



REQUEST FOR PROPOSALS

CONSTRUCTION SERVICES FOR ATHLETIC FIELD AND SITE DRAINAGE IMPROVEMENTS AT VOLUNTEER PARK

RFP Issued Date: October 1, 2024

Proposal Due Date: November 7, 2024
and time: 2:00 PM (EDT)

RFP Contact: Adam Shull, Piedmont Triad Regional
Council, Regional Planning
E-mail: ashull@ptrc.org
Phone: 333-904-0300

In-Person Pre-bid Meeting: October 15, 2024 @ 10:00 AM
Pleasant Garden Community Center
5024 Alliance Church Road
Pleasant Garden, N.C. 27313

IF YOU NEED ANY REASONABLE ACCOMMODATION FOR ANY TYPE OF DISABILITY IN ORDER TO PARTICIPATE IN THE PROCUREMENT, PLEASE CONTACT THE PIEDMONT TRIAD REGIONAL COUNCIL AS SOON AS POSSIBLE

Contact: Adam Shull, (336) 904-0300, ashull@ptrc.org

CONSTRUCTION SERVICES FOR ATHLETIC FIELD AND SITE DRAINAGE IMPROVEMENTS AT VOLUNTEER PARK

General

The Town of Pleasant Garden seeks proposals from qualified firms to deliver construction services for improvements to site drainage and athletic fields at Volunteer Park. Site improvements include modifying two existing soccer fields to level the playing surface, maximize play area, and installing new drainage features. The Town received Federal Coronavirus State and Local Fiscal Recovery Funds (CSLFRF) via the American Rescue Plan Act (ARPA), which provide for a broad range of general government services under the Revenue Replacement allowable use category. This funding complements local funds for the site improvements. Since the project is substantially funded by ARPA, it is administered according to all applicable federal and state guidance for ARPA funds, including 2 CFR 200/Uniform Guidance.

Background Information

Volunteer Park sits south of the Town of Pleasant Garden Town Hall at 4920 Alliance Church Road in southeastern Guilford County, North Carolina. Dedicated to those who serve the community, the park features athletic fields, youth playground, a concession building, restroom facilities, and paved pathways that are part of 2.1 miles of pedestrian trails. The project site is located at Latitude: 35°58'24"N, Longitude: 79°45'19"W within the existing Guilford County parcel number 131551 (PIN 7871604478). Of the parcel's 48.71 acres, the project site encompasses 48.68 acres.

This project will require qualified firms to modify two existing soccer fields to level the playing surface, maximize play area, and improve site drainage. Work includes re-grading the fields, relocating sidewalk, installing a stormwater drainage system, and installing grassed dry detention basins. Informing the project scope are a design narrative and specifications by an engineering firm (see attachments). A design narrative informing grading permits and for a Guilford County Watershed Development Plan Review is attached for reference. Note: design specifications attached include fencing, which is not part of the scope of this request for proposals. All other specifications in the attached are applicable to this RFP. The project needs to be executed in accordance with any applicable guidance from the North Carolina Department of Environmental Quality (NCDEQ), the Environmental Protection Agency, and other applicable regulatory agencies.

Scope of Services

Services will include the following:

- A. Re-grading the soccer field area to provide two (2) 55-yard by 100-yard level fields with a grass swale between them and along the site's perimeter.
- B. Site demolition that includes removal of the existing asphalt sidewalk north and east of the athletic fields and adjacent to a brick storage shed.
- C. Removal of the berm along the eastern portion off the site.

- D. Installing a stormwater drainage system as detailed in design plans.
- E. Installing grassed dry detention basins.
- F. Relocate a spigot at the north side of the athletic fields and then relocate the playground and a bench.

The proposed limit of the clearing and grading area is approximately 4.70 acres.

This project's timeline is subject to the fiscal deadlines set forth by U.S. Treasury for ARPA funds, which require the funds to be expended by December 31, 2026. Failure to meet any milestone may result in the forfeiture of ARPA funding for the proposed project. Before execution of a contract the selected firm and project staff will complete a construction schedule.

Given the ARPA deadlines, firms responding to this RFP should make clear how the work can be performed in a construction schedule that meets these deadlines. The firm shall obtain permits as required, monitor construction activities of subcontractors and suppliers to ensure completion within schedule, monitor budget, ensure compliance with federal, state and local codes, laws and regulations including all applicable codes, environmental regulations and maintain cleanliness of site. The Firm selected shall provide "A letter from the construction professional responsible for ensuring compliance with codes and regulations listing all permits required, directly or indirectly, to execute the project and the status of acquisition of those permits is required." The letter shall be forwarded to the Town as agreed upon by both parties.

The Project requires the firm selected assist the Town in meeting compliance and reporting schedule deadlines to the US Treasury on expenditure of the ARPA funds including creating formal request for cost reimbursement for Town's final approval and signature.

Notices and Standards

The Town must award the contract to the lowest, responsive, responsible bidder taking into consideration quality, performance, and time specified in proposals for performance of the contract.

- A) General:** This request for qualifications does not commit the Town to enter into agreement, to pay any costs incurred in the preparation and submittal of a proposal in response to this request or in subsequent interviews and negotiations, or to procure a contract for the project. The Town reserves the right to perform all or some of the services described in this document with its own work force. The successful Proposer will be selected on a fair and rational basis, and the evaluation factors outlined below shall be applied to all eligible, responsive Proposers in comparing proposals and selecting the successful bidder. Award of a contract may be made without discussion with the Proposers after responses are received. The Town also reserves the right to issue future Requests for Proposals (RFPs), as needed, and solicit responses from firms not selected as part of this process.

- B) Selection and Evaluation Criteria, in accordance with Uniform Guidance 2 CFR 200.320:**
This RFP will be publicized and identifies all evaluation factors. The selection criteria are as follows:
- a) Demonstrated experience in commercial construction.
 - b) A thorough knowledge and understanding of stormwater management/conveyance.
 - c) Demonstrated financial and construction capacity to undertake a project of this magnitude.
- C)** The Town and the State of North Carolina each have established goals of 10% verifiable participation by minority and/or women owned businesses (MBE/WBE).
- D)** Current licensing by the State of North Carolina establishing respondent's legal authority to perform the described work by the North Carolina Licensing Board for General Contractors or other applicable licensing board, and to obtain any and all required construction permits therefor, is required. All applicable current state licensing numbers should be included in the response to this RFP.

Consultant/Contractor Selection

The most responsive bidder will be evaluated and selected in accordance with the following criteria:

1. **Professional Experience:** Consideration will be given based on prior experience in performing similar work; the company's business, technical, and organizational resources available for implementing recreational site improvements and stormwater drainage measures. (20 points)
2. **Capacity/Scheduling:** Demonstrated ability to meet work specified in this RFP. (15 points)
3. **ARPA/federal funding project experience:** Demonstrated experience with managing and delivering project funded wholly or in part with American Rescue Plan Act funding or other federal funds with 2 CFR 200 (Uniform Guidance) compliance requirements. (10 points)
4. **Local Market:** Knowledge of the local market. (10 points)
5. **Plans and Methodology:** Specific plans and methodology for providing the proposed services. (15 points)
6. **Price:** Proposals shall include pricing for the scope of work, all labor, time and materials. (30 points)
7. **Financial and Legal:** Letter from a conventional financial institution evidencing the ability to obtain a minimum \$4 million line of credit for this project. Provide details on legal issues arising in the past 5 years. (Pass/Fail)

Total available points: 100

- E) **Rating and Selection Team:** A selection committee has been established to review and evaluate all documentation submitted in response to this Request for Proposals. The committee will conduct a preliminary evaluation of all documentation to determine that firms are qualified to perform the required services. Following a review of the qualified submittals, the selection committee will rank the firms based on the criteria identified above. The Town shall then select and commence contract negotiations with the firm whose response is ranked most advantageous to the Town. If a contract cannot be negotiated with the highest ranked firm, negotiations with that firm shall be terminated and negotiations shall be initiated with the next highest ranked firm. Contract award and authorization will ultimately be sought from Town Council.

- F) To be considered for this project, each submittal must contain the information indicated in this RFP. It is the intent of the Town of Pleasant Garden to make a selection in a timely manner following the submittal date. The Town of Pleasant Garden reserves the right to reject any or all qualifications or to waive any and all formalities and the right to disregard all non-conforming or conditional qualifications and to enter into a contract with the firm or firms that will serve in the best interest of the Town of Pleasant Garden. The Town is not legally required to enter into a contract as a result of this Request for Proposals. All deliverables will become the property of the Town of Pleasant Garden.

- G) A voluntary in-person pre-bid meeting will take place for interested firms on October 15, 2024, at 10 AM. This serves as a chance to ask questions about the project and observe the existing site and facilities. Interested parties should meet at the Town of Pleasant Garden

- H) Interviews may be required for this process at the option of the selection committee. All firms submitting proposals will be notified in writing of the selection process outcome.

Schedule for The Selection Process

RFP Issue Date	October 1, 2024
In-person Pre-bid Meeting	October 15, 2024 at 10:00 AM
Questions Concerning this RFP Due to the Town	October 17, 2024 by 4:00 PM
Responses to questions via Addendum	October 23, 2024 by 4:00PM
RFQ Submittal Due Date	November 7, 2024, by 2:00PM
Council Date	December 3, 2024
Contract Begins	December 4, 2024 Or ASAP
Last available reimbursement/expenditure	No later than Dec. 31, 2026

Submission Guidelines

To facilitate the objective review of the RFPs, Proposers are requested to organize the main document using a standardized format. Each submission should contain the following:

- A) A cover letter on company letterhead signed by a principal or other member of the firm authorized to commit the firm to contract for professional services.
- B) Table of contents with page numbers.
- C) Information on the following topics:
 - a) **Executive Summary**: Should address the highlights of the RFP, along with the strengths and special expertise of the firm and the associated team to successfully accomplish the objectives of the Town. Please limit the executive summary to one page.
 - b) **Statement of Work**: Identify and describe the services to be performed to accomplish the scope of work. Include detailed description of the services to be completed along with sufficient information for the Town to determine if the Proposer meets requirements. Also include information on any proposed sub-consultants. Note which team members were involved in referenced projects and the time period involved in referenced, completed or current projects. Also highlight any projects performed for the Town of Pleasant Garden during the past 5 years.
 - c) **Project Team & Project Management**: Identify the proposed project team (including any sub consultants) and key personnel for the successful completion of projects in partnership with the Town. Include brief resumes of the project manager and up to four (4) project team members including office location, years of experience, certifications, and education. Identify the project manager or primary contact and any other team leaders proposed, and briefly describe how projects will be successfully managed. It is expected that the team members proposed will be those assigned to work on the project for the Town. Also describe the firm's quality assurance/quality control methods.
 - d) **Project Schedule**: Describe the planned and envisioned workload of the proposed team members for the timeframe of this contract and verify that proposed staff will be prepared for timely completion of projects under a potential contractual agreement with the Town.
 - e) **Terms and Conditions of the Contract**: The Town proposes to use a standard Town of Pleasant Garden contract for professional services. This information will be provided to the selected consultant(s) during contract and scope negotiations. Should the Proposer have any special or unusual contract conditions or limitations, the Town should be advised of these in this section of the RFP.

- f) **References:** Project reference list describing at least four (4) projects completed within the past five years that represent the strengths and unique qualifications of the firm or team. The list should contain project titles, locations, start and end dates, name of project managers, and name, phone number, and email address of references. The contact person should be capable of speaking to the firm’s and team’s ability to finish projects within the project timeframe and the firm’s demonstrated ability to respond to the proposed project.

- g) **Format:** RFPs must be submitted electronically and be 12pt font size and limited to **no more than 20 pages** (8 ½ x 11) excluding the cover page, cover letter, table of contents, and any section dividers. The proposal shall be submitted by an official authorized to bind the submitter to its provisions and who is authorized to negotiate the final scope of work and fees for inclusion in a later Supplemental Professional Services Agreement with the Town.

- h) **Questions:** Any questions regarding this RFP requiring responses prior to due date are to be submitted in writing by no later than **Thursday, October 17 2024, by 2:00 PM** to the attention of:

Adam Shull, Assistant Director of Regional Planning
Piedmont Triad Regional Council
ashull@ptrc.org

Responses will be provided via Addendum by **Wednesday, October 23, 2024, by 4 PM**

General Requirements

- a) If selected, the contractor shall be registered through the NC Department of the Secretary of State.

- b) Insurance Requirements: Proposals shall include information certifying that the contractor is capable of providing the following minimum insurance coverage prior to execution of a professional services agreement. **A copy of firm’s Certificate of Insurance (COI) will be required at the time of selection. A copy may be provided along with submittal.**

c)	<u>Insurance</u>	<u>Amount</u>
	(a) Workers’ Compensation	\$500,000
	(b) Employers’ Liability	\$500,000
	(c) Commercial General Liability	\$1,000,000
	(d) Automobile Liability	\$1,000,000
	(e) Umbrella	\$1,000,000
	(f) Professional Liability	\$1,000,000

Submission Date

Firms are invited to submit formal bids to the Piedmont Triad Regional Council/Adam Shull by **2:00 P.M. on Thursday, November 7, 2024**. Letters of interest and qualifications submitted after this deadline will not be considered.

Submission Information – *Due by 2 p.m., Thursday, November 7, 2024*

Only hard copy submittals will be accepted. Proposals can be mailed or hand delivered to the address below.

Firms submitting proposals are encouraged to carefully check them for conformance to the requirements stated above. If submittals do not meet these requirements, they will be disqualified. **No exception will be granted.**

Hard copy submittals must be printed double-sided and are limited to a total of 20 printed pages, excluding cover, cover letter, and table of contents, which may or may not be provided at the discretion of the respondent. A sheet which has content on both sides shall be considered 2 pages. Respondents are requested not to include other generalized marketing information as part of the submittal documents.

Three (3) copies of the formal bids should be submitted no later than 2 p.m. on Thursday, November 7, 2024. The copies shall be in a sealed envelope marked “RFP Response for Athletic Fields and Site Drainage Improvements at Volunteer Park.”

Proposals can be mailed/hand delivered to:

Adam Shull, Assistant Director of Regional Planning
Piedmont Triad Regional Council
1398 Carrollton Crossing Drive
Kernersville, NC 27284

The Town of Pleasant Garden is an Equal Opportunity Employer and invites the submission of proposals from small and minority and women-owned firms, historically underutilized businesses.

Attachments

- A. Site Plan and Maps
- B. Design Narrative
- C. Site Photos

VOLUNTEER PARK ATHLETIC FIELD IMPROVEMENTS

4920 ALLIANCE CHURCH ROAD, PLEASANT GARDEN, NC 27313

PROJECT # 23-008

FINAL SUBMITTAL

ISSUE DATE: 5/21/2024

OWNER

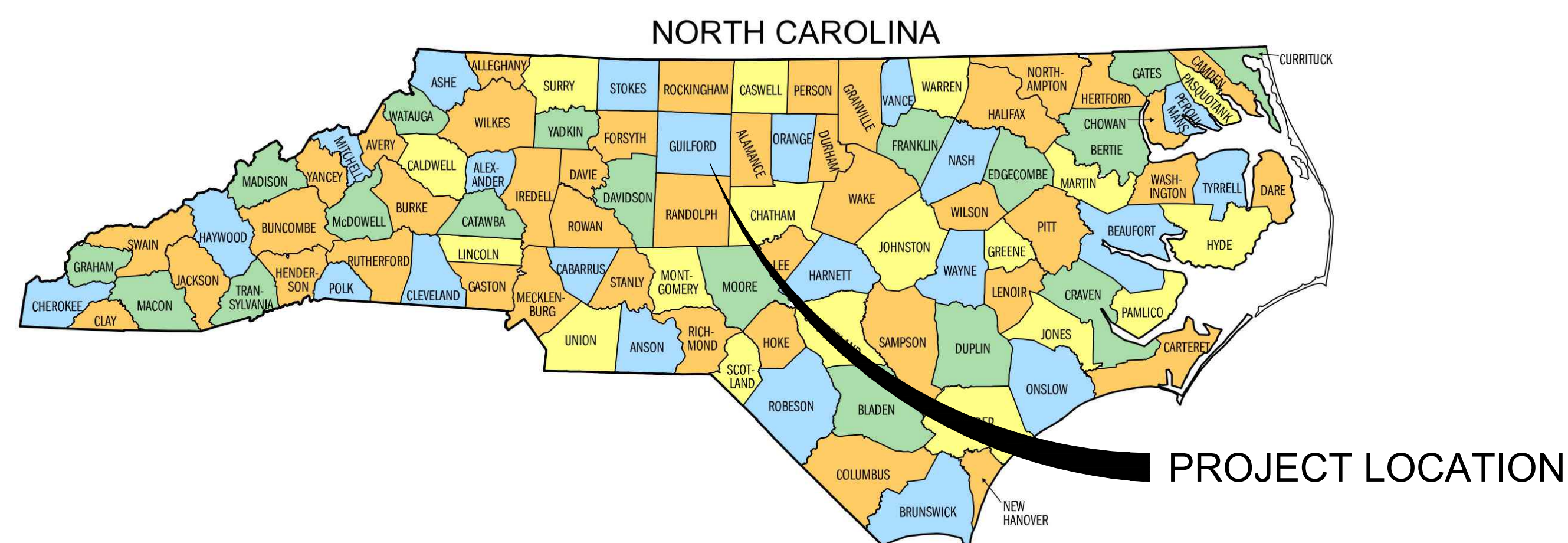
OWNER'S REPRESENTATIVE: MATT TALBOT
POSITION: DEPUTY TOWN CLERK
4920 ALLIANCE CHURCH ROAD
PLEASANT GARDEN, NC 27313
PHONE NUMBER: 336.674.3002

ENGINEERING/ARCHITECTURE

CEMS ENGINEERING, INC
300 NORTH 3RD ST., SUITE 110
WILMINGTON, NC 28401
PHONE NUMBER: 910.876.2655
PROJECT MANAGER:
STEVE THOMAS, PE, F.SAME, LEED AP

SURVEY

FEI
8518 TRIAD DRIVE
COLFAX, NC 27235
PHONE NUMBER: 336.544.6428
PROJECT MANAGER:
JOSHUA A. SIZEMORE, PLS



STATE LOCATION MAP



SITE VICINITY MAP

INDEX OF DRAWINGS

NO. OF SHEETS	SHEET NO.	SHEET TITLE
GENERAL		
1	C-001	COVER SHEET
2	C-002	GENERAL NOTES AND LEGENDS
CIVIL		
3	VF101	EXISTING CONDITIONS & DEMOLITION PLAN
4	CE101	SEDIMENT & EROSION CONTROL PLAN
5	CS101	SITE PLAN
6	CG101	STORM DRAINAGE & GRADING PLAN
7	CG103	DRAINAGE AREA MAP
8	CG104	DRAINAGE PLAN & PROFILE
9	CG105	DRAINAGE PLAN & PROFILE
10	CG106	DRAINAGE PLAN & PROFILE
11	CG107	DRAINAGE PLAN & PROFILE
12	CG108	DRAINAGE PLAN
13	CE501	SEDIMENT & EROSION CONTROL DETAILS
14	CE502	SEDIMENT & EROSION CONTROL DETAILS
15	CE503	SEDIMENT & EROSION CONTROL DETAILS
16	CE504	SEDIMENT & EROSION CONTROL DETAILS
17	CG501	DRAINAGE DETAILS
18	CG502	DRAINAGE DETAILS
19	CG503	IRRIGATION DETAILS

TOTAL: 19

PARCEL AREA: 48.68 ACRES

PROJECT LIMITS OF DISTURBANCE: 4.70 AC.



VOLUNTEER PARK ATHLETIC FIELD IMPROVEMENTS

JOB TITLE

COVER

SHEET TITLE



5/21/24

REVISIONS

NO.	DESCRIPTION	DATE

N. LAURETTA

DRAWN

N. LAURETTA

DESIGNED

C. MOORING

CHECKED

S. THOMAS

APPROVED

5/21/2024

ISSUE DATE

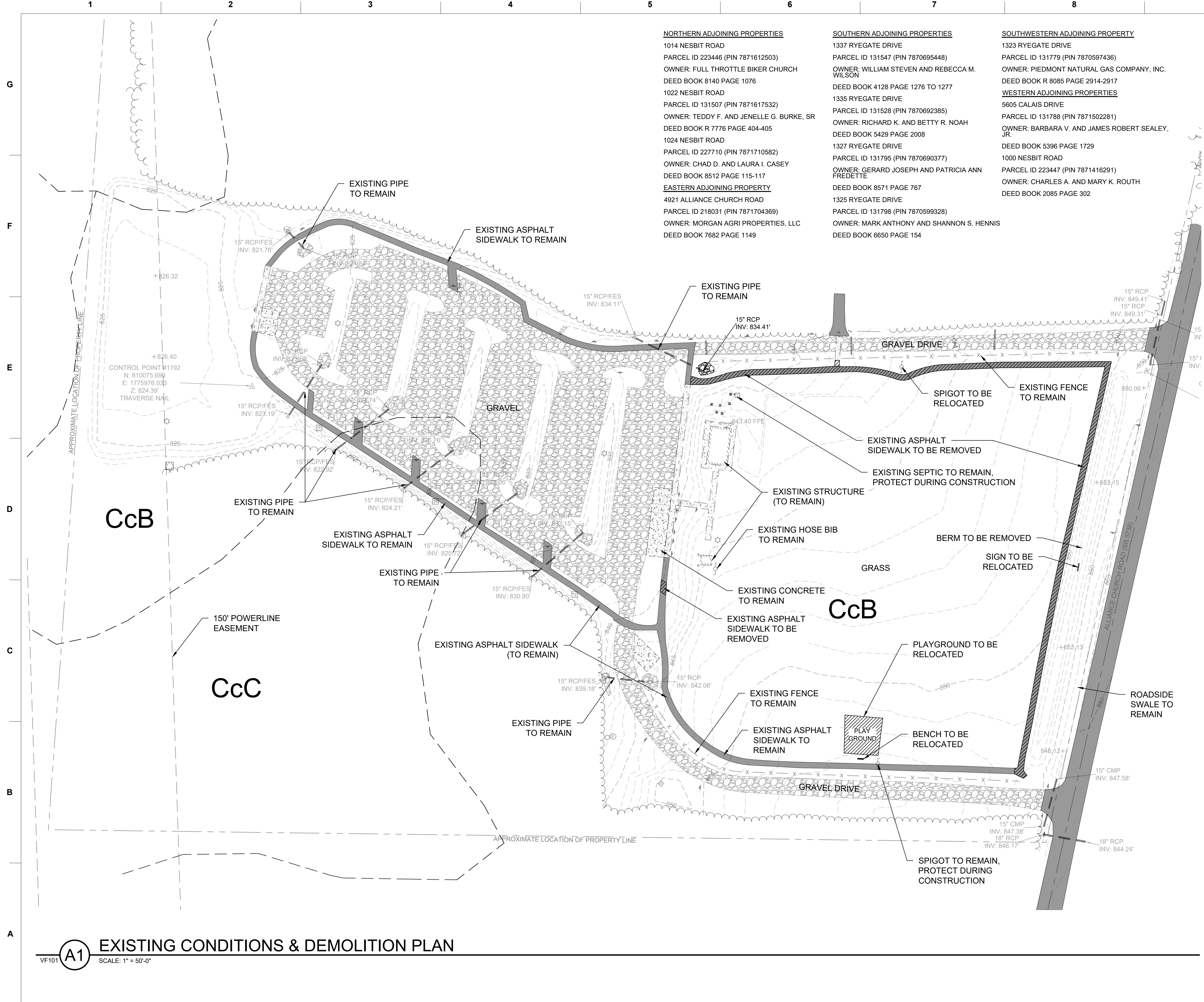
23-008

JOB NO.

C-001

SHEET NO.

SHEET 1 OF 19



NORTHERN ADJOINING PROPERTIES
 1014 NESBIT ROAD
 PARCEL ID 223446 (PIN 7871612503)
 OWNER: FULL THROTTLE BIKER CHURCH
 DEED BOOK 8140 PAGE 1076
 1022 NESBIT ROAD
 PARCEL ID 131507 (PIN 7871617532)
 OWNER: TEDDY F. AND JENELLE G. BURKE, SR
 DEED BOOK R 7776 PAGE 404-405
 1024 NESBIT ROAD
 PARCEL ID 227710 (PIN 7871710582)
 OWNER: CHAD D. AND LAURA I. CASEY
 DEED BOOK 8512 PAGE 115-117
EASTERN ADJOINING PROPERTY
 4921 ALLIANCE CHURCH ROAD
 PARCEL ID 218031 (PIN 7871704369)
 OWNER: MORGAN AGRI PROPERTIES, LLC
 DEED BOOK 7682 PAGE 1149

SOUTHERN ADJOINING PROPERTIES
 1337 RYEGATE DRIVE
 PARCEL ID 131547 (PIN 7870695448)
 OWNER: WILLIAM STEVEN AND REBECCA M. WILSON
 DEED BOOK 4128 PAGE 1276 TO 1277
 1335 RYEGATE DRIVE
 PARCEL ID 131528 (PIN 7870692385)
 OWNER: RICHARD K. AND BETTY R. NOAH
 DEED BOOK 5429 PAGE 2008
 1327 RYEGATE DRIVE
 PARCEL ID 131795 (PIN 7870690377)
 OWNER: GERARD JOSEPH AND PATRICIA ANN FREDETTE
 DEED BOOK 8571 PAGE 767
 1325 RYEGATE DRIVE
 PARCEL ID 131798 (PIN 7870599328)
 OWNER: MARK ANTHONY AND SHANNON S. HENNIS
 DEED BOOK 6650 PAGE 154

SOUTHWESTERN ADJOINING PROPERTY
 1323 RYEGATE DRIVE
 PARCEL ID 131779 (PIN 7870597436)
 OWNER: PIEDMONT NATURAL GAS COMPANY, INC.
 DEED BOOK R 8085 PAGE 2914-2917
WESTERN ADJOINING PROPERTIES
 5605 CALAIS DRIVE
 PARCEL ID 131788 (PIN 7871502281)
 OWNER: BARBARA V. AND JAMES ROBERT SEALEY, JR.
 DEED BOOK 5396 PAGE 1729
 1000 NESBIT ROAD
 PARCEL ID 223447 (PIN 7871416291)
 OWNER: CHARLES A. AND MARY K. ROUTH
 DEED BOOK 2085 PAGE 302

GENERAL NOTES

LEGEND

- BUILDING OUTLINE
- SIDEWALK
- EDGE OF PAVEMENT
- TREE LINE
- CENTERLINE
- PROPERTY LINE
- CONTOUR
- STORMWATER LINE
- FENCELINE
- SOIL TYPE
- CONTROL POINT
- SIGN
- BOLLARD
- WATER SPIGOT
- COMMUNICATION
- SEPTIC TANK
- LIGHT POLE
- TRANSFORMER
- CONCRETE
- ASPHALT
- GRAVEL/RIP RAP

www.cems-ae.com | Summerville, SC | Wilmington, NC | 843.875.3637

VOLUNTEER PARK ATHLETIC FIELD IMPROVEMENTS
 JOB TITLE
EXISTING CONDITIONS & DEMOLITION PLAN
 SHEET TITLE

REVISIONS

NO.	DESCRIPTION	DATE

N. LAURETTA
DRAWN

N. LAURETTA
DESIGNED

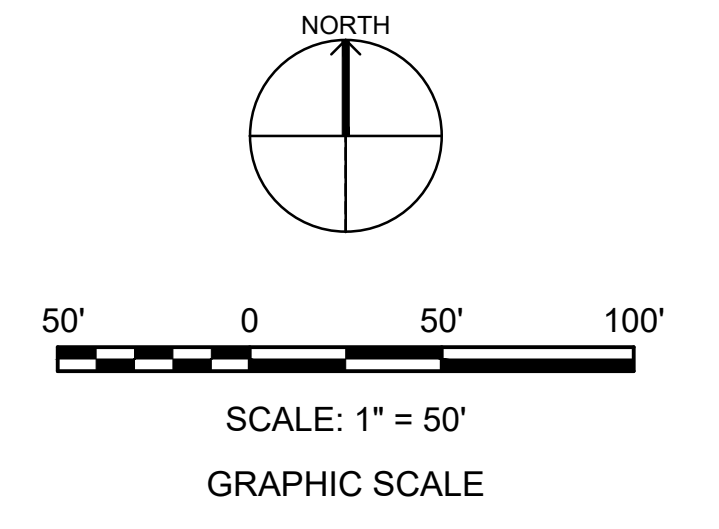
C. MOORING
CHECKED

S. THOMAS
APPROVED

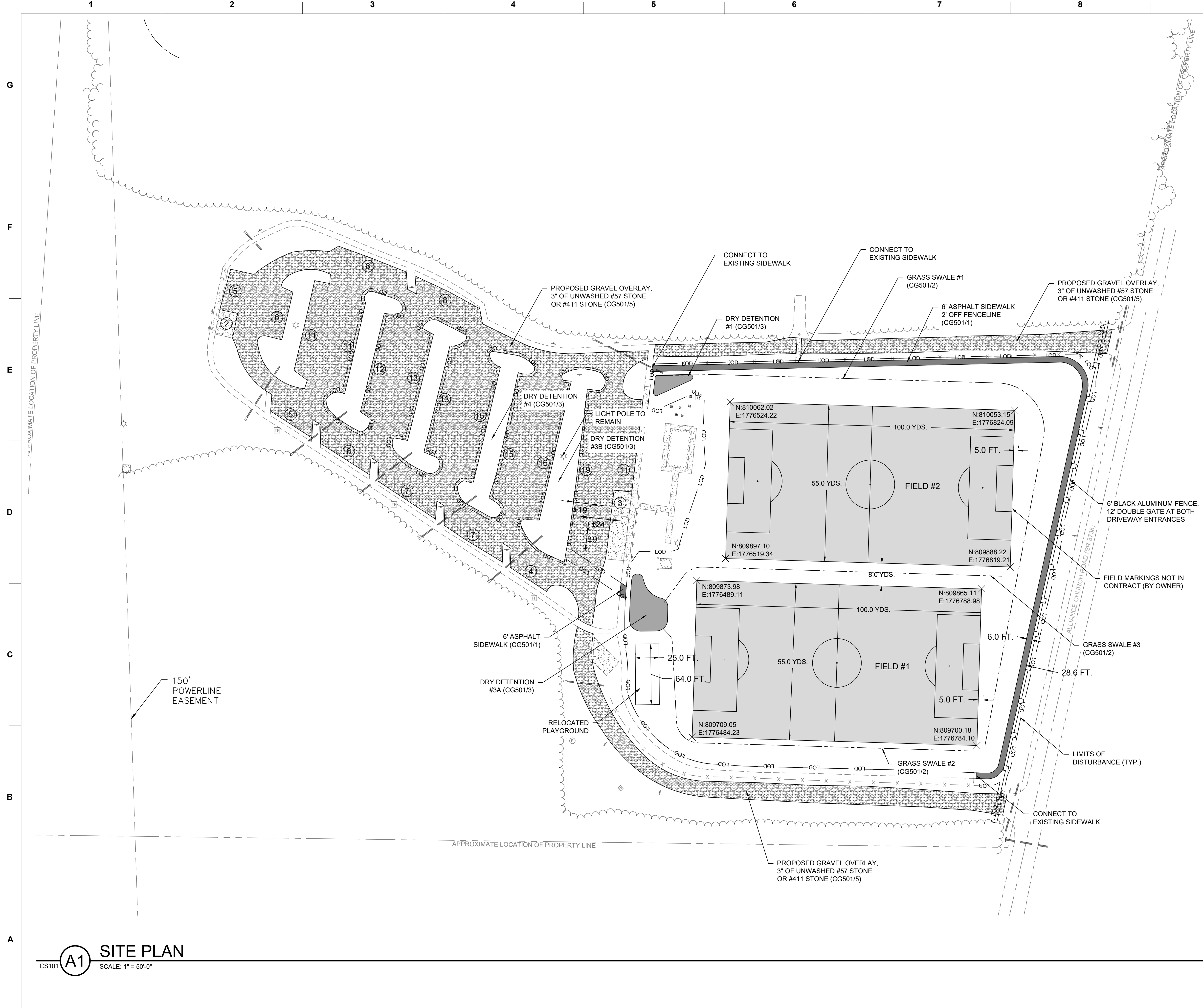
5/21/2024
ISSUE DATE

23-008
JOB NO.

VF101
SHEET NO.



A1 EXISTING CONDITIONS & DEMOLITION PLAN
 SCALE: 1" = 50'-0"



GENERAL NOTES

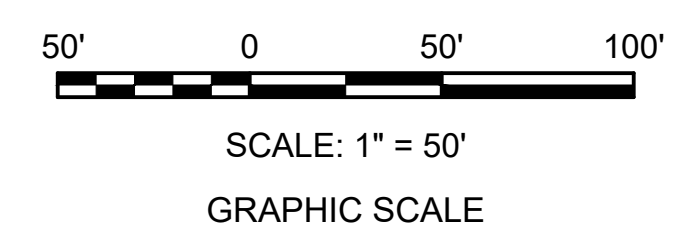
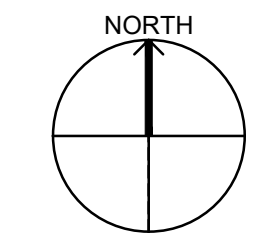
- SEE SHEET 2 - C-002 FOR SURVEY LEGEND.
 - ALL ATHLETIC FIELDS SHALL BE TIFTON 419 BERMUDA SOD. ALL OTHER LOCATIONS SHALL BE BERMUDA SOD.
 - ATHLETIC FIELDS ARE DESIGNATED AS LAND USE CLASSIFICATION 1 PER TABLE 6-3-1. NO PLANTING YARD REQUIRED.
 - THIS PROPERTY IS LOCATED WITHIN THE WATER SUPPLY WATERSHED FOR LAKE MACKINTOSH (BIG ALAMANCE CREEK 16-19-(1), WS-IV, NSW IN THE GWA. PROJECT FALLS WITHIN THE JORDAN LAKE WATERSHED BOUNDARY.
- PARKING CALCULATIONS:
 REQUIRED: 75 SPACES; 25 SPACES/FIELD
 PROVIDED: 193 SPACES (+4 ACCESSIBLE)

LEGEND

- ASPHALT SIDEWALK
- ATHLETIC FIELDS
- STORMWATER MEASURE
- GRAVEL OVERLAY
- GRASS SWALE
- FENCE

DEED RESTRICTION - RESTRICTIVE COVENANT:
 DEVELOPMENT OF SUBJECT PROPERTY IS REQUIRED TO BE IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PHASE II STORMWATER MANAGEMENT PROGRAM. THE RECORDING OF THIS DOCUMENT ESTABLISHES AN ENFORCEABLE RESTRICTION ON PROPERTY USAGE THAT RUNS WITH THE LAND TO ENSURE THAT FUTURE DEVELOPMENT AND/OR REDEVELOPMENT SHALL MAINTAIN THE SITE IN A MANNER CONSISTENT WITH APPLICABLE LAW AND THE APPROVED PROJECT PLANS. ANY ALTERATIONS TO THE SITE SHALL NOT BE PERMITTED WITHOUT REVIEW AND APPROVAL BY THE LOCAL GOVERNMENTAL OFFICE HAVING JURISDICTION FOR WATERSHED/STORMWATER MANAGEMENT PROTECTION.

A 100-YEAR FLOODPLAIN (SFHA) DOES NOT EXIST AT THE PROPERTY BASED ON FIRM MAP # 3710787100J WITH EFFECTIVE DATE 06/18/2007 AND FIRM MAP # 3710787000J WITH EFFECTIVE DATE 06/18/2007(ZONE X).



VOLUNTEER PARK ATHLETIC FIELD IMPROVEMENTS

JOB TITLE
 SITE PLAN
 SHEET TITLE



REVISIONS

NO.	DESCRIPTION	DATE

N. LAURETTA
 DRAWN
 N. LAURETTA
 DESIGNED
 C. MOORING
 CHECKED
 S. THOMAS
 APPROVED
 5/21/2024
 ISSUE DATE

23-008
 JOB NO.

CS101
 SHEET NO. SHEET 5 OF 19

A1 SITE PLAN
 SCALE: 1" = 50'-0"

Pleasant Garden Volunteer Park Athletic Field Improvements Design Narrative

Stormwater Management
Erosion and Sediment Control

Town of Pleasant Garden, North Carolina

Prepared for:

The Town of Pleasant Garden
4920 Alliance Church Road
Pleasant Garden, NC 27313

Prepared by:

CEMS Engineering, Inc.
Steve Thomas, PE, LEED AP



May 21, 2024



5/21/24

Pleasant Garden Volunteer Park Athletic Field Improvements Design Narrative

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1.0 DESIGN NARRATIVE

1.1 PROJECT SCOPE

The Town of Pleasant Garden is seeking improvements to the Athletic Fields and site drainage of Volunteer Park (Site). The Town of Pleasant Garden proposes to modify two (2) existing soccer fields to level the playing surface, maximize play area, and improve site drainage. The Site will be re-graded to provide two (2) 55-yard by 100-yard level fields with a grass swale between them and along the site's perimeter. The existing asphalt sidewalk on the east side of the fields will be relocated outwards and a six (6) foot black aluminum fence with driveway gates will be installed along the entire parcel frontage, outside of the NCDOT right-of-way. Two (2) grassed dry detention basins will be installed at the terminus of the grassed swales to capture site runoff and convey it towards downstream measures. The site is served by a private water supply well and septic system.

From east to west, the project site has two (2) athletic fields, developed for soccer, an existing brick concession building, storage shed, and large gravel parking area. A playground and bench are in the southern portion of the athletic fields. The site's eastern boundary is an asphalt sidewalk followed by a berm and roadside swale beyond which is Alliance Church Road. To the north and south, the site boundary consists of an asphalt sidewalk beyond a gravel drive. The site has two (2) gravel driveway accesses from Alliance Church Road which run along the north and south of the athletic fields and end at the gravel parking area in the west of the site. An asphalt sidewalk borders the gravel parking area to the north, west and south.

Soils found onsite, according to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Custom Soil Resource Report for Guilford County, North Carolina are primarily sandy loam. Soil types in the vicinity of the athletic fields and gravel parking area are Cecil sandy loam with 2 to 6% slopes (CcB), Cecil sandy loam with 6 to 10% slopes (CcC), and Enon fine sandy loam with 6 to 10% slopes (EnC). Both CcB and CcC are classified as hydrologic soil group (HSG) A and are well drained. EnC is classified as HSG C and well drained. CcB and CcC have a soil composition of sandy loam from ground surface to 8 inches below ground surface (bgs) underlain by clay from 8 to 42 inches bgs, clay loam from 42 to 50 inches bgs, and loam from 50 to 80 inches bgs. EnC has a soil composition of fine sandy loam from ground surface to 8 inches bgs underlain by sandy clay loam from 8 to 11 inches bgs, clay from 11 to 33 inches bgs, and loam from 33 to 80 inches bgs. The project drains to Little Alamance Creek (16-19-3-(0.5)), which is classified as Water Supply IV (WS-IV) and Nutrient Sensitive Waters (NSW) within the Big Alamance Creek (16-19-(1), WS-IV; NSW) watershed of the Cape Fear River Basin as illustrated in on the attached United States Geologic Survey (USGS) Topographic Map. Little Alamance Creek is located approximately 1000 feet to the west of the project site.

Site demolition will include removal of the existing asphalt sidewalk north and east of the athletic fields and adjacent to the storage shed, removal of the berm along the eastern portion of the site. A spigot at the north side of the athletic fields and the playground and bench will be relocated. The proposed limit of the clearing and grading area is approximately 4.70 acres.

1.2 PROJECT LOCATION

The Site is south of the Town of Pleasant Garden town hall at 4920 Alliance Church Road in southeastern Guilford County, North Carolina. The site is located at Latitude: 35°58'24"N, Longitude: 79°45'19"W. This project is contained within the existing Guilford County, NC parcel number 131551 (PIN 7871604478) having an area of 48.71 acres with the project site encompassing 48.68 acres.



PROJECT LOCATION



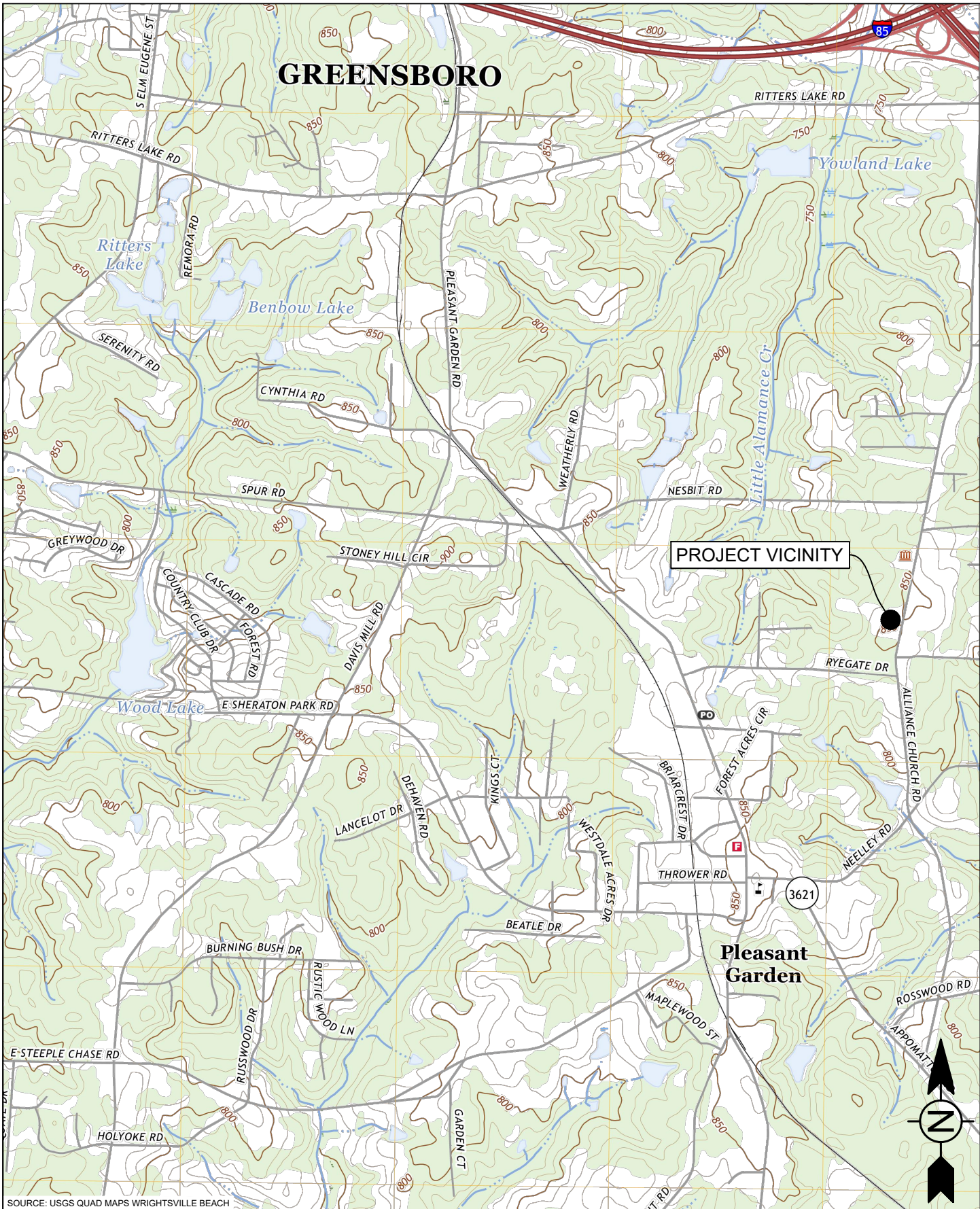
SOURCE: NC ONE MAPS



4904 PARK AVENUE
WILMINGTON, NC 28403
(910) 398-2882
www.rivervieweng.com

Date :	5/13/2024
Scale:	1"=500'
Drawn :	NL
Chk:	NL
Proj. No:	1002.05

PLEASANT GARDEN
ATHLETIC FIELD IMPROVEMENTS
GUILFORD COUNTY, NORTH CAROLINA



SOURCE: USGS QUAD MAPS WRIGHTSVILLE BEACH



4904 PARK AVENUE
 WILMINGTON, NC 28403
 (910) 398-2882
 www.rivervieweng.com

Date :	5/13/2024
Scale :	1"=2000'
Drawn :	NL
Chk :	NL
Proj. No :	1002.05

PLEASANT GARDEN
 ATHLETIC FIELD IMPROVEMENTS
 GUILFORD COUNTY, NORTH CAROLINA

1.3 EROSION AND SEDIMENT CONTROL PLAN

An Erosion and Sediment Control (ESC) Plan was developed to meet the requirements of the North Carolina Department of Environment Quality Erosion and Sediment Control program and the Sedimentation Pollution Control Act of 1973. The project disturbed area is greater than one (1) acre and therefore must provide an Erosion and Sediment Control Plan for review. The ESC Plan was developed to comply with the North Carolina Erosion and Sediment Planning and Design Manual, use the 10-year storm event for all design calculations, and eliminate sediment laden stormwater discharges during construction activities.

The runoff from the site disturbed area will be primarily collected in diversion ditches and an onsite temporary skimmer basin sized to treat the runoff from the site disturbed area during the 10-year storm event. Temporary silt fence with outlets is provided in areas downstream of the diversion ditches. Temporary slope stabilization matting and seeding, or sod will be used throughout the site to stabilize existing eroding slopes.

1.4 STORMWATER MANAGEMENT

The stormwater drainage plan for the Town of Pleasant Garden Volunteer Park athletic fields is designed to provide for safe and adequate conveyance of stormwater, including the 10-year, 24-hour storm, from higher to lower elevations within the site.

The existing site is approximately 8% impervious comprised of existing structures, roadways, parking areas, and appurtenances. The existing impervious area will remain. The site data below shows the impervious area associated with the existing 48.68-acre parcel.

Site Data

Impervious	173,726	SF
Buildings	14,687	SF
Concrete	25,528	SF
Asphalt	41,498	SF
Gravel	92,013	SF
Impervious Cover	8.2	%

To meet the drainage plan requirements, the project proposes to utilize the existing onsite drainage network, with modifications, two (2) dry detention facilities, and three (3) linear drainage ditches.

The project was modeled using PCSWMM with the SWMM 5.2.4 engine released August 7, 2023. SWMM utilizes the Modified Green-Ampt infiltration model which uses the soil properties of Suction Head, Conductivity, and Initial Deficit to define the soil's runoff potential. The model also uses percent impervious, landcover Manning's 'n', and subarea routing, and are as follows:

- Percent Impervious: Determined from CAD
- Land Cover 'n': 0.01 pervious, 0.10 impervious
- Subarea Routing: Pervious

Time of concentration calculations were developed using the watershed width, flow length, and slope determined from USGS 1-Meter DEM. The model was run for 24-hour simulations of the pre- and post-development scenarios for the 10--year storm event with the following rainfall amount:

- 10 Year: 4.96 inches

The PCSWMM model was constructed using five (5) storage areas for the existing dry detention areas in the parking lot and two (2) new dry detention areas for the re-graded field complex. Peak flow values for the 10-year storm event were determined at two (2) outfall locations including the stormwater collection system along the southern development limit (OF1) and the stormwater collection system along the northern development limit (OF2). Additionally, the pipe network was analyzed for capacity for the 10-year storm event.

Routing Summary

Scenario	Outfall OF1		Outfall OF2	
	Pre (cfs)	Post (cfs)	Pre (cfs)	Post (cfs)
10-Year	0.39	0.40	41.6	42.4

The pre- and post-development flow rates are nearly identical with a slight increase in the post-development flow rate due to the removal of overland flooding at the existing field complex. The pre- and post-development profiles are shown below to demonstrate the improved drainage pattern in the post-development scenario.

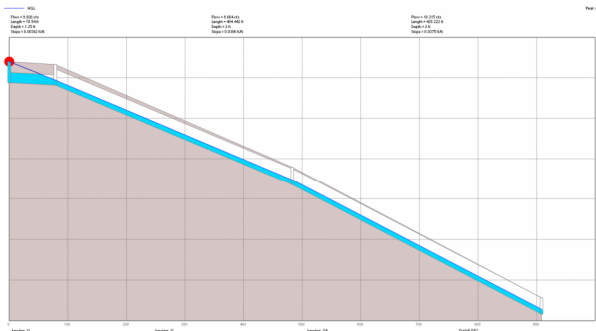


Figure 1 - Pre-Development Profile - Soccer Complex

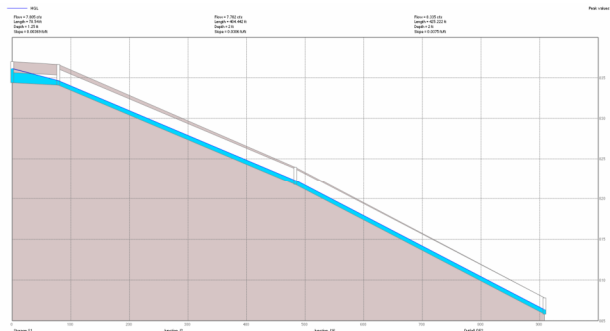


Figure 2 - Post-Development Profile - Soccer Complex

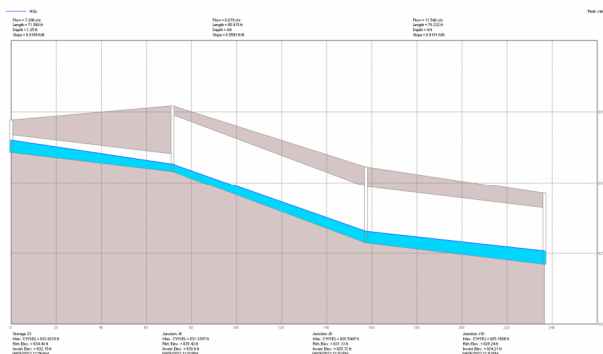


Figure 3 - Pre-Development Profile – Parking Lot

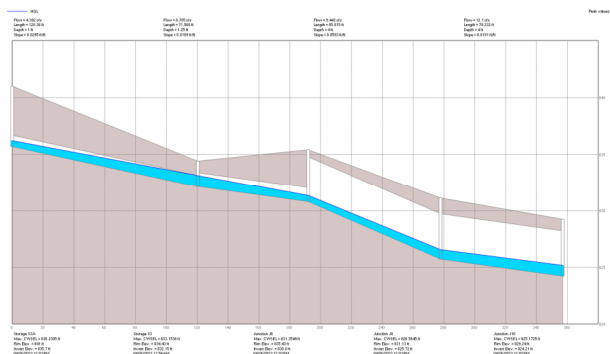


Figure 4 - Post-Development Profile – Parking Lot

1.5 CONSTRUCTION SEQUENCE

1. Obtain all necessary state and local permit approvals.
2. Prior to clearing trees, installing sediment control measures, or grading, a preconstruction meeting must be conducted on-site with the Guilford County erosion control inspector.
3. Prior to any clearing and grubbing, install silt fence, tree protection fence and gravel construction entrances.
4. Install additional temporary skimmer basins within the limits of construction as shown on the plans to treat sediment laden water from mass grading. Temporary skimmer basins shall be constructed prior to construction of any diversion ditches that convey water to a basin. The contractor shall field adjust temporary diversion ditches as required to maintain the diversion to the basins.
5. Commence grubbing and mass grading within limits of construction.
6. Install stormwater drainage system to include ditches, piping, catch basins and drop inlets, including installation of stage two inlet protection and outlet control as shown on plans.
7. Remove accumulated sediment from ditches and skimmer basins as required on the plans and permit.
8. Remove temporary skimmer basin 1 and adjust silt fence to limits of grading.
9. Complete site fine grading and sidewalk construction.
10. The contractor shall continuously maintain erosion control measures and clean temporary sediment traps and basins to meet Guilford County approval.
11. Seed and stabilize all areas per erosion control notes on the plans.
12. Upon completion of construction, the contractor shall request final inspection from the Guilford County erosion control inspector to allow removal of all temporary erosion control devices.

1.6 MAINTENANCE

Contractors shall be responsible for inspection and maintenance once a week of all indicated erosion control devices. In addition, inspection and any necessary maintenance will be required within 24 hours following any rain event. Any erosion control measure that fails to function as intended shall be repaired immediately. Upon completion of construction and the establishment of stabilized ground cover, the property owner shall be responsible for any ongoing site maintenance.

Attachment C – Site Photos



