

PROPERTY ADDRESS:
5345 ROLESVILLE ROAD
WENDELL, NC 27591

PIN: 1763-51-9788

REID: 0354924

OWNER:
WAKE COUNTY
WAKE COUNTY ATTORNEY'S OFFICE
PO BOX 550
RALEIGH NC 27602-0550

TOTAL PARCEL AREA: 91.828 ACRES

CURRENT ZONING:
R-40

TOTAL DISTURBED AREA = 353,140.92 SF // 8.107 ACRES

IMPERVIOUS SURFACE AREA:
EXISTING: 000.00 SF (0.00 ACRES)
PROPOSED: 89,484 SF (2.05 ACRES)
TOTAL: 89,484 SF (2.05 ACRES)

EXISTING LAND USE: VACANT

PROPOSED USE: COMMUNITY PARK

EXISTING BUILDING SF: 0 SF

PROPOSED BUILDING SF:
RESTROOM: 364 SF
WELL HOUSE: 144 SF

A PORTION OF THE SUBJECT PROPERTY IS IN A SPECIAL FLOOD HAZARD AREA PER MAP NUMBER 3720176300K, 3720176200K & 3720177300K. MAP EFFECTIVE DATE JULY 19TH, 2022. FLOOD INFORMATION IS BASED ON INFORMATION GIVEN FROM NC FLOOD RISK INFORMATION SYSTEM (FRIS).

IMPERVIOUS SURFACES:

EXISTING = 0.00 ACRES

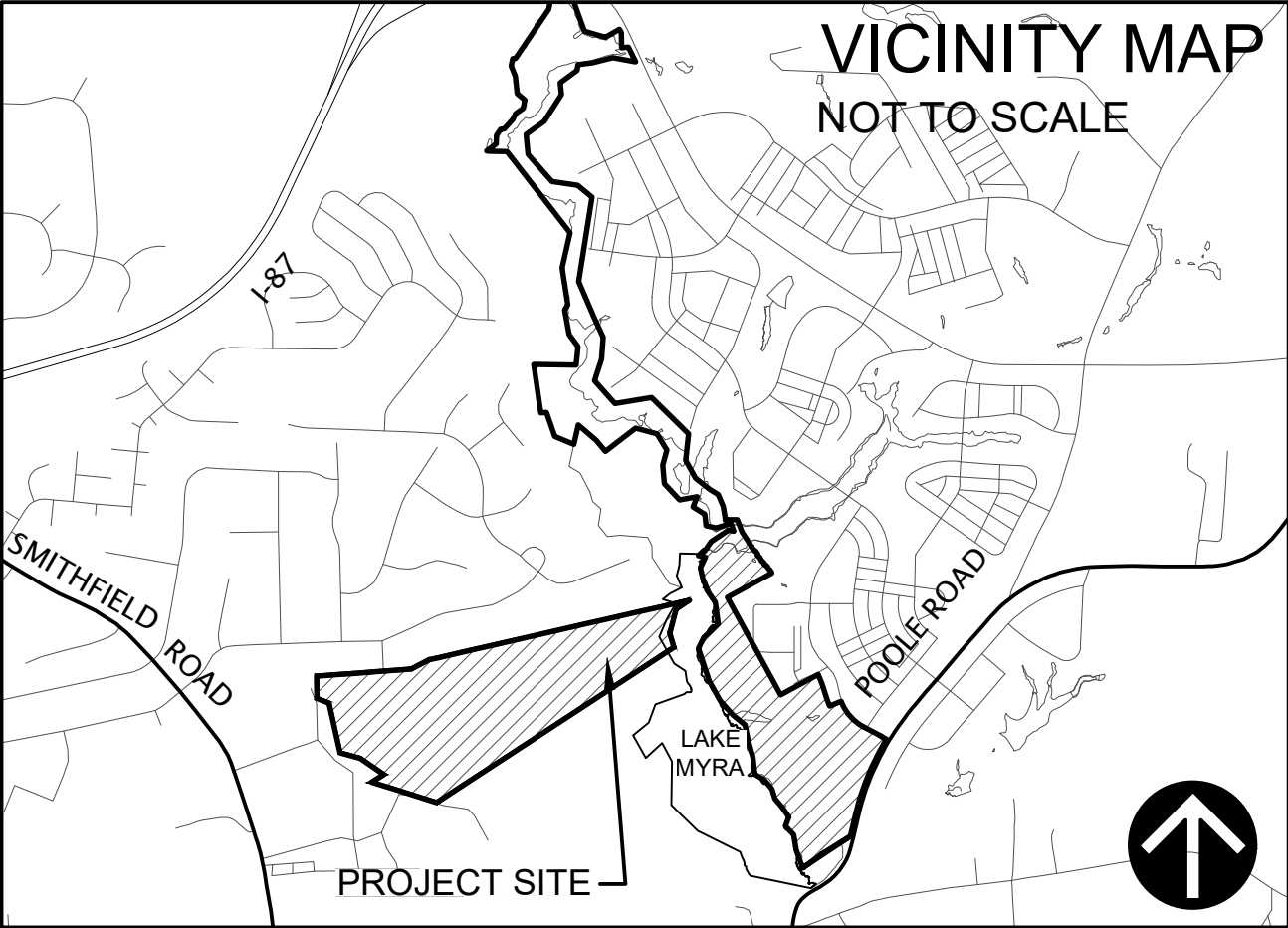
PROPOSED = 2.05 ACRES
ROADS = 0.64 ACRES
PARKING LOT = 0.63 ACRES
SIDEWALK = 0.79 ACRES

TOTAL = 2.05 ACRES

LAKE MYRA COUNTY PARK WEST PARCEL

Wake County, North Carolina

JULY 27, 2026 – BID SET



COVER SHEET

EX-001 – EXISTING CONDITIONS
EX-002 – EXISTING CONDITIONS

SITE
L-001 – EAST (EP) AND WEST (WP) PARCELS
L-002 – WESTERN PARCEL PLAN AND NOTES
L-003 – WP DEMOLITION PLAN WEST
L-004 – WP DEMOLITION PLAN EAST
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L-102 – WP SITE LAYOUT PLAN ENLARGEMENT
L-103 – WP DISC GOLF LAYOUT PLAN
L-104 – WP DISC GOLF LAYOUT PLAN, CONT.
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L-301 – WP TRAILS PLAN
L-302 – WP TRAILS PLAN
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L-503 – WP BUFFER PLANTING PLAN
L-601 – WP SITE DETAILS
L-602 – WP SITE DETAILS
L-603 – WP SITE DETAILS

CIVIL
CW-200 – PAVEMENT MATERIAL PLAN - WEST
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CW-401 – POND CROSSING
CW-402 – GRADING ENLARGEMENT WEST
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CW-404 – STORM WATER DETAILS
CW-405 – STORM WATER DETAILS
CW-406 – STORM WATER DETAILS
CW-500 – EROSION CONTROL PLAN WEST PHASE 1
CW-501 – EROSION CONTROL PLAN WEST PHASE 1
CW-502 – EROSION CONTROL PLAN WEST PHASE 1
CW-503 – EROSION CONTROL PLAN WEST PHASE 2
CW-504 – EROSION CONTROL PLAN WEST PHASE 2
CW-505 – EROSION CONTROL PLAN WEST PHASE 2
CW-506 – EROSION CONTROL DETAILS
CW-507 – EROSION CONTROL DETAILS
CW-508 – EROSION CONTROL DETAILS
CW-509 – EROSION CONTROL DETAILS
CW-510 – EROSION CONTROL DETAILS
CW-511 – EROSION CONTROL DETAILS
CW-600 – BOARDWALK PLAN AND PROFILE EXHIBIT
CW-700 – NPDES STABILIZATION PLAN
CW-701 – NPDES STABILIZATION DETAILS

ELECTRICAL
WS-E201 – ELECTRICAL SITE PLAN WEST SHELTER
WS-E501 – DETAILS

1. All construction shall be in accordance with applicable municipality standards, specifications, and details. Work in this project shall also conform to these plans and the latest editions of the North Carolina Department of Transportation (NCDOT) Road and Bridge Specifications, the Road and Bridge Standards, the North Carolina Erosion and Sediment Control Handbook, the North Carolina erosion and Sediment Control Regulations, the final geotechnical report, and General Design Standard. In the event of conflict between any of the standards, specifications, or plans, the most stringent shall govern.
2. The contractor shall be solely responsible for trench safety during all phases of construction.
3. 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 that lie in or adjacent to the construction site. The Contractor is fully responsible for notifying all utility owners in accordance with NC General Statue - Chapter 87, Article 8, The Underground Damage Prevention Act.
4. 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.
5. Traffic control on public streets should be in conformance with the traffic control plan, the "Manual of Uniform Traffic Control Devices," and as further directed by City, County, and State Inspectors.
6. Any discrepancies found between the drawings and 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 contractors' risk.
7. Contractor is responsible for verifying all required permits and approvals prior to commencing construction.
8. All areas shall be graded for positive drainage, and as shown on these plans. The contractor shall maintain adequate site drainage during all phases of construction. The contractor shall use silt fences (or other methods approved by the engineer and applicable municipality) as required to prevent silt and construction debris from flowing onto adjacent properties. Contractor shall comply with all applicable federal, state, or local erosion, conservation, and siltation ordinances. The Contractor shall remove all temporary erosion control devices upon completion of permanent drainage facilities and the establishment of a stand of grass or other growth to prevent erosion (minimum 80% coverage).
9. 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.
10. Fill type, compaction, and moisture condition should be according to the Geotechnical Engineer's specifications, but at a minimum, the following must be met: Materials used to construct embankments for any purpose, backfill around drainage structures, or in utility trenches or any other depression requiring fill or backfill shall be compacted to 95% of maximum density as determined by the modified proctor test as set out in ASTM Standard D-968. The contractor shall, prior to any operations involving filling or backfilling, submit the results of the proctor test together with a certification that the soil tested is representative of the materials to be used on the project. Tests shall be conducted by a certified materials testing laboratory and the certifications made by a licensed professional engineer representing the laboratory.
11. Proposed contours and gutter gradients are approximate. Proposed spot elevations and roadway profiles/ super-elevations/typical sections are to be used in case of discrepancy.
12. 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.
13. All distances shown represent horizontal ground distances.
14. Rim elevations are given as top of curb for Catch Basins, top of grate for Drop Inlets, and top of cover for Junctions Boxes.
15. Storm Sewer (RCP) shall be constructed to the following classes:
Cover less than 10 feet - Class C bedding, Class III walls
Cover 10 feet to 15 feet - Class B bedding, Class III walls
Cover greater than 15 feet and less than 2 feet - Class B bedding Class IV walls
16. 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.
17. All handicap ramps and associated pavement markings shall conform to ADA requirements, North Carolina State Building Code.
18. Existing water and sewer main/services to the property are to be verified by the contractor prior to the start of construction. The project engineer has attempted to verify sizes from relevant plans; however, exact size/ dimensions can only be determined from field exposure of the relevant line.

This note shall apply to each and every sheet in this set:

The Engineer does not guarantee that all existing facilities such as pipelines, electrical lines, conduit, telephone cable, service connections, or other facilities are shown on the Plans. It shall be the Contractor's responsibility to have all utilities located by their respective owners, field mark the utility locations, and protect all such existing facilities prior to beginning construction. The Contractor is fully responsible for notifying all utility owners in accordance with NC General Statute - Chapter 87, Article 8, The Underground Damage Prevention Act.

PERMITTING APPROVAL NOTES:

1. A mandatory preconstruction meeting is required between the Owner, Contractor, and Wake County (Stormwater) prior to issuance of the Stormwater and Land Disturbance Permits. Please call to schedule this meeting at your convenience. Please ensure all conditions of approval are addressed and contact Andrew Lake at (919) 594-0895 to schedule the preconstruction meeting and provide two (2) full-size sets of plans prior to the meeting.
2. Upon completion of the required improvements, an as-built plan of the required stormwater improvements must be submitted (must indicate that the stormwater improvements were constructed in accordance with the approved plans).

Susan Hatchell
Landscape Architecture, PLLC

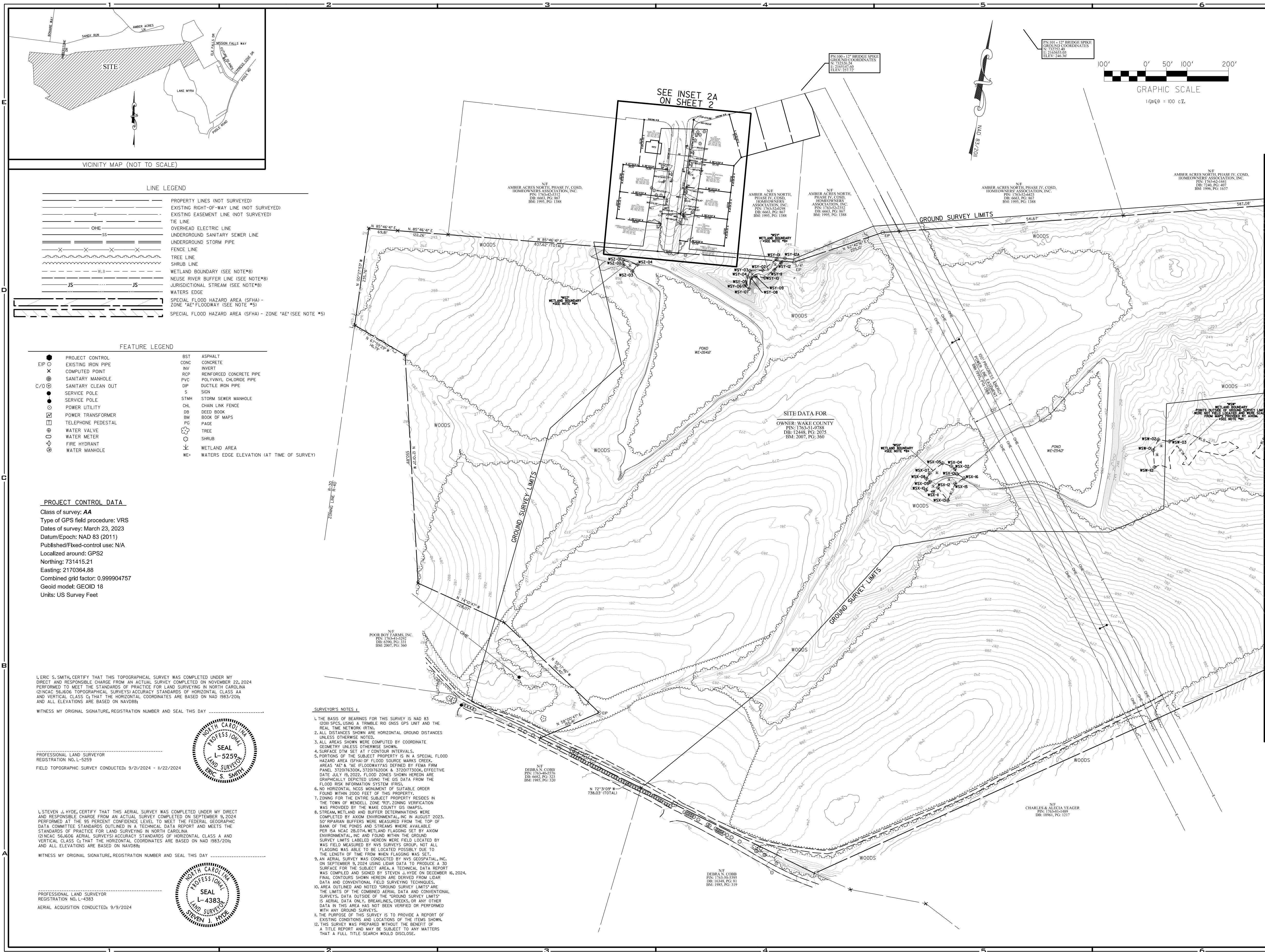
Esse Architects

N|V|5 Delivering Solutions
Improving Lives

Wooten

lynchmykins
IMEG





NV5

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TOPOGRAPHIC & EXISTING CONDITIONS SURVEY
OF THE LAKE MYRA COUNTY PARK
ON THE PROPERTY OWNED BY WAKE COUNTY

MARKS CREEK TWP., WAKE COUNTY, NORTH CAROLINA

REVISIONS		REMARKS
NO.	DATE	
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

PROJECT NO: 2023018.00
DRAWN BY: ESS
DWG. CHECKED BY: ESS
SCALE: SEE PLAN
DATE: OCTOBER 23, 2024

SHEET 1 OF 2

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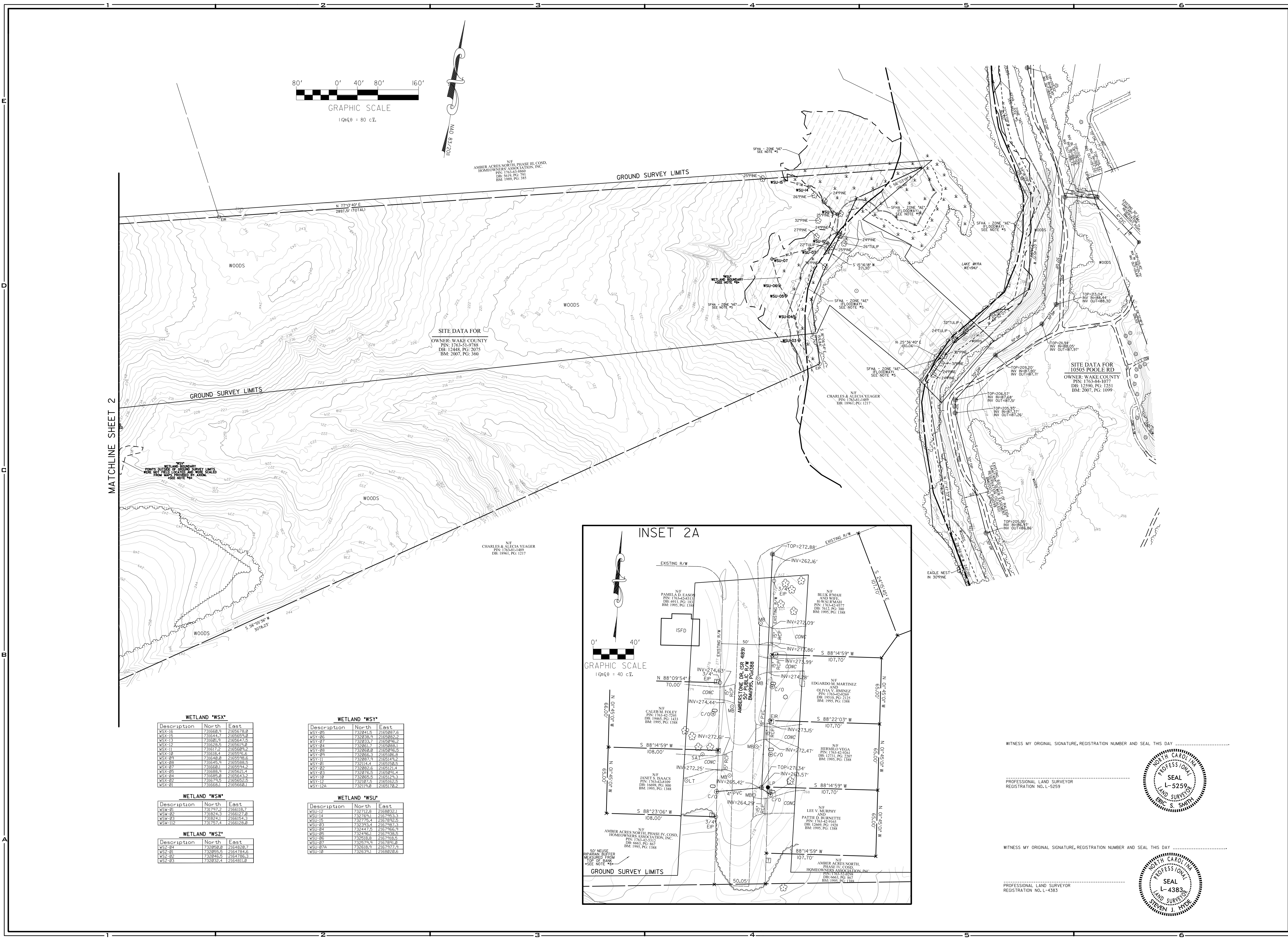
EXISTING CONDITIONS WEST

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	

Date: 07/27/26

EX-001



WETLAND "WSX"			
Description	North	East	
WSX-01	731658.8	2165678.9	
WSX-02	731644.7	2165652.8	
WSX-03	731658.1	2165647.0	
WSX-04	731628.5	2165614.0	
WSX-05	731611.2	2165588.1	
WSX-06	731618.4	2165551.0	
WSX-07	731648.4	2165538.0	
WSX-08	731648.3	2165588.0	
WSX-09	731658.1	2165594.4	
WSX-10	731658.0	2165621.4	
WSX-11	731658.0	2165641.4	
WSX-12	731674.0	2165652.0	
WSX-13	731664.1	2165668.1	

WETLAND "WSW"			
Description	North	East	
WSW-01	731707.7	2166118.7	
WSW-02	731624.7	2166127.0	
WSW-03	731624.1	2166154.1	
WSW-11	731757.0	2166128.0	

WETLAND "WSZ"			
Description	North	East	
WSZ-01	732023.0	2167183.0	
WSZ-02	732023.0	2167184.0	
WSZ-03	732046.0	2167186.0	
WSZ-04	732023.0	2167181.0	

WETLAND "WSY"			
Description	North	East	
WSY-01	732041.0	2167081.0	
WSY-02	732038.5	2167082.0	
WSY-03	732037.7	2167092.0	
WSY-04	732036.7	2167083.1	
WSY-05	732036.8	2167093.5	
WSY-06	732036.3	2167106.0	
WSY-07	732037.9	2167119.0	
WSY-08	732036.6	2167121.4	
WSY-09	732070.5	2167091.4	
WSY-10	732065.5	2167121.0	
WSY-11	732077.9	2167127.0	
WSY-12	732071.8	2167127.0	
WSY-13	732071.8	2167127.0	

WETLAND "WSU"			
Description	North	East	
WSU-01	732071.8	2167091.0	
WSU-02	732070.5	2167093.0	
WSU-03	732070.5	2167093.0	
WSU-04	732070.5	2167093.0	
WSU-05	732070.5	2167093.0	
WSU-06	732070.5	2167093.0	
WSU-07	732070.5	2167093.0	
WSU-08	732070.5	2167093.0	
WSU-09	732070.5	2167093.0	
WSU-10	732070.5	2167093.0	
WSU-11	732070.5	2167093.0	
WSU-12	732070.5	2167093.0	

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OF THE LAKE MYRA COUNTY PARK
ON THE PROPERTY OWNED BY WAKE COUNTY
MARKS CREEK TWP., WAKE COUNTY, NORTH CAROLINA

REVISIONS	
NO.	DATE
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	

PROJECT NO:	2023018.00
DRAWN BY:	ESS
DWG. CHECKED BY:	ESS
SCALE:	SEE PLAN
DATE:	OCTOBER 23, 2024

SHEET 2 OF 2

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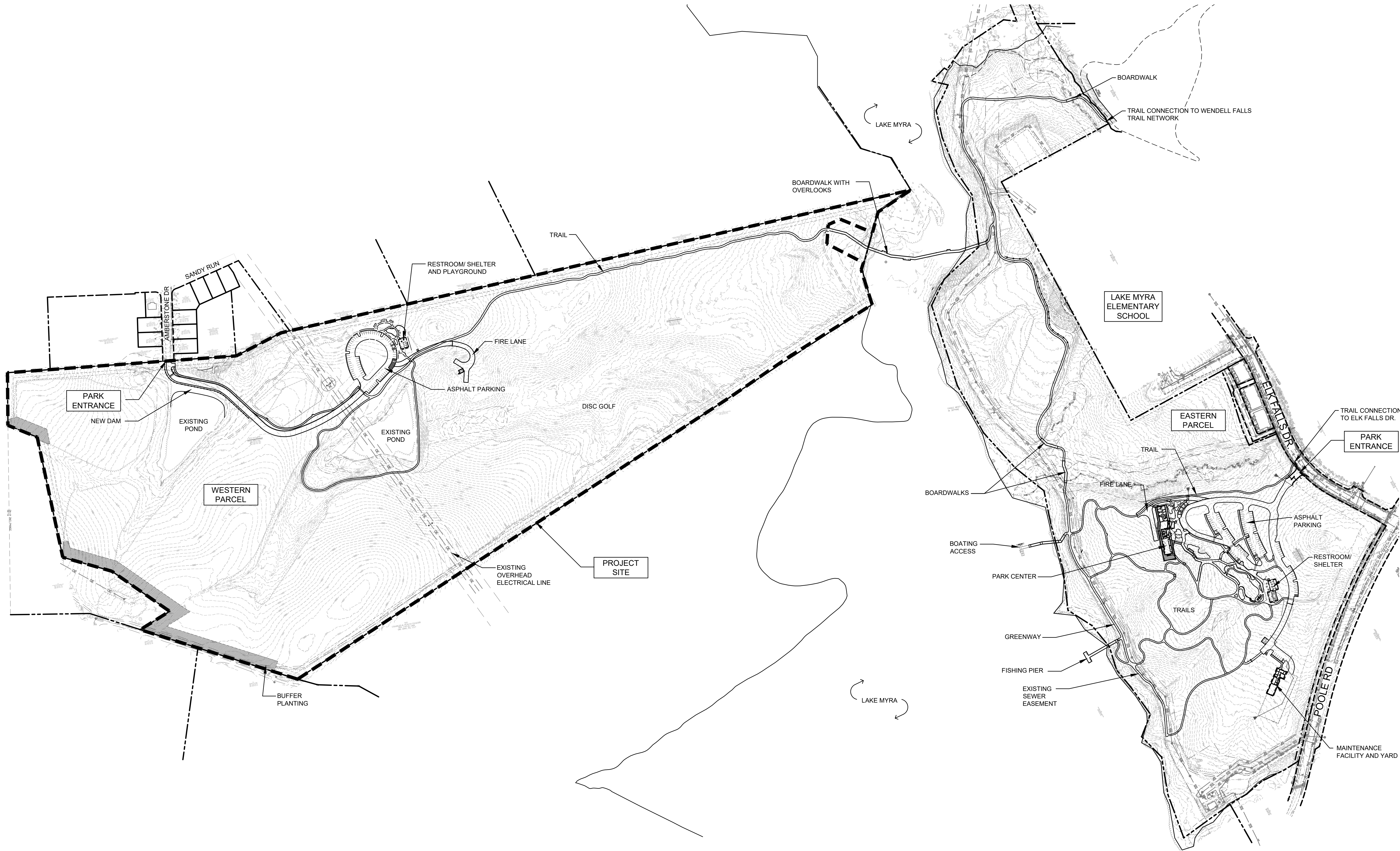
EXISTING CONDITIONS WEST

LAKE MYRA COUNTY PARK
Wake County, NC

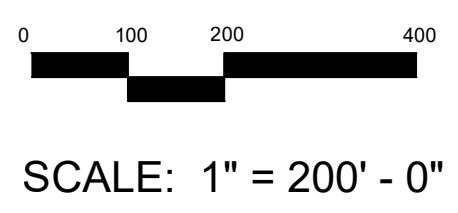
REVISIONS

Date: 07/27/26

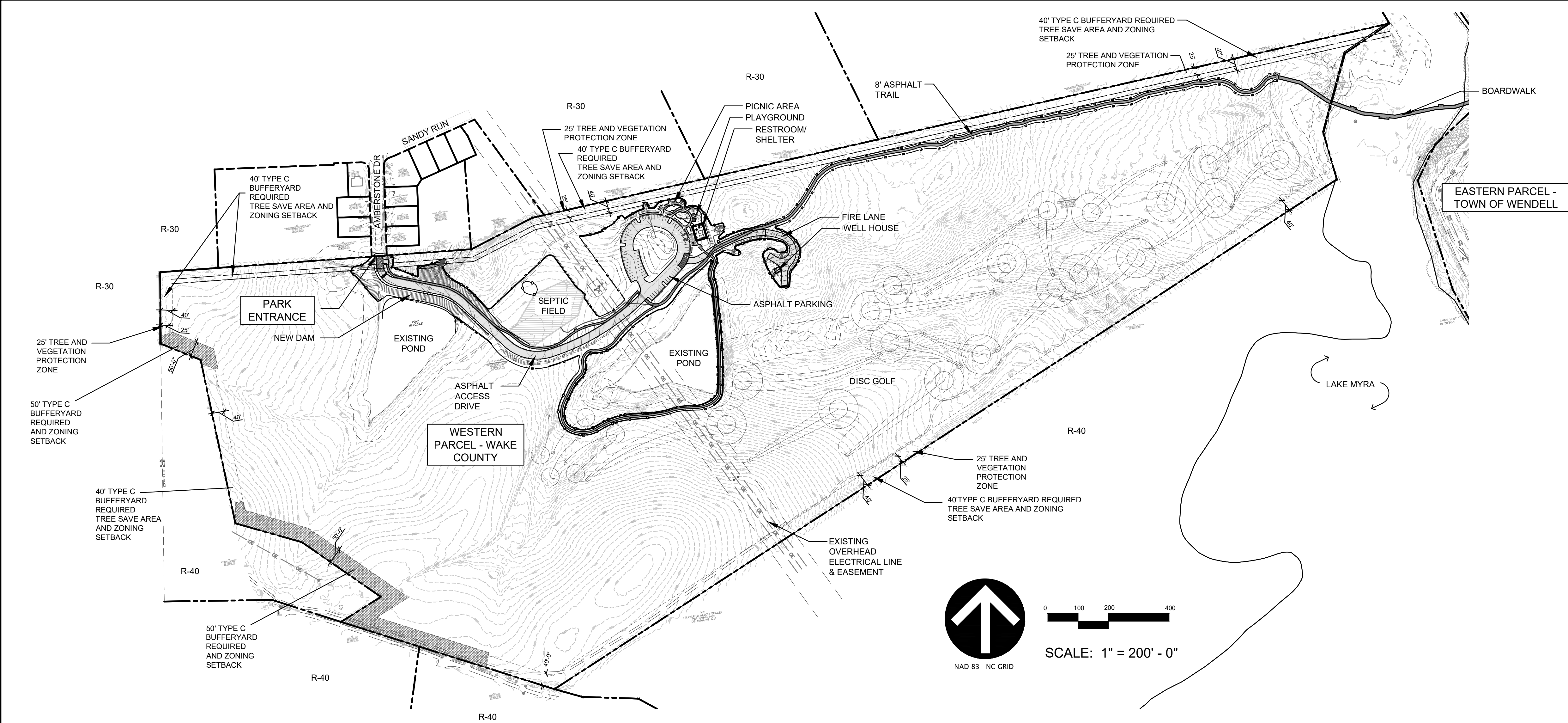
EX-002



Susan M. Hatchell
7/27/2026



REVISIONS	
Date: 7/27/26	
L-001	



DEMOLITION NOTES:

- CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION OR DEMOLITION.
- CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH PROJECT PLANS, SPECIFICATIONS AND SITE CONDITIONS PRIOR TO STARTING CONSTRUCTION.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DEPTHS, DISTANCES, ANGLES AND SLOPES PRIOR TO ORDERING MATERIALS OR CONSTRUCTING PROJECT. LIMITS OF DEMOLITION SHALL BE MARKED IN THE FIELD PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF THESE UTILITIES DURING THE CONSTRUCTION OF THE PROJECT WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- THROUGHOUT THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES TO KEEP TRAFFIC OUT OF THE CURRENT PORTION OF THE WORK.
- CONTRACTOR SHALL DEMOLISH AND REMOVE ITEMS LABELED "TO BE DEMOLISHED" AND "TO BE REMOVED" AND DISPOSE OF THEM OFFSITE IN A LAWFUL MANNER OR GIVEN TO THE OWNER AS NOTED.
- TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO START OF DEMOLITION.
- CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE DAMAGE TO EXISTING TREES AND VEGETATION. ANY DAMAGE OUTSIDE APPROVED CLEARING LIMITS SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR AT THEIR EXPENSE.
- ALL TREES, STUMPS, LIMBS, DIRT, OTHER SIMILAR GREEN WASTE, AND CONSTRUCTION DEBRIS TO BE DISPOSED OF AT A CERTIFIED LANDFILL.

STAKING NOTES:

- CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DEPTHS, DISTANCES, ANGLES, AND SLOPES PRIOR TO ORDERING MATERIALS OR CONSTRUCTING PROJECT.
- STAKE ACCESSIBLE PARKING SPACES AND SIDEWALKS IN THE FIELD AND VERIFY LONGITUDINAL AND CROSS-SLOPES MEET PLANS AND BUILDING CODE. GET OWNER AND LANDSCAPE ARCHITECT APPROVAL. NOTIFY LANDSCAPE ARCHITECT OF ANY ADJUSTMENTS OR IF CLARIFICATION IS NECESSARY. CONTRACTOR SHALL GIVE LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS NOTICE FOR APPROVAL OF STAKING.
- CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES DURING THE CONSTRUCTION OF THE PROJECT.
- THE CONTRACTOR SHALL ADEQUATELY AND FULLY PROTECT ALL PARTS OF THE WORK AGAINST DAMAGE UNTIL COMPLETED AND ACCEPTED BY THE OWNER. ANY DAMAGES INCLUDING VANDALISM SHALL BE PROPERLY REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THROUGHOUT THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES TO KEEP VEHICULAR AND PEDESTRIAN TRAFFIC OUT OF THE CURRENT PORTION OF THE WORK.
- THE CONTRACTOR SHALL PROTECT EXPOSED SURFACES ADJACENT TO THE WORK FROM PHYSICAL DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CLEAN, REPAIR, OR REPLACE AS REQUIRED SURFACES DAMAGED DURING THE COURSE OF THE WORK AT NO ADDITIONAL EXPENSE TO THE OWNER.
- ADJUSTMENTS AND VARIATIONS FROM THE DRAWING MAY BE NECESSARY IN ORDER TO MAINTAIN A MAXIMUM 4.8% LONGITUDINAL SLOPE AND 2% CROSS-SLOPE ON ALL SIDEWALKS.
- CONCRETE SIDEWALKS SHALL BE A MINIMUM OF 4" THICK.
- CONCRETE SIDEWALKS SHALL HAVE A LIGHT BROOM FINISH. SCORING TO BE LAID OUT RADIALY WHEN WALK CURVES UNLESS OTHERWISE SHOWN ON PLANS. SIDEWALKS THAT ARE 6' WIDE TO BE SCORED AT ±SIX FOOT (±6') INTERVALS. SIDEWALKS THAT ARE 8' WIDE TO BE SCORED AT ±EIGHT FOOT (±8') INTERVALS.

TRAIL LAYOUT:

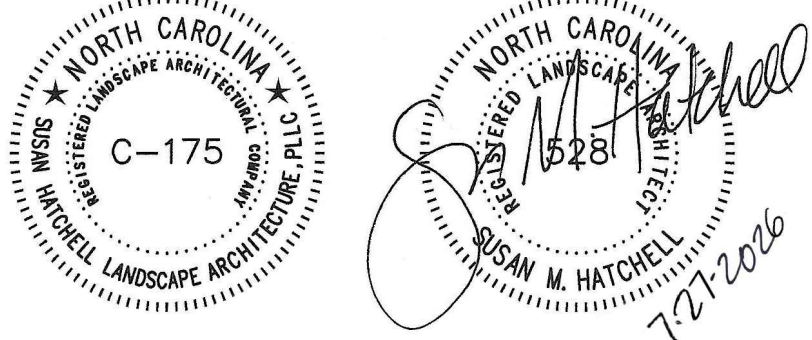
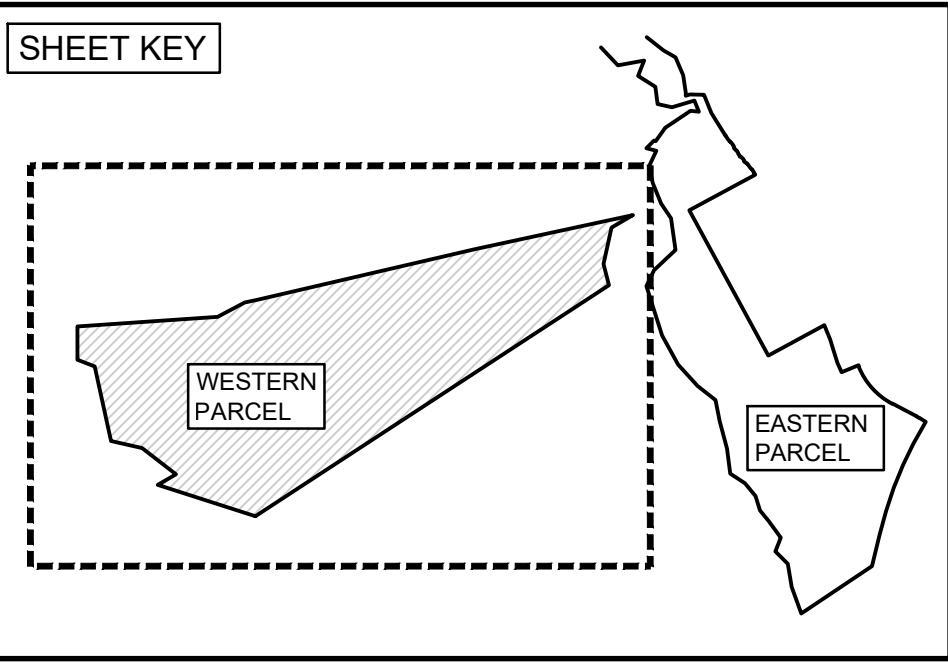
- THE CENTERLINE OF THE TRAIL IS SHOWN ON THE PLANS. THE TRAIL WIDTHS VARY WITH A 2' SHOULDER ON EACH SIDE. DITCHES AND DRAINAGE PLANS ARE SHOWN ON EROSION CONTROL SHEETS.
- MAXIMUM LONGITUDINAL SLOPE ON LANDINGS IS 2%, MAXIMUM LONGITUDINAL SLOPE ON ALL TRAILS AND AT ALL TRAIL HEADS IS LESS THAN 4.75%.
- MAXIMUM CROSS SLOPE ON TRAILS, LANDINGS, AND BOARDWALKS IS 2%.
- LOW HANGING OBJECTS OR BRANCHES THAT ARE LOWER THAN 96 INCHES ABOVE THE TRAIL SURFACE ARE NOT ALLOWED. VERTICAL CLEARANCE OF THE TRAIL SHALL NOT BE LESS THAN 96".
- FINAL TRAIL ALIGNMENT INCLUDING LOCATIONS OF 10' BOARDWALK CROSSINGS TO BE DETERMINED IN THE FIELD USING MAXIMUM SLOPES OF FIELD CONDITIONS, AND AVOIDING MAJOR TREE REMOVAL, STEEP SLOPES AND ROCK OUTCROPS. THE CONTRACTOR SHALL LAYOUT AND FLAG THE TRAIL FOR REVIEW BY THE LANDSCAPE ARCHITECT AND THE OWNER.
- TIMBER EDGING SHALL BE INSTALLED AT DOWNHILL STEEP SECTIONS OF THE TRAIL.

WAKE COUNTY REQUIRED NOTES:

- FINAL ZONING AND SITE IMPROVEMENT INSPECTION SHALL BE REQUIRED TO VERIFY SITE PLAN COMPLIANCE BE DONE BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED BY WAKE COUNTY BUILDING INSPECTIONS.
- DETERIORATED OR DEAD SCREENING SHALL BE REPAIRED OR REPLACED WITHIN SIX MONTHS.
- NO PERMANENT CONSTRUCTION CAN OCCUR WITHIN BUFFER YARDS.
- SEPTIC TANKS, SEPTIC DRAIN LINES ARE PROHIBITED IN REQUIRED BUFFER YARDS. STORMWATER RETENTION AND DETENTION FACILITIES, STORAGE TANKS FOR ANY PURPOSE, UTILITY SUBSTATIONS, AND BUILDINGS HOUSING UTILITY SUBSTATIONS AND BUILDINGS HOUSING UTILITY COMMODITIES OR EQUIPMENT ARE ALSO PROHIBITED IN REQUIRED BUFFER YARDS.

PLANTING NOTES:

- THE LANDSCAPE PLANTING CONTRACTOR SHALL BE A LICENSED LANDSCAPE CONTRACTOR IN NC, AND SHALL PROVIDE PROOF OF LICENSE AFTER BIDDING.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DEPTHS, QUANTITIES, DISTANCES, ANGLES AND SLOPES PRIOR TO ORDERING MATERIALS OR INSTALLING PROJECT.
- CONTRACTOR SHALL ACCEPT ACTUAL CONDITIONS AT THE SITE AND PERFORM THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION FOR POSSIBLE VARIATION FROM GRADES AND CONDITIONS SHOWN WHETHER SURFACE OR SUBSURFACE, EXCEPT AS PROVIDED FOR BY THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT FOR ANY PLANT SUBSTITUTIONS OF SPECIES, SIZES, OR TYPE OF CONTAINER.
- CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION, AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES DURING THE CONSTRUCTION OF THE PROJECT, AND SHALL PROMPTLY REPAIR AND RESTORE SERVICES AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL VISIT THE SITE, FAMILIARIZE HIMSELF WITH ACTUAL CONDITIONS AND VERIFY EXISTING CONDITIONS IN THE FIELD.
- CONTRACTOR SHALL MAINTAIN CAREFULLY ALL BENCH MARKS, MONUMENTS AND OTHER REFERENCED POINTS. IF DISTURBED OR DESTROYED, THE CONTRACTOR SHALL REPLACE AS DIRECTED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE FULL SET OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR COORDINATION WITH UTILITIES.
- CONTRACTOR WILL LEAVE DISTURBED AREAS LEVEL AND RAKED SMOOTH, REMOVING ALL ROCKS AND DEBRIS.
- IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF TREES OR SHRUBS IS SHOWN, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD FROM SAME SOURCE TO ASSURE SYMMETRY IN PLANTING.
- IF ANY EXISTING CONDITIONS OUTSIDE THE CONTRACT LIMITS, CURBS, SIDEWALKS, TURF AREAS AND PAVING ARE DAMAGED IN PERFORMANCE OF THIS WORK, THEY SHALL BE RESTORED WITHOUT EXTRA COST TO THE OWNER IN THE MANNER PRESCRIBED BY AUTHORITIES HAVING JURISDICTION.
- CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT. IN CASE OF DISCREPANCY BETWEEN THE QUANTITY OF PLANTS ON THE PLANS COMPARED TO THE PLANT LIST, THE CONTRACTOR SHALL SUPPLY QUANTITIES AS DRAWN ON PLANS.
- CONTRACTOR SHALL SEED ALL AREAS DISTURBED DURING INSTALLATION NOT SPECIFIED TO BE COVERED BY MULCH. AREAS DAMAGED FROM ACTIVITIES OF CONTRACTOR TO BE RESEDED AND ESTABLISHED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR TO PREPARE PLANTING BEDS PER THE SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR IMPORTING, TESTING AND PREPARING THE SOIL ON SITE PER THE SPECIFICATIONS.
- ALL SIX FOOT MULCH RINGS AND STAND ALONE MULCH AREAS SHALL BE MULCHED WITH A 3" LAYER OF TRIPLE SHREDDED HARDWOOD MULCH UNLESS OTHERWISE NOTED ON THE CONTRACT DRAWINGS. ALL MULCH AREAS SHOWN TO BE INTO NATURAL AREAS SHALL BE MULCHED WITH TRIPLE SHREDDED HARDWOOD MULCH FEATHERED BACK TO CREATE SMOOTH TRANSITIONS.
- ALL AREAS WITHIN PROJECT LIMITS SHALL BE EITHER PAVED, SEEDED OR MULCHED. SUBMIT SAMPLES FOR APPROVAL.
- CONTRACTOR SHALL MAINTAIN PLANTS FROM TIME OF INSTALLATION UNTIL THE FINAL INSPECTION, AND FOR ONE YEAR AFTER ACCEPTANCE.
- MAINTENANCE SHALL INCLUDE WATERING, KEEPING PLANTS PLUMB, WEEDING, FERTILIZING, RESTORING PLANT SAUCERS, TIGHTENING AND REPAIRING SUPPORTS, RESETTING TO PROPER GRADES AND VERTICAL POSITION, AND PROTECTION OF PLANTINGS AS WELL AS ANY OTHER NECESSARY OPERATIONS FOR THE PERIOD OF ONE YEAR.
- CONTRACTOR IS RESPONSIBLE FOR WATERING PLANTS TO SUSTAIN THEIR HEALTH AS NEEDED, WHICH INCLUDES SUPPLYING, PAYING FOR AND TRANSPORTING WATER FOR THIS PURPOSE.
- IN AREAS NOT UNDER IRRIGATION, CONTRACTOR WILL SUPPLY "GATOR" WATERING BAGS AND KEEP THEM OPERATIONAL AS NEEDED.
- CONTRACTOR MAY ESTABLISH A TEMPORARY IRRIGATION SYSTEM TO AID IN THIS, PROVIDING THE SYSTEM IS ATTRACTIVE AND SAFE. OBTAIN WRITTEN PERMISSION OF THE OWNER AND LANDSCAPE ARCHITECT IF TEMPORARY IRRIGATION IS TO BE USED.



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WESTERN PARCEL
PLAN AND NOTES

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	
Date: 7/27/26	
L-002	

DEMOLITION NOTES:
1. CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH PROJECT PLANS, SPECIFICATIONS AND SITE CONDITIONS PRIOR TO STARTING CONSTRUCTION. SOME FIELD ADJUSTMENT IS EXPECTED, ESPECIALLY FOR TRAIL LAYOUT. ONLY SPECIFIC AREAS OF THE SITE HAS BEEN SURVEYED.
3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DEPTHS, DISTANCES, ANGLES AND SLOPES PRIOR TO ORDERING MATERIALS OR CONSTRUCTING PROJECT. LIMITS OF DEMOLITION SHALL BE MARKED IN THE FIELD PRIOR TO CONSTRUCTION.
4. REFER TO CONSTRUCTION SEQUENCE ON CIVIL SHEETS
5. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF THESE UTILITIES DURING THE CONSTRUCTION OF THE PROJECT WITHOUT ANY ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR SHALL DEMOLISH AND REMOVE ITEMS LABELED "TO BE REMOVED" AND DISPOSE OF THEM OFFSITE IN A LAWFUL MANNER.
7. TREE/SILT PROTECTION FENCE SHALL BE INSTALLED PRIOR TO START OF DEMOLITION.
8. THROUGHOUT THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES AT THE PARK ENTRANCE TO PROTECT THE PUBLIC AND KEEP PEDESTRIANS OUT OF THE CURRENT PORTION OF THE WORK.
9. CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE DAMAGE TO EXISTING TREES AND VEGETATION ALONG CONSTRUCTION ACCESS ROUTE. ANY DAMAGE OUTSIDE APPROVED CLEARING LIMITS SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR. ACTUAL CLEARING LIMITS WILL BE NEGOTIATED AT THE PRE-CONSTRUCTION MEETING AND AT THE TIME OF TRAIL FLAGGING AND ADHERED TO DURING THE PROJECT.

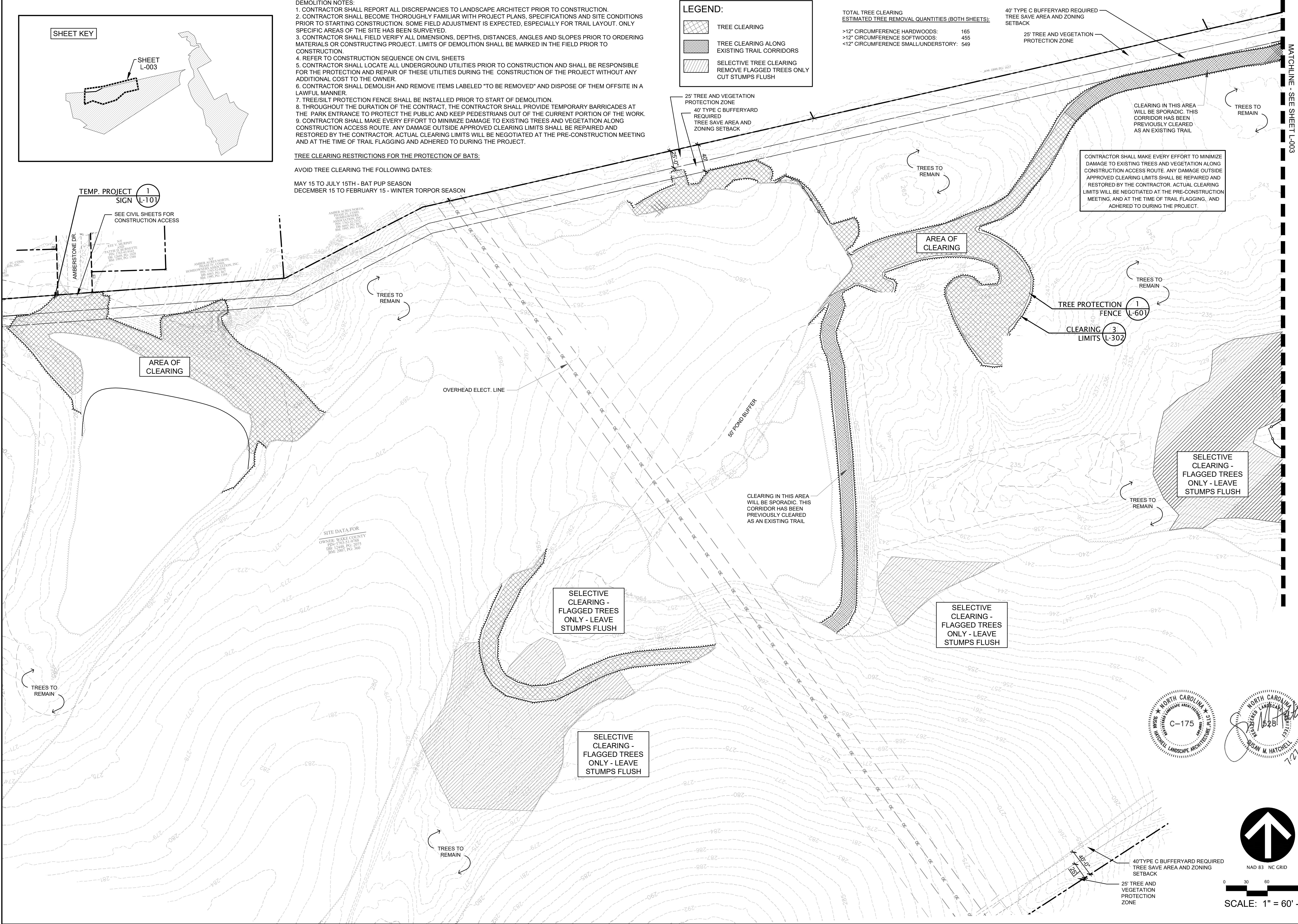
TREE CLEARING RESTRICTIONS FOR THE PROTECTION OF BATS:
AVOID TREE CLEARING THE FOLLOWING DATES:
MAY 15 TO JULY 15TH - BAT PUP SEASON
DECEMBER 15 TO FEBRUARY 15 - WINTER TORPOR SEASON

LEGEND:

- TREE CLEARING
- TREE CLEARING ALONG EXISTING TRAIL CORRIDORS
- SELECTIVE TREE CLEARING REMOVE FLAGGED TREES ONLY CUT STUMPS FLUSH

TOTAL TREE CLEARING
ESTIMATED TREE REMOVAL QUANTITIES (BOTH SHEETS):
>12" CIRCUMFERENCE HARDWOODS: 165
>12" CIRCUMFERENCE SOFTWOODS: 455
<12" CIRCUMFERENCE SMALL/UNDERSTORY: 549

40' TYPE C BUFFERYARD REQUIRED
TREE SAVE AREA AND ZONING
SETBACK
25' TREE AND VEGETATION
PROTECTION ZONE



NAD 83 NC GRID
SCALE: 1" = 60' - 0"

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WP DEMOLITION
PLAN WEST

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	
Date: 7/27/26	
L-003	

DEMOLITION NOTES:
1. CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH PROJECT PLANS, SPECIFICATIONS AND SITE CONDITIONS PRIOR TO STARTING CONSTRUCTION. SOME FIELD ADJUSTMENT IS EXPECTED, ESPECIALLY FOR TRAIL LAYOUT. ONLY SPECIFIC AREAS OF THE SITE HAS BEEN SURVEYED.
3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DEPTHS, DISTANCES, ANGLES AND SLOPES PRIOR TO ORDERING MATERIALS OR CONSTRUCTING PROJECT. LIMITS OF DEMOLITION SHALL BE MARKED IN THE FIELD PRIOR TO CONSTRUCTION.
4. REFER TO CONSTRUCTION SEQUENCE ON CIVIL SHEETS.
5. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF THESE UTILITIES DURING THE CONSTRUCTION OF THE PROJECT WITHOUT ANY ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR SHALL DEMOLISH AND REMOVE ITEMS LABELED "TO BE REMOVED" AND DISPOSE OF THEM OFFSITE IN A LAWFUL MANNER.
7. TREE/SILT PROTECTION FENCE SHALL BE INSTALLED PRIOR TO START OF DEMOLITION.
8. THROUGHOUT THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES AT THE PARK ENTRANCE TO PROTECT THE PUBLIC AND KEEP PEDESTRIANS OUT OF THE CURRENT PORTION OF THE WORK.
9. CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE DAMAGE TO EXISTING TREES AND VEGETATION ALONG CONSTRUCTION ACCESS ROUTE. ANY DAMAGE OUTSIDE APPROVED CLEARING LIMITS SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR. ACTUAL CLEARING LIMITS WILL BE NEGOTIATED AT THE PRE-CONSTRUCTION MEETING AND AT THE TIME OF TRAIL FLAGGING AND ADHERED TO DURING THE PROJECT.

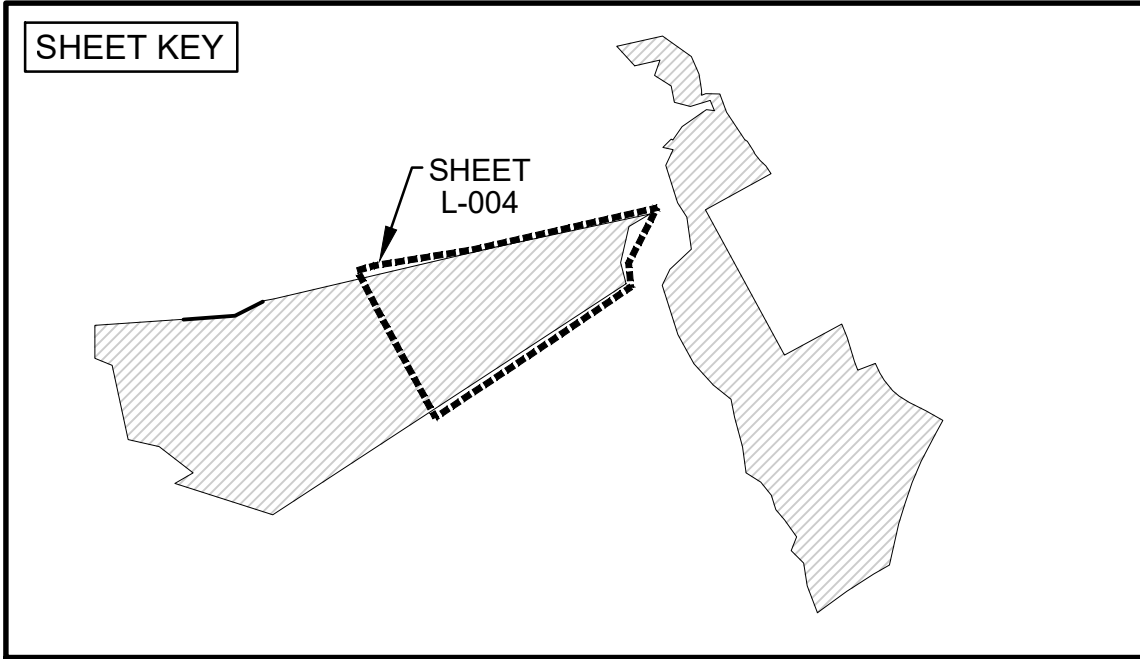
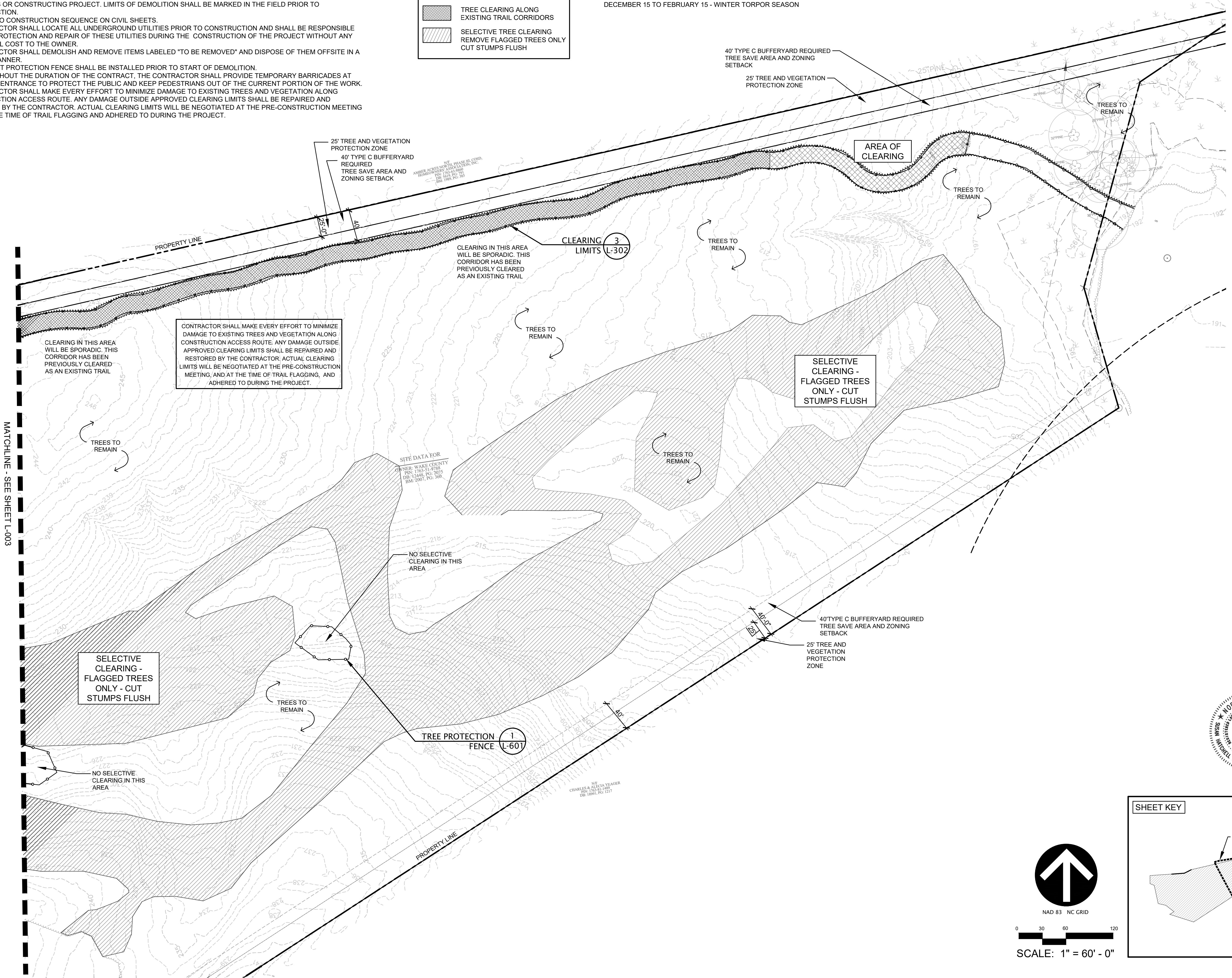
LEGEND:

TREE CLEARING

TREE CLEARING ALONG EXISTING TRAIL CORRIDORS

SELECTIVE TREE CLEARING REMOVE FLAGGED TREES ONLY CUT STUMPS FLUSH

TREE CLEARING RESTRICTIONS FOR THE PROTECTION OF BATS:
AVOID TREE CLEARING THE FOLLOWING DATES:
MAY 15 TO JULY 15TH - BAT PUP SEASON
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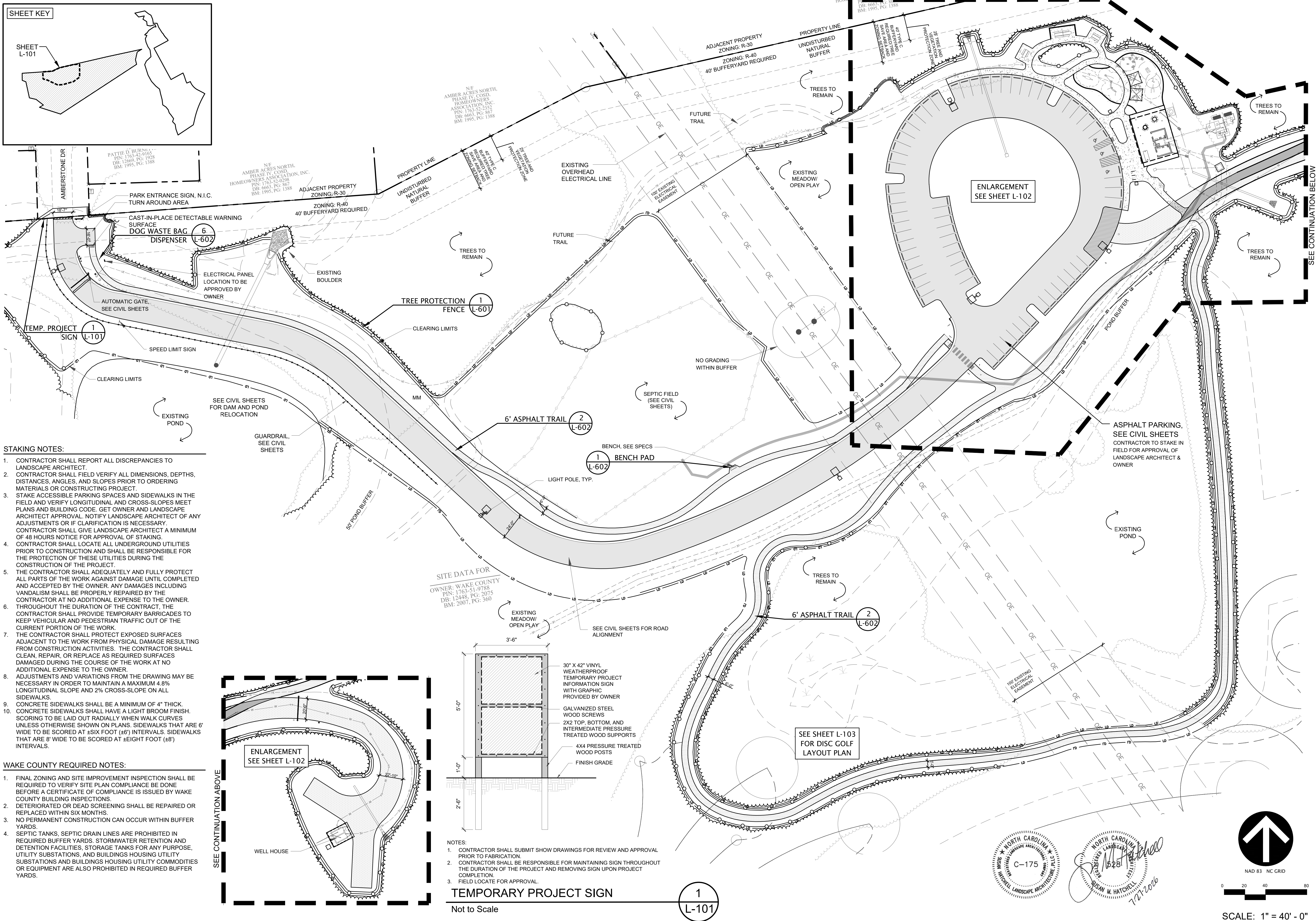
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WP DEMOLITION
PLAN EAST

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	
Date: 7/27/26	
L-004	

SHEET KEY

SHEET
L-101

STAKING NOTES:

1. CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT.
2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DEPTHS, DISTANCES, ANGLES, AND SLOPES PRIOR TO ORDERING MATERIALS OR CONSTRUCTING PROJECT.
3. STAKE ACCESSIBLE PARKING SPACES AND SIDEWALKS IN THE FIELD AND VERIFY LONGITUDINAL AND CROSS-SLOPES MEET PLANS AND BUILDING CODE. GET OWNER AND LANDSCAPE ARCHITECT APPROVAL. NOTIFY LANDSCAPE ARCHITECT OF ANY ADJUSTMENTS OR IF CLARIFICATION IS NECESSARY. CONTRACTOR SHALL GIVE LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS NOTICE FOR APPROVAL OF STAKING.
4. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES DURING THE CONSTRUCTION OF THE PROJECT.
5. THE CONTRACTOR SHALL ADEQUATELY AND FULLY PROTECT ALL PARTS OF THE WORK AGAINST DAMAGE UNTIL COMPLETED AND ACCEPTED BY THE OWNER. ANY DAMAGES INCLUDING VANDALISM SHALL BE PROPERLY REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
6. THROUGHOUT THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES TO KEEP VEHICULAR AND PEDESTRIAN TRAFFIC OUT OF THE CURRENT PORTION OF THE WORK.
7. THE CONTRACTOR SHALL PROTECT EXPOSED SURFACES ADJACENT TO THE WORK FROM PHYSICAL DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CLEAN, REPAIR, OR REPLACE AS REQUIRED SURFACES DAMAGED DURING THE COURSE OF THE WORK AT NO ADDITIONAL EXPENSE TO THE OWNER.
8. ADJUSTMENTS AND VARIATIONS FROM THE DRAWING MAY BE NECESSARY IN ORDER TO MAINTAIN A MAXIMUM 4.8% LONGITUDINAL SLOPE AND 2% CROSS-SLOPE ON ALL SIDEWALKS.
9. CONCRETE SIDEWALKS SHALL BE A MINIMUM OF 4" THICK. CONCRETE SIDEWALKS SHALL HAVE A LIGHT BROOM FINISH. SCORING TO BE LAID OUT RADially WHEN WALK CURVES UNLESS OTHERWISE SHOWN ON PLANS. SIDEWALKS THAT ARE 6' WIDE TO BE SCORED AT ±SIX FOOT (±6') INTERVALS. SIDEWALKS THAT ARE 8' WIDE TO BE SCORED AT ±EIGHT FOOT (±8') INTERVALS.

WAKE COUNTY REQUIRED NOTES:

1. FINAL ZONING AND SITE IMPROVEMENT INSPECTION SHALL BE REQUIRED TO VERIFY SITE PLAN COMPLIANCE BE DONE BEFORE A CERTIFICATE OF COMPLIANCE IS ISSUED BY WAKE COUNTY BUILDING INSPECTIONS.
2. DETERIORATED OR DEAD SCREENING SHALL BE REPAIRED OR REPLACED WITHIN SIX MONTHS.
3. NO PERMANENT CONSTRUCTION CAN OCCUR WITHIN BUFFER YARDS.
4. SEPTIC TANKS, SEPTIC DRAIN LINES ARE PROHIBITED IN REQUIRED BUFFER YARDS. STORMWATER RETENTION AND DETENTION FACILITIES, STORAGE TANKS FOR ANY PURPOSE, UTILITY SUBSTATIONS, AND BUILDINGS HOUSING UTILITY SUBSTATIONS AND BUILDINGS HOUSING UTILITY COMMODITIES OR EQUIPMENT ARE ALSO PROHIBITED IN REQUIRED BUFFER YARDS.

NOTES:

1. CONTRACTOR SHALL SUBMIT SHOW DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SIGN THROUGHOUT THE DURATION OF THE PROJECT AND REMOVING SIGN UPON PROJECT COMPLETION.
3. FIELD LOCATE FOR APPROVAL.

TEMPORARY PROJECT SIGN

Not to Scale

1

L-101

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LAYOUT PLANLAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

Date: 7/27/26

L-101

PIN: 1795
DB: 6663, PG: 86/
BM: 1995, PG: 1388

ADJACENT PROPERTY
ZONING: R-30
40' BUFFERYARD REQUIRED

UNDISTURBED
NATURAL
BUFFER

PROPERTY LINE

TREES TO REMAIN

8 TIMBER EDGE AT
L-603 PICNIC PAD

(1) 8' PICNIC TABLE
AND (1) 8' ADA PICNIC
TABLE, SEE SPECS

4" THICK CONCRETE
L-602 SIDEWALK

(1) 8' STANDARD
PICNIC TABLE,
SEE SPECS

SEE SHEET L-201 FOR
PLAYGROUND EQUIPMENT

TREE PROTECTION
L-601 FENCE

CLEARING LIMITS
8" CONCRETE EDGING, TYP.

PLAYGROUND WITH
POURED IN PLACE
SURFACING

CISTERN, SEE CIVIL
SHEETS

TREES TO REMAIN

12 ACCESSIBLE
L-602 PAVEMENT MARKINGS
AND SIGNS

SCM, SEE CIVIL
SHEETS

RESTROOM/SHELTER

ACCESSIBLE
PARKING SIGNS (3)

LIGHT POLE
BIKE
RACK (3) L-603

GRILL,
SEE SPECS
TRASH AND
RECYCLING
RECEPTACLES,
SEE SPECS

TRANSFORMER

8' ASPHALT TRAIL
L-602 HEAVY DUTY ASPHALT
LESS THAN 4.75% MAX. SLOPE

DOUBLE PARK
GATE L-603

EMERGENCY
KNOX BOX L-603

GRAVEL ACCESS DRIVE,
SEE CIVIL SHEETS

FIRE ACCESS &
TURNAROUND,
SEE CIVIL SHEETS

WELL HOUSE
WELL, SEE CIVIL
SHEETS

5 4" THICK CONCRETE
L-602 SIDEWALK

SEE COVER FOR PARKING
REQUIREMENTS AND
CALCULATIONS

"DO NOT ENTER, WRONG WAY"
AND "FIRE LANE NO PARKING"
SIGNS

STRIPED FOOD
TRUCK PARKING

ELECT.
PEDESTAL, SEE
ELECT. SHEETS

8 SPACES

6' ASPHALT TRAIL
L-602 LESS THAN 4.75%
MAX. SLOPE

PEDESTRIAN
CROSSING SIGN
CURB & GUTTER, RAMP AND
DETECTABLE MAT, SEE CIVIL SHEETS

CROSSWALK
L-602

PEDESTRIAN
CROSSING SIGN

BEGIN TRAIL

DOG WASTE BAG
DISPENSER L-602

POND BUFFER

COLLAPSIBLE
L-603 BOLLARD

SEE CIVIL SHEETS FOR ROAD
ALIGNMENT

TRAIL TO 18-HOLE DISC GOLF
COURSE

LEGEND - SIGNAGE TYPES:



NO PARKING FIRE LANE SIGN
(R7-200) 18" X 24"



STOP SIGN
(R1-1) 30" X 30"



15 MPH SPEED LIMIT SIGN
(R2-1) 18" X 24"



DO NOT ENTER - WRONG WAY
(K2-0675) 18" X 24"



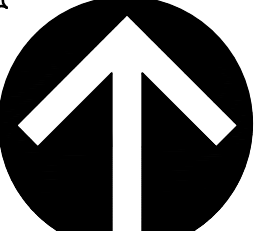
PEDESTRIAN CROSSING SIGN
(W11-2) 24" X 24"



ADA ACCESSIBLE PARKING - STANDARD
(R7-8A) 12" X 18" AND (R7-8D) 9" X 12"



ADA ACCESSIBLE PARKING - VAN
(R7-8P) 6" X 12"

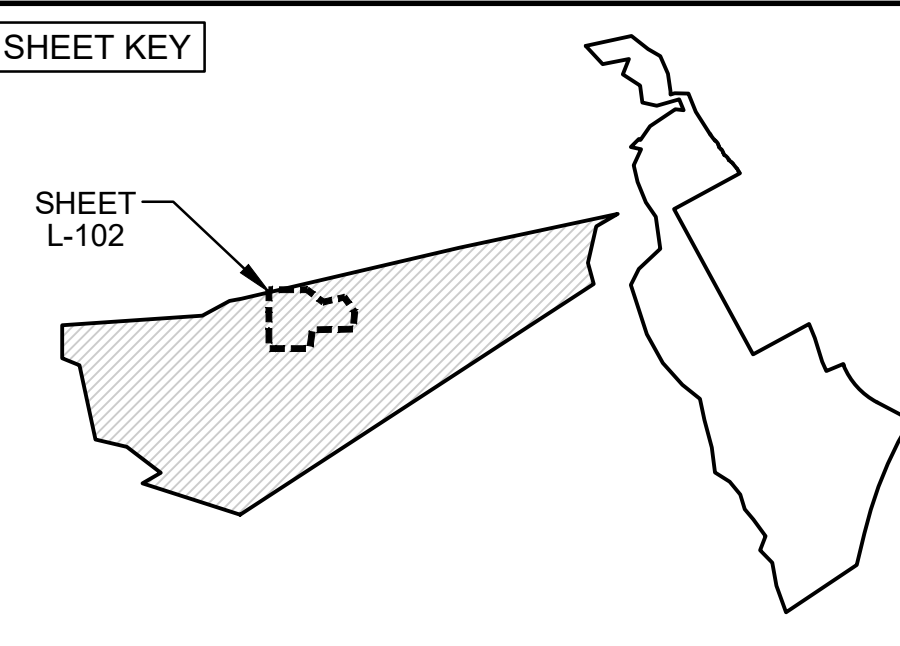


NAD 83 NC GRID

0 10 20 40
SCALE: 1" = 20' - 0"

SHEET KEY

SHEET
L-102



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WP SITE LAYOUT
PLAN
ENLARGEMENT

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

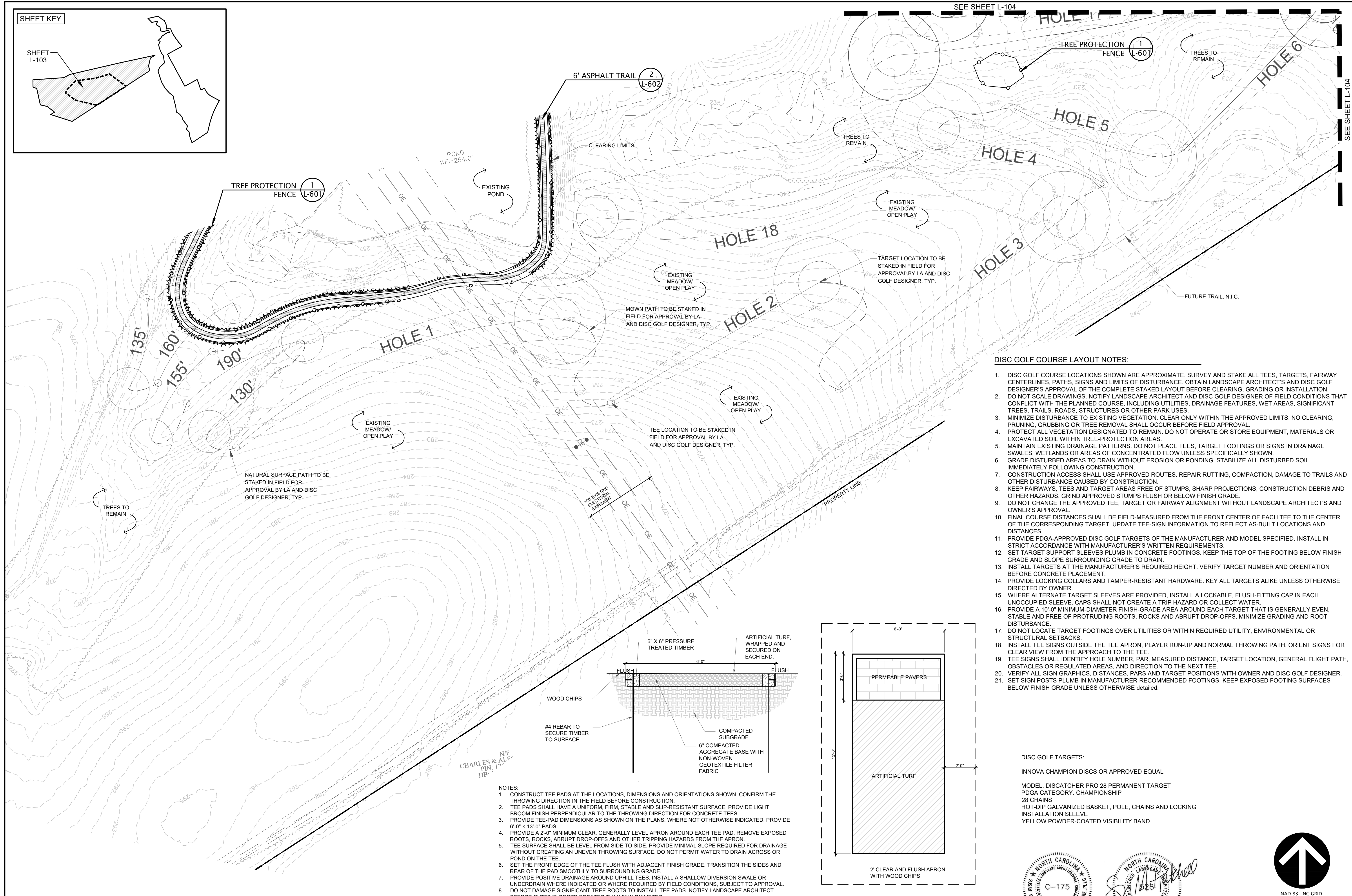
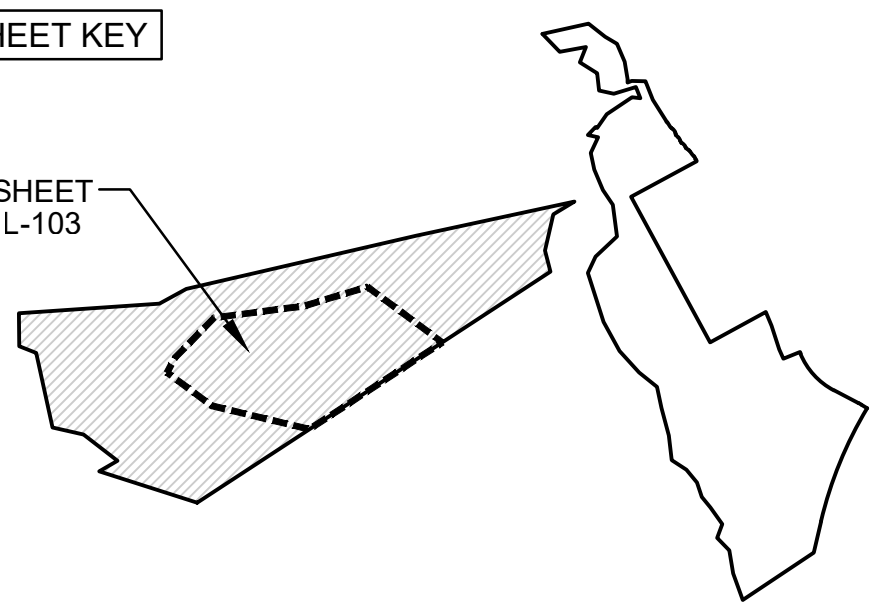
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Date: 7/27/26

L-102

SHEET KEY

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L-103



DISC GOLF COURSE LAYOUT NOTES:

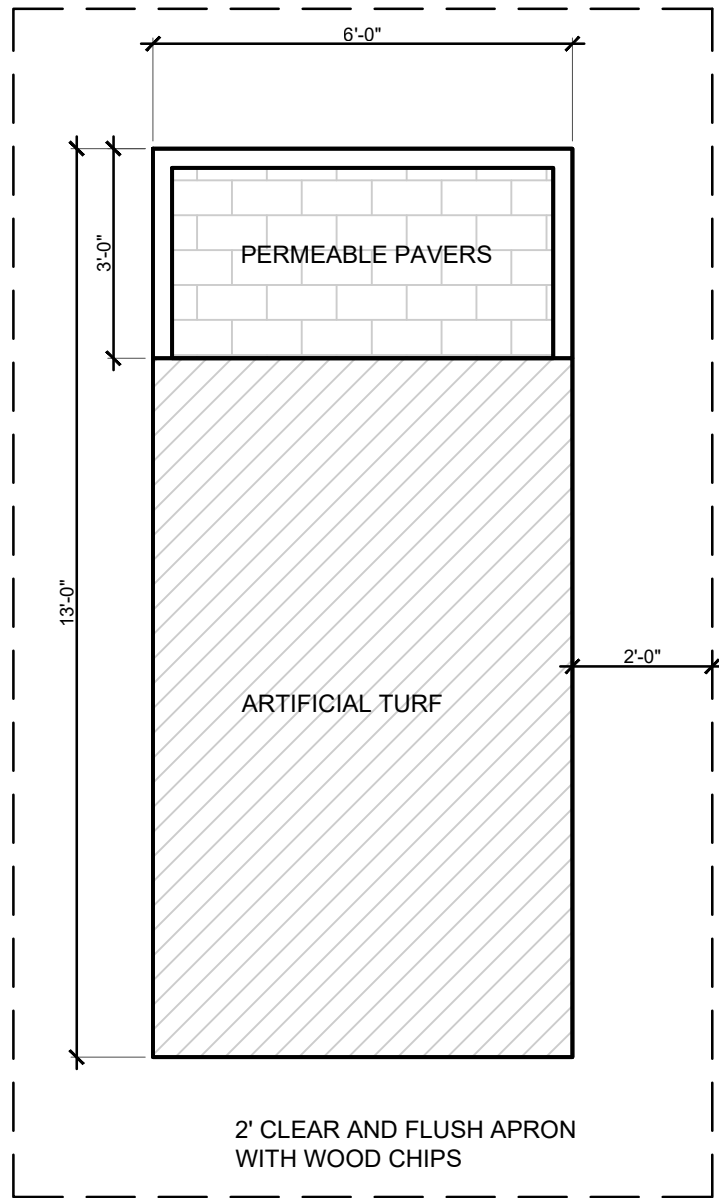
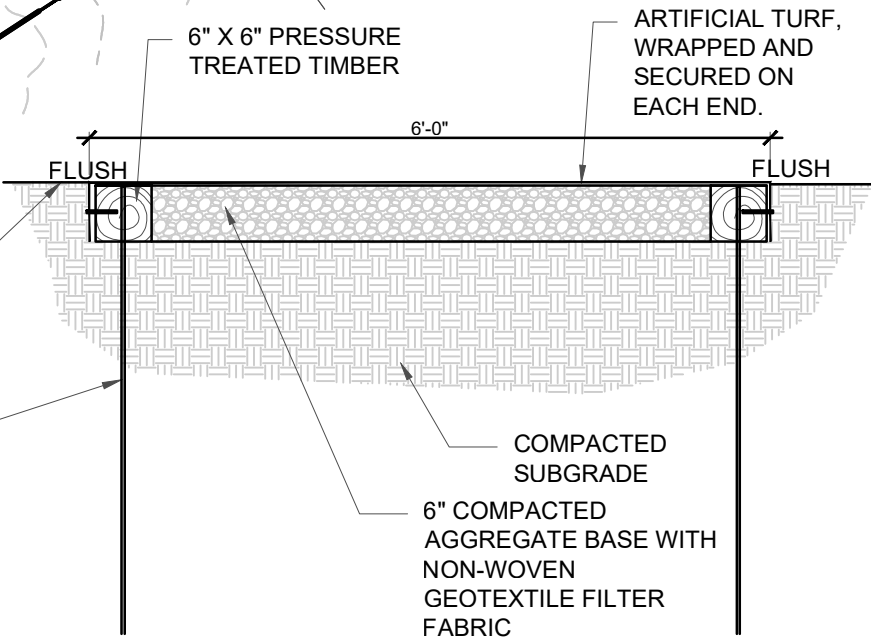
1. DISC GOLF COURSE LOCATIONS SHOWN ARE APPROXIMATE. SURVEY AND STAKE ALL TEES, TARGETS, FAIRWAY CENTERLINES, PATHS, SIGNS AND LIMITS OF DISTURBANCE. OBTAIN LANDSCAPE ARCHITECT'S AND DISC GOLF DESIGNER'S APPROVAL OF THE COMPLETE STAKED LAYOUT BEFORE CLEARING, GRADING OR INSTALLATION. DO NOT SCALE DRAWINGS. NOTIFY LANDSCAPE ARCHITECT AND DISC GOLF DESIGNER OF FIELD CONDITIONS THAT CONFLICT WITH THE PLANNED COURSE, INCLUDING UTILITIES, DRAINAGE FEATURES, WET AREAS, SIGNIFICANT TREES, TRAILS, ROADS, STRUCTURES OR OTHER PARK USES.
2. MINIMIZE DISTURBANCE TO EXISTING VEGETATION. CLEAR ONLY WITHIN THE APPROVED LIMITS. NO CLEARING, PRUNING, GRUBBING OR TREE REMOVAL SHALL OCCUR BEFORE FIELD APPROVAL.
3. PROTECT ALL VEGETATION DESIGNATED TO REMAIN. DO NOT OPERATE OR STORE EQUIPMENT, MATERIALS OR EXCAVATED SOIL WITHIN TREE-PROTECTION AREAS.
4. MAINTAIN EXISTING DRAINAGE PATTERNS. DO NOT PLACE TEES, TARGET FOOTINGS OR SIGNS IN DRAINAGE SWALES, WETLANDS OR AREAS OF CONCENTRATED FLOW UNLESS SPECIFICALLY SHOWN.
5. GRADE DISTURBED AREAS TO DRAIN WITHOUT EROSION OR PONDING. STABILIZE ALL DISTURBED SOIL IMMEDIATELY FOLLOWING CONSTRUCTION.
6. CONSTRUCTION ACCESS SHALL USE APPROVED ROUTES. REPAIR RUTTING, COMPACTION, DAMAGE TO TRAILS AND OTHER DISTURBANCE CAUSED BY CONSTRUCTION.
7. KEEP FAIRWAYS, TEES AND TARGET AREAS FREE OF STUMPS, SHARP PROJECTIONS, CONSTRUCTION DEBRIS AND OTHER HAZARDS. GRIND APPROVED STUMPS FLUSH OR BELOW FINISH GRADE.
8. DO NOT CHANGE THE APPROVED TEE, TARGET OR FAIRWAY ALIGNMENT WITHOUT LANDSCAPE ARCHITECT'S AND OWNER'S APPROVAL.
9. FINAL COURSE DISTANCES SHALL BE FIELD-MEASURED FROM THE FRONT CENTER OF EACH TEE TO THE CENTER OF THE CORRESPONDING TARGET. UPDATE TEE-SIGN INFORMATION TO REFLECT AS-BUILT LOCATIONS AND DISTANCES.
10. PROVIDE PDGA-APPROVED DISC GOLF TARGETS OF THE MANUFACTURER AND MODEL SPECIFIED. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN REQUIREMENTS.
11. SET TARGET SUPPORT SLEEVES PLUMB IN CONCRETE FOOTINGS. KEEP THE TOP OF THE FOOTING BELOW FINISH GRADE AND SLOPE SURROUNDING GRADE TO DRAIN.
12. INSTALL TARGETS AT THE MANUFACTURER'S REQUIRED HEIGHT. VERIFY TARGET NUMBER AND ORIENTATION BEFORE CONCRETE PLACEMENT.
13. PROVIDE LOCKING COLLARS AND TAMPER-RESISTANT HARDWARE. KEY ALL TARGETS ALIKE UNLESS OTHERWISE DIRECTED BY OWNER.
14. WHERE ALTERNATE TARGET SLEEVES ARE PROVIDED, INSTALL A LOCKABLE, FLUSH-FITTING CAP IN EACH UNOCCUPIED SLEEVE. CAPS SHALL NOT CREATE A TRIP HAZARD OR COLLECT WATER.
15. PROVIDE A 10'-0" MINIMUM-DIAMETER FINISH-GRADE AREA AROUND EACH TARGET THAT IS GENERALLY EVEN, STABLE AND FREE OF PROTRUDING ROOTS, ROCKS AND ABRUPT DROP-OFFS. MINIMIZE GRADING AND ROOT DISTURBANCE.
16. DO NOT LOCATE TARGET FOOTINGS OVER UTILITIES OR WITHIN REQUIRED UTILITY, ENVIRONMENTAL OR STRUCTURAL SETBACKS.
17. INSTALL TEE SIGNS OUTSIDE THE TEE APRON, PLAYER RUN-UP AND NORMAL THROWING PATH. ORIENT SIGNS FOR CLEAR VIEW FROM THE APPROACH TO THE TEE.
18. TEE SIGNS SHALL IDENTIFY HOLE NUMBER, PAR, MEASURED DISTANCE, TARGET LOCATION, GENERAL FLIGHT PATH, OBSTACLES OR REGULATED AREAS, AND DIRECTION TO THE NEXT TEE.
19. VERIFY ALL SIGN GRAPHICS, DISTANCES, PARS AND TARGET POSITIONS WITH OWNER AND DISC GOLF DESIGNER.
20. SET SIGN POSTS PLUMB IN MANUFACTURER-RECOMMENDED FOOTINGS. KEEP EXPOSED FOOTING SURFACES BELOW FINISH GRADE UNLESS OTHERWISE detailed.

DISC GOLF TARGETS:

INNOVA CHAMPION DISCS OR APPROVED EQUAL

MODEL: DISCATCHER PRO 28 PERMANENT TARGET
PDGA CATEGORY: CHAMPIONSHIP

28 CHAINS
HOT-DIP GALVANIZED BASKET, POLE, CHAINS AND LOCKING
INSTALLATION SLEEVE
YELLOW POWDER-COATED VISIBILITY BAND



- NOTES:
1. CONSTRUCT TEE PADS AT THE LOCATIONS, DIMENSIONS AND ORIENTATIONS SHOWN. CONFIRM THE THROWING DIRECTION IN THE FIELD BEFORE CONSTRUCTION.
 2. TEE PADS SHALL HAVE A UNIFORM, FIRM, STABLE AND SLIP-RESISTANT SURFACE. PROVIDE LIGHT BROOM FINISH PERPENDICULAR TO THE THROWING DIRECTION FOR CONCRETE TEES.
 3. PROVIDE TEE-PAD DIMENSIONS AS SHOWN ON THE PLANS. WHERE NOT OTHERWISE INDICATED, PROVIDE 6'-0" x 13'-0" PADS.
 4. PROVIDE A 2'-0" MINIMUM CLEAR, GENERALLY LEVEL APRON AROUND EACH TEE PAD. REMOVE EXPOSED ROOTS, ROCKS, ABRUPT DROP-OFFS AND OTHER TRIPPING HAZARDS FROM THE APRON.
 5. TEE SURFACE SHALL BE LEVEL FROM SIDE TO SIDE. PROVIDE MINIMAL SLOPE REQUIRED FOR DRAINAGE WITHOUT CREATING AN UNEVEN THROWING SURFACE. DO NOT PERMIT WATER TO DRAIN ACROSS OR POND ON THE TEE.
 6. SET THE FRONT EDGE OF THE TEE FLUSH WITH ADJACENT FINISH GRADE. TRANSITION THE SIDES AND REAR OF THE PAD SMOOTHLY TO SURROUNDING GRADE.
 7. PROVIDE POSITIVE DRAINAGE AROUND UPHILL TEES. INSTALL A SHALLOW DIVERSION SWALE OR UNDERDRAIN WHERE INDICATED OR WHERE REQUIRED BY FIELD CONDITIONS, SUBJECT TO APPROVAL.
 8. DO NOT DAMAGE SIGNIFICANT TREE ROOTS TO INSTALL TEE PADS. NOTIFY LANDSCAPE ARCHITECT BEFORE CUTTING ROOTS GREATER THAN 2" IN DIAMETER.

DISC GOLF TEE

Not to Scale

1

L-103

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WP DISC GOLF
LAYOUT PLAN

LAKE MYRA COUNTY PARK
Wake County, NC

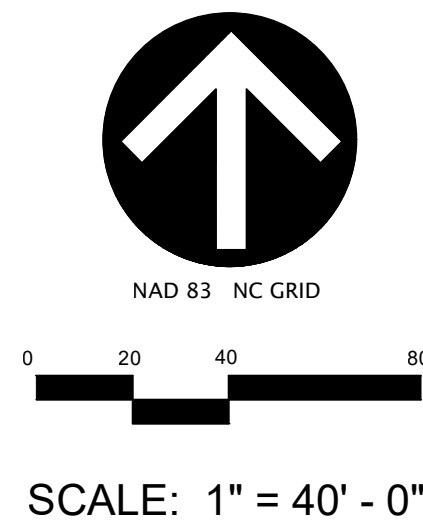
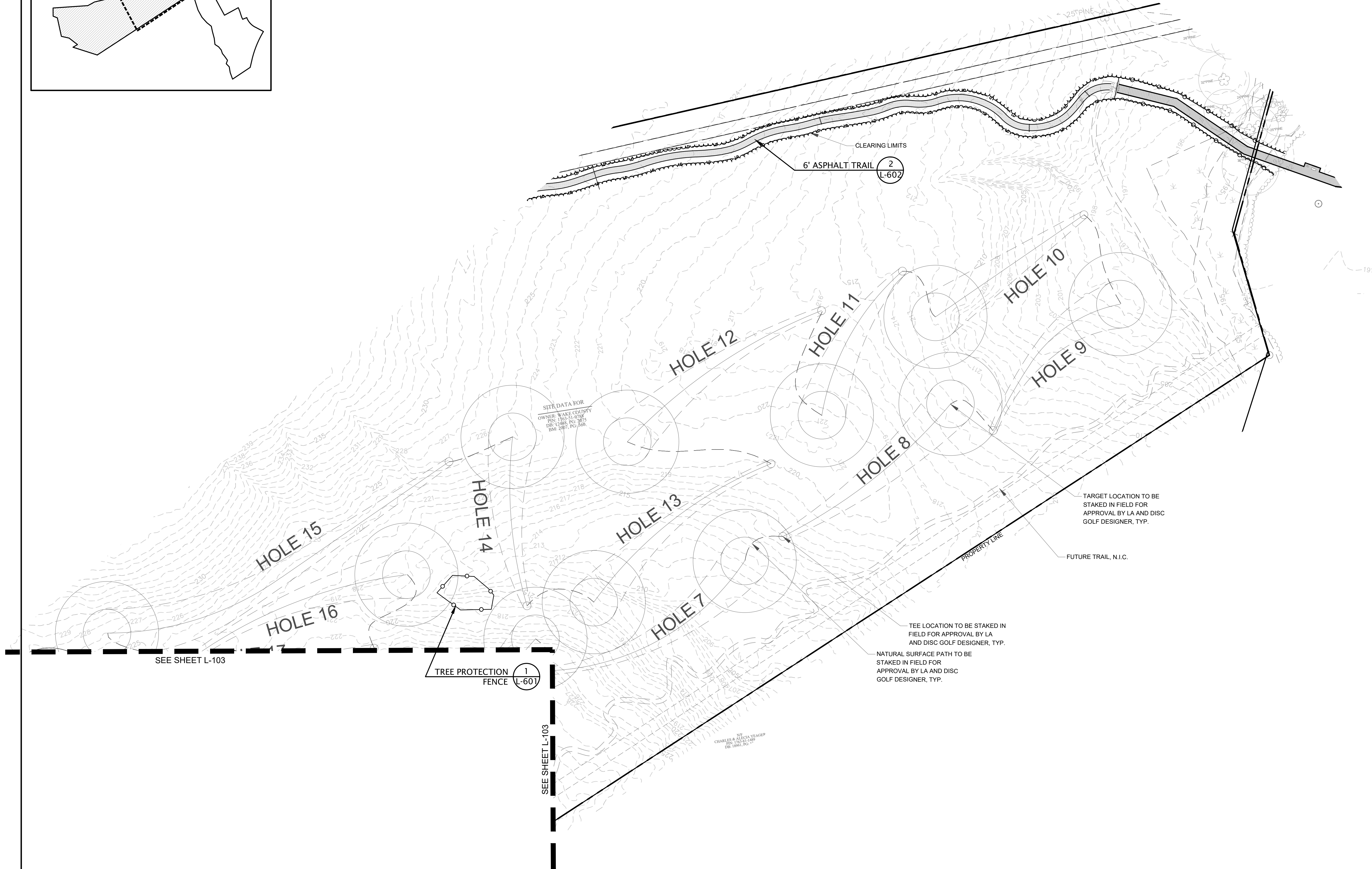
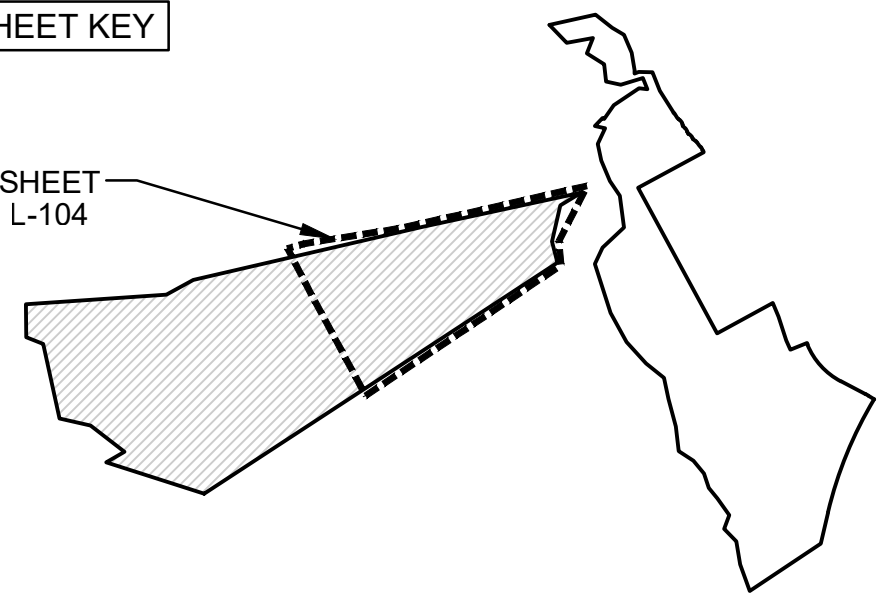
REVISIONS

Date: 7/27/26

L-103

SHEET KEY

SHEET
L-104



SCALE: 1" = 40' - 0"

WP DISC GOLF
COURSE LAYOUT
PLAN, CONT.

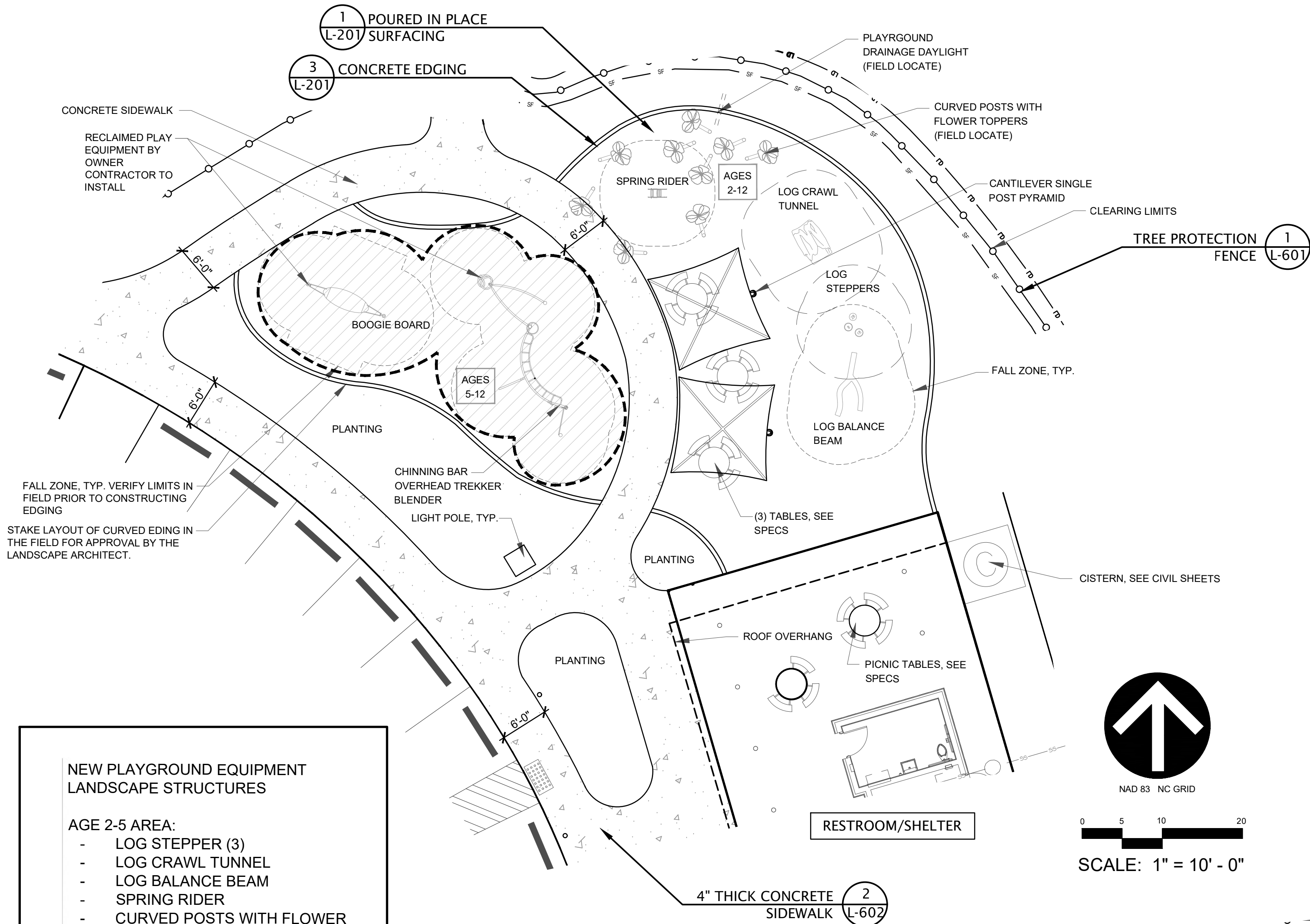
LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

Date: 7/27/26

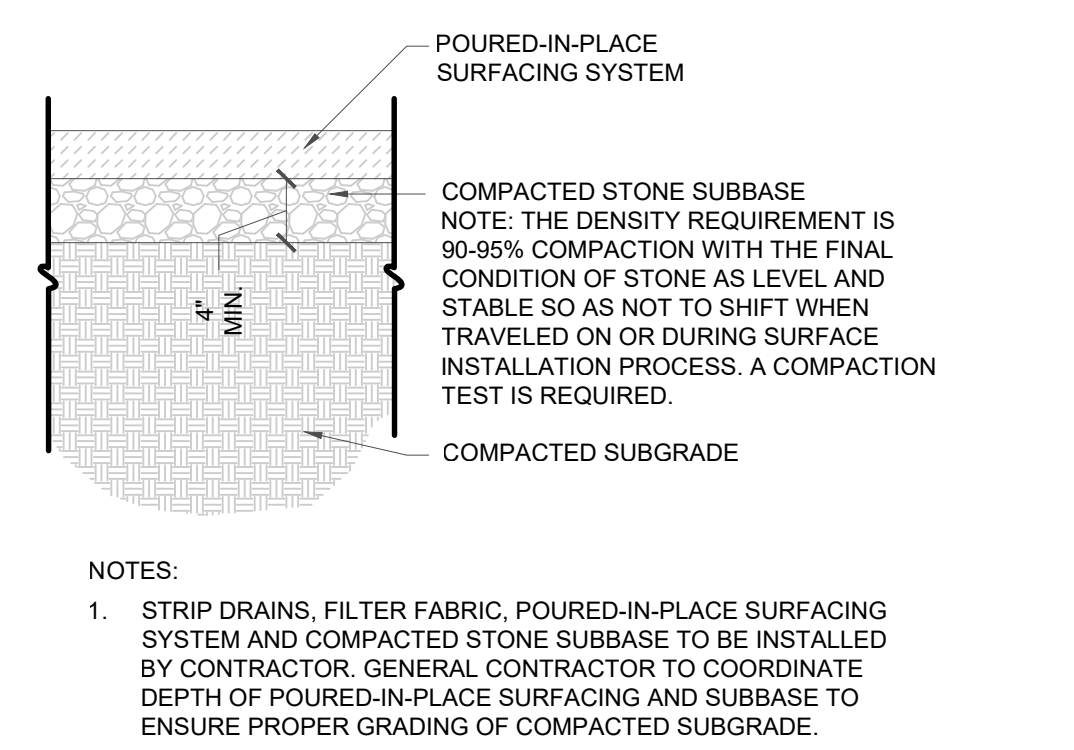
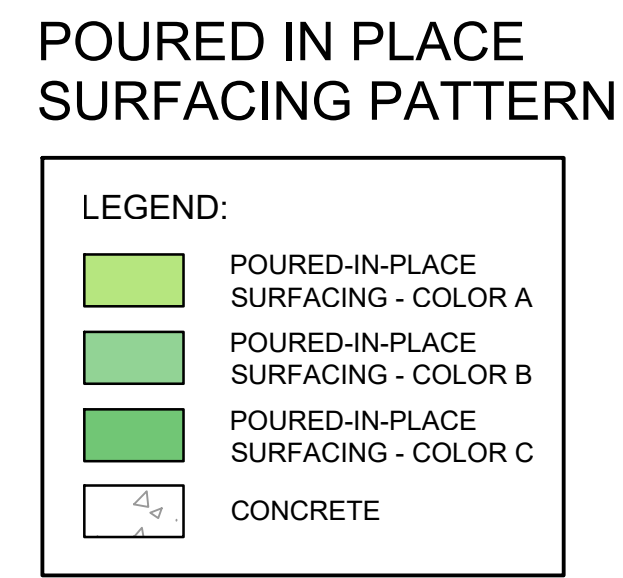
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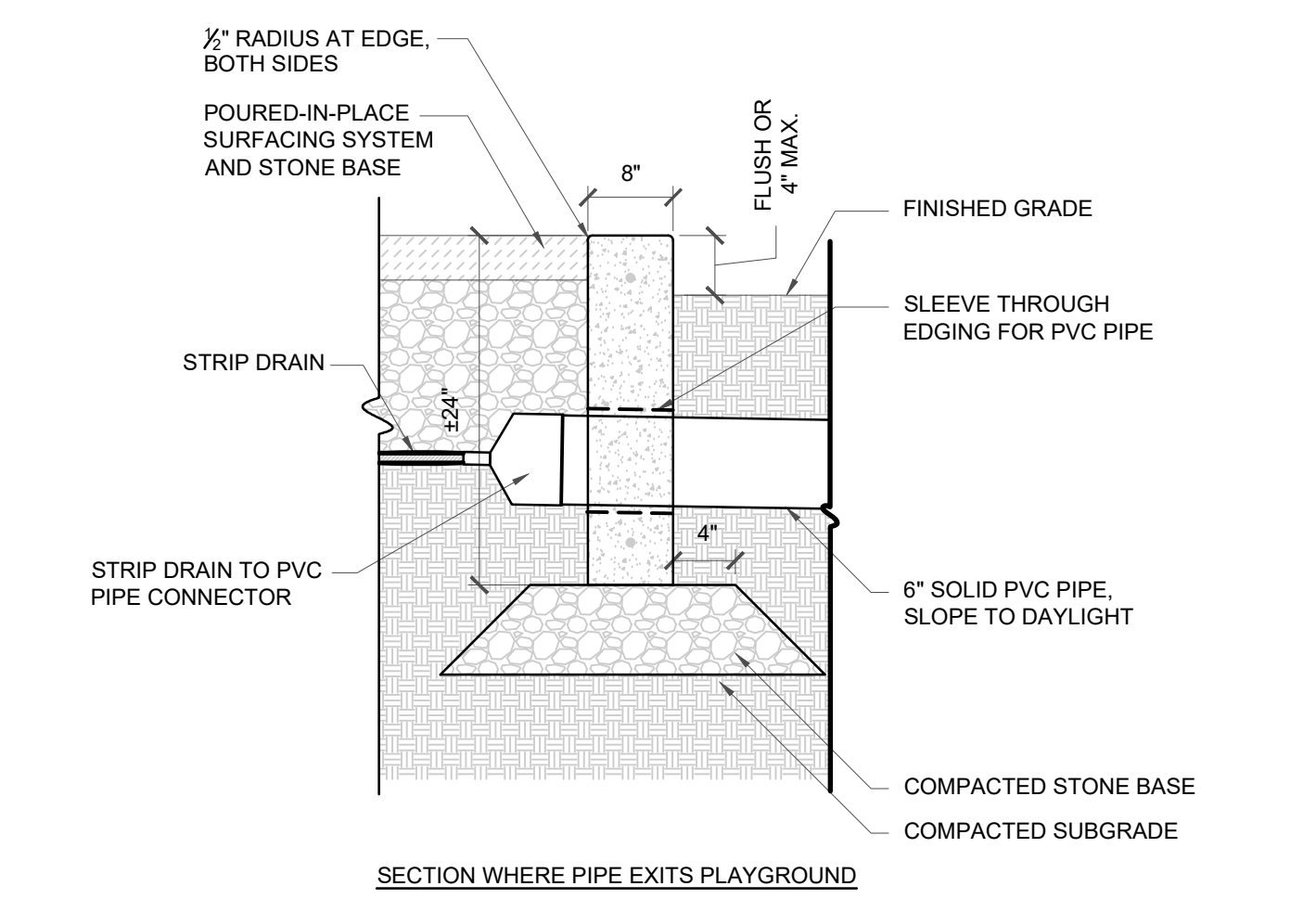
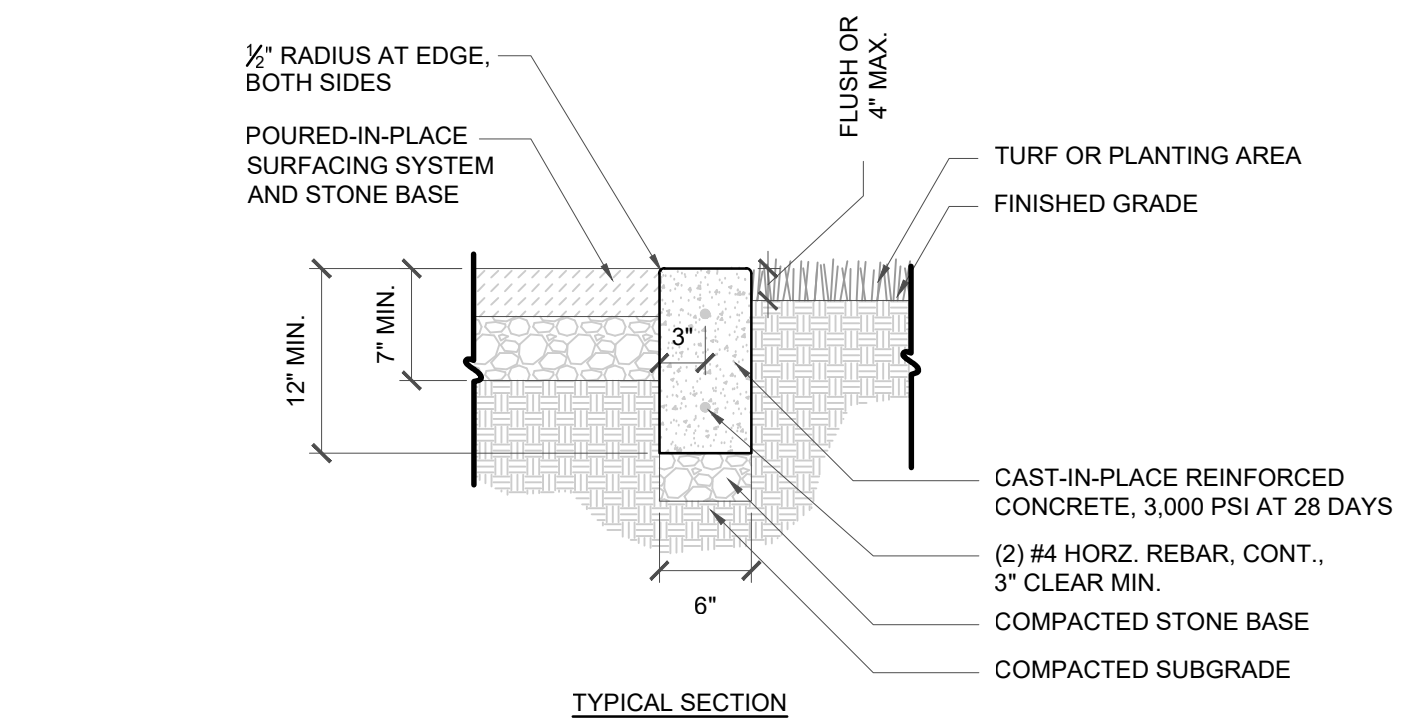
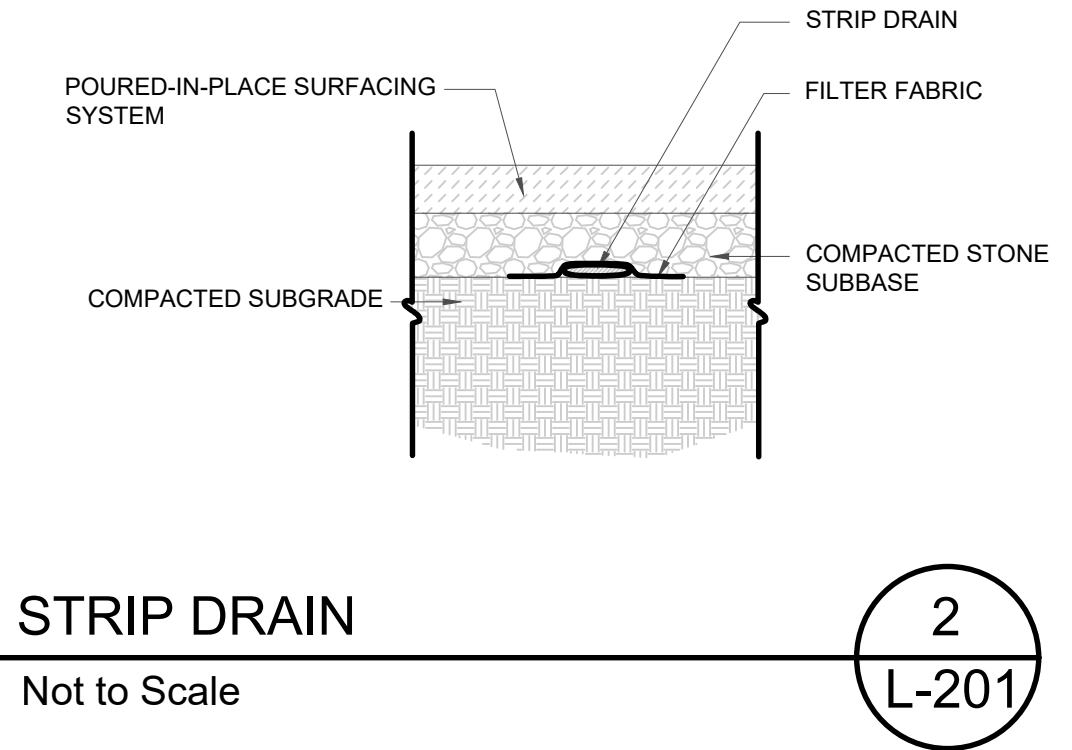


- NEW PLAYGROUND EQUIPMENT LANDSCAPE STRUCTURES**
- AGE 2-5 AREA:**
- LOG STEPPER (3)
 - LOG CRAWL TUNNEL
 - LOG BALANCE BEAM
 - SPRING RIDER
 - CURVED POSTS WITH FLOWER TOPPERS (9 - VARYING HEIGHTS)
- AGE 5-12 AREA (RECLAIMED PLAY EQUIPMENT):**
- CHINNING BAR, OVERHEAD TREKKER, BLENDER
 - BOOGIE BOARD
- SHADE UMBRELLAS:**
- SKYWAYS 12' X 12' CANTILEVER SINGLE POST PYRAMID W/10' ENTRANCE (3)

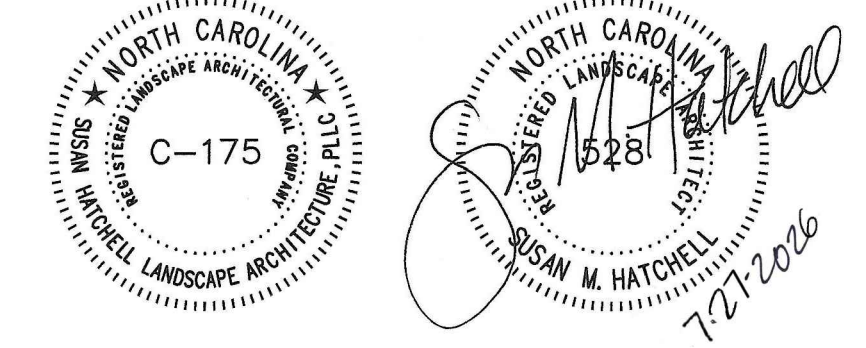
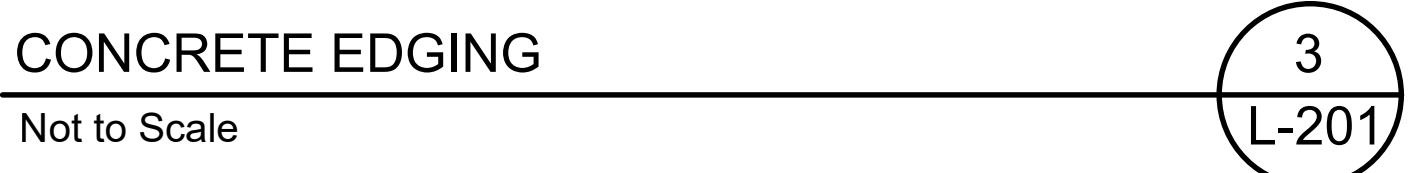
- STAKING NOTES:**
1. CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT.
 2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DEPTHS, DISTANCES, ANGLES AND SLOPES PRIOR TO ORDERING MATERIALS OR CONSTRUCTING PROJECT.
 3. ADJUSTMENTS AND VARIATIONS FROM THE DRAWING MAY BE NECESSARY IN ORDER TO MAINTAIN A MAXIMUM 4.99% SLOPE ON ALL WALKWAYS.
 4. STAKE WALKWAYS AND PLAYGROUND AREA IN THE FIELD FOR LANDSCAPE ARCHITECT'S APPROVAL. NOTIFY LANDSCAPE ARCHITECT OF ANY ADJUSTMENTS OR IF CLARIFICATION IS NECESSARY. CONTRACTOR SHALL GIVE LANDSCAPE ARCHITECT A MINIMUM OF 48 HOURS NOTICE FOR APPROVAL OF STAKING.
 5. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES DURING THE CONSTRUCTION OF THE PROJECT.
 6. THE CONTRACTOR SHALL ADEQUATELY AND FULLY PROTECT ALL PARTS OF THE WORK AGAINST DAMAGE UNTIL COMPLETED AND ACCEPTED BY THE OWNER. ANY DAMAGES SHALL BE PROPERLY REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
 7. THE CONTRACTOR SHALL PROTECT EXPOSED SURFACES ADJACENT TO THE WORK FROM PHYSICAL DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CLEAN, REPAIR, OR REPLACE, AS REQUIRED, SURFACES DAMAGED DURING THE COURSE OF THE WORK AT NO ADDITIONAL EXPENSE TO THE OWNER.
 8. CONCRETE SIDEWALKS SHALL BE A MIN. OF 4" THICK.
 9. SIDEWALKS SHALL HAVE A LIGHT BROOM FINISH, BE SCORED AT ± FIVE FOOT (5') INTERVALS AND BE LAID OUT RADIALLY WHEN WALK CURVES, UNLESS OTHERWISE SHOWN ON PLANS.



- PLAYGROUND NOTES:**
1. PLAYGROUND EQUIPMENT SHALL BE PURCHASED BY WAKE COUNTY AND DELIVERED TO THE JOB SITE.
 2. CONTRACTOR TO PROVIDE INSTALLATION OF EQUIPMENT AND SURFACING.
 3. PLAYGROUND EQUIPMENT INSTALLER SHALL BE A CERTIFIED INSTALLER FOR PLAYGROUND STRUCTURES EQUIPMENT AND POURED IN PLACE SURFACING.
 4. CONTRACTOR SHALL PERFORM INSPECTION AND TESTING BY PERSONNEL WITH CERTIFIED PLAYGROUND SAFETY INSPECTOR (CPSI) CERTIFICATION FOR EACH TYPE OF INSTALLED PLAYGROUND EQUIPMENT ACCORDING TO ASTM F1487.



- NOTES:**
1. GENERAL CONTRACTOR TO VERIFY DEPTH OF SUBGRADE, STRIP DRAIN AND CONCRETE EDGING WHERE 6" SOLID PVC PIPE EXITS PLAYGROUND.
 2. COORDINATION WILL BE NECESSARY TO PROVIDE PROPER PLAYGROUND DRAINAGE AND TO PROVIDE PROPER DEPTH FOR POURED-IN-PLACE SURFACING SYSTEM.
 3. TOP OF EDGING TO BE FLUSH WITH PROPOSED WALKS, SEEDED AREAS AND TOP OF PLAYGROUND SURFACING
 4. EDGING HEIGHT SHALL NOT EXCEED 4" MAXIMUM; CONTRACTOR TO BACKFILL AS NECESSARY TO PROVIDE A FLUSH CONDITION ON BOTH SIDES OF THE EDGING WHERE POSSIBLE, AND SHALL NOT EXCEED 4" ABOVE FINISH GRADE AT ANY LOCATION.



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PLAYGROUND ENLARGEMENT

LAKE MYRA COUNTY PARK
Wake County, NC

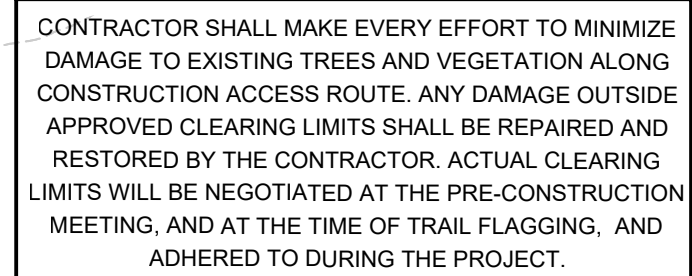
REVISIONS	
Date: 7/27/26	
L-201	

1. THE CENTERLINE OF THE TRAIL IS SHOWN ON THE PLANS. THE TRAIL WIDTH IS 6' OR 8' WITH A 2' SHOULDER ON EACH SIDE. DITCHES AND DRAINAGE PLANS ARE SHOWN ON EROSION CONTROL SHEETS.

3. MAXIMUM CROSS SLOPE ON TRAILS, LANDINGS, AND BOARDWALKS IS 2%.

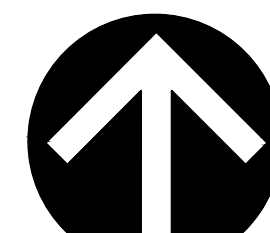
5. FINAL TRAIL ALIGNMENT INCLUDING LOCATIONS OF PIPE CROSSINGS TO BE DETERMINED IN THE FIELD USING MAXIMUM SLOPES OF FIELD CONDITIONS, AND AVOIDING MAJOR TREE REMOVAL, STEEP SLOPES AND ROCK OUTCROPS. THE CONTRACTOR SHALL LAYOUT AND FLAG THE TRAIL FOR REVIEW BY THE LANDSCAPE ARCHITECT AND THE OWNER.

TRAIL SECTION	SURFACE TYPE	WIDTH	APPROXIMATE LENGTH	# OF PIPE CROSSINGS	NOTES
#1	ASPHALT	6'	990 LF	0	
#2	ASPHALT	8'	2,340 LF	1	
#3	ASPHALT	6'	1,580 LF	0	DISC GOLF TRAIL



SEE SHEET L-103
FOR DISC GOLF
LAYOUT PLAN

— NATURAL SURFACE TRAIL
SEE SHEET L-103, DISC
GOLF LAYOUT PLAN



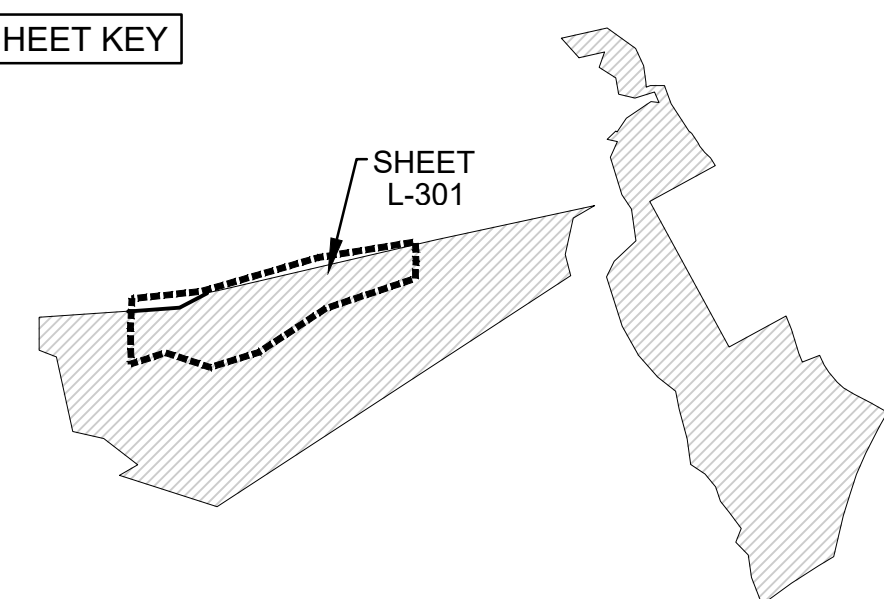
NAD 83 NC GRID



SCALE: 1" = 60' - 0"

SHEET
L-301

SHEET
L-301



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WP TRAILS PLAN

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

Date: 7/27/26

L-301

TRAIL LAYOUT:

1. THE CENTERLINE OF THE TRAIL IS SHOWN ON THE PLANS. THE TRAIL WIDTH IS 6' OR 8' WITH A 2' SHOULDER ON EACH SIDE. DITCHES AND DRAINAGE PLANS ARE SHOWN ON EROSION CONTROL SHEETS.
2. MAXIMUM LONGITUDINAL SLOPE ON LANDINGS IS 2%, MAXIMUM LONGITUDINAL SLOPE ON ALL TRAILS AND AT ALL TRAIL HEADS IS LESS THAN 5%.
3. MAXIMUM CROSS SLOPE ON TRAILS, LANDINGS, AND BOARDWALKS IS 2%.
4. LOW HANGING OBJECTS OR BRANCHES THAT ARE LOWER THAN 96 INCHES ABOVE THE TRAIL SURFACE ARE NOT ALLOWED. VERTICAL CLEARANCE OF THE TRAIL SHALL NOT BE LESS THAN 96".
5. FINAL TRAIL ALIGNMENT INCLUDING LOCATIONS OF PIPE CROSSINGS TO BE DETERMINED IN THE FIELD USING MAXIMUM SLOPES OF FIELD CONDITIONS, AND AVOIDING MAJOR TREE REMOVAL, STEEP SLOPES AND ROCK OUTCROPS. THE CONTRACTOR SHALL LAYOUT AND FLAG THE TRAIL FOR REVIEW BY THE LANDSCAPE ARCHITECT AND THE OWNER.
6. TIMBER EDGING SHALL BE INSTALLED AT DOWNHILL STEEP SECTIONS OF THE TRAIL, SEE DETAIL 2, SHEET L-302.

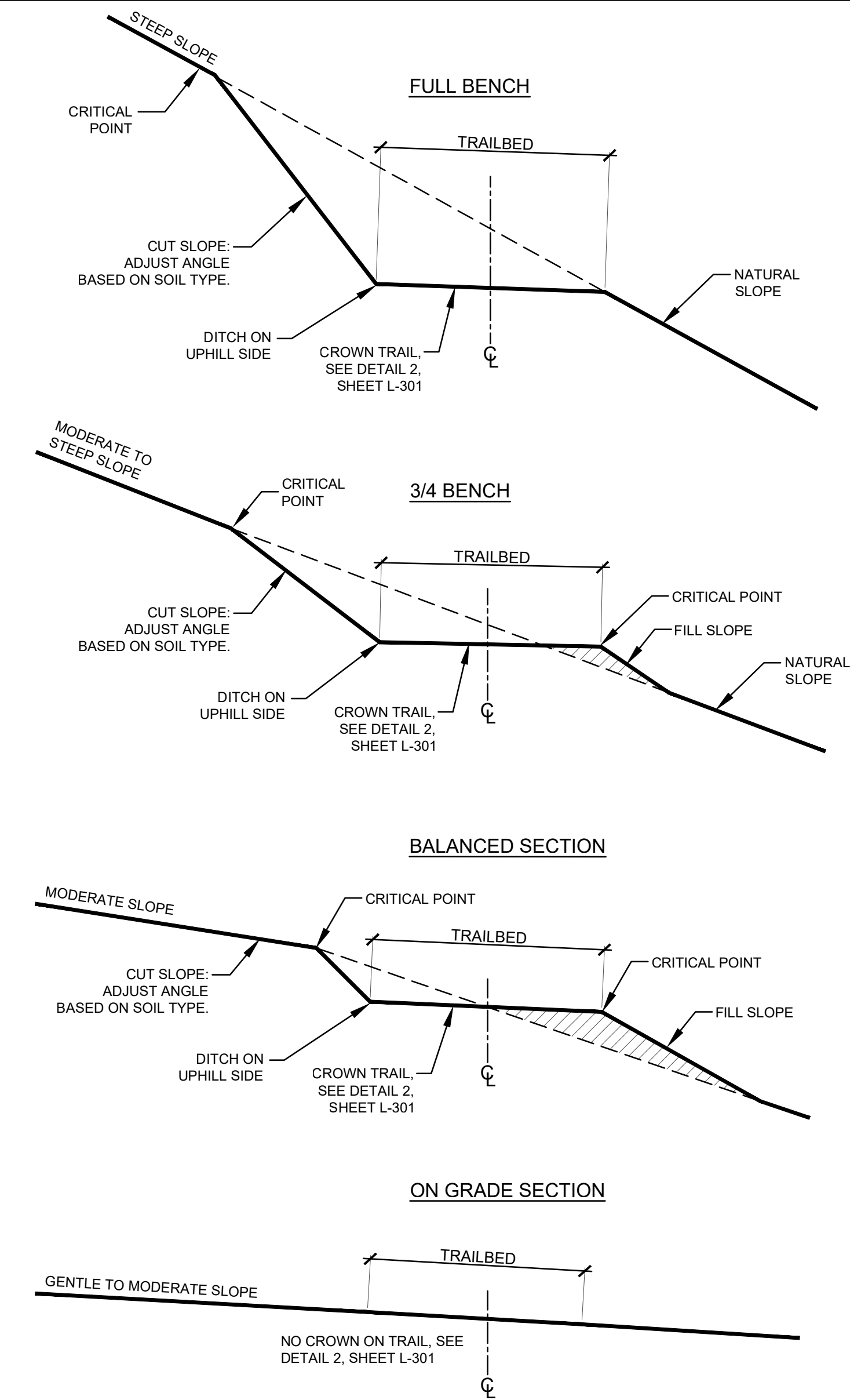
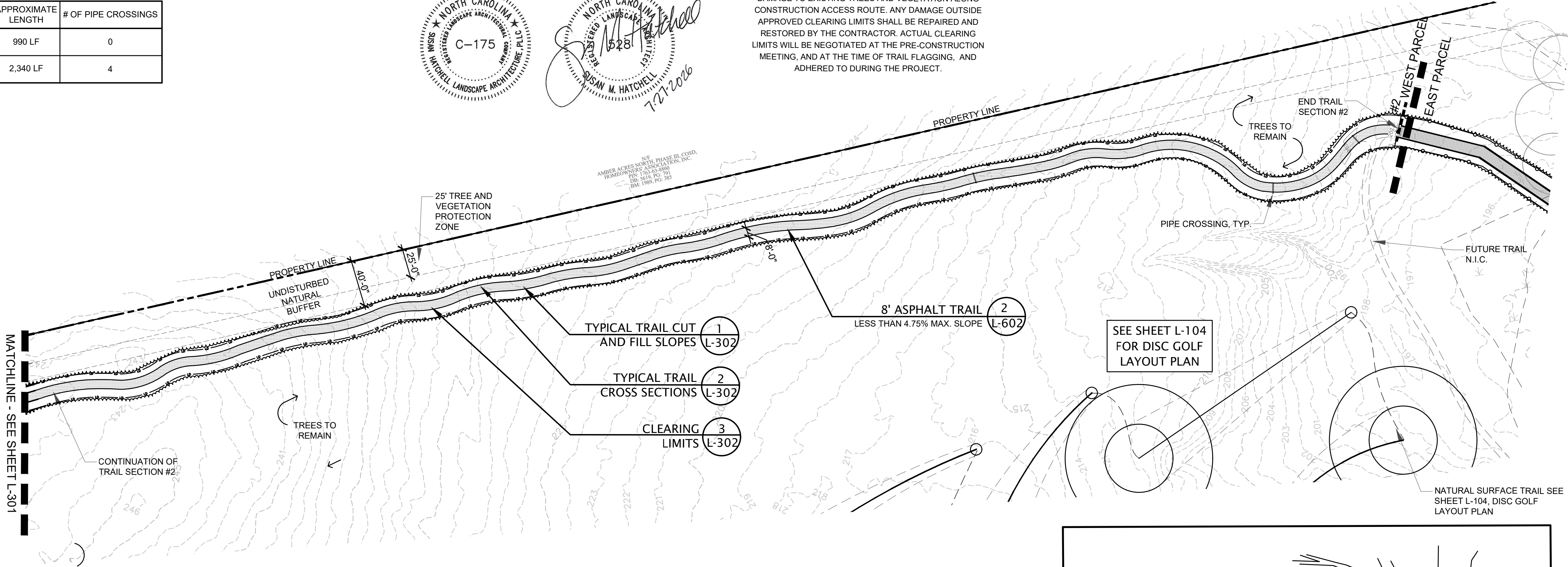
TRAIL SEGMENT CHART:

TRAIL SECTION	SURFACE TYPE	WIDTH	APPROXIMATE LENGTH	# OF PIPE CROSSINGS
#1	ASPHALT	6'	990 LF	0
#2	ASPHALT	8'	2,340 LF	4



AMBER ACCESSORY PHASE IN CONSTRUCTION BY 10/1/2026
7-27-2026

CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE DAMAGE TO EXISTING TREES AND VEGETATION ALONG CONSTRUCTION ACCESS ROUTE. ANY DAMAGE OUTSIDE APPROVED CLEARING LIMITS SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR. ACTUAL CLEARING LIMITS WILL BE NEGOTIATED AT THE PRE-CONSTRUCTION MEETING, AND AT THE TIME OF TRAIL FLAGGING, AND ADHERED TO DURING THE PROJECT.

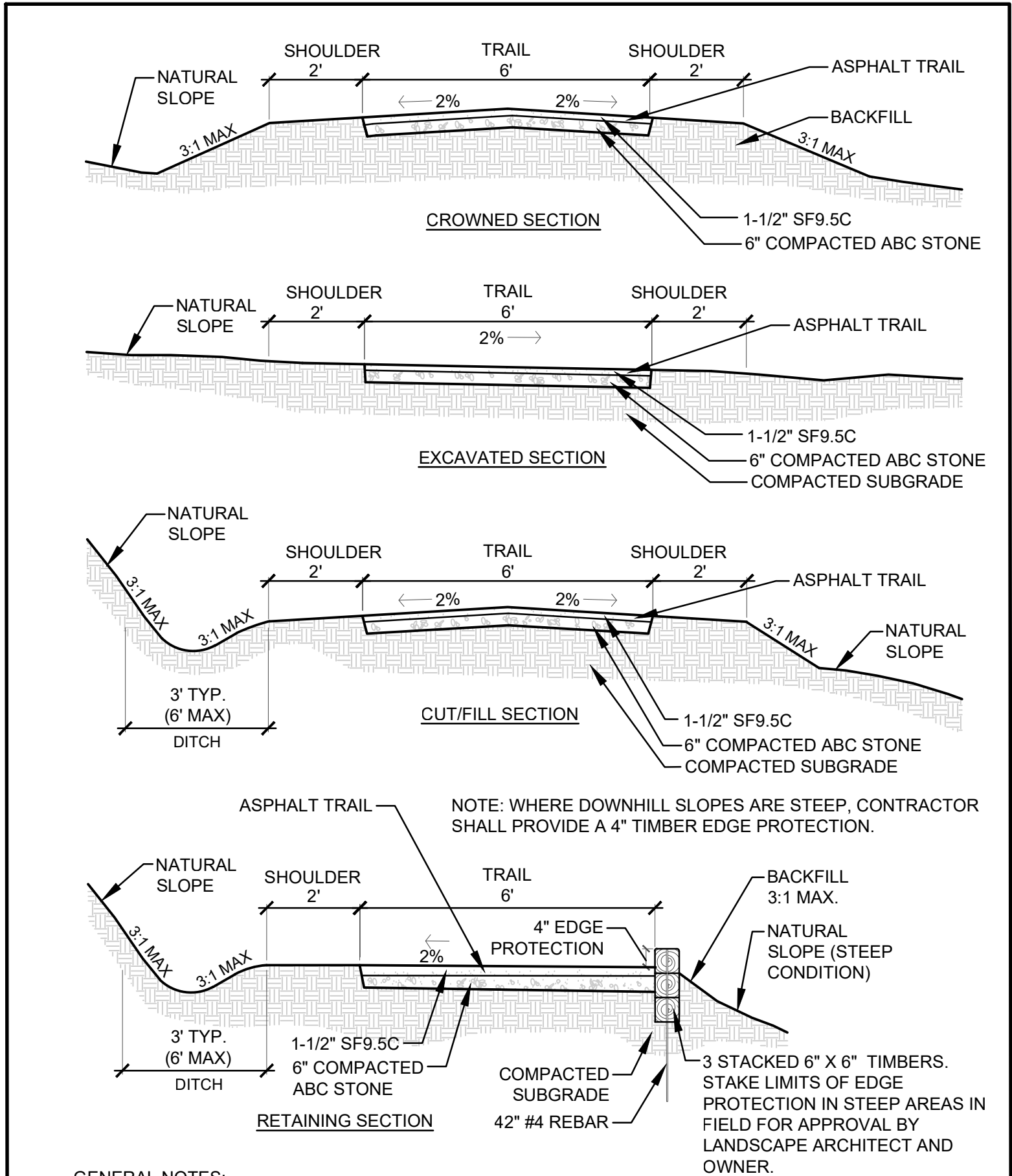


- NOTES:
1. USE 3/4 BENCH CUT WHEREVER POSSIBLE.
 2. IF NATIVE MATERIAL CONSISTS OF LARGE AMOUNTS OF TOPSOIL OR ORGANIC MATTER, IT SHOULD BE REMOVED AND SET ASIDE FOR LATER USE AS A COVER AND PLANTING SURFACE FOR EXPOSED SUBSOIL.
 3. MAINTAIN CROSS SLOPE SO THAT WATER RUNS ACROSS INSTEAD OF DOWN TRAIL. 2% MAX. CROSS SLOPE.
 4. SELECT TRAIL ALIGNMENT TO PROVIDE A ROLLING GRADE OF CRESTS AND DIPS IN ORDER TO MINIMIZE WATER FLOW ALONG TRAIL. SEE CIVIL SHEETS FOR DRAINAGE.
 5. REMOVE ANY SHARP OR LOOSE STONES.
 6. ROUND OFF AND COMPACT CRITICAL POINTS WHERE SIDE SLOPES MEET EXISTING GRADES IN ORDER TO MINIMIZE EROSION OF CUT AND FILL SLOPES.
 7. BROADCAST EXCESS CUT SOIL DOWNHILL, TO AVOID CREATING A BERM AT TRAIL EDGE. 6" DEPTH MAX. AVOID FILLING AT SENSITIVE VEGETATION.
 8. SEED OR MULCH TO STABILIZE CUT AND FILL AREAS.
 9. CUT/FILL SLOPES NOT TO EXCEED 3:1.

TYPICAL TRAIL CUT AND FILL SLOPES

Not to Scale

1
L-302



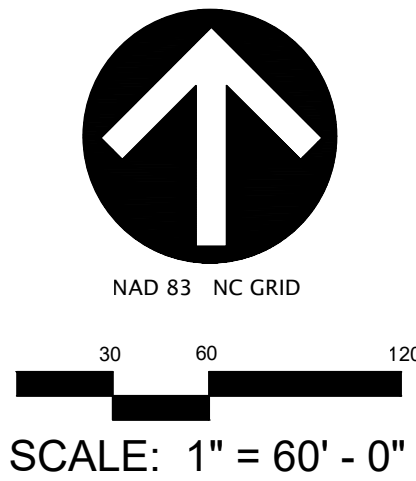
GENERAL NOTES:

1. ON-SITE TRAIL COORDINATION MEETING WILL BE HELD WITH OWNER AND LANDSCAPE ARCHITECT PRIOR TO TRAIL LAYOUT. CONTRACTOR SHALL STAKE CENTERLINE OF TRAIL FOR APPROVAL PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL ASSESS EXISTING SITE CONDITIONS TO DETERMINE WHICH TRAIL SECTION IS APPROPRIATE.
3. TRAIL CENTERLINE MAY BE ADJUSTED IN FIELD TO AVOID STEEP AREAS WHICH WOULD REQUIRE TIMBER EDGING.
4. A CUT/FILL SECTION WILL LIKELY BE USED FOR THE MAJORITY OF TRAIL CONSTRUCTION. REFER TO SHEET EROSION CONTROL SHEETS FOR PROPOSED DITCHES, BOARDWALKS AND PIPE CROSSINGS.
5. A CROWNED TRAIL SECTION SHOULD BE USED IN LOW LYING AREAS, AREAS WITH SHALLOW ROCK OR AROUND EXISTING LARGE TREES WHERE CUTTING IS NOT APPROPRIATE. ENSURE TRAIL DOES NOT DAM OR BLOCK EXISTING OR PROPOSED DRAINAGE PATTERNS.
6. FOR TYPICAL 10' BOARDWALK CROSSINGS, SEE STRUCTURAL SHEETS.

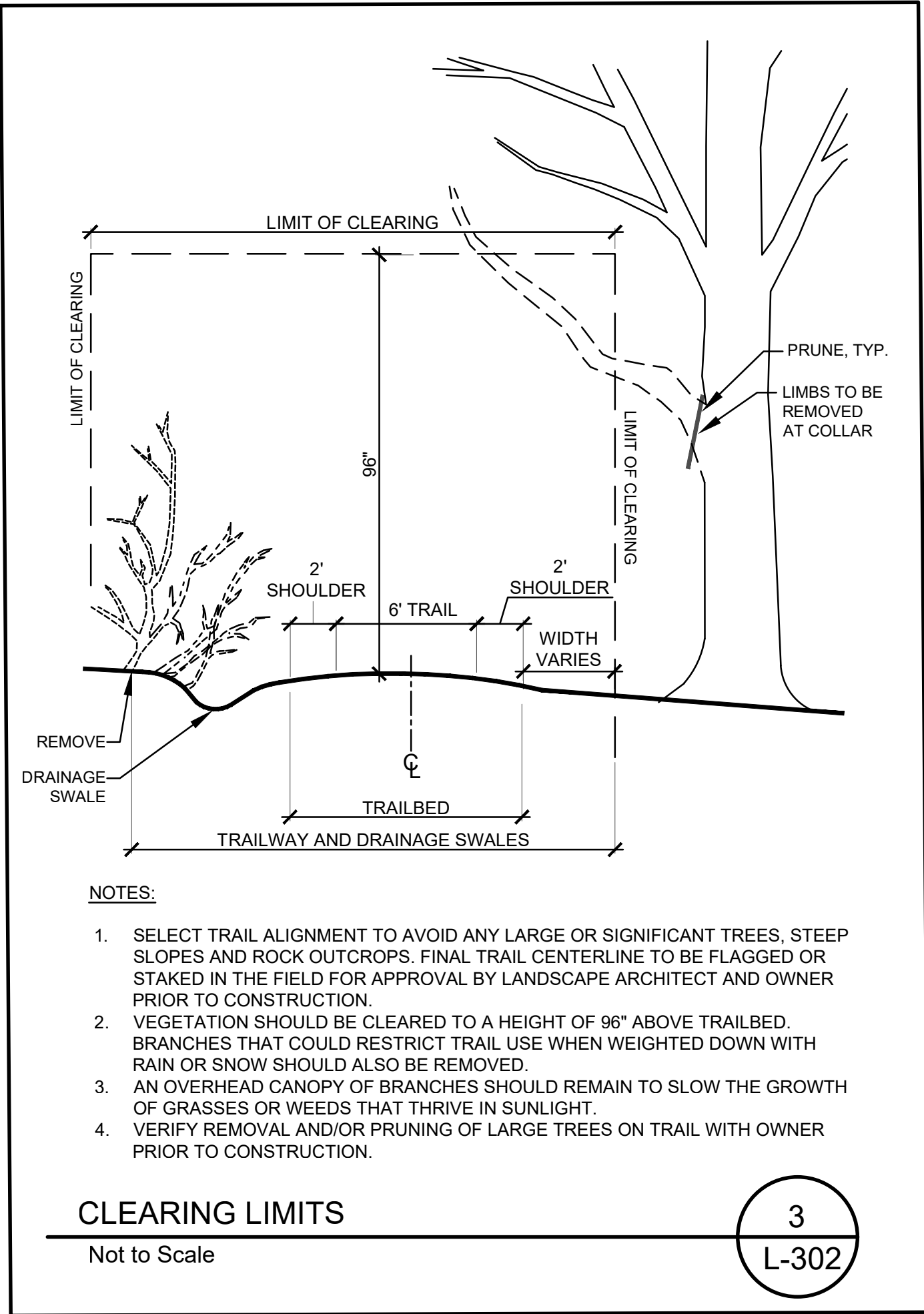
TYPICAL TRAIL CROSS SECTIONS

Not to Scale

2
L-302



SCALE: 1" = 60' - 0"



NOTES:

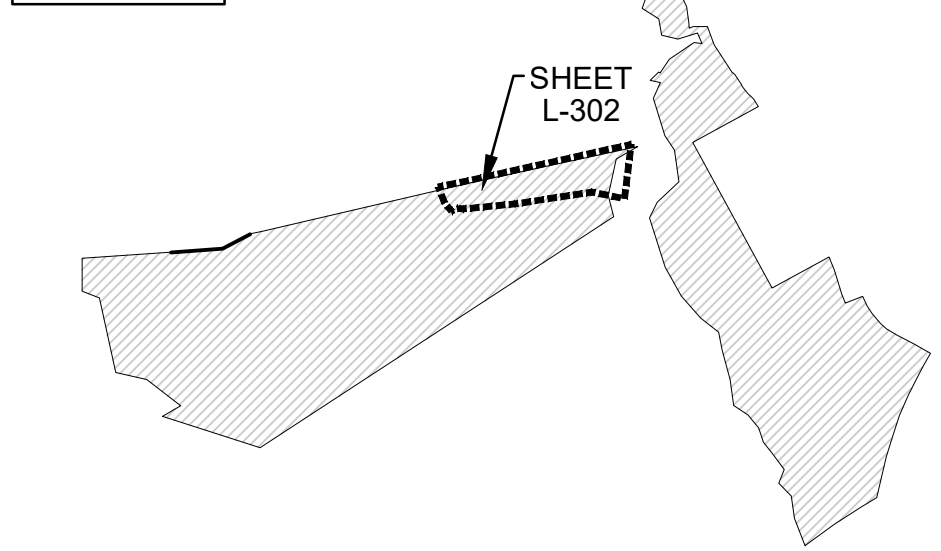
1. SELECT TRAIL ALIGNMENT TO AVOID ANY LARGE OR SIGNIFICANT TREES, STEEP SLOPES AND ROCK OUTCROPS. FINAL TRAIL CENTERLINE TO BE FLAGGED OR STAKED IN THE FIELD FOR APPROVAL BY LANDSCAPE ARCHITECT AND OWNER PRIOR TO CONSTRUCTION.
2. VEGETATION SHOULD BE CLEARED TO A HEIGHT OF 96" ABOVE TRAILBED. BRANCHES THAT COULD RESTRICT TRAIL USE WHEN WEIGHTED DOWN WITH RAIN OR SNOW SHOULD ALSO BE REMOVED.
3. AN OVERHEAD CANOPY OF BRANCHES SHOULD REMAIN TO SLOW THE GROWTH OF GRASSES OR WEEDS THAT THRIVE IN SUNLIGHT.
4. VERIFY REMOVAL AND/OR PRUNING OF LARGE TREES ON TRAIL WITH OWNER PRIOR TO CONSTRUCTION.

CLEARING LIMITS

Not to Scale

3
L-302

SHEET KEY



WP TRAILS PLAN

LAKE MYRA COUNTY PARK
Wake County, NC

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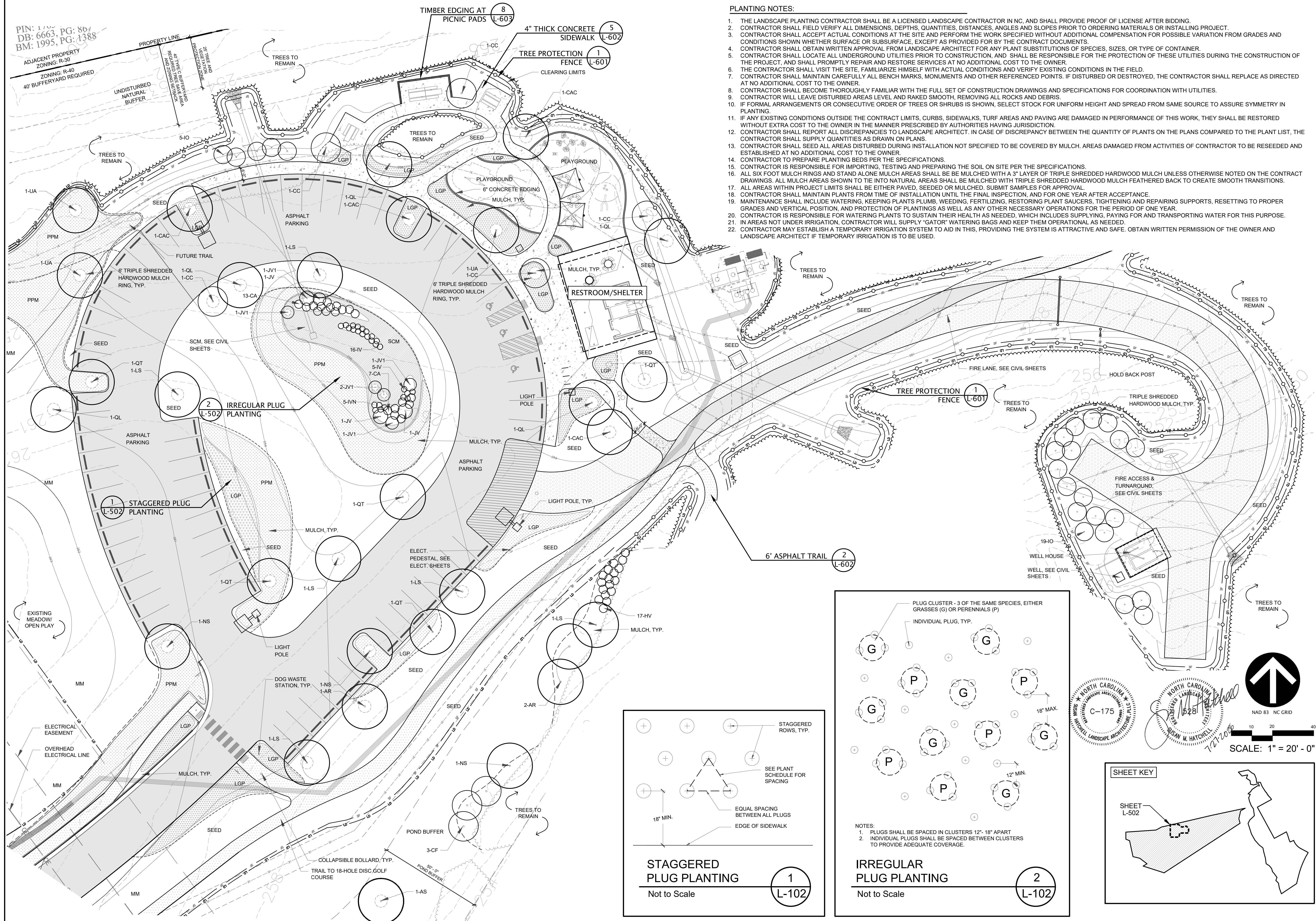
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L-302

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ADJACENT PROPERTIES
ZONING: R-30

ZONING: R-40
40' BUFFERYARD REQUIRED



1. THE LANDSCAPE PLANTING CONTRACTOR SHALL BE A LICENSED LANDSCAPE CONTRACTOR IN NC, AND SHALL PROVIDE PROOF OF LICENSE AFTER BIDDING.
2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, DEPTHS, QUANTITIES, DISTANCES, ANGLES AND SLOPES PRIOR TO ORDERING MATERIALS OR INSTALLING PROJECT.
3. CONTRACTOR SHALL ACCEPT ACTUAL CONDITIONS AT THE SITE AND PERFORM THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION FOR POSSIBLE VARIATION FROM GRADES AND CONDITIONS SHOWN WHETHER SURFACE OR SUBSURFACE, EXCEPT AS PROVIDED FOR BY THE CONTRACT DOCUMENTS.
4. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM LANDSCAPE ARCHITECT FOR ANY PLANT SUBSTITUTIONS OF SPECIES, SIZES, OR TYPE OF CONTAINER.
5. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION, AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES DURING THE CONSTRUCTION OF THE PROJECT, AND SHALL PROMPTLY REPAIR AND RESTORE SERVICES AT NO ADDITIONAL COST TO THE OWNER.
6. THE CONTRACTOR SHALL VISIT THE SITE, FAMILIARIZE HIMSELF WITH ACTUAL CONDITIONS AND VERIFY EXISTING CONDITIONS IN THE FIELD.
7. CONTRACTOR SHALL MAINTAIN CAREFULLY ALL BENCH MARKS, MONUMENTS AND OTHER REFERENCED POINTS. IF DISTURBED OR DESTROYED, THE CONTRACTOR SHALL REPLACE AS DIRECTED AT NO ADDITIONAL COST TO THE OWNER.
8. CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE FULL SET OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS FOR COORDINATION WITH UTILITIES.
9. CONTRACTOR SHALL LEAVE DISTURBED AREAS LEVEL AND RAKED SMOOTH, REMOVING ALL ROCKS AND DEBRIS.
10. IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF TREES OR SHRUBS IS SHOWN, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD FROM SAME SOURCE TO ASSURE SYMMETRY IN PLANTING.
11. IF ANY EXISTING CONDITIONS OUTSIDE THE CONTRACT LIMITS, CURBS, SIDEWALKS, TURF AREAS AND PAVING ARE DAMAGED IN PERFORMANCE OF THIS WORK, THEY SHALL BE RESTORED WITHOUT EXTRA COST TO THE OWNER IN THE MANNER PRESCRIBED BY AUTHORITIES HAVING JURISDICTION.
12. CONTRACTOR SHALL REPORT ALL DISCREPANCIES TO LANDSCAPE ARCHITECT. IN CASE OF DISCREPANCY BETWEEN THE QUANTITY OF PLANTS ON THE PLANS COMPARED TO THE PLANT LIST, THE CONTRACTOR SHALL SUPPLY QUANTITIES AS DRAWN ON PLANS.
13. CONTRACTOR SHALL SEED ALL AREAS DISTURBED DURING INSTALLATION NOT SPECIFIED TO BE COVERED BY MULCH. AREAS DAMAGED FROM ACTIVITIES OF CONTRACTOR TO BE RESEEDED AND ESTABLISHED AT NO ADDITIONAL COST TO THE OWNER.
14. CONTRACTOR TO PREPARE PLANTING BEDS PER THE SPECIFICATIONS.
15. CONTRACTOR IS RESPONSIBLE FOR IMPORTING, TESTING AND PREPARING THE SOIL ON SITE PER THE SPECIFICATIONS.
16. ALL AREAS NOT STATED AS BE MULCHED SHALL BE MULCHED WITH A 3" LAYER OF TRIPLE SHREDDED HARDWOOD MULCH UNLESS OTHERWISE NOTED ON THE CONTRACT DRAWINGS. ALL MULCH AREAS SHOWN TO TIE INTO NATURAL AREAS SHALL BE MULCHED WITH TRIPLE SHREDDED HARDWOOD MULCH FEATHERED BACK TO CREATE SMOOTH TRANSITIONS.
17. ALL AREAS WITHIN PROJECT LIMITS SHALL BE EITHER PAVED, SEEDED OR MULCHED. SUBMIT SAMPLES FOR APPROVAL.
18. CONTRACTOR SHALL MAINTAIN PLANTS FROM TIME OF INSTALLATION UNTIL THE FINAL INSPECTION, AND FOR ONE YEAR AFTER ACCEPTANCE.
19. MAINTENANCE SHALL INCLUDE WATERING, KEEPING PLANTS PLUMB, WEEDING, FERTILIZING, RESTORING PLANT SAUCERS, TIGHTENING AND REPAIRING SUPPORTS, RESETTING TO PROPER GRADES AND VERTICAL POSITION, AND PROTECTION OF PLANTINGS AS WELL AS ANY OTHER NECESSARY OPERATIONS FOR THE PERIOD OF ONE YEAR.
20. CONTRACTOR IS RESPONSIBLE FOR WATERING PLANTS TO SUSTAIN THEIR HEALTH AS NEEDED, WHICH INCLUDES SUPPLYING, PAYING FOR AND TRANSPORTING WATER FOR THIS PURPOSE.
21. IN AREAS NOT UNDER IRRIGATION, CONTRACTOR WILL SUPPLY "GATOR" WATERING BAGS AND KEEP THEM OPERATIONAL AS NEEDED.
22. CONTRACTOR MAY ESTABLISH A TEMPORARY IRRIGATION SYSTEM TO AID IN THIS, PROVIDING THE SYSTEM IS ATTRACTIVE AND SAFE. OBTAIN WRITTEN PERMISSION OF THE OWNER AND LANDSCAPE ARCHITECT IF TEMPORARY IRRIGATION IS TO BE USED.

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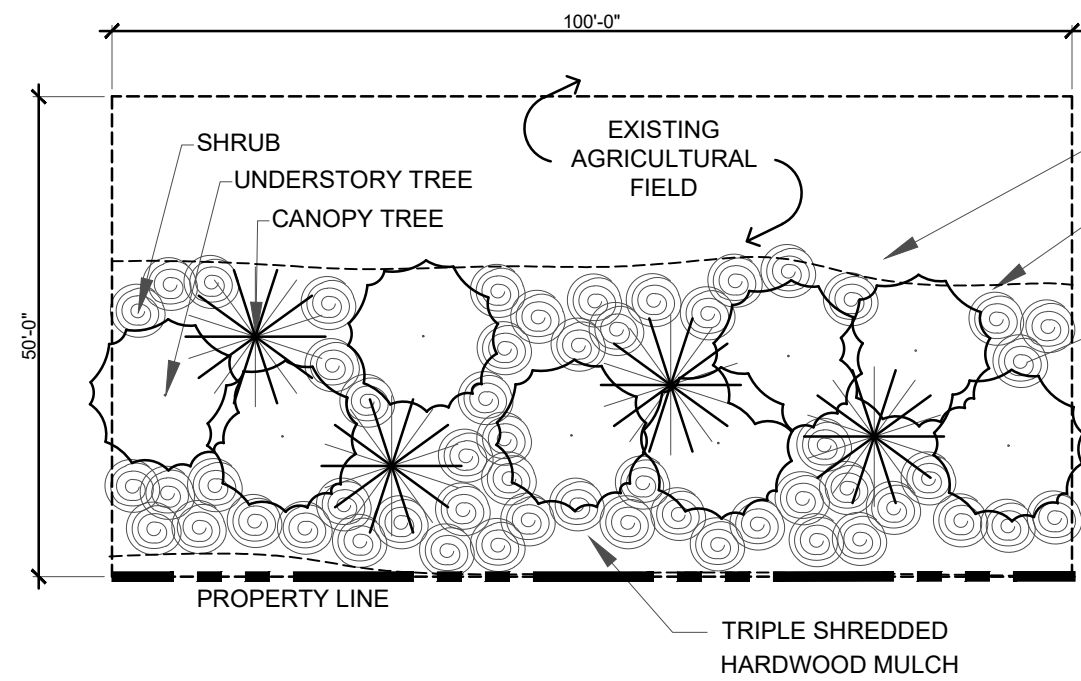
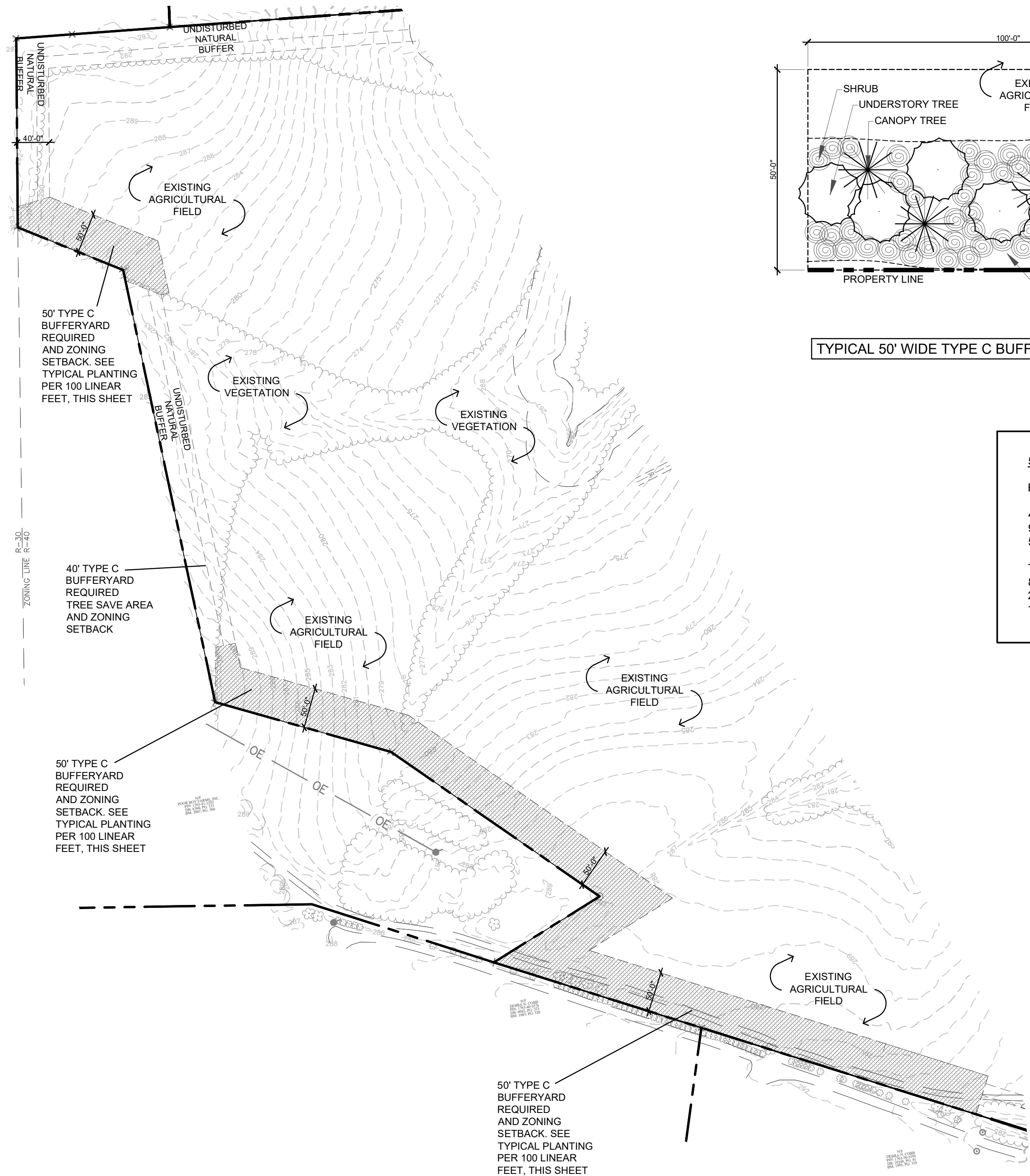
WP PLANTING ENLARGEMENT

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

Date: 7/27/26

-502



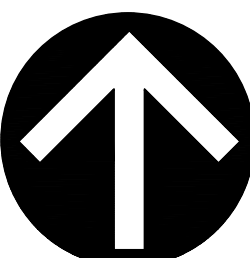
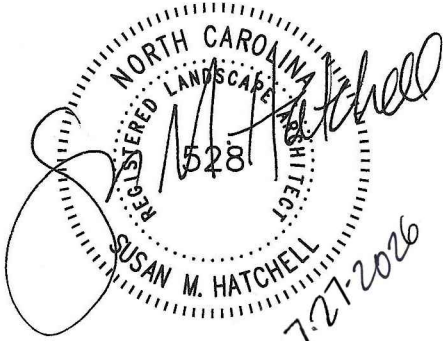
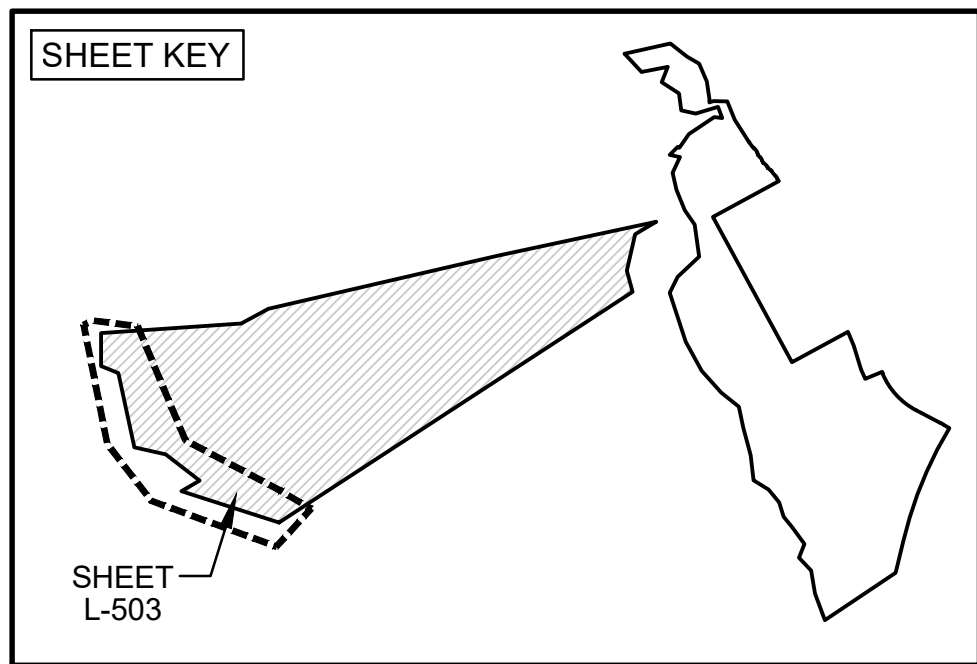
TYPICAL 50' WIDE TYPE C BUFFER PLANTING

50' TYPE 'C' BUFFER PLANTING:

REQUIRED PER 100 LF:

- 4 CANOPY TREES
- 9 UNDERSTORY TREES
- 54 SHRUBS

TOTAL LF: 2,230 LF
89 CANOPY TREES (89 PINUS TAEDA)
201 UNDERSTORY TREES (100 ILEX OPACA AND 101 JUNIPERUS VIRGINIANA)
1,204 SHRUBS (600 MORELLA CERIFERA, 604 ILEX VOMITORIA 'NANA')



NAD 83 NC GRID



SCALE: 1" = 100' - 0"

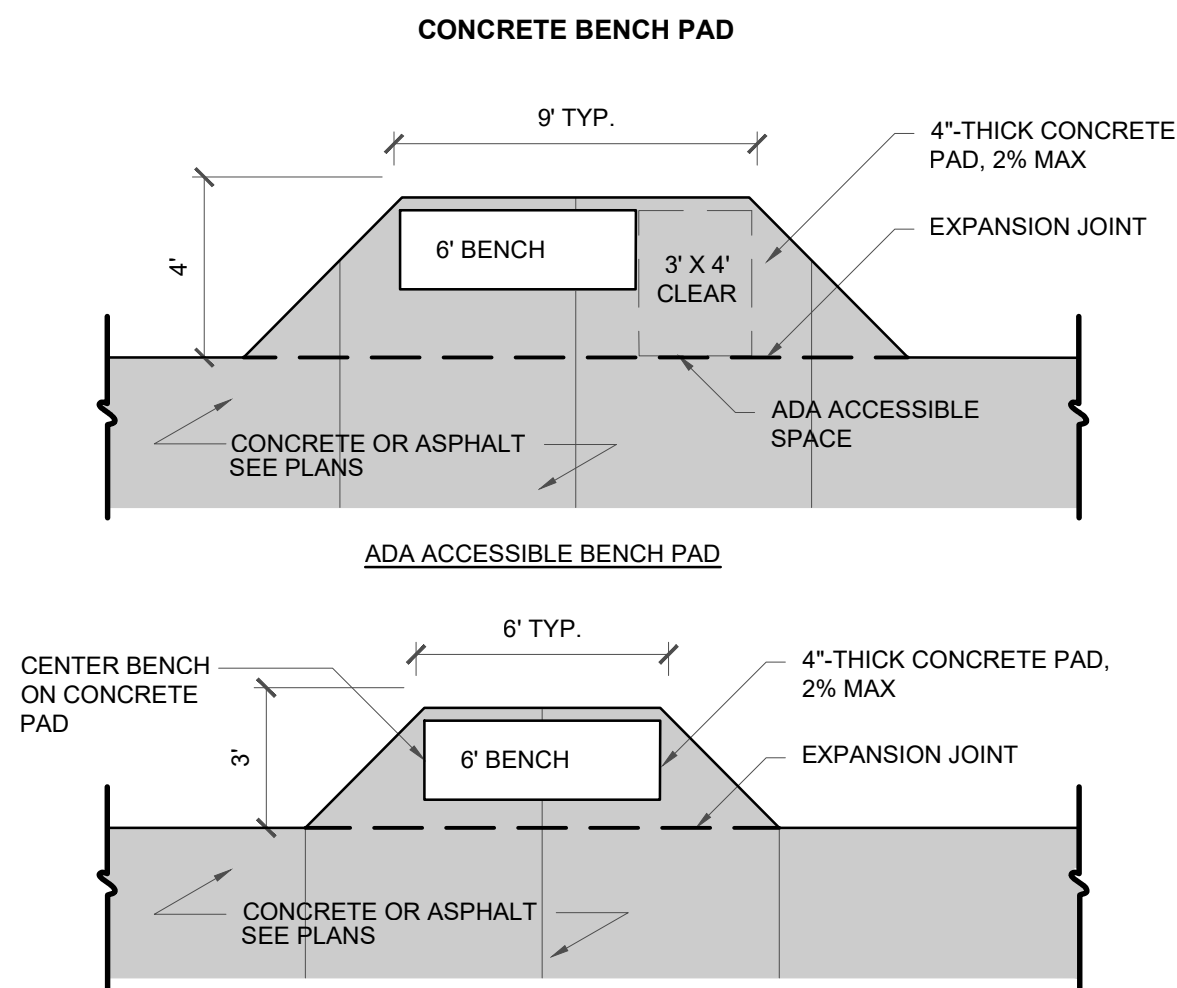
WP BUFFER
PLANTING PLAN

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

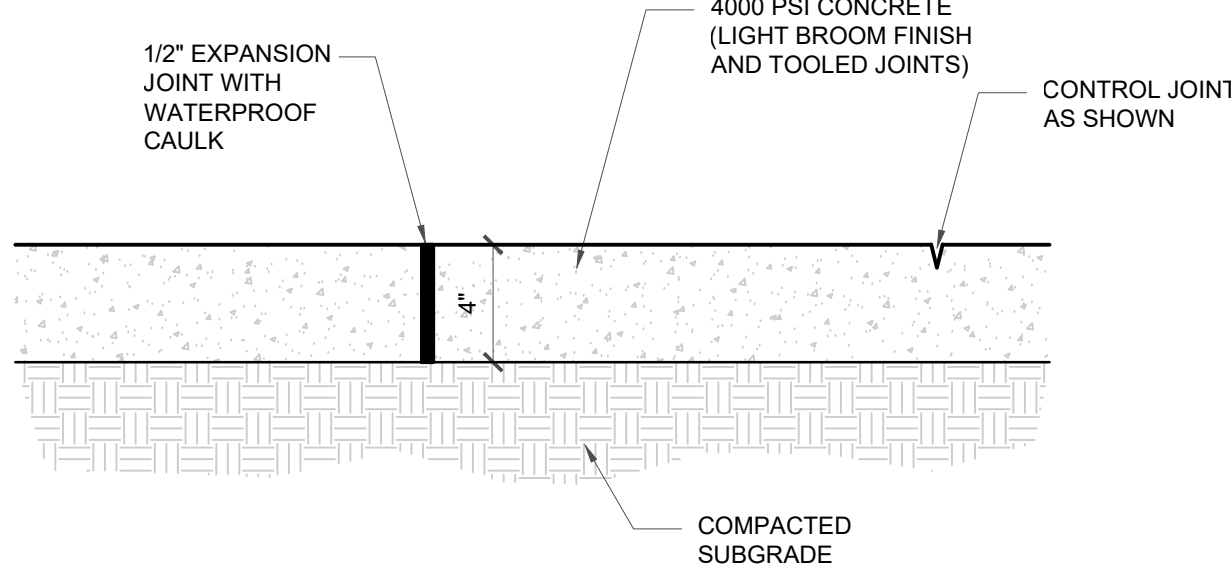
Date: 7/27/26

L-503



BENCH PAD
Not to Scale

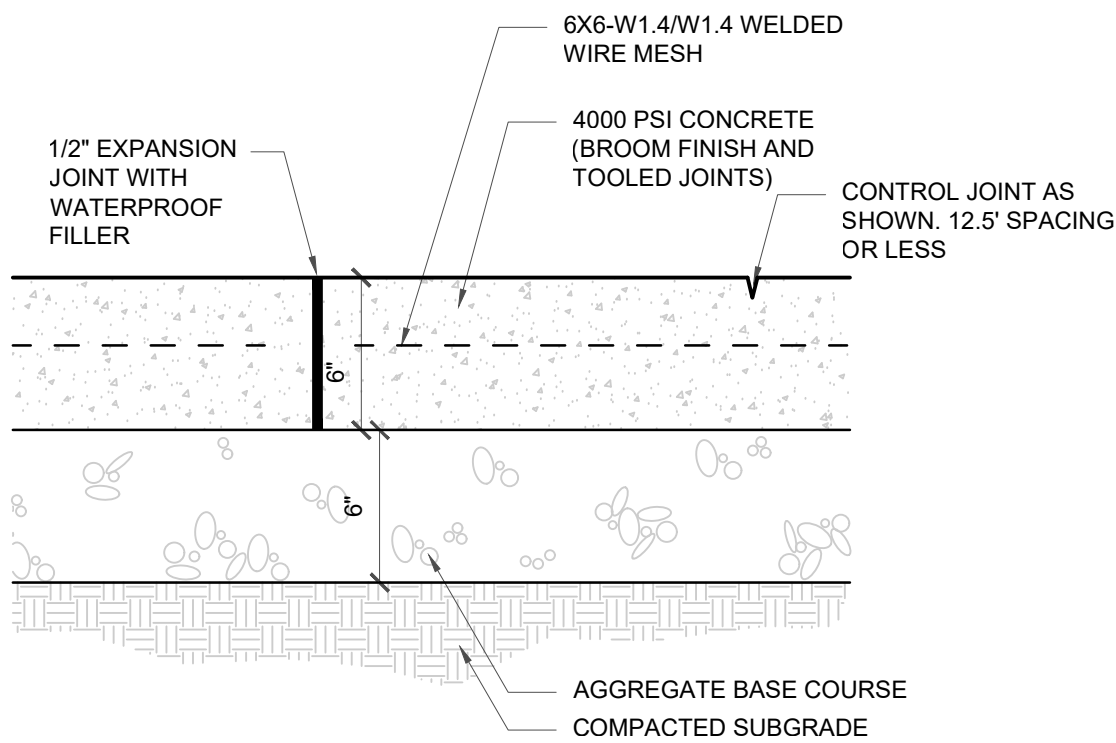
1
L-602



- NOTES:
1. PLACE A 1/2 INCH EXPANSION JOINT WITH WATERPROOF CAULK EVERY 18' OR BETWEEN POURS.
 2. SCORE CONCRETE FOR SIDEWALKS AS SHOWN ON PLANS.
 3. SCORE CONCRETE RADIALLY TO MATCH CURVE WHEN WALK CURVES.

4" THICK CONCRETE SIDEWALK
Not to Scale

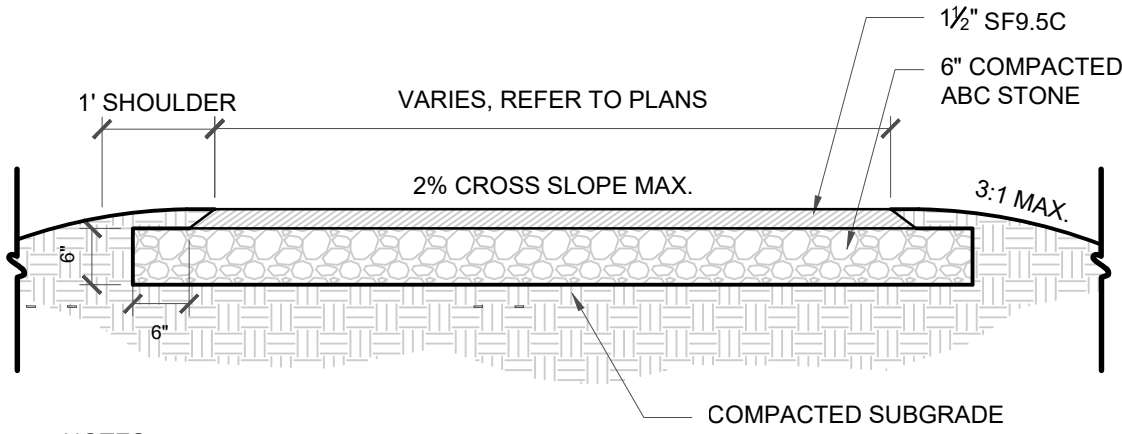
5
L-602



- NOTES:
1. PLACE A 1/2 INCH EXPANSION JOINT WITH WATERPROOF CAULK EVERY 20' OR BETWEEN POURS.
 2. PLACE A 1/2 INCH EXPANSION JOINT BETWEEN 6" AND 4" CONCRETE POURS.
 3. SCORE CONCRETE AS SHOWN ON PLANS.
 4. SCORE CONCRETE RADIALLY TO MATCH CURVE WHEN PAVEMENT CURVES.

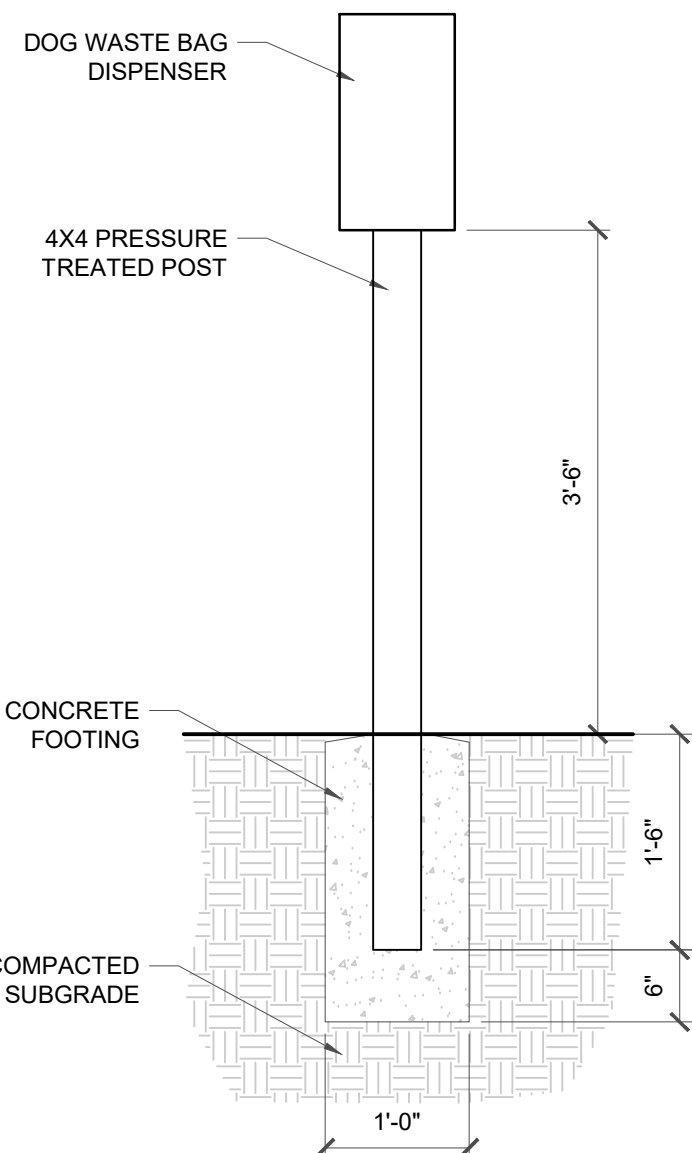
6" THICK HEAVY DUTY CONCRETE
Not to Scale

9
L-602



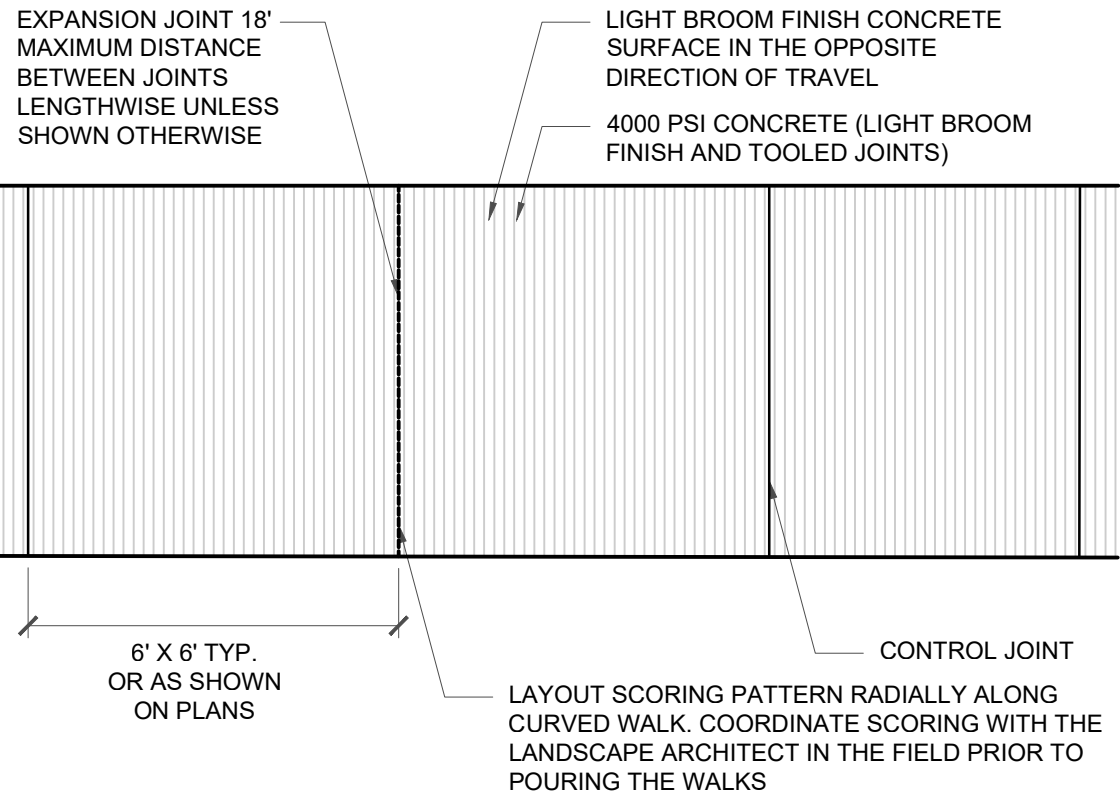
ASPHALT TRAIL
Not to Scale

2
L-602



DOG WASTE BAG DISPENSER
Not to Scale

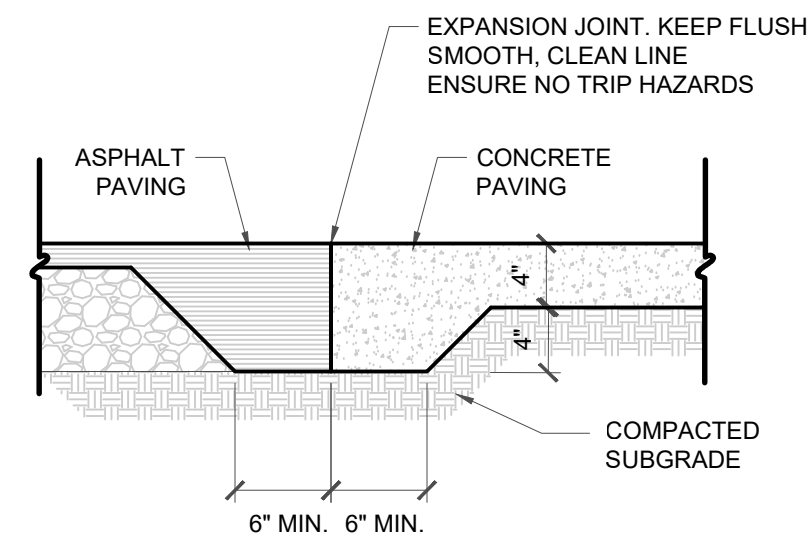
6
L-602



- NOTES:
1. HEAVY DUTY CONCRETE PAVING REQUIRES SAW JOINTS AT 12.5' SPACING OR LESS.

CONCRETE FINISH/SCORING PATTERN
Not to Scale

3
L-602

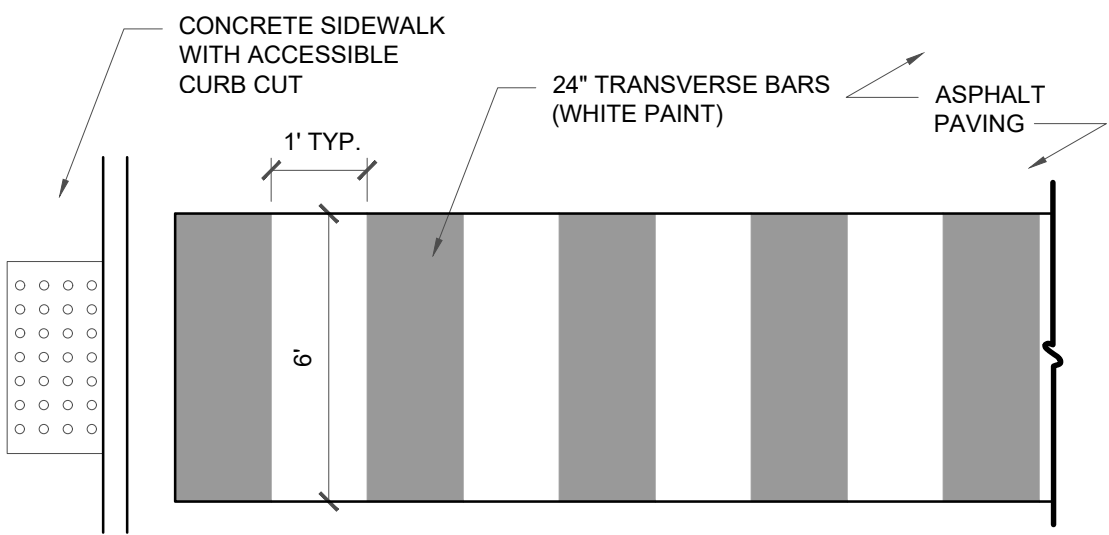


CONCRETE TRANSITION AT ASPHALT
Not to Scale

7
L-602

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8
L-602

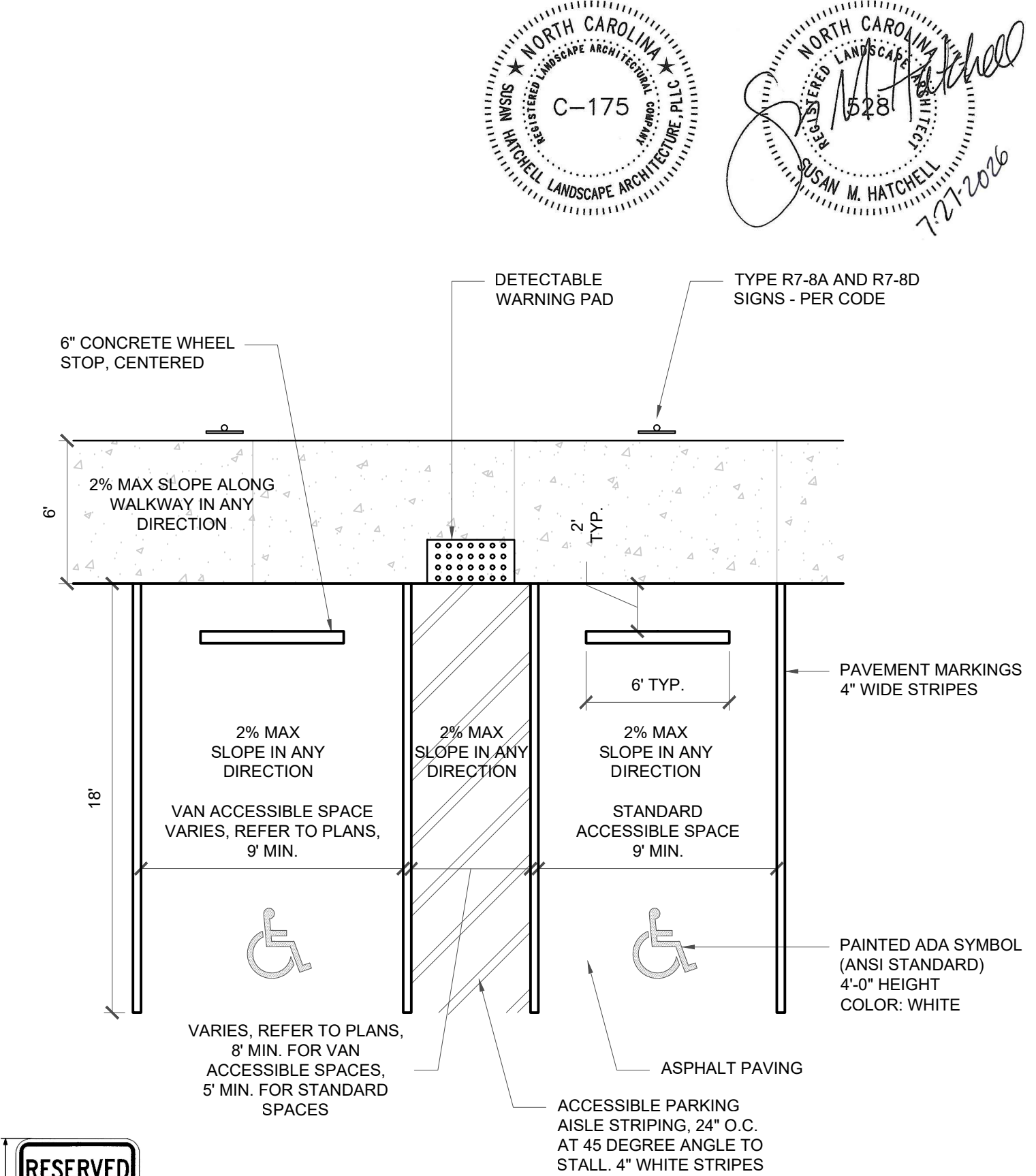


CROSSWALK
Not to Scale

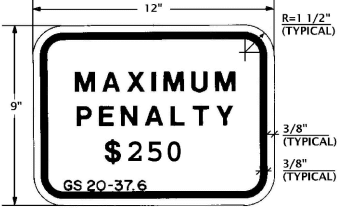
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L-602

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4
L-602



R7-8A
COLORS:
LEGEND AND BORDER - GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND - WHITE



R7-8D
COLORS:
LEGEND AND BORDER - GREEN
BACKGROUND - WHITE

- NOTES:
1. LOCATION AND DESIGN OF SIGNAGE SHALL COMPLY WITH THE REQUIREMENTS OF N.C.G.S. 20-37.6 AND 136-30, AND THE NCDOT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
 2. MAY ALSO USE COMBINATION SIGN R7-8E IN LIEU OF R7-8A AND R7-8D. COLORS/CORNER RADI SAME AS R7-8A, AND SIGN MOUNTED AT LEAST 72 INCHES (72") ABOVE THE GROUND MEASURED TO THE BOTTOM OF THE SIGN IN PEDESTRIAN AREAS.
 3. VAN ACCESSIBLE SIGN TO BE PLACED UNDER R7-8E IF APPLICABLE WITH VAN ACCESSIBLE SIGN MOUNTED AT LEAST 72 INCHES (72") ABOVE THE GROUND MEASURED TO THE BOTTOM OF THE SIGN IN PEDESTRIAN AREAS.

ACCESSIBLE PAVEMENT MARKINGS AND SIGNS
Not to Scale

12
L-602

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WP SITE DETAILS

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

Date: 7/27/26

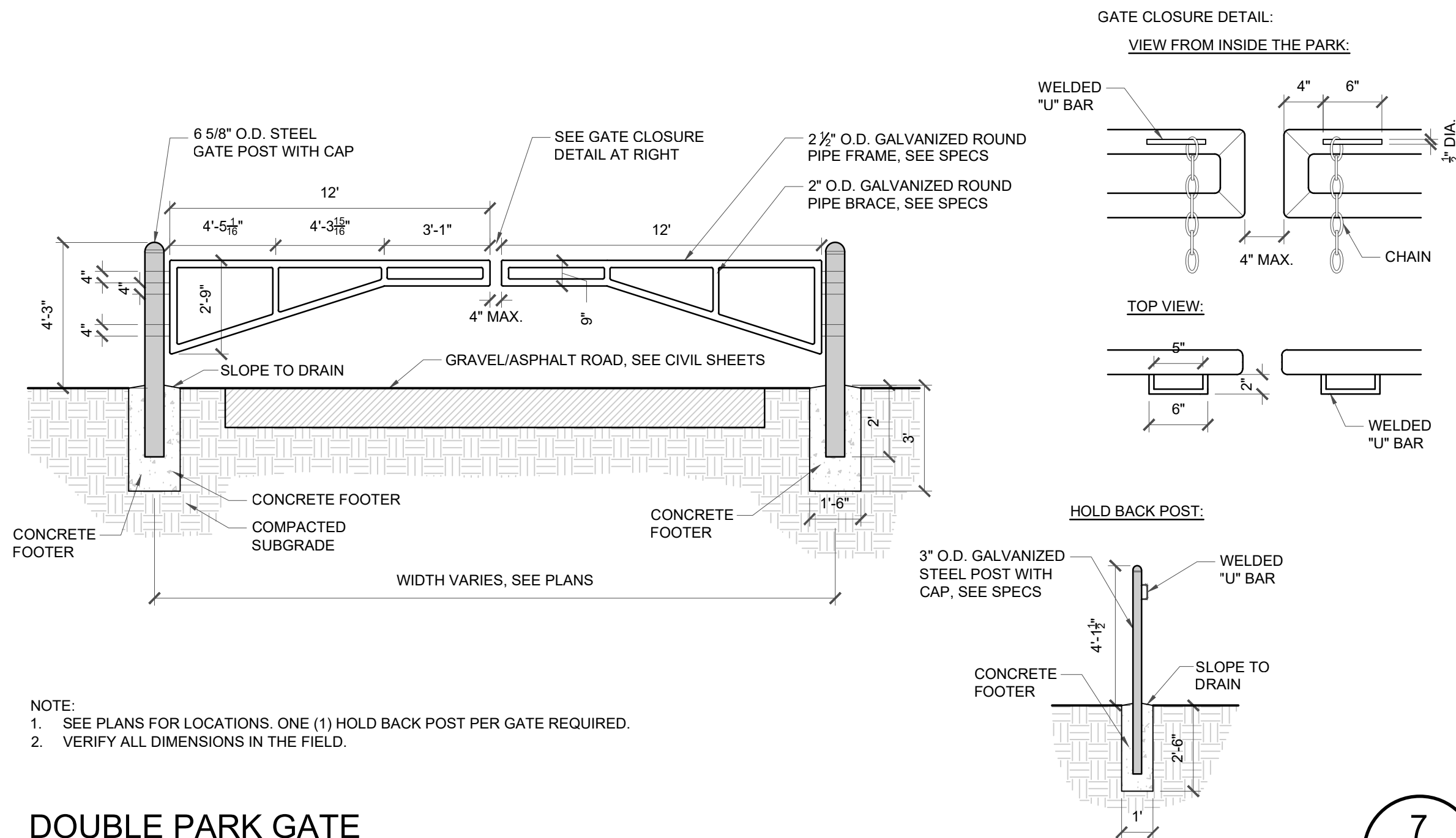
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1
L-603

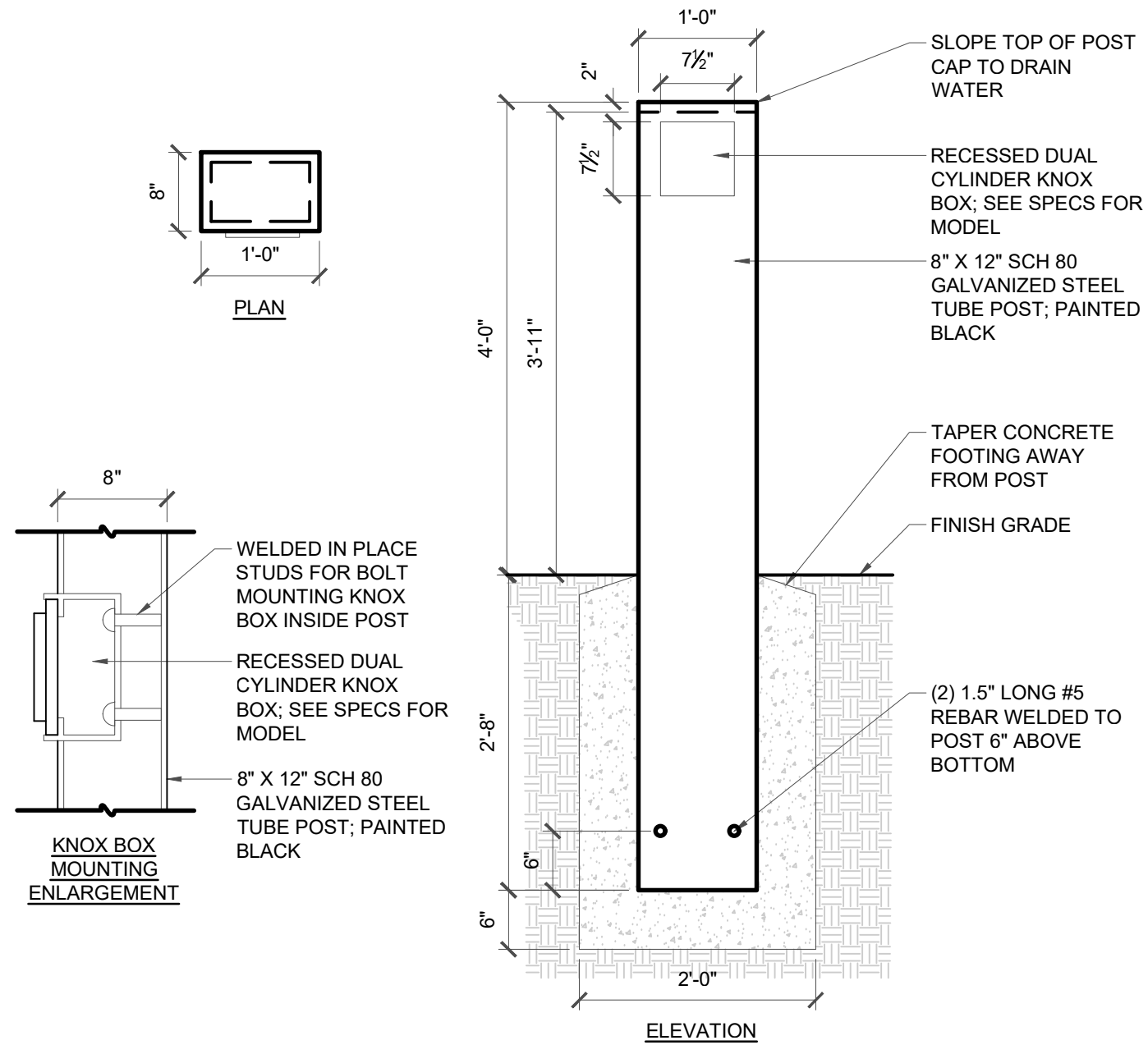
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4
L-603



EMERGENCY KNOX BOX

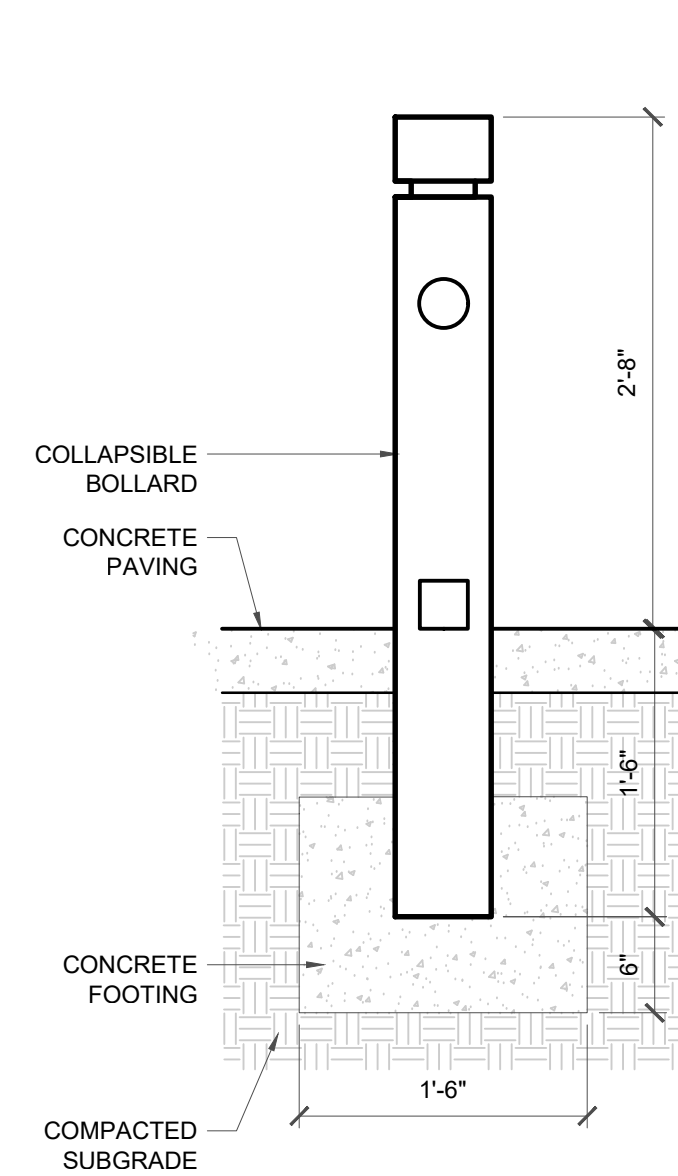
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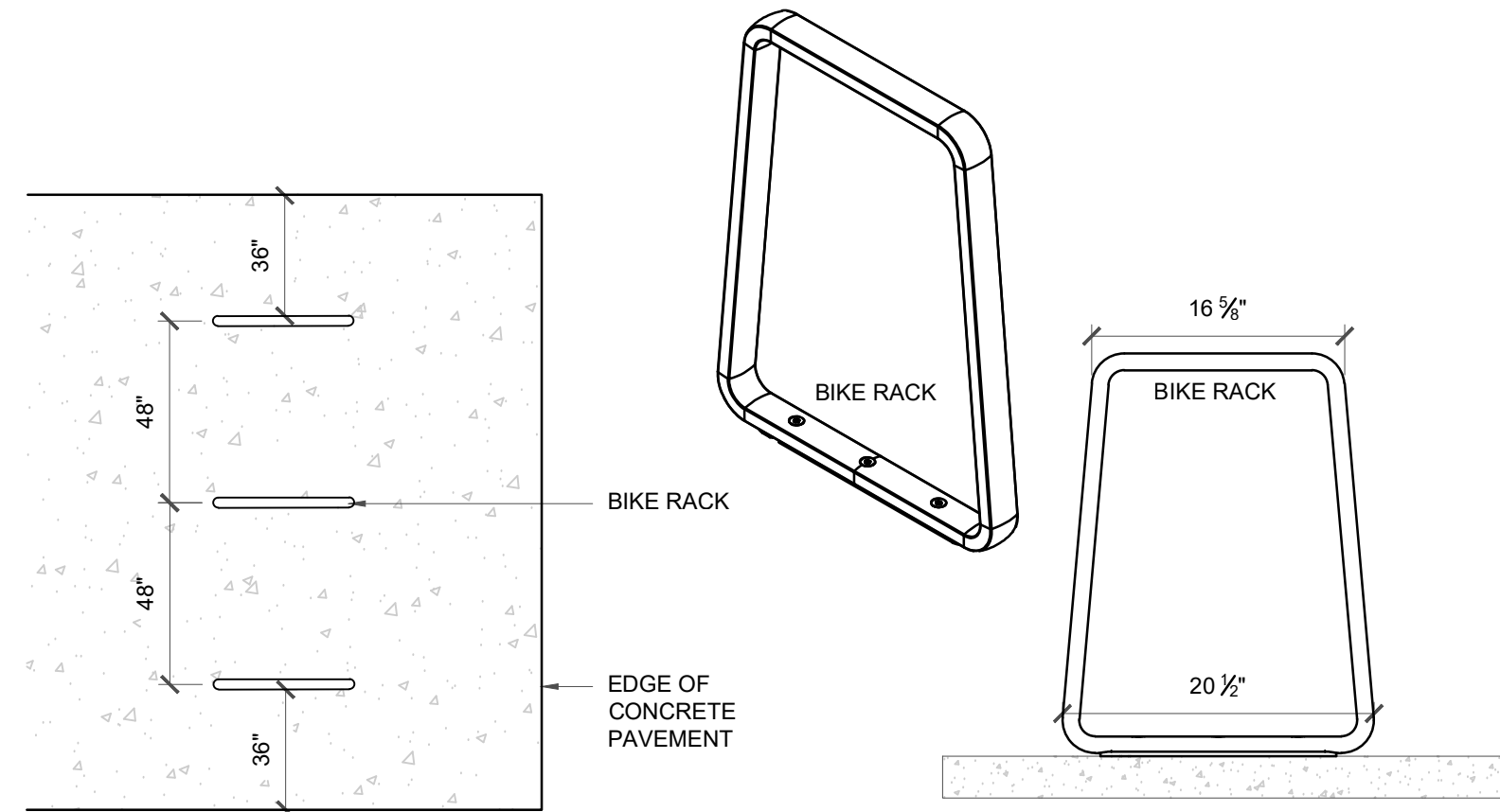
2
L-603

COLLAPSIBLE BOLLARD

Not to Scale



3
L-603

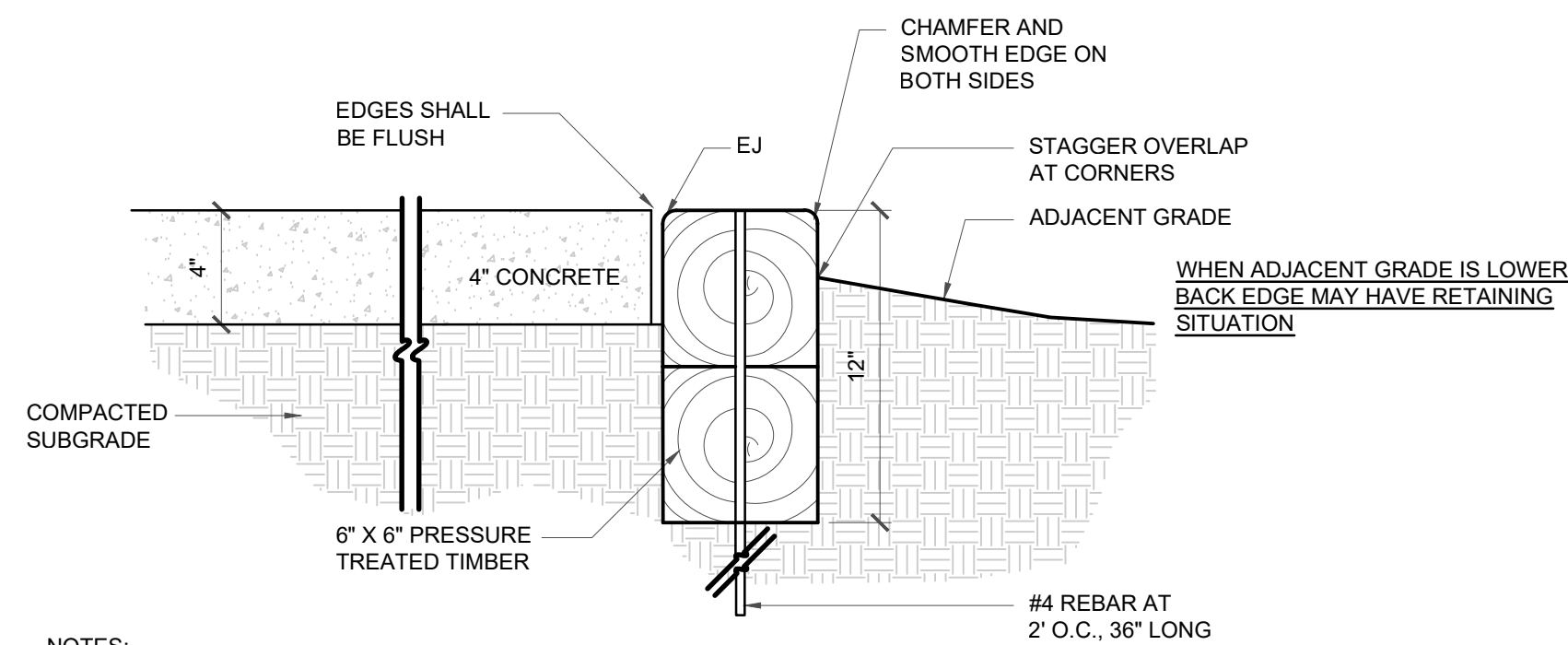


- NOTES:
1. PRIOR TO INSTALLATION, FIELD LOCATE FOR APPROVAL BY LANDSCAPE ARCHITECT.
 2. COLOR TO BE SELECTED BY OWNER.
 3. WHEN INSTALLED ON CONCRETE SURFACE, USE 3/8" ANCHORS TO PLATE MOUNT. SHIM AS NECESSARY TO ENSURE VERTICAL PLACEMENT.

BIKE RACK

Not to Scale

5
L-603



- NOTES:
1. TIMBERS USED FOR EDGING SHALL BE STANDARD (NO. 2) PRESSURE TREATED PINE, SPRUCE OR FIR. TIMBERS SHALL BE KILN DRIED, WITH A MAXIMUM MOISTURE CONTENT OF 19 PERCENT WITH NO EXCESSIVE CHECKS, SPLITS OR SURFACE IRREGULARITIES.
 2. TIMBERS SHALL BE SURFACED ON ALL FOUR SIDES. WARPED LUMBER MAY NOT BE USED.
 3. WRAP BACKFILL WITH FILTER FABRIC.
 4. TIMBER EDGING SHALL BE SET ACCURATELY TO REQUIRED LEVELS AND LINES AS SHOWN ON
 5. DRAWINGS, STAKE LOCATIONS OF EDGING IN FIELD FOR APPROVAL PRIOR TO INSTALLATION.
 6. CHAMFER EXPOSED EDGES OF TOP TIMBERS AS SHOWN ON DETAIL. ALL ROUGH ENDS, EDGES AND CUTS SHALL BE BELT SANDED TO SMOOTH.

TIMBER EDGING AT PICNIC PADS

Not to Scale

8
L-603

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6
L-603

WP SITE DETAILS

LAKE MYRA COUNTY PARK
Wake County, NC

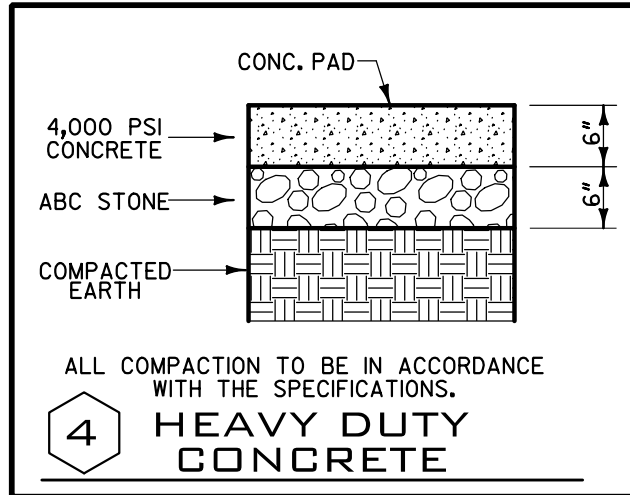
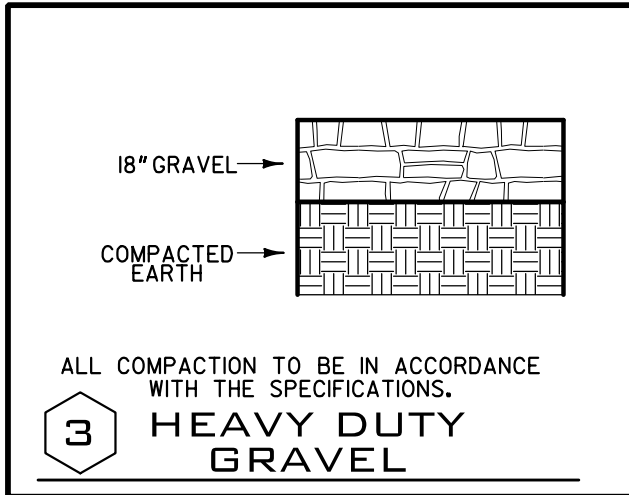
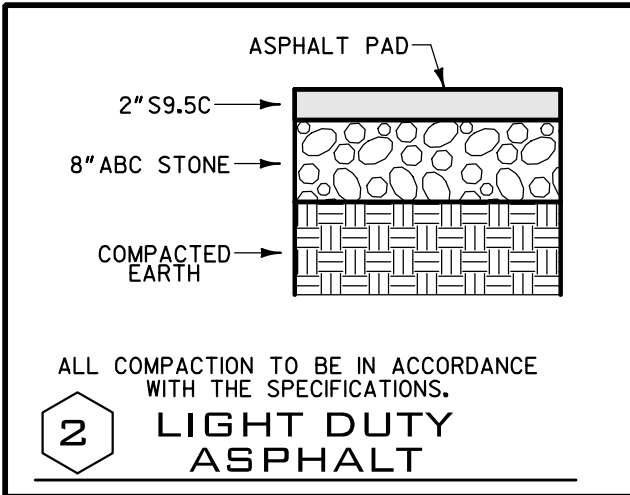
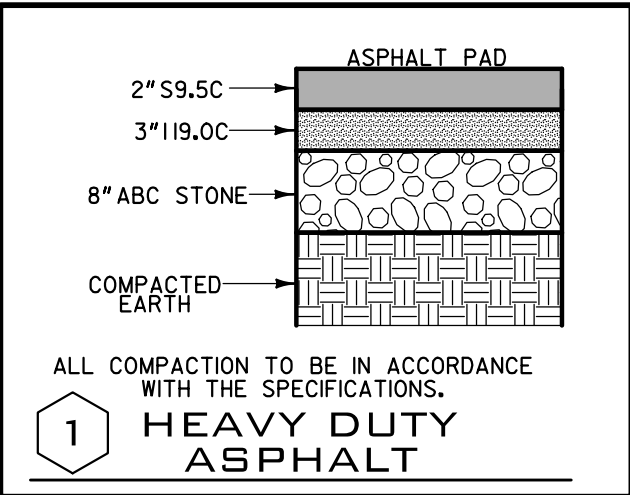
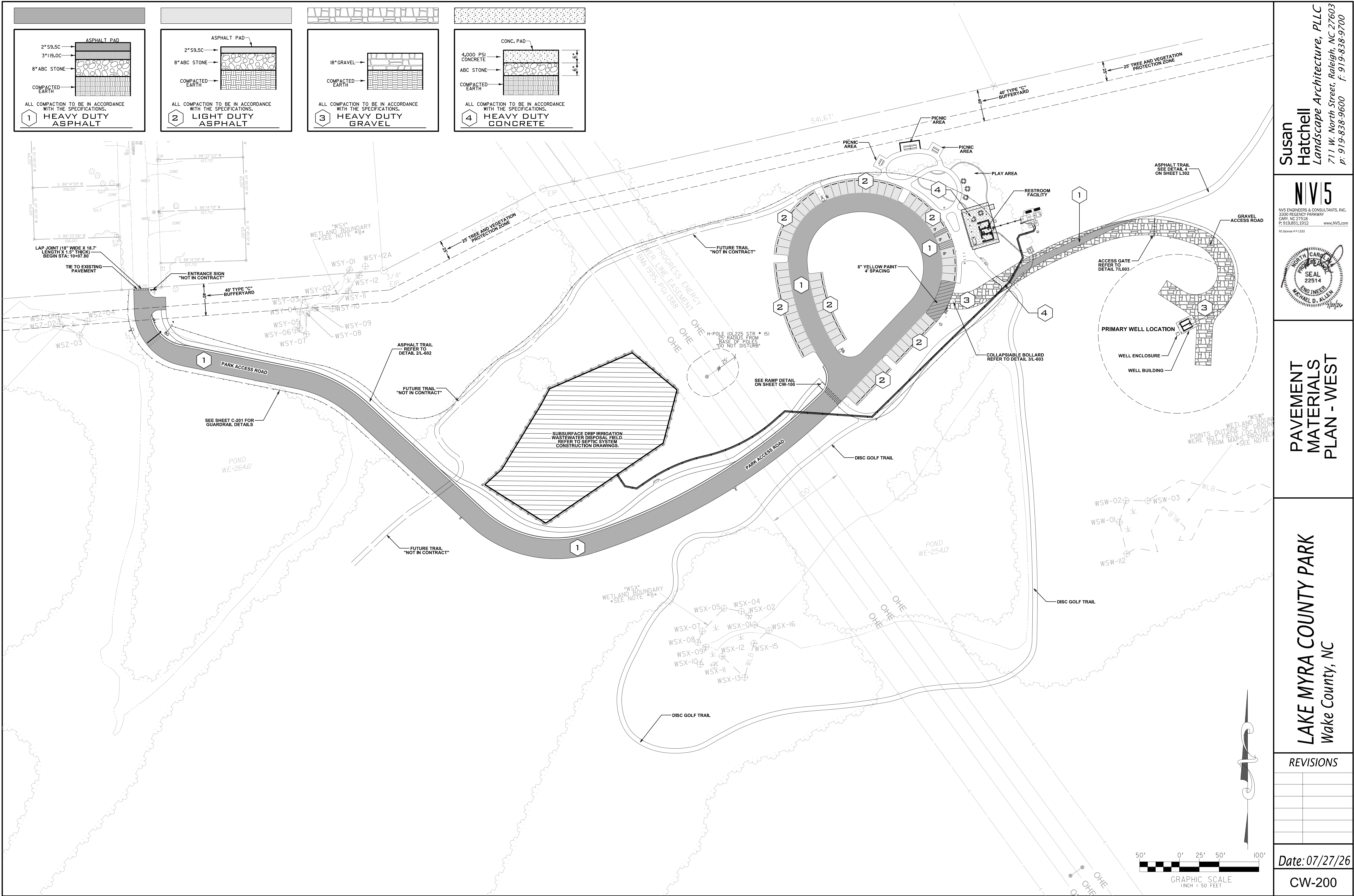
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Date: 7/27/26

L-603

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"ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL WAKE COUNTY AND / OR NCDOT STANDARDS AND SPECIFICATIONS"



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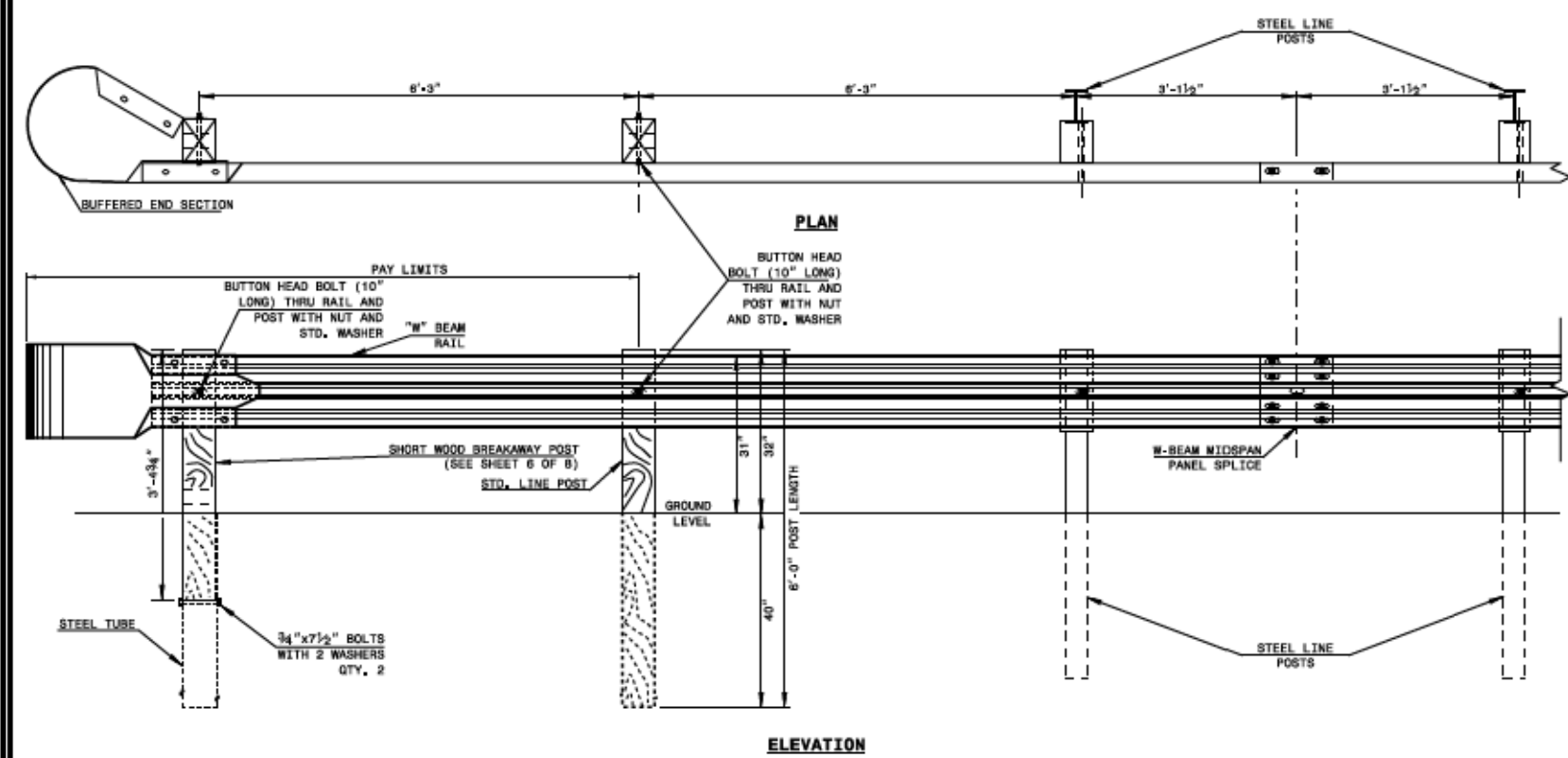
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SEAL
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12/24

PAVEMENT MATERIALS PLAN - WEST

LAKE MYRA COUNTY PARK
Wake County, NC

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Date: 07/27/26	
CW-200	

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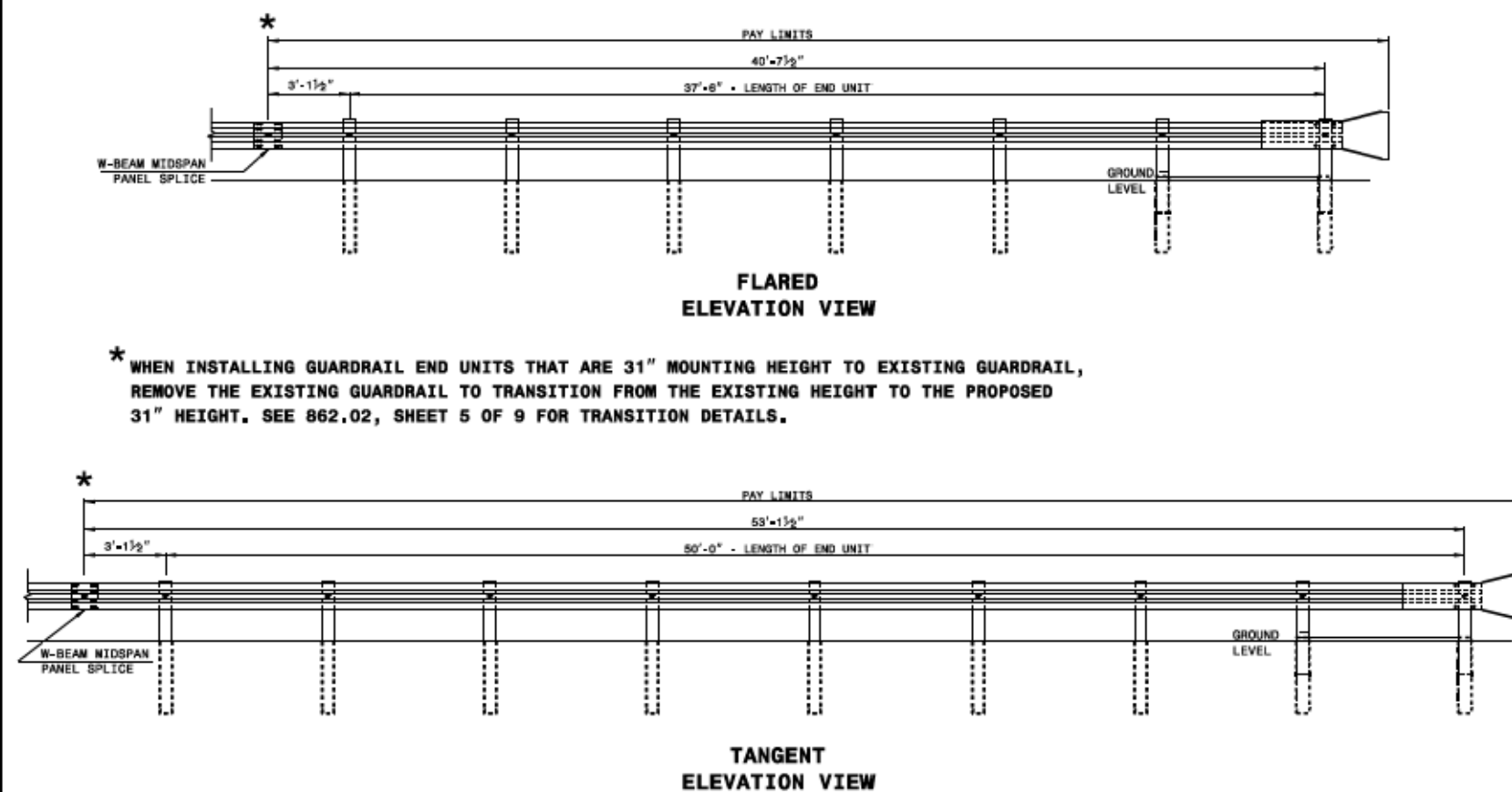


TRAILING END UNIT ASSEMBLY

A.T.-1 SYSTEM

ROADWAY STANDARD DRAWING FOR GUARDRAIL INSTALLATION	1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
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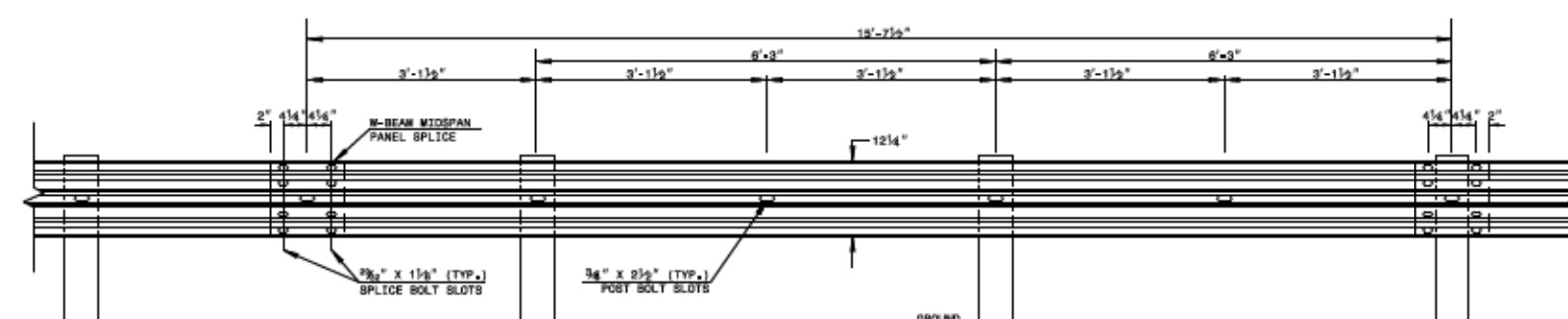
SHEET 2 OF 9
862.02



APPROACH END UNITS

ROADWAY STANDARD DRAWING FOR GUARDRAIL INSTALLATION	1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
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SHEET 3 OF 9
862.02

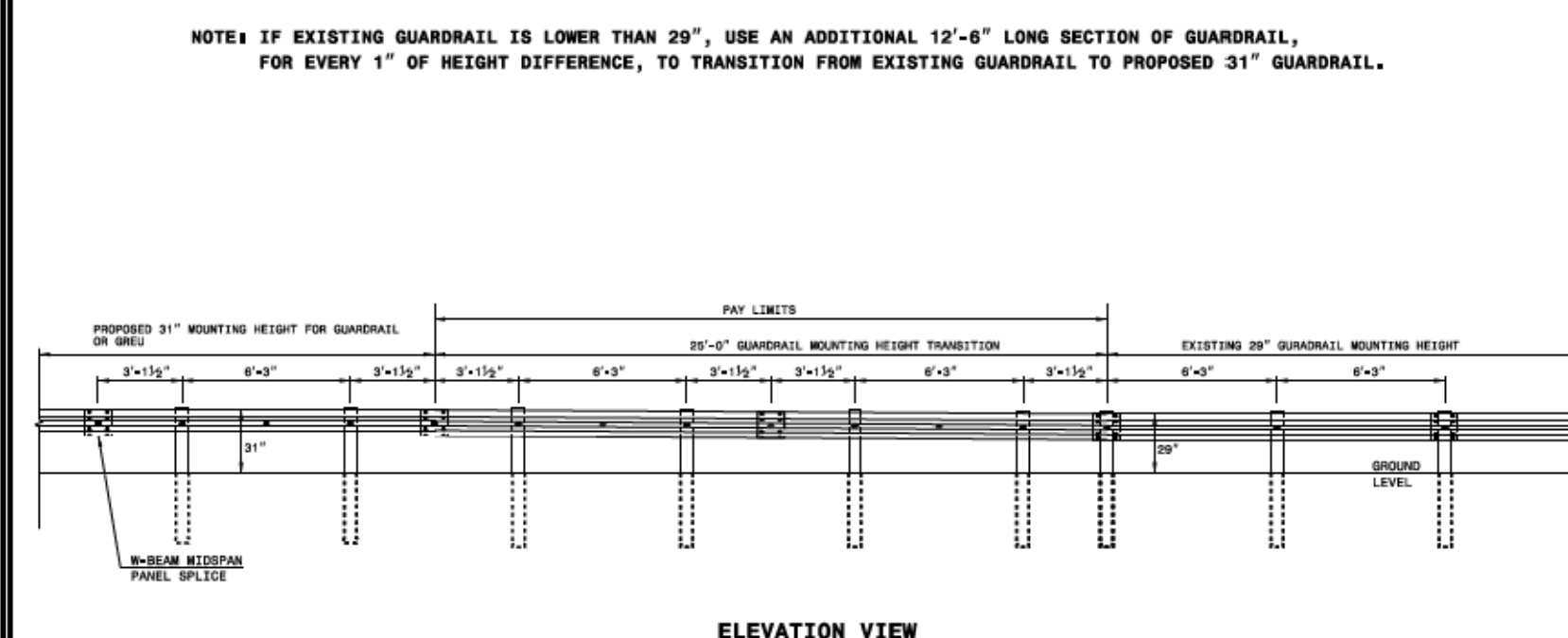


NOTE: USE 5-SPACE 15'-7 1/2" W-BEAM GUARDRAIL PANEL.
AT THE DOWNSTREAM END OF AN END UNIT OR EXISTING GUARDRAIL
THAT DOES NOT OFFSET THE W-BEAM PANEL SPLICE TO WIDSPAN.

ROADWAY STANDARD DRAWING FOR GUARDRAIL INSTALLATION	1-24	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.
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SHEET 4 OF 5

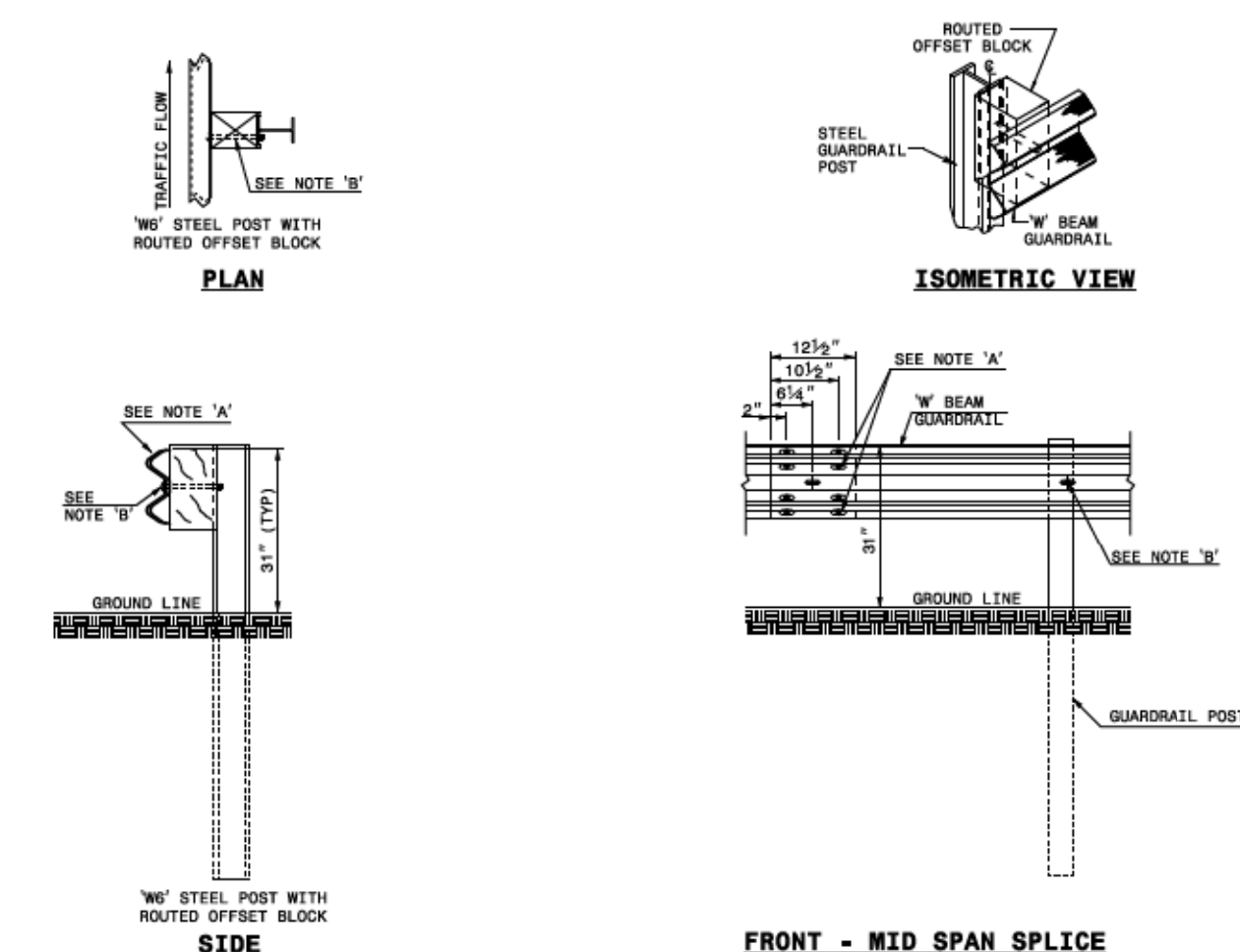
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TRANSITION FROM 29" TO 31" W-BEAM GUARDRAIL MOUNTING HEIGHT

ROADWAY STANDARD DRAWING FOR GUARDRAIL INSTALLATION	1-24] STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
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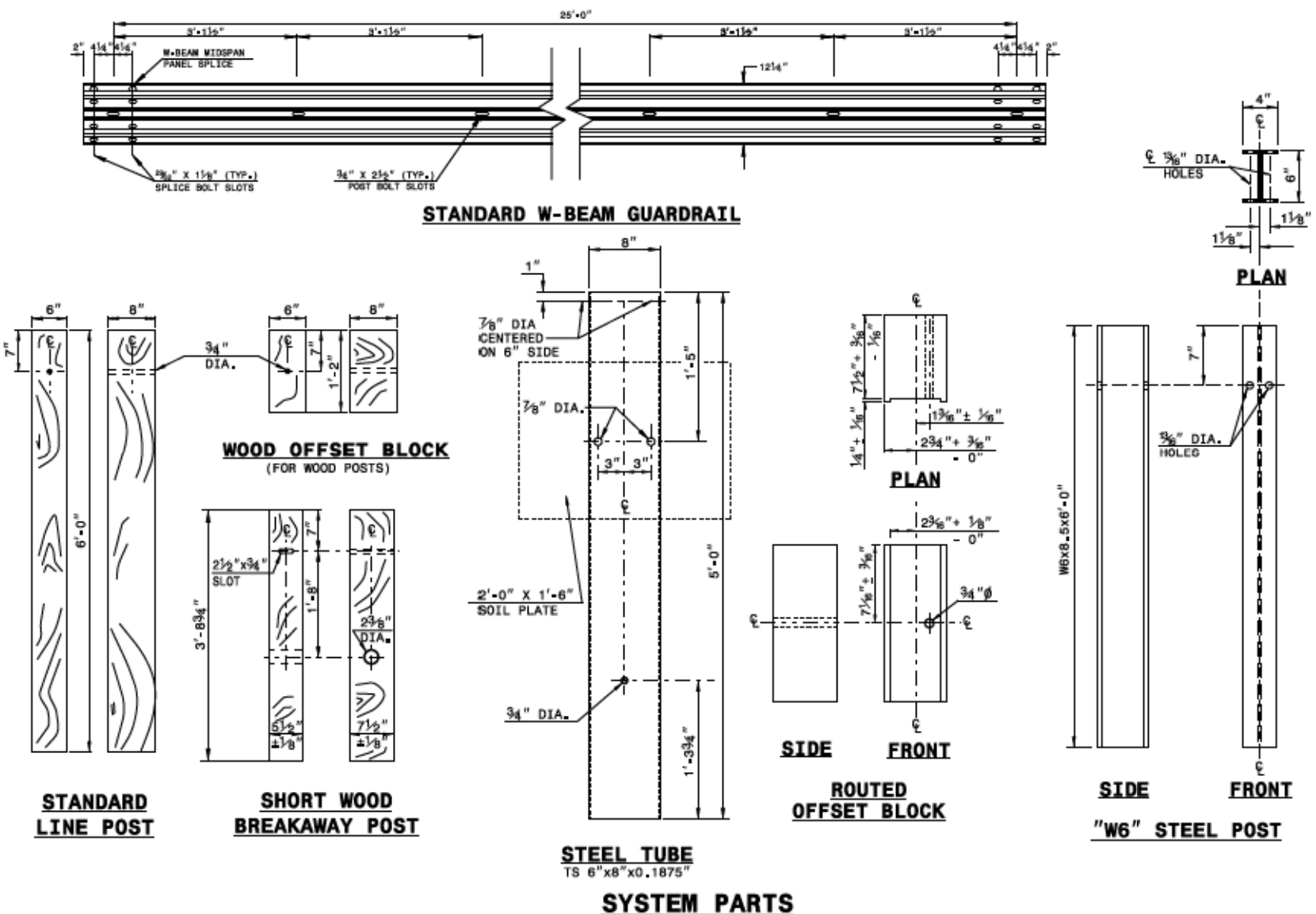
SHEET 5 OF 9
862.02



TYPICAL GUARDRAIL AND GUARDRAIL POST ALTERNATIVES

ROADWAY STANDARD DRAWING FOR GUARDRAIL INSTALLATION	1-241 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
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SHEET 6 OF 9
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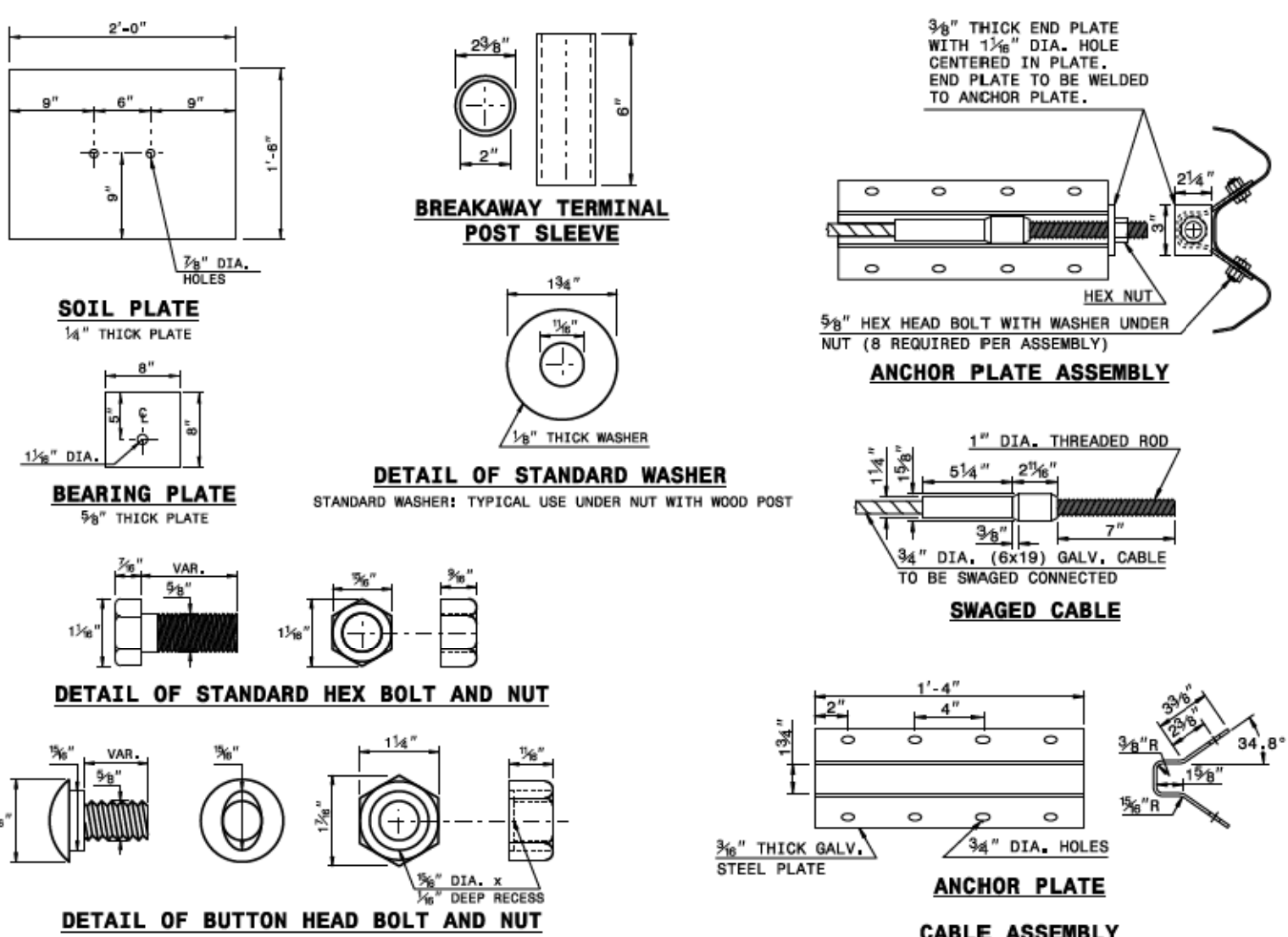


SYSTEM PARTS

ROADWAY STANDARD DRAWING FOR	1-24	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N. C.
GUARDRAIL INSTALLATION		

SHEET 7 OF 10

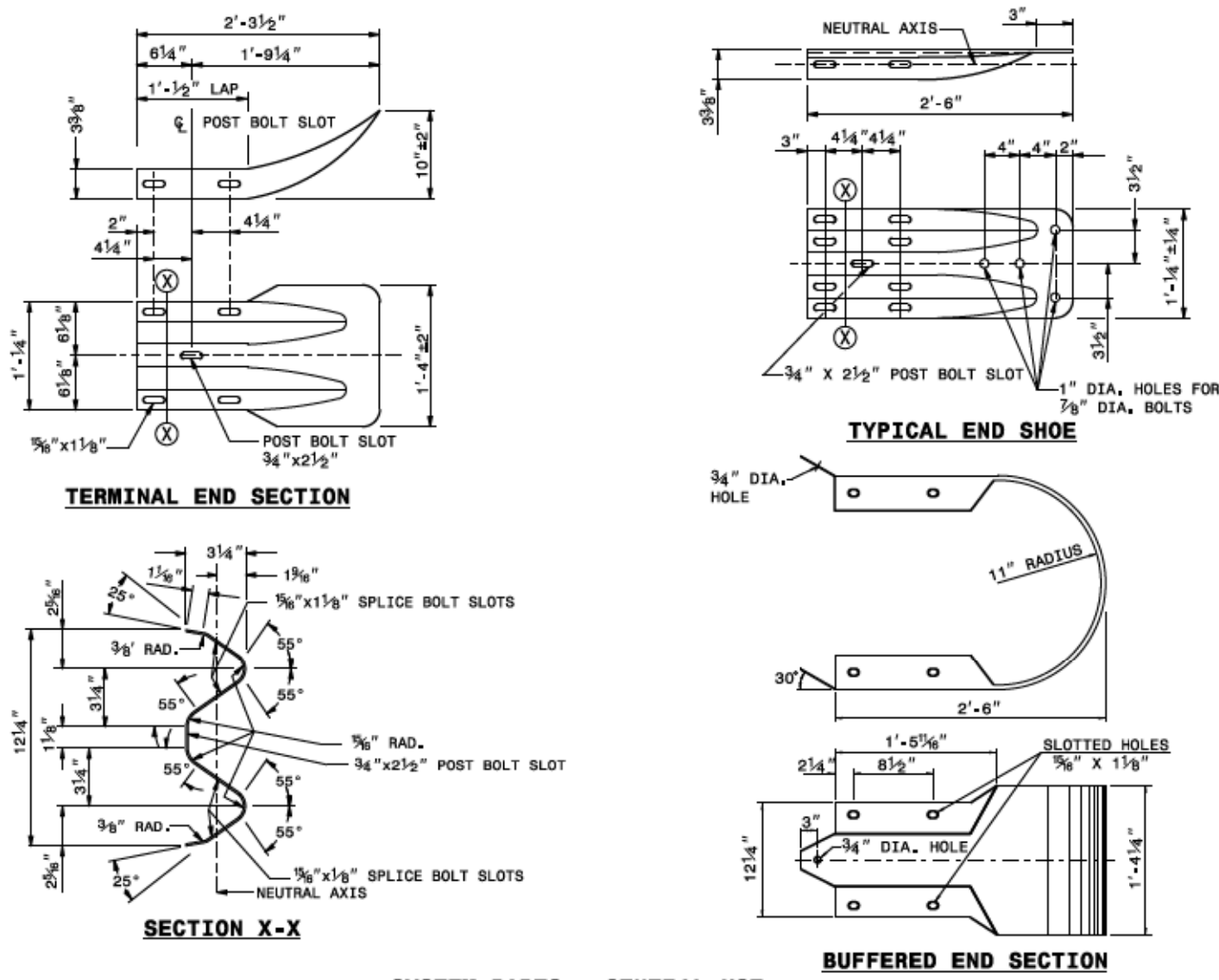
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SYSTEM PARTS

ROADWAY STANDARD DRAWING FOR GUARDRAIL INSTALLATION	1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
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SHEET 8 OF 9
862.02



SYSTEM PARTS - GENERAL USE

ROADWAY STANDARD DRAWING FOR GUARDRAIL INSTALLATION	1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
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SHEET 9 OF 9
862.02

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GUARDRAIL DETAILS

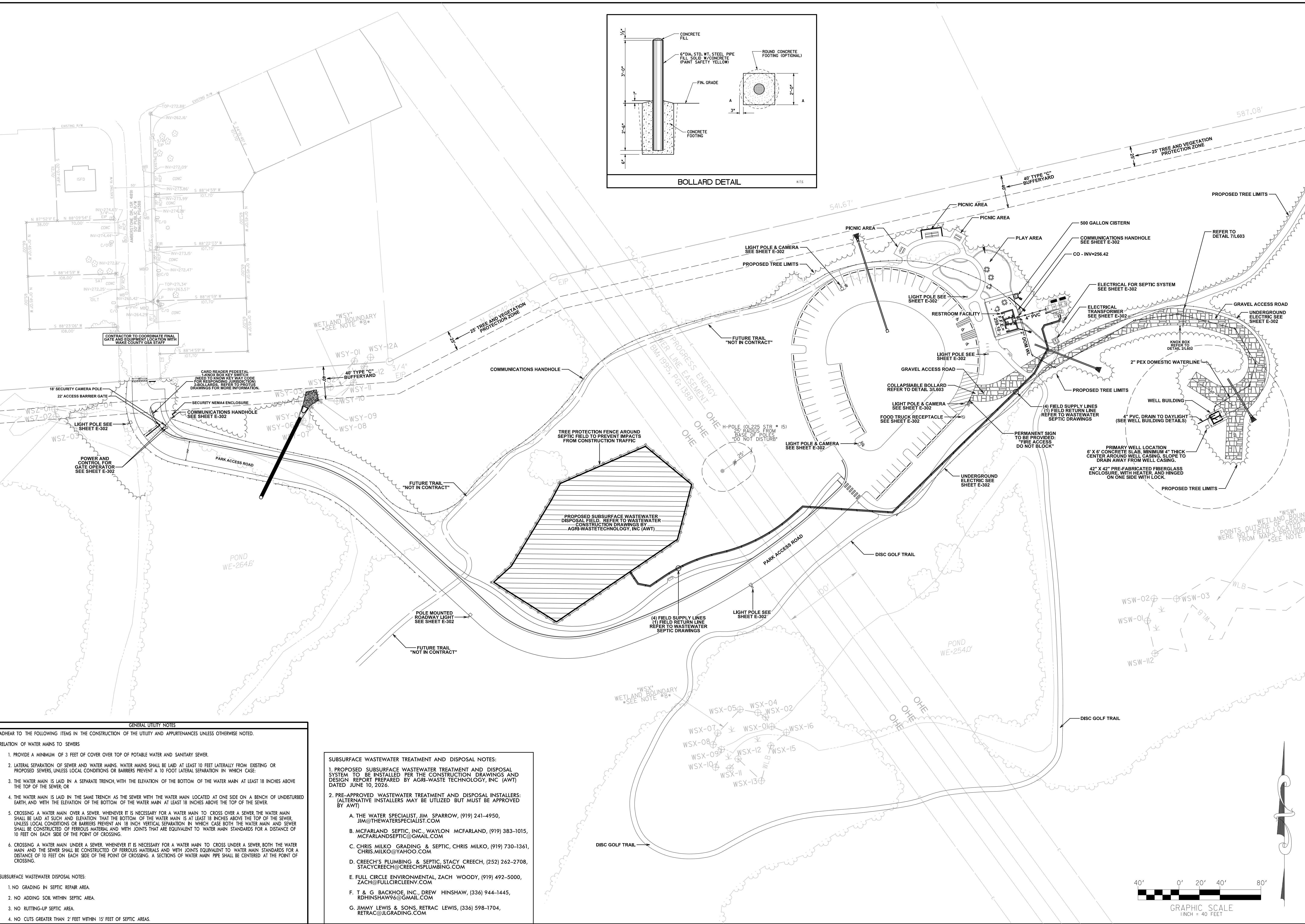
LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

Date: 07/27/26

CW-201

"ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL WAKE COUNTY AND / OR NCDOT STANDARDS AND SPECIFICATIONS"



GENERAL UTILITY NOTES

ADHERE TO THE FOLLOWING ITEMS IN THE CONSTRUCTION OF THE UTILITY AND APPURTENANCES UNLESS OTHERWISE NOTED.

RELATION OF WATER MAINS TO SEWERS

1. PROVIDE A MINIMUM OF 3 FEET OF COVER OVER TOP OF POTABLE WATER AND SANITARY SEWER.
2. LATERAL SEPARATION OF SEWER AND WATER MAINS. WATER MAINS SHALL BE LAID AT LEAST 10 FEET LATERALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10 FOOT LATERAL SEPARATION IN WHICH CASE:
3. THE WATER MAIN IS LAID IN A SEPARATE TRENCH WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER; OR
4. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
5. CROSSING A WATER MAIN OVER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION IN WHICH CASE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIAL AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
6. CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTIONS OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

SUBSURFACE WASTEWATER DISPOSAL NOTES:

1. NO GRADING IN SEPTIC REPAIR AREA.
2. NO ADDING SOIL WITHIN SEPTIC AREA.
3. NO RUTTING-UP SEPTIC AREA.
4. NO CUTS GREATER THAN 2 FEET WITHIN 15 FEET OF SEPTIC AREAS.

SUBSURFACE WASTEWATER TREATMENT AND DISPOSAL NOTES:

1. PROPOSED SUBSURFACE WASTEWATER TREATMENT AND DISPOSAL SYSTEM TO BE INSTALLED PER THE CONSTRUCTION DRAWINGS AND DESIGN REPORT PREPARED BY AGRI-WASTE TECHNOLOGY, INC (AWT) DATED JUNE 10, 2026.
2. PRE-APPROVED WASTEWATER TREATMENT AND DISPOSAL INSTALLERS: (ALTERNATIVE INSTALLERS MAY BE UTILIZED BUT MUST BE APPROVED BY AWT)

A. THE WATER SPECIALIST, JIM SPARROW, (919) 241-4950, JIM@THEWATERSPECIALIST.COM

B. MCFARLAND SEPTIC, INC., WAYLON MCFARLAND, (919) 383-1015, MCFARLANDSEPTIC@GMAIL.COM

C. CHRIS MILKO GRADING & SEPTIC, CHRIS MILKO, (919) 730-1361, CHRIS.MILKO@YAHOO.COM

D. CREECH'S PLUMBING & SEPTIC, STACY CREECH, (252) 262-2708, STACYCREECH@CREECHSPUMBING.COM

E. FULL CIRCLE ENVIRONMENTAL, ZACH WOODY, (919) 492-5000, ZACH@FULLCIRCLEENVY.COM

F. T & G BACKHOE, INC., DREW HINSHAW, (336) 944-1445, RDHINSHAW96@GMAIL.COM

G. JIMMY LEWIS & SONS, RETRAC LEWIS, (336) 598-1704, RETRAC@JLGRADING.COM

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SEAL
22514
MICHAEL D. ALLEN
1/2/24

UTILITY PLAN WEST

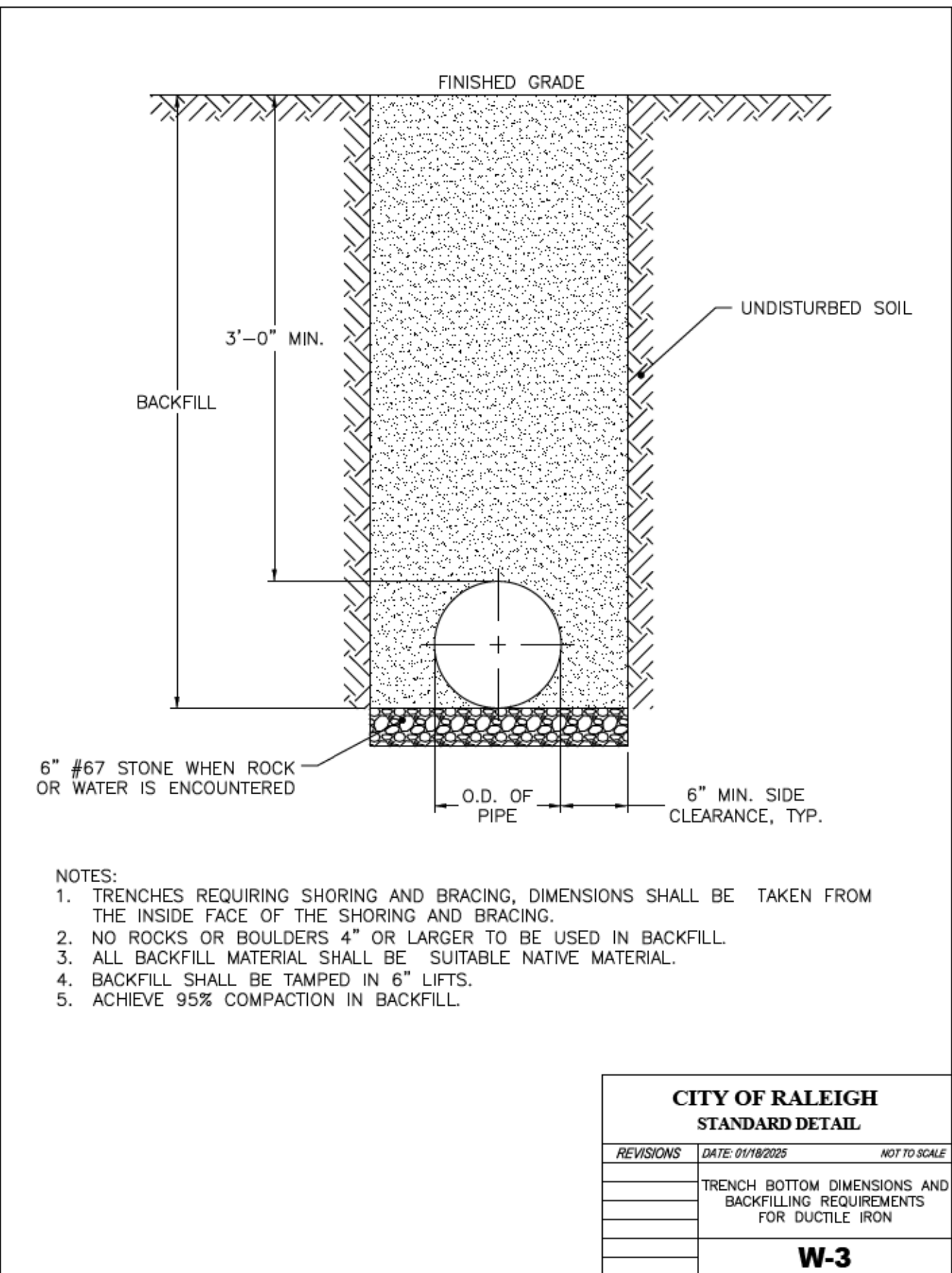
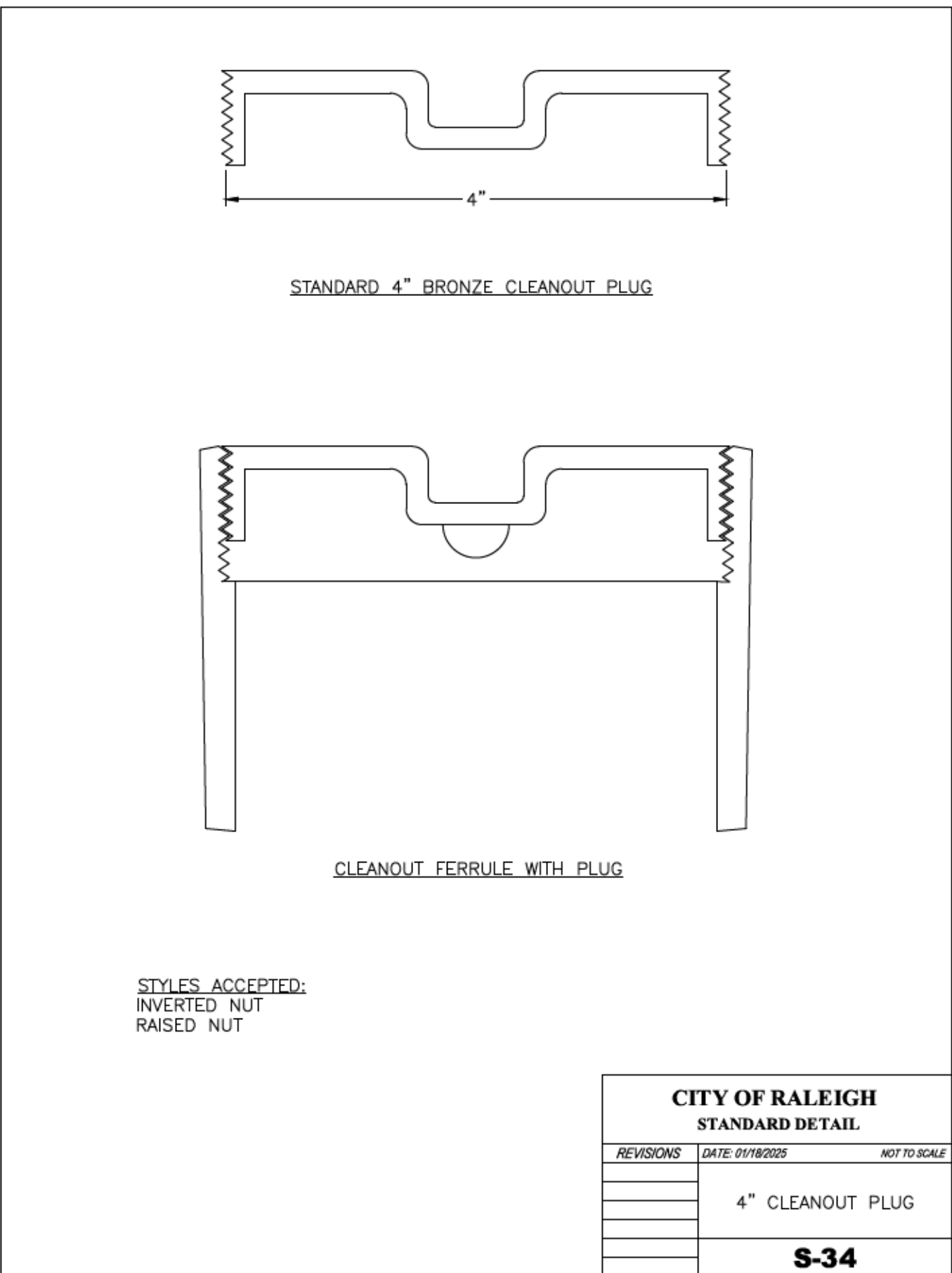
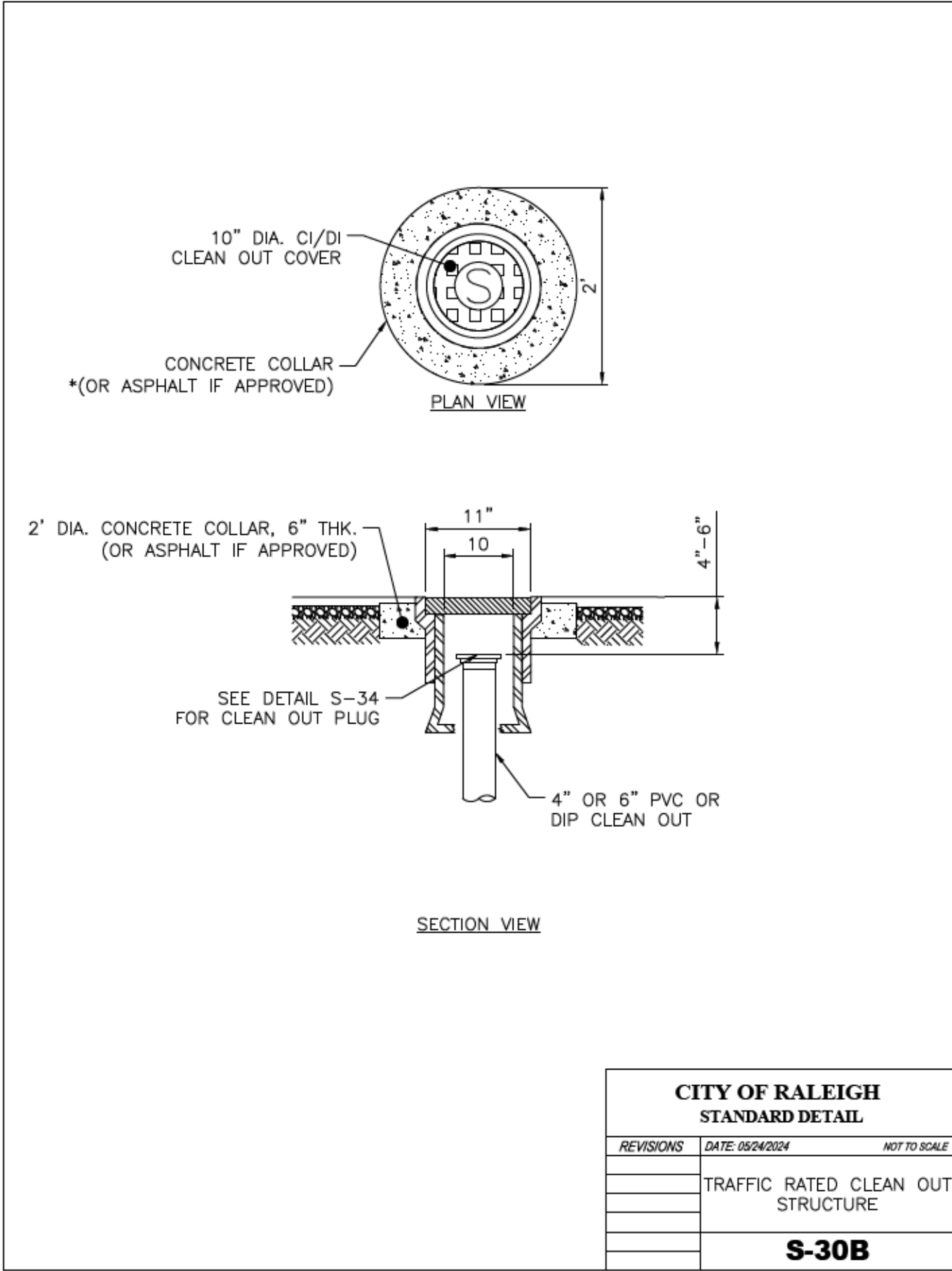
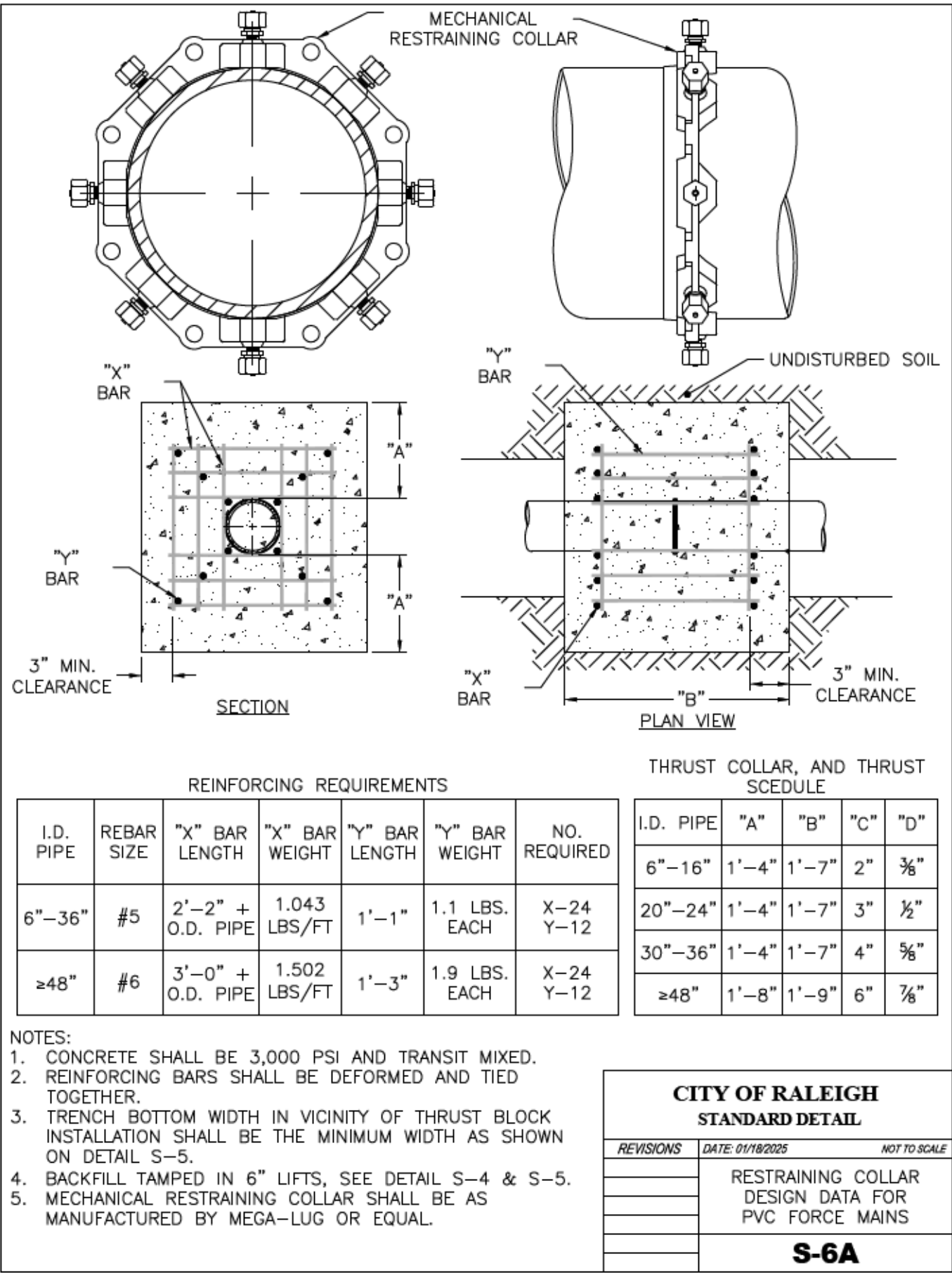
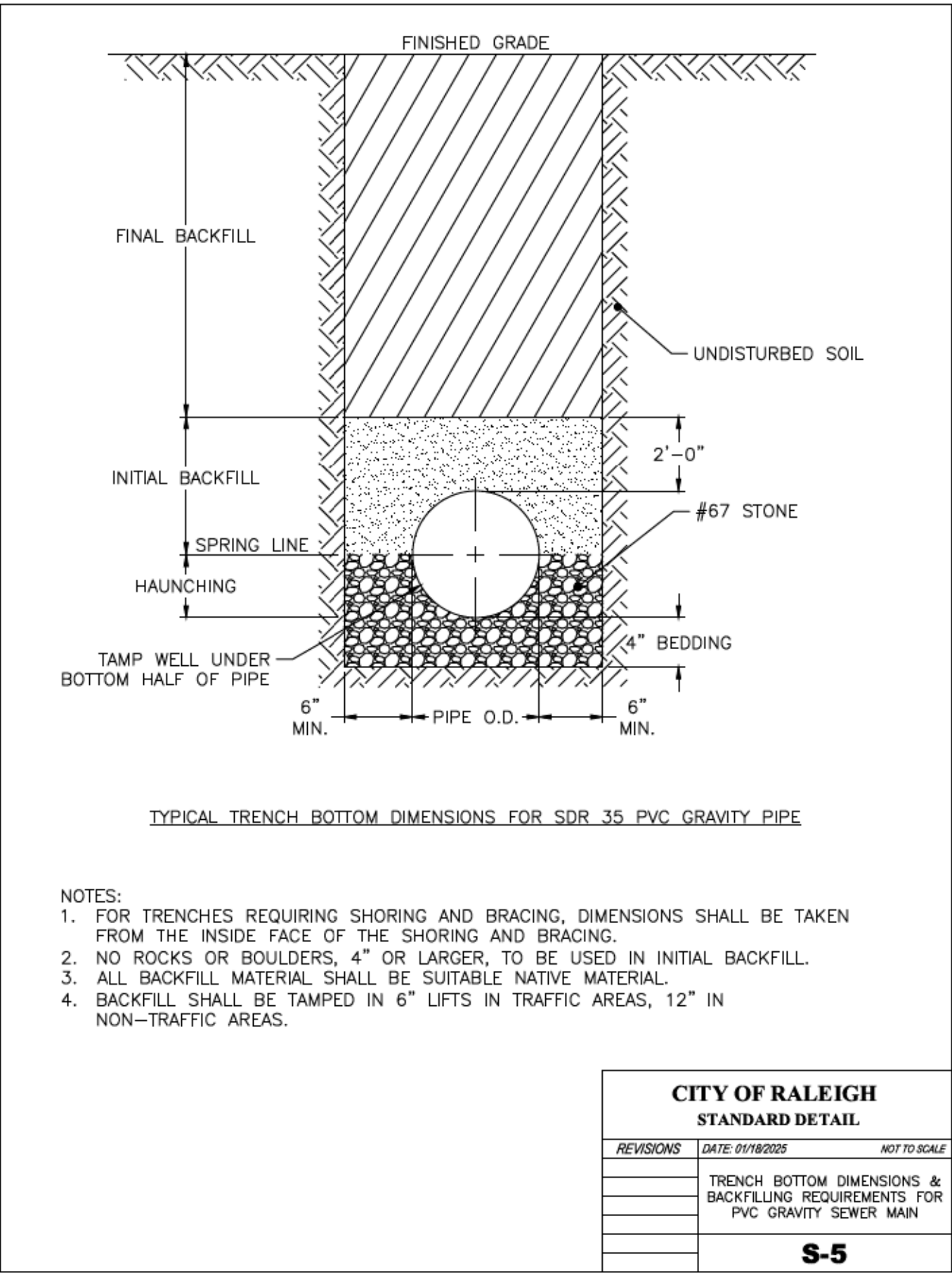
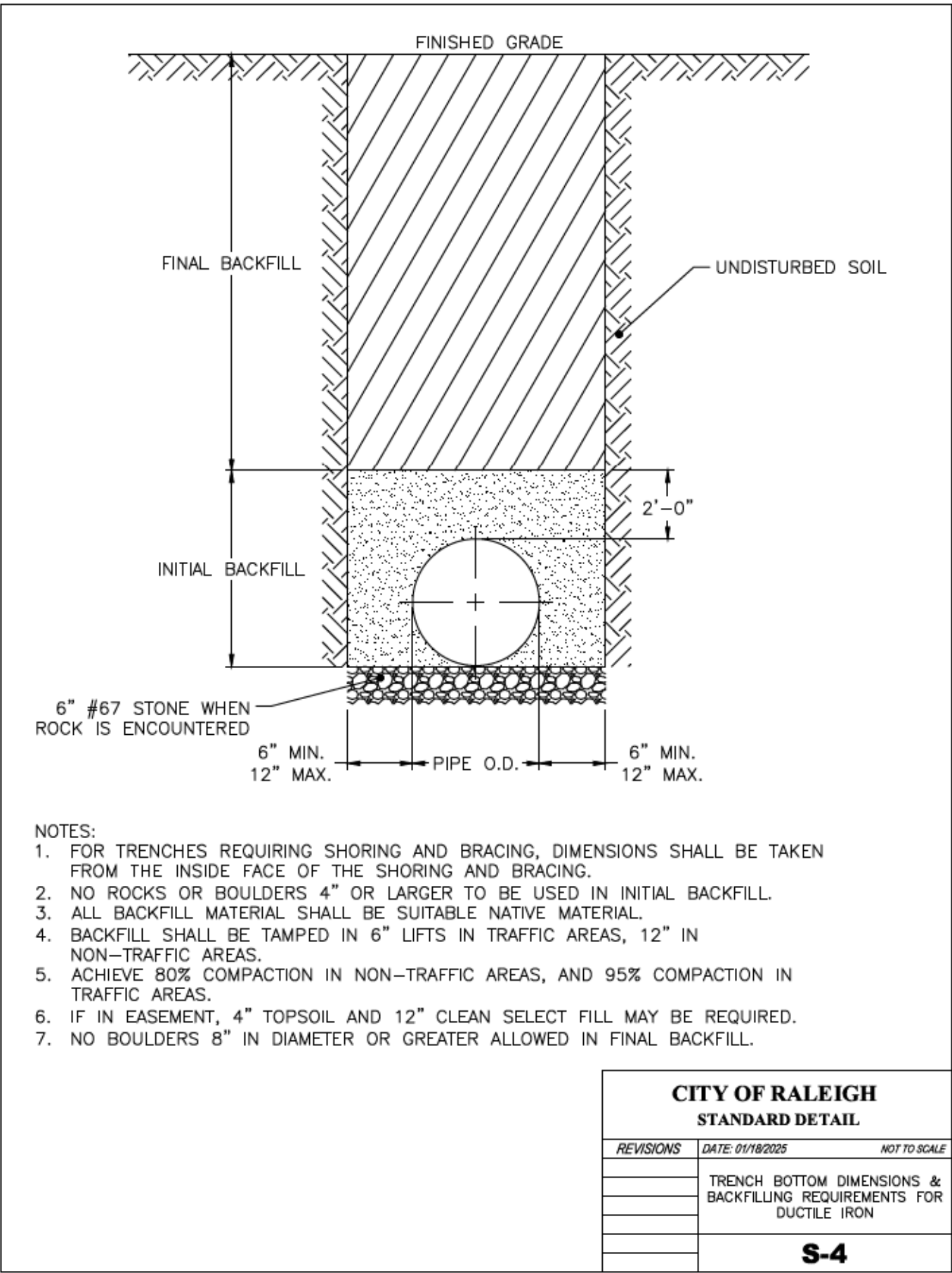
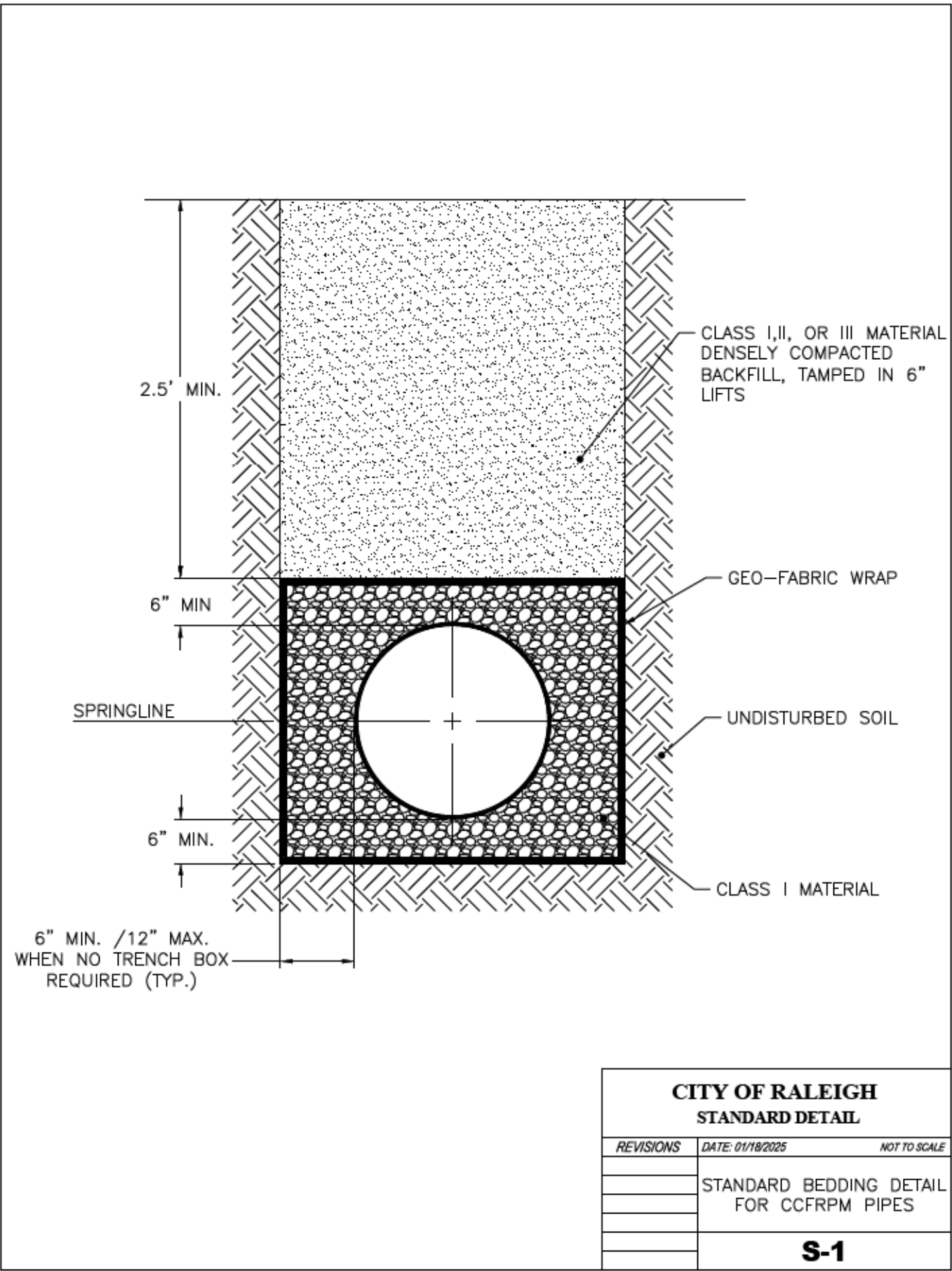
LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

NO.	DESCRIPTION	DATE

Date: 07/27/26

CW-300



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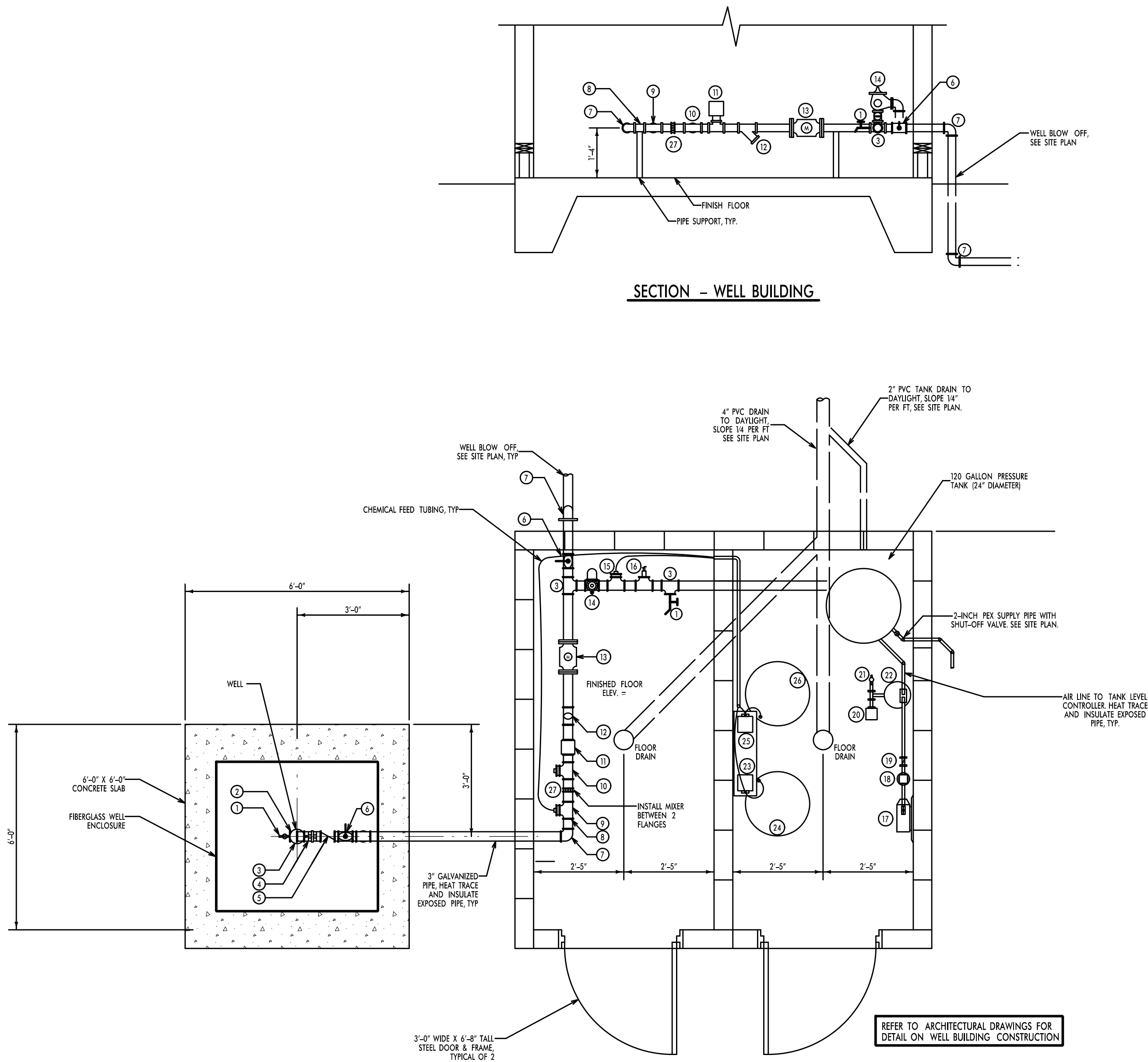
UTILITY
DETAILS

LAKE MYRA COUNTY PARK
Wake County, NC

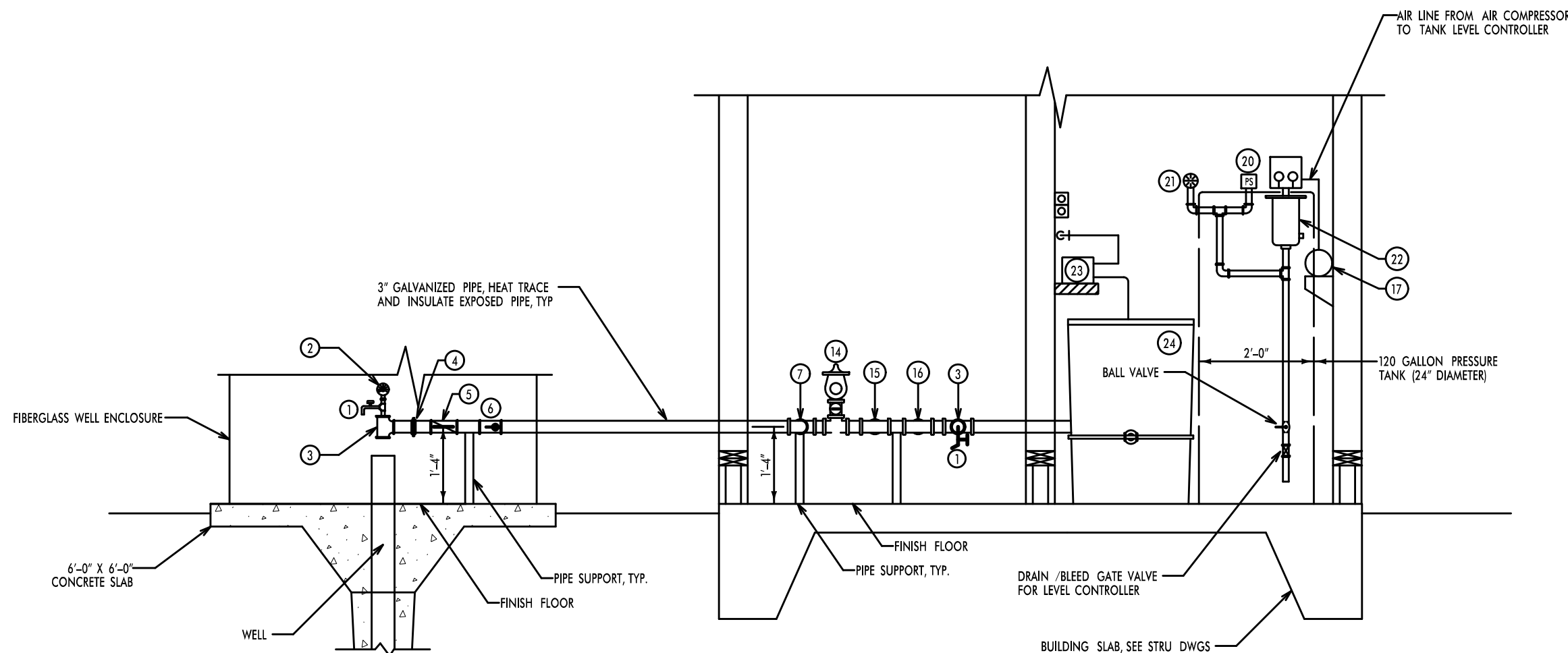
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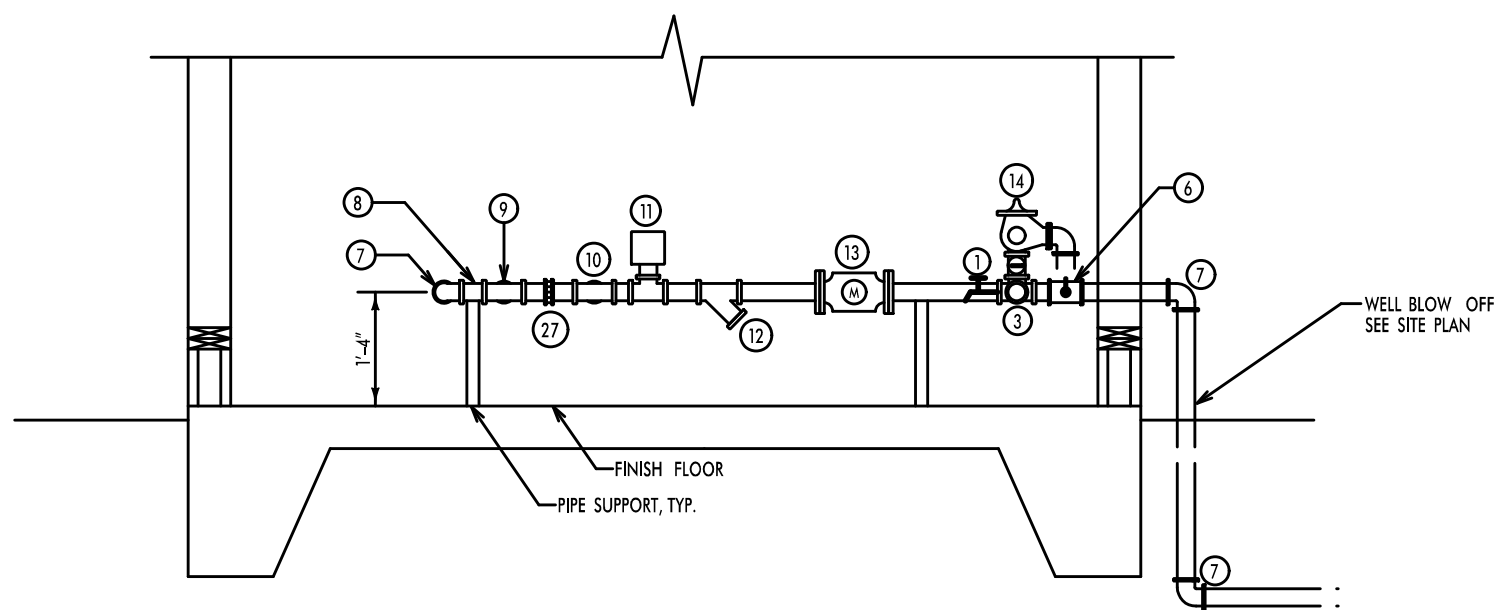
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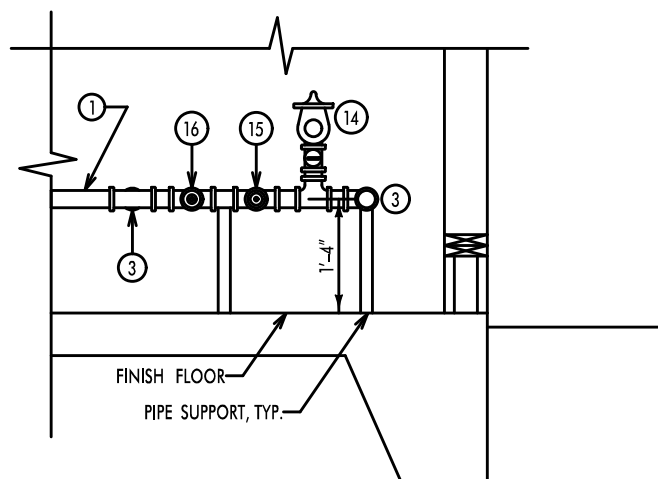
PLAN – PROPOSED WELL BUILDING



SECTION – WELL BUILDING

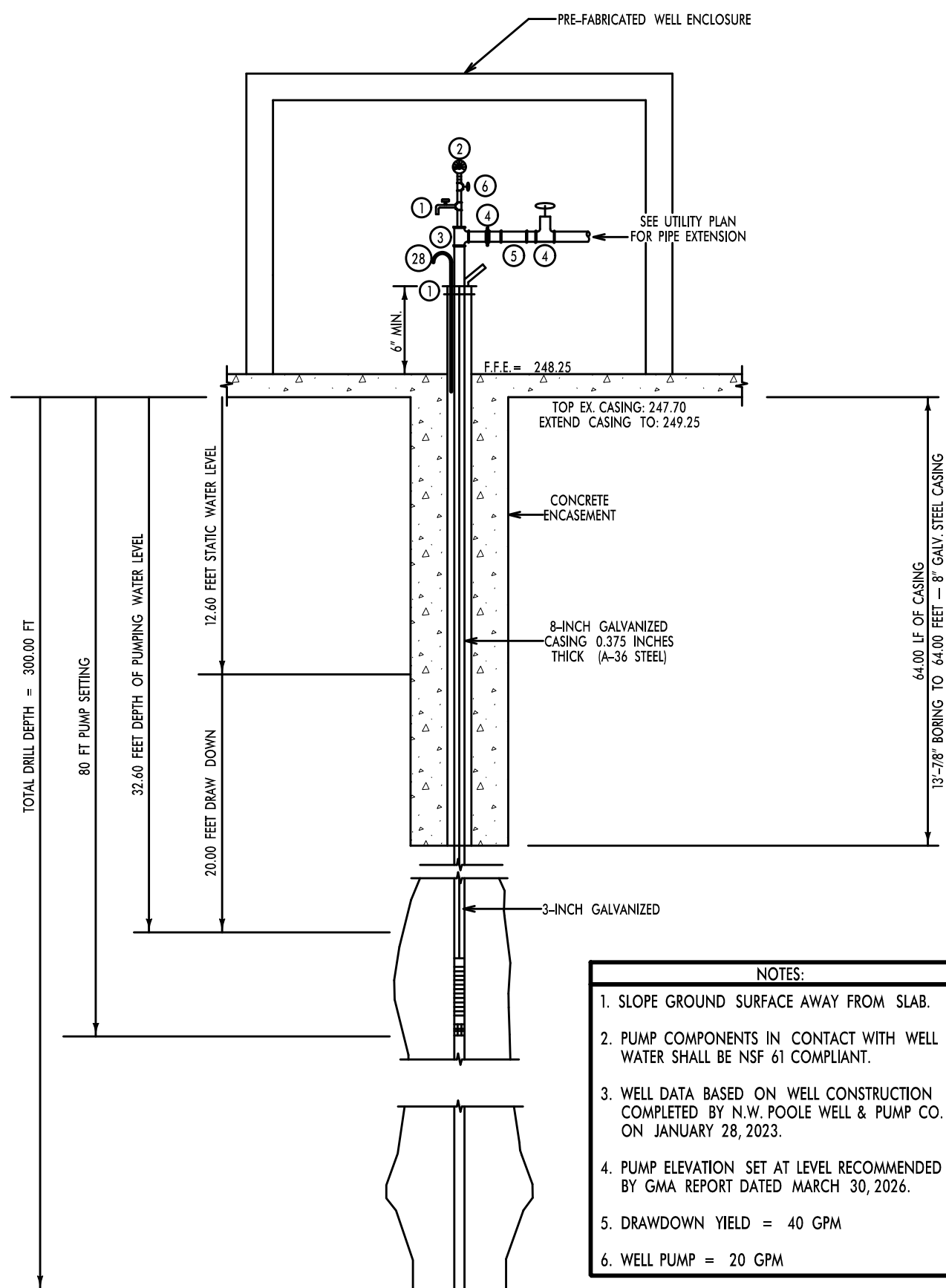


SECTION – WELL BUILDING



SECTION – WELL BUILDING

PIPE AND FITTINGS LEGEND	
1	3/4" THREADLESS SAMPLE TAP
2	PRESSURE GAUGE
3	3" X 3" TEE
4	UNION
5	3" CHECK VALVE
6	3" BALL VALVE
7	3" GALV 90 DEG BEND
8	THREADED GALV NIPPLE
9	3" X 3" CHEMICAL INJECTION TEE (PHOSPHATE)
10	3" X 3" CHEMICAL INJECTION TEE (FUTURE)
11	3" FLOW SWITCH
12	3" WYE STRAINER
13	3" FLOW METER (SEE SPECS)
14	3" SYSTEM PRESSURE RELIEF VALVE
15	3" X 3" CHEMICAL INJECTION TEE (CHLORINE)
16	3" X 3" TEE (EYE WASH CONNECTION)
17	WALL MOUNTED AIR COMPRESSOR (SEE SPECS)
18	AIR /WATER SEPARATOR
19	CHECK VALVE
20	PRESSURE SWITCH
21	PRESSURE GAUGE
22	TANK LEVEL CONTROLLER (SEE SPECS)
23	METERING PUMP – PHOSPHATE (SEE SPECS)
24	PHOSPHATE FEED TANK (SEE SPECS)
25	METERING PUMP – CHLORINE (SEE SPECS)
26	CHLORINE FEED TANK (SEE SPECS)
27	3" INLINE MIXER (WESTALL OR EQUAL)
28	12" SCREENED WELL VENT (STAINLESS STEEL)



WELL & PUMP INSTALLATION DETAIL

POTABLE WATER SUPPLY WELL NOTES

1. CONTRACTOR TO PROVIDE SITE SPECIFIC WATER QUALITY TREATMENT TO MEET WATER QUALITY STANDARDS FOR DRINKING WATER BASED ON THE WATER QUALITY SAMPLING TEST RESULTS INCLUDED IN THE PRODUCTION WELL CONSTRUCTION REPORT COMPLETED BY GROUNDWATER MANAGEMENT ASSOCIATES, INC (GMA) DATED MARCH 30, 2026.

2. THE CONTRACTOR IS RESPONSIBLE FOR REQUESTING THE WELLHEAD INSPECTION FROM WAKE COUNTY AFTER THE PERMANENT PUMP HAS BEEN INSTALLED AND CHLORINE HAS BEEN PURGED OUT OF THE SYSTEM.

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UTILITY
DETAILS

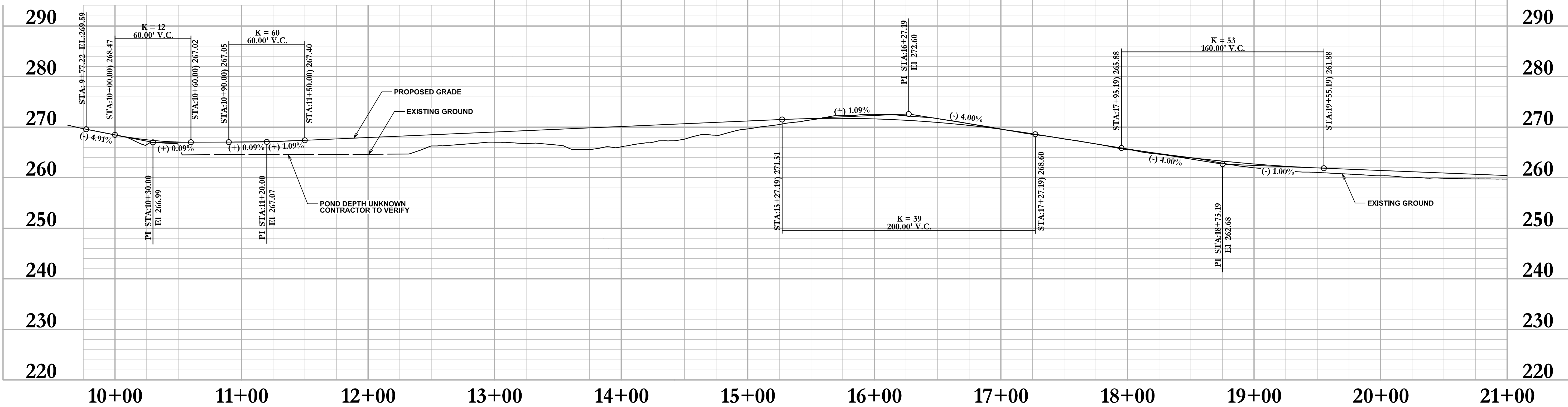
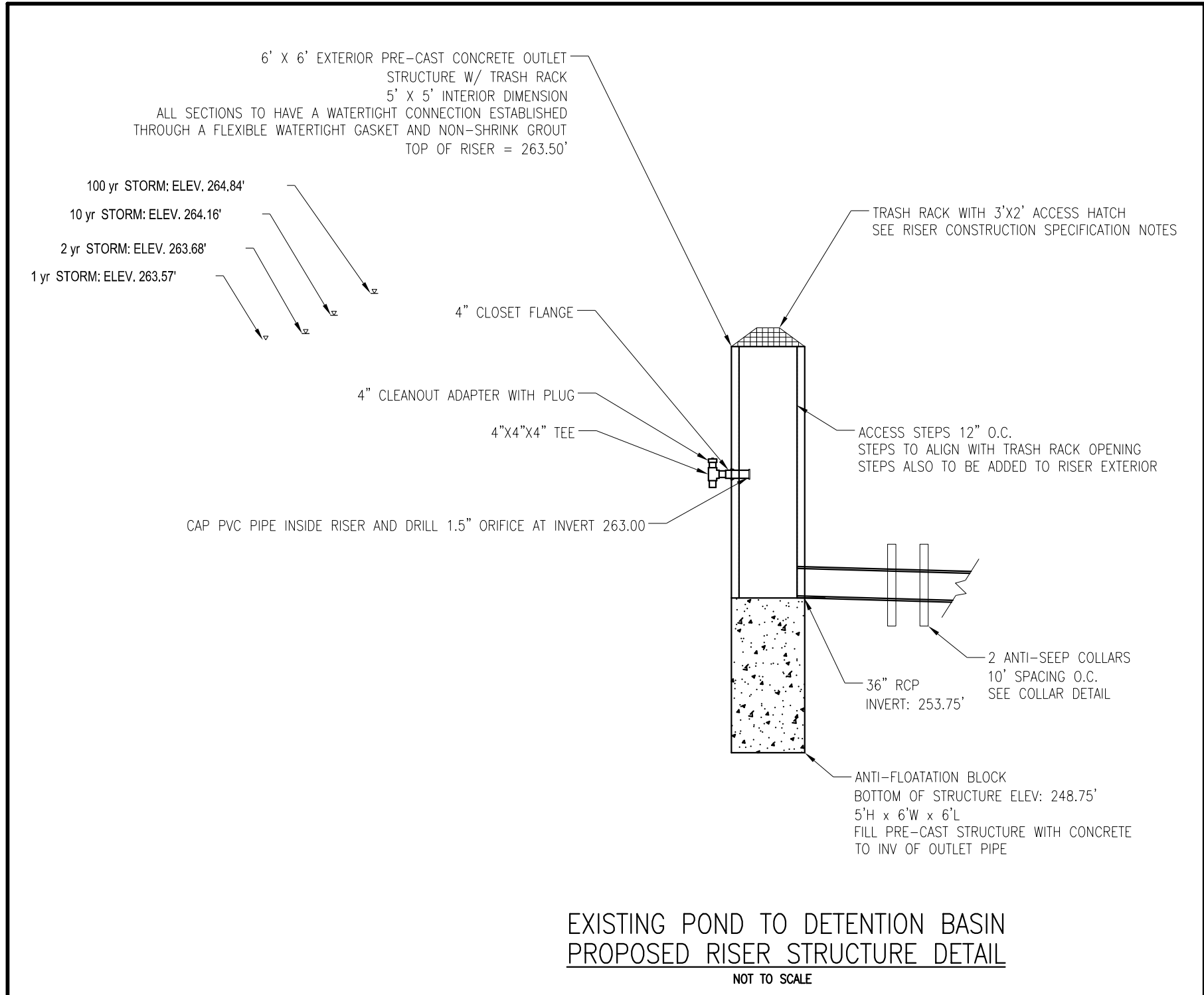
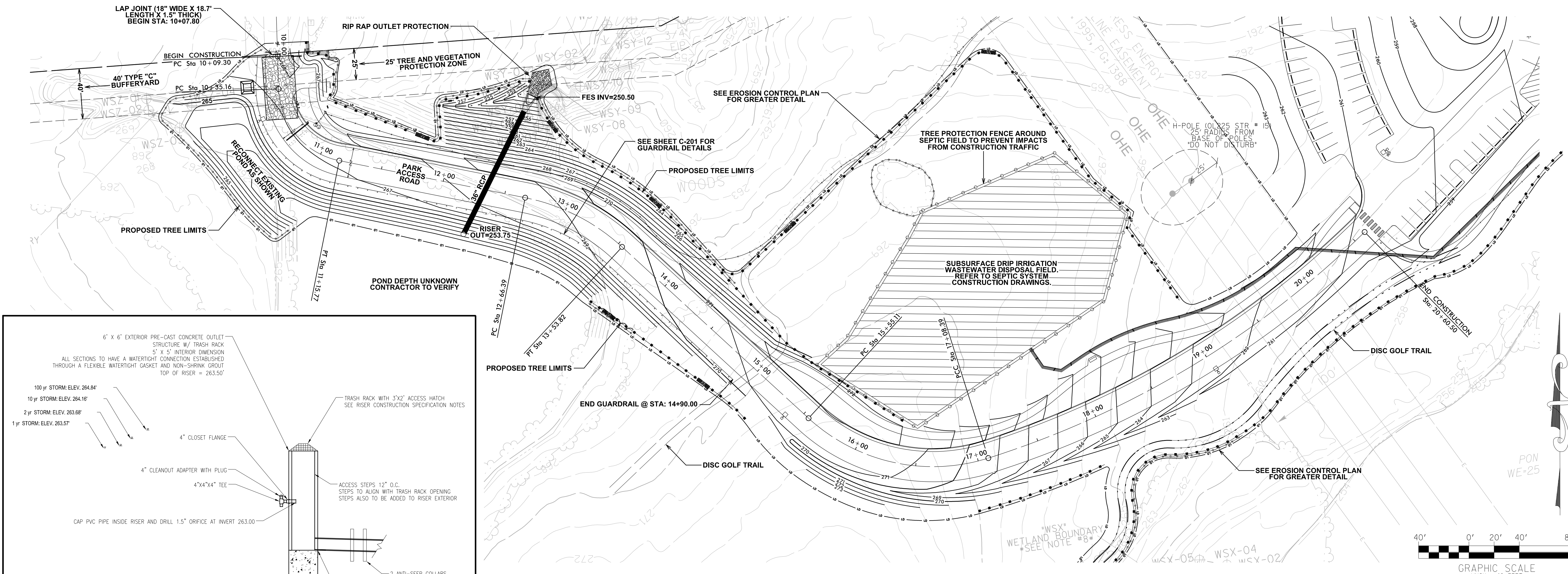
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Wake County, NC

REVISIONS

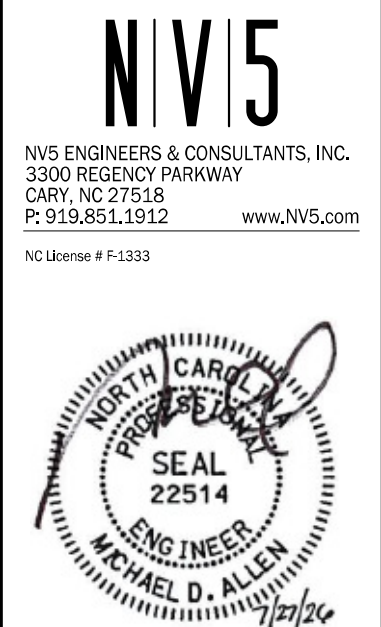
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CW-302

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Date: 07/27/26	
CW-400	



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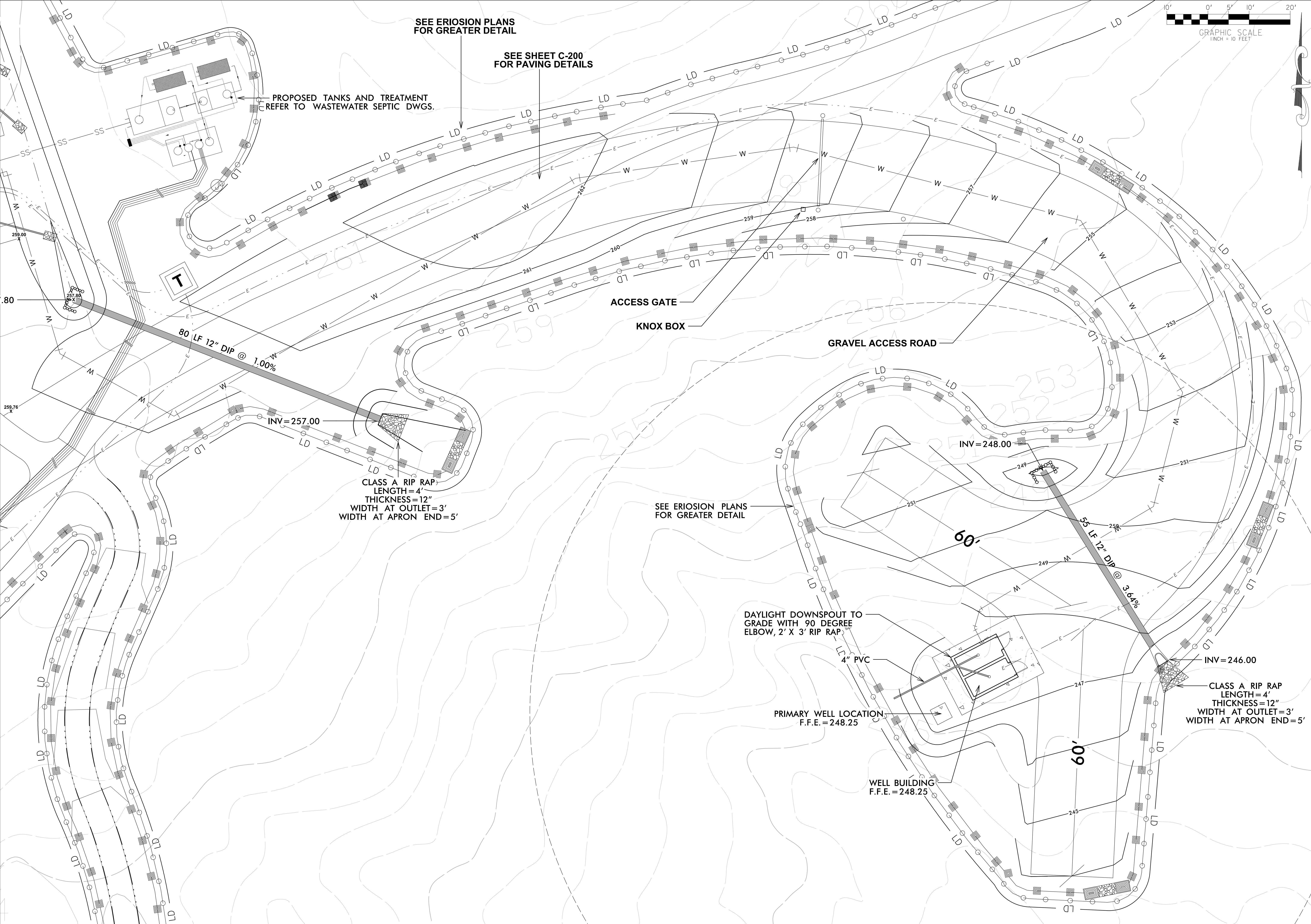
POND CROSSING

LAKE MYRA COUNTY PARK
Wake County, NC

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Date: 07/27/26	
CW-401	

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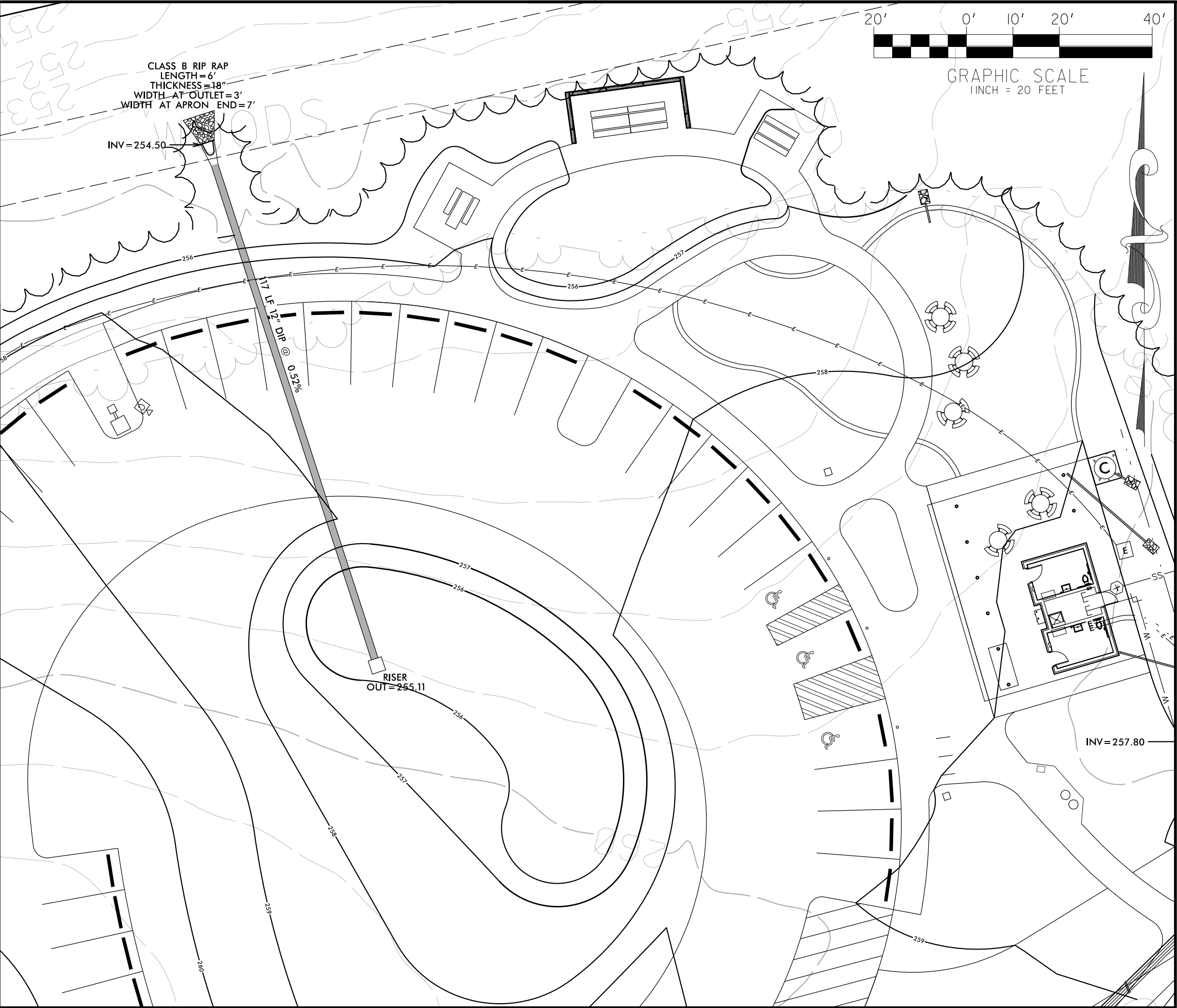
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Professional Engineer
SEAL
22514
MICHAEL D. ALLEN
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GRADING
ENLARGEMENT
WEST

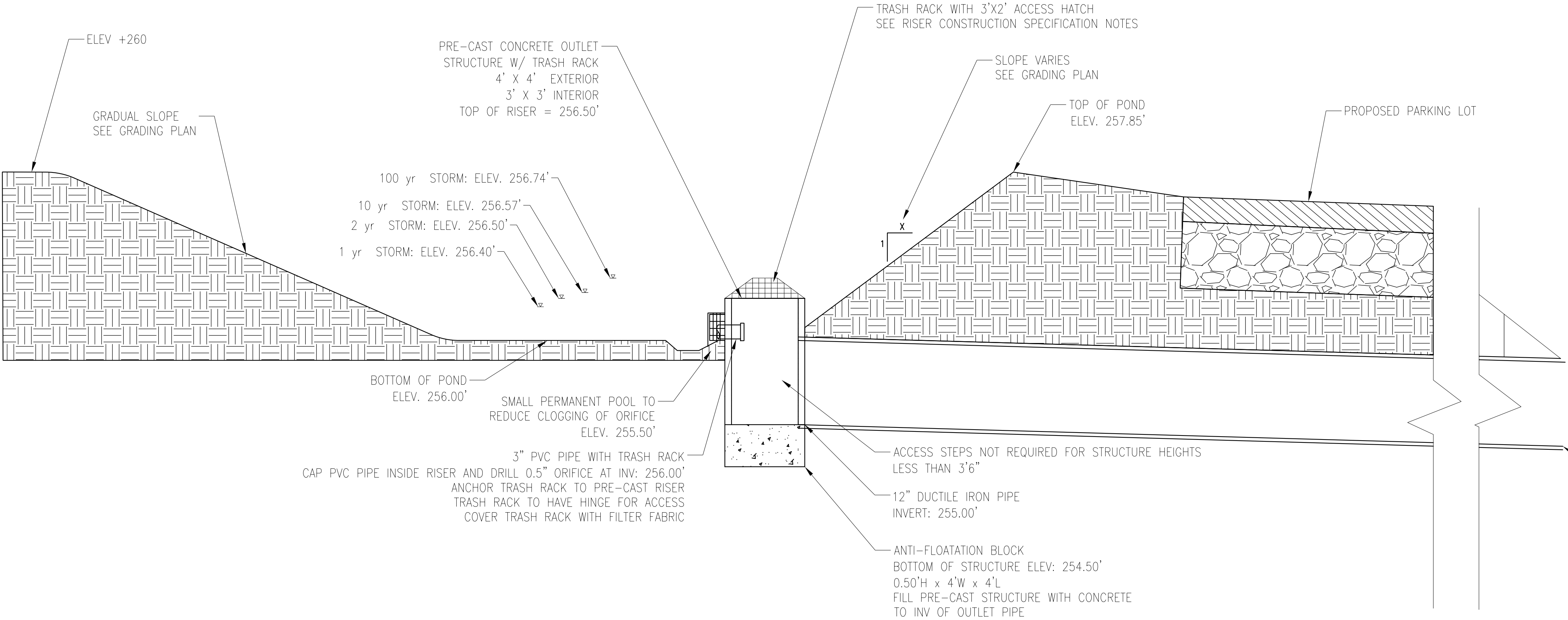
LAKE MYRA COUNTY PARK
Wake County, NC

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Date: 07/27/26	
CW-403	



PROPOSED DRY POND DETAIL
NOT TO SCALE

DRY POND NOTES:
1. THE DRY POND SHALL BE STABILIZED WITHIN 14 DAYS AFTER THE END OF CONSTRUCTION. THE STABILIZATION MAY BE THE FINAL VEGETATION OR A TEMPORARY STABILIZATION MEASURE UNTIL THE VEGETATION BECOMES ESTABLISHED. VEGETATION SHOULD BE NON-CLUMPING TURF GRASS. TREES AND WOODY SHRUBS ARE NOT ALLOWED WITHIN THE DAM STRUCTURE, INCLUDING THE EMBANKMENT SLOPES.



- RISER OUTLET CONSTRUCTION SPECIFICATIONS
1. PRE-CAST CONCRETE RISER STRUCTURE CONFORMING TO ASTM C-913
 2. BASE SECTION: 6-INCH MINIMUM THICKNESS FOR FLOOR SLAB AND 6-INCH MINIMUM THICKNESS FOR WALLS AND BASE RISER SECTIONS, AND HAVING SEPARATE BASE SLAB OR BASE SECTION WITH INTEGRAL FLOOR.
 3. THE ANTI-FLOTATION BLOCK SHALL BE PRE-CAST AS AN EXTENDED BASE OF THE RISER.
 4. JOINT SEALANT: THE RISER JOINTS SHALL BE SEALED USING A BUTYL RUBBER SEALANT CONFORMING TO ASTM 990.
 5. RISER SECTIONS SHALL BE BOLTED TO ADJACENT SECTIONS WITH STAINLESS STEEL STRAPS AND HARDWARE.
 6. RISER STEPS: ASTM A 615/A 615M, DEFORMED, 1/2 INCH MIN STEEL REINFORCING RODS ENCASED IN ASTM D 4101, PP, WIDE ENOUGH TO ALLOW WORKER TO PLACE BOTH FEET ON 1 STEP AND DESIGNED TO PREVENT LATERAL SLIPPAGE OFF OF STEP. CAST OR ANCHOR STEPS INTO SIDEWALLS AT 12-INCH TO 16-INCH INTERVALS.
 6. TOP-MOUNTED (OVERFLOW) TRASH RACKS SHALL BE BOLTED TO THE TOP OF THE STRUCTURE WITH STAINLESS STEEL HARDWARE. MOUNTING THE TRASH RACK TO THE RISER IN SHEAR SHALL BE PROHIBITED. ALL RISER TRASH RACKS SHALL HAVE A LOCKING ACCESS HATCH WITH A MINIMUM CLEAR SPACE OPENING OF 2' BY 3' AND AN ACCEPTED DESIGN LIFE OF 75 YEARS.
 7. GEOTEXTILE FABRIC FOR THE OUTLET BARREL JOINTS AND UNDER RIP RAP: NONWOVEN NEEDLE-PUNCHED, MADE FROM POLYPROPYLENE FIBERS WITH ELONGATION GREATER THAN 50 PERCENT; COMPLYING WITH AASHTO M 288 AND THE FOLLOWING, MEASURED PER TEST METHODS REFERENCED:
7.1. GRAB STRENGTH: 285 LBS; ASTM D4632
7.2. TEAR STRENGTH: 80 LBS; ASTM D4633
7.3. PUNCTURE STRENGTH: 440 LBS; ASTM D6241
7.4. PERMITTIVITY: 0.20 SEC-1/
7.5. APPARENT OPENING SIZE: NO. 60 SIEVE, MAXIMUM; ASTM D4751
7.6. UV STABILITY: 50% AFTER 500 HOURS OF EXPOSURE; ASTM D4355

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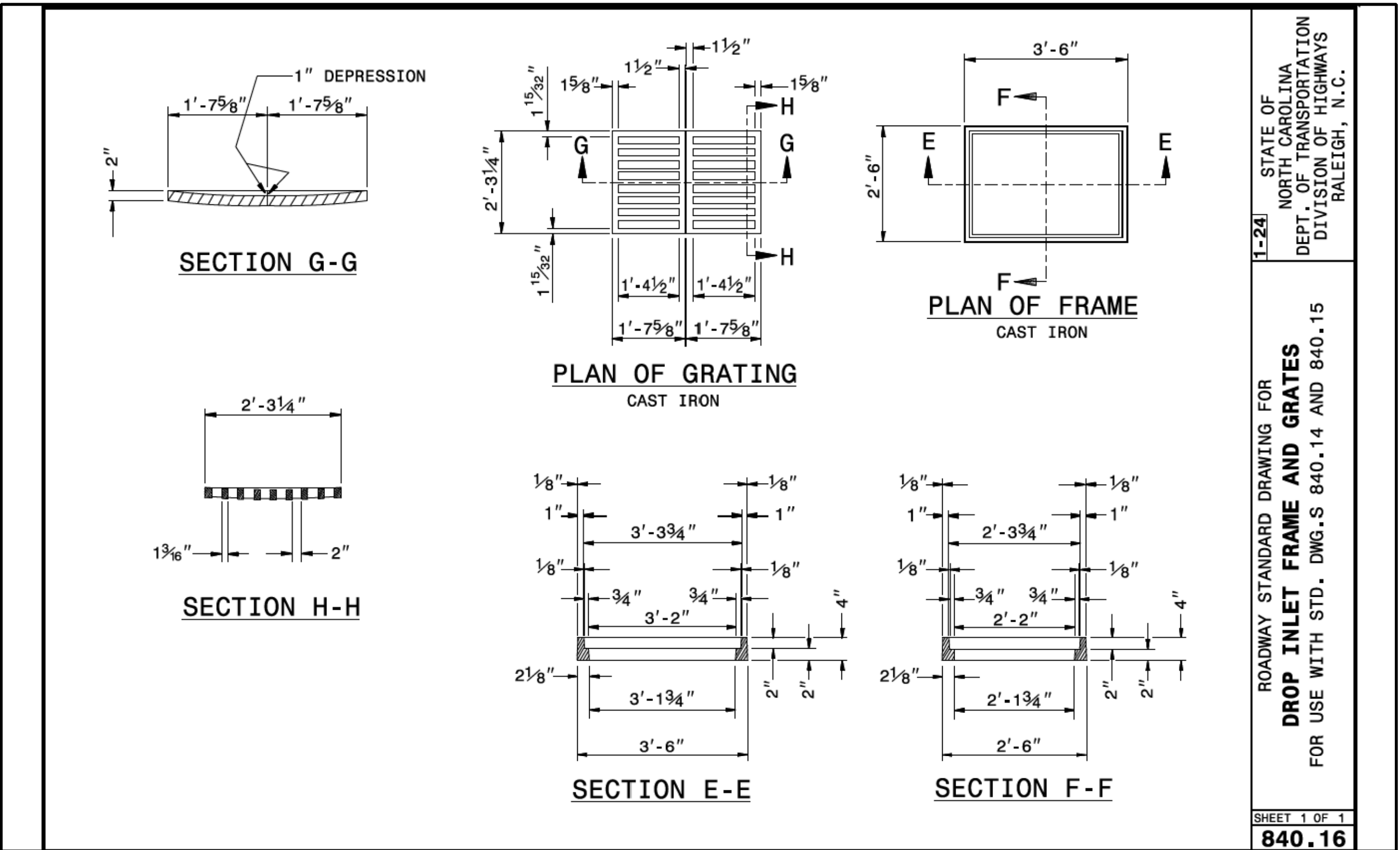
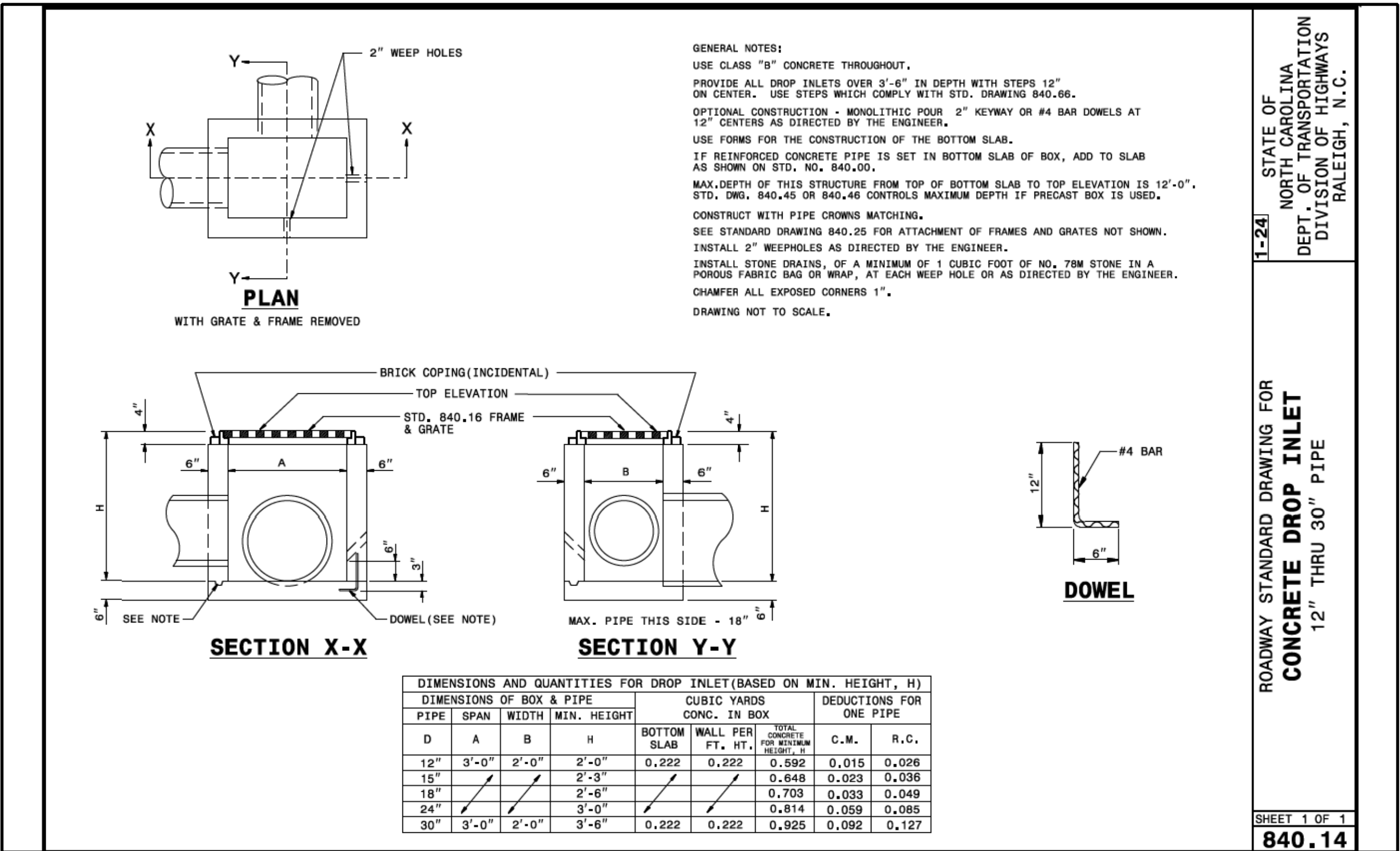
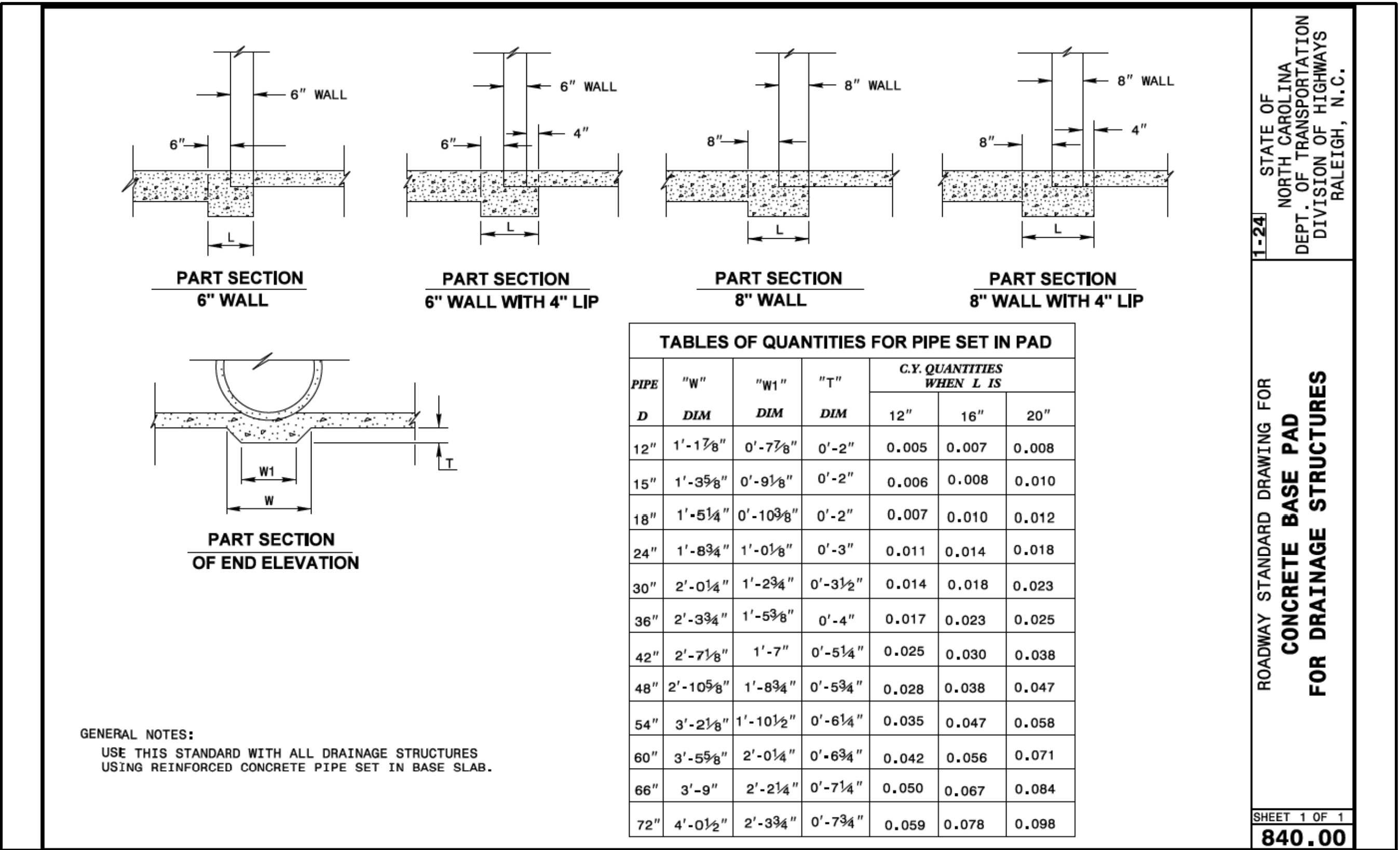
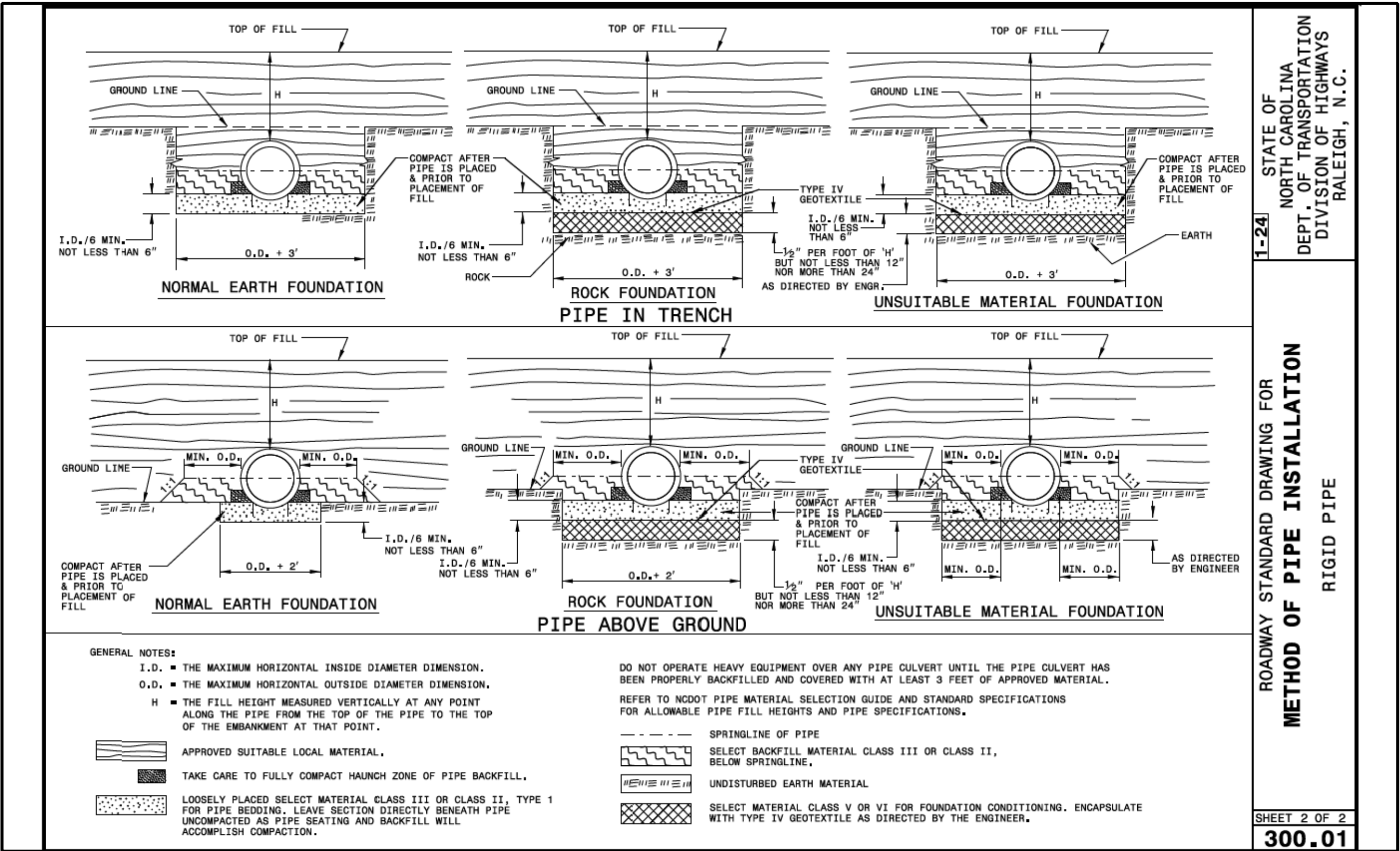
STORMWATER
DETAILS

LAKE MYRA COUNTY PARK
Wake County, NC

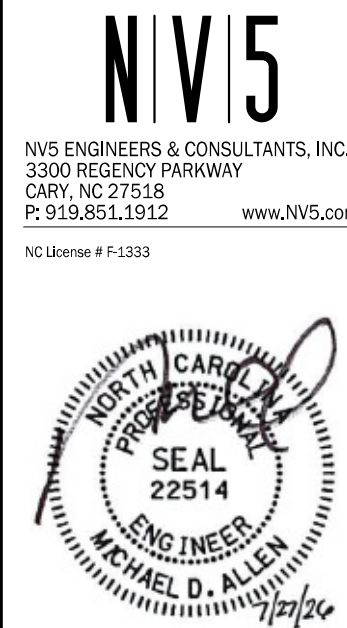
REVISIONS	

Date: 07/27/26

CW-404



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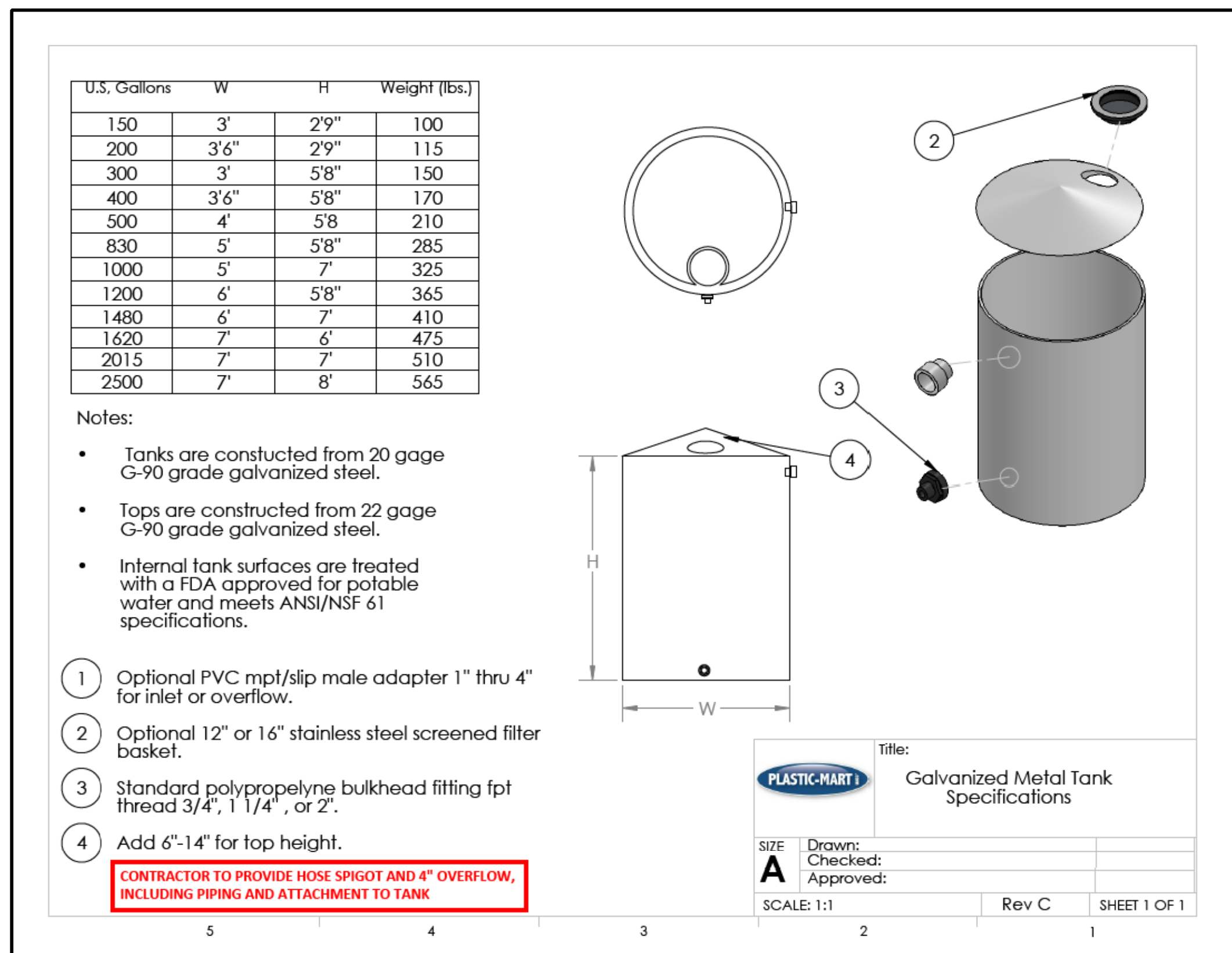
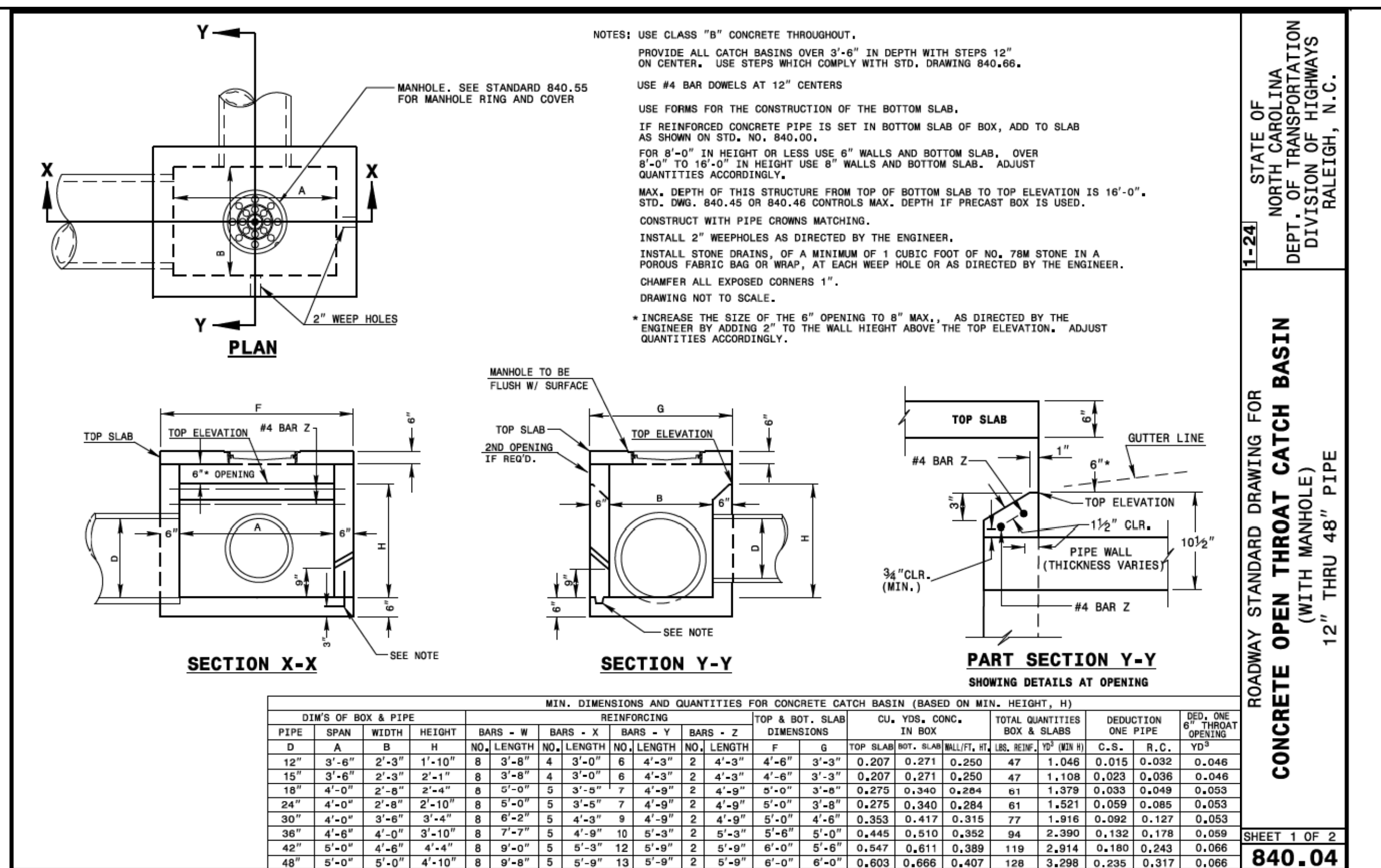


STORMWATER
DETAILS

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	

Date: 07/27/26
CW-405



1. DUE TO THE LOCATION OF THIS PROJECT, IT SHOULD BE NOTED THAT A RULE TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE RIVER BASIN BECAME EFFECTIVE ON JULY 22, 1997. THE NEUSE RIVER RIPARIAN AREA PROTECTION AND MAINTENANCE RULE (15A NCAC 2B.0233) APPLIES TO ALL PERENNIAL AND INTERMITTENT STREAMS, LAKES, PONDS AND ESTUARIES IN THE NEUSE RIVER BASIN WITH FOREST VEGETATION ON THE ADJACENT LAND OR "RIPARIAN AREA".

TOTAL DISTURBED AREA = 353,140.92 SF // 8.107 ACRES

PERMITTING NOTES:

1. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH:
 - APPROVAL OF NEUSE RIPARIAN BUFFER AUTHORIZATION CERTIFICATE (DWR# 20251548) FROM NCDEQ DATED JANUARY 30, 2026.
 - APPROVAL OF INDIVIDUAL 401 WATER QUALITY CERTIFICATION (USACE ACTION ID. NO. SAW-2023-01741 DATED JANUARY 30, 2026).
 - APPROVAL OF THE NWP 42 BY THE USACE DATED FEBRUARY 9, 2026 IN ACCORDANCE WITH SECTION 404 OF THE CLEAN WATER ACT.
2. ALL WORK WITHIN THE DUKE ENERGY TRANSMISSION EASEMENT SHOULD BE COMPLETED IN ACCORDANCE WITH THE DUKE ENERGY APPROVAL, WORK 59035555 DATED MARCH 5, 2026.

PHASE 1 - DRAINING EXISTING POND

1. SLOWLY LOWER THE WATER LEVEL OF THE EXISTING POND UTILIZING A SUBMERSIBLE PUMP WITH A SCREEN OR PRE-FILTER. ROUTE DISCHARGE HOSES TO A WOODED AREA TO MINIMIZE EROSION.
2. CONTRACTOR TO CONTACT WAKE COUNTY WHEN POND LOWERING ACTIVITIES HAVE BEGUN TO ALLOW TIME FOR STAFF TO CATCH AND RELOCATE FISH AND WILDLIFE.
3. BREACH THE EXISTING DAM. CUT THE BREACH IN GRADUALLY TO CONTROL THE RELEASE OF ANY REMAINING WATER. ARMOR THE BOTTOM AND SIDES OF THE BREACH CHANNEL WITH RIPRAP TO REDUCE THE VELOCITY OF THE WATER. USE GEOTEXTILE FIBER UNDER THE RIPRAP TO PREVENT SOIL FROM ERODING.
4. INSTALL CHECK DAMS IN THE CHANNEL TO REDUCE VELOCITY AND TRAP SEDIMENT.
5. IF NECESSARY, THE CONTRACTOR CAN INSTALL AND BACKFILL A TEMPORARY DISCHARGE PIPE AT THE BREACH TO ALLOW CONTINUED ACCESS TO THE SITE.

TREE CLEARING RESTRICTIONS FOR THE PROTECTION OF BATS:

AVOID TREE CLEARING THE FOLLOWING DATES:
MAY 15 TO JULY 15TH - BAT PUP SEASON
DECEMBER 15 TO FEBRUARY 15 - WINTER TORPOR SEASON

LEGEND

- CHECK DAM
- SILT FENCE
- TREE PROTECTION FENCE
- LIMITS OF CONSTRUCTION
- SILT FENCE OUTLET
- CONCRETE WASHOUT
- INLET PROTECTION

GRAPHIC SCALE
1" = 50' FEET

50' 0' 25' 50' 100'

THE PROPOSED TRAIL IS LOCATED ON AN EXISTING PATH TO MINIMIZE TREE REMOVAL. CONTRACTOR TO STAKE OUT THE LIMITS OF DISTURBANCE (LD) FOR THE PROPOSED TRAIL ONCE THE LD HAVE BEEN IDENTIFIED. THE CONTRACTOR TO CONTACT THE COUNTY AND LANDSCAPE ARCHITECT SO THAT THE TREES TO BE REMOVED WITHIN THE CORRIDOR CAN BE IDENTIFIED. ONLY THE TREES IDENTIFIED ARE TO BE REMOVED.

MATCHLINE SHEET CW-501

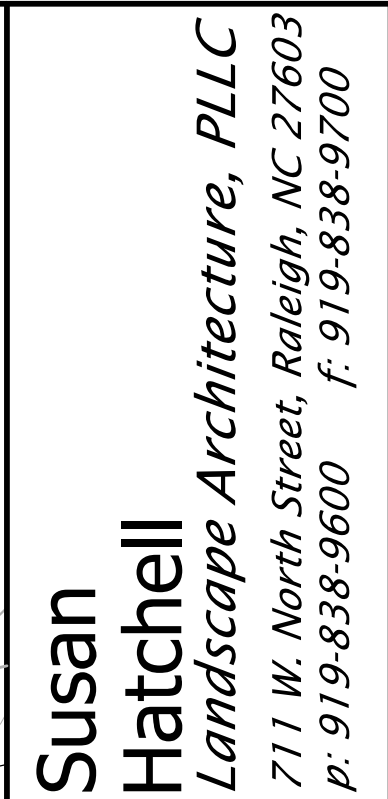
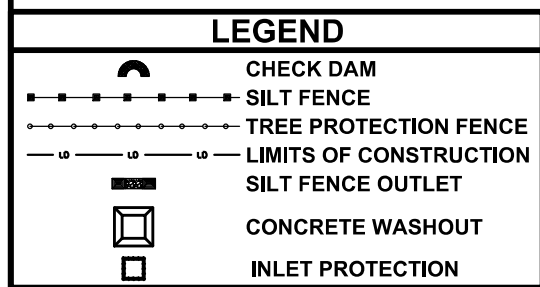
PHASE I CONSTRUCTION SEQUENCE

1. PER NPDES REQUIREMENTS, A RAIN GAUGE, SELF-INSPECTIONS RECORDS, PERMIT, CERTIFICATE OF COVERAGE, AND EASC PLAN ARE REQUIRED TO BE MAINTAINED ON SITE AND ACCESSIBLE DURING INSPECTION. IT IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMITS BOX AT THE BEGINNING OR ENTRANCE OF PROJECT.
2. THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES AND COMPLETE THE FOLLOWING COMBINED SELF-INSPECTION FORM FOUND ON THE NPDES WEBSITE: <https://www.deq.nc.gov/npdes/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>. TWELVE MONTHS OF COMPLETE INSPECTION FORMS SHALL BE KEPT ON-SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS RECOMMENDED A COPY BE KEPT IN A PERMITS BOX.
3. SELF-INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF EQUAL TO OR GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL ESC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN.
4. EROSION AND SEDIMENT CONTROL (EASC) PERMIT AND CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES INCLUDING TIMBERING AND DEMOLITION OCCUR. THE COC CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOI) FORM AT <https://www.deq.nc.gov/npdes/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>. PLEASE NOTE, THE E-NOI FORM MAY ONLY BE FILLED OUT ONCE THE PLANS ARE APPROVED.
5. CONTACT NCDEMLR RALEIGH REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO COMMENCING THE LAND-DISTURBING ACTIVITY. THE CONTACT NUMBER IS (919) 791-4200 (15A NCAC 04B .106(B)).
6. INSTALL CONSTRUCTION ENTRANCE.
7. CONTRACTOR TO STAKE PROPOSED LIMITS OF DISTURBANCE. ONCE THE LIMITS OF DISTURBANCE HAS BEEN STAKED, CONTRACTOR TO COORDINATE WITH LANDSCAPE ARCHITECT TO MAKE ANY ADJUSTMENTS TO THE PROPOSED TREE PROTECTION FENCING TO SAVE (OR REMOVE) ADDITIONAL TREES PRIOR TO BEGINNING TREE REMOVAL ACTIVITIES.
8. INSTALL TREE PROTECTION FENCE, SILT FENCE, AND SILT FENCE OUTLETS PRIOR TO ANY LAND DISTURBING ACTIVITIES (INCLUDING ANY TREE CLEARING OR DEMOLITION). CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES AS SPECIFIED ON THE APPROVED PLAN SHEET. INSTALL ALL OTHER EROSION CONTROL MEASURES AS REQUIRED BY NCDEQ INCLUDING SEDIMENT BASINS, BARRIERS, AND DIVERSION DITCHES AS NEEDED. CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. INSTALL DITCH LINERS AND TEMPORARY CULVERT PIPE AS NOTED ON PLANS. SEED TEMPORARY DIVERSIONS, BERMS, AND BASINS IMMEDIATELY AFTER INSTALLATION. INSTALL COR WATTLES OR CHECK DAMS IN TEMPORARY DIVERSIONS.
9. INSTALL SKIMMER SEDIMENT BASIN(S) ACCORDING TO PLAN. INSTALL OPEN ENDED OUTLET PIPE WITH HORSESHOE INLET PROTECTION. DO NOT INSTALL THE RISER UNTIL THE PHASE 2 CONVERSION TO DRY POND. INSTALL THE SKIMMER PIPE UNDERNEATH THE HORSESHOE PROTECTION. SKIMMER PIPE TO DISCHARGE INSIDE THE HORSESHOE WITH THE OUTLET PIPE AND SKIMMER DEVICE TO BE INSTALLED OUTSIDE THE HORSESHOE. SEED, MULCH AND ANCHOR BERM AND SOILS AROUND AND BELOW BASIN UPON CONSTRUCTION. REEF FOR STABILIZATION OF ALL 2:1 SLOPES. PROVIDE TEMPORARY WETLANDS VEGETATION MIX FOR STABILIZATION WITHIN BUFFERED AREAS. SEE DETAILS FOR SEED MIX. PLACE SILT FENCE ON DOWNHILL SIDE OF SOIL STOCKPILES.
10. CONTACT NCDEMLR AT (919) 791-4200 FOR INSPECTION OF THESE MEASURES. UPON APPROVAL, INSTALL TEMPORARY DIVERSION DITCHES AND THE REMAINING EROSION CONTROL MEASURES AS SHOWN ON THE PLAN.
11. LIMIT DISTURBANCES TO THE LENGTH THAT CAN BE STABILIZED AT THE END OF THE WORKDAY (15A NCAC 04B .0106(4)).

REVISIONS

Date: 07/27/2016

CW-500



N|V|5
NV5 ENGINEERS & CONSULTANTS, INC.
3300 REGENCY PARKWAY
CARY, NC 27518
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EROSION CONTROL
PLAN WEST
PHASE 1

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

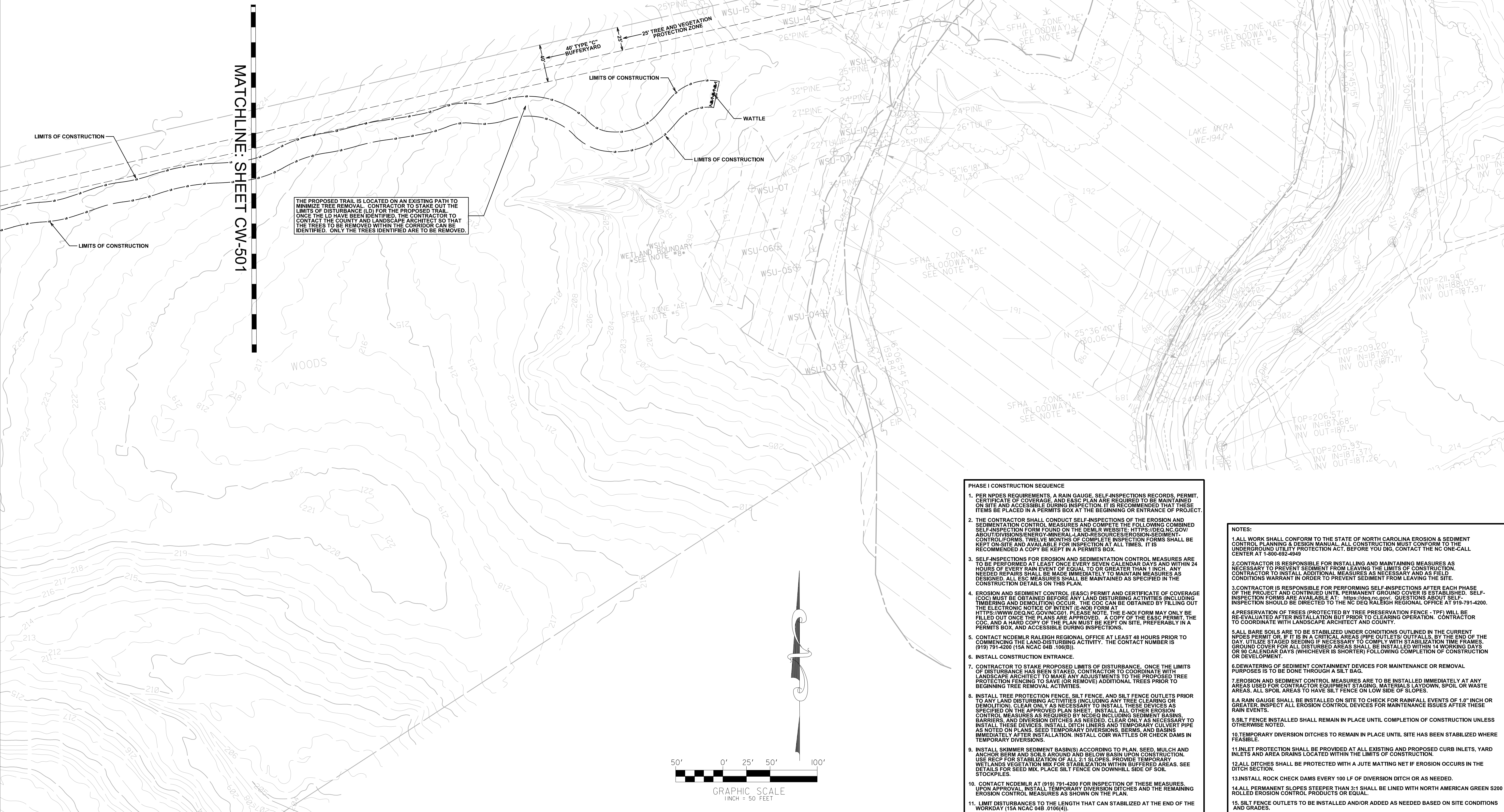
Date: 07/27/26

CW-501

TOTAL DISTURBED AREA = 353,140.92 SF // 8.107 ACRES

LEGEND

- | | |
|---|------------------------|
|  | CHECK DAM |
|  | SILT FENCE |
|  | TREE PROTECTION FENCE |
|  | LIMITS OF CONSTRUCTION |
|  | SILT FENCE OUTLET |
|  | CONCRETE WASHOUT |
|  | INLET PROTECTION |



PHASE I CONSTRUCTION SEQUENCE

1. PER NPDES REQUIREMENTS, A RAIN GAUGE, SELF-INSPECTIONS RECORDS, PERMIT, CERTIFICATE OF COVERAGE, AND E&S C PLAN ARE REQUIRED TO BE MAINTAINED ON SITE. THE PERMIT, CERTIFICATE OF COVERAGE, AND E&S C PLAN AND ALL OTHER ITEMS BE PLACED IN A PERMITS BOX AT THE BEGINNING OR ENTRANCE OF PROJECT.
2. THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES AND THE E&S C PLAN. THE FOLLOWING COMBINED SELF-INSPECTION FORM FOUND ON THE DCEMLR WEBSITE: <https://deg.nc.gov/permitting/erosion-sediment-control/erosion-sediment-control-measures-self-inspection-forms>. TWELVE MONTHS OF COMPLETE INSPECTION FORMS SHALL BE MAINTAINED ON SITE FOR THE EROSION AND SEDIMENTATION CONTRACTOR. IT IS RECOMMENDED A COPY BE KEPT IN A PERMITS BOX.
3. THE CONTRACTOR FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF ANY RAINFALL. THE CONTRACTOR SHALL MAINTAIN ALL OTHER E&S C NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS SPECIFIED IN THE E&S C PLAN. THE E&S C MEASURES ARE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN.
4. EROSION AND SEDIMENT CONTROL (E&S C) PERMIT AND CERTIFICATE OF COVERAGE MUST BE OBTAINED PRIOR TO THE BEGINNING OF CONSTRUCTION. IF ANY TIMBERING AND DEMOLITION OCCUR, THE COC CAN BE OBTAINED BY FILLING OUT THE ELECTRONIC NOTICE OF INTENT (E-NOI) FORM <https://deg.nc.gov/permitting/erosion-sediment-control/erosion-sediment-control-measures-self-inspection-forms>. THE E-NOI FORM MAY ONLY BE FILLED OUT ONCE THE PLANS ARE APPROVED. A COPY OF THE E&S C PERMIT, THE EROSION AND SEDIMENTATION CERTIFICATE OF COVERAGE, AND E&S C PLAN, PERMITS BOX, AND ACCESSIBLE DURING INSPECTIONS.
5. CONTACT NCDCEMLR RALEIGH REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO COMMENCING THE EROSION AND SEDIMENTATION ACTIVITY. THE CONTACT NUMBER IS (919) 791-2400 (15A NCAC 46C 106B(1)).
6. INSTALL CONSTRUCTION ENTRANCE.
7. CONTRACTOR TO STAKE PROPOSED LIMITS OF DISTURBANCE, ONCE THE LIMITS OF DISTURBANCE HAS BEEN STAKED, CONTRACTOR TO COORDINATE WITH THE DISTRICT ENGINEER TO STAKE PROPOSED LIMITS OF DISTURBANCE. TREE PROTECTION FENCING TO SAVE (OR REMOVE) ADDITIONAL TREES PRIOR TO CONSTRUCTION.
8. INSTALL TREE PROTECTION FENCE, SILT FENCE, AND SILT FENCE OUTLETS PRIOR TO ANY LAND DISTURBING ACTIVITIES (INCLUDING ANY TREE CLEARING OR DEMOLITION). CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES AS REQUIRED BY THE DISTRICT ENGINEER. CONTRACTOR SHALL MAINTAIN ALL OTHER E&S C CONTROL MEASURES AS REQUIRED BY NCDCE INCLUDING SEDIMENT BASINS, BARRIERS, AND DIVERSION DITCHES. CONTRACTOR SHALL MAINTAIN ALL OTHER E&S C INSTALL THESE DEVICES. INSTALL DITCH LINERS AND TEMPORARY CULVERT PIPE AND TEMPORARY CULVERT STRUCTURES. CONTRACTOR SHALL MAINTAIN ALL OTHER E&S C MEASURES IMMEDIATELY AFTER INSTALLATION. INSTALL CORR WATTLES OR CHECK DAMS IN EROSION CONTROL AREAS.
9. INSTALL SUMMER SEDIMENT BASINS(AS) ACCORDING TO PLAN, SEED, MULCH AND ANCHOR BERM AND SOILS AROUND AND BELOW BASIN AFTER CONSTRUCTION. USE RECF FOR STABILIZATION OF ALL 2:1 SLOPES. PROVIDE TEMPORARY VEGETATION TO STABILIZE EROSION CONTROL AREAS. CONTRACTOR SHALL SEE DETAILS FOR SEED MIX, PLACE SILT FENCE ON DOWNHILL SIDE OF SOIL.
10. CONTACT NCDCEMLR AT (919) 791-2400 FOR INSPECTION OF THESE MEASURES UPON APPROVAL. INSTALL TEMPORARY DIVERSION DITCHES AND THE REMAINING EROSION CONTROL MEASURES.
11. LIMIT DISTURBANCES TO THE LENGTH/WIDTH OF THE WORKDAY (15A NCAC 46B 0106(4)).

NOTES:

- 1. ALL WORK SHALL CONFORM TO THE STATE OF NORTH CAROLINA EROSION & SEDIMENT CONTROL PLANNING & DESIGN MANUAL. ALL CONSTRUCTION MUST CONFORM TO THE STATE OF NORTH CAROLINA EROSION & SEDIMENT CONTROL PLANNING & DESIGN MANUAL. BEFORE YOU DIG, CONTACT THE NC ONE-CALL CENTER AT 1-800-692-4549**
- 2. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING MEASURES AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE LIMITS OF CONSTRUCTION. CONTRACTOR TO INSTALL ADDITIONAL MEASURES AS NECESSARY AND AS FIELD CONDITIONS WARRANT IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE.**
- 3. CONTRACTOR IS RESPONSIBLE FOR PERFORMING SELF-INSPECTIONS AFTER EACH PHASE OF CONSTRUCTION. INSPECTION FORMS WILL BE PROVIDED BY THE COUNTY. SELF-INSPECTION FORMS ARE AVAILABLE AT: <https://doh.nc.gov/>. QUESTIONS ABOUT SELF-INSPECTIONS SHOULD BE DIRECTED TO THE DEQ REGIONAL OFFICE AT 919-741-4200.**
- 4. PRESERVATION OF TREES PROTECTED BY TREE PRESERVATION FENCE - TPF) WILL BE RE-EVALUATED AFTER INSTALLATION BUT PRIOR TO CLEARING OPERATION. CONTRACTOR TO COORDINATE WITH LANDSCAPE ARCHITECT AND COUNTRY.**
- 5. ALL BARE SOILS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT EROSION CONTROL PLAN OR IN A CRITICAL AREA OUTFALLS BY THE END OF THE DAY. UTILITY STAGED SEEDING IF NECESSARY TO COMPLY WITH STABILIZATION TIME FRAMES. ALL AREAS NOT COVERED BY TURF OR GRASS SHALL BE INSTALLED WITHIN 60 DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.**
- 6. DETERAERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE OR REMOVAL.
PURPOSES IS TO BE DONE THROUGH A Silt BAG.**
- 7. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED IMMEDIATELY AT ANY AREAS USED FOR CONTRACTOR EQUIPMENT STAGING, MATERIALS LAYDOWN, SPILL OR WASTE AREAS. ALL SPILL AREAS TO HAVE SILT FENCE ON LOW SIDE OF SLOPES.**
- 8. A RAIN GUAGE SHALL BE INSTALLED ON SITE TO CHECK FOR RAINFALL EVENTS OF 1/8" INCH OR MORE. AFTER INSPECT ALL EROSION CONTROL DEVICES FOR MAINTENANCE ISSUES AFTER THESE RAIN EVENTS.**
- 9. SILT FENCE INSTALLED SHALL REMAIN IN PLACE UNTIL COMPLETION OF CONSTRUCTION UNLESS OTHER ACTION NOTED.**
- 10. TEMPORARY DIVERSION DITCHES TO REMAIN IN PLACE UNTIL SITE HAS BEEN STABILIZED WHERE FEASIBLE.**
- 11. INLET PROTECTION SHALL BE PROVIDED AT ALL EXISTING AND PROPOSED CURB INLETS, YARD INLETS AND AREA DRAINS LOCATED WITHIN THE LIMITS OF CONSTRUCTION.**
- 12. DITCH DITCHES SHALL BE PROTECTED WITH A JUTE MATTING NET IF EROSION OCCURS IN THE DITCH SECTION.**
- 13. INSTALL ROCK CHECK DAMS EVERY 100' OF DIVERSION DITCH OR AS NEEDED.**
- 14. ALL HORIZONTAL SLOPES STEEPER THAN 3:1 SHALL BE LINED WITH NORTH AMERICAN GEOTEXTILE**
- 15. SILT FENCE OUTLETS TO BE INSTALLED AND/OR ADDED AS NEEDED BASED ON SITE CONDITIONS AND GRADES.**

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EROSION CONTROL PLAN WEST PHASE 1

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

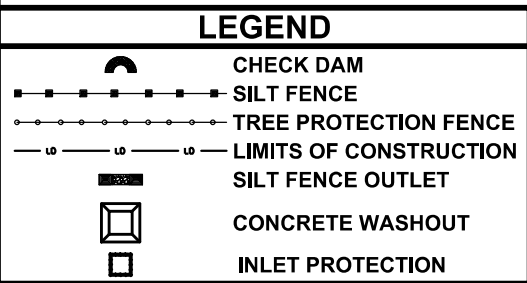
Date: 07/27/26

CW-502

RIPARIAN BUFFER RULES

1. DUE TO THE LOCATION OF THIS PROJECT, IT SHOULD BE NOTED THAT A RULE TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE RIVER BASIN BECAME EFFECTIVE ON JULY 22, 1987. THE NEUSE RIVER RIPARIAN AREA PROTECTION AND MAINTENANCE RULE (15A NCAC 2B.0223) APPLIES TO ALL PERENNIAL AND INTERMITTENT STREAMS, LAKES, PONDS AND ESTUARIES IN THE NEUSE RIVER BASIN WITH FOREST VEGETATION ON THE ADJACENT LAND OR "RIPARIAN AREA".

TOTAL DISTURBED AREA = 353,140.92 SF // 8.107 ACRES



PERMITTING NOTES:

1. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH:

APPROVAL OF NEUSE RIPARIAN BUFFER AUTHORIZATION CERTIFICATE (DWR# 20251548) FROM NCDEQ DATED JANUARY 30, 2026.

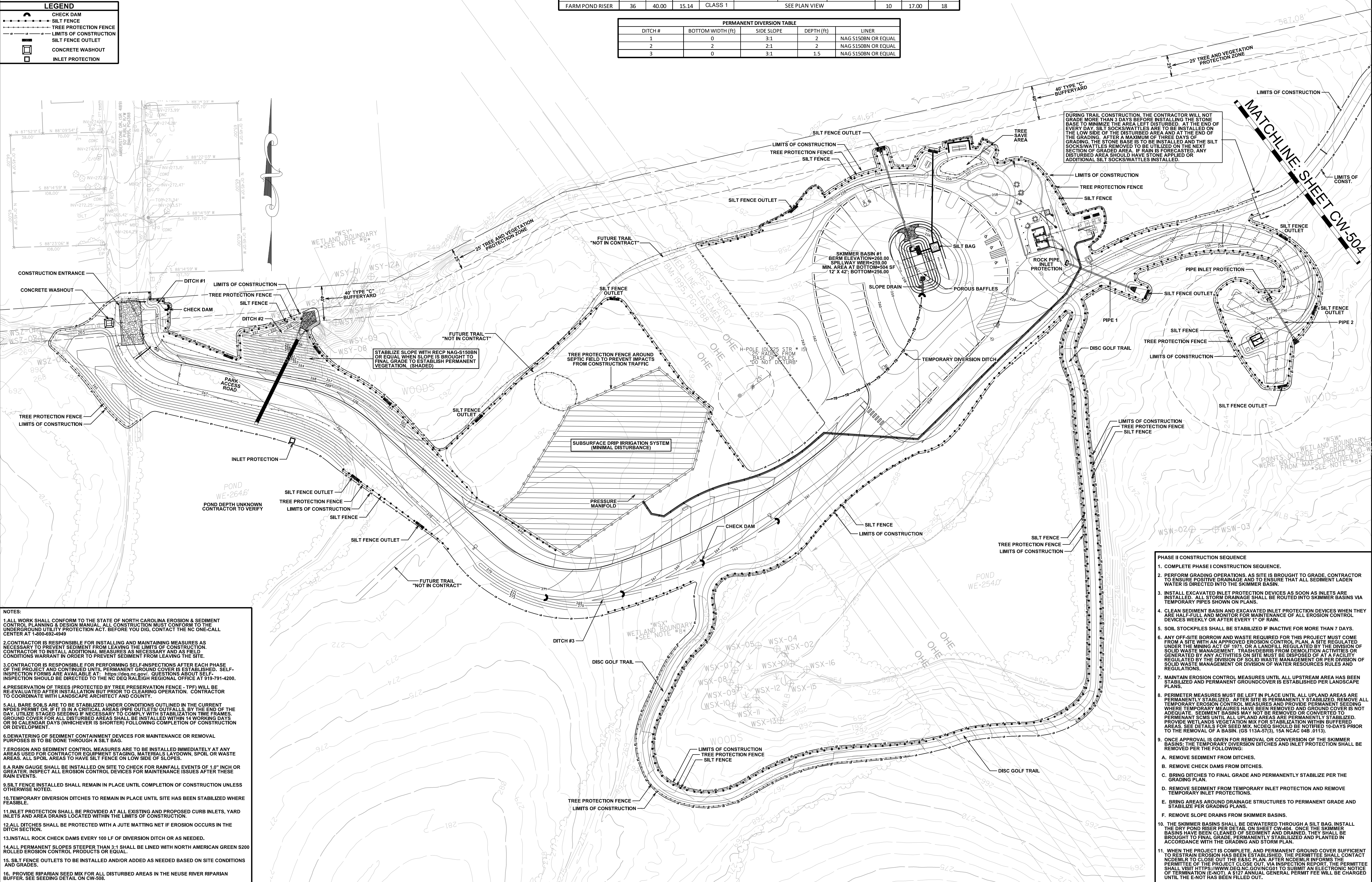
APPROVAL OF INDIVIDUAL 401 WATER QUALITY CERTIFICATION (USACE ACTION ID. NO. SAW-2023-01741 DATED JANUARY 30, 2026.

APPROVAL OF THE NWP 42 BY THE USACE DATED FEBRUARY 9, 2026 IN ACCORDANCE WITH SECTION 404 OF THE CLEAN WATER ACT.

2. ALL WORK WITHIN THE DUKE ENERGY TRANSMISSION EASEMENT SHOULD BE COMPLETED IN ACCORDANCE WITH THE DUKE ENERGY APPROVAL, WOV 59035585 DATED MARCH 5, 2026.

PIPE AND RIP RAP CALCULATIONS TABLE										
PIPE ID	PIPE SIZE	Q10	V10	RIP RAP SIZE	APRON LENGTH	APRON WIDTH @ PIPE OUTLET	APRON WIDTH @ END	D50	D_MAX	THICKNESS
	(IN)	(CFS)	(FT/S)		(FT)	(FT)	(FT)	(IN)	(IN)	(IN)
1	12	1.00	4.13	CLASS A	4	3.0	5.00	4	6.00	12
2	12	1.00	6.47	CLASS A	4	3.0	5.00	4	6.00	12
DRY POND RISER	12	5.46	6.95	CLASS B	6	3.0	7.00	6	9.00	18
FARM POND RISER	36	40.00	15.14	CLASS 1	SEE PLAN VIEW			10	17.00	18

PERMANENT DIVERSION TABLE				
DITCH #	BOTTOM WIDTH (ft)	SIDE SLOPE	DEPTH (ft)	LINER
1	0	3:1	2	NAG S150BN OR EQUAL
2	2	2:1	2	NAG S150BN OR EQUAL
3	0	3:1	1.5	NAG S150BN OR EQUAL



NOTES:

- ALL WORK SHALL CONFORM TO THE STATE OF NORTH CAROLINA EROSION & SEDIMENT CONTROL PLANNING & DESIGN MANUAL. ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT. BEFORE YOU DIG, CONTACT THE NC ONE-CALL CENTER AT 1-800-692-4949.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING MEASURES AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE LIMITS OF CONSTRUCTION. CONTRACTOR TO INSTALL ADDITIONAL MEASURES AS NECESSARY AND AS FIELD CONDITIONS WARRANT IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE.
- CONTRACTOR IS RESPONSIBLE FOR PERFORMING SELF-INSPECTIONS AFTER EACH PHASE OF THE PROJECT AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED. SELF-INSPECTION FORMS ARE AVAILABLE AT: <https://deq.nc.gov>. QUESTIONS ABOUT SELF-INSPECTION SHOULD BE DIRECTED TO THE NC DEQ RALEIGH REGIONAL OFFICE AT 919-791-4200.
- PRESERVATION OF TREES (PROTECTED BY TREE PRESERVATION FENCE - TP) WILL BE RE-EVALUATED AFTER INSTALLATION BUT PRIOR TO CLEARING OPERATION. CONTRACTOR TO COORDINATE WITH LANDSCAPE ARCHITECT AND COUNTY.
- ALL BARE SOILS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT OR, IF IT IS IN A CRITICAL AREA (PIPE OUTLETS/ OUTFALLS, BY THE END OF THE DAY, UTILIZE STAGED SEEDING IF NECESSARY TO COMPLY WITH STABILIZATION TIME FRAMES. GROUND COVER FOR ALL DISTURBED AREAS SHALL BE INSTALLED WITHIN 14 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
- DEWATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE OR REMOVAL PURPOSES IS TO BE DONE THROUGH A SILT BAG.
- EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED IMMEDIATELY AT ANY AREAS USED FOR CONTRACTOR EQUIPMENT STAGING, MATERIALS LAYDOWN, SPOIL OR WASTE AREAS. ALL SPOIL AREAS TO HAVE SILT FENCE ON LOW SIDE OF SLOPES.
- A RAIN GAUGE SHALL BE INSTALLED ON SITE TO CHECK FOR RAINFALL EVENTS OF 1.0" INCH OR GREATER. INSPECT ALL EROSION CONTROL DEVICES FOR MAINTENANCE ISSUES AFTER THESE RAIN EVENTS.
- SILT FENCE INSTALLED SHALL REMAIN IN PLACE UNTIL COMPLETION OF CONSTRUCTION UNLESS OTHERWISE NOTED.
- TEMPORARY DIVERSION DITCHES TO REMAIN IN PLACE UNTIL SITE HAS BEEN STABILIZED WHERE FEASIBLE.
- INLET PROTECTION SHALL BE PROVIDED AT ALL EXISTING AND PROPOSED CURB INLETS, YARD INLETS AND AREA DRAINS LOCATED WITHIN THE LIMITS OF CONSTRUCTION.
- DITCHES SHALL BE PROTECTED WITH A JUTE MATTING NET IF EROSION OCCURS IN THE DITCH SECTION.
- INSTALL ROCK CHECK DAMS EVERY 100 LF OF DIVERSION DITCH OR AS NEEDED.
- ALL PERMANENT SLOPES STEEPER THAN 3:1 SHALL BE LINED WITH NORTH AMERICAN GREEN S200 ROLLED EROSION CONTROL PRODUCTS OR EQUAL.
- SILT FENCE OUTLETS TO BE INSTALLED AND/OR ADDED AS NEEDED BASED ON SITE CONDITIONS AND GRADES.
- PROVIDE RIPARIAN SEED MIX FOR ALL DISTURBED AREAS IN THE NEUSE RIVER RIPARIAN BUFFER. SEE SEEDING DETAIL ON CW-508.

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SEAL
22514
ENGINEER
MICHAEL D. ALLEN
1/2/24

EROSION CONTROL
PLAN WEST
PHASE 2

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

Date: 07/27/26

CW-503

TOTAL DISTURBED AREA = 353,140.92 SF // 8.107 ACRES

MATCHLINE: SHEET CW-505

DURING TRAIL CONSTRUCTION, THE CONTRACTOR WILL NOT GRADE MORE THAN 3 DAYS BEFORE INSTALLING THE STONE BASE TO MINIMIZE THE AREA LEFT DISTURBED. AT THE END OF EVERY DAY, SILT SOCKS/WATTLES ARE TO BE INSTALLED ON THE LOW SIDE OF THE DISTURBED AREA AND AT THE END OF THE GRADING. AFTER A MAXIMUM OF THREE DAYS OF GRADING, THE STONE BASE IS TO BE INSTALLED AND THE SILT SOCKS/WATTLES REMOVED. THE CONTRACTOR SHALL MAINTAIN ANY SECTION OF GRADED AREA, IF RAIN IS FORECASTED, ANY DISTURBED AREA SHOULD HAVE STONE APPLIED OR ADDITIONAL SILT SOCKS/WATTLES INSTALLED.

DURING TRAIL CONSTRUCTION, THE CONTRACTOR WILL NOT GRADE MORE THAN 3 DAYS BEFORE INSTALLING THE STONE BASE TO MINIMIZE THE AREA LEFT DISTURBED. AT THE END OF EVERY DAY, SILT SOCKS/WATTLES ARE TO BE INSTALLED ON THE LOW SIDE OF THE DISTURBED AREA AND AT THE END OF THE GRADING, AFTER A MAXIMUM OF THREE DAYS OF GRADING, THE STONE BASE IS TO BE INSTALLED AND THE SILT SOCKS/WATTLES REMOVED TO BE UTILIZED ON THE NEXT SECTION OF GRADED AREA. IF RAIN IS FORECASTED, ANY DISTURBED AREA SHOULD HAVE STONE APPLIED OR ADDITIONAL SILT SOCKS/WATTLES INSTALLED.

PHASE II: CONSTRUCTION SEQUENCE

- 1. COMPLETE PHASE I CONSTRUCTION SEQUENCE.**
- 2. PERFORM GRADING OPERATIONS.** AS SITE IS BROUGHT TO GRADE, CONTRACTOR TO ENSURE POSITIVE DRAINAGE AND TO ENSURE THAT ALL SEDIMENT LADEN RUNOFF IS COLLECTED AND DISPOSED AT AN APPROPRIATE FACILITY.
- 3. INSTALL EXCAVATED INLET PROTECTION DEVICES AS SOON AS INLETS ARE INSTALLED.** ALL STORM DRAINAGE SHALL BE ROUTED INTO SKIMMER BASINS VIA TEMPORARY PIPES SHOWN ON PLANS.
- 4. CLEAN SEDIMENT AND EXCAVATED INLET PROTECTION DEVICES** WHEN THE AREA IS FULLY RE-VEGETATED AND MAINTENANCE OF ALL EROSION CONTROL DEVICES WEEKLY OR AFTER EVERY 1" OF RAIN.
- 5. SOIL STOCKPILES SHALL BE STABILIZED IF INACTIVE FOR MORE THAN 7 DAYS.**
- 6. ANY OFF-SITE BORROW AND WASTE REQUIRED FOR THIS PROJECT MUST COME FROM AN APPROVED SOURCE. ALL BORROW AND WASTE SHALL BE PLACED ON SITE WITHIN THE MINING ACT OF 1971, OR A LANDFILL REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT. THE WASTE FROM DEMOLITION ACTIVITIES OR FROM THE REMOVAL OF EXISTING INFRASTRUCTURE SHALL BE DISPOSED AT A FACILITY REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT OR PER DIVISION OF SOLID WASTE MANAGEMENT OR DIVISION OF WATER RESOURCES RULES AND REGULATIONS.**
- 7. MAINTAIN EROSION CONTROL MEASURES UNTIL ALL UPSTREAM AREA HAS BEEN STABILIZED AND PERMANENT GROUND COVER IS ESTABLISHED PER LANDSCAPE PLANS.**
- 8. PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED.** AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL PERIMETER MEASURES. PERIMETER MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT YET ESTABLISHED. PERIMETER MEASURES THAT ARE NOT REMOVED OR CONVERTED TO PERMANENT SOILS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED, SHALL BE REMOVED WITHIN 30 DAYS OF DEMOLITION WITHIN SUFFERED AREAS. SEE DETAILS FOR SEED MIX. NCEQD SHOULD BE NOTIFIED 10-DAYS PRIOR TO THE REMOVAL OF A BASIN. (GS 113A-573, 15A NCCG 048. 0113).
- 9. ONCE APPROVAL IS GIVEN FOR REMOVAL OR CONVERSION OF THE SKIMMER BASINS, THE TEMPORARY INLET DITCHES AND INLET PROTECTION SHALL BE REMOVED PER THE FOLLOWING:**
 - A. REMOVE SEDIMENT FROM DITCHES.**
 - B. REMOVE CHECK DAMS FROM DITCHES.**
 - C. BRING DITCHES TO FINAL GRADE AND PERMANENTLY STABILIZE PER THE GRADING PLAN.**
 - D. REMOVE SEDIMENT FROM TEMPORARY INLET PROTECTION AND REMOVE TEMPORARY INLET PROTECTIONS.**
 - E. BRING AREAS AROUND DRAINAGE STRUCTURES TO PERMANENT GRADE AND STABILIZE PER GRADING PLANS.**
 - F. REMOVE SLOPE DRAINS FROM SKIMMER BASINS.**
- 10. THE SKIMMER BASINS SHALL BE DEWATERED THROUGH A SILT BAY. ONCE THE SKIMMER BASINS HAVE BEEN CLEANED OF SEDIMENT AND DRAINED, THEY SHALL BE REVEGETATED PER THE PERMANENTLY STABILIZED AND PLANTED IN ACCORDANCE WITH THE GRADING AND STORM PLAN.**
- 11. WHEN THE PROJECT IS COMPLETE, AND PERMANENT GROUND COVER SUFFICIENT TO PREVENT EROSION, THE CONTRACTOR SHALL SUBMIT A REQUEST TO THE NCEQMI/RL TO CLOSE OUT THE E83C PLAN. AFTER NCEQMI/RL INFORMS THE CONTRACTOR THAT THE PROJECT IS COMPLETE, THE CONTRACTOR SHALL PERMITTEE SHALL VISIT [HTTPS://WWW.DEQ.NC.GOV/NCGIC/](https://www.deq.nc.gov/ncgic/) TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOTI), A \$127 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED TO THE CONTRACTOR.**

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N|V|S

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NORTH CAROLINA
PROFESSIONAL
SEAL
22514
ENGINEER
MICHAEL D. ALLEN
12/24

EROSION CONTROL
PLAN WEST
PHASE 2

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	
<i>Date:</i> 07/27/2	
CW-504	

RIPARIAN BUFFER RULES

1. DUE TO THE LOCATION OF THIS PROJECT, IT SHOULD BE NOTED THAT A RULE TO PROTECT AND MAINTAIN EXISTING BUFFERS ALONG WATERCOURSES IN THE NEUSE RIVER BASIN BECAME EFFECTIVE ON JULY 22, 1987. THE NEUSE RIVER RIPARIAN AREA PROTECTION AND MAINTENANCE RULE (15A NCAC 2B.0233) APPLIES TO ALL PERENNIAL AND INTERMITTENT STREAMS, LAKES, PONDS AND ESTUARIES IN THE NEUSE RIVER BASIN WITH FOREST VEGETATION ON THE ADJACENT LAND OR "RIPARIAN AREA".

TOTAL DISTURBED AREA = 353,140.92 SF // 8.107 ACRES

LEGEND

- CHECK DAM
- SILT FENCE
- TREE PROTECTION FENCE
- LIMITS OF CONSTRUCTION
- SILT FENCE OUTLET
- CONCRETE WASHOUT
- INLET PROTECTION

PERMITTING NOTES:

1. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH:

APPROVAL OF NEUSE RIPARIAN BUFFER AUTHORIZATION CERTIFICATE (DWR# 20251548) FROM NCDEQ DATED JANUARY 30, 2026.

APPROVAL OF INDIVIDUAL 401 WATER QUALITY CERTIFICATION (USACE ACTION ID. NO. SAW-2023-01741 DATED JANUARY 30, 2026.

APPROVAL OF THE NWP 42 BY THE USACE DATED FEBRUARY 9, 2026 IN ACCORDANCE WITH SECTION 404 OF THE CLEAN WATER ACT.

2. ALL WORK WITHIN THE DUKE ENERGY TRANSMISSION EASEMENT SHOULD BE COMPLETED IN ACCORDANCE WITH THE DUKE ENERGY APPROVAL, WOV 59035585 DATED MARCH 5, 2026.



- NOTES:**
1. ALL WORK SHALL CONFORM TO THE STATE OF NORTH CAROLINA EROSION & SEDIMENT CONTROL PLANNING & DESIGN MANUAL. ALL CONSTRUCTION MUST CONFORM TO THE UNDERGROUND UTILITY PROTECTION ACT. BEFORE YOU DIG, CONTACT THE NC ONE-CALL CENTER AT 1-800-482-4849.
 2. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING MEASURES AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE LIMITS OF CONSTRUCTION. CONTRACTOR TO INSTALL ADDITIONAL MEASURES AS NECESSARY AND AS FIELD CONDITIONS WARRANT IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE.
 3. CONTRACTOR IS RESPONSIBLE FOR PERFORMING SELF-INSPECTIONS AFTER EACH PHASE OF THE PROJECT AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED. SELF-INSPECTION FORMS ARE AVAILABLE AT: <https://dep.nc.gov/>. QUESTIONS ABOUT SELF-INSPECTION SHOULD BE DIRECTED TO THE NC DEQ RALEIGH REGIONAL OFFICE AT 919-791-4200.
 4. PRESERVATION OF TREES (PROTECTED BY TREE PRESERVATION FENCE - TPF) WILL BE RE-EVALUATED AFTER SURROUNDING AREAS ARE CLEARED, BUT PRIOR TO COMPLETION OF CLEARING OPERATION.
 5. ALL BARE SOILS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT OR IF IT IS IN A CRITICAL AREA (PIPE OUTLETS/ OUTFALLS, BY THE END OF THE DAY. UTILIZE STAGED SEEDING IF NECESSARY TO COMPLY WITH STABILIZATION TIME FRAMES. GROUND COVER FOR ALL DISTURBED AREAS SHALL BE INSTALLED WITHIN 14 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
 6. DEWATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE OR REMOVAL PURPOSES IS TO BE DONE THROUGH A SILT BAG.
 7. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED IMMEDIATELY AT ANY AREAS USED FOR CONTRACTOR EQUIPMENT STAGING, MATERIALS LAYDOWN, SPOIL OR WASTE AREAS. ALL SPOIL AREAS TO HAVE SILT FENCE ON LOW SIDE OF SLOPES.
 8. A RAIN GAUGE SHALL BE INSTALLED ON SITE TO CHECK FOR RAINFALL EVENTS OF 1.0" INCH OR GREATER. INSPECT ALL EROSION CONTROL DEVICES FOR MAINTENANCE ISSUES AFTER THESE RAIN EVENTS.
 9. SILT FENCE INSTALLED SHALL REMAIN IN PLACE UNTIL COMPLETION OF CONSTRUCTION UNLESS OTHERWISE NOTED.
 10. TEMPORARY DIVERSION DITCHES TO REMAIN IN PLACE UNTIL SITE HAS BEEN STABILIZED WHERE FEASIBLE.
 11. INLET PROTECTION SHALL BE PROVIDED AT ALL EXISTING AND PROPOSED CURB INLETS, YARD INLETS AND AREA DRAINS LOCATED WITHIN THE LIMITS OF CONSTRUCTION.
 12. ALL DITCHES SHALL BE PROTECTED WITH A JUTE MATTING NET IF EROSION OCCURS IN THE DITCH SECTION.
 13. INSTALL ROCK CHECK DAMS EVERY 100 LF OF DIVERSION DITCH OR AS NEEDED.
 14. ALL PERMANENT SLOPES STEEPER THAN 3:1 SHALL BE LINED WITH NORTH AMERICAN GREEN S200 ROLLED EROSION CONTROL PRODUCTS OR EQUAL.
 15. SILT FENCE OUTLETS TO BE INSTALLED AND/OR ADDED AS NEEDED BASED ON SITE CONDITIONS AND GRADES.

- PHASE II CONSTRUCTION SEQUENCE**
1. COMPLETE PHASE I CONSTRUCTION SEQUENCE.
 2. PERFORM GRADING OPERATIONS. AS SITE IS BROUGHT TO GRADE, CONTRACTOR TO ENSURE POSITIVE DRAINAGE AND TO ENSURE THAT ALL SEDIMENT LADEN WATER IS DIRECTED INTO THE SKIMMER BASIN.
 3. INSTALL EXCAVATED INLET PROTECTION DEVICES AS SOON AS INLETS ARE INSTALLED. ALL STORM DRAINAGE SHALL BE ROUTED INTO SKIMMER BASINS VIA TEMPORARY PIPES SHOWN ON PLANS.
 4. CLEAN SEDIMENT BASIN AND EXCAVATED INLET PROTECTION DEVICES WHEN THEY ARE HALF-FULL AND MONITOR FOR MAINTENANCE OF ALL EROSION CONTROL DEVICES WEEKLY OR AFTER EVERY 1" OF RAIN.
 5. SOIL STOCKPILES SHALL BE STABILIZED IF INACTIVE FOR MORE THAN 7 DAYS.
 6. ANY OFF-SITE BORROW AND WASTE REQUIRED FOR THIS PROJECT MUST COME FROM A SITE WITH AN APPROVED EROSION CONTROL PLAN. A SITE REGULATED UNDER THE MINING ACT OF 1971, OR A LANDFILL REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT. TRASH/DEBRIS FROM DEMOLITION ACTIVITIES OR GENERATED BY ANY ACTIVITIES ON SITE MUST BE DISPOSED OF AT A FACILITY REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT OR PER DIVISION OF SOLID WASTE MANAGEMENT OR DIVISION OF WATER RESOURCES RULES AND REGULATIONS.
 7. MAINTAIN EROSION CONTROL MEASURES UNTIL ALL UPSTREAM AREA HAS BEEN STABILIZED AND PERMANENT GROUND COVER IS ESTABLISHED PER LANDSCAPE PLANS.
 8. PERIMETER MEASURES MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE. SEDIMENT BASINS MAY NOT BE REMOVED OR CONVERTED TO PERMANENT SODS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. PROVIDE WETLANDS VEGETATION MIX FOR STABILIZATION WITHIN BUFFERED AREAS. SEE DETAILS FOR SEED MIX. NCDEQ SHOULD BE NOTIFIED 10-DAYS PRIOR TO THE REMOVAL OF A BASIN (GS 15A-57.0, 15A NCAC 04B .0113).
 9. ONCE APPROVAL IS GIVEN FOR REMOVAL OR CONVERSION OF THE SKIMMER BASINS; THE TEMPORARY DIVERSION DITCHES AND INLET PROTECTION SHALL BE REMOVED PER THE FOLLOWING:
 - A. REMOVE SEDIMENT FROM DITCHES.
 - B. REMOVE CHECK DAMS FROM DITCHES.
 - C. BRING DITCHES TO FINAL GRADE AND PERMANENTLY STABILIZE PER THE GRADING PLAN.
 - D. REMOVE SEDIMENT FROM TEMPORARY INLET PROTECTION AND REMOVE TEMPORARY INLET PROTECTIONS.
 - E. BRING AREAS AROUND DRAINAGE STRUCTURES TO PERMANENT GRADE AND STABILIZE PER GRADING PLANS.
 - F. REMOVE SLOPE DRAINS FROM SKIMMER BASINS.
 10. THE SKIMMER BASINS SHALL BE DEWATERED THROUGH A SILT BAG. ONCE THE SKIMMER BASINS HAVE BEEN CLEARED OF SEDIMENT AND DRAINED, THEY SHALL BE BROUGHT TO FINAL GRADE, PERMANENTLY STABILIZED AND PLANTED IN ACCORDANCE WITH THE GRADING AND STORM PLAN.
 11. WHEN THE PROJECT IS COMPLETE, AND PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION HAS BEEN ESTABLISHED, THE PERMITTEE SHALL CONTACT NCEMILR TO CLOSE OUT THE EASC PLAN. AFTER NCEMILR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, VIA INSPECTION REPORT, THE PERMITTEE SHALL VISIT <https://www.deq.nc.gov/ncg01> TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A \$127 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN FILLED OUT.

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MICHAEL D. ALLEN
12/24

**EROSION CONTROL
PLAN WEST
PHASE 2**

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

NO.	DESCRIPTION	DATE

Date: 07/27/26

CW-505

DATE:

PAGE:

CONSIDERATIONS FOR CONSTRUCTION SCHEDULING

CONSTRUCTION ACTIVITY	SCHEDULE CONSIDERATION
CONSTRUCTION ACCESS: Construction entrance, construction routes, equipment parking areas.	First land-disturbing activity- Stabilize bare areas immediately with gravel and temporary vegetation as construction takes place.
SEDIMENT TRAPS AND BARRIERS: Basin traps, sediment fences, and outlet protection.	Install principal basins after construction site is accessed. Install additional traps and barriers as needed during grading.
RUNOFF CONTROL: Diversions, perimeter dikes, water bars, and outlet protection.	Install key practices after principal sediment traps and before land grading. Install additional runoff-control measures during grading.
RUNOFF CONVEYANCE SYSTEM: Stabilize streambanks, storm drains, channels, inlet and outlet protection, and slope drains.	Where necessary, stabilize streambanks as early as possible. Install principal runoff conveyance system with runoff-control measures. Install remainder of system after grading.
LANDING CLEARING AND GRADING: Site preparation- cutting, filling and grading, sediment traps, barriers, diversions, drains, and surface roughening.	Begin major clearing and grading AFTER principal sediment and key runoff-control measures are installed. Clear borrow and disposal areas only as needed. Install additional control measures as grading progresses. Mark trees and buffer areas for preservation.
SURFACE STABILIZATION: Temporary and permanent seeding, mulching, sodding and riprap.	Apply temporary or permanent stabilization measures immediately on all disturbed areas where work is delayed or complete.
BUILDING CONSTRUCTION: Buildings, utilities, and paving.	Install necessary additional erosion and sedimentation control practices as work takes place.
LANDSCAPE AND FINAL STABILIZATION: Topsoiling, trees and shrubs, permanent seeding, mulching, sodding, and riprap.	Last construction phase: Stabilize all open areas, including borrow and spoil areas. Remove and stabilize all temporary control areas.

NOTE: The above are the main aspects of a typical construction sequence in general terms. A detailed Construction Sequence should be site specific based on your project and site needs. As a minimum, the construction sequence schedule should show the following:

- The erosion and sedimentation control practices to be installed,
- Principal development activities,
- What measures should be in place before other activities are begun, and
- Compatibility with the general construction schedule of the contract.

Many timely construction techniques can reduce the erosion potential of a site, such as (1) shaping earthen fills daily to prevent overflows and (2) constructing temporary diversions ahead of anticipated storms. These types of activities cannot be put on the construction sequence schedule, but should be used whenever possible.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

CONSTRUCTION SEQUENCING

Effective Date: 9/1/2023
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GROOVING SLOPES

STAIR STEPPING CUT SLOPES

CUT SLOPE ROUGHENING FOR AREAS NOT TO BE MOWED:

1. Stair-step grade or groove cut slopes with a gradient steeper than 3:1.
2. Use stair-step grading on any erodible material soft enough to be ripped with a bulldozer. Slopes consisting of soft rock with some subsoil are particularly suited to stair-stepping.
3. Make the vertical cut distance less than the horizontal distance, and slightly slope the horizontal position of the "step" in toward the vertical wall.
4. Do not make individual vertical cuts more than 2 feet in soft materials or more than 3 feet in rocky materials.
5. Grooving uses machinery to create a series of ridges and depressions that run across the slope (on the contour).
6. Groove using any appropriate implement that can be safely operated on the slope. Such as disks, tillers, spring harrows, or the teeth on a front-end loader bucket. Do not make such grooves less than 3 inches deep nor more than 15 inches apart.

FILL SLOPE ROUGHENING FOR AREAS NOT TO BE MOWED:

1. Place fill slopes with a gradient steeper than 3:1 in lifts not to exceed 9 inches, and make sure each lift is properly compacted. Ensure that the face of the slope consists of loose, uncompacted fill 4 to 6 inches deep. Use grooving, as described above, to roughen the face of the slopes, if necessary.
2. Do not blade or scrape the final slope face.

CUTS, FILLS, AND GRADED AREAS THAT WILL BE MOWED:

1. Make mowed slopes no steeper than 3:1
2. Roughen these areas to shallow grooves by normal tilling, disking, harrowing, or use of a cultipacker-seeder. Make the final pass of any such tillage implement on the contour.
3. Make grooves, formed by such implements, close together (less than 10 inches) and not less than 1 inch deep.
4. Excessive roughness is undesirable where mowing is planned.

ROUGHENING WITH TRACKED MACHINERY:

1. Limit roughening with tracked machinery to sandy soils to avoid undue compaction of the soil surface. Tracking is generally not as effective as the other roughening methods described.
2. Operate tracked machinery up and down the slope to leave horizontal depressions in the soil. Do not back-blade during the final grading operation.

SEED AND MULCH ROUGHENED AREAS IMMEDIATELY TO OBTAIN OPTIMUM SEED GERMINATION AND GROWTH.

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SURFACE ROUGHENING

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SPACING GUIDE FOR SLOPE BREAKS

	SLOPE	SPACING (FT)
Steep Slopes	2:1	20
	3:1	35
	4:1	45
Long Slopes	15-25%	50
	10-15%	80
	6-10%	125
	3-6%	200
	<3%	300

Use slope breaks, such as diversions, wattles, or benches, as appropriate, to reduce the length of cut-and-fill slope to limit sheet and rill erosion and prevent gulying.

MAINTENANCE:

1. Periodically check all graded areas and the supporting erosion and sedimentation control practices, especially after heavy rainfalls.
2. Promptly remove all sediment from diversions and other water-disposal practices.
3. If washouts or breaks occur, repair immediately.
4. Prompt maintenance of small eroded areas before they become significant gullies is an essential part of an effective erosion and sedimentation control plan.

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LAND GRADING

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NOTES:

1. Construct and maintain all erosion and sediment control practices and measures in accordance with the approved sedimentation control plan and construction schedule.
2. Remove good topsoil from areas to be graded and filled, and preserve it for use in finishing the grading of all critical areas.
3. Scarify areas to be topsoiled to a minimum depth of 2 inches before placing topsoil.
4. Clear and grub areas to be filled by removing trees, vegetation, roots, or other objectionable material that would affect the planned stability of the fill.
5. Ensure that fill material is free of brush, rubbish, rocks, logs, stumps, building debris, and other materials inappropriate for constructing stable fills.
6. Place all fill in layers not to exceed 9 inches in thickness, and compact the layers as required to reduce erosion, slippage, settlement, or other related problems.
7. Do not incorporate frozen, soft, mucky, or highly compressible materials into fill slopes.
8. Do not place fill on a frozen foundation, due to possible subsidence and slippage.
9. Keep diversions and other water conveyance measures free of sediment during all phases of development.
10. Handle seeps or springs encountered during construction in accordance with approved methods (subsurface drain).
11. Permanently stabilize all graded areas immediately after final grading is completed on each area in the grading plan. Apply temporary stabilization measures on all graded areas when work is to be interrupted or delayed for 30 days or longer.
12. Show topsoil, stockpiles, borrow areas, and spoil areas on the plans, and make sure they are adequately protected from erosion. Include final stabilization of these areas in the plan.

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EROSION
CONTROL
DETAILS

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	

Date: 07/27/26
CW-506

DATE:

PAGE:

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT

Construction:

1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.
2. Place the gravel to the specific grade and dimensions shown on the plans, and smooth it.
3. Provide drainage to carry water to a sediment trap or other suitable outlet.
4. Use geotextile fabrics in order to improve stability of the foundation in locations subject to seepage or high water table.

Maintenance:

1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any required repairs immediately.
2. Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2-inch stone.
3. Sediment on roadways is to be removed immediately by broom and shovel, either by manual or mechanical means, and not to be washed off where it has the potential to enter a stream, drainage way or storm drain system.

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Design Manual Updates

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT

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TEMPORARY SEEDING RECOMMENDATIONS
FOR LATE WINTER AND EARLY SPRING

Seeding Mixture

Species

Rate (lb/acre)

Rye (grain)

120

Annual lespedeza (Kobe in
Piedmont and Coastal Plain,
Korean in Mountains)

50

Omit annual lespedeza when duration of temporary cover is not to extend beyond June.

Seeding Dates

Mountains—Above 2500 feet: Feb. 15 - May 15
Below 2500 feet: Feb. 1- May 1

Piedmont—Jan. 1 - May 1

Coastal Plain—Dec. 1 - Apr. 15

Mulch

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance

Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER

Seeding Mixture

Species

Rate (lb/acre)

German millet

40

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding Dates

Mountains — May 15 - Aug. 15
Piedmont — May 1 - Aug. 15
Coastal Plain — Apr. 15 - Aug. 15

Mulch

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance

Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR FALL

Seeding Mixture

Species

Rate (lb/acre)

Rye (grain)

120

Seeding Dates

Mountains — Aug. 15 - Dec. 15
Coastal Plain and Piedmont — Aug. 15 - Dec. 31

Mulch

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

Maintenance

Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

SEED BED PREPARATION:

LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1-1½ tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.

FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700 - 1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.

SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.



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TEMPORARY SEEDING



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NON-INVASIVE PERMANENT SEEDING
RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING

SEEDING MIXTURE

Species

Rate

Centipede

5 lbs/acre

Indian Woodoats

1.5-2.5 lbs/acre*

Virginia Wild Rye

4-6 lbs/acre

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates

Coastal or Eastern Piedmont for Centipede- Sept. 1 - May 1
Coastal and Piedmont for Indian Woodoats and Virginia Wild Rye- Feb 15 - April 1
Mountains for Indian Woodoats and Virginia Wild Rye- March 1 - May 15

Maintenance:

Significant maintenance may be required to obtain desired cover.

NON-INVASIVE PERMANENT SEEDING
RECOMMENDATIONS FOR SUMMER

SEEDING MIXTURE

Species

Rate

Indian Woodoats

1.5-2.5 lbs/acre*

Virginia Wild Rye

4-6 lbs/acre*

*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

Seeding Dates

Mountains - July 15- Aug 15
Piedmont - Aug 15 - Oct 15

Maintenance:

Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.

SEED BED PREPARATION:

LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1 to 1½ tons/acre on coarse0textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.

FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.

SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage . Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.

NOTES:

1. Permanent seeding, sodding or other means of stabilization are required when all construction work is completed according to the NPDES timeframes table.

2. A North Carolina Department of Agriculture soils test (or equal) is highly recommended to be obtained for all areas to be seeded, sodded or planted.

3. Use a seeding mix that will produce fast0growing nurse crops and includes non-invasive species that will eventually provide a permanent groundcover. Soil blankets may be used in lieu of nurse crops.

4. Mat, tack or crimp mulch, as needed to stabilize seeded areas until root establishment. Mulch must cover at leaser 80% of the soil surface.

Ground cover shall be maintained until permanent vegetation is established and stable against accelerated erosion.



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PERMANENT SEEDING



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Mulching Materials and Application Rates

Material Organic Mulches	Rate Per Acre	Quality	Notes
Straw	1-2 tons	Dry, unchopped, unweathered; avoid weeds.	Should come from wheat or oats, spread by hand or machine; must be tacked down.
Wood Chips	5-6 tons	Air dry	Treat with 12 lbs nitrogen/ton. Apply with mulch blower, chip handle, or by hand. Not for use in fine turf.
Wood Fiber	0.5-1 tons		Also referred to as wood cellulose. May be hydroseeded. Do not use in hot, dry weather.
Bark	35 cubic yards	Air dry, shredded or hammer-milled, or chips.	Apply with mulch blower, chip handler, or by hand. Do not use asphalt tack.
Corn Stalks	4-6 tons	Cut or shredded in 4-6 inch lengths.	Apply with mulch blower or by hand. Not for use in fine turf.
Senecia Lespedeza seed-bearing stems	1-3 tons	Green or dry; should contain mature seed.	
Nets and Mats*			
Jute net	Cover area	Heavy, uniform; woven of single jute yarn.	Withstands waterflow. Best when used with organic mulch
Fiberglass net	Cover area		Withstands waterflow. Best when used with organic mulch
Excelsior (wood fiber net)	Cover area		Withstands waterflow.
Fiberglass roving	0.5-1 tons	Continuous fibers of drawn glass bound together with a non-toxic agent.	Apply with a compressed air ejector. Tack with emulsified asphalt at a rate of 25-35 gal/1,000 sq. ft.
Chemical Stabilizers**			
Aquatain Aerospray Curasol AK Pertrosel SB Terra Tack Crust 500 Genaquia 743 M-145	Follow Manufacturer's specifications		Not beneficial to plant growth

NOTES:

1. Select material based on site and practice requirements, availability of material, labor and equipment.

2. Before mulching, complete grading, install sediment control practices, and prepare the seeded. Apply seed before mulching except when seed is applied as part of a hydroseeder slurry containing wood fiber mulch or a hydroseeder slurry is applied over straw.

APPLICATION OF ORGANIC MULCH

1. Spread mulch uniformly by hand, or with a mulch blower.

2. When spreading straw mulch by hand, divide the area to be mulched into sections of approximately 1,000 ft², and place 70-90 lb. of straw(1 1/2 to 2 bales) in each section to facilitate uniform distribution.

3. After Spreading, no more than 25% of the ground surface should be visible.

4. In hydroseeding operations a green dye, added to the slurry, assures a uniform application.

ANCHORING ORGANIC MULCH

1. Straw mulch must be anchored immediately after spreading.

2. A tractor-drawn implement designed to punch mulch into the soil or a mulch anchoring tool provides maximum erosion control with straw. A regular farm disk, weighted and set nearly straight, may substitute, but will not do a job comparable to the mulch anchoring tool. The disk should not be sharp enough to cut the straw. These methods are limited to slopes no steeper than 3:1, where equipment can operate safely.

3. Application of liquid mulch binders and tackifiers should be heaviest at the edges of areas and at crests of ridges and banks, to resist winds. Binder should be applied uniformly to the rest of the area. Binders may be applied after mulch is spread, or may be sprayed into the mulch as it is being blown onto the soil. Applying straw and binder together is the most effective method.

4. Emulsified asphalt should be applied at 0.10 gallons per square yard (10 gal/1,000 ft²). Heavier applications cause straw to "perch" over rills. Use Rapid setting (RS or CRS) designated asphalt in traffic areas to prevent uncured asphalt from being picked up on shoes and causing damage to rugs, clothes, etc.

5. Synthetic binders may be used as recommended by the manufacturer.

6. Lightweight plastic, cotton, jute, wire or paper nets may be stapled over the mulch according to the manufacturer's recommendations.

7. For small areas where other methods cannot be used, peg and twine anchoring can be used. Drive 8-10 inch wooden pegs to within 3 inches of the soil surface, every 4 feet in all directions. Stakes can be driven before or after straw is spread. Secure mulch by stretching twine between pegs in a criss-cross-within-a-square pattern. Turn twine two or more times around each peg.

8. Rye Grain may be used to anchor mulch in fall plantings, and German Millet in spring. Broadcast at 15 lb/acre before applying mulch.

CHEMICAL MULCHES

1. May be effective for soil stabilization if used between May 1 and June 15, or Sept. 15 and Oct. 15, provided that they are used on slopes **no steeper** than 4:1, and that proper seedbed preparation has been accomplished, including surface roughening where required.

2. Chemical mulches cannot be used to bind other mulches, or with wood fiber in a hydroseeded slurry at any time. Follow the manufacturer's recommendations for application.

FIBERGLASS ROVING

1. Spread roving uniformly over the area at a rate of 0.25 to 0.35 lb/yd². Anchor with asphalt immediately after application, at a rate of 0.25-0.35 gal/yd².

2. As a channel lining, and at other sites of concentrated flow, the roving mat must be further anchored to prevent undermining.

3. It may be secured with stakes placed at intervals no greater than 10 feet along the drainageway, and randomly throughout its width, but not more than 10 feet apart.

4. As an option to staking, the roving can be buried to a depth of 5 inches at the upgrade end and at intervals of 50 feet along the length of the channel.

NETS AND MATS

1. Nests alone generally provide little moisture conservation benefits and only limited erosion protection. Therefore, typically use in conjunction with an organic mulch such as straw.

2. Except when wood fiber slurry is used, netting should always be installed **over** the mulch. Wood fiber may be sprayed on top of an installed net.

3. Mats, including "excelsior" (wood fiber) blankets, are considered protective mulches and may be used alone.

4. Place the matting in firm contact with the soil, and staple securely.



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MULCHING



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Subgrade Preparation:

1. Prepare the subgrade for riprap and filter to the required lines and grades shown on the plans.

2. Compact any fill required in the subgrade to a density approximating that of the surrounding undisturbed material or overfill depressions with riprap.

3. Remove brush, trees, stumps, and other objectionable material.

Sand and Gravel Filter Blanket:

1. Place the filter blanket immediately after the ground foundation is prepared.

2. When using gravel, spread filter stone in a uniform layer to the specified depth.

3. When more than one layer of filter material is used, spread the layers with minimal mixing.

Synthetic Filter Fabric:

1. Place the cloth filter directly on the prepared foundation.

2. Overlap the edges by at least 12 inches, and space anchor pins every 3 feet along the overlap.

3. Bury the upstream end of the cloth a minimum of 12 inches below ground and bury the lower end of the cloth or over lap with the next section as required.

4. If damage occurs while placing riprap, remove the riprap, and repair the sheet by adding another layer of filter material with a minimum overlap of 12 inches around the damaged area. If damage is extensive, remove and replace the entire sheet.

5. If placing large stones or machine placing is difficult, a 4 inch layer of fine gravel or sand may be needed to protect the filter cloth.

Maintenance:

In general, once a riprap installation has been properly designed and installed it requires very little maintenance. Riprap should be inspected periodically for scour or dislodged stones. Control of weed and brush growth may be needed in some locations.

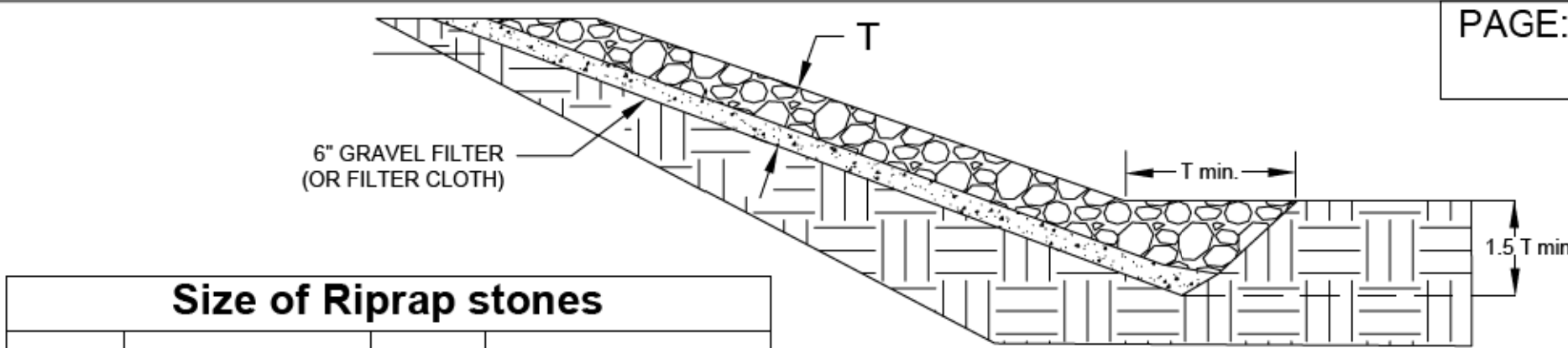
Size of Riprap stones

Weight (lb)	Mean Spherical Diameter (ft)	Length (ft)	Rectangular Shape Width/Height (ft)
50	0.8	1.4	0.5
100	1.1	1.8	0.6
150	1.3	2.0	0.7
300	1.6	2.6	0.9
500	1.9	3.0	1.0
1000	2.2	3.7	1.3
1500	2.6	4.7	1.5
2000	2.8	5.4	1.8
4000	3.6	6.0	2.0
6000	4.0	6.9	2.3
8000	4.5	7.6	2.5
20,000	6.1	10.0	3.3

Sizes for Riprap and Erosion Control Stone Specified by NCDOT

Riprap		Erosion Control	
Class 1	Class 2	Class A	Class B
5-200 lb	25-250 lb	2"-6"	5"-15"
30% shall weigh a minimum of 60 lbs each	60% shall weigh a minimum of 100 lbs each		
No more than 10% shall weigh less than 15 lbs each	No more than 5% shall weigh less than 50 lbs each	10% tolerance top and bottom sizes	
		Equally distributed, no gradation specified	Equally distributed, no gradation specified

Riprap should be a well-graded mixture with 50% by weight larger than the specified design size.
Diameter of the largest stone size in the mix should be 1.5 times the d₅₀ size with smaller sizes grading down to 1 inch.



Stone Placement:

1. Placement of riprap should follow immediately after placement of the filter.

2. Place so that riprap forms a dense, well-graded mass of stone with a minimum of voids.

3. Place to its full thickness in one operation.

4. Do not place by dumping through chutes or other methods that cause segregation of stone sizes.

5. Take care not to dislodge underlying base or filter when placing stone.

6. The toe of the riprap slope should be keyed to a stable foundation at its base.

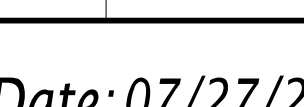
7. The toe should be excavated to a depth about 1.5 times the design thickness of the riprap and extend horizontally from the slope, as shown above.

8. Hand placing may be necessary to achieve the proper distribution of stone sizes to produce a relatively smooth, uniform surface.



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RIP RAP



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EROSION CONTROL DETAILS

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	

Date: 07/27/26

CW-507

DATE:

Temporary Seeding Recommendations			
Common Name	Scientific Name	Rate per Acre	Optimal Planting Date
Rye Grain	Secale Cereale	30 lbs	Aug. 15 - May 15
Wheat	Triticum Aestivum	30 lbs	Aug. 15 - May 15
German Millet	Setaria Italica	10 lbs	May 15 - Aug. 15
Browntop Millet	Urochloa Ramosa	10 lbs	May 15 - Aug. 15

Permanent Seeding Recommendations
Type: Cold Season

Common Name	Scientific Name	Optimal Planting Dates	% of Mix	Soil Drainage Adaptation	Shade Tolerance	Height
Indian Woodoats	Chasmanthium latifolium	Feb. 15 - Apr. 1, Aug. 15 - Oct. 15	1-10%	Well-drained to Droughty	Moderate	4
Virginia Wildrye	Elymus virginicus	Feb. 15 - Apr. 1, Aug. 15 - Oct. 15	5-25%	Well-drained to Droughty	Moderate	3
Eastern Bottle-brush Grass	Elymus hystrix	Feb. 15 - Apr. 1, Aug. 15 - Oct. 15	5-10%	Well-drained to Droughty	Moderate	3
Rough Bentgrass	Argostis scabra	Feb. 15 - Apr. 1, Aug. 15 - Oct. 15	10-20%	Poorly-drained	Poor	2.5
Winter Bentgrass	Agrostis hyemalis	Feb. 15 - Apr. 1, Aug. 15 - Oct. 15	2-5%	Well-drained	Moderate	3.5

Permanent Seeding Recommendations
Type: Wetland

Common Name	Scientific Name	Optimal Planting Dates	% of Mix	Soil Drainage Adaptation	Shade Tolerance	Height
Soft Rush	Juncus effusus	Dec. 1 - May 1, Sep. 1 - Nov. 1	1-10%	Poorly-drained	Poor	4
Shallow Sedge	Carex lurida	Dec. 1 - May 1, Sep. 1 - Nov. 1	1-10%	Poorly-drained	Poor	3
Fox Sedge	Carex vulpinoidea	Dec. 1 - May 1, Sep. 1 - Nov. 1	1-10%	Poorly-drained	Poor	3
Leathery Rush	Juncus coriaceus	Dec. 1 - May 1, Sep. 1 - Nov. 1	2-5%	Poorly-drained	Poor	2

No specific seeding rate is given in order to allow for custom seed mixes based on site characteristics and season. However, permanent seed inclusion in the mix should total 15 pounds of pure live seed (PLS) per acre drilled or 15-20 pounds PLS per acre broadcast applied.

At least 4 species should be selected for the mixture, including one species from each type(warm and cold season and wetland); selection of more than four species is recommended for increasing chances of successful vegetation establishment.

If other species such as wildflowers are added to the mix, they should not be counted in the minimum seeding rate for grasses.

DATE:

Permanent Seeding Recommendations							
Common Name	Scientific Name	Cultivars	Optimal Planting Dates	% of Mix	Soil Drainage Adaptation	Shade Tolerance	Height
Switchgrass	Panicum virgatum	Cave-in-rock – well drained Blackwell – well drained Shelter – well drained Karlow – poorly drained Carthage – well drained	Dec. 1 - Apr. 1	10-15%	Cultivar Dependent	Poor	6
Switchgrass	Panicum virgatum	Alamo – poorly drained	Dec. 1 - May 1	10-15%	Cultivar Dependent	Poor	6
Indiangrass	Sorghastrum nutans	Rumsey, Osage, Cheyenne	Dec. 1 - Apr. 1	10-30%	Well-drained to Droughty	Poor	6
Indiangrass	Sorghastrum nutans	Lometa	Dec. 1 - May 1	10-30%	Well-drained to Droughty	Poor	6
Deertounge	Dichanthelium clandestinum	Tioga	Dec. 1 - Apr. 1	5-25%	Poorly-drained to Droughty	Moderate	2
Big Bluestem	Andropogon gerardii	Roundtree, Kaw, Earl	Dec. 1 - Apr. 1	10-30%	Well-drained to Droughty	Poor	6
Little Bluestem	Schizachyrium scoparium	Cimarron	Dec. 1 - Apr. 1	10-30%	Well-drained to Droughty	Poor	4
Sweet Woodreed	Cinna arundinacea		Dec. 1 - Apr. 1	1-10%	Poorly-drained to Well-drained	Moderate	5
Rice Cutgrass	Leersia oryzoides		Dec. 1 - Apr. 1	5-25%	Poorly-drained	Poor	5
Redtop Panicgrass	Panicum rigidulum		Dec. 1 - Apr. 1	10-20%	Well-drained	Poor	3.5
Baked Panicgrass	Panicum anceps		Dec. 1 - Apr. 1	10-20%	Poorly-drained	Moderate	3.5
Purple Top	Tridens flavus		Dec. 1 - Apr. 1	5-10%	Well-drained to Droughty	Poor	2.5
Eastern Gamagrass	Tripsacum dasyloides		Dec. 1 - Apr. 1	5-10%	Well-drained to Poorly-drained	Poor	4.5

Permanent Seeding:

- Soil analysis should be performed to determine nutrient and lime needs of each site.
- Riparian buffers regulated for nutrient management may be limited to a single application of fertilizer.
- Apply seed uniformly with a cyclone seeder, drop-type spreader, drill or hydroseeder on a firm, friable seedbed.
- When using a drill, equipment should be calibrated in the field for the desired seeding rate.
- Mulch all plantings immediately after seeding (see 6.14, Mulching).If planting on stream banks steeper than 10% or areas subject to flooding, a biodegradable RECP (6.17, Rolled Erosion Control Products) is recommended to hold seed and soil in place.

Maintenance:

- Many of the recommended permanent grass species may require two years of establishment, depending on site conditions.
- Inspect seeded areas for failure and make necessary repairs, soil amendments, and reseedsings.
- If weedy exotic species have overtaken the area after the first growing season, the invading species must be eradicated to allow native species to grow.
- Monitor the site until long term stability has been established.

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PIPE OUTLET TO FLAT AREA NO WELL-DEFINED CHANNEL

PLAN

SECTION A

La = Length of Riprap Apron
d = Thickness of Riprap Apron

PIPE OUTLET TO WELL-DEFINED CHANNEL

PLAN

SECTION AA

La = Length of Riprap Apron
d = Thickness of Riprap Apron

NOTES:

1. Compact any fill required in the subgrade to the density of the surrounding undisturbed material. Low areas in the subgrade on undisturbed soil may also be filled by increasing the riprap thickness.
2. The riprap and gravel filter must conform to the specified grading limits shown on the plans.
3. Filter cloth, when used, must meet design requirements, and be properly protected from punching or tearing during installation. Repair any damage by removing the riprap and placing another piece over the damaged area. If the damage is extensive, replace the entire filter cloth.
4. All connecting joints should overlap so the top layer is above the downstream layer a minimum of 1 foot.
5. The minimum thickness of the riprap should be 1.5 times the maximum stone diameter but not less than 6".
6. Riprap may be field stone or rough quarry stone. It should be hard, angular highly weather-resistant and well graded.
7. Construct the apron on zero grade with no overfill at the end. Make the top of the riprap at the downstream end level with the receiving area or slightly below it.
8. Ensure that the apron is properly aligned with the receiving stream and preferably straight throughout its length. If a curve is needed, place in the upper section of the apron.

MAINTENANCE:

1. Inspect outlet structures at least weekly and after each rainfall of 1.0 inch or greater.
2. Check outlets for erosion around or below riprap and for if stones have been dislodged. Make repairs immediately to prevent further damage.

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EXCAVATED AREA (AS REQUIRED)

ACCUMULATED SEDIMENT

Side slope 2:1

EXCAVATED DEPTH: MIN. 1' - MAX. 2' BELOW TOP OF INLET

WEEP HOLES FOR DEWATERING

GRAVEL - SUPPORTED BY HARDWARE CLOTH TO ALLOW DRAINAGE AND RESTRICT SEDIMENT MOVEMENT.

Notes:

1. Clear the area of all debris that might hinder excavation and disposal of spoil.
2. Grade the approach to the inlet uniformly.
3. Protect weep holes by gravel.
4. When the contributing drainage area has been permanently stabilized, seal weep holes, fill the basin with stable soil to final grading elevations, compact it properly and stabilize.

Maintenance:

1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater.
2. Clean, and properly maintain the excavated basin after every storm until the contributing drainage area has been permanently stabilized.
3. remove sediment when the volume of the basin has been reduced by one-half.
4. Spread all excavated material evenly over the surrounding land area or stockpile and stabilize appropriately.

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DEWATERING

CONCRETE BLOCKS

2:1 SLOPE GRAVEL FILTER

TEMPORARY SEDIMENT POOL

WIRE SCREEN

DEWATERING

1' MIN. 2' MAX.

SEDIMENT

DROP INLET WITH GRATE

NOTES:

1. Lay one block, on each side of the structure, on its side in the bottom row to allow pool drainage. The foundation should be excavated at least 2 inches below the crest of the storm drain. Place the bottom row of blocks against the edge of the storm drain for lateral support and to avoid washouts when overflow occurs. If needed, give lateral support to subsequent rows by placing 2 inch x 4 inch wood studs through block openings.
2. Carefully fit hardware cloth or comparable wire mesh with 1/2-inch openings over all block openings to hold gravel in place.
3. Use clean gravel 1/2 to 3/4 inch in diameter, placed 2 inches below the top of the block on a 2:1 slope or flatter and smooth it to an even grade. NCDOT #57 washed stone is recommended.

MAINTENANCE:

1. Inspect all measures at least weekly and after every rainfall of 1.0 inch or greater; repair immediately.
2. Remove sediment as necessary to provide adequate storage volume for subsequent rains.
3. When the contributing drainage area has been adequately stabilized, remove all materials and any unstable soil, and either salvage or dispose of it properly. Bring the disturbed area to proper grade, then smooth and compact before stabilizing.

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EROSION CONTROL DETAILS

LAKE MYRA COUNTY PARK
Wake County, NC

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NOTES:

1. Clear the area of all debris that might hinder excavation and disposal of spoil.
2. Install the Class B or Class 1 riprap in a semi-circle around the pipe inlet. The stone should be built up higher on each end where it ties into the embankment. The minimum crest width of the riprap should be 3 feet, with a minimum bottom width of 11 feet. The minimum height should be 2 feet, but also 1 foot lower than the embankment of diversions.
3. A 1 foot thick layer of NC DOT #5 or #57 stone should be placed on the outside slope of the riprap.
4. The sediment storage area should be excavated around the outside of the stone horseshoe 18 inches below natural grade.
5. When contributing drainage area has been stabilized, remove the pipe and rock, fill depression, establish final grading elevations, compact the area properly, and stabilize with ground cover.

MAINTENANCE:

1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater and repair immediately.
2. Remove sediment and restore the sediment storage area to its original dimensions when the sediment has accumulated to one-half the design depth of the trap.
3. Place the sediment that is removed in the designated disposal area and replace the contaminated part of the gravel facing.
4. Check the structure for damage. Any riprap displaced from the stone horseshoe must be replaced immediately.
5. After all the sediment-producing areas have been permanently stabilized, remove the structure and all the unstable sediment. Smooth the area to blend with the adjoining areas and provide permanent ground cover.

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DEQ

ROCK PIPE INLET PROTECTION

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1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground. (Higher fences may impound volumes of water sufficient to cause failure of the structure)
3. 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.
4. 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 fence post. Wire or plastic zip ties should have a minimum 50 pound tensile strength.
5. When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Supports should be driven securely into the ground a minimum of 24 inches. Wire mesh should be a minimum 14-gauge with 6 inch mesh spacing.
6. Extra strength filter fabric with 6 foot post spacing does not require a wire mesh support fence. Securely fasten the filter fabric directly to posts. Wire or plastic zip ties should have a minimum of 50 pound tensile strength.
7. Excavate the trench approximately 4 inches wide and 8 inches deep along the proposed line of the posts and upslope from the barrier.
8. Place 12 inches of fabric along the bottom and side of the trench.
9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to silt fence performance.
10. Do not attach filter fabric to existing trees.
11. Do not place across ditches, streams, or any other areas of concentrated flow.

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DEQ

SEDIMENT FENCE

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NOTES:

1. Other materials providing equivalent protection against erosive velocities may be substituted for compost use in silt socks or wattles.
2. Fill silt sock/wattle netting uniformly to the desired length such that logs do not deform.
3. Use 24 inch long wooden stakes with a 2 inch x 2 inch nominal cross section.
4. Install silt sock/wattle(s) to a height on slope so flow will not wash around silt sock/wattle and scour slopes, or as directed.
5. Install a minimum of two up-slope stakes and four down-slope stakes at an angle to wedge silt sock/wattle to ground at bottom ditch. Use staples to secure silt sock/wattle to the ground to prevent undermining.
6. The use of flocculants such as Polyacrylamide (PAM) is recommended. Apply flocculants on top of sock/wattle and to matting on either side of sock/wattle according to manufacturer recommended rates. Reapply after each 1.0 inch rainfall.

MAINTENANCE:

1. Inspect all measures weekly and after each rainfall of 1.0 inch or greater. Remove accumulated sediment and any debris.
2. Silt sock/Wattle(s) must be replaced if clogged or torn.
3. If ponding becomes excessive, the silt sock/wattle may need to be replaced with a larger diameter or a different measure.
4. Reinstall if damaged or dislodged.
5. Silt socks/Wattles shall be inspected until land disturbance is complete and the area above the measure is permanently stabilized.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DEQ

SILT SOCK / WATTLE FOR CHECK DAM

DATE:

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NOTES:

1. Place stone on a filter fabric foundation.
2. The center stone section must be at least 9 inches below natural ground level where the dam abuts the channel banks.
3. Extend stone at least 1.5 feet beyond the ditch bank to keep water from cutting around the ends of the check dam.
4. Set spacing between dams to assure that the elevation at the top of the lower dam is the same as the toe elevation of the upper dam.
5. Protect the channel after the lowest check dam from heavy flow that could cause erosion.
6. Make sure the channel reach above the most upstream dam is stable.
7. Ensure that other areas of the channel, such as culvert entrances below the check dams, are not subject to damage or blockage from displaced stones.
8. Riprap and filter fabric should be keyed in to prevent under cutting.
9. Ends of check dams may need to be turned uphill to prevent bypass and better conform to site conditions.
10. Do not place check dams in intermittent or perennial streams.

MAINTENANCE:

1. Inspect check dams and channels at least weekly and after each rainfall of 1.0 inch or greater. Clean out sediment, straw, limbs or other debris that could clog the channel when needed.
2. Anticipate submergence and deposition above the check dam and erosion from high flows around the edges of the dam. Correct all damage immediately. If significant erosion occurs between dams, additional measures can be taken such as, installing a protective riprap liner in that portion of the channel.
3. Remove sediment accumulated behind the dams as needed to prevent damage to channel vegetation, allow the channel to drain through the stone check dam, and prevent large flows from carrying sediment over the dam. Add stones to the dams as needed to maintain design height and cross section.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

DEQ

CHECK DAM

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	

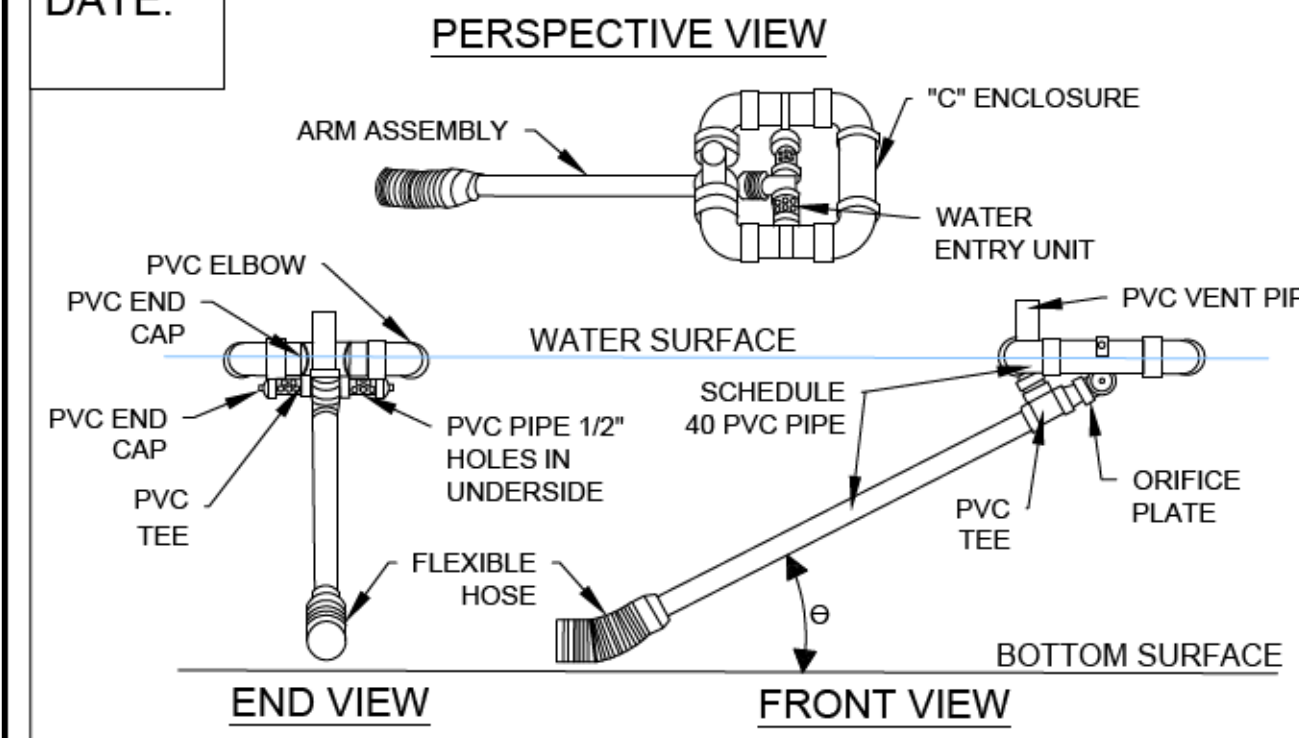
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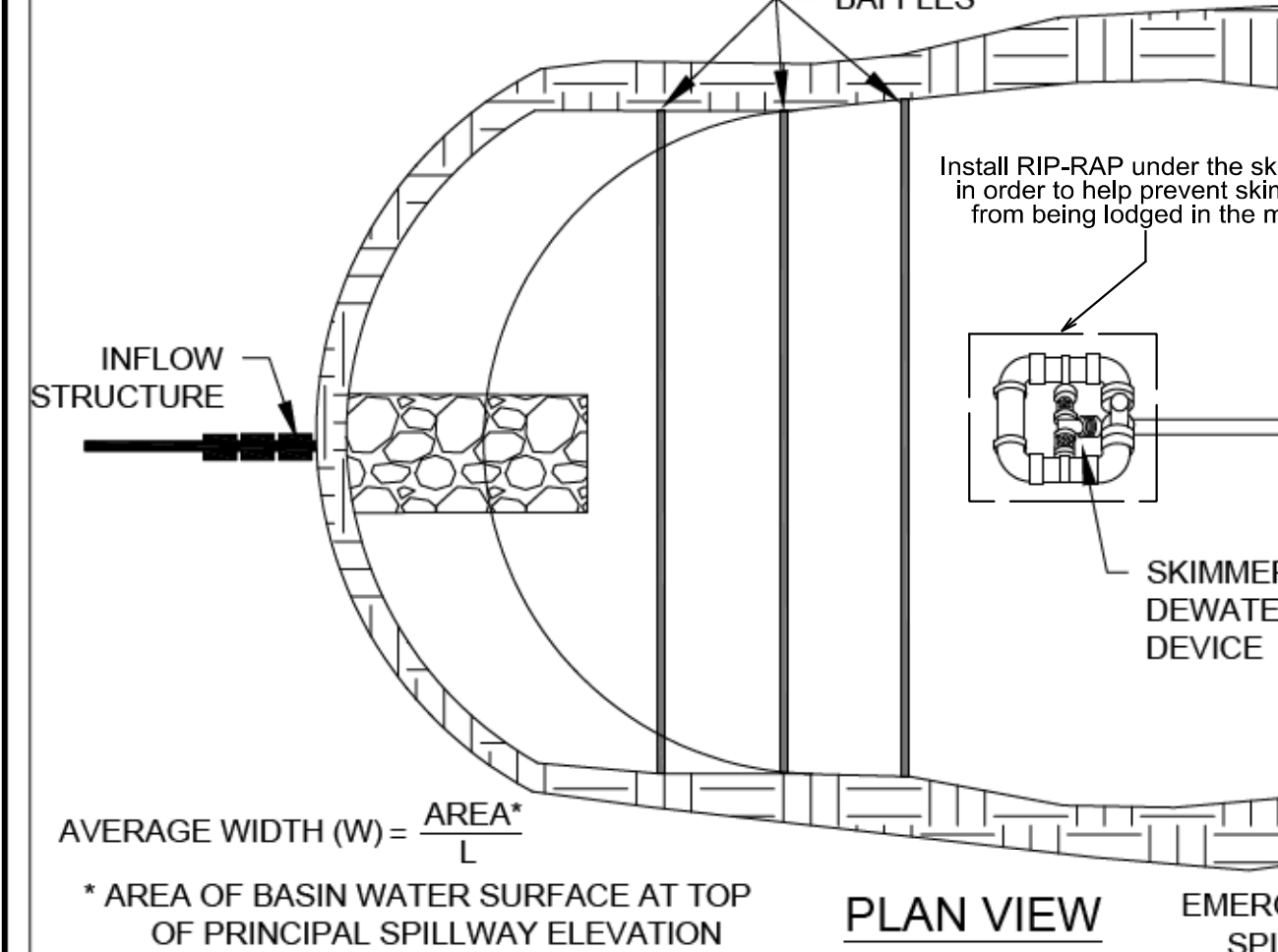
PERSPECTIVE VIEW



END VIEW

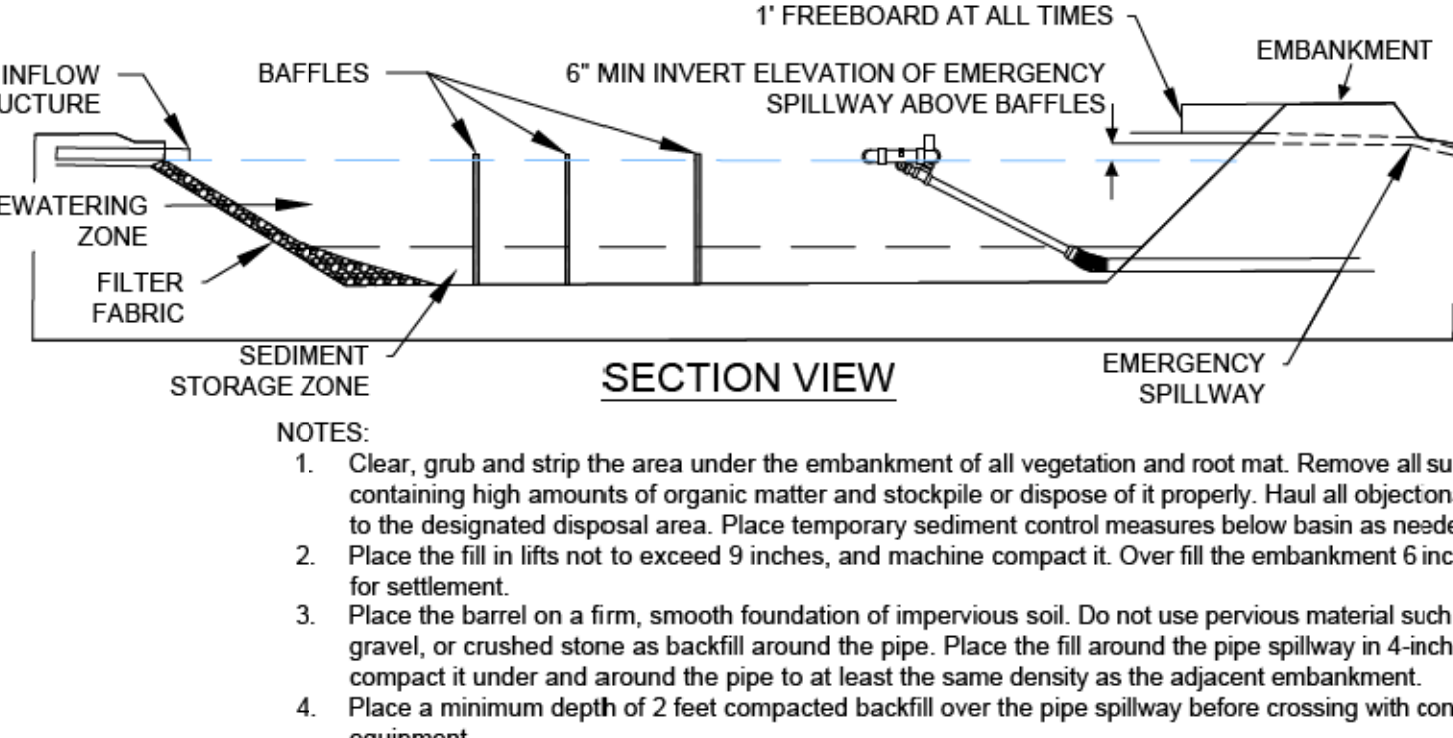
FRONT VIEW

PLAN VIEW



AVERAGE WIDTH (W) = AREA* / OF PRINCIPAL SPILLWAY ELEVATION

SECTION VIEW



EMERGENCY SPILLWAY

NOTES:

1. Clear, grub and strip the area under the embankment of all vegetation and root mat. Remove all surface soil containing high amounts of organic matter and stockpile or dispose of it properly. Haul all objectionable material to the designated disposal area. Place temporary sediment control measures below basin as needed.
2. Place the fill in lifts not to exceed 9 inches, and machine compact it. Over fill the embankment 6 inches to allow for settlement.
3. Place the barrel on a firm, smooth foundation of impervious soil. Do not use pervious material such as sand, gravel, or crushed stone as backfill around the pipe. Place the fill around the pipe spillway in 4-inch layers and compact it under and around the pipe to at least the same density as the adjacent embankment.
4. Place a minimum depth of 2 feet compacted backfill over the pipe spillway before crossing with construction equipment.
5. Ensure that the flow length to basin width ratio is at least 2:1 to improve trapping efficiency. Length is measured at the elevation of the principal spillway.
6. Assemble the skimmer following manufacturers instructions or as designed and lay on the bottom of the basin with the flexible joint at the inlet of the barrel pipe. Attach the flexible joint to the barrel pipe and position the skimmer over the excavated pit or support. Be sure to attach a rope and anchor it to the side of the basin. This will be used to pull the skimmer to the side for maintenance.
7. Install the spillway in undisturbed soil to the greatest extent possible. The spillway should be lined with laminated plastic or impermeable geotextile fabric. The fabric must be wide and long enough to cover the bottom and sides and extend onto the top of the dam for anchoring in a trench. The edges may be secured with 8-inch staples or pins.
8. Filter fabric must be long enough to extend down the slope and exit onto stable ground. The width of the fabric must be one piece, not joined or spliced; otherwise water can get under the fabric.
9. The upper section(s) should overlap the lower section(s) so that water cannot flow under the fabric. Secure the upper edge and sides of the fabric in a trench with staples or pins.
10. Discharge water into the basin in a manner to prevent erosion. Use temporary slope drains or diversions with outlet protection to divert sediment-laden water to the upper end of the pool area to improve basin trap efficiency.
11. Stabilize the emergency spillway embankment and all other disturbed areas above the crest of the principal spillway immediately after construction.

MAINTENANCE:

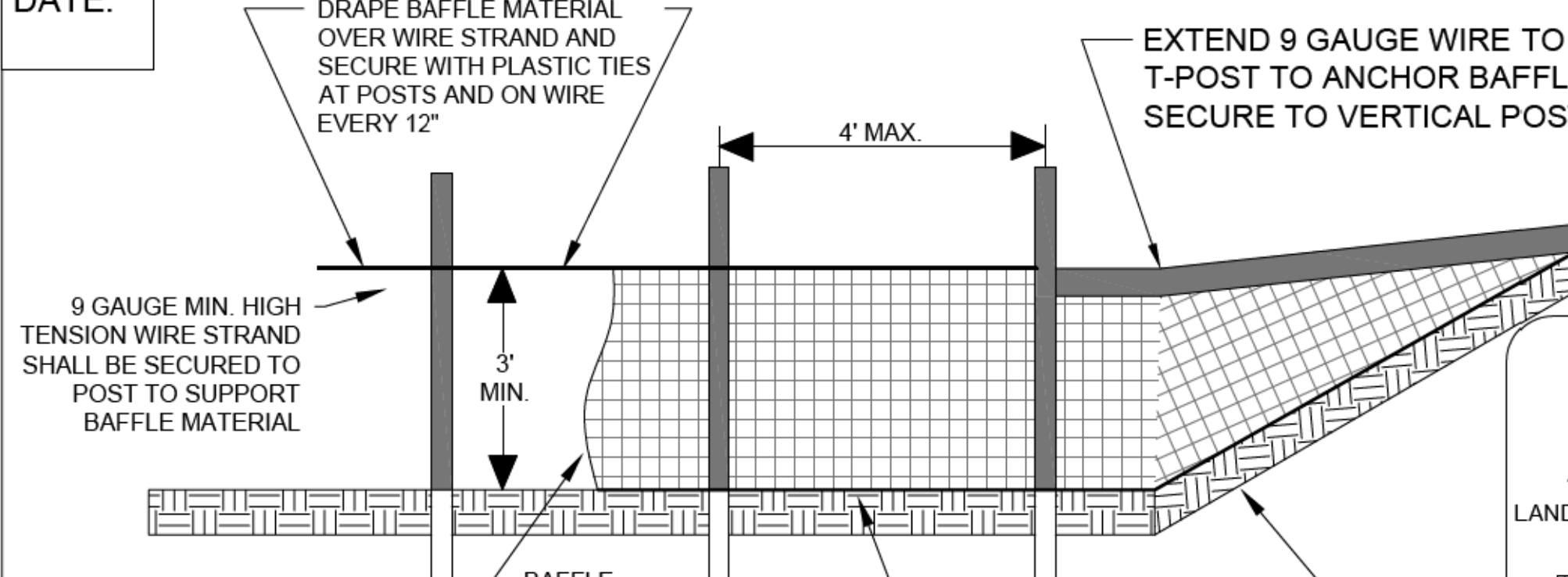
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make necessary repairs immediately.
2. Remove sediment and restore the basin to its original dimensions when sediment accumulates to one-half the height of the first baffle. Pull the skimmer to one side so that the sediment underneath can be excavated. Excavate the sediment from the entire basin, not just around the skimmer or within the first cell.
3. Make sure any vegetation growing in the bottom of the basin does not hold down the skimmer.
4. Repair baffles if they are damaged. Re-anchor the baffles if water is flowing underneath or around them.
5. Ensure the skimmer is not clogged with trash or debris.
6. If the skimmer arm or barrel pipe is clogged, remove orifice and clear debris with a plumber's snake or by flushing with clean water. Be sure to replace the orifice before repositioning the skimmer.
7. Check fabric lined spillway for damage and make any required repairs with fabric that spans the full width of the spillway. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement.

Effective Date: 9/1/2023
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Design Manual Updates

DATE:

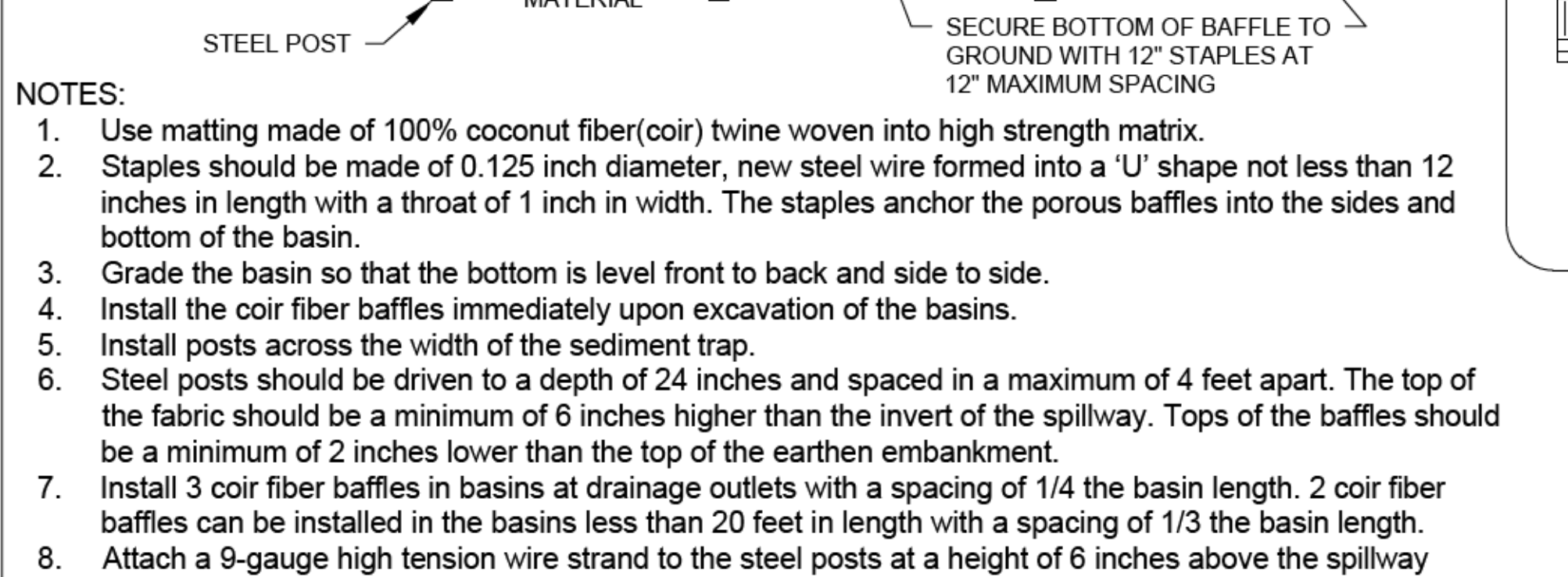
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TEMPORARY EARTHEN DIVERSION DIKE



6" TYPICAL

TEMPORARY GRAVEL DIVERSION DIKE FOR VEHICLE CROSSING



9" TYPICAL

NOTES:

1. Use matting made of 100% coconut fiber(coir) twine woven into high strength matrix.
2. Staples should be made of 0.125 inch diameter, new steel wire formed into a 'U' shape not less than 12 inches in length with a throat of 1 inch in width. The staples anchor the porous baffles into the sides and bottom of the basin.
3. Grade the basin so that the bottom is level front to back and side to side.
4. Install the coir fiber baffles immediately upon excavation of the basins.
5. Install posts across the width of the sediment trap.
6. Steel posts should be driven to a depth of 24 inches and spaced in a maximum of 4 feet apart. The top of the fabric should be a minimum of 6 inches higher than the invert of the spillway. Tops of the baffles should be a minimum of 2 inches lower than the top of the earthen embankment.
7. Install 3 coir fiber baffles in basins at drainage outlets with a spacing of 1/4 the basin length. 2 coir fiber baffles can be installed in the basins less than 20 feet in length with a spacing of 1/3 the basin length.
8. Attach a 9-gauge high tension wire strand to the steel posts at a height of 6 inches above the spillway elevation with plastic ties or wire fasteners to prevent sagging. If the temporary sediment basin will be converted to a permanent stormwater basin of a greater depth, the baffle height should be based on the pool depth during use as a temporary sediment basin.

MAINTENANCE:

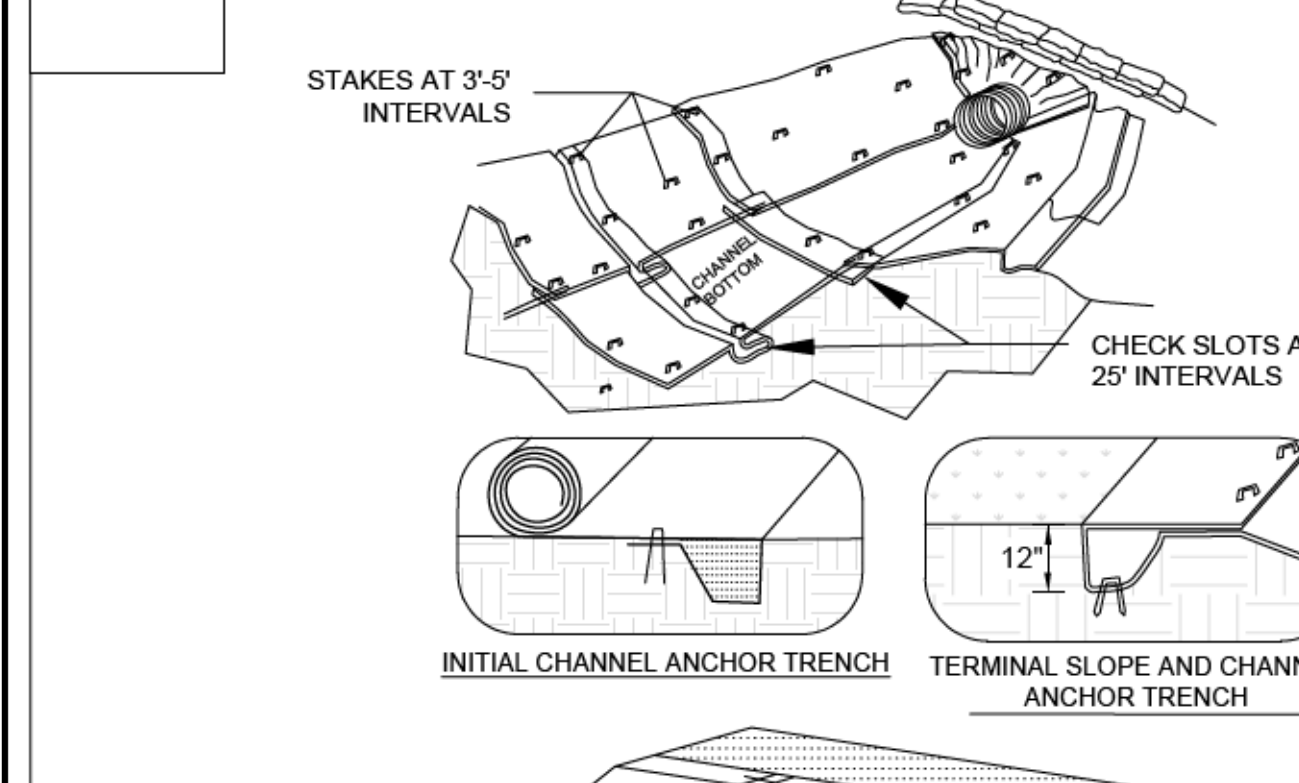
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater and repair immediately.
2. Maintain access to baffles. If the fabric collapses, tears, decomposes, or becomes ineffective, replace immediately.
3. Remove sediment deposits when it reaches half full. Replace if baffle fabric is damaged during clean-out operations. Sediment depth should never exceed half the designed storage depth.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

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ROLLED EROSION CONTROL PRODUCTS



3" MIN. OVERLAP

6" MIN. OVERLAP

BRING MATERIAL DOWN TO A LEVEL AREA, TURN THE END UNDER 4" AND STAPLE AT 12" INTERVALS.

NOTES:

1. Lime, fertilize and seed before installation. Planting of shrubs, trees, etc. should occur after installation.
2. Slope surface shall be smooth before placement for proper soil contact.
3. Design velocities exceeding 2 feet/second require temporary blankets, mats or similar liners to protect seed and soil until vegetation becomes established.
4. Terminal anchor trenches are required at RECP ends and intermittent check slots must be constructed across channels at 25 foot intervals.
5. Terminal anchor trenches should be a minimum of 12 inches in depth and 6 inches in width. Intermittent check slots should be 6 inches deep and 6 inches wide.
6. For installation on a slope, place RECP 2-3 feet over the top of the slope and into an excavated end trench measuring approximately 12 inches deep by 6 inches wide. Pin the RECP at 1 foot intervals along the bottom of the trench, backfill and compact. Unroll the RECP down the slope maintaining direct contact between the soil and RECP. Secure using staples or pins in a 3 foot center-to-center pattern.
7. 11 gauge, at least 6 inch by 1 inch staples or 12 inch minimum length wooden stakes are recommended for anchoring.
8. Grass-lined channels with design velocities exceeding 6 feet/second should include turf reinforcement mats
9. Check slots to be constructed per manufacturers specifications.
10. Staking or stapling layout per manufacturers specification.
11. If there is a berm at the top of slope, anchor up-slope of the berm.
12. Do not stretch blankets/matting tight, allow the rolls to conform to any irregularities.
13. For slopes less than 3H:1V, rolls may be placed in horizontal strips.

MAINTENANCE:

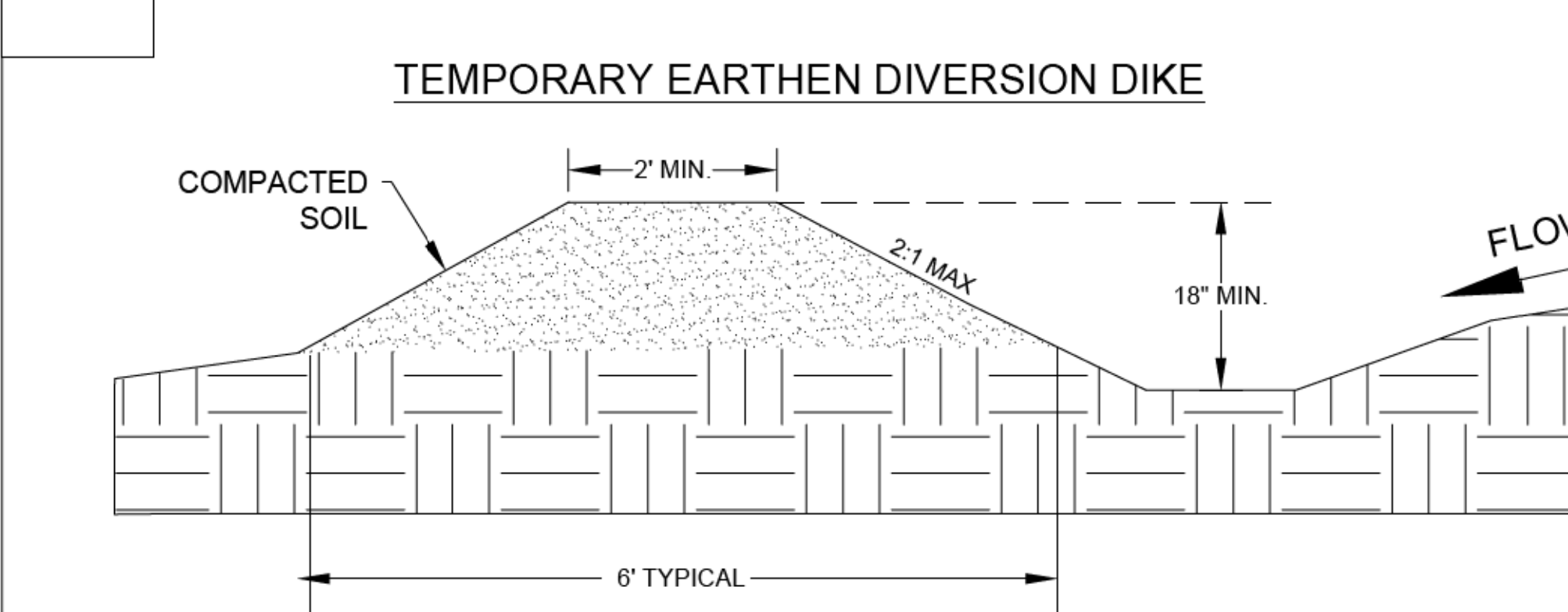
1. Inspect Rolled Erosion Control Products at least weekly and after each rainfall of 1.0 inch or greater; repair immediately.
2. Good contact with the ground must be maintained, and erosion must not occur beneath the RECP.
3. Any areas of the RECP that are damaged or not in close contact with the ground shall be repaired and stapled.
4. If erosion occurs due to poorly controlled drainage, the problem shall be fixed and the eroded area protected.
5. Monitor and repair the RECP as necessary until ground cover is established.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

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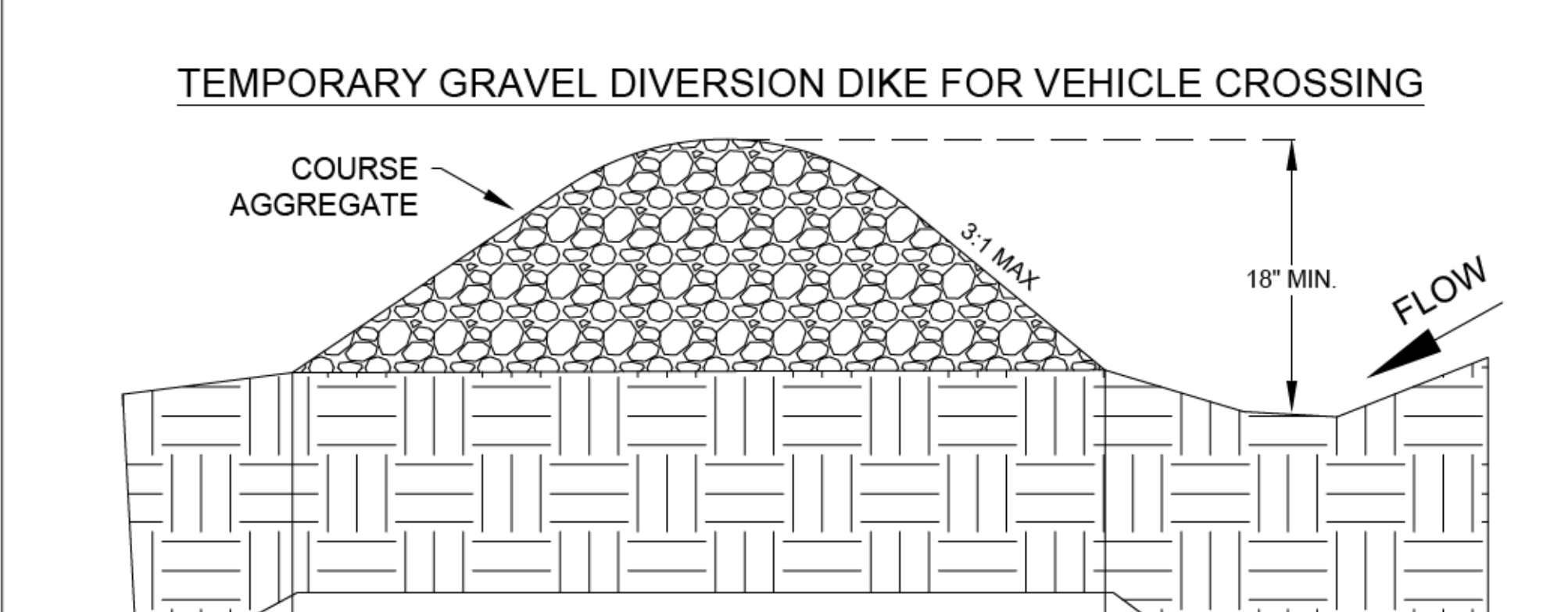
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TEMPORARY EARTHEN DIVERSION DIKE



6" TYPICAL

TEMPORARY GRAVEL DIVERSION DIKE FOR VEHICLE CROSSING



9" TYPICAL

NOTES:

1. Remove and properly dispose of all tree, brush, stumps, and other objectionable material.
2. Temporary diversions are to only be used for drainage areas of 5 acres or less.
3. Ridges will have a 2 feet minimum top width, 2:1 or flatter side slopes and a minimum of 0.3 feet freeboard.
4. Channels will have a parabolic, trapezoidal, or V shape with side slopes of 2:1 or flatter.
5. Any point where vehicles will be crossing should have 3:1 or flatter side slopes.
6. Ensure the top of the dike is not lower at any point than the design elevation plus the specified settlement.
7. Provide sufficient room around diversions to permit machine re-grading and cleanout.
8. Vegetate the ridge immediately after construction unless it will remain in place less than 30 working days.

MAINTENANCE:

1. Inspect all measures at least weekly and after every rainfall of 1.0 inch or greater.
2. Make all repairs immediately.
3. Immediately remove any sediment from the flow area and repair the diversion ridge.
4. Check outlets and make timely repairs as needed.

Effective Date: 9/1/2023
In accordance with the 2013
Design Manual Updates

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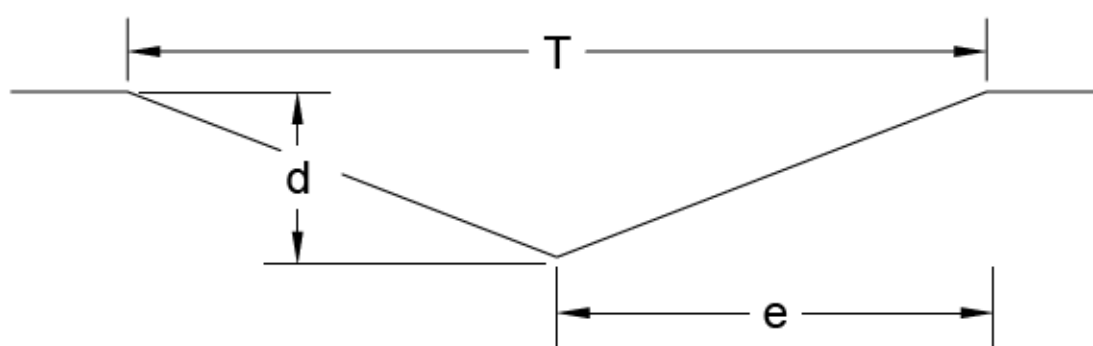
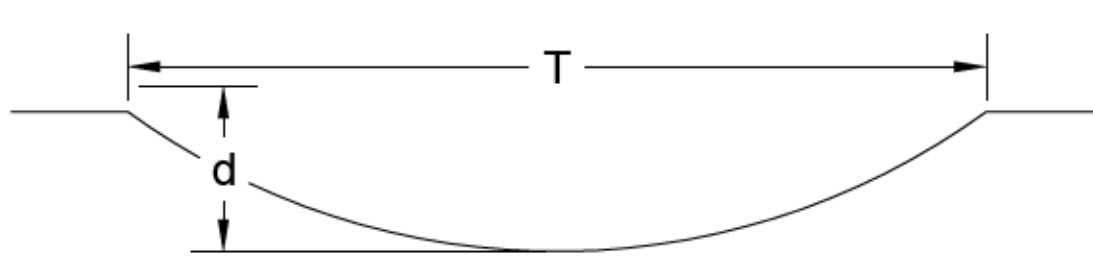
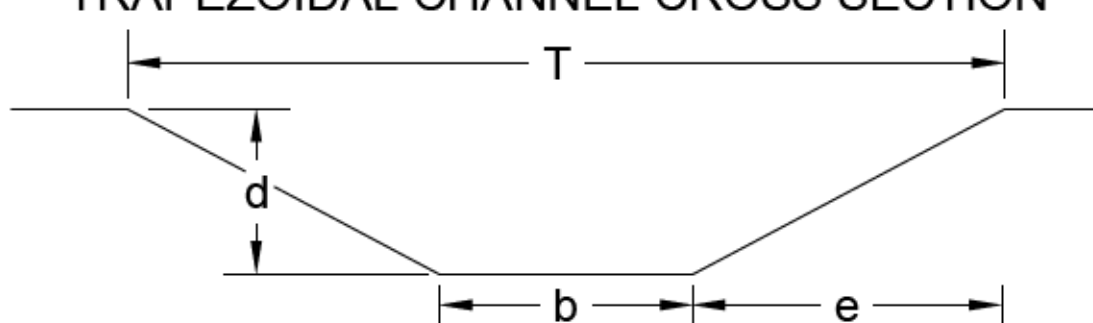
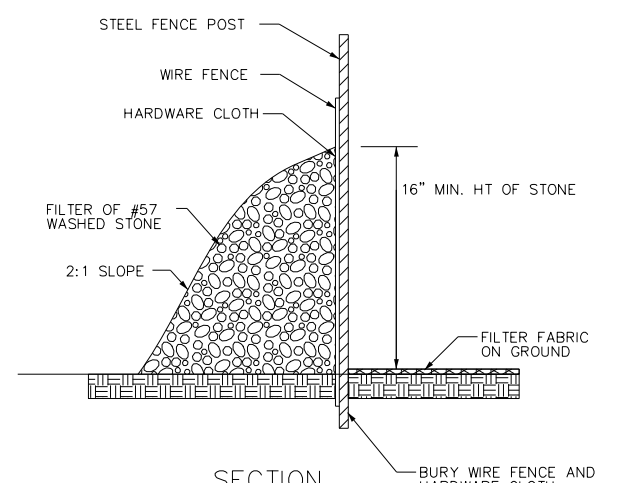
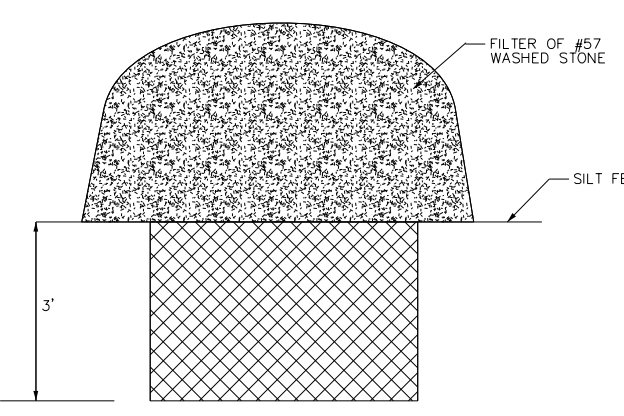
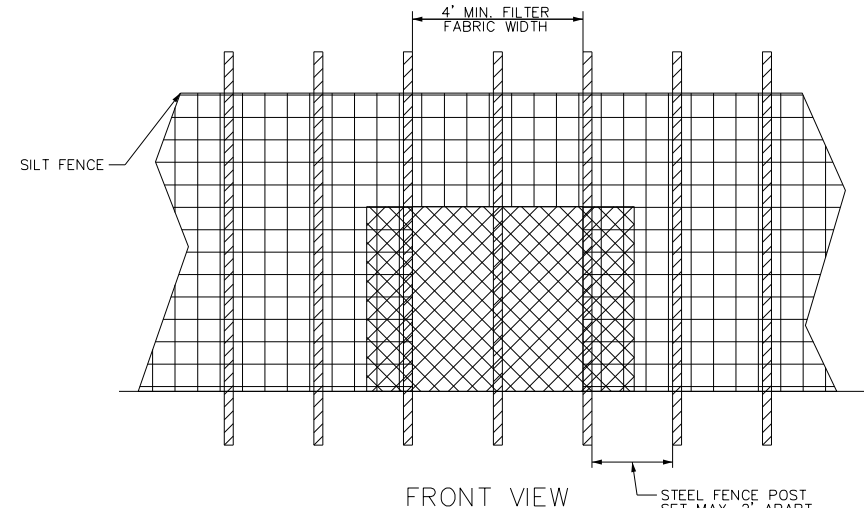
EROSION CONTROL DETAILS

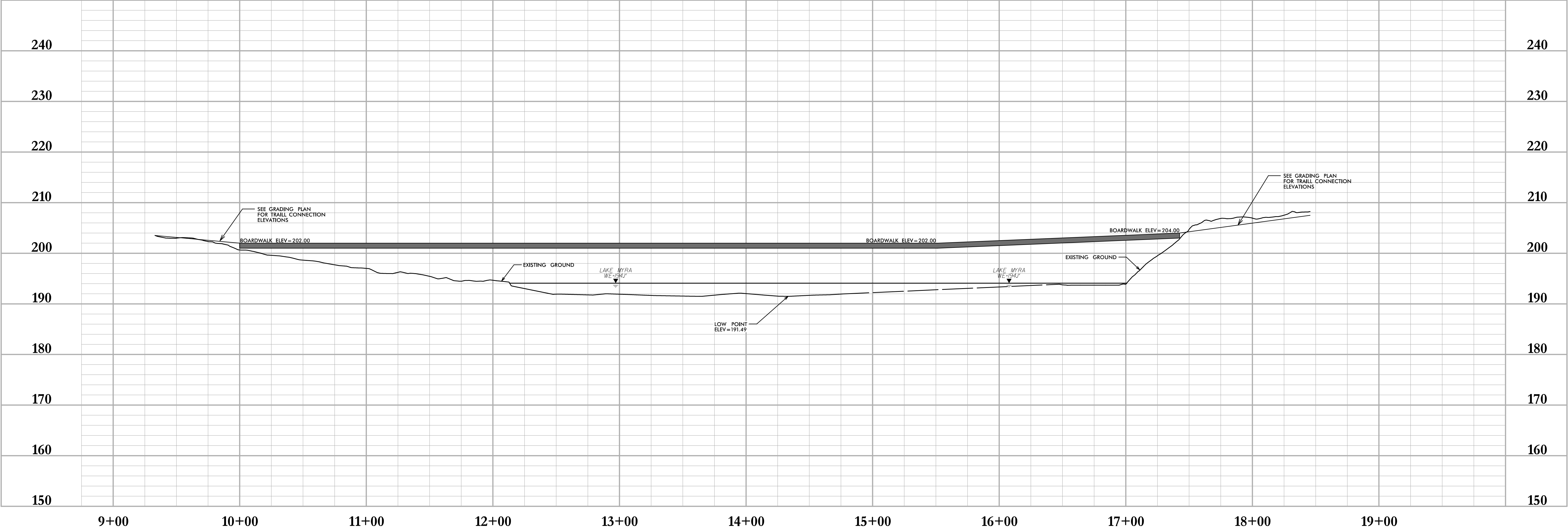
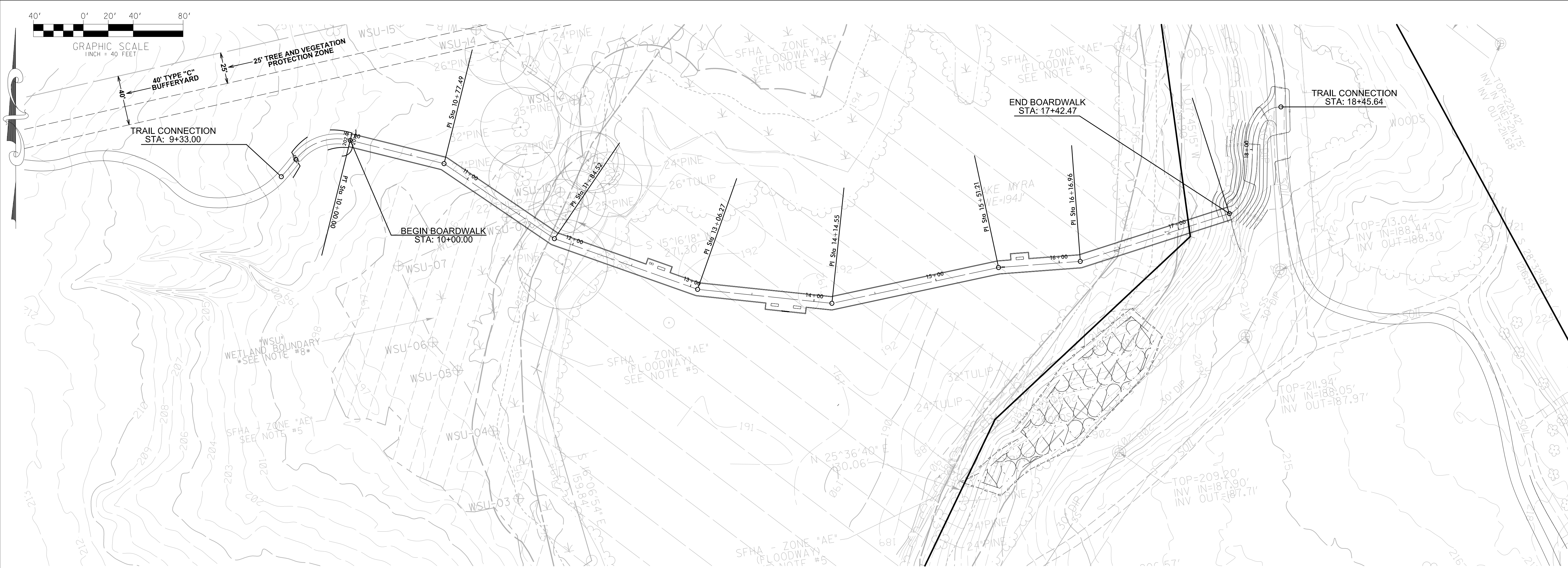
LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS

Date: 07/27/26

CW-510

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TRIANGULAR "V" CHANNEL CROSS SECTION  X-Section Area (A) = Zd^2 Top Width (T) = $2dz$ $Z = \frac{e}{d}$ PARABOLIC CHANNEL CROSS SECTION  X-Section Area (A) = $\frac{2}{3}Td$ Top Width (T) = $\frac{1.5A}{d}$ TRAPEZOIDAL CHANNEL CROSS SECTION  X-Section Area (A) = $bd + Zd^2$ Top Width (T) = $b + 2dz$ $Z = \frac{e}{d}$  GRASS-LINED CHANNELS Effective Date: 9/1/2023 In accordance with the 2013 Design Manual Updates NOTES: 1. At a minimum, grass-lined channels should carry peak runoff from the 10-year storm without eroding. Increase the capacity according to the potential damage if flood hazard exists. 2. If design velocity of the channel to be vegetated by seeding exceeds 2 feet per second, a temporary channel liner is required. 3. Channel side slopes should be 3:1 or flatter to aid in the establishment of vegetation and for maintenance. V-shaped channels along roadways should have side slopes of 6:1 or flatter for safety. 4. Remove all trees, brush, stumps, and other objectionable material from the foundation area, and dispose of properly. 5. Excavate the channel, and shape it to neat lines and dimensions shown on the plans plus a 0.2 foot overcut around the channel perimeter to allow for bulking during seedbed preparations and sod buildup. 6. Remove and properly dispose of all excess soil so that the surface water may enter the channel freely. 7. The procedure used to establish grass in the channel will depend upon the severity of the conditions and selection of species. Protect the channel with mulch or a temporary liner sufficient to withstand anticipated velocities during the establishment period. Maintenance: 1. During the establishment period, check grass-lined channels after every rainfall. 2. After grass is established, periodically check the channel. check after heavy rainfall events and immediately make any necessary repairs. 3. Check the channel outlet and all road crossings for bank stability and evidence of piping or scour holes. 4. Remove all significant sediment accumulations to maintain the designed carrying capacity. 5. Keep grass in a healthy, vigorous condition at all times.		Susan Hatchell Landscape Architecture, PLLC 711 W. North Street, Raleigh, NC 27603 p- 919-838-9600 f- 919-838-9700 NIV5 NV5 ENGINEERS & CONSULTANTS, INC. 3300 REGENCY PARKWAY CARY, NC 27518 P: 919.855.11912 www.NV5.com NC License # F-1333 																			
		EROSION CONTROL DETAILS																			
MAINTENANCE SCHEDULE FOR EROSION CONTROL DEVICES SEDIMENT BASINS/TRAPS ALL SEDIMENT BASINS/TRAPS SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL IN EXCESS OF 1" BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN ALL MEASURES AS DESIGNED. SEDIMENT BASINS/TRAPS SHALL BE CLEANED OF SEDIMENT WHEN THE LEVEL OF SEDIMENT REACHES 2.0 FT BELOW THE SPILLWAY ELEVATION. ANY STONE SHALL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY. EMERGENCY SPILLWAY THE EMERGENCY SPILLWAYS SHALL BE INSPECTED ONCE A WEEK AND AFTER EACH RAINFALL IN EXCESS OF 1". IN THE EVENT THAT THE RIP RAP BECOMES CLOGGED WITH SEDIMENT, THE RIP RAP AND FILTER FABRIC SHALL BE REPLACED. ANY TEARS OR PUNCTURES IN THE FILTER FABRIC WILL REQUIRE REPLACEMENT OF THE FABRIC AND ASSOCIATED RIP RAP. BAFFLES INSPECT AT LEAST ONCE A WEEK AND FOLLOWING EVERY RUNOFF PRODUCING RAINFALL IN EXCESS OF 1". MAKE ANY REPAIRS IMMEDIATELY. REPAIR OR REPLACE ANY BAFFLE COLLAPSE (POROUS FABRIC, POST) OR TEAR PROMPTLY. SKIMMER THE SKIMMER SHALL BE MAINTAINED FREE FROM MUD AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INLET PROTECTION INSPECT INLET PROTECTION AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL IN EXCESS OF 1". SEDIMENT SHALL BE REMOVED FROM THE INLET PROTECTION DEVICES WHEN STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. STONE SHALL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY. ANY DAMAGED POSTS, SILT FENCE OR WIRE MESH FABRIC SHALL BE REPAIRED OR REPLACED IMMEDIATELY. DISPATER PAD THE DISPATER PADS SHALL BE INSPECTED ONCE A WEEK AND AFTER EACH RAINFALL IN EXCESS OF 1". IN THE EVENT THAT THE RIP RAP BECOMES CLOGGED WITH SEDIMENT, BOTH THE RIP RAP AND FILTER FABRIC SHALL BE REPLACED. ANY TEARS OR PUNCTURES IN THE FILTER FABRIC WILL REQUIRE REPLACEMENT OF THE FABRIC AND ASSOCIATED RIP RAP. SILT FENCE INSPECT SILT FENCE AND J-HOOK SILT FENCE AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL IN EXCESS OF 1". MAKE ANY REPAIRS IMMEDIATELY. REPAIR OR REPLACE ANY FENCE COLLAPSE (WOVEN WIRE FABRIC, SILT FENCE FABRIC, POST) OR TEAR PROMPTLY. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT REACHES A DEPTH OF 1.0 FT. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN EVENT. SILT FENCE OUTLETS SEDIMENT SHALL BE REMOVED FROM SILT FENCE OUTLETS AND STONE SHALL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY. TEMPORARY DIVERSION DITCHES SHALL BE INSPECTED ONCE A WEEK AND AFTER EVERY RAINFALL EVENT IN EXCESS OF 1". IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. CHECK DAMS SHALL BE INSPECTED ONCE A WEEK AND AFTER EACH RAINFALL IN EXCESS OF 1". REMOVE SEDIMENT AND RESTORE ORIGINAL VOLUME WHEN SEDIMENT ACCUMULATES TO 1/2 OF THE DESIGN VOLUME. EROSION CONTROL MAT REPAIR AREAS OF DAMAGE OR FAILURE OF GRASS STAND ESTABLISHMENT. ANY TEARS SHALL BE REPAIRED IMMEDIATELY AND/OR THAT SECTION OF THE LINER SHALL BE REPLACED AND RE-ANCHORED. EROSION CONTROL MAT SHALL BE MAINTAINED UNTIL SUCH TIME THAT PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONSTRUCTION ENTRANCE INSPECT DAILY AND AFTER EVERY RAINFALL EVENT. IN THE EVENT THAT THE RIP RAP BECOMES CLOGGED WITH SEDIMENT, THE RIP RAP AND FILTER FABRIC SHALL BE REPLACED. ANY TEARS OR PUNCTURES IN THE FILTER FABRIC WILL REQUIRE REPLACEMENT OF THE FABRIC AND ASSOCIATED RIP RAP. UNDER NO CIRCUMSTANCES SHALL CONSTRUCTION TRAFFIC ENTER/EXIT THE PROJECT SITE WITHOUT A PROPERLY FUNCTIONING CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL MAKE IMMEDIATE REPAIRS TO ENSURE THAT NO SEDIMENT IS TRACKED OFF OF THE PROJECT SITE AND INTO THE PUBLIC ROADWAY. STABILIZATION ALL SEEDED AREAS SHALL BE PERMANENTLY STABILIZED PER THE LANDSCAPE PLANS. SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE: ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICAL BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICAL BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.		 SECTION  PLAN VIEW  FRONT VIEW SILT FENCE GRAVEL OUTLET		LAKE MYRA COUNTY PARK Wake County, NC REVISIONS <table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> Date: 07/27/26 CW-511																	



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BOARDWALK PLAN &
PROFILE EXHIBIT

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	
Date: 07/27/26	
CW-600	

The map displays a complex site plan with various engineering and environmental features. Key elements include:

- Top Left:** A graphic scale bar indicating distances from 0' to 100'.
- Legend:** Located at the top center, it defines symbols for "7 DAY GROUND COVER" (represented by a hexagonal pattern) and "WETLAND BOUNDARY".
- Main Map Area:** Shows a large irregularly shaped area outlined in black. Inside this area are several smaller polygons filled with the hexagonal ground cover pattern. These areas are labeled with codes such as WSY-01, WSY-08, WSY-09, WSW-01, WSW-02, WSW-03, WSW-04, WSW-05, WSW-06, WSW-07, WSW-08, WSW-09, WSW-10, WSW-11, WSW-12, WSW-13, WSW-14, WSW-15, WSW-16, WSW-17, WSW-18, WSW-19, WSW-20, WSW-21, WSW-22, WSW-23, WSW-24, WSW-25, WSW-26, WSW-27, WSW-28, WSW-29, WSW-30, WSW-31, WSW-32, WSW-33, WSW-34, WSW-35, WSW-36, WSW-37, WSW-38, WSW-39, WSW-40, WSW-41, WSW-42, WSW-43, WSW-44, WSW-45, WSW-46, WSW-47, WSW-48, WSW-49, WSW-50, WSW-51, WSW-52, WSW-53, WSW-54, WSW-55, WSW-56, WSW-57, WSW-58, WSW-59, WSW-60, WSW-61, WSW-62, WSW-63, WSW-64, WSW-65, WSW-66, WSW-67, WSW-68, WSW-69, WSW-70, WSW-71, WSW-72, WSW-73, WSW-74, WSW-75, WSW-76, WSW-77, WSW-78, WSW-79, WSW-80, WSW-81, WSW-82, WSW-83, WSW-84, WSW-85, WSW-86, WSW-87, WSW-88, WSW-89, WSW-90, WSW-91, WSW-92, WSW-93, WSW-94, WSW-95, WSW-96, WSW-97, WSW-98, WSW-99, WSW-100.
- Stormwater Control Basins:** Two circular structures are shown, one labeled "STORMWATER CONTROL BASIN" and another "DRY DETENTION BASIN".
- Ponds:** Several ponds are depicted, including "POND WE-2645" and "POND WE-2540".
- Access Roads:** A road labeled "PARK ACCESS ROAD" runs through the left side of the main area.
- Wetland Boundaries:** Dashed lines indicate the boundaries of different wetland types, labeled as "WSY" (Shrub Wetland), "WSX" (Savanna Wetland), and "WSW" (Wooded Wetland).
- Topography:** Contour lines are drawn across the map, representing elevation changes.
- Notes:** Various notes are scattered throughout, providing specific details about the project, such as "WETLAND BOUNDARY SEE NOTE #8*", "POINTS OUTSIDE OF GROUND SURVEY WERE NOT FIELD LOCATED AND WERE FROM MAP - SEE NOTE #8*", and "POND DEPTH UNKNOWN CONTRACTOR TO VERIFY".
- Bottom Left Table:** A table titled "STABILIZATION TIMEFRAMES (Effective Aug. 3, 2011)" provides guidelines for different site areas.

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
Perimeter dikes, swales, ditches, slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length.
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones.

CW-700

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

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

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 feet or less in length and are not steeper than 2:1, 14 days are allowed. 7 days for slopes greater than 50' in length and with slopes steeper than 4:1
(d) Slopes 3:1 to 4:1	14	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	Permanent Stabilization
- Temporary grass seed covered with straw or other mulches and tackifiers. - Hydroseeding - Roller erosion control products with or without temporary grass seed - Appropriately applied straw or other mulch - Plastic sheeting	- Permanent grass seed covered with straw or other mulches and tackifiers - Geotextile fabrics such as permanent soil reinforcement matting (PRSM) - Hydroseeding - Shrubs or other permanent plantings covered with mulch - Uniform and evenly distributed ground cover sufficient to restrain erosion - Structural methods such as concrete, asphalt or retaining walls - Roller erosion control products with grass seed

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

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- 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

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- 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.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

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

PORTABLE TOILETS

- 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.
- Provide staking or anchoring of portable toilets during periods of high winds or in high traffic areas.
- 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

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets and surface waters unless it can be shown no other alternatives are reasonably available. It is recommended to locate stockpile areas at least 50 feet away from skimmer basins and anywhere stormwater flow is concentrated.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- 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.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER

SECTION A-A

SECTION B-B

ABOVE GRADE WASHOUT STRUCTURE

CONCRETE WASHOUTS

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- 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.
- 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.
- Do not stockpile these materials onsite.

CONCRETE WASHOUTS

SECTION A-A

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GROUND COVER & MATERIALS HANDLING

Effective: April 1, 2024

PART III

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

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

PART III

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 kept on site and available for inspection at all times during normal business hours.

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

2. Additional Documentation to be Kept on Site

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

- This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years*

*All data used to complete the e-NCI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART II, SECTION G, ITEM (4)

DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item 2)(c) and (d) of this permit.
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, wet tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed store pad is used to the extent feasible at the outlet of the dewatering treatment devices described in item (c) above.
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

PART III

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
- 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).
- 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.
- Anticipated bypasses and unanticipated bypasses.
- 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 requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframe (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	- Within 24 hours, an oral or electronic notification. - Within 7 Calendar Days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. - If the stream is named on the NC 303(d) list as impaired for sediment-related 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 item 1)(b)-(c) above	Within 24 Hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	- Within 24 Hours, an oral or electronic notification - Within 7 calendar days, a report that 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(i)(7)]	- Within 24 Hours, an oral or electronic notification - Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. [40 CFR 122.41(i)(6)]. - Division staff may waive the requirement for a written report on a case-by-case basis.

INSPECTION, RECORD KEEPING AND REPORTING

Effective: April 1, 2024

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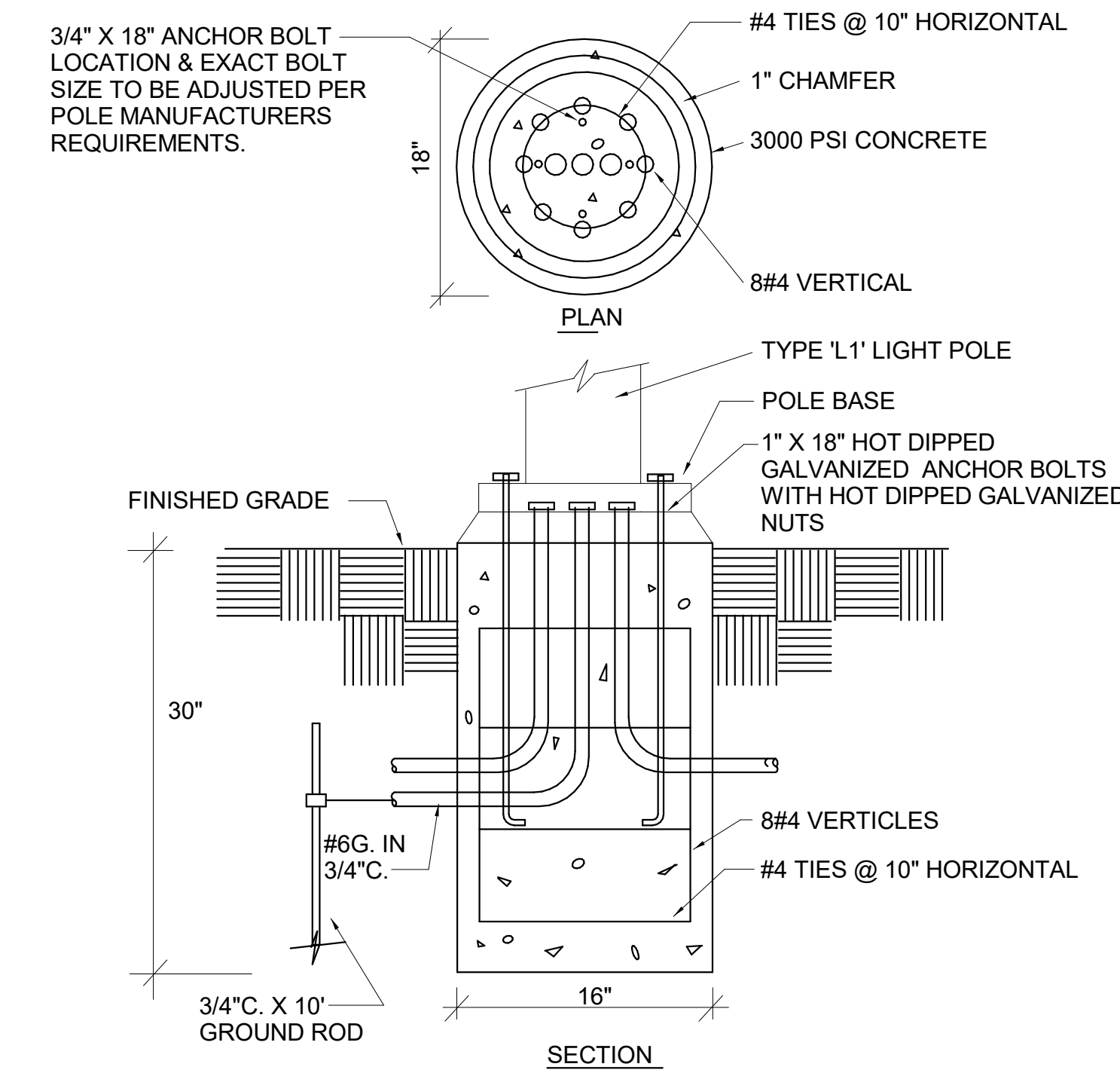
NPDES
STABILIZATION
DETAILS

LAKE MYRA COUNTY PARK
Wake County, NC

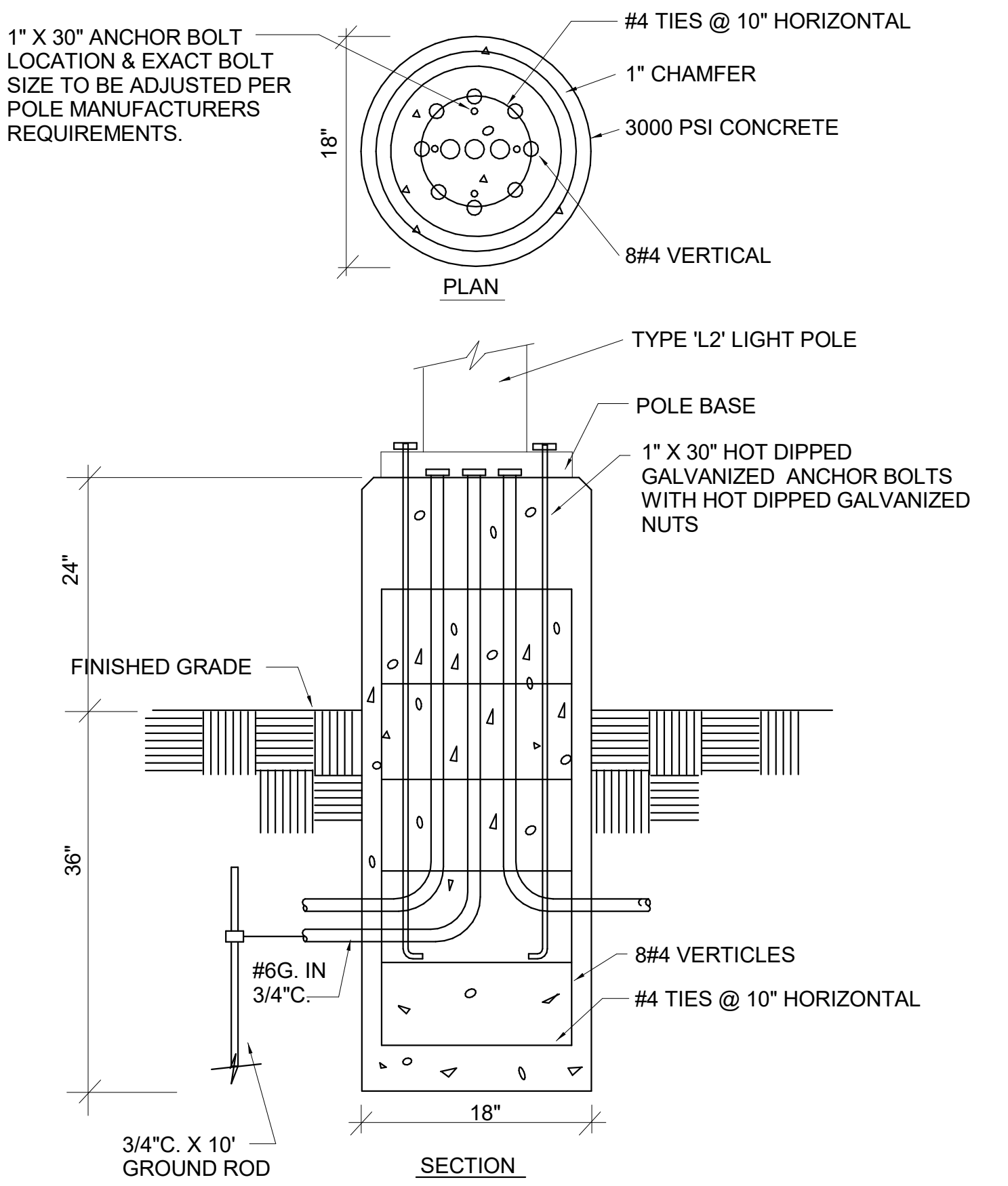
REVISIONS

Date: 07/27/26

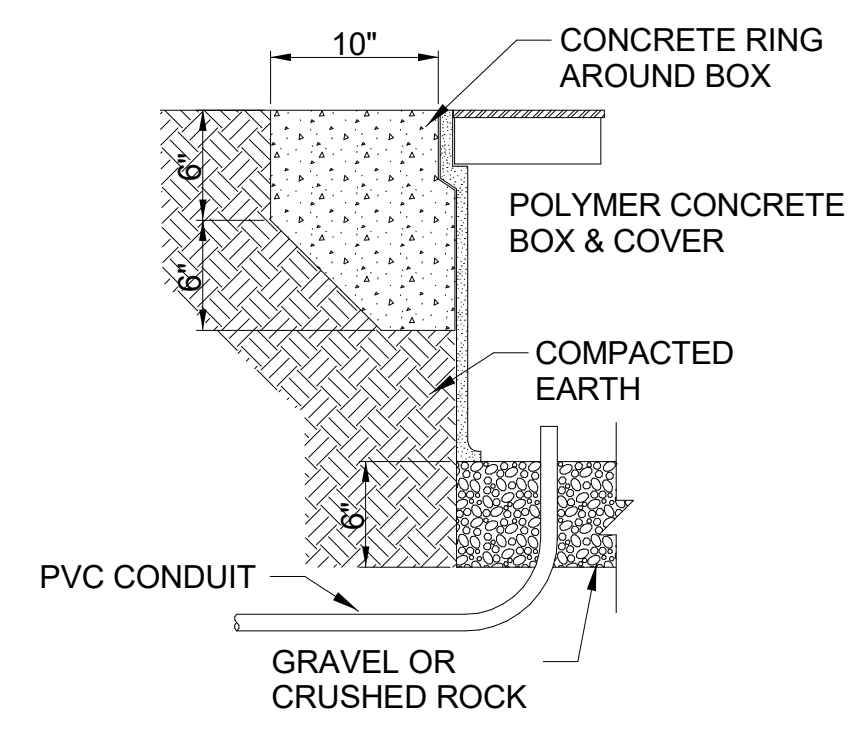
CW-701



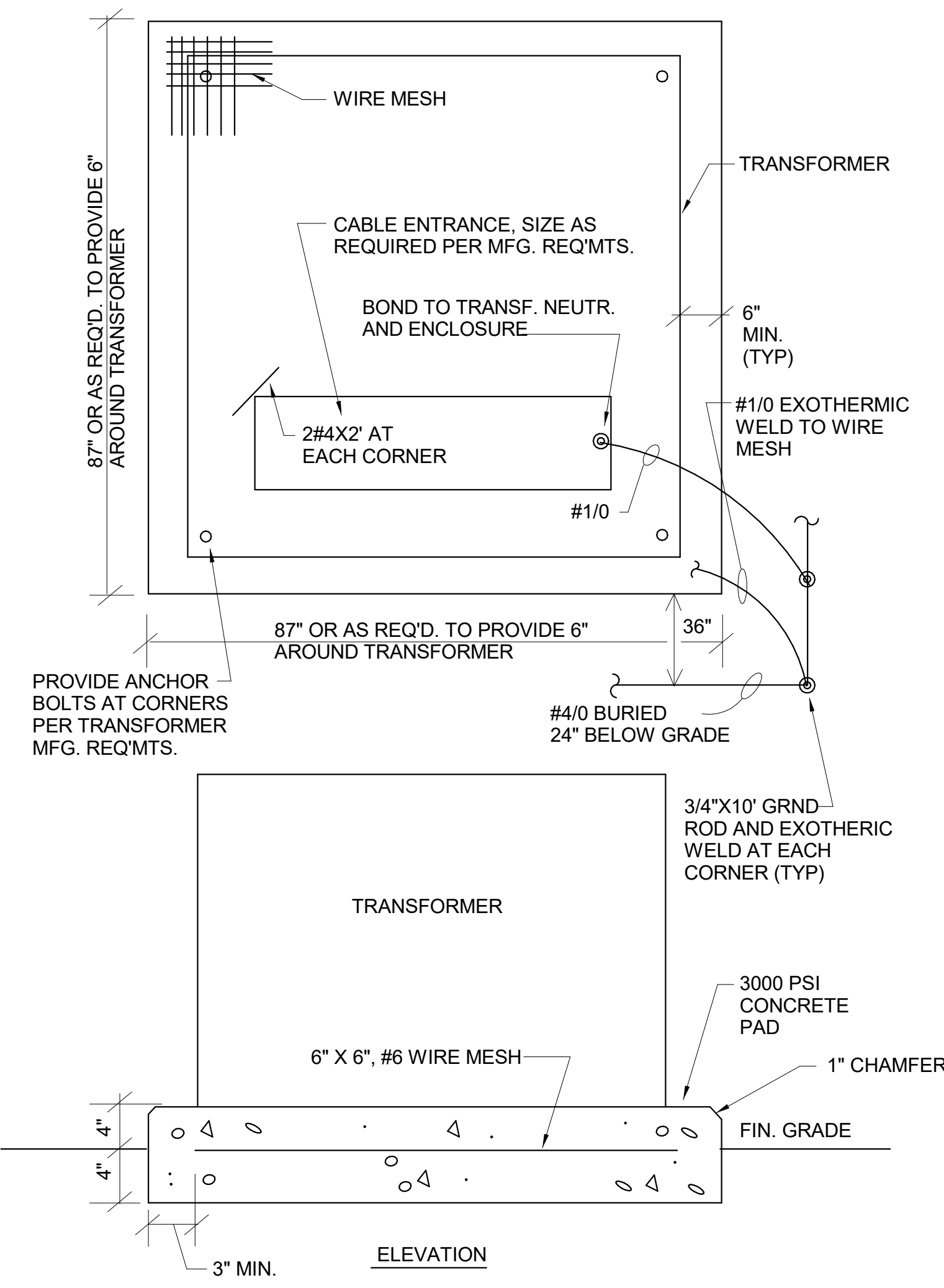
1 FLUSH POLE BASE DETAIL
NOT TO SCALE.



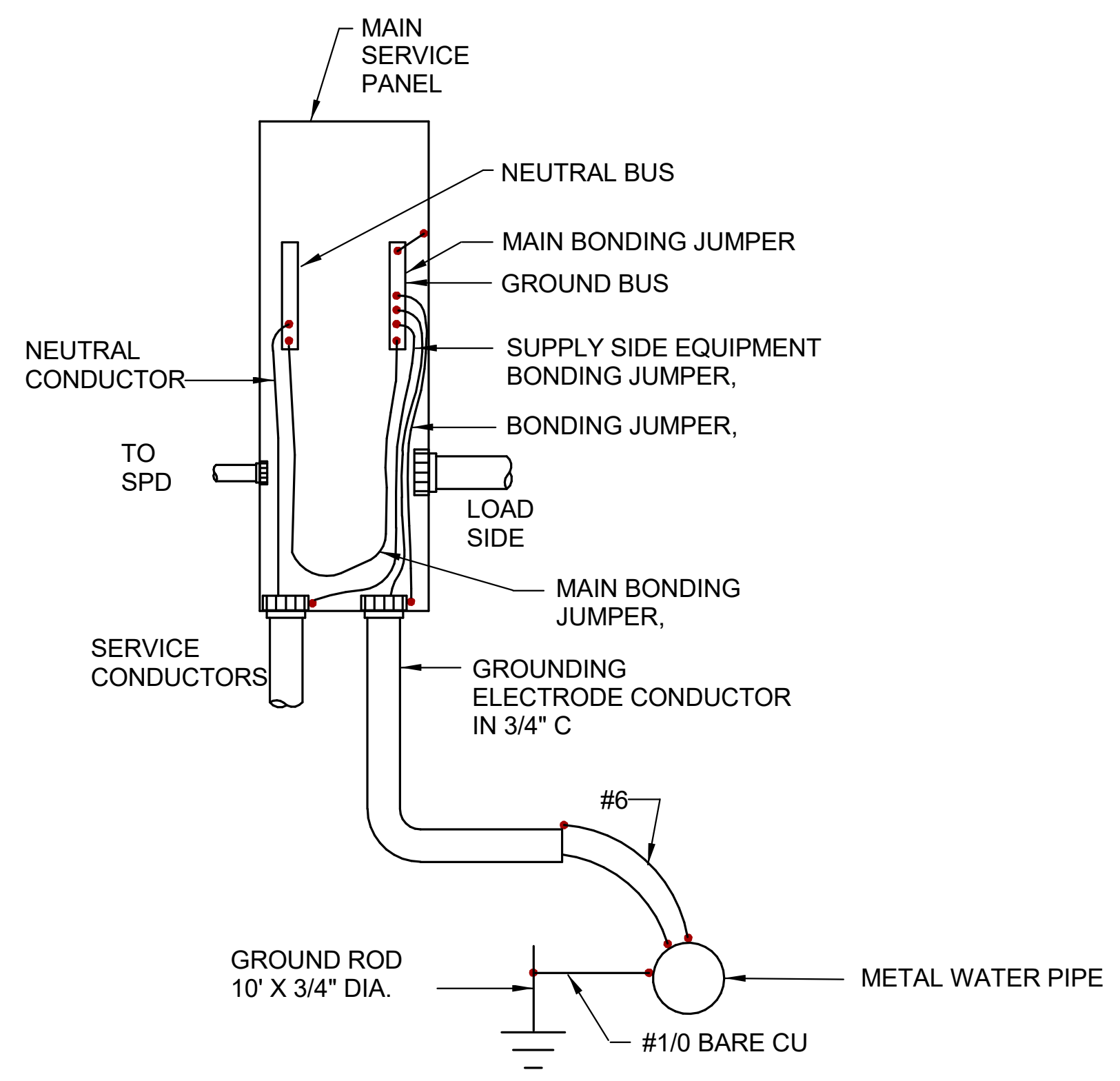
2 RAISED POLE BASE DETAIL
NOT TO SCALE.



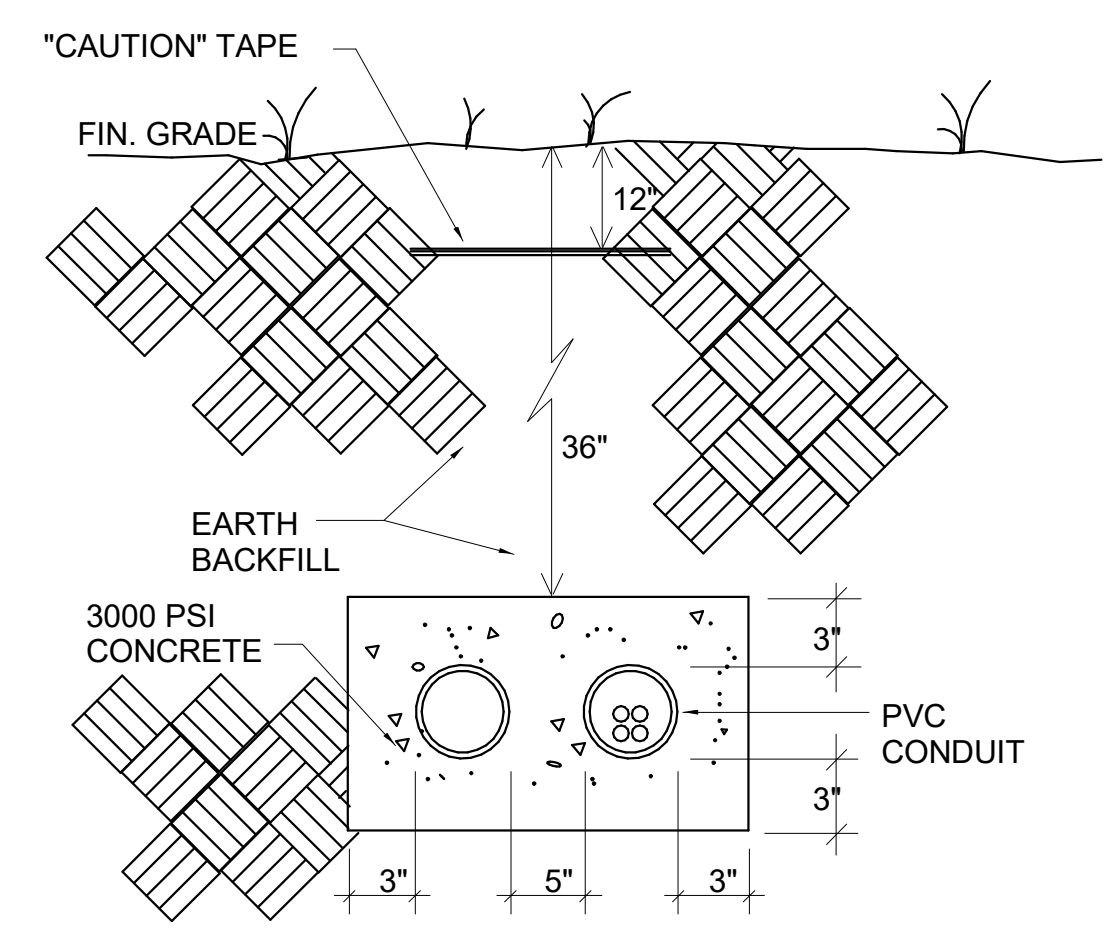
3 HANDHOLE INSTALLATION DETAIL
NOT TO SCALE.



4 TRANSFORMER PAD DETAIL
NOT TO SCALE.



5 SERVICE GROUNDING DETAIL
NOT TO SCALE.



6 DUCT BANK SECTION
NOT TO SCALE.

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DETAILS

NORTH CAROLINA
PROFESSIONAL
Signed: 11/6/2026
ROBERT E. EGAN
1/24/2026

LAKE MYRA COUNTY PARK
Wake County, NC

REVISIONS	

Date: 07/27/26
WS-E501