DORTON PARK RENOVATIONS VOL. 1

CONCORD, NC

SHEET TITLE

Cover

SHEET NO.

001

QuikTrip Complete Auto Care Book An Oil Change Appointment Save on Select Vitamins Bank of America (With Concord Conc

VICINITY MAP (NOT TO SCALE)

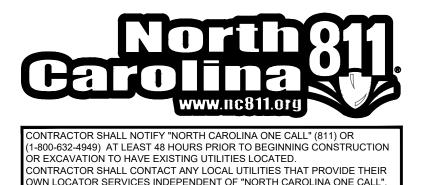
Cannon School

SITE

PERMIT SET

Afton Village Land

Liberty Tire Recycling



PORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

Existing Conditions C100 C101 **Existing Conditions Demolition Plan** C102 **Demolition Plan** C103 C200 Stormwater Permit Plan **Overall Erosion Plan** C300 Phase 1 Erosion Plan C301 Phase 1 Erosion Plan C302 Phase 1 Erosion Plan C303 Phase 2 Erosion Plan C304 Phase 2 Erosion Plan C305 Phase 2 Erosion Plan C306 **ESC** Details C307 **ESC Details** C308 **ESC Details** C309 **ESC Details** C310 Storm Drainage Plan C400 **Storm Profiles** C401 Storm Details C402 Utility Plan - Sewer C500 Utility Plan - Water C501 **Utility Details** C502 Overall Layout Plan L100 Parking Layout Plan Upper Field Area Layout Plan L102 Sports Courts and Field Layout Plan L103 Restroom Building Enlargement Layout Plan L104 Sports Field and Disc Golf Layout Plan L105 Greenway Layout Plan L106 Overall Grading Plan G100 Parking Grading Plan G101 Upper Field Area Grading Plan G102 Sports Court and Field Grading Plan G103 Restroom Building Enlargement Grading Plan G104 Sports Field and Disc Golf Grading Plan G105 **Greenway Grading Plan** G106 Overall Planting Plan P100 Parking Planting Plan P101 Sports Field Planting Plan P102 Details D100 Details D101 Details D102 Details D103 Details D104 Details D105 Sports Field Irrigation Plan **I100** 1200 **Irrigation Details Irrigation Details** 1201 **General Notes & Typical Section** S-1 Bridge S1 S-2 Bridge S1 End Bent 1 S-3 Bridge S1 End Bent 2 S-4 Bridge S1 - End Bent Details Bridge S2 S-6 Bridge S2 End Bent 1 S-7 Bridge S2 End Bent 2 S-8 Bridge S2 - End Bent Details S-9 Approach Slabs S-10 Approach Rails S-11

Owner

City of Concord
147 Academy Ave. NW
Concord, North Carolina 28026
Contact: George Berger
Phone: 704.920.5641
Email: bergerg@concordnc.gov

Landscape Architect

The Dodd Studio, LLC
314 Tom Hall Street
Fort Mill, SC 29715
Contact: Dan Dodd, RLA
Phone: 803.981.4330
Email: dan@thedoddstudio.com

Civil Engineer

Roper Civil Engineering
3007 Hindsdale Street
Charlotte, NC 28210
Contact: Matthew Roper, PE
Phone: 704.582.3751
Email: matt@roperce.com

Stream Restoration Engineer

McAdams

2905 Meridian Parkway
Durham, NC 27713
Contact: Rebecca Stubbs, PE
Phone: 919.287.0740
Email: rstubbs@mcadamsco.com

Architect

Citizen Design
2408 Commonwealth Avenue
Charlotte, NC 28205
Contact: Brian Conroy, AIA
Phone: 704.661.2337
Email: brian.citizendesign@gmail.com

Structural Engineer Moffatt & Nichol

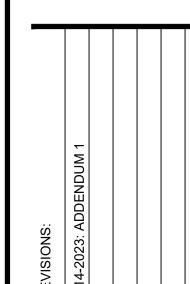
4700 Falls of Neuse Road, Suite 300 Raleigh, NC 27609
Contact: Jeff Loftus, PE
Phone: 919.781.4626
Email: jloftus@moffattnichol.com

Mechanical, Electrical and Plumbing Engineer

Shultz Engineering Group
212 North McDowell Street, Suite 204
Charlotte, NC 28204
Contact: Chuck Curlin, PE, CEM, CPD
Phone: 704.334.7363
Email: ccurlin@shultzeg.com

314 Tom Hall St. Fort Mill, SC 29715 (T) 803.981.4330





35 CABARRUS AVE. W CONCORD, NORTH CAROLINA

WNER:

ARK RENOVATION

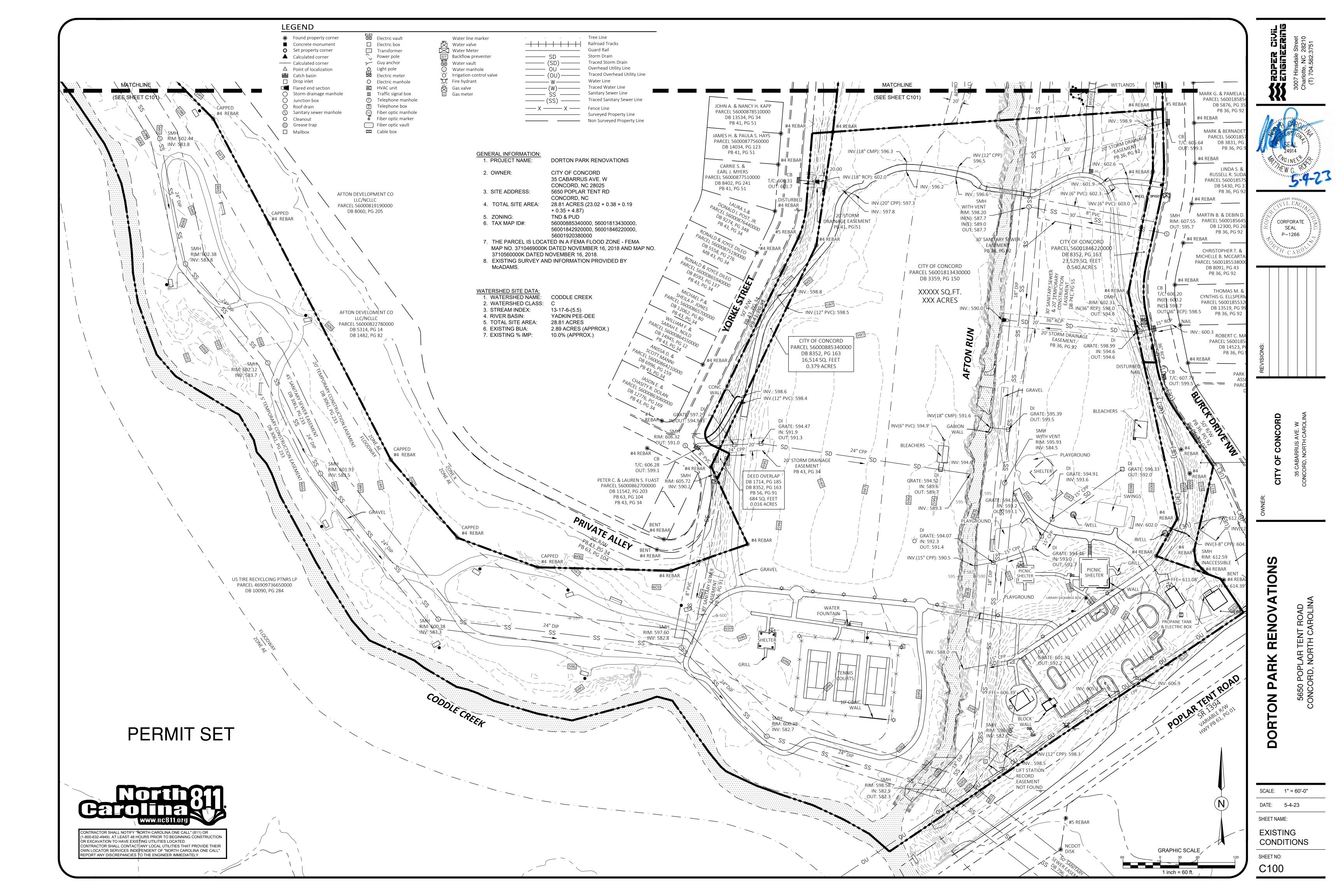
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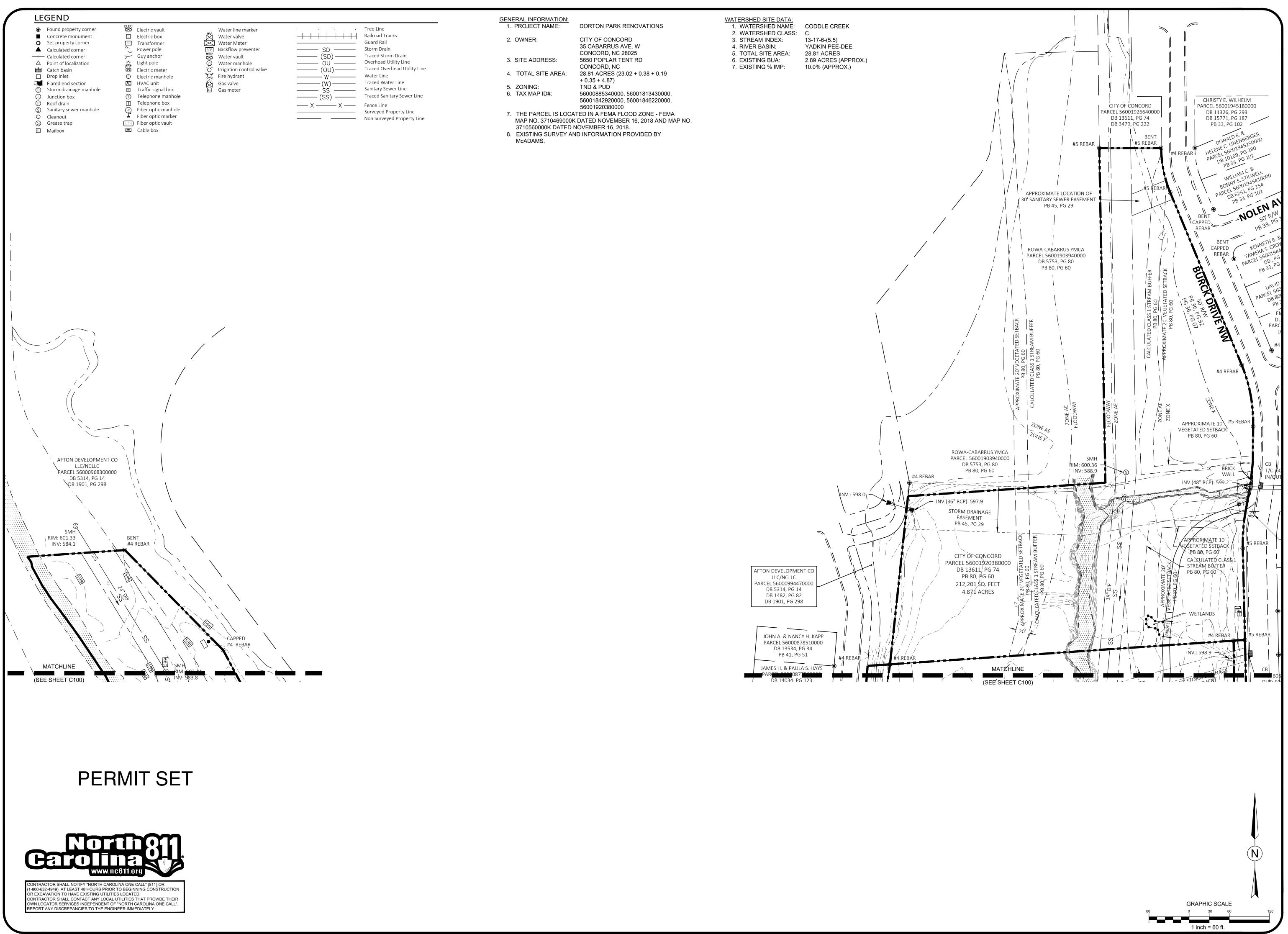
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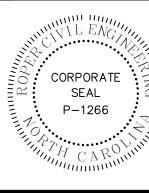
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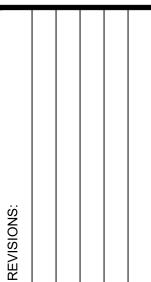
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COVER



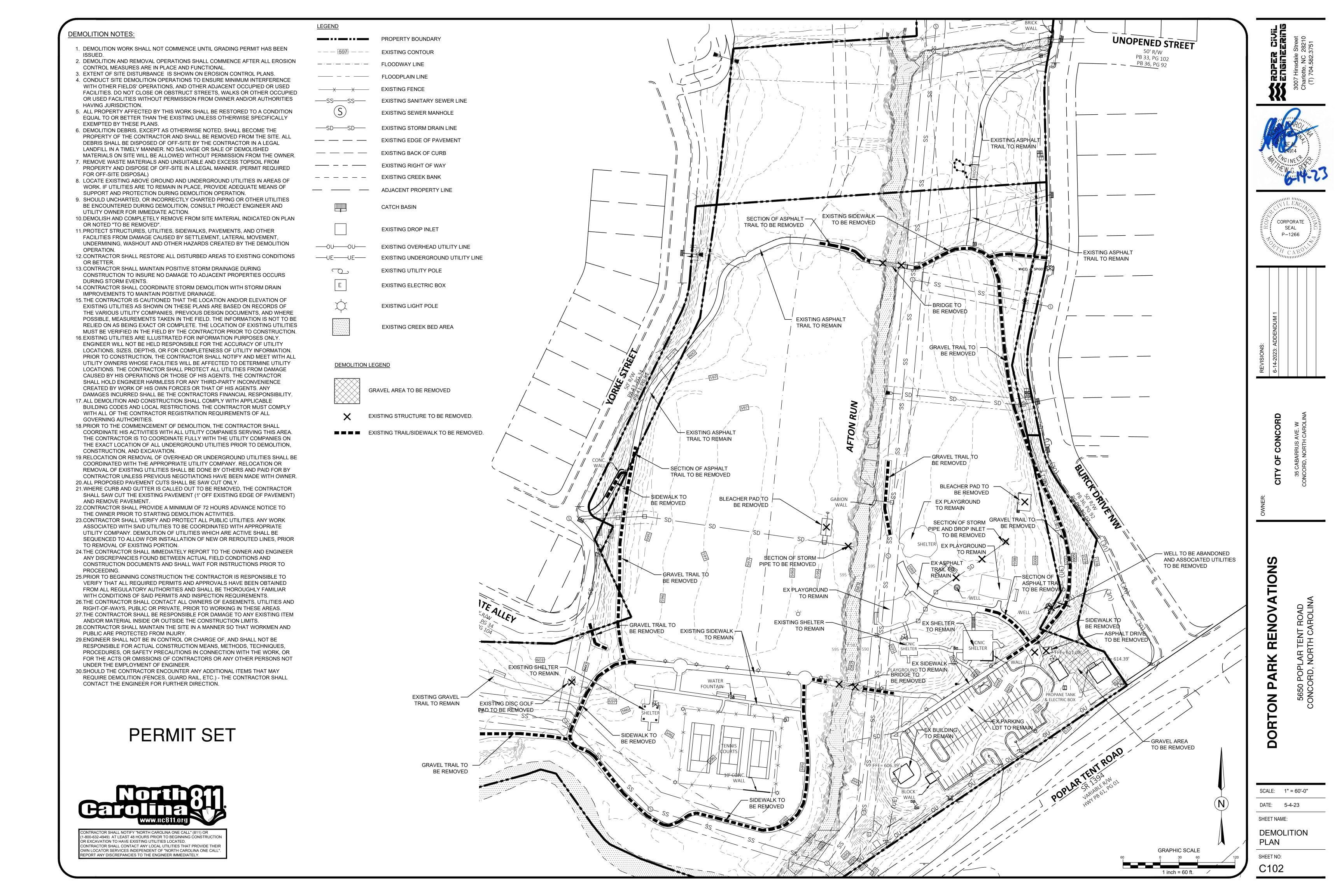


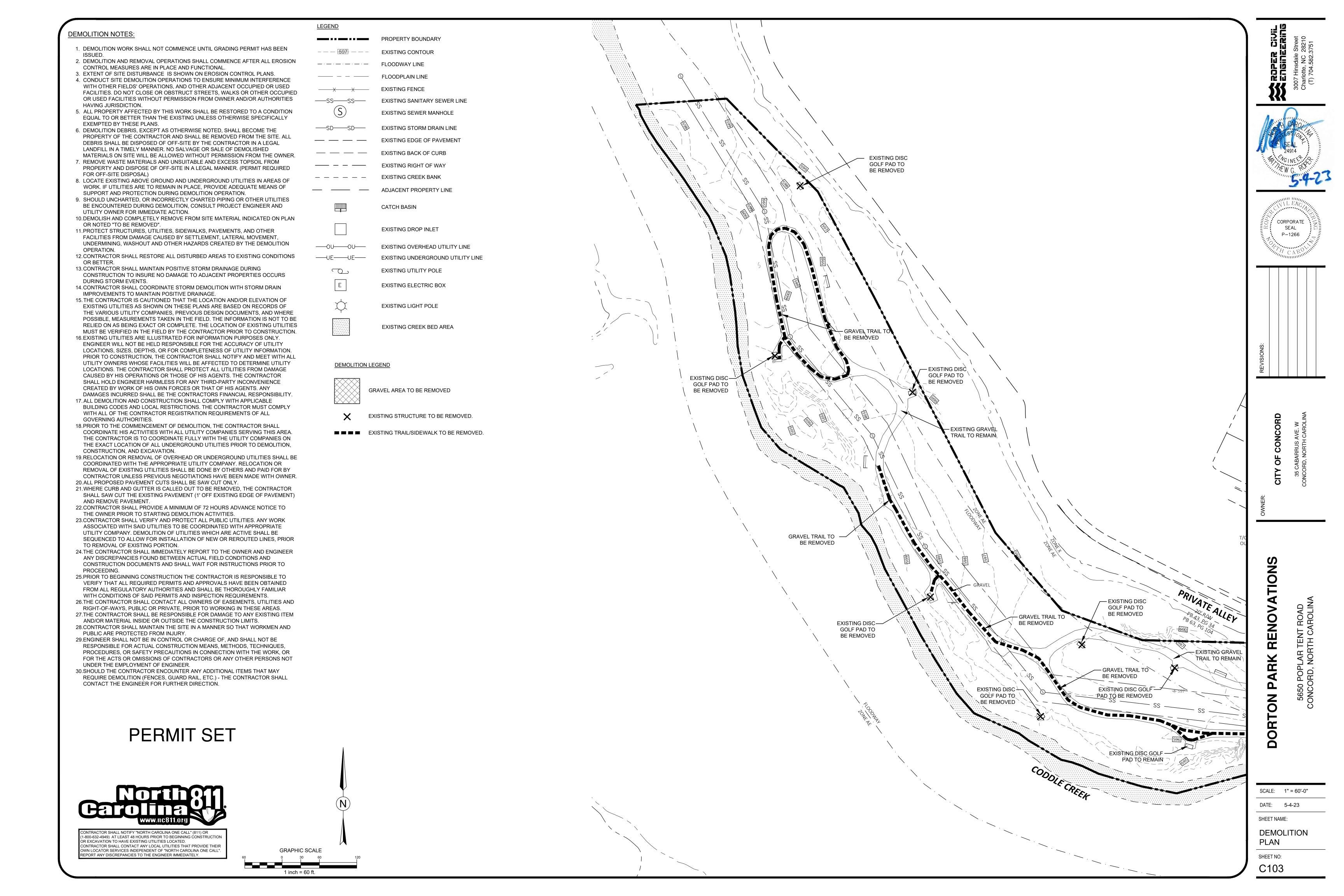


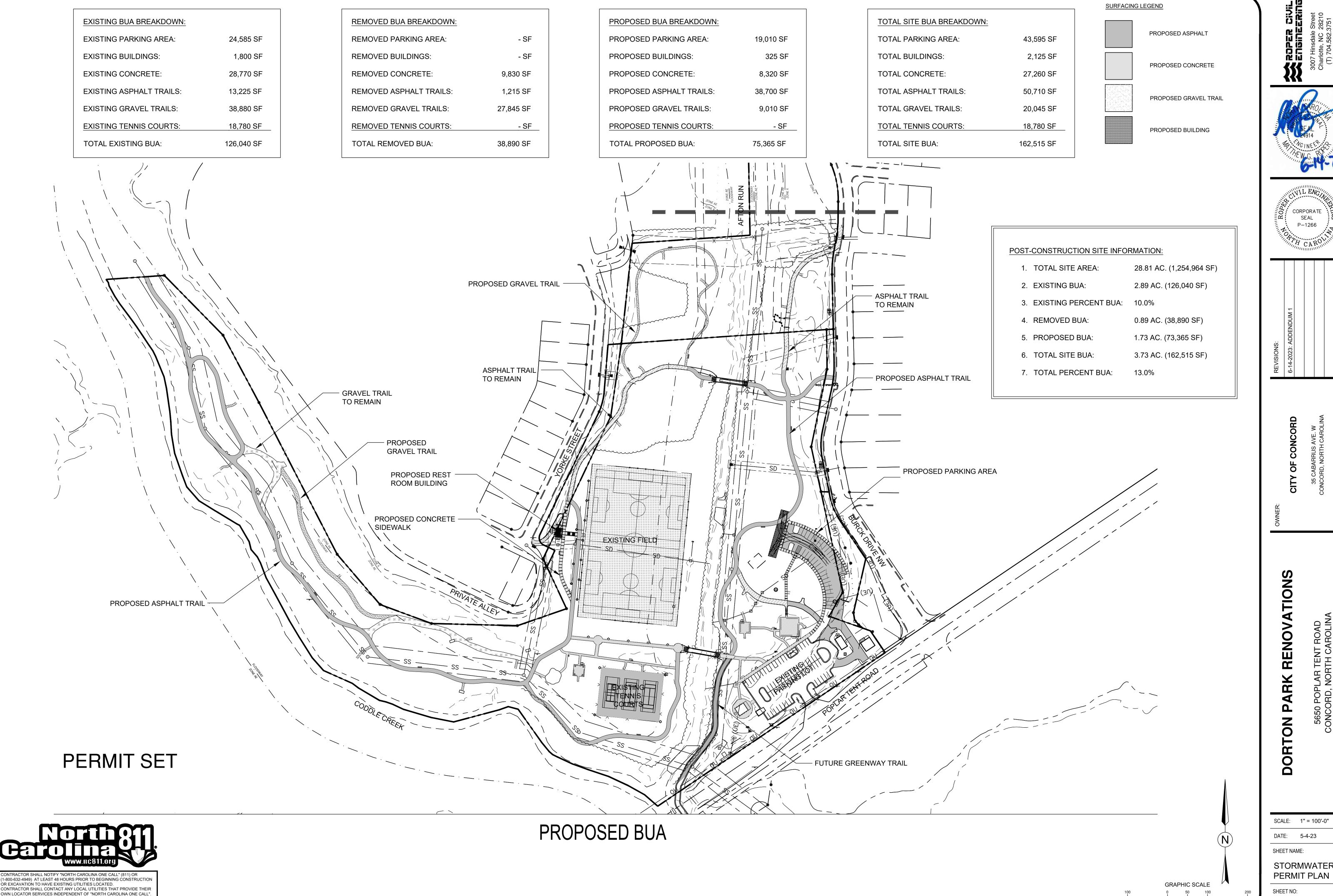


SCALE: 1" = 60'-0" DATE: 5-4-23 SHEET NAME:

EXISTING CONDITIONS







CORPORATE SEAL P-1266

STORMWATER

ENHANCED EROSION CONTROL MEASURES:

- THESE MEASURES ARE REQUIRED TO BE INSTALLED IN THE AREAS IDENTIFIED BY THE
 CITY OF CONCORD AND NODEO.
- 2. SURFACE WATER DRAW DOWN DEVICES (RISERS OR SKIMMERS) SHALL BE INSTALLED IN ALL SEDIMENT BASINS. ROCK COFFER FOREBAYS SHALL BE USED IN CONJUNCTION WITH ALL SEDIMENT BASINS. THE BASIN SHALL ALSO HAVE A VOLUME TWENTY-FIVE (25) PERCENT GREATER THAN THE 1800 CUBIC FEET PER DRAINAGE AREA, WHEN POSSIBLE.
- 3. POLYACRYLAMIDES (PAM) SHALL BE USED TO REDUCE TURBIDITY AND SUSPENDED SOLIDS WHENEVER A SEDIMENT TRAP, BASIN, PIT, HOLE, OR BUILDING FOUNDATION IS BEING PUMPED OUT TO REMOVE SEDIMENT LADEN WATER. PAM IS NOT REQUIRED WHEN ANY OF THE ABOVE IS BEING PUMPED TO AN APPROVED SEDIMENT BASIN ON SITE. THIS ACTIVITY MUST BE INSPECTED AND APPROVED BY THE CITY EROSION CONTROL INSPECTOR.
- 4. POLYACRYLAMIDES MAY BE REQUIRED ON SITE, AS DETERMINED BY THE CITY EROSION CONTROL INSPECTOR.
- 5. DOUBLE-ROW HIGH HAZARD SILT FENCE WITH WIRE BACKING AND STONE SHALL BE USED ALONG WETLANDS, STREAMS, LAKES, OR OTHER SURFACE WATER BODIES AS WELL AS ADJACENT TO ALL WATER QUALITY BUFFERS. SINGLE-ROW OF SILT FENCE WITH WIRE BACKING AND WASHED STONE MAY BE REQUIRED ON ALL OTHER AREAS, AS DETERMINED NECESSARY BY THE CITY ENGINEER OR FIELD INSPECTOR.
- 6. THE AMOUNT OF UNCOVERED AREA AT ANY ONE TIME SHALL BE LIMITED TO NO MORE THAN 20 ACRES, UNLESS APPROVED BY THE CITY.
- 7. A 10-FOOT UNDISTURBED BUFFER SHALL BE PROVIDED AROUND THE OUTSIDE EDGE OF DRAINAGE FEATURES SUCH AS INTERMITTENT AND PERENNIAL STREAMS, PONDS, AND WETLANDS. INCIDENTAL DRAINAGE IMPROVEMENTS OR REPAIRS WILL BE PERMITTED WITHIN THE BUFFER AS APPROVED BY CITY STAFF. THESE WOULD INCLUDE ANY ALLOWANCES STATED IN THE CITY ORDINANCES, IF APPLICABLE.
- 8. A GROUND COVER SUFFICIENT TO RESTRAIN ACCELERATED EROSION MUST BE PROVIDED WITHIN 7 CALENDAR DAYS OF THE DATE OF LAST LAND-DISTURBING ACTIVITY AN ANY PORTION OF THE PROJECT.
- 9. ALL DIVERSION DITCHES AND INTERIOR BASIN SLOPES MUST BE MATTED.
- 10. SUFFICIENT ACCESS FOR CONSTRUCTION AND MAINTENANCE MUST BE PROVIDED AT THE TOE OF ALL RETAINING WALLS THAT ARE 4' OR HIGHER. THE MINIMUM ACCESS WIDTH SHOULD BE NO LESS THAN SIX FEET.
- 11. FILL SLOPE STEEPNESS SHALL BE LIMITED TO 2:1. SLOPES STEEPER THAN 3:1 MUST BE TERRACED OR OTHERWISE PROVIDE AN APPROVED ENGINEERED SOLUTION. SLOPES 3:1 OR FLATTER MUST BE DESIGNED AS SET FORTH IN THE N.C. SOIL EROSION & SEDIMENT PLANNING & DESIGN MANUAL, STANDARD 6.02a.

EROSION CONTROL NOTES:

- 1. INLET PROTECTION IS REQUIRED FOR ALL INLETS LOCATED IN THE WORKING AREA AND REQUIRED UNTIL THE SITE IS FULLY STABILIZED
- 2. ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN IS SUBJECT TO A FINE.
- GRADING MORE THAN 1 ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION AND SUBJECT TO A FINE.
- 4. ALL SLOPES MUST BE SEEDED AND MULCHED WITHIN 15 WORKING DAYS OR 21 CALENDAR DAYS, WHICHEVER SHORTER. ALL OTHER AREAS, 15 WORKING DAYS OR 90 CALENDAR DAYS WHICHEVER IS SHORTER. REFER TO EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.
- 5. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY OF CONCORD EROSION CONTROL DEPARTMENT.
- 6. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING.
- 7. ALL ELEVATIONS ARE IN REFERENCE TO THE SURVEYORS BENCHMARK WHICH MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.
- 8. ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH CITY OF CONCORD STANDARDS AND THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN
- 9. PERMANENT CUT AND FILL SLOPES PLACED ON A SUITABLE FOUNDATION SHOULD BE CONSTRUCTED AT 2:1(HORIZONTAL TO VERTICAL) OR FLATTER. PERMANENT SLOPES OF 3:1 SHOULD BE CONSTRUCTED WHERE MOWING IS DESIRABLE AND AS INDICATED. IF FILL MATERIAL IS BROUGHT ONTO THE PROPERTY OR IF WASTE MATERIAL IS HAULED FROM THE PROPERTY THEN THE CONTRACTOR SHALL DISCLOSE THE LOCATION OF ANY ON-SITE AND/OR OFF-SITE BORROW LOCATION AND/OR WASTE BURIAL LOCATION TO THE EROSION CONTROL INSPECTOR.
- 10. LIMITS OF CLEARING SHOWN ARE BASED ON CUT AND FILL SLOPES OR OTHER GRADING REQUIREMENTS.
- 11. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES AS INDICATED PRIOR TO GRADING OPERATIONS. NO DEVICE MAY BE REMOVED UNTIL SITE IS STABILIZED.
- 12. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY WITH EXISTING CONTOURS.
- 13. ALL DISTANCES ARE HORIZONTAL GROUND.
- 14. ANCHOR SILT FENCE WITH STONE ON TREE PROTECTION ZONES. DO NOT BURY.

PERMIT SET



CONTRACTOR SHALL NOTIFY "NORTH CAROLINA ONE CALL" (811) OR (1-800-632-4949) AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NORTH CAROLINA ONE CALL". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

STANDARD EROSION CONTROL NOTES:

SLOPES GREATER THAN 2:1.

 ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.

LIMITS OF DISTURBANCE

- FLOODPLAIN

ASPHALT TRAIL

FLOODWAY

- 2. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE CITY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
- 3. GRADING MORE THAN ONE-ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A

VIOLATION OF THE CITY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.

- 4. ALL PERIMETER AREAS AND SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITHIN 7 DAYS. GROUND STABILIZATION ON ALL OTHER AREAS MUST BE COMPLETED WITHIN 14 DAYS. REFER TO THE EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.
- 5. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY.
- 6. A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED.
- 7. TEMPORARY DRIVEWAY PERMIT FOR CONSTRUCTION ENTRANCES IN NCDOT RIGHT-OF-WAY MUST BE PRESENTED AT PRE-CONSTRUCTION MEETING.
- 8. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. SLOPED GREATER THAN 10 VERTICAL FEET REQUIRE ADEQUATE TERRACING. SOILS ENGINEER TO VERIFY STABILITY OF
- SOIL COMPACTION TESTS ARE REQUIRED ON ANY BERM >=5' IN HEIGHT FROM THE NATURAL GRADE. SOIL COMPACTION MUST BE AT 95% PROCTOR AND CERTIFIED BY A LICENSED SOIL ENGINEER.

DEWATERING NOTE:

LIMITS OF -

FLOODPLAIN-

FLOODWAY

LIMITS OF —

DISTURBANCE

DISTURBANCE

GRAVEL TRAIL

DEWATERING MAY BE NECESSARY IN THE EXCAVATION AREAS (E.G. SUBGRADE AREAS). THEREFORE, THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ANY PUMPING EQUIPMENT, ETC. NEEDED FOR REMOVAL OF WATER FROM VARIOUS PARTS OF THE SITE. DURING PLACEMENT OF FILL WITHIN THESE AREAS, THE CONTRACTOR SHALL KEEP THE WATER LEVEL BELOW THE BOTTOM OF THE EXCAVATION / CONSTRUCTION AREAS. THE MANNER IN WHICH THE WATER IS REMOVED SHALL BE SUCH THAT THE EXCAVATION BOTTOM AND SIDE SLOPES ARE STABLE, WITH NO SEDIMENT DISCHARGED FROM THE SITE (I.E. PUMPED WATER MAY NEED TO BE DIRECTED TO AN APPROVED EROSION CONTROL DEVICE PRIOR TO DISCHARGE).

EXISTING FIELD

STREAM AND WETLAND NOTES:

- 1) JURISDICTIONAL STREAMS AND WETLANDS HAVE BEEN DELINEATED ON THE SITE AND SHOWN ON THE CONSTRUCTION DOCUMENTS.
- ALL EXISTING JURISDICTIONAL STREAMS AND WETLANDS WILL BE CLEARLY FLAGGED AND/OR STAKED AND BE PROTECTED FROM DISTURBANCE DURING CONSTRUCTION ACTIVITIES.
- 3) THE STREAM RESTORATION DESIGN AND PERMITTING HAVE BEEN PREFORMED BY MCADAMS. REFER TO STREAM RESTORATION CONSTRUCTION DOCUMENTS FOR THAT PORTION OF THE PROJECT.
- 4) ALL STREAM CROSSINGS FOR THE TRAIL SYSTEM WILL BE WITH AN ELEVATED FOOTBRIDGE.

MAINTENANCE SCHEDULE:

1) ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY STORM EVENT, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY REPAIRS OR CLEANING NECESSARY TO MAINTAIN EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE COMPLETED IMMEDIATELY.

<u>LEGEND</u>

PROPERTY LINE

EXISTING CONTOUR

EXISTING STORM PIPE

PROPOSED STORM PIPE

PROPOSED CONTOUR

PROPOSED LIMITS OF DISTURBANCE

FETZER AVE NE

|WETLAND AREA

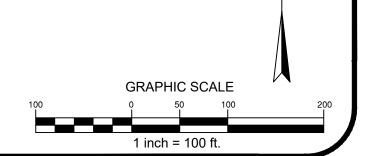
FLOODWAY

2) ALL SEEDED AREAS SHALL BE REFERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO THE SEEDING SCHEDULE.

UTILITY NOTES:

1) ALL EXISTING UTILITIES TO BE ABANDONED SHOULD BE GROUTED; ADDITIONALLY ALL ABANDONED PIPES SHOULD BE CHECKED WITH FOOTING DEPTHS AND PROPOSED UTILITIES, AND REMOVED IF CONFLICT OCCURS.

TOTAL DENUDED AREA = 13.3 ACRES



A EDGINEERI

3007 Hinsdale Street
Charlotte, NC 28210





REVISIONS: 6-14-2023: ADDENDUM 1

> 55 CABARRUS AVE. W CORD, NORTH CAROLINA

J

R RENOVATION

5650 POPLAR TEN

SCALE: 1" = 100'-0"

DATE: 5-4-23

SHEET NAME:

OVERALL

EROSION PLAN

CONSTRUCTION SEQUENCE PHASE 1: MAINTENANCE SCHEDULE: 1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM NCDEQ - DEMLR AND 1) ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CHECKED FOR STABILITY STORMWATER PERMIT FROM CITY OF CONCORD, AND ALL OTHER NECESSARY PERMITS AND OPERATION FOLLOWING EVERY STORM EVENT, BUT IN NO CASE LESS THAN ONCE FROM OTHER APPLICABLE AGENCIES. EVERY WEEK. ANY REPAIRS OR CLEANING NECESSARY TO MAINTAIN EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE COMPLETED IMMEDIATELY. 2. AT LEAST ONE WEEK PRIOR TO BEGINNING CONSTRUCTION, CONTACT THE DEMLR SECTION IN THE MOORESVILLE REGIONAL DEQ OFFICE AT (704)663-1699 AND THE 2) ALL SEEDED AREAS SHALL BE REFERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ENGINEER. MEET WITH DEMLR REPRESENTATIVES AND THE ENGINEER ON-SITE AT THEIR ACCORDING TO THE SEEDING SCHEDULE. REQUEST FOR A PRE-CONSTRUCTION MEETING. 3. PRIOR TO ANY CLEARING OR INSTALLATION OF EROSION CONTROL DEVICES, THE TRAIL LOCATION WILL BE FIELD ADJUSTED, AS NECESSARY, TO AVOID TREE REMOVAL. TREE CONTRACTOR SHALL STAKE CLEARING LIMITS AND STAKE ALL TREES, STRUCTURES AND PROTECTION FENCE WILL BE INSTALLED TO PROTECT EXISTING TREES AS REQUIRED. TRAIL WILL WETLANDS TO REMAIN AND BE PROTECTED. ALL BUFFERS AND WETLANDS SHALL BE BE GRADED WITH A SUFFICIENT CROSS-SLOPE TO ALLOW STORMWATER TO DRAIN ACROSS THE CLEARLY DELINEATED IN THE FIELD TO BE PROTECTED. TRAIL. TRAILS WILL NOT BE GRADED TO ACT AS A FLUME AND CULVERT CROSSINGS WILL BE ADDED AS DEEMED NECESSARY BY THE LANDSCAPE ARCHITECT OR ENGINEER. 4. INSTALL TEMPORARY CONSTRUCTION ENTRANCE AND PERIMETER CONSTRUCTION FENCING AND SILT FENCE. TIRE WASH MAY BE REQUIRED IF CONSTRUCTION ENTRANCE IS NOT SUFFICIENT TO RETAIN SOIL. CONTRACTOR TO BLOCK ALL POSSIBLE ENTRANCES TO SITE BESIDES APPROVED CONSTRUCTION ENTRANCE W/ FENCING AND ORANGE STREAM RESTORATION NOTE REFER TO MCADAMS STREAM RESTORATION PLANS FOR AFTON RUN 5. UPON COMPLETION OF INITIAL MEASURES, CALL FOR ON-SITE INSPECTION BY BUFFER DISTURBANCE AND EROSION CONTROL MEASURES. INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN. 6. INSTALL SILT FENCE, DIVERSION DITCHES, TREE PROTECTION, AND ANY OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE CITY OF CONCORD TO OBTAIN DEVICES. WRITTEN PERMISSION FROM 7. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION **ROWAN-CABARRUS YMCA FOR** CONTROL DEVICES AND STRUCTURES. **GRADING ENCROACHMENT** 8. GENERAL CONTRACTOR SHALL ENSURE THAT EROSION CONTROL MEASURES ARE IN PLACE AND FUNCTIONING PRIOR TO GRUBBING AND GRADING OPERATIONS. LIMITS OF — 9. BEGIN DEMO AND GRADING, INSTALLING ADDITIONAL EROSION CONTROL MEASURES AS **DISTURBANCE** HIGH-HAZARD INDICATED, AS REQUIRED, AND AS DEEMED NECESSARY BY THE EROSION CONTROL **GRAVEL TRAIL** SILT FENCE (SEE NOTES) 10. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES. 11. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS INV.: 598.0 NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE. ALL SLOPES MUST BE SEEDED AND MULCHED WITHIN DAYS. REFER TO EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS. 12. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES. NO DEVICE SHALL BE REMOVED UNTIL SITE IS STABILIZED. NAIL #950 13. ALL EROSION CONTROL DEVICES SHOULD BE CHECKED PERIODICALLY AND AFTER EVERY NAD83(2011) MAJOR STORM EVENT. IF ANY FAILURES ARE FOUND THEY SHOULD BE REPAIRED AS SOON AS POSSIBLE. N: 609,031.925' E: 1,501,453.513' 14. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF CONCORD STANDARDS, THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, AND U.S. DEPT. OF AGRICULTURE. CGF: 0.999852298 EROSION CONTROL NOTES: SILT FENCE 1. INLET PROTECTION IS REQUIRED FOR ALL INLETS LOCATED IN THE WORKING AREA AND REQUIRED UNTIL THE SITE IS FULLY STABILIZED FLOODPLAIN \ 2. ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN IS SUBJECT TO A FINE. (SEE NOTES) 3. GRADING MORE THAN 1 ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A SILT FENCE VIOLATION AND SUBJECT TO A FINE. ROCK OUTLET, TYP SILT FENCE 4. ALL SLOPES MUST BE SEEDED AND MULCHED WITHIN 15 WORKING DAYS OR 21 CALENDAR DAYS, WHICHEVER SHORTER. ALL OTHER AREAS, 15 WORKING DAYS OR 90 CALENDAR ROCK OUTLET, TYP DAYS WHICHEVER IS SHORTER. REFER TO EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS. 5. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY OF CONCORD EROSION CONTROL DEPARTMENT. SETBACK LINE 6. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING.

7. ALL ELEVATIONS ARE IN REFERENCE TO THE SURVEYORS BENCHMARK WHICH MUST BE

VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.

8. ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH CITY OF CONCORD STANDARDS AND THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN

9. PERMANENT CUT AND FILL SLOPES PLACED ON A SUITABLE FOUNDATION SHOULD BE CONSTRUCTED AT 2:1(HORIZONTAL TO VERTICAL) OR FLATTER. PERMANENT SLOPES OF 3:1 SHOULD BE CONSTRUCTED WHERE MOWING IS DESIRABLE AND AS INDICATED. IF FILL MATERIAL IS BROUGHT ONTO THE PROPERTY OR IF WASTE MATERIAL IS HAULED FROM THE PROPERTY THEN THE CONTRACTOR SHALL DISCLOSE THE LOCATION OF ANY ON-SITE AND/OR OFF-SITE BORROW LOCATION AND/OR WASTE BURIAL LOCATION TO THE EROSION

10. LIMITS OF CLEARING SHOWN ARE BASED ON CUT AND FILL SLOPES OR OTHER GRADING REQUIREMENTS.

11. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES AS INDICATED PRIOR TO GRADING OPERATIONS. NO DEVICE MAY BE REMOVED UNTIL SITE IS STABILIZED.

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13. ALL DISTANCES ARE HORIZONTAL GROUND.

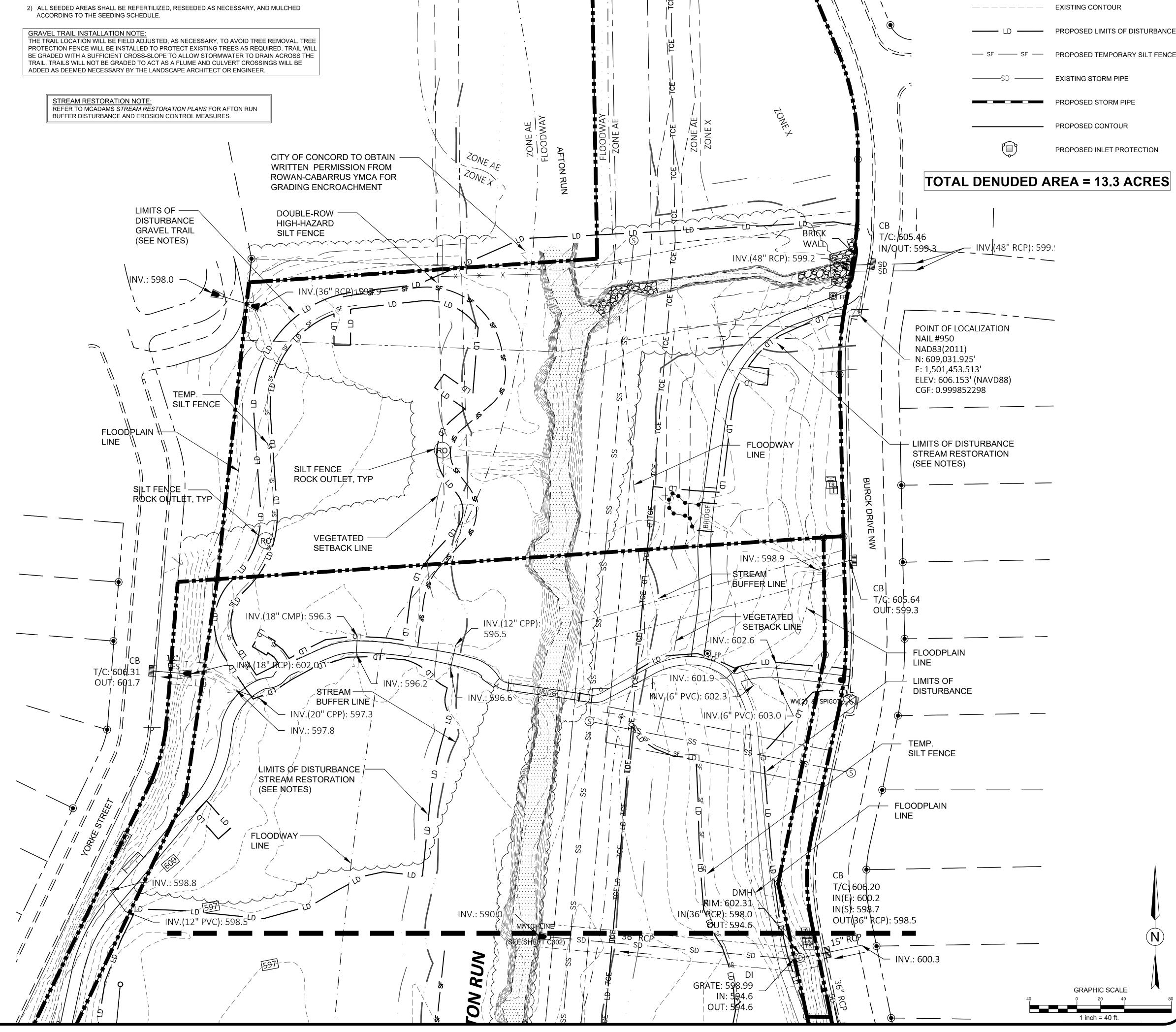
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PERMIT SET



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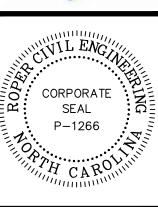
REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.



LEGEND

PROPERTY LINE

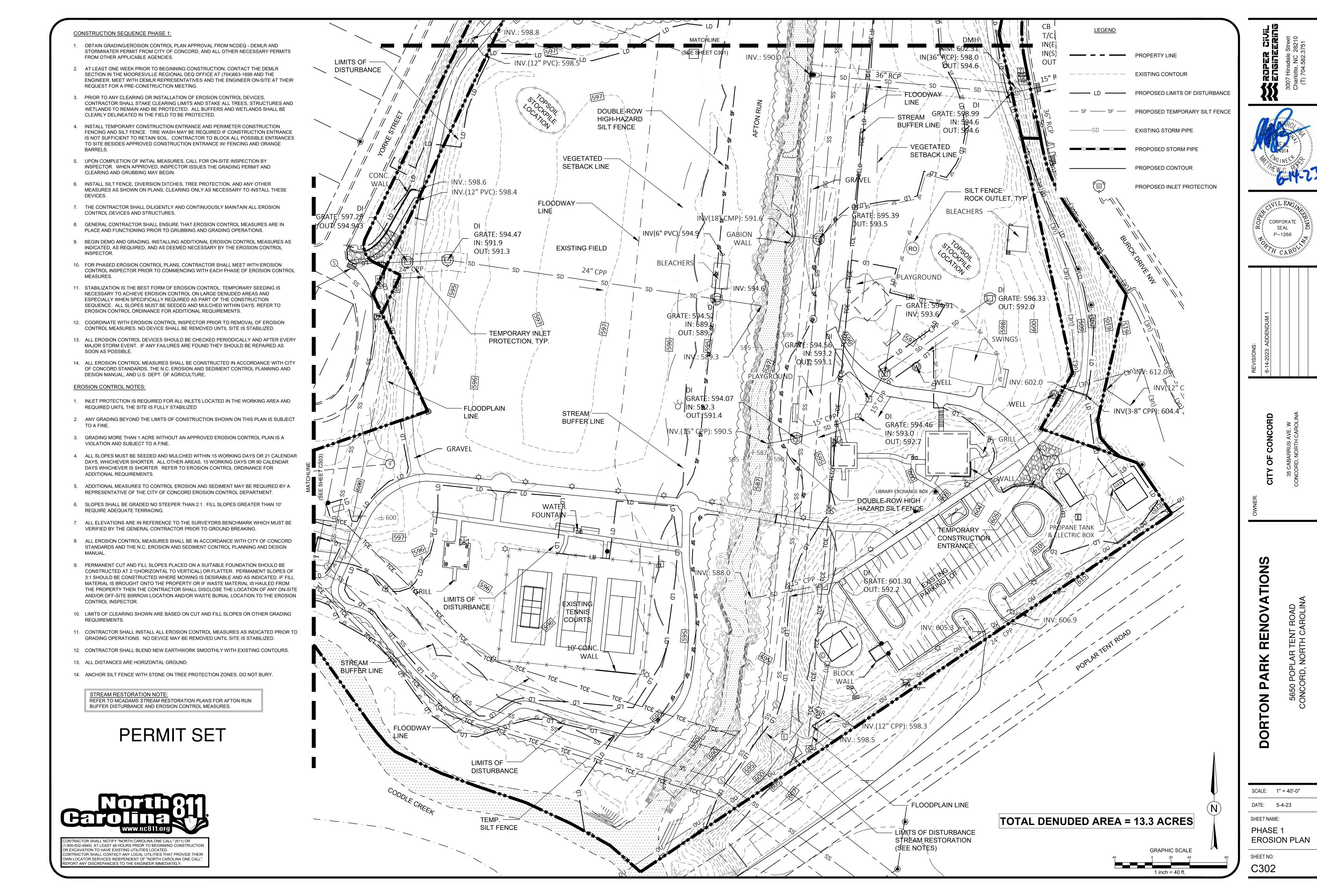


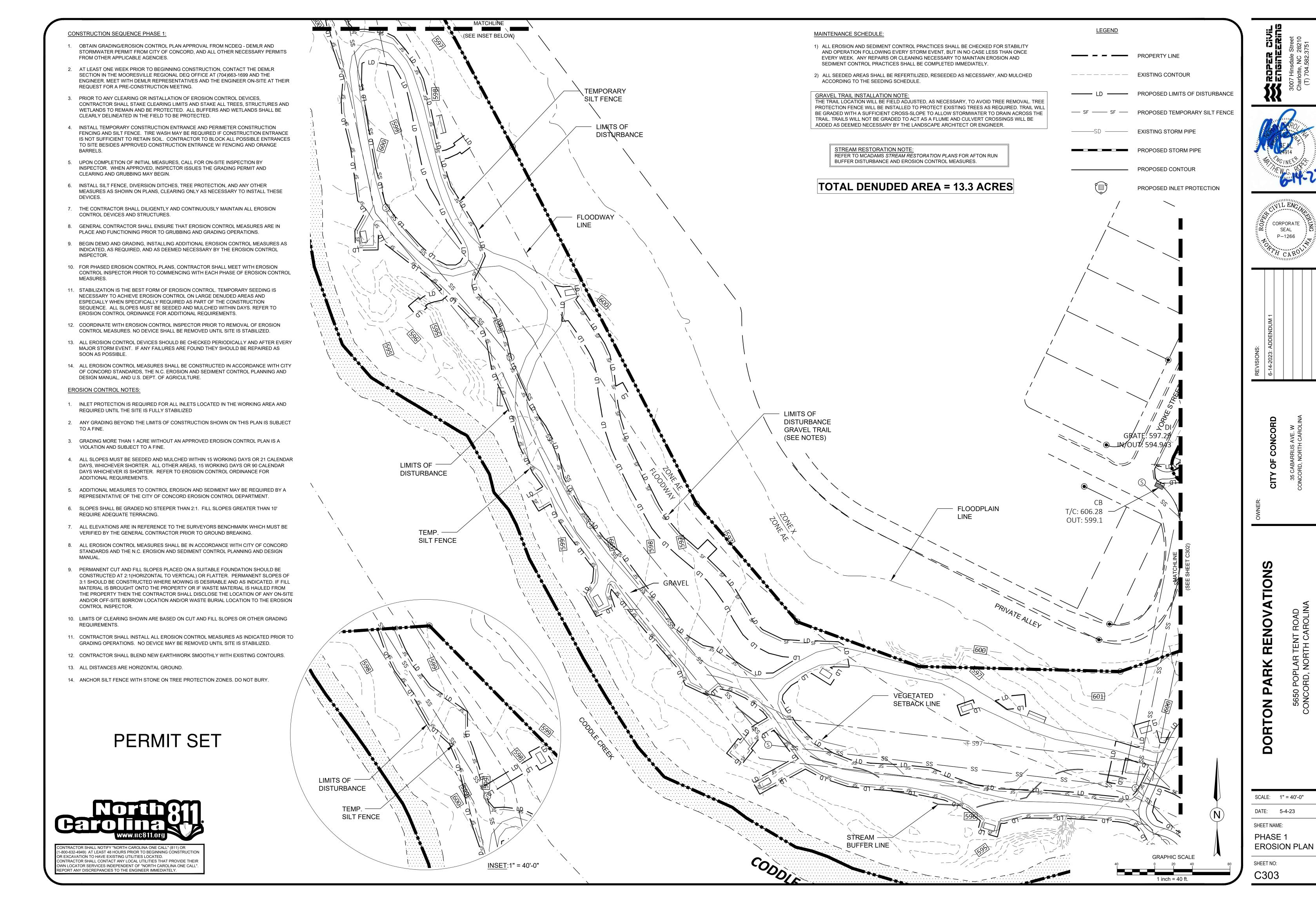




SCALE: 1" = 40'-0" DATE: 5-4-23 SHEET NAME:

PHASE 1 **EROSION PLAN**





REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

REDOIDER CIR EDGIDEERI 3007 Hinsdale Street Charlotte, NC 28210 (T) 704.582.3751





REVISIONS: 6-14-2023: ADDENDUM 1

CITY OF CONCORD

35 CABARRUS AVE. W

CONCORD, NORTH CAROLINA

ALK ALINOVALION

5650 POPLAR T CONCORD, NORT

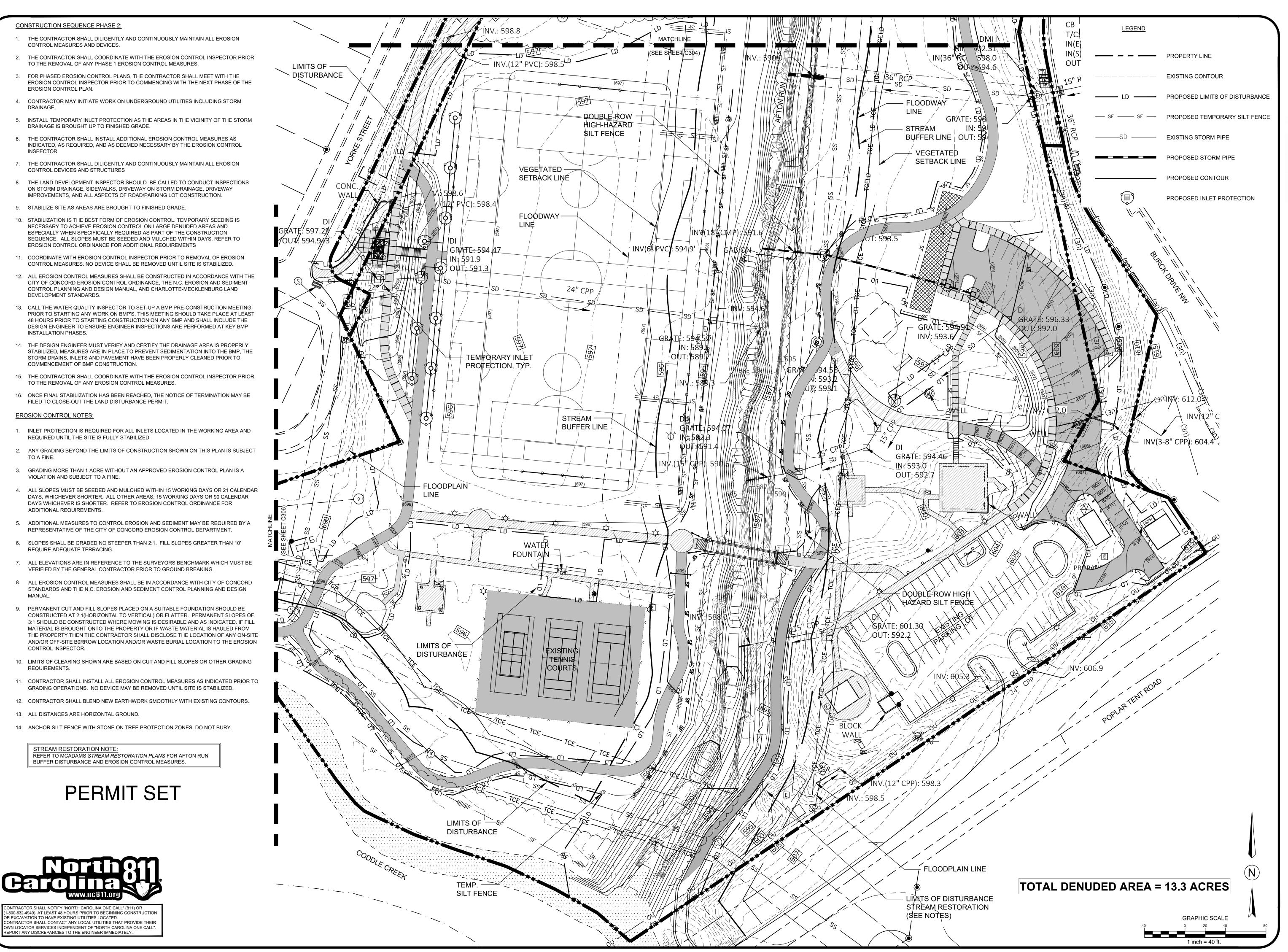
SCALE: 1" = 40'-0"

DATE: 5-4-23

SHEET NAME:
PHASE 2
EROSION PLAN

SHEET NO:

1 inch = 40 ft

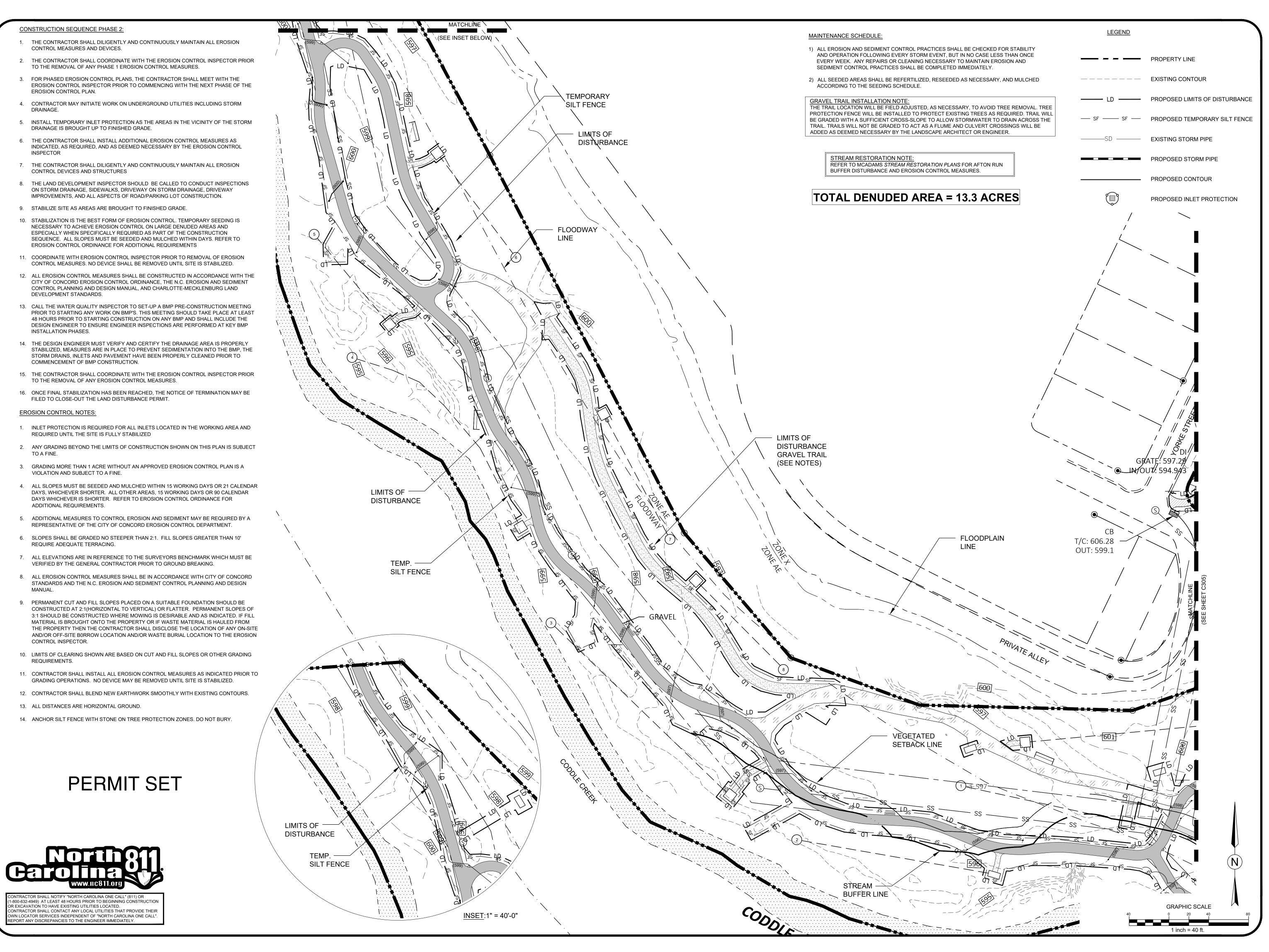


CORPORATE SEAL P-1266

SCALE: 1" = 40'-0" DATE: 5-4-23

SHEET NAME: PHASE 2

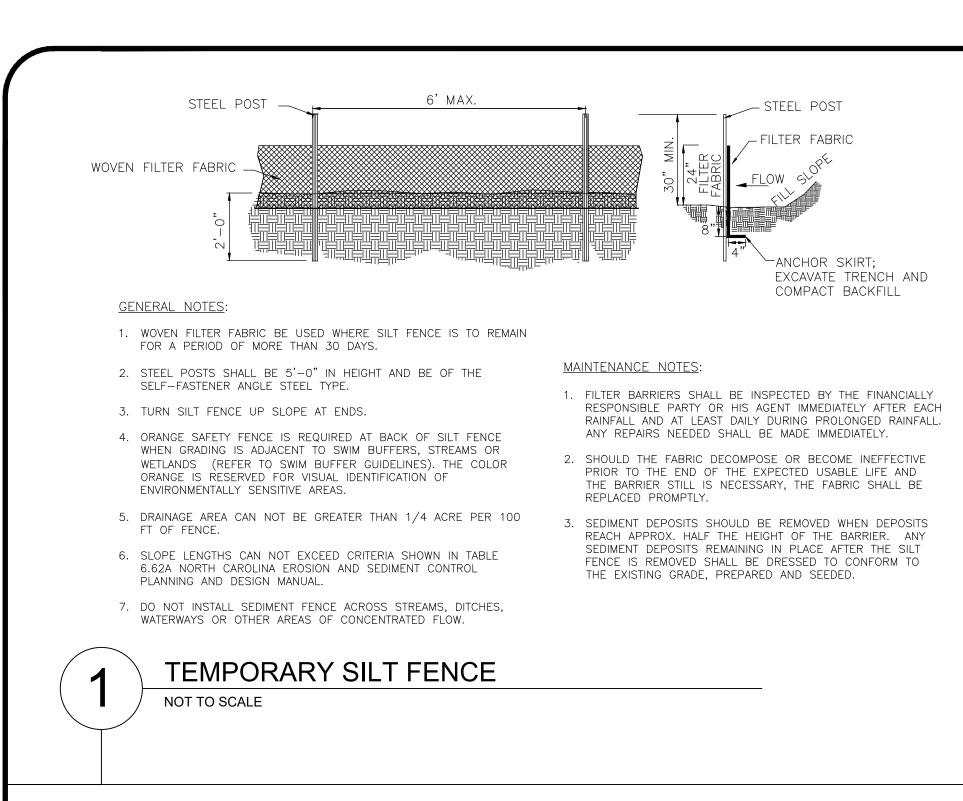
EROSION PLAN SHEET NO:



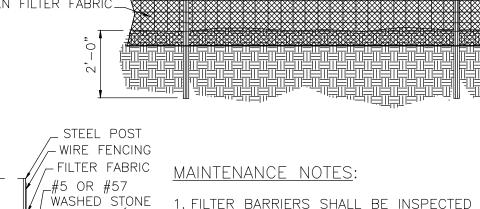
CORPORATE

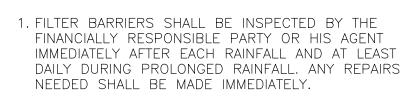
SCALE: 1" = 40'-0" DATE: 5-4-23

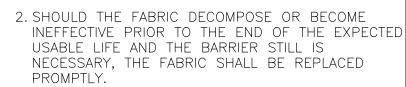
SHEET NAME: PHASE 2 **EROSION PLAN**



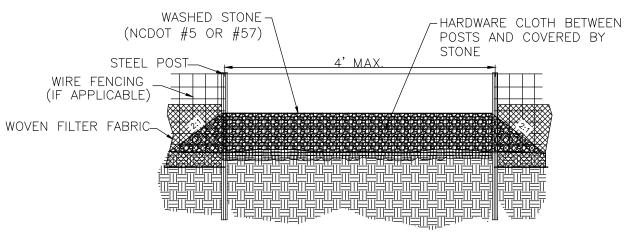
STEEL POST_ 8' MAX. WIRE FENCING_ WOVEN FILTER FABRIC_ 2. WOVEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE 4. WIRE FENCING SHALL BE AT LEAST #10 GAGE WITH _ STEEL POST - WIRE FENCING FILTER FABRIC MAINTENANCE NOTES:







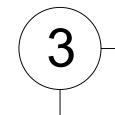
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE. PREPARED AND SEEDED.



- WASHED STONE (NCDOT #5 OR #57)

MAINTENANCE NOTES:

- 1. FILTER OUTLETS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
- 2. THE STONE SHALL BE REPLACED PROMPTLY AFTER ANY EVENT THAT HAS CLOGGED OR REMOVED IT.
- 3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OUTLET IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

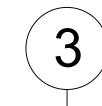


GENERAL NOTES:

1/4" SPACING).

THE INSPECTOR.

SILT FENCE OUTLET OPTION 2



NOT TO SCALE

1. SEDIMENT FILTER OUTLET AND HARDWARE CLOTH

2. HARDWARE CLOTH SHALL BE ANCHORED TO THE

STEEL POSTS SECURELY USING APPROPRIATE

3. POSTS SHALL BE NO MORE THAN 4 FEET APART.

4. SITE OUTLETS AT ANY POINT SMALL CONCENTRATED

FLOWS ARE ANTICIPATED AND AT THE DIRECTION OF

SHALL BE 16 INCHES HIGH BUT NO TALLER THAN 18

ANCHORS. HARDWARE CLOTH SHALL BE KEYED IN A

MINIMUM OF 12 INCHES IN LENGTH AND BACKFILLED

PROPERLY AS SHOWN IN ABOVE DETAIL. HARDWARE

CLOTH TO BE SAME AS STD. #30.09 (19 GAUGE,

GENERAL NOTES:

CONCENTRATED FLOW.

GENERAL NOTES

1. WIRE FENCING SHALL BE A MINIMUM OF 32" IN

OF THE SELF-FASTENER ANGLE STEEL TYPE.

A MINIMUM OF 6 LINE WIRES WITH 6" STAY

6. WIRE AND WASHED STONE IS REQUIRED TO BE

7. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF

BUFFER GUIDELINES). THE COLOR ORANGE IS

8. DRAINAGE AREA CAN NOT BE GREATER THAN 1/4

9. SLOPE LENGTHS CAN NOT EXCEED CRITERIA SHOWN

SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.

10. DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS.

DITCHES, WATERWAYS OR OTHER AREAS OF

IN TABLE 6.62A NORTH CAROLINA EROSION AND

RESERVED FOR VISUAL IDENTIFICATION OF

ENVIRONMENTALLY SENSITIVE AREAS.

ACRE PER 100 FT OF FENCE.

SILT FENCE WHEN GRADING IS ADJACENT TO SWIM

BUFFERS, STREAMS OR WETLANDS (REFER TO SWIM

SHOWN ON PLANS AT THE TOE OF SLOPES GREATER

5. TURN SILT FENCE UP SLOPE AT ENDS.

THAN 10 FEET VERTICAL (2:1 SLOPE)

WIRES WITH 12" STAY SPACING.

WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE

HIGH HAZARD TEMPORARY SILT FENCE

NOT TO SCALE

INLET MAINTENANCE SHALL BE DOCUMENTED IN PROJECT LOG BOOK. 2. FILTER TYPES SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO INSTALLATION. 3. FILTER BAGS MAY BE REMOVED WHEN SITE IS STABILIZED AT THE

AS LONG AS STORM DRAINAGE IS NOT IMPEDED.

INSTALLATION

DIRECTION OF THE ENGINEER. 4. FILTER BAGS SHALL BE REMOVED PRIOR TO STREET ACCEPTANCE

6. FILTER BAGS MAY BE INSTALLED IN EXISTING CITY OR NCDOT ROADS

FEET INTO THE GROUND AND/OR CLOSE OUT OF GRADING PERMIT. SURROUNDING THE INLET. 5. FILTER BAGS SHALL BE CLEANED OR REPLACED ON A REGULAR SPACE POSTS EVENLY AROUND BASIS (NOT BE MORE THAN HALF FULL AT ANY TIME).

DEFLECTOR REQUIRED WHEN

USED ON EXISTING

MAINTAINED STREETS.

PLACED SUCH THAT

OBSTRUCTED.

DEFLECTOR SHALL BE

IT WILL NOT COMPLETELY

ENSURE NO MORE THAN

OBSTRUCT STORM WATER

FLOW FROM ENTERING VIA THE CURB OPENING.

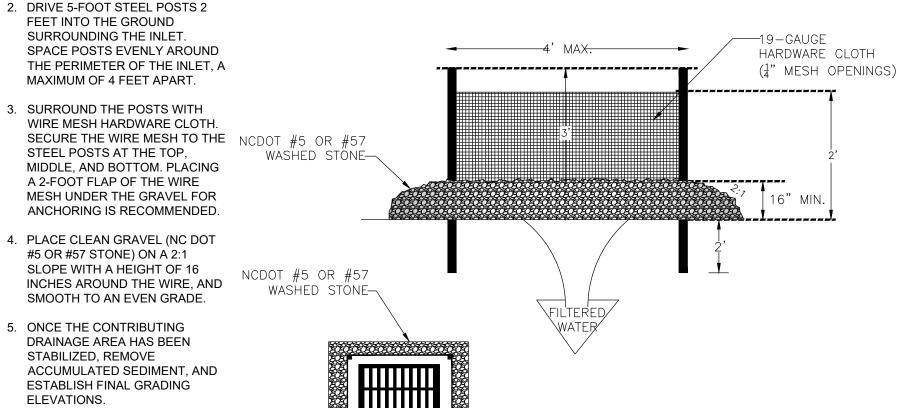
25% OF CURB OPENING IS

- MAXIMUM OF 4 FEET APART. 3. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH SECURE THE WIRE MESH TO THE NCDOT #5 OR #57 STEEL POSTS AT THE TOP, A 2-FOOT FLAP OF THE WIRE
 - MIDDLE, AND BOTTOM. PLACING MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED. 4. PLACE CLEAN GRAVEL (NC DOT #5 OR #57 STONE) ON A 2:1

1. UNIFORMLY GRADE A SHALLOW

DEPRESSION APPROACHING THE

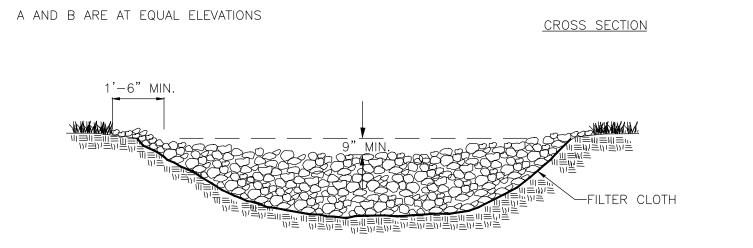
- SMOOTH TO AN EVEN GRADE. 5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING
- 6. COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUNDCOVER.



GENERAL NOTES:

1. RIPRAP SIZE TO BE DESIGNED BY ENGINEER.

2. CHECK DAMS MAY BE USED IN SLOPING DITCHES OR CHANNELS TO SLOW VELOCITY OR TO CREATE 1'-6" MIN. SEDIMENT TRAPS. ENSURE THAT MAXIMUM SPACING BETWEEN DAMS PLACES THE TOE OF THE UPSTREAM DAM AT THE SAME ELEVATION AS THE DOWNSTREAM DAM (SEE DIAGRAM BELOW). CLASS B RIP RAP-MAXIMUM SPACING



TEMPORARY CHECK DAM

NOT TO SCALE

HARDWARE CLOTH AND GRAVEL INLET PROTECTION

NOT TO SCALE

GRATE -

SECTION

NOT TO SCALE

NOT TO SCALE

EXPANSION

RESTRAINT

- 1. A STABILIZED ENTRANCE PAD OF #5 WASHED STONE AND RAILROAD BALLAST SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
- 2. FILTER FABRIC OR COMPACTED CRUSHER RUN STONE SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE. 3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

1" REBAR FOR BAG

REMOVAL FROM INLET

FILTER BAG -

DUMP LOOPS-

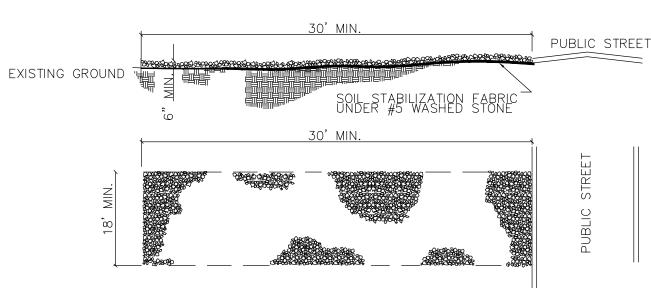
CATCH BASIN —

BLOCK AND GRAVEL STONE INLET PROTECTION

4. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY. ANY AGGREGATE TRACKED INTO THE ROADWAY MUST BE SWEPT BACK ONSITE ON A NIGHTLY BASIS.

STABILIZED CONSTRUCTION ENTRANCE

5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN.



FOR LATE WINTER AND EARLY SPRING:

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH

<u>SEEDING MIXTURE</u>: RYE (GRAIN) - 120 LB/ACRE ANNUAL LESPEDEZA (KOBE) - 50 LB/ACRE (OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXTEND BEYOND JUNE)

SEEDING DATES: JAN. 1 — MAY

FOR SUMMER: SEEDING MIXTURE:
GERMAN MILLET - 40 LB/ACRE (A SMALL-STEMMED SUDANGRASS MAY BE

SUBSTITUTED AT A RATE OF 50 LB/ACRE) <u>SEEDING DATES</u>: MAY 1 - AUG. 15

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

MAINTENANCE: REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, FERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE

ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING

MAINTENANCE:
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, FERTILIZE AND MULCH IMMEDIATELY FOLLOWING

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER

EROSION OR OTHER DAMAGE

AND 750 LB/ACRE 10-10-10 FERTILIZER

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

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 LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH. FOR ADDITIONAL INFORMATION, REFER TO NCDEQ EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL (ESCPDM), SECTION 6.10. FOR PERMANENT SEEDING SPECIFICATIONS, INCLUDING SEED BED PREP, SEASONAL LIMITATIONS FOR SEEDING OPERATIONS, THE KINDS OF GRADES OF FERTILIZERS, THE KINDS OF SEED, AND THE RATES OF APPLICATION OF LIMESTONE, FERTILIZER, AND SEED, REFER TO NCDEQ ESCPDM SECTION 6.11



FOR FALL:

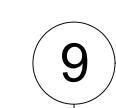
SEEDING MIXTURE:

SEEDING DATES: AUG. 15 - DEC 30

RYE (GRAIN) - 120 LB/ACRE

SEEDING SCHEDULE

NOT TO SCALE



RESERVED NOT TO SCALE

PERMIT SET

0 0

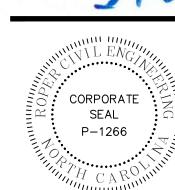
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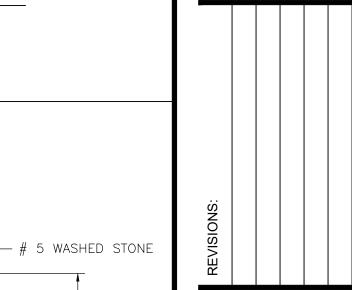
DATE: 5-4-23 SHEET NAME:

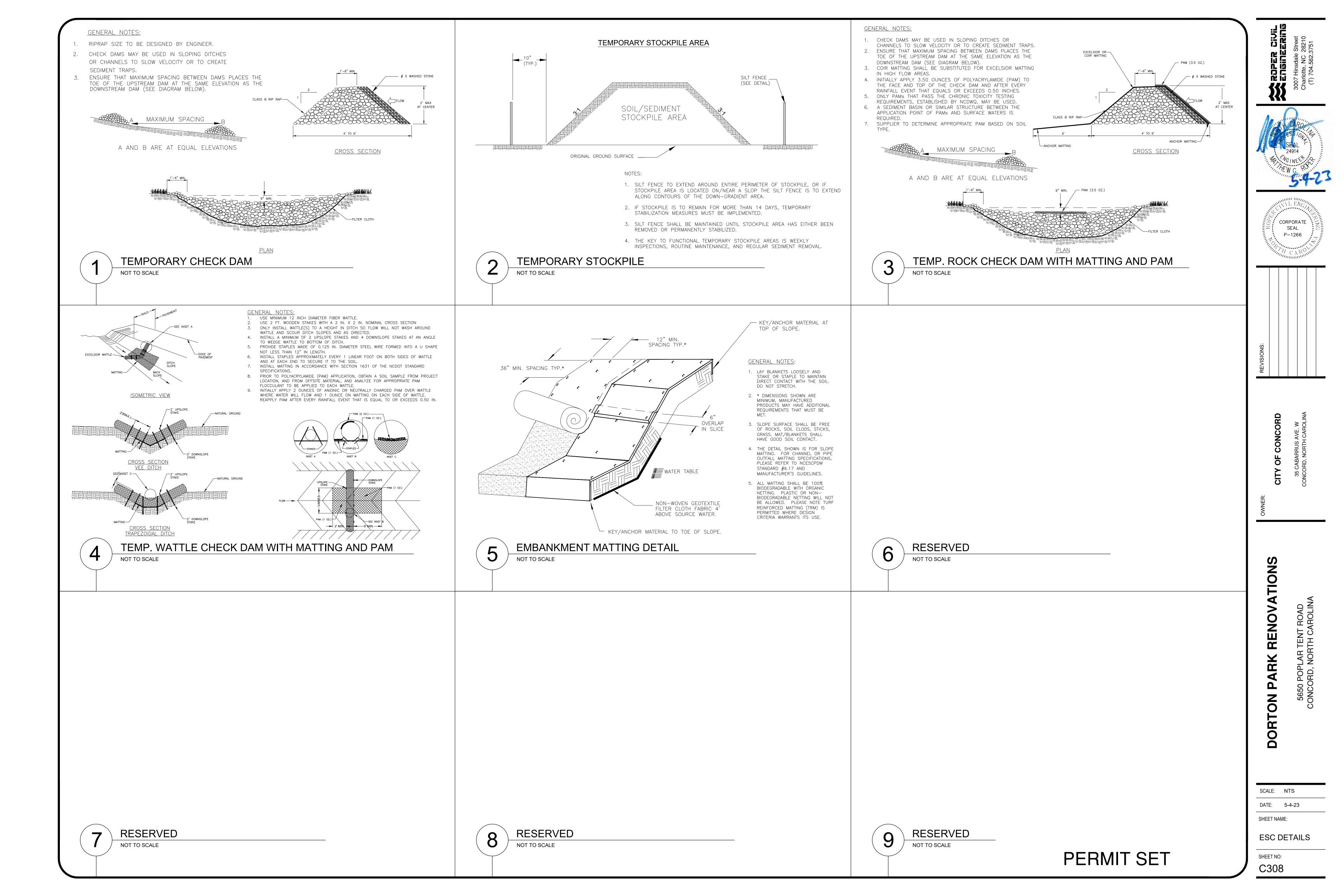
ESC DETAILS

SHEET NO:

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Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

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

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

GROUND STABILIZATION SPECIFICATION

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

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

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- 1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- 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.
- 4. Provide ponding area for containment of treated Stormwater before discharging offsite.
- 5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

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

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

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

PAINT AND OTHER LIQUID WASTE

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

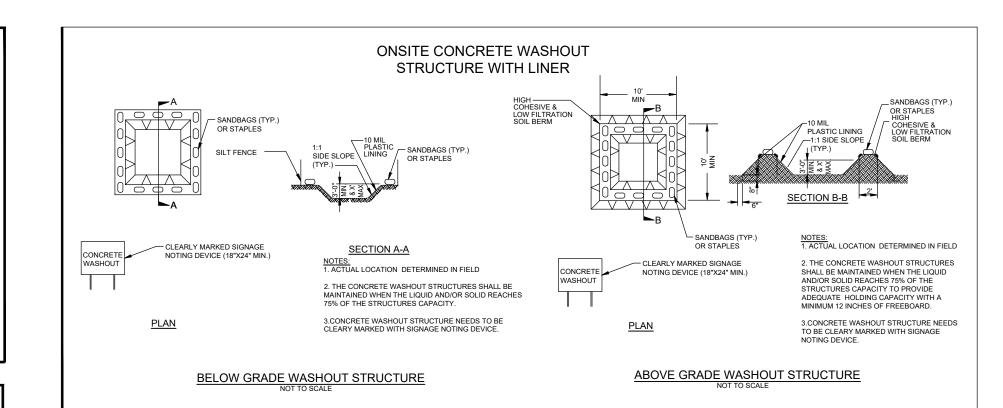
PORTABLE TOILETS

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

 Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

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



CONCRETE WASHOUTS

- .. Do not discharge concrete or cement slurry from the site.
- 2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- . Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- 4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- 5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- 6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- 7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- 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.
- P. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- 10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

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

HAZARDOUS AND TOXIC WASTE

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

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PERMIT SET

ROPER CIVI FINGINEERIN 3007 Hinsdale Street

SHEET NAME:

ESC DETAILS

SHEET NO: **C309**

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 holiday periods, and no individual-day rainfall information available, record the cumulative rain measurement for those attended days (and this will determine if a site inspection needed). Days on which no rainfall occurred shall be recorded "zero." The permittee may use another rain-monitoring devapproved 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	 Identification of the measures inspected, Date and time of the inspection, Name of the person performing the inspection, Indication of whether the measures were operating properly, Description of maintenance needs for the measure, 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	 Identification of the discharge outfalls inspected, Date and time of the inspection, Name of the person performing the inspection, Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, Indication of visible sediment leaving the site, Description, evidence, and date of corrective actions taken. 					
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event > 1.0 inch in 24 hours	 If visible sedimentation is found outside site limits, then a record of the following shall be made: Actions taken to clean up or stabilize the sediment that has let the site limits, Description, evidence, and date of corrective actions taken, a An explanation as to the actions taken to control future releases. 					
(5) Streams or wetlands onsite 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 a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, as 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this perm					
(6) Ground stabilization measures	After each phase of grading	 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). Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible. 					

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

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements 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.				
(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.					
(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:

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

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI 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:

- (a) 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,
- (b) 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, weir tanks, and filtration systems,
- (d) Vegetated, upland areas of the sites or a properly designed stone 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 SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

(b) Oil spills if:

- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the environment.

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

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements						
(a) Visible sediment deposition in a stream or wetland	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions. 						
(b) Oil spills and release of hazardous substances per 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 reoccurrence 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. 						

Permittees shall report the following occurrences:

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

- They are within 100 feet of surface waters (regardless of volume).

2. Reporting Timeframes and Other Requirements

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements						
(a) Visible sediment deposition in a stream or wetland	 Within 24 hours, an oral or electronic notification. Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions. 						
(b) Oil spills and release of hazardous substances per 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 reoccurrence 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. 						

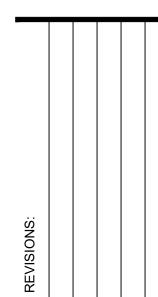
NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

PERMIT SET



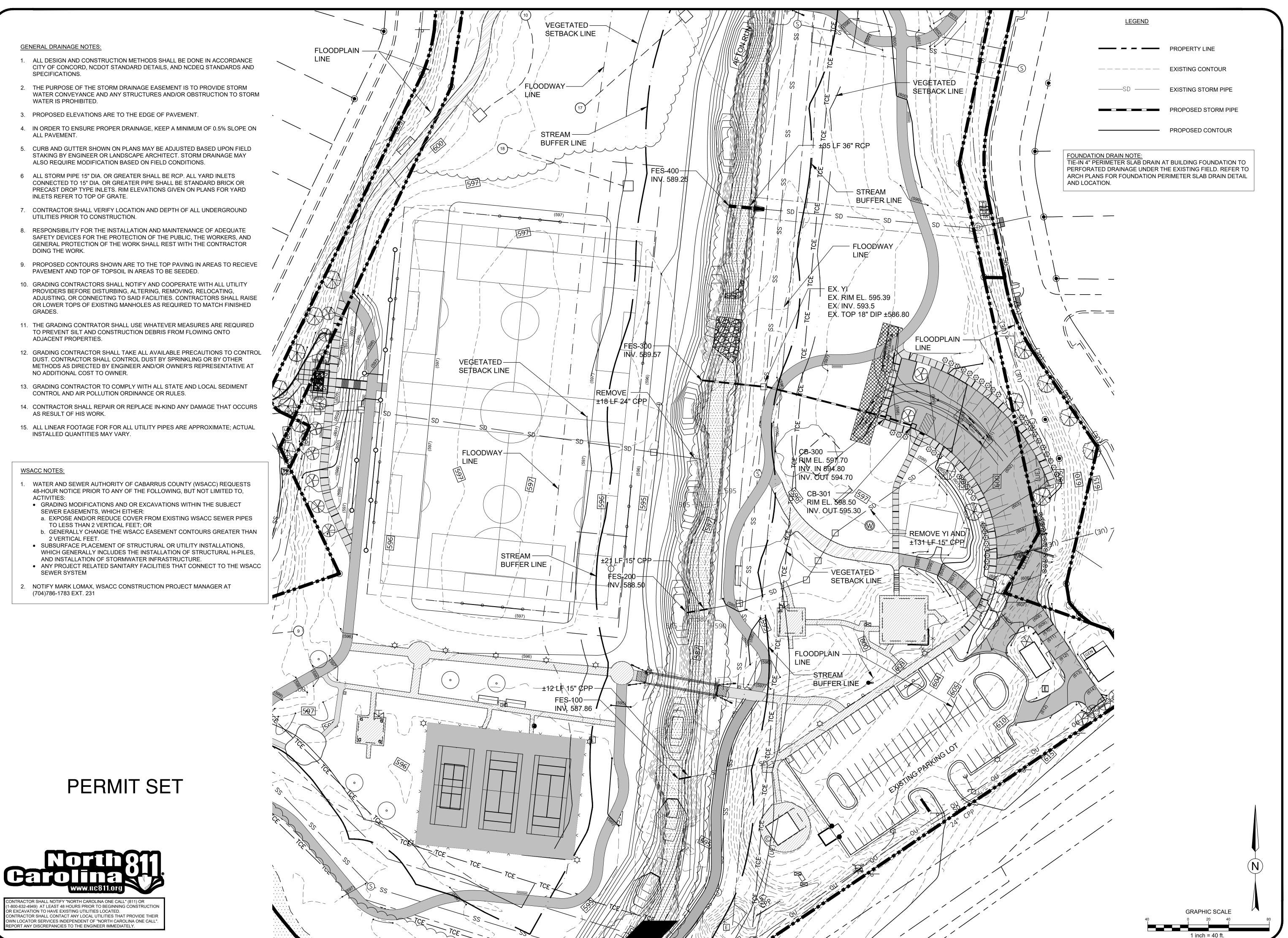




DATE: 5-4-23

ESC DETAILS

SHEET NAME:



EDGIDEERII
3007 Hinsdale Street
Charlotte, NC 28210
(T) 704.582.3751

SEAL 24914

NG INE STATE OF THE STATE OF THE

CORPORATE SEAL P-1266

REVISIONS: 6-14-2023: ADDENDUM 1

35 CABARRUS AVE. W
ONCORD, NORTH CAROLINA

COWNER.

NOVATIONS

5650 POPLAR TENT ROAD

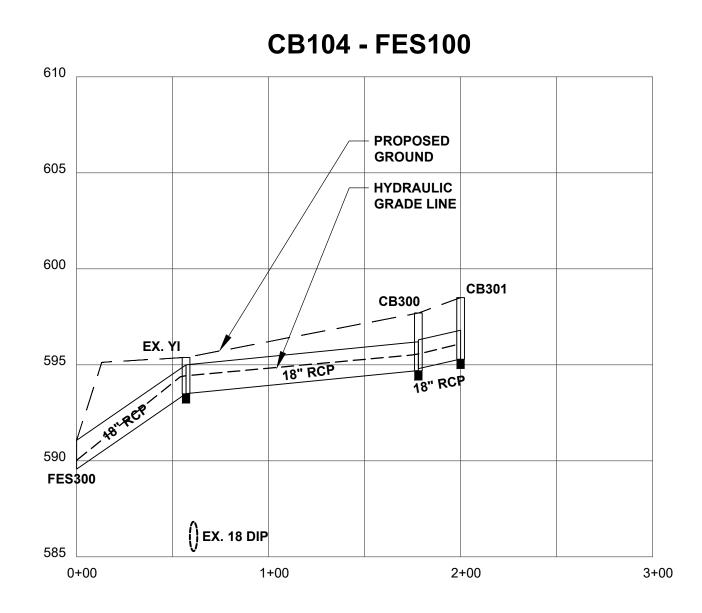
SCALE: 1" = 40'-0"

DATE: 5-4-23

SHEET NAME:

DRAINAGE PLAN

SHEET NO:



PERMIT SET



STORMCHART-300 PROPOSED 10-YR

LINE ID	D.A.	RIM EL.	INV. UP	INV. DN	Q	CAPACITY	VELOCITY	LENGTH	SLOPE	PIPE SIZE
	(AC)	(FT)	(FT)	(FT)	(CFS)	(CFS)	(FT/SEC)	(FT)	(%)	(IN)
EX YI-FES300	0.30	595.39	593.50	589.57	5.3	27.6	8.2	57.0	6.89	18
CB300-EXYI	0.15	597.70	594.70	593.50	4.6	10.5	4.3	121.0	0.99	18
CB301-CB300	0.65	598.50	595.30	594.80	3.7	15.8	4.2	22.0	2.27	18

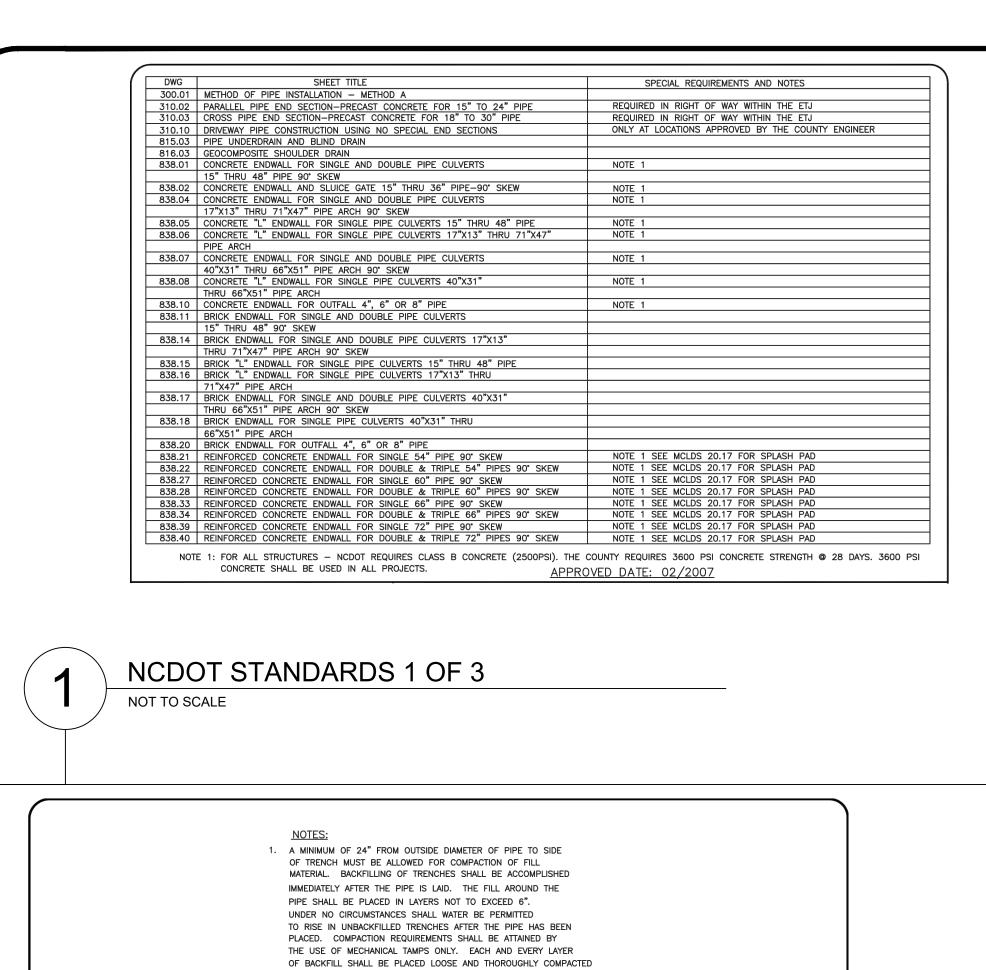
YI=YARD INLET CB=CATCH BASIN
FES=FLARED END SECTION

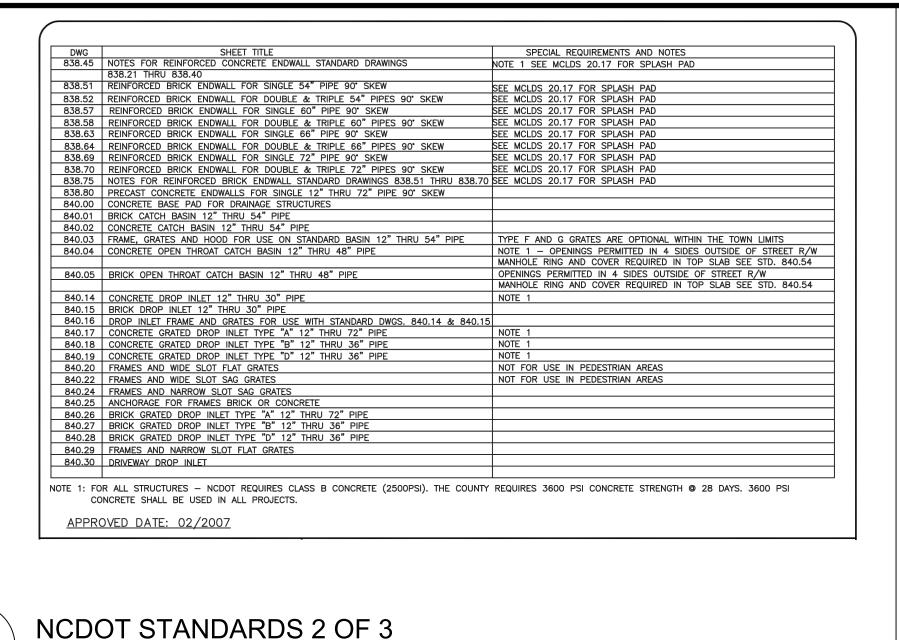
SCALE: 1" = 50'-0" DATE: 5-4-23

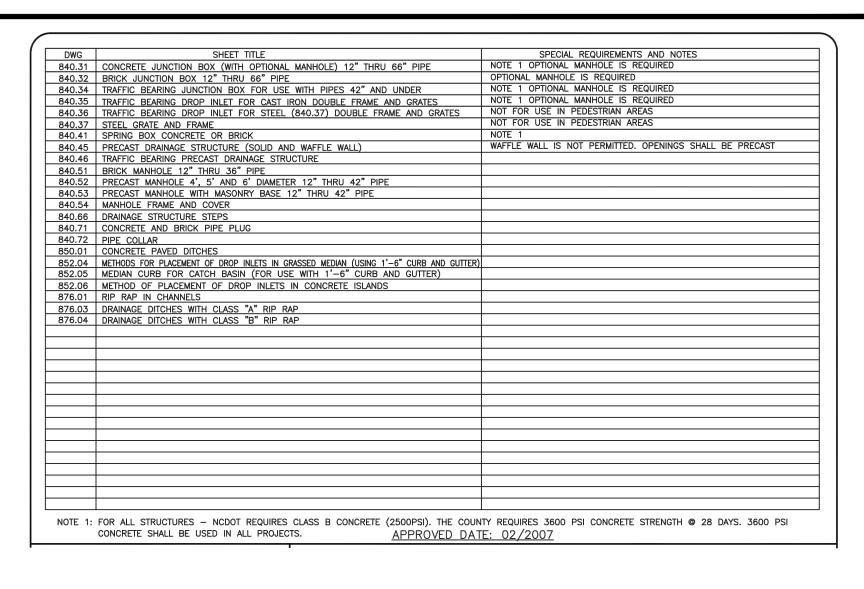
SHEET NAME: STORM **PROFILES**

SHEET NO:

GRAPHIC SCALE IN FEET





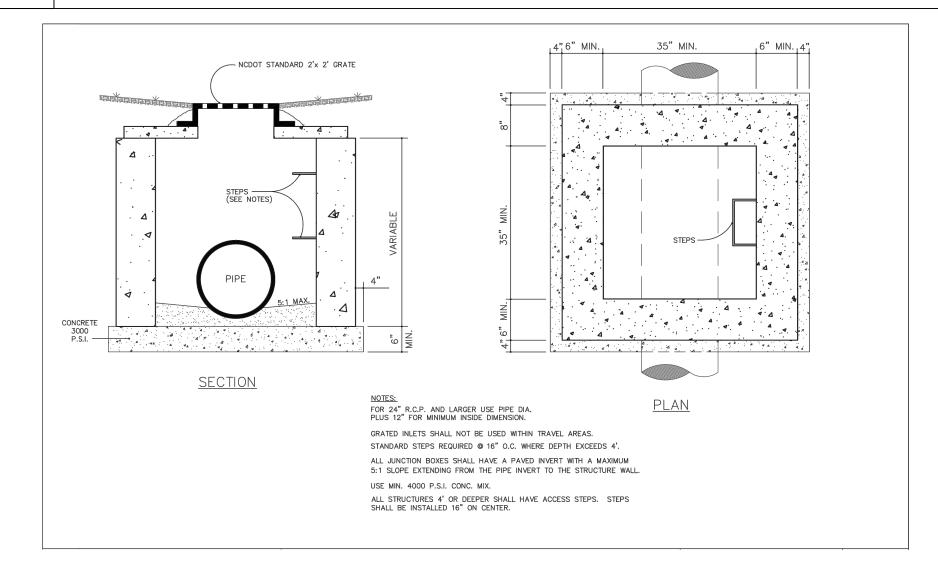


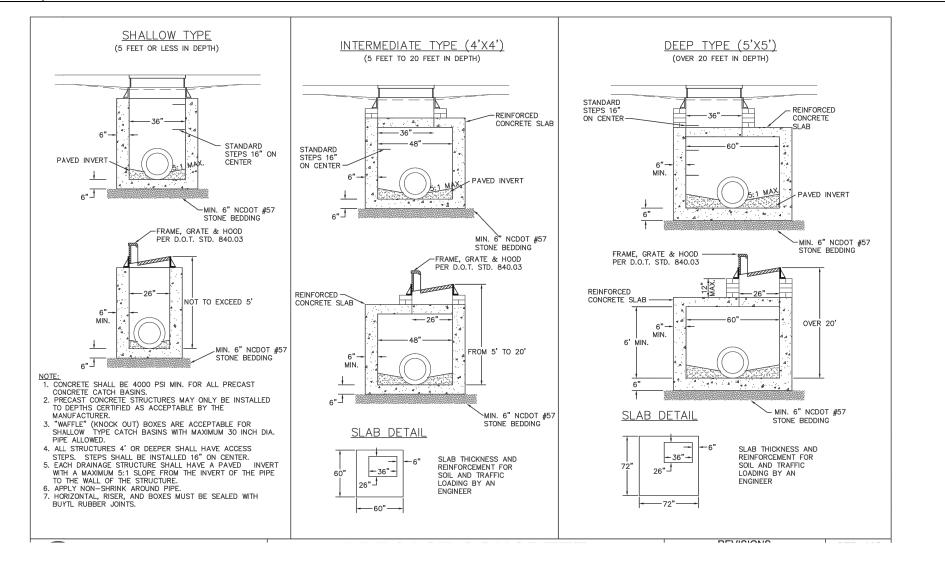
NCDOT STANDARDS 3 OF 3

NOT TO SCALE

2. ALL BACKFILL MATERIAL SHALL HAVE AN IN PLACE COMPACTED DENSITY OF 95%. 3. STANDARD PROCTOR. THE FINAL 2' BELOW FINISHED GRADE SHALL BE 100%. 4. ALL TRENCHING OPERATIONS SHALL MEET OSHA STANDARDS. 5. BACKFILL MATERIAL BENEATH ROADWAY SHALL BE SELECT BACKFILL MATERIAL. APPROVED DATE: 02/2007 NOT TO SCALE

TRENCH DETAIL FOR STORM DRAIN





STANDARD YARD INLET WITH GRATE AND FRAME

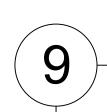
NOT TO SCALE

PRECAST CONCRETE CATCH BASIN

RESERVED NOT TO SCALE

NOT TO SCALE

RESERVED NOT TO SCALE



RESERVED NOT TO SCALE

PERMIT SET



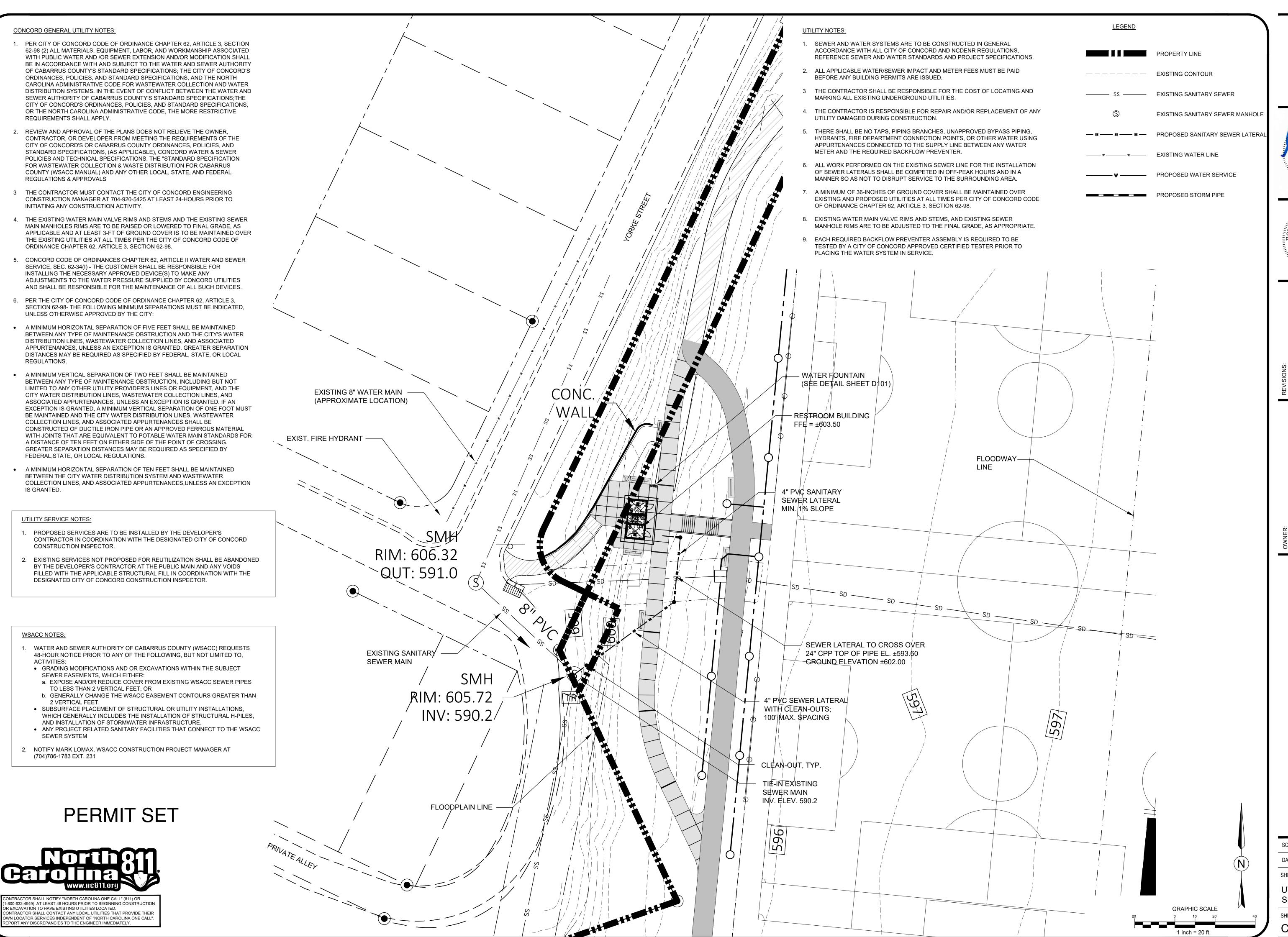
CORPORATE SEAL P-1266

TIONS RENOV, O

SCALE: NTS DATE: 5-4-23

SHEET NAME:

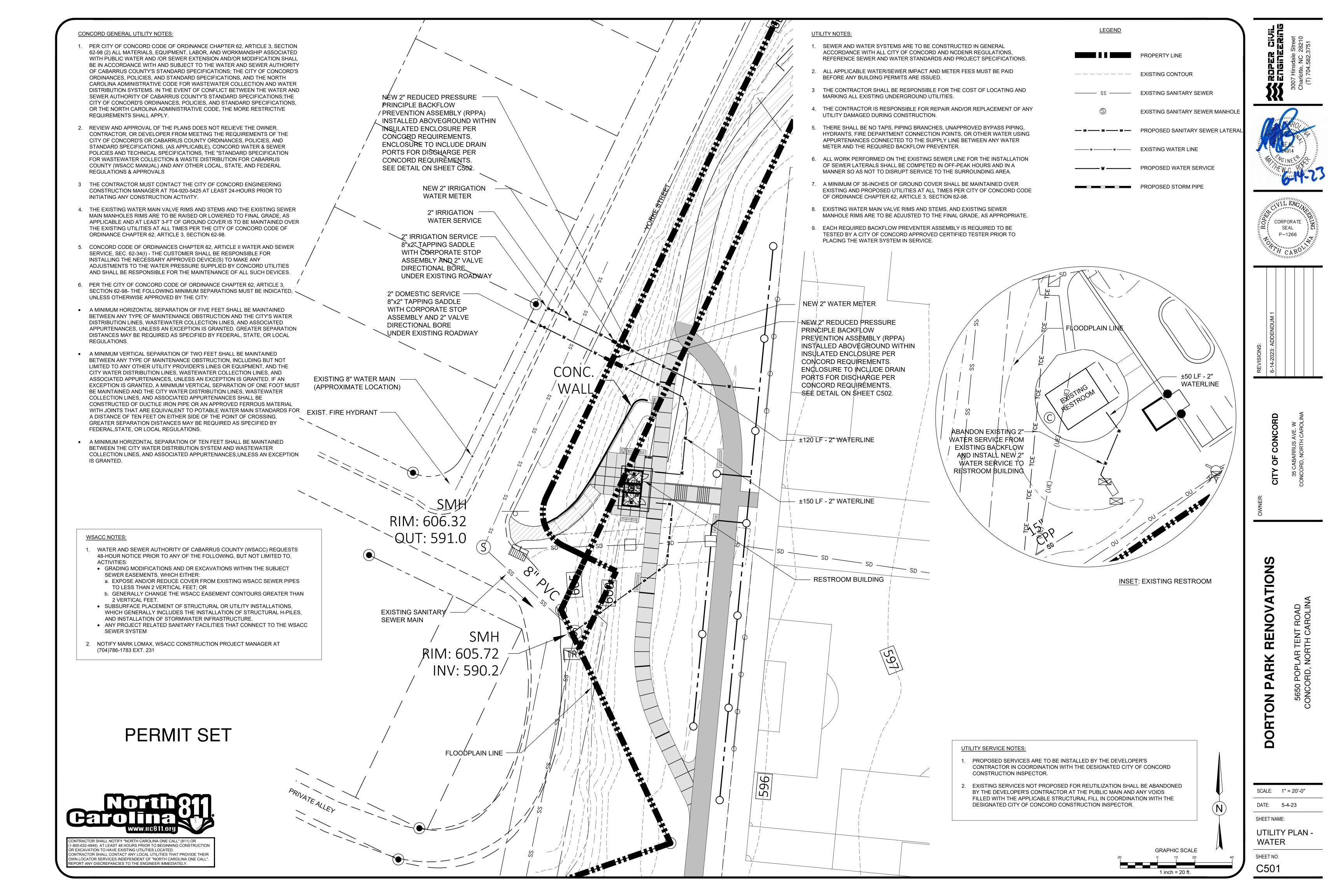
STORM DETAILS

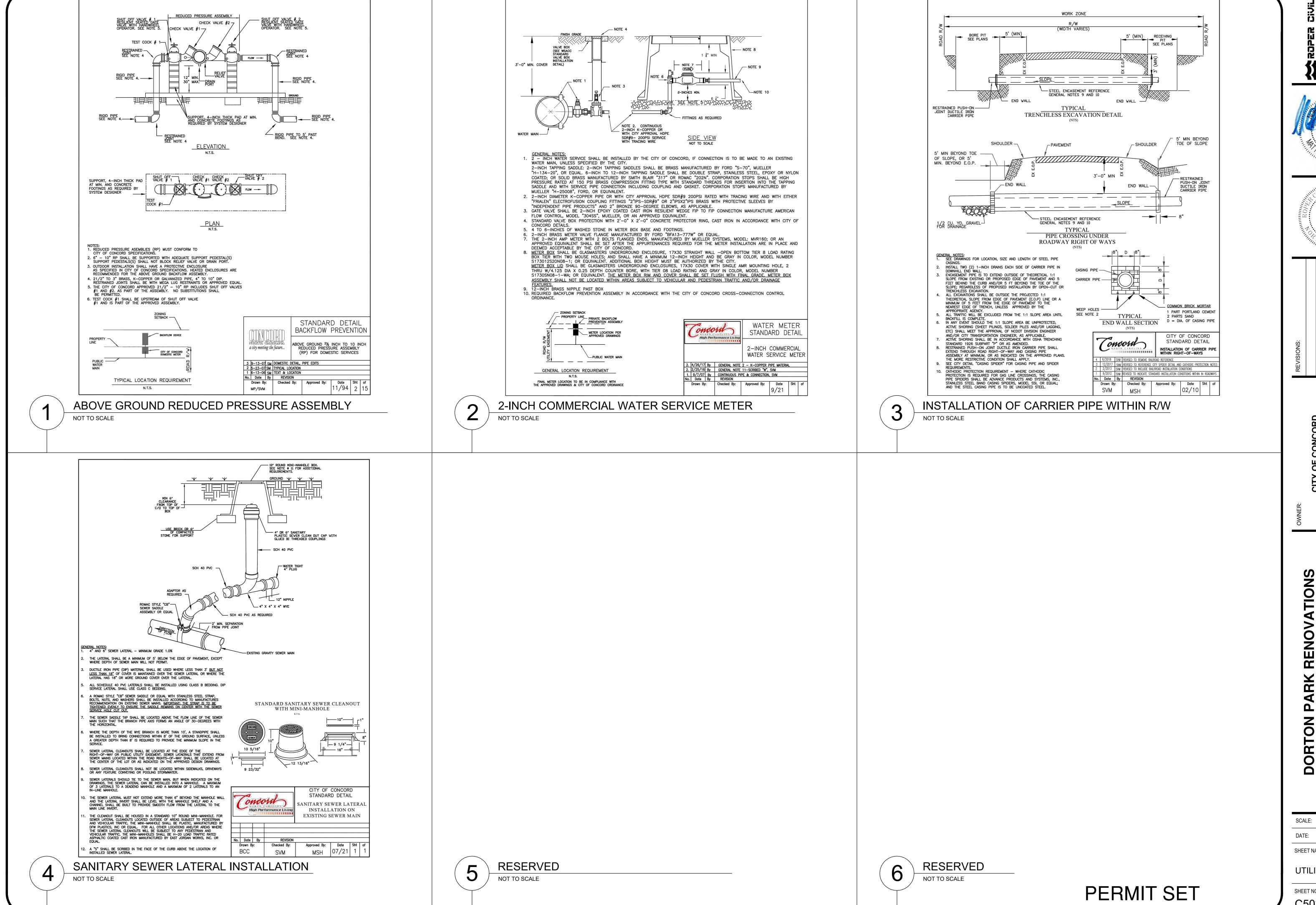


CORPORATE SEAL P-1266

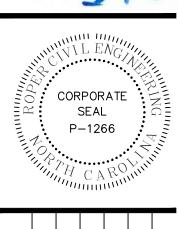
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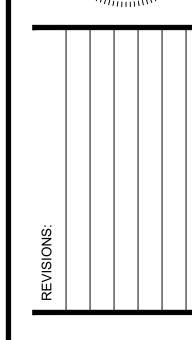
SHEET NAME: **UTILITY PLAN -**SEWER





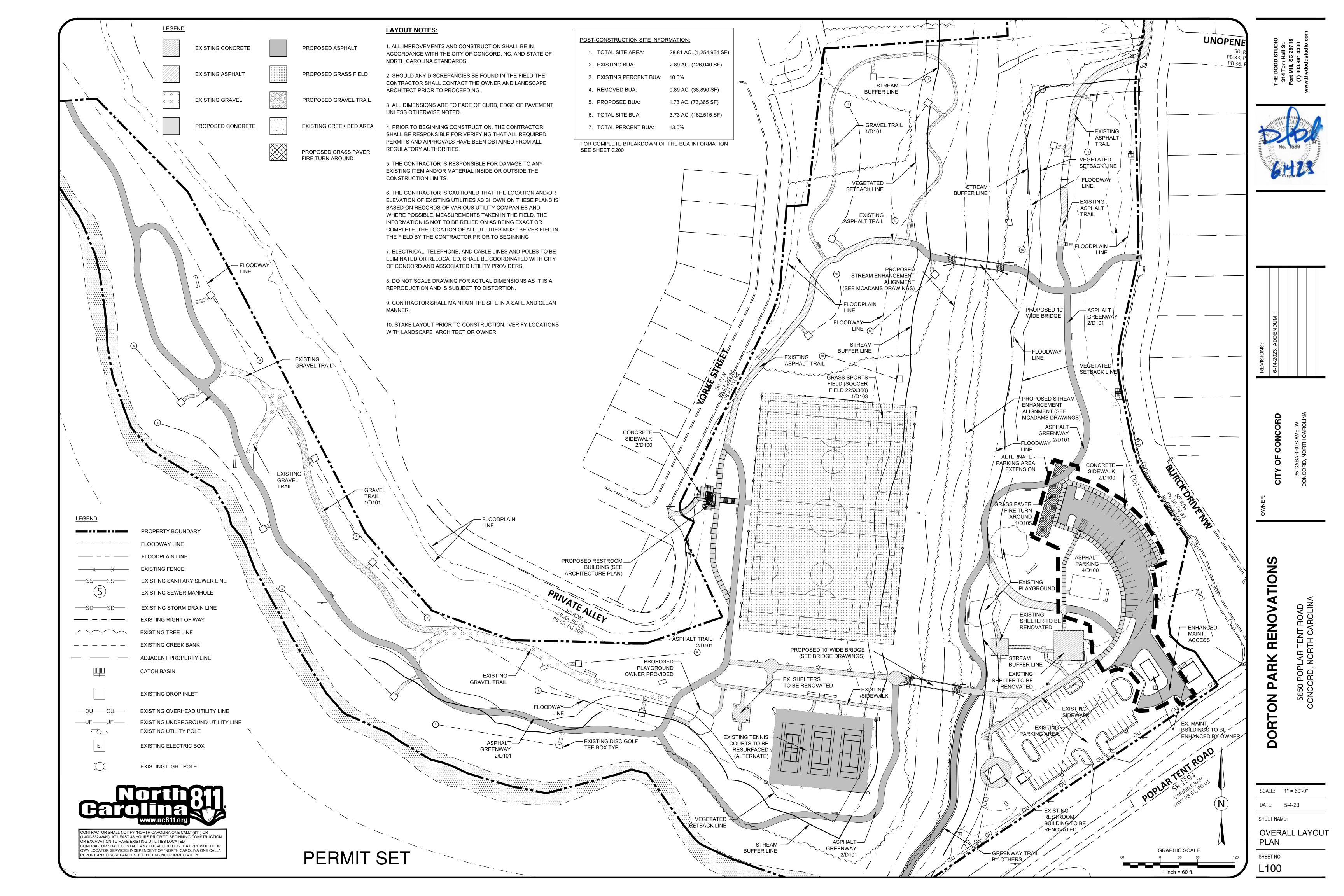


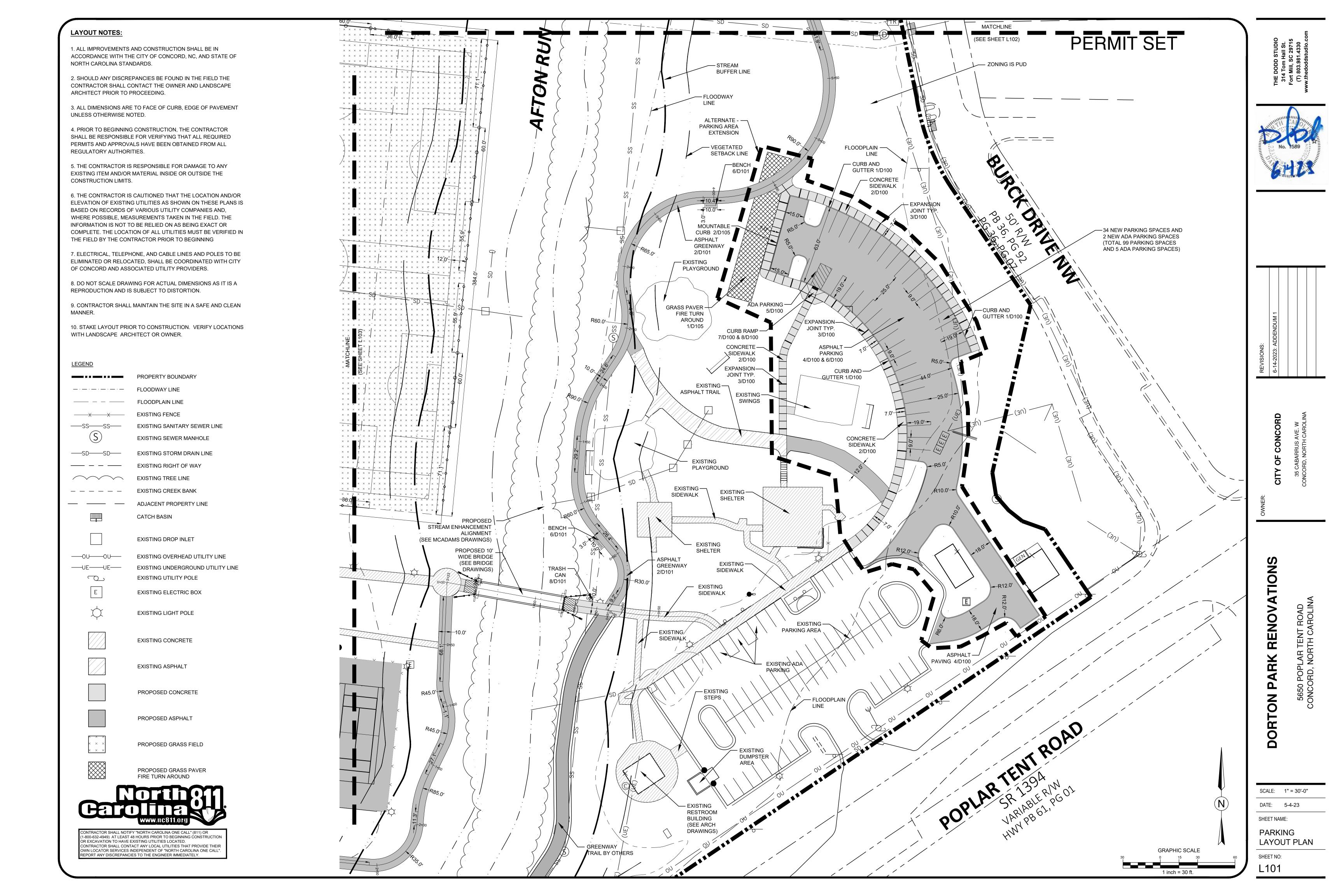


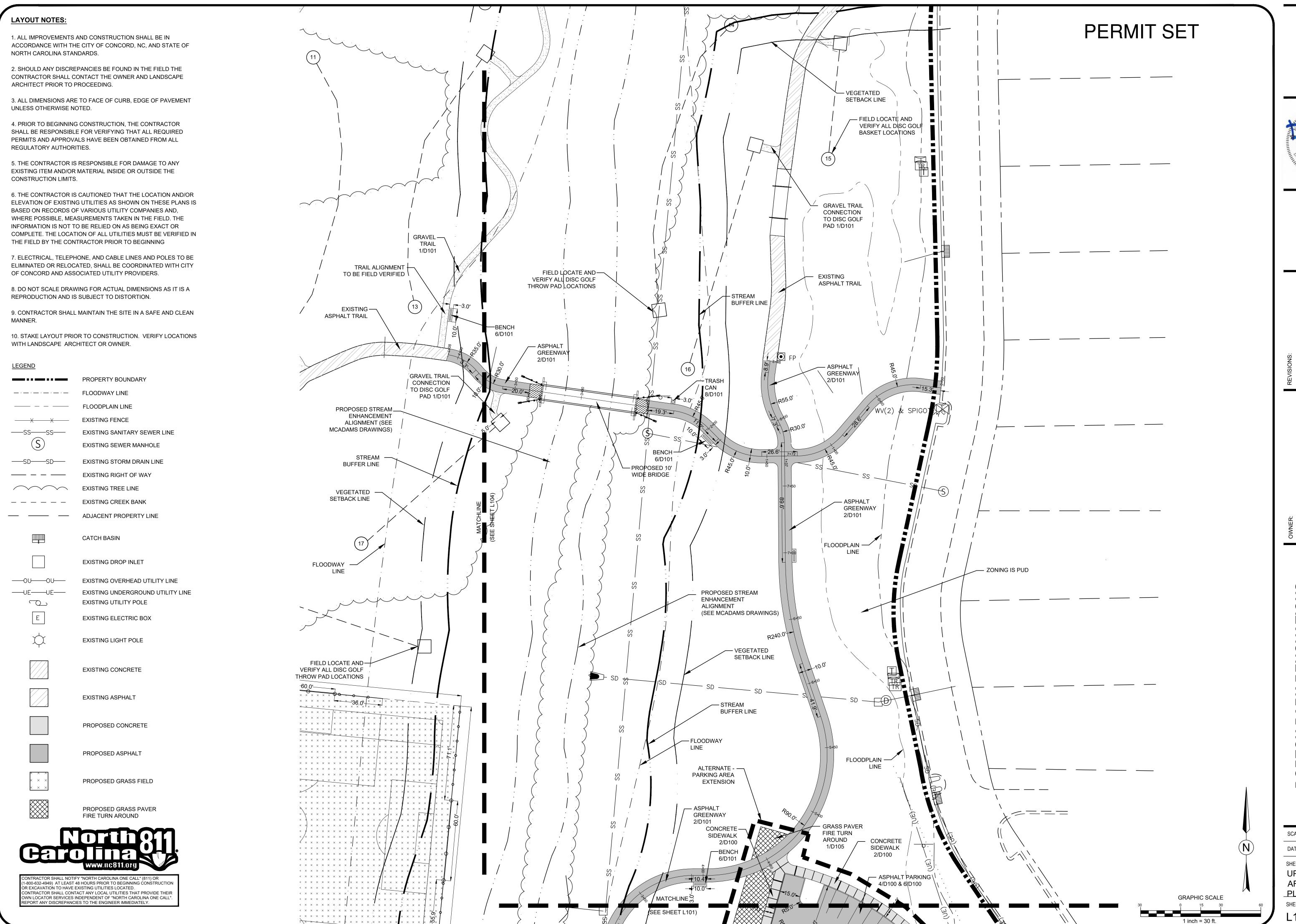


SCALE: NTS DATE: 5-4-23 SHEET NAME:

UTILITY DETAILS

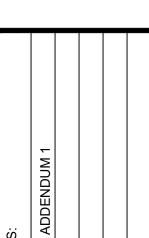






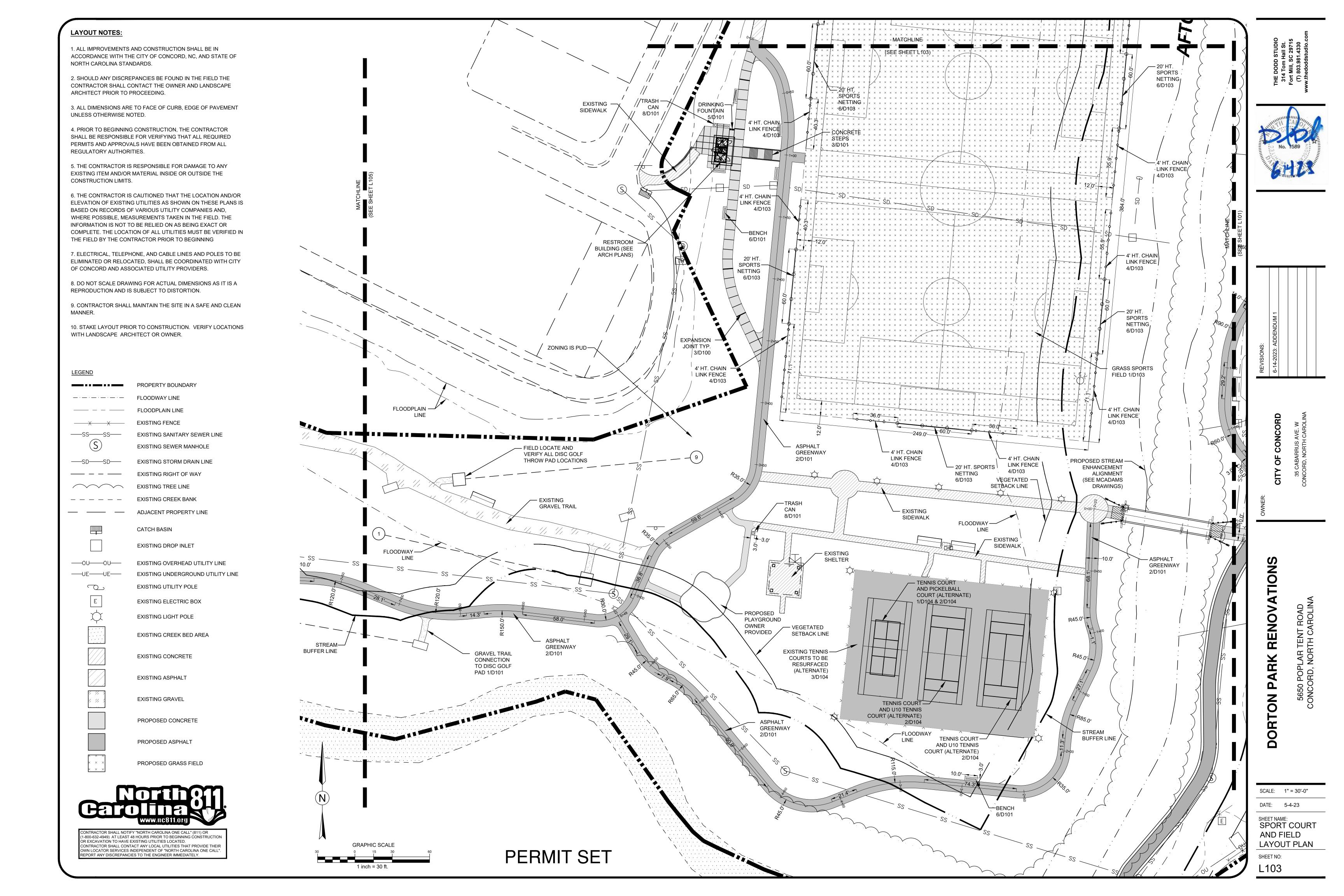


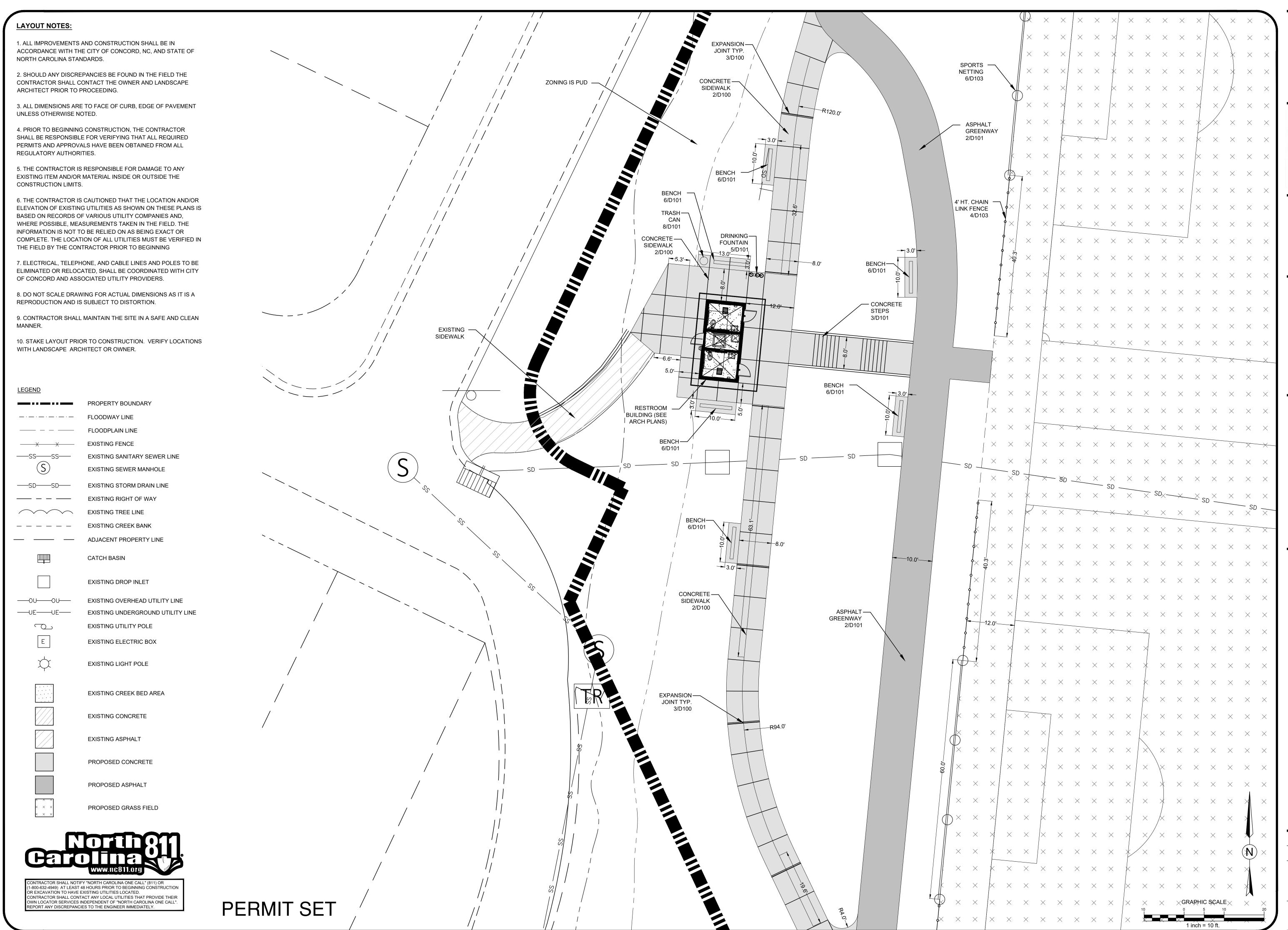




SCALE: 1" = 30'-0" DATE: 5-4-23 SHEET NAME:

UPPER FIELD AREA LAYOUT _PLAN_ SHEET NO:



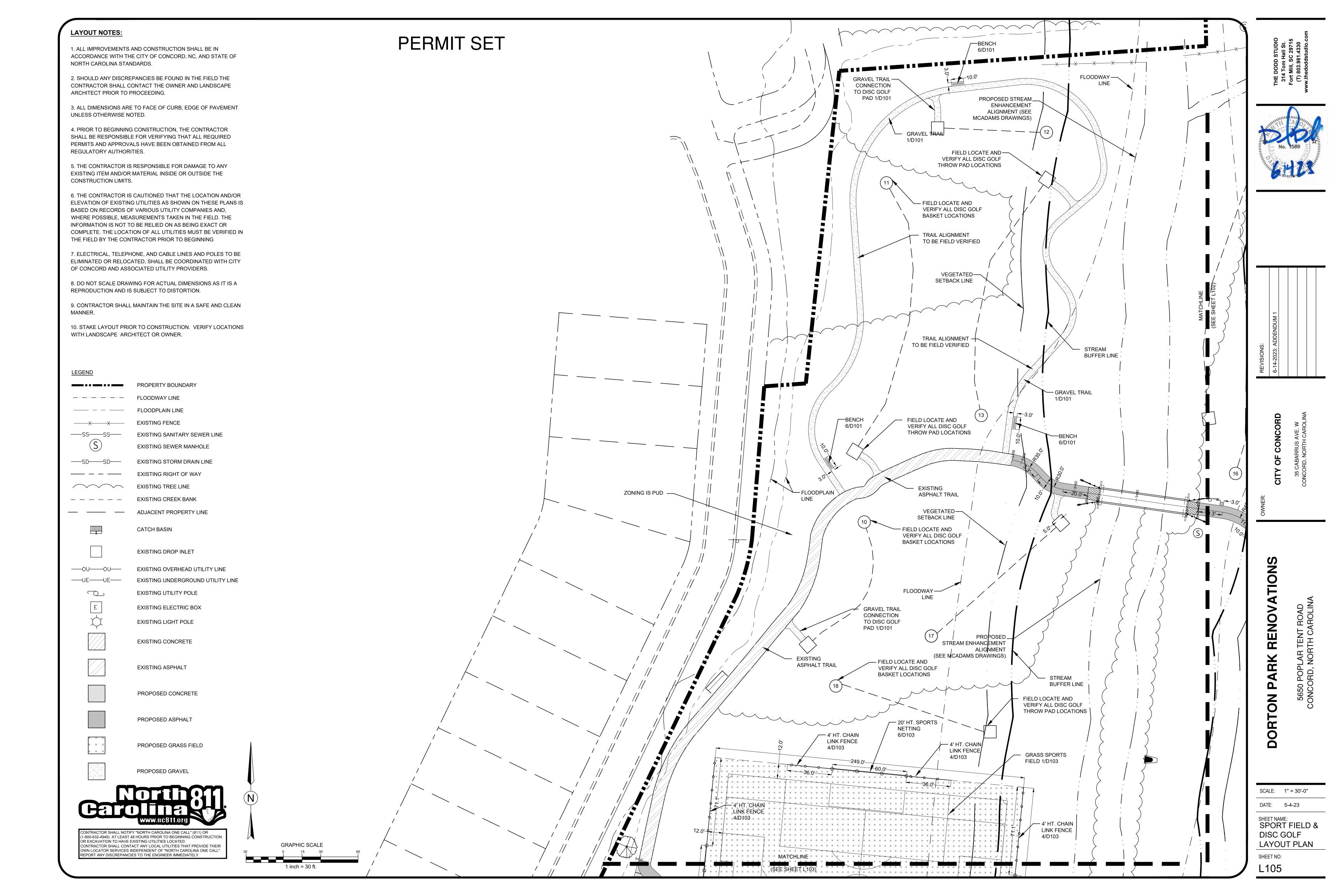


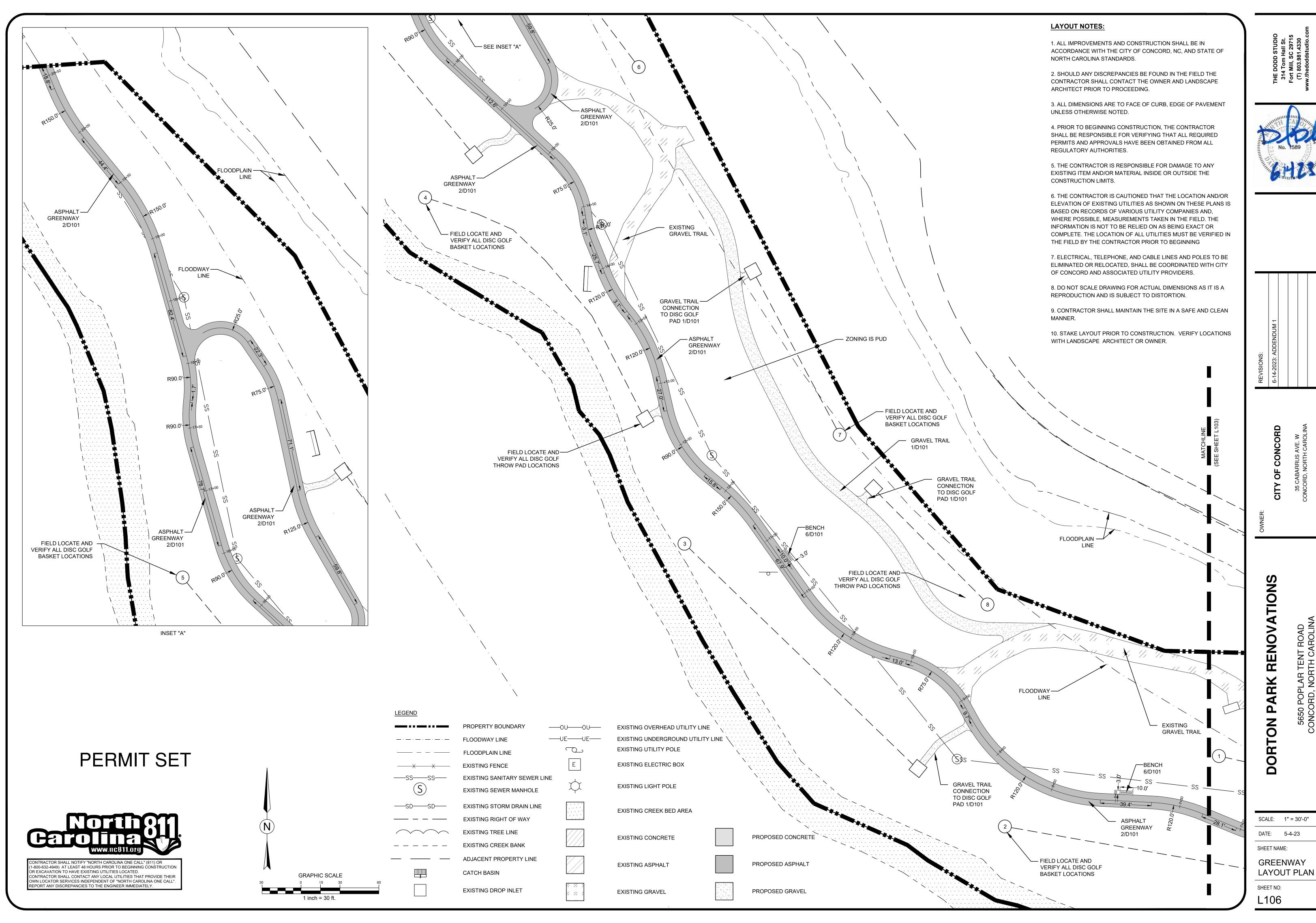




SCALE: 1" = 10'-0" DATE: 5-4-23

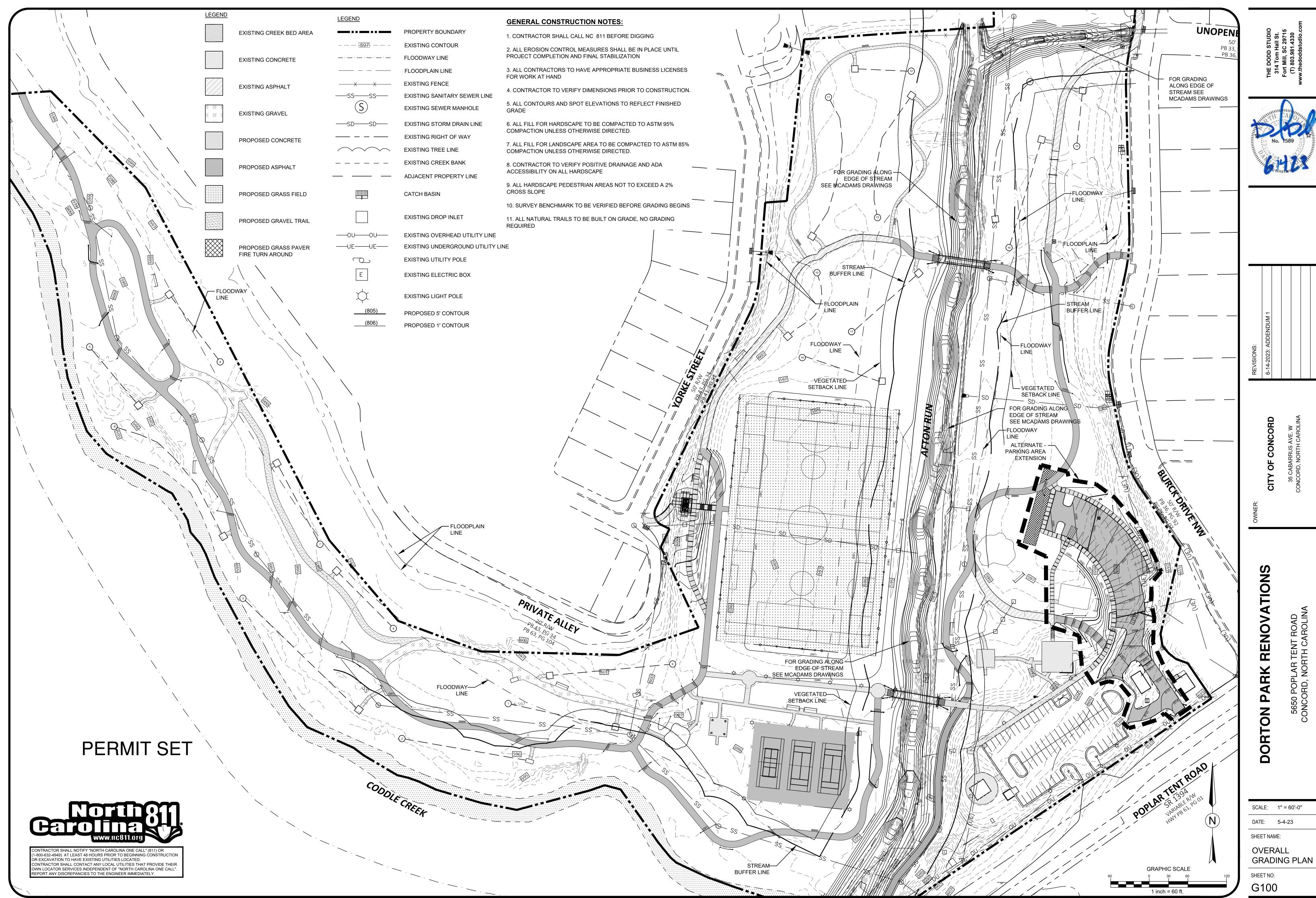
SHEET NAME: **RESTROOM BLDG ENLARGEMENT** LAYOUT PLAN SHEET NO:







SCALE: 1" = 30'-0"

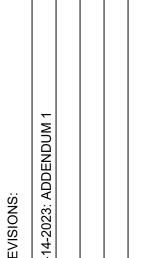


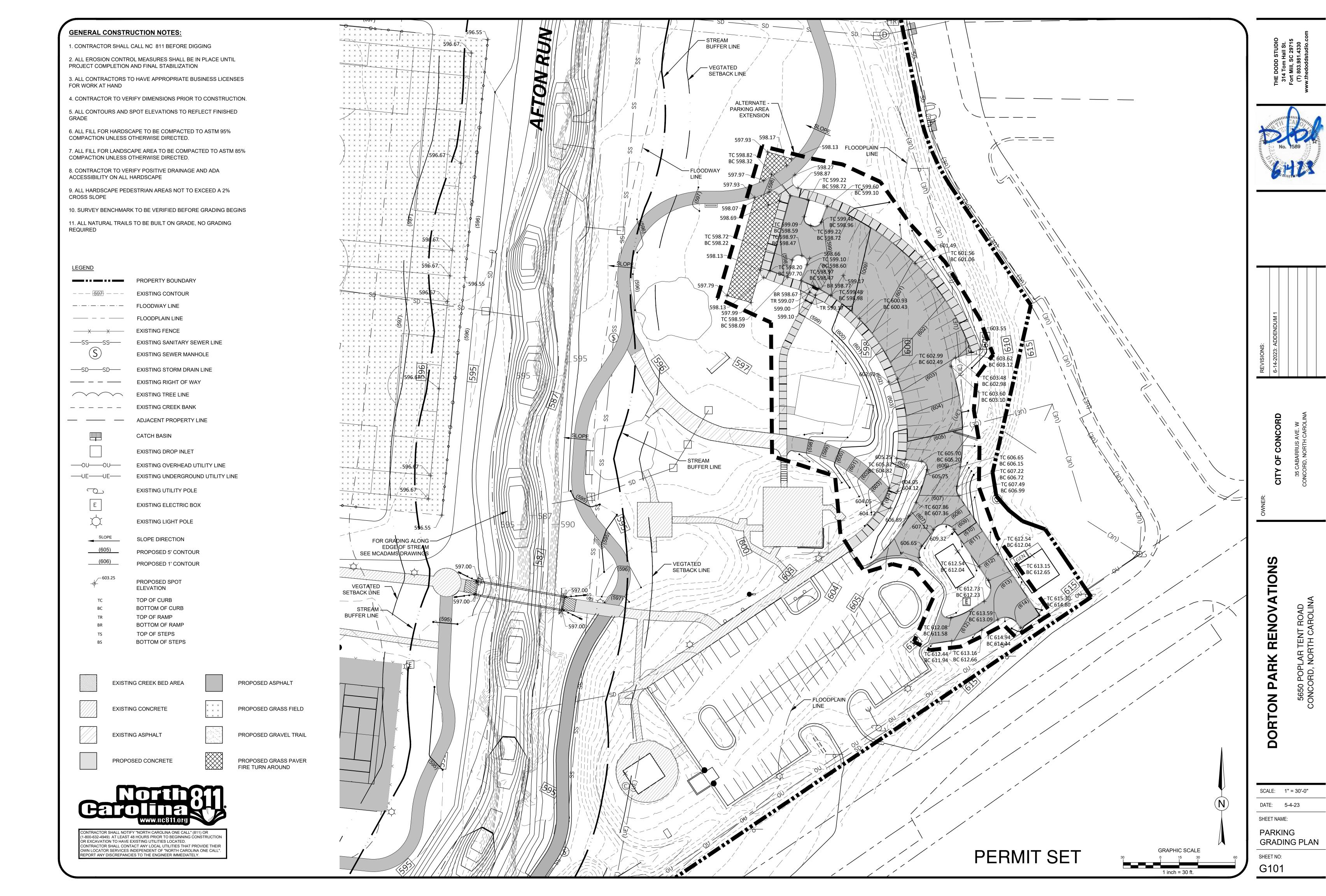


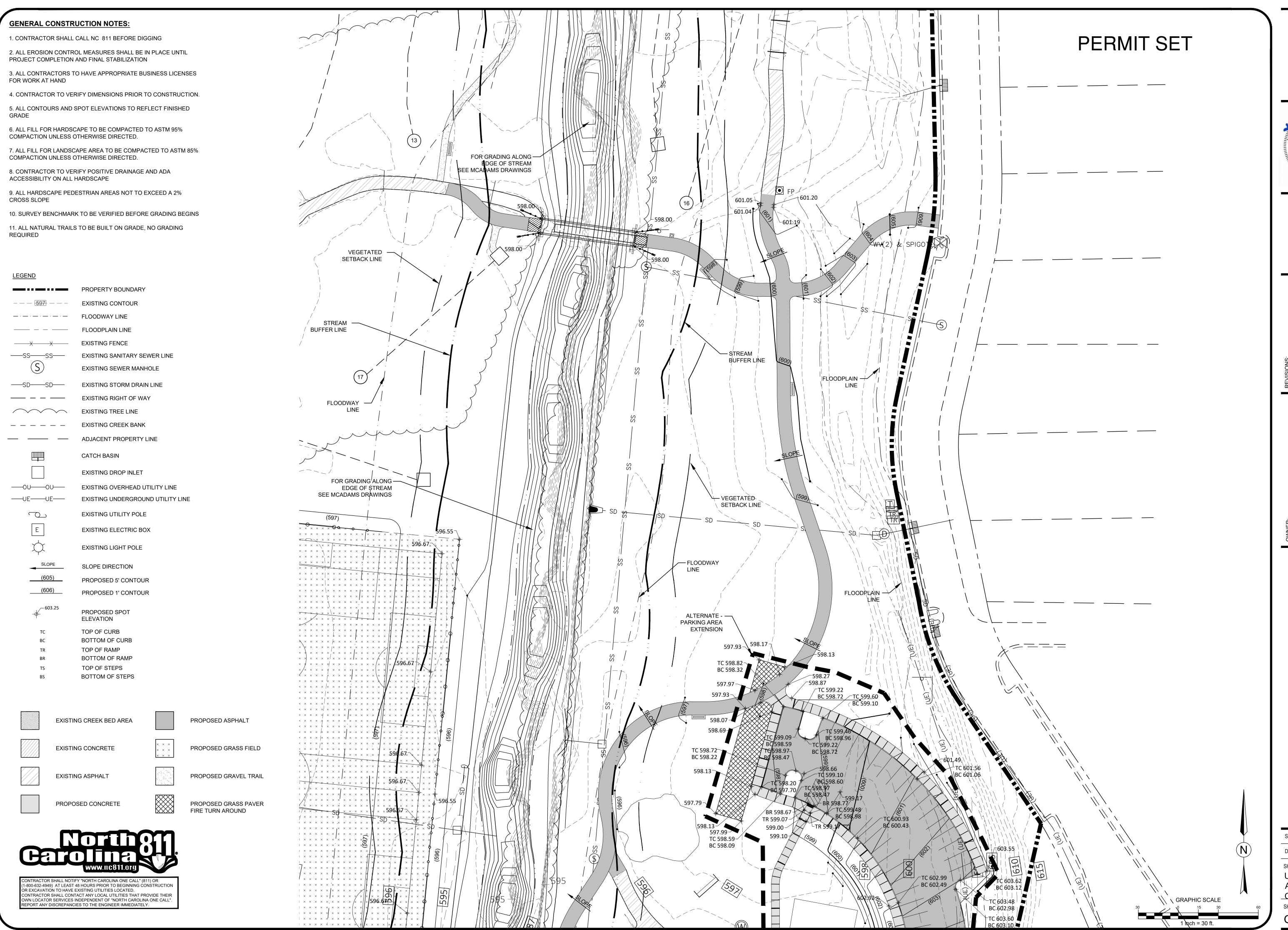






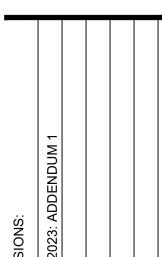




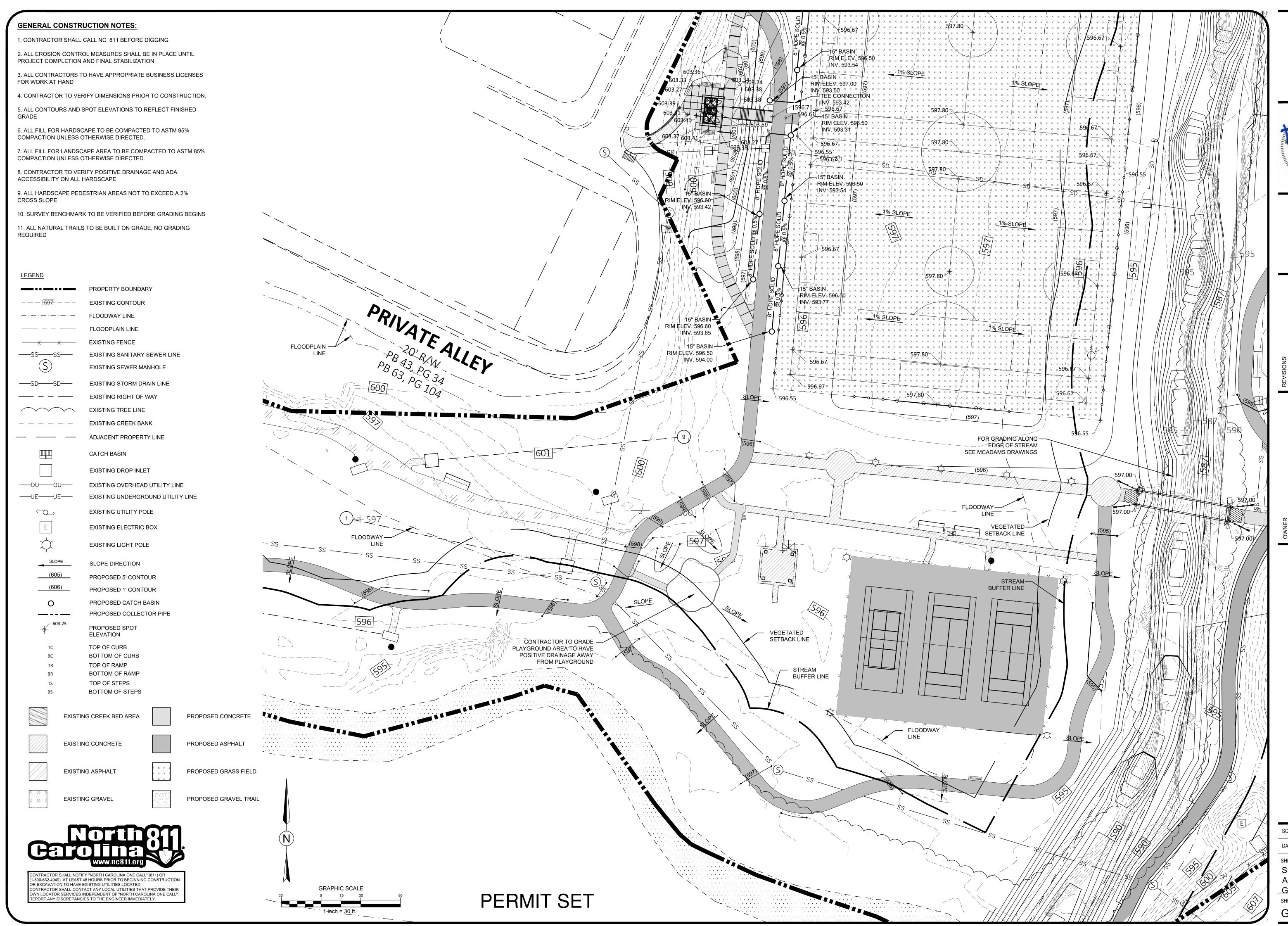








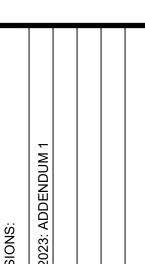
SCALE: 1" = 30'-0" DATE: 5-4-23 SHEET NAME: **UPPER FIELD** AREA GRADING PLAN SHEET NO:





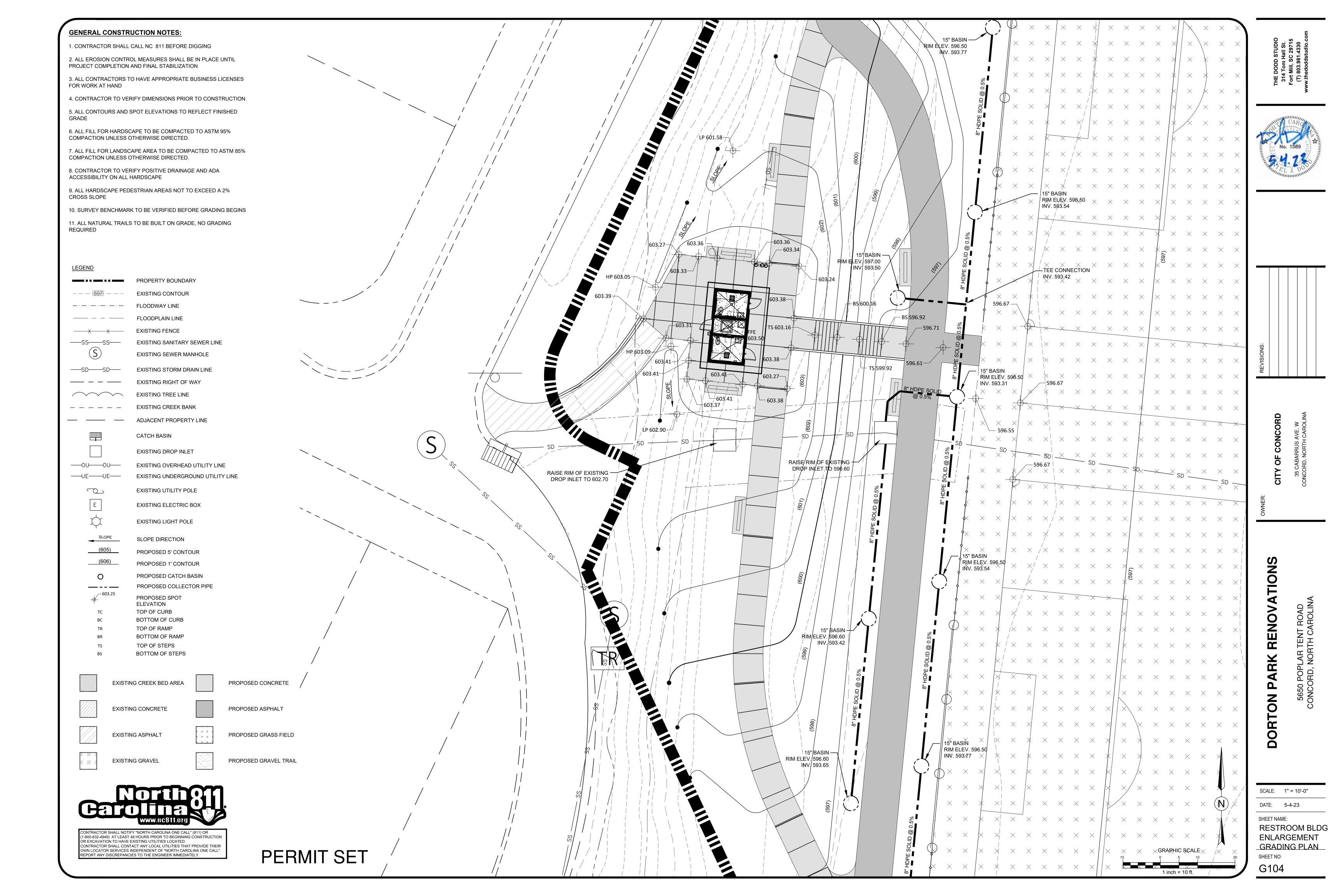


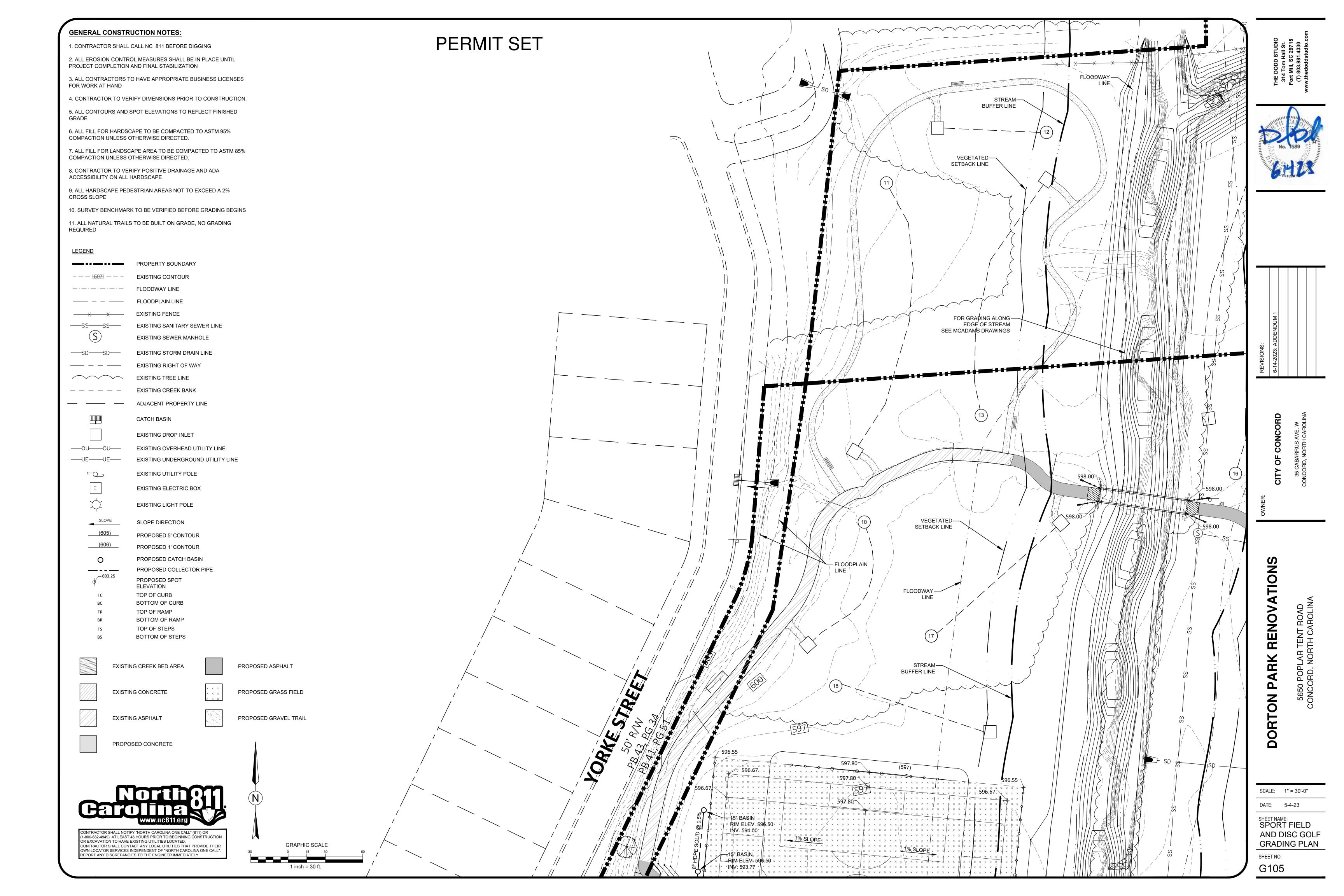


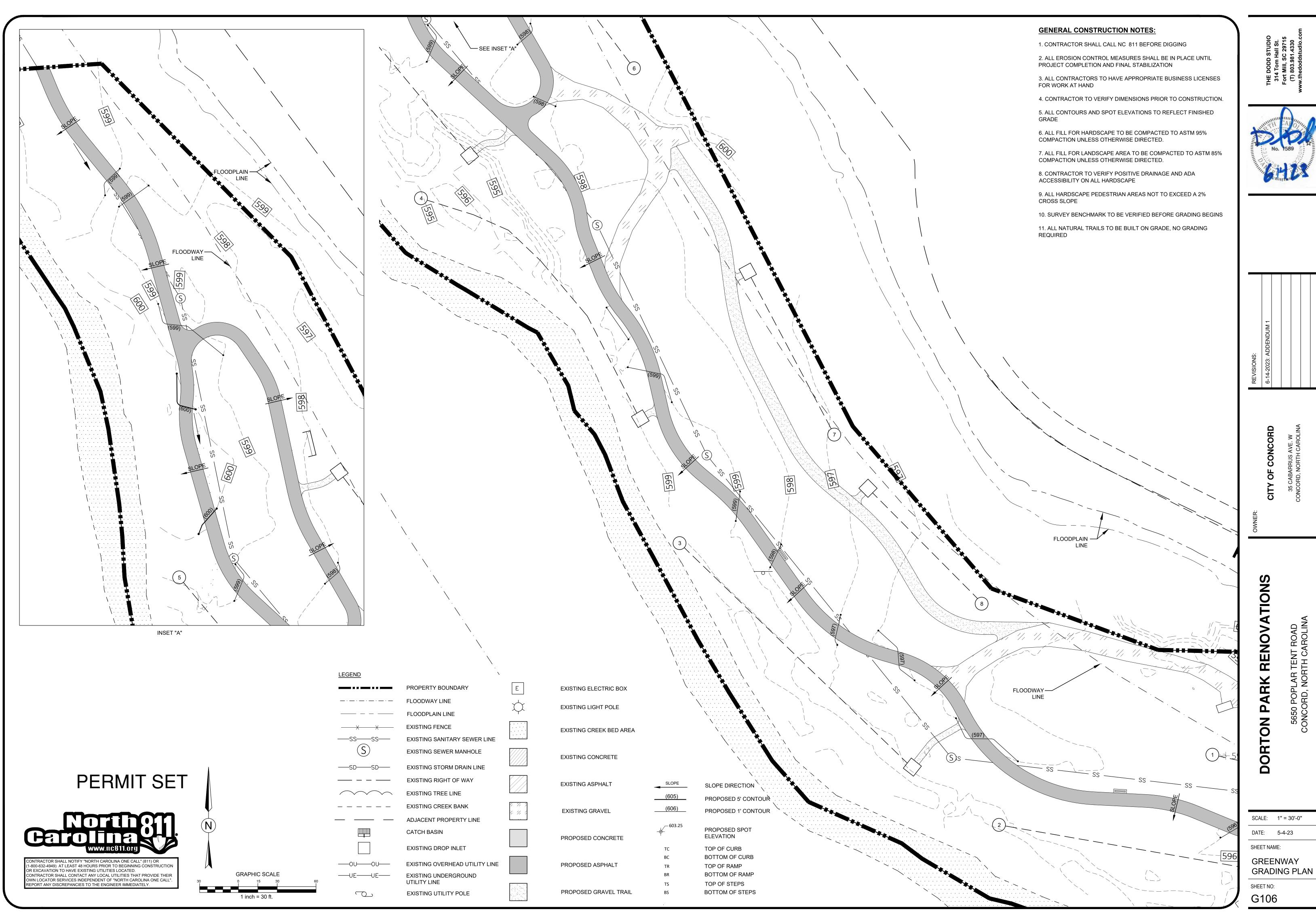


SCALE: 1" = 30'-0" DATE: 5-4-23 SHEET NAME:

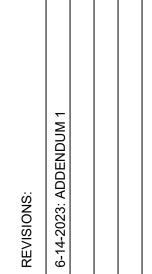
SPORTS COURT AND FIELD GRADING PLAN





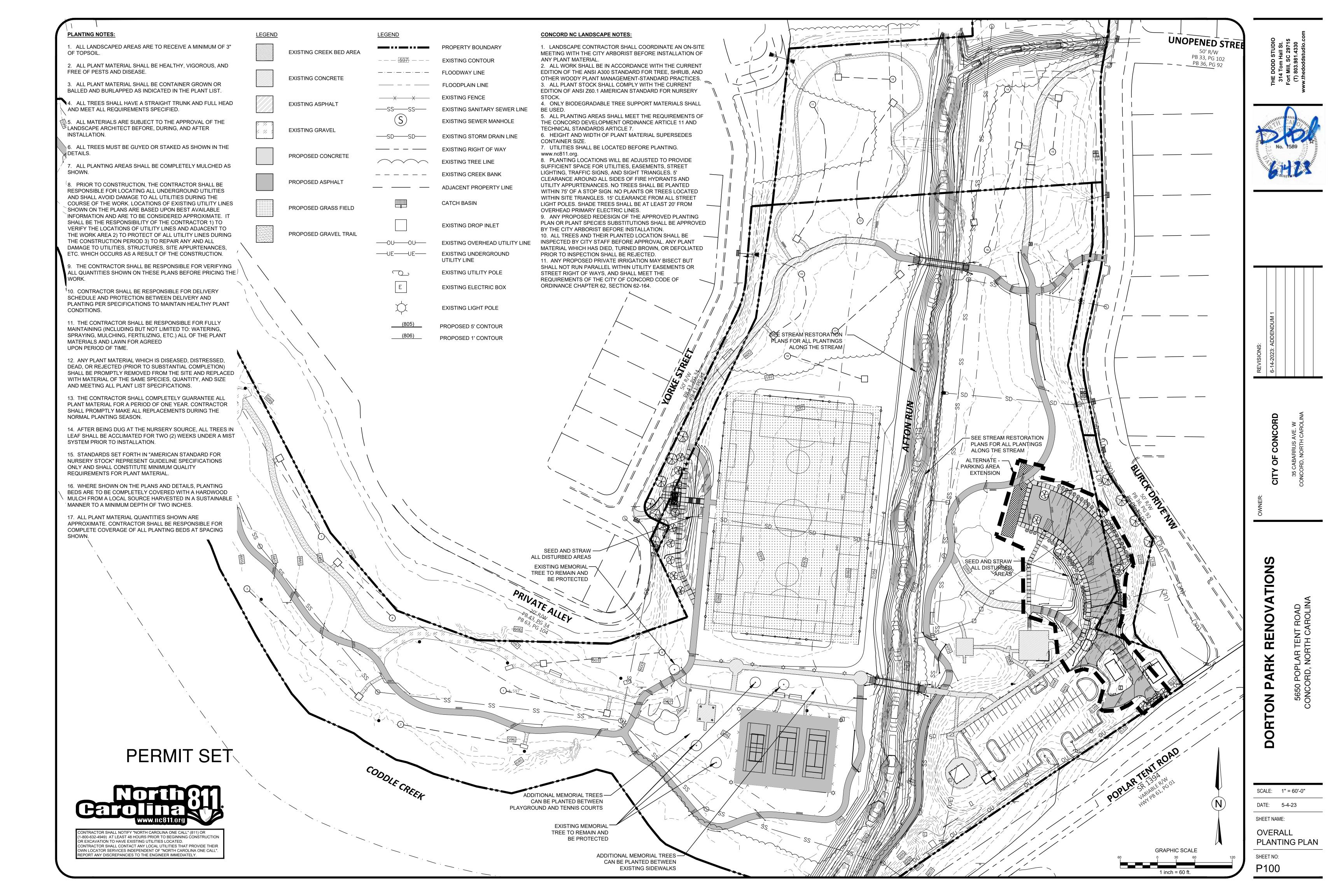


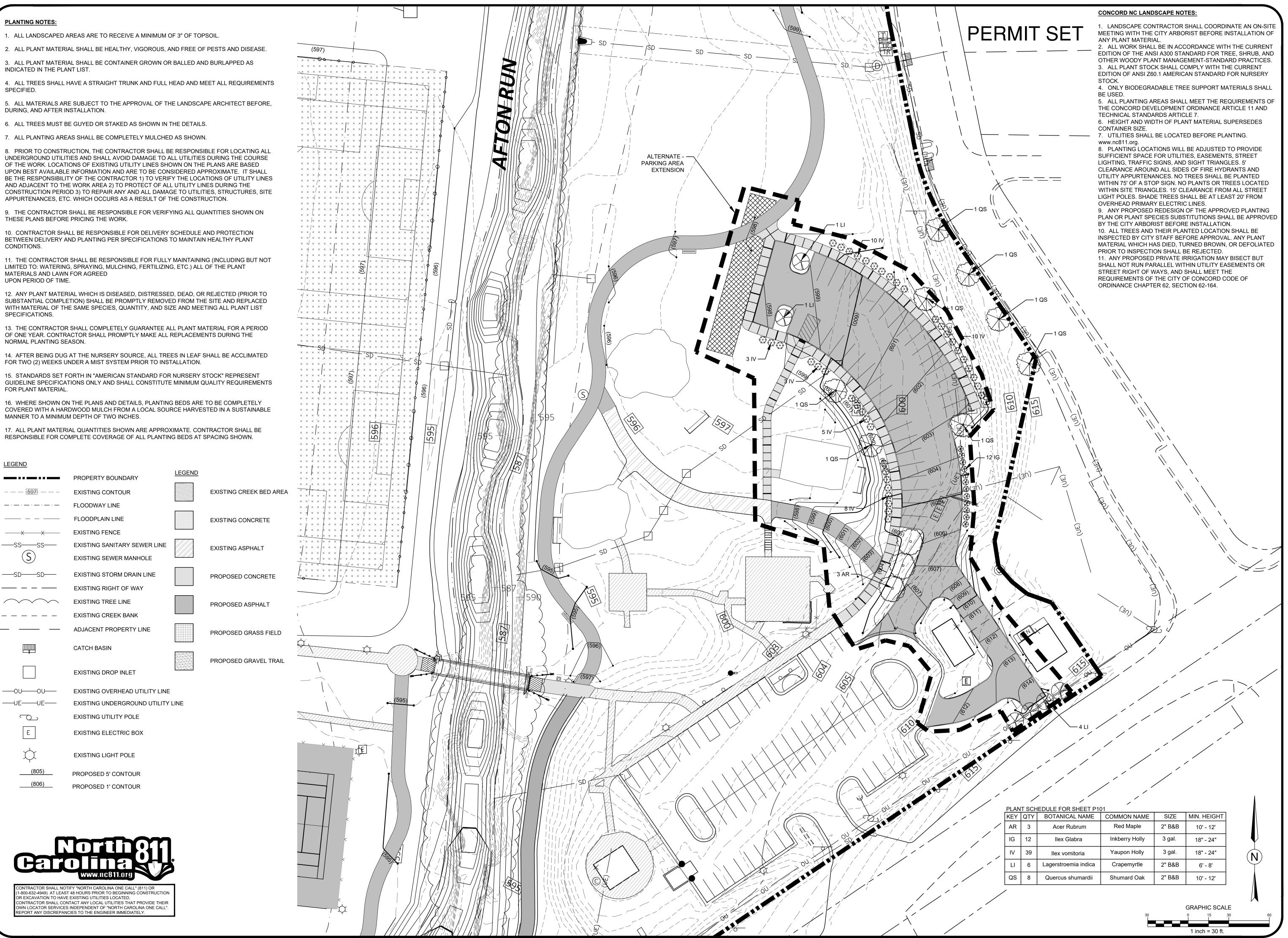




SCALE: 1" = 30'-0"

GREENWAY

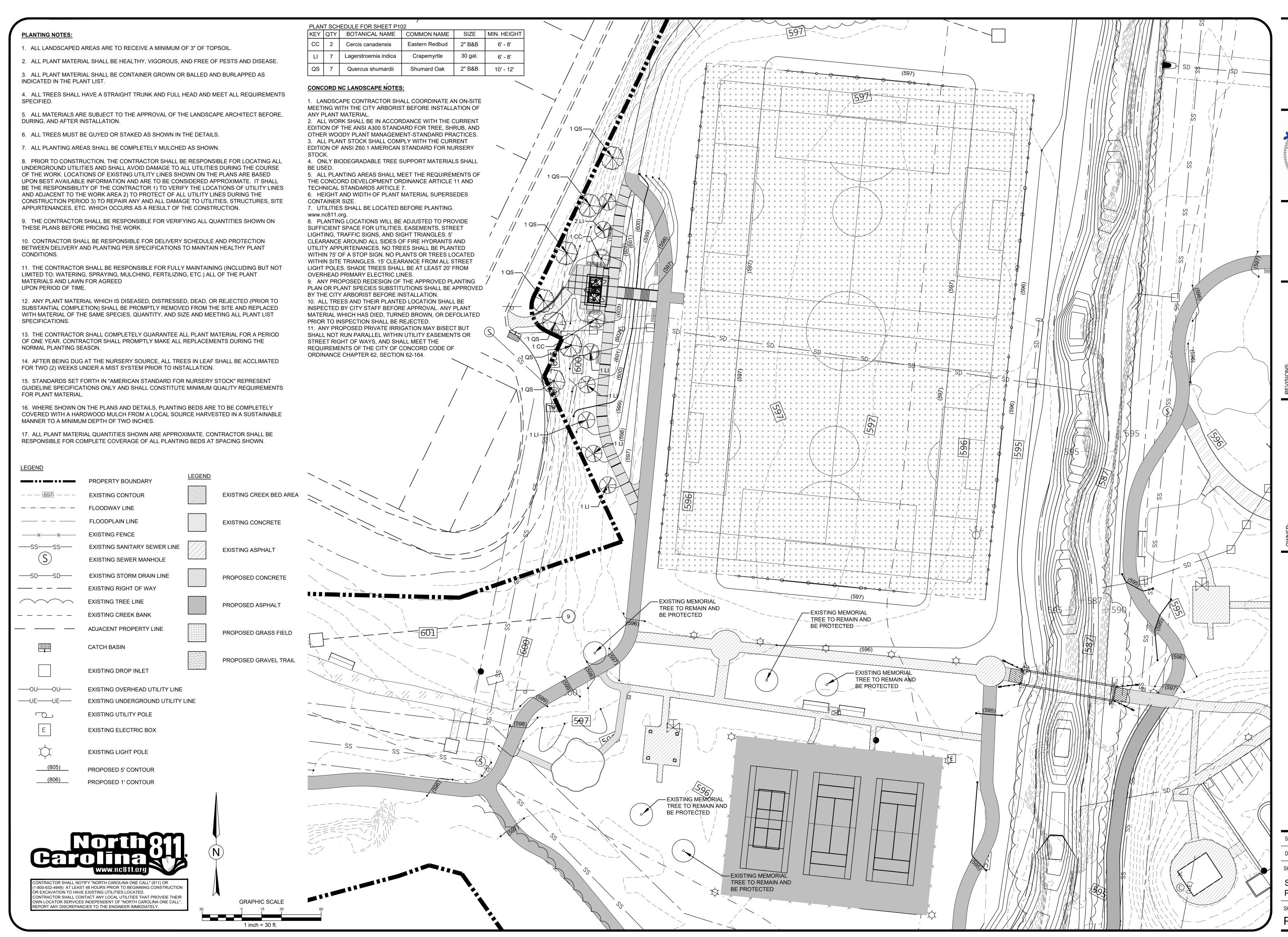






SCALE: 1" = 30'-0" DATE: 5-4-23

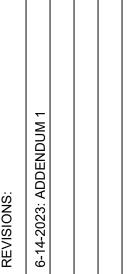
SHEET NAME: PARKING PLANTING PLAN





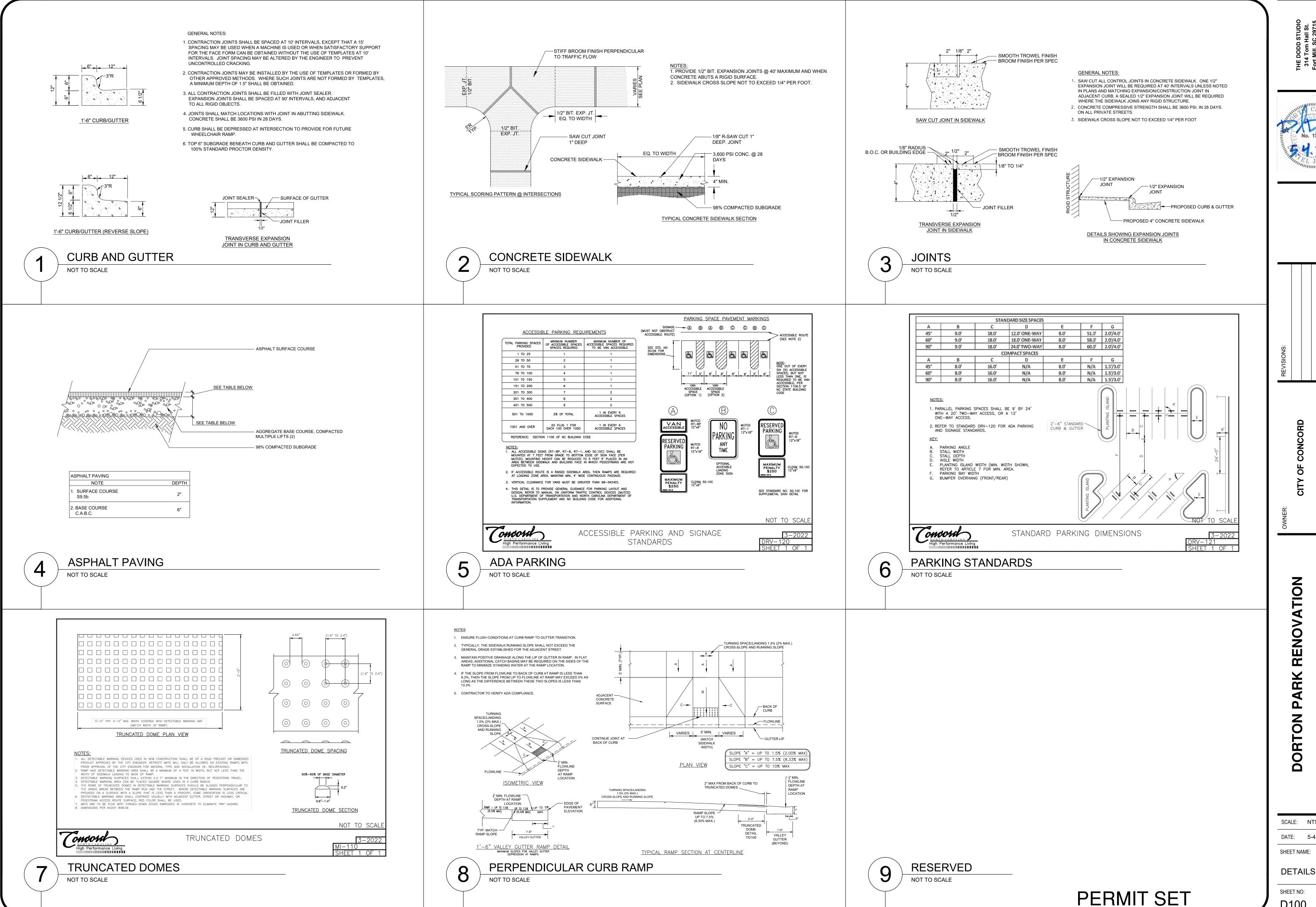




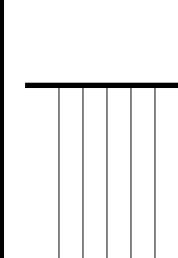


SCALE: 1" = 30'-0" DATE: 5-4-23

SHEET NAME: SPORT FIELD PLANTING PLAN

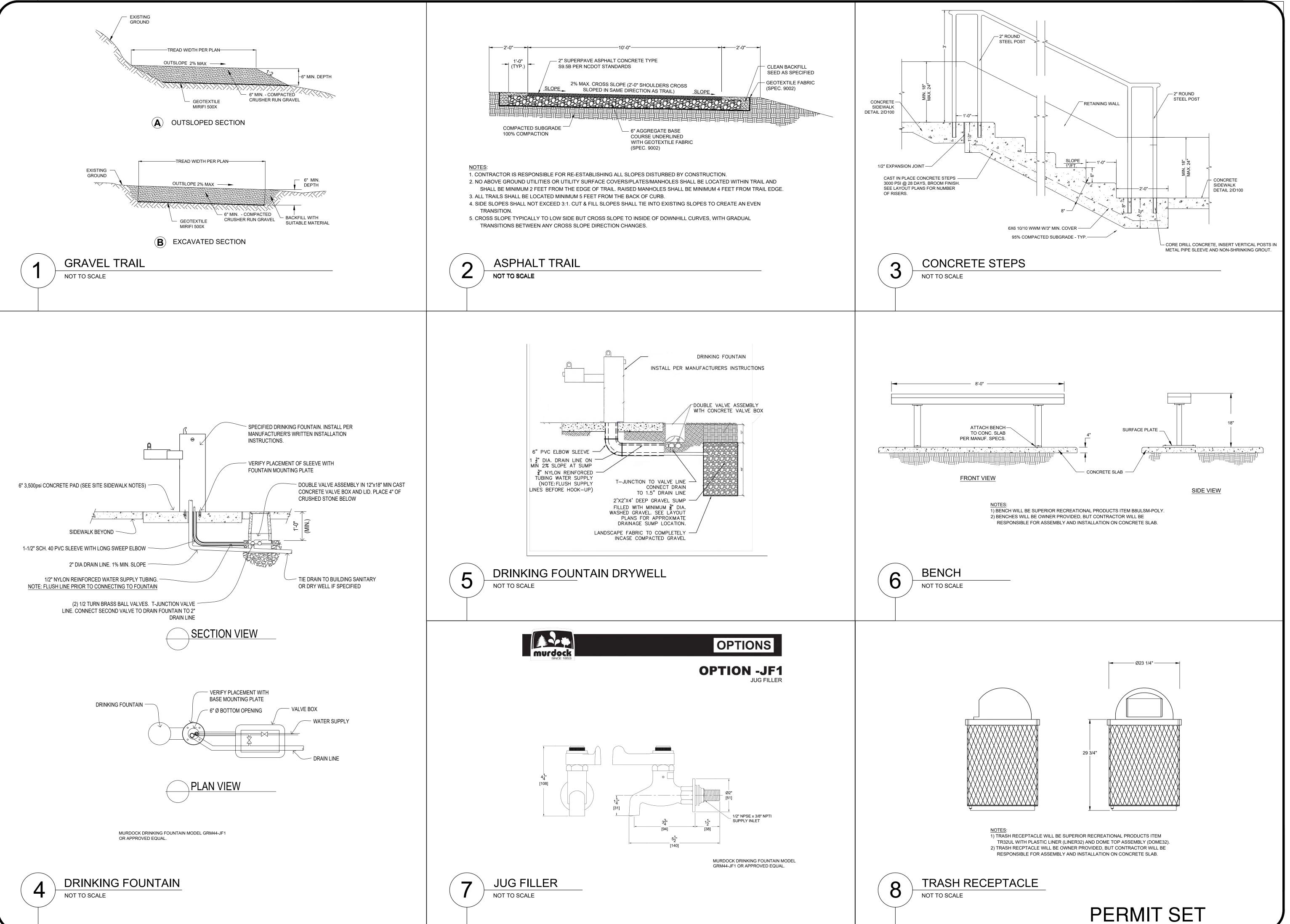


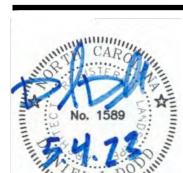




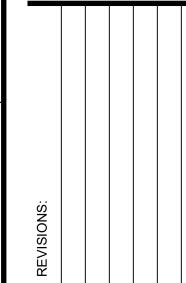
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SHEET NAME:









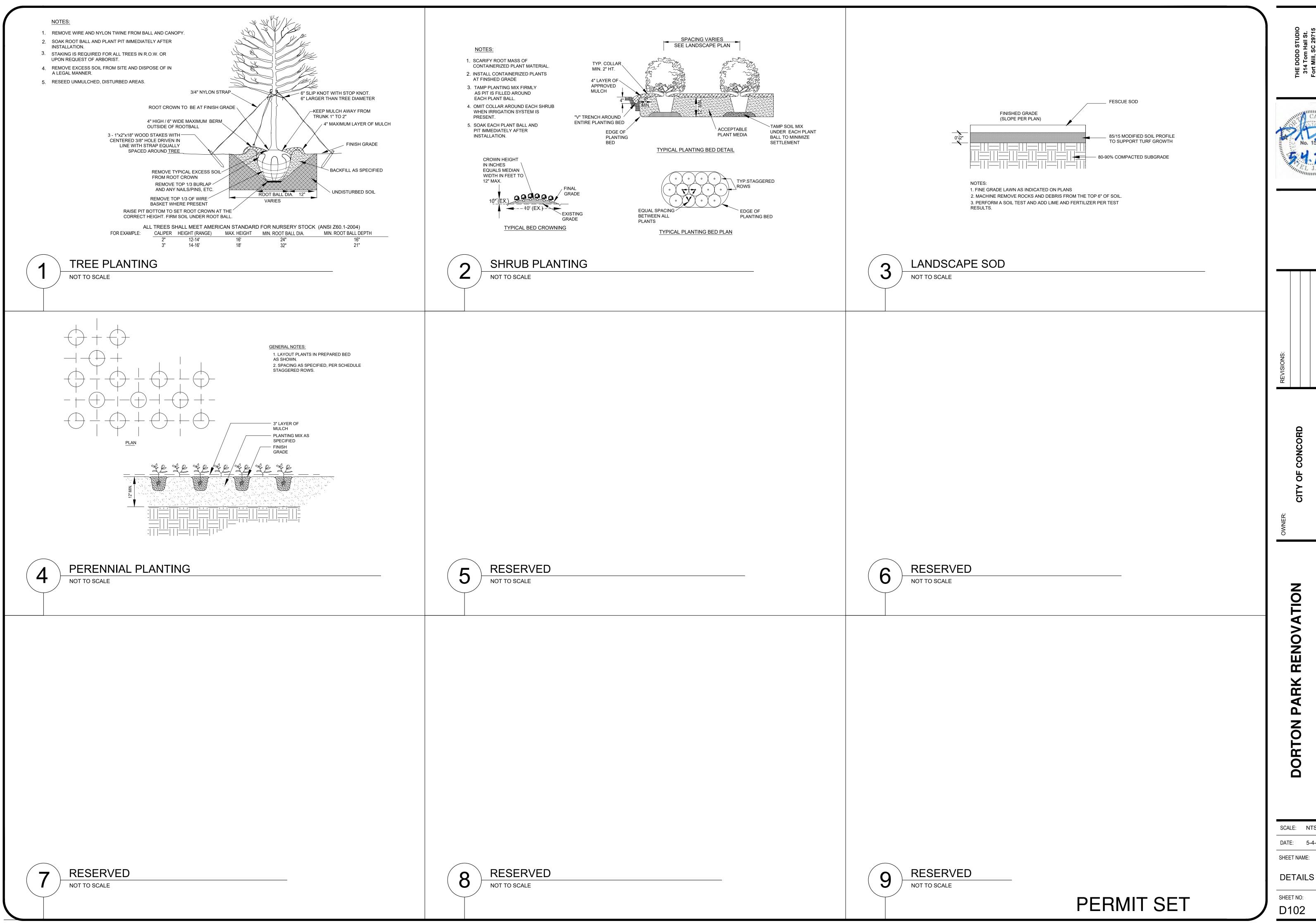
TION RENOV **PARK**

SCALE: NTS DATE: 5-4-23

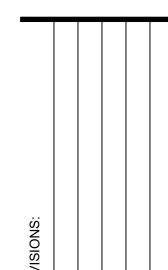
DORTON

SHEET NAME:

DETAILS

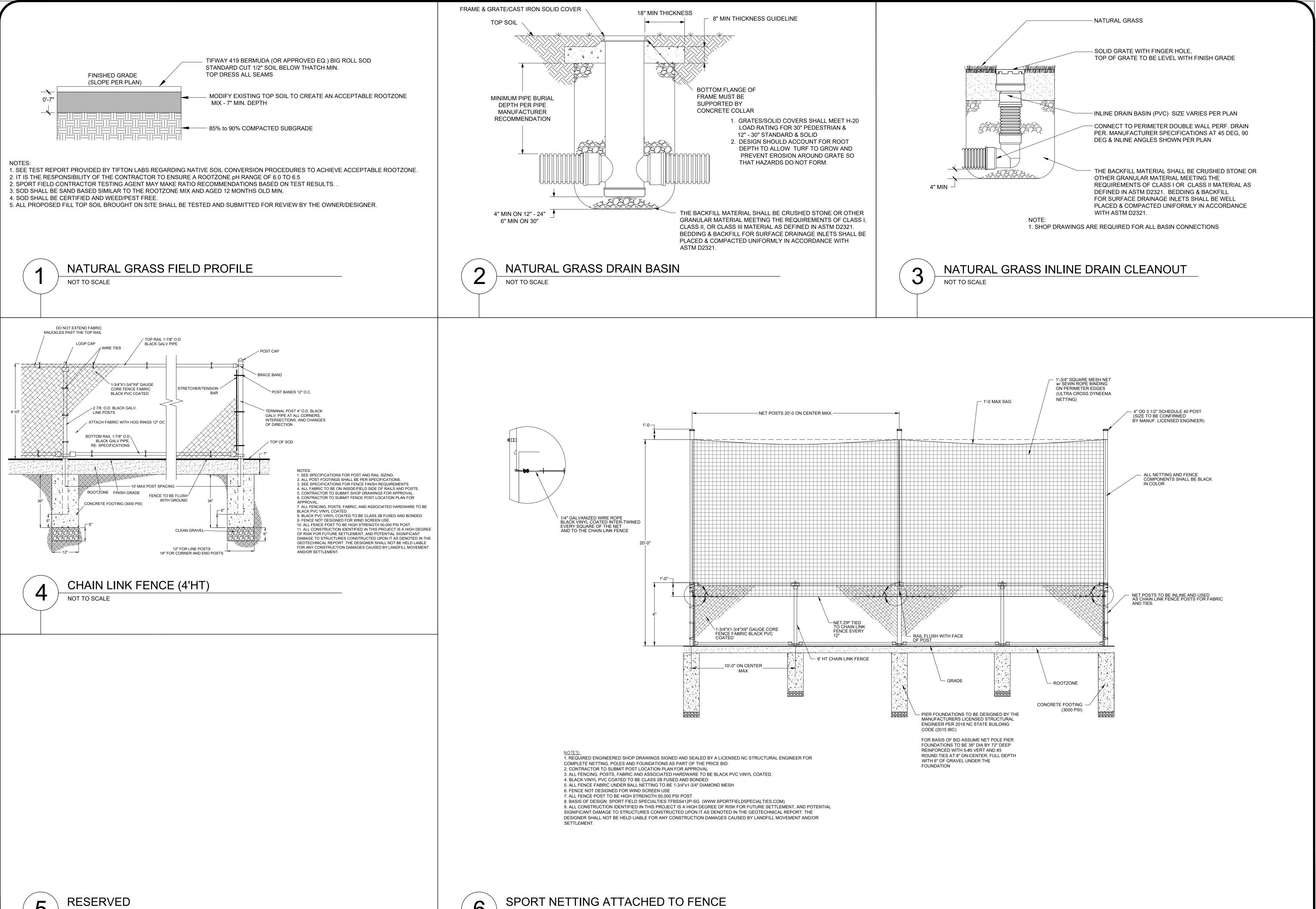






SCALE: NTS DATE: 5-4-23

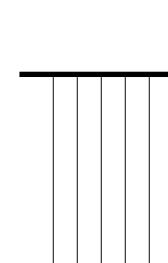
SHEET NAME:



NOT TO SCALE

THE DODD STUDIO 314 Tom Hall St. Fort Mill, SC 29715 (T) 803.981.4330





TY OF CONCORD

35 CABARRUS AVE. W

NCORD, NORTH CAROLINA

OWNER:

MO

POPLAR TENT ROAD

SCALE: NTS

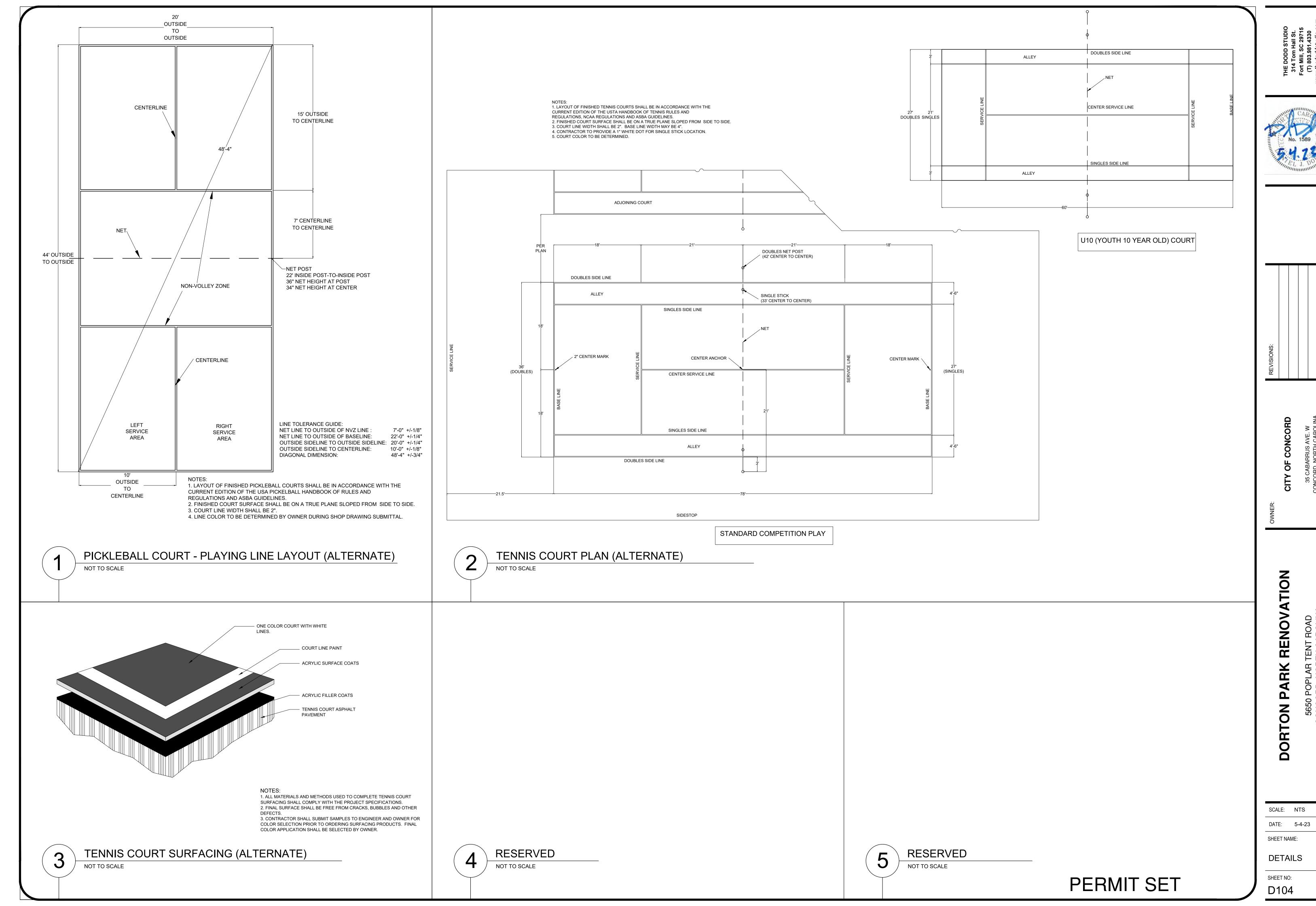
DATE: 5-4-23

SHEET NAME:

DETAILS

SHEET NO:

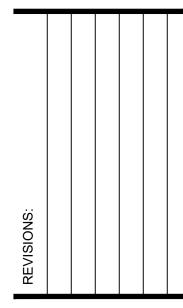
PERMIT SET

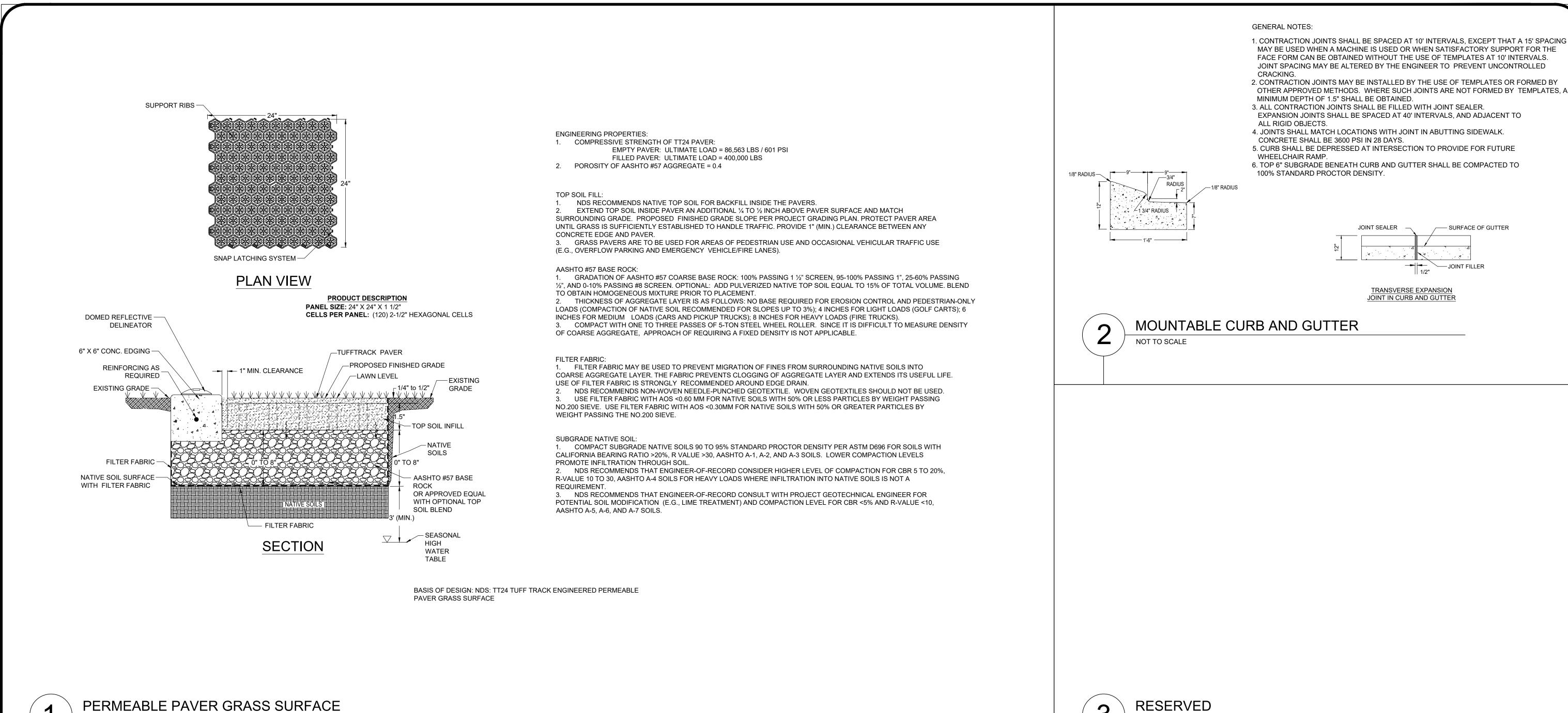






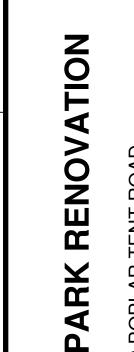








RESERVED



DATE: 5-4-23

SHEET NAME:

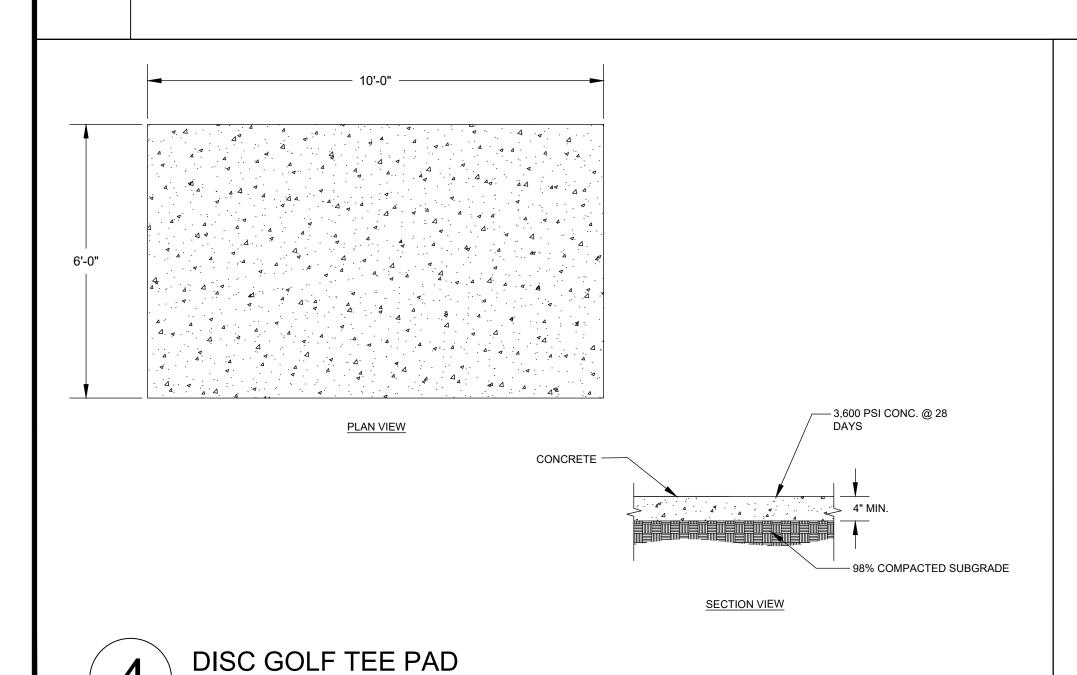
3. ALL CONTRACTION JOINTS SHALL BE FILLED WITH JOINT SEALER. EXPANSION JOINTS SHALL BE SPACED AT 40' INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS. 4. JOINTS SHALL MATCH LOCATIONS WITH JOINT IN ABUTTING SIDEWALK. CONCRETE SHALL BE 3600 PSI IN 28 DAYS. 5. CURB SHALL BE DEPRESSED AT INTERSECTION TO PROVIDE FOR FUTURE WHEELCHAIR RAMP. 6. TOP 6" SUBGRADE BENEATH CURB AND GUTTER SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY. /— SURFACE OF GUTTER

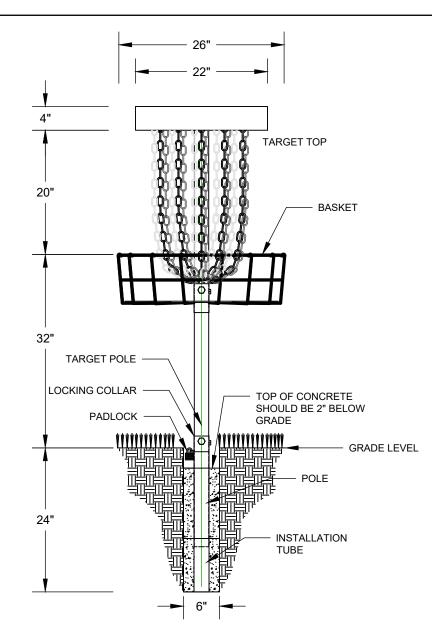
JOINT FILLER

TRANSVERSE EXPANSION JOINT IN CURB AND GUTTER

MOUNTABLE CURB AND GUTTER

PERMEABLE PAVER GRASS SURFACE

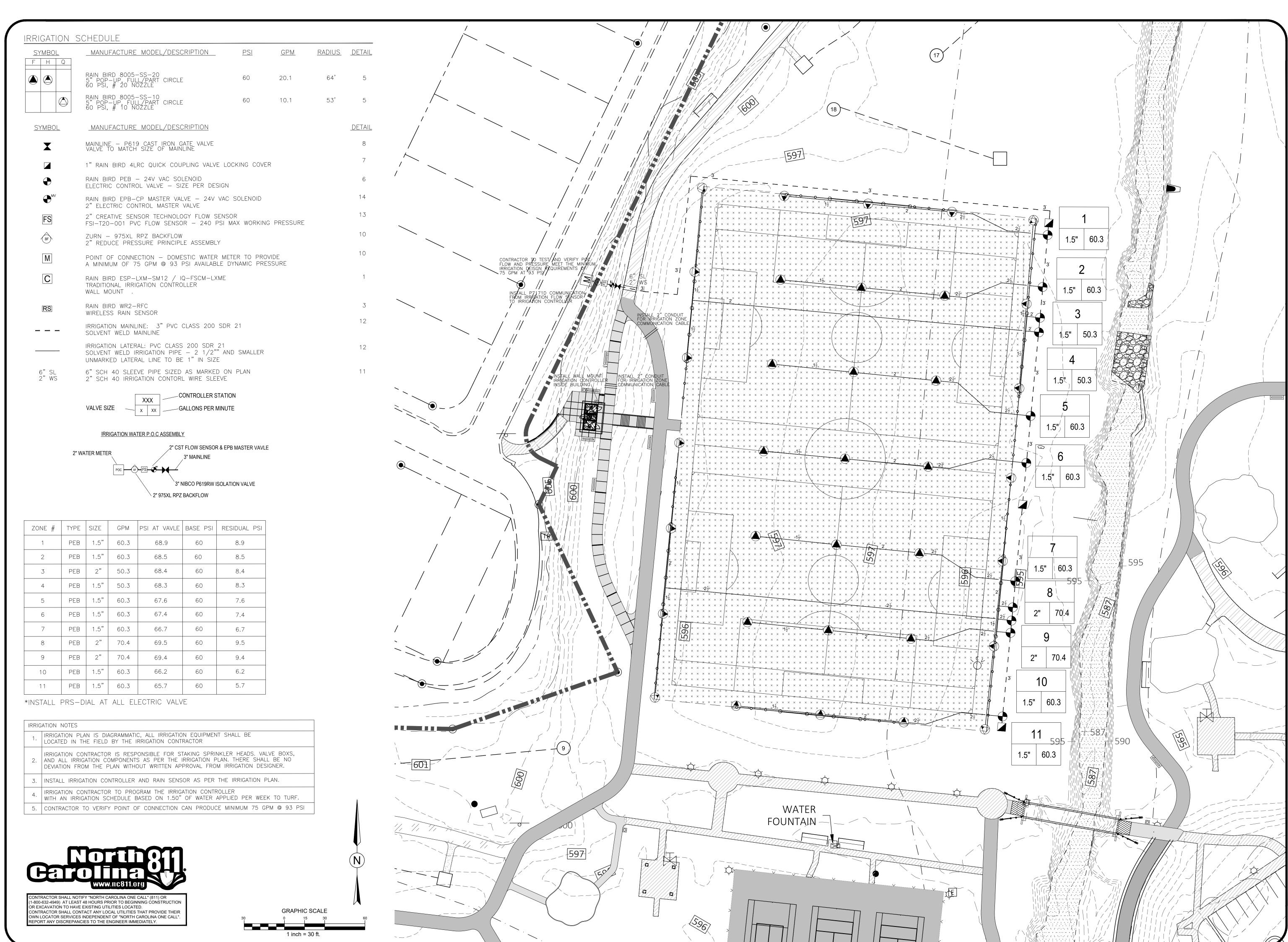




DISC GOLF BASKET

PERMIT SET

DETAILS

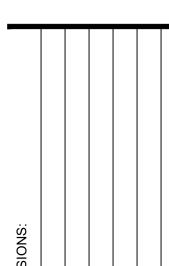






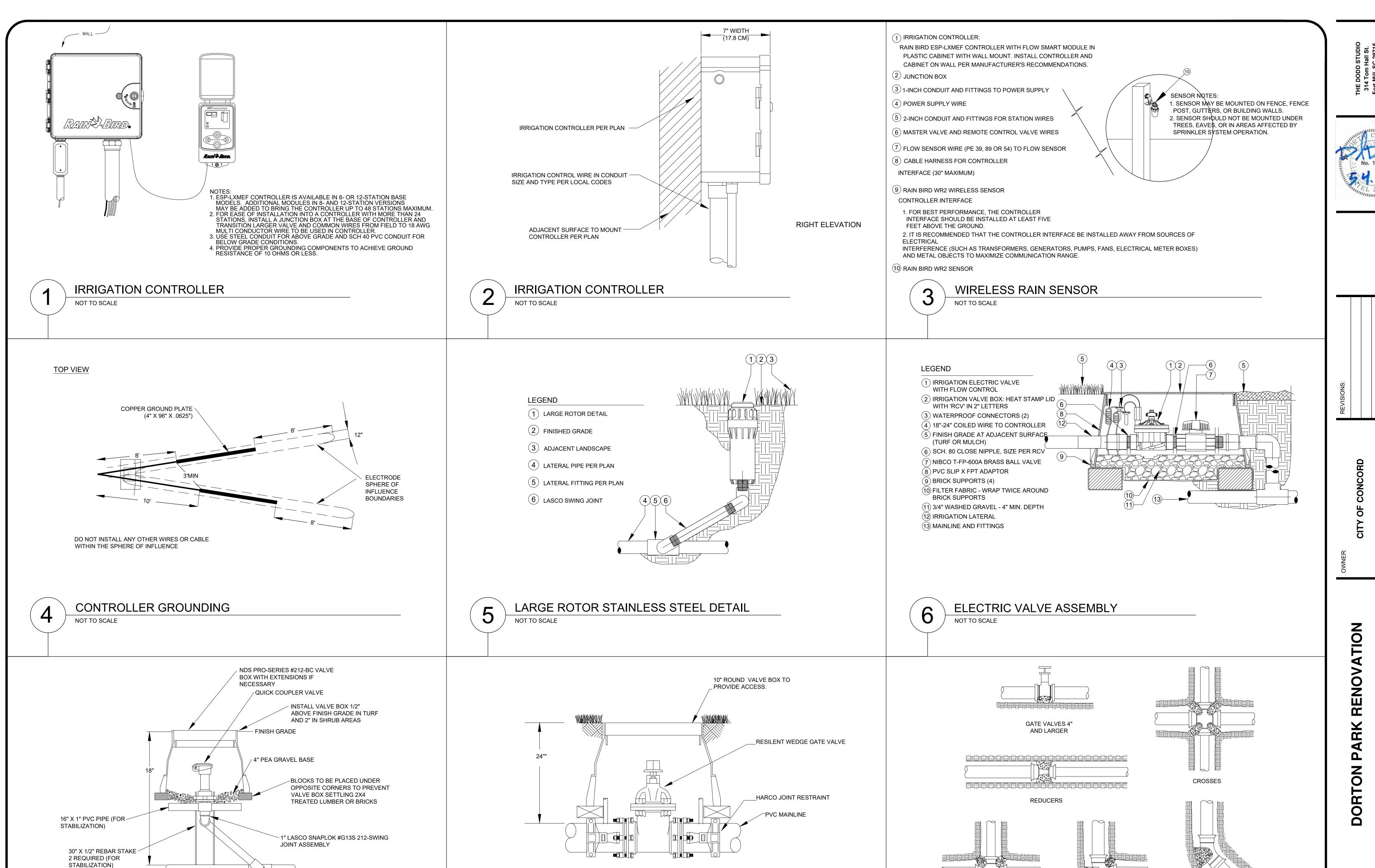






SCALE: 1" = 30'-0" DATE: 5-4-23 SHEET NAME: SPORT FIELD

IRRIGATION PLAN



MAINLINE ISOLATION VALVE

NOT TO SCALE

SERVICE TEE OR ELL

QUICK COUPLER VALVE ASSEMBLY

NOT TO SCALE

SCALE: NTS DATE: 5-4-23 SHEET NAME: IRRIGATION

SHEET NO:

DETAILS

TEES

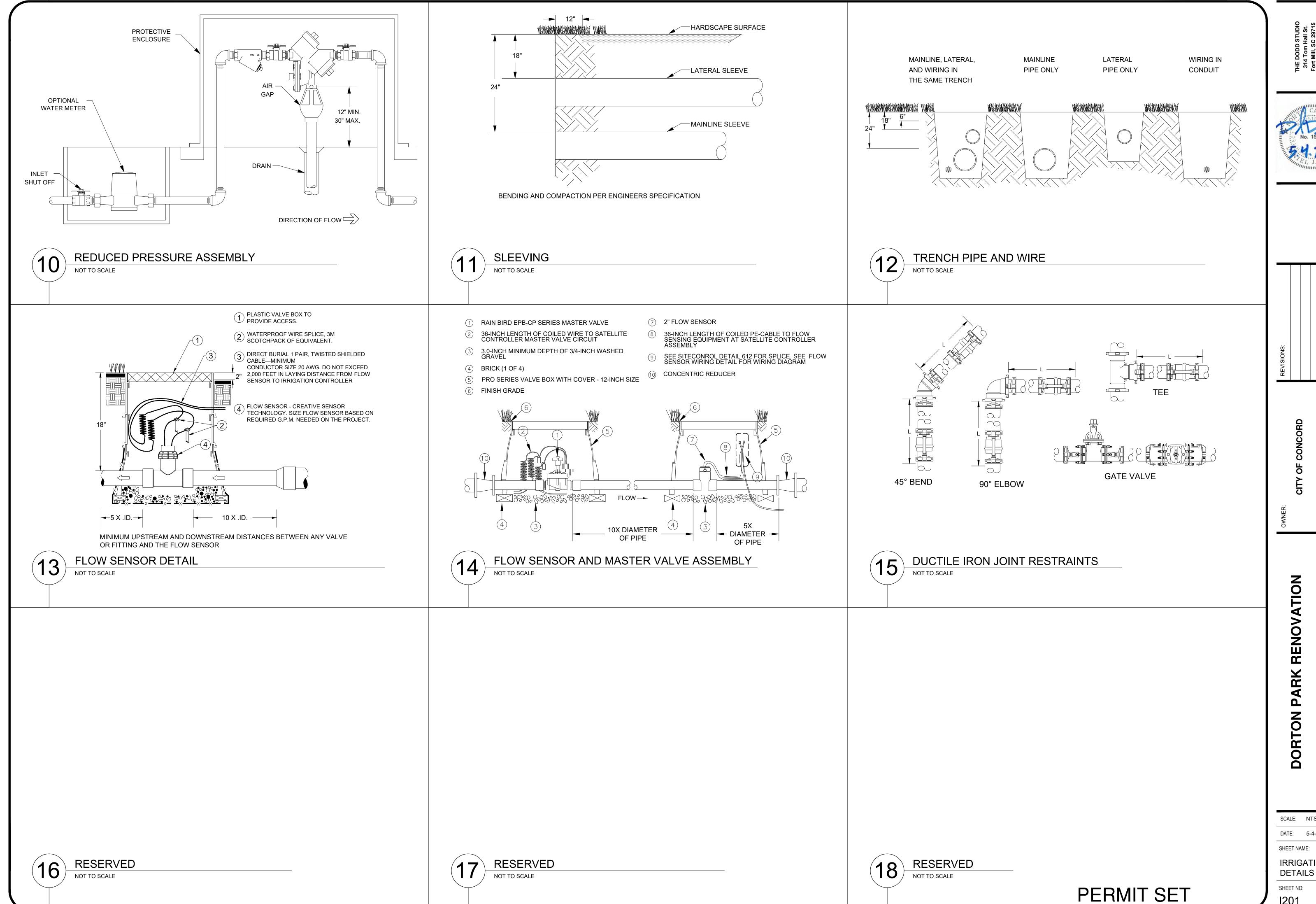
NOT TO SCALE

THRUST BLOCK DETAIL

90° ELBOWS

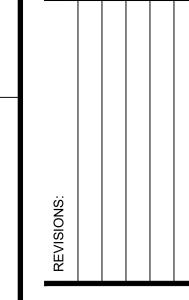
45° ELBOWS

PERMIT SET







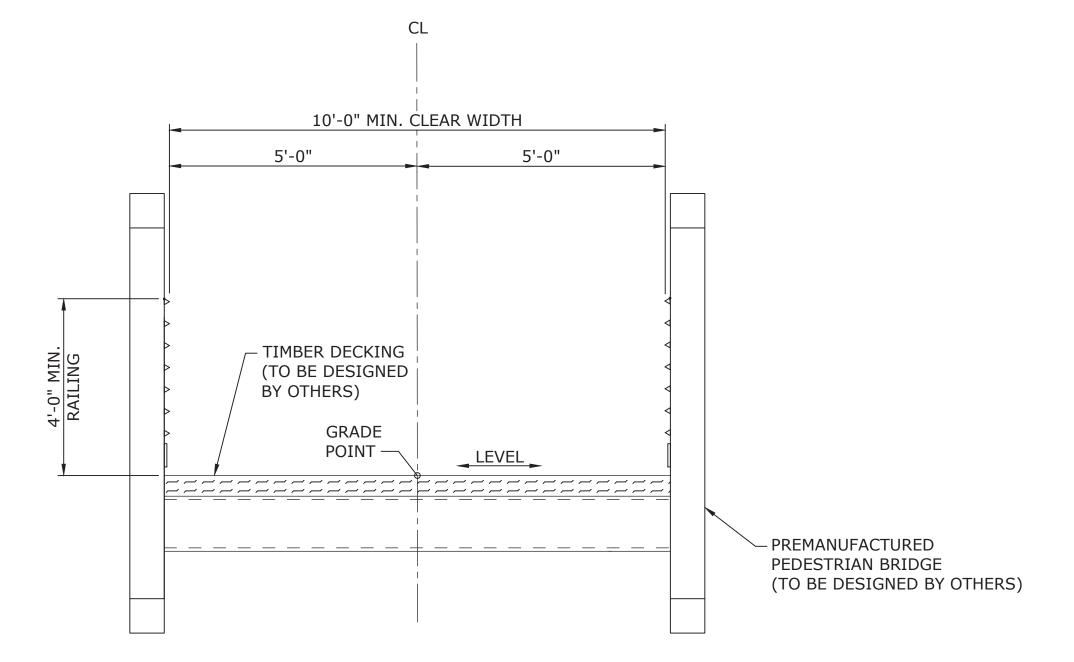


SCALE: NTS DATE: 5-4-23

SHEET NAME: IRRIGATION

GENERAL NOTES:

- 1. THESE BRIDGES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, 2009.
- 2. UNIFORM LIVE LOAD = 90 PSF AS PER LRFD GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES.
- 3. DESIGN VEHICLE LOADING = AASHTO H5 (INCLUDES AMBULANCES AND OTHER VEHICLES/EQUIPMENT UP TO 10,000 LB).
- 4. ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE HPS 50W.
- 5. BRIDGE STRUCTURES S1 & S2 SHALL BE PREMANUFACTURED PEDESTRIAN BRIDGES.
- 6. FABRICATOR OF PREMANUFACTURED PEDESTRIAN BRIDGES SHALL INDICATE THE LOCATION OF DRAINAGE HOLES FOR THE BRIDGE TUBULAR MEMBERS IN THE SHOP DRAWINGS.
- 7. ANCHOR BOLTS FOR PREMANUFACTURED PEDESTRIAN BRIDGES SHALL BE ASTM F1554 GRADE
- 8. TIMBER DECKING SHALL BE TREATED TIMBER IN ACCORDANCE WITH 2018 NCDOT STANDARD SPECIFICATIONS, SECTION 1082 AND SHALL BE SELECT STRUCTURAL GRADE.
- 9. CONTRACTOR SHALL LOCATE ALL UTILITIES AND UTILITY ELEVATIONS PRIOR TO CONSTRUCTION. ALL UTILITIES TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.
- 10. THE FOLOWING UTILITY LINES ARE EXPECTED TO BE ATTACHED TO STRUCTURE S2. THE PLACMENT OF THESE UTILITY LINES SHALL BE COORDINATED WITH THE UTILITY OWNERS AND PREMANUFACTURED PEDESTRIAN BRIDGE DESIGNER.
- (1) 2" PVC ELECTRICAL CONDUIT
- (2) 1-1/4" PVC ELECTRICAL CONDUITS
- (1) 3/4" PVC ELECTRICAL CONDUIT
- (1) 1" PEX WATER LINE
- 11. FOR SUBMITTALS, SEE SPECIAL PROVISIONS.
- 12. FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- 13. FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- 14. FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- 15. FOR PREMANUFACTURED PEDESTRIAN BRIDGE DETAILS, SEE SPECIAL PROVISIONS.
- 16. BRIDGE LOADINGS ARE ESTIMATED. AFTER SHOP DRAWINGS FOR THE PREMANUFACTURED PEDESTRIAN BRIDGE ARE SUBMITTED, IT IS THE RESPONSIBILITY OF THE ENGINEER OF RECORD TO CHECK THE END BENTS FOR ACTUAL BRIDGE LOADINGS. SHOP DRAWINGS SHALL BE FORWARDED TO ENGINEER OF RECORD UPON RECEIPT.
- 17. EXCEPT AS OTHERWISE SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2018 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
- 18. FOR ANY CONSTRUCTION WORK TO OCCUR WITHIN THE WSACC EASEMENTS ON SITE, CONTRACTOR SHALL NOTIFY MARK LOMAX (MLOMAX@WSACC.ORG, 704.202.6014) A MINIMUM OF 48 HOURS IN ADVANCE. SPECIFICALLY, BUT NOT LIMITED TO THE FOLLOWING ACTIVITIES: - GRADING MODIFICATIONS AND/OR EXCAVATIONS WITHIN THE SEWER EASEMENTS, WHICH EITHER EXPOSE AND OR REDUCE COVER FROM OVER THE EXISTING WSACC SEWER PIPES TO LESS THAN 2 VERTICAL FEET OR GENERALLY CHANGE THE WSACC EASEMENT CONTOURS GREATER THAN 2 VERTICAL FEET.
- SUBSURFACE PLACEMENT OF STRUCTURAL OR UTILITY INSTALLATIONS, WHICH GENERALLY INCLUDES THE INSTALLATION OF STRUCTURAL H-PILES OR INSTALLATION OF STORMWATER
- ANY PROJECT RELATED SANITARY FACILITIES NEEDING TO BE CONNECTED TO THE WSACC SEWER SYSTEM.



TYPICAL SECTION PREMANUFACTURED PEDESTRIAN BRIDGE

PEDESTRIAN BRIDGE LOCATIONS							
BRIDGE#	CHAIN	BEGIN STATION	ELEVATION	END STATION	ELEVATION	LENGTH	REMARKS
S1	-Æ-	1+07.00	598.00	1+79.00	598.00	72.00'	-
S2	-4-	1+27.00	597.00	1+99.00	597.00	72.00'	-

100% FINAL PLANS - BID SET

CLIENT

CITY OF CONCORD

REVISIONS

moffatt & nichol 4700 FALLS OF NEUSE RD, SUITE 300 RALEIGH, NC 27609 919-781-4626 NC LICENSE NO: F-0105

STRUCTURAL ENGINEER

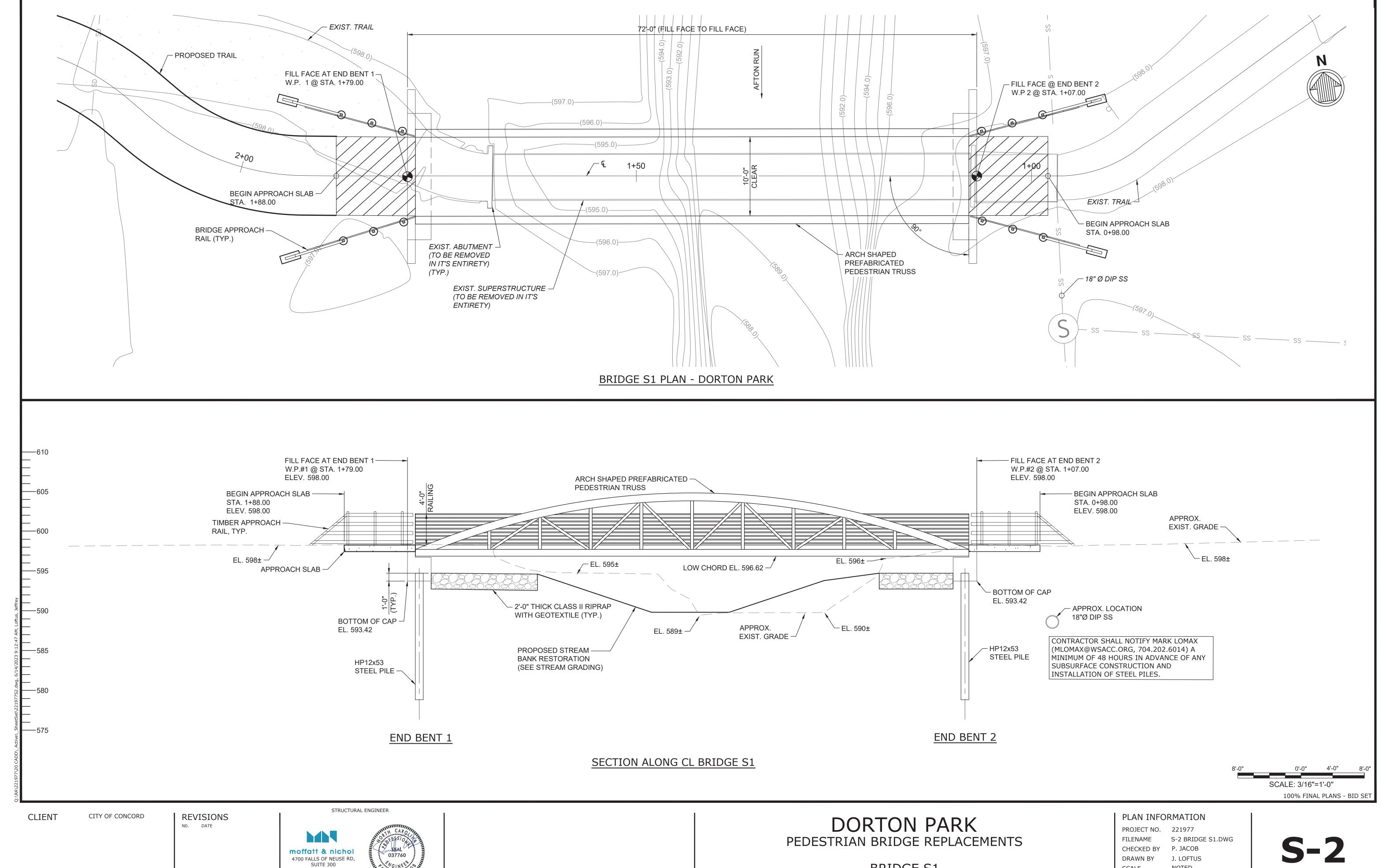


DORTON PARK PEDESTRIAN BRIDGE REPLACEMENTS

PROJECT NO. 221977 GENERAL NOTES.dwg FILENAME CHECKED BY P. JACOB DRAWN BY J. LOFTUS SCALE NOTED

06-14-2023

DATE



RALEIGH, NC 27609 919-781-4626

NC LICENSE NO: F-0105

BRIDGE S1

S-2

SCALE

DATE

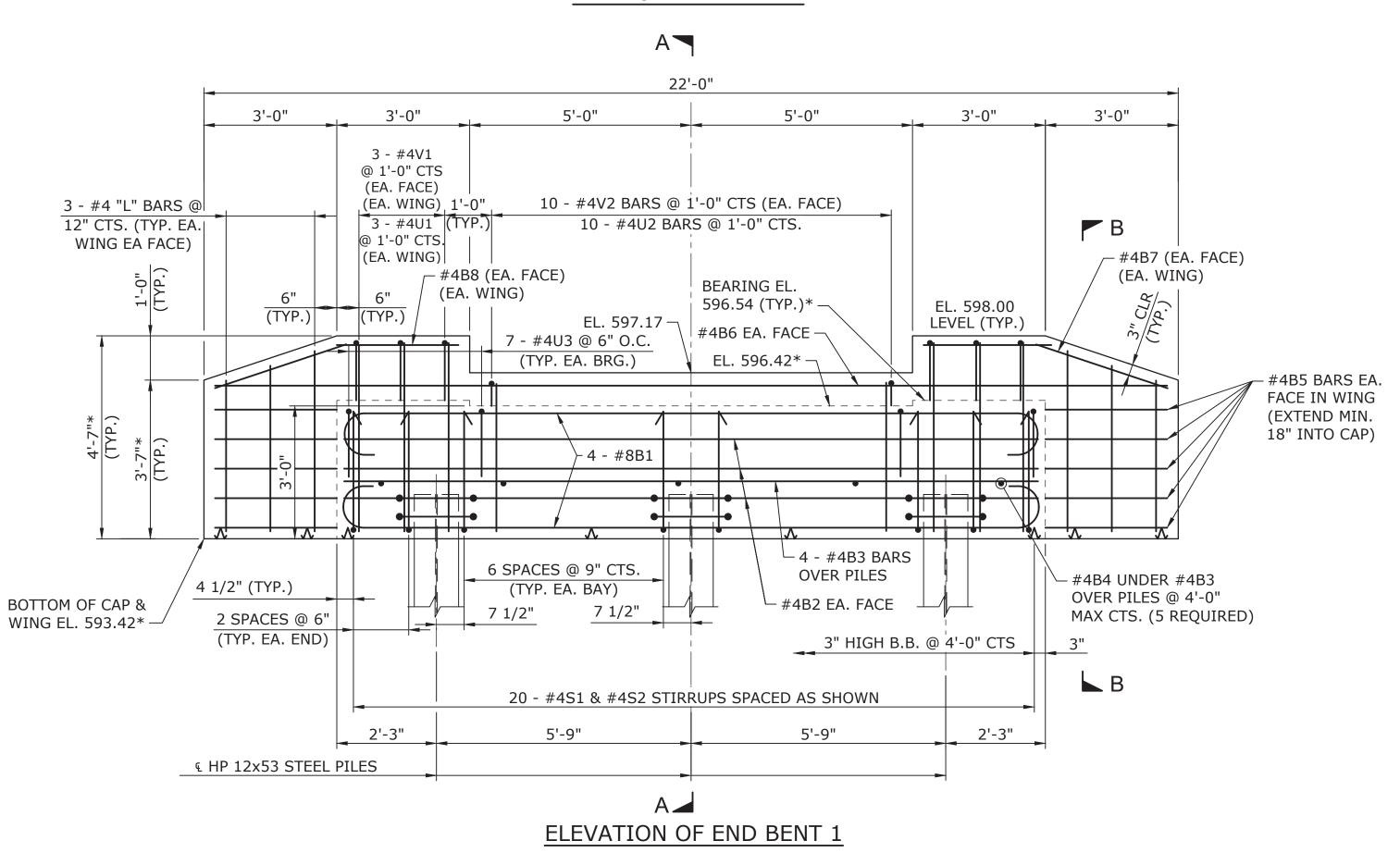
NOTED

06-14-2023

16'-0" 2 - 1"Ø x 2'-0" ANCHOR BOLTS (TYP). ANCHOR BOLTS TO BE DRILLED AND € -L-GROUTED AND PROVIDE 6" 5'-9" 5'-9" PROJECTION ABOVE BRIDGE SEAT -3'-0"* € ANCHOR (TYP.) BOLTS — € HP 12x53 STEEL PILES & END BENT CAP └ FILL FACE - W.P. 1 5'-9"* 5'-9"* 3'-0" 3'-0" 5'-0" 5'-0" 3'-0" 3'-0"

PLAN OF END BENT 1

22'-0"



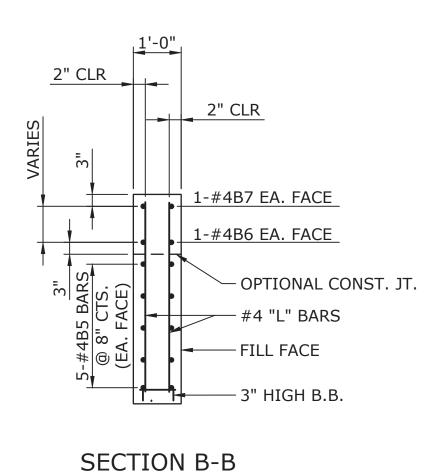
NOTES:

- 1. FOR CROSS SECTION A-A, SEE SHEET S-5
- 2. CONCRETE COLLARS FOR STEEL PILES NOT SHOWN IN PLAN AND ELEVATION VIEWS FOR CLARITY.
- 3. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL", SHEET S-5.

PEDESTRIAN BRIDGE S1

NOTES:

- 1. DIMENSIONS MARKED WITH AN ASTERISK ARE TO BE ADJUSTED BY THE STRUCTURAL ENGINEER AFTER PREMANUFACTURED BRIDGE IS DESIGNED AND SHOP DRAWINGS HAVE BEEN ISSUED AND APPROVED. UPON RECEIPT OF APPROVED BRIDGE SHOP DRAWINGS, THE CONSTRUCTION ADMINISTRATOR SHALL FORWARD THE BRIDGE SHOP DRAWINGS TO THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER WILL THEN UPDATE AND ISSUE A NEW SET OF STRUCTURAL DRAWINGS FOR THE PROJECT.
- 2. DIMENSIONS, CONCRETE QUANTITIES AND REINFORCING STEEL QUANTITIES ARE SUBJECT TO CHANGE UNTIL AFTER SHOP DRAWINGS ARE REVIEWED AND APPROVED. NO ADDITIONAL PAYMENT WILL BE MADE FOR ANY ADJUSTMENTS TO QUANTITIES.

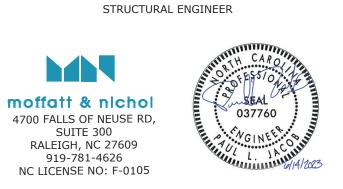


TYP. BOTH WINGS

100% FINAL PLANS - BID SET

CLIENT CITY

CITY OF CONCORD REVISIONS



DORTON PARK
PEDESTRIAN BRIDGE REPLACEMENTS

BRIDGE S1 END BENT 1

PLAN INFORMATION

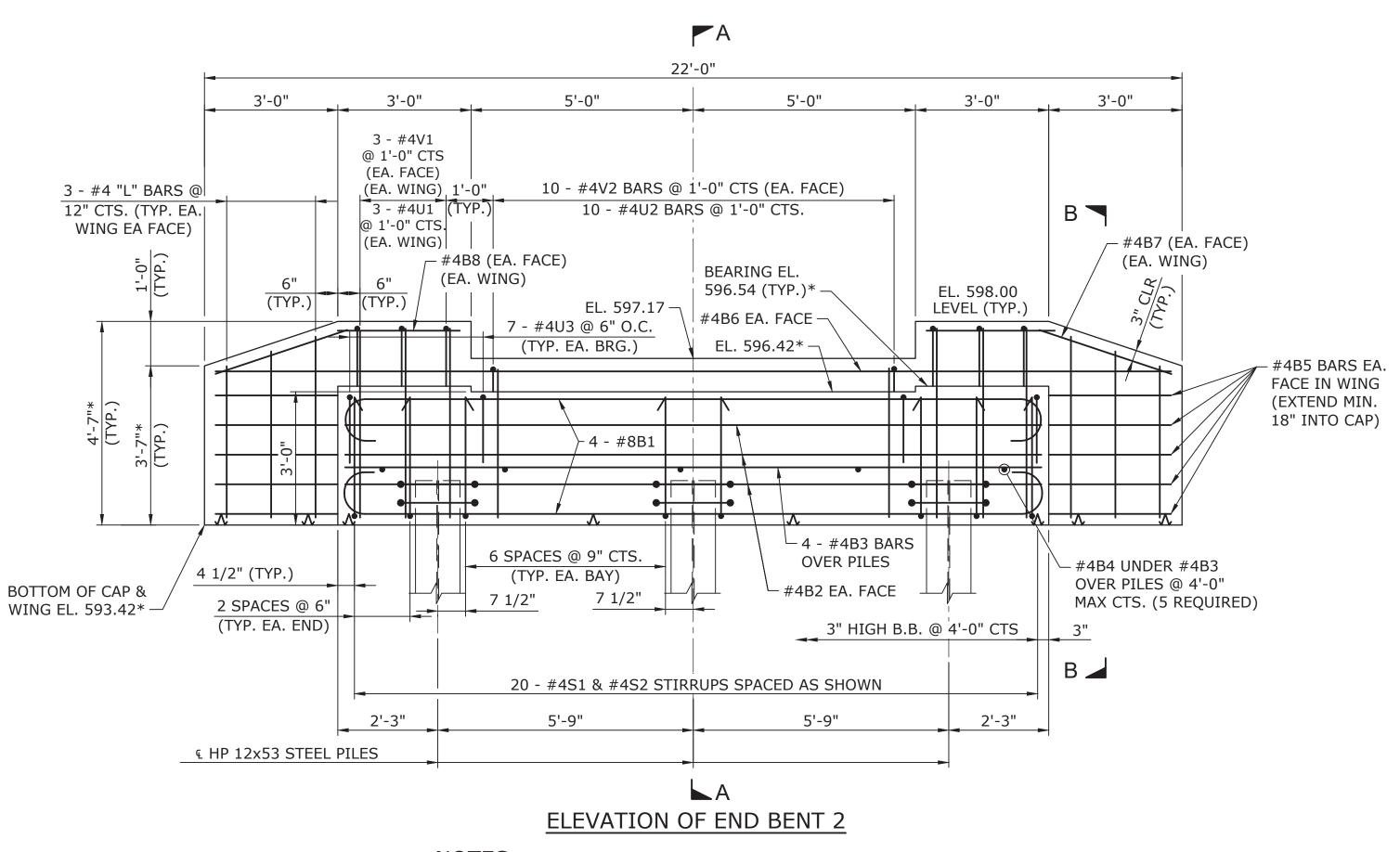
PROJECT NO. 221977
FILENAME S1 END I

FILENAME S1 END BENT 1.dwg
CHECKED BY P. JACOB
DRAWN BY J. LOFTUS
SCALE NOTED
DATE 06-14-2023

S-3

22'-0" € -L-3'-0" 5'-0" 5'-0" 3'-0" 3'-0" 5'-9"* 5'-9"* ┌ FILL FACE • HP 12x53 STEEL PILES & END BENT CAP € ANCHOR BOLTS -3'-0"* 2 - 1"Ø x 2'-0" ANCHOR BOLTS (TYP). (TYP.) ANCHOR BOLTS TO BE DRILLED AND 5'-9" 5'-9" GROUTED AND PROVIDE 6" PROJECTION ABOVE BRIDGE SEAT 16'-0"

PLAN OF END BENT 2



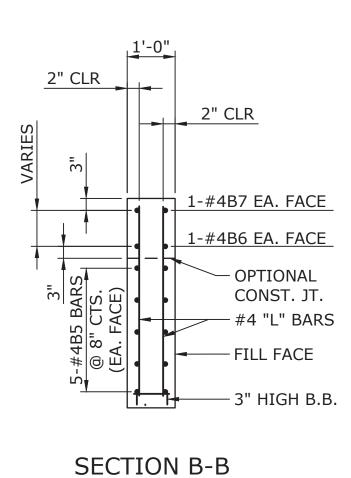
NOTES:

- 1. FOR CROSS SECTION A-A, SEE SHEET S-5
- 2. CONCRETE COLLARS FOR STEEL PILES NOT SHOWN IN PLAN AND ELEVATION VIEWS FOR CLARITY.
- 3. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL", SHEET S-5.

PEDESTRIAN BRIDGE S1

NOTES:

- 1. DIMENSIONS MARKED WITH AN ASTERISK ARE TO BE ADJUSTED BY THE STRUCTURAL ENGINEER AFTER PREMANUFACTURED BRIDGE IS DESIGNED AND SHOP DRAWINGS HAVE BEEN ISSUED AND APPROVED. UPON RECEIPT OF APPROVED BRIDGE SHOP DRAWINGS, THE CONSTRUCTION ADMINISTRATOR SHALL FORWARD THE BRIDGE SHOP DRAWINGS TO THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER WILL THEN UPDATE AND ISSUE A NEW SET OF STRUCTURAL DRAWINGS FOR THE PROJECT.
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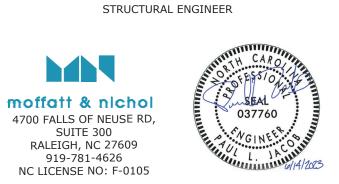


TYP. BOTH WINGS

100% FINAL PLANS - BID SET

CLIENT CITY OF CONCORD

ONCORD REVISIONS
NO. DATE



DORTON PARK
PEDESTRIAN BRIDGE REPLACEMENTS

BRIDGE S1 END BENT 2

PLAN INFORMATION

PROJECT NO. 221977

DATE

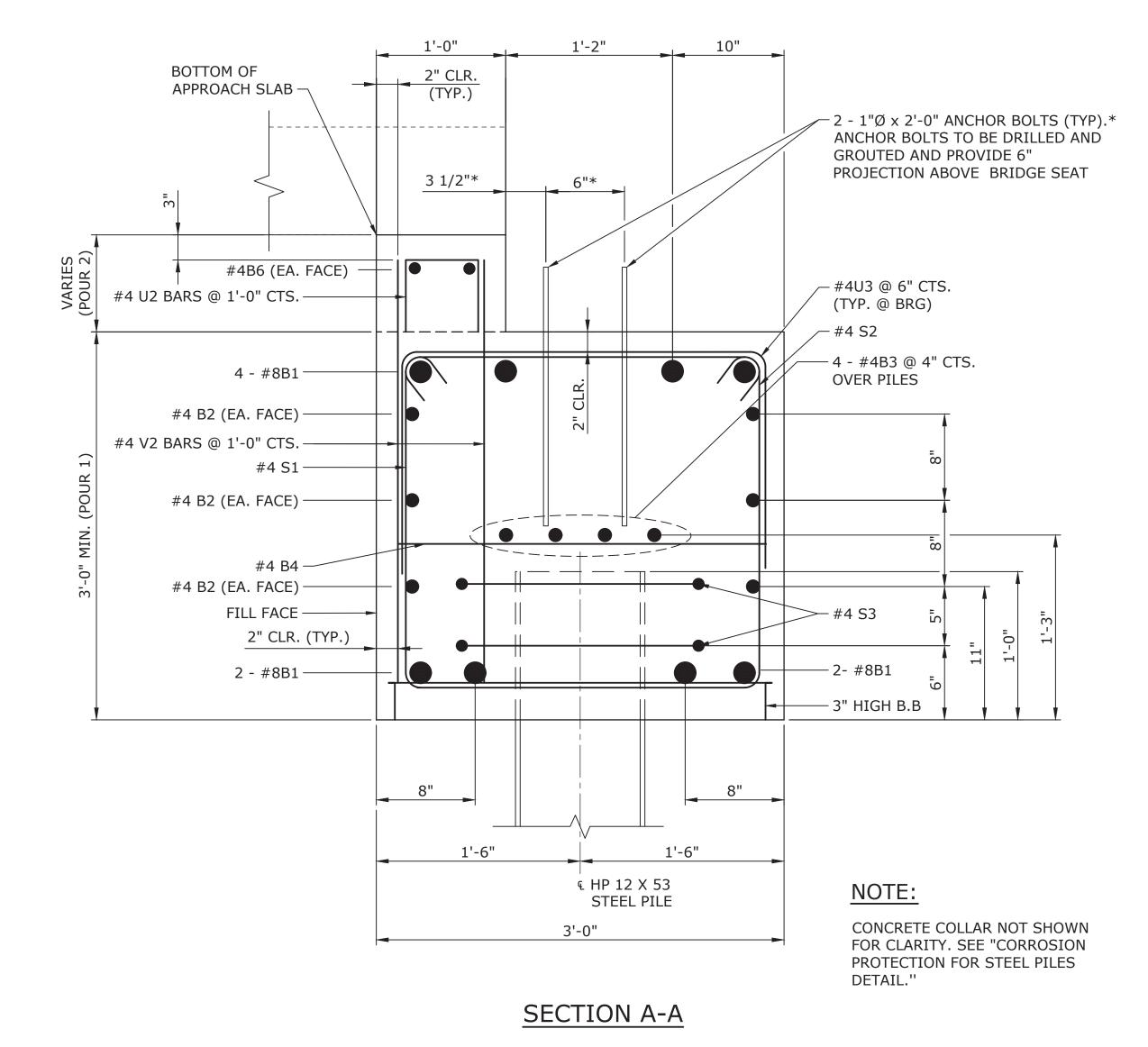
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CHECKED BY P. JACOB
DRAWN BY J. LOFTUS
SCALE NOTED

06-14-2023

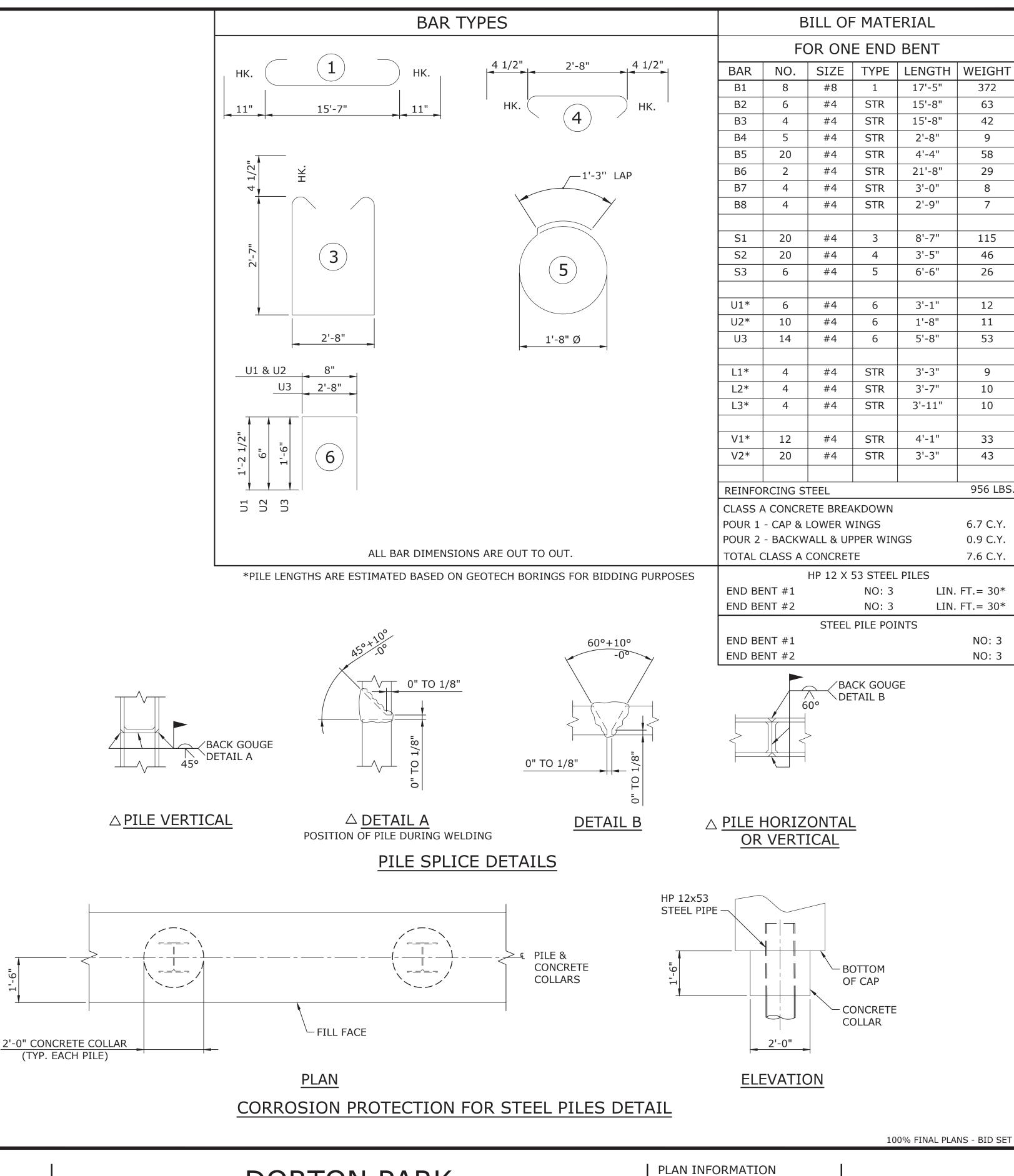
S-4

NOTES:

- 1. STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.
- 2. THE TOP SURFACE OF THE CAP EXCEPT THE BRIDGE SEAT BUILDUPS SHALL BE SLOPED TRANSVERSELY FROM THE BACKWALL TO EDGE OF CAP AT THE RATE OF 2%.
- 3. ANCHOR BOLTS SHALL BE SET BY DRILLING HOLES AND GROUTING AFTER THE CAP HAS BEEN POURED AND CURED. EMBEDMENT DEPTH OF ANCHORS SHALL BE AT LEAST 15 INCHES. WHEN PLACING MAIN CAP STEEL, ENSURE THAT FUTURE DRILLING FOR ANCHOR BOLTS WILL BE AT LEAST ONE INCH CLEAR FROM EDGE OF REINFORCING BAR.
- 4. NO ADDITIONAL PAYMENT IS MADE FOR REINFORCING STEEL OR CONCRETE. THE ENTIRE COST OF THIS WORK TO BE INCLUDED AMONG THE VARIOUS PAY ITEMS.
- 5. FOR PILES, SEE GEOTECHNICAL SPECIAL PROVISIONS AND SECTION 450 OF THE NCDOT STANDARD SPECIFICATIONS.
- 6. DIMENSIONS, CONCRETE QUANTITIES AND REINFORCING STEEL QUANTITIES ARE SUBJECT TO CHANGE UNTIL AFTER SHOP DRAWINGS ARE REVIEWED AND APPROVED. NO ADDITIONAL PAYMENT WILL BE MADE FOR ANY ADJUSTMENTS TO QUANTITIES.
- 7. DIMENSIONS MARKED WITH AN ASTERISK ARE TO BE ADJUSTED BY THE STRUCTURAL ENGINEER AFTER PREMANUFACTURED BRIDGE IS DESIGNED AND SHOP DRAWINGS HAVE BEEN ISSUED AND APPROVED. UPON RECEIPT OF APPROVED BRIDGE SHOP DRAWINGS, THE CONSTRUCTION ADMINISTRATOR SHALL FORWARD THE BRIDGE SHOP DRAWINGS TO THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER WILL THEN UPDATE AND ISSUE A NEW SET OF STRUCTURAL DRAWINGS FOR THE PROJECT.







STRUCTURAL ENGINEER

moffatt & nichol 4700 FALLS OF NEUSE RD, SUITE 300 RALEIGH, NC 27609 919-781-4626 NC LICENSE NO: F-0105

DORTON PARK PEDESTRIAN BRIDGE REPLACEMENTS

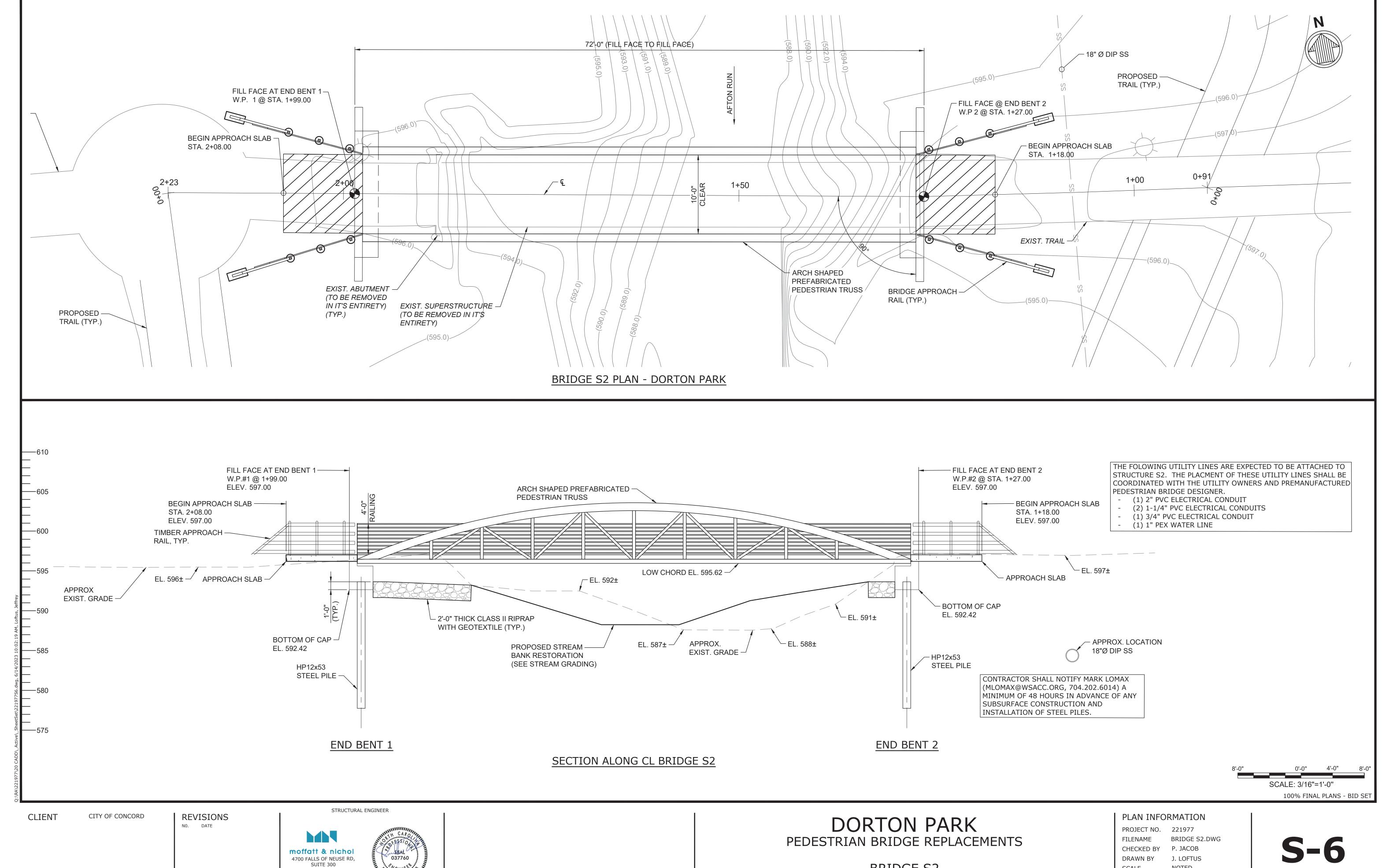
BRIDGE S1 - END BENT DETAILS

PROJECT NO. 221977 P. JACOB CHECKED BY

S1 DETAILS.dwg DRAWN BY J. LOFTUS SCALE NOTED DATE 06-14-2023

REVISIONS

NO. DATE



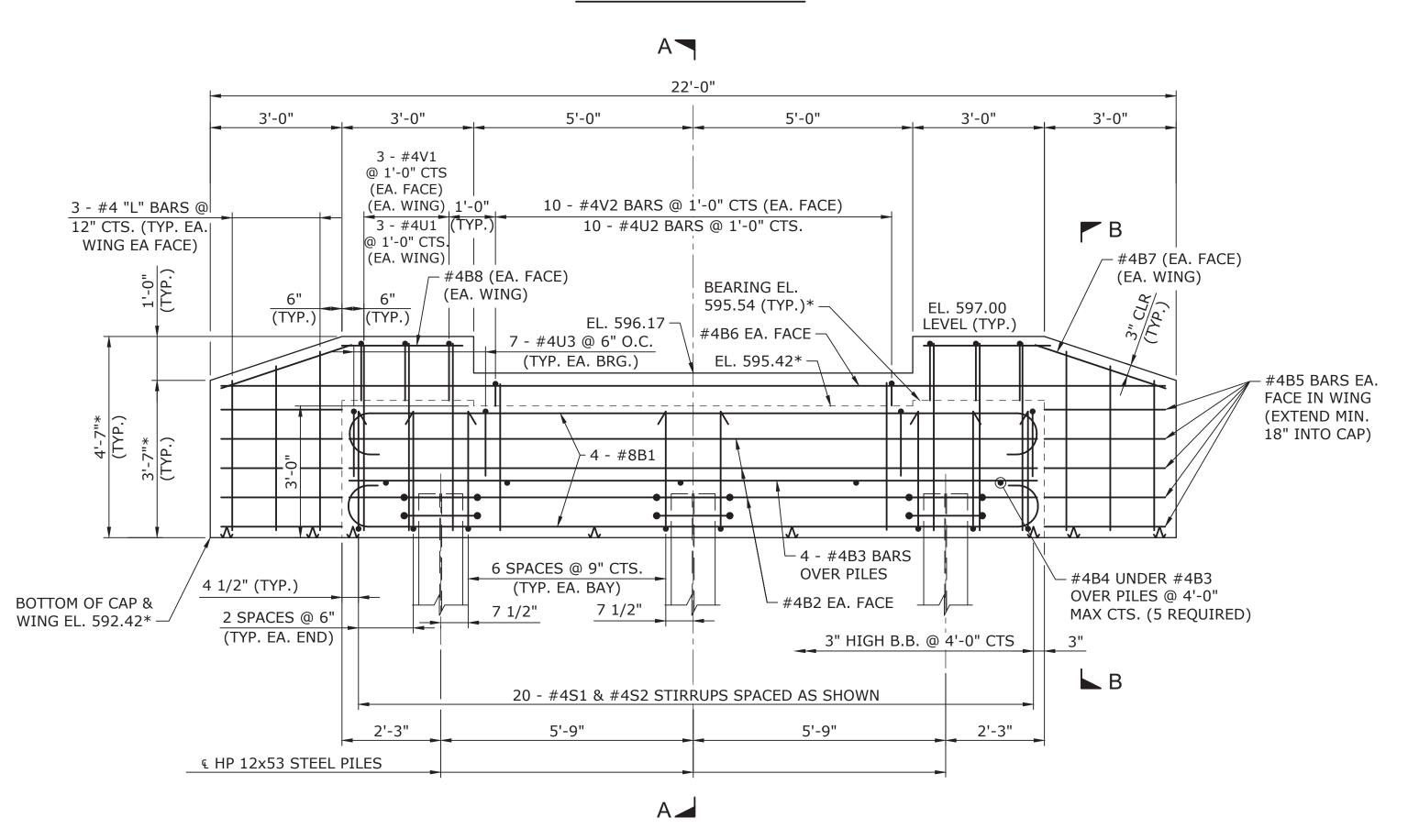
RALEIGH, NC 27609 919-781-4626 NC LICENSE NO: F-0105 BRIDGE S2

DRAWN BY J. LOFTUS SCALE NOTED 06-14-2023 DATE

16'-0" 2 - 1"Ø x 2'-0" ANCHOR BOLTS (TYP). ANCHOR BOLTS TO BE DRILLED AND € -L-GROUTED AND PROVIDE 6" 5'-9" 5'-9" PROJECTION ABOVE BRIDGE SEAT -3'-0"* € ANCHOR (TYP.) BOLTS — € HP 12x53 STEEL PILES & END BENT CAP └ FILL FACE - W.P. 1 5'-9"* 5'-9"* 5'-0" 3'-0" 5'-0" 3'-0" 3'-0"

PLAN OF END BENT 1

22'-0"



ELEVATION OF END BENT 1

NOTES:

- 1. FOR CROSS SECTION A-A, SEE SHEET S-9
- 2. CONCRETE COLLARS FOR STEEL PILES NOT SHOWN IN PLAN AND ELEVATION VIEWS FOR CLARITY.
- 3. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL", SHEET S-9.

PEDESTRIAN BRIDGE S2

PLAN INFORMATION

PROJECT NO. 221977 FILENAME CHECKED BY P. JACOB DRAWN BY J. LOFTUS

NOTES:

2" CLR

DIMENSIONS MARKED WITH AN ASTERISK ARE TO BE ADJUSTED BY

THE STRUCTURAL ENGINEER AFTER PREMANUFACTURED BRIDGE

DRAWINGS, THE CONSTRUCTION ADMINISTRATOR SHALL FORWARD

THE BRIDGE SHOP DRAWINGS TO THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER WILL THEN UPDATE AND ISSUE A NEW SET

DIMENSIONS, CONCRETE QUANTITIES AND REINFORCING STEEL

PAYMENT WILL BE MADE FOR ANY ADJUSTMENTS TO QUANTITIES.

QUANTITIES ARE SUBJECT TO CHANGE UNTIL AFTER SHOP

DRAWINGS ARE REVIEWED AND APPROVED. NO ADDITIONAL

IS DESIGNED AND SHOP DRAWINGS HAVE BEEN ISSUED AND

APPROVED. UPON RECEIPT OF APPROVED BRIDGE SHOP

OF STRUCTURAL DRAWINGS FOR THE PROJECT.

2" CLR

↑ 1-#4B7 EA. FACE

1-#4B6 EA. FACE

#4 "L" BARS

— FILL FACE

3" HIGH B.B.

SECTION B-B

TYP. BOTH WINGS

- OPTIONAL

CONST. JT.

S2 END BENT 1.dwg SCALE NOTED DATE 06-14-2023

100% FINAL PLANS - BID SET

DORTON PARK PEDESTRIAN BRIDGE REPLACEMENTS

CITY OF CONCORD

CLIENT

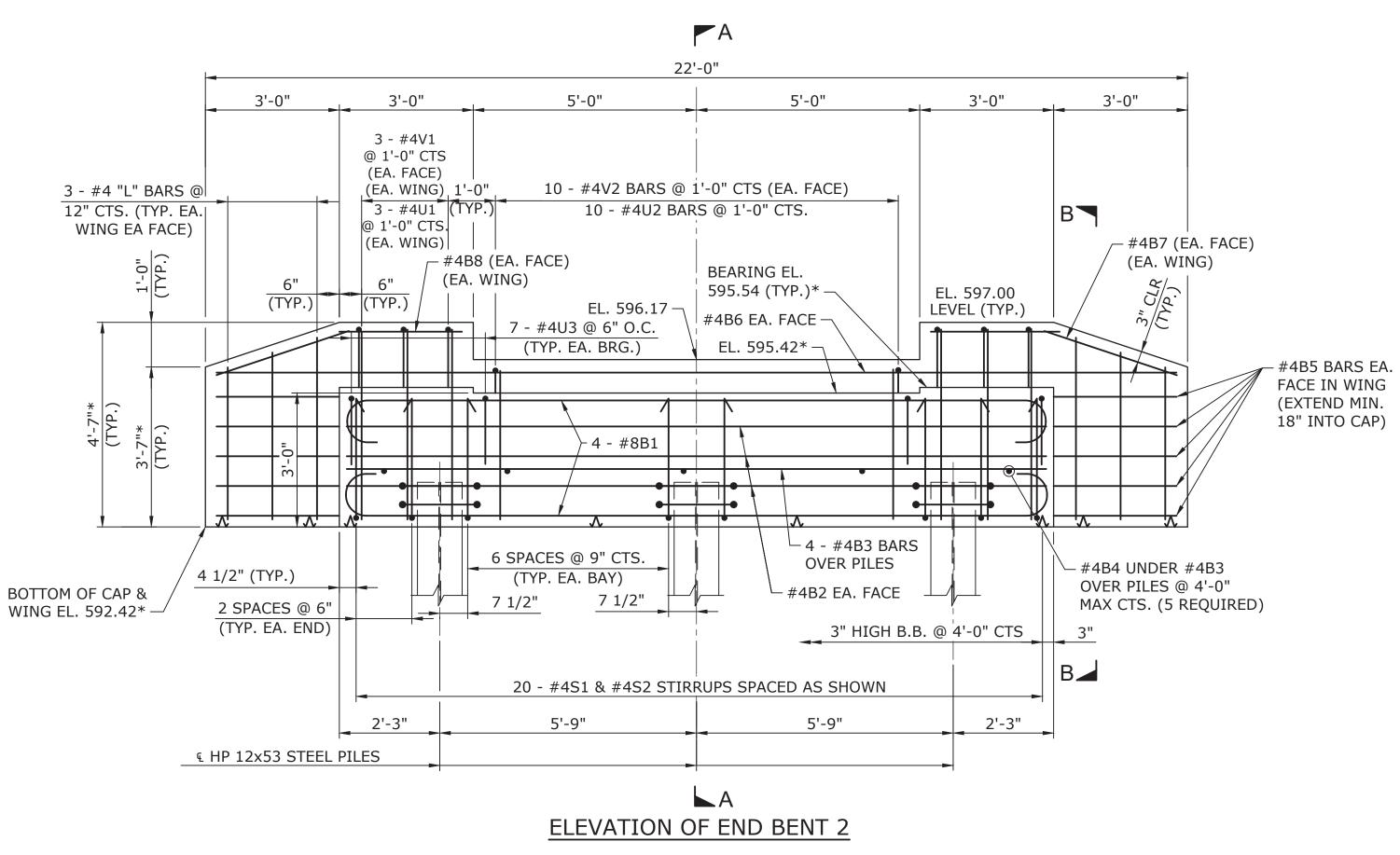




STRUCTURAL ENGINEER

22'-0" € -L-3'-0" 5'-0" 5'-0" 3'-0" 3'-0" 5'-9"* 5'-9"* ┌ FILL FACE • HP 12x53 STEEL PILES & END BENT CAP € ANCHOR BOLTS -3'-0"* 2 - 1"Ø x 2'-0" ANCHOR BOLTS (TYP). (TYP.) ANCHOR BOLTS TO BE DRILLED AND 5'-9" 5'-9" GROUTED AND PROVIDE 6" PROJECTION ABOVE BRIDGE SEAT 16'-0"

PLAN OF END BENT 2



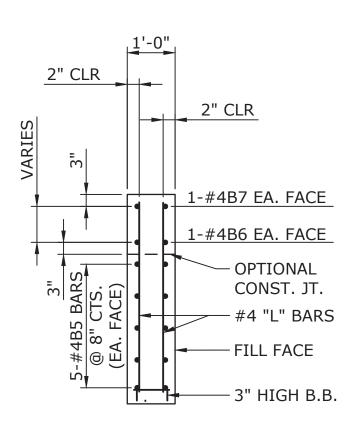
NOTES:

- 1. FOR CROSS SECTION A-A, SEE SHEET S-9
- 2. CONCRETE COLLARS FOR STEEL PILES NOT SHOWN IN PLAN AND ELEVATION VIEWS FOR CLARITY.
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PEDESTRIAN BRIDGE S2

NOTES:

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SECTION B-B
TYP. BOTH WINGS

100% FINAL PLANS - BID SET

CLIENT CITY OF CONCORD

F CONCORD REVISIONS
NO. DATE

moffatt & nichol
4700 FALLS OF NEUSE RD,
SUITE 300
RALEIGH, NC 27609
919-781-4626
NC LICENSE NO: F-0105

STRUCTURAL ENGINEER

DORTON PARK
PEDESTRIAN BRIDGE REPLACEMENTS

BRIDGE S2 END BENT 2

PLAN INFORMATION

PROJECT NO. 221977

DATE

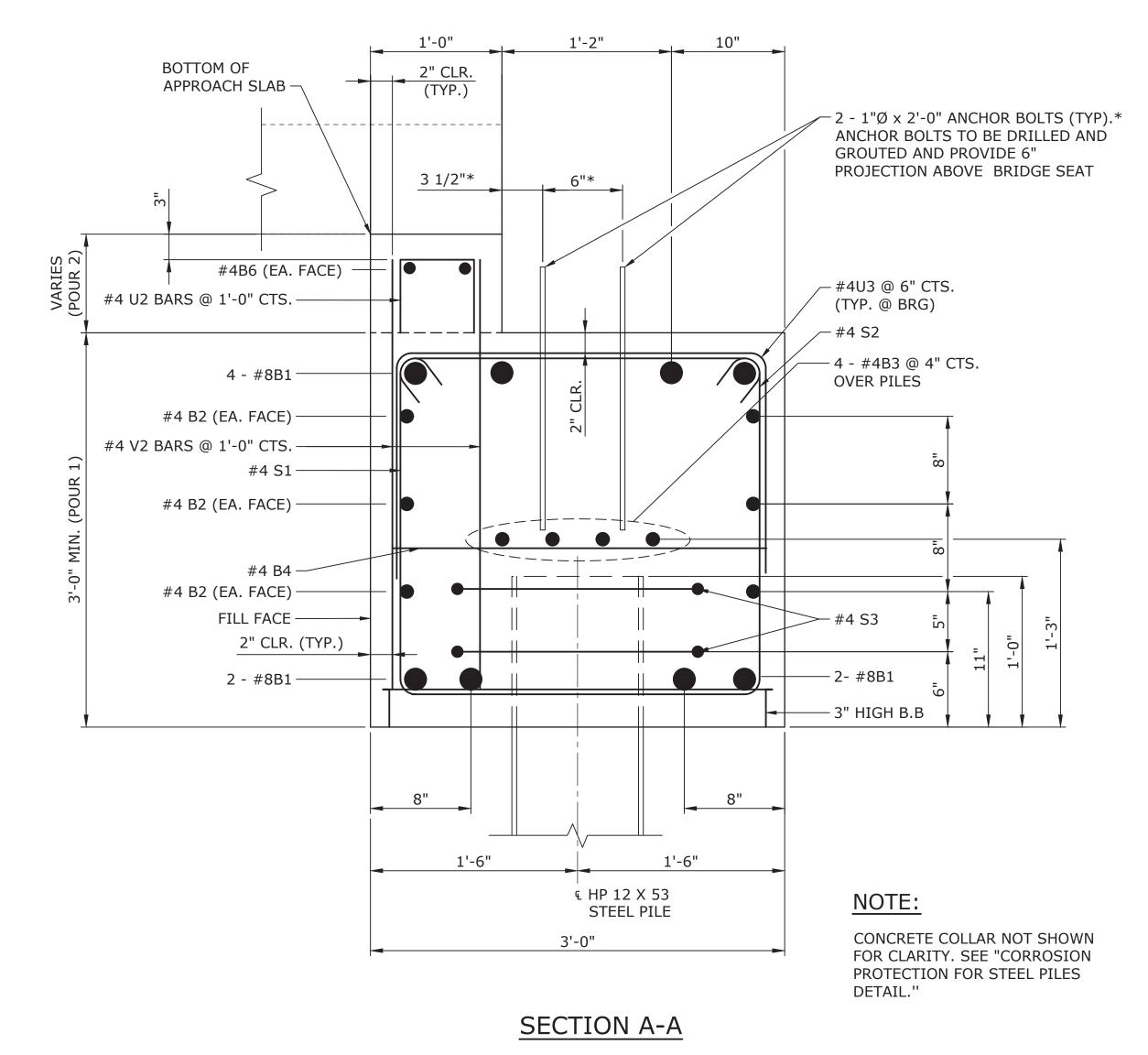
FILENAME S2 END BENT 2.dwg
CHECKED BY P. JACOB
DRAWN BY J. LOFTUS
SCALE NOTED

06-14-2023

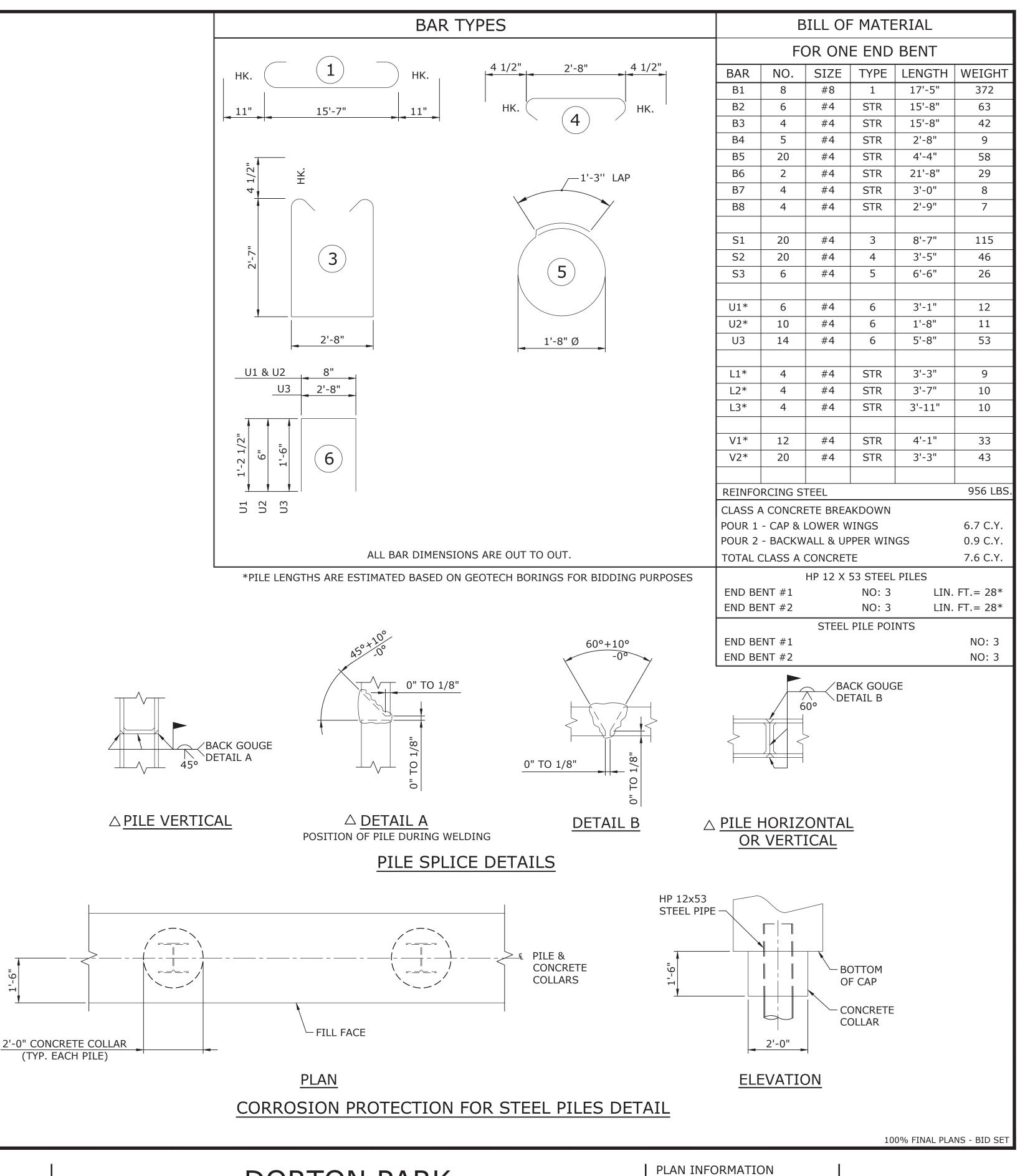
5-8

NOTES:

- 1. STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.
- 2. THE TOP SURFACE OF THE CAP EXCEPT THE BRIDGE SEAT BUILDUPS SHALL BE SLOPED TRANSVERSELY FROM THE BACKWALL TO EDGE OF CAP AT THE RATE OF 2%.
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DORTON PARK PEDESTRIAN BRIDGE REPLACEMENTS

BRIDGE S2 - END BENT DETAILS

221977 S2 DETAILS.dwg P. JACOB CHECKED BY DRAWN BY J. LOFTUS SCALE NOTED

06-14-2023

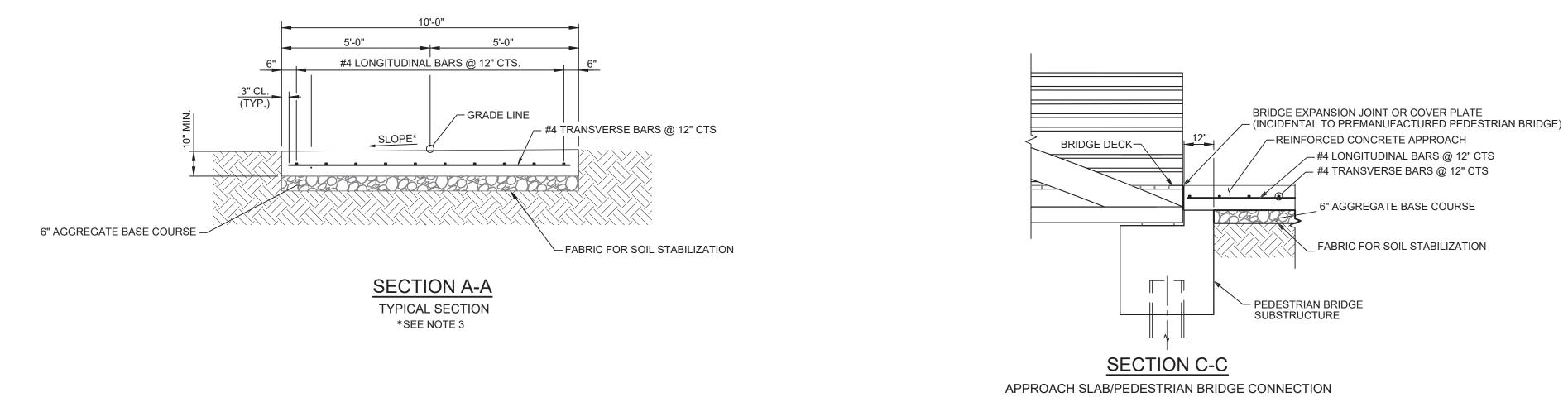
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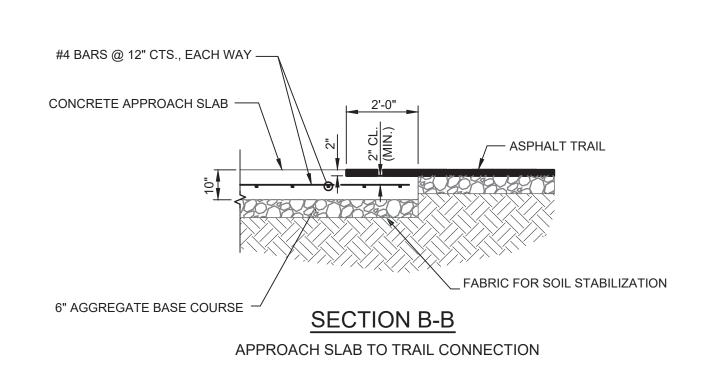
S-9

STRUCTURAL ENGINEER

— #4 BARS @ 12" CTS. BRIDGE EXPANSION JOINT OR COVER PLATE (INCIDENTAL TO PREMANUFACTURED PEDESTRIAN BRIDGE)

BRIDGE APPROACH PLAN VIEW (BEGIN APPROACH SHOWN, END APPROACH SIMILAR BUT MIRRORED)





NOTES

1. CONCRETE APPROACH SLAB REQUIRED AT BEGIN AND END OF STRUCTURES S1

ASPHALT TRAIL TO MATCH CROSS SLOPE OF PEDESTRIAN BRIDGE AND BOARDWALK. DIRECTION OF CROSS SLOPE SHALL BE AS INDICATED ON TRAIL

3. CROSS SLOPE OF CONCRETE APPROACH SLAB SHALL TRANSITION FROM

2. SEE SPECIAL PROVISION FOR BRIDGE APPROACH SLAB.

APPROACH SLAB DETAILS

100% FINAL PLANS - BID SET

CLIENT

CITY OF CONCORD

REVISIONS NO. DATE

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STRUCTURAL ENGINEER

DORTON PARK PEDESTRIAN BRIDGE REPLACEMENTS

APPROACH SLABS

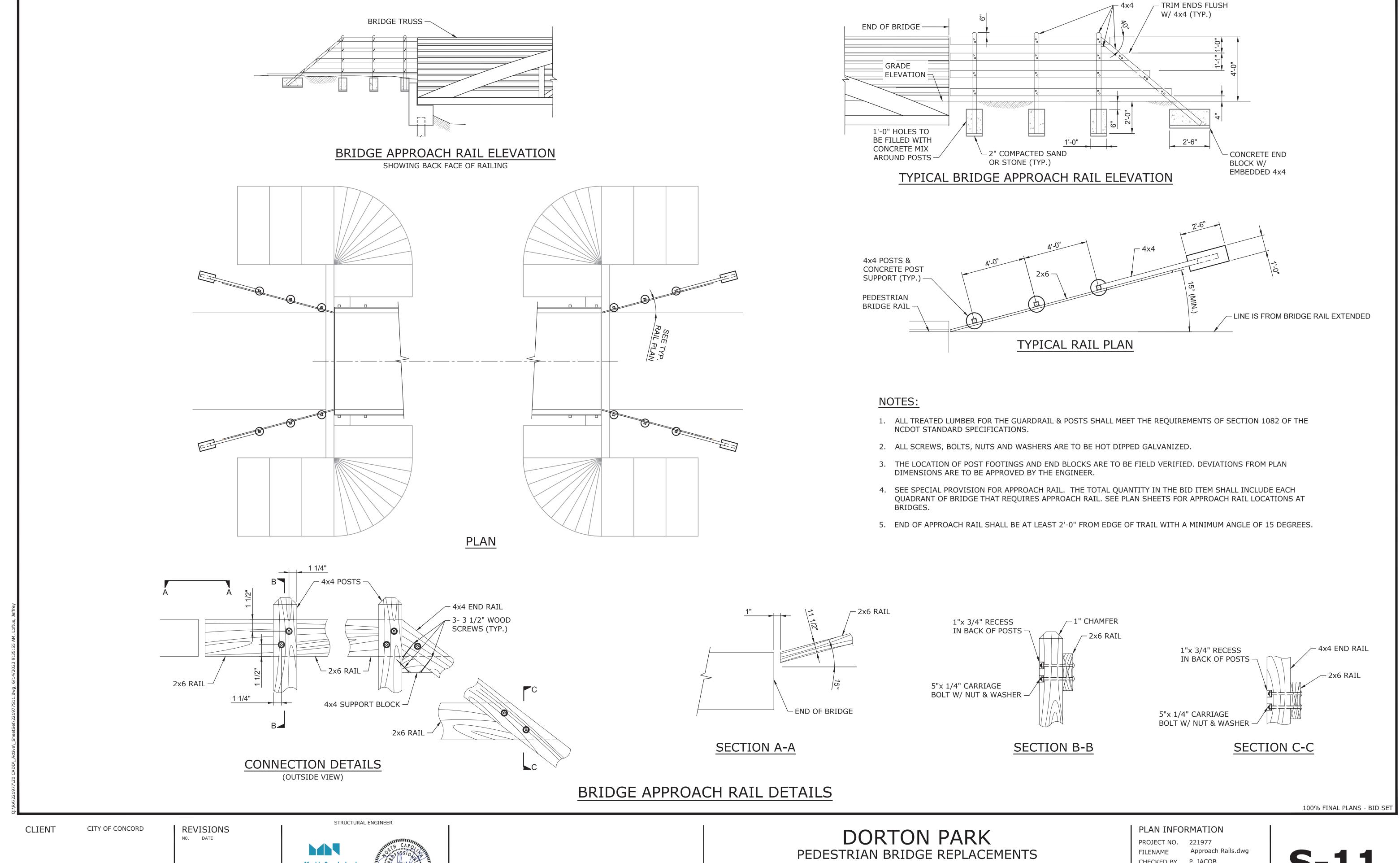
PLAN INFORMATION

PROJECT NO. 221977

DATE

FILENAME CHECKED BY P. JACOB DRAWN BY J. LOFTUS SCALE NOTED 06-14-2023 **S-10**

Approach Slabs.dwg



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APPROACH RAILS

P. JACOB CHECKED BY

DRAWN BY J. LOFTUS SCALE NOTED 06-14-2023 DATE

S-11