FINAL ENGINEERING PLANS

Wendys - ZEBULON, NC

1500 NORTH ARENDELL AVENUE TOWN OF ZEBULON WAKE COUNTY, ILLINOIS

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WOULD BE USED AS A WHOLE PLAN SET. EACH CONSTRUCTION DISCIPLINE IS TO USE ALL THE PLANS AND SUPPORTING DOCUMENTS TOGETHER AS A WHOLE AND NOT AS SEPARATE DOCUMENTS. EACH CONTRACTOR IS TO BECOME COMPLETELY FAMILIAR WITH THE WHOLE PLAN SET AND THE EXISTING SITE CONDITIONS. SHOULD ANYTHING WITH ALL THESE PLANS AND SUPPORTING DOCUMENTS BE INCONSISTENT WITH THE SITE CONDITIONS THEN THE CONTRACTOR IS TO CONTACT THE ENGINEER IMMEDIATELY BEFORE ANY CONSTRUCTION IS STARTED.



	LEGEND	
PROPOSED	EXISTING	
CATCH BASIN INLET STORM MANHOLE SANITARY MANHOLE VALVE VAULT FIRE HYDRANT FLARED END SECTION OVERHEAD ELECTRIC WIRES TRANSFORMER PAD B/BOX LIGHT POLE SIGN BOLLARD POLE WATER MAIN GAS MAIN ELECTRIC LINE TELEPHONE LINE CABLE TV LINE SANITARY SEWER STORM SEWER GUY POLE WOOD FENCE CHAIN LINK FENCE METAL GUARDRAIL CONCRETE SURFACE DEPRESSED CURB CONTOUR LINE FINISHED FLOOR ELEVATION PAVEMENT ELEVATION TOP OF WALK ELEVATION TOP OF RETAINING WALL ELEVATION FLOW LINE ELEVATION TOP OF CURB ELEVATION TOP OF CURB ELEVATION PRIVIOUS AREA SLOPE DIRECTION PAVEMENT SLOPE DIRECTION OVERLAND OVERFLOW DIRECTION INLET BASKET FILTER	LEGEND Comparison of the co	JACENT I

Know what's **Below**. **Call** before you dig.



BENCHMARK

REFERENCE BENCHMARK

VERTICAL POSITIONS ARE REFERENCED TO NAVD88 USING (GEOID18) COMBINED FACTOR OF 0.99993063

DATUM/EPOCH: NAD83(2011)/2010.0000 PUBLISHED/FIXED CONTROL: 35°50'26.16960", -78°19'32.96040", 238.413SFT

GEOID MODEL: 18

COMBINED GRID FACTOR: 0.99992529

UNITS: US SURVEY FEET

I, JEFFREY C. MILLER, A LICENSED PROFESSIONAL ENGINEER OF NORTH CAROLINA, DOCUMENTS, AS LISTED IN THE INDEX, HAVE BEEN PREPARED BY WATERMARK ENGINEERING RESOURCES, LTD. UNDER MY PERSONAL DIRECTION. THESE PLANS ARE

NORTH CAROLINA LICENSED PROFESSIONAL ENGINEER NO. 054316 MY LICENSE EXPIRES ON 12-31-25.

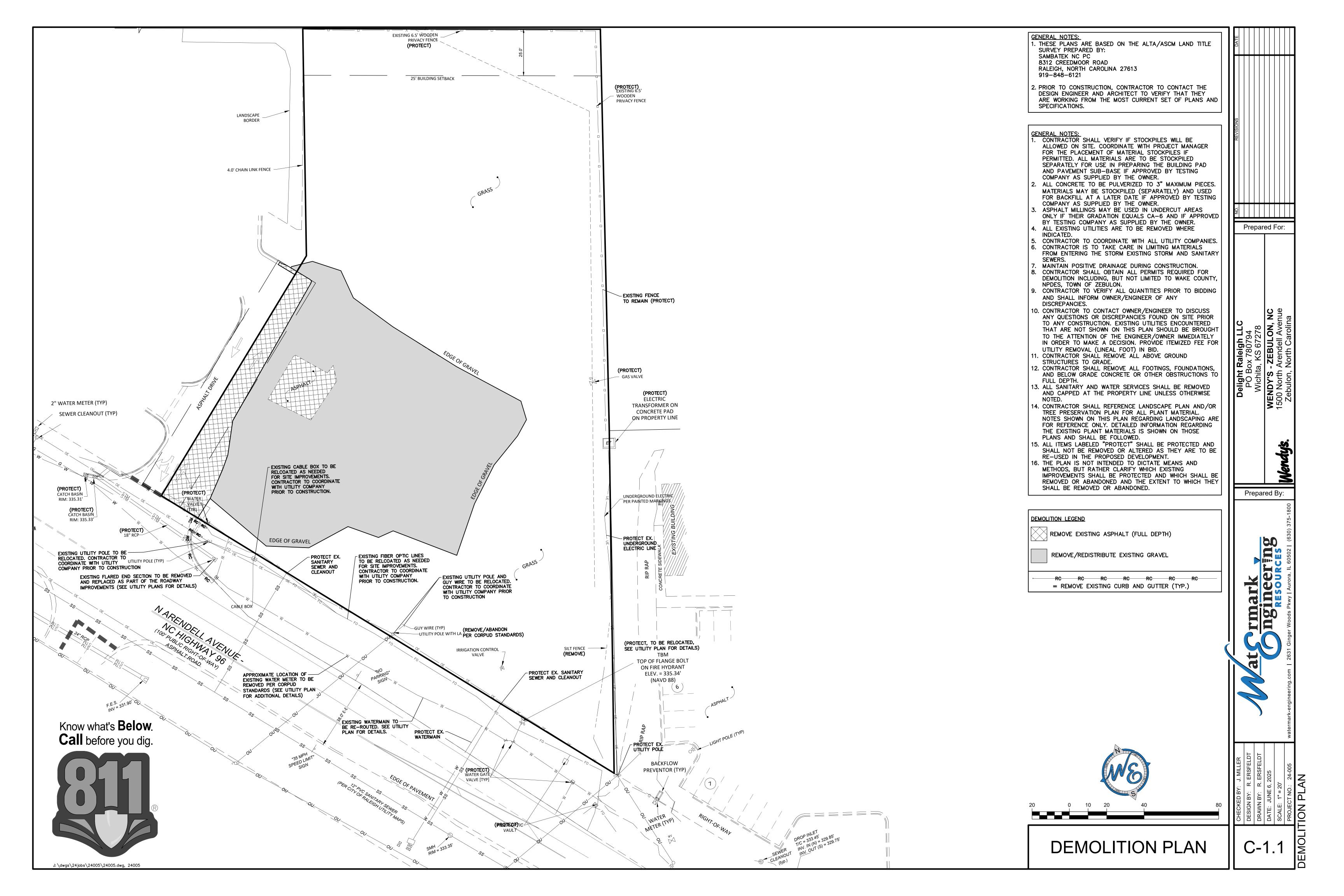
UNLESS THIS DOCUMENT BEARS ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE DESIGN ENGINEER, IT IS NOT A VALID DOCUMENT.

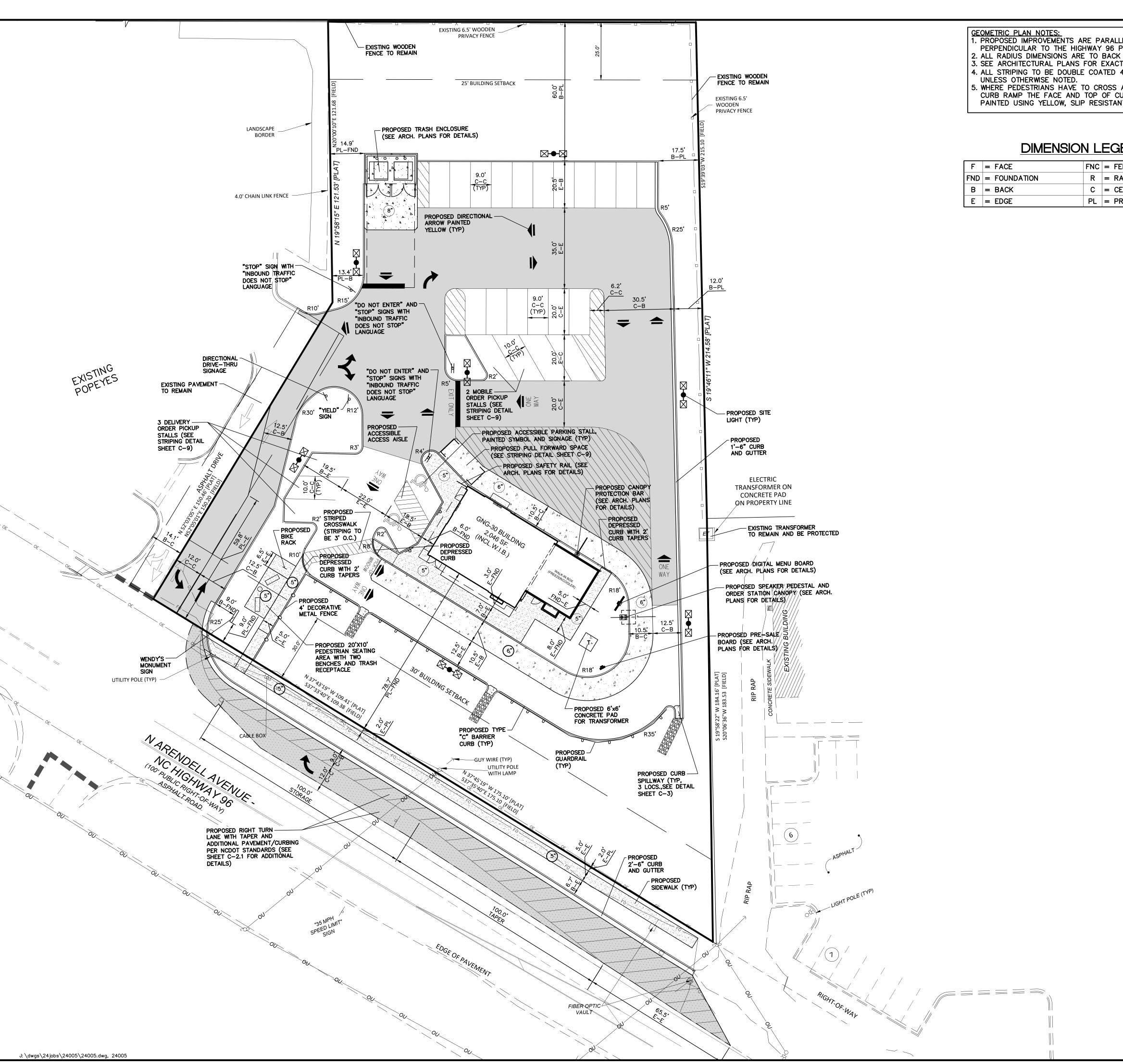
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184.002989

COVER SHEET

Prepared For:

Prepared By:





GEOMETRIC PLAN NOTES:

1. PROPOSED IMPROVEMENTS ARE PARALLEL AND PERPENDICULAR TO THE HIGHWAY 96 PROPERTY LINE. 2. ALL RADIUS DIMENSIONS ARE TO BACK OF CURB.

SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS. 4. ALL STRIPING TO BE DOUBLE COATED 4" YELLOW PAINT 5. WHERE PEDESTRIANS HAVE TO CROSS A TAPERING RAMP OR

CURB RAMP THE FACE AND TOP OF CURB ARE TO BE PAINTED USING YELLOW, SLIP RESISTANT PAINT.

DIMENSION LEGEND

F	= FACE	FNC	= FENCE
FND	= FOUNDATION	R	= RADIUS
В	= BACK	С	= CENTER
Ε	= EDGE	PL	= PROPERTY LINE

GENERAL NOTES: 1. THESE PLANS ARE BASED ON THE ALTA/ASCM LAND TITLE SURVEY PREPARED BY: SAMBATEK NC PC

8312 CREEDMOOR ROAD RALEIGH, NORTH CAROLINA 27613 919-848-6121

2. PRIOR TO CONSTRUCTION, CONTRACTOR TO CONTACT THE DESIGN ENGINEER AND ARCHITECT TO VERIFY THAT THEY ARE WORKING FROM THE MOST CURRENT SET OF PLANS AND SPECIFICATIONS.

ON SITE PARKING DATA

I SPACE/4 SEATS = 29 SEATS = 7.25 OR 8 SPACES

SPACE/20 PARKING STALLS = 2 BICYCLE SPACES

PROVIDED PARKING: REGULAR SPACES ADA ACCESSIBLE SPACES

TOTAL SPACES PROVIDED BICYCLE PARKING: 2 SPACES

SITE DATA

CONCRETE

TRASH APRON

= 63,057 S.F. (1.45 AC.) LOT AREA BUILDING AREA = 2,046 S.F.

PAVEMENT LEGEND

-4" BASE COURSE, CRUSHED SIDEWALK STONE OR LIMESTONE COMPACTED SUB-BASE -1.25" ASPHALTIC WEARING SURFACE COURSE, NCDOT TYPE S9.5A _ 2" ASPHALTIC BINDER COURSE, NCDOT TYPE 119.0B STANDARD 6" NCDOT AGGREGATE BASE DUTY

F 5" P.C.C. (SIX BAG MIX)

COURSE, TYPE A OR B

COMPACTED SUB-BASE

6" NCDOT AGGREGATE BASE

COURSE, TYPE A OR B

COMPACTED SUB-BASE

√ 1.5" ASPHALTIC WEARING SURFACE COURSE, NCDOT TYPE S9.5A -2.5" ASPHALTIC BINDER COURSE, NCDOT TYPE I19.0B HEAVY 8" NCDOT AGGREGATE BASE DUTY COURSE, TYPE A OR B

COURSE, NCDOT TYPE S9.5A -4" ASPHALTIC BINDER COURSE, NCDOT TYPE I19.0B HIGHWAY 96 10" NCDOT AGGREGATE BASE RIGHT-OF-WAY COURSE, TYPE A OR B PAVEMENT COMPACTED SUB-BASE

6" P.C. CONCRETE (4,500 P.S.I) (6") 6" NCDOT AGGREGATE BASE CONCRETE COURSE, TYPE A OR B DRIVE-THRU LANE AND - COMPACTED SUB-BASE ADA ACCESSIBLE STALLS -8" P.C. CONCRETE (4,500 P.S.I) (.8.)

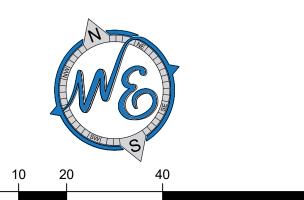
COMPACTED SUB-BASE REFERENCE N.C.D.O.T STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (LATEST EDITION) SECTION 610 FOR BINDER & SURFACE COURSES AND SÉCTION 520 FOR

AGGREGATE BASE COURSE. THE APPLICATION RATES FOR THE PRIME COAT AND TACK COAT ARE TO BE 0.30 AND 0.10 GALLONS PER SQUARE YARD, RESPECTIVELY. SEE PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORT

PREAPRED BY GEO HYDRO ENGINEERS DATED MARCH 17, 2023 FOR SUB-BASE AND BASE COURSE COMPACTION. ALL CONCRETE FLATWORK TO INCLUDE A JOINTING PATTERN SUBMITTAL TO THE CONSTRUCTION MANAGER. CONTRACTOR TO STAY AS CLOSE TO 9'x9' SQUARE PANELS IN LARGE

CONCRETE FLATWORK AREAS AS POSSIBLE. FOR SIDEWALKS, PROVIDE TOOLED JOINTS AT 5' O.C., CONTRACTION JOINTS AT 15' O.C., EXPANSION JOINTS AT 45' O.C.

PROVIDE AN EXPANSION JOINT ADJACENT TO ALL STRUCTURES. THESE JOINTS SHOULD BE SEALED WITH A TOOL-FINISHED SILICONE SEALANT PER N.C.D.O.T STANDARD.

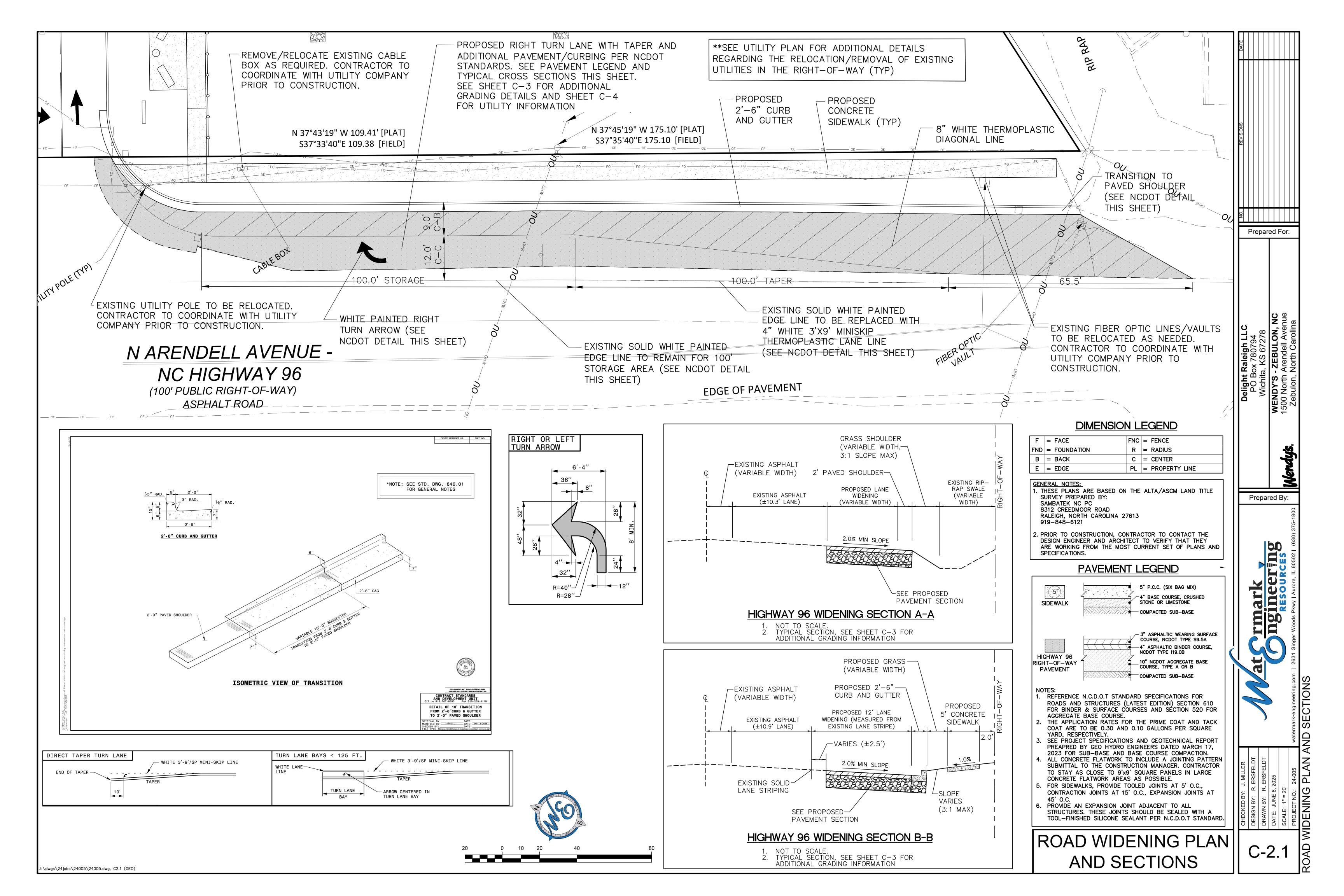


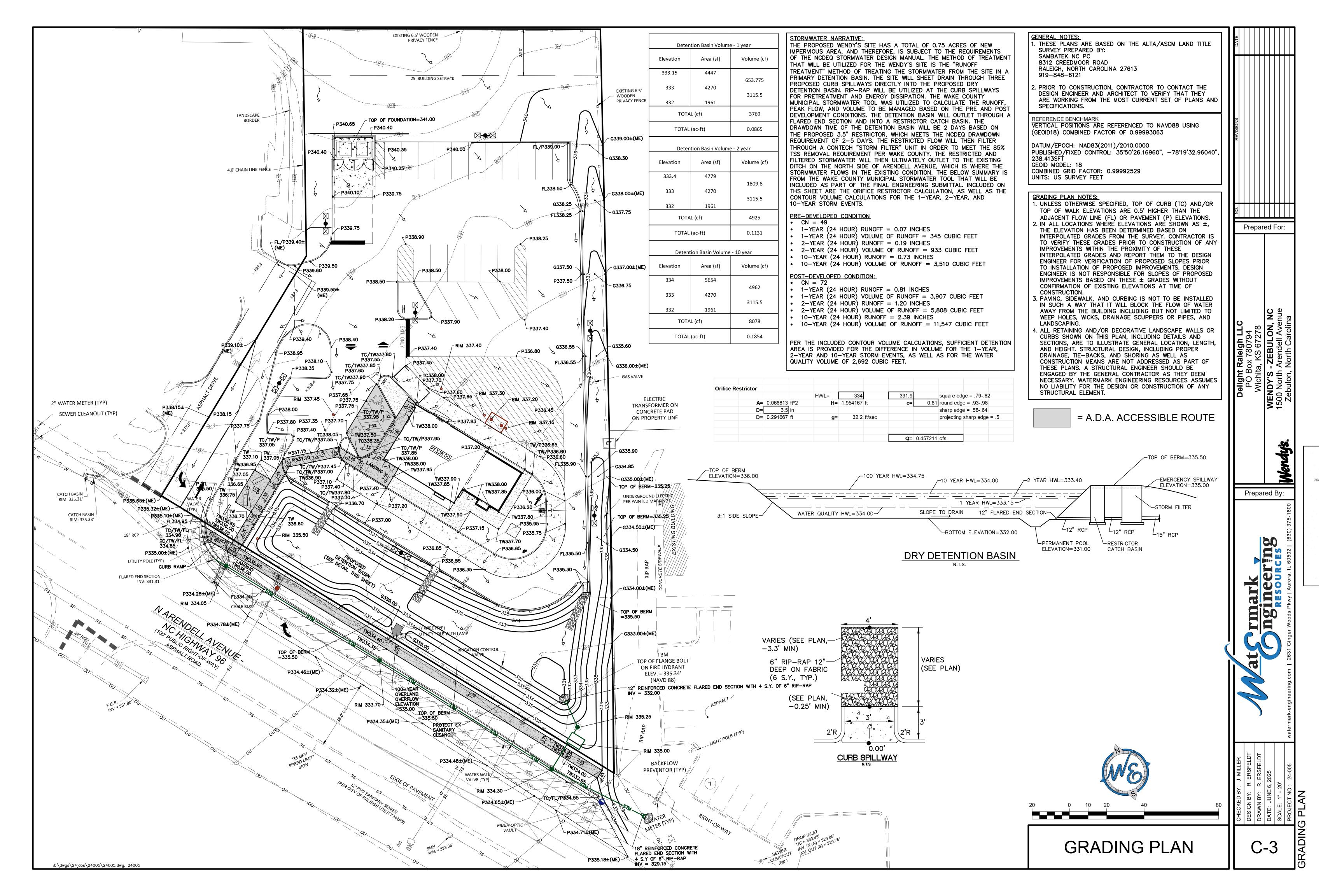
GEOMETRIC PLAN

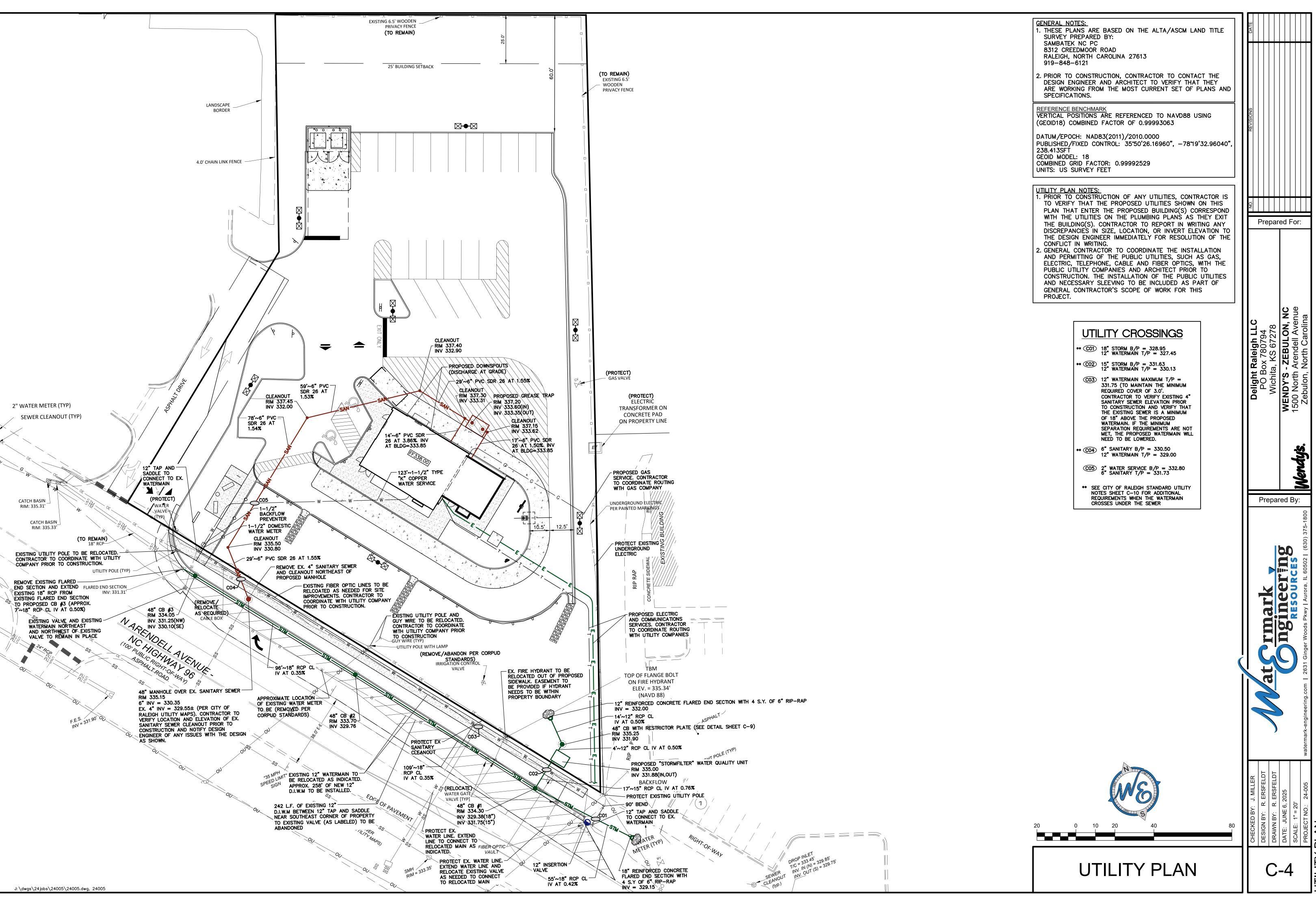
C-2

Prepared For:

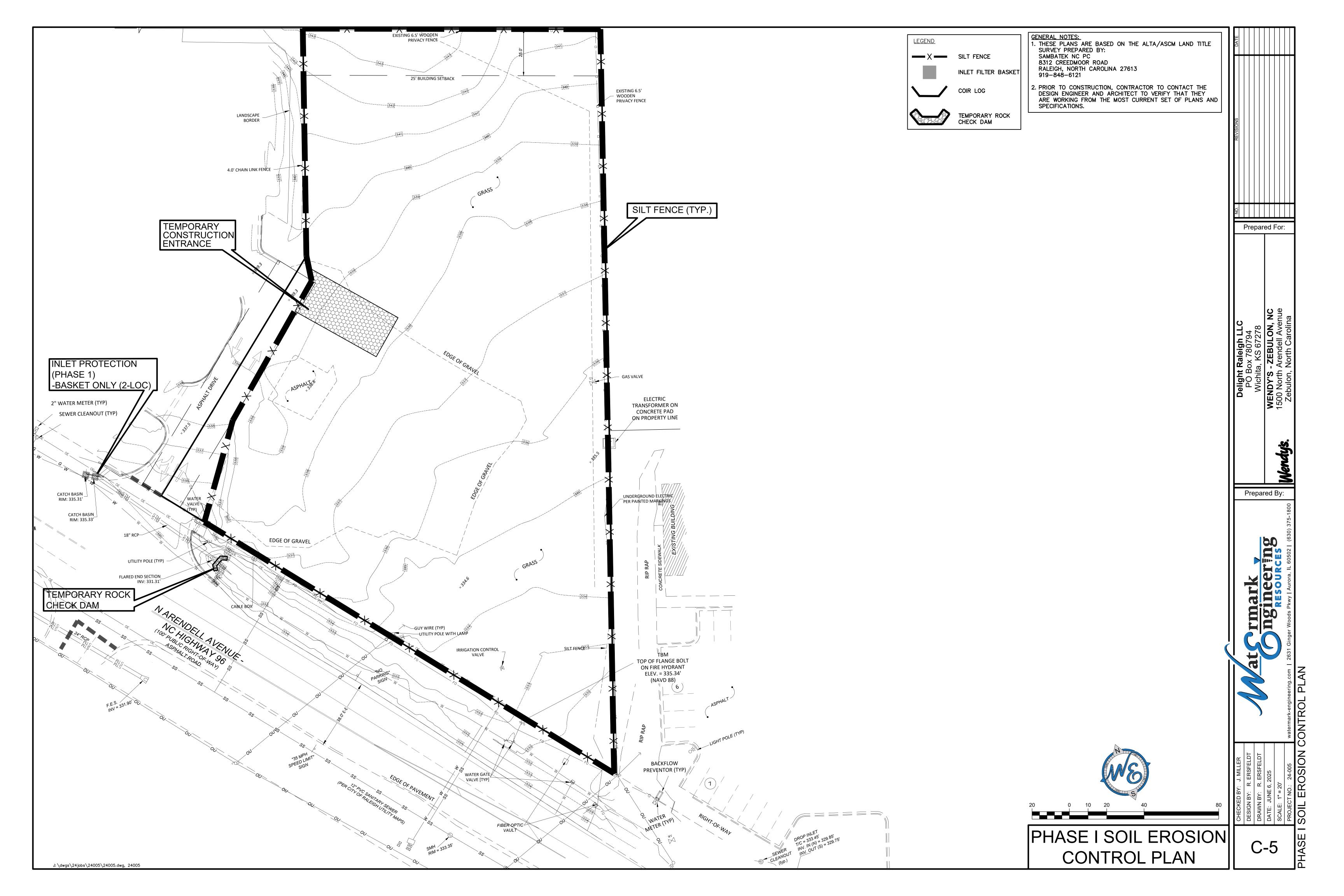
Prepared By:

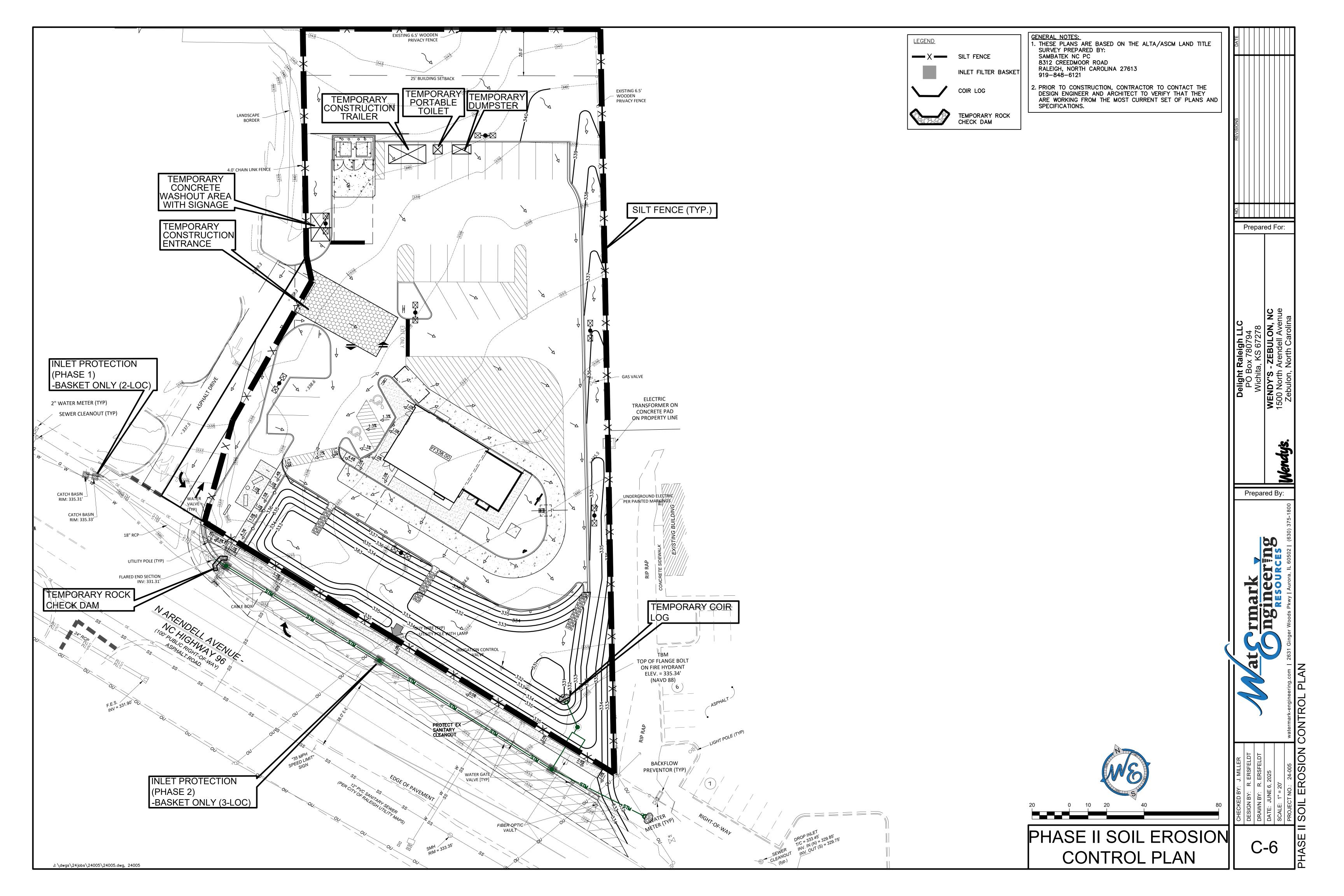






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EROSION CONTROL

- CONTRACTOR IS TO FOLLOW THE REQUIREMENTS OF THE NORTH CAROLINA ENVIRONMENTAL QUALITY "EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL" CURRENT EDITION AND THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES).
- 2. SOIL EROSION CONTROL SYSTEMS SHALL BE CONSTRUCTED AS SHOWN ON THE SOIL EROSION CONTROL PLANS AND/OR AS SPECIFIED BY THE DESIGN ENGINEER, CITY ENGINEER, APPOINTED SWPPP INSPECTOR, OR MUNICIPAL INSPECTOR.
- 3. PERIMETER EROSION BARRIER SHALL BE PLACED IN A MANNER THAT WILL INTERCEPT WATER BORNE SILT AND PREVENT IT FROM LEAVING THE AREA OF CONSTRUCTION. ALL SILT FENCES SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE WITH THE ENDS EXTENDING UPSLOPE. THE MAXIMUM SPACING OF POSTS SHALL BE 5 FEET. WHEN WIRE OR OTHER FORM OF APPROVED BACKING IS USED THE MAXIMUM SPACING MAY BE INCREASED TO 8 FEET. SPACING MAY NEED TO BE ADJUSTED SO THAT POSTS ARE LOCATED IN LOW AREAS WHERE WATER MAY POND. THE FILTER FABRIC AND WIRE SUPPORT, IF USED, MUST BE SECURELY FASTENED TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST ONE INCH LONG OR TIE WIRES (10 GAGE MINIMUM). THE FABRIC SHALL NOT BE STAPLED OR WIRED TO THE WIRE SUPPORT OR TO EXISTING TREES.
- 4. INLET FILTERS SHALL BE CONSTRUCTED OF A REPLACEABLE REINFORCED FILTER BAG SUSPENDED FROM A RETAINER RING OR FRAME. INLET FILTER SYSTEMS SHALL BE THE CATCH—ALL WITH OVERFLOW, AS FURNISHED BY MARATHON MATERIALS INC., OR PRE-APPROVED EQUAL. CARE SHOULD BE TAKEN WHEN MAINTAINING OR REMOVING THIS FILTER FABRIC BAG TO NOT ALLOW THE PREVIOUSLY TRAPPED DEBRIS TO ENTER THE STORM SEWER SYSTEM.
- 5. THE BED FOR RIP RAP SHALL BE TRIMMED AND SHAPED TO ALLOW THE FINISHED SURFACE TO CONFORM TO THE LINES SPECIFIED. AT THE TOE OF THE SLOPE, THE RIP RAP SHALL COMMENCE ON A CONTINUATION OF THE SLOPE AFTER EXCAVATION TO ACCOMMODATE THE FULL DEPTH OF FABRIC, BEDDING LAYER, AND RIP RAP
- 6. FILTER FABRIC IS REQUIRED UNDER STONE RIP RAP GRADATION 4, 5, 6 AND 7 FOR ALL USES, AND UNDER CONCRETE BLOCK, BROKEN CONCRETE, AND STONE OR BROKEN CONCRETE DUMPED RIP RAP WHEN USED FOR SOIL EROSION PROTECTION. STREETS ARE TO BE CLEARED OF DEBRIS, AND SWEPT CLEAN OF SILT AND MUD
- 8. SOIL EROSION CONTROL MEASURES ARE TO BE CHECKED BY QUALIFIED PERSONNEL AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL AND REPAIRED IF NECESSARY.
- 9. ALL EROSION CONTROL PROTECTION SHALL BE KEPT IN PLACE UNTIL THE GROUND HAS BEEN STABILIZED AND THE PAVEMENT HAS BEEN INSTALLED. 10. ANY DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE STOPPED
- (PERMANENTLY OR TEMPORARILY) FOR 7 DAYS, MUST BE STABILIZED IN ACCORDANCE WITH NPDES REQUIREMENTS.
- 11. BUILT UP SEDIMENT SHALL BE REMOVED FROM THE SILT FENCE WHEN IT HAS REACHED ONE- THIRD THE HEIGHT OF THE FENCE.
- 12. SILT FENCES SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, ETC., TO SEE IF FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND THAT THE FENCE POSTS ARE SECURELY IN THE GROUND.
- 13. THE SEDIMENT BASIN, IF PRESENT, SHALL BE INSPECTED FOR DEPTH OF SEDIMENT AT LEAST ONCE A WEEK. BUILD UP SEDIMENT SHALL BE REMOVED WHEN IT REACHES 25 PERCENT OF THE DESIGN CAPACITY.
- 14. CONTRACTOR TO COMPLY WITH FINAL STABILIZATION AND TERMINATION REQUIREMENTS OF THE SWPPP

CONSTRUCTION SEQUENCE:

STRUCTURES.

INSPECTION AGENCIES. CLEAR AND GRUB THE SITE.

15. PREPARE SITE FOR PAVING.

IF SITE IS STABILIZED).

16. PAVE SITE.

INSTALL STABILIZED CONSTRUCTION ENTRANCE.

10. BEGIN MASS GRADING OPERATIONS FOR THE SITE.

13. INSTALL RIP RAP AROUND OUTLET STRUCTURES.

CONSTRUCT THE SILT FENCES ON THE SITE.

CONSTRUCT THE SEDIMENTATION BASINS.

WATER TO THE SEDIMENTATION BASINS.

11. TEMPORARILY SEED DENUDED AREAS.

17. INSTALL INLET PROTECTION DEVICES.

PREPARE TEMPORARY PARKING AND STORAGE AREA.

INSTALL INLET PROTECTION AROUND ALL EXISTING STORM SEWER

HOLD PRE-CONSTRUCTION MEETING TO DISCUSS THE STORM WATER

12. INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.

14. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.

18. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.

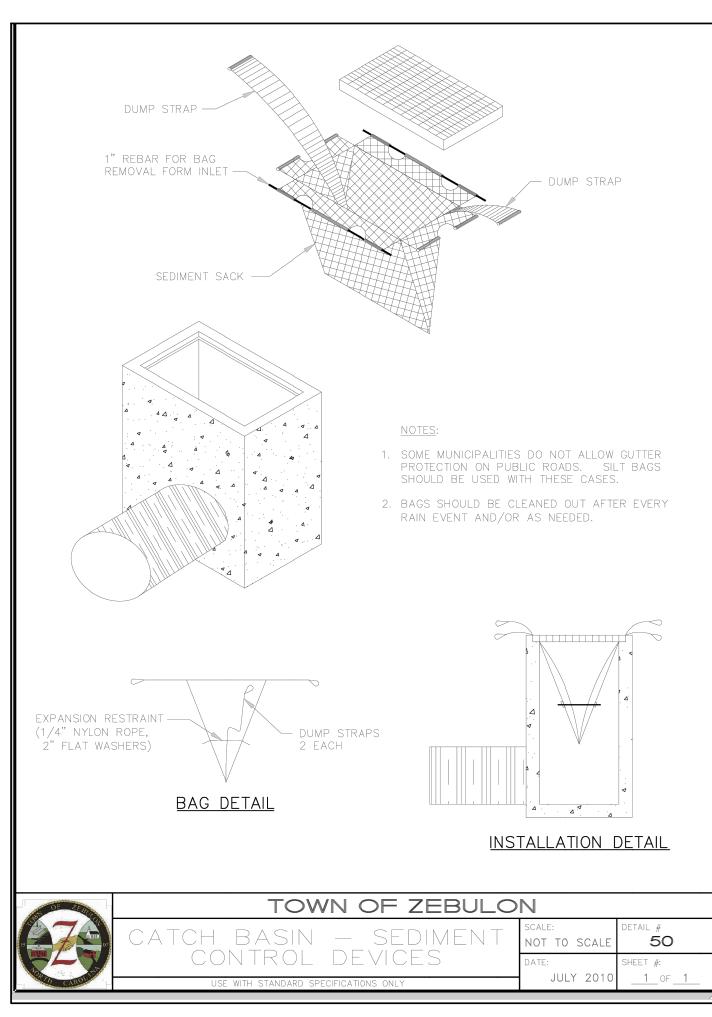
19. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY

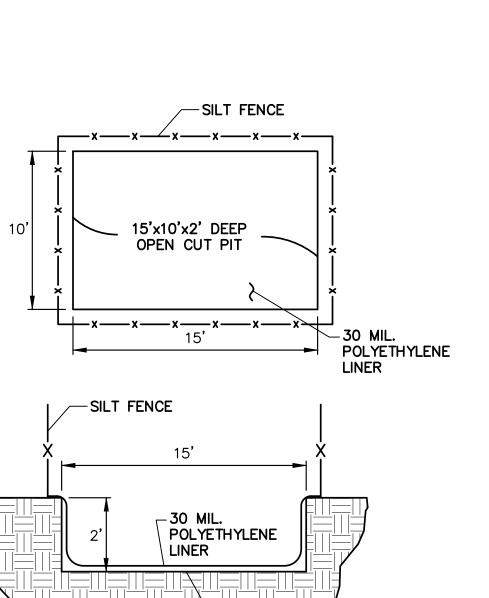
START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.

CONSTRUCT DIVERSION DITCHES AND AGGREGATE DITCH CHECKS TO DIRECT

POLLUTION PLAN WITH ENGINEER, ALL CONTRACTORS AND JURISDICTIONAL

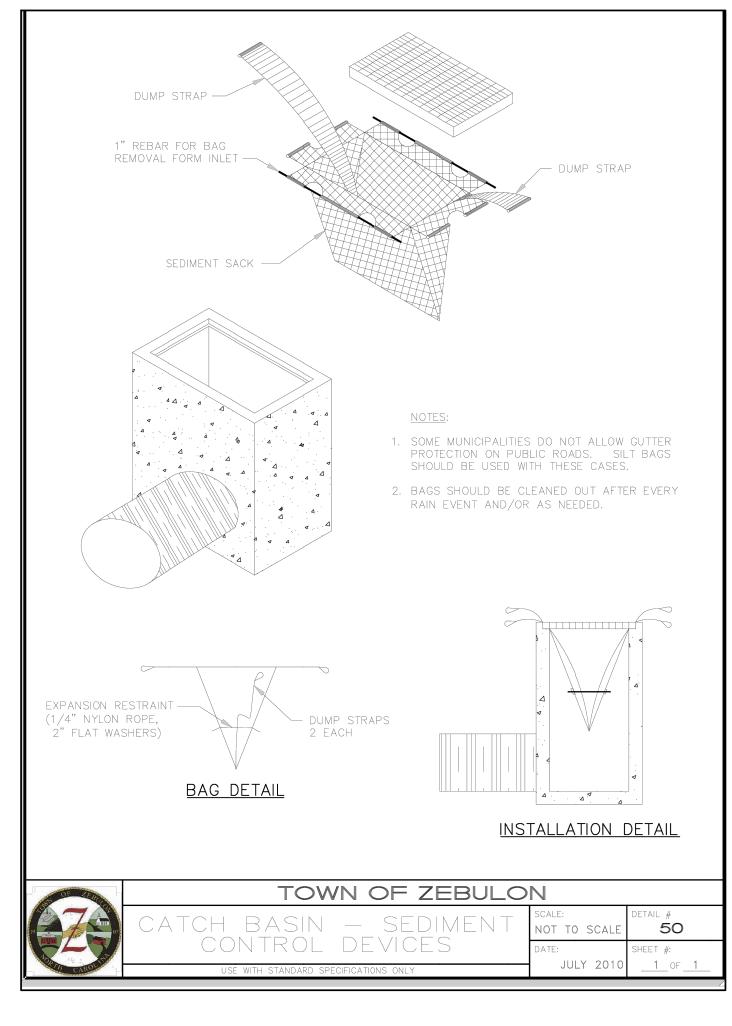
15. AT A MINIMUM, SILT FENCE AND OTHER EROSION CONTROL MEASURES SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE SOIL EROSION CONTROL PLANS. THEY SHALL ALSO BE INSTALLED ANYWHERE THAT THEY ARE NEEDED DURING CONSTRUCTION IN ORDER TO PREVENT EROSION AND SEDIMENT FROM BEING CARRIED DOWN STREAM. THIS IS THE GENERAL CONTRACTOR'S RESPONSIBILITY AND SHALL BE INSTALLED, RELOCATED, MAINTAINED, ETC. AS DIRECTED BY THE APPOINTED SWPPP INSPECTOR. EROSION CONTROL INSTALLATION AND MAINTENANCE IS TO BE A PART OF THE CONTRACT AND IS NOT AN EXTRA TO THE OWNER.

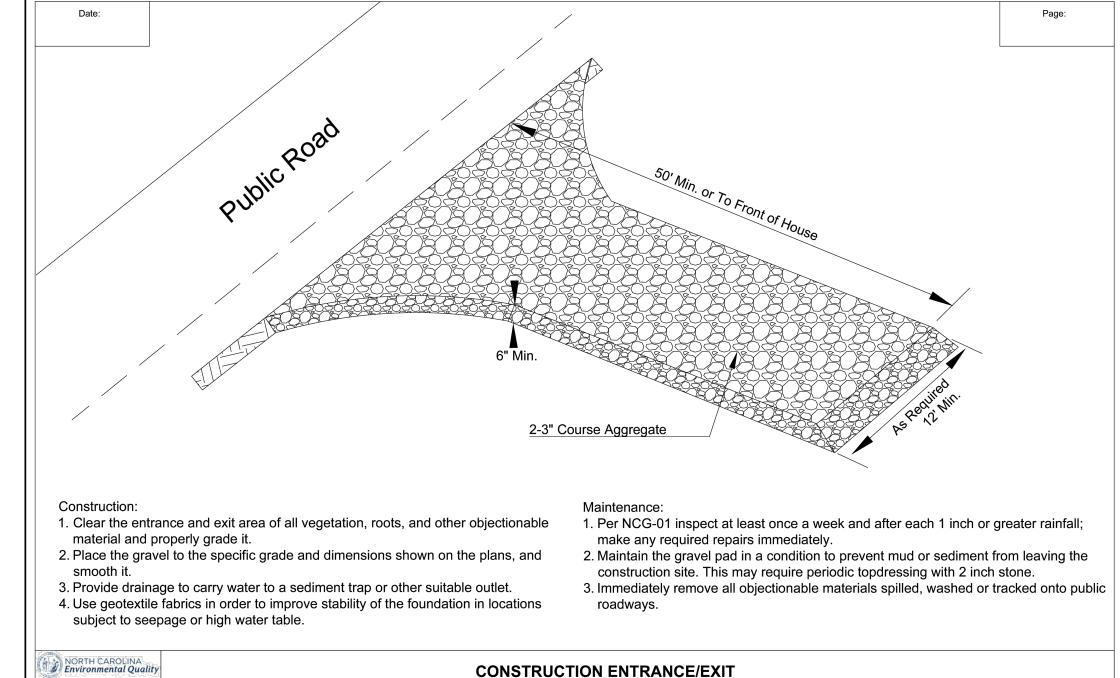


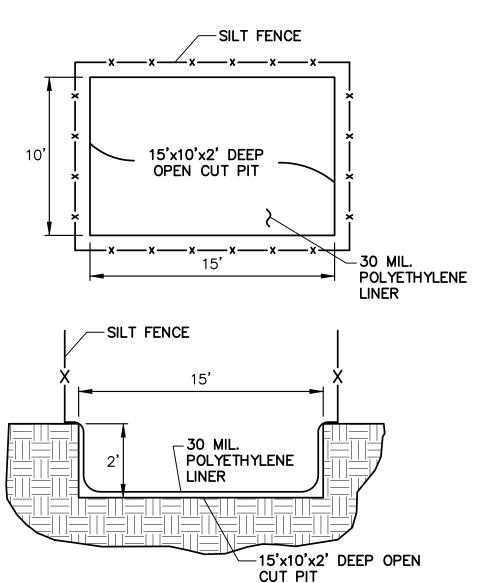


INSTRUCTIONS.

CONCRETE WASHOUT AREA DETAIL







1) OPTIONAL USE OF A PORTABLE CONCRETE WASHOUT CONTAINER IS ACCEPTABLE WITH 30 MIL. POLYETHYLENE LINER. 2) CONCRETE WASHOUT SHOULD BE CONTAINED AT ALL TIMES. WASHOUT MATERIAL SHOULD NOT BE ALLOWED TO ENTER WATER BODIES, STORM SEWERS OR LEACH INTO THE SOIL UNDER ANY CIRCUMSTANCES. ANY WASTE SHOULD BE DISPOSED OF PROPERLY AND THE LOCATION OF THE WASHOUT SHOULD BE DESIGNATED WITH PROPER SIGNAGE. FAILURE TO COMPLY COULD RESULT IN AN INCIDENCE OF NONCOMPLIANCE (ION). 3) REMOVE LEAVINGS FROM THE WASHOUT WHEN

AT APPROXIMATELY 75% CAPACITY TO LIMIT OVERFLOW EVENTS. REPLACE THE LINER, SAND BAGS OR OTHER TEMPORARY STRUCTURAL COMPONENTS WHEN NO LONGER FUNCTIONAL. WHEN UTILIZING ALTERNATIVE PRODUCTS, FOLLOW MANUFACTURER'S

SOIL EROSION CONTROL DETAILS AND SPECS

Filter Fabric

Inspect sediment fences at least once a week and after each 1

Should the fabric of a sediment fence collapse, tear,

decompose, or become ineffective, replace it promptly.

inch or greater rainfall. Make any required repairs immediately.

Remove sediment deposits as necessary to provide adequate

storage volume for the next rain and reduce pressure on the

and bring the area to grade and stabilize it after the contributing

fence. Take care to avoid undermining the fence during

4. Remove all fencing materials and unstable sediment deposits

drainage area has been properly stabilized.

CROSS SECTION VIEW

Backfill trench

and Compact

Upslope

thoroughly

Plastic or

Steel Post

Wire Fence

♣ 8" down & 4"

trench

SILT FENCE

8' Max. Standard Strength fabric with wire fence

6' Max. Extra strength fabric without wire fence

. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.

fence post. Wire or plastic zip ties should have a minimum 50 pound tensile strength.

USE CLASS 'B' EROSION CONTROL STONE

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT

SECTION B-B

*T = 12" MIN., 18" MAX.

1633.01

FOR STRUCTURAL STONE.

CONTROL.

impound volumes of water sufficient to cause failure of the structure)

3. Place 12 inches of fabric along the bottom and side of the trench.

into the ground a minimum of 24 inches.

10. Do not attach filter fabric to existing trees.

silt fence performance

SEDIMENT CONTROL STONE

1633.01

STRUCTURAL STONE

PLAN

2/3 CHANNEL WIDTH

SECTION A-A

2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground. (Higher fences may

Construct the filter fabric from a continuous roll cut to the length of the barrier to avoid joints. When joints are

necessary, securely fasten the filter cloth only at a support post with 4 feet minimum overlap to the next post.

Support standard strength filter fabric by wire mesh fastened securely to the upslope side of the posts. Extend the

wire mesh support to the bottom of the trench. Fasten the wire reinforcement, then fabric on the upslope side of the

When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Supports should be driven securely

Extra strength filter fabric with 6 foot post spacing does not require a wire mesh support fence. Securely fasten the

9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to

Excavate the trench approximately 4 inches wide and 8 inches deep along the proposed line of the posts and upslope

filter fabric directly to posts. Wire or plastic zip ties should have a minimum of 50 pound tensile strength.

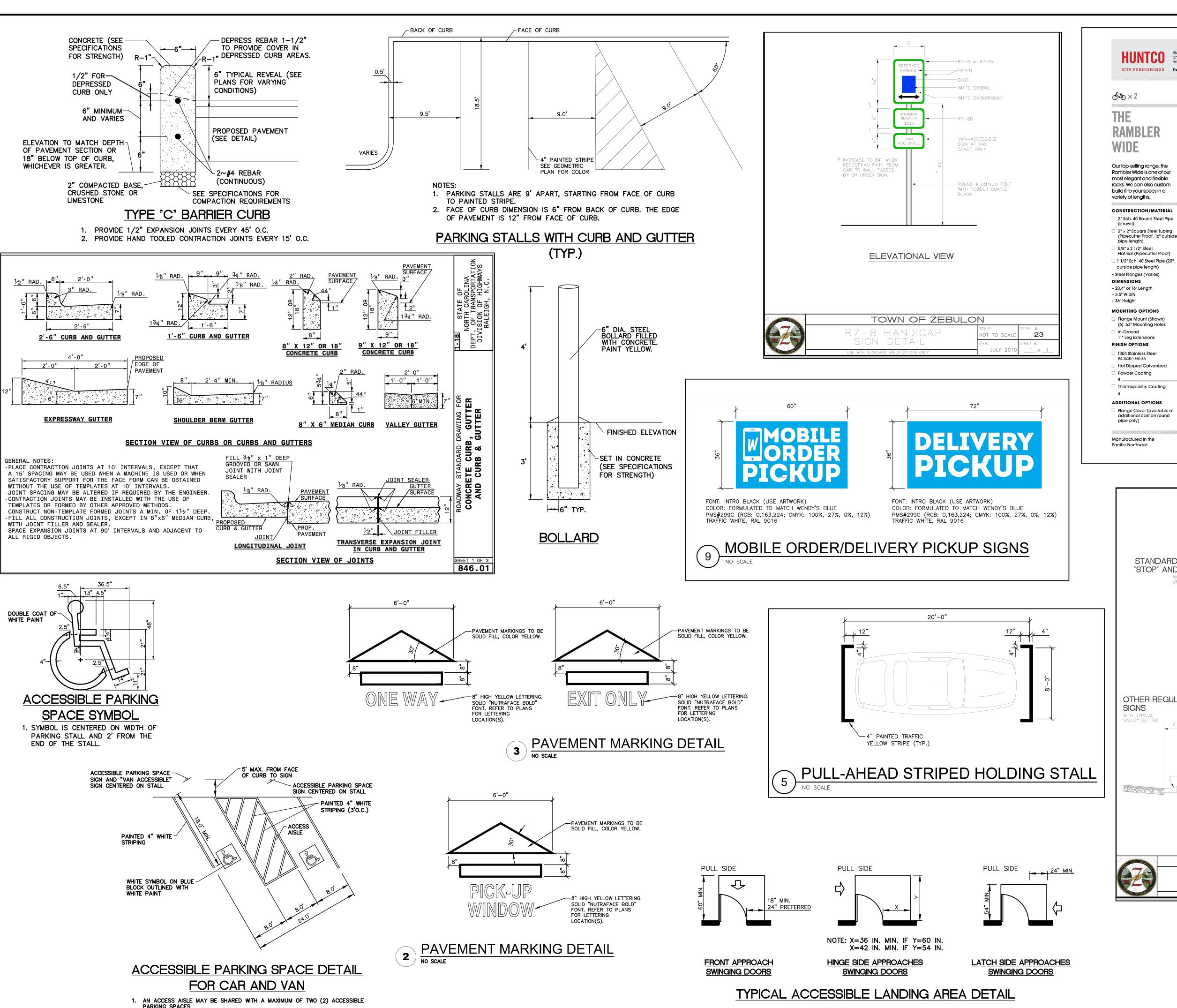
Plastic or

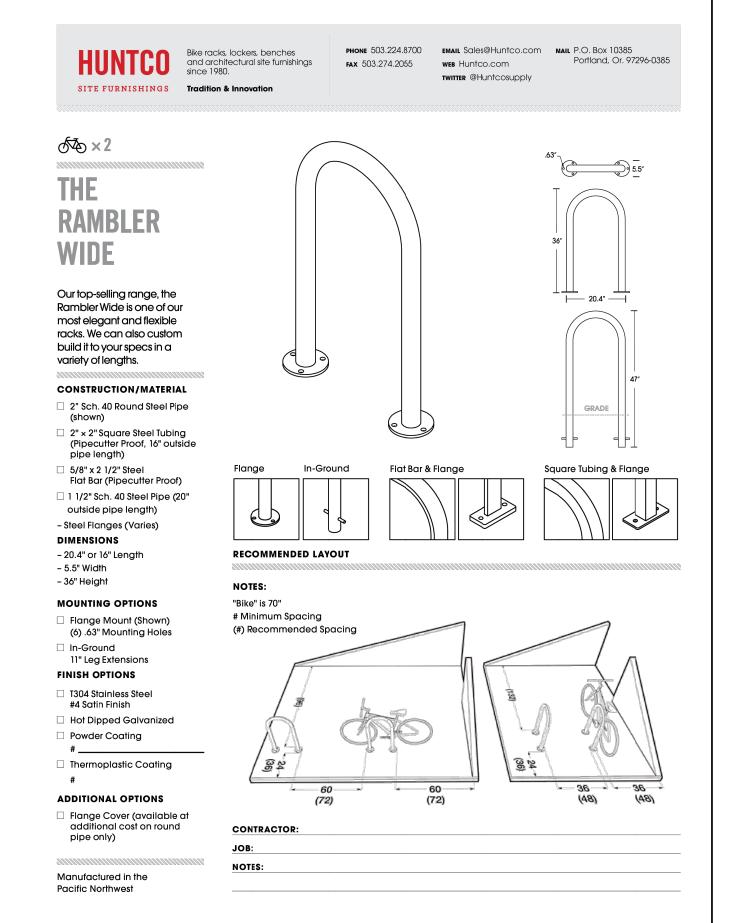
Wire ties

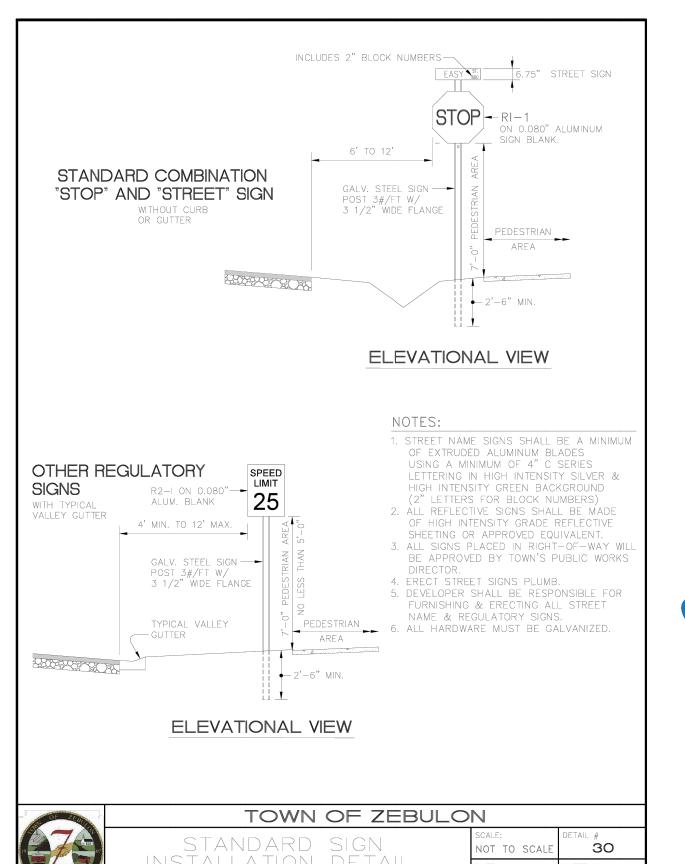
Prepared By:

J: \dwgs\24jobs\24005\24005.dwg, 24005

Prepared For:







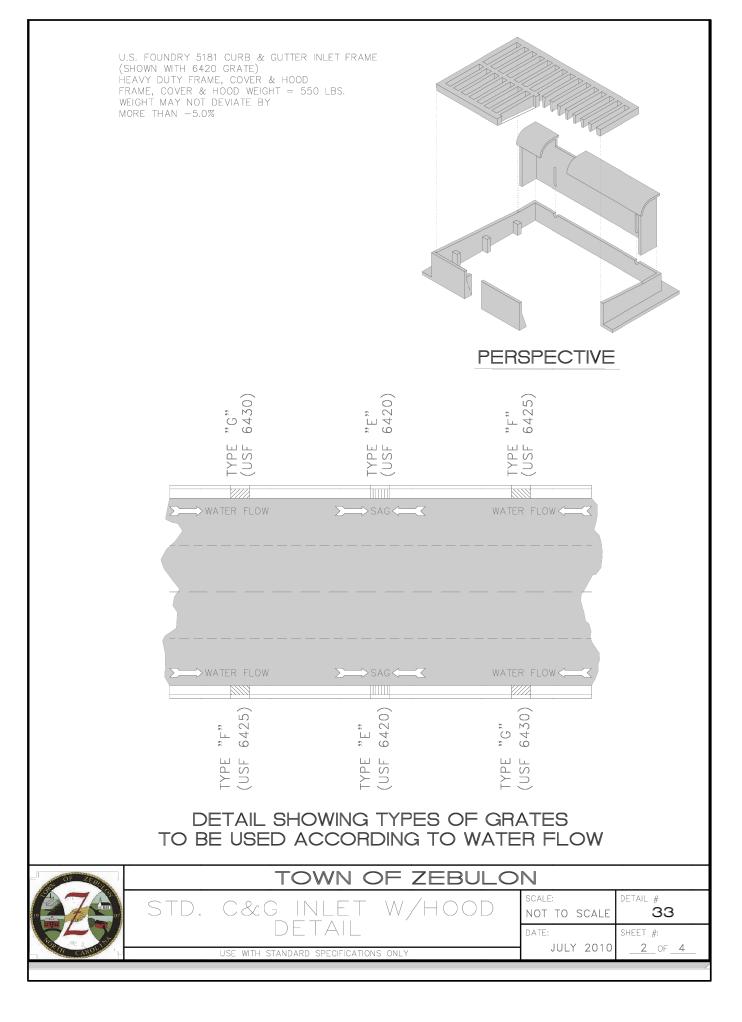
PROJECT DETAILS

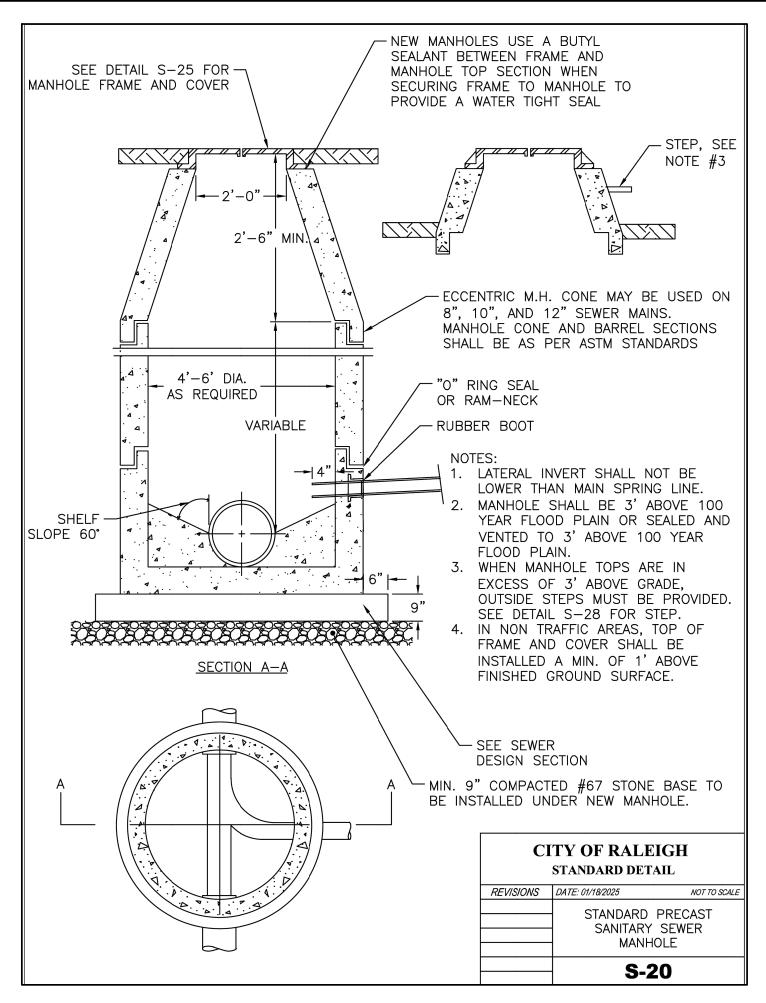
DESIGN BY: F
DRAWN BY: F
DATE: JUNE 6
SCALE: NONE
PROJECT NO.:

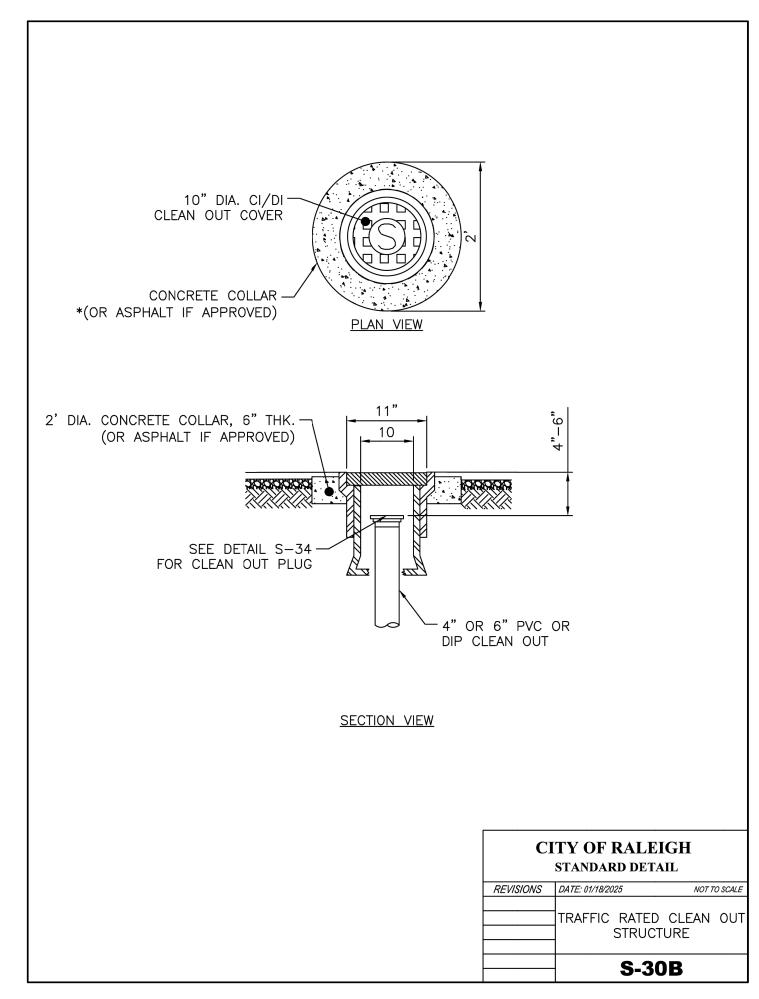
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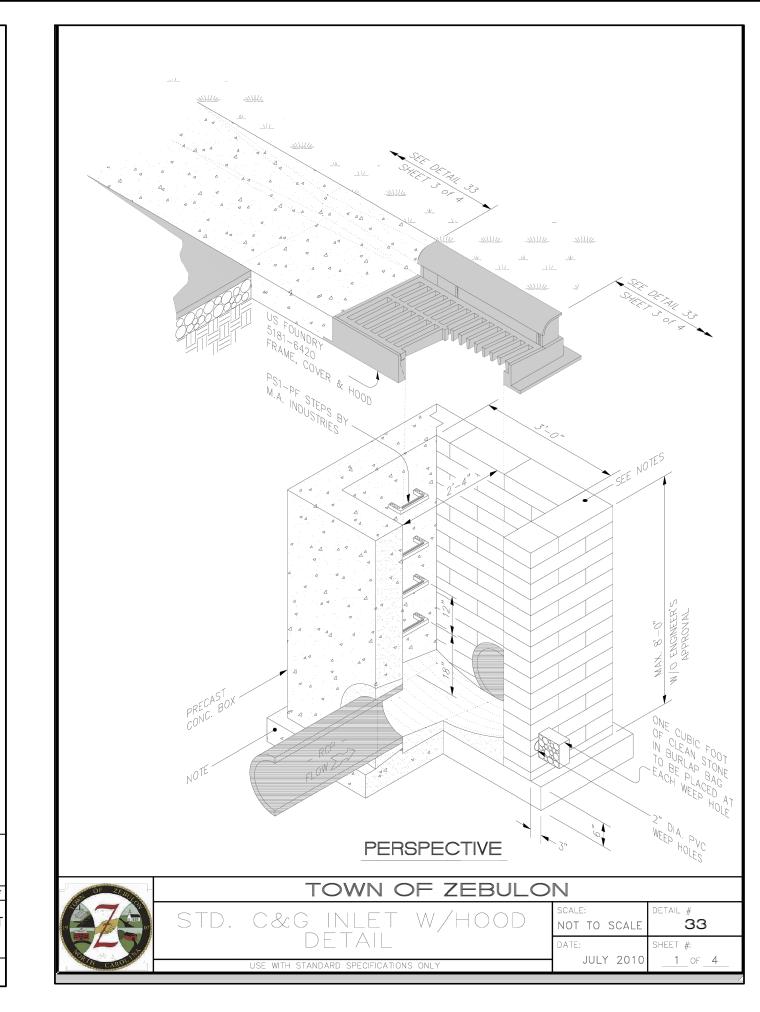
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-EMBEDMENT DEPTH = 3" (TYP.)

24"

ELEVATION

4-1/2" DIA. EXPANSION —

ANCHORS WITH WASHERS

AND HEX NUTS,

└-12" OUTLET PIPE

-WALL OF MANHOLE

THE RESTRICTOR PLAN AND FASTENERS SHALL BE

FABRICATED IN STAINLESS STEEL OR DUCTILE IRON.

THE PLATE SHALL BE CURVED TO MATCH THE

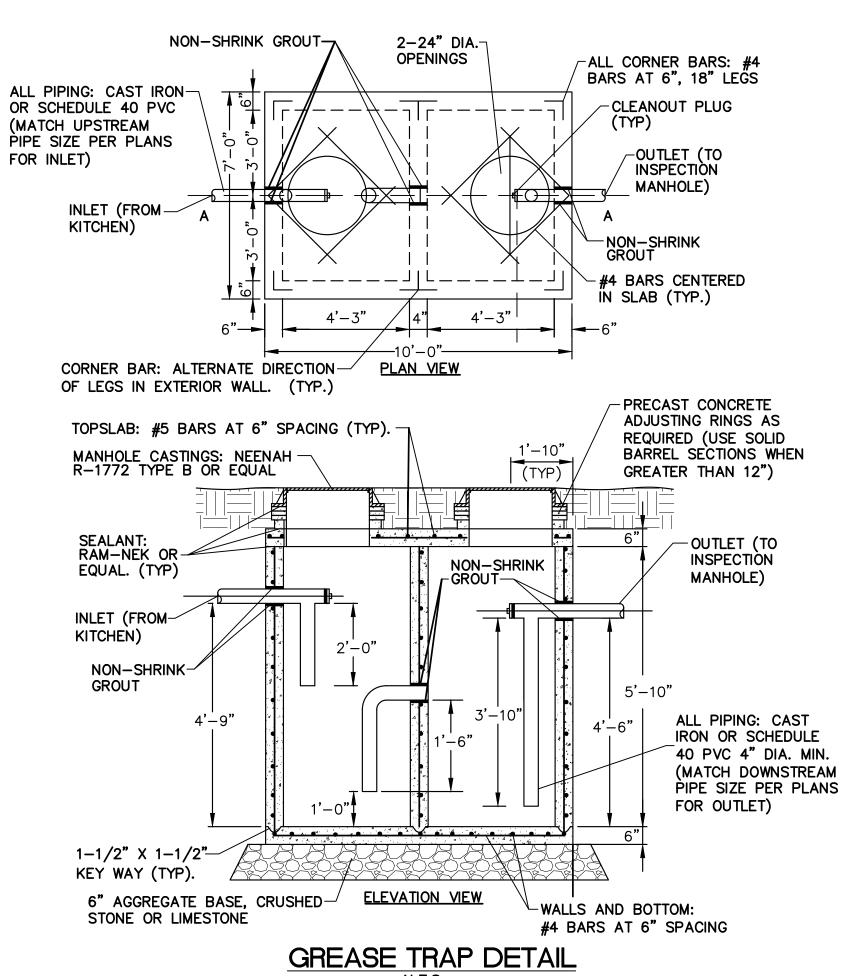
RESTRICTOR PLATE DETAIL

INSIDE RADIUS OF THE CATCH BASIN.

SECTION

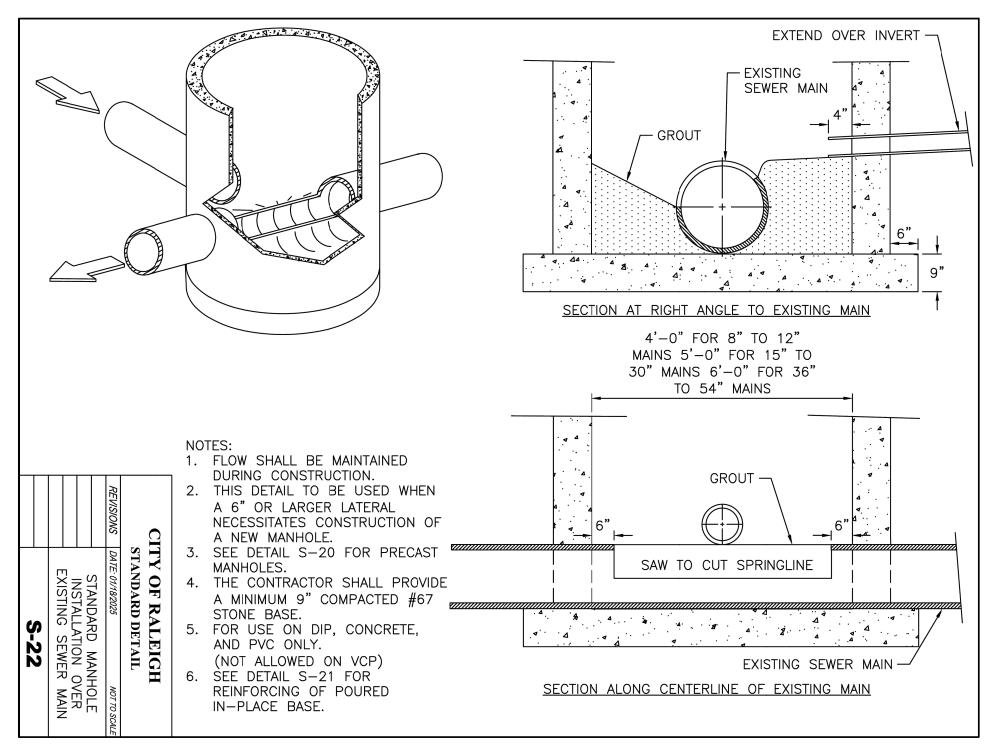
NOTES:

TACK WELD





ADDITIONAL REQUIREMENTS 1. MINIMUM LIQUID HOLDING CAPACITY: 1,750 GALLONS. 2. MINIMUM 28-DAY CONCRETE STRENGTH: 4,000 PSI 3. MINIMUM RE-BAR COVER: 2 INCHES



PROPOSED GRADE

CLEANOUT DETAIL

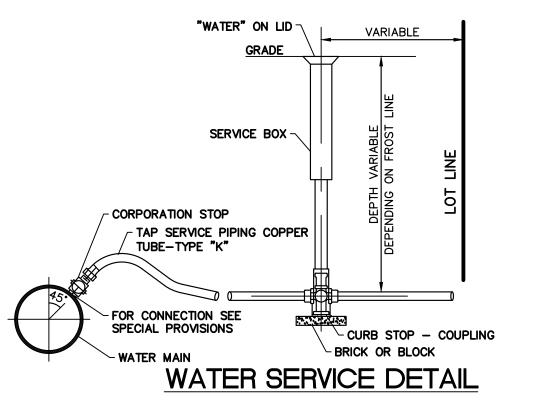
CAST IRON LAMPHOLE—/ FRAME & COVER— NEENAH R-1970-78

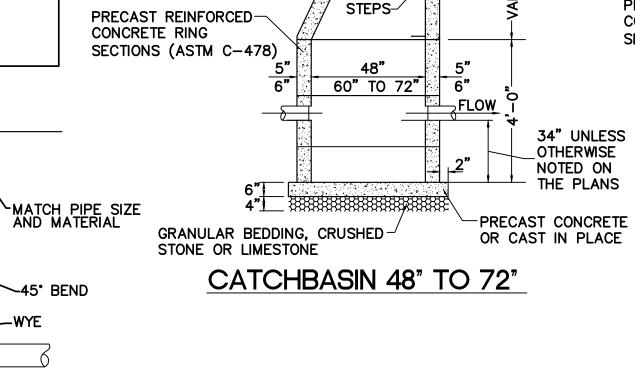
SERIES OR EQUAL

SEE PLANS FOR -

PIPE SIZE

BOLT LID TO FRAME





ADJUST COVER WITH -

CONCRETE ADJUSTING

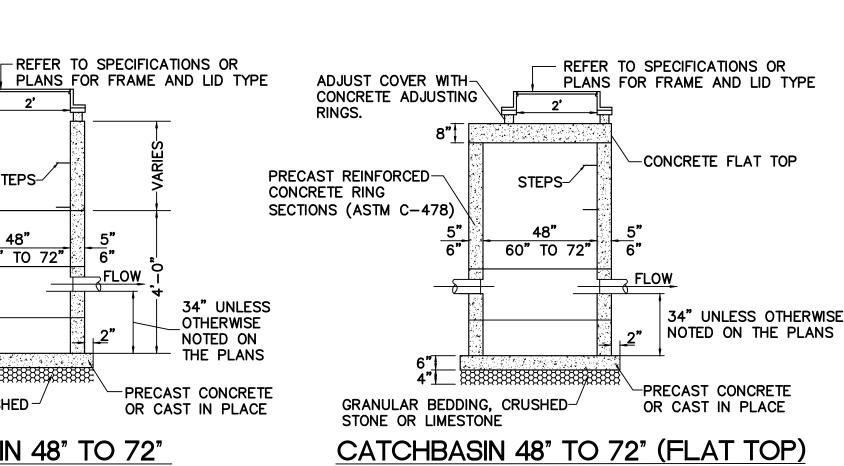
1/4" x 24" x 24" PLATE ¬

4-1/2" DIA. EXPANSION - ANCHORS WITH WASHERS

SEAL AROUND THE PLATE—WITH EPOXY SEALANT

AND HEX NUTS, TACK WELD

CENTERED ON OUTLET PIPE



1 1/2"

(TYPICAL)

-3.5" DIA. HOLE

-INV. = 331.90

-1/4" x 24" x 24" PLATE

PROJECT DETAILS

Prepared By: rmanging

Prepared For:

C-9

PROJECT SPECIFICATIONS

- 1. CONTRACTOR IS TO FOLLOW ALL ORDINANCES AND REQUIREMENTS OF THE STATE, COMMUNITY, LOCAL DISTRICTS AND THE NORTH CAROLINA BUILDING CODE (CURRENT EDITION) CHAPTER 11. ALL PROPOSED IMPROVEMENTS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE "N.C.D.O.T STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" AS WELL AS THE "PWC DESIGN MANUAL" CURRENT EDITIONS.
- 2. THE CONTRACTOR SHALL INDEMNIFY WATERMARK ENGINEERING RESOURCES, LTD (THE DESIGN ENGINEER). ARCHITECT AND OWNER. THEIR AGENTS. ETC.. FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONDUCTING WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, SPECIFICATIONS, AND ALL GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THIS
- 3. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL PERMITS THAT ARE REQUIRED BY THE LOCAL AGENCIES.
- 4. PRIOR TO BID AND PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL INSPECT THE SITE TO VERIFY THAT THERE ARE NO DISCREPANCIES BETWEEN THE PLANS AND THE ACTUAL CONDITIONS AT THE SITE. IF ANY DISCREPANCIES ARE FOUND, AT ANY TIME BEFORE OR DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY (BEFORE ANY ADDITIONAL IMPROVEMENTS ARE INSTALLED) IN ORDER TO OBTAIN WRITTEN CONFIRMATION BY THE DESIGN ENGINEER AS TO ANY REVISIONS THAT MAY NEED TO BE MADE TO THE PLANS.
- PRIOR TO CONSTRUCTION, CONTRACTOR IS TO CONTACT THE DESIGN ENGINEER AND ARCHITECT TO VERIFY THAT THEY ARE WORKING FROM THE MOST CURRENT SET OF PLANS AND SPECIFICATIONS.
- 6. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER, ALL GOVERNMENTAL AGENCIES HAVING JURISDICTION, AND ALL UTILITY COMPANIES THAT MAY BE AFFECTED BY THE PROPOSED CONSTRUCTION 2 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE APPROPRIATE CONSTRUCTION INSPECTIONS.
- THE MUNICIPALITY SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT
- THE CONSTRUCTION OF THE IMPROVEMENTS. 8. PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS, THE CONTRACTOR MUST CALL 811 FOR THE LOCATION AND STAKING OF EXISTING UNDERGROUND UTILITIES (GAS, ELECTRIC, TELEPHONE) AT 1-800-632-4949, 48 HOURS PRIOR TO DIGGING.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING RECORD DRAWINGS PER THE MUNICIPALITY AND/OR ANY OTHER AGENCY REQUIREMENTS. ANY CHANGES TO THE DRAWINGS MUST BE REPORTED TO THE DESIGN ENGINEER BEFORE WORK
- 10. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE
- ENGINEERING PLANS AS APPROVED BY THE MUNICIPALITY. 11. ALL QUANTITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE TO BE VERIFIED PRIOR TO CONSTRUCTION. IF DISCREPANCIES OCCUR, THE CONTRACTOR IS TO CONTACT THE DESIGN ENGINEER IMMEDIATELY AND NO WORK IS TO BE DONE
- UNTIL APPROVED BY THE DESIGN ENGINEER. 12. ANY RESTORATION NEEDED BECAUSE OF CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 13. TRENCH BACKFILL MATERIAL, CRUSHED STONE OR LIMESTONE IS REQUIRED UNDER AND WITHIN TWO FEET (2') OF SIDEWALKS AND PAVED AREAS. THIS BACKFILL SHALL BE IN SIX INCH (6") LIFTS AND COMPACTED TO 95% STANDARD PROCTOR.
- 14. CONTRACTOR IS TO PROVIDE ALL TEMPORARY SIGNAGE AS REQUIRED BY THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION AND LOCAL MUNICIPALITIES. 15. ALL EXISTING DRAIN TILES THAT ARE ENCOUNTERED ARE TO BE RESTORED TO THEIR
- ORIGINAL CONDITION OR REROUTED TO THE PROPOSED STORM SEWER SYSTEM. 16. RESTORATION OF EXISTING RIGHT-OF-WAYS IS TO BE COMPLETED WITH FOUR INCH
- (4") MINIMUM TOPSOIL AND SALT TOLERANT SOD UNLESS OTHERWISE NOTED. 17. THE WATER SYSTEM CANNOT BE SHUT DOWN WITHOUT CONSENT BY THE OWNER OF
- 18. ALL FRAME ADJUSTMENTS SHALL BE MADE WITH PRE-CAST CONCRETE RINGS
- CONFORMING TO ASTM C-39 AND CANNOT EXCEED TWELVE INCHES (12"). 19. FRAMES SHALL BE SET WITH EZ STIK8 (OR EQUAL) MATERIAL TO PREVENT LEAKAGE. 20. THE REINFORCED CONCRETE SECTIONS SHALL BE LAID IN MORTAR, SEALED WITH EXTERNAL SEALING BANDS, OR SEALED USING MASTIC JOINT SEALER. WHEN MASTIC JOINT SEALER IS USED, THE MATERIAL SHALL COMPLETELY FILL THE JOINT AFTER
- THE UNITS HAVE BEEN BROUGHT TOGETHER. 21. STEPS IN STRUCTURES SHALL BE MADE OF COPOLYMER POLYPROPYLENE PLASTIC WITH CONTINUOUS ONE HALF INCH (1/2") GRADE SIXTY (60) STEEL REINFORCEMENT, STEP PSI-PF, AS MANUFACTURED BY M.A. INDUSTRIES, INC., OR APPROVED EQUAL STEPS TO BE SPACED SIXTEEN INCHES (16") ON-CENTER.
- 22. ALL INSTRUMENTS ARE TO BE PROPERLY CALIBRATED PRIOR TO CONSTRUCTION USE. 23. ALL PARKING LOT LIGHT POLES ARE TO BE CONSTRUCTED AT THE INTERSECTION OF PARKING LOT STRIPING OR IN LANDSCAPE AREAS WITH A MINIMUM OF 2' CLEARANCE BETWEEN THE BACK OF CURB AND THE EDGE OF THE PARKING LOT LIGHT BASE
- UNLESS OTHERWISE SPECIFIED. 24. GENERAL CONTRACTOR TO BECOME FAMILIAR WITH AND APPLY THE ADA MINIMAL REQUIREMENTS AND REPORT TO ARCHITECT/DESIGN ENGINEER ANY DISCREPANCIES BEFORE CONSTRUCTION. THIS INCLUDES, BUT NOT LIMITED TO, TRANSITIONS TO
- **EXISTING CONDITIONS.** 25. CONSTRUCTION MEANS. METHODS AND JOB SITE SAFETY IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR
- 26. PAVING, SIDEWALK, AND CURBING IS NOT TO BE INSTALLED IN SUCH A WAY THAT IT WILL BLOCK THE FLOW OF WATER AWAY FROM THE BUILDING INCLUDING BUT NOT LIMITED TO WEEP HOLES, WICKS, DRAINAGE SCUPPERS OR PIPES, AND LANDSCAPE.

PAVEMENT

- ALL PAVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING REFERENCES AS THEY APPLY: N.C.D.O.T STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (LATEST EDITION), CITY OF FAYETTEVILLE TECHNICAL SPECIFICATIONS (LATEST EDITION), CITY OF FAYETTEVILLE PUBLIC AND PRIVATE STREET STANDARDS (LATEST EDITION), CITY OF FAYETTEVILLE UNIFIED DEVELOPMENT
- ORDINANCE (LATEST EDITION). 2. ALL BASE COURSE AND SUB-BASE AREAS SHALL BE COMPACTED TO 95% STANDARD LABORATORY DENSITY, PER N.C.D.O.T. STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES (LATEST EDITION) SECTION 520. BEFORE THE BASE COURSE MATERIALS ARE INSTALLED, THE SUB-BASE SHALL BE PROOF-ROLLED TO THE SATISFACTION OF THE ENGINEER, HIS AGENT, AND/OR THE SOILS ENGINEER. COMPACTION AND DENSITY TESTS SHALL BE TAKEN AT THE OWNER'S OPTION.
- ALL CONCRETE TO BE MINIMUM 3,000 PSI, SALT TOLERANT, 6 BAG MIX WITH A SPRAY ON SEALER.
- EXPANSION AND CONTRACTION JOINTS SHALL BE TOOL FINISHED.
- 5. BINDER COURSE TO BE PLACED WHEN TEMPERATURE IS AT LEAST 40°F AND RISING. SURFACE COURSE TO BE PLACED WHEN TEMPERATURE IS AT LEAST 45°F AND RISING. ALL PROPOSED PAVEMENT, SIDEWALKS, AND CURBS ARE TO BE CONSTRUCTED TO

WITHIN A TOLERANCE OF 0.05' OF THE PROPOSED ELEVATIONS EXCEPT IN THE

ACCESSIBLE STALLS OR ACCESSIBLE ROUTES. PRIOR TO SEAL COATING, ALL ASPHALT AREAS ARE TO BE CLEAN AND DRY. ALL LOOSE MATERIALS ARE TO BE REMOVED. ALL GREASE TO BE REMOVED. ALL CRACKS ARE TO BE FILLED PER IDOT STANDARDS. ALL PAINTED STRIPING TO BE MODIFIED SHALL BE "BLACKED OUT" WITH BLACK PAINT (1 COAT MINIMUM, 2 COATS IF NECESSARY). ALLOWED TO THOROUGHLY DRY PER PAINT MANUFACTURER. PRIOR TO SEAL COATING. ALL AREAS THAT ARE ADJACENT TO THE SEAL COATED AREA ARE TO BE MASKED (I.E. SIDEWALKS, CONCRETE SURFACES, BRICK SURFACES, GUTTERS, CATCHBASINS/INLETS, ETC.) PRIOR TO SEAL COATING TO BE APPLIED. AIR TEMPERATURE TO BE 50°F AND RISING. APPLICATION RATE TO BE SUCH THAT ALL SURFACES OF THE ASPHALT BEING COATED IS THOROUGHLY COVERED IN ONE COAT SPRAYING IS NOT ALLOWED. ALL SEAL COATING SHOULD BE APPLIED BY SQUEEGEE OR BRUSHES. THE BITUMINOUS SEAL COATING MATERIAL SHOULD NOT BE ALLOWED TO ENTER STORM SEWERS AND SHOULD BE ALLOWED TO DRY AT LEAST 18 HOURS

PRIOR TO VEHICULAR USE. CRACK FILLER AND SEAL COATING MATERIALS ARE TO BE

GRADING

- GEOTECHNICAL REPORTS AS PREPARED BY OWNER (OR REPRESENTATIVE) SHALL BE REFERRED TO PRIOR TO EARTH MOVING AND/OR UTILITY CONSTRUCTION.
- 2. UNSTABLE SOIL SHALL BE REMOVED OR STABILIZED. 3. CONTRACTOR IS TO MAINTAIN A POSITIVE DRAINAGE PATTERN AT THE END OF EACH DAY. CARE SHOULD BE TAKEN TO INSURE THAT DRAINAGE IS NOT REROUTED OR
- BLOCKED IN A WAY THAT MAY BE INJURIOUS TO ADJACENT LAND. 4. THE SUB-BASE BELOW STRUCTURES, PAVEMENTS OR NEW STRUCTURAL FILL SHALL BE PROOF ROLLED. IF SOIL RUTS, PUMPS, DEFLECTS EXCESSIVELY OR EXHIBITS EXCESSIVE MOVEMENT OR MOISTURE, THEN THE UNSTABLE SOIL SHALL BE UNDERCUT AND REPLACED WITH STRUCTURAL FILL OR DISCING AND DRYING TO NEAR OPTIMUM MOISTURE SO SOIL CAN BE PROPERLY COMPACTED. THIS PROCESS IS TO BE OBSERVED BY A GEOTECHNICAL ENGINEER.
- 5. ALL FILLS SHALL BE PLACED IN 8" LIFTS COMPACTED TO A MINIMUM OF 98% STANDARD LABORATORY DENSITY PER ASTM D698 UNDER AND WITHIN INFLUENCE OF THE BUILDING, A MINIMUM OF 95% STANDARD LABORATORY DENSITY PER ASTM D698 UNDER AND WITHIN THE INFLUENCE OF ALL OTHER IMPERVIOUS AREAS, AND A MINIMUM OF 90% STANDARD LABORATORY DENSITY PER ASTM D698 IN ALL LANDSCAPE AREAS.
- 6. EROSION CONTROL SHALL BE PROVIDED PRIOR TO ANY DISTURBANCES. SEE EROSION
- CONTROL PLANS FOR ADDITIONAL SPECIFICATIONS AND DETAILS. 7. PROVIDE TOPSOIL RESPREAD PER THE FOLLOWING UNLESS OTHERWISE NOTED:
- A. 4" MINIMUM IN GRASS OR SOD AREAS. B. 6" MINIMUM IN PLANTING AREAS.
- C. 12" MINIMUM IN LANDSCAPE ISLANDS. 8. ALL TOPSOIL TO BE FRIABLE (NOT COHESIVE), WEED FREE, AND FREE OF ROCKS, LARGE ROOTS AND UNNATURAL DEBRIS.
- 9. ALL GRADING IS TO BE CONSTRUCTED TO WITHIN A TOLERANCE OF 0.10' OF THE PROPOSED ELEVATIONS. SEE PAVEMENT SPECIFICATIONS FOR PAVEMENT TOLERANCES.

STORM SEWER SPECIFICATIONS

- 1. ALL REINFORCED CONCRETE PIPE SHALL CONFORM TO ASTM C-76 SPECIFICATIONS WITH ASTM C-443 FLAT GASKET JOINTS. OR ASTM C-361 "O-RING" JOINTS WHEN WATER MAIN QUALITY JOINTS ARE REQUIRED. 2. ALL PLASTIC PIPE SHALL BE P.V.C. WITH SDR26 WALL THICKNESS AND CONFORM TO
- D-3034 SPECIFICATIONS WITH ASTM D-3212 GASKET TYPE JOINTS. 3. ALL WATERMAIN QUALITY PLASTIC PIPE SHALL BE P.V.C. CONFORMING TO NSF STANDARD 14 AND: ASTM STANDARD D 2241 OR AWWA STANDARD C900 OR C905. JOINTING SHALL BE PRESSURE SLIP JOINTED. ELASTOMERIC SEALS (GASKETS) USED FOR PUSH-ON JOINTS SHALL COMPLY WITH ASTM STANDARD F477, AND SHALL BE PRESSURE RATED IN ACCORDANCE WITH ASTM D3139 OR ASTM D
- 4. ALL STRUCTURE LIDS SHALL BE IMPRINTED "STORM".
- 5. ALL FRAMES AND LIDS SHALL CONFORM TO ASTM A-48. 6. ALL SEWERS ARE TO BE INSTALLED FROM THE DOWNSTREAM END UPSTREAM. IF ANY CONFLICTS OR INFORMATION INCONSISTENT WITH SITE CONDITIONS ARE ENCOUNTERED, THE DESIGN ENGINEER IS TO BE CONTACTED PRIOR TO THE INSTALLATION OF
- ANYTHING. 7. IN PAVED AREAS, ALL FRAMES AND LIDS SHALL BE: NEENAH R-2050 OR R-2502 WITH TYPE D GRATE AT LOW POINTS; OR NEENAH R-3281-A IN CURB AND GUTTER; OR NEENAH R-1550-A WITH SOLID LID, UNLESS OTHERWISE SPECIFIED.
- 8. IN NON-PAVED AREAS, ALL FRAMES AND LIDS SHALL BE: NEENAH R-2090 OR R-2060 WITH TYPE B GRATE AT LOW POINTS; OR NEENAH R-1550-A WITH SOLID LID. UNLESS OTHERWISE SPECIFIED.
- 9. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER. 10. ALL FLARED END SECTIONS (FES) ARE TO BE INSTALLED WITH TRASH GRATES.

"AMERICANS WITH DISABILITIES ACT" (ADA) MINIMAL REQUIRMENTS: 1. GENERAL CONTRACTOR TO BECOME FAMILIAR WITH AND APPLY THE ADA MINIMAL REQUIREMENTS AND REPORT TO ARCHITECT/ENGINEER ANY DISCREPANCIES BEFORE CONSTRUCTION.

- 2. ACCESSIBLE ROUTES ON AN ACCESSIBLE SITE AND FOR ANY NEW SITE IMPROVEMENTS SHALL BE PROVIDED TO SERVE ALL ACCESSIBLE SPACES OR
- 3. THE MINIMUM CLEAR WIDTH OF AN ACCESSIBLE ROUTE PER CODE IS 36". 4. EACH ACCESSIBLE PARKING SPACE IS TO BE:
- 4.1. <u>CAR:</u> A MINIMUM OF 192" WIDE, CONSISTING OF A 96" WIDE ACCESS AISLE AND A 96" WIDE PARKING SPACE, UNLESS OTHERWISE NOTED. (SEE DETAIL). THE ACCESS AISLE SHALL BE PERMITTED TO BE PLACED ON EITHER SIDE OF THE PARKING SPACE. SEE DETAIL FOR REQUIRED DEPTH.
- A MINIMUM OF 192" WIDE, CONSISTING OF A 96" WIDE ACCESS AISLE AND A 96" WIDE PARKING SPACE. UNLESS OTHERWISE NOTED (SEE DETAIL). WHEN VAN ACCESSIBLE PARKING SPACES ARE ANGLED. THE ACCESS AISLE SHALL BE LOCATED ON THE PASSENGER SIDE OF THE PARKING SPACE. SEE DETAIL FOR REQUIRED DEPTH.
- 5. ACCESSIBLE PARKING SPACES ARE TO BE LOCATED AS CLOSE TO THE ACCESSIBLE BUILDING ENTRANCE AS POSSIBLE AND SHALL BE IDENTIFIED WITH A SIGN. 6. RAMPS MUST NOT EXTEND OUT FROM THE CURB INTO THE ACCESS AISLE OF ANY
- ACCESSIBLE PARKING SPACE. 7. TWO 90 DEGREE ACCESSIBLE PARKING SPACES MAY SHARE AN ACCESS AISLE. 8. ACCESS AISLES SHALL BE MARKED SO AS TO DISCOURAGE PARKING IN THEM.
- 9. ÀLL ADA PARKING STALLS, ACCESS AISLES AND CROSSWALKS SHALL BE STRIPED USING 4" WIDE DOUBLE LAYER OF HIGH QUALITY YELLOW PAINT. UNLESS
- 10. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1:50 (2.00%) IN ANY DIRECTION.

11. EACH ACCESSIBLE PARKING SPACE SHALL HAVE AN IDENTIFICATION SIGN (SEE

ADA ACCESSIBLE AREAS THROUGHOUT THE CONSTRUCTION PROCESS.

- 12. A 24" ELECTRONIC LEVEL WILL BE USED BY MANY INSPECTORS IN THE POST CONSTRUCTION CONDITION TO MEASURE ADA SLOPES. A 24" LEVEL HAS A NARROWER TOLERANCE THAN LONGER ELECTRONIC LEVELS AND REPRESENTS THE WHEELBASE OF A TYPICAL WHEELCHAIR. AS SUCH. A PROPERLY CALIBRATED. 24" ELECTRONIC LEVEL IS RECOMMENDED FOR SETTING AND MEASURING SLOPES IN ALL
- 13. AN ACCESSIBLE ROUTE WITH A RUNNING SLOPE GREATER THAN 1:20 (5.00%) IS A RAMP AND SHALL COMPLY WITH THE RAMP REQUIREMENTS.
- 14. AN ACCESSIBLE ROUTE MAY CROSS OPEN PAVEMENT OR FOLLOW A RAMP AS REQUIRED BY SITE-SPECIFIC CONDITIONS. THE RUNNING SLOPE OF AN ACCESSIBLE ROUTE ACROSS OPEN PAVEMENT MUST NOT EXCEED 1:20 (5.00%), WITH A CROSS SLOPE NOT EXCEEDING 1:50 (2.00%). SLOPES EXCEEDING 1:20 (5.00%), BUT LESS THAN 1:12 (8.33%), CONSTITUTE RAMPS AND MUST CONFORM TO THE REQUIREMENTS FOR RAMP DESIGN (HANDRAILS, CURBS, LANDINGS, RISE AND RUN LIMITS, ETC.) AS DETAILED ON THE CIVIL AND ARCHITECTURAL PLANS. NO RAMP SHALL HAVE A RUNNING SLOPE EXCEEDING 1:12 (8.33%), NOR HAVE A CROSS SLOPE EXCEEDING 1:50 (2.00%).
- 15. THE GENERAL CONTRACTOR/CONTRACTOR SHALL MEASURE THE SUBGRADE AND ACROSS FORMS PRIOR TO INSTALLATION OF ASPHALT OR CONCRETE IMPROVEMENTS TO ASSURE THE FINAL IMPROVEMENTS WILL MEET THESE MINIMAL ADA REQUIREMENTS. ANY DISCREPANCIES SHALL BE REPORTED TO THE CIVIL ENGINEER PRIOR TO INSTALLATION OF THE IMPROVEMENTS.
- 16. A CURB RAMP SHALL BE PROVIDED WHEREVER AN ACCESSIBLE ROUTE CROSSES A
- 17. CURB RAMPS HAVE A MAXIMUM SLOPE OF 1:12 (8.33%) AND DO NOT REQUIRE
- HANDRAILS. 18. IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP. OR WHERE IT IS NOT PROTECTED BY HANDRAILS, OR GUARDRAILS, IT SHALL HAVE FLARED SIDES; THE MAXIMUM SLOPE OF THE FLARE SHALL BE 1:12 (8.33%).

WATER MAIN SPECIFICATIONS

- 1. HORIZONTAL SEPARATION
- A. WATER MAINS AND SEWERS: WATER MAINS SHALL BE LAID AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER. COMBINED SEWER OR SEWER SERVICE CONNECTION.
- B. WATER MAINS MAY BE LAID CLOSER THAN TEN FEET TO A SEWER LINE OR SEWER SERVICE CONNECTION WHEN:
- i) LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN FEET; ii) THE WATER MAIN INVERT IS AT LEAST EIGHTEEN INCHES (18") ABOVE THE CROWN OF THE SEWER; AND
- ii) THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE
- C. BOTH THE WATER MAIN AND SEWER PIPE SHALL BE CONSTRUCTED OF PUSH JOINT OR MECHANICAL JOINT DUCTILE IRON PIPE, PRESSURE PIPE, PRESTRESSED CONCRETE PIPE, OR PVC SDR18 PIPE WITH AWWA C-900 JOINTS, MEETING THE REQUIREMENTS OF SECTION 653.111 OF THE IEPA'S TITLE 35 SUBTITLE F, WHEN IT IS IMPOSSIBLE TO MEET (A) OR (B) ABOVE. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE
- BACKFILLING. 2. VERTICAL SEPARATION
- A. A WATER MAIN SHALL BE LAID SO THAT ITS INVERT IS EIGHTEEN INCHES (18") ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATER MAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN TEN FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATER MAIN PIPE SHALL BE CENTERED OVER THE
- SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN. B. BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF PUSH JOINT OR MECHANICAL JOINT DUCTILE PIPE, PRESTRESSED CONCRETE PIPE, OR PVC PIPE MEETING THE REQUIREMENTS OF THE CITY OF GOLDSBORO STANDARD SPECIFICATIONS. AND DETAILS, AND CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE PERPENDICULAR DISTANCE FROM THE WATER MAIN TO THE SEWER DRAIN LINE IS AT LEAST TEN FEET (10') WHEN:
- i) IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN (A) ABOVE; OR
- ii) THE WATER MAIN PASSES UNDER A SEWER OR DRAIN. C. A VERTICAL SEPARATION OF EIGHTEEN INCHES (18") BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATER MAIN CROSSES UNDER A SEWER. SUPPORT THE
- SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATER MAIN. WATER MAINS AND SERVICES SHALL BE CONSTRUCTED SO THAT THE MINIMUM DEPTH IS FIVE AND ONE HALF FEET (5 1/2') MEASURED FROM FINISHED GRADE TO THE TOP OF THE PIPE, UNLESS OTHERWISE SPECIFIED AND/OR APPROVED BY THE REVIEW ENGINEER.
- 4. ALL WATER MAIN FITTINGS MAY OR MAY NOT BE SHOWN ON THE PLANS AND SHOULD BE INCLUDED IN THE COST OF THE WATER MAIN ITSELF FOR BIDDING PURPOSES. ALL WATER MAIN SHALL BE DUCTILE IRON CLASS 52 CEMENT LINED CONFORMING TO ANSI A-21.51 WITH ANSI A-21.11 JOINTS, OR TYPE "K" COPPER PIPE WITH SWEATED JOINTS.
- 5. FIRE HYDRANTS SHALL MEET AWWA C-502 AND BE TRAVERSE CITY IRON WORKS, EAST JORDAN 5 BR, OR APPROVED EQUAL, WITH FIVE AND ONE QUARTER INCH (5 1/4")VALVE OPENING, TWO TWO AND ONE HALF INCH (2 1/2") HOSE NOZZLES AND ONE FIVE INCH (5") PUMPER NOZZLE. FIRE HYDRANT SHALL BE EQUIPPED WITH AN AUXILIARY RESILIENT SEAL GATE VALVE COMPLETE WITH ROADWAY BOX, TYLER, 6850 SERIES, ITEM 668-S. FIRE HYDRANTS MUST HAVE THEIR DISCHARGE AT LEAST 18 INCHES BUT NOT MORE THAN TWENTY-FOUR INCHES (24") FROM THE SURFACE OF THE ADJACENT GROUND.
- 6. HYDRANTS SHALL BE INSTALLED NO CLOSER THAN THREE FEET (3') NOR FURTHER THAN EIGHT FEET (8') FROM THE BACK OF CURB OR EDGE OF PAVEMENT TO THE FIVE INCH (5") STEAMER NUT. NO BARRIERS, TREES, SHRUBS, WALLS OR OTHER OBSTACLES WHICH MAY HIDE OR IMPEDE THE USE OF A FIRE HYDRANT SHALL BE INSTALLED, MAINTAINED, CONSTRUCTED, OR ENLARGED, WITHIN FORTY-EIGHT INCHES (48") OF A HYDRANT.
- ALL STRUCTURE LIDS SHALL BE IMPRINTED "WATER". 8. ALL WATERTIGHT FRAMES AND LIDS SHALL BE NEENAH R-1916-C. ALL OTHER
- FRAMES AND LIDS SHALL BE NEENAH R-1550-A WITH A CONCEALED PICK HOLE. 9. ALL FRAMES AND LIDS SHALL CONFORM TO ASTM A-48. 10. BEFORE BEING PLACED INTO SERVICE, ALL NEW MAINS AND REPAIRED PORTIONS OF, OR EXTENSIONS TO EXISTING MAINS SHALL BE CHLORINATED SO THAT THE INITIAL CHLORINE RESIDUAL IS NOT LESS THAN FIFTY (50) mg/L AND THAT A CHLORINE RESIDUAL OF NOT LESS THAN TWENTY-FIVE (25) mg/L REMAINS IN THE WATER

SANITARY SEWER SPECIFICATIONS

- 1. ALL SANITARY SEWER PIPE SHALL BE D.I.P., MIN. CLASS 50, CONFORMING TO ANSI A-21.51 WITH ANSI A-21.11 JOINTS; OR P.V.C. PIPE CONFORMING TO ASTM D-3034 SPECIFICATIONS, SDR26 WALL THICKNESS AND ASTM D-3212 AND F 477 GASKET TYPE JOINTS OR ASTM D-2855 SOLVENT WELDED JOINTS.
- 2. ALL WATERMAIN QUALITY PLASTIC PIPE SHALL BE P.V.C. CONFORMING TO NSF STANDARD 14 AND: ASTM STANDARD D 2241 OR AWWA STANDARD C900 OR C905. JOINTING SHALL BE PRESSURE SLIP JOINTED. ELASTOMERIC SEALS (GASKETS) USED FOR PUSH-ON JOINTS SHALL COMPLY WITH ASTM STANDARD F477, AND SHALL BE PRESSURE RATED IN ACCORDANCE WITH
- ASTM D3139 OR ASTM D 3212. 3. DEFLECTION OF POLYVINYL CHLORIDE (PVC) PIPE SHALL NOT EXCEED 5.0% OF THE "BASE I.D." (INTERNAL DIAMETER) OF THE PIPE. "BASE I.D." SHALL BE CALCULATED IN ACCORDANCE WITH THE FOLLOWING:
 - AVG ID = AVG OD 2(1.06)T TOLERANCE PACKAGE = $(A^2 + B^2 + C^2)^(1/2)$ WHERE:
 - A = OD TOLERANCE (ASTM D-3034)
 - B = EXCESS WALL THICKNESS TOLERANCE = 0.06T

AFTER STANDING TWENTY-FOUR (24) HOURS IN THE PIPE.

- C = OUT-OF-ROUNDNESS TOLERANCE = 0.015 (AVG OD)
- T = MINIMUM WALL THICKNESS (ASTM D-3034)
- BASE ID = AVG ID TOLERANCE PACKAGEDEFLECTION OF COMPOSITE PIPE ("TRUSS" PIPE) SHALL NOT EXCEED 3.0% OF THE AVERAGE INSIDE DIAMETER (ID) OF THE PIPE IN ACCORDANCE WITH ASTM D-2680. THE PIPE LINE SHALL BE TESTED FOR EXCESS DEFLECTING BY PULLING A "GO -NO GO" MANDREL THROUGH THE PIPE FROM MANHOLE TO MANHOLE. THE MANDREL SHALL BE SIZED IN ACCORDANCE WITH SECTION 31-1.11C (4), AND AS SPECIFIED IN THE SPECIAL PROVISIONS. A "DEFLECTOMETER" MAY ALSO BE USED TO CHECK AND RECORD DEFLECTION. WHENEVER POSSIBLE AND PRACTICAL, THE TESTING SHALL INITIATE AT THE DOWNSTREAM LINES AND PROCEED TOWARDS THE UPSTREAM LINES. WHERE THE DEFLECTION IS FOUND TO BE IN EXCESS OF ALLOWABLE TESTING LIMITS, THE CONTRACTOR SHALL EXCAVATE TO THE POINT OF EXCESS DEFLECTION AND CAREFULLY COMPACT AROUND THE POINT WHERE EXCESS DEFLECTION WAS FOUND. THE LINE SHALL THEN BE RETESTED FOR DEFLECTION. HOWEVER, SHOULD AFTER THE INITIAL TESTING THE DEFLECTED PIPE FAIL TO RETURN TO THE ORIGINAL SIZE (INSIDE DIAMETER) THE LINE SHALL BE REPLACED.
- 4. INFILTRATION OR EXFILTRATION SHALL NOT EXCEED 100 GALLONS PER TWENTY—FOUR (24) HOURS PER MILE PER INCH-DIAMETER OF THE SEWER PIPE, FOR ANY SECTION OF THE SYSTEM AND AT ANY TIME DURING ITS SERVICE LIFE. TESTING IS REQUIRED PER THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS" CURRENT
- 5. LEAKAGE TESTING FOR MANHOLES FOR WATER TIGHTNESS SHALL BE DONE IN ACCORDANCE WITH ASTM C969-94--"STANDARD PRACTICE FOR INFILTRATION AND EXFILTRATION ACCEPTANCE TESTING OF INSTALLED PRECAST CONCRETE PIPE SEWER LINES", VOL. 04.05, CHEMICAL RESISTANT MATERIALS, VITRIFIED CLAY, CONCRETE, FIBER-CEMENT PRODUCTS; MORTARS; MASONRY (1996)(NO LATER EDITIONS OR AMENDMENTS) OR ASTM C1244-93 "STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE PRESSURE (VACUUM) TEST", VOL. 04.05, CHEMICAL RESISTANT MATERIALS, VITRIFIED CLAY, CONCRETE, FIBER-CEMENT PRODUCTS; MORTARS; MASONRY (1996)(NO LATER EDITIONS OR AMENDMENTS) PRIOR TO PLACING INTO SERVICE.
- 6. ALL STRUCTURE LIDS SHALL BE IMPRINTED "SANITARY". 7. ALL WATERTIGHT FRAMES AND LIDS SHALL BE NEENAH R-1916-C. ALL OTHER FRAMES AND LIDS SHALL BE NEENAH
- R-1550-A WITH A CONCEALED PICK HOLE. 8. ALL FRAMES AND LIDS SHALL CONFORM TO ASTM A-48.

THE DROP PIPE SHALL NOT BE LESS THAN EIGHT INCHES (8").

- 9. ALL SEWERS ARE TO BE INSTALLED FROM THE DOWNSTREAM END UPSTREAM. IF ANY CONFLICTS ARE ENCOUNTERED, THE DESIGN ENGINEER IS TO BE CONTACTED PRIOR TO TO THE INSTALLATION OF ANY PIPE.
- 10. FOR A DROP CONNECTION, THE DIAMETER OF THE DROP PIPE SHALL PREFERABLY BE LARGER THAN, OR OF THE SAME DIAMETER AS, THE ENTERING SEWER. THE MINIMUM DIAMETER OF THE DROP PIPE SHALL NOT BE SMALLER THAN THE DIAMETER OF THE ENTERING SEWER BY MORE THAN TWO NOMINAL DIAMETERS, PROVIDED THAT THE MINIMUM DIAMETER OF
- 11. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER. 12. ALL SANITARY SEWER BEDDING SHALL BE IN ACCORDANCE WITH THE TRENCH DETAIL AS INCLUDED IN THE PLANS.

- STANDARD UTILITY NOTES (CITY OF RALEIGH)
- 1. All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUD Handbook, current edition)
- 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 main passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to waterline specification.
 - d. 5.0' 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 watermain & RCP storm drain crossings; maintain 18" min. vertical separation at all sanitary sewer & RCP stormdrain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per CORPUD details W-41 & S-49).
 - 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 Raleigh Public Utilities Department prior to construction.
- 4. Developer shall provide 30 days advance written notice to owner for any work required within an existing City of Raleigh Utility Easement traversing private property.
- 5. 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 Raleigh Public Utilities Department. 6. SEWER BYPASS PUMPING – A bypass plan sealed by an NC Professional Engineer stall be provided to Raleigh Water Prior to pumping operations for approval. The operations and equipment shall comply
- with the Public Utilities Handbook. 7. 3.0' minimum cover is required on all water mains & sewer force mains. 4.0' minimum cover is required
- on all reuse mains. 8. 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 Raleigh Public Utilities Department. This included abandoning tap at main & removal of service from ROW or easement per CORPUD
- 9. Install 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.
- 10. Inspections of 4" and larger water mains of the private distribution system will be inspected as part of the infrastructure permit.
- 11. Private sewer mains as part of a collection system are permitted and inspected under the private infrastructure permit for sewer.
- 12. Any water or sewer services on private property that will be installed under Construction Drawings may require a Plumbing Utility Permit in the City of Raleigh. Consult with the Engineering Inspection Coordinator during the pre-construction meeting on the necessary permits.
- 13. Install sewer services with cleanouts located at ROW or easement line & spaced per the current NC
- 14. Pressure reducing valved 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
- 15. 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.
- 16. NCDOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction.
- 17. Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the RW FOG Program Coordinator prior to issuance of a UC and/or Building Permit. Contact (919) 996-4516 of fog@raleighnc.gov for more information.
- 18. Cross-connection control protection devices are required based on the degree of health hazard involved as listed in Appendix B of the Rules Governing Public Water Systems in North Carolina.
- 19. The devices shall meet the American Society of Sanitary Engineering (ASSE) standards and be on the University of Southern California approval list. 20. The device and installation shall meet the guidelines of Appendix A – Guidelines and Requirements of
- the Cross Connection Program in Raleigh's Service Area. 21. The devices shall be installed & tested (both, initial & periodic testing thereafter) in accordance with the manufacturer's recommendations or the local cross connection control program, whichever is more
- stringent. Contact cross.connection@raleighnc.gov for more information. 22. NOTICE for projects that involve an oversized main or urban main replacement. Any City reimbursement greater than \$250,000.00 must undergo the public bidding process.
- 23. Private sub-metering No resale of water shall occur without the approval of the North Carolina Utility Commission. Sub-metering shall be in accordance with Section 1400 of the "SAFE DRINKING WATER

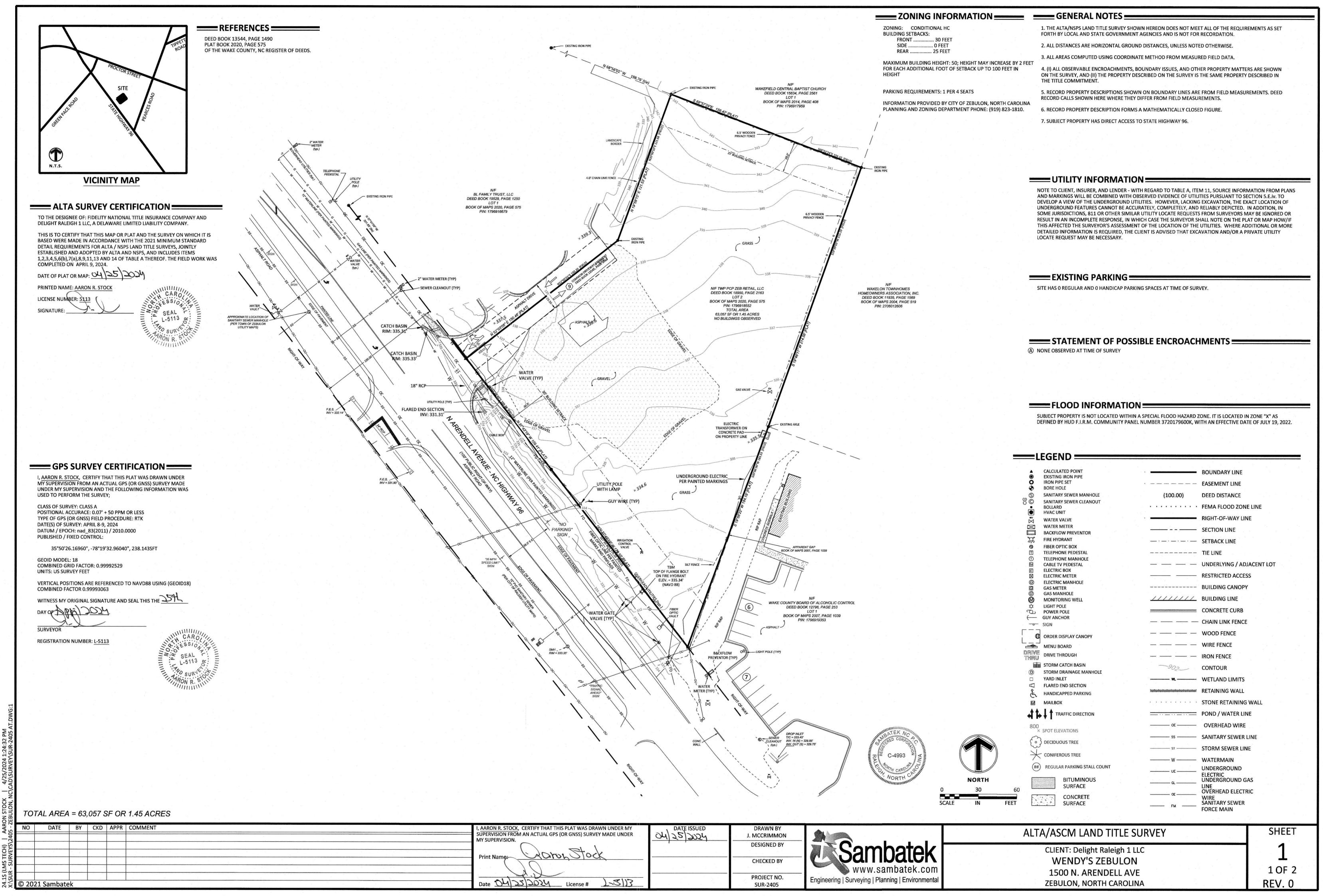
Delight PO B Prepared By:

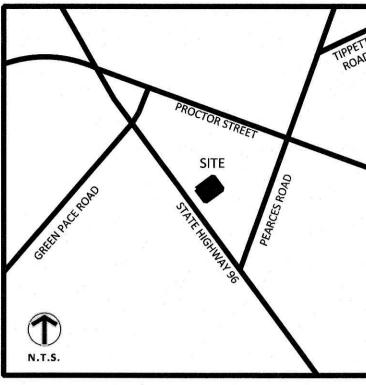
Prepared For:

C-10

PROJECT SPECIFICATIONS

FREE OF COAL TAR.





VICINITY MAP

PROPERTY DESCRIPTION (RECORD)

THE LAND IS DESCRIBED AS FOLLOWS:

LEASEHOLD PURSUANT TO AN UNRECORDED LEASE, A MEMORANDUM OF WHICH IS RECORDED IN BOOK _____, PAGE _____, WAKE COUNTY REGISTRY, IN THE FOLLOWING-DESCRIBED REAL PROPERTY:

LYING AND BEING IN THE TOWN OF ZEBULON, LITTLE RIVER TOWNSHIP, WAKE COUNTY, NORTH CAROLINA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

LOT 2 (CONSISTING OF 1.448 ACRES, MORE OR LESS) SHOWN ON A MAP TITLED "RECOMBINATION FOR TOMMY PERRY" AND RECORDED IN BOOK OF MAPS 2020, PAGE 575, IN THE OFFICE OF THE REGISTER FOR WAKE COUNTY, NORTH CAROLINA.

EASEMENT:

TOGETHER WITH EASEMENT CREATED UNDER DECLARATION OF SHARED DRIVEWAY AGREEMENT, INCLUDING RIGHTS OF OTHERS THEREIN, BY STEPHEN JORDAN PROPERTIES, LLC, A NORTH CAROLINA LIMITED LIABILITY COMPANY, AS RECORDED IN BOOK 18545, PAGE(S) 1013 AND AMENDED BY AMENDMENT TO SHARED DRIVEWAY AGREEMENT RECORDED IN BOOK 18582, PAGE 420 ALL OF THE WAKE COUNTY REGISTRY.

SCHEDULE B-SECTION II

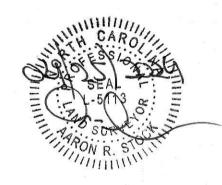
EQUITY TITLE COMPANY, LLC COMMITMENT NUMBER: ETC240403850-1 COMMITMENT DATE: APRIL 09, 2024 @ 8:00 A.M.

SCHEDULE B - SECTION II
EXCEPTIONS

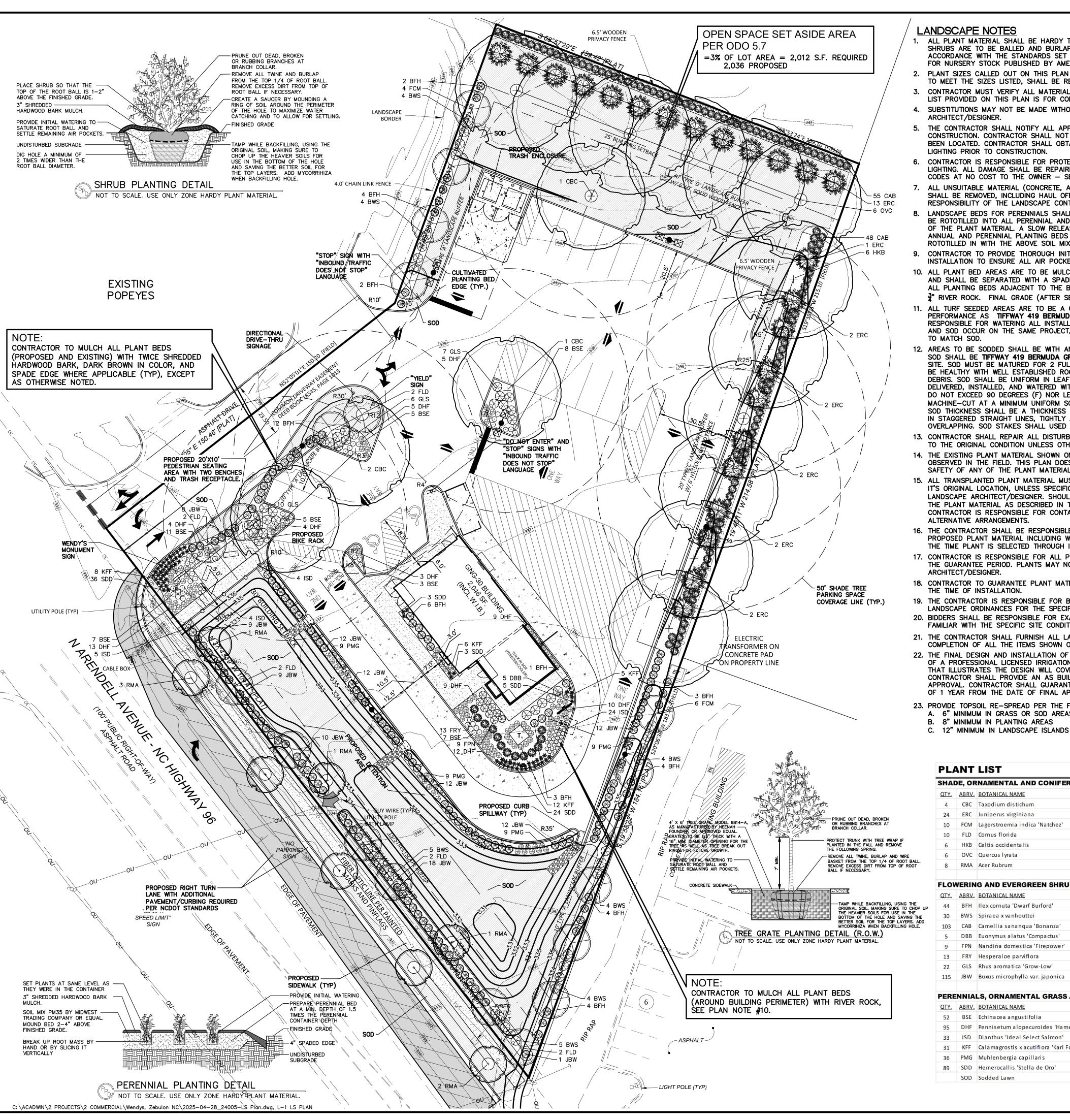
- (7) EASEMENT(S) TO CAROLINA POWER & LIGHT COMPANY, A NORTH CAROLINA PUBLIC SERVICE CORPORATION, D/B/A PROGRESS ENERGY CAROLINAS, INC AS RECORDED IN BOOK 13526, PAGE(S) 27 OF THE WAKE COUNTY REGISTRY, REFERENCE BEING MADE TO THE RECORDS THEREOF FOR THE FULL PARTICULARS. (AFFECTS SUBJECT PROPERTY BLANKET TYPE NOT PLOTTABLE)
- 8 EASEMENTS, SETBACK LINES AND ANY OTHER FACTS SHOWN ON THOSE PLATS RECORDED IN BOOK OF MAPS 2020, PAGE 575 (AFFECTS SUBJECT PROPERTY); BOOK OF MAPS 2017, PAGE 780 (AFFECTS SUBJECT PROPERTY); BOOK OF MAPS 2015, PAGE 118 (AFFECTS SUBJECT PROPERTY); BOOK OF MAPS 2014, PAGE 408 (AFFECTS SUBJECT PROPERTY); BOOK OF MAPS 2013, PAGE 1472 (DOES NOT AFFECT SUBJECT PROPERTY); BOOK OF MAPS 2012, PAGE 138 (DOES NOT AFFECT SUBJECT PROPERTY); BOOK OF MAPS 2005, PAGE 2269 (AFFECTS SUBJECT PROPERTY); BOOK OF MAPS 1998, PAGE 1261 (DOES NOT AFFECT SUBJECT PROPERTY)AND BOOK OF MAPS 1918, PAGES 75A, B AND C, (AFFECTS SUBJECT PROPERTY) ALL OF THE WAKE COUNTY REGISTRY, REFERENCE BEING MADE TO THE RECORDS THEREOF FOR THE FULL PARTICULARS.
- DECLARATION OF SHARED DRIVEWAY AGREEMENT, INCLUDING RIGHTS OF OTHERS THEREIN, BY STEPHEN JORDAN PROPERTIES, LLC, A NORTH CAROLINA LIMITED LIABILITY COMPANY, AS RECORDED IN BOOK 18545, PAGE(S) 1013 AND AMENDED BY AMENDMENT TO SHARED DRIVEWAY AGREEMENT RECORDED IN BOOK 18582, PAGE 420 ALL OF THE WAKE COUNTY REGISTRY, REFERENCE BEING MADE TO THE RECORDS THEREOF FOR THE FULL PARTICULARS.

 (AFFECTS SUBJECT PROPERTY AS SHOWN HEREON)
- UNRECORDED LEASE BY AND BETWEEN TWP PCP ZEB RETAIL LLC, LESSOR AND THE LITTLE MINT, INC. AND TINY FROG, INC., LESSEE; AS EVIDENCED AND AFFECTED BY SUBORDINATION, NONDISTURBANCE AND ATTORNMENT AGREEMENT RECORDED MARCH 11, 2022 IN BOOK 18952, PAGE 494 OF THE WAKE COUNTY REGISTRY, REFERENCE BEING MADE TO THE RECORDS THEREOF FOR THE FULL PARTICULARS. (AFFECTS SUBJECT PROPERTY)





EBULL EBULL		E x = E					
NO DATE BY CKD APPR COMMENT	I, <u>AARON R. STOCK</u> , CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS (OR GNSS) SURVEY MADE UNDER MY SUPERVISION.	04/25/2024	DRAWN BY J. MCCRIMMON		ALTA/ASCM LAND TITLE SURVEY	SHEET	
VEYS(X)	Com That		DESIGNED BY	Samhatek	CLIENT: Delight Raleigh 1 LLC	1 2	
- Sugar	Print Name:	a	CHECKED BY	www.sambatek.com	WENDY'S ZEBULON	2 OF 2	
S1.15 © 2021 Sambatek	Date 04/25/2024 License # 1-5/13		PROJECT NO. SUR-2405 AT	Engineering Surveying Planning Environmental	1500 N. ARENDELL AVE. ZEBULON, NORTH CAROLINA	REV. 0	



LANDSCAPE NOTES

- ALL PLANT MATERIAL SHALL BE HARDY TO THE ZONE IT IS BEING PLANTED IN. ALL TREES AND SHRUBS ARE TO BE BALLED AND BURLAPED UNLESS OTHERWISE NOTED AND SHALL BE GROWN IN ACCORDANCE WITH THE STANDARDS SET FORTH BY THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY AMERICANHORT.
- 2. PLANT SIZES CALLED OUT ON THIS PLAN ARE THE MINIMUM SIZE REQUIRED. PLANTS WHICH FAIL TO MEET THE SIZES LISTED, SHALL BE REJECTED AT THE EXPENSE OF THE CONTRACTOR.
- 3. CONTRACTOR MUST VERIFY ALL MATERIAL QUANTITIES AS DEPICTED ON THE DRAWING. THE PLANT LIST PROVIDED ON THIS PLAN IS FOR CONVENIENCE ONLY.
- 4. SUBSTITUTIONS MAY NOT BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE
- ARCHITECT/DESIGNER.
- 5. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE AGENCIES AND UTILITY LOCATORS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOT BEGIN ANY WORK ON-SITE UNTIL ALL UTILITIES HAVE BEEN LOCATED. CONTRACTOR SHALL OBTAIN "AS-BUILT" PLANS FOR ALL IRRIGATION AND
- 6. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL UTILITIES INCLUDING IRRIGATION AND LIGHTING. ALL DAMAGE SHALL BE REPAIRED TO A NEW CONDITION IN ACCORDANCE WITH ALL CODES AT NO COST TO THE OWNER - SEE NOTE 5.
- 7. ALL UNSUITABLE MATERIAL (CONCRETE, AGGREGATE STONE, CRUSHED ASPHALT, BRICK ETC.) SHALL BE REMOVED, INCLUDING HAUL OFF, PRIOR TO PLANTING AND SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- LANDSCAPE BEDS FOR PERENNIALS SHALL BE BACKFILLED WITH GARDEN SOILS OR EQUAL SHALL BE ROTOTILLED INTO ALL PERENNIAL AND ANNUAL PLANTING BEDS PRIOR TO THE INSTALLATION OF THE PLANT MATERIAL. A SLOW RELEASE, GRANULAR FERTILIZER SHALL BE APPLIED TO ALL ANNUAL AND PERENNIAL PLANTING BEDS AT THE RECOMMENDED RATE, AND SHALL BE ROTOTILLED IN WITH THE ABOVE SOIL MIXTURE BEFORE THE PLANT MATERIAL IS INSTALLED.
- CONTRACTOR TO PROVIDE THOROUGH INITIAL WATERING OF ALL PLANTINGS WITHIN 12 HOURS OF INSTALLATION TO ENSURE ALL AIR POCKETS HAVE BEEN REMOVED AROUND ROOT BALL.
- 10. ALL PLANT BED AREAS ARE TO BE MULCHED WITH 3" OF DOUBLE SHREDDED HARDWOOD MULCH AND SHALL BE SEPARATED WITH A SPADE EDGE ALONG PERIMETERS ADJACENT TO TURF AREAS. ALL PLANTING BEDS ADJACENT TO THE BUILDING FOUNDATION ARE TO BE MULCHED WITH 2" OF I'' RIVER ROCK. FINAL GRADE (AFTER SETTLING) SHALL BE 1" BELOW ADJACENT CURBS.
- 11. ALL TURF SEEDED AREAS ARE TO BE A CULTIVAR WITH SIMILAR CHARACTERISTICS AND RESPONSIBLE FOR WATERING ALL INSTALLED TURE AREAS UNTIL TIME OF KNITTING. IF TURE SEED LANDSCAPE CALCULATIONS AND SOD OCCUR ON THE SAME PROJECT CONTRACTOR SUMMER SEED SAME PROJECT SOURCE SUMMER SEED SUMMER SEED SAME PROJECT SOURCE SUMMER SEED SUMMER SEED SAME PROJECT SOURCE SUMMER SEED SUMMER AND SOD OCCUR ON THE SAME PROJECT, CONTRACTOR SHALL VERIFY AND USE SEED MIXTURES
- 12. AREAS TO BE SODDED SHALL BE WITH AN "APPROVED TURFGRASS SOD" OF PREMIUM GRADE. SOD SHALL BE TIFFWAY 419 BERMUDA GRASS THAT HAS BEEN GROWN LOCALLY TO THE PROJECT SITE. SOD MUST BE MATURED FOR 2 FULL GROWING SEASONS PRIOR TO HARVEST CUTTING AND BE HEALTHY WITH WELL ESTABLISHED ROOTS. SOD SHALL BE FREE OF DISEASE, INSECTS AND DEBRIS. SOD SHALL BE UNIFORM IN LEAF COLOR, TEXTURE, AND DENSITY. SOD SHALL BE DELIVERED, INSTALLED, AND WATERED WITHIN 24 HOURS OF HARVEST IN WHICH TEMPERATURES DO NOT EXCEED 90 DEGREES (F) NOR LESS THAN 55 DEGREES (F). SOD SHALL BE MACHINE-CUT AT A MINIMUM UNIFORM SOIL THICKNESS (1.25" TO 1.5" OF SOD IS DESIRED) BUT SOD THICKNESS SHALL BE A THICKNESS NECESSARY FOR PLANT VIABILITY. SOD SHALL BE LAID IN STAGGERED STRAIGHT LINES, TIGHTLY AGAINST EACH OTHER WITHOUT STRETCHING OR OVERLAPPING. SOD STAKES SHALL USED ON ALL SLOPES 4:1 OR GREATER.
- 13. CONTRACTOR SHALL REPAIR ALL DISTURBED AREAS (INTENDED OR UNINTENDED) AT A MINIMUM, TO THE ORIGINAL CONDITION UNLESS OTHERWISE NOTED.
- 14. THE EXISTING PLANT MATERIAL SHOWN ON THIS PLAN IS INTENDED SOLELY TO IDENTIFY THEM AS OBSERVED IN THE FIELD. THIS PLAN DOES NOT MAKE ANY CLAIMS ABOUT THE CONDITION OR SAFETY OF ANY OF THE PLANT MATERIAL DESCRIBED HEREIN OR OBSERVED IN THE FIELD.
- 15. ALL TRANSPLANTED PLANT MATERIAL MUST BE INSTALLED IMMEDIATELY UPON EXTRACTION FROM IT'S ORIGINAL LOCATION, UNLESS SPECIFIC ARRANGEMENTS HAVE BEEN MADE WITH THE LANDSCAPE ARCHITECT/DESIGNER. SHOULD IT BECOME UNREASONABLE TO TRANSPLANT ANY OF THE PLANT MATERIAL AS DESCRIBED IN THIS PLAN, DUE TO SITE CONSTRAINTS OR OTHERWISE, CONTRACTOR IS RESPONSIBLE FOR CONTACTING LANDSCAPE ARCHITECT/DESIGNER TO MAKE ALTERNATIVE ARRANGEMENTS.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE HEALTH AND VIABILITY OF THE PROPOSED PLANT MATERIAL INCLUDING WATERING, PROTECTION FROM PHYSICAL DAMAGE FROM THE TIME PLANT IS SELECTED THROUGH IT'S INSTALLATION.
- 17. CONTRACTOR IS RESPONSIBLE FOR ALL PLANT MATERIAL REMAINING PLUMB UNTIL THE END OF THE GUARANTEE PERIOD. PLANTS MAY NOT BE STAKED UNLESS APPROVED BY THE LANDSCAPE
- 18. CONTRACTOR TO GUARANTEE PLANT MATERIAL AND LABOR FOR A MINIMUM OF ONE YEAR FROM THE TIME OF INSTALLATION.
- 19. THE CONTRACTOR IS RESPONSIBLE FOR BECOMING FAMILIAR WITH AND ABIDING BY THE LANDSCAPE ORDINANCES FOR THE SPECIFIC JURISDICTION IN WHICH THE WORK IS TAKING PLACE.
- 20. BIDDERS SHALL BE RESPONSIBLE FOR EXAMINING THE SITE, PRIOR TO PREPARING BID. TO BECOME FAMILIAR WITH THE SPECIFIC SITE CONDITIONS AND FORESEABLE CONSTRAINTS.
- 21. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF ALL THE ITEMS SHOWN ON THE PLANS.
- 22. THE FINAL DESIGN AND INSTALLATION OF THE IRRIGATION SYSTEM SHALL BE THE RESPONSIBILITY OF A PROFESSIONAL LICENSED IRRIGATION CONTRACTOR. THEY SHALL PREPARE A FINAL PLAN THAT ILLUSTRATES THE DESIGN WILL COVER ALL LANDSCAPE AREAS AS NEEDED. IRRIGATION CONTRACTOR SHALL PROVIDE AN AS BUILT OF THE IRRIGATION SYSTEM FOR OWNER REVIEW AND APPROVAL. CONTRACTOR SHALL GUARANTEE PERFORMANCE, PARTS, AND LABOR FOR A PERIOD OF 1 YEAR FROM THE DATE OF FINAL APPROVAL.
- 23. PROVIDE TOPSOIL RE-SPREAD PER THE FOLLOWING UNLESS OTHERWISE NOTED:
- A. 6" MINIMUM IN GRASS OR SOD AREAS
- B. 8" MINIMUM IN PLANTING AREAS

L	TNA	LIST					
HAD	E, OR	NAMENTAL AND CONIFERO	US TREES	* = nativ	e trees a	nd cultivars	
<u>TY.</u>	ABRV.	BOTANICAL NAME	COMMON NAME	SIZE	Ht.	Mature Spd.	
4	CBC	Taxodium distichum	Common Bald Cypress*	2.5" Cal.	8' Min.	45'	
24	ERC	Juniperus virginiana	Eastern Red Cedar*	6' Ht.	4' Min.	10'	
10	FCM	Lagerstroemia indica 'Natchez'	Natchez Crape Myrtle	1.5" Cal.	4' Min.	15'	
10	FLD	Cornus florida	Flowering Dogwood*	1.5" Cal.	4' Min.	25'	
6	НКВ	Celtis occidentalis	Common Hackberry*	2.5" Cal.	8' Min.	50'	
6	OVC	Quercus lyrata	Overcup Oak*	2.5" Cal.	8' Min.	50'	
8	RMA	Acer Rubrum	Armstrong Red Maple*	2.5" Cal.	8' Min.	15'	
LOV	VERIN	G AND EVERGREEN SHRUBS	5				
TY.	ABRV.	BOTANICAL NAME	COMMON NAME	SIZE	Ht.	Mature Spd	
44	BFH	Ilex cornuta 'Dwarf Burford'	Dwarf Burford Holly	5 Gal.	24" Min.	3'	
30	BWS	Spiraea x vanhouttei	Bridal Wreath Spirea	5 Gal.	24" Min.	4'	
L03	CAB	Camellia sananqua 'Bonanza'	Bonanza Camellia	5 Gal.	18" Min.	3'	
5	DBB	Euonymus alatus 'Compactus'	Dwarf Burning Bush	5 Gal.	24"Min.	4'	
9	FPN	Nandina domestica 'Firepower'	Firepower Compact Nandina	7 Gal.	18" Min.	2'	
13	FRY	Hesperaloe parviflora	Red-flowered False Yucca	5 Gal.	18" Min.	3'	
22	GLS	Rhus aromatica 'Grow-Low'	Grow-Low Sumac	5 Gal.	18" Min.	3'	
15	JBW	Buxus microphylla var. japonica	Japanese Boxwood	5 Gal.	18" Min.	3'	
ERE	NNIA	LS, ORNAMENTAL GRASS AN	ND GROUNDCOVERS				
<u>TY.</u>	ABRV.	BOTANICAL NAME	COMMON NAME	SIZE	Ht.	Mature Spd	
52	BSE	Echinacea angustifolia	Black Sampson Echinacea	1 Gal.	-	-	
95	DHF	Pennis etum alope curoides 'Hameln	Dwarf Hameln Fountain Grass	1 Gal.	-	-	
33	ISD	Dianthus 'Ideal Select Salmon'	Ideal Select Salmon Dianthus	1 Gal.	-	-	
31	KFF	Calamagrostis x acutiflora 'Karl Foe	Karl Foerster Feather Reed Gra	1 Gal.	-	-	
36	PMG	Muhlenbergia capillaris	Pink Muhlygrass	3 Gal.	-	-	
89	SDD	Hemerocallis 'Stella de Oro'	Stella do Oro Daylily	1 Gal.	-	-	
	SOD	Sodded Lawn					

THESE PLANS ARE BASED ON THE ALTA/ASCM LAND TITLE SURVEY PREPARED BY: SAMBATEK NC PC

8312 CREEDMOOR ROAD RALEIGH, NORTH CAROLINA 27613 919-848-6121

PRIOR TO CONSTRUCTION, CONTRACTOR TO CONTACT THE DESIGN ENGINEER AND ARCHITECT TO VERIFY THAT THEY ARE WORKING FROM THE MOST CURRENT SET OF PLANS AND

ON SITE PARKING DATA

1 SPACE/4 SEATS = 29 SEATS = 7.25 OR 8 SPACES

REQUIRED BICYCLE PARKING: 1 SPACE/20 PARKING STALLS = 2 BICYCLE SPACES

ADA ACCESSIBLE SPACES

REGULAR SPACES

PROVIDED BICYCLE PARKING: 2 SPACES

SITE DATA

TOTAL SPACES

= 63,057 S.F. (1.45 AC.) LOT AREA BUILDING AREA = 2,046 S.F.

STREETSCAPE BUFFER (N. ARENDELL AVENUE) • CANOPY TREES = 285'/100 = (3) REQUIRED

- 3 RMA PROPOSED UNDERSTORY TREES = 285' = (6) REQUIRED
- (6) FLD PROPOSED SHRUBS = 285' = (57) REQUIRED
- (10) BWS PROPOSED (47) JBW PROPOSED (82% EVERGREEN)
- NORTHERN PERIMETER TYPE 'D' BUFFER (W/ EX. FENCE) • CANOPY TREES = 159'/100 = (6) REQUIRED
- (6) OVC PROPOSED UNDERSTORY TREES = 159' = (13) REQUIRED
- (13) ERC PROPOSED SHRUBS = 159' = (55) REQUIRED
- (55) CAB PROPOSED (100% EVERGREEN)
- NORTHEAST PERIMETER TYPE 'C' BUFFER (W/ EX. FENCE) • CANOPY TREES = 190'/100 = (6) REQUIRED
- (6) HKB PROPOSED
- UNDERSTORY TREES = 190' = (11) REQUIRED (11) ERC PROPOSED
- SHRUBS = 190' = (48) REQUIRED (48) CAB PROPOSED (100% EVERGREEN)
- WEST PERIMETER TYPE 'A' BUFFER
- UNDERSTORY TREES =193' = (8) REQUIRED (4) FCM PROPOSED (4) FLD PROPOSED
- SHRUBS = 193' = (29) REQUIRED (20) BFH PROPOSED (55% EVERGREEN) (8) BWS PROPOSED (8) JBW PROPOSED

SOUTHEAST PERIMETER TYPE 'A' BUFFER • UNDERSTORY TREES = 170' = (7) REQUIRED

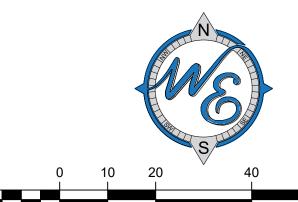
- (6) FCM PROPOSED (1) FLD PROPOSED
- SHRUBS = 170' = (26) REQUIRED (14) BFH PROPOSED (53% EVERGREEN) (12) BWS PROPOSED

PARKING LOT LANDSCAPING

- CANOPY TREES = 27 SPACES'/12 = (2) REQUIRED (4) CBC PROPOSED (ADDITIONAL TO PROVIDE COVERAGE) SHRUBS* = (60) JBW PROPOSED
- (36) PMG PROPOSED *INCL. ORNAMENTAL GRASS STREET TREES
- CANOPY TREES = 45'-50' O.C. = (3) REQUIRED 3 RMA PROPOSED

Know what's **Below**. Call before you dig.



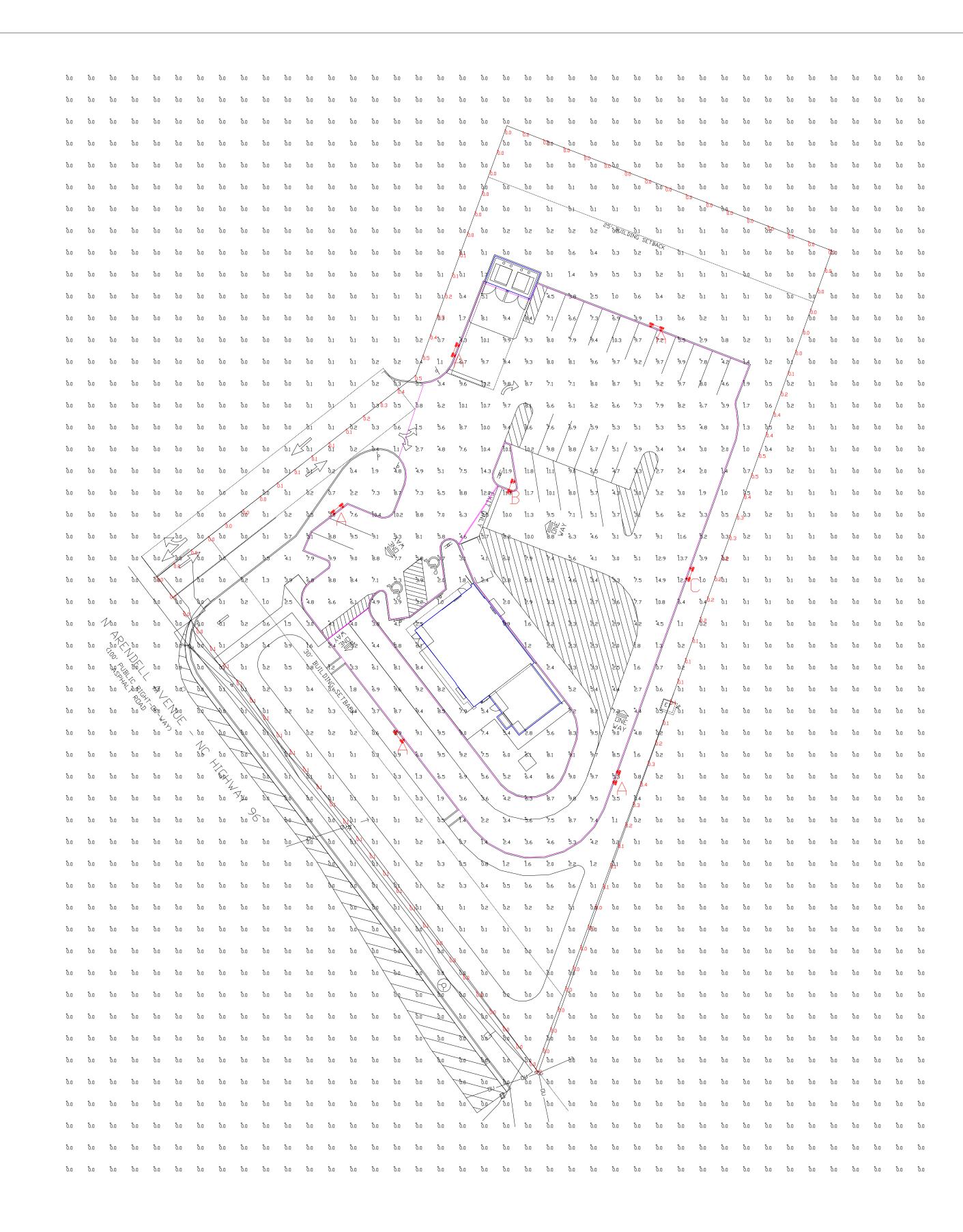


LANDSCAPE PLAN

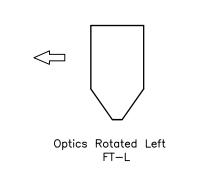
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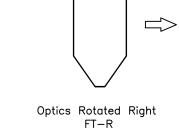
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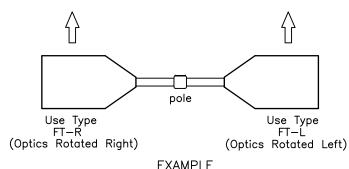
Prepared By:











For D180 Forward Throw installations specify left rotated optics (FT-L) and/or right rotated optics (FT-R) side mounting. Orientation is based on standing at the pole and looking out at the area to be illuminated.

Top View Fixture Type A, B and C

Calculation Summary CalcType Label Units Avg Max Avg/Min | Max/Min Grid Z ALL CALC POINTS AT GRADE - 10'x10' 1.07 14.9 0.0 Fc N.A. N.A. Illuminance PROPERTY BOUNDARY Illuminance Fc 0.10 0.5 0.0 N.A. N.A. N.A. PAVED AREA 6.54 1.2 Illuminance Fc 14.9 5.45 12.42

For quotes, please contact WALSH, LONG & CO quotes@walshlong.com

PHOTOMETRIC EVALUATION NOT FOR CONSTRUCTION

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted. Fixture nomenclature noted does not include mounting hardware or poles. This drawing is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

The IES no longer uses the Cutoff Classification System for LED fixtures. The IES classifies LED fixtures with the BUG rating which refers to the Backlight-Uplight-Glare system. An Uplight of "UO" most closely matches the old Full Cutoff rating.

Luminaire Schedule											
Symbol	Qty	Label	Arrangement	Description	Mounting Height	LLF	Arr. Lum. Lumens	Arr. Watts	BUG Rating		
*	5	Α	D180° 2RTD	SLM-LED-24L-SIL-(1)FT-R;(1)FT-L-50-IL-70CRI	23' POLE + 2' BASE	1.000	32402	322	B1-U0-G3		
*	1	В	D180° 2RTD	SLM-LED-24L-SIL-(1)FT-R;(1)FT-L-50-70CRI	23' POLE + 2' BASE	1.000	50286	322	B3-U0-G3		
#) #>	1	С	D180° 2RTD	SLM-LED-12L-SIL-(1)FT-R;(1)FT-L-50-70CRI-IL	13' POLE + 2' BASE	1.000	16386	170	B1-U0-G2		

Total Project Watts Total Watts = 2102





LD-161869-1

LIGHTING PROPOSAL
WENDYS

ZEBULON, NC

BY:IMK DATE:1/28/25 REV:3/11/25 SHEET 1
OF 1

SCALE: 1"=30'

0