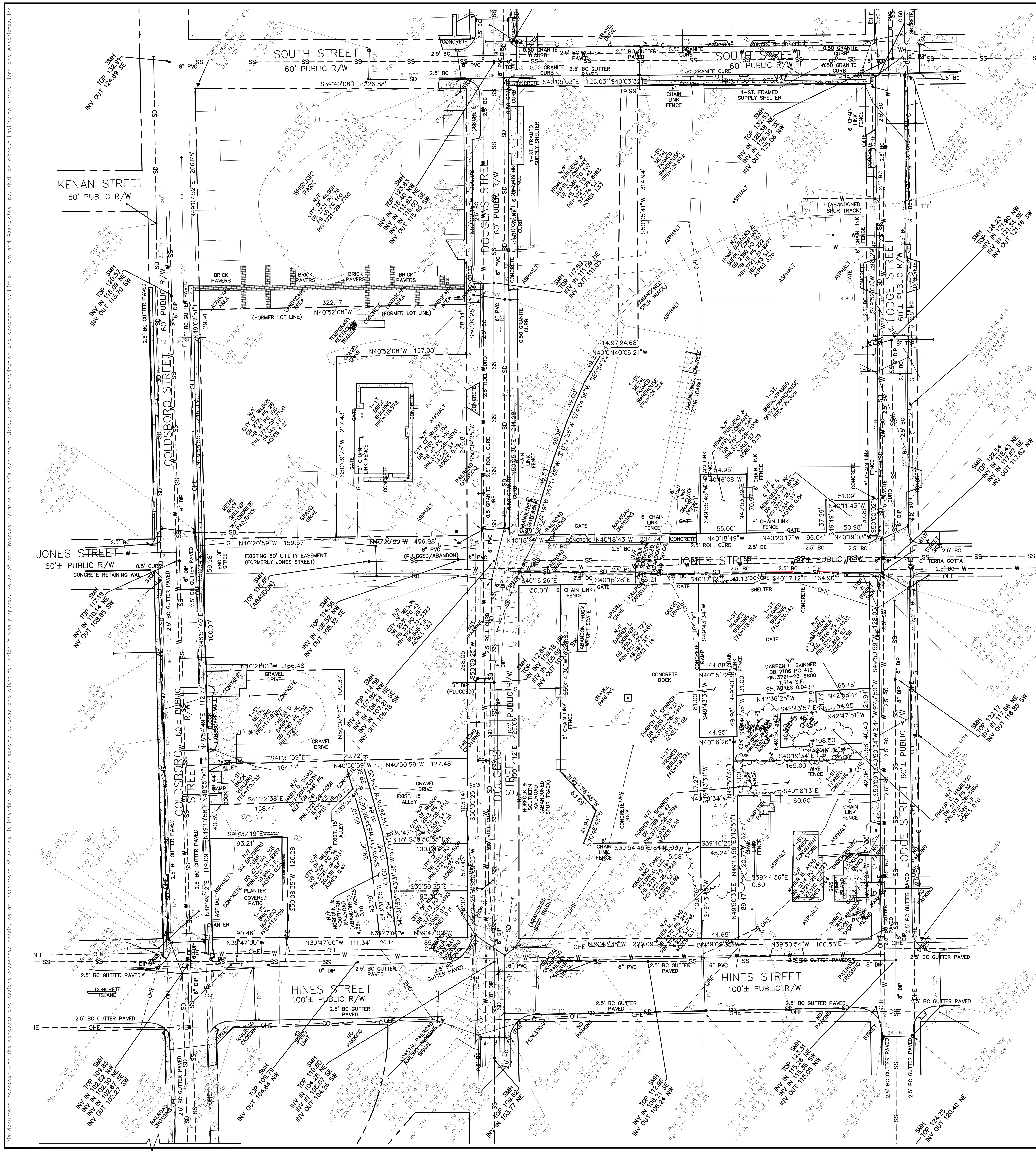
NORTH CAROLINA PROFESSIONAL SEAL 052434 ENGINEER TIMOTHY R. CARTER

KHA PROJECT 268255002
DATE 01/26/2024
SCALE AS SHOWN
DESIGNED BY: SRH
DRAWN BY: SRH
CHECKED BY: TRC

GENERAL NOTES

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
WILSON NORTH CAROLINA

SHEET NUMBER
C0.1



EXIST. BOUNDARY
- EXIST. BOUNDARY AXLE — EB-AXLE
- EXIST. BOUNDARY AXLE – DISTURBED — EB-AXLED
- EXIST. BOUNDARY CONCRETE MONUMENT — EB-CM
- EXIST. BOUNDARY CONCRETE MONUMENT – DISTURBED — EB-CMD
- EXIST. BOUNDARY COMPUTED POINT — EB-CP
- EXIST. BOUNDARY D.O.T. CONTROL POINT — EB-DOT
- EXIST. BOUNDARY GRANITE BOUND — EB-GB
- EXIST. BOUNDARY IRON PIN — EB-IP
- EXIST. BOUNDARY IRON PIN – DISTURBED — EB-IPD
- EXIST. BOUNDARY NAIL — EB-NAIL
- EXIST. BOUNDARY PK NAIL — EB-PKN
- EXIST. BOUNDARY RAILROAD SPIKE — EB-RRS
- EXIST. BOUNDARY RIGHT-OF-WAY DISC — EB-RWD
- EXIST. BOUNDARY RIGHT-OF-WAY MONUMENT — EB-RWM
- EXIST. BOUNDARY TACK — EB-TACK
- EB-IR

EXIST. CONTROL
- EXIST. CONTROL CHECK POINT — EC-CHECK
- EXIST. CONTROL CALCULATED POINT — EC-CP
- EXIST. CONTROL HUB — EC-HUB
- EXIST. CONTROL IRON PIN — EC-IPC
- EXIST. CONTROL NAIL — EC-NAIL
- EXIST. CONTROL NCGS MONUMENT — EC-NCGS
- EXIST. CONTROL AERIAL TARGET PANEL — EC-PANEL
- EXIST. CONTROL CONTROL POINT — EC-PNT
- EXIST. CONTROL TEMPORARY BENCH MARK — EC-TBM

EXIST. DRAINAGE
- EXIST. DRAINAGE CATCH BASIN — ED-CB
- EXIST. DRAINAGE DROP INLET — ED-DI
- EXIST. DRAINAGE FLARED END SECTION — ED-FES
- EXIST. DRAINAGE MANHOLE — ED-MH
- EXIST. DRAINAGE ROUND CATCH BASIN — ED-RCB

EXIST. ELECTRIC
- EXIST. AC UNIT — EE-AC UNIT
- EXIST. ELECTRIC GUY WIRE — EE-GUY
- EXIST. ELECTRIC HAND HOLE — EE-HH
- EXIST. ELECTRIC LIGHT POLE — EE-LP
- EXIST. ELECTRIC MANHOLE — EE-MH
- EXIST. ELECTRIC POWER POLE — EE-PP
- EXIST. ELECTRIC TRANSFORMER — EE-TRAN

EXIST. FITTINGS
- EXIST. FITTING 90° BEND — EF-BND04
- EXIST. FITTING 45° BEND — EF-BND08
- EXIST. FITTING 22.5° BEND — EF-BND16
- EXIST. FITTING 11.25° BEND — EF-BND32
- EXIST. FITTING BEND DOWN — EF-BNDD
- EXIST. FITTING BEND UP — EF-BNDU
- EXIST. FITTING BALL VALVE — EF-BV
- EXIST. FITTING CASING — EF-CAS
- EXIST. FITTING CROSS — EF-CROSS
- EXIST. FITTING DIAPHRAGM VALVE — EF-DV
- EXIST. FITTING GATE VALVE — EF-GV

EXIST. FITTINGS (CONT.)
- EXIST. FITTING NEEDLE VALVE — EF-NV
- EXIST. FITTING PLUG — EF-PLG
- EXIST. FITTING PLUG VALVE — EF-PV
- EXIST. FITTING QUICK CONNECT — EF-QC
- EXIST. FITTING ROTARY BALL VALVE — EF-RBV
- EXIST. FITTING REDUCER — EF-RDCR
- EXIST. FITTING SWING CHECK VALVE — EF-SCV
- EXIST. FITTING TEE — EF-TEE
- EXIST. FITTING UNION — EF-UNION
- EXIST. FITTING WYE — EF-WYEL
- EXIST. FITTING WYE — EF-WYER

EXIST. GAS
- EXIST. GAS VALVE — EGAS-VLV
- EXIST. GAS METER — EGAS-MTR

EXIST. GROUND (GENERAL)
- EXIST. GROUND BOLLARD — EG-BOLLARD
- EXIST. GROUND BORE — EG-BORE
- EXIST. GROUND BUSH — EG-BUSH1
- EXIST. GROUND DECIDUOUS TREE — EG-DTREE
- EXIST. GROUND GAS MIGRATION PROBE — EG-GMP
- EXIST. GROUND MAIL BOX — EG-MB
- EXIST. GROUND MONITORING WELL — EG-MWELL
- EXIST. GROUND PERK TEST — EG-PERK
- EXIST. GROUND PINE TREE — EG-PTREE
- EXIST. GROUND SPOT ELEVATION — EG-SELEV
- EXIST. GROUND SIGN — EG-SIGN
- EXIST. GROUND – STUMP — EG-STUMP
- EXIST. GROUND WELL — EG-WELL

EXIST. ROADWAY
- EXIST. ROADWAY HANDICAP PARKING LOT — ER-HC
- EXIST. ROAD STATE NUMBER — ER-SRNUM

EXIST. SEWER
- EXIST. SEWER CLEANOUT — ES-CO
- EXIST. SEWER AIR RELEASE MANHOLE — ES-FM-MH
- EXIST. SEWER MANHOLE — ES-MH
- EXIST. SEWER PUMP STATION — ES-PS
- EXIST. SEWER SERVICE — ES-SVS

EXIST. TELEPHONE
- EXIST. TELEPHONE BOX — ET-BOX
- EXIST. TELEPHONE GUY POLE — ET-GP
- EXIST. TELEPHONE GUY WIRE — ET-GUY
- EXIST. TELEPHONE MANHOLE — ET-MH
- EXIST. TELEPHONE PEDESTAL — ET-PED
- EXIST. TELEPHONE CABLE TV BOX — ET-TV
- EXISTING TELEPHONE VAULT — ET-VAULT

EXIST. WATER
- EXIST. WATER BLOW-OFF — EW-BO
- EXIST. WATER CAP — EW-CAP
- EXIST. CUTTING-IN SLEEVE — EW-CIS
- EXIST. WATER CORPORATION STOP — EW-CPS
- EXIST. WATER CURB STOP — EW-CS
- ~~EXIST. WATER EMERGENCY EYE WASH — EW-EEW~~

EXIST. WATER (CONT.)
- EXIST. WATER FAUCET — EW-FCT
- EXIST. WATER HYDRANT — EW-HYD
- EXIST. WATER METER — EW-MTR
- EXIST. WATER SHUT-OFF — EW-SO
- EXIST. WATER TANK – GROUND — EW-T_GRD
- EXIST. WATER TANK – LEG — EW-T_LEG
- EXIST. WATER TANK – SPH — EW-T_SPH
- EXIST. WATER YARD HYDRANT — EW-YH
- EXIST. WATER VALVE — EW-VLV

PROPOSED CONTROL
- PROP. CONTROL POINT OF CURVE/TANGENT — PC-PCPT
- PROP. CONTROL PK NAIL — PC-PKN

PROP. BOUNDARY
- PROP. BOUNDARY CONCRETE MONUMENT — PB-CM
- PROP. BOUNDARY GRANITE BOUND — PB-GB
- PROP. BOUNDARY IRON PIN — PB-IP
- PROP. BOUNDARY LOT NUMBER — PB-LN

PROP. DRAINAGE
- PROP. DRAINAGE CATCH BASIN — PD-CB
- PROP. DRAINAGE DROP INLET — PD-DI
- PROP. DRAINAGE DROP INLET PROTECTOR — PD-DIP
- PROP. DRAINAGE FLARED END SECTION — PD-FES
- PROP. DRAINAGE MANHOLE/JUNCTION BOX — PD-MH
- PROP. DRAINAGE ROCK CHECK DAM — PD-RCD

PROP. ELECTRIC
- PROP. ELECTRIC DOUBLE LIGHT POLE — PE-DLP
- PROP. ELECTRIC HAND HOLE — PE-HH
- PROP. ELECTRIC LIGHT POLE — PE-LP
- PROP. ELECTRIC MANHOLE — PE-MH
- PROP. ELECTRIC POWER POLE — PE-PP
- PROP. ELECTRIC TRANSFORMER — PE-TRAN

PROP. FITTINGS
- PROP. FITTING BUTTERFLY VALVE — PF-BFV
- PROP. FITTING 90° BEND — PF-BND04
- PROP. FITTING 45° BEND — PF-BND08
- PROP. FITTING 22.5° BEND — PF-BND16
- PROP. FITTING 11.25° BEND — PF-BND32
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- PROP. FITTING CASING — PF-CAS
- PROP. FITTING CUTTING-IN-SLEEVE — PF-CIS
- PROP. FITTING CROSS — PF-CROSS
- PROP. FITTING CHECK VALVE — PF-CV
- PROP. FITTING DIAPHRAGM VALVE — PF-DV
- PROP. FITTING GATE VALVE — PF-GV
- PROP. FITTING NEEDLE VALVE — PF-NV
- PROP. FITTING PLUG — PF-PLG
- PROP. FITTING PRESSURE RELIEF VALVE — PF-PRV

PROP. FITTINGS (CONT.)
- PROP. FITTING PLUG VALVE — PF-PV
- PROP. FITTING ROTARY BALL VALVE — PF-RBV
- PROP. FITTING REDUCER — PF-RDCR
- PROP. FITTING SWING CHECK VALVE — PF-SCV
- PROP. FITTING SLEEVE — PF-SLEEVE
- PROP. FITTING TEE — PF-TEE
- PROP. FITTING UNION — PF-UNION
- PROP. FITTING WYE — PF-WYEL
- PROP. FITTING WYE — PF-WYER

PROP. GAS
- PROP. GAS VALVE — PGAS-VLV

PROP. GROUND (GENERAL)
- PROP. GROUND BOLLARD — PG-BOLLARD
- PROP. GROUND BORING — PG-BORE
- PROP. GROUND GAS MIGRATION PROBE — PG-GMP
- PROP. GROUND SPOT ELEVATION — PG-SELEV
- PROP. GROUND WELL — PG-WELL

PROP. ROADWAY
- PROP. ROADWAY HANDICAP PARKING LOT — PR-HC

PROP. SEWER
- PROP. SEWER CLEAN OUT — PS-CO
- PROP. SEWER AIR RELEASE MANHOLE — PS-FM-MH
- PROP. SEWER MANHOLE — PS-MH
- PROP. SEWER SERVICE — PS-SVS

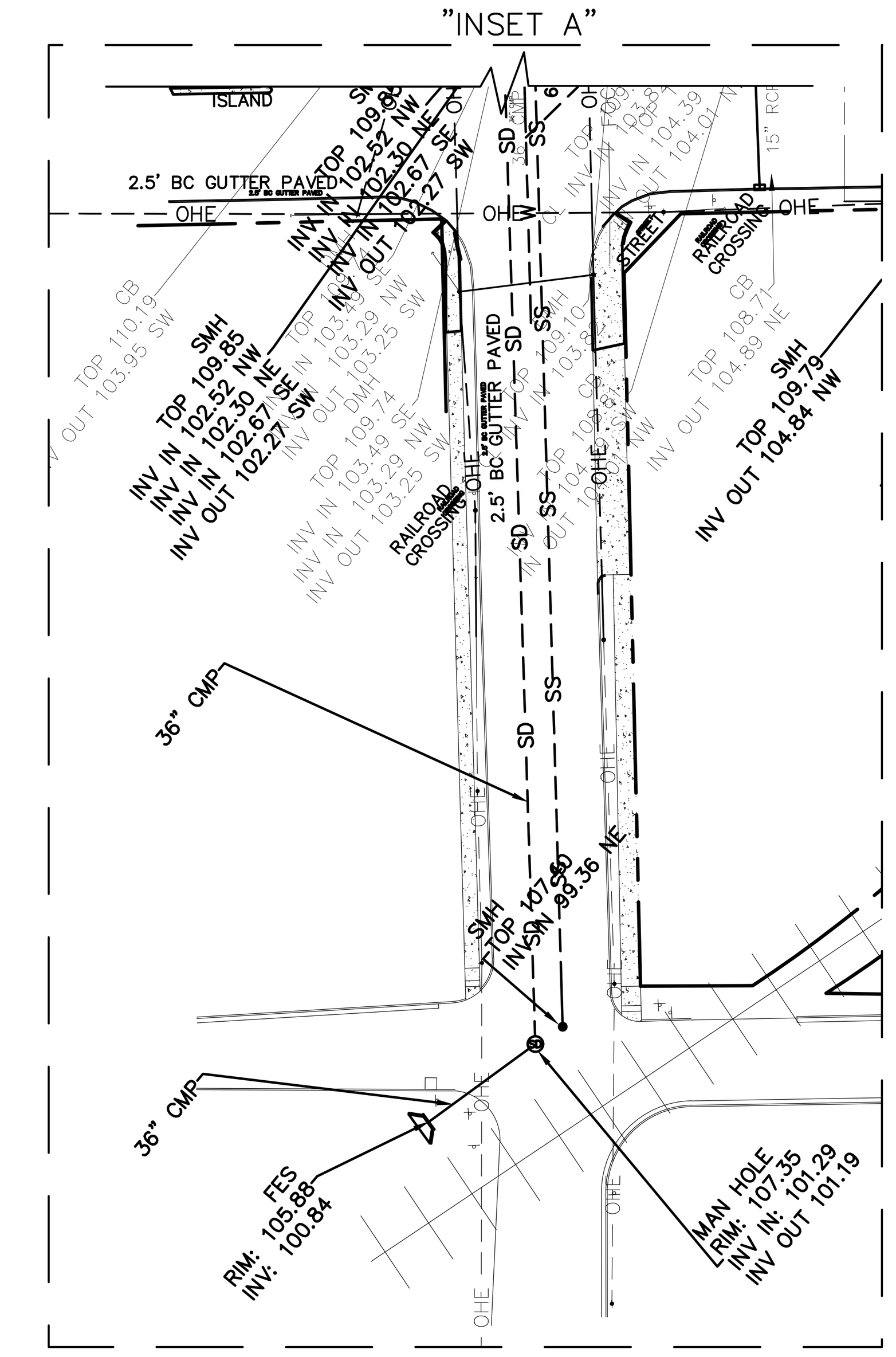
PROP. TELEPHONE
- PROP. TELEPHONE PEDESTAL — PT-PED
- PROP. TELEPHONE BOX — PT-TB

PROP. WATER
- PROP. WATER BLOW-OFF — PW-BO
- PROP. WATER CUTTING-IN SLEEVE — PW-CIS
- PROP. WATER CORPORATION STOP — PW-CPS
- PROP. WATER CURB STOP — PW-CS
- PROP. WATER FAUCET — PW-FCT
- PROP. WATER HYDRANT — PW-HYD
- PROP. WATER METER — PW-MTR
- PROP. WATER SHUT-OFF — PW-SO
- PROP. WATER SERVICE — PW-SVC
- PROP. WATER TANK – GROUND — PW-T_GRD
- PROP. WATER TANK – LEG — PW-T_LEG
- PROP. WATER TANK – SPH — PW-T_SPH
- PROP. WATER VALVE — PW-VLV
- PROP. WATER SERVICE — PW-WS
- PROP. WATER YARD HYDRANT — PW-YH

EG-NA

95 28

"INSET A"



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF WILSON AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

SURVEY NOTE:

EXISTING INFORMATION TAKEN FROM BOUNDARY/TOPOGRAPHIC SURVEY PROVIDED BY BARTLETT ENGINEERING AND SURVEYING, PC, 1906 NASH ST. N., WILSON, NC 27893. PHONE: 252-205-1856 AND DATED AUGUST 25, 2023 AND GIS/AERIAL IMAGERY.

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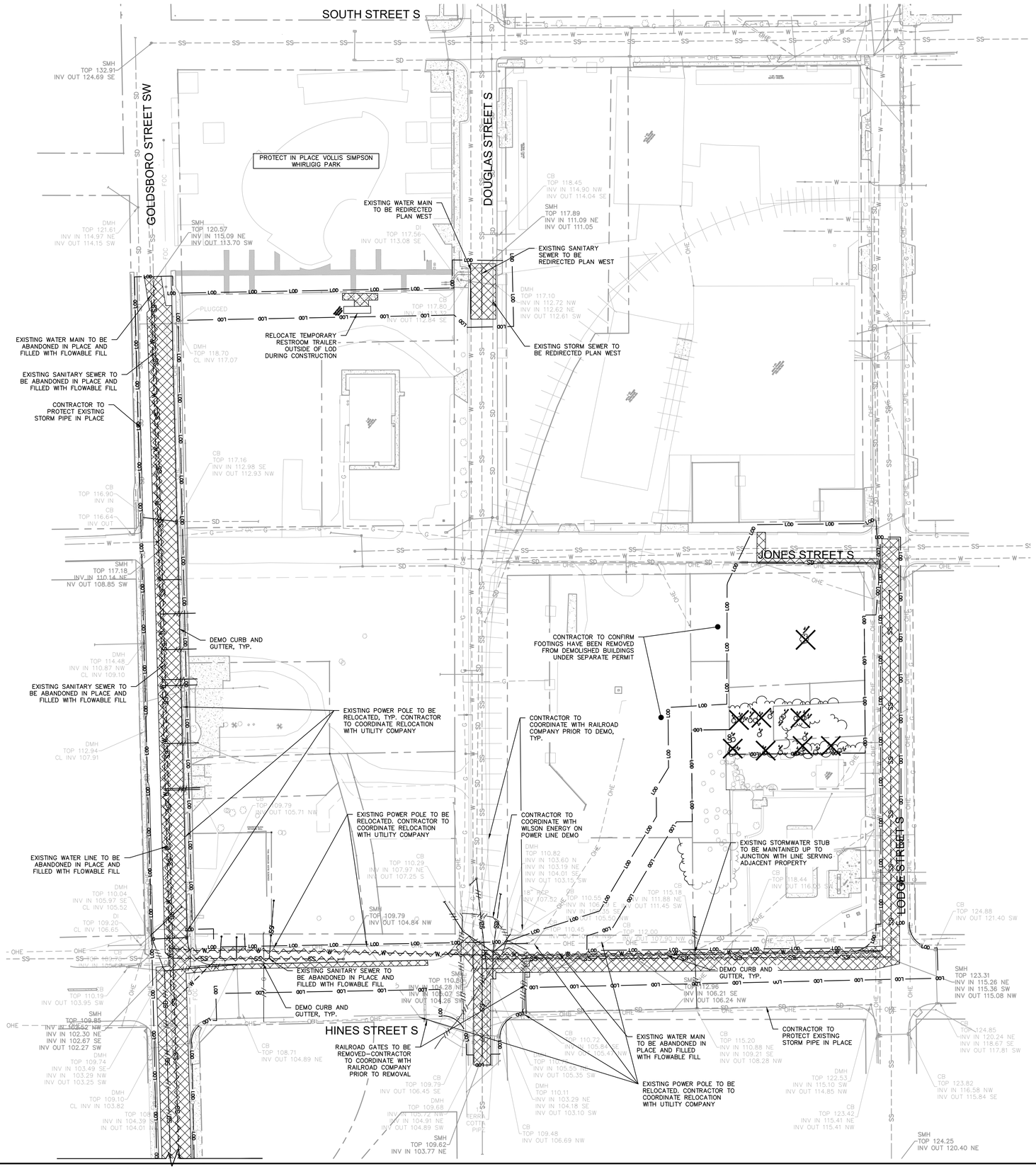
NORTH CAROLINA PROFESSIONAL SEAL 052434 ENGINEER TIMOTHY R. CARTER

KHA PROJECT 268255002	DATE 01/26/2024	SCALE AS SHOWN	DESIGNED BY: SRH	DRAWN BY: SRH	CHECKED BY: TRC

EXISTING CONDITIONS PLAN

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
WILSON NORTH CAROLINA

SHEET NUMBER
C1.0



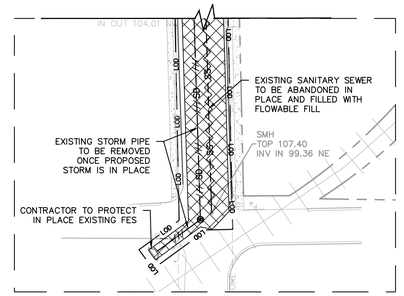
DEMOLITION LEGEND

- PROPERTY LINE
- LOD LOD — LIMITS OF DISTURBANCE
- DEMOLISH SITE ITEM
- DEMOLISH UNDERGROUND UTILITY
- ABANDON UTILITY IN PLACE
- SAWCUT
- DEMOLISH SITE ITEM/ TREE TO BE REMOVED
- BUILDINGS TO BE REMOVED
- SIDEWALK/PAVEMENT TO BE REMOVED

DEMOLITION NOTES

1. CONTRACTOR SHALL COORDINATE WITH THE CITY OF WILSON TO OBTAIN ALL NECESSARY DEMOLITION PERMITS PRIOR TO THE START OF ANY DEMOLITION WORK.
2. SAW CUT AND REMOVE CONCRETE CURB TO LIMITS REQUIRED FOR NEW WORK.
3. SAW CUT AND REMOVE ALL ASPHALT PAVEMENT TO LIMITS INDICATED ON PLAN.
4. DEMOLITION MATERIALS SHALL BE PROPERLY DISPOSED OF OFF SITE PER STATE REGULATIONS.
5. ALL PRIMARY UTILITIES DISCOVERED DURING DEMOLITION OPERATIONS THAT SERVE ACTIVITIES OTHER THAN THE PROJECT SITE SHALL BE PROPERLY PRESERVED AND PROTECTED.
6. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE OWNER AND ENGINEER ANY UNFORESEEN OR ADVERSE CONDITIONS, INCLUDING UNCHARTED UTILITIES, DISCOVERED DURING DEMOLITION OPERATIONS.
7. SUBSURFACE FEATURES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR IS RESPONSIBLE FOR SUBSURFACE UTILITY EXPLORATION TO DETERMINE UTILITY LOCATIONS AND DEPTHS.
8. EXISTING STORM DRAINAGE CANNOT BE ABANDONED UNTIL NEW STORM DRAINAGE IS IN PLACE.
9. EXISTING SANITARY SEWER CANNOT BE ABANDONED UNTIL NEW SANITARY SEWER IS IN PLACE.
10. EXISTING WATER LINE CANNOT BE ABANDONED UNTIL NEW WATER LINE IS IN PLACE.
11. EXISTING UTILITIES NOTED TO BE ABANDONED IN PLACE AND FILLED WITH FLOWABLE FILL SHALL NOT BE ABANDONED UNTIL COMPLETION OF ASSOCIATED PROPOSED UTILITY MAINS.

"INSET A"



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF WILSON AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

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PHONE: (919) 677-2000
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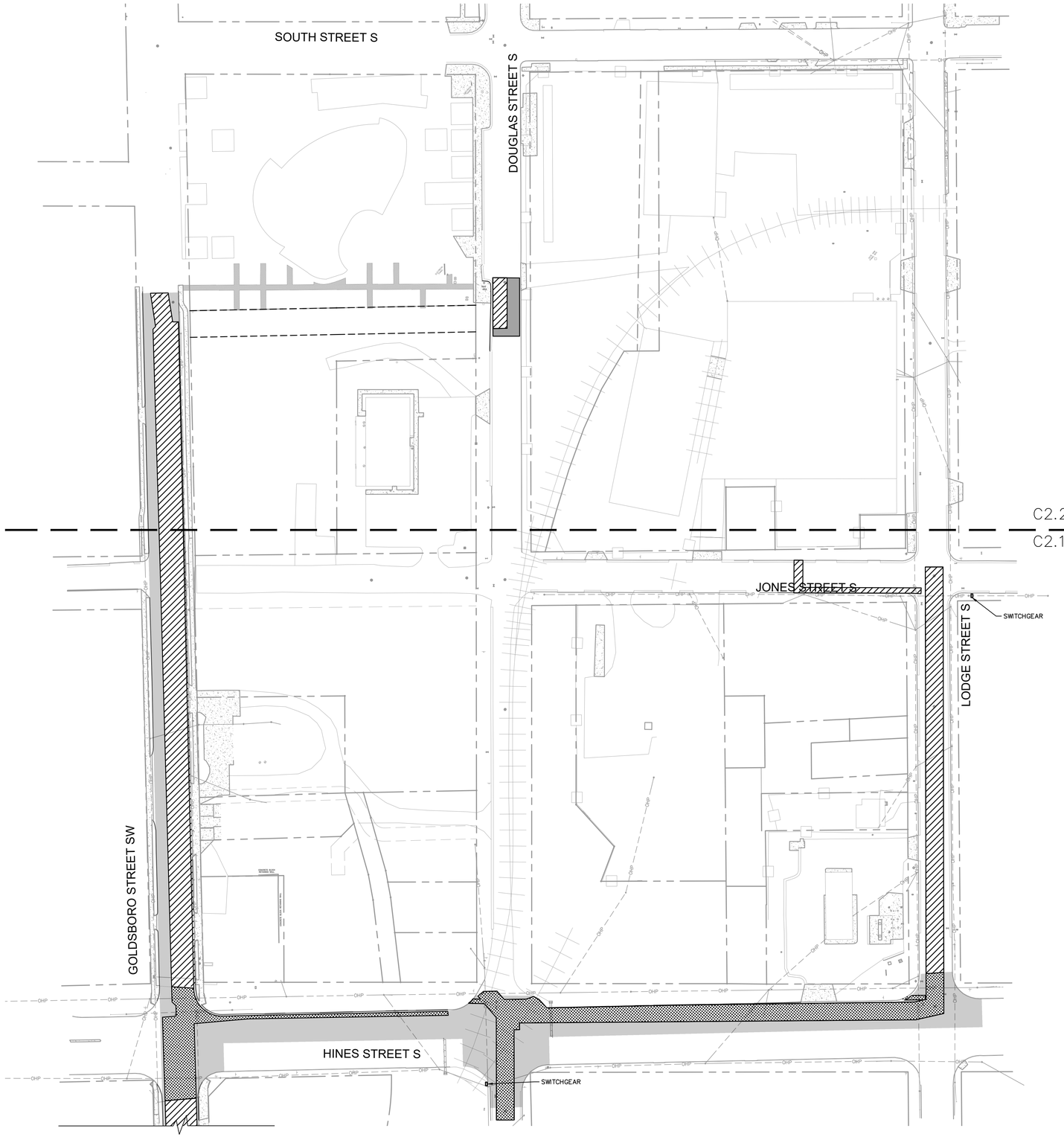
NORTH CAROLINA PROFESSIONAL SEAL 052434 ENGINEER TIMOTHY R. CARTER

KHA PROJECT	268255002
DATE	01/26/2024
SCALE	AS SHOWN
DESIGNED BY:	SRH
DRAWN BY:	SRH
CHECKED BY:	TRC

DEMOLITION PLAN

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C1.1

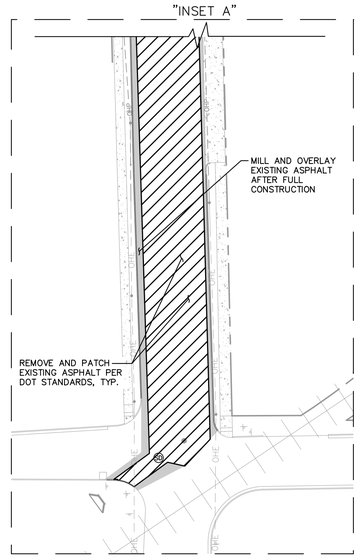


SITE LEGEND

- PROPERTY LINE
- EASEMENT LINE
- HEADER CURB
- CITY ASPHALT
- DOT ASPHALT
- MILL AND OVERLAY EXISTING ASPHALT

SITE DATA TABLE

SITE ADDRESS	GOLDSBORO ST S & HINES ST S
SITE PINs	3721-29-3323, 3721-29-1343, 3721-29-0288, 3721-29-0133, 3721-19-9282, 3721-29-0093, 3721-29-1037, 3721-29-1193, 3721-28-2849, 3721-29-4051, 3721-28-3748, 3721-28-4799, 3721-28-5850, 3721-28-6800, 3721-28-4825, 3721-28-5902, 3721-28-6932
FEMA DIGITAL FLOOD INSURANCE MAP	DFIRM PANEL 3720372100K (EFFECTIVE APRIL 16, 2013)
EXISTING ZONING	IMX, OS
EXISTING USE	COMMERCIAL/INDUSTRIAL BUILDINGS
PROPOSED USE	COMMERCIAL/INDUSTRIAL BUILDINGS
GROSS SITE AREA	15.61 AC (679972 SF)



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF WILSON AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

SURVEY NOTE:

EXISTING INFORMATION TAKEN FROM BOUNDARY/TOPOGRAPHIC SURVEY PROVIDED BY BARTLETT ENGINEERING AND SURVEYING, PC, 1906 NASH ST. N., WILSON, NC 27893. PHONE: 252-205-1856 AND DATED AUGUST 25, 2023 AND GIS/AERIAL IMAGERY.

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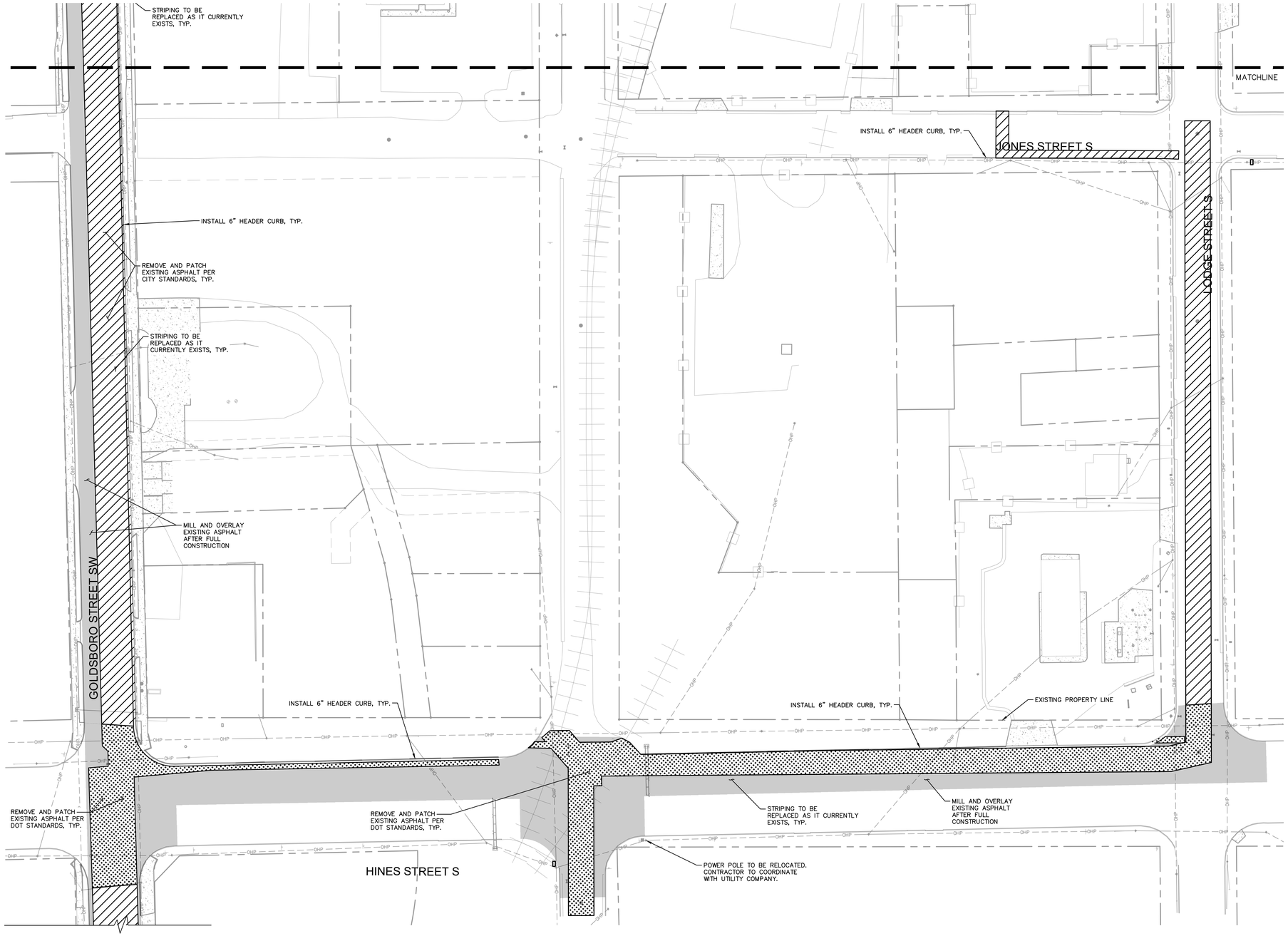
OVERALL SITE PLAN

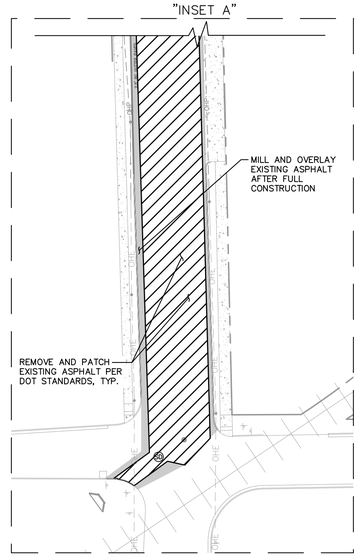
WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C2.0

SITE LEGEND

- PROPERTY LINE
- EASEMENT LINE
- HEADER CURB
- CITY ASPHALT
- DOT ASPHALT
- MILL AND OVERLAY EXISTING ASPHALT





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SITE PLAN

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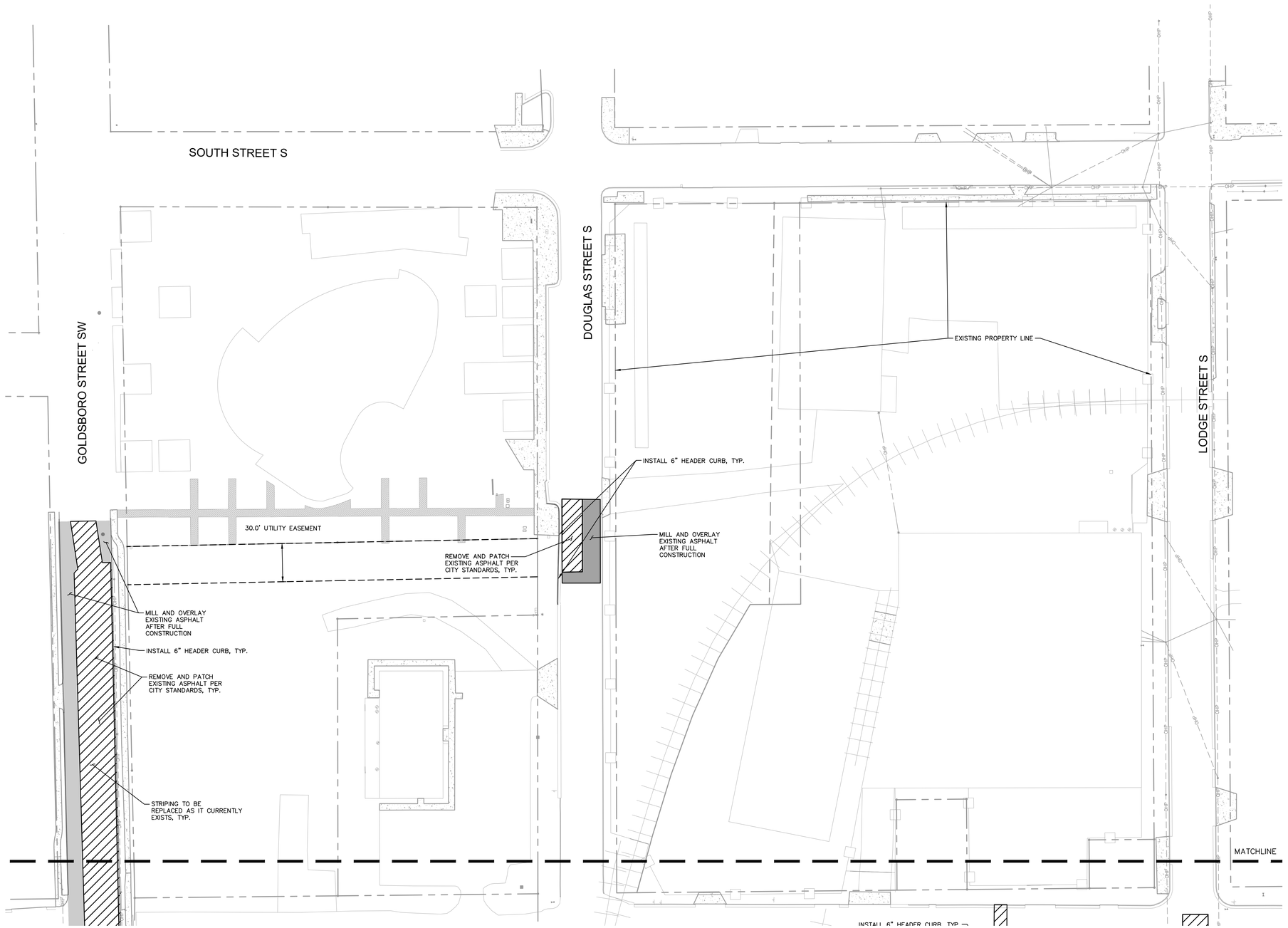
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C2.1



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- EASEMENT LINE
- HEADER CURB
- CITY ASPHALT
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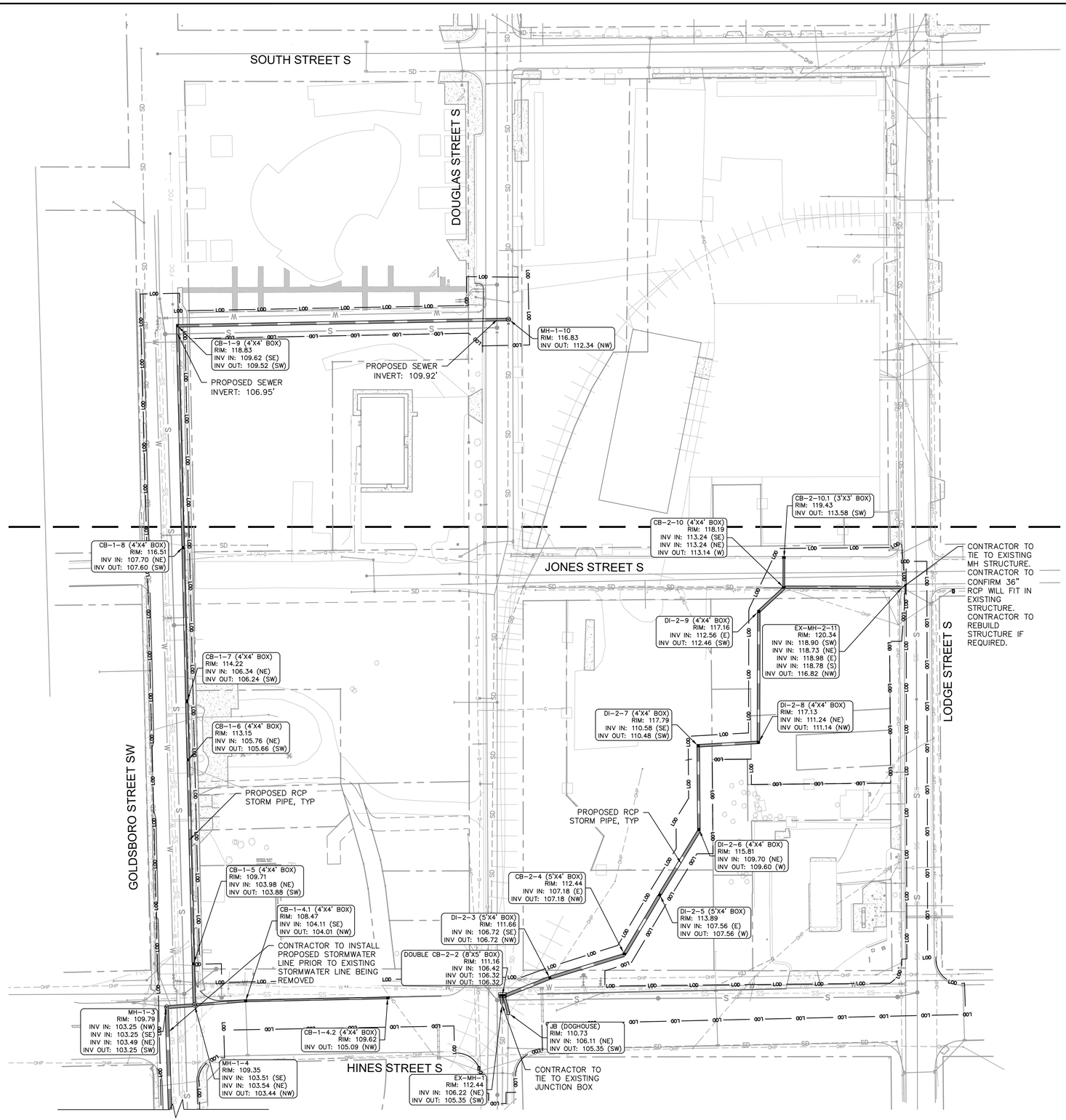
SITE PLAN

WILSON BALLPARK
UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C2.2

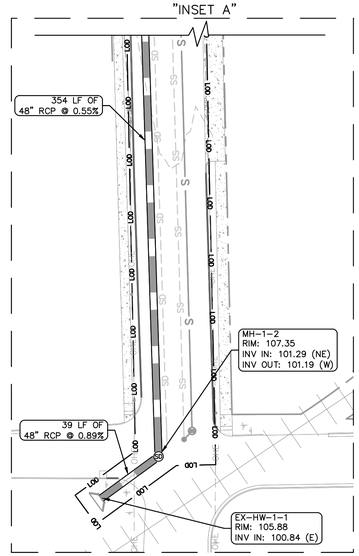


GRADING AND DRAINAGE LEGEND

- PROPERTY LINE
- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- STORM DRAIN (≥ 12 INCH)
- STORM DRAIN (< 12 INCH)
- CURB AND GUTTER
- SPILL CURB AND GUTTER
- CLEARING LIMITS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- CATCH BASIN (CB)
- MANHOLE (SDMH)
- CLEANOUT (SDCO)
- DROP INLET (DI)
- AREA DRAIN (AD)
- CONTROL STRUCTURE (CS)
- FLARED END SECTION (FES)
- CONCRETE HEADWALL (HW)

NOTE:

CONTRACTOR TO RETURN SITE TO ORIGINAL EXISTING GRADES FOLLOWING CONSTRUCTION.



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OVERALL GRADING AND DRAINAGE PLAN

WILSON BALLPARK
UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C3.0

GRADING AND DRAINAGE LEGEND

- PROPERTY LINE
- LOD — LIMITS OF DISTURBANCE
- TCE — TEMPORARY CONSTRUCTION EASEMENT
- STORM DRAIN (≥ 12 INCH)
- STORM DRAIN (< 12 INCH)
- CURB AND GUTTER
- SPILL CURB AND GUTTER
- CL — CLEARING LIMITS
- 805 — EXISTING CONTOUR
- 805 — PROPOSED CONTOUR
- CATCH BASIN (CB)
- MANHOLE (SDMH)
- CLEANOUT (SDCO)
- DROP INLET (DI)
- AREA DRAIN (AD)
- CONTROL STRUCTURE (CS)
- FLARED END SECTION (FES)
- CONCRETE HEADWALL (HW)

NOTE:

CONTRACTOR TO RETURN SITE TO ORIGINAL EXISTING GRADES FOLLOWING CONSTRUCTION.

CB-1-8 (4'X4' BOX)
RIM: 116.51
INV IN: 107.70 (NE)
INV OUT: 107.60 (SW)

178 LF OF
36" RCP @ 0.71%

CB-1-7 (4'X4' BOX)
RIM: 114.22
INV IN: 106.34 (NE)
INV OUT: 106.24 (SW)

67 LF OF
36" RCP @ 0.71%

CB-1-6 (4'X4' BOX)
RIM: 113.15
INV IN: 105.76 (NE)
INV OUT: 105.66 (SW)

235 LF OF
36" RCP @ 0.71%

CB-1-5 (4'X4' BOX)
RIM: 109.71
INV IN: 103.98 (NE)
INV OUT: 103.88 (SW)

59 LF OF
30" RCP @ 0.84%

CB-1-4.1 (4'X4' BOX)
RIM: 108.47
INV IN: 104.11 (SE)
INV OUT: 104.01 (NW)

CONTRACTOR TO INSTALL PROPOSED STORMWATER LINE PRIOR TO EXISTING STORMWATER LINE BEING REMOVED

48 LF OF
36" RCP @ 0.71%

32 LF OF
42" RCP @ 0.60%

MH-1-3
RIM: 109.79
INV IN: 103.25 (NW)
INV IN: 103.25 (SE)
INV IN: 103.49 (NE)
INV OUT: 103.25 (SW)

164 LF OF
30" RCP @ 0.60%

CB-1-4.2 (4'X4' BOX)
RIM: 109.62
INV OUT: 105.09 (NW)

MH-1-4
RIM: 109.35
INV IN: 103.51 (SE)
INV IN: 103.54 (NE)
INV OUT: 103.44 (NW)

SEE "INSET A" THIS SHEET

34 LF OF
24" RCP @ 1.00%

CB-2-10 (4'X4' BOX)
RIM: 118.19
INV IN: 113.24 (SE)
INV IN: 113.24 (NE)
INV OUT: 113.14 (W)

CB-2-10.1 (3'X3' BOX)
RIM: 119.43
INV OUT: 113.58 (SW)

136 LF OF
36" RCP @ 2.62%

MATCHLINE

40 LF OF
36" RCP @ 1.44%

DI-2-9 (4'X4' BOX)
RIM: 117.16
INV IN: 112.56 (E)
INV OUT: 112.46 (SW)

EX-MH-2-11
RIM: 120.34
INV IN: 118.90 (SW)
INV IN: 118.73 (NE)
INV IN: 118.98 (E)
INV IN: 118.78 (S)
INV OUT: 116.82 (NW)

CONTRACTOR TO TIE TO EXISTING MH STRUCTURE. CONTRACTOR TO CONFIRM 36" RCP WILL FIT IN EXISTING STRUCTURE. CONTRACTOR TO REBUILD STRUCTURE IF REQUIRED.

151 LF OF
36" RCP @ 0.81%

70 LF OF
36" RCP @ 0.81%

DI-2-7 (4'X4' BOX)
RIM: 117.79
INV IN: 110.58 (SE)
INV OUT: 110.48 (SW)

DI-2-8 (4'X4' BOX)
RIM: 117.13
INV IN: 111.24 (NE)
INV OUT: 111.14 (NW)

97 LF OF
36" RCP @ 0.81%

88 LF OF
42" RCP @ 2.33%

DI-2-6 (4'X4' BOX)
RIM: 115.81
INV IN: 109.70 (NE)
INV OUT: 109.60 (W)

CB-2-4 (5'X4' BOX)
RIM: 112.44
INV IN: 107.18 (E)
INV OUT: 107.18 (NW)

DI-2-5 (5'X4' BOX)
RIM: 113.89
INV IN: 107.56 (E)
INV OUT: 107.56 (W)

79 LF OF
42" RCP @ 0.47%

DI-2-3 (5'X4' BOX)
RIM: 111.66
INV IN: 106.72 (SE)
INV OUT: 106.72 (NW)

DOUBLE CB-2-2 (8'X5' BOX)
RIM: 111.16
INV IN: 106.42
INV OUT: 106.32
INV OUT: 106.32

90 LF OF
42" RCP @ 0.51%

58 LF OF
42" RCP @ 0.50%

21 LF OF DOUBLE BARREL
36" RCP @ 1.00%

JB (DOGHOUSE)
RIM: 110.73
INV IN: 106.11 (NE)
INV OUT: 105.35 (SW)

10 LF OF
36" RCP @ 1.00%

EX-MH-1
RIM: 112.44
INV IN: 106.22 (NE)
INV OUT: 105.35 (SW)

CONTRACTOR TO TIE TO EXISTING JUNCTION BOX

"INSET A"

354 LF OF
48" RCP @ 0.55%

MH-1-2
RIM: 107.35
INV IN: 101.29 (NE)
INV OUT: 101.19 (W)

39 LF OF
48" RCP @ 0.89%

EX-HW-1-1
RIM: 105.88
INV IN: 100.84 (E)

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NORTH

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DRAWN BY:	SRH
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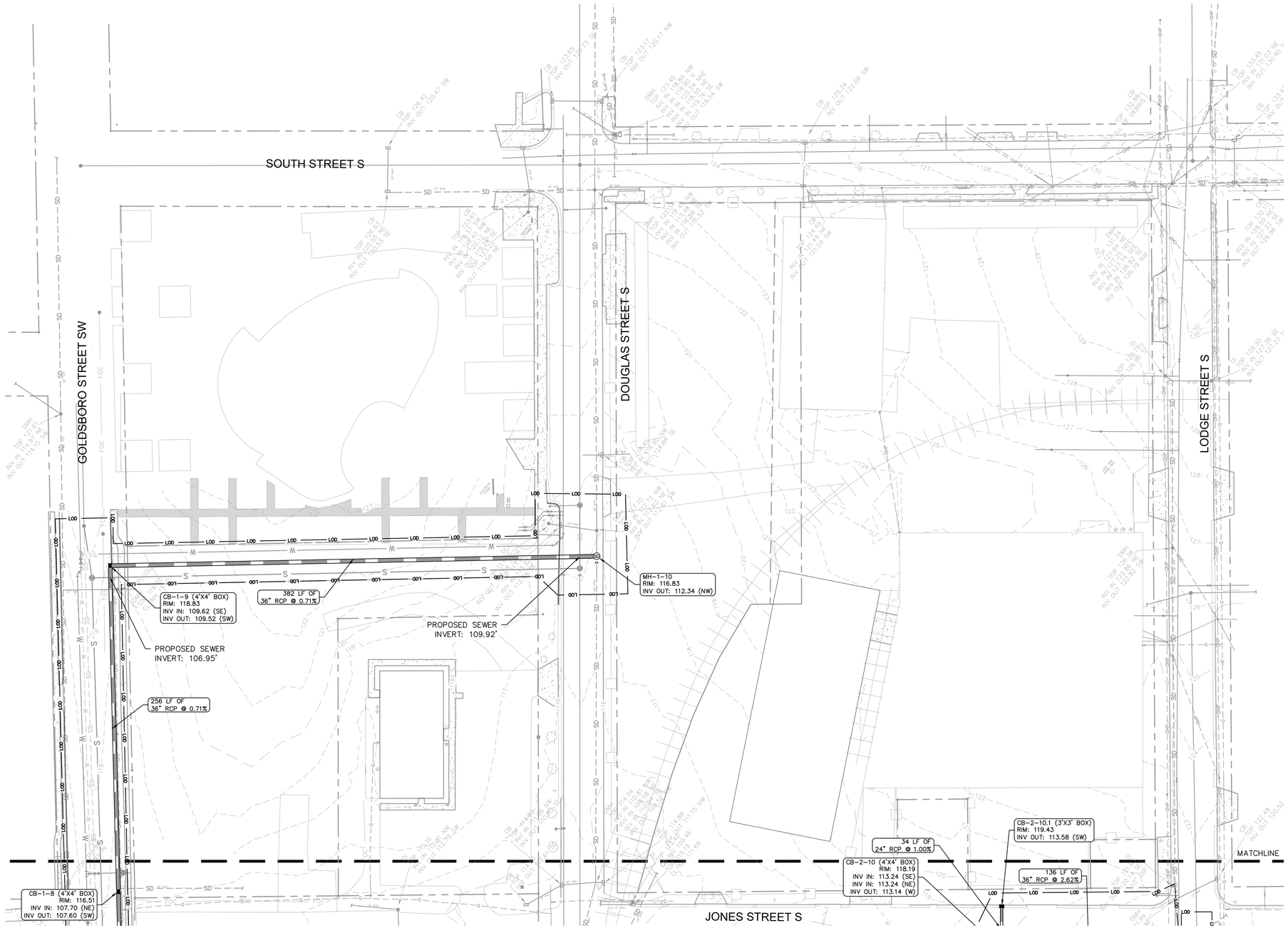
GRADING AND DRAINAGE PLAN

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C3.1



GRADING AND DRAINAGE LEGEND

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- LIMITS OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- STORM DRAIN (≥ 12 INCH)
- STORM DRAIN (< 12 INCH)
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- SPILL CURB AND GUTTER
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GRADING AND DRAINAGE PLAN

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NORTH CAROLINA
WILSON

SHEET NUMBER
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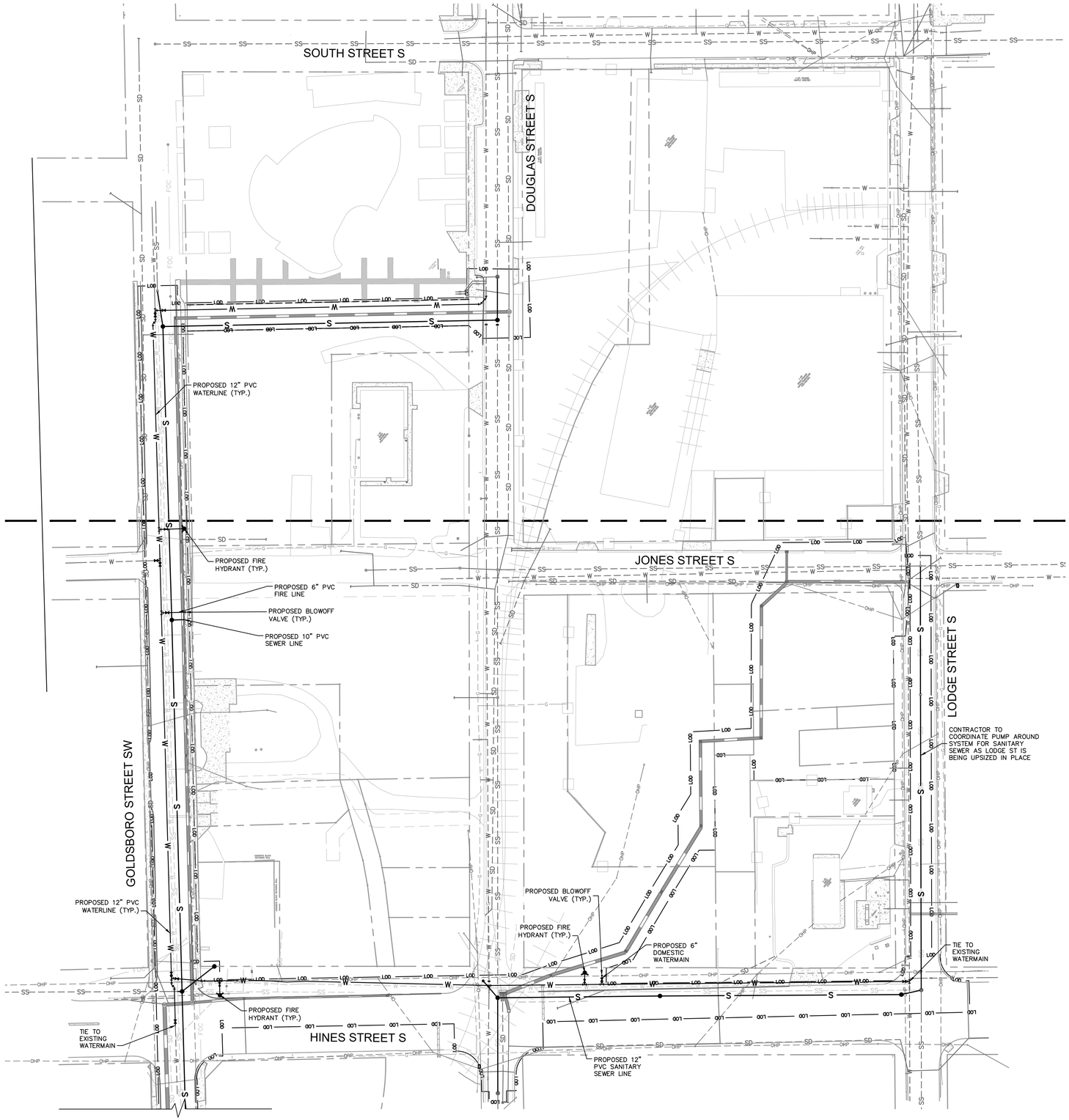


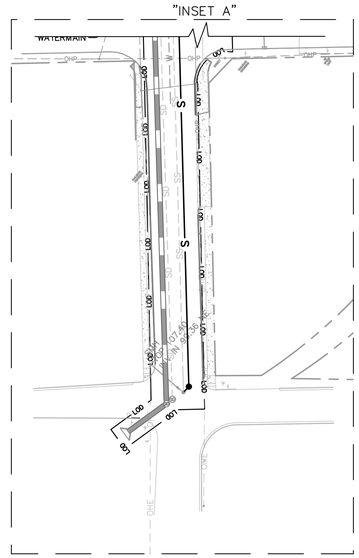
UTILITY LEGEND

	PROPERTY LINE
W	WATER LINE
LOD	LIMITS OF DISTURBANCE
FW	FIRE LINE
SS	SANITARY SEWER LINE
E	ELECTRIC
FO	FIBER OPTIC
G	GAS
P	POWER
T	TELECOMMUNICATION
TV	CABLE
	LIGHT POLE
	GATE VALVE
	POINT OF CONNECTION
	PIPE TEE/BENDS
	REDUCER
	FIRE HYDRANT (FH)
	FIRE DEPARTMENT CONNECTION (FDC)
	SANITARY SEWER CLEANOUT (SSCO)
	SANITARY SEWER MANHOLE (SSMH)
	SANITARY SEWER GREASE TRAP

NOTE:

CONTRACTOR TO PROTECT EXISTING SANITARY SEWER MANHOLES WHEN UPSIZING SANITARY MAINS, UNLESS OTHERWISE SPECIFIED.

"INSET A"



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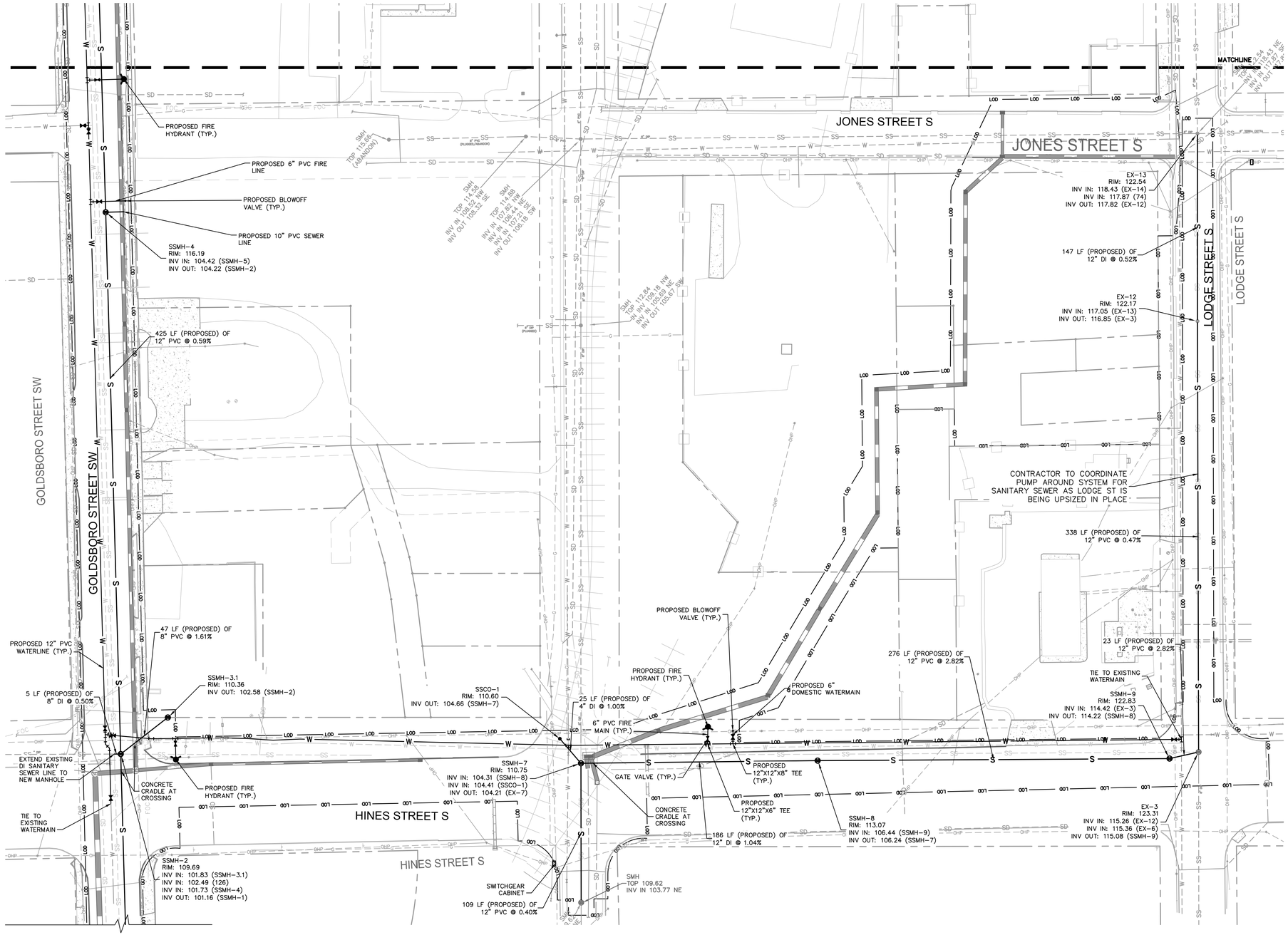

UTILITY LEGEND

- PROPERTY LINE
- WATER LINE
- LIMITS OF DISTURBANCE
- FIRE LINE
- SANITARY SEWER LINE
- ELECTRIC
- FIBER OPTIC
- GAS
- POWER
- TELECOMMUNICATION
- CABLE
- LIGHT POLE
- GATE VALVE
- POINT OF CONNECTION
- PIPE TEE/BENDS
- REDUCER
- FIRE HYDRANT (FH)
- FIRE DEPARTMENT CONNECTION (FDC)
- SANITARY SEWER CLEANOUT (SSCO)
- SANITARY SEWER MANHOLE (SSMH)
- SANITARY SEWER GREASE TRAP

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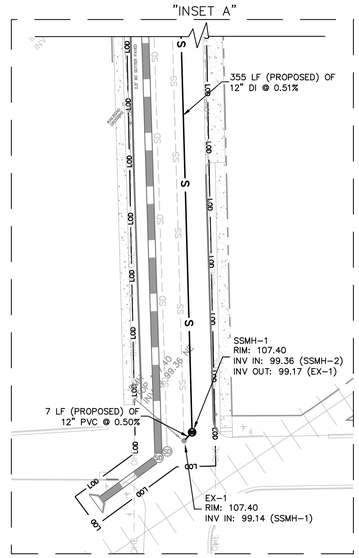

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UTILITY PLAN

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WILSON

SHEET NUMBER
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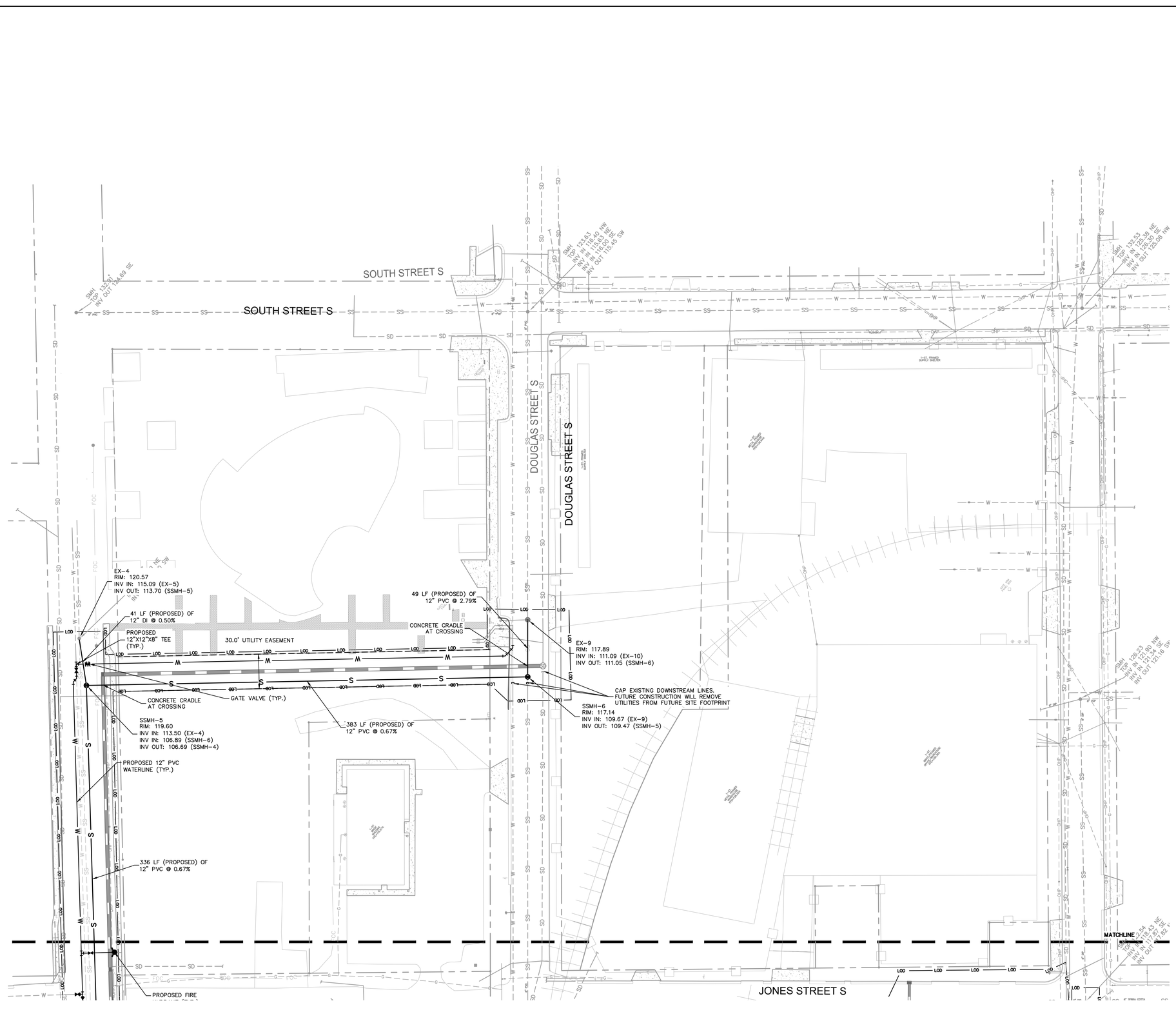

UTILITY LEGEND

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- WATER LINE
- LIMITS OF DISTURBANCE
- FIRE LINE
- SANITARY SEWER LINE
- ELECTRIC
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- TELECOMMUNICATION
- CABLE
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EXISTING INFORMATION TAKEN FROM BOUNDARY/TOPOGRAPHIC SURVEY PROVIDED BY BARTLETT ENGINEERING AND SURVEYING, PC, 1906 NASH ST. N., WILSON, NC 27893. PHONE: 252-205-1856 AND DATED AUGUST 25, 2023 AND GIS/AERIAL IMAGERY.

811 Know what's **below.** **Call** before you dig.

NORTH

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PHONE: (919) 677-2000
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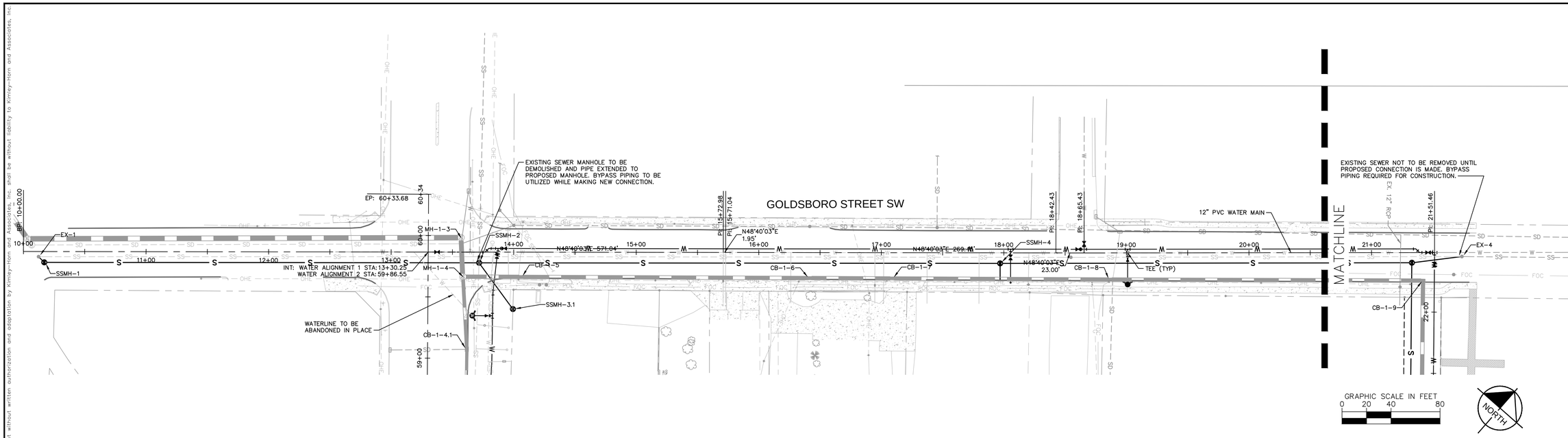
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 TIMOTHY R. CARTER

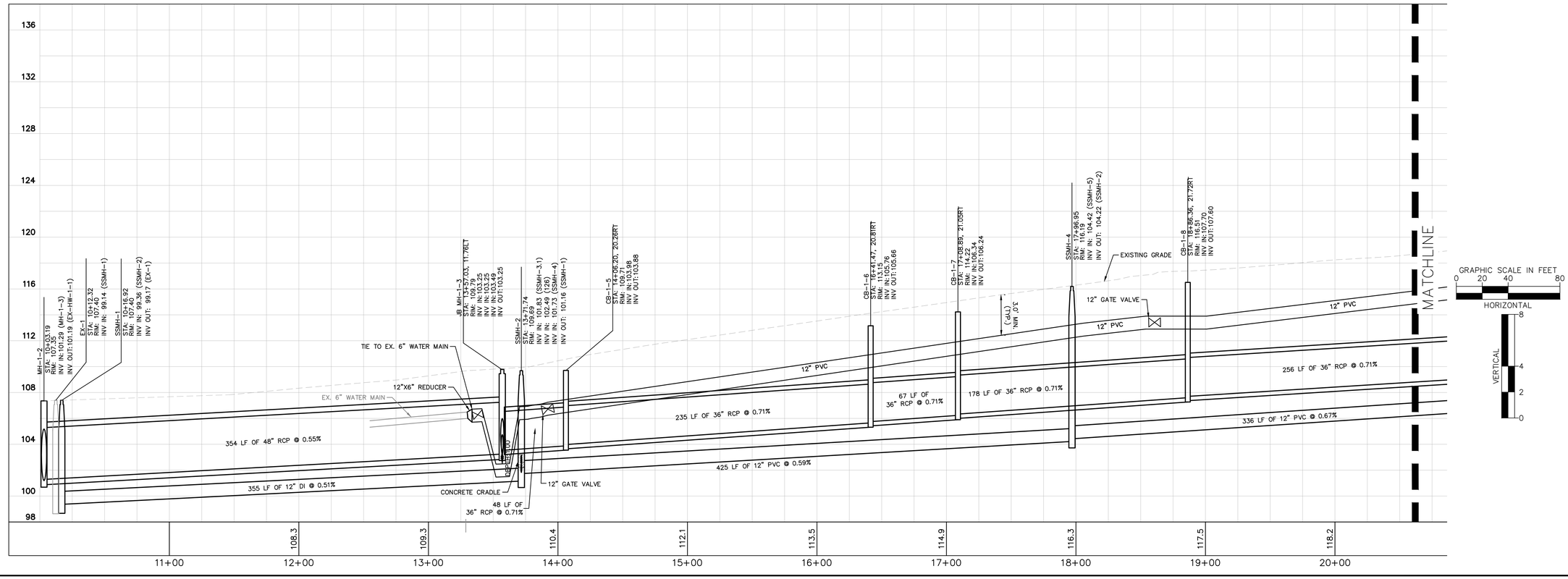
KHA PROJECT 268255002
DATE 01/26/2024
SCALE AS SHOWN
DESIGNED BY: SRH
DRAWN BY: SRH
CHECKED BY: TRC

UTILITY PLAN

WILSON BALLPARK
UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C4.2





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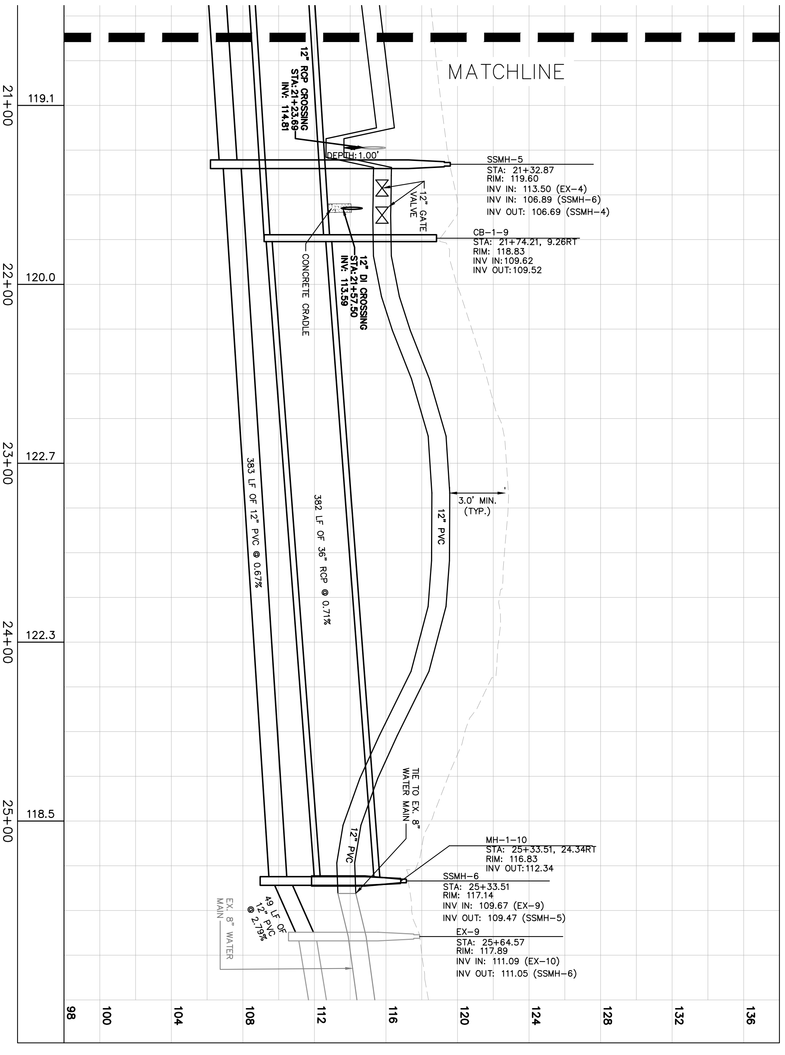
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 TIMOTHY R. CARTER

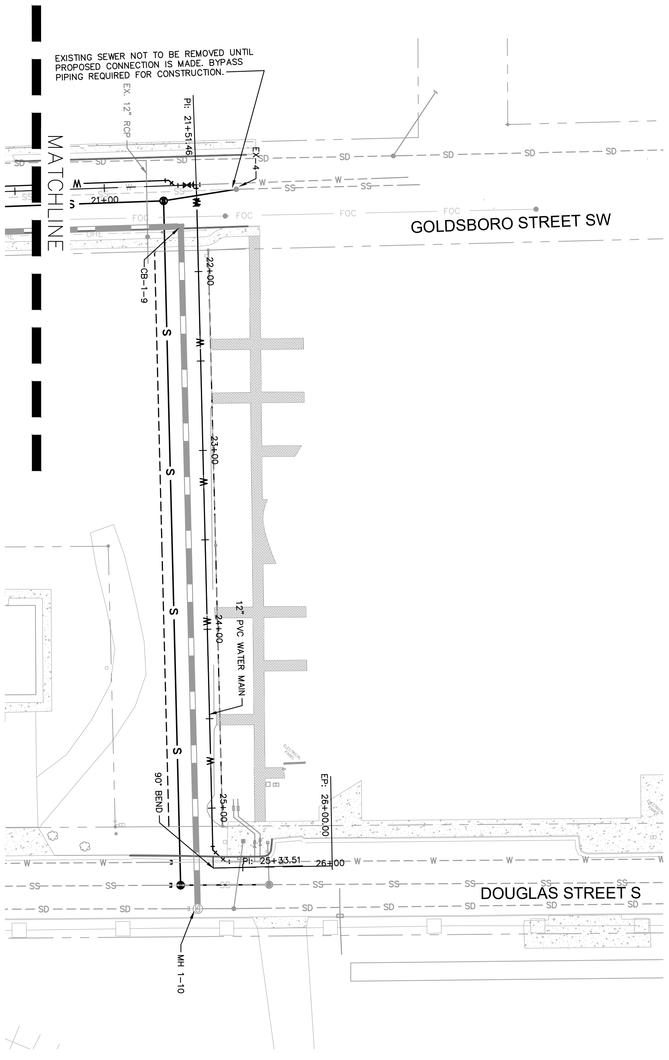
KHA PROJECT:	068255002
DATE:	01/26/2024
SCALE:	AS SHOWN
DESIGNED BY:	SRH
DRAWN BY:	SRH
CHECKED BY:	TRC

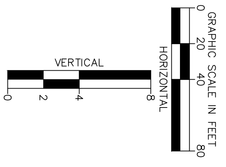
UTILITY PROFILES

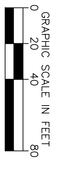
WILSON BALLPARK
UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C4.3









SHEET NUMBER C4.4

WILSON BALLPARK UTILITIES EXPANSION

PREPARED FOR

CITY OF WILSON

WILSON NORTH CAROLINA

UTILITY PROFILES

KHA PROJECT	268255002
DATE	01/26/2024
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 CIVIL TRACY R. CARTER

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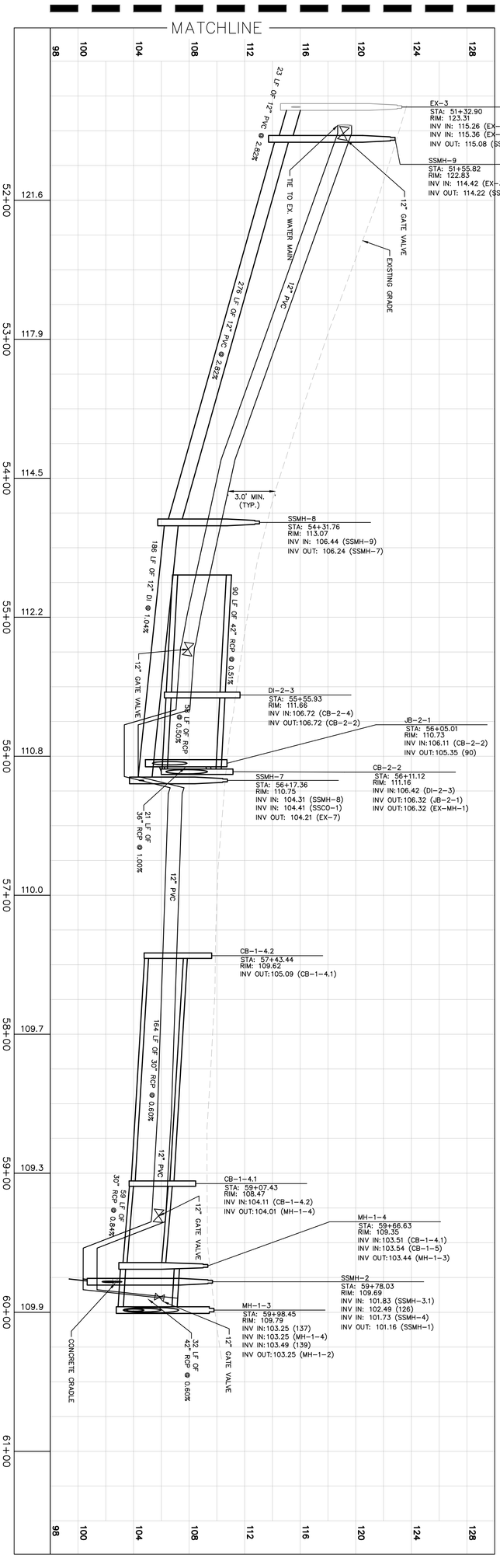

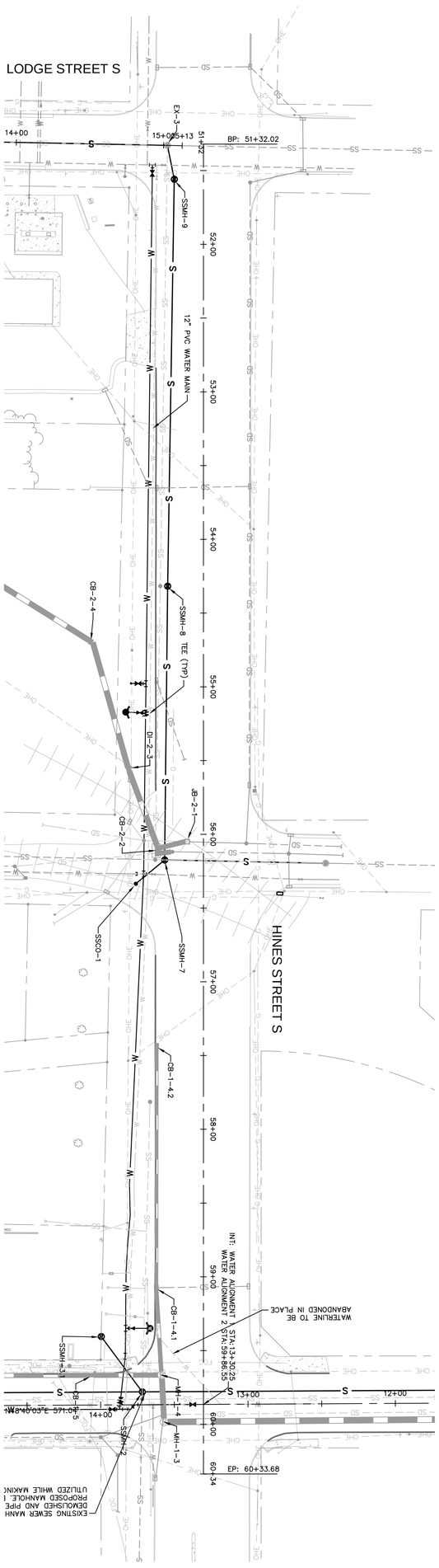

GRAPHIC SCALE IN FEET
HORIZONTAL
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VERTICAL
0 2 4 8

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

WILSON BALLPARK
UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
WILSON NORTH CAROLINA

UTILITY PROFILES

SHEET NUMBER
C4.5

KHA PROJECT	268255002
DATE	01/26/2024
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 TIMOTHY R. CARTER

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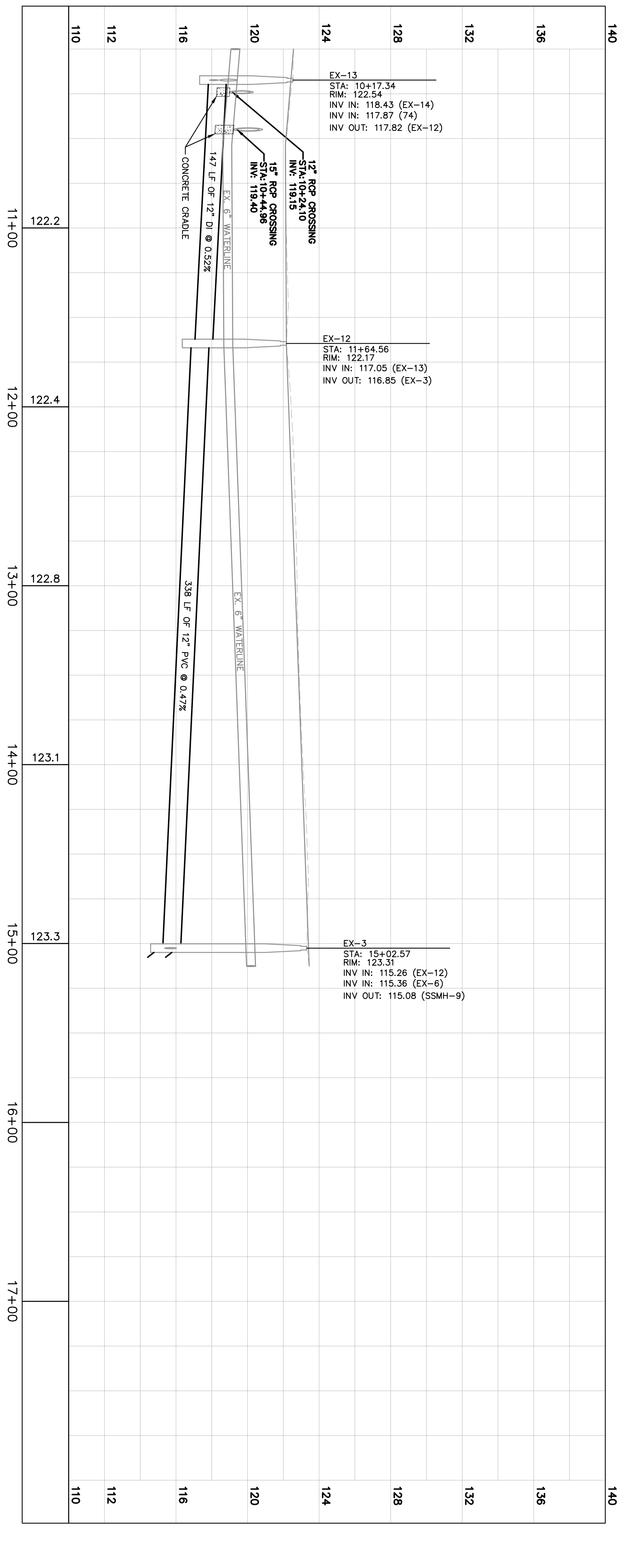

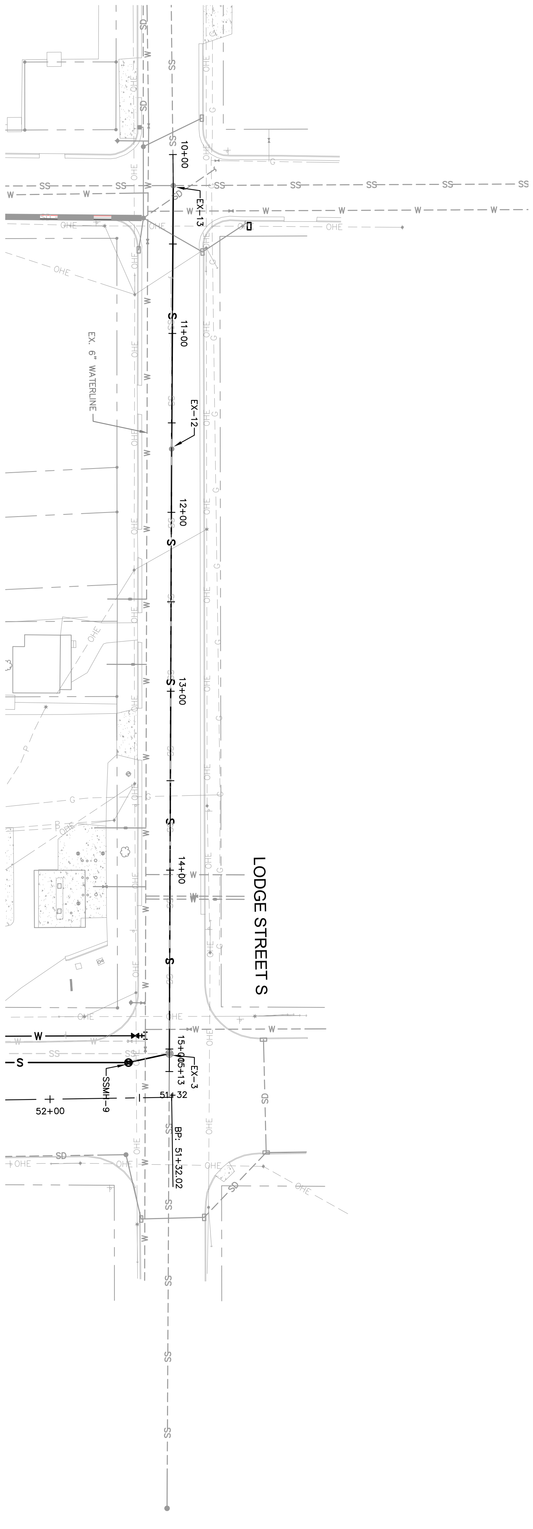

GRAPHIC SCALE IN FEET
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GRAPHIC SCALE IN FEET
HORIZONTAL
0 20 40 80

VERTICAL
0 2 4 8

SHEET NUMBER
C4.6

WILSON BALLPARK
UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
WILSON NORTH CAROLINA

UTILITY PROFILES

KHA PROJECT	268255002
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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 TIMOTHY R. CARTER

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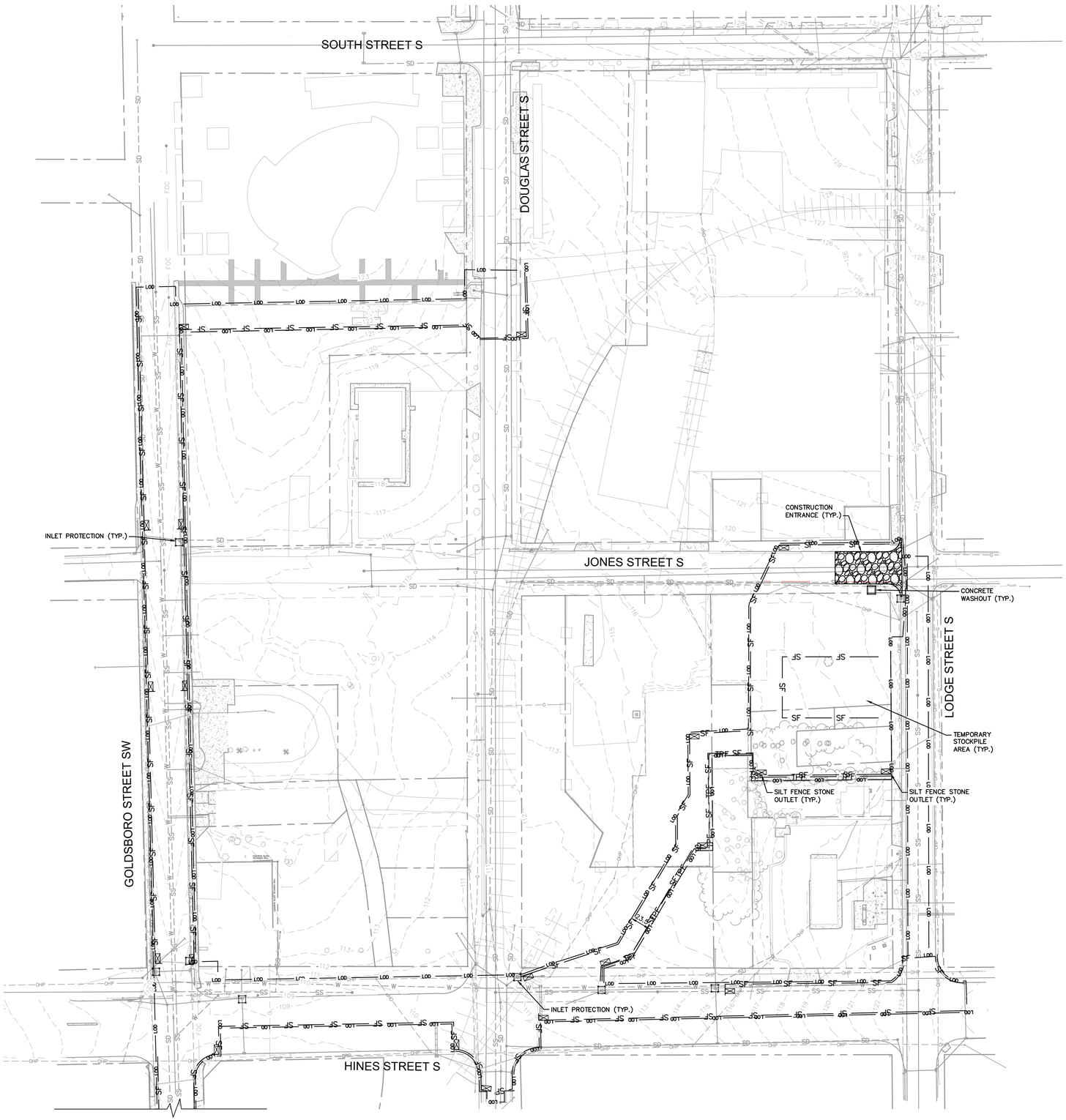


LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT/SETBACK
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- SD — EXISTING STORM DRAINAGE LINE
- SF — SILT FENCE
- LOD — LIMITS OF DISTURBANCE
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- TPF — TREE PROTECTION FENCE
- CONCRETE WASHOUT AREA

NOTE:

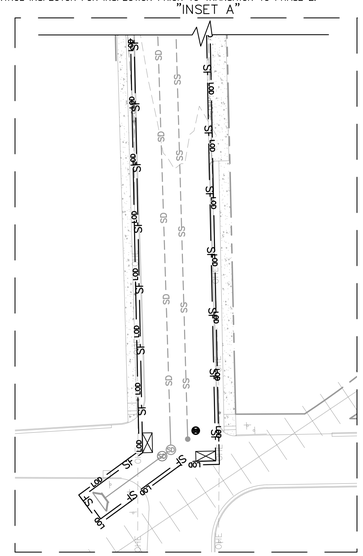
CONTRACTOR TO INSTALL INLET PROTECTION AROUND ALL EXISTING INLETS WITHIN LOD.

CONTRACTOR TO RETURN SITE TO ORIGINAL EXISTING GRADES FOLLOWING CONSTRUCTION.

PHASE 1 CONSTRUCTION SEQUENCE

1. INSTALL TREE PROTECTION FENCE. CALL CITY OF WILSON TREE CONSERVATION INSPECTOR FOR APPROVAL OF TREE PROTECTION FENCING.
2. OBTAIN A LAND DISTURBING PERMIT FROM NCDELMR–LAND QUALITY SECTION AND POST ORIGINAL PERMIT ON–SITE.
3. CONTRACTOR TO SCHEDULE PRE–CONSTRUCTION CONFERENCE ON–SITE WITH CITY AND NCDEMLR–LAND QUALITY SECTION. CONTACT THE STORMWATER CONTROL INSPECTOR.
4. INSTALL CONSTRUCTION ENTRANCE, SILT FENCE, STONE OUTLETS, INLET PROTECTION, AND CONCRETE WASHOUT. DISTURBANCE SHALL BE LIMITED TO THE INSTALLATION OF THESE DEVICES ONLY.
5. CALL NCDEMLR–LAND QUALITY SECTION INSPECTOR FOR INSPECTION OF EROSION CONTROL MEASURES.
6. UPON APPROVAL BY NCDEMLR–LAND QUALITY SECTION, BEGIN CLEARING AND DEMOLITION OF SITE, MAINTAINING EROSION CONTROL MEASURES AS NECESSARY. EROSION CONTROL MEASURES SHALL BE RESTORED TO ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO 50% OF DESIGN DEPTH.
7. INSPECT SITE ONCE A WEEK AND AFTER EVERY RAINFALL EVENT.
8. CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL DEVICES EVERY SEVEN (7) CALENDAR DAYS AND AFTER EVERY RAINFALL EVENT. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPLACED IMMEDIATELY.
9. ALL DISTURBED AREA WHERE WORK HAS CEASED SHALL BE STABILIZED WITHIN FOURTEEN (14) CALENDAR DAYS.
10. CALL STORMWATER CONTROL INSPECTOR FOR INSPECTION PRIOR TO TRANSITION TO PHASE 2.

"INSET A"



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SURVEY NOTE:

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LIMITS OF DISTURBANCE: 4.38 AC

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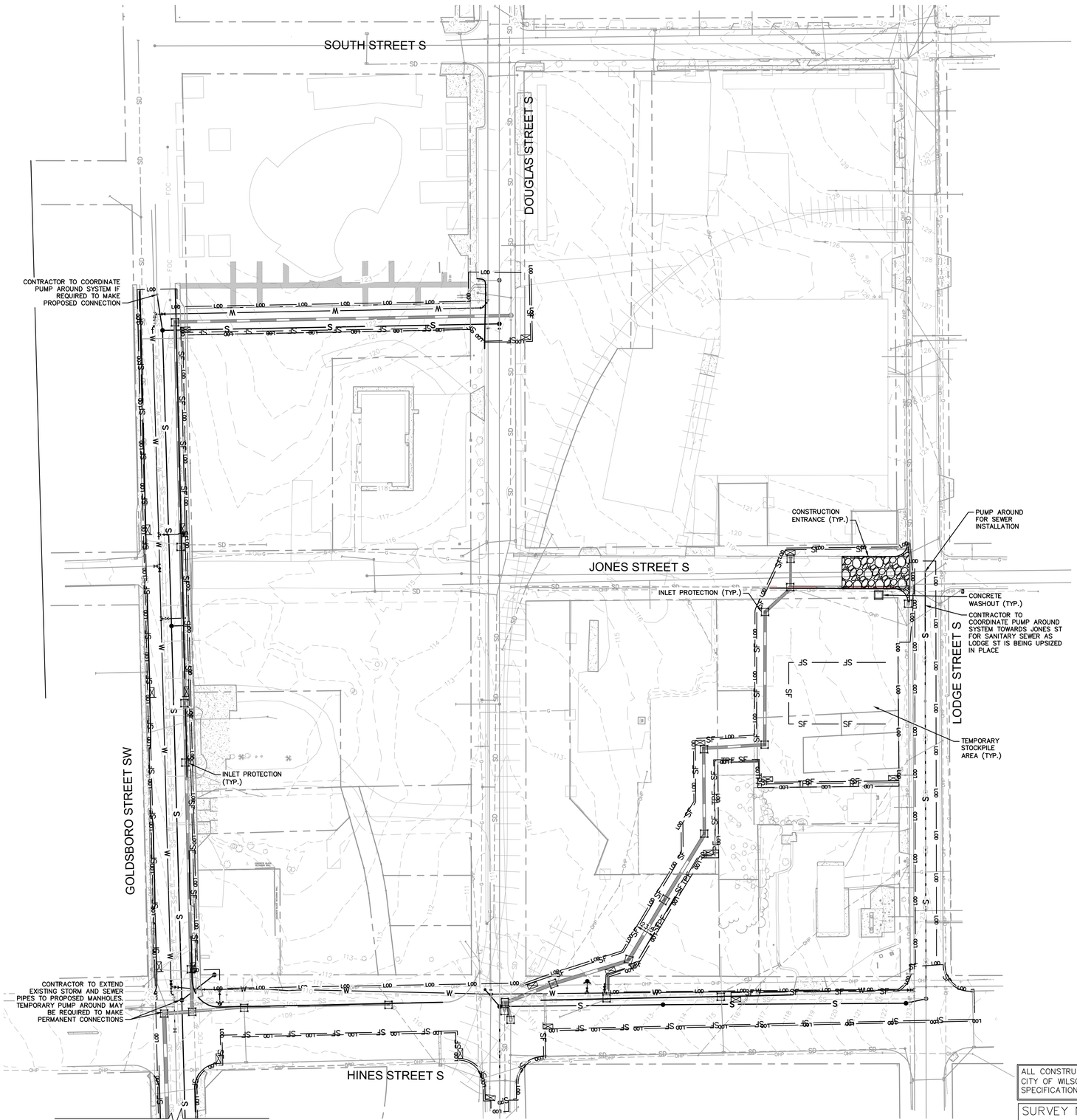
NORTH CAROLINA PROFESSIONAL SEAL 052434 ENGINEER TIMOTHY R. CARTER

KHA PROJECT:	268255002
DATE:	01/26/2024
SCALE:	AS SHOWN
DESIGNED BY:	SRH
DRAWN BY:	SRH
CHECKED BY:	TRC

EROSION AND SEDIMENTATION CONTROL PLAN - PHASE 1

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C5.0



LIMITS OF DISTURBANCE: 4.38 AC

LEGEND

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT/SETBACK
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING STORM DRAINAGE LINE
- PROPOSED STORM DRAINAGE LINE
- SILT FENCE
- LIMITS OF DISTURBANCE
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- TREE PROTECTION FENCE
- CONCRETE WASHOUT AREA

NOTE:

CONTRACTOR TO INSTALL INLET PROTECTION AROUND ALL EXISTING INLETS WITHIN LOD.

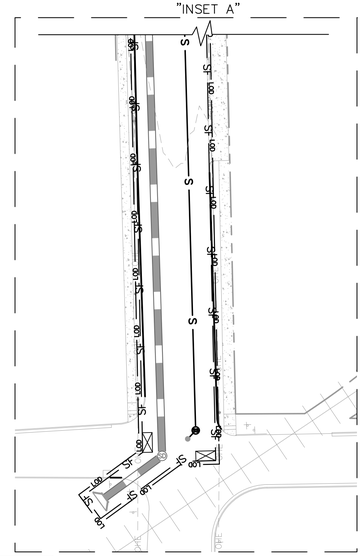
CONTRACTOR TO RETURN SITE TO ORIGINAL EXISTING GRADES FOLLOWING CONSTRUCTION.

LOD AREA: 5.14 ACRES

PHASE 2 CONSTRUCTION SEQUENCE

1. BEGIN CONSTRUCTION OF STORM OUTFALL PIPES AND STRUCTURES.
2. AS GRADING OPERATIONS PROGRESS, ADJUST CONTROL MEASURES AS NEEDED TO MAINTAIN POSITIVE FLOW AT ALL TIMES INTO EROSION AND SEDIMENT CONTROL DEVICES. OUTLET DISSIPATERS AND INLET PROTECTION SHALL BE INSTALLED AS STORM DRAIN IS CONSTRUCTED. THE REMAINING STORMWATER INLETS WITHOUT EXCAVATED DROP INLETS SHALL BE COVERED WITH PLYWOOD TO PREVENT FLOW ENTERING THE SYSTEM. CONTRACTOR SHALL NOT DISTURB BEYOND THE LIMITS OF DISTURBANCE BOUNDARY. SILT FENCE SHALL BE PLACED AROUND ALL SOIL STOCKPILES A MIN. OF 3' FROM TOE OF SLOPE.
3. ANY STOCKPILE MUST BE STABILIZED IF INACTIVE FOR MORE THAN SEVEN (7) CALENDAR DAYS.
4. INSTALL PROPOSED STORM SEWER SYSTEM AND INLET PROTECTION. UTILITY AND STORM SEWER SYSTEM INSTALLATION REQUIRING REMOVAL OF SEDIMENT DEVICES SHALL BE COMPLETED IN THE MINIMUM TIME POSSIBLE. DOWN TIME OF ALL DEVICES SHOULD BE MINIMIZED AND SCHEDULED AROUND INCLEMENT WEATHER IF PRACTICABLE.
5. MAINTAIN DEVICES AS NEEDED PER DETAILS AND SPECIFICATIONS. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION AND POTENTIAL OFFSITE SEDIMENTATION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDENR EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
6. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS WITHIN SEVEN (7) CALENDAR DAYS FOR SLOPES STEEPER THAN 3:1 AND FOURTEEN (14) CALENDAR DAYS FOR SLOPES FLATTER THAN 4:1 OF COMPLETION OF ANY PHASE OF CONSTRUCTION. PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL PERMANENT VEGETATION IS WELL ESTABLISHED.
7. COORDINATE WITH NCDEMLR-LAND QUALITY INSPECTOR PRIOR TO REMOVAL OF ANY EROSION CONTROL MEASURE.
8. THE EXCAVATED DROP INLETS AND PLYWOOD COVERING STORMWATER INLETS ARE TO BE REMOVED ONCE SITE IS STABILIZED. FOLLOWING THESE REMOVALS STANDARD INLET PROTECTION IS TO BE PLACED ON ALL STORMWATER INLETS ALLOWING FLOW TO THE STORMWATER SYSTEM AND CONTINUED EROSION PROTECTION.
9. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL THE NCDEMLR-LAND QUALITY INSPECTOR FOR INSPECTION.
10. IF SITE IS APPROVED, REMOVE SILT FENCING AND INLET PROTECTION. SEED OUT OR STABILIZE ANY RESULTING BARE AREAS.
11. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE NCDEMLR-LAND QUALITY INSPECTOR. ADDITIONAL INFORMATION MAY BE REQUIRED BY LAND QUALITY ENGINEER BEFORE PLAN APPROVAL IS ISSUED.

"INSET A"



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NORTH CAROLINA PROFESSIONAL SEAL 052434 ENGINEER TIMOTHY R. CARTER

KHA PROJECT:	268255002
DATE:	01/26/2024
SCALE:	AS SHOWN
DESIGNED BY:	SRH
DRAWN BY:	SRH
CHECKED BY:	TRC

EROSION AND SEDIMENTATION CONTROL PLAN - PHASE 2

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C5.1

NOTES:
1. See Detail 511.01 for location of metallic tape and locating element (e.g. tracer wire) over all pipelines.
2. All exposed asphalt surfaces shall be tacked.
3. A min. 1 1/2" thick overlay of type S9.5B asphalt, 25 lf each way along pavement from o/l of trench may be required by the city.
4. Detail applies to max 4' x 4' square cuts. Saw cut ex. asphalt when trench.

Public Services Departments
1800 Herring Avenue / P.O. Box 18
Wilson, North Carolina 27894

CITY of WILSON, N.C.
ADD WITH THE CITY OF WILSON STANDARD SPECIFICATIONS ONLY

Voice (252) 399-2400
FAX (252) 399-2400
www.wilsonnc.org

PAVEMENT SURFACE REPAIR

SCALE: Not To Scale
DETAIL #: 511.03
REVISION DATE: July 2019
SHEET #: 1 of 1

6" HEADER CURB
N.T.S.

KHA DETAIL NO: 02.205.R01 XX

NOTES:
1. HI-VISIBILITY CROSSWALKS SHOULD ONLY BE USED AT CROSSINGS WHERE THE INTERSECTION IS SIGNALIZED OR UN-CONTROLLED BY ANY TRAFFIC CONTROL DEVICE (e.g. STOP SIGN).
2. THE CROSSWALK LINE SHOULD BE PLACED AT THE ANGLE OF THE TRAVEL LANES AND TRAVERSE THE PEDESTRIAN CROSSING.
3. A CROSSWALK LINE SHOULD BE PLACED TO AVOID WHEEL PATHS. THIS IS IDEALLY DONE BY CENTERING THE LINES AT THE EDGE OF EACH TRAVEL LANE AND IN THE CENTER OF EACH TRAVEL LANE. DUE TO VARYING LANE WIDTHS THIS IS SOMETIMES NOT POSSIBLE.
4. PLACE STOP BARS A MINIMUM OF 4 FEET FROM NEAREST CROSSWALK LINE. STOP BARS AT SIGNALIZED INTERSECTIONS SHOULD BE COORDINATED WITH THE CITY OF RALEIGH TRANSPORTATION OPERATIONS DIVISION OR AS DIRECTED BY THE ENGINEER.
5. CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE TO THE LATEST CITY OF RALEIGH STANDARD DRAWINGS.

GENERAL NOTES:
- PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
- JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
- CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS.
- CONSTRUCT NON-TEMPLATE FORMED JOINTS A MIN. OF 1½" DEEP.
- FILL ALL CONSTRUCTION JOINTS, EXCEPT IN 8"x8" MEDIAN CURB, WITH JOINT FILLER AND SEALER.
- SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.

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

C-18

ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER

SHEET 1 OF 2
846.01

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

C-18

ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER

SHEET 2 OF 2
846.01

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No.	REVISIONS	DATE	BY

KHA PROJECT: 268255002
DATE: 01/26/2024
SCALE: AS SHOWN
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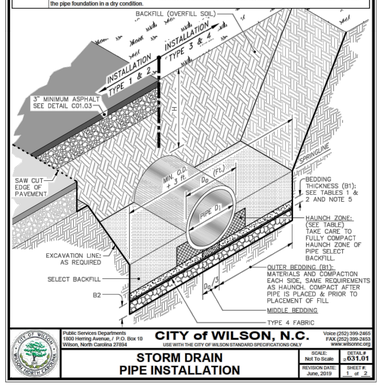
SITE DETAILS

WILSON BALLPARK
UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
WILSON NORTH CAROLINA

SHEET NUMBER
C6.0

H≥	The fill height measured vertically at any point along the pipe from the top of the pipe to the top of the embankment at that point. Do not operate heavy equipment over any pipe culvert until the pipe culvert has been properly backfilled and covered with at least 3 feet of approved material.
	Undisturbed earth material
	Bedding (Middle and Outer): Loosely placed select backfill material meeting NCDOT Class II, Type 1 (washed or unwashed crushed stone screenings) or Class III, Type 1 (NCDOT 25 or 2MS fine aggregate). Loose section directly beneath pipe uncompacted as pipe seating and backfill will accomplish compaction.
	Select Backfill (follow springline): Select backfill material meeting NCDOT Class II, Types 1 or 2 or NCDOT Class III, Types 1 or 2
	Backfill: Approved suitable local compactable material above springline of pipe meeting City of Wilson specifications.
	Rock Foundation or Unsuitable Material Foundation: Select material NCDOT Class V (#1M stone) or NCDOT Class VI (#57 stone) for foundation conditioning. Encapsulate with engineering fabric as directed by the Engineer; Type 4 soil stabilization fabric (NCDOT Table 1056-1). Overlap all transverse and longitudinal joints in fabric at least 18 inches. Maintain the pipe foundation in a dry condition.



Public Services Departments, 1800 Herring Avenue, / P.O. Box 10, Wilson, North Carolina 27894 — Voice (252) 399-2465, FAX (252) 399-2455, www.wilsonnc.org

CITY of WILSON, N.C.
USE WITH THE CITY OF WILSON STANDARD SPECIFICATIONS ONLY

STORM DRAIN PIPE INSTALLATION

SCALE: Not To Scale | DETAIL #: 631.01 | REVISION DATE: June, 2019 | SHEET #: 1 of 2

Table 1
Equivalent USCS[a] and AASHTO Soil Classifications for SIDD[b] Soil Designations

SIDD	USCS	NCDOT/AASHTO
Gravelly Sand (Category I)	SW, SP, GW, GP	- NCDOT Class II Type I (crushed stone screenings), LL < 30; PI < 6. - NCDOT Class III, Type 1 (2S or 2MS), LL < 30, PI < 6.
Sandy Silt (Category II)	GM, SM, Also GC, SC with less than 20% passing #200 sieve	- NCDOT Class II Type 1 (crushed stone screenings) and Class II, Type 2 (AASHTO M145 for A-2-4 with maximum PI of 6, A-4 w/ max 45% passing No. 200 Sieve and a maximum PI of 6) - NCDOT Class III, Type 1 (2S or 2MS) or Class III, Type 2 (AASHTO M145 for soil classification A-1 or A-3)
Silty Clay (Category III)	CL, MH, GC, SC	A5, A6

[a] Unified Soil Classification System
[b] Standard Installations Direct Design

Table 2
Standard Installations Soils and Minimum Compaction Requirements

Installation Type	Bedding Thickness	Outer Bedding (B1) Note 5 (% compaction/Category)	Haunch Zone & Select Backfill Area (% compaction/Category)	Location
Type 1	B1 = DN5 (6" min) B2 = If Rock foundation or over unsuitable foundation, 1/78 of 'H', 12" min/24" max	95% Category I	90% Category I, 95% Category II	Paved Areas with 2' or less bury
Type 2	B1 = DN5 (6" min) B2 = If Rock foundation or over unsuitable foundation, 1/78 of 'H', 12" min/24" max	90% Category I	85% Category I, 90% Category II	Paved Areas with greater than 2' of bury
Type 3	B1 = DN5 (6" min) B2 = If Rock foundation or over unsuitable foundation, 1/78 of 'H', 12" min/24" max	85% Category I 90% Category II	85% Category I, 90% Category II, or 95% Category II	In R/W outside of Pavement
Type 4	B1 = DN5 (6" min) B2 = If Rock foundation or over unsuitable foundation, 1/78 of 'H', 12" min/24" max	No Compaction required, except if Category III, use 85% Category III	No Compaction required, except if Category III, use 85% Category III	Natural Areas

NOTES:
1. Compaction and soil symbols – i.e. '95% Category I'– refers to Category I soil material with minimum standard Proctor compaction of 95%.
2. Soil in the outer bedding, haunch, and side zones, except under the middle 1/3 of the pipe, shall be compacted to at least the same compaction as the majority of the soil in the overfill (backfill) zone.
3. For trenches, the top elevation shall be no lower than 0.1H below finished grade or, for roadways, its top shall be no lower than an elevation of 1-foot below the bottom of the pavement base material.
4. For trenches, the width shall be wider than shown if required for adequate space to attain the specified compaction in the haunch and bedding zones.
5. Compact outer bedding after pipe is placed and prior to placement of select fill. Middle bedding is uncompacted.
6. Overfill (Backfill) soils to be placed per standard specification 02630 Storm Drainage for the applicable backfill type and bury limitations.
7. These two tables were excerpted from Design Data 9 and modified to generally conform to the NCDOT Standards as shown in Detail 300.01, Rigid Pipe in Trench Condition.

Reference Sources:
1. ACPA Design Data 9 [April, 2009] (formerly Design Data 40).
2. 2018 NCDOT Standard Specifications for Roads and Structures and NCDOT Standard Details 300.01 for Rigid Pipe, "Trench Condition."

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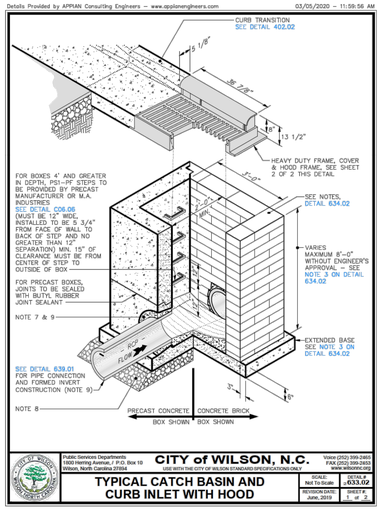
STORM DRAIN PIPE INSTALLATION

SCALE: Not To Scale | DETAIL #: 631.01 | REVISION DATE: June, 2019 | SHEET #: 2 of 2



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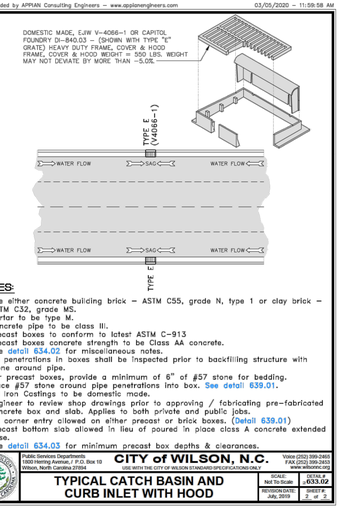
TYPICAL CATCH BASIN AND CURB INLET WITH HOOD

SCALE: Not To Scale | DETAIL #: 633.01 | REVISION DATE: June, 2019 | SHEET #: 1 of 2



NOTES:
1. Use either concrete bulicing brick – ASTM C55, grade N, type 1 or clay brick – ASTM C32, grade MS.
2. Mortar to be type M.
3. Concrete pipe to be class III.
4. Precast boxes to conform to latest ASTM C-913
5. Precast boxes concrete strength to be Class AA concrete.
6. See detail 634.02 for miscellaneous notes.
7. All penetrations in boxes shall be inspected prior to backfilling structure with stone around pipe.
8. For precast boxes, provide a minimum of 8" of #57 stone for bedding.
9. Place #57 stone around pipe penetrations into box. See detail 639.01.
10. All Iron Castings to be domestic made.
11. Engineer to review shop drawings prior to approving / fabricating pre-fabricated concrete box and slab. Applies to both private and public jobs.
12. No corner entry allowed on either precast or brick boxes. (Detail 639.01)
13. Precast bottom slab allowed in lieu of poured in place class A concrete extended base.
14. See detail 634.03 for minimum precast box depths & clearances.

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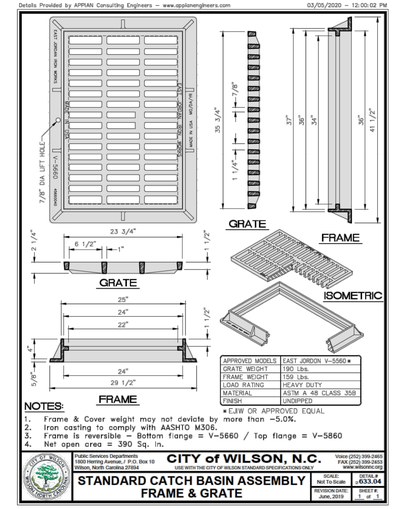
TYPICAL CATCH BASIN AND CURB INLET WITH HOOD

SCALE: Not To Scale | DETAIL #: 633.02 | REVISION DATE: July, 2019 | SHEET #: 2 of 2



APPROVED MODELS	EAST JORDON V-5560 *
GRATE WEIGHT	190 Lbs.
FRAME WEIGHT	159 Lbs.
LOAD RATING	HEAVY DUTY
MATERIAL	ASTM A 48 CLASS 35B
FINISH	UNDIPPED

*EJIW OR APPROVED EQUAL

NOTES:
1. Frame & Cover weight may not deviate by more than –5.0%.
2. Iron casting to comply with AASHTO M306.
3. Frame is reversible – Bottom flange = V-5560 / Top flange = V-5860
4. Net open area = 390 Sq. In.

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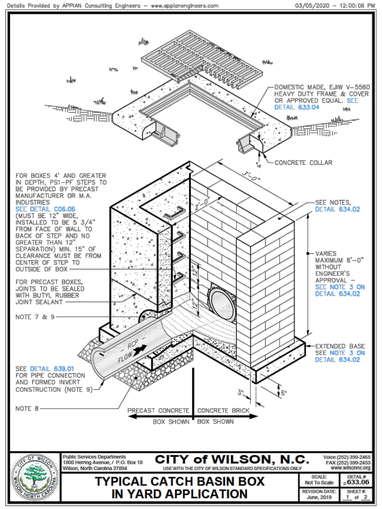
STANDARD CATCH BASIN ASSEMBLY FRAME & GRATE

SCALE: Not To Scale | DETAIL #: 634.04 | REVISION DATE: June, 2019 | SHEET #: 1 of 1



NOTES:
1. Use either concrete bulicing brick – ASTM C55, grade N, type 1 or clay brick – ASTM C32, grade MS.
2. Mortar to be type M.
3. Concrete pipe to be class III.
4. Precast boxes to conform to latest ASTM C-913
5. Precast boxes concrete strength to be Class AA concrete.
6. See detail 634.02 for miscellaneous notes.
7. All penetrations in boxes shall be inspected prior to backfilling structure with stone around pipe.
8. For precast boxes, provide a minimum of 8" of #57 stone for bedding.
9. Place #57 stone around pipe penetrations into box. See detail 639.01.
10. All Iron Castings to be domestic made.
11. Engineer to review shop drawings prior to approving / fabricating pre-fabricated concrete box and slab. Applies to both private and public jobs.
12. No corner entry allowed on either precast or brick boxes. (Detail 639.01)
13. Precast bottom slab allowed in lieu of poured in place class A concrete extended base.
14. See detail 634.03 for minimum precast box depths & clearances.

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TYPICAL CATCH BASIN BOX IN YARD APPLICATION

SCALE: Not To Scale | DETAIL #: 633.06 | REVISION DATE: June, 2019 | SHEET #: 1 of 2

NOTES:
1. Use either concrete bulicing brick – ASTM C55, grade N, type 1 or clay brick – ASTM C32, grade MS.
2. Mortar to be type M.
3. Concrete pipe to be class III.
4. Precast boxes to conform to latest ASTM C-913
5. Precast boxes concrete strength to be a minimum Class AA concrete.
6. See detail 634.02 for miscellaneous notes.
7. All penetrations in boxes shall be inspected prior to backfilling structure with stone around pipe.
8. For precast boxes, provide a minimum of 8" of #57 stone for bedding.
9. Place #57 stone around pipe penetrations into box. See detail 639.01.
10. All Iron Castings to be domestic made.
11. Engineer to review shop drawings prior to approving / fabricating pre-fabricated concrete box and slab. Applies to both private and public jobs.
12. No corner entry allowed on either precast or brick boxes. (Detail 639.01)
13. Precast bottom slab allowed in lieu of poured in place class A concrete extended base.
14. See detail 634.03 for minimum precast box depths & clearances.

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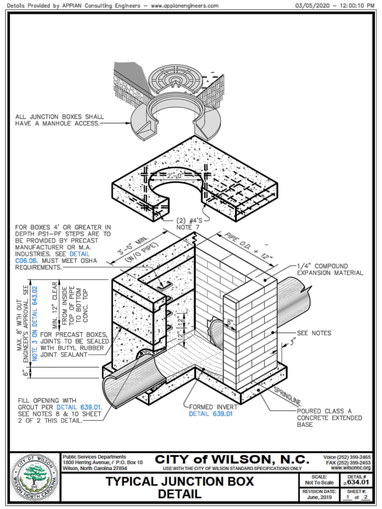
TYPICAL CATCH BASIN BOX IN YARD APPLICATION

SCALE: Not To Scale | DETAIL #: 633.06 | REVISION DATE: July, 2019 | SHEET #: 2 of 2



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TYPICAL JUNCTION BOX DETAIL

SCALE: Not To Scale | DETAIL #: 634.01 | REVISION DATE: June, 2019 | SHEET #: 1 of 2

NOTES:
1. Use either concrete bulicing brick – ASTM C55, grade N, type 1 or clay brick – ASTM C32, grade MS.
2. Mortar to be type M.
3. Concrete pipe to be class III.
4. Reinforcing shown is adequate for a maximum clear span of 4' based on 200 PSF live load plus weight of top (Non traffic). NCPE to design for loads & spans that are greater. If traffic bearing, design for H20 loading.
5. Precast boxes to conform to latest ASTM C-913.
6. All boxes over 4' in depth shall be provided with steps (12" O.C.).
7. Provide 2' diameter opening and additional edge & diagonal reinforcing in concrete top at Manhole frame access.
8. All penetrations in boxes shall be inspected prior to backfilling structure with stone around pipe.
9. For precast boxes, provide a minimum of 8" of #57 stone for bedding.
10. Place #57 stone around pipe penetrations into box. See detail 639.01.
11. All Iron Castings to be domestic made.
12. Engineer to review shop drawings prior to approving / fabricating pre-fabricated concrete box & slabs. Applies to both private and public jobs.
13. See detail 634.03 for minimum precast box depths & clearances.
14. Engineer to review shop drawings prior to approving / fabricating pre-fabricated concrete box and slab. Applies to both private and public jobs.
15. See detail 634.03 for minimum precast box depths & clearances.

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TYPICAL JUNCTION BOX DETAIL

SCALE: Not To Scale | DETAIL #: 634.01 | REVISION DATE: July, 2019 | SHEET #: 2 of 2

Drainage Structures Notes:
1. Boxes may be reinforced masonry, masonry, precast concrete or cast-in-place reinforced concrete.
2. Any non-standard box (non-standard meaning not shown in this manual), is to be designed by a NC Professional Engineer and approved by the City Engineer.
3. The maximum height of an un-reinforced masonry drainage structure with 8" walls shall be limited to 8'-0" from invert of the outlet pipe to the top of the casting. Depths greater than 8'-0" shall have walls 12" thick. Basins over 12' in total depth shall be designed by a NC Professional Engineer and approved by the City engineer. Four inch walls are not allowed on drainage structures. Bottom slab on structures shall be reinforced when box depth exceeds 8 ft. All reinforced slabs to be designed H20, detailed by a NC Professional Engineer and approved by the City engineer.
4. Steps are to be provided on all basins deeper than 48".
5. Steps are to be PS1-PF as manufactured by M. A. Industries or an approved equal. Locate on non-pipe walls. Steps shall meet OSHA requirements.
6. Mortar in masonry boxes is to be type M.
7. Clay brick structures are not to be allowed.
8. Concrete pipe is to be minimum class III.
9. Concrete building brick is to meet ASTM C-55, Grade N, Type 1 and must be NCDOT standard.
10. All cast-in-place or precast concrete drainage structures located in paved areas accessible to truck loadings to be designed to meet AASHTO HS 20-44 loading. See manufacturers details for wall, top and bottom thickness.
11. Inside of boxes shall allow for 6" of clearance on both sides of pipe. The dimension shown on the structures in this manual are minimum dimensions. For boxes with greater dimensions, either corbel walls, add a reinforced concrete top slab or lengthen box by adding additional grates & frames. Top and bottom slabs to be designed by NC Professional Engineer and approved by the City Engineer for H20 loading.
12. Maximum horizontal span of an 8" thick wall shall not exceed 8' for boxes of 8 feet or less in depth and 10 feet for boxes 12 feet or less in depth.
13. See detail 634.03 for minimum precast box depths & clearances.
14. Engineer to review shop drawings prior to approving / fabricating pre-fabricated concrete box and slab. Applies to both private and public jobs.
15. No corner entry allowed on either precast or brick boxes. (Detail 639.01)

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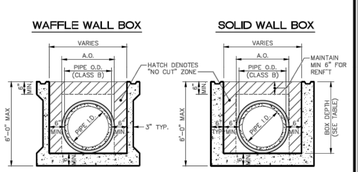
DRAINAGE STRUCTURES NOTES

SCALE: Not To Scale | DETAIL #: 634.02 | REVISION DATE: July, 2019 | SHEET #: 1 of 1

MINIMUM PRECAST BOX DEPTHS AND CLEARANCES



PIPE I.D.	PIPE O.D. (WALL THK)	TYPICAL A.O. (ANNULAR OP'G [A])	MIN BOX BASE DEPTH [B]
15"	19 1/2" (2 1/4")	24"	30"
18"	23" (2 1/2")	28"	34"
24"	30" (3")	36"	42"
30"	37" (3 1/2")	42"	48"
36"	44" (4")	48"	54"
42"	51" (4 1/2")	57"	63"
48"	58" (5")	64"	70"

[A] CAST BY BOX MANUFACTURER
[B] OTHERWISE USE BRICK BOX

NOTES:
1. Waffle boxes cannot be used in load bearing applications unless approved on a case-by-case basis by the city engineer.

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MINIMUM PRECAST BOX DEPTHS & CLEARANCES WAFFLE WALL BOX

SCALE: Not To Scale | DETAIL #: 634.03 | REVISION DATE: July, 2019 | SHEET #: 1 of 1

To calculate the closest possible distance between two holes (openings) on the same horizontal centerline, use the following formula:

A = Distance between holes (in degrees)
B = Angle between centerline of pipes
C = Degrees for hole number one from chart below
D = Degrees for hole number two from chart below

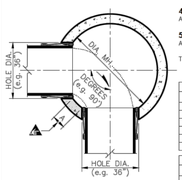
A = B – 1/2(C+D)

If A < 0, the openings are overlapping
If A > 0, A = the distance between holes (in degrees)

4' DIA:
A = 90 – 1/2(95+95) = 90 – 95 = –5, Holes too close

5' DIA:
A = 90 – 1/2(75+75) = 90 – 75 = 15, O.K. for 5' dia.

There are 15° of angle between holes which is 7 7/8".



4' Dia. MH	
Hole Dia.	Degrees
12"	28°
12"	28°
18"	45°
24"	60°
30"	76°
36"	95°

5' Dia. MH	
Hole Dia.	Degrees
12"	22°
18"	35°
24"	48°
30"	62.6°
36"	75°
40"	82°
48"	108°

6' Dia. MH	
Hole Dia.	Degrees
12"	20°
18"	25°
20"	32°
24"	38°
36"	60°
40"	65°
43"	70°
48"	84°
55"	98°
63"	125°

8' Dia. MH	
Hole Dia.	Degrees
12"	15°
18"	22°
24"	28°
36"	44°
40"	48°
42"	52°
48"	60°
55"	68°
60"	80°
70"	90°
78"	108°

10' Dia. MH	
Hole Dia.	Degrees
12"	12°
18"	18°
24"	24°
36"	36°
40"	38°
48"	46°
55"	55°
62"	62°
70"	70°
78"	80°

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DISTANCE BETWEEN TWO HOLES (OPENINGS) FORMULA

SCALE: Not To Scale | DETAIL #: 639.02 | REVISION DATE: June, 2019 | SHEET #: 1 of 1

Kimley»Horn
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421 FAYETTEVILLE ST SUITE 600, RALEIGH, NC 27601
PHONE: (919) 677-2000
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 ENGINEER TIMOTHY R. CARTER

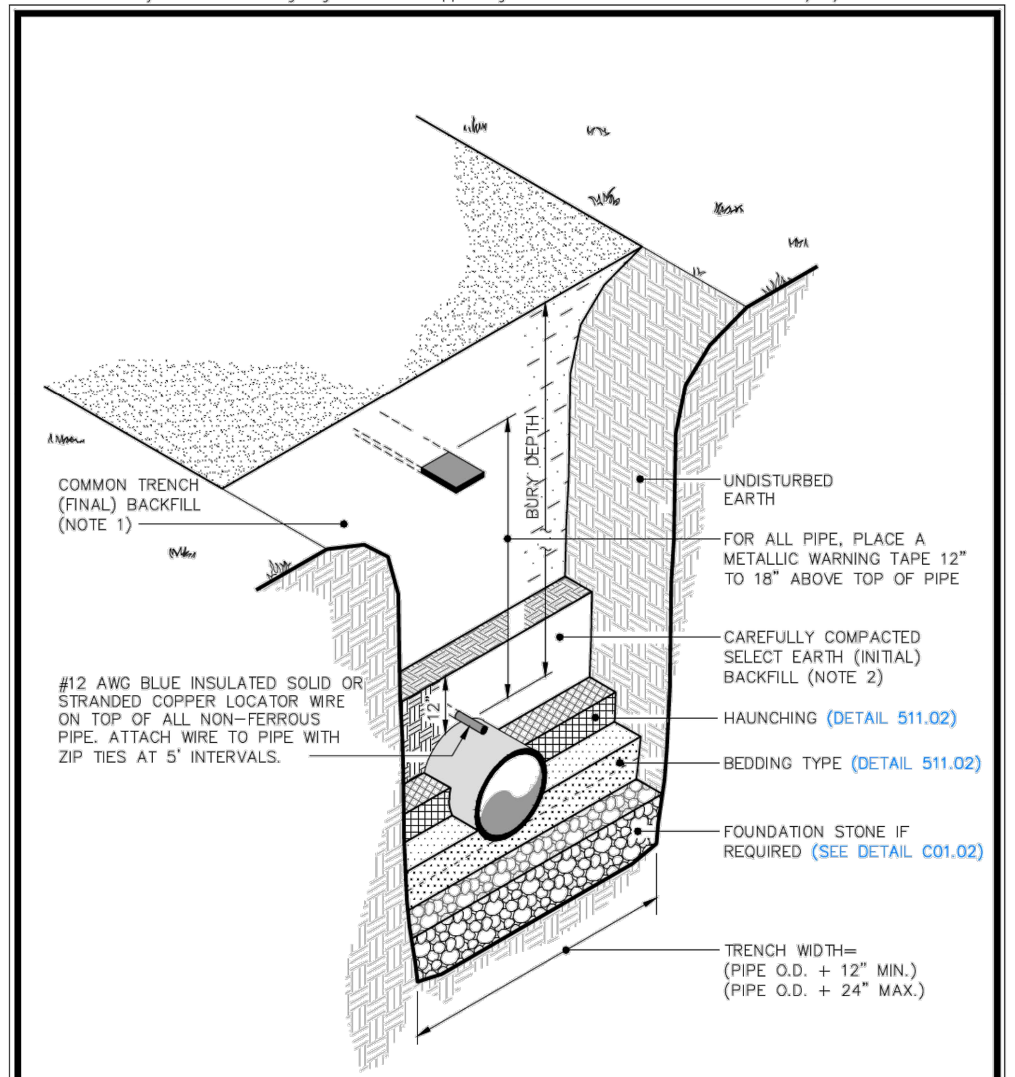
KHA PROJECT	268255002
DATE	01/26/2024
SCALE	AS SHOWN
DESIGNED BY:	SRH
DRAWN BY:	SRH
CHECKED BY:	TRC

STORM DRAINAGE DETAILS

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C7.0

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 — 11:57:56 AM



NOTES:

1. See specifications Section 02275, Part 2 — PRODUCTS for composition of Select Earth Backfill and Common Trench Backfill.
2. See detail C01.03 for pipe laid within an existing paved street.

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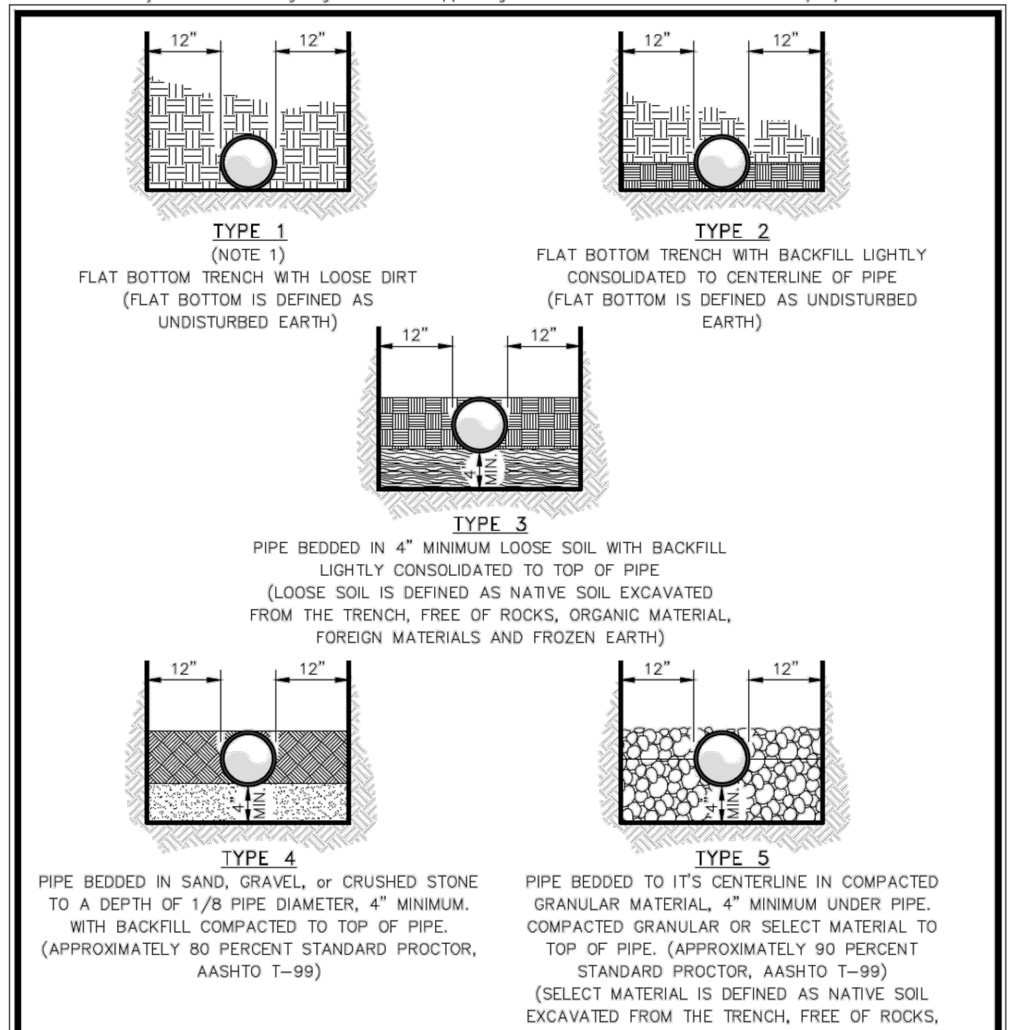
FORCE MAIN & WATER MAIN PIPE LAYING CONDITIONS — SCALE: Not To Scale — DETAIL #: 2 511.01 — REVISION DATE: June, 2010 — SHEET #: 1 of 1

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 — 11:57:59 AM

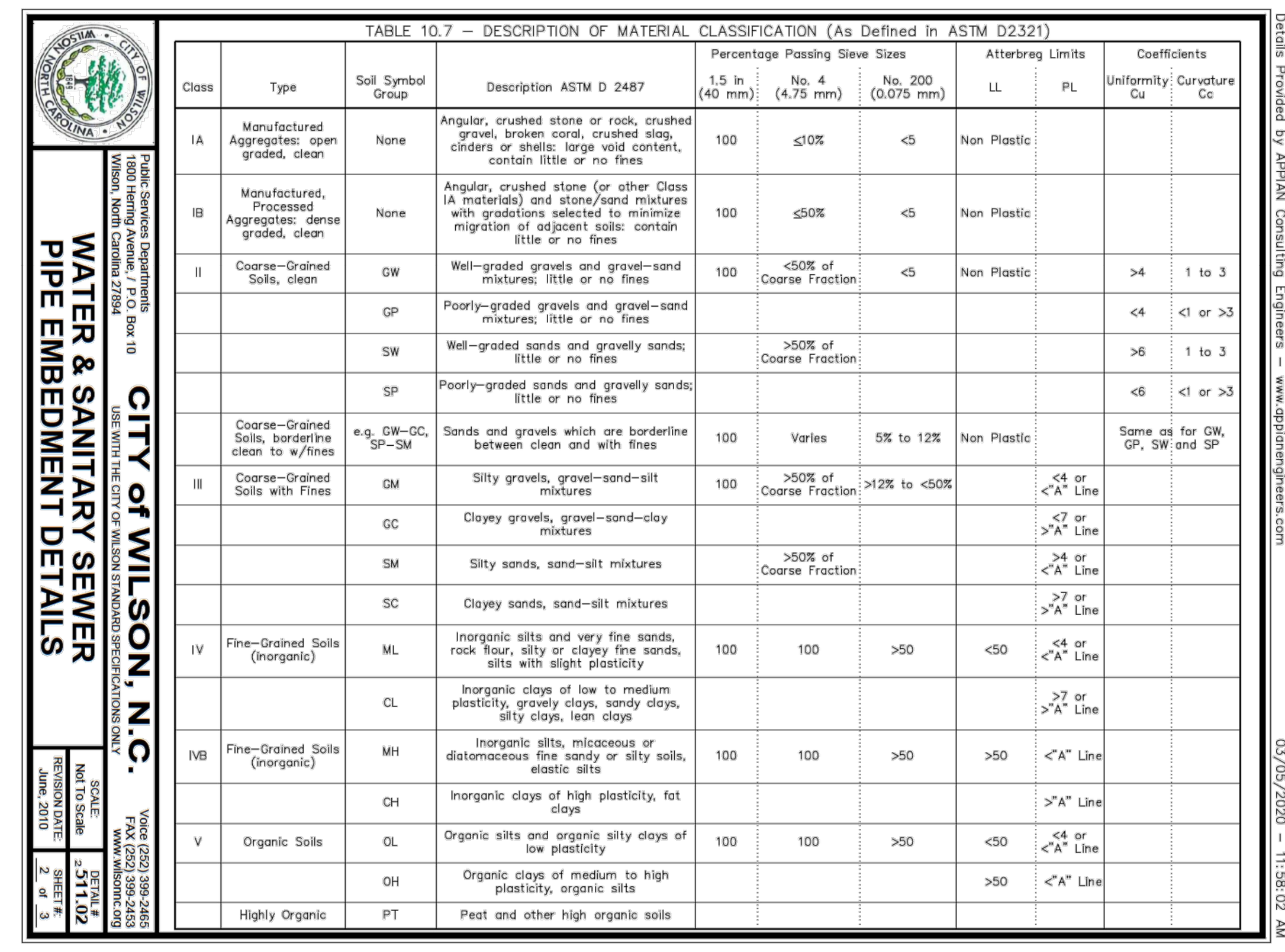


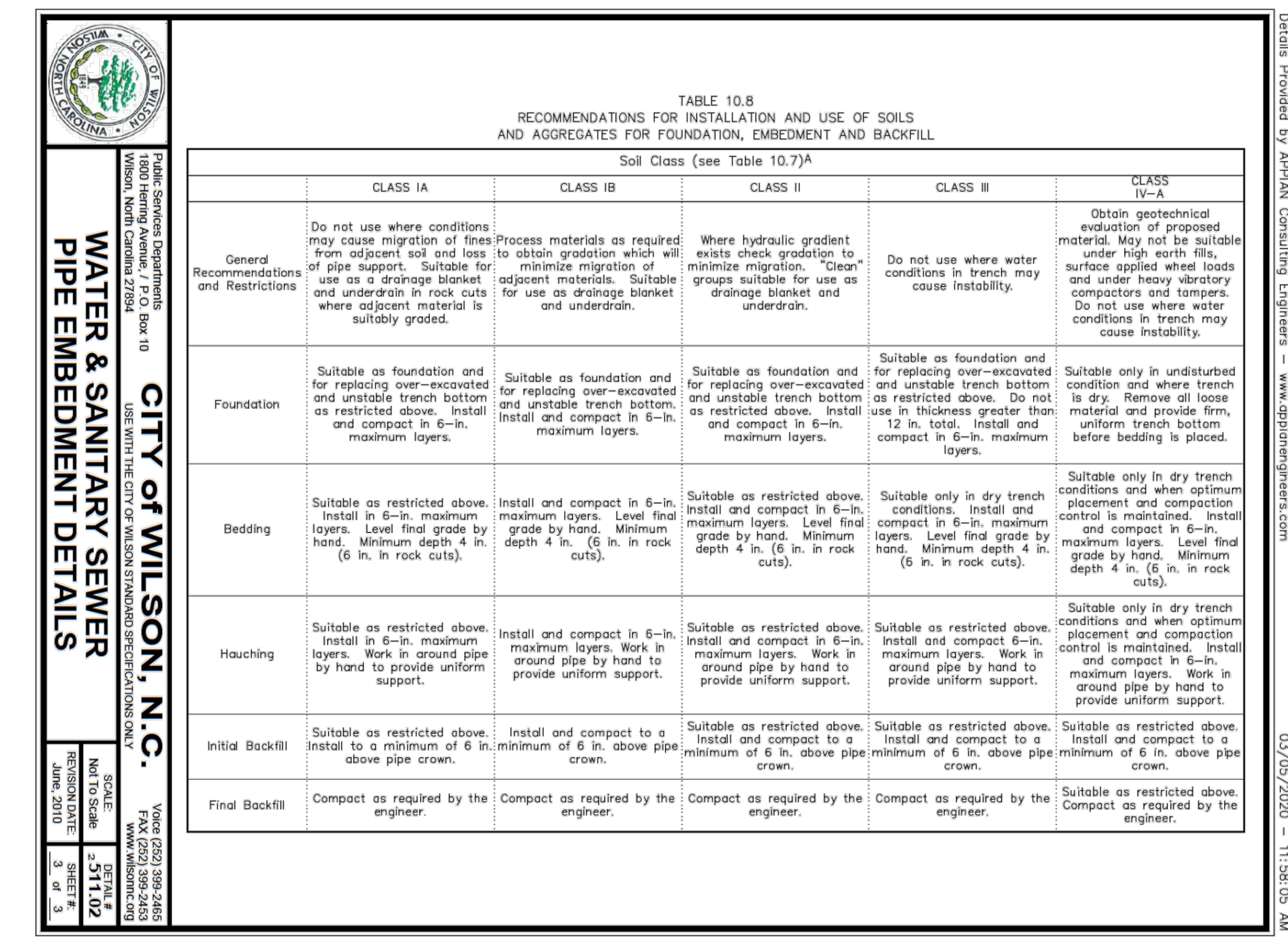
NOTES:

1. For normal water pipe sizes 14 inch and larger, consideration should be given to the use of laying conditions other than Type 1.
2. Consideration of the pipe-zone embedment conditions included in this figure may be influenced by factors other than pipe strength. For additional information on pipe bedding and backfill, see ANSI/AWWA C600.

CITY of WILSON, N.C.

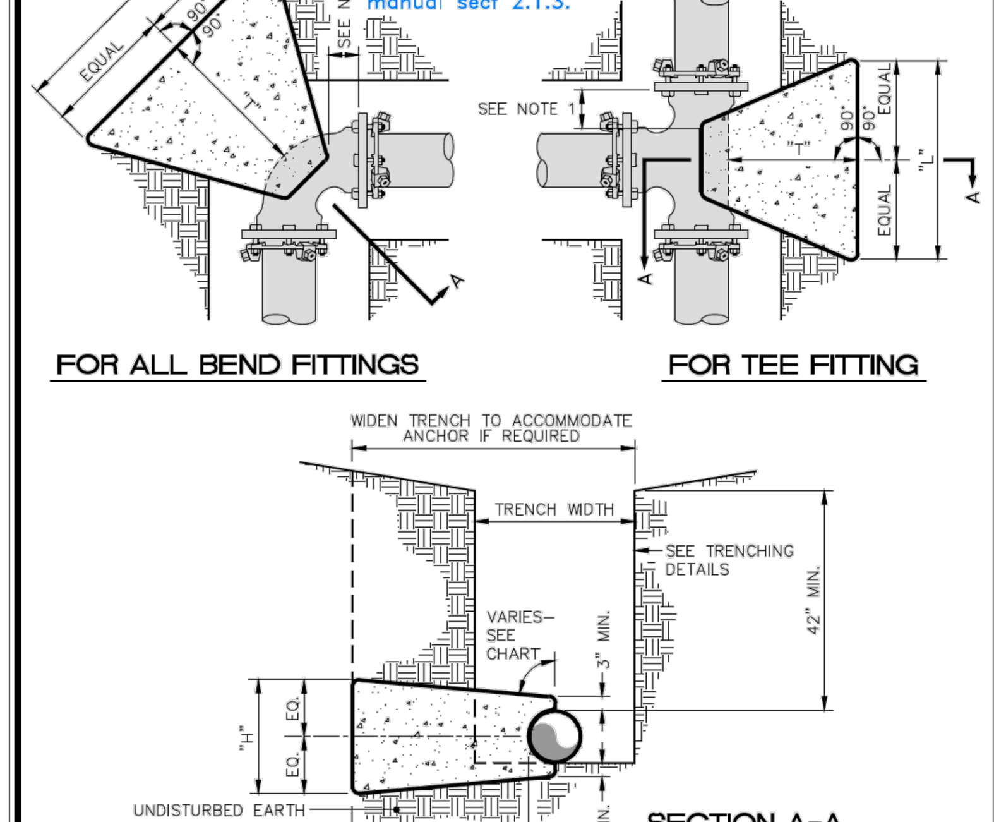
WATER & SANITARY SEWER PIPE EMBEDMENT DETAILS — SCALE: Not To Scale — DETAIL #: 2 511.02 — REVISION DATE: June, 2010 — SHEET #: 1 of 3





Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 — 11:58:08 AM

NOTE:
Blocking may be used only when approved by the City Engineer or Water Resources. Otherwise, designer shall design & specify on the plans the length of pipe required to be restrained on each leg sufficient to withstand thrust forces. See detail 512.06 and design manual sect 2.1.3.



NOTES:

1. Concrete blocking is to be formed to ensure accessibility to fittings and poured against undisturbed earth.
2. Fittings are to be completely wrapped with plastic, prior to pouring concrete.
3. Concrete to be minimum Class A concrete.
4. When Sackrete is to be used, it shall be properly mixed per manufacturer specifications.

CITY of WILSON, N.C.

BLOCKING DETAIL for HORIZONTAL BENDS AND TEE — SCALE: Not To Scale — DETAIL #: 2 512.01 — REVISION DATE: July, 2019 — SHEET #: 1 of 2

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 — 11:58:11 AM

TEST PRESSURE = 150 P.S.I.

PIPE SIZE	TYPE FITTING	DIMENSIONS (Ft.) "L"	"H"	"T"	VOLUME, CONCRETE CU. YD.
<4 INCHES	11 1/4°	---	---	---	---
	22 1/2°	1.00	1.00	1.50	0.06
	45°	1.00	1.00	1.50	0.06
	90°	1.00	1.00	2.50	0.09
	TEE	1.00	1.00	2.00	0.07
4 INCHES	11 1/4°	1.00	1.00	2.50	0.09
	22 1/2°	1.00	1.00	2.50	0.09
	45°	1.00	1.00	2.50	0.09
	90°	1.50	1.50	2.50	0.15
	TEE	1.50	1.50	2.00	0.12
6 INCHES	11 1/4°	1.50	1.50	2.50	0.15
	22 1/2°	1.50	1.50	2.50	0.15
	45°	1.50	1.50	2.50	0.15
	90°	2.00	2.00	3.00	0.28
	TEE	2.00	2.00	2.50	0.23
8 INCHES	11 1/4°	2.00	2.00	2.50	0.23
	22 1/2°	2.00	2.00	2.50	0.23
	45°	2.00	2.00	2.75	0.25
	90°	3.00	2.00	3.00	0.39
	TEE	3.00	2.00	2.50	0.32

TEST PRESSURE = 150 P.S.I.

PIPE SIZE	TYPE FITTING	DIMENSIONS (Ft.) "L"	"H"	"T"	VOLUME, CONCRETE CU. YD.
12 INCHES	11 1/4°	2.00	2.00	3.00	0.28
	22 1/2°	2.00	2.00	3.00	0.28
	45°	3.00	2.50	3.00	0.47
	90°	4.50	3.00	3.50	0.94
	TEE	4.50	3.00	3.00	0.81
16 INCHES	11 1/4°	2.00	2.00	3.00	0.28
	22 1/2°	3.00	2.00	3.00	0.39
	45°	4.00	3.00	3.50	0.84
	90°	6.50	3.50	3.50	1.54
	TEE	6.50	3.50	3.00	1.32
24 INCHES	11 1/4°	3.00	2.50	3.00	0.59
	22 1/2°	4.50	3.00	3.50	1.17
	45°	6.75	4.00	3.50	2.30
	90°	8.00	6.00	3.50	4.05
	TEE	8.00	6.00	3.00	3.59

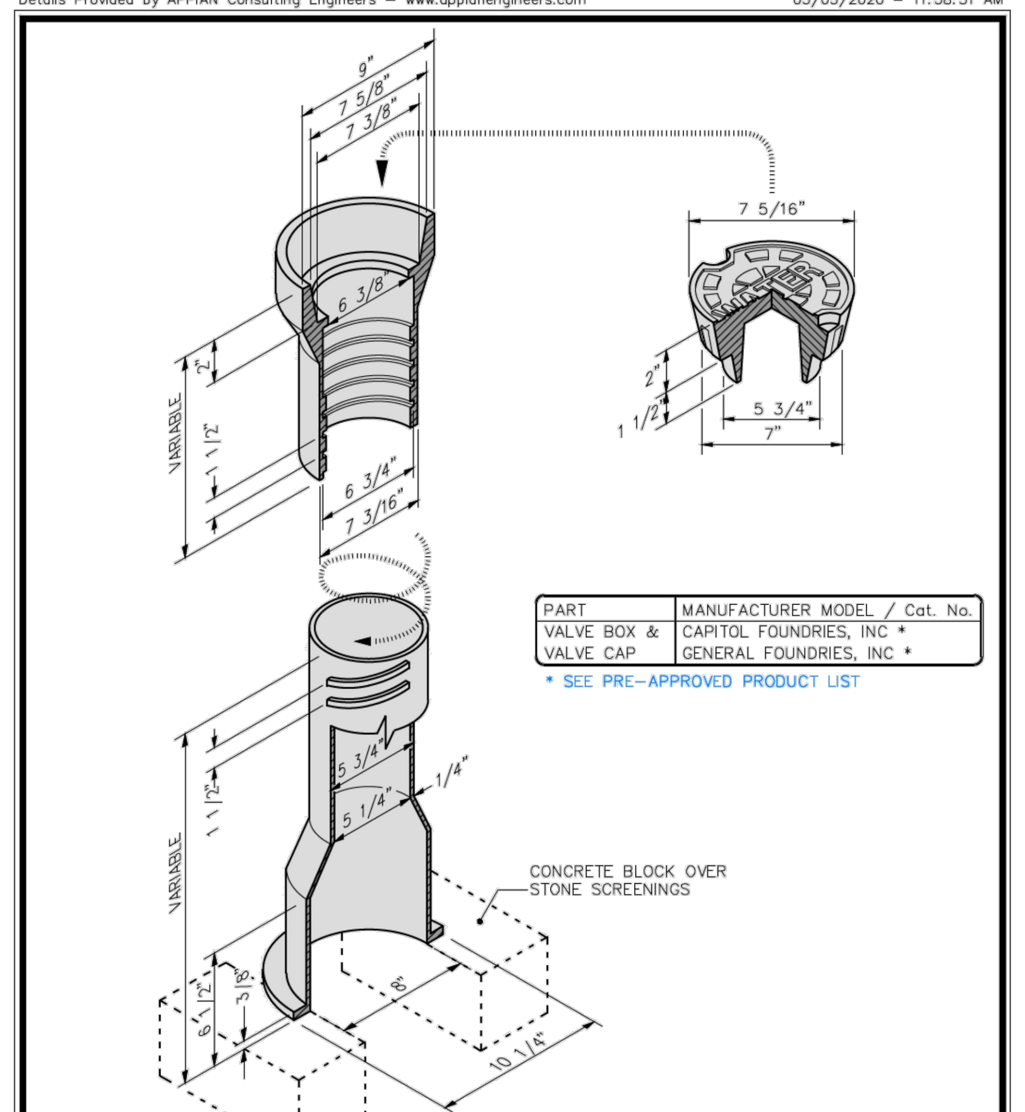
CHART NOTES:

1. If blocking excavation is in lightly compacted fill areas, or in areas where boulders or stumps have been removed, blocking size must be re-sized for the specific location/circumstance by a NC licensed Professional Engineer.
2. Blocking sizes shown in these tables assume the following:
   a. Blocking is constructed in residual soils as shown in detail
   b. Soil bearing pressure = 2000 psf
   c. Velocity of flow = 15 fps
3. This detail not applicable to reducing bends.
4. Neither the weight of the concrete blocking nor friction between concrete blocking and soil was added into blocking sizes computation. Therefore, blocking size is conservative.

CITY of WILSON, N.C.

BLOCKING DETAIL for HORIZONTAL BENDS AND TEE — SCALE: Not To Scale — DETAIL #: 2 512.01 — REVISION DATE: June, 2010 — SHEET #: 2 of 2

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 — 11:58:31 AM



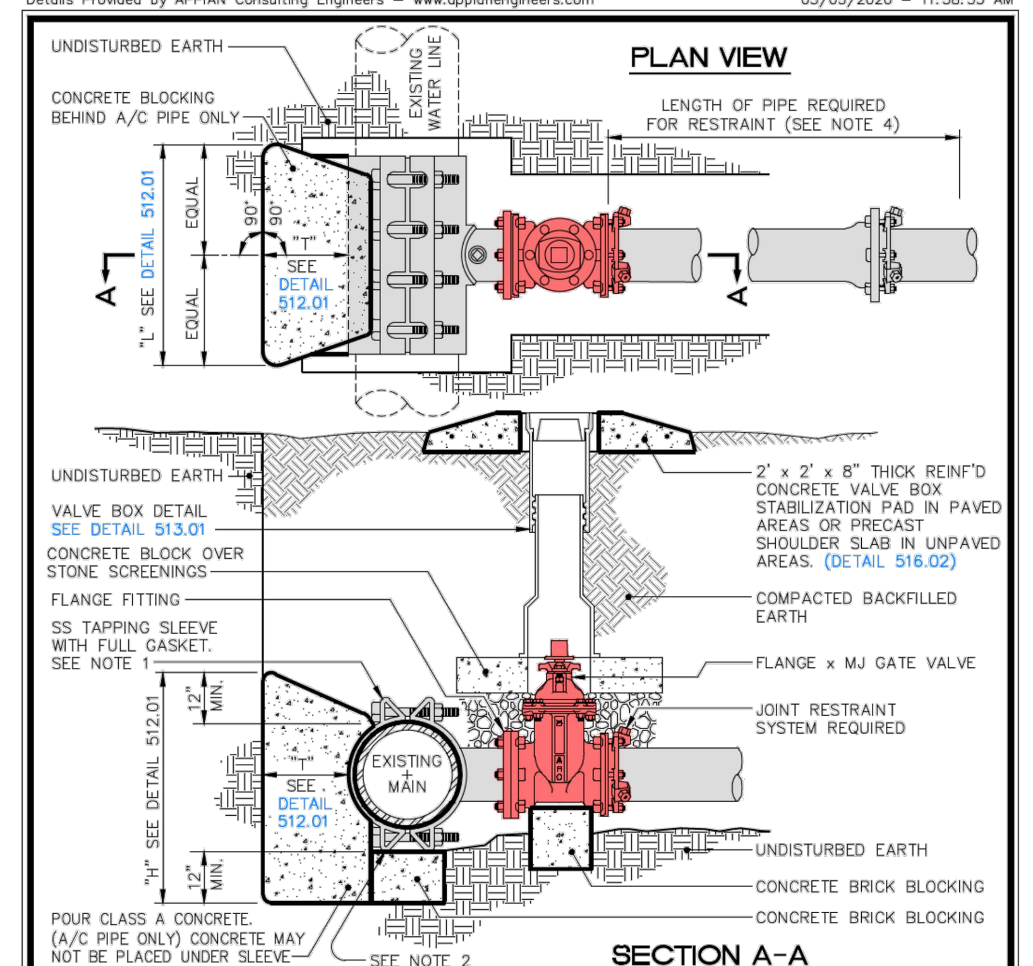
NOTES:

1. Use heavy duty traffic lid marked "WATER".

CITY of WILSON, N.C.

STANDARD SCREW VALVE BOX DETAIL — SCALE: Not To Scale — DETAIL #: 2 513.01 — REVISION DATE: July, 2019 — SHEET #: 1 of 1

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 — 11:58:33 AM



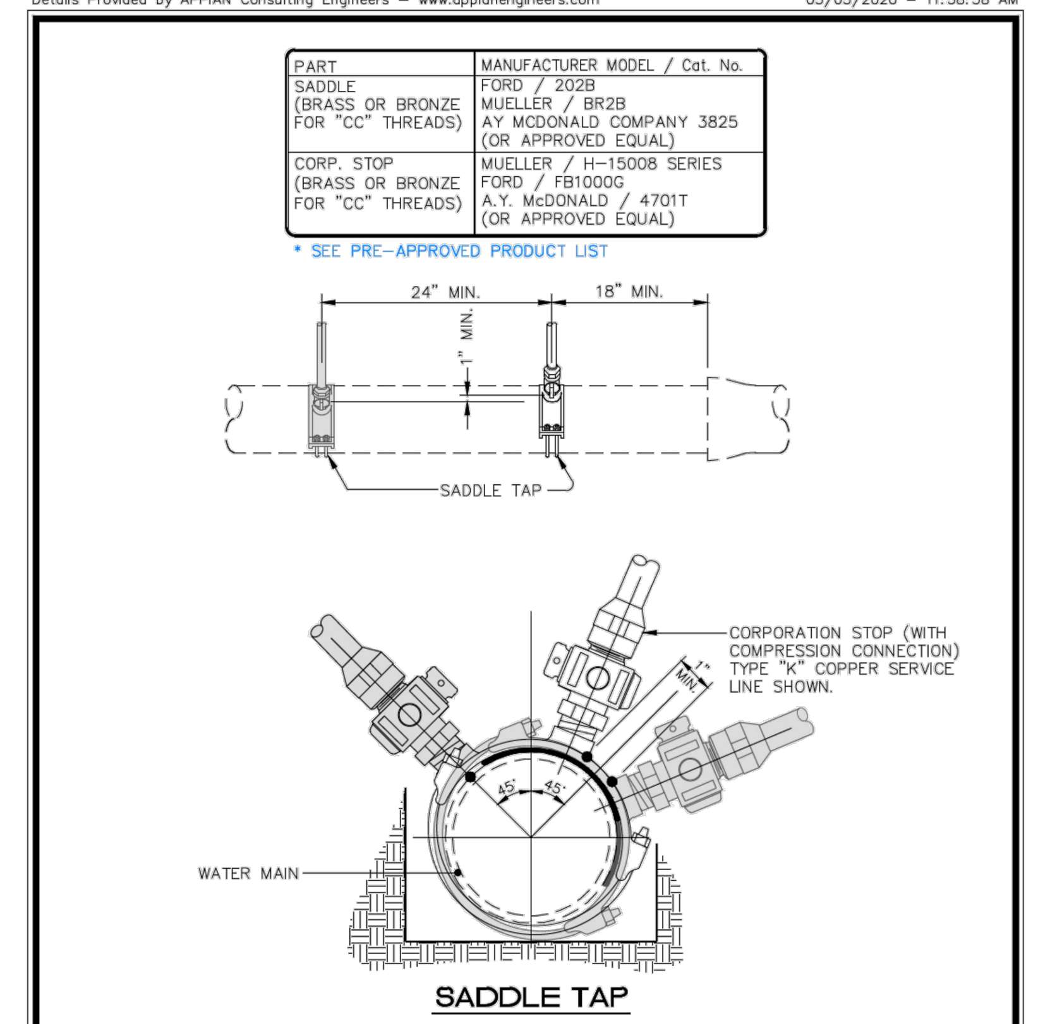
NOTES:

1. Concrete blocking is to be formed to ensure accessibility to fittings and poured against undisturbed earth.
2. Fittings are to be completely wrapped with plastic, prior to pouring concrete.
3. Concrete to be minimum Class A concrete.
4. Detail 512.06 may be applied to this detail. Restraint length must be computed. When computing length of branch to be restrained, designer to assume length of run on line being tapped = "0". Length of branch required for restraint to be shown on plans.

CITY of WILSON, N.C.

4" to 12" STANDARD TAPPING SLEEVE and VALVE ASSEMBLY — SCALE: Not To Scale — DETAIL #: 2 513.02 — REVISION DATE: July, 2019 — SHEET #: 1 of 1

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 — 11:58:38 AM



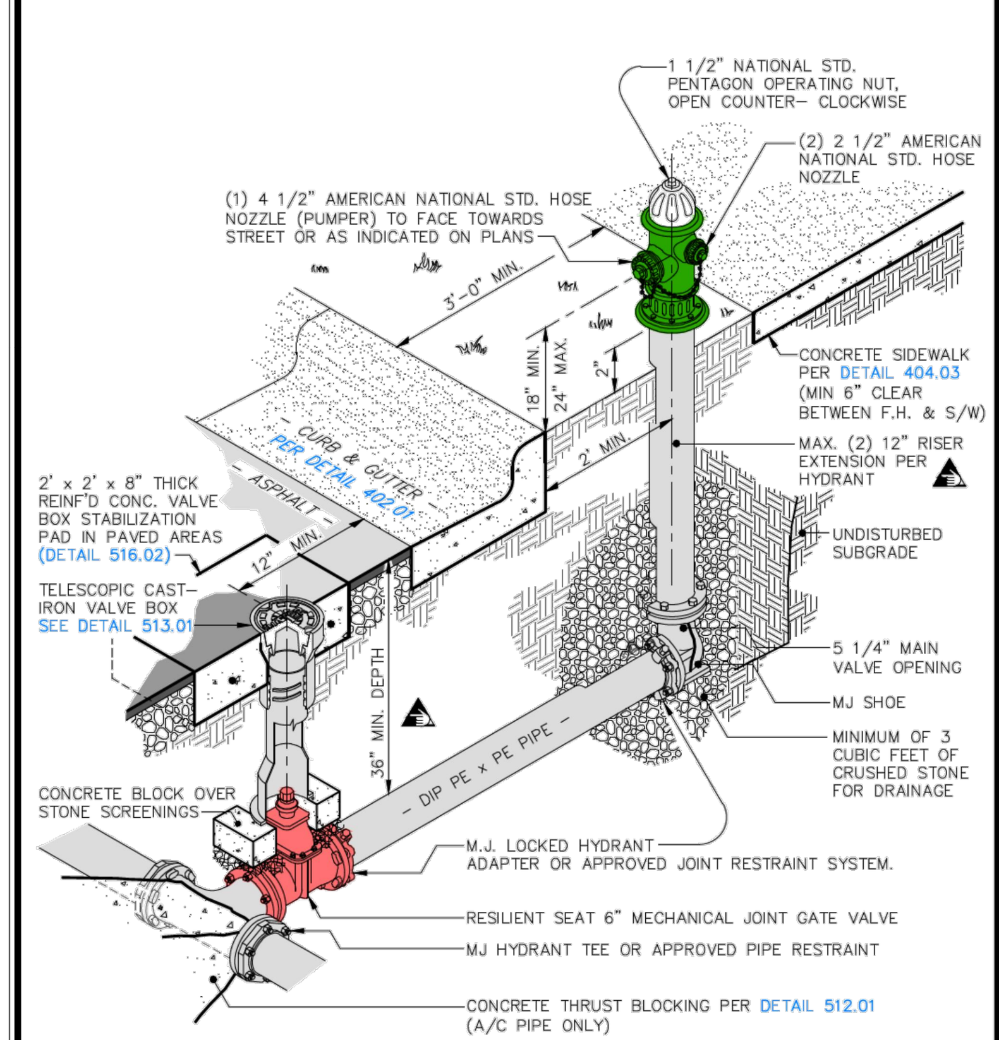
NOTES:

1. If 2 taps are made on each side of the main there shall be a minimum of 24" horizontal separation. Multiple taps on the same side shall have a minimum 24" horizontal separation and staggered a minimum of 1" vertically to prevent damage to the main.

CITY of WILSON, N.C.

STANDARD WATER TAP DETAIL (1", 1 1/2", & 2" TAPS) — SCALE: Not To Scale — DETAIL #: 2 513.04 — REVISION DATE: June, 2010 — SHEET #: 1 of 1

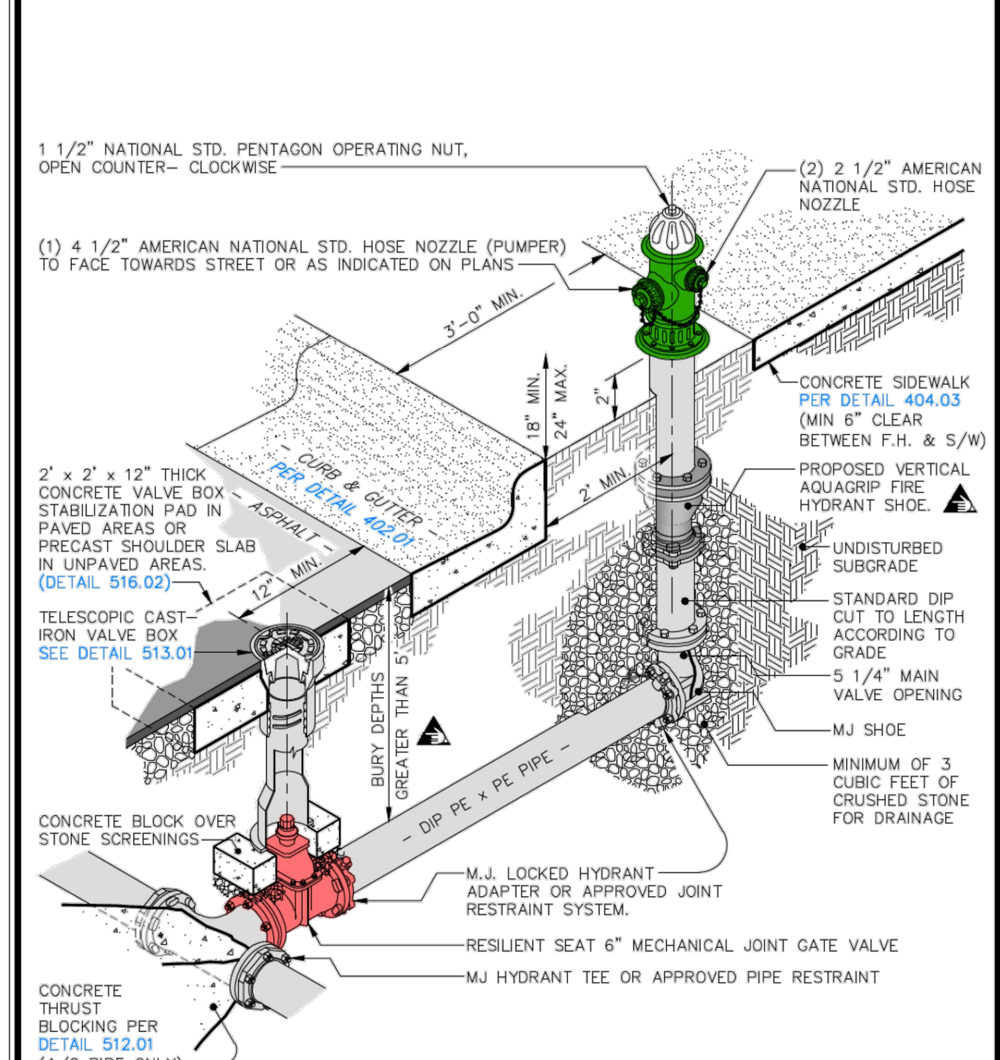
Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 — 11:58:55 AM



CITY of WILSON, N.C.

STANDARD HYDRANT SETTING (CURB & GUTTER W/SIDEWALK) — SCALE: Not To Scale — DETAIL #: 2 514.03 — REVISION DATE: July, 2019 — SHEET #: 1 of 2

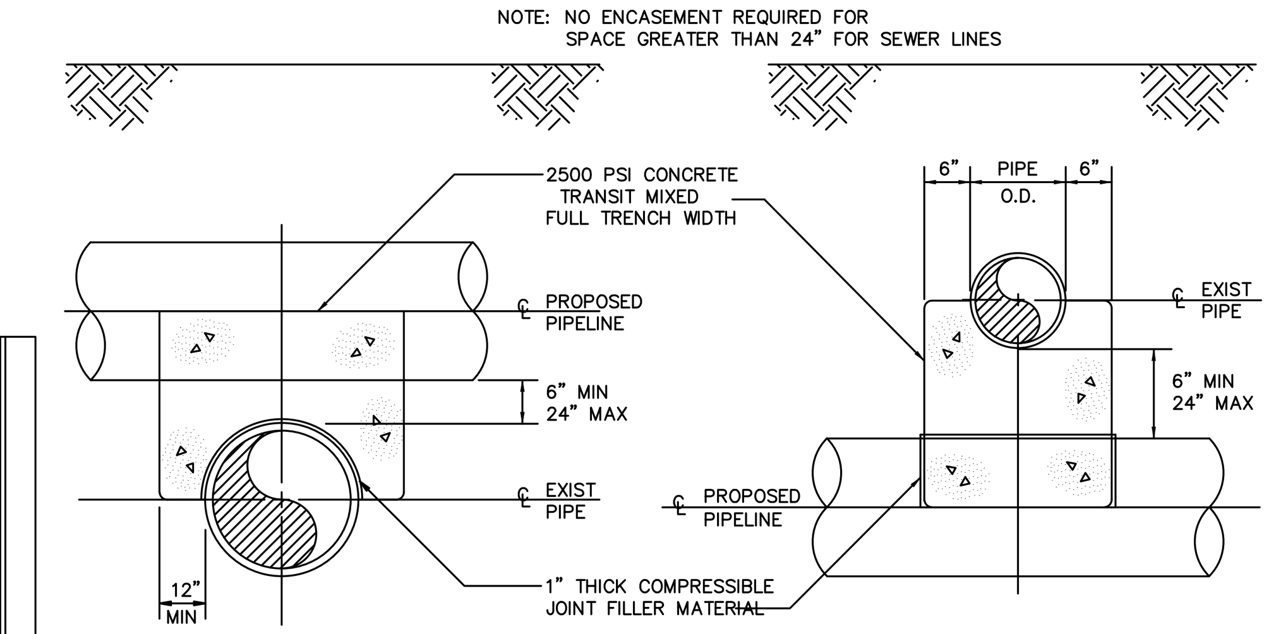
Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 — 11:58:57 AM



CITY of WILSON, N.C.

STANDARD HYDRANT SETTING (CURB & GUTTER W/SIDEWALK) (BURY DEPTH >5') — SCALE: Not To Scale — DETAIL #: 2 514.03 — REVISION DATE: July, 2019 — SHEET #: 2 of 2

NOTE: NO ENCASEMENT REQUIRED FOR SPACE GREATER THAN 24" FOR SEWER LINES



PROPOSED PIPELINE OVER EXISTING PIPE — PROPOSED PIPELINE UNDER EXISTING PIPE

CONCRETE CRADLE PROTECTION FOR SEWER LINE CROSSINGS

REVISIONS	DATE	REVISIONS	DATE

No.	REVISIONS	DATE	BY

Kimley»Horn

421 FAYETTEVILLE ST SUITE 600, RALEIGH, NC 27601
PHONE: (919) 677-2000
WWW.KIMLEY-HORN.COM

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 TIMOTHY R. CARTER

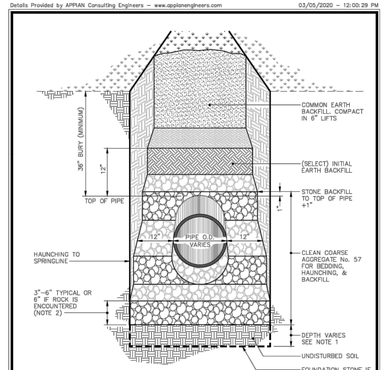
KHA PROJECT 268255002 — DATE 01/26/2024 — SCALE AS SHOWN — DESIGNED BY: SRH — DRAWN BY: SRH — CHECKED BY: TRC

UTILITY DETAILS

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
WILSON — NORTH CAROLINA

SHEET NUMBER
C8.0

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 12:00:29 PM



NOTES:
1. Foundation stone shall be required when soil conditions are unsuitable.
2. An additional 1 inch depth of bedding material will be required for each additional 2 feet of trench depth in excess of 16 feet up to a maximum of 12 inches.

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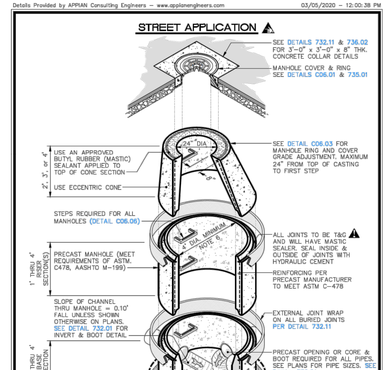
SANITARY SEWER LINE TRENCH (NON-TRAFFIC AREAS)

SCALE: Not To Scale | DETAIL # 731.01
REVISION DATE: June, 2013 | SHEET # 1 of 1

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 12:00:38 PM



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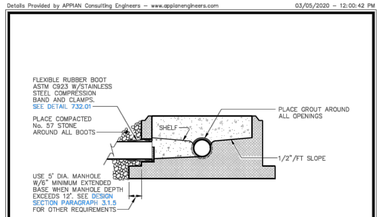
STANDARD ECCENTRIC CONE PRECAST MANHOLE DETAIL

SCALE: Not To Scale | DETAIL # 732.03
REVISION DATE: June, 2013 | SHEET # 1 of 1

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 12:00:42 PM



NOTES:
1. Concrete strength to be 4,000 PSI minimum.
2. Pipes will be grouted inside and out.
3. Flexible sleeve boots cast in place or installed with stainless steel expander rings. Boots to meet ASTM C–923 standards.
4. See detail 732.01 for typical invert shaping.
5. Service laterals into existing manholes to be core drilled and booted.
6. Maximum depth 4' diameter manhole = 12' (see sewer design section for other requirements / limitations).
7. If height above grade exceeds 24", use eccentric flat top.
8. For watertight applications, place butyl rubber between frame and cone.
9. All banded connections shall be double banded. For pipe connections 12" and larger, 2 sets of bands shall be required.
10. Lubricate the following: Pipe exterior, boot interior, boot exterior, S.S. bands (Top & bottom)
11. Place manhole opening over the effluent line.
12. Manholes subject to flooding shall have the top of the manhole rim a minimum of 24" above the 100 Yr. BFE unless approved otherwise by the City Engineer or Director of Water Resources. When vents are permitted, vent every 3rd manhole, not exceeding 1,000 LF between vents. Vents shall be placed a minimum of 24" above the 100 Yr. BFE. See detail 732.10.
13. Outfall manholes, regardless of manhole top elevation, shall be vented.

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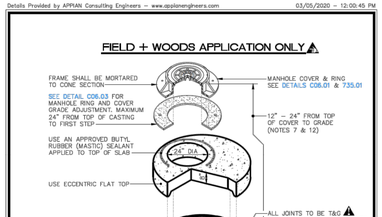
STANDARD ECCENTRIC CONE PRECAST MANHOLE DETAIL

SCALE: Not To Scale | DETAIL # 732.03
REVISION DATE: July, 2019 | SHEET # 2 of 3

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 12:00:45 PM

FIELD + WOODS APPLICATION ONLY



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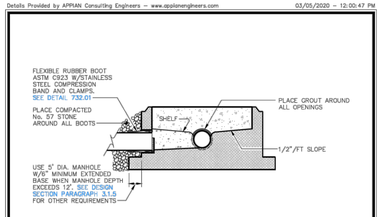
STANDARD ECCENTRIC FLAT TOP PRECAST MANHOLE DETAIL

SCALE: Not To Scale | DETAIL # 732.04
REVISION DATE: June, 2013 | SHEET # 3 of 3

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 12:00:47 PM



NOTES:
1. Concrete strength to be 4,000 PSI minimum.
2. Pipes will be grouted inside and out.
3. Flexible sleeve boots cast in place or installed with stainless steel expander rings. Boots to meet ASTM C–923 standards.
4. See detail 732.01 for typical invert shaping.
5. Service laterals into existing manholes to be core drilled and booted.
6. Maximum depth 4' diameter manhole = 12' (see sewer design section for other requirements / limitations).
7. If height above grade exceeds 24", use eccentric flat top.
8. For watertight applications, place butyl rubber between frame and cone.
9. All banded connections shall be double banded. For pipe connections 12" and larger, 2 sets of bands shall be required.
10. Lubricate the following: Pipe exterior, boot interior, boot exterior, S.S. bands (Top & bottom)
11. Place manhole opening over the effluent line.
12. Manholes subject to flooding shall have the top of the manhole rim a minimum of 24" above the 100 Yr. BFE unless approved otherwise by the City Engineer or Director of Water Resources. When vents are permitted, vent every 3rd manhole, not exceeding 1,000 LF between vents. Vents shall be placed a minimum of 24" above the 100 Yr. BFE. See detail 732.10.
13. Outfall manholes, regardless of manhole top elevation, shall be vented.

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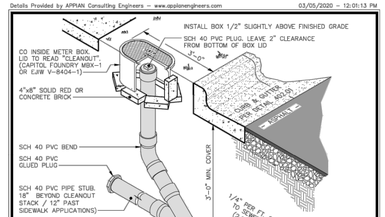
STANDARD ECCENTRIC FLAT TOP PRECAST MANHOLE DETAIL

SCALE: Not To Scale | DETAIL # 732.04
REVISION DATE: June, 2013 | SHEET # 4 of 4

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 12:01:13 PM



NOTES:
1. The full length of the service trench shall be compacted in 6" layers with mechanical tamp.
2. Solvent cement for pvc pipe and fittings to be ASTM D–2564
3. PVC wye, bend, lateral, & clean–out assembly must be bedded in #57 stone. Bedding and handling of service pipe must comply with Class B bedding (See bedding detail for gravity mains.)
4. A C900 in–line wye is permitted for force mains only.

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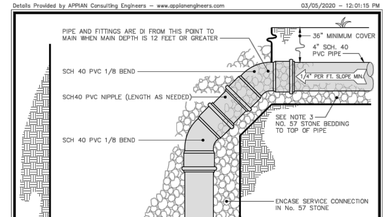
TYPICAL PVC SEWER LATERAL, CLEANOUT, AND TAP

SCALE: Not To Scale | DETAIL # 733.01
REVISION DATE: March, 2016 | SHEET # 1 of 2

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 12:01:15 PM



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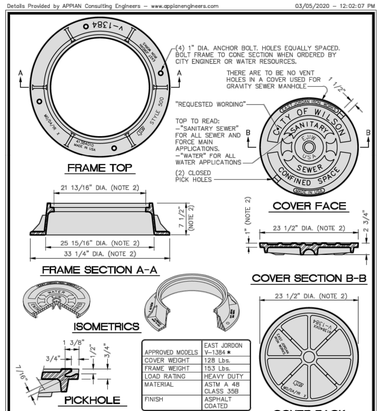
TYPICAL PVC SEWER LATERAL, CLEANOUT, AND TAP

SCALE: Not To Scale | DETAIL # 733.01
REVISION DATE: March, 2016 | SHEET # 2 of 2

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 12:02:07 PM



APPROVED MODELS	EAST JORDON V=1384 ★
COVER WEIGHT	128 Lbs.
FRAME WEIGHT	153 Lbs.
LOAD RATING	HEAVY DUTY
MATERIAL	ASTM A 48 CLASS 35B
FINISH	ASPHALT COATED

★EJW OR APPROVED EQUAL

NOTES:
1. Frame & Cover weight may not deviate by more than –5.0%.
2. Iron casting to comply with AASHTO M306.
3. See Pre–approved Products List for storm drainage cover.

CITY of WILSON, N.C.
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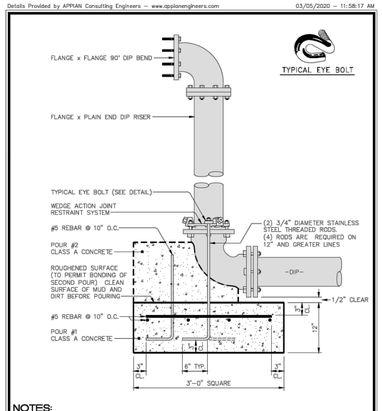
STANDARD MANHOLE FRAME and COVER

SCALE: Not To Scale | DETAIL # C00.01
REVISION DATE: June, 2019 | SHEET # 1 of 1

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 11:58:17 AM



NOTES:
1. Excavate under elbow for footing, place steel & rods in footing & pour (pour #1)
2. Once concrete has set in footing pour horizontal blocking (pour #2)
3. Footing adequate for water mains up to 8". North Carolina licensed Professional Engineer to design footings for lines greater than 8" diameter.

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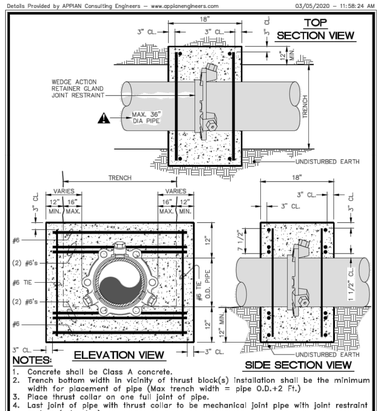
THRUST FOOTING DETAIL

SCALE: Not To Scale | DETAIL # 512.03
REVISION DATE: July, 2019 | SHEET # 1 of 1

Details Provided by APPIAN Consulting Engineers — www.appianengineers.com 03/05/2020 – 11:58:24 AM



NOTES:
1. Concrete shall be Class A concrete.
2. Trench bottom width in vicinity of thrust block(s) installation shall be the minimum width for placement of pipe (Max trench width = pipe O.D.+2 Ft.)
3. Place thrust collar on one full joint of pipe.
4. Last joint of pipe with thrust collar to be mechanical joint pipe with joint restraint system (grip ring).
5. Place thrust collar 2± feet from plug end of pipe.
6. Thrust collars may be used only when approved by City Engineer or Water Resources. Otherwise, designer shall design & specify on the plans length of pipe required to be restrained on each leg. See standard detail 512.06 and design manual.

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CONCRETE THRUST COLLAR DETAIL

SCALE: Not To Scale | DETAIL # 512.05
REVISION DATE: July, 2019 | SHEET # 1 of 1

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2023 KIMLEY–HORN AND ASSOCIATES, INC.
421 FAYETTEVILLE ST SUITE 600, RALEIGH, NC 27601
PHONE: (919) 677-2000
WWW.KIMLEY-HORN.COM

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 ENGINEER TIMOTHY R. CARTER

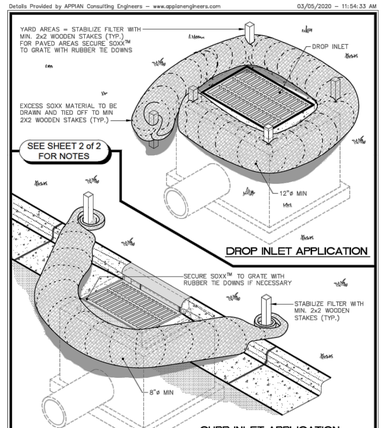
KHA PROJECT:	068255002
DATE:	01/26/2024
SCALE:	AS SHOWN
DESIGNED BY:	SRH
DRAWN BY:	SRH
CHECKED BY:	TRC

UTILITY DETAILS

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C8.1

YARD AREAS = STABILIZE FILTER WITH MIN. 2x2 WOODEN STAKES (TYP.)
FOR PAVED AREAS SECURE SOXX™ TO GRATE WITH RUBBER TIE DOWNS



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SILT SOXX™ INLET PROTECTION

SCALE: Not To Scale | DETAIL #: 354.04 | REVISION DATE: July, 2019 | SHEET #: 1 of 2

CONSTRUCTION SPECIFICATIONS:

1. Products require contractor to be certified by the manufacturer. Verify status prior to construction.
2. Inlet protection should be installed in a pattern that allows complete protection of the inlet area.
3. Installation of curb inlet protection will ensure a minimal overlap of at least 1 ft on either side of the opening being protected
4. Inlet protection will be anchored to the soil behind the curb using staples, stakes or other devices capable of holding the inlet protection in place.
5. Standard inlet protection for curb inlet protection and curb sediment containment will use 8 inch diameter inlet protection, and drop inlets on soil will use min. 12 inch diameter inlet protection. In severe flow situations, larger inlet protection may be specified by the Engineer. During curb installation, inlet protection shall be compacted to be slightly shorter than curb height.
6. Maintain the inlet protection in a condition to prevent mud or sediment from entering the Storm Drainage. This may require periodic removal of sediment and debris to maintain proper filtered drainage of water flow into the storm drain.
7. Curb and drain inlet protection shall be positioned so as to provide a permeable physical barrier to the drain itself, allowing sediment to collect on the outside of the inlet protection.
8. For any existing open curb cut castings without a street grate, a spacer is required in order to keep the inlet protection away from the drain opening. This spacer should be a hog wire screen bent to overlap the grate opening and keep the sock from falling into the opening. Use at least one spacer for every 4 feet of open curb inlet casting opening. The wire grid also prevents other floatable waste from passing over the inlet protection.
9. Stakes shall be installed through the middle of the drop inlet protection application on 5 foot centers, using 2 inch by 2 inch by 3 foot wooden stakes. Rubber tie downs may be used for paved areas or to help support the protection from movement.
10. Staking depth for sand and silt loam soils shall be min. 12 inches, and min. 8 inches for clay soils.
11. The Contractor shall remove sediment at the base of the upslope side of the inlet protection when accumulation has reached 1/2 of the effective height of the inlet protection, or as directed by the Engineer. Alternatively, for drain inlet protection, a new/ SOXX may be placed on top of the original increasing the sediment storage capacity without soil disturbance.
12. The FilterMedia may be removed from paved areas or dispersed on site soil or behind curb once disturbed area has been permanently stabilized, construction activity has ceased, or as determined by the City Engineer.
13. Filter Media must be an organic, composted product manufactured from locally generated organic, natural, and biologically based materials from the inlet protection manufacturer. Verify with City Engineer and product manufacturer for proper disposal of fabric and filter materials.

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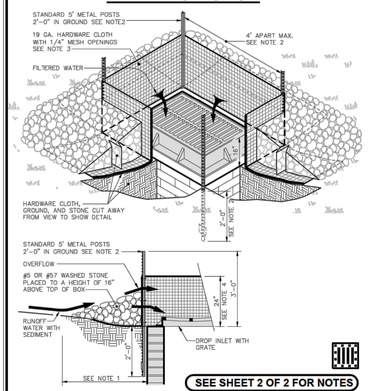
SILT SOXX™ INLET PROTECTION

SCALE: Not To Scale | DETAIL #: 354.04 | REVISION DATE: July, 2019 | SHEET #: 2 of 2

HARDWARE CLOTH AND GRAVEL INLET PROTECTION



SEE SHEET 2 OF 2 FOR NOTES

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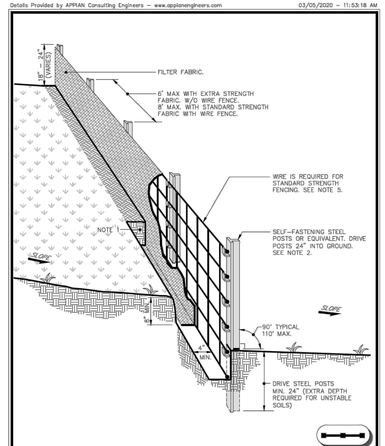
INLET PROTECTION DETAILS (OPTION A)

SCALE: Not To Scale | DETAIL #: 352.05 | REVISION DATE: July, 2019 | SHEET #: 1 of 2



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TYPICAL SILT FENCE

SCALE: Not To Scale | DETAIL #: 351.01 | REVISION DATE: June, 2019 | SHEET #: 1 of 2

NOTES:

1. Toe in backfill into trench and compact the soil firmly to anchor the bottom of the silt fence so that the runoff is forced to go through the fence. No runoff is to flow under the fence.
2. Posts for sediment fences are to be 1.33 lb/LF steel with a minimum length of 5 ft. Make sure that steel posts have projections to facilitate fastening the fabric. Filter fabric may be attached using wire or plastic zip ties that have a minimum 50 lb tensile strength.
3. Total drainage area flowing to silt fence may not exceed 1/4 acre per 100 Ft. of fence.
4. Silt fences should not be used at pipe outlets or in areas of concentrated flow (creeks, ditchlines, swales etc.)
5. Construct the silt fence sediment barrier with either Standard Strength or Extra Strength synthetic filter fabrics. If Standard Strength fabric (TerraTex SF 90 or equiv.) is used, wire mesh support IS required. If Extra Strength fabric (Mirafi 100X or TerraTex SFD or equiv.) is used, NO support is required.
6. Standard Strength fabric (TerraTex SF 90 or equiv.) with 8 ft max post spacing DOES require support by wire mesh fastened securely to the upslope side of the posts. Use wire fence with a minimum 14 gauge and a maximum mesh spacing of 6 inches. Extend the wire mesh support to the bottom of the trench. Fasten wire reinforcement, then fabric on the upslope side of the fence post using wire or plastic zip ties that have a minimum 50 lb tensile strength.
7. Extra Strength Filter Fabric (Mirafi 100X or TerraTex SFD or equiv.) with 6 ft max. post spacing DOES NOT require wire mesh support. Securely fasten filter fabric directly to posts. Wire or plastic zip ties that have a minimum 50 lb tensile strength.

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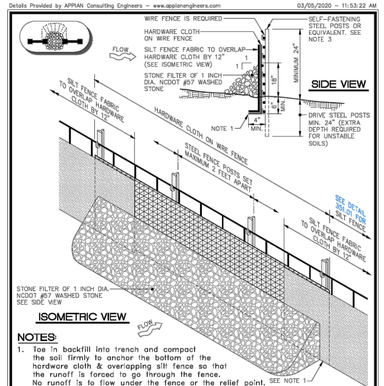
TYPICAL SILT FENCE

SCALE: Not To Scale | DETAIL #: 351.01 | REVISION DATE: June, 2019 | SHEET #: 2 of 2



NOTES:

1. Toe in backfill into trench and compact the soil firmly to anchor the bottom of the hardware cloth & overlapping silt fence so that the runoff is forced to go through the fence. No runoff is to flow under the fence or the relief point. SEE NOTE 1
2. Use silt fence outlets only when drainage area does not exceed 1/4 acre and there is a low area. Use as a repair of silt fence failures.
3. Posts for sediment fences are to be 1.33 lb/LF steel with a minimum length of 5 ft. Make sure that steel posts have projections to facilitate fastening the fabric. Filter fabric may be attached using wire or plastic zip ties that have a minimum 50 lb tensile strength.
4. See Detail 351.01 for Silt Fence construction standards.

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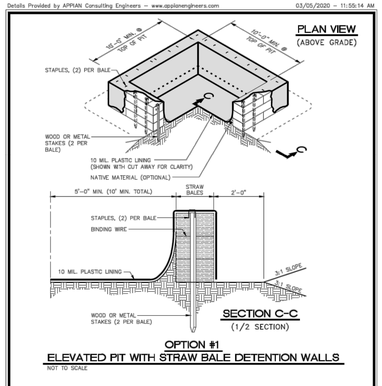
SILT FENCE OUTLET RELIEF POINT

SCALE: Not To Scale | DETAIL #: 351.02 | REVISION DATE: June, 2010 | SHEET #: 1 of 1



OPTION #1
ELEVATED PIT WITH STRAW BALE DETENTION WALLS
NOT TO SCALE

NOTES:

1. Actual layout to be determined in field.
2. The "concrete washout" sign shall be installed within 30 ft of the temporary concrete washout facility.
3. Pit capacity is minimum of 6 cu ft per 10 cu yd of concrete.
4. Contractor to coordinate with usage contracting officer for proper disposal of concrete.

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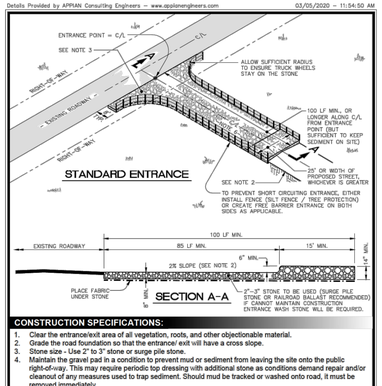
CONCRETE WASHOUT PIT DETAILS (Option #1)

SCALE: Not To Scale | DETAIL #: 356.01 | REVISION DATE: July, 2019 | SHEET #: 1 of 1



CONSTRUCTION SPECIFICATIONS:

1. Clear the entrance/exit area of all vegetation, roots, and other objectionable material.
2. Grade the road foundation so that the entrance/ exit will have a cross slope.
3. Stone size - Use 2" to 3" stone or surge pile stone.
4. Maintain the gravel pad in a condition to prevent mud or sediment from leaving the site onto the public right-of-way. This may require periodic top dressing with additional stone as conditions demand repair and/or cleanout of any measures used to trap sediment. Should mud be tracked or washed onto road, it must be removed immediately.
5. If construction on the site is such that the mud is not removed by the vehicle traveling over the stone, then the tires of the vehicle must be washed before entering the existing roadway. When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crush stone which drains to an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch, or watercourse through use of sand bags, gravel, boards, or other approved methods.
6. Install silt fence or tree protection fence to ensure construction entrance is used.

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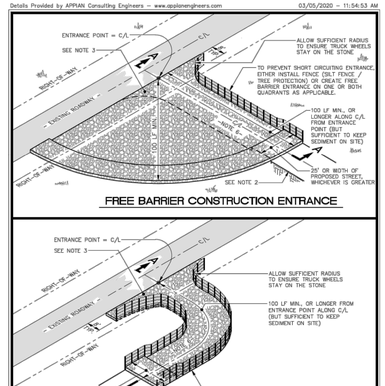
STABILIZED CONSTRUCTION ENTRANCE DETAIL

SCALE: Not To Scale | DETAIL #: 356.01 | REVISION DATE: July, 2019 | SHEET #: 1 of 2



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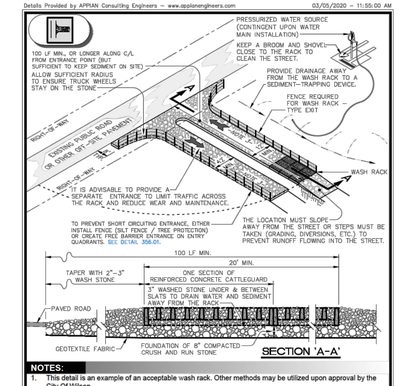
STABILIZED CONSTRUCTION ENTRANCE DETAIL

SCALE: Not To Scale | DETAIL #: 356.01 | REVISION DATE: June, 2019 | SHEET #: 2 of 2



NOTES:

1. This detail is an example of an acceptable wash rack. Other methods may be utilized upon approval by the City Of Wilson.
2. Clear the entrance/exit area of all vegetation, roots, and other objectionable material.
3. Grade the road foundation so that the entrance/ exit will have a cross slope.
4. Maintain the gravel pad in a condition to prevent mud or sediment from leaving the site onto the public right-of-way. This may require periodic top dressing with additional stone as conditions demand repair and/or cleanout of any measures used to trap sediment. Should mud be tracked or washed onto road, it must be removed immediately.
5. Install silt fence or tree protection fence to ensure construction exit is used.

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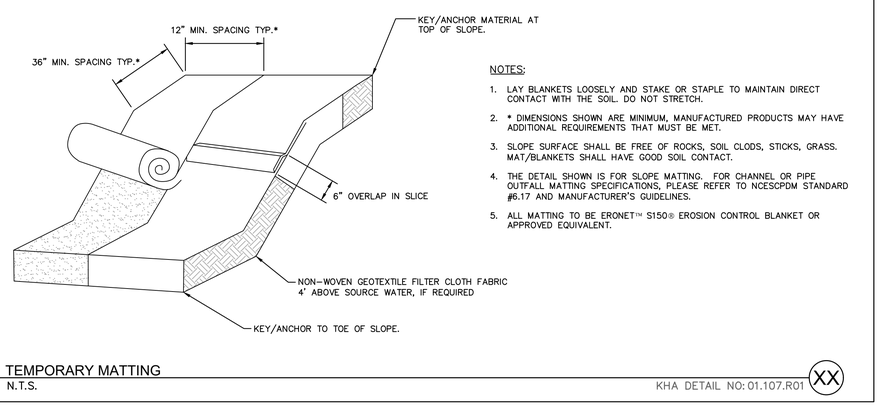
STANDARD CONSTRUCTION EXIT WASH RACK

SCALE: Not To Scale | DETAIL #: 356.03 | REVISION DATE: June, 2019 | SHEET #: 1 of 1



NOTES:

1. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
2. * DIMENSIONS SHOWN ARE MINIMUM. MANUFACTURED PRODUCTS MAY HAVE ADDITIONAL REQUIREMENTS THAT MUST BE MET.
3. SLOPE SURFACE SHALL BE FREE OF ROCKS, SOIL CLODS, STICKS, GRASS. MAT/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
4. THE DETAIL SHOWN IS FOR SLOPE MATTING. FOR CHANNEL OR PIPE OUTFALL MATTING SPECIFICATIONS, PLEASE REFER TO NCESCPDM STANDARD #6.17 AND MANUFACTURER'S GUIDELINES.
5. ALL MATTING TO BE ERONET™ S150® EROSION CONTROL BLANKET OR APPROVED EQUIVALENT.

TEMPORARY MATTING
N.T.S.

KHA DETAIL NO: 01.107.R01 XX

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
421 FAYETTEVILLE ST SUITE 600, RALEIGH, NC 27601
PHONE: (919) 677-2000
WWW.KIMLEY-HORN.COM

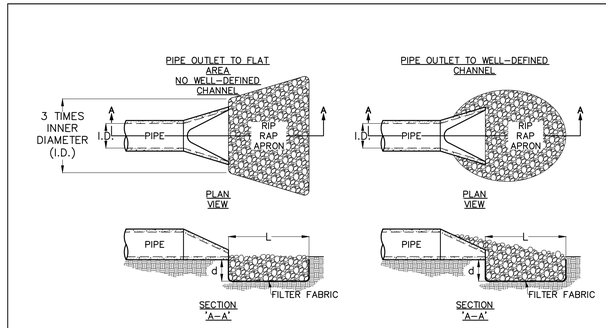
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 ENGINEER TIMOTHY R. CARTER

KHA PROJECT: 268255002	
DATE:	01/26/2024
SCALE:	AS SHOWN
DESIGNED BY:	SRH
DRAWN BY:	SRH
CHECKED BY:	TRC

EROSION AND SEDIMENTATION CONTROL DETAILS

WILSON BALLPARK UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C9.0



NOTES:

1. L = THE LENGTH OF THE RIPRAP APRON
2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 12 INCHES
3. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIP RAP AND SOIL FOUNDATION.
4. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO 6 INCHES ABOVE THE MAXIMUM TAILWATER DEPTH OR THE TOP OF THE BANK, WHICHEVER IS LESS.

2 PIPE OUTLET
NOT TO SCALE

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 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 NCG01 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.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes		
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' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-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 -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	Pernanent 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 • 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

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.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g.dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

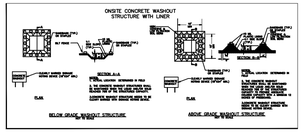
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



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 overflow.
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.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas 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.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING | EFFECTIVE: 04/01/19

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING
N.T.S.
KHA DETAIL NO: 01.901.R01 XX

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

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 or holiday periods, and no irrelevant/any rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zeros." 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 discharge outfalls (SDOs)	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 a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (when 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 sediment ation or a stream 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, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit (see below).
(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 an assurance that they will be provided as soon as possible.

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

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation 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.
(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

In addition to the E&SC Plan documents above, the following items shall be kept on the site

and available for agency 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 30 days. 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.

(c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

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).

(a)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.

(b)Anticipated bypasses and unanticipated bypasses.

(c)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 Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (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 causes, 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 items 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 includes an evaluation 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(l)(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 reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING | EFFECTIVE: 04/01/19

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING
N.T.S.
KHA DETAIL NO: 01.902.R01 XX

No.	REVISIONS	DATE	BY

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 052434 TIMOTHY R. CARTER

KHA PROJECT 268255002
DATE 01/26/2024
SCALE AS SHOWN
DESIGNED BY: ---
DRAWN BY: ---
CHECKED BY: ---

EROSION AND SEDIMENTATION CONTROL DETAILS

WILSON BALLPARK
UTILITIES EXPANSION
PREPARED FOR
CITY OF WILSON
NORTH CAROLINA
WILSON

SHEET NUMBER
C9.1