



CHEROKEE COUNTY BOARD OF COMMISSIONERS  
Purchasing Department  
1130 Bluffs Pkwy, Canton, GA 30114  
Ph: 678-493-6000 | Fax: 678-493-6035

## ***ADDENDUM TWO***

Solicitation Number: 2024-023  
Solicitation Name: New Construction, Cherokee County EMS Station #30  
Addendum Release Date: March 26, 2024

Prime Bidders/Proposers acknowledge the receipt of this Addendum by inserting the number and date in the appropriate position on the Proposal Form. Failure to do so may subject the Bidder/Proposer to disqualification. This Addendum is a part of the Contract Documents. It modifies them as follows:

### **Item No. 1**

### **Section 02200**

Section 02200 – Earthwork

Replace this section in its entirety (see attachment).

### **Item No. 2**

### **Sheets C1.1, C2, C2.1, C3, C3.1, C4, C5, C7.2 and C7.3**

Replace these Civil sheets in their entirety (see attachments).

### **Item No. 3**

### **Sheets C6, C6.1, C6.2, C6.3, C6.4, C6.5, C6.6, C6.7, C6.8 and C7.4**

Add these Civil sheets in their entirety (see attachments).

### **Item No. 4**

### **Sheets A1.1, A1.5, A4.1 and A5.1**

Replace these Architectural sheets in their entirety (see attachments).

### **Item No. 5**

### **Sheets P1.1 and P1.3**

Replace these Plumbing sheets in their entirety (see attachments).

### **Item No. 6**

### **Supplemental Information**

See attached Report of Environmental Services, as performed by NOVA on March 9, 2023, of our project property.

**\*\*END\*\***

## **SECTION 02200 – EARTHWORK**

Replaced in Addendum #2

### PART 1 - GENERAL

#### 1.01 SUMMARY

A. THIS SECTION INCLUDES:

1. Project conditions
2. Quality assurance
3. Rough Grading
4. Proof rolling
5. Submittals
6. Excavating
7. Backfill and fill
8. Trenching
9. Rock removal
10. Disposal

#### 1.02 RELATED DOCUMENTS / SECTIONS

- A. Contract documents and drawings, geotechnical soils report (if available). Refer to appropriate related sections as necessary.

#### 1.03 REFERENCES

- A. AASHTO - M147 - Materials for aggregate and soil aggregate.
- B. AASHTO T180 - Moisture-Density Relations of Soils Using a 10-lb. (4.45 kg) Rammer and an 18-in. (457 mm) drop.
- C. ANSI/ASTM C136 - Method for Sieve Analysis of Fine and Course Aggregates.
- D. ANSI/ASTM D698 - Standard Proctor Test - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using a 5.5 lb. (2.49 kg) Rammer and 12 inch (304.8 mm) drop.
- E. ANSI/ASTM D1557 - Modified Proctor Test - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb. (4.45 kg) Rammer and 18 inch (457 mm) Drop.
- F. ASTM D2167 - Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
- G. ASTM D2487 - Classification of Soils for Engineering Purposes.
- H. ASTM D2922 - Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

- I. ASTM D3017 - Test Methods for Moisture Content of Soil and Soil-Aggregate Mixtures.
- J. ASTM D4318 - Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
- K. ANSI/ASTM D1556 - Test Method for Density of Soil using the Sand-Cone Method.
- L. GE - Geotechnical Engineer, Engineering Report, Recommendations.
- M. NFPA - Code for explosive materials

When standards or specifications are indicated herein by reference, the referenced portion shall apply to the most recent edition of the publication and shall have the same force and effect as if they were included herein in their entirety.

#### 1.04 REGULATORY REQUIREMENTS

- A. Verify and comply with all Federal, OSHA, State, County, City or local requirements concerning earthwork, excavation, and related activities.
- B. When any construction, materials, or specifications for the same or similar item(s) are shown in more than one place in the construction documents, plans, or specifications, the more stringent requirement shall apply as determined by the Engineer.
- C. **WARNING:**  
**CONTRACTOR SHALL: COMPLY WITH ALL OSHA, FEDERAL, STATE, LOCAL, AND INDUSTRY STANDARD SAFETY MEASURES, DEVICES, PROCEDURES, PRECAUTIONS, AND EQUIPMENT FOR ALL WORK OR OTHER ACTIVITIE(S). NO PERSON(S) SHALL ENTER MANHOLES, CONFINED SPACES, OR OTHER UNDERGROUND STRUCTURES, SPACES, TRENCHES, OR EXCAVATIONS WITHOUT PROTECTIVE BREATHING APPARATUS AND ALL OTHER REQUIRED SAFETY MEASURES, DEVICES, PROCEDURES, AND EQUIPMENT, AND AT LEAST ONE OTHER PERSON PRESENT ABOVE GROUND FOR SAFETY AND MONITORING AT ALL TIMES. CONTRACTOR SHALL PROVIDE AND ENSURE USE OF SAFETY KITS, HELMETS, GLOVES, EMERGENCY OXYGEN RESUSCITAOR KITS, AND AIR QUALITY AND GAS DETECTORS FOR VOLATILE, TOXIC, OR EXPLOSIVE GASES OR SUBSTANCES. VERIFY SAFE OXYGEN CONTENT PRIOR TO ENTERING MANHOLES, CONFINED SPACES, OR OTHER UNDERGROUND STRUCTURES.**

## 1.05 PROJECT CONDITIONS

- A. Site information: All earthwork, cutting, filling, compaction, and related operations shall conform to the requirements and recommendations of the geotechnical Soils Engineer. In the absence of a qualified geotechnical Soils Engineer, the Contractor shall be fully responsible for the integrity, suitability, quantity, compaction, selection, and quality of the soils used in the completion of the Work.
  
- B. Protection of persons and property:
  - 1. Barricade all open excavations occurring as part of this work and post with warning lights.
  - 2. Operate warning lights or devices for all excavations, restricted or dangerous areas, or other areas as required for safety of all person(s) onsite or in the work area, as required BY OSHA, Federal, State, and local laws, or recommended by authorities having jurisdiction. All warning lights or devices shall be illuminated for night or low visibility conditions.
  - 3. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, or other hazards created by earthwork operations.
  - 4. The Contractor, and all sub-contractors, shall be responsible for all safety measures, procedures, or devices as required by OSHA, Federal, State, or local authorities. No person shall enter a manhole or other underground structure without protective breathing apparatus, and at least one other person present for safety. All earthwork, trenching, and grading operations shall conform to minimum OSHA requirements for safety, shoring, bracing, and protective measures.
  
- C. The Contractor is solely responsible for construction staging, phasing, and sequencing. Wet soils and wet soil remediation due to rainfall will not be justification for additional costs.

## 1.06 QUALITY ASSURANCE

- A. Testing and Inspection service: Contractor shall employ and pay for a qualified independent Geotechnical Engineer (GE) and geotechnical testing laboratory to perform soil testing and inspection services during earthwork operations and as specified by the Architect/Engineer. All testing, earthwork, excavation, cut and fill

operations and associated work shall comply with GE recommendations and standards at a minimum. GE shall be subject to approval of Owner/Architect/Engineer.

- B. Testing Laboratory Specifications: The Contractor shall obtain approval from the Owner/Architect/Engineer for the (GE) and the Testing Laboratory prior to beginning work.
- C. Field Testing: Allow testing laboratory to test and approve each subgrade and fill layer before further backfill or construction is performed.
  - 1. Field density tests shall be in accordance with ASTM D 698.
  - 2. The placement, location, number, and frequency of tests shall be as directed by the Geotechnical Engineer or authorized qualified Technician (GE or GT.)

#### 1.07 SUBMITTALS

- A. Test reports: Submit the following test reports directly to the Architect, Engineer, and Owner or Owner's representative from the Testing Laboratory, with a copy to the Contractor:
  - 1. Test reports on borrow material.
  - 2. Field reports, in-place soil density tests.
  - 3. One optimum moisture-maximum density curve for each soil type encountered.
  - 4. Report of actual unconfined compressive strength and/or results of bearing tests of each strata tested.
  - 5. Topographic as-built survey (2.04 F)

### PART 2 - EXECUTION

#### 2.01 ROUGH GRADING

- A. Definition: Cutting, grading, filling, and rough contouring the site for building pads, structures, paving areas, or other improvements.

#### 2.02 EXAMINATION

- A. All existing contours, elevations, structures, utilities, and other

improvements shown on the plans are taken from the best information available at the time and are believed to be reasonably true and correct. Any errors, omissions, or discrepancies between the actual field conditions and the plans discovered during construction must be reported immediately to the Architect and the Engineer. Any work done by the Contractor after such discovery without written approval from the Architect or Engineer will be at the Contractor's risk.

## 2.03 PREPARATION

- A. Identify and verify required lines, levels, contours, and datum.
- B. Utilities: Stake and flag locations of all utilities. Coordinate with all utilities and have existing locations clearly marked prior to construction. Protect above and below grade utilities to remain from damage. Notify prior to construction and coordinate with any utilities that will require removal and/or re-location.
- C. Provide protective measures or devices for all existing features to remain, including but not limited to: trees and vegetation, existing buildings and appurtenances, adjacent property improvements, or other structures.

## 2.04 EXCAVATION

- A. General: Comply with safety requirements of all Federal, State, County, City, or local authorities having jurisdiction.
- B. Excavate subsoil as shown on approved plans. Make grade changes gradual. Blend slopes into level areas.
- C. EARTHWORK VOLUME(S) FOR CUT AND FILL WILL NOT BALANCE. The contractor is solely responsible for establishing finished grades as shown on approved plans, including any earthwork export (haul-off) or earthwork import (offsite hauled in) required to establish permanent grades. All exported earthwork shall be disposed of offsite in a legal manner by the contractor. All imported earthwork shall be approved suitable material documented by the GE for conformity with specifications, intended use, and volume(s) imported.

- D. Provide Temporary Dewatering as required to facilitate all proposed earthwork and construction. See Dewatering specifications.
- E. Tolerances: Top surface of subgrade: Plus or minus 1/10 foot, provided positive drainage is established according to the design intent of the plans and specifications.
- F. As-Built topographic survey:  
After rough grades are established, and before building foundations or other site improvements begin, the Contractor shall provide to the Owner at Contractor's expense an as-built topographic survey of the grades and graded areas as shown on the approved plans. The as-built topographic survey must be signed and sealed by a registered Surveyor licensed in the State where the project is located, and must show grading elevations, slopes, and contours to the extent necessary for the Owner to verify that the grading is in compliance with the approved plans and specifications. Do not proceed with any work in any area of the site until Owner is satisfied with results of as-built topographic survey. It is the Contractor's responsibility to schedule the as-built survey and account for the required time to complete the review process with the Owner to avoid delays to the project schedule.
- G. All soils used for fill in earthen dams or water impoundment areas shall be ML or CL low plasticity clays per the Unified Soil Classification, and must be approved by the Geotechnical Engineer. All organics, topsoil, or other unsuitable material shall be removed from the entire fill area. All fill shall be placed in maximum 6 inch lifts, minimum compaction is 95% of standard maximum density. No gravel, aggregate or gravel pipe bedding, or any pervious material shall be placed in the dam or fill area(s) or adjacent to any water impoundment perimeter(s). Scarify existing subgrade prior to placing fill.

## 2.05 ROCK EXCAVATION

- A. Rock excavation shall consist of all material which cannot be excavated except by drilling, blasting or wedging. It shall consist of un-decomposed stone hard enough to ring under a hammer, and the amount of solid stone shall be not less than one (1) cubic yard in volume. Rock is further defined as follows:
  - 1. General Excavation: Any material occupying an original volume of more than one cubic yard which cannot be excavated with a single-

tooth ripper drawn by a crawler tractor having a minimum draw bar pull rated at not less than 80,000 pounds sable pull (Caterpillar D-8 or larger), see 2.05(B).

2. Trench Excavation: Any material occupying an original volume of more than one half cubic yard which cannot be excavated with a backhoe having a bucket curling force rated at not less than 40,000 pounds, using a rock bucket and rock teeth (a John Deere 790 or larger).
- B. When rock is encountered, the earth shall be cleared away and any rock shall be exposed for classification.

**Rock must be classified and verified as follows:**

**In the presence of the Owner, Architect, Engineer, and the Testing Lab, at the expense of the Contractor, rock must be pulled in three different and distinct directions with a single-tooth ripper drawn by a crawler tractor having a minimum draw bar pull rated at not less than 80,000 pounds sable pull (Caterpillar D-8 or larger). After pulling in three different directions, rock shall be classified according to 2.05 (A) (1.)**

The Architect/Owner/Engineer shall be notified before any rock has been blasted or removed in any way.

- C. Boulders over one (1) cubic yard or rock as defined above shall be removed at a contractual unit price. Once rock is uncovered, grading sections shall be taken. When rock is completely removed, new grading sections shall be taken to determine the quantity of rock removed. Contractor shall bear the expense of taking grading sections.
- D. All blasting shall be done in accordance with local ordinances, and permits shall be obtained where required by law.
- E. Rock that is removed shall become the property of the Contractor and shall be removed from the site and/or buried as allowed by the specifications, and subject to GE approval.
- F. Decomposed rock and similar material that can be removed by tractor drawn ripper or power machinery as previously mentioned will be classified as earth excavation.
- G. When rock is encountered, clear away earth and notify Architect/Owner/Engineer. Architect/Engineer will inspect material and



issue written instructions. No rock excavation shall be done without written instructions. No rock excavation shall be done prior to measurement.

E. Measurement for Rock Excavation shall be as follows:

1. Mass Rock:

- a. Measurement for mass rock shall be made by taking cross sections or by other appropriate means identifying the contours of rock before and after removal. All rock measurements shall be made and certified by an independent licensed surveyor or engineer approved by the Architect.
- b. Rock removed prior to measurement shall not receive compensation.
- c. The quantity of rock shall be calculated using the following limits:
  1. To top of rock
  2. To 1.0 feet below finished grade of roadway
  3. To vertical lines at back of curb
  4. To 1.0 feet below foundations and footings
  5. To vertical faces located 1.0 feet horizontal distance from each footing or foundation face
  6. To 0.5 feet below slabs on grade
  7. To finish grade in cut where rock is removed to finish grade. Where it is not so removed, to the finish rock surface.

2. Trench Rock:

- a. Measurement for trench rock shall be made by taking level readings at reasonable intervals but not more than 10 feet along the exposed trench length before removal of rock. All rock measurements shall be made and certified by an independent licensed surveyor or engineer approved by the Owner/Architect.
- b. Rock removed prior to measurement shall not receive compensation.

- c. The quantity of rock shall be calculated using the following limits:
  1. To top of rock
  2. To vertical faces 1.0 feet beyond the outside of pipe barrel, each side
  3. To 12 inches below pipe barrel for the full trench length having rock
  4. To vertical faces located 1.0 feet horizontal distance beyond structures or manholes
  6. To 6 inches below bottom of slab for structures

E. Blasting or explosives:

1. All blasting or use of explosives shall be done by a company with at least five years documented experience specializing in use of explosives for disintegration of rock.
2. All blasting or use of explosives shall be done in strict accordance with the local authority having jurisdiction. Obtain all necessary permits or approvals prior to use of explosives. The Contractor is responsible for all Federal, State, and local safety requirements, ordinances, or laws regarding the use of explosives.
3. The Contractor shall conduct a survey with photographs of to document existing conditions of buildings adjacent to or near the location of rock removal prior to blasting. The Contractor shall advise and coordinate with all affected adjacent or nearby property owners in writing of the proposed blasting schedule. Obtain a seismic survey prior to rock excavation to determine maximum charges which may be used without damaging adjacent property, buildings, or structures. Provide seismographic monitoring during all blasting operations.
4. All blasting shall be completed before footings or foundation construction begins.
5. Rock which is removed shall become the property of the Contractor and shall be removed from the site and disposed of in a legal manner.
6. When rock is encountered, the Contractor shall immediately notify the Engineer in writing. Classification of rock and volume

calculations shall be done in accordance with the specifications and as directed by the Architect. The Engineer and/or the Architect will issue written instructions to the Contractor concerning rock work prior to any rock removal.

7. Payment will not be made for over excavated rock or for replacement materials.

## 2.06 BACKFILL AND FILL

- A. Fill materials: Fill shall be clean inorganic natural soil. Structural fill shall contain no rock fragments larger than 3 inches in the longest dimension. Soils proposed for fill shall have a target maximum dry density of 100 pounds per cubic foot or greater in Standard Proctor Compaction Test ASTM D698 or as directed by the GE. All fill materials must be approved by the Soils Engineer prior to placement. In the absence of a Soils Engineer, the Contractor is fully responsible for material or soil selected for fill. Any fill containing large quantities of rock or weathered rock shall not be used as structural fill.
- B. The Contractor shall coordinate testing as required by the Soils Engineer (GE) for all fill materials prior to their use.
- C. Execution: Placed fill materials used in backfilling or filling in layers shall not exceed the following loose depths or as directed by the Soils Engineer (GE):
  1. Heavy equipment compaction: 6-8 inches
  2. Hand operated tampers: 4-6 inches
- D. All areas of existing subgrade which require remediation, or are not capable of in-place compaction, shall be excavated and backfilled with structural fill material compacted to a density equal to or greater than requirements for subsequent fill material layers.
- E. Place fill simultaneously on opposite sides of walls, small structures, utility lines, trenches, etc. to avoid displacement or over stressing.
- F. In-place density requirements:  
Compact soil to not less than the values given below, expressed as a percentage of maximum dry density at optimum moisture content per ASTM D698:

1. Structural fill: Paved areas, buildings, footings, structures, etc.: 95 percent minimum unless noted otherwise, or as recommended by the Geotechnical Engineer or the Geotechnical subsurface exploration analysis and evaluation, whichever is greater.
  2. Unpaved non-structural areas: 90 percent
  3. Exterior steps, walks, ramps, etc.: 95 percent
  4. Compacted fill behind walls: 95 percent
- G. Moisture Control: During compaction, control moisture of subgrades and subsequent lifts to within optimum moisture content tolerances as recommended by the GE. Wet surface or aerate soil as required.
- H. Backfilling:
1. Backfill areas to contours and elevations shown with approved unfrozen materials.
  2. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, or spongy subgrade surfaces.
  3. Maintain moisture content within optimum range as specified by the GE.
  4. Compaction: See 2.06 (F) above.
  5. Slope grades away from buildings or other structures which may be damaged by water a minimum of 2 inches in 10 feet, unless noted otherwise.
  6. Tolerances: Plus or minus 1/10 foot.
- I. Protection of finished work: Protect all finished work. Re-shape and re-compact fills subjected to vehicular traffic as necessary.

## 2.07 TRENCHING

- A. Comply with all Federal, OSHA, State, County, City or local regulations regarding safety and construction. See Section 1.05 (4).
- B. Maintain and protect all utilities above and below ground designated to remain. Contractor to coordinate with all utilities and authorities having jurisdiction regarding construction procedures such as utility service connections, maintenance of service(s), notification procedures, tapping or extension specifications, and other related items.

- C. Cut trenches sufficiently wide to enable installation and inspection. The minimum bedding for all pipes is Class B as shown on the plans unless specified otherwise.
- D. Backfill trenches to correct elevations with approved materials only. Do not backfill over porous, wet, or spongy subgrade surfaces.
- E. Maintain maximum moisture content range to ensure required compaction density.

2.08 DISPOSAL

- A. The contractor shall remove from the Owner's property all waste material, unsuitable excavated material, trash and debris, and dispose of it offsite in a legal manner.

2.09 GEOTECHNICAL SOILS STUDY

- A. If a Geotechnical Soils Study has been performed, a copy of the Geotechnical Soils Study will be made available to the Contractor or included in the specifications following this Section. The Soils Study is for reference only. All conclusions, estimates, or decisions made regarding the contents of the Study are the sole responsibility of the person(s) reading the Study.

END OF SECTION 02200

F.E.M.A. NATIONAL FLOOD INSURANCE PROGRAM (N.F.I.P.), OFFICIAL FLOOD INSURANCE RATE MAP, MAP NO. 13057C0263E, REVISED 06-07-19, SHOWS A PORTION OF THIS PROPERTY TO BE IN AN AREA HAVING SPECIAL FLOOD HAZARDS.

NOTES:

- 1.) SOME UNDERGROUND UTILITIES AND UTILITY EASEMENTS, IF ANY, MAY NOT BE SHOWN.
- 2.) THIS SURVEY IS SUBJECT TO ALL RIGHTS-OF-WAY AND EASEMENTS, BOTH RECORDED AND UN-RECORDED.
- 3.) OVERHEAD UTILITY EASEMENTS, IF ANY, MAY NOT BE SHOWN.
- 4.) SOME EXISTING IMPROVEMENTS MAY NOT BE SHOWN.
- 5.) SOME FENCES MAY NOT BE SHOWN.
- 6.)

- LEGEND:
- 1) I.P.S. - IRON PIN SET
  - 2) I.P.F. - IRON PIN FOUND
  - 3) R. - REINFORCING BAR
  - 4) A - ARC
  - 5) RAD. - RADIUS
  - 6) C.M.F. - CONCRETE MONUMENT FOUND
  - 7) (NR) - NOT RADIAL
  - 8) M.H. - MANHOLE
  - 9) D.I. - DROP INLET
  - 10) B.L. - BUILDING LINE
  - 11) R/W - RIGHT OF WAY
  - 12) J.B. - JUNCTION BOX
  - 13) F.H. - FIRE HYDRANT
  - 14) L.L.L. - LAND LOT LINE
  - 15) C.B. - CHORD BEARING
  - 16) C.D. - CHORD DISTANCE
  - 17) N./F. - NOW OR FORMERLY
  - 18) S.S. - SANITARY SEWER
  - 19) S.S.E. - SANITARY SEWER EASEMENT
  - 20) P.P. - POWER & (OR) PHONE POLE
  - 21) D.E. - DRAINAGE EASEMENT
  - 22) C. - CENTERLINE
  - 23) P.L. - PROPERTY LINE
  - 24) - OVERHEAD POWER LINE
  - 25) - OVERHEAD PHONE LINE
  - 26) - FENCE (APPROX. LOC.)
  - 27) - STREAM (APPROX. LOC.)
  - 28) - DITCH (APPROX. LOC.)
  - 29) - IRON PIN ON LINE
  - 30) L.P. - LIGHT POLE

REFERENCE PLATS:

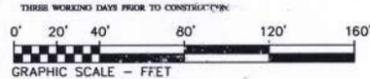
- 1) SURVEY FOR CHEROKEE COUNTY BOARD OF EDUCATION, DATED: DECEMBER 3, 1977, BY: BATES-LONG & ASSOCIATES.
- 2) SURVEY FOR: CLARA BELL FOWLER, DATED: APRIL 18, 1974, BY: CARLISLE & THACKER, INC., RECORDED IN PLAT BOOK 10, PAGE 46.
- 3) SURVEY FOR: A.J. HUNT, DATED: APRIL 18, 1974, BY: CARLISLE & THACKER, INC., RECORDED IN PLAT BOOK 10, PAGE 46.
- 4) SURVEY FOR: BETHEL BAPTIST CHURCH, TRACT NO. 1, DATED: JUNE 21, 1971, BY: A.W. ROBINSON, SURVEYOR, RECORDED IN PLAT BOOK 6, PAGE 24.
- 5) SURVEY FOR: BETHEL BAPTIST CHURCH, TRACT NO. 2, DATED: JUNE 21, 1971, BY: A.W. ROBINSON, SURVEYOR, RECORDED IN PLAT BOOK 6, PAGE 31.
- 5) SURVEY FOR: BETHEL BAPTIST CHURCH, INC. DATED: JANUARY 17, 1973, BY: A.W. ROBINSON, SURVEYOR, RECORDED IN PLAT BOOK 15, PAGE 203.
- 6) SURVEY FOR: M.E. FOWLER, DATED: JANUARY 17, 1973, BY: A.W. ROBINSON, SURVEYOR, RECORDED IN PLAT BOOK 15, PAGE 203.

REFERENCE DEEDS:

- 1) DEED BOOK 116, PAGE 2.
- 2) DEED BOOK 848, PAGE 648.
- 3) DEED BOOK 888, PAGE 529.
- 4) DEED BOOK 896, PAGE 186.
- 5) DEED BOOK 902, PAGE 23.
- 6) DEED BOOK 13664, PAGE 382.



KNOW WHAT'S BELOW.  
CALL BEFORE YOU DIG.  
OR CALL 800-362-7411



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N./F. CHEROKEE COUNTY BOARD OF EDUCATION  
(DEED BOOK 231, PAGE 131)  
(DEED BOOK 231, PAGE 195)  
(DEED BOOK 735, PAGE 182)  
(DEED BOOK 1384, PAGE 15)  
(DEED BOOK 7099, PAGE 29)  
(DEED BOOK 13535, PAGE 93)

N./F. CHEROKEE COUNTY BOARD OF EDUCATION  
(DEED BOOK 231, PAGE 131)  
(DEED BOOK 231, PAGE 195)  
(DEED BOOK 735, PAGE 182)  
(DEED BOOK 1384, PAGE 15)  
(DEED BOOK 7099, PAGE 29)  
(DEED BOOK 13535, PAGE 93)

N./F. THE CITY OF HOLLY SPRINGS  
(DEED BOOK 325, PAGE 304)  
(DEED BOOK 1308, PAGE 240)  
(DEED BOOK 10226, PAGE 431)  
(DEED BOOK 13555, PAGE 241)

P.O.B. STATE PLANE COORDINATES  
GA WEST ZONE - NAD83(2011)  
N 1502573.07  
E 2196912.20

NOTE:  
FIELD VERIFIED 2-FOOT CONTOURS AND PLANIMETRICS WERE DERIVED FROM GPS POINTS AND UAV LIDAR.

AREA = 4.01 ACRES

ADDRESS:  
2017 EAST CHEROKEE DRIVE  
WOODSTOCK, GEORGIA 30188



MARTIN LAND SURVEYING, P.C.  
MICHAEL C. MARTIN, R.L.S.  
LICENSE NO. LS5001028  
104 HAYWOOD DRIVE  
WOODSTOCK, GEORGIA 30188  
PHONE: (770) 926-0200  
**MCM** LAND SURVEYING  
SUBDIVISIONS  
LAND PLANNING  
-MEMBER-  
SURVEYING & MAPPING SOCIETY OF GEORGIA  
AND  
NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS

THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN 12,619 FEET AND AN ANGULAR ERROR OF 03" PER ANGLE POINT, AND WAS ADJUSTED USING COMPASS RULE.  
THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND FOUND TO BE ACCURATE WITHIN ONE FOOT IN 147,698 FEET.  
EQUIPMENT USED FOR MEASUREMENTS:  
LEICA TC1610 AND/OR CHCNV 190 W/ EGPS RTK  
"ALL MATTERS OF TITLE ARE EXCEPTED"

- TOPOGRAPHICAL MAP FOR -  
**CHEROKEE COUNTY GOVERNMENT**  
LAND LOT - 739, DISTRICT - 15, SECTION - 2  
CITY: CHEROKEE COUNTY, GEORGIA  
DATE OF FIELD WORK: AUGUST 11, 2023  
PLAT PREPARED: AUGUST 25, 2023  
REVISED: OCT. 12, 2023 - STORM PIPING/STRUCTURES  
DRAWN BY: MIKE HUGHES, R.L.S. SCALE: 1" = 40 FT.  
JOB NO. 23-5848-03D DWG FILE: 584803D.dwg

C1

GLOBAL POSITIONING SYSTEMS ACCURACY STATEMENT:  
CERTAIN DATA SHOWN ON THIS PLAT WAS OBTAINED UTILIZING GPS EQUIPMENT USED TO OBTAIN THIS DATA WAS A CHCNV 190 GNSS RECEIVER WITH A CARLSON SURVEYOR2 DATA COLLECTOR RECEIVING RTK CORRECTIONS VIA AN INTERNET CONNECTION WITH EGPS SOLUTIONS REAL TIME NETWORK. THE TECHNIQUE USED WAS RTK CORRECTED MEASUREMENTS FROM THE TRIMBLE VRS REAL TIME NETWORK OPERATED BY EGPS SOLUTIONS, INC. THE RELATIVE POSITIONAL ACCURACY OBTAINED ON THE POINTS UTILIZED IN THIS SURVEY WERE 0.08 FEET HORIZONTAL AND 0.10 FEET VERTICAL AT THE 95% CONFIDENCE LEVEL.



**DEMOLITION NOTES:**

1. CONTRACTOR IS RESPONSIBLE FOR ALL LOCATION, VERIFICATION, PROTECTION, MAINTENANCE, RELOCATION, REMOVAL OR RENOVATION OF ALL EXISTING UTILITIES, SITE IMPROVEMENTS, STRUCTURES, OBJECTS, OR CONSTRUCTION ELEMENTS REQUIRED TO COMPLETE THE WORK SHOWN ON THE PLANS. NOTES, SPECIFICATIONS, AND CONTRACT DOCUMENTS, WHETHER SHOWN ON THE PLANS OR NOT. ITEMS SHOWN AS [DE], [TR], [TBR], OR OTHERWISE [ ] DESIGNATED ARE SHOWN FOR GENERAL REFERENCE ONLY, AND ARE NOT ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS TO BE REMOVED [TBR]. ALL ITEMS TO REMAIN [TR], AND ALL ITEMS REQUIRING DEMOLITION [DE], RELOCATION, ALTERATION, AND PROTECTION WHETHER DESIGNATED ON THE PLANS OR NOT. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING IMPROVEMENTS AND SITE CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE AND VERIFY ALL DEMOLITION, REMOVAL, AND ASSOCIATED WORK WITH THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
3. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR EXISTING AND PROPOSED BUILDING DEMOLITION, REMOVAL, AND RENOVATION.
4. CONTRACTOR SHALL: CONTACT UPC (UTILITIES PROTECTION CENTER) FOR LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. UTILITIES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AND MAY NOT BE ACCURATE. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON PLANS. OBTAIN APPROVAL FROM ALL LOCAL UTILITY AUTHORITIES AND LOCATE, VERIFY, AND COORDINATE ALL REQUIRED CONSTRUCTION FOR ALL UTILITIES WITHIN THE WORK AREA. MAINTAIN UTILITY SERVICE(S) AT ALL TIMES. COORDINATE CONSTRUCTION SEQUENCE ACCORDINGLY. PROVIDE OWNER/ENGINEER COMPLETE RESULTS OF ALL UTILITY LOCATION(S) PRIOR TO CONSTRUCTION.
5. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL IMPROVEMENTS, INCLUDING LANDSCAPING. NOT REQUIRING REMOVAL. DAMAGED IMPROVEMENTS SHALL BE RESTORED AT CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL HAVE PROPERTY CORNERS, RIGHT-OF-WAY, AND BOUNDARY MARKED AND LOCATED. DO NOT ENCRONCH ON ADJACENT PROPERTIES.
7. CONTRACTOR SHALL COORDINATE ALL DEMOLITION ADJACENT TO STRUCTURES OR FOUNDATION ELEMENTS WITH THE ARCHITECT AND STRUCTURAL ENGINEER TO ENSURE THAT NO DAMAGE OR DEGRADATION WILL OCCUR.
8. CONTRACTOR SHALL BLEND NEW CONSTRUCTION INTO EXISTING IMPROVEMENTS. ALL JUNCTIONS, COMMON POINTS, JOINTS, ETC. SHALL BE BLENDED FOR A SMOOTH TRANSITION. ALL DAMAGED IMPROVEMENTS SHALL BE RESTORED BY THE CONTRACTOR TO ORIGINAL CONDITION AT NO EXPENSE TO OWNER.
9. CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF THE PUBLIC AND ALL OTHER PERSONS ONSITE AT ALL TIMES. CONTRACTOR SHALL CONFORM TO ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS AND REGULATIONS.
10. SEE DEMOLITION LEGEND SHEET C2.1

**DEMOLITION LEGEND:**

**[CU] COORDINATE UTILITIES:**

CONTACT UTILITY LOCATION AUTHORITY AND VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION. COORDINATE ALL EXISTING AND PROPOSED UTILITY CONSTRUCTION, REMOVAL, ALTERATION, RENOVATION, OR RELOCATION REQUIRED TO COMPLETE THE WORK WITH THE APPROPRIATE UTILITY AUTHORITY. RESOLVE ALL CONFLICTS, OMISSIONS, OR DISCREPANCIES PRIOR TO CONSTRUCTION.

**[DE] DEMOLITION REQUIRED:**

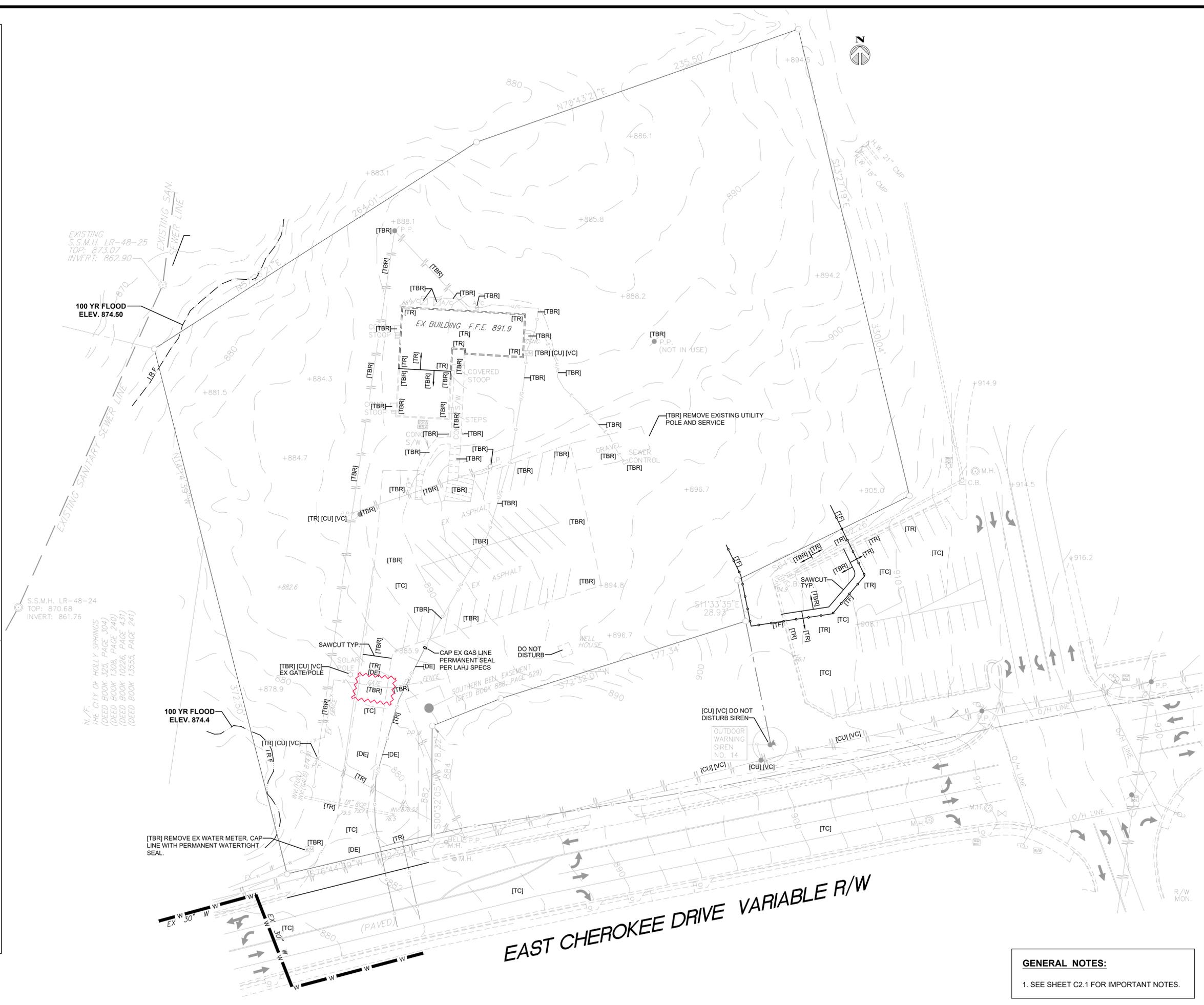
DEMOLITION, ALTERATION, RENOVATION, OR PARTIAL REMOVAL REQUIRED. CONFORM TO APPLICABLE ARCHITECTURAL AND/OR RELATED ENGINEERING PLANS AND SPECIFICATIONS. MAINTAIN UTILITY(S) SERVICE AT ALL TIMES. COORDINATE UTILITIES [CU] WITH APPROPRIATE AUTHORITY.

**[TBR] TO BE REMOVED:**

EXISTING IMPROVEMENT OR ITEM TO BE REMOVED. LOCATE, VERIFY, AND REMOVE. DISPOSE OF OFF SITE IN A LEGAL MANNER. FOR UTILITIES, MAINTAIN SERVICE AT ALL TIMES. COORDINATE ALL UTILITY REMOVAL OR ALTERATION WITH APPROPRIATE UTILITY AUTHORITY.

**[TR] TO REMAIN:**

EXISTING IMPROVEMENT OR ITEM TO REMAIN. LOCATE, VERIFY, MARK, AND PROTECT FROM DAMAGE BY ALL NECESSARY MEANS. FOR UTILITIES, MAINTAIN SERVICE AT ALL TIMES.



**GENERAL NOTES:**  
1. SEE SHEET C2.1 FOR IMPORTANT NOTES.

PROJECT NUMBER  
**23-017**

DATE  
**09/25/23**

REVISIONS

NO.	DATE
ADD 2	03/20/24

FACILITY CODE

**KRH ARCHITECTS**  
INCORPORATED

855 ABUTMENT ROAD  
SUITE FOUR  
DALTON, GA 30721  
TEL. 706.529.5895

**PWR ENGINEERING**  
CIVIL ENGINEERING  
SITE DEVELOPMENT

2900 DELA ROAD STE 700 #218 • MARIETTA, GA 30067 • PH: 770-433-8190

2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

ISSUE DATE: 03-22-24  
JOB NO. 22280 SCALE: 1" = 30'

ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS

REGISTERED PROFESSIONAL ENGINEER  
PRESTON W. HOBBS  
No. 22558

GSWCC LEVEL II - 000009688

SHEET INDEX

DEMOLITION PLAN

SHEET INDEX

**C1.1**

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SHEET INDEX

SITE PLAN

SHEET INDEX

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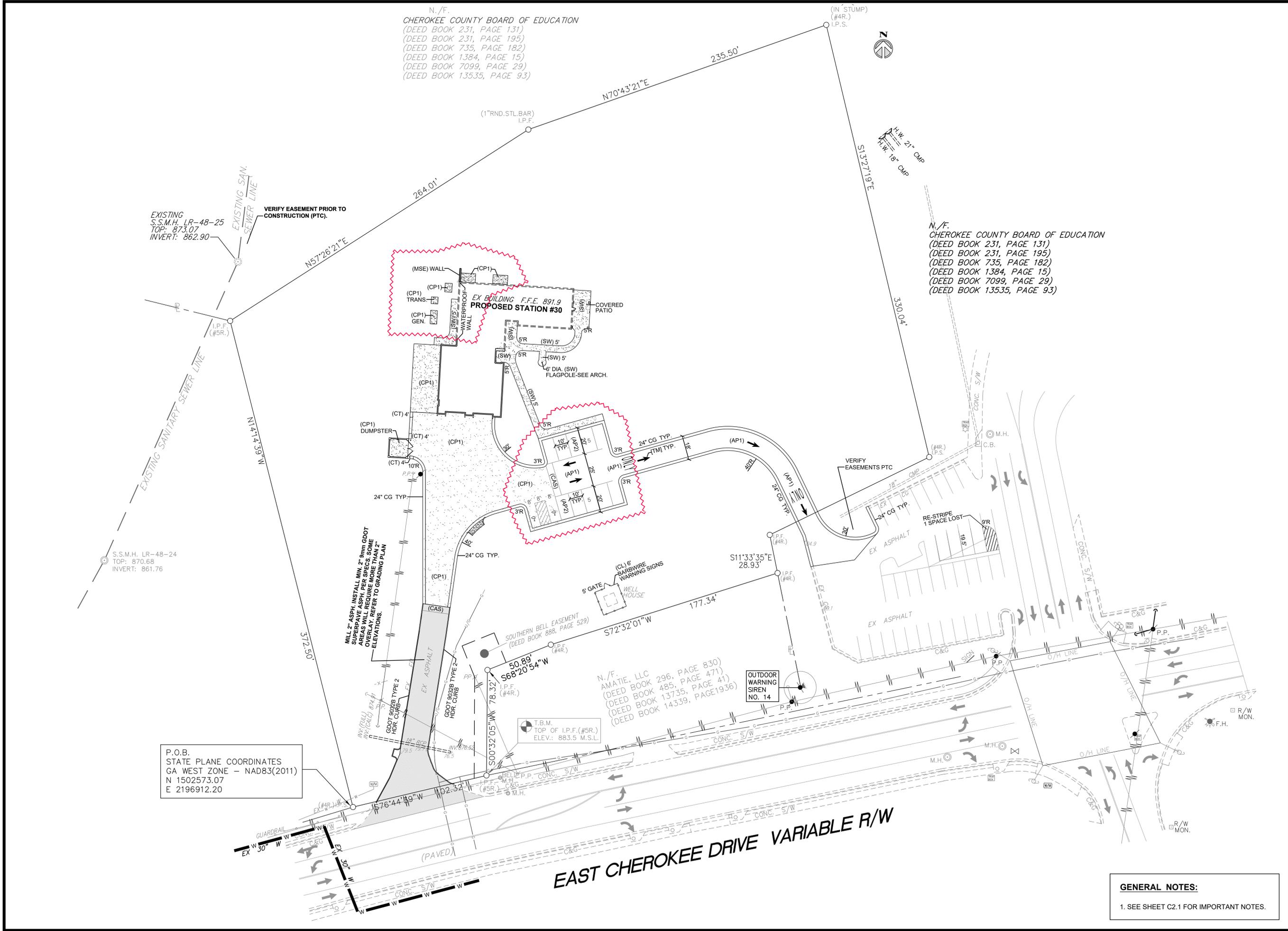
N./F.  
CHEROKEE COUNTY BOARD OF EDUCATION  
(DEED BOOK 231, PAGE 131)  
(DEED BOOK 231, PAGE 195)  
(DEED BOOK 735, PAGE 182)  
(DEED BOOK 1384, PAGE 15)  
(DEED BOOK 7099, PAGE 29)  
(DEED BOOK 13535, PAGE 93)

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(DEED BOOK 1384, PAGE 15)  
(DEED BOOK 7099, PAGE 29)  
(DEED BOOK 13535, PAGE 93)

# EAST CHEROKEE DRIVE VARIABLE R/W

P.O.B.  
STATE PLANE COORDINATES  
GA WEST ZONE - NAD83(2011)  
N 1502573.07  
E 2196912.20

**GENERAL NOTES:**  
1. SEE SHEET C2.1 FOR IMPORTANT NOTES.





**CHEROKEE COUNTY NOTES:**

- ALL WETLANDS OR STATE WATERS ON OR WITHIN 200 FEET OF THIS PROJECT HAVE BEEN DELINEATED.
- APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTRACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND THAT IS DISTURBED.
- APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES THAT MAY IMPACT ANY ENDANGERED SPECIES. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY DISTURBANCE WHICH THIS MAY EFFECT.
- NO RETAINING WALLS WILL BE CONSTRUCTED.
- ANY FILL MATERIAL SUPPORTING STRUCTURAL LOADS SHALL BE ENGINEERED WITH PROPER DOCUMENTATION INCLUDING GEORGIA REGISTERED P.E. STAMP. SUBMIT DOCUMENTATION TO THE CHEROKEE COUNTY BUILDING DEPARTMENT PRIOR TO FOUNDATION INSPECTION.
- SITE DEVELOPMENT AS-BUILT DRAWINGS, CONTAINING A BOUNDARY SURVEY, LOCATION, ELEVATION, HEIGHT, AND SQUARE FOOTAGE OF BUILDING, PARKING AREAS, UTILITIES, RETAINING WALLS, STORMWATER SYSTEM, AND ANY OTHER PERTINENT SITE DEVELOPMENT DATA ARE REQUIRED UPON COMPLETION OF THIS PROJECT. CHEROKEE COUNTY NEEDS THIS INFORMATION BEFORE SITE INSPECTION FOR C.O. IS ISSUED, PER ORDINANCE # 2004-Z-001 (7.5-3.3-H.)
- TEMPORARY GRASSING OR MULCHING IS REQUIRED EVERY (7) SEVEN DAYS.
- AN NOI IS REQUIRED BEFORE APPROVAL. UPLOAD THE FINAL DOCUMENT TO CITYVIEW.
- ADVANCE WARNING SIGNS INDICATING CONSTRUCTION AHEAD SHALL BE PLACED ON CONNECTING THOROUGHFARES AT 1000' AND 500' POINTS ON EITHER SIDE OF THE INTERSECTION. THE SIGNAGE SHALL BE REVIEWED AND APPROVED BY THE COUNTY DEVELOPMENT INSPECTOR.
- AN NOI IS REQUIRED BEFORE APPROVAL. PROVIDE A COPY OF THE FINAL, APPROVED NPDES NOTICE OF INTENT (NOI) ENSURING COMPLIANCE WITH THAT STATE PERMIT AND WRITTEN CONFIRMATION FROM A QUALIFIED PARTY WHO WILL BE RESPONSIBLE FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) COMPLIANCE INSPECTIONS, MONITORING, RECORD KEEPING, ETC. FOR THE DEVELOPMENT.
- NO GRADING ALLOWED WITHIN THE UNDISTURBED STREAM BUFFERS OR ZONING BUFFERS.
- ALL QUALITY CONTROL TESTING WHICH IS A PART OF ROADWAY CONSTRUCTION WILL BE PERFORMED BY A REPUTABLE PROFESSIONAL GEO-TECHNICAL AND TESTING ENGINEERING COMPANY THAT WILL BE EMPLOYED BY THE DEVELOPER AND ALL ASSOCIATED COSTS WILL BE PAID BY THE DEVELOPER.
- AN NOI IS REQUIRED BEFORE APPROVAL. PROVIDE A COPY OF THE FINAL, APPROVED NPDES NOTICE OF INTENT (NOI) ENSURING COMPLIANCE WITH THAT STATE PERMIT AND WRITTEN CONFIRMATION FROM A QUALIFIED PARTY WHO WILL BE RESPONSIBLE FOR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) COMPLIANCE INSPECTIONS, MONITORING, RECORD KEEPING, ETC., FOR THE DEVELOPMENT.

**CHEROKEE COUNTY TRAFFIC NOTES:**

- BASED ON THE SURVEY, THE SITE IMPROVEMENTS CONSTRUCTED AS PROPOSED WILL PROVIDE THE INTERSECTION SIGHT DISTANCE AS SHOWN. FIELD VERIFICATION WILL BE PROVIDED TO THE COUNTY PRIOR TO FINAL SITE ACCEPTANCE.
- ALL CUTS IN PAVEMENT AND PAVEMENT EDGES ADJOINING NEW PAVEMENT SHALL BE SAW CUT. ALL RIGID PAVEMENT TO RIGID PAVEMENT SHALL BE DOWELED WITH NO. 4 BARS SPACED 12-INCHES ON CENTER AND GROUDED.
- ALL PAVEMENTS STRIPING AND MARKINGS SHALL BE THERMOPLASTIC PER GEORGIA D.O.T. SPECIFICATIONS.
- LIABILITY AND RESPONSIBILITY OF APPLICANT: THE APPLICANT IS RESPONSIBLE FOR THE RELOCATION, ADJUSTMENT OR REMOVAL OF ALL UTILITY CONFLICTS WITHIN THE DEVELOPMENT AREA AT NO COST TO CHEROKEE COUNTY. THE COUNTY ENCOURAGES THE APPLICANT TO CONTACT THE UTILITIES PROTECTION CENTER (UPC) FOR "DESIGN LOCATE REQUESTS" WHICH AIDS IN THE LOCATION OF EXISTING UTILITY FACILITIES FOR PRE-DESIGN, ADVANCE PLANNING PURPOSES, ETC. EXCAVATORS SHALL CONTACT THE UPC IN ACCORDANCE WITH THE OFFICIAL CODE OF GEORGIA ANNOTATED 25.9, BEFORE COMMENCING EXCAVATION ACTIVITIES.
- OWNERSHIP OF COMPLETED WORK: MEDIAN CROSSOVERS, RIGHT-TURN/DECEL LANES, LEFT TURN LANES, ETC. CONSTRUCTED WITHIN COUNTY RIGHT OF WAY BECOMES FEATURES OF THE HIGHWAY AND THE UNCONDITIONAL PROPERTY OF THE COUNTY. THE APPLICANT OR PROPERTY OWNER(S) AND/OR LESSEES ADJACENT TO THE RIGHT OF WAY AT THE CROSSOVER SITE RETAIN NO OWNERSHIP OR LEGAL INTEREST THEREIN. THE COUNTY RESERVES THE RIGHT AND ALL AUTHORITY TO CLOSE, RELOCATE OR REMOVE A CROSSOVER WHEN SUCH ACTION IS DEEMED NECESSARY IN THE INTEREST OF PUBLIC SAFETY OR EFFICIENCY OF THE ROADWAY.WHEN DETERMINED NECESSARY BY THE COUNTY, ADDITIONAL RIGHT OF WAY FOR THE CONSTRUCTION AND PLACEMENT OF AUXILIARY LANES SHALL BE RELINQUISHED TO THE COUNTY (MINIMUM 13- FEET FROM BACK OF CURB).

**CHEROKEE COUNTY FIRE DEPARTMENT NOTES:**

- THE FOLLOWING PLANS HAVE BEEN REVIEWED BY THE CHEROKEE COUNTY FIRE MARSHAL'S OFFICE. THE DRAWINGS WERE REVIEWED UNDER THE APPLICABLE LAWS ADOPTED AT THE TIME. EVERY EFFORT WAS MADE TO ENSURE CODE COMPLIANCE. ANY CODE VIOLATIONS THAT WERE MISSED DURING THE PLAN REVIEW ARE THE OWNER'S RESPONSIBILITY AND MUST BE CORRECTED TO RECEIVE FINAL APPROVAL AND/OR A CERTIFICATE OF OCCUPANCY (CO).
- ALL SITE WORK MUST HAVE A MINIMUM OF A PRECONSTRUCTION MEETING WITH THE CHEROKEE COUNTY FIRE MARSHAL'S OFFICE. AT THE PRE-CONSTRUCTION MEETING, IT WILL THEN BE DETERMINED WHAT OTHER INSPECTIONS WILL BE REQUIRED.
- ALL FIRE INSPECTIONS ARE SCHEDULED THROUGH THE CITYVIEW PORTAL UNDER THE SAME PERMIT NUMBER AS THE LAND DISTURBANCE PERMIT. THIS MUST BE DONE BY THE CONTRACTOR.

**CONSTRUCTION LEGEND:**

**[AT] STRUCTURE TOP ADJUSTMENT:**  
RAISE, LOWER, MOVE, ALTER, ADD OR ADJUST EXISTING MANHOLE OR OTHER STRUCTURE TOP, BOX, RING AND COVER AS REQUIRED FOR PROPOSED CONSTRUCTION, REFERENCED STANDARDS, DETAILS, AND SPECIFICATIONS APPLY AS MINIMUM REQUIREMENTS. STRUCTURE TOPS SHALL BE EVEN WITH FINISHED PAVEMENT IN PAVED AREAS AND RATED FOR TRAFFIC IN TRAFFIC AREAS. STRUCTURE TOPS SHALL BE 6 INCHES ABOVE FINISHED GRADE IN UNPAVED AREAS.

**[CA] CONTROLLED ACCESS:**

PROVIDE CONTROLLED ACCESS TO PROJECT SITE USING LOCKING GATES, TRAFFIC CONTROL [TC], AND PERSONNEL TO MONITOR ACCESS AND PROHIBIT UNAUTHORIZED ENTRY TO THE SITE. PROVIDE ALL WARNING, INSTRUCTIONAL, AND DIRECTIONAL SIGNAGE TO INFORM PUBLIC AND MAINTAIN SAFE CONTROLLED ACCESS AT ALL TIMES. ALL GATES SHALL BE LOCKED AT ALL TIMES EXCEPT FOR AUTHORIZED ENTRY. PROVIDE TEMPORARY FENCING TO PROHIBIT AND CONTROL ACCESS. COORDINATE WITH OWNER AND MAINTAIN SAFE ACCESS FOR NORMAL OPERATION AND FUNCTION. ACCESS POINTS ADJACENT TO OCCUPIED SPACES OR FINISH AREAS SHALL BE SECURE, WATER TIGHT, AND PROTECTED FROM DUST, NOISE, WIND, AND WEATHER. CONTROLLED ACCESS POINTS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL FINAL RELEASE BY OWNER.

**[CS] CRITICAL SLOPE:**

SLOPE SHOWN IS LESS THAN 1 FOOT PER 100 FEET (1.0%). CONTRACTOR SHALL USE LASER GUIDED EQUIPMENT AND PROVIDE ALL NECESSARY MEASURES TO ENSURE FINAL GRADE IS ESTABLISHED AS DESIGNED. CONSTRUCTION TOLERANCE IS NOT ALLOWED FOR CRITICAL SLOPES OR GRADES. NO PONDING OR DEPRESSED AREAS ALLOWED.

**[CT] CURB TAPER:**

CONTRACTOR SHALL: TAPER CURB HEIGHT FROM STANDARD HEIGHT TO 0" HEIGHT FOR LENGTH SHOWN ON PLANS. END OF TAPER SHALL BLEND SMOOTH INTO PROPOSED FINISH GRADES SO THAT 0" (ZERO INCHES) CURB HEIGHT WILL MATCH ADJACENT PAVEMENT, IMPROVEMENTS, AND/OR FINISH GRADES. PROVIDE EXPANSION JOINT AT INTERFACE. ALL SIDEWALKS ADJACENT TO CURB TAPERS (CT) SHALL BE TAPERED TO MATCH CURB TAPER(S).

**[DF] DROP FOOTING:**

DROP THE BUILDING OR IMPROVEMENT FOOTING BEARING SURFACE AS REQUIRED FOR PROPOSED GRADES ALONG BUILDING OR IMPROVEMENT PERIMETER TO ACCEPT FINISH PER ARCHITECTURAL PLANS WITHOUT EXPOSING FOOTING. FOOTING BEARING SURFACE MINIMUM 12" BELOW FINISH SURFACE. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS AND SPECIFICATIONS. COORDINATE PTC.

**[FJ] FLUSH JOINT:**

CONTRACTOR SHALL: PROVIDE FLUSH JOINT ALONG DESIGNATED LENGTH. ELEVATIONS SHALL MATCH EQUALLY ALONG ENTIRE LENGTH FROM ONE SURFACE TO ADJACENT SURFACES. PROVIDE EXPANSION JOINT ALONG ENTIRE LENGTH OF PAVEMENT OR CURB EDGES. CROSS SLOPE SHALL BE LEVEL ACROSS GUTTER WIDTH. FLUSH JOINT SHALL BE INSTALLED TO PROVIDE SMOOTH, LEVEL CROSS SLOPE, AND EVEN TRANSITION FROM ONE SURFACE TO ANOTHER ALONG ENTIRE LENGTH. BUMPS, DIPS, RAISED OR LOWERED EDGES, OR OTHER ELEVATION DIFFERENCES WILL NOT BE ALLOWED.

**[IG] IRRIGATION:**

PROVIDE IRRIGATION FOR FOOTBALL AND SOFTBALL FIELDS PER SPECIFICATIONS. CONTRACTOR SHALL PROVIDE CERTIFIED SPRINKLER SYSTEM DESIGN BY PROFESSIONAL ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. ALL IRRIGATION SPRINKLERS, VALVES, CONNECTIONS, FITTINGS, AND ASSOCIATED HARDWARE SHALL BE HEAVY DUTY BRONZE BODY STAINLESS STEEL CONSTRUCTION.

**[LYT] LAYOUT SUBMITTAL:**

CONTRACTOR SHALL: SUBMIT FOUNDATION PROPOSED BUILDING LAYOUT, AND FRONT ENTRANCE SIDEWALK TO ARCHITECT AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. PROVIDE AS BUILT DIMENSIONS OF ALL EXISTING BUILDINGS, IMPROVEMENTS, COLUMNS, CANOPIES, OR STRUCTURES AT THE INTERFACE BETWEEN EXISTING AND PROPOSED CONSTRUCTION, AND ANY ADDITIONAL MEASUREMENTS REQUIRED TO ACCURATELY DESCRIBE THE EXISTING AND PROPOSED CONSTRUCTION. PROVIDE ALL DIMENSIONS, GEOMETRY, ANGLES, AND CLOSURES FOR PROPOSED CONSTRUCTION AND EXISTING CONSTRUCTION, AND THE INTERFACE BETWEEN EACH. BUILDING LAYOUT SHALL BE BASED ON ARCHITECTURAL PLANS. DO NOT USE CIVIL OR OTHER RELATED ENGINEERING PLANS, DRAWINGS, OR CAD FILES, OR SURVEYOR'S DRAWINGS OR CAD FILES. SUBMITTAL SHALL INCLUDE SUFFICIENT INFORMATION TO DEMONSTRATE FULL COMPLIANCE WITH DESIGN INTENT AND LAYOUT AS SHOWN ON THE PLANS.

**CONSTRUCTION LEGEND:****[ME] MATCH EXISTING:**

MATCH EXISTING FINISH GRADE. VERIFY IN FIELD PRIOR TO CONSTRUCTION (PTC). VERIFY POSITIVE SLOPE TO PROVIDE FLOW AS INDICATED.

**[RA] CURB RAMP:**

PROVIDE CURB RAMP CONFORMING TO CURRENT GEORGIA ADA CODE. VERIFY ALL REQUIREMENTS, DIMENSIONS, SLOPES, AND CONSTRUCTION PTC. PROVIDE MINIMUM 6" CURB TAPER [CT] AT EACH SIDE OF ADJOINING CURBS. TAPER ADJOINING SIDEWALKS TO MATCH CURB.

**[RD] ROOF DRAIN:**

CONNECT ALL ROOF DOWNSPOUTS AS SHOWN ON ARCHITECTURAL PLANS TO STORM SEWER WITH [RD] PIPING. NUMBER AND LOCATION OF DOWNSPOUTS SHALL CONFORM TO TO ARCHITECTURAL PLANS. VERIFY PTC. CONNECTIONS TO INDIVIDUAL DOWNSPOUTS OR PLUMBING DRAINS SHOWN ON CIVIL SITE DEVELOPMENT PLANS ARE FOR REFERENCE ONLY TO INDICATE TYPICAL CONDITIONS. CONNECT ALL HUB DRAINS FROM WALL HUNG HVAC UNITS AND ALL PLUMBING ROOF DRAINS WITH [RD] PIPING TO STORM SEWER - REFER TO MECHANICAL AND PLUMBING ENGINEERING PLANS AND SPECIFICATIONS. [RD] COLLECTOR PIPE SIZE AND MATERIAL SHOWN ON PLANS. [RD] CONNECTIONS TO INDIVIDUAL DOWNSPOUTS SHALL BE 6" DIAMETER, 2" DIAMETER FOR HVAC UNITS. PIPE BEDDING FOR [RD] IS CLASS B. MINIMUM COVER OVER TOP OF PIPE: 1.0 FEET UNPAVED AREAS, 3.0 FEET PAVED AREAS. MINIMUM PIPE SLOPE: 1/8"/FT (1.0%). USE DUCTILE IRON PIPE IN PAVED AREAS, SCHED. 40 PVC IN NON-PAVED AREAS. PROVIDE CLEANOUTS AT ALL LINE DEFLECTIONS. CLEANOUTS IN NON-PAVED AREAS SHALL BE PVC 6 INCHES ABOVE GRADE. CLEANOUTS IN PAVED AREAS SHALL BE H-20 RATED HEAVY DUTY TO MATCH FINISHED PAVEMENT ELEVATION. LONG SWEEP RADIUS REQUIRED FOR ALL ELBOWS AND PIPE LINE DEFLECTIONS. PIPE CONNECTION TO DOWNSPOUTS SHALL BE PER ARCHITECTURAL AND PLUMBING DETAILS.

**[SDV] VERIFY SIGHT DISTANCE:**

CONTRACTOR SHALL VERIFY SITE DISTANCE FROM MAIN DRIVE LOOKING RIGHT AS SHOWN ON SHEET C5.3 PRIOR TO CONSTRUCTION. AT SPOT ELEVATION 1089.10 SHOWN ON SHEET C5.3, PROVIDE REGISTERED SURVEYOR TO SET INSTRUMENT LEVEL AT 1092.10 (1089.10 + 3.50' - DRIVER'S EYE HEIGHT), AT END OF SIGHT DISTANCE LINE AS SHOWN ON SHEET C5.3 IN THE CENTER OF THE NORTHBOUND LANE AT 285' FROM MAIN DRIVE POINT SET AN OBJECT 3.50' IN HEIGHT FROM THE EXISTING PAVEMENT ELEVATION AND VERIFY THE SIGHT LINE BETWEEN THE TWO POINTS. REPORT FINDINGS TO ENGINEER AND ARCHITECT IMMEDIATELY.

**[SW] SIDEWALK, RAMP OR STEPS:**

CONCRETE SIDEWALK WITH FINISH PER ARCHITECT. SIDEWALK WIDTHS AND DIMENSIONS AT DOORS OR ENTRANCE/EXITS SHALL BE PER ARCHITECTURAL PLANS. MINIMUM WIDTH IS DOOR WIDTH PLUS 1.0 FEET EACH SIDE. PROVIDE POSITIVE SLOPE AWAY FROM DOOR THRESHOLDS OF 1/8 INCH PER FOOT (1.0%) MINIMUM. SIDEWALK SLOPES GREATER THAN 1:20 (0.05 FT./FT.) WILL BE CONSIDERED RAMPS. MAXIMUM SLOPE FOR SIDEWALKS IS 1:12 (0.083 FT./FT.). MAXIMUM SIDEWALK CROSS SLOPE IS 1/4 INCH PER FOOT. SIDEWALKS SHALL BE INSTALLED WITH MINIMUM 6X6 10 GAUGE WWF REINFORCEMENT, 1.5 INCHES FROM BOTTOM. HANDRAILING SHALL BE INSTALLED ON BOTH SIDES OF SIDEWALK RAMPS PER ADA CODE. CONTRACTOR SHALL INSTALL STEPS AND RAILING PER LOCAL CODE(S) AND CONSTRUCTION DETAILS. CONSULT WITH ARCHITECT REGARDING SIDEWALK AND RAILING DETAILS PRIOR TO CONSTRUCTION. MINIMUM RAILING DETAIL REQUIREMENT(S) SHALL COMPLY WITH GEORGIA D.O.T. 9031R OR AS SHOWN ON PLANS AND SPECIFICATIONS. CANOPIES SHALL BE INSTALLED PER ARCHITECTURAL PLANS AND SPECIFICATIONS. COORDINATE AND VERIFY ALL SIDEWALK LAYOUT, WIDTH, LOCATION AND FINISH WITH ARCHITECT PRIOR TO CONSTRUCTION.

**[TC] TRAFFIC CONTROL:**

CONTRACTOR SHALL: PROVIDE 24 HOUR TRAFFIC CONTROL FOR ALL PUBLIC RIGHT-OF-WAY, ROADWAYS, PRIVATE DRIVES, [CA] CONTROLLED ACCESS AREAS, AND ALL AREAS REQUIRING ACCESS. PROVIDE TRAFFIC PLATES OR OTHER APPROVED METHODS FOR ALL AREAS REQUIRING TEMPORARY ACCESS WHICH MAY BE OBSTRUCTED DUE TO REQUIRED UTILITY TRENCH CUTS OR OTHER OBSTRUCTIONS. TRAFFIC CONTROL SHALL CONFORM TO GEORGIA D.O.T STANDARDS AND SPECIFICATIONS, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND LOCAL AUTHORITY STANDARDS AND SPECIFICATIONS. TRAFFIC CONTROL SHALL INCLUDE, BUT NOT BE LIMITED TO: WARNING SIGNS AND DEVICES, LIGHTED DEVICES/SIGNALS FOR NIGHT CONDITIONS, BARRICADES, QUALIFIED FLAGMEN, AND ALL OTHER MEASURES TO INSURE THE SAFETY OF PEDESTRIAN AND VEHICULAR TRAFFIC AND WORKMEN, AND TO PROTECT THE WORK. MAINTAIN ALL TRAFFIC CONTROL MEASURES IN GOOD REPAIR, CLEAN AND VISIBLE FOR DAY AND NIGHT OPERATION. ALL LANE CLOSURES SHALL BE COORDINATED WITH AND APPROVED BY THE LOCAL AUTHORITY PRIOR TO CONSTRUCTION.

**[TF] TEMPORARY FENCE:**

INSTALL TEMPORARY FENCE PER PROJECT SPECIFICATIONS. TEMPORARY FENCE [TF] SHOWN ON PLANS IS IN ADDITION TO TEMPORARY FENCE REQUIRED BY THE SPECIFICATIONS. MINIMUM HEIGHT IS SIX FEET (6'). TEMPORARY FENCE MUST BE INSTALLED VERTICAL (PLUMB), RIGID AND STABLE, AND WITHOUT GAPS TO PROHIBIT UNAUTHORIZED ENTRY OR REMOVAL. IN PAVED AREAS TO REMAIN [TR] WHERE [TF] IS REQUIRED PORTABLE FENCING MAY BE USED. PORTABLE FENCING MUST BE HEAVY DUTY GRADE COMPLYING WITH PROJECT SPECIFICATIONS AT A MINIMUM. SECTIONS SHALL BE CONNECTED AND ATTACHED SECURELY. VERTICAL (PLUMB), STABLE AND RIGID TO PROHIBIT UNAUTHORIZED ENTRY OR REMOVAL. PROVIDE WEIGHTED BOTTOM RAIL OR OTHER MEANS TO PREVENT HORIZONTAL DISPLACEMENT OR MOVEMENT. WHERE DRIVEN POSTS ARE USED IN AREAS TO REMAIN [TR], PAVEMENTS MUST BE CUT AND PATCHED FOR FULL DEPTH AND ALL IMPROVEMENTS MUST BE RESTORED TO MATCH INDUSTRY STANDARD OR EXISTING CONDITION, WHICHEVER IS GREATER. TEMPORARY FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL FINAL RELEASE BY OWNER/ARCHITECT. INSPECT, REPAIR AND MAINTAIN TEMPORARY AND PORTABLE FENCING DAILY TO PROHIBIT UNAUTHORIZED ENTRY. SUBMIT ALL MANUFACTURER DETAILS AND SPECIFICATIONS FOR [TF] TEMPORARY FENCE AND PORTABLE FENCE APPROVAL PRIOR TO CONSTRUCTION (PTC).

**[UD] UNDISTURBED BUFFER:**

INSTALL AND MAINTAIN TRENCH FENCE AROUND ENTIRE PERIMETER OF UNDISTURBED AREA. NO ACCESS ALLOWED IN UNDISTURBED AREAS INCLUDING BUT NOT LIMITED TO: PEDESTRIAN, VEHICULAR, STORAGE, PARKING, OR ANY OTHER ENCROACHMENT OR DISTURBANCE. PROVIDE SIGNAGE AND INSTRUCTION TO ALL PERSONNEL AS REQUIRED.

**[VC] VERIFY & COORDINATE:**

VERIFY ALL EXISTING IMPROVEMENTS. PROTECT BY ALL MEANS NECESSARY ALL EXISTING IMPROVEMENTS TO REMAIN. COORDINATE RELOCATION, REMOVAL, STORAGE, OR DEMOLITION WITH OWNER OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

**GRADING NOTES:**

- SEE GENERAL CONSTRUCTION NOTES FOR FURTHER INFORMATION RELATING TO SITE DEVELOPMENT AND GRADING IMPROVEMENTS.
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LOCAL AUTHORITIES HAVING JURISDICTION (LAHJ). ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBANCE. SEE EROSION CONTROL PLAN FOR DETAILS.
- THIS SITE IS WITHIN A 100 YEAR FLOOD HAZARD PER FEMA F.I.R.M. MAP (80012846) DATED 09-07-2019.
- ALL UTILITIES SHOWN ON THE PLANS ARE SHOWN ACCORDING TO THE INFORMATION AVAILABLE, AND MAY NOT BE ACCURATE HORIZONTALLY OR VERTICALLY. GAS LINES SHALL BE LOCATED AND VERIFIED WITH GAS AUTHORITY PRIOR TO CONSTRUCTION. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION, ORIGIN, VERIFICATION, PROTECTION, AND MAINTENANCE OF ALL UTILITIES AND UTILITY EASEMENTS WHICH EXIST ON SITE. CONTRACTOR SHALL HAVE ALL UTILITIES FIELD LOCATED BY THE APPROPRIATE AUTHORITY AND COORDINATE ALL EXISTING OR PROPOSED UTILITY CONSTRUCTION, RELOCATION, TAPS OR OTHER ASSOCIATED WORK WITH THE APPROPRIATE UTILITY AUTHORITY. RESOLVE ALL CONFLICTS OR PROBLEMS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL UNDERGROUND UTILITIES FOR PROPOSED CONSTRUCTION WITH OWNER AND UTILITY AUTHORITY, INCLUDING BUT NOT LIMITED TO: GAS LINES, POWER LINES, CABLE TV OR TELEPHONE, IT LINES, IRRIGATION LINES, AND OTHER ASSOCIATED UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. RESOLVE ALL CONFLICTS OR PROBLEMS PRIOR TO CONSTRUCTION.
- ALL CUT AND FILL GRADING OPERATIONS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS AND REQUIREMENTS OF THE GEOTECHNICAL/SOILS ENGINEER. SUBSURFACE SOIL CONDITIONS WHICH MAY BE ENCOUNTERED, SUCH AS UNDERGROUND SPRINGS, HIGH WATER TABLE, ROCK OR UNSUITABLE SOILS, SHALL BE RESOLVED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SOILS ENGINEER. IN THE ABSENCE OF A QUALIFIED SOILS ENGINEER, THE CONTRACTOR IS RESPONSIBLE FOR ALL SOILS AND CONSTRUCTION SELECTED FOR ANY USE IN COMPLETING THE WORK.
- PWH ENGINEERING, INC., IS NOT RESPONSIBLE FOR SUITABILITY, STRUCTURAL INTEGRITY, COMPACTION, CUT OR FILL QUANTITY OF ANY SOILS SELECTED OR REQUIRED FOR USE IN THE COMPLETION OF THE WORK.
- MINIMUM COMPACTION FOR ALL FILL IS 95% MAXIMUM DRY DENSITY PER ASTM D698, OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER, OR AS SPECIFIED IN THE GEOTECHNICAL SOILS SUBSURFACE EVALUATION ANALYSIS AND REPORT, WHICHEVER IS GREATER.
- MAXIMUM CUT OR FILL SLOPE IS 2H:1V UNLESS SPECIFIED OTHERWISE.
- MINIMUM FLOOR ELEVATIONS SHOWN ARE BASED UPON EXISTING CONDITIONS, PROPER FUNCTIONING OF CHANNELS, DRAINAGE COURSES, AND STORM DRAIN SYSTEMS. ANY RESTRICTIONS OR ALTERATIONS TO THESE ELEMENTS MAY CAUSE FLOODING ABOVE THE STATED MINIMUM FLOOR ELEVATIONS.
- CONTRACTOR SHALL PROVIDE POSITIVE SLOPE AWAY FROM ALL BUILDINGS, FINISHED FLOORS, AND STRUCTURES WHICH MAY BE DAMAGED BY WATER INTRUSION FOR A MINIMUM OF 5.0 FEET HORIZONTALLY.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL LOCAL, STATE, FEDERAL, AND INDUSTRY STANDARD SAFETY DEVICES, PROCEDURES, PRECAUTIONS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK. NO PERSON SHALL ENTER ANY MANHOLE OR OTHER UNDERGROUND STRUCTURE OR EXCAVATION, WITHOUT PROTECTIVE BREATHING APPARATUS, AND AT LEAST ONE OTHER PERSON PRESENT FOR SAFETY. ALL TRENCHES, GRADING, EXCAVATION, AND EARTHWORK SHALL CONFORM TO OSHA STANDARDS FOR SAFETY, SHORING, AND BRACING.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ADJACENT PROPERTY OR EXISTING UTILITIES OR IMPROVEMENTS DUE TO CONSTRUCTION REQUIRED TO COMPLETE THE WORK. ALL DAMAGED PROPERTY SHALL BE RESTORED TO ORIGINAL CONDITION BY CONTRACTOR.
- LINE OF SIGHT DISTANCE AT INTERSECTIONS SHALL BE MAINTAINED PERMANENTLY FREE AND CLEAR OF ALL OBSTRUCTION.
- FINISHED GRADES LESS THAN 1.0% (1 FT. PER 100 FT.) MAY BE REQUIRED DUE TO SITE CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS NECESSARY TO PROVIDE GRADES WITHOUT PONDING OR DEPRESSED AREAS.
- FLOW ARROWS AND SPOT ELEVATIONS SHOWN DETERMINE DESIGN INTENT. WHERE CONFLICTS OCCUR BETWEEN FLOW ARROWS AND SPOT ELEVATIONS NOTIFY ENGINEER IMMEDIATELY AND RESOLVE PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL ESTABLISH PERMANENT GRASSING ON ALL DISTURBED AREAS PRIOR TO FINAL RELEASE, WHETHER SHOWN ON THE PLANS OR NOT.
- OWNER IS RESPONSIBLE FOR COMPLIANCE WITH CLEAN WATER ACT, USACE WETLANDS AND SECTION 404 PERMITTING.
- THE CONTRACTOR SHALL PROVIDE STORM WATER DISCHARGE MONITORING, DOCUMENTATION, AND REPORTING, AND FULLY COMPLY WITH THE CURRENT GEORGIA NPDES PERMIT CONDITIONS AND REQUIREMENTS. CONTRACTOR SHALL PROVIDE COPIES OF ALL REPORTING AND DOCUMENTATION TO OWNER IMMEDIATELY AND THROUGHOUT CONSTRUCTION. **CONTRACTOR SHALL SIGN, CERTIFY, AND SUBMIT THE NOTICE OF INTENT (NOI) USING REGISTERED MAIL, AND ANY OTHER RELATED NOTICE(S), APPLICATIONS, OR CERTIFICATIONS REQUIRED FOR FULL COMPLIANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS. CONTRACTOR SHALL PROVIDE COPIES OF ALL REPORTING AND DOCUMENTATION TO OWNER IN A TIMELY MANNER THROUGHOUT CONSTRUCTION.**
- ALL SOILS USED FOR FILL IN EARTHEN DAMS OR WATER IMPOUNDMENT AREAS SHALL BE ML OR CL LOW PLASTICITY CLAYS PER THE UNIFIED SOIL CLASSIFICATION, APPROVED BY THE GEOTECHNICAL ENGINEER. ALL ORGANICS, TOPSOIL, OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE ENTIRE FILL AREA. ALL FILL SHALL BE PLACED IN MAXIMUM 6 INCH LIFTS, MINIMUM COMPACTION IS 95% OF STANDARD MAXIMUM DENSITY. NO GRAVEL, AGGREGATE OR GRAVEL PIPE BEDDING, OR ANY PERVIOUS MATERIAL SHALL BE PLACED IN THE DAM OR FILL AREA(S). SCARIFY EXISTING SUBGRADE PRIOR TO PLACING FILL.
- ALL STORM SEWER STRUCTURES, PIPING, AND APPURTENANCES SHALL BE COMPLETELY CLEANED AND FREE OF ALL TRASH, DEBRIS, SEDIMENT, SILT, OR OTHER UNSUITABLE MATERIALS PRIOR TO FINAL RELEASE.
- CONTRACTOR SHALL PROVIDE ONSITE UTILITY LOCATIONS FOR ALL UTILITIES BY PRIVATE UTILITY LOCATING COMPANY. PROVIDE OWNER/ENGINEER COMPLETE RESULTS OF ALL UTILITY LOCATION(S) PRIOR TO CONSTRUCTION. THIS REQUIREMENT IS IN ADDITION TO THE STANDARD UPC LOCATION OF UTILITIES.
- EXISTING STORM SEWER CAPACITY AND SERVICE LEVEL WILL NOT BE INCREASED OR ENHANCED BY PROPOSED DESIGN.
- CONSTRUCTION SEQUENCE AND PHASING ARE SOLE RESPONSIBILITY OF THE CONTRACTOR. WET SOILS WILL NOT BE CONSIDERED UNSUITABLE AND WET SOIL REMEDIATION WILL NOT BE ANY ADDITIONAL COST TO OWNER.

**GENERAL CONSTRUCTION NOTES:**

- LAHJ = LOCAL AUTHORITIES HAVING JURISDICTION.
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM, AT A MINIMUM, TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE LAHJ. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL CURRENT APPLICABLE STANDARDS, SPECIFICATIONS, AND DETAILS OF THE LAHJ. ALL DISCREPANCIES BETWEEN THESE STANDARDS AND THE CONSTRUCTION PLANS AND SPECIFICATIONS SHALL BE REPORTED IMMEDIATELY FOR RESOLUTION PRIOR TO CONSTRUCTION.
- WHEN ANY CONSTRUCTION, MATERIALS, OR SPECIFICATIONS FOR THE SAME OR SIMILAR ITEMS OR REQUIREMENTS ARE SHOWN IN MORE THAN ONE PLACE IN THE CONSTRUCTION DOCUMENTS, PLANS, OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY AS DETERMINED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FEDERAL, STATE, OSHA, AND LOCAL SAFETY REGULATIONS, LAWS, CODES OR ORDINANCES WHICH MAY APPLY.
- THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS FOR ERRORS, OMISSIONS, DISCREPANCIES, OR CONFLICTS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY ERRORS OR OMISSIONS IN THE PLANS, OR BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS, IMMEDIATELY. ANY WORK DONE AFTER SUCH DISCOVERY, WITHOUT APPROVAL, IS AT THE CONTRACTOR'S RISK.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND FROM THE SITE AT ALL TIMES. UTILITY SERVICES SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE ANY TEMPORARY INTERRUPTION OF ACCESS OR UTILITIES WITH THE OWNER PRIOR TO THE INTERRUPTION.
- ALL MATERIALS TO BE REMOVED SHALL BE DISPOSED OF OFFSITE IN A LEGAL MANNER.
- ALL UTILITIES SHOWN ON THE PLAN ARE SHOWN ACCORDING TO INFORMATION AVAILABLE, AND MAY NOT BE ACCURATE HORIZONTALLY OR VERTICALLY. UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION, ORIGIN, VERIFICATION, PROTECTION AND MAINTENANCE OF ALL UTILITIES WHICH EXIST ON SITE OR MAY BE IMPACTED BY THE WORK. CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED AND MARKED BY THE APPROPRIATE AUTHORITIES AND COORDINATE ALL UTILITY CONSTRUCTION, TAPS, OR OTHER ASSOCIATED WORK WITH THE APPROPRIATE UTILITY AUTHORITY. RESOLVE ANY CONFLICTS OR ERRORS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CLEARLY MARK AND MAINTAIN PROPERTY CORNERS, BOUNDARY, MONUMENT, AND BENCHMARKS THROUGHOUT CONSTRUCTION.
- CONTRACTOR SHALL REVIEW ALL SITE IMPROVEMENTS, WALKS, PARKING, PAVEMENT, BUILDINGS, STRUCTURES, OR OTHER IMPROVEMENTS SHOWN ON THESE PLANS FOR CONFORMITY WITH THE CURRENT APPROVED ARCHITECTURAL AND RELATED ENGINEERING PLANS. RESOLVE ALL CONFLICTS OR DISCREPANCIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADES, SIGNS, LIGHTS, OR OTHER DEVICES FOR THE SAFETY AND PROTECTION OF ALL PERSONS ON THE SITE. FOR TRAFFIC SAFETY, IN THE ABSENCE OF SPECIFIC TRAFFIC REQUIREMENTS OF THE LAHJ, THE MANUAL FOR UNIFORM TRAFFIC SAFETY CONTROL DEVICES SHALL BE USED.
- PROPOSED BUILDING AND STRUCTURE LOCATIONS ARE SHOWN BASED ON ARCHITECTURAL PLANS PROVIDED. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL BUILDING DIMENSIONS, EXISTING AND PROPOSED, JUNCTIONS, COMMON POINTS, AND LAYOUT GEOMETRY AS REQUIRED FOR COMPLETION OF THE WORK.
- MINIMUM PIPE BEDDING FOR ALL PIPING SHALL CONFORM TO GEORGIA D.O.T. STANDARDS AND SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE. UNSUITABLE, WET, SPONGY, OR SOFT SOILS WILL REQUIRE ADDITIONAL BEDDING DESIGN AND CONSTRUCTION, AND SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER FOR RESOLUTION PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
- BOUNDARY, TOPOGRAPHIC, VERTICAL AND HORIZONTAL SURVEY DATA PROVIDED BY OTHERS. PWH ENGINEERING, INC. IS NOT RESPONSIBLE FOR ERRORS, OMISSIONS, OR OTHER DEFECTS ARISING FROM OR RELATED TO ANY INFORMATION OR DATA PROVIDED BY OTHERS.
- CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION AND COORDINATION WITH THE LAHJ FOR START OF CONSTRUCTION AND INSPECTION PROCEDURES.
- ALL CONSTRUCTION DETAILS SHOWN ON THE PLANS ARE FOR REFERENCE ONLY. CONTRACTOR SHALL REVIEW AND VERIFY ALL CONSTRUCTION DETAILS FOR COMPLIANCE WITH CURRENT REFERENCED STANDARDS AND THE LAHJ.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL LOCAL, STATE, FEDERAL, AND INDUSTRY STANDARD SAFETY DEVICES, PROCEDURES, PRECAUTIONS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK. NO PERSON SHALL ENTER ANY MANHOLE OR OTHER UNDERGROUND STRUCTURE OR EXCAVATION, WITHOUT PROTECTIVE BREATHING APPARATUS, AND AT LEAST ONE OTHER PERSON PRESENT FOR SAFETY. ALL TRENCHES, GRADING, EXCAVATION, AND EARTHWORK SHALL CONFORM TO OSHA STANDARDS FOR SAFETY, SHORING, AND BRACING.
- MINIMUM FINISHED FLOOR ELEVATIONS WHICH MAY BE SHOWN ARE BASED UPON EXISTING CONDITIONS AND PROPER FUNCTION OF CHANNELS, DRAINAGE COURSES, AND STORM DRAIN SYSTEMS. ANY RESTRICTION, DAMAGE, OR ALTERATION TO THESE ELEMENTS, EXISTING OR PROPOSED, MAY CAUSE FLOODING ABOVE THE STATED MINIMUM FLOOR ELEVATIONS.
- CONTRACTOR SHALL ESTABLISH PERMANENT GRASSING ON ALL DISTURBED AREAS PRIOR TO FINAL RELEASE, WHETHER SHOWN ON THE PLANS OR NOT.
- THE CONTRACTOR SHALL PROVIDE STORM WATER DISCHARGE MONITORING, DOCUMENTATION, AND REPORTING, AND FULLY COMPLY WITH THE CURRENT GEORGIA NPDES PERMIT CONDITIONS AND REQUIREMENTS. **CONTRACTOR SHALL SIGN, CERTIFY, AND SUBMIT THE NOTICE OF INTENT (NOI) USING REGISTERED MAIL, AND ANY OTHER RELATED NOTICE(S), APPLICATIONS, OR CERTIFICATIONS REQUIRED FOR FULL COMPLIANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS. CONTRACTOR SHALL PROVIDE COPIES OF ALL REPORTING AND DOCUMENTATION TO OWNER IN A TIMELY MANNER THROUGHOUT CONSTRUCTION.**
- NO PARKING FOR CONTRACTORS OR SUBCONTRACTORS WILL BE ALLOWED ON PUBLIC STREETS OR RIGHT OF WAY.
- ALL CUTS IN PAVEMENT AND PAVEMENT EDGES ADJOINING NEW PAVEMENT SHALL BE SAW CUT. ALL RIGID PAVEMENT TO RIGID PAVEMENT SHALL BE DOWELED WITH NO. 4 BARS SPACED 12-INCHES ON CENTER AND GROUDED.
- CONTRACTOR SHALL COORDINATE WITH AUTHORIZED REPRESENTATIVE FOR OWNER AND CONFIRM AND OBTAIN APPROVAL PTC FOR ALL DAILY CONSTRUCTION ACTIVITIES SCHEDULED AND ANY IMPACT ON REQUIRED ACTIVITIES, EVENTS, OR ACCESS WHICH MAY BE AFFECTED IN ANY WAY. DO NOT ALLOW PEDESTRIANS, PUBLIC, OR OTHER UNAUTHORIZED PERSON(S) TO ENTER WORK AREAS, WORK AND STORAGE AREA(S) SHALL BE FENCED [TF] AND SECURE [CA] AT ALL TIMES FOR ALL PHASES OF CONSTRUCTION. FOUL OR OFFENSIVE LANGUAGE, IMPROPER OR REVEALING CLOTHING OR ATTIRE, ALCOHOL, FIREARMS, DRUGS, OR OTHER INAPPROPRIATE BEHAVIOR AS DETERMINED BY OWNER IS STRICTLY PROHIBITED. ANY INTERACTION OR CONTACT WITH PUBLIC, STAFF OR VISITORS IS STRICTLY PROHIBITED AT ALL TIMES. ALL COORDINATION AND COMMUNICATION SHALL BE THROUGH THE DESIGNATED OWNER AUTHORIZED REPRESENTATIVE. CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL OWNER'S REQUIREMENTS, STANDARDS, POLICIES, RULES AND SPECIFICATIONS.
- NO PARKING IN THE RIGHT OF WAY IS ALLOWED. ALL CONSTRUCTION TRAFFIC MUST BE COORDINATED WITH [TC] AT ALL TIMES WITH NO INTERRUPTION OF ACCESS FOR SCHOOL OR SCHOOL OPERATIONS.
- DESIGN IS BASED ON SURVEY INFORMATION PROVIDED BY OTHERS. ENGINEER IS NOT RESPONSIBLE FOR ERRORS OR OMISSIONS IN ANY INFORMATION PROVIDED BY OTHERS.

PROJECT NUMBER  
23-017DATE  
09/25/23**REVISIONS**

NO.	DATE
ADD 2	03/20/24

**FACILITY CODE**

855 ABUTMENT ROAD  
SUITE FOUR  
DALTON, GA 30721  
TEL. 706.529.5895

**PWH ENGINEERING**  
CIVIL ENGINEERING  
SITE DEVELOPMENT

2900 DELA ROAD STE 700 #218 • MARIETTA, GA 30067 • PH: 770-433-8190

2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

ISSUE DATE: 03-22-24  
JOB NO. 22290 | SCALE: 1" = 30'

ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS



GSWCC LEVEL II - 0000008688

**SHEET INDEX****PROJECT NOTES****SHEET INDEX****C2.1**

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N./F.  
 CHEROKEE COUNTY BOARD OF EDUCATION  
 (DEED BOOK 231, PAGE 131)  
 (DEED BOOK 231, PAGE 195)  
 (DEED BOOK 735, PAGE 182)  
 (DEED BOOK 1384, PAGE 15)  
 (DEED BOOK 7099, PAGE 29)  
 (DEED BOOK 13535, PAGE 93)

PROJECT NUMBER  
 23-017

DATE  
 09/25/23

REVISIONS	
NO.	DATE
ADD 2	03/20/24

FACILITY CODE



855 ABUTMENT ROAD  
 SUITE FOUR  
 DALTON, GA 30721  
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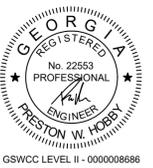
**PWR ENGINEERING**  
 CIVIL ENGINEERING  
 SITE DEVELOPMENT

2900 DELA ROAD STE 700 #218 • MARIETTA, GA 30067 • PH: 770-433-8190

2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

ISSUE DATE: 03-22-24  
 JOB NO. 22280 | SCALE: 1" = 30'

ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
 2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
 CHEROKEE COUNTY BOARD OF COMMISSIONERS



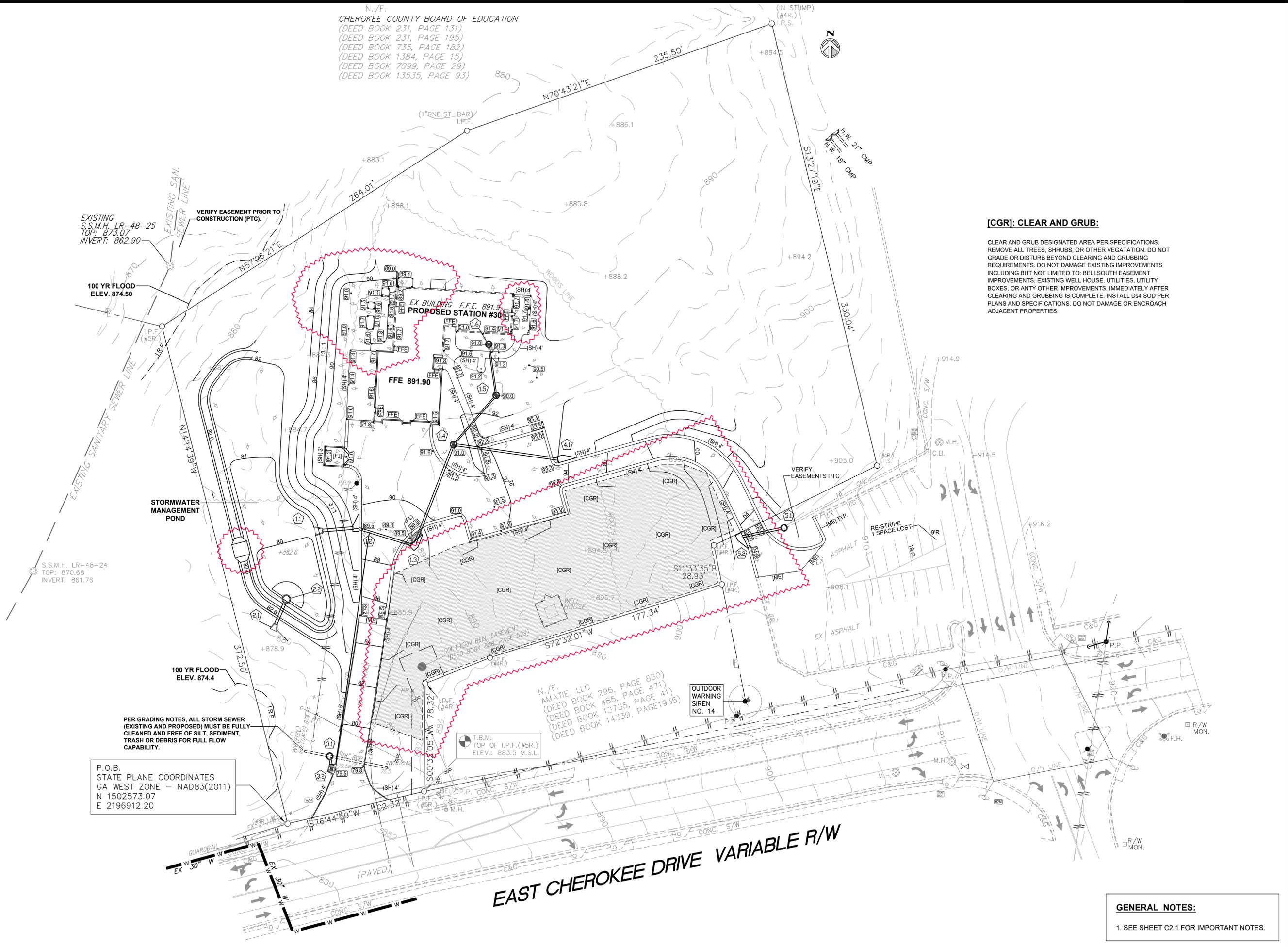
SHEET INDEX

GRADING PLAN

SHEET INDEX

C3

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**[CGR]: CLEAR AND GRUB:**

CLEAR AND GRUB DESIGNATED AREA PER SPECIFICATIONS. REMOVE ALL TREES, SHRUBS, OR OTHER VEGETATION. DO NOT GRADE OR DISTURB BEYOND CLEARING AND GRUBBING REQUIREMENTS. DO NOT DAMAGE EXISTING IMPROVEMENTS INCLUDING BUT NOT LIMITED TO: BELLSOUTH EASEMENT IMPROVEMENTS, EXISTING WELL HOUSE, UTILITIES, UTILITY BOXES, OR ANY OTHER IMPROVEMENTS. IMMEDIATELY AFTER CLEARING AND GRUBBING IS COMPLETE, INSTALL D#4 SOD PER PLANS AND SPECIFICATIONS. DO NOT DAMAGE OR ENCR OACH ADJACENT PROPERTIES.

EXISTING S.S.M.H. LR-48-25  
 TOP: 873.07  
 INVERT: 862.90

100 YR FLOOD  
 ELEV. 874.50

STORMWATER  
 MANAGEMENT  
 POND

S.S.M.H. LR-48-24  
 TOP: 870.68  
 INVERT: 861.76

100 YR FLOOD  
 ELEV. 874.4

PER GRADING NOTES, ALL STORM SEWER  
 (EXISTING AND PROPOSED) MUST BE FULLY  
 CLEANED AND FREE OF SILT, SEDIMENT,  
 TRASH OR DEBRIS FOR FULL FLOW  
 CAPABILITY.

P.O.B.  
 STATE PLANE COORDINATES  
 GA WEST ZONE - NAD83(2011)  
 N 1502573.07  
 E 2196912.20

T.B.M.  
 TOP OF I.P.F. (#5R.)  
 ELEV.: 883.5 M.S.L.

N./F.  
 AMATIE, LLC  
 (DEED BOOK 296, PAGE 830)  
 (DEED BOOK 485, PAGE 471)  
 (DEED BOOK 13735, PAGE 41)  
 (DEED BOOK 14339, PAGE 1936)

OUTDOOR  
 WARNING  
 SIREN  
 NO. 14

**GENERAL NOTES:**  
 1. SEE SHEET C2.1 FOR IMPORTANT NOTES.

EXISTING  
S.S.M.H. LR-48-25  
TOP: 873.07  
INVERT: 862.90

VERIFY EASEMENT PRIOR TO  
CONSTRUCTION (PTC).

100 YR FLOOD  
ELEV. 874.50

STORMWATER  
MANAGEMENT  
POND

(S) 6"/9"/12" STONE  
18" DEPTH / GEOFABRIC

100 YR FLOOD  
ELEV. 874.4

P.O.B.  
STATE PLANE COORDINATES  
GA WEST ZONE - NAD83(2011)  
N 1502573.07

EX BUILDING F.F.E. 891.9  
**PROPOSED STATION #30**

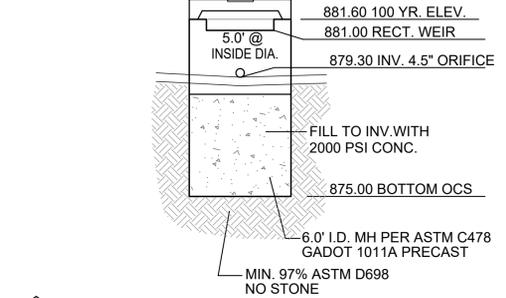
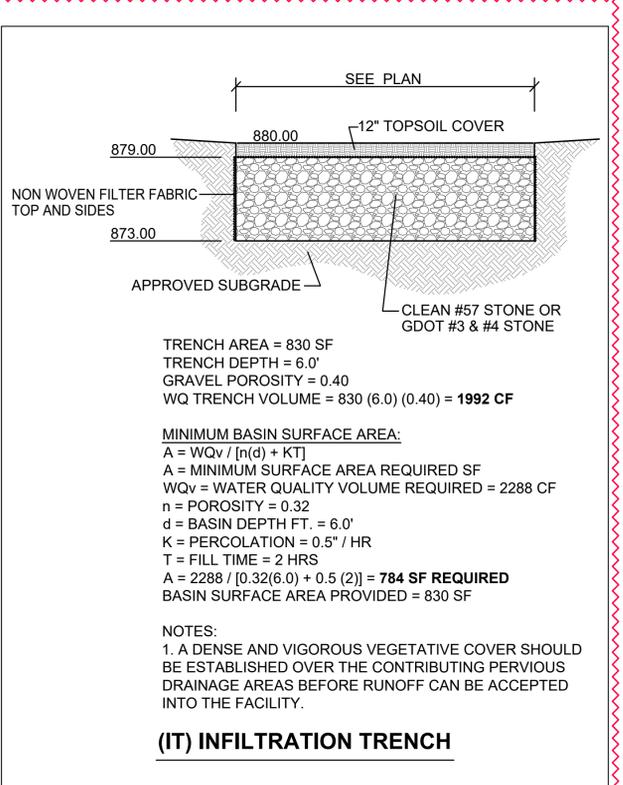
FFE 891.90

SOUTHERN BELL EASEMENT  
(DEED BOOK 888, PAGE 529)

N./F.  
AMATIE, LLC  
(DEED BOOK 296, PAGE 830)  
(DEED BOOK 485, PAGE 471)  
(DEED BOOK 13735, PAGE 41)  
(DEED BOOK 14339, PAGE 1936)

T.B.M.  
TOP OF I.P.F. (#5R.)  
ELEV.: 883.5 M.S.L.

OUTDOOR  
WARNING  
SIREN  
NO. 14



PROJECT NUMBER  
23-017

DATE  
09/25/23

REVISIONS	
NO.	DATE
ADD 2	03/20/24

FACILITY CODE

**KRH**  
ARCHITECTS  
INCORPORATED

855 ABUTMENT ROAD  
SUITE FOUR  
DALTON, GA 30721  
TEL. 706.529.5895

**PWR**  
ENGINEERING

CIVIL ENGINEERING  
SITE DEVELOPMENT

2900 DELA ROAD STE 700 #218 • MARIETTA, GA 30067 • PH: 770-433-8190  
2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

ISSUE DATE: 03-22-24  
JOB NO. 22280 | SCALE: 1" = 20'

ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS



SHEET INDEX

POND  
DETAILS

SHEET INDEX

**C3.1**

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855 ABUTMENT ROAD  
SUITE FOUR  
DALTON, GA 30721  
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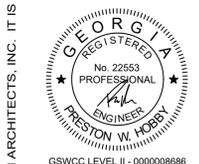
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2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

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ADDITIONS & RENOVATIONS TO:  
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2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS



GSWCC LEVEL II - 0000008686

SHEET INDEX

EROSION CONTROL NOTES

SHEET INDEX

**C6.1**

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EROSION CONTROL LEGEND	
(Sd1)	Sediment Barrier (Silt Fence)
(Co)	Construction Entrance/Exit
(Cd)	Check Dam
(Sd3)	Sediment Basin
(Sd2)	Inlet Sediment Trap
(Rt)	Retrofitting
(St)	Storm Drain Outlet Protection
(Mb)	Matting and Blankets
(Di)	Diversion
(Cw)	Concrete Washdown
(Tst)	Temporary Sediment Trap
(Ds1)	Disturbed Area Stabilization (Mulching Only)
(Ds2)	Disturbed Area Stabilization (Temporary Seeding)
(Ds3)	Disturbed Area Stabilization (Permanent Seeding)
(Du)	Dust Control

ACTIVITY	CONSTRUCTION SCHEDULE												
	MONTHS												
	5/24	7/24	9/24	11/24	1/25	3/25	5/25	7/25	9/25	11/25	1/26	3/26	5/26
INITIAL / PERIMETER BMP'S	█												
SED. STORAGE BMP'S	█												
E & SC MAINTENANCE													
Ds1 / Ds2 TEMP. STABILIZATION													
CLEARING & GRUBBING													
GRADING													
BUILDING (S)													
UTILITIES													
STORM / SAN. SEWER													
PAVEMENT													
LANDSCAPING													
Ds3 FINAL STABILIZATION													

**THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO ANY LAND DISTURBING ACTIVITIES.**

SOILS LEGEND	
MoF	Montevallo very channery loam, 30 to 60 percent slopes
MeE	Montevallo-Townley complex, 15 to 30 percent slopes

**EROSION, SEDIMENTATION & POLLUTION CONTROL NOTES:**  
(NOTES CORRESPOND TO STANDALONE CHECKLIST)

- 24 HR. LOCAL CONTACT: CONTRACTOR
- PRIMARY PERMITTEE: CONTRACTOR
- TOTAL ACREAGE: 4.01 ACRES DISTURBED ACREAGE: 2.20 ACRES
- PROPOSED CONSTRUCTION IS A NEW ATHLETIC STADIUM WITH SIDEWALKS, PARKING, DRIVES, FENCES, GRADING, SEWER, UTILITIES, AND ASSOCIATED IMPROVEMENTS AS SHOWN
- I CERTIFY UNDER THE PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY DIRECT SUPERVISION.
 

<i>PWH</i>	PRESTON W. HOBBY	8686	03-22-24
Certified By	Printed Name	GSWCC LEVEL II	Date
- I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN PROVIDES FOR AN APPROPRIATE AND COMPREHENSIVE SYSTEM OF BEST MANAGEMENT PRACTICES REQUIRED BY THE GEORGIA WATER QUALITY CONTROL ACT AND THE DOCUMENT "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA", (MANUAL) PUBLISHED BY THE STATE SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 OF THE YEAR IN WHICH THE LAND-DISTURBING ACTIVITY WAS PERMITTED, PROVIDES FOR THE SAMPLING OF THE RECEIVING WATER(S) OR THE SAMPLING OF THE STORM WATER OUTFALLS AND THAT THE DESIGNED SYSTEM OF BEST MANAGEMENT PRACTICES AND SAMPLING METHODS MEETS THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT No. GAR 10001.
- THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMP'S WITHIN 7 DAYS AFTER INSTALLATION.
- NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50 FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25 FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.
- NO BUFFER VARIANCE IS REQUIRED.
- AMENDMENTS / REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
- WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
- EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 7 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
- CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF VEHICLES SHALL BE DONE IN DESIGNATED CONCRETE WASHOUT (CW) AS SHOWN ON PLANS. WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.
- STORMWATER SAMPLING:**  
SAMPLE ANALYSIS:  
STORM WATER SAMPLES SHALL BE ANALYZED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 AND THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.  
STORM WATER IS TO BE SAMPLED FOR NEPHELOMETRIC TURBIDITY UNITS (NTU) AT SAMPLING LOCATION (S) SHOWN OR DESIGNATED ON THE APPROVED ES&PC PLANS. A DISCHARGE OF STORM WATER RUNOFF FROM DISTURBED AREAS WHERE BEST MANAGEMENT PRACTICES HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH CONDITION RESULTS IN THE TURBIDITY OF THE DISCHARGE EXCEEDING **50** NTU, THE VALUE THAT WAS SELECTED FROM APPENDIX B IN PERMIT No. GAR100001. THE NTU IS BASED UPON SITE ACREAGE OF 20.10 ACRES TOTAL FOR THE PROJECT SITE, THE SURFACE DRAINAGE AREA OF **0-4.99** SQUARE MILES, AND RECEIVING WATER WHICH SUPPORTS WARM WATER FISHERIES.

- SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.  
ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS.  
**SPILL CLEANUP AND CONTROL PRACTICES:**  
FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER) THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.  
FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-426-2675.  
FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.  
FOR SPILLS LESS THAN THAT 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.  
THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ON-SITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.
- TEMPORARY SEDIMENT TRAPS, RETROFITS, OR SEDIMENT BASINS WILL BE INSTALLED AS SHOWN TO CONTROL SEDIMENT. WATER QUALITY DEVICE(S) AND WQV VOLUME WILL BE INSTALLED /PROVIDED TO TREAT IMPERVIOUS AREAS POST CONSTRUCTION.
- PLASTIC SHEETING, TARPS, AND TEMPORARY ROOFS WILL BE INSTALLED TO COVER TRASH, BUILDING MATERIALS OR PRODUCTS, CONSTRUCTION WASTES, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, CLEANING MATERIALS, SANITARY WASTES, AND ALL OTHER SUCH MATERIALS OR SUBSTANCES TO MINIMIZE EXPOSURE TO PRECIPITATION AND DISCHARGE TO STORMWATER.
- PRODUCT SPECIFIC PRACTICES:**  
**PETROLEUM BASED PRODUCTS -**  
BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ON-SITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORM WATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS, AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.  
**PAINTS/FINISHES/SOLVENTS -**  
WHEN NOT IN USE, EXCESS PRODUCT WILL NOT BE DISCHARGED TO THE STORM WATER COLLECTION SYSTEM. EXCESS PRODUCT, MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.  
**FERTILIZER/HERBICIDES -**  
MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.  
**BUILDING MATERIALS -**  
ALL SUCH MATERIAL WILL BE DISPOSED OF USING PROPER WASTE DISPOSAL PROCEDURES.
- APPROPRIATE CONTROLS AND MEASURES WILL INCLUDE: INITIAL SEDIMENT STORAGE AND PERIMETER CONTROLS AS SHOWN ON SHEET C6.3 WITH MINIMUM DISTURBANCE. INTERMEDIATE SEDIMENTS WILL INCLUDE TEMPORARY SEDIMENT STORAGE, TEMPORARY AND PERMANENT STABILIZATION, AND STORM OUTLET PROTECTION AS SHOWN ON SHEET C6.3. FINAL STABILIZATION INCLUDES (Ss) SLOPE STABILIZATION, LANDSCAPING, AND ESTABLISHMENT OF PERMANENT GRASSING ON ALL DISTURBED AREAS AS SHOWN ON SHEET C6.4.
- ALL STATE WATERS LOCATED ON OR WITHIN 200 FEET OF THE PROJECT SITE ARE SHOWN.
- ALL WETLANDS AND STATE WATERS LOCATED ON OR WITHIN 200 FEET OF THE PROJECT SITE ARE SHOWN.
- HYDROLOGY STUDY AND STORMWATER MANAGEMENT PROPOSED, COPY OF HYDRO STUDY ATTACHED WITH SUBMITTAL.
- RUNOFF COEFFICIENT:  
WEIGHTED PRE-CONSTRUCTION CN CURVE NUMBER: 70  
WEIGHTED POST-CONSTRUCTION CN CURVE NUMBER: 85
- SEDIMENT STORAGE:  
FLOATING SKIMMER IS INFEASIBLE. A PERMANENT R1 RETROFIT AND FILTRATION DEVICE (#57 STONE) WILL PROVIDE INCREASED INFILTRATION WITH GREATER CAPACITY FOR HIGHER STORM FREQUENCIES.

**LOCAL AUTHORITY EROSION CONTROL NOTES:**

- ALL MATERIALS, CONSTRUCTION, AND VEGETATIVE PRACTICES SHALL CONFORM TO THE "MANUAL FOR EROSION AND SEDIMENTATION CONTROL IN GEORGIA", CURRENT EDITION.
- THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCE PAD (CO) AT ALL TIMES IN A CONDITION WHICH WILL PREVENT THE TRACKING OR FLOW OF MUD OR SILT ONTO PUBLIC STREETS OR RIGHT-OF-WAY.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF ALL EROSION CONTROL MEASURES AND PRACTICES AS SHOWN ON THE PLANS PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
- THIS SITE IS WITHIN A 100 YEAR FLOOD HAZARD PER FEMA F.I.R.M. MAP **13057C0263E** DATED 06/07/19.
- OWNER / DEVELOPER:  
CHEROKEE COUNTY BOARD OF COMMISSIONERS  
1130 BLUFFS PARKWAY  
CANTON, GA. 30114  
PHONE: 678-493-6000  
24 HOUR CONTACT: JUD MARTIN: 678-493-6084
- EXISTING LAND USE:  
THE SITE IS CURRENTLY DEVELOPED WITH AN EXISTING CHURCH, GRASS, BRUSH, OPEN AND WOODED AREAS. GROUND COVER IS SOIL, GRASS, SMALL BRUSH, WITH PARTIAL WOODED AREAS. THE SITE IS LOCATED AT 2017 E. CHEROKEE DRIVE, WOODSTOCK, GA 30188. PROPOSED CONSTRUCTION IS A NEW FIRE STATION, DRIVES, PARKING, GRADING, STORM SEWER, UTILITIES, AND RENOVATIONS WITH ASSOCIATED IMPROVEMENTS AS SHOWN.
- ADDITIONAL EROSION CONTROL MEASURES OR DEVICES MAY BE REQUIRED BY THE LOCAL AUTHORITY OR THE ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN AND INSPECT EROSION CONTROL MEASURES ON A DAILY BASIS, AND AFTER EACH STORM EVENT. ALL EROSION CONTROL DEVICES SHALL BE CLEANED OF SEDIMENT AS REQUIRED FOR PROPER FUNCTION AND ALL SEDIMENT SHALL BE REMOVED FROM EVERY DEVICE **AFTER EACH RAINFALL EVENT.**
- ALL DISTURBED AREAS SHALL BE TEMPORARILY AND PERMANENTLY GRASSED OR LANDSCAPED USING VEGETATIVE PRACTICES AS SHOWN ON THE PLANS AND SPECIFICATIONS. TEMPORARY GRASSING NOT MEETING PERMANENT GRASSING SPECIFICATION SHALL BE COMPLETELY REMOVED AND ERADICATED PRIOR TO INSTALLATION OF PERMANENT GRASSING.
- THE CONTRACTOR SHALL NOT ENCRUCH OR DISTURB IN ANY WAY THE STATE AND LOCAL DESIGNATED STREAM OR CREEK BUFFERS WHETHER SHOWN ON THE PLANS OR NOT. ALL STATE WATERS SHALL HAVE A MINIMUM 25 FOOT UNDISTURBED BUFFER AREA FROM THE TOP EDGE OF THE CREEK BANK ON EACH SIDE. LOCAL AUTHORITIES MAY HAVE BUFFER WIDTHS GREATER THAN 25 FEET. CONTRACTOR SHALL VERIFY BUFFER WIDTH WITH LOCAL AUTHORITY PTC AND MAINTAIN BUFFER AT ALL TIMES.
- SEE EROSION CONTROL DETAILS FOR DETAILS OF EROSION CONTROL MEASURES AND DEVICES.
- LOCAL AUTHORITY LAND DISTURBANCE PERMIT MUST BE DISPLAYED ON SITE AT ALL TIMES AND IN PLAIN VIEW FROM A ROAD OR STREET.
- INSTALL EROSION CONTROL MATS OR EQUIVALENT MATERIALS ON SLOPES EQUAL TO OR GREATER THAN 4H:1V AND 10 FOOT VERTICAL.
- STABILIZE SLOPES, INSTALL (MB) MATTING AND BLANKETS AND VEGETATIVE COVER AS SOON AS FINAL GRADE IS COMPLETE.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED DAILY, AFTER EACH RAIN, AND REPAIRED AND CLEANED AS NECESSARY.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY AFTER ON-SITE INSPECTION.
- SILT FENCE SHALL MEET THE REQUIREMENTS OF SECTION 171 - TYPE C TEMPORARY SILT FENCE, OF THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, 1993 EDITION.
- NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A MINIMUM 25 FOOT BUFFER ALONG THE BANKS OF ALL STATE WATERS, AS MEASURED HORIZONTALLY FROM FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, EXCEPT WHERE THE DIRECTOR HAS GRANTED A VARIANCE, OR WHERE A DRAINAGE STRUCTURE OR ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PLANS AND IMPLEMENTED.
- NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 50 FOOT BUFFER ALONG THE BANKS OF ALL STATE WATERS CLASSIFIED AS TROUT STREAMS, AS MEASURED HORIZONTALLY FROM FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, EXCEPT WHERE THE DIRECTOR HAS GRANTED APPROVAL FOR ALTERNATE BUFFER REQUIREMENTS IN ACCORDANCE WITH O.C.G.A. 12-7-6, OR WHERE A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED, PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PLANS AND IMPLEMENTED.
- THE PROFESSIONAL WHO SEALS THIS PLAN CERTIFIES UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY THE PROFESSIONAL OR THE PROFESSIONAL'S AUTHORIZED AGENT, UNDER THE PROFESSIONAL'S DIRECT SUPERVISION.
- WETLANDS SHOWN ON THIS PLAN ARE TAKEN FROM AN AQUATIC RESOURCE DELINEATION FOR FOR COLDWELL BANKER COMMERCIAL BY CONTOUR ENVIRONMENTAL INC, 4462 BRETTON COURT, SUITE 14, ACWORTH, GA 30101, DATED MAY 25, 2022, DANA A. SPOTTS, REPA, EP, WITH PERMISSION FROM THE OWNERS.

**NPDES MONITORING NOTES:**

- CONTRACTOR IS RESPONSIBLE FOR FULL COMPLIANCE WITH ALL NPDES NOTIFICATION, MONITORING, DOCUMENTATION, RECORD KEEPING, AND PERMIT REQUIREMENTS. COPY OWNER IMMEDIATELY ON ALL DOCUMENTATION REQUIRED.
- CONTRACTOR SHALL CONDUCT ADDITIONAL SAMPLING PER APPENDIX 1 ITEM I.

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(3). Off-site vehicle tracking of dirt, soils, and sediments and the generation of dust shall be minimized or eliminated to the maximum extent practical. The Plan shall include the best management practice to be implemented at the site or construction activity.

(4). Nothing in this permit relieves a permittee from any obligation to comply with all applicable State and local regulations of waste disposal, sanitary sewer, septic and petroleum storage systems.

(5). The Plan shall include best management practices for the remediation of all petroleum spills and leaks as appropriate.

(6). The Plan shall include best management practices for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of vehicles. Washout of the drum at the construction site is prohibited. Additional information about best management practices for concrete washout is available at the USEPA website.

(7). All permittees are required to minimize the discharge of pollutants from dewatering trenches and excavations. Discharges are prohibited unless managed by appropriate controls.

**4. Inspections.**

a. **Permittee requirements.**

(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted.

(2). Measure and record rainfall within disturbed areas of the site that have not met final stabilization once every 24 hours except any non-working Saturday, non-working Sunday and non-working Federal holiday. The data collected for the purpose of compliance with this permit shall be representative of the monitored activity. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.

(3). Certified personnel (provided by the primary permittee) shall inspect the following at least ~~once~~ <sup>twice</sup> every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any non-working Saturday, non-working Sunday or

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any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first); (a) disturbed areas of the primary permittee's construction site; (b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted.

(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination has been submitted) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.

(6). A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(5), of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction site that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. Where the report does not identify any incidents, the inspection report shall contain a certification that the best management practices are in compliance with the Erosion,

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Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2. of this permit.

**5. Maintenance.** The Plan shall include a description of procedures to ensure the timely maintenance of vegetation, erosion and sediment control measures and other protective measures identified in the site plan.

**6. Sampling Requirements.** This permit requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with this permit. This paragraph shall not apply to any land disturbance associated with the construction of single-family homes which are not part of a subdivision or planned common development unless five (5) acres or more will be disturbed. The following procedures constitute EPD's guidelines for sampling turbidity.

a. **Sampling Requirements** shall include the following:

(1). A USGS topographic map, a topographic map or a drawing (referred to as a topographic map) that is a scale equal to or more detailed than a 1:24000 map showing the location of the site or the stand alone construction; (a) the location of all perennial and intermittent streams and other water bodies as shown on a USGS topographic map, and all other perennial and intermittent streams and other water bodies located during mandatory field verification, into which the stormwater is discharged and (b) the receiving water and/or outfall sampling locations. When the permittee has chosen to use a USGS topographic map and the receiving water(s) is not shown on the USGS topographic map, the location of the receiving water(s) must be hand-drawn on the USGS topographic map from where the stormwater(s) enters the receiving water(s) to the point where the receiving water(s) combines with the first blue line stream shown on the USGS topographic map;

(2). A written narrative of site specific analytical methods used to collect, handle and analyze the samples including quality control/quality assurance procedures. This narrative must include precise sampling methodology for each sampling location;

(3). When the permittee has determined that some or all outfalls will be sampled, a rationale must be included on the Plan for the NTU limit(s) selected from Appendix B. This rationale must include the size of the construction site, the calculation of the size of the surface water drainage area, and the type of receiving water(s) (i.e., trout stream or supporting warm water fisheries); and

(4). Any additional information EPD determines necessary to be part of the Plan. EPD will provide written notice to the permittee of the information necessary and the time line for submittal.

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b. **Sample Type.** All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001" and guidance documents that may be prepared by the EPD.

(1). Sample containers should be labeled prior to collecting the samples.

(2). Samples should be well mixed before transferring to a secondary container.

(3). Large mouth, well cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination.

(4). Manual, automatic or rising stage sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic samplers must be collected no later than the next business day after their accumulation, unless flow through automated analysis is utilized. If automatic sampling is utilized and the automatic sampler is not activated during the qualifying event, the permittee must utilize manual sampling or rising stage sampling during the next qualifying event. Dilution of samples is not required. Samples may be analyzed directly with a properly calibrated turbidimeter. Samples are not required to be cooled.

(5). Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in this permit must be reported to EPD as specified in Part IV.E.

c. **Sampling Points.**

(1). For construction activities the primary permittee must sample all receiving water(s), or all outfall(s), or a combination of receiving water(s) and outfall(s). Samples taken for the purpose of compliance with this permit shall be representative of the monitored activity and representative of the water quality of the receiving water(s) and/or the stormwater outfalls using the following minimum guidelines:

(a). The upstream sample for each receiving water(s) must be taken immediately upstream of the confluence of the first stormwater discharge from the permitted activity (i.e., the discharge farthest upstream at the site) but downstream of any other stormwater discharges not associated with the permitted activity. Where appropriate, several upstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the upstream turbidity value.

(b). The downstream sample for each receiving water(s) must be taken downstream of the confluence of the last stormwater discharge from the permitted activity (i.e., the discharge farthest downstream at the site) but upstream of any other stormwater discharge not associated with the permitted activity. Where appropriate, several downstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the downstream turbidity value.

(c). Ideally the samples should be taken from the horizontal and vertical center of the receiving water(s) or the stormwater outfall channel(s).

(d). Care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall stormwater channel.

(e). The sampling container should be held so that the opening faces upstream.

(f). The samples should be kept free from floating debris.

(g). Permittees do not have to sample sheet flow that flows onto undisturbed natural areas or areas stabilized by the project. For purposes of this section, stabilized shall mean, for ungraded areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by EPD for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan (uniformly covered with landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures as defined in the Manual (excluding a crop of annual vegetation and a seeding of target crop perennials appropriate for the region).

(h). All sampling pursuant to this permit must be done in such a way (including generally accepted sampling methods, locations, timing, and frequency) as to accurately reflect whether stormwater runoff from the construction site is in compliance with the standard set forth in Parts III.D.3. or III.D.4., whichever is applicable.

d. **Sampling Frequency.**

(1). The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any stormwater discharge to a monitored receiving water and/or from a monitored outfall location within in forty-five (45) minutes or as soon as possible.

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(b). The downstream sample for each receiving water(s) must be taken downstream of the confluence of the last stormwater discharge from the permitted activity (i.e., the discharge farthest downstream at the site) but upstream of any other stormwater discharge not associated with the permitted activity. Where appropriate, several downstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the downstream turbidity value.

(c). Ideally the samples should be taken from the horizontal and vertical center of the receiving water(s) or the stormwater outfall channel(s).

(d). Care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall stormwater channel.

(e). The sampling container should be held so that the opening faces upstream.

(f). The samples should be kept free from floating debris.

(g). Permittees do not have to sample sheet flow that flows onto undisturbed natural areas or areas stabilized by the project. For purposes of this section, stabilized shall mean, for ungraded areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by EPD for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan (uniformly covered with landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures as defined in the Manual (excluding a crop of annual vegetation and a seeding of target crop perennials appropriate for the region).

(h). All sampling pursuant to this permit must be done in such a way (including generally accepted sampling methods, locations, timing, and frequency) as to accurately reflect whether stormwater runoff from the construction site is in compliance with the standard set forth in Parts III.D.3. or III.D.4., whichever is applicable.

d. **Sampling Frequency.**

(1). The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any stormwater discharge to a monitored receiving water and/or from a monitored outfall location within in forty-five (45) minutes or as soon as possible.

State of Georgia  
Department of Natural Resources  
Environmental Protection Division

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Permit No. GAR100001

(2). However, where manual and automatic sampling are impossible (as defined in this permit), or are beyond the permittee's control, the permittee shall take samples as soon as possible, but in no case more than twelve (12) hours after the beginning of the stormwater discharge.

(3). Sampling by the permittee shall occur for the following qualifying events:

(a). For each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a stormwater discharge that occurs during normal business hours as defined in this permit after all clearing and grubbing operations have been completed, but prior to completion of mass grading operations, in the drainage area of the location selected as the sampling location;

(b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a stormwater discharge that occurs during normal business hours as defined in this permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the sampling location, whichever comes first;

(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective action shall be defined and implemented within two (2) business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours\* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMPs are properly designed, installed and maintained;

(d). Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), the permittee, in accordance with Part IV.D.4.a.(6), must include a written justification in the inspection report of why sampling was not performed. Providing this justification does not relieve the permittee of any subsequent sampling obligations under (a), (b) or (c) above; and

(e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b). Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

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\*Note that the permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for sampling at any time of the day or week.

**7. Non-stormwater discharges.** Except for flows from fire fighting activities, sources of non-stormwater listed in Part III.A.2. of this permit that are combined with stormwater discharges associated with construction activity must be identified in the Plan. The Plan shall identify and ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge.

**E. Reporting.**

1. The applicable permittees are required to submit the sampling results to the EPD at the address shown in Part II.C. by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any stormwater discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. The sampling reports must be signed in accordance with Part V.G.2. Sampling reports must be submitted to EPD using the electronic submittal service provided by EPD. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.

2. All sampling reports shall include the following information:

a. The rainfall amount, date, exact place and time of sampling or measurements;

b. The name(s) of the certified personnel who performed the sampling and measurements;

c. The date(s) analyses were performed;

d. The time(s) analyses were initiated;

e. The name(s) of the certified personnel who performed the analyses;

f. References and written procedures, when available, for the analytical techniques or methods used;

g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results;

h. Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU;" and

i. Certification statement that sampling was conducted as per the Plan.

3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a NOT is submitted in accordance with Part VI.

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**F. Retention of Records.**

1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:

a. A copy of all Notices of Intent submitted to EPD;

b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;

c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;

d. A copy of all sampling information, results, and reports required by this permit;

e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;

f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and

g. Daily rainfall information collected in accordance with Part IV.D.4.a.(2). of this permit.

2. Copies of all Notices of Intent, Notices of Termination, inspection reports, sampling reports (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) or other reports requested by the EPD, Erosion, Sedimentation and Pollution Control Plans, records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be retained by the permittee who either produced or used it for a period of at least three years from the date that the NOT is submitted in accordance with Part VI. of this permit. These records must be maintained at the permittee's primary place of business or at a designated alternative location once the construction activity has ceased at the permitted site. This period may be extended by request of the EPD at any time upon written notification to the permittee.

**Part V. STANDARD PERMIT CONDITIONS**

**A. Duty to Comply.**

1. Each permittee must comply with all applicable conditions of this permit. Any permit noncompliance constitutes a violation of the Georgia Water Quality Control Act (O.C.G.A. §§12-5-20, et seq.) and is grounds for enforcement action; for permit termination; or for denial of a permit renewal application. Failure of a primary permittee to comply with any applicable term or condition of this permit shall not relieve any other primary permittee from compliance with their applicable terms and conditions of this permit.

2. Each permittee must document in their records any and all known violations of this permit at his/her site within seven (7) days of his/her knowledge of the violation. A summary of these violations must be submitted to EPD by the permittee at the addresses shown in Part II.C. within fourteen (14) days of his/her discovery of the violation.

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**APPENDIX B**

**Nephelometric Turbidity Unit (NTU) TABLES**

**Trout Streams**

Site Size, acres	Surface Water Drainage Area, square miles							
	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	25	50	75	150	300	500	500	500
10.01-25	25	25	50	75	150	200	500	500
25.01-50	25	25	25	50	75	100	300	500
50.01-100	20	25	25	35	59	75	150	300
100.01+	20	20	25	25	25	50	60	100

**Waters Supporting Warm Water Fisheries**

Site Size, acres	Surface Water Drainage Area, square miles							
	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99	250-499.99	500+
1.00-10	75	150	200	400	750	750	750	750
10.01-25	50	100	100	200	300	500	750	750
25.01-50	50	50	100	100	200	300	750	750
50.01-100	50	50	50	100	100	150	300	600
100.01+	50	50	50	50	50	100	200	100

To use these tables, select the size (acres) of the construction site. Then, select the surface water drainage area (square miles). The NTU matrix value arrived at from the above tables is the one to use in Part III.D.4.

Example 1: For a site size of 12.5 acres and a "trout stream" drainage area of 37.5 square miles, the NTU value to use in Part III.D.4. is 75 NTU.

Example 2: For a site size of 51.7 acres and "waters supporting warm water fisheries" drainage area of 72 square miles, the NTU value to use in Part III.D.4. is 100 NTU.

PROJECT NUMBER  
**23-017**

DATE  
**09/25/23**

REVISIONS

NO.	DATE
ADD 2	03/20/24

FACILITY CODE

**KRH ARCHITECTS**  
INCORPORATED

855 ABUTMENT ROAD  
SUITE FOUR  
DALTON, GA 30721  
TEL. 706.529.5895

**PWR ENGINEERING**  
CIVIL ENGINEERING  
SITE DEVELOPMENT

2900 DELA ROAD STE 700 #218 • MARIETTA, GA 30067 • PH: 770-433-8190

2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

ISSUE DATE: 03-22-24  
JOB No. 22280 | SCALE: 1" = 30'

ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS

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GEORGIA REGISTERED PROFESSIONAL ENGINEER  
No. 22563  
PRESTON W. HOBBS

GSWCC LEVEL II - 0000008686

SHEET INDEX

EROSION CONTROL NOTES

SHEET INDEX

**C6.2**

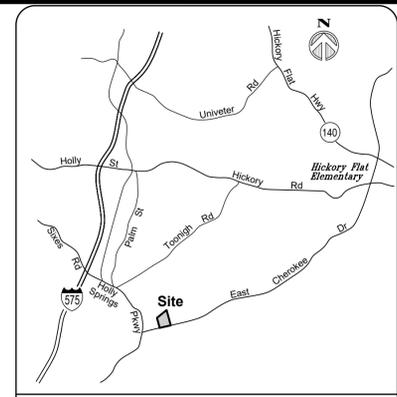






N./F.  
 CHEROKEE COUNTY BOARD OF EDUCATION  
 (DEED BOOK 231, PAGE 131)  
 (DEED BOOK 231, PAGE 195)  
 (DEED BOOK 735, PAGE 182)  
 (DEED BOOK 1384, PAGE 15)  
 (DEED BOOK 7099, PAGE 29)  
 (DEED BOOK 13535, PAGE 93)

(IN STUMP)  
 (#4R.)  
 I.P.F.



LOCATION MAP

EXISTING	PROPOSED	EXISTING SPOT ELEVATION	PROPOSED SPOT ELEVATION
AC--ACRES	BL--BUILDING SETBACK	133.2	
BC--BACK OF CURB	CB--CATCH BASIN		
CD--CATCH BASIN	CG--CURB & GUTTER		
CH--CHORD	CL--CENTERLINE		
CMP--CORR. METAL PIPE	DB--DEED BOOK		
DE--DRAINAGE EASEMENT	DI--DIP INLET		
EP--EDGE PAVEMENT	EX--EXISTING		
FM--FIRE HYDRANT	G--GAS LINE		
HW--HEADWALL	HD--HEAVY DUTY		
IPP--IRON PIN PLACED	IPF--IRON PIN FOUND		
JB--JUNCTION BOX	L--ARC LENGTH		
LOC--LIMIT OF CLEARING	LP--LIGHT/LAMP POST		
MH--MANHOLE	TW--TOP OF WALL		
N/F--NOW OR FORMERLY	W--WATER		
OHP--OVERHEAD POWER	WV--WATER VALVE		

LEGEND

PROJECT NUMBER  
 23-017

DATE  
 09/25/23

REVISIONS  
 NO. DATE  
 ADD 2 03/20/24

FACILITY CODE



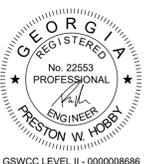
855 ABUTMENT ROAD  
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**PWR ENGINEERING**  
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 2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

ISSUE DATE: 03-22-24  
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ADDITIONS & RENOVATIONS TO:  
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 2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
 CHEROKEE COUNTY BOARD OF COMMISSIONERS

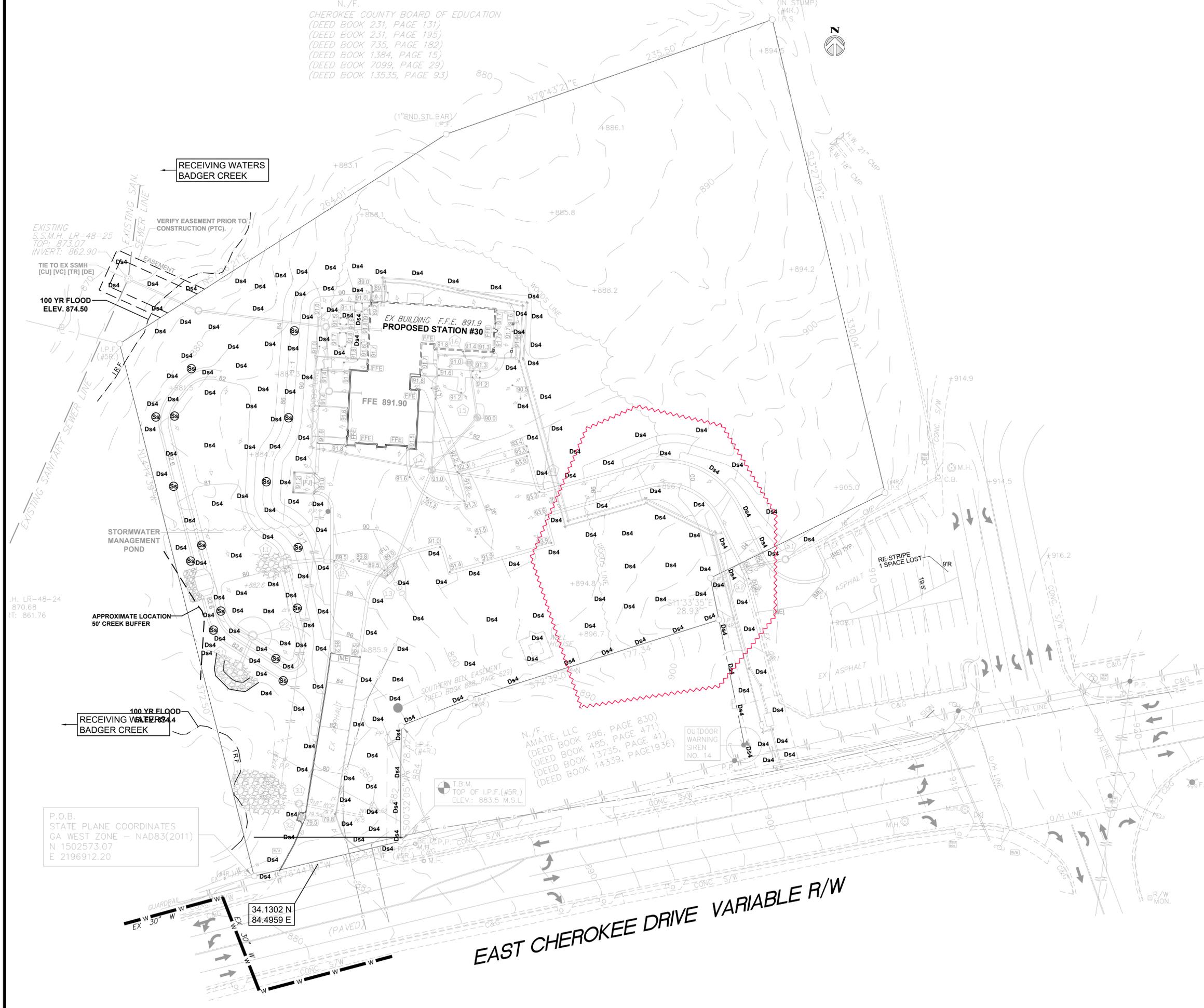


SHEET INDEX

EROSION CONTROL  
 FINAL PHASE

SHEET INDEX

**C6.5**



RECEIVING WATERS  
 BADGER CREEK

VERIFY EASEMENT PRIOR TO  
 CONSTRUCTION (PTC).

EXISTING  
 S.S.M.H. LR-48-25  
 TOP: 873.07  
 INVERT: 862.90

100 YR FLOOD  
 ELEV. 874.50

EX BUILDING F.F.E. 891.9  
**PROPOSED STATION #30**

FFE 891.90

STORMWATER  
 MANAGEMENT  
 POND

APPROXIMATE LOCATION  
 50' CREEK BUFFER

100 YR FLOOD  
 RECEIVING WATERS  
 BADGER CREEK

P.O.B.  
 STATE PLANE COORDINATES  
 GA WEST ZONE - NAD83(2011)  
 N 1502573.07  
 E 2196912.20

34,1302 N  
 84,4959 E

N./F. AMATIE, LLC  
 (DEED BOOK 296, PAGE 830)  
 (DEED BOOK 485, PAGE 471)  
 (DEED BOOK 13735, PAGE 41)  
 (DEED BOOK 14339, PAGE 1936)

OUTDOOR  
 WARNING  
 SIREN  
 NO. 14

T.B.M.  
 TOP OF I.P.F. (#5R.)  
 ELEV.: 883.5 M.S.L.

**EAST CHEROKEE DRIVE VARIABLE R/W**

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SPECIES	Rate per 1000 S.F.	Rate per Acre	PLANTING DATES			SPECIES	Rate per 1000 S.F.	Rate per Acre	PLANTING DATES		
			Mountain	Piedmont	Coastal				Mountain	Piedmont	Coastal
Bermuda, Common Unhulled Seed	0.2 LB	10 LB	NO	10/1-3/1	11/1-2/1	RYE	3.9 LB	168 LB	8/1-12/1	9/1-1/1	10/1-3/1
Bermuda, Common Hulled Seed	0.2 LB	10 LB	NO	3/1-8/1	2/15-8/1	Millet, Browntop	1.0 lb	40 lb	4/1-6/1	4/1-7/1	4/1-7/1
Lespedeza, Sericea Unscarified	1.7 LB	75 LB	1/1-12/1	1/1-12/1	1/1-12/1	Lovegrass, Weeping	0.1 lb	4.0 lb	3/1-6/1	3/1-6/1	2/1-6/1
Lespedeza Unscarified	1.7 LB	75 LB	1/1-12/1	1/1-12/1	1/1-12/1	Lespedeza, Annual	1.0 LB	40 LB	2/1-5/1	2/1-5/1	1/1-3/15
Lovegrass, Weeping	0.1 LB	4.0 LB	3/15-6/15	3/1-6/15	2/1-6/15	WHEAT	4.1 LB	180 LB	9/1-12/1	9/1-12/1	9/15-2/1
Fescue, Tall	1.1 LB	50 LB	8/1-11/1	8/15-11/1	NO	Millet, Pearl	1.1 lb	50 lb	5/1-7/1	4/15-9/1	4/1-9/1
Switchgrass	1.0 lb	40 lb	3/15-6/1	3/15-6/1	3/15-6/1	BARLEY	3.3 LB	144 LB	8/15-11/15	8/15-12/15	9/1-12/1
Bahia	1.4 lb	60 lb	1/1-12/1	1/1-12/1	1/1-12/1						

FERTILIZER REQUIREMENTS				
SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
Cool season grasses	First	6-12-12	1500 lbs/ac	50-100 lbs/ac 1/2/
	Second Maintenance	6-12-12 10-10-10	1000 lbs/ac 400 lbs/ac	- 30-100 lbs/ac
Cool season grasses and legumes	First	6-12-12	1500 lbs/ac	50-100 lbs/ac 1/
	Second Maintenance	0-10-10 0-10-10	1000 lbs/ac 400 lbs/ac	- -
Ground covers	First	10-10-10	1300 lbs/ac 3/	-
	Second Maintenance	10-10-10 10-10-10	1300 lbs/ac 3/ 1100 lbs/ac	- -
Pine seedlings	First	20-10-5	one 21-gram pellet per seedling placed in closing hole	-
Shrub Lespedeza	First	0-10-10	700 lbs/ac	-
	Maintenance	0-10-10	700 lbs/ac 4/	-
Temporary cover crops seeded alone	First	10-10-10	500 lbs/ac	30 lbs/ac 5/
Warm season grasses	First	6-12-12	1500 lbs/ac	50-100 lbs/ac 2/6/
	Second Maintenance	6-12-12 10-10-10	800 lbs/ac 400 lbs/ac	50-100 lbs/ac 2/ 30 lbs/ac
Warm season grasses and legumes	First	6-12-12	1500 lbs/ac	50 lbs/ac 6/
	Second Maintenance	0-10-10 0-10-10	1000 lbs/ac 400 lbs/ac	- -

**LIME RATES AND ANALYSIS:**

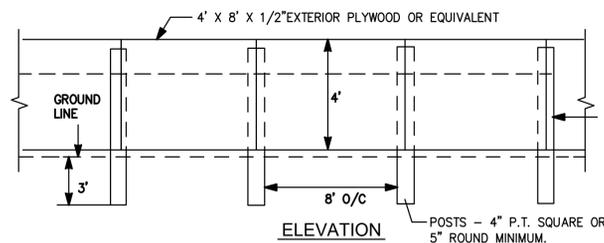
- WHERE PERMANENT VEGETATION IS TO BE ESTABLISHED, AGRICULTURAL LIME SHALL BE APPLIED AS INDICATED BY SOIL TESTS OR AT THE RATE OF 1-2 TONS PER ACRE. AGRICULTURAL LIME SHALL BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMENT OF AGRICULTURE.
- LIME SPREAD BY CONVENTIONAL EQUIPMENT SHALL BE CALCITIC OR DOLOMITIC GROUND LIMESTONE GROUND SO THAT 90% OF THE MATERIAL WILL PASS THROUGH A 10-MESH SIEVE, NOT LESS THAN 50% WILL PASS THROUGH A 50-MESH SIEVE, AND NOT LESS THAN 25% WILL PASS THROUGH A 100-MESH SIEVE.
- LIME SPREAD BY HYDRAULIC SEEDING SHALL BE CALCITIC OR DOLOMITIC "FINELY GROUND LIMESTONE", GROUND SO THAT 98% OF THE MATERIAL WILL PASS THROUGH A 20-MESH SIEVE, AND NOT LESS THAN 70% WILL PASS THROUGH A 100-MESH SIEVE.
- IT IS DESIRABLE TO USE DOLOMITIC LIMESTONE IN THE SAND HILLS, SOUTHERN COASTAL PLAIN, AND ATLANTIC COAST FLATWOODS MLRA'S.

**MULCHING RATES:**

- USE MULCH ON ALL SLOPES STEEPER THAN 3 PERCENT; WHERE SEEDLINGS ARE MADE SO LATE IN THE FALL AND WINTER THAT GERMINATION CANNOT BE EXPECTED UNTIL SPRING; IN THE BOTTOM OF SPILLWAYS, AND ON ROADBANKS.
- USE DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS. DRY STRAW WILL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY WILL BE APPLIED AT THE RATE OF 2 1/2 TONS PER ACRE; OR,
- FOR HYDRAULIC SEEDING, USE WOOD CELLULOSE MULCH OR WOOD PULP FIBER AT THE RATE OF 500 POUNDS PER ACRE, AND DRY STRAW OR DRY HAY AT THE RATE LISTED ABOVE; OR,
- USE THREE TONS PER ACRE OF SERICEA LESPEDEZA HAY CONTAINING MATURE SEED; OR,
- APPLY PINE STRAW OR PINE BARK AT A THICKNESS OF 3 INCHES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED; OR,
- SOIL RETENTION BLANKETS, EROSION CONTROL NETTING, OTHER MANUFACTURED MATERIALS, OR BLOCK SOD MAY BE REQUIRED IN ADDITION TO MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS.

**Ds3 DISTURBED AREA STABILIZATION (PERMANENT SEEDING)**

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS, LIME & FERTILIZER RATES, AND SPECIFICATIONS.



**Bf** BAFFLE

INSPECT DAILY AND AFTER EACH RAINFALL EVENT. MAINTAIN/REPAIR AS REQUIRED TO COMPLY WITH SPECIFICATIONS AND DETAIL. REMOVE SEDIMENT AFTER EACH RAINFALL EVENT.

**LIME AND FERTILIZER:**

- AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION.
- SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS, FERTILIZER IS NOT REQUIRED. FOR SOILS OF VERY LOW FERTILITY, USE 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1000 SQ. FT.). FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIP, OR CHISEL.

**MULCHING:**

- TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. SEE Ds1, DISTURBED AREA STABILIZATION (MULCHING ONLY).

**Ds2 DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)**

REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS, LIME & FERTILIZER RATES, AND SPECIFICATIONS.

**FOR TEMPORARY PROTECTION OF CRITICAL AREAS:**

**MULCHING MATERIALS:**

- Dry straw or hay—spread at a rate of 2 1/2 tons per acre.
- Wood waste, chips, sawdust or bark—spread 2 to 3 inches deep (about 6 to 9 tons per acre).
- Erosion control matting or netting, such as excelsior, jute, textile and plastic matting and netting—in accordance with manufacturer's specifications.
- Polyethylene film—secured over banks or stockpiled soil material for temporary protection.

**APPLYING AND ANCHORING MULCH:**

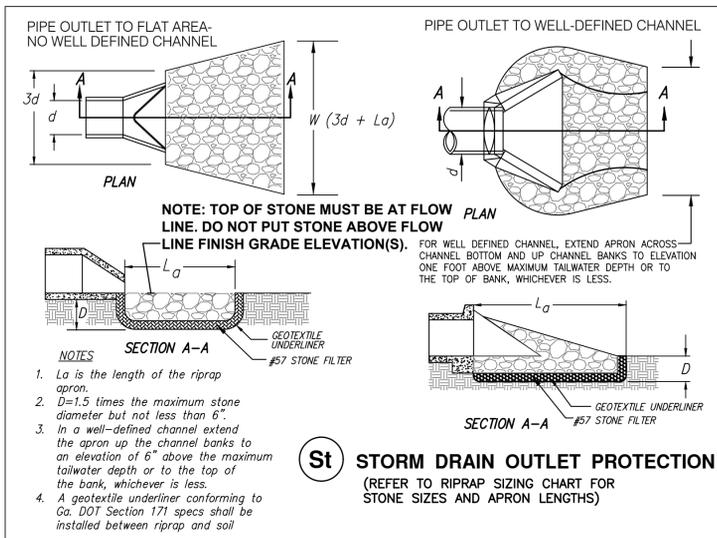
- Apply straw or hay mulch uniformly or by hand or mechanically. Anchor as appropriate and feasible. It may be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." The disk may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position.
- Spread wood waste uniformly on slopes that are 3:1 or flatter. No anchoring is needed.
- Commercial matting and netting: Follow manufacturer's specification included with the material.
- Apply asphalt so area has uniform appearance (do not use in pedestrian traffic areas.)

**TO CONSERVE MOISTURE AND CONTROL WEEDS:**

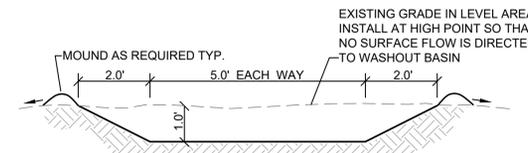
- Grain straw or grass hay: 6" to 10" depth
  - Pine needles: 4" to 6" depth
  - Wood waste: 4" to 8" depth
  - Shredded residues: 4" to 8" depth
- When using organic mulches, apply 20-30 pounds of nitrogen in addition to the normal amount needed for plant growth to offset the tie up of N by the decomposition of mulch.

**Ds1 DISTURBED AREA STABILIZATION (MULCHING ONLY)**

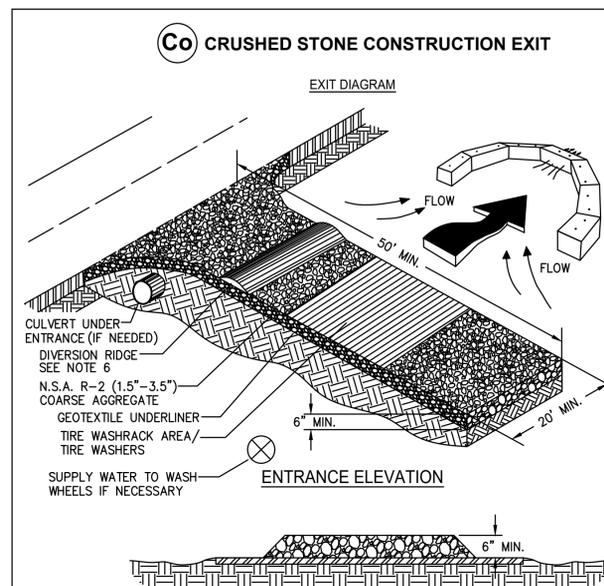
REFER TO THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR FURTHER DETAILS, LIME & FERTILIZER RATES, AND SPECIFICATIONS.



**St** STORM DRAIN OUTLET PROTECTION (REFER TO RIPRAP SIZING CHART FOR STONE SIZES AND APRON LENGTHS)

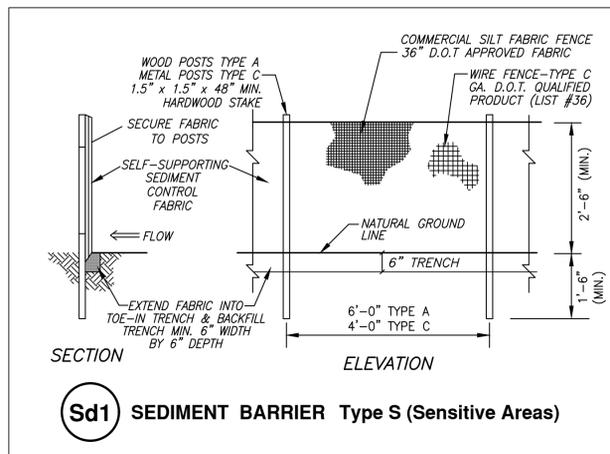


**Cw** CONCRETE WASHOUT

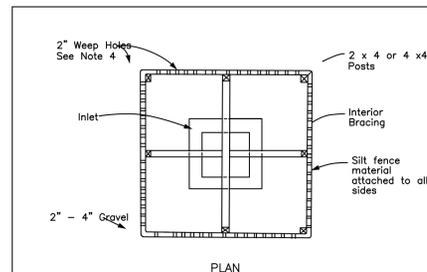


**Co** CRUSHED STONE CONSTRUCTION EXIT

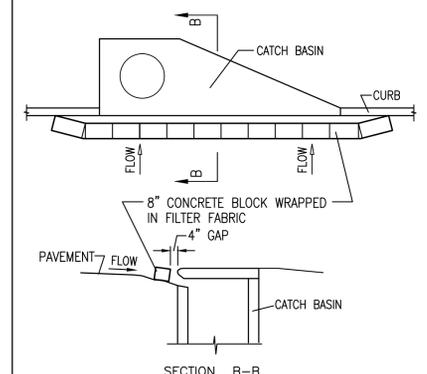
- NOTES:**
- AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
  - REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
  - AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
  - GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
  - PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
  - A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
  - INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
  - WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
  - WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
  - MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.



**Sd1** SEDIMENT BARRIER Type S (Sensitive Areas)



**Sd2-B** INLET SEDIMENT TRAP



**Sd2-P** INLET SEDIMENT TRAP

**NOTE:**  
INSTALL FILTER AFTER ANY PAVEMENT INSTALLATION  
**CURB INLET FILTER**  
"PIGS IN BLANKET"

**Sd2 MAINTENANCE:**  
INSPECT DAILY AND AFTER EACH RAIN EVENT. REMOVE SEDIMENT IMMEDIATELY FROM CURB INLET PROTECTION. REPAIR AS REQUIRED FOR PROPER FUNCTION.

STRUCTURE No.	<b>St</b> RIPRAP/APRON SIZING						
	1.1	2.1	St1				
d (PIPE DIA.)	24"	18"	18"				
Q (25 YR.)	20 cfs	8 cfs	5 cfs				
VEL. (25 YR.)	9 fps	10 fps	9 fps				
d50 STONE SIZE	12"	12"	12"				
MAX. STONE DIA.	18"	18"	18"				
D (APRON THICKNESS)	24"	24"	24"				
NON WOVEN FILTER FABRIC	DOT STD.	DOT STD.	DOT STD.				
TAILWATER CONDITION	MIN.	MIN.	MIN.				
La (LENGTH OF APRON)	25'	20'	35'				
W1 = 3 x Do (PIPE DIA.) (APRON WIDTH @ HW)	20'	30'	20'				
W2 = Do + La (APRON WIDTH DOWNSTREAM)	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN

PROJECT NUMBER  
**23-017**

DATE  
**09/25/23**

REVISIONS

NO.	DATE
ADD 2	03/20/24

FACILITY CODE

**KRH** ARCHITECTS INCORPORATED

855 ABUTMENT ROAD  
SUITE FOUR  
DALTON, GA 30721  
TEL. 706.529.5895

**PWR** ENGINEERING  
CIVIL ENGINEERING  
SITE DEVELOPMENT

2900 DELAWARE AVE STE 700 #218 • MARIETTA, GA 30067 • PH: 770-433-8190

2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

ISSUE DATE: 03-22-24  
JOB NO. 22280 | SCALE: 1" = 30'

ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS

REGISTERED PROFESSIONAL ENGINEER  
No. 22583  
PRESTON W. HOBBS

GSWCC LEVEL II - 000009688

SHEET INDEX

EROSION CONTROL DETAILS

SHEET INDEX

**C6.6**

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Table C-1 Graded Rip-Rap Stone

Flow Velocity (ft./sec.)	N.S.A. No. <sup>1</sup>	Size Inches (Sq. Opening)			Filter Stone N.S.A. No. <sup>2</sup>
		Max.	Avg. <sup>2</sup>	Min.	
2.5	R-1	1 1/2	3/4	No. 8	FS-1
4.5	R-2	3	1 1/2	1	FS-1
6.5	R-3	6	3	2	FS-2
9.0	R-4	12	6	3	FS-2
11.5	R-5	18	9	5	FS-2
13.0	R-6	24	12	7	FS-3
14.5	R-7	30	15	12	FS-3

<sup>1</sup> National Stone Association  
<sup>2</sup> At least 50% of the individual stone particles must be equal or larger than this listed size

Table C-2 Fitter Bedding Stone

N.S.A. No. <sup>1</sup>	Size Inches (Sq. opening)			C-2
	Max.	Avg. <sup>2</sup>	Min. <sup>2</sup>	
FS-1	3/8	#30 mesh	#100 mesh	C-2
FS-2	2	#4	#100 mesh	
FS-3 GSWCC (Amended - 2013)	6 1/2	2 1/2	#16	

<sup>1</sup> National Stone Association  
<sup>2</sup> At least 50% of the individual stone particles must be equal or larger than this listed size  
<sup>3</sup> 85 - 100% of the individual stone particles may be less than listed size

Table C-3. Graded Rip-Rap Stone

D.O.T. No. <sup>1</sup>	Size inches (Sq. opening)			Common Uses
	Max.	Avg.	Min.	
Type 3	12	9	5	Creek Banks Pipe Outlets
Type 1	24	12	7	Lakes & Shorelines Rivers

Georgia Department of Transportation

Table C-4. Filter Bedding Stone

D.O.T. No. <sup>1</sup>	Nominal Sizes (inches)	
	Max.	Min.
3	2" - 1"	
4	1 1/2" - 3/4"	
5	1" - 1/2"	
6	3/4" - 3/8"	
57	1" - No. 4	

Georgia Department of Transportation

GSWCC (Amended - 2013)

Table C-1 Graded Rip-Rap Stone

**Dust Control on Disturbed Areas**



**DEFINITION**  
Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

**PURPOSE**  
• To prevent surface and air movement of dust from exposed soil surfaces.  
• To reduce the presence of airborne substances that may be harmful or injurious to human health, welfare, or safety, or to animals or plant life.

**CONDITIONS**  
This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

**METHOD AND MATERIALS**

**A. Temporary Methods**  
Mulches. See standard Ds1 - Disturbed Area Stabilization (With Mulching Only). Synthetic resins may be used instead of asphalt to bind mulch material. Refer to specification Tse - Tackifiers. Resins should be used according to manufacturer's recommendations.

**Vegetative Cover.** See specification Ds2 - Disturbed Area Stabilization (With Temporary Seeding).

**Spray-on Adhesives.** These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to specification Tse - Tackifiers.

**Tillage.** This practice is designed to roughen and bring clods to the surface. It is an emergency GSWCC 2016 Edition

measure that should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment that may produce the desired effect.  
Irrigation. This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

**Barriers.** Solid board fences, snowfences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion.

**Calcium Chloride.** Apply at rate that will keep surface moist. May need retreatment.

**B. Permanent Methods**

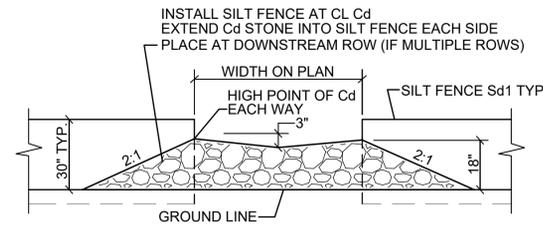
**Permanent Vegetation.** See specification Ds3 - Disturbed Area Stabilization (With Permanent Vegetation). Existing trees and large shrubs may afford valuable protection if left in place.

**Topsoiling.** This entails covering the surface with less erosive soil material. See specification Tp - Topsoiling.

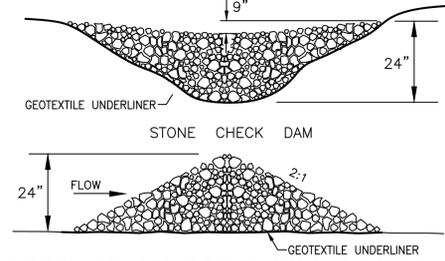
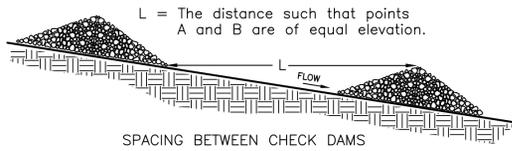
**Stone.** Cover surface with crushed stone or coarse gravel. See specification Cr-Construction Road Stabilization.

**Du DUST CONTROL**

645



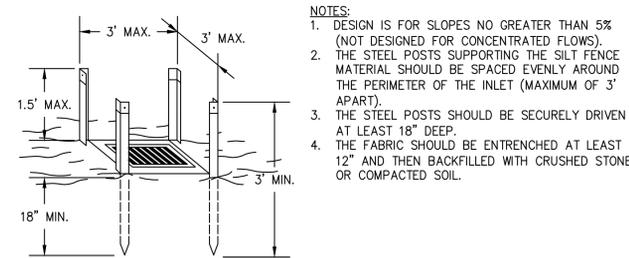
**Cd1 CHECK DAM AT SILT FENCE ELEVATION TYP.**



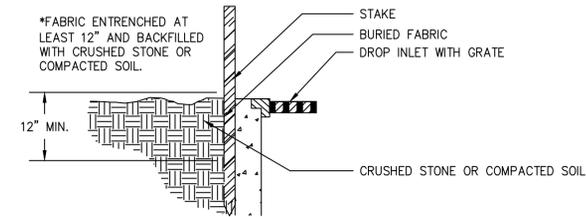
1. CFS IN THE CHANNEL / DITCH THE CHECK DAM IS BEING USED IN: 4-8 CFS
2. ABOVE 2.0 CFS: YES X NO
3. IF YES, LIST BMP'S BEING USED IN CONJUNCTION WITH CHECK DAMS: St, Sd1-S, Baffle, Di, Ds1, Ds2, Ds3

**Cd CHECK DAM**

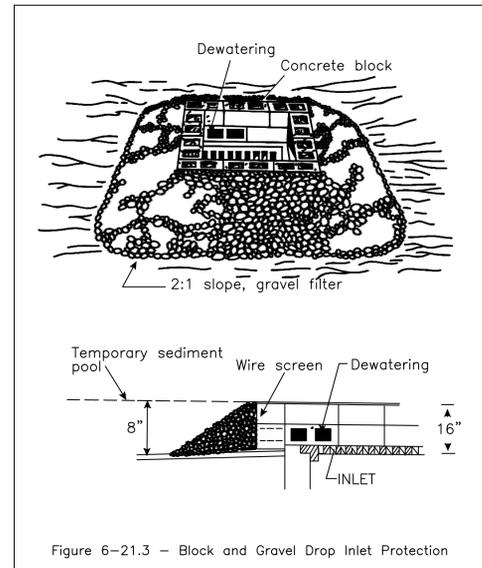
**STEEL FRAME AND SILT FENCE INSTALLATION**



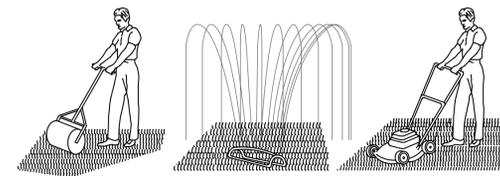
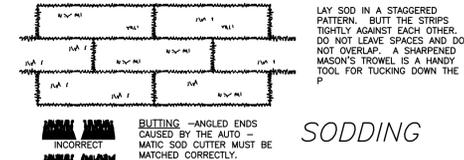
- NOTES:**
1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
  2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART).
  3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
  4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.



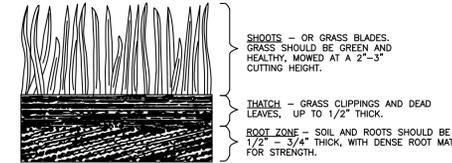
**Sd2-F FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION**



**Sd2-G INLET SEDIMENT TRAP**

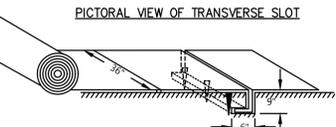
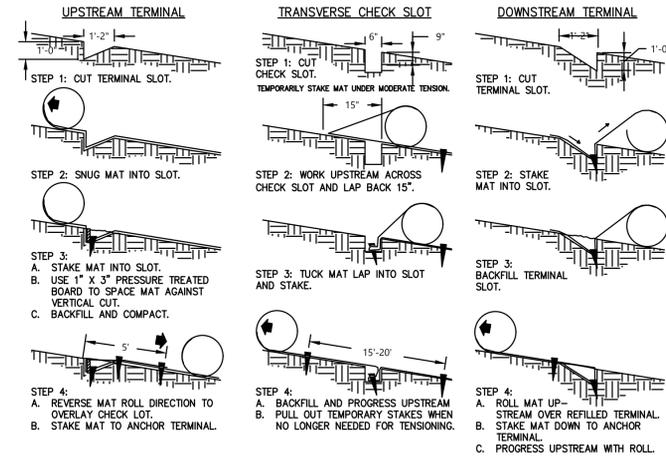


**APPEARANCE OF GOOD SOD**



**Ds4 SODDED GRASS**

**TYPICAL INSTALLATION GUIDELINES FOR ROLLED EROSION CONTROL PRODUCTS (RECP) BLANKET AND MATTING CROSS-SECTIONS**



- NOTES:**
1. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
  2. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID-CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT.
  3. SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND THE FIRST ROLL. USE THE CENTER ROLL FOR ALIGNMENT TO THE CHANNEL CENTER.
  4. WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE.
  5. USE 3" OVERLAPS AND STAKE AT 5' INTERVALS ALONG THE SEAMS.
  6. USE 3" OVERLAPS AND SINGLE DOWNSTREAM TO CONNECT THE LINING AT THE ROLL ENDS.
  7. NOTE: ALL RECP'S SHALL BE SHORT TERM BIODEGRADABLE.

**Ss SLOPE STABILIZATION**

REVISIONS	
NO.	DATE
ADD 2	03/20/24

FACILITY CODE



855 ABUTMENT ROAD  
SUITE FOUR  
DALTON, GA 30721  
TEL. 706.529.5895

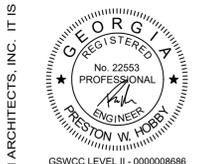
**PWR ENGINEERING**  
CIVIL ENGINEERING  
SITE DEVELOPMENT

2900 DELA ROAD STE 700 #218 • MARIETTA, GA 30067 • PH: 770-433-8190

2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

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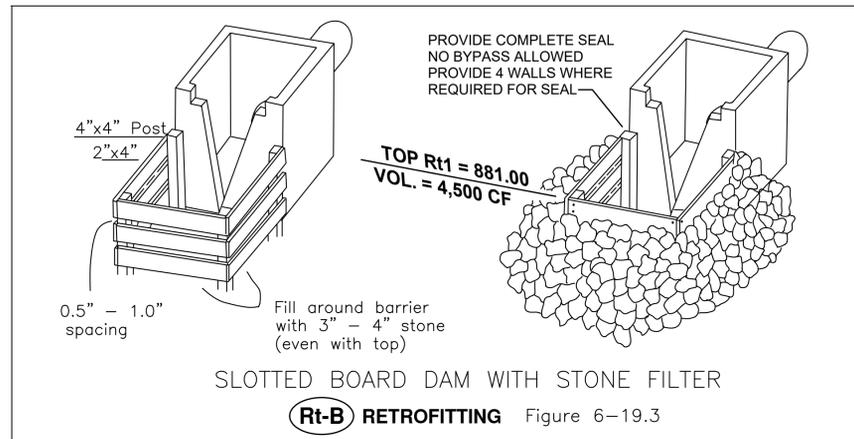
GSWCC LEVEL II - 0000008686

SHEET INDEX

EROSION CONTROL DETAILS

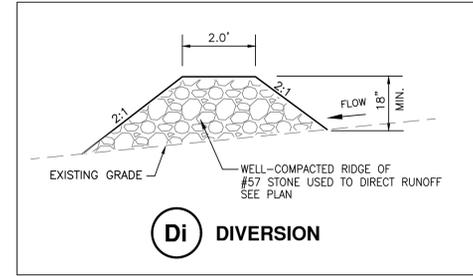
SHEET INDEX

**C6.8**

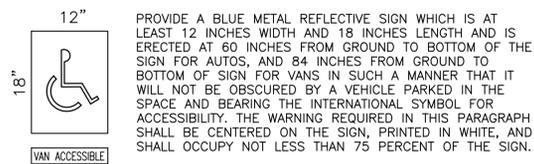


**Rt CALCULATIONS:**

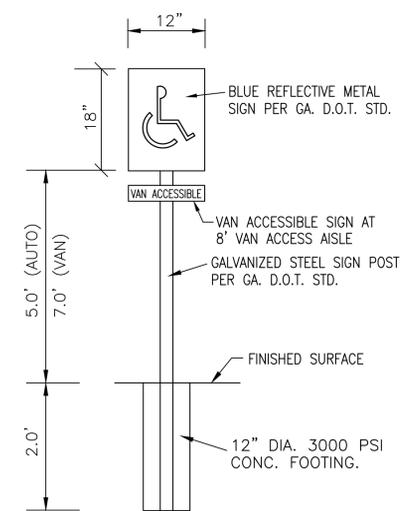
- REQUIRED STORMWATER STORAGE = 6500 CF
  - REQUIRED SEDIMENT STORAGE STORAGE = 1864 CF  
(67 CY/AC X 1.03 AC DISTURBED AREA) = 1864 CF
  - TOTAL REQUIRED STORAGE = 1 + 2 = 8364 CF
  - AVAILABLE STORAGE = 9500 CF
  - IS THE AVAILABLE STORAGE (4) GREATER THAN THE REQUIRED STORAGE (3) ?  
 YES  NO
  - IF NO, THE SEDIMENT STORAGE CAPACITY OF THE POND MUST BE INCREASED. CHOOSE THE METHOD TO BE USED:  
 RAISE THE INVERT OF THE OUTLET STRUCTURE \_\_\_\_\_ INCHES  
 UNDERCUT THE POND \_\_\_\_\_ FEET
  - CLEAN OUT ELEVATION = 880.00 FT  
(ELEVATION CORRESPONDING TO 22 CY/AC X 1.03 AC DISTURBED AREA)
  - IS THE LENGTH TO WIDTH RATIO 2:1 OR GREATER?  
 YES  NO
  - IF NO, THE LENGTH OF FLOW MUST BE INCREASED. CHOOSE THE METHOD TO BE USED:  
 BAFFLES (TYPE OF BAFFLE: \_\_\_\_\_ )  
 OTHER \_\_\_\_\_
- NOTE THE CMP DIAMETER AND HEIGHT IF A HALF-ROUND CMP RETROFIT IS TO BE USED.
- DIAMETER = \_\_\_\_\_ INCHES    HEIGHT = \_\_\_\_\_ FEET



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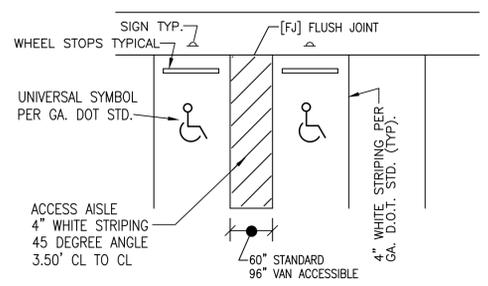
**HANDICAP SIGN DETAILS**  
N.T.S.



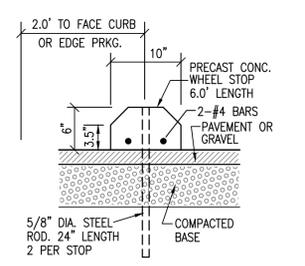
**GENERAL NOTES:**

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE GEORGIA D.O.T. STANDARDS AND SPECIFICATIONS LATEST EDITION OR APPROVED EQUAL. APPROVED EQUAL SHALL BE AS DEFINED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
2. THE COLOR FOR THE HANDICAP SIGN(S) SHALL BE A REFLECTIVE BLUE COLOR WITH WHITE LETTERING OR SYMBOL.
3. CONSTRUCT ALL SIGNS A MINIMUM OF TWO FEET (2.0') BEHIND THE BACK OF CURBS OR EDGE OF PARKING SPACES. DO NOT OBSTRUCT ACCESSIBLE ROUTE OR SIDEWALK WITH SIGNS.

**SIGN DETAILS**  
N.T.S.

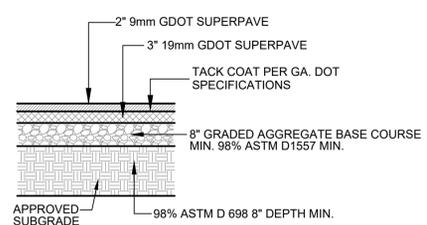


**STRIPING DETAILS**  
N.T.S.

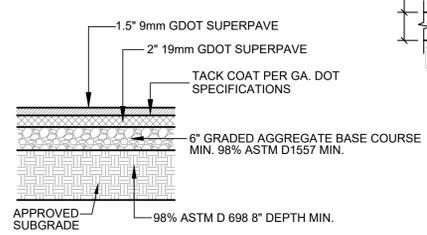


**(WS) WHEEL STOPS**

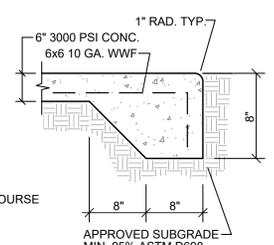
**(AD) HANDICAP PARKING DETAILS**



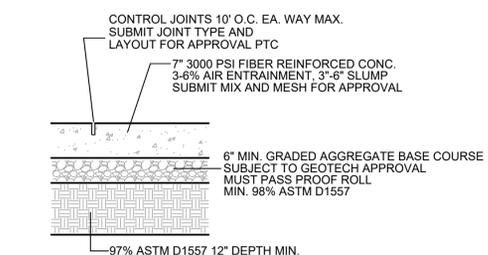
**(AP1) HD ASPHALT PAVEMENT**



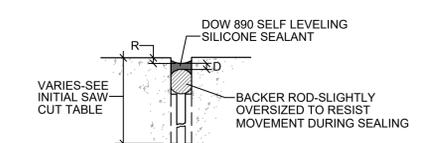
**(AP2) ASPHALT PAVEMENT**



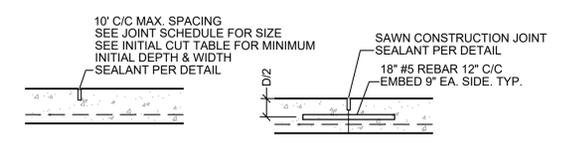
**(CP2) CONCRETE PAD**



**(CP1) CONCRETE PAVEMENT**

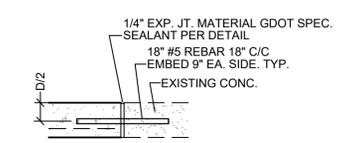


**JOINT SEALANT DETAIL**  
SEE GDOT SECT. 833.2.06 FPR SPECIFICATIONS OF JOINT FILLERS, SEALERS, AND BACKER ROD.



**SAWN CONTROL JOINTS**

**FORMED CONSTRUCTION JOINT ADJOINING EXISTING CONCRETE**



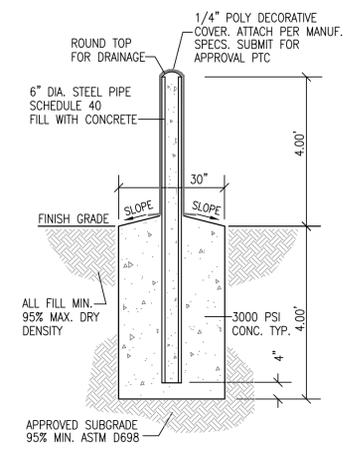
**NEW CONCRETE ADJOINING EXISTING CONCRETE**

REQUIRED MINIMUM FOR ALL INITIAL SAW CUTS		
DEPTH OF PAVEMENT	DEPTH OF CUT	WIDTH OF CUT
6"	1 7/8"	1/8"
7"	2"	1/8"
8"	2 1/4"	1/8"
8 1/2"	2 3/8"	1/8"
9"	2 1/2"	1/8"
10"	2 3/4"	1/8"
11"	3"	1/8"
12"	3 1/4"	1/8"

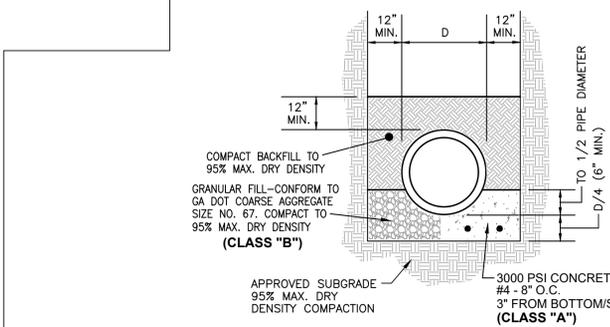
JOINT SCHEDULE			
TYPE	W	D	R
SAWN CONTROL JOINT	1/4"	1/4"-3/8"	3/8"-1/2"
FORMED CONSTRUCTION JOINT ADJOINING EXISTING CONCRETE	1/4"	1/4"-3/8"	3/8"-1/2"
NEW CONCRETE ADJOINING EXISTING CONCRETE	1/4"	1/4"-3/8"	3/8"-1/2"

- NOTE:**
1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO CURRENT GDOT STANDARDS AND SPECIFICATIONS.
  2. SUBMIT JOINT LAYOUT FOR APPROVAL PRIOR TO CONSTRUCTION.

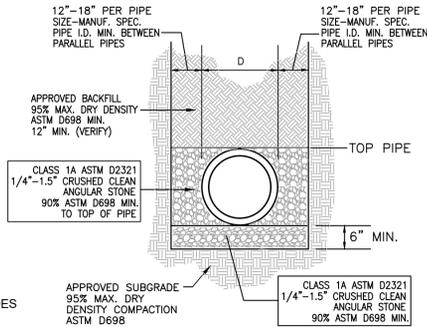
**CONCRETE JOINT DETAILS**



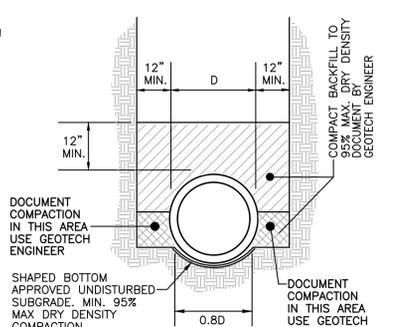
**(BO) PIPE BOLLARD DETAILS**



**CLASS "A" / CLASS "B" COMPACTED GRANULAR BEDDING**



**CLASS "B1" - HDPE PIPE ONLY COMPACTED GRANULAR BEDDING**

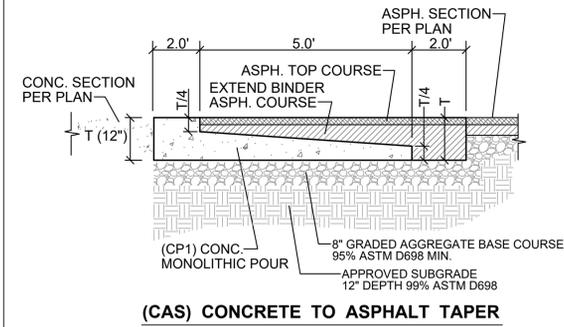


**CLASS "C" SHAPED BOTTOM**

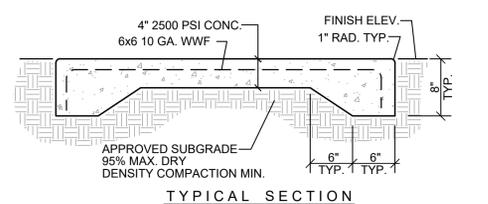
**NOTES:**

1. GEOTECH ENGINEER MUST DOCUMENT AND CERTIFY ALL EARTHWORK, SUBGRADE, BACKFILL, AND MATERIALS.
2. COMPLY WITH ALL MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS FOR BEDDING.
3. ALL PIPE SHALL BE INSPECTED AFTER BEDDING IS ONE-HALF PIPE DIAMETER THICKNESS AND PRIOR TO BACKFILL OVER PIPE. COORDINATE WITH OWNER'S REPRESENTATIVE, DOCUMENT WITH DIGITAL IMAGES.
4. DETAILS SHOWN ARE BASED ON SUITABLE SUBGRADE. WET, SPONGY OR SOFT SOILS, OR OTHER DEFECTS IN SUBGRADE SOIL, WILL REQUIRE SPECIFIC DESIGN ON INDIVIDUAL BASIS. CONTRACTOR IS RESPONSIBLE FOR SUITABILITY OF SOILS SELECTED FOR ALL FILL MATERIAL.
5. PIPE GAUGES AND STRUCTURAL SPECIFICATIONS SHALL CONFORM TO GEORGIA D.O.T. STANDARDS FOR PIPE CULVERTS 1030D AND MANUFACTURER SPECIFICATIONS.
6. BLOCKING WILL NOT BE PERMITTED.
7. ALL JOINTS, GASKETS, AND HARDWARE SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS FOR MATERIALS AND CONSTRUCTION AND PROVIDE PERMANENT WATER TIGHT SEALS.
8. DO NOT PLACE PIPE ON INCOMPRESSIBLE MATERIAL OR ROCK. EXCAVATE TO MINIMUM DEPTHS SHOWN.

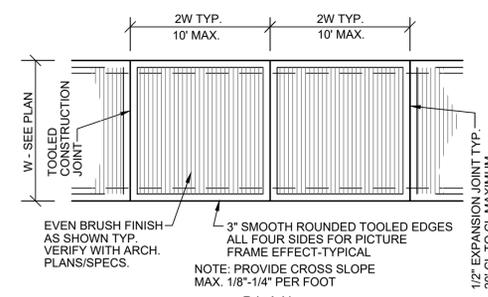
**PIPE BEDDING DETAILS**



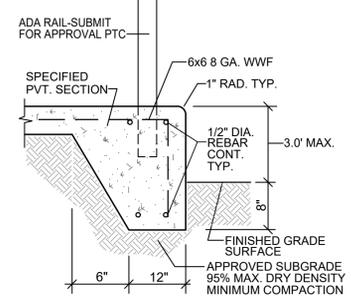
**(CAS) CONCRETE TO ASPHALT TAPER**



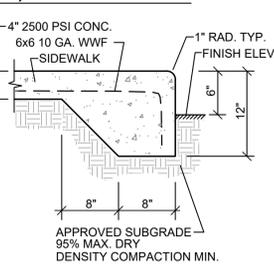
**TYPICAL SECTION**



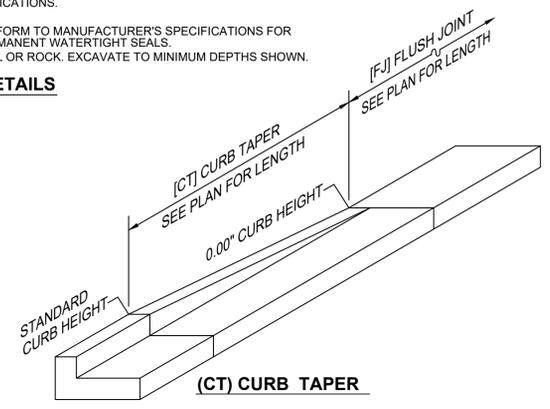
**(SW) SIDEWALK DETAILS**



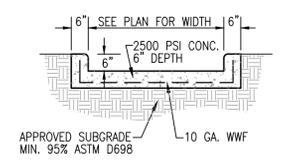
**(SD) SIDEWALK DROP**



**(SC) SIDEWALK CURB (WHERE SPECIFIED ONLY)**



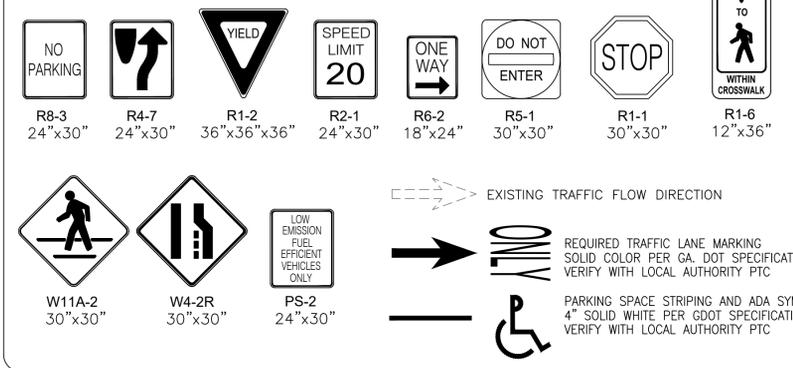
**(CT) CURB TAPER**



**(FL) CONCRETE FLUME DETAILS**

**(TM) SIGN AND PAVEMENT TRAFFIC MARKING LEGEND**

1. ALL MATERIALS, COLORS, AND CONSTRUCTION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS, SECTION 636, AND RELATED SECTIONS.
2. ALL PAVEMENT MARKINGS, MARKERS, ARROWS, PAINT, MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
3. ALL TRAFFIC LANE MARKINGS, MATERIAL, AND CONSTRUCTION SHALL CONFORM TO THE CURRENT GEORGIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.



855 ABUTMENT ROAD SUITE FOUR DALTON, GA 30721 TEL. 706.529.5895

CIVIL ENGINEERING SITE DEVELOPMENT  
2900 DELA ROAD STE 700 #218 • MARIETTA, GA 30067 • PH: 770-433-8190  
2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188  
ISSUE DATE: 03-22-24  
JOB NO. 22280 SCALE: 1" = 30'

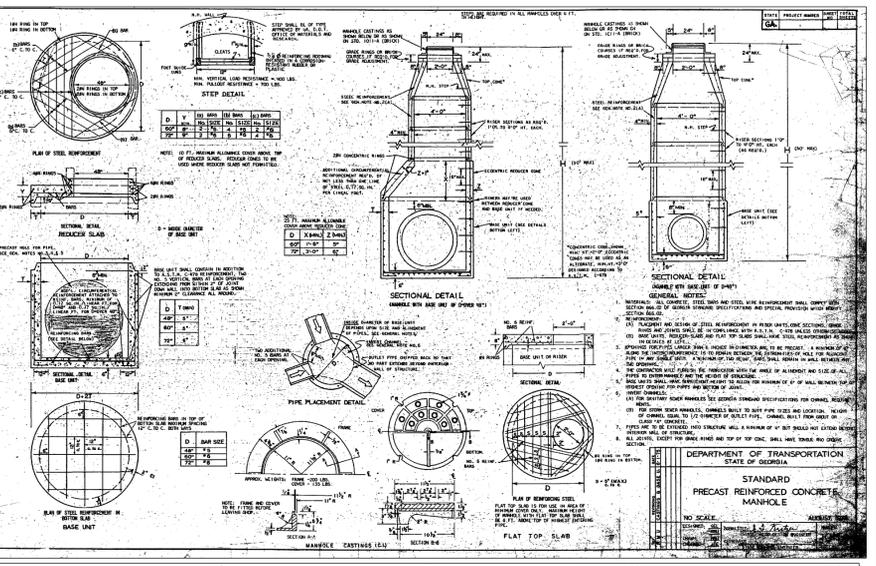
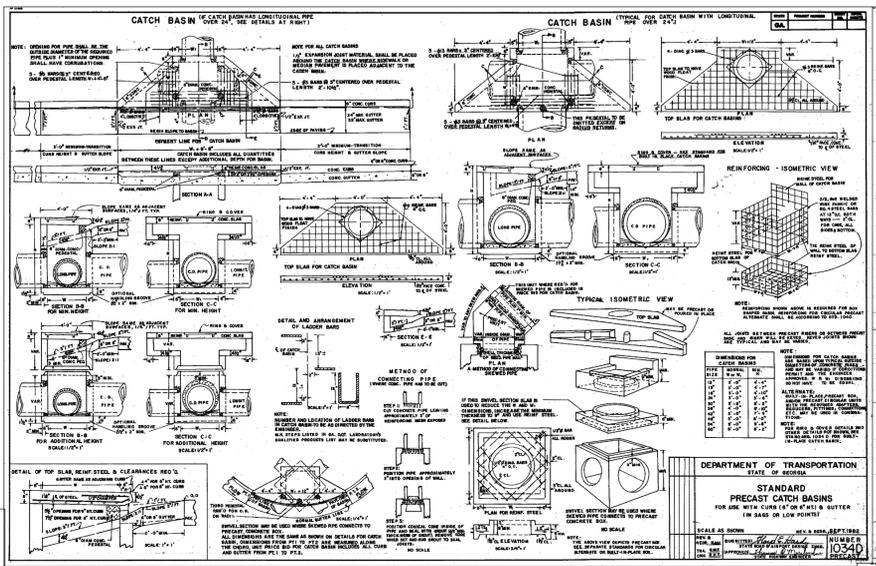
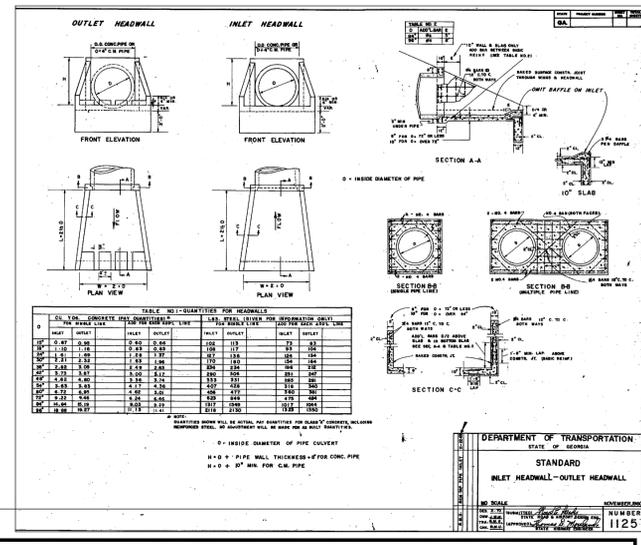
ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS



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**Design Intersection Sight Distance**  
Case B1 - Left Turn From Stop  
Case B2 - Right Turn From Stop  
Case B3 - Crossing Maneuver

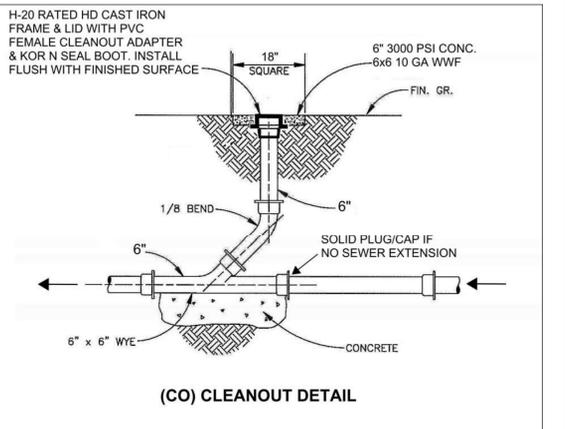
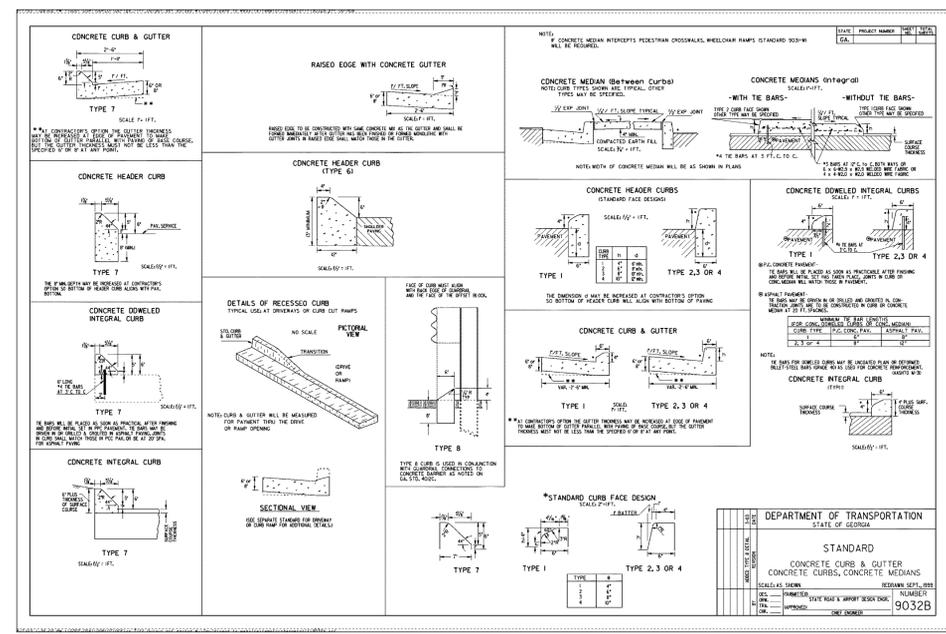
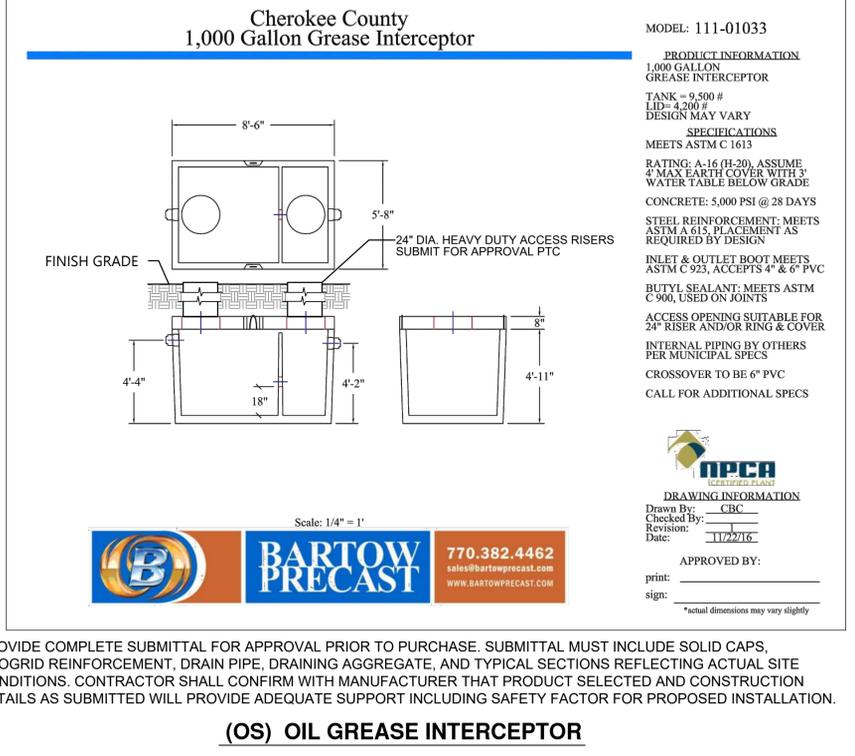
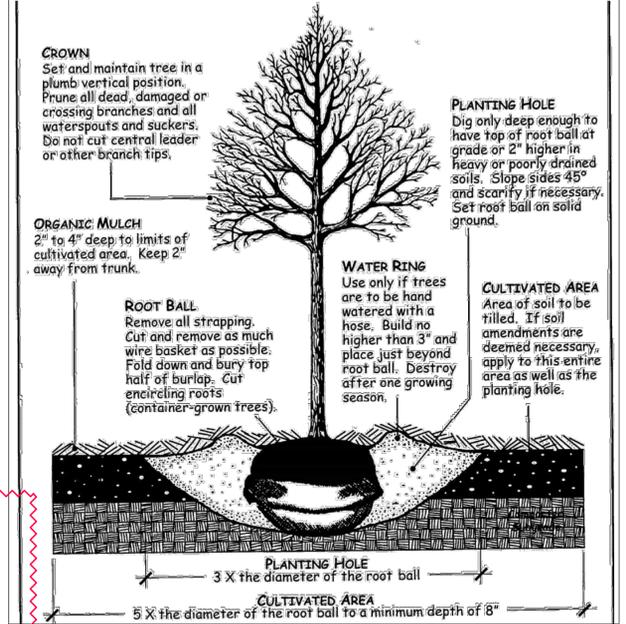
Design Speed (MPH)	Driveways			Streets and Commercial Entrances		
	Stopping Sight Distance (FEET)	Case 1 (FEET)	Case 2 (FEET)	Case 1 (FEET)	Case 2 (FEET)	Case 3 (FEET)
15	80	170	145	145	145	145
20	115	225	195	195	195	195
25	150	290	240	240	240	240
30	200	335	290	290	290	290
35	250	390	335	335	335	335
40	300	445	385	385	385	385
45	360	500	430	430	430	430
50	425	555	480	480	480	480
55	495	610	530	530	530	530

**Adjustment Factors for Sight Distance Based on Approach Grade**

Approach Grade (%)	Design Speed (MPH)					
	15	20	25	30	35	40
-1	1.1	1.1	1.1	1.1	1.1	1.2
-2	1.0	1.0	1.1	1.1	1.1	1.1
-3	1.0	1.0	1.1	1.1	1.1	1.1
-4	1.0	1.0	1.0	1.0	1.0	1.0
-5	1.0	1.0	0.9	0.9	0.9	0.9
-6	1.0	1.0	0.9	0.9	0.9	0.9

Notes:  
1. Drivers eye height and object heights shall both be 3.5 feet for intersecting streets commercial entrances and 2.0 feet for residential driveways in determining proper sight distance.  
2. The intersection sight distances provided are based on turning onto a two-lane highway and grades of 3 percent or less. For mainline roadways wider than two lanes or Stop Bars located further back than the minimum, provide calculations for the additional lanes, medians, or length.  
3. For intersections where the entire unobstructed line of sight is not contained within the right-of-way, provide a "Line of Sight Easement" so that the line of sight will remain unobstructed.  
4. The object height of 3.5 feet must be visible for the entire distance from the specified intersection sight distance to the intersection.

Intersection Sight Distance Requirements for Driveways and Side Streets  
Date: 08/15/06  
Drawn By: SSB  
Detail: 204



PROJECT NUMBER  
23-017

DATE  
09/25/23

REVISIONS  
NO. DATE  
ADD 2 03/20/24

FACILITY CODE

**KRH ARCHITECTS**  
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2017 EAST CHEROKEE DRIVE  
WOODSTOCK, GA 30188

ISSUE DATE: 03-22-24  
JOB NO. 22280  
SCALE: 1" = 30'

ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS

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GEORGIA REGISTERED PROFESSIONAL ENGINEER  
No. 22553  
PRESTON W. HOBBS

GSWCC LEVEL II - 0000008688

SHEET INDEX

CONSTRUCTION DETAILS

SHEET INDEX

**C7.2**

REVISIONS	
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SITE DEVELOPMENT

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2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188

ISSUE DATE: 03-22-24  
JOB NO. 22280 | SCALE: 1" = 30'

**DROP BOWL SELECTION CHART**

DOWN PIPE DIAMETER	MANHOLE DIAMETER			
	FLAT WALL	4' DIA	5' DIA	7-8' DIA
4"	A4FDB	A4DB	A4DB	A4R96
6"	A6FDB	A6DB	A6DB	A6R96
8"	B8FDB	B8DB	B8DB	B8R96
10"	B10FDB	B10DB	B10DB	B10R96
12"	24/12FDB	24/12R60	24/12R60	24/12R96
15"	24/15FDB	24/15R60	24/15R60	24/15R96
18"	30/18FDB	30/18R60	30/18R60	30/18R96
21"	36/21FDB	36/21R60	36/21R60	36/21R96
24"	48/24FDB	48/24R72	48/24R96	48/24R144

**DROP BOWL DIMENSIONS**

SERIES	DOWN PIPE DIAMETER	WIDTH "A"	DEPTH "B"	HEIGHT "C"	ANCHOR BOLT QUANTITY & TYPE
A4	4"	12"	9.5"	8.9"	4 - 1" TAMP-IN
A6	6"	12"	11.1"	8.8"	4 - 1" TAMP-IN
B8	8"	18"	13.0"	11.5"	4 - 1" TAMP-IN
B10	10"	18"	13.5"	11.5"	4 - 1" TAMP-IN
24/12	12"	24"	16.5"	15.0"	6 - 1" TAMP-IN
24/15	15"	24"	19.3"	15.8"	6 - 1" TAMP-IN
30/18	18"	30"	23.5"	18.5"	6 - 1" TAMP-IN
36/21	21"	36"	31.6"	23.0"	8 - 3" WEDGE
48/24	24"	48"	30.5"	30.0"	10 - 3" WEDGE

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CANADIAN PAT. # 2269565

**(RL1) RELINER INSIDE DROP BOWL**  
SUBMIT FOR APPROVAL PRIOR TO PURCHASE

**Anchor**  
BUILD SOMETHING BEAUTIFUL

This drawing is for illustrative purposes only and should not be used for construction without the signature of a registered professional engineer.

**Diamond Pro® Straight Face Retaining Wall System**  
Typical Cross Section with Crest Slope

Scale: 3/8" = 1'-0"  
Date: 1/19/2016  
Drawing Number: DPST15

PROVIDE COMPLETE SUBMITTAL FOR APPROVAL PRIOR TO PURCHASE. SUBMITTAL MUST INCLUDE SOLID CAPS, GEOGRID REINFORCEMENT, DRAIN PIPE, DRAINING AGGREGATE, AND TYPICAL SECTIONS REFLECTING ACTUAL SITE CONDITIONS. CONTRACTOR SHALL CONFIRM WITH MANUFACTURER THAT PRODUCT SELECTED AND CONSTRUCTION DETAILS AS SUBMITTED WILL PROVIDE ADEQUATE SUPPORT INCLUDING SAFETY FACTOR FOR PROPOSED INSTALLATION.

**(MSE) RETAINING WALL**

**(TD) TRENCH DRAIN NOTES:**

- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- GEOTECHNICAL ENGINEER SHALL DOCUMENT AND APPROVE ALL SUBGRADE, COMPACTION, BACKFILL, TRENCH DRAIN MATERIALS AND INSTALLATION FOR FULL COMPLIANCE WITH CONTRACT DOCUMENTS.
- ALL CONNECTIONS AND FITTINGS TO PVC PIPES AND STRUCTURES SHALL BE STANDARD FITTINGS WITH STRENGTH RATING TO MATCH THE PVC SPECIFICATIONS. ALL CONNECTIONS AND FITTINGS SHALL BE PERMANENT AND WATERTIGHT.
- SUBMIT ALL MATERIALS FOR APPROVAL PRIOR TO CONSTRUCTION (PTC).
- ALL CONNECTIONS INTO MANHOLES OR OTHER STRUCTURES SHALL BE CORED WITH BOOTS EQUAL TO KOR-N-SEAL.
- TAPER TRENCH DRAIN STONE AT PIPE CROSSINGS AS SHOWN, MAINTAIN MINIMUM STONE DEPTHS AT ALL CROSSINGS. DOCUMENT EACH CROSSING, CAREFULLY WRAP AND MAINTAIN FILTER FABRIC TO ENSURE PERIMETER PROTECTION FOR TRENCH DRAIN (TD) ENTIRE PERIMETER. ANY HOLES, TEARS, OR OTHER DAMAGE OR DEGRADATION OF FILTER FABRIC SHALL BE REPAIRED PER MANUFACTURERS SPECIFICATIONS TO PROVIDE FILTER FABRIC FUNCTION TO MEET FILTER FABRIC SPECIFICATIONS FOR UNDAMAGED FABRIC.
- EXTEND STONE TO 24" FROM MANHOLES OR STRUCTURES, WRAP FILTER FABRIC AROUND END(S) OF (TD) TRENCH DRAINS STONE AT MANHOLES OR STRUCTURES. EXTEND SOLID PIPE FROM END OF STONE TO CONNECT TO MANHOLE OR STRUCTURE. PROVIDE 100% FILTER FABRIC COVERAGE FOR ALL TRENCH DRAIN STONE, OVERLAP FABRIC MIN. 16 INCHES.

**(TD) TRENCH DRAIN DETAIL (AT PIPE CROSSING)**

APPROVED SUBGRADE MIN. 95% MAX. DRY DENSITY

OVERLAP FABRIC MIN. 16"

#57 CLEAN STONE TAPER TO 20" STD. DEPTH AT 3H:1V SLOPE

GEOTEXTILE FILTER FABRIC MIRAFI 140N OR EQUIVALENT SUBMIT FOR APPROVAL PTC

4" SLOTTED HDPE - SUBMIT FOR APPROVAL PTC INSTALL 4" DIP UNDER FOOTINGS OR WALLS USE KOR N SEAL BOOT FOR MANHOLE CONNECTION(S)

APPROVED SUBGRADE MIN. 95% MAX. DRY DENSITY

DOCUMENT MATERIALS AND INSTALLATION PER GEOTECHNICAL ENGINEER

**(TD) TRENCH DRAIN DETAIL**

APPROVED SUBGRADE MIN. 95% MAX. DRY DENSITY

OVERLAP FABRIC MIN. 16"

#57 CLEAN STONE

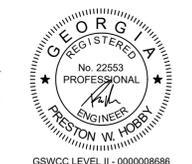
GEOTEXTILE FILTER FABRIC MIRAFI 140N OR EQUIVALENT SUBMIT FOR APPROVAL PTC

4" SLOTTED OR PERFORATED HDPE - SUBMIT FOR APPROVAL PTC INSTALL 4" DIP UNDER FOOTINGS OR WALLS USE KOR N SEAL BOOT FOR MANHOLE CONNECTION(S)

APPROVED SUBGRADE MIN. 95% MAX. DRY DENSITY

DOCUMENT MATERIALS AND INSTALLATION PER GEOTECHNICAL ENGINEER

ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS



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CONSTRUCTION DETAILS

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P.O. Box 5000 Canton, Georgia 30114  
Phone: (770) 479-1813

**New Project Requirements & Maintenance Bond Notification (2018)**

This is a list of some of the requirements that need to be met before obtaining water and/or sewer service in Cherokee County.

- A pre-construction meeting with water and/or sewer contractor and C.C.W.S.A inspector before work begins. (770) 479-9107
- Contractor must have approved plans stamped by C.C.W.S.A before water or sewer work begins.
- There are certain fees, depending on type of project, which must be paid to C.C.W.S.A. before getting service. Some of which are:

**Plan Review Fees:**  
**Water \$600.00**  
**Sewer \$850.00**  
**Combined Water & Sewer \$1200.00**  
**Lift Station \$10,000.00**  
**Easement Fee \$200.00 (required per parcel for all offsite easements)**  
**Water Flow Test \$400.00**  
 (Fees must be paid before flow test can be ordered or plan review meeting scheduled)

**(FEES ARE SUBJECT TO CHANGE)**

Water Meter Deposit - If meter is larger than 2" meter must have a by-pass. Contact: Special Projects Coordinator (770) 479-1813 All fees paid before tapping.

Sewer Tap Fee - Contact: Special Projects Coordinator (770) 479-1813 All fees paid before tapping.

Back-Flow Device - When testable device is required we also must have test results by approved tester before setting of meter. Contact: Back-Flow Coordinator (770) 479-9107

As-Builts - Four (4) sets of As-Built Plans & Electronic Data (On State Plane Coordinates) must be submitted to G.I.S. Department for all projects. Contact: Plan Review Coordinator (770) 479-1813

Maintenance Bond Notification - The owner/developer of this project understands there shall be a maintenance bond or letter of credit posted for this project. The bond shall be for a period of twelve (12) months from the date of acceptance by the Cherokee County Water & Sewerage Authority. The As-Builts will "NOT" be signed and released, nor will a Clean Out Inspection or a Clean Out approval be issued until maintenance bond or letter of credit has been posted.

All sanitary sewer manholes in streets shall be required to be @ 95% compaction under the first foot of top grade. Compaction tests shall be at all 4' lifts on 2 sides of each manhole within a 2' diameter of the manhole. Test results shall be faxed to C.C.W.S.A. Inspection Department (770) 704-0053 or emailed to the Inspector before any G.A.B. shall be placed on sub-grade.

- Any and all final tests on water and sewer, and all fees paid, before final plat can be signed or release of meters.
- Maintenance Bonds must be posted.
- Once job is released, owner/developer will be responsible for one-year warranty period.
- Project will not be released for meter sales until C.C.W.S.A. G.I.S. Department receives one copy of recorded final plat along with a PDF file.
- At end of one year a re-inspection will be done.
- If water has to be cut off, work needs to be scheduled 4 to 5 days ahead of time. Phone: (770) 479-9107
- CANNOT ENCROACH ON ANY BUFFERS. OWNER/DEVELOPER & ENGINEER WILL BE RESPONSIBLE FOR OBTAINING VARIANCES. (Must have in writing where variance was obtained)

Signature \_\_\_\_\_ Date \_\_\_\_\_

**DEVELOPER'S AGREEMENT**

This agreement entered this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between the Cherokee County Water and Sewerage Authority (herein after referred to as "CCWSA") and \_\_\_\_\_ (hereinafter referred to as "Developer").

**WITNESSETH**

Whereas, Developer wishes to extend the public waste water collection infrastructure to serve its development, and;

Whereas, CCWSA has initially determined that there exists sufficient capacity in both the existing collection infrastructure and the treatment facility for the Developer's proposed development, and;

Whereas, CCWSA authorizes the Developer to extend the public wastewater collection infrastructure consistent with CCWSA specifications at the Developer's expense.

Now therefore, for the mutual covenants flowing each to the other, the parties hereto agree as follows:

1. Upon execution hereof, Developer is authorized to acquire necessary and needful, construction and permanent easements in accordance with the CCWSA easement acquisition policy, incorporated herein by reference.

2. Upon CCWSA approval Developer is authorized to engineer and install appropriate wastewater collection infrastructure in accordance with the CCWSA Development Specifications, in order to extend the public wastewater collection service to Developer's property.

3. Developer shall obtain General Liability Insurance and statutorily required Workers Compensation Insurance from insurance companies authorized to transact business in the state of Georgia with an AM Best rating of "A" or better. The General Liability Insurance shall be no less than \$2 million per occurrence and shall list the CCWSA as additional insured. If required, Workers Compensation Insurance shall be statutorily required limits. The Developer shall provide certificates of applicable insurance coverage prior to taking any actions to extend the public wastewater collection service.

4. The obligations for Developers to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no

way limits liability of the Developer or limits the liability of Developer whether or not same is covered by insurance.

The Developer further understands and agrees that any damages that the Cherokee County Water and Sewerage Authority deems to be a result of said contract work, whether made directly by the Developer, developers contractor or a subcontractor thereof, is the sole responsibility of the Developer and will be repaired, replaced, or recompensed according to specifications in place at the time of discovery.

5. The Developer agrees to protect, defend, indemnify, save and hold harmless CCWSA, its officials, directors, officers, employees, agents, and volunteers from and against any and all claims, demands, losses, costs, and expenses, and from and against all liability, awards, judgments, and decrees, of whatever nature for any and all damage to property of others and of the parties hereto, their officials, directors, officers, employees, agents, and volunteers, and of whatever nature for any and all injury or injuries (including death) to any person or persons including the officials, directors, agents, employees, and volunteers of the party herein, arising or in any way growing out of any of the acts or omissions whether of the Developer, the Developer's officials, directors, officers, employees, agents, and volunteers or of any tier of the Subcontractor, the tier's officials, officers, directors, employees, agents, and volunteers in connection with the performance of the work under this Contract.

This hold-harmless agreement must be signed and submitted to the CCWSA's Risk Management Department prior to commencement of work.

Developer \_\_\_\_\_ Date \_\_\_\_\_

CCWSA Representative \_\_\_\_\_ Date \_\_\_\_\_

PROJECT NUMBER  
23-017

DATE  
09/25/23

REVISIONS	
NO.	DATE
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TEL. 706.529.5895

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 2017 EAST CHEROKEE DRIVE WOODSTOCK, GA 30188  
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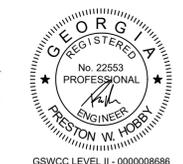
**CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY POTABLE WATER SYSTEM GENERAL CONSTRUCTION NOTES:**

- 1.) All potable water system construction must follow the current Cherokee County Water & Sewerage Authority Water Main Standards.
- 2.) All water mains shall be ductile iron pipe, except where the Construction Manager approves otherwise. Ductile iron pipe shall be thickness Class 50 or Class 350, designed in accordance with AWWA C150 and manufactured in accordance with AWWA C151. All ductile iron pipe shall have an outside bituminous coating per AWWA C151 and an inside standard cement lining with bituminous seal coat per AWWA C104. All references to AWWA standards shall mean latest revisions published.
- 3.) Inside of developments with curb and gutter, the Contractor shall cut a "V" into the top of the curb for all water valves (line valves and hydrant valves) with the point of the "V" aimed at the valve.
- 4.) A concrete valve marker is to be placed directly above the plug on all dead-end water mains.
- 5.) Information regarding underground utilities on these plans is not guaranteed as to accuracy or completeness. Prior to beginning work, the Contractor shall request a field location through the utilities protection center and any utility owners thought to have facilities in the area. The Contractor shall promptly compare these field-marked locations with the project plans and then notify the Designer of any anticipated problems or need for contract changes. It is the Contractor's responsibility to excavate or cause the utility owner to excavate for the purpose of determining exact elevations or locations at utility crossings and other critical locations well in advance of the work under this contract. Damage to existing utilities resulting from the Contractor's negligence shall be repaired at the Contractor's expense.
- 6.) All service lines under pavement shall be encased in Schedule 40 PVC casing with a minimum diameter of 2", extending a minimum of 3 feet beyond the pavement and/or sidewalk on each side of the road. 2" services shall be encased in 4" PVC casings. All water service laterals 2" and smaller shall be Type K copper tubing with compression fittings as specified in the Water Standards.
- 7.) Concrete thrust blocking shall be placed at all bends, tees, valves, reducers and all other fittings. Prior to blocking, fittings shall be wrapped with polyethylene film.
- 8.) The Developer/Contractor shall meet with the Chief Inspector at least 24 hours before beginning construction. The Contractor shall notify the Chief Inspector or his designated representative by 8:30 AM of each workday when work is scheduled unless authorized otherwise.
- 9.) Water mains shall be installed so that the top of the pipe is a minimum of four feet below final grade, four feet below the edge of the pavement, or four feet below the ditch paralleling the road, whichever is deepest.
- 10.) Contractor shall place a vertical piece of 2" PVC pipe on top of the water main at all tees, bends, fittings, elevation transitions, and every fifty feet along the length of the main for the purpose of collecting elevation data for record drawings. The top of the 2" PVC shall be capped or taped to prevent dirt and other debris from clogging the 2" pipe before the depth can be measured.
- 11.) All fittings and valves are to be mechanical joint with retainer glands unless otherwise approved. Retainer glands shall be EBAA Mega-Lug or approved equal.
- 12.) Type 4 bedding is required at all restrained pipe installations.

- 13.) Contractor must show proof of insurance in the amount specified by the CCWSA.
- 14.) All backflow preventer devices are to be tested by a CCWSA approved tester. A list of testers is available from the CCWSA. Any tester not on the list is subject to approval by the CCWSA. Contact the Backflow Coordinator with the CCWSA for more information.
- 15.) All meters, backflow preventers and double detector check valve assemblies are to be purchased from the CCWSA.
- 16.) A horizontal separation of at least 10 feet is required between existing or proposed water mains and existing or proposed sanitary sewer lines.
- 17.) A vertical separation of at least 18 inches is required where a water main crosses an existing or proposed sanitary sewer line. A full joint of water main is required to be centered at the sanitary sewer line crossing.
- 18.) No portion of this project is being constructed on or near an existing landfill, abandoned landfill, or any other site used for waste disposal.
- 19.) Potable water and sanitary sewer structures are not allowed within a dam. Utility pipelines and structures must be a minimum of 30 feet outside the toe of slope of the dam.
- 20.) Hydrant flow tests are valid for one year and only apply to a single phase of this project.
- 21.) Existing County roads shall not be open cut unless permission is granted by the Cherokee County Department of Public Transportation.
- 22.) Plan approval is valid for 12 months without beginning construction. Plans shall be subject to beginning the process of review and approval if 12 months expire prior to the start of construction.
- 23.) As-Built drawings of water and sanitary sewer facilities are required to be submitted to the CCWSA upon completion of the project.
- 24.) If construction plans are stamped for a full project, and then the Developer revises the plans to build the development in phases, no construction or field inspection will be allowed to begin until the revised, phased plans are re-approved and stamped for the phased construction.
- 25.) If an existing water main is to be paved over by a new entrance or accel/decel lanes, the water main is to be abandoned and replaced with a new DIP water main located five feet or more behind the new back of curb.
- 26.) New water mains installed within 80 feet of steel gas main crossings, or in any wetland areas must be encased in polyethylene tubing (Polywrap 8 mil).
- 27.) All streams and protective buffers shall be crossed in accordance with current County and State regulations.
- 28.) Fire hydrants shall be designed to be placed within 200 feet of new entrances, in all cul-de-sacs, and at every proposed intersection.
- 29.) New fire hydrants shall be Mueller Super Centurion 250, M&H AWWA C502 Style 129 Traffic Model. or EJ Watermaster 5CD 250. All hydrants shall be rated for 250 psi working pressure and shall be equipped with a 5/4" valve opening, two 2 1/2" hose nozzles and one 4 1/2" pumper nozzle.
- 30.) Inside of steel casings, pipe joints shall be restrained using Fast-Grip gaskets or approved equal.

- 31.) All new water mains must pass leakage testing and disinfection testing witnessed by a CCWSA representative before a project is released and accepted.
- 32.) All water meter vaults and DDCV assembly vaults are to be located off of the road right-of-way in a permanent easement dedicated to the CCWSA. The easement shall be dimensioned to be 10 feet off each corner of the vault. Smaller domestic use meters adjacent to a DDCV assembly can be located within the 10-foot spacing between the vault and the edge of the easement.
- 33.) The report stating the results of the hydrant flow test and the 24 hour pressure recording chart shall be shown within the plans for this project.
- 34.) Horizontal locations will be referenced to Georgia State Plane Coordinate System (NAD 83 West Zone Feet.
- 35.) Vertical locations will be referenced to North American Vertical Datum (NAVD 88).
- 36.) Orthometric locations will be referenced to GEOID 99/03
- 37.) No landscaping or structures will be allowed inside CCWSA easements.
- 38.) Contractor shall provide meter stubs.
- 39.) Must show all street lights within development
- 40.) Must show 911 addresses for each lot or parcel
- 41.) Developers are required to comply with CCWSA specifications in section W314 with respect to irrigation of large landscapes.

**ADDITIONS & RENOVATIONS TO:  
 EMS STATION #30  
 2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
 CHEROKEE COUNTY BOARD OF COMMISSIONERS**



GSWCC LEVEL II - 0000008688  
SHEET INDEX

CONSTRUCTION  
DETAILS

SHEET INDEX

**C7.4**

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EQUIPMENT & FURNISHINGS LEGEND

- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL Z LINE, 36" WIDE WALL MOUNTED HOOD, PROFESSIONAL STAINLESS 697, WITH GUARDIAN III KITCHEN FIRE SUPPRESSION SYSTEM MODEL 1384-A, COORDINATE WITH MECHANICAL.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL KUCHT, 36" DUAL FUEL MODEL #KRD366F RANGE, WITH GAS CONNECTION HOSE KIT/ASSEMBLY BK RESOURCES MODEL # BKG-GHC-7548-SCK2, COORDINATE WITH MECHANICAL, PLUMBING AND ELECTRICAL.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL KUCHT, 24" MODEL #K6502D DISHWASHER.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL MAGIC CHEF, 1.6 CU. FT., 1,100 WATT MODEL #MM1611ST2 MICROWAVE.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL SCOTSMAN, SELF-CONTAINED, NUGGET ICE MACHINE MODEL # UN324 WITH OPTIONAL FLOOR MOUNT KIT AS REQUIRED.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL INDOFF NORIX, TITAN UNDER BED STORAGE, COMMERCIAL WORK TABLE WITH UNDERSHELF & 5" HEAVY DUTY CASTERS.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL ANOVA PICNIC TABLE, 8' RECTANGULAR, EXPANDED STEEL, MODEL # F6420.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL ALDERWOOD DINING TABLE 120" L X 44" W WITH LOGO GRAPHICS, LACQUER FINISH AND WEBSTER BASE WITH TWO BENCHES 120" L X 12" W TO MATCH BY TABLE TOP DAN, 100 LONDONDERRY CT, SUITE 124, WOODSTOCK GA 30188, PHONE: 678-503-8758
- QUANTITY 3 - CONTRACTOR SHALL PURCHASE AND INSTALL INDOFF NORIX BEDS, TITAN BUNKABLE FRAME STYLE, XL TWIN BED FRAME, MODEL # TNT0600-BL1, AND FOOT BOARDS, MODEL # TNT0650-BL1, HEAD AND FOOT BOARDS SHALL HAVE BLACK HARDWARE AND WILD CHERRY LAMINATE COLOR SELECTIONS. EACH BED SHALL HAVE A MATTRESS FIRM, MODEL # V00028596, PRESSURE SMART 2.0 FIRM 11" MATTRESS, TWIN XL PRIME SIZE.
- QUANTITY 9 - CONTRACTOR SHALL PURCHASE AND INSTALL INDOFF NORIX, TITAN UNDER BED STORAGE, COMFORT SHIELD DORM, MODEL # TNT7016 (METAL).
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL INDOFF HON 30" X 66" DESK (WITH 24" X 48" LEFT HAND RETURN), MODEL # HONH38291RNS, AND HONH38216LNS IN CHARCOAL COLOR SELECTION.
- QUANTITY 2 - CONTRACTOR SHALL PURCHASE AND INSTALL INDOFF HON TASK CHAIR, MODEL # HONH5715.SB11.T.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL KUCHT, 36" WIDE MODEL #K748FDS REFRIGERATOR WITH ICE MAKER.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL INDOFF 36" ROUND CONFERENCE TABLE, MODEL # XT36RD.
- QUANTITY 2 - CONTRACTOR SHALL PURCHASE AND INSTALL INDOFF SLED BASE GUEST CHAIR WITH BLACK FRAME, MODEL # 540BLK.
- QUANTITY 3 - CONTRACTOR SHALL PURCHASE AND INSTALL WOODSTOCK OUTLET, HOME STRETCH, MODEL #186-91-14 ROCKER RECLINERS.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL BUNN, MODEL #VP17-2 COFFEE MAKER.
- QUANTITY 14 - CONTRACTOR SHALL PURCHASE AND INSTALL PENCO PATRIOT FULLY FRAME WELDED LOCKERS, 24"X24"X72", 16GA. BODIES WITH 18GA. BACKS, 14 GA DOUBLE DOORS WITH STANDARD LOUVERS AND HEAVY DUTY, LATCHING, LOCKABLE CREWMORE HANDLE, PROVIDE 16GA. BOXED FINISHED END PANELS AT EXPOSED ENDS AND CONTINUOUS SLOPING HOODS FOR ALL INTERIOR COMPONENTS SHALL INCLUDE HAT SHELF, OFF CENTER PARTITION (45"), 15" COAT ROD AND COAT HOOKS, 9" WIDE SECURITY BOX UNDER HAT SHELF, ONE ADDITIONAL 9" SHELF, FULL WIDTH BOTTOM SHELF AND FULL WIDTH INTERIOR DRAWER BELOW, PROVIDE LOCKERS WITH THE FOLLOWING ACCESSORIES: CELL PHONE/KEY TRAY, MIRROR AND NAME CARD HOLDERS. OWNER SHALL MAKE COLOR SELECTIONS FROM MANUFACTURER'S FULL RANGE. INSTALL LOCKERS ON WOOD FRAMED BASE OF 2X4'S AT EVERY 16" O.C. MAX WITH 5/8" PLYWOOD TOP. FRAMING SHALL BE INSET FROM TOTAL LOCKER DIMENSIONS 3/4" ON ALL SIDES.
- QUANTITY 2 - CONTRACTOR SHALL PURCHASE AND INSTALL PENCO WOOD BENCH WITH STAINLESS STEEL PEDESTALS, 36" WOOD TOP MODEL # 9611, STAINLESS STEEL PEDESTALS AND HARDWARE MODEL # 60827H WITH NON-SKID KIT MODEL # 68420.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL SPEED QUEEN, MODEL #TCS TOP LOAD WASHER WITH SPEED QUEEN CLASSIC CLEAN AND MODEL #DC5 SANITIZING ELECTRIC DRYER WITH EXTENDED TUMBLE.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL SAMSUNG, 75" CLASS TU690T TELEVISION AND APPROPRIATELY SIZED WALL MOUNT.
- QUANTITY 2 - CONTRACTOR SHALL PURCHASE AND INSTALL SAMSUNG, 73" CLASS CU7000 TELEVISION AND APPROPRIATELY SIZED WALL MOUNT.
- QUANTITY 5 - CONTRACTOR SHALL PURCHASE AND INSTALL FAB GLASS, 48" X 84", MIRROR PANELS AND ALL ASSOCIATED ACCESSORIES AND HARDWARE REQUIRED.
- QUANTITY 2 - CONTRACTOR SHALL PURCHASE AND INSTALL GLOBAL INDUSTRIAL, 24" OSCILLATING WALL MOUNT FAN, 3 SPEED, 7525 CFM, 1/4 HP, ITEM # WB607650.
- QUANTITY 12 - CONTRACTOR SHALL PURCHASE AND INSTALL GROVES INC. READY RACK, WALL MOUNTED RED RACK GEAR LOCKERS, 24"W X 20"D X 72"H PER COMPARTMENT, ALL UNITS SHALL BE COMPLETE WITH STANDARD OPTIONS INCLUDING: ADJUSTABLE BOOT SHELF, ADJUSTABLE HELMET SHELF, HANGING POLE THE LENGTH OF THE UNIT, TWO APPEAL HOOKS PER LOCKER AND ONE NAME PLATE PER LOCKER.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL READY RACK, WALL RACK ORGANIZER MODEL # WR0, FIELD LOCATE MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLATION.
- QUANTITY 1 - CONTRACTOR SHALL PURCHASE AND INSTALL SEVILLE, CLASSICS ULTRA GRAPHITE WOOD TOP WORKBENCH ON WHEELS WITH SLIDING ORGANIZER DRAWER TABLE, 48" LONG, SATIN GRAPHITE COLOR SELECTION.
- QUANTITY 3 - CONTRACTOR SHALL PURCHASE AND INSTALL FURNITURE MADE IN THE USA, PLANTATION LUMBAR ROCKER TC-#970, GERANIUM RED, ROCKING CHAIRS.
- QUANTITY 2 - CONTRACTOR SHALL PURCHASE AND INSTALL ACORN ENGINEERING PRODUCTS, 36" X 36" ID TERRAZZO ADA SHOWER BASE, MODEL # SBADA-36-3F.
- CONTRACTOR SHALL PURCHASE AND INSTALL EXERCISE EQUIPMENT FROM PREMIER FITNESS SOURCE CT 109 SMOKEHILL LANE, SUITE 100, WOODSTOCK GA 30188, PHONE: 770-908-0000, IN THE QUANTITIES AND DESCRIPTIONS NOTED IN THE TABLE ON THIS SHEET. CONFIRM LAYOUT OF EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.
- QUANTITY 3 - CONTRACTOR SHALL PURCHASE AND INSTALL NORIX, TITAN, THREE DRAWER NIGHTSTAND MODEL # TNT2039.

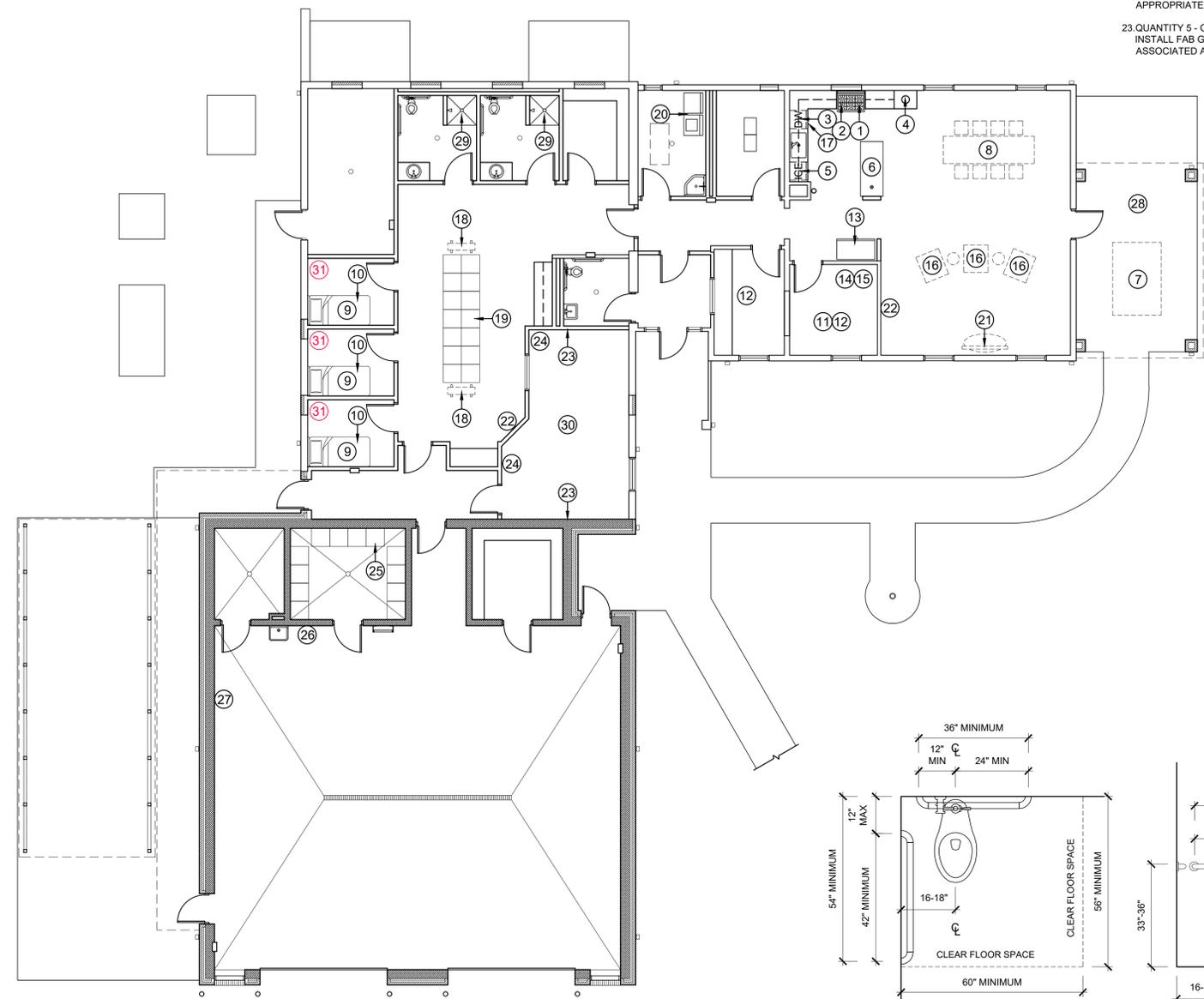
EQUIPMENT NOTES:

- COORDINATE ALL FINAL EQUIPMENT LOCATIONS WITH OWNER.
- FIELD VERIFY ALL EQUIPMENT QUANTITIES.
- PROVIDE BLOCKING IN WALL FOR ALL WALL MOUNTED ITEMS.
- SEVERAL ITEMS SUCH AS REFRIGERATORS, WASHERS AND DRYERS, GEAR EXTRACTOR WASHER, GEAR DRYER, BREATHING AIR SYSTEMS, TELEVISIONS, DEDICATION PLAQUES, ETC. WILL BE OWNER PROVIDED AND CONTRACTOR INSTALLED.

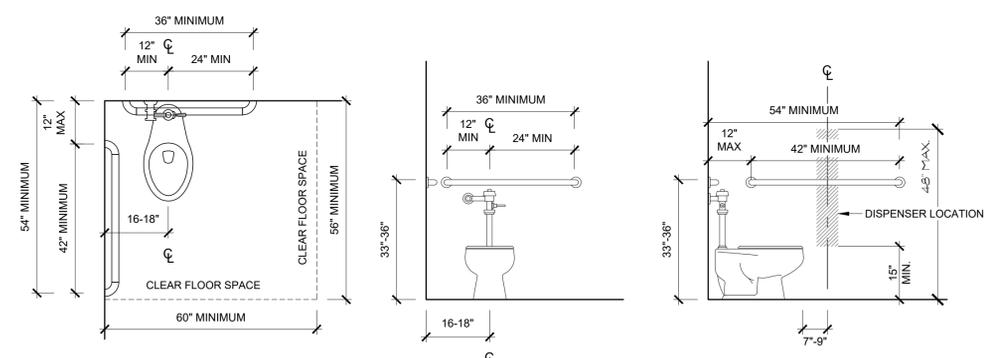
SCHEDULE of TOILET ACCESSORIES			
ITEM	MFR.	HEIGHT	LOCATION
A 42" GRAB BARS AT SIDE WALL OF WATER CLOSETS	BOBRICK B-5806-42	33" to CENTERLINE ABOVE FINISH FLOOR	PROVIDE ONE AT EVERY H.C. TOILET
B 36" GRAB BARS AT REAR WALL OF WATER CLOSETS	BOBRICK B-5806-36	33" to CENTERLINE ABOVE FINISH FLOOR	PROVIDE ONE AT EVERY H.C. TOILET
C TISSUE PAPER DISPENSER	GP 56748 & BOBR. B-265	VARIABLES - COORDINATE WITH OWNER AND VERIFY WITH MANUFACTURER'S REQUIREMENTS	PROVIDE GP 56748 AT ROOM 103 PROVIDE BOBRICK B-265 AT ROOMS 111 & 112
D SEAT COVER DISPENSER	BOBRICK B-221	INSTALL PER MANUFACTURER'S DETAILS	PROVIDE ONE AT EVERY TOILET
E BABY CHANGING STATION	BOBRICK B-221	INSTALL PER MANUFACTURER'S DETAILS	PROVIDE ONE AT ROOM 101, 201, 202, 203 & 204
F MIRROR	BOBRICK B-221	40" to BOTTOM of MIRROR ABOVE FLOOR	PROVIDE ONE ABOVE EVERY LAVATORY
G SOAP DISPENSER	GA. PACIFIC 52060	40" to BOTTOM of DISPENSER ABOVE FINISH FLOOR (VERIFY WITH MANUFACTURER'S REQUIREMENTS)	PROVIDE ONE AT EVERY SINK
H ROBE HOOK	BOBRICK B-6707	48" to TOP MAX. ABOVE FINISH FLOOR	PROVIDE ONE AT EVERY TOILET AND EVERY SHOWER
I UTILITY SHELF w/ MOP HOLDERS	BOBRICK B-239 x 34	INSTALL PER MANUFACTURER'S DETAILS	PROVIDE ONE AT EVERY MOP BASIN
J PAPER TOWEL DISPENSER	GA. PACIFIC 59466A	60" to TOP of DISPENSER ABOVE FINISH FLOOR (VERIFY WITH MANUFACTURER'S REQUIREMENTS)	PROVIDE ONE AT EVERY SINK PROVIDE GA. PACIFIC 59459 RECESS KIT AS REQ'D.
K REVERSIBLE FOLDING SHOWER SEAT	BOBRICK B-5181	18" ABOVE FINISH FLOOR to TOP OF SEAT	PROVIDE ONE AT ROOM 105 PROVIDE BLOCKING ONLY AT ALL OTHER SHOWERS
L TWO WALL SHOWER GRAB BAR	BOBRICK B-6861	33" to CENTERLINE ABOVE FINISH FLOOR	PROVIDE ONE AT ROOM 105 PROVIDE BLOCKING ONLY AT ALL OTHER SHOWERS
M EXTRA HEAVY DUTY SHOWER CURTAIN ROD	BOBRICK B-6047	PROVIDE WITH BOBRICK 204 CURTAIN & HOOKS INSTALL PER MANUFACTURER'S DETAILS	PROVIDE ONE AT EVERY SHOWER
N FOLDING DRESSING AREA SEAT	BOBRICK B-5193	18" ABOVE FINISH FLOOR to TOP OF SEAT	PROVIDE ONE AT EVERY SHOWER ROOM

TOILET ACCESSORIES NOTES:

- COORDINATE ALL FINAL MOUNTING HEIGHTS/LOCATIONS WITH OWNER. COMPLY WITH ALL REQUIREMENTS OF A.D.A. INSTALLATIONS GUIDELINES AND MANUFACTURER'S RECOMMENDATIONS.
- FIELD VERIFY ALL FIXTURE QUANTITIES.
- PROVIDE BLOCKING IN WALL FOR ALL WALL MOUNTED ITEMS.



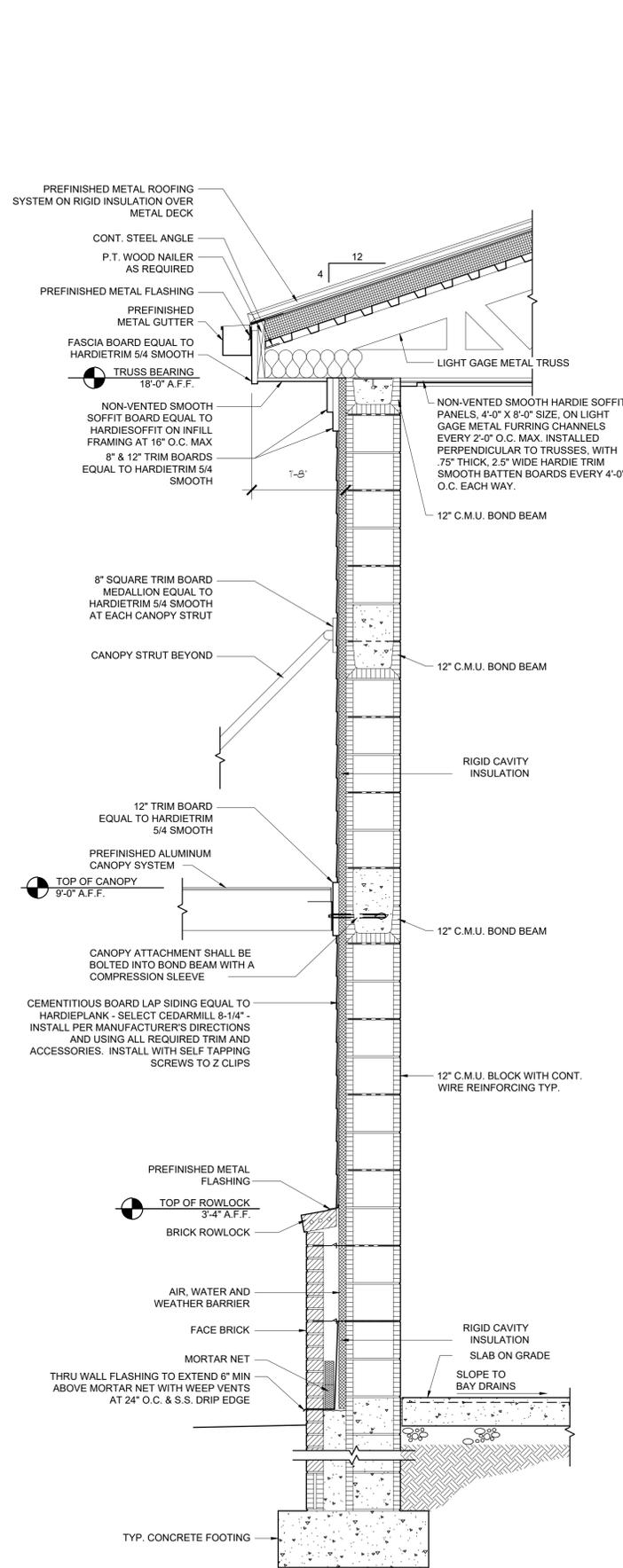
QUANTITY	MODEL #	DESCRIPTION
1	XF PR-HLP	XERT FITNESS PR-HLP POWER RACK WITH PLATE LOADED HI-LOW PULLEY, LEG HOLD DOWN, LAT BAR AND CURL BAR & (8) WEIGHT HORNS
1	BS TBR50	BODY SOLID T-BAR ROW/LANDMINE BASE, DUAL SWIVEL, ROPE ANCHOR
1	XF R-PT2	XERT FITNESS R-PT2 OLYMPIC/BUMPER PLATE RACK WITH 2" BAR HOLDERS
1	XF FID-400	XERT FITNESS FID-400 FLAT INCLINE DECLINE BENCH WITH 7 POSITIONS, OPTIONAL LEG EXTENSION/CURL & PREACHER CURL AVAILABLE
1	YOLEO	YOLEO ADJUSTABLE DIP BAR - 1100LBS DIP STATION, PORTABLE FUNCTIONAL FITNESS BAR WITH SAFETY CONNECTOR
1	XF RXB-030	XERT FITNESS 30LB RUBBER KETTLEBELL WITH CHROME HANDLE
1	XF RXB-035	XERT FITNESS 35LB RUBBER KETTLEBELL WITH CHROME HANDLE
1	XF RXB-040	XERT FITNESS 40LB RUBBER KETTLEBELL WITH CHROME HANDLE
1	XF RXB-045	XERT FITNESS 45LB RUBBER KETTLEBELL WITH CHROME HANDLE
1	XF RXB-050	XERT FITNESS 50LB RUBBER KETTLEBELL WITH CHROME HANDLE
4	XF OPR-010	XERT FITNESS 10LB OLYMPIC RUBBER PLATE
2	XF OPR-025	XERT FITNESS 25LB OLYMPIC RUBBER PLATE
2	XF OPR-035	XERT FITNESS 35LB OLYMPIC RUBBER PLATE
4	XF OPR-045	XERT FITNESS 45LB OLYMPIC RUBBER PLATE
1	XF HX-60	XERT FITNESS 80" HEX TRAP BAR WITH 25MM GRIP
1	XF OCB-47C	XERT FITNESS 47" OLYMPIC CHROME CURL BAR WITH 28MM GRIP
2	P 400-710-110	PRISM FITNESS STRENGTH BAND XX-LIGHT (RED) 5-35LB
2	P 400-710-111	PRISM FITNESS STRENGTH BAND X-LIGHT (BLACK) 10-50LB
2	P 400-710-112	PRISM FITNESS STRENGTH BAND LIGHT (PURPLE) 25-80LB
2	P 400-710-113	PRISM FITNESS STRENGTH BAND MEDIUM (GREEN) 50-120LB
2	P 400-710-114	PRISM FITNESS STRENGTH BAND HEAVY (BLUE) 60-150LB
2	P 400-710-115	PRISM FITNESS STRENGTH BAND X-HEAVY (ORANGE) 70-175LB
2	XF AOB-1000	XERT FITNESS 7" BLACK OXIDE OLYMPIC BAR (ALLOY STEEL) WITH 1000LB CAPACITY & 28MM GRIP, 4 NEEDLE BEARINGS (2 EACH SIDE) + BRONZE BUSHINGS
1	XF R-HDB3	XERT FITNESS R-HDB3 HORIZONTAL DUMBBELL RACK WITH 3 TIERS
1	XF RHD-550	XERT FITNESS 5-50LB RUBBER HEX DUMBBELL SET (5LB INCREMENTS)
1	XF AIRBIKE	XERT FITNESS AIRBIKE WITH 16 FAN BLADES, INTEGRATED WIND GUARD, AND LCD DISPLAY
1	TKO AR ROWER	TKO AIRRAID ROWER



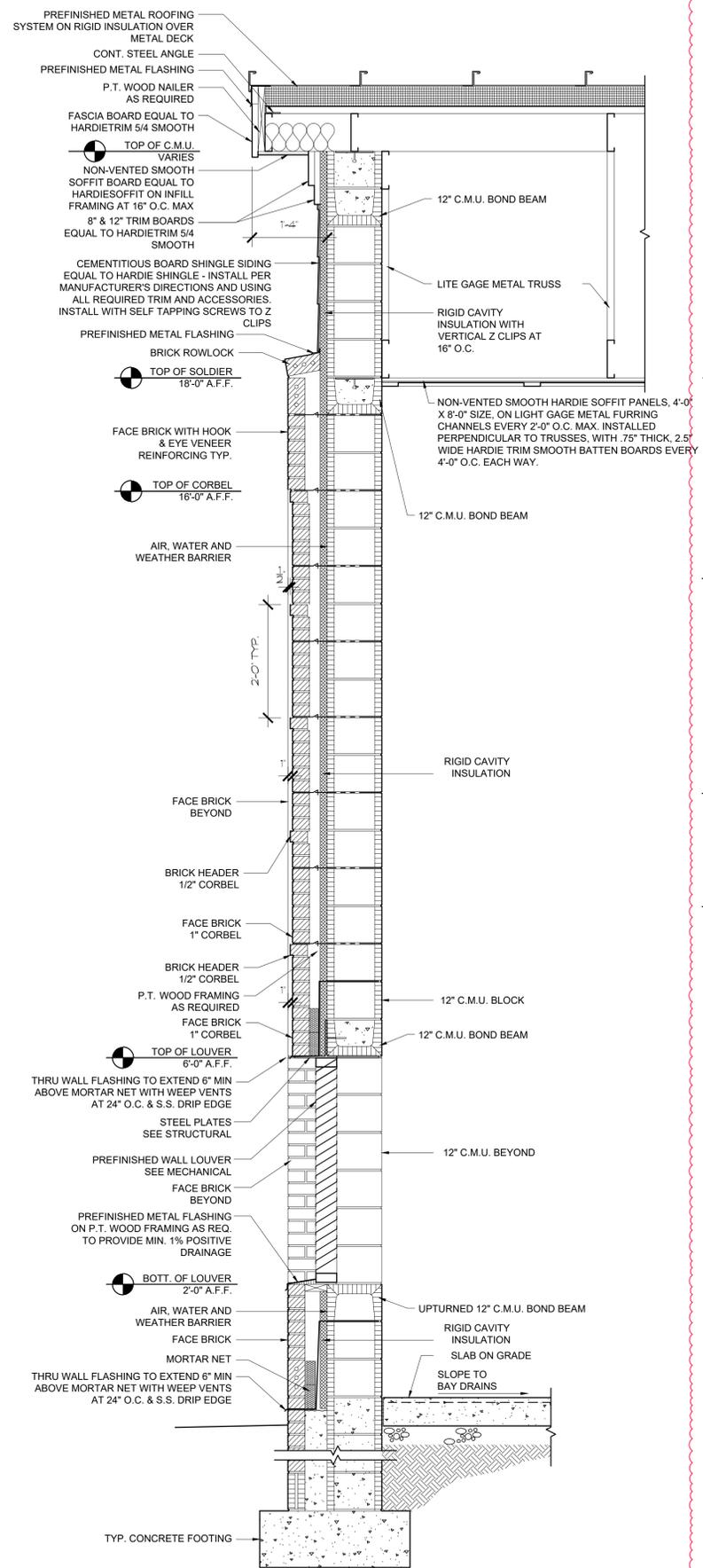
2 A.D.A. INSTALLATION GUIDELINES

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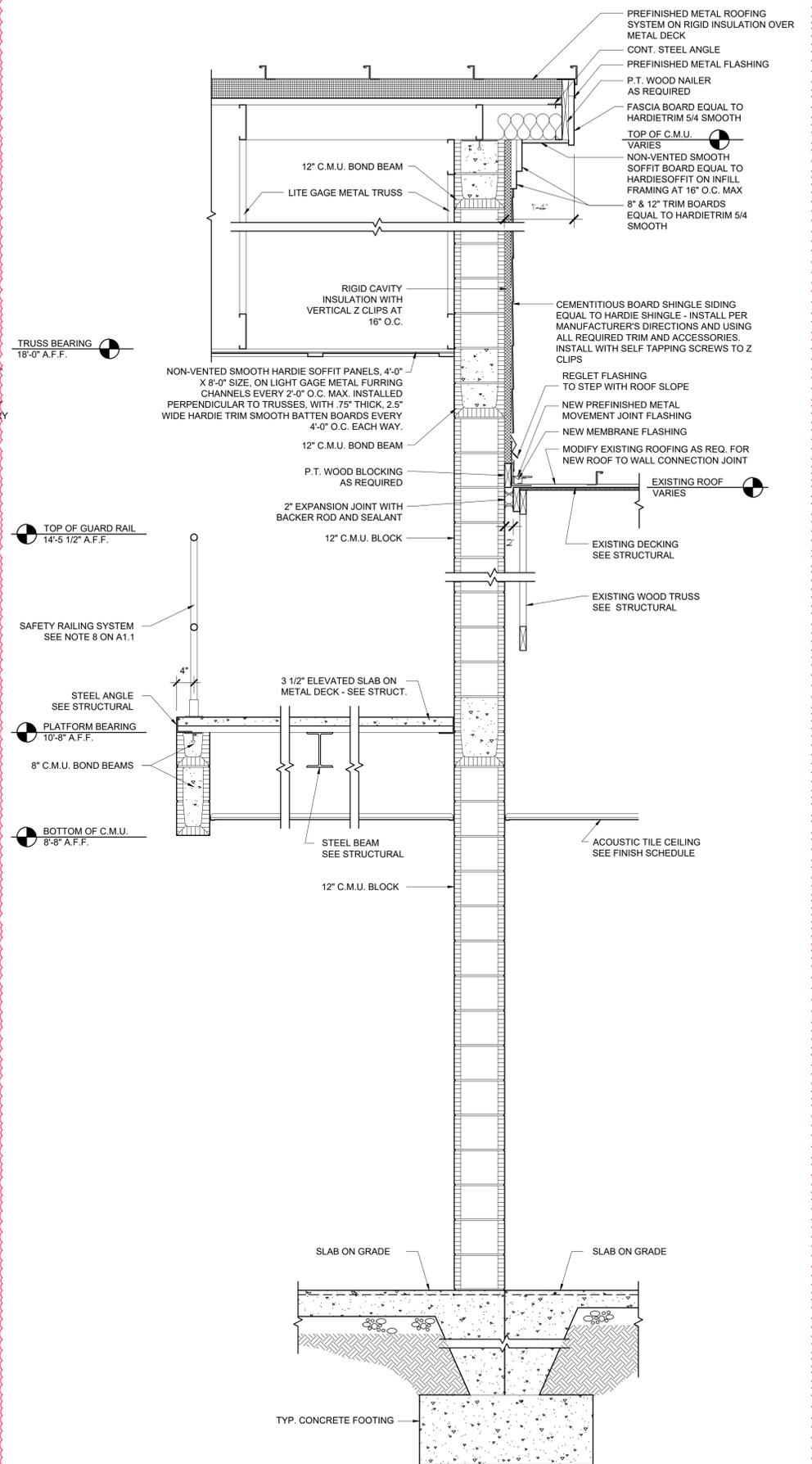
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1 WALL SECTION  
SCALE: 3/4" = 1'-0"



2 WALL SECTION  
SCALE: 3/4" = 1'-0"



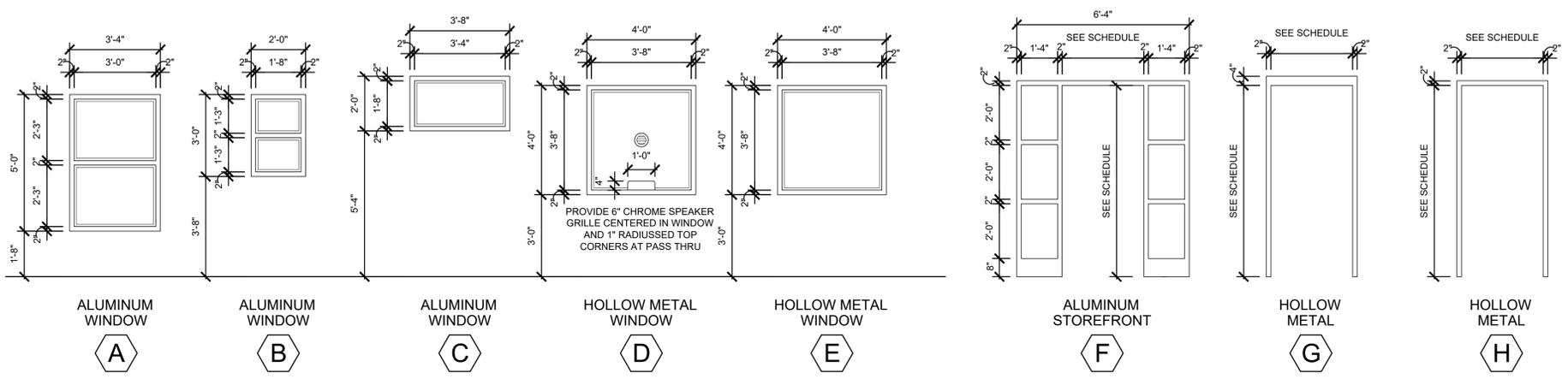
3 WALL SECTION  
SCALE: 3/4" = 1'-0"

FOR CONSTRUCTION



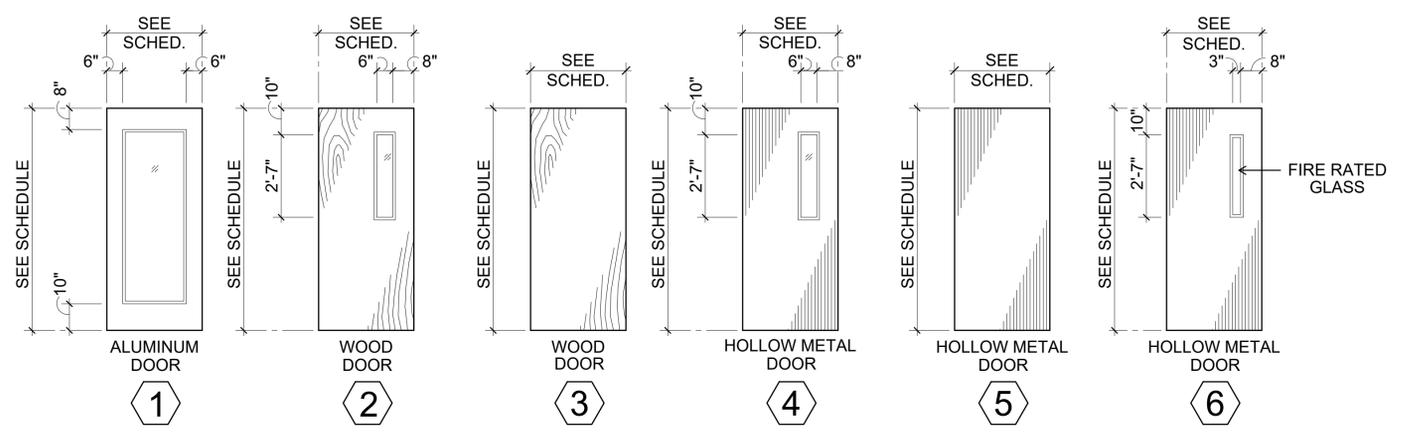
SCHEDULE of DOORS and FRAMES												
MARK	TYPE	SIZE		FRAMES			FIRE RATING	HWDE. SET NO.	REMARKS	MARK	MISC.	
		WIDTH	HGT.	TYPE	HEAD	JAMB					SILL	
100	1	3'-0"	7'-0"	F	H3	J3	-	AL-01	CARD ACCESS	100		
101	3	3'-0"	7'-0"	H	H1	J1	-	01		101		
102	2	3'-0"	7'-0"	H	H1	J1	-	02		102		
103	2	3'-0"	7'-0"	H	H1	J1	-	02		103		
104	3	3'-0"	7'-0"	H	H1	J1	-	03		104		
105	3	3'-0"	7'-0"	H	H1	J1	-	04	CARD ACCESS	105		
106	2	3'-0"	7'-0"	H	H1	J1	-	05		106		
107	2	3'-0"	7'-0"	H	H1	J1	-	05		107		
108	4	3'-0"	7'-0"	H	H3 SIM.	J3 SIM.	-	06	CARD ACCESS	108		
109	3	3'-0"	7'-0"	H	H1	J1	-	07		109		
110	3	3'-0"	7'-0"	H	H1	J1	-	01		110		
111	3	3'-0"	7'-0"	H	H1	J1	-	01		111		
112	5	3'-0"	7'-0"	EX.	H5 SIM.	J5 SIM.	-	08	NEW DOOR IN EXISTING FRAME	112		
113	3	3'-0"	7'-0"	H	H1	J1	-	09		113		
114	4	3'-0"	7'-0"	H	H1	J1	-	09		114		
115	3	3'-0"	7'-0"	H	H1	J1	-	09		115		
116	2	3'-0"	7'-0"	H	H1	J1	-	02		116		
117	2	3'-0"	7'-0"	H	H1	J1	-	10		117		
118	6	3'-0"	7'-0"	G	H2	J2	-	90 MIN		118		
119	4	3'-0"	7'-0"	G	H5	J5	-	12		119		
120	5	3'-0"	7'-0"	G	H2	J2	-	13		120		
121	4	3'-0"	7'-0"	G	H2	J2	-	14		121		
122	5	3'-0"	7'-0"	G	H2	J2	-	15	CARD ACCESS	122		
123	4	3'-0"	7'-0"	G	H4	J4	-	06	CARD ACCESS	123		
124	4	3'-0"	7'-0"	G	H4	J4	-	12		124		
125	5	3'-0"	6'-8"	H	H1 SIM.	J1 SIM.	-			125		

GENERAL DOOR SCHEDULE NOTES:  
 NOTE 1: EXISTING FRAMES TO REMAIN SHALL BE INSPECTED FOR PROPER FUNCTION AND FINISH. CLEAN FRAMES TO REMAIN AND REPAIR AS NECESSARY. REFINISH AND REPAINT FRAMES TO LIKE NEW CONDITION.  
 NOTE 2: PROVIDE CONSTRUCTION CORES AT ALL DOORS. OWNER WILL PROVIDE FINAL CORES AFTER PROJECT COMPLETION.



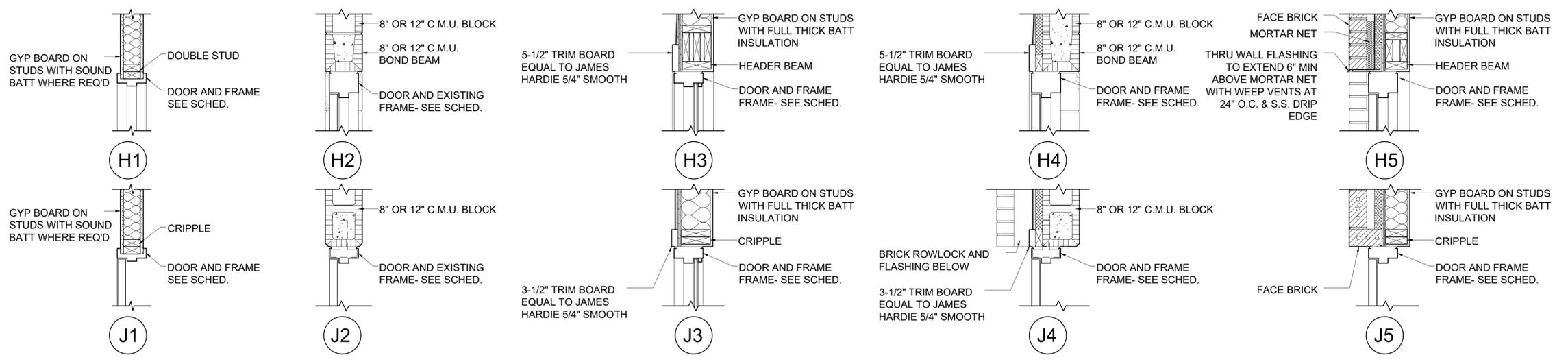
1 WINDOW AND DOOR FRAME ELEVATIONS

SCALE: 3/8" = 1'-0"



2 DOOR TYPE ELEVATIONS

SCALE: 3/8" = 1'-0"



3 HEAD, JAMB, SILL DETAILS

SCALE: 1" = 1'-0"

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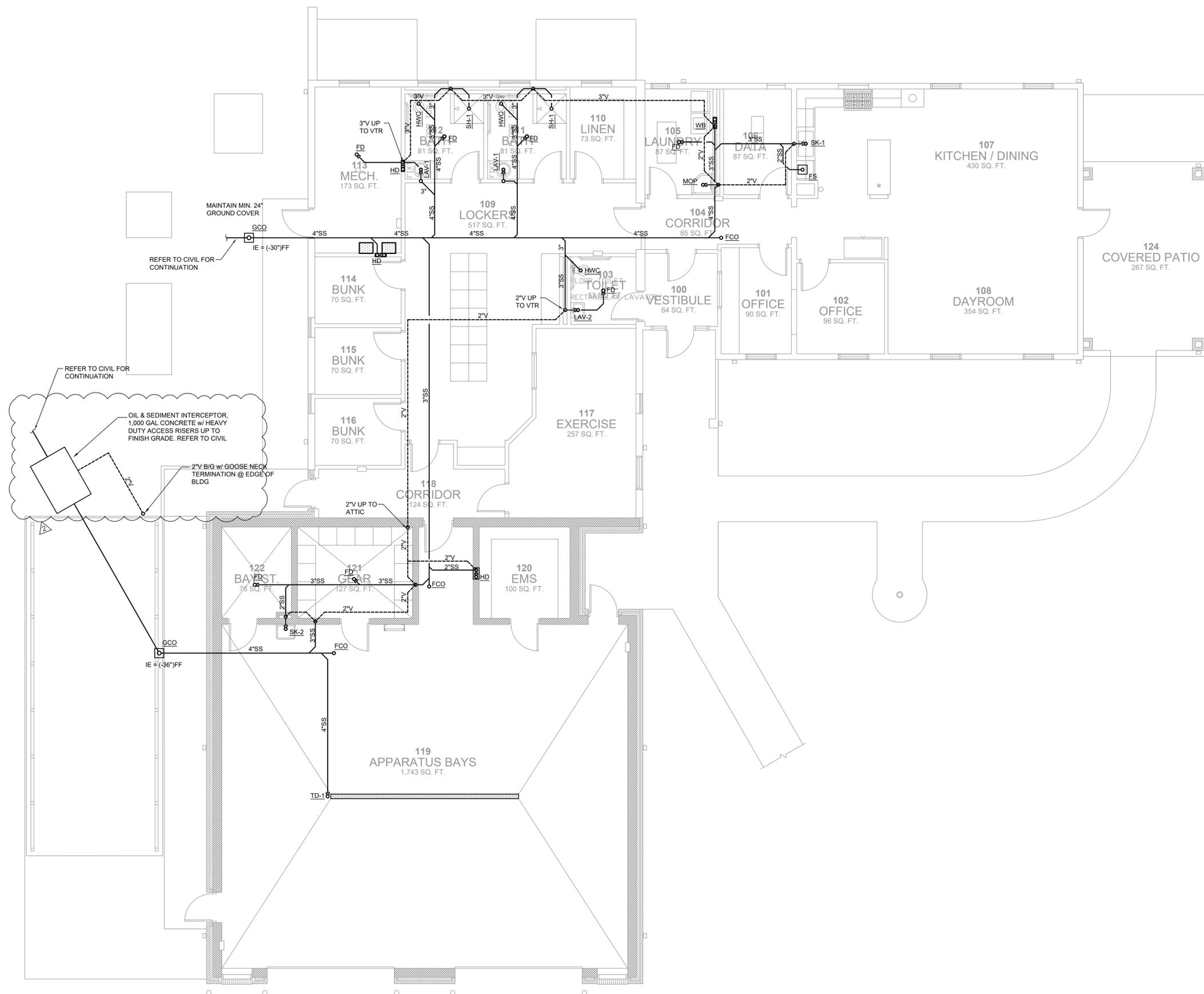


KEY NOTES

GENERAL CONSTRUCTION NOTES

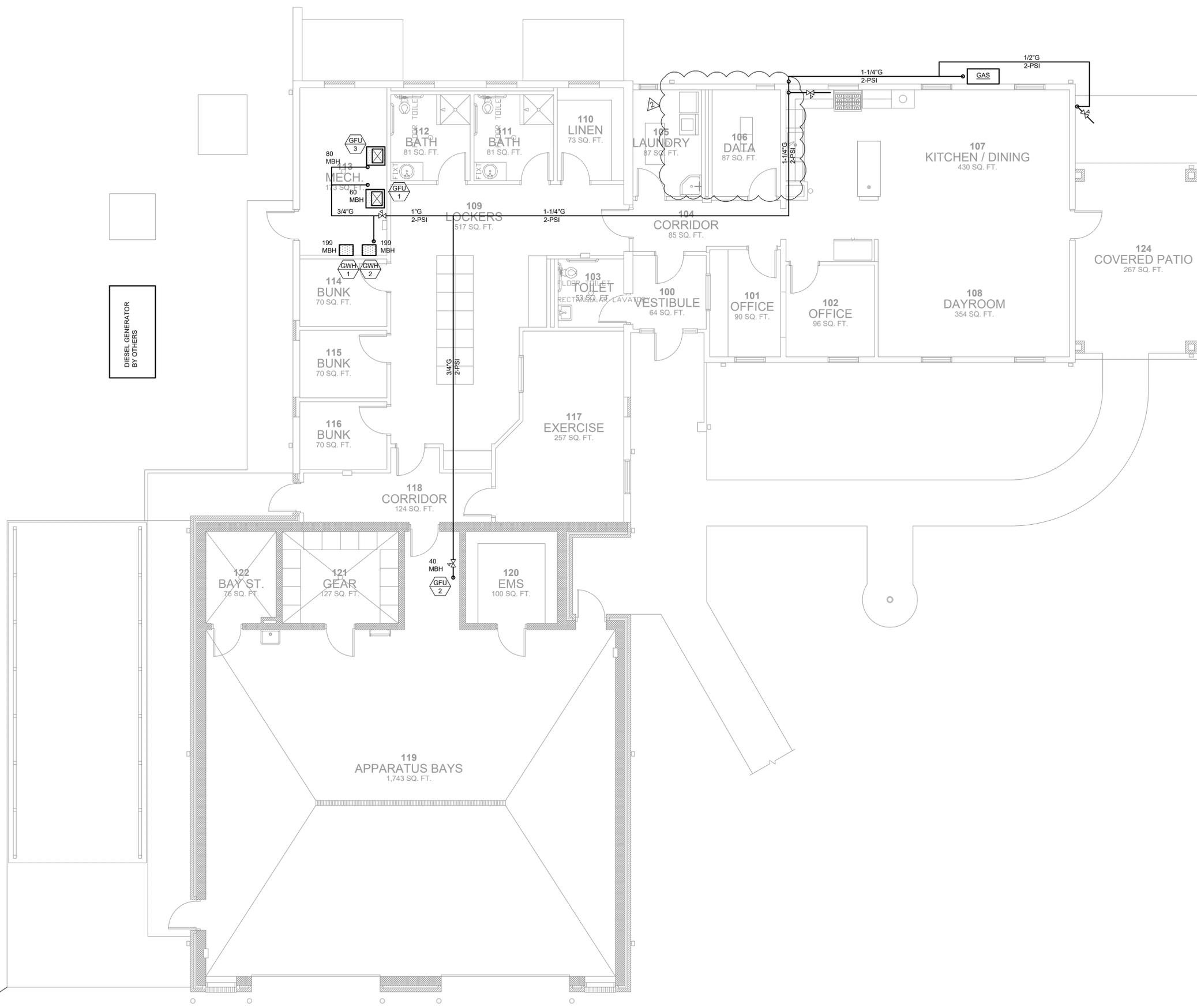
1. ALL PIPING SHALL BE ROUTED CONCEALED.
2. ALL PIPING INSIDE WALLS SHALL BE SECURED SUCH THAT THERE IS NO MOVEMENT DUE TO WATER HAMMER
3. PROVIDE ISOLATION VALVES AT EACH FIXTURE GROUP. ALL FIXTURES SHALL BE CAPABLE OF REMOVAL / REPLACEMENT WITHOUT SHUTTING OFF BUILDING SUPPLY
4. ALL FLOOR DRAINS SHALL HAVE TRAP PRIMER INLET. PRIME ALL TRAPS w/ WATER-BASED TRAP PRIMERS.
5. PROVIDE ESCUTCHEONS AT ALL FIXTURE PIPE WALL PENETRATIONS

FOR CONSTRUCTION



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DIESEL GENERATOR  
BY OTHERS

**NATURAL GAS PIPING PLAN**  
SCALE: 3/16" = 1'-0"

PROJECT NUMBER  
**23-017**  
DATE  
**03/13/24**  
REVISIONS  
NO. DATE  
ADD #2 03/26/24

FACILITY CODE  
**000-0000**



855 ABUTMENT ROAD  
SUITE FOUR  
DALTON, GA 30721  
TEL. 706.529.5895

ADDITIONS & RENOVATIONS TO:  
**EMS STATION #30**  
2017 E. CHEROKEE DRIVE, WOODSTOCK GA 30188  
CHEROKEE COUNTY BOARD OF COMMISSIONERS



SHEET NAME

NATURAL GAS  
PIPING PLAN

SHEET INDEX

**P1.3**

**KEY NOTES**

**GENERAL CONSTRUCTION NOTES**

1. ALL PIPING SHALL BE ROUTED CONCEALED.
2. ALL PIPING INSIDE WALLS SHALL BE SECURED SUCH THAT THERE IS NO MOVEMENT DUE TO WATER HAMMER
3. PROVIDE ISOLATION VALVES AT EACH FIXTURE GROUP. ALL FIXTURES SHALL BE CAPABLE OF REMOVAL / REPLACEMENT WITHOUT SHUTTING OFF BUILDING SUPPLY
4. ALL FLOOR DRAINS SHALL HAVE TRAP PRIMER INLET. PRIME ALL TRAPS w/ WATER-BASED TRAP PRIMERS.
5. PROVIDE ESCUTCHEONS AT ALL FIXTURE PIPE WALL PENETRATIONS

**FOR CONSTRUCTION**

THIS DRAWING IS THE PROPERTY OF KRH ARCHITECTS, INC. IT IS NOT TO BE REPRODUCED IN WHOLE OR IN PART. IT IS NOT TO BE USED ON ANY OTHER PROJECT. IT SHALL BE RETURNED UPON REQUEST. COPYRIGHT AS DATED KRH ARCHITECTS INC. NOT VALID UNLESS SIGNED AND SEALED.

# REPORT OF ENVIRONMENTAL SERVICES



**2017 East Cherokee Drive  
Woodstock, Cherokee County, Georgia**

**PREPARED FOR:**

Cherokee County Board of Commissioners  
2355 Cumberland Parkway SE  
Atlanta, Georgia 30339

NOVA Project Number: 10102-3023022

March 9, 2023



March 9, 2023

**Cherokee County Board of Commissioners**  
1130 Bluffs Parkway  
Canton, Georgia 30114

**Attention:** Mr. Jud Martin  
Cherokee County Capital Projects  
Project Manager

**Subject:** Report of Environmental Services  
**2017 East Cherokee Drive**  
Woodstock, Cherokee County, Georgia  
NOVA Project Number 10102-3023022

Mr. Martin:

**NOVA Engineering and Environmental, LLC (NOVA)** has completed the Environmental Services for 2017 East Cherokee Drive located in Woodstock, Cherokee County, Georgia. We appreciate your selection of NOVA and for the opportunity to be of service on this project. Please feel free to contact us if you have any questions or if we may be of further assistance.

Sincerely,  
**NOVA Engineering and Environmental, LLC**

A handwritten signature in blue ink that reads "Curtis Moses". The signature is fluid and cursive.

Curtis Moses  
Staff Professional  
Environmental Services  
AHERA No. 18965

A handwritten signature in blue ink that reads "Nickolaus DaSantos". The signature is stylized and cursive.

Nickolaus DaSantos  
Business Unit Manager  
Environmental Services  
AHERA No. 19051

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## 1.0 SUMMARY

NOVA Engineering and Environmental, LLC. (NOVA) has completed the Environmental Services for 2017 East Cherokee Drive located in Woodstock, Cherokee County, Georgia (Subject Property).

A brief summary of our findings is presented below. This summary is provided for convenience and should not be substituted for review of the full report, including all attachments as provided herein.

### 1.1 ASBESTOS CONTAINING MATERIAL

During this study, thirty-three (33) samples (containing 33 total layers) of joint compound, wallboard, ceiling texture, glue, floor sheeting, vapor barrier, mastic, Thermal System Insulation (TSI), caulking, grout, and mortar were analyzed by NOVA using Polarized Light Microscopy (PLM) with no analyzed samples indicating Asbestos Containing Material (ACM). A sample location plan is included in Appendix A of this Report.

No Asbestos Containing Material was identified during NOVA's on-site sampling program. A complete list of suspected ACM samples obtained is shown in the laboratory report (included in Appendix B).

### 1.2 RADON

Cherokee County in Georgia has been designated as Zone two (2) by the EPA. NOVA performed site specific sampling for the Subject Property to determine actual levels within the facility.

Results of the sample kits are summarized below (samples are listed in the order of received laboratory data):

TEST KIT ID #	LIQUID SCINTILLATION (CANISTER) ID #	TEST/LOCATION	RADON CONCENTRATION (pCi/L)
298024	527934	Sanctuary	0.5
298024	527074	Sanctuary	0.5
298025	527057	Dining	0.2
298025	527979	Dining	0.5

### 1.3 FUNGI

A total of six (6) air-particle samples were collected by NOVA and subsequently analyzed by EMSL Analytical, Inc. with the following findings:

- Fungi spores identified from the air-particle sample readings on the interior of the Subject Property include Ascospores, Aspergillus/Penicillium, Basidiospores, Cercospora, Cladosporium, Eppicoccum, Myxomycetes, and Torula.
- Fungi spores identified from the air-particle sample readings on the exterior of the Subject Property include Ascospores, Basidiospores, Cladosporium, and Myxomycetes.
- Fungi spores identified from the air-particle sample readings on the interior of the Subject Property that were not identified on the exterior of the Subject Property include Aspergillus/Penicillium, Cercospora, Eppicoccum, and Torula.

Currently there are no set clearance levels regarding fungi. Professional inspectors frequently compare the types and levels of fungal organisms detected from the interior of a space to the exterior of a space, as a way of interpreting microbiological results. The qualitative diversity of airborne fungi outdoors should be similar to that measured indoors in the absence of fungi contamination.

Based on the results of the laboratory analytical data obtained during the Limited Fungi Air Quality Assessment sampling program identifying low levels of fungi on the interior of the Subject Property that were not identified on the exterior of the Subject Property, it is NOVA's recommendation that the facility should be cleaned at this time and best housekeeping and cleaning practices should be utilized moving forward in an effort to prevent possible future settled fungi growth and/or accumulation. NOVA also recommends that air filters located throughout the Subject Property should be changed at this time per the manufacturer's recommended specifications.

Please note that the services provided by NOVA were a limited assessment of current conditions at specific locations identified by the Client during NOVA's site visit. It is possible that fungi may be present at additional locations that may not become apparent until encountered by renovation and/or demolition activities. In addition, fungi conditions can change with time and may be different in the future. This variability in conditions is an inherent owner-assumed risk in fungi assessments.

## 2.0 INTRODUCTION

### 2.1 DESCRIPTION OF SUBJECT PROPERTY

The Subject Property is identified as 2017 East Cherokee Drive located in Woodstock, Cherokee County, Georgia (Subject Property). Specifically, the Environmental Services for the Subject Property include a Pre-Renovation Asbestos Containing Material (ACM) Survey, Radon in Air Sampling, and Fungi Air Quality Assessment.

The Subject Property includes an approximately 5,000 square foot single story structure that was most recently utilized as a church. According to the Cherokee County Geographic Information System (GIS) database, the Subject Property is located on approximately 3.968-acres of land, and it contains one (1) tax parcel identified by Parcel ID 15N16 118.

### 2.2 PURPOSE

As requested by Cherokee County Board of Commissioners (CLIENT), the Pre-Renovation Asbestos Containing Material (ACM) Survey, Radon in Air Sampling, and Limited Fungi Air Quality Assessment was performed in an effort to identify Asbestos-Containing Material (ACM), radon, and Hazardous Building Material at the Subject Property. This work has been performed in general accordance with applicable state and federal regulations, and routine industry practice.

ACM sampling was performed in general accordance with the Asbestos Hazard Emergency Response Act (AHERA) guidelines and ASTM E2356-18, "Standard Practice for Comprehensive Building Asbestos Survey" as a Baseline Survey. Deviations from the Baseline Survey protocols include:

- Determination of ACM quantities were excluded from the scope of work.

### 2.3 LIMITATIONS

NOVA has performed the Pre-Renovation Asbestos Containing Material (ACM) Survey, Radon in Air Sampling, and Limited Fungi Air Quality Assessment which is a limited inquiry into a property's environmental status and is not sufficient to discover every potential source of ACM, radon, or fungi associated with the property to be evaluated. No survey/sampling can wholly eliminate uncertainty regarding the potential for ACM, Radon, or fungi in connection with a property.

Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for ACM, radon, and fungi in connection with a property. The level of inquiry is variable. Not every property will warrant the same level of assessment for ACM, radon, and fungi.

Consistent with good commercial or customary practices, the appropriate level of assessment will be guided by the type of property subject to assessment, the intended use of the property, the expertise and risk tolerance of the CLIENT, and the information developed in the course of the assessment.

NOVA's findings, opinions, conclusions and recommendations are based on information obtained through visual assessment of surficial conditions in readily accessible areas. It is possible that additional ACM, radon, or fungi exist or may subsequently become known that may impact or change the assessment after NOVA's services are complete.

NOVA's assessment represents our professional opinion, only. Therefore, NOVA cannot, under any circumstances, make a statement of warranty or guarantee, expressed or implied, that ACM, radon, and fungi are limited to those that are discovered while we are performing the sampling.

## 2.4 USER RELIANCE

NOVA's Pre-Renovation Asbestos Containing Material Survey, Radon in Air Sampling, and Limited Fungi Air Quality Assessment, along with the findings and conclusions contained in the report, either in completed form, summary form, or by extraction, is prepared, and intended, for the sole use of Cherokee County Board of Commissioners (CLIENT) and therefore may not contain sufficient information for other purposes or parties. The CLIENT is the only intended beneficiary of this report. The contents of NOVA's report will continue to be the property of NOVA. NOVA's report may not be disclosed to, used by, or relied upon by, any person or entity other than the CLIENT without the express written consent of NOVA.

Authorization for disclosure to a third party or authorization for third-party reliance on a final report of any report will be considered by NOVA upon the written request of the CLIENT. NOVA reserves the right to deny authorization to allow disclosure or reliance of NOVA's report to third parties.



## 3.0 ASBESTOS CONTAINING MATERIAL

### 3.1 FIELD AND LABORATORY SERVICES

Mr. Curtis Moses, NOVA professional, and federal and state certified asbestos inspector, performed the field work for the Pre-Renovation Asbestos Containing Material Survey at the Subject Property.

#### 3.1.1 ASBESTOS CONTAINING MATERIAL SAMPLING

The building area was visually assessed by NOVA to identify suspect ACM, which were then grouped into three categories according to their intended use:

- **Surfacing Material** such as sprayed-on or troweled fireproofing, acoustical and decorative insulation, textured “popcorn” finishes, paint, stucco, etc.
- **Thermal System Insulation (TSI)**, such as pipe, boiler and storage tank insulation, and insulation on ducts, pumps, heat exchangers, and other equipment.
- **Miscellaneous Material**, such as floor and ceiling tiles, wallboard, asbestos-cement board, siding and other building material that did not fall into one of the previously mentioned categories.

Where applicable, material with similar texture, color and general appearance were considered homogeneous for sampling purposes, including visually similar material on different floors. NOVA’s assessment also included touching representative samples to determine friability, a mechanical classification defined as whether a material can be crumbled, pulverized, or reduced to powder by hand pressure.

Bulk samples were subsequently obtained in general accordance with the AHERA (40 CFR 763.86, Sampling) and ASTM E2356-18 procedures. The samples were placed in appropriate containers, and the containers sealed and labeled with a unique identification number. The samples were subsequently transported (following routine industry practices and chain-of-custody procedures) to EMSL Analytical, LLC (EMSL) for analysis.

The ACM samples were analyzed for asbestos using Polarized Light Microscopy (PLM) methods in accordance with EPA Method 600/R-93/116. Copies of the complete asbestos laboratory report and chain-of custody are included in Appendix B.

Using the results of the laboratory analysis and NOVA’s visual assessment, the asbestos containing building material can be further categorized into three groups:

- **Friable ACM** - Material means any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR part 763 Section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
- **Category I Nonfriable ACM** - Asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR part 763, Section 1, Polarized Light Microscopy.
- **Category II Nonfriable ACM** - Any material, excluding Category I Nonfriable ACM, containing more than one percent (1%) asbestos as determined using the methods specified in Appendix A, Subpart F, 40 CFR part 763, Section 1, Polarized Light Microscopy that, when dry, *cannot* be crumbled, pulverized, or reduced to powder by hand pressure.

During this study, thirty-three (33) samples (containing 33 total layers) of joint compound, wallboard, ceiling texture, glue, floor sheeting, vapor barrier, mastic, Thermal System Insulation (TSI), caulking, grout, and mortar were analyzed by NOVA using Polarized Light Microscopy (PLM) with no analyzed samples indicating Asbestos Containing Material (ACM). A sample location plan is included in Appendix A of this Report.

No Asbestos Containing Material was identified during NOVA's on-site sampling program. A complete list of suspected ACM samples obtained is shown in the laboratory report (included in Appendix B).

## 4.0 RADON

The Indoor Radon Abatement Act of 1988 directed the Environmental Protection Agency (EPA) to develop a screening map for extrapolating radon potential at the county level. The EPA Radon Potential Map assigns a geologic provincial potential to each county that predicts the average radon screening level. The Map predictions are not to be used as absolutes, but as a targeting tool for radon. EPA defines radon potential using zone one (1) through zone three (3). Zone one (1), the highest radon potential, is defined as having an average indoor radon level greater than 4.0 Picocuries per liter (pCi/L).

Zone two (2) is defined as having a potential average indoor radon level greater than or equal to 2.0 pCi/L, but less than or equal to 4.0 pCi/L. Zone three (3), the lowest radon potential, is defined as having an average indoor radon concentration less than 2.0 pCi/L. The concentration level of less than 4.0 pCi/L has been established as the acceptable level which radon gas can exist without presenting a significant health risk as determined by the EPA.

Cherokee County in Georgia has been designated as Zone two (2) by the EPA. NOVA performed site specific sampling for the Subject Property to determine actual levels within the facility.

Results of the sample kits are summarized below (samples are listed in the order of received laboratory data):

TEST KIT ID #	LIQUID SCINTILLATION (CANISTER) ID #	TEST/LOCATION	RADON CONCENTRATION (pCi/L)
298024	527934	Sanctuary	0.5
298024	527074	Sanctuary	0.5
298025	527057	Dining	0.2
298025	527979	Dining	0.5

### FINDINGS AND RECOMMENDATIONS

The laboratory analytical results for the samples collected from the ground level of the project site were below the EPA recommended threshold of 4.0 pCi/L in each of the two (2) sample test kits analyzed.

It is NOVA's opinion that based on the EPA's guidelines for radon levels to be below 4.0 pCi/L and the results of this Radon sampling program, it is NOVA opinion that no further assessment of the radon levels within the Subject Property is needed at this time.

## 5.0 FUNGI

### 5.1 FIELD AND LABORATORY SERVICES

Mr. Curtis Moses, a NOVA professional, performed the field work for the Limited Fungi Air Quality Assessment for the Subject Property.

Six (6) air-particle samples collected at the Subject Property were placed in the appropriate containers, and the containers were sealed and labeled with a unique identification number. The samples were subsequently transported (following routine industry practices and chain-of-custody procedures) to EMSL Analytical, LLC (EMSL) for analysis.

The air-particle samples were analyzed for fungi spores using analysis of fungal spores and particulates by optical microscopy (Methods MICRO-SOP-201, ASTM D7391). Copies of the complete laboratory reports and chain-of-custodies are included in Appendix B of this report.

### 5.2 FUNGI IDENTIFIED AT THE SUBJECT PROPERTY

A total of six (6) air-particle samples were collected by NOVA and subsequently analyzed by EMSL Analytical, Inc. with the following findings:

- Fungi spores identified from the air-particle sample readings on the interior of the Subject Property include Ascospores, Aspergillus/Penicillium, Basidiospores, Cercospora, Cladosporium, Eppicoccum, Myxomycetes, and Torula.
- Fungi spores identified from the air-particle sample readings on the exterior of the Subject Property include Ascospores, Basidiospores, Cladosporium, and Myxomycetes.
- Fungi spores identified from the air-particle sample readings on the interior of the Subject Property that were not identified on the exterior of the Subject Property include Aspergillus/Penicillium, Cercospora, Eppicoccum, and Torula.

### 5.3 DISCUSSION

Six (6) total air-particle samples were obtained by NOVA and subsequently analyzed by EMSL Analytical, Inc. with the following interior and exterior sample findings:

**Ascospores:** Ascospores belong to members of the Phylum Ascomycota, which encompasses a plethora of genera worldwide. Forcible ejection or passive release is commonly disseminated by wind or insects.

**Aspergillus:** Aspergillus spp. in indoor air is often higher than outdoors at any given time. The amount of spores in the air is significantly increased when cleaning is carried out mechanically, for example, when carpets are vacuum cleaned. Species of Aspergillus have been isolated from damp walls, wallpaper, PVC/paper wall covering, gypsum board, floor, carpet and mattress dust, upholstered-furniture dust, acrylic paint, UFFI, leather, HVAC insulations, filters and fans, humidifier water, shoes, leather, bird droppings, potted plant soil, plastic, and decomposing plant matter.

**Basidiospores:** Basidiospores belong to the members of the Phylum Basidiomycota, which includes mushrooms, shelf fungi, rusts, and smuts. Natural Habitat includes Forest floors, lawns, and plants (saprobes or pathogens depending on genus).

**Cercospora:** Cercosporas natural habitat occurs as a parasite on higher plants, commonly causing leaf spot diseases. Mode of dissemination is irrigation water, insects, and rain wind. Potential for opportunistic pathogens unknown.

**Cladosporium:** An exceedingly common organism, found on dead herbaceous and woody plants, textiles, rubber, paper, and foodstuffs of all kinds. Indoors, it is found in floor, carpet, and mattress dust, damp acrylic painted walls, wallpaper, HVAC insulation, filters and fans. Cladosporium is very common on wet building material (e.g., gypsum board, acrylic painted walls, wood, wallpaper, carpet and mattress dust, HVAC fans, and wet insulation in mechanical cooling units). It is a condition for production of Stachybotrys toxins. Surfaces exposed to air with a relative humidity above 55% and subjected to temperature fluctuations are ideal for toxin production.

**Epicoccum:** Contaminant. Opportunistic pathogen. Found in soil, air, water, and rotting vegetation. It is commonly associated with skin allergies.

**Myxomycetes:** Commonly found on decaying logs, stumps and dead leaves (particularly in forested regions). These organisms have both dry and wet spores. Wind disperses the dry fruiting body spores, whereas the wet amoebic phase is motile. Type I allergies (hay fever, asthma). Occasionally found indoors. They are occasionally seen and identified on tape lifts. Distinctive especially when fragments of the lacy fruiting

**Penicillium:** Penicillium species are very common fungi. About 200 species have been described. They are commonly called the blue or green fungi because they produce large quantities of greenish, bluish or yellowish spores which give them their characteristic colors. Spores of Penicillium are found in the air and soil. Most Penicillium species are active producers of toxins. Penicillium chrysogenum is the most common Penicillium species in indoor environments. It is widespread and has a wide range of habitats. In indoor environments, it is extremely common on damp building materials, walls and wallpaper, floor, carpet mattress, and upholstered furniture dust.

**Torula:** Found in leaves, plant roots, plant litter, soil and wood. Type I allergies (hay fever, asthma). Some species cause stains in hardwoods.

## 5.4 RECOMMENDATIONS AND CONCLUSIONS

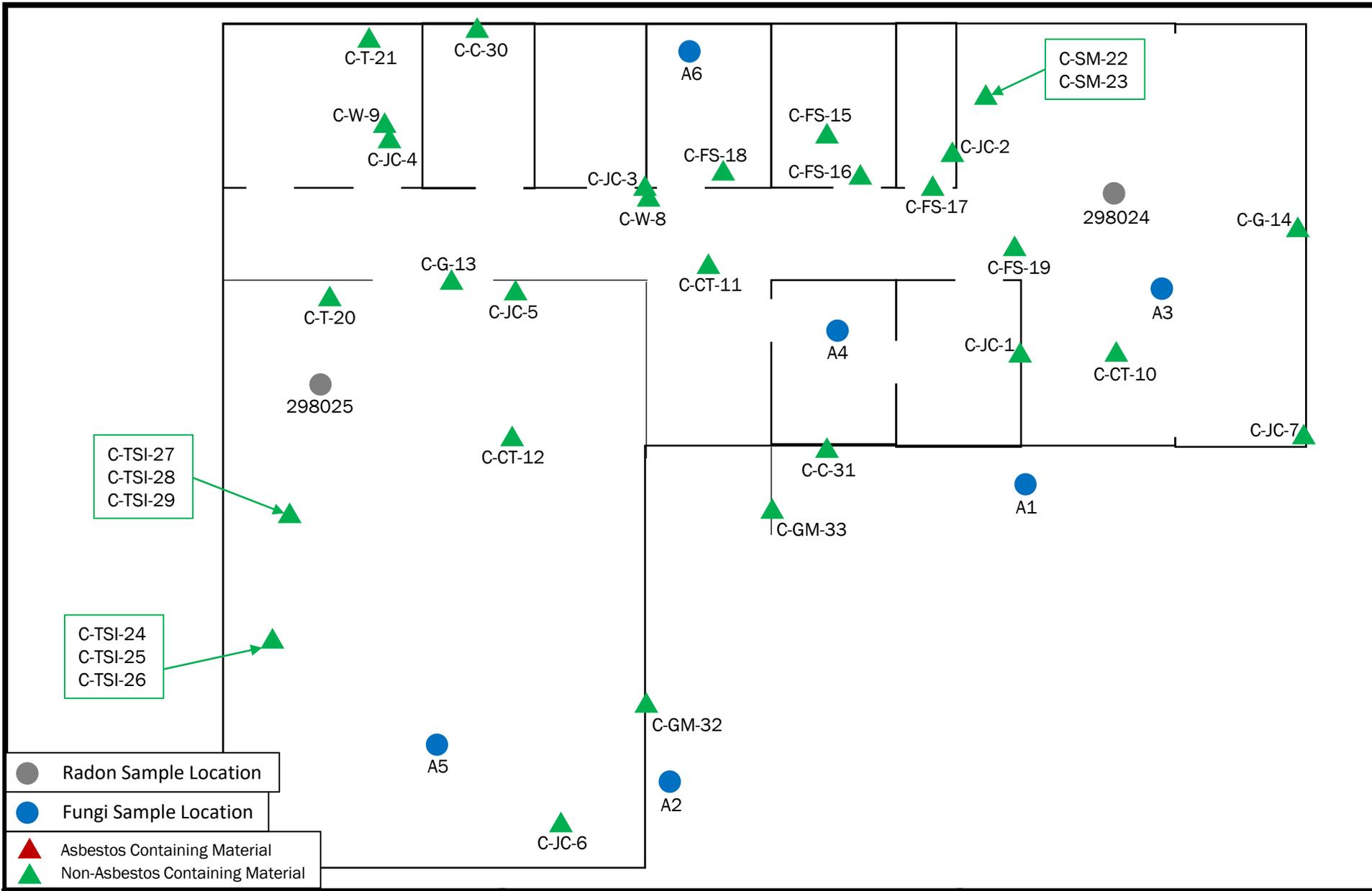
Currently there are no set clearance levels regarding fungi. Professional inspectors frequently compare the types and levels of fungal organisms detected from the interior of a space to the exterior of a space, as a way of interpreting microbiological results. The qualitative diversity of airborne fungi outdoors should be similar to that measured indoors in the absence of fungi contamination.

Based on the results of the laboratory analytical data obtained during the Limited Fungi Air Quality Assessment sampling program identifying low levels of fungi on the interior of the Subject Property that were not identified on the exterior of the Subject Property, it is NOVA's recommendation that the facility should be cleaned at this time and best housekeeping and cleaning practices should be utilized moving forward in an effort to prevent possible future settled fungi growth and/or accumulation. NOVA also recommends that air filters located throughout the Subject Property should be changed at this time per the manufacturer's recommended specifications.

Please note that the services provided by NOVA were a limited assessment of current conditions at specific locations identified by the Client during NOVA's site visit. It is possible that fungi may be present at additional locations that may not become apparent until encountered by renovation and/or demolition activities. In addition, fungi conditions can change with time and may be different in the future. This variability in conditions is an inherent owner-assumed risk in fungi assessments.

# APPENDIX A

## SAMPLE LOCATION PLAN



**SAMPLE LOCATION PLAN**



**CHEROKEE COUNTY BOARD OF COMMISSIONERS**  
 2017 EAST CHEROKEE DRIVE  
 Woodstock, Cherokee County, Georgia  
 NOVA Project Number 10102-3023022



## APPENDIX B

### LABORATORY ANALYTICAL DATA



# EMSL Analytical, Inc.

2205 Corporate Plaza Parkway SE, Suite 200 Smyrna, GA 30080

Tel/Fax: (770) 956-9150 / (770) 956-9181

<http://www.EMSL.com> / [atlantalab@emsl.com](mailto:atlantalab@emsl.com)

EMSL Order: 072301724

Customer ID: NOVA30

Customer PO: 2017

Project ID:

**Attention:** Curtis Moses  
Nova Engineering & Environmental, Inc.  
3900 Kennesaw 75 Parkway  
Suite 100  
Kennesaw, GA 30144

**Phone:** (678) 982-5576

**Fax:** (770) 425-1113

**Received Date:** 02/17/2023 11:50 AM

**Analysis Date:** 02/23/2023 - 02/24/2023

**Collected Date:**

**Project:** 2017

## Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
C-JC-1 <small>072301724-0001</small>	Joint Compound- Kitchen	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-JC-2 <small>072301724-0002</small>	Joint Compound- Electrical	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-JC-3 <small>072301724-0003</small>	Joint Compound- Office	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-JC-4 <small>072301724-0004</small>	Joint Compound- Meeting	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-JC-5 <small>072301724-0005</small>	Joint Compound- Sanctuary	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-JC-6 <small>072301724-0006</small>	Joint Compound- Sanctuary	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-JC-7 <small>072301724-0007</small>	Joint Compound- Dining	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-W-8 <small>072301724-0008</small>	Wallboard- Office	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-W-9 <small>072301724-0009</small>	Wallboard- Meeting	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-CT-10 <small>072301724-0010</small>	Ceiling Texture- Dining	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-CT-11 <small>072301724-0011</small>	Ceiling Texture- Hall	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-CT-12 <small>072301724-0012</small>	Ceiling Texture- Sanctuary	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-G-13 <small>072301724-0013</small>	Carpet Glue- Sanctuary	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-G-14 <small>072301724-0014</small>	Carpet Glue- Dining	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-FS-15 <small>072301724-0015</small>	Floor Sheeting- Pink/ Tan- Ladies RR	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-FS-16 <small>072301724-0016</small>	Floor Sheeting- Pink/ Tan- Ladies RR	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 02/24/2023 11:49:17



# EMSL Analytical, Inc.

2205 Corporate Plaza Parkway SE, Suite 200 Smyrna, GA 30080

Tel/Fax: (770) 956-9150 / (770) 956-9181

<http://www.EMSL.com> / [atlantab@emsl.com](mailto:atlantab@emsl.com)

EMSL Order: 072301724

Customer ID: NOVA30

Customer PO: 2017

Project ID:

## Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
C-FS-17 072301724-0017	Floor Sheeting- Black/Tan- HVAC Closet	Various Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-FS-18 072301724-0018	Floor Sheeting- Black/Tan- Mens RR	Various Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-FS-19 072301724-0019	Floor Sheeting- Black/Tan- Dining	Various Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-T-20 072301724-0020	Tar Paper- Below Subfloor	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
C-T-21 072301724-0021	Tar Paper- Below Subfloor	Black Fibrous Homogeneous	80% Cellulose	20% Non-fibrous (Other)	None Detected
C-SM-22 072301724-0022	Sink Mastic- Kitchen	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-SM-23 072301724-0023	Sink Mastic- Kitchen	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-TSI-24 072301724-0024	TSI-Tape-Crawlspace Ducts	Silver/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-TSI-25 072301724-0025	TSI-Tape-Crawlspace Ducts	Silver/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-TSI-26 072301724-0026	TSI-Tape-Crawlspace Ducts	Silver/Yellow Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-TSI-27 072301724-0027	TSI-Ins-Crawlspace Ducts	Brown/Silver Fibrous Homogeneous	60% Glass	40% Non-fibrous (Other)	None Detected
C-TSI-28 072301724-0028	TSI-Ins-Crawlspace Ducts	Brown/Silver Fibrous Homogeneous	60% Glass	40% Non-fibrous (Other)	None Detected
C-TSI-29 072301724-0029	TSI-Ins-Crawlspace Ducts	Brown/Silver Fibrous Homogeneous	60% Glass	40% Non-fibrous (Other)	None Detected
C-C-30 072301724-0030	Caulking- Rear Frame	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-C-31 072301724-0031	Caulking- Front Frame	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-GM-32 072301724-0032	Grout/Mortar- Side Face	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
C-GM-33 072301724-0033	Grout/Mortar- Column	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Initial report from: 02/24/2023 11:49:17



# EMSL Analytical, Inc.

2205 Corporate Plaza Parkway SE, Suite 200 Smyrna, GA 30080

Tel/Fax: (770) 956-9150 / (770) 956-9181

<http://www.EMSL.com> / [atlantalab@emsl.com](mailto:atlantalab@emsl.com)

EMSL Order: 072301724

Customer ID: NOVA30

Customer PO: 2017

Project ID:

Analyst(s)

*Kyle Rich (4)*

*Violedah Richardson (29)*

Violedah Richardson, Laboratory Manager  
or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc Smyrna, GA NVLAP Lab Code 101048-1

Initial report from: 02/24/2023 11:49:17



# Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

072301724

EMSL Analytical, Inc.  
2205 Corporate Plaza Pkwy SE  
Suite 200  
Smyrna, GA 30080  
PHONE: (770) 956-9150  
EMAIL: atlantab@emsl.com

EMSL ANALYTICAL, INC.  
TESTING LABS • PRODUCTS • TRAINING

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information	Customer ID: <b>NOVA30</b>	Billing Information	Billing ID:
	Company Name: <b>NOVA Eng.</b>		Company Name:
	Contact Name: <b>C. MOSES</b>		Billing Contact:
	Street Address: <b>3900 Kennesaw 75 Pkwy</b>		Street Address:
	City, State, Zip: <b>Kennesaw, GA, 30144</b> Country:		City, State, Zip: Country:
	Phone:		Phone:
Email(s) for Report: <b>CMOSSES@USANOVAA.COM</b>	Email(s) for Invoice:		

**Project Information**

Project Name/No: **2017** Purchase Order:

EMSL LIMS Project ID: US State where samples collected: State of Connecticut (CT) must select project location:  
 Commercial (Taxable)  Residential (Non-Taxable)

Sampled By Name: Sampled By Signature: No. of Samples in Shipment:

**Turn-Around-Time (TAT)**

3 Hour  4-4.5 Hour  6 Hour  24 Hour  32 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

**Test Selection**

**PCM Air**

NIOSH 7400  
 NIOSH 7400 w/ 8hr. TWA

**PLM - Bulk (reporting limit)**

PLM EPA 600/R-93/116 (<1%)  
 PLM EPA NOB (<1%)  
 POINT COUNT  
 400 (<0.25%)  1,000 (<0.1%)  
 POINT COUNT w/ GRAVIMETRIC  
 400 (<0.25%)  1,000 (<0.1%)  
 NIOSH 9002 (<1%)  
 NYS 198.1 (Friable - NY)  
 NYS 198.6 NOB (Non-Friable - NY)  
 NYS 198.8 (Vermiculite SM-V)

**TEM - Air**

AHERA 40 CFR, Part 763  
 NIOSH 7402  
 EPA Level II  
 ISO 10312\*

**TEM - Bulk**

TEM EPA NOB  
 NYS NOB 198.4 (Non-Friable-NY)  
 TEM EPA 600/R-93/116 w Milling Prep (0.1%)

**TEM - Settled Dust**

Microvac - ASTM D5755  
 Wipe - ASTM D6480  
 Qualitative via Filtration Prep  
 Qualitative via Drop Mount Prep

**Soil - Rock - Vermiculite (reporting limit)\***

PLM EPA 600/R-93/116 with milling prep (<0.25%)  
 PLM EPA 600/R-93/116 with milling prep (<0.1%)  
 TEM EPA 600/R-93/116 with milling prep (<0.1%)  
 TEM Qualitative via Filtration Prep  
 TEM Qualitative via Drop Mount Prep

**Other Test (please specify)**

\*Please call with your project-specific requirements.

Positive Stop - Clearly Identified Homogeneous Areas (HA) Filter Pore Size (Air Samples)  0.8um  0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
C-5C-1	JOINT Compound - Kitchen		
C-5C-2	- Electrical		
C-5C-3	- office		
C-5C-4	- meeting		
C-5C-5	- Sanctuary		
C-5C-6	- Sanctuary		
C-5C-7	- Dining		
C-W-8	Wallboard - office		

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment: **Client** Sample Condition Upon Receipt:

Relinquished by: **[Signature]** Date/Time: **11:50 2/17/23** Received by: **[Signature]** Date/Time: **2/17/23 11:50 NI**



### Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.  
 2205 Corporate Plaza Pkwy SE  
 Suite 200  
 Smyrna, GA 30080  
 PHONE: (770) 956-9150  
 EMAIL: atlantalab@emsl.com

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Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
C-W-9	↓ - meeting		
C-C-10	Ceiling Texture - Dining		
C-C-11	↓ - Hall		
C-C-12	↓ - Sanctuary		
E-G-13	Carpet glue - Sanctuary		
C-G-14	↓ - dining		
C-FS-15	Floor Sheeting - Pink/Tan - ladies RR		
C-FS-16	- ↓ - ↓		
C-FS-17	- Black/Tan - HVAC Closer		
C-FS-18	- ↓ - mens RR		
C-FS-19	- ↓ - dining		
*	FS from Foyer to end Dining		
C-T-20	Tar paper - Below sub floor		
C-T-21	↓ - ↓		
C-Sm-22	Sink mastic - Kitchen		
C-Sm-23	↓ - ↓		
C-TSI-24	TSI - Tape - Crawl space ducts		
C-TSI-25	- ↓ - ↓		
C-TSI-26	- ↓ - ↓		
C-TSI-27	- Ins - ↓		
C-TSI-28	- ↓ - ↓		
C-TSI-29	↓ - ↓		
C-C-30	Caulking - Rear Frame		
C-C-31	↓ - Front Frame		
C-GM-32	Grout/mortar - Side face		

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.





# Asbestos Chain of Custody (Air, Bulk, Soil)

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.  
2205 Corporate Plaza Pkwy SE  
Suite 200  
Smyrna, GA 30080  
PHONE: (770) 956-9150  
EMAIL: atlantalab@emsl.com

EMSL ANALYTICAL, INC.  
TESTING LABS • PRODUCTS • TRAINING

[Empty box for EMSL Order Number / Lab Use Only]

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information	Customer ID: <u>NOVA30</u>	Billing Information	Billing ID: _____
	Company Name: <u>NOVA Eng.</u>		Company Name: _____
	Contact Name: <u>E. MOSES</u>		Billing Contact: _____
	Street Address: <u>3900 Kennesaw 75 Hwy</u>		Street Address: _____
	City, State, Zip: <u>Kennesaw 75 Hwy</u> Country: _____		City, State, Zip: _____ Country: _____
	Phone: _____		Phone: _____
Email(s) for Report: <u>CMOSLS@USANOVA.COM</u>	Email(s) for Invoice: _____		

### Project Information

Project Name/No: <u>2017</u>	Purchase Order: _____
EMSL LIMS Project ID: _____ <small>(If applicable EMSL will provide)</small>	US State where samples collected: _____
State of Connecticut (CT) must select project location: <input type="checkbox"/> Commercial (Taxable) <input type="checkbox"/> Residential (Non-Taxable)	
Sampled By Name: <u>E. MOSES</u>	Sampled By Signature: _____
No. of Samples in Shipment: _____	

Turn-Around-Time (TAT)

3 Hour  
  4-4.5 Hour  
  6 Hour  
  24 Hour  
  32 Hour  
  48 Hour  
  72 Hour  
  96 Hour  
  1 Week  
  2 Week

TEM Air 3-6 Hour, please call ahead to schedule. 32 Hour TAT available for select tests only; samples must be submitted by 11:30 am.

### Test Selection

<p><b>PCM Air</b></p> <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> NIOSH 7400 w/ 8hr TWA <p><b>PLM - Bulk (reporting limit)</b></p> <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) <input type="checkbox"/> POINT COUNT <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1,000 (<0.1%) POINT COUNT w/ GRAVIMETRIC <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1,000 (<0.1%) <input type="checkbox"/> NIOSH 9002 (<1%) <input type="checkbox"/> NYS 198.1 (Friable - NY) <input type="checkbox"/> NYS 198.6 NOB (Non-Friable - NY) <input type="checkbox"/> NYS 198.8 (Vermiculite SM-V)	<p><b>TEM - Air</b></p> <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312* <p><b>TEM - Bulk</b></p> <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (Non-Friable-NY) <input type="checkbox"/> TEM EPA 600/R-93/116 w Milling Prep (0.1%) <p><b>Other Test (please specify)</b></p>	<p><b>TEM - Settled Dust</b></p> <input type="checkbox"/> Microvac - ASTM D5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Qualitative via Filtration Prep <input type="checkbox"/> Qualitative via Drop Mount Prep <p><b>Soil - Rock - Vermiculite (reporting limit)*</b></p> <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep
--	--	--

\*Please call with your project-specific requirements

Positive Stop - Clearly Identified Homogeneous Areas (HA)     
 Filter Pore Size (Air Samples)     0.8um     0.45um

Sample Number	Sample Location / Description	Volume, Area or Homogeneous Area	Date / Time Sampled (Air Monitoring Only)
<u>See Attached Data</u>			
<u>NOT A PAGE</u>			

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment: Client      Sample Condition Upon Receipt: \_\_\_\_\_

Relinquished by: _____	Date/Time: <u>2/17/23</u>	Received by: _____	Date/Time: _____
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____





# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
Tel/Fax:(800) 220-3675 / (856) 786-0327  
<http://www.EMSL.com> / [cinnaminsonradonlab@emsl.com](mailto:cinnaminsonradonlab@emsl.com)

EMSL Order: 382301306  
Customer ID: NOVA30  
Customer PO:  
Project ID:

Attention: **Curtis Moses**  
**Nova Engineering & Environmental, Inc.**  
**3900 Kennesaw 75 Parkway**  
**Suite 100**  
**Kennesaw, GA 30144**  
Project: **3023022**  
Phone: (678) 982-5576  
Fax: (770) 425-1113  
Received Date: 02/28/2023 12:22 PM  
Analysis Date: 02/28/2023 - 03/01/2023

Test **3023022**  
Site: **GA**

## Test Report: Radon in Air Test Results

### Samples for EMSL Kit 298024

Liquid Scintillation	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
527934	Sanctuary	0.5	2/22/2023	2/24/2023	72	60	Customer
382301306-0003			9:07:00 am	11:02:00 am			

### Sample Notes:

527074	Sanctuary	0.5	2/22/2023	2/24/2023	72	60	Customer
382301306-0004			9:07:00 am	11:02:00 am			

### Sample Notes:

**Summary for EMSL Kit 298024** **Average Radon Result: 0.5 pCi/L**

The results indicate that both testing devices registered below the United States Environmental Protection Agency (EPA) action level of 4.0 picoCuries per liter of air (pCi/L). The EPA recommends fixing your home if the average of two short-term tests taken in the lowest lived-in level of the home show radon levels that are equal to or greater than 4.0pCi/L. The radon test was performed using a liquid scintillation radon detector/s and counted on a liquid scintillation counter using approved EPA testing protocols for Radon in Air testing.

The EPA recommends retesting your home every two years.

Please contact EMSL Analytical, Inc. or your State Health Department for further information.

All procedures used for generating this report are in complete accordance with the current EPA protocols for the analysis of Radon in Air. This test was performed using EPA device protocol EPA-402-R-92-004.

Analyst(s): \_\_\_\_\_

Jeanel Zoll Radon (4)

Dominic Gehret, Radiochemistry Laboratory Manager, NJ Radon Measurement Specialist MES 13910 or other approved signatory

In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. In no event shall EMSL be liable to a client or any third party, whether based upon theories of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder. The test results meets all NELAC requirements unless otherwise specified.  
Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ FL RB2034/R2687,IL RNL2008202,IN RTL00935,IA RNLAB10005,KS KS-LB-0005/KS-MS-0482,ME SPC202,MN RL-0005,NE 474/RMB-1083,NJ 03036/MEB92525/MES13910,NY 10872,OH RL39,OK D9952,PA 2573/3393/68-00367,RI RMB-108/RI00179,WV RL000220,NRSB-ARL6006,NRPP 109000-AL.

Initial report from: 03/02/2023 12:31:43

Please visit [www.radontestinglab.com](http://www.radontestinglab.com)



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
Tel/Fax:(800) 220-3675 / (856) 786-0327  
<http://www.EMSL.com / cinnaminsonradonlab@emsl.com>

EMSL Order: 382301306  
Customer ID: NOVA30  
Customer PO:  
Project ID:

Attention: **Curtis Moses**  
**Nova Engineering & Environmental, Inc.**  
**3900 Kennesaw 75 Parkway**  
**Suite 100**  
**Kennesaw, GA 30144**  
Project: **3023022**  
Phone: (678) 982-5576  
Fax: (770) 425-1113  
Received Date: 02/28/2023 12:22 PM  
Analysis Date: 02/28/2023 - 03/01/2023

Test **3023022**  
Site: **GA**

## Test Report: Radon in Air Test Results

### Samples for EMSL Kit 298025

Liquid Scintillation	Location	Radon Activity pCi/L	Start	Stop	Temperature F	Humidity %	Sample Type
527057	Dining	0.2	2/22/2023	2/24/2023	72	60	Customer
382301306-0001			9:05:00 am	11:00:00 am			

### Sample Notes:

527979	Dining	0.5	2/22/2023	2/24/2023	72	60	Customer
382301306-0002			9:05:00 am	11:00:00 am			

### Sample Notes:

**Summary for EMSL Kit 298025** **Average Radon Result: 0.4 pCi/L**

The results indicate that both testing devices registered below the United States Environmental Protection Agency (EPA) action level of 4.0 picoCuries per liter of air (pCi/L). The EPA recommends fixing your home if the average of two short-term tests taken in the lowest lived-in level of the home show radon levels that are equal to or greater than 4.0pCi/L. The radon test was performed using a liquid scintillation radon detector/s and counted on a liquid scintillation counter using approved EPA testing protocols for Radon in Air testing.

The EPA recommends retesting your home every two years.

Please contact EMSL Analytical, Inc. or your State Health Department for further information.

All procedures used for generating this report are in complete accordance with the current EPA protocols for the analysis of Radon in Air. This test was performed using EPA device protocol EPA-402-R-92-004.

### Report Notes:

Analyst(s):  

---

*Jeanel Zoll Radon (4)*

---

Dominic Gehret, Radiochemistry Laboratory Manager, NJ Radon Measurement Specialist MES 13910 or other approved signatory

In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. In no event shall EMSL be liable to a client or any third party, whether based upon theories of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder. The test results meets all NELAC requirements unless otherwise specified.  
Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ FL RB2034/R2687,IL RNL2008202,IN RTL00935,IA RNLAB10005,KS KS-LB-0005/KS-MS-0482,ME SPC202,MN RL-0005,NE 474/RMB-1083,NJ 03036/MEB92525/MES13910,NY 10872,OH RL39,OK D9952,PA 2573/3393/68-00367,RI RMB-108/RI00179,WV RL000220,NRSB-ARL6006,NRPP 109000-AL.

Initial report from: 03/02/2023 12:31:43

Please visit [www.radontestinglab.com](http://www.radontestinglab.com)





# EMSL Analytical, Inc.

2205 Corporate Plaza Parkway SE, Suite 200 Smyrna, GA 30080

Tel/Fax: (770) 956-9150 / (770) 956-9181

<http://www.EMSL.com> / [atlantalab@emsl.com](mailto:atlantalab@emsl.com)

EMSL Order: 072301725

Customer ID: NOVA30

Customer PO:

Project ID:

**Attention:** Curtis Moses  
Nova Engineering & Environmental, Inc.  
3900 Kennesaw 75 Parkway  
Suite 100  
Kennesaw, GA 30144

**Project:** 2017

**Phone:** (678) 982-5576  
**Fax:** (770) 425-1113  
**Collected Date:** 02/17/2023  
**Received Date:** 02/17/2023 11:50 AM  
**Analyzed Date:** 02/23/2023 - 02/24/2023

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	072301725-0001			072301725-0002			072301725-0003		
Client Sample ID:	A1			A2			A3		
Volume (L):	75			75			75		
Sample Location:	Exterior- Front			Exterior- At Walk			Kitchen		
Spore Types	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	74	3300	64.7	25	1100	55.8	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	4	200	33.9
Basidiospores	40	1800	35.3	18	800	40.6	2	90	15.3
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	1	40	2	7	300	50.8
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	2*	30*	1.5	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	-	-	-
Torula++	-	-	-	-	-	-	-	-	-
<b>Total Fungi</b>	<b>114</b>	<b>5100</b>	<b>100</b>	<b>46</b>	<b>1970</b>	<b>100</b>	<b>13</b>	<b>590</b>	<b>100</b>
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	2	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	2	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Daoxin Li, PH.D, Microbiology Laboratory Manager  
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. \*\*\*\* Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. Skin & Fibrous ratings: 1 (1-25%), 2 (26-50%), 3 (51-75%), 4 (76-100%) of the background particles.

Samples analyzed by EMSL Analytical, Inc Smyrna, GA AIHA LAP, LLC-EMLAP Accredited #100662

Initial report from: 02/24/2023 09:55 AM

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://www.emsl.com)



# EMSL Analytical, Inc.

2205 Corporate Plaza Parkway SE, Suite 200 Smyrna, GA 30080

Tel/Fax: (770) 956-9150 / (770) 956-9181

<http://www.EMSL.com> / [atlantalab@emsl.com](mailto:atlantalab@emsl.com)

EMSL Order: 072301725

Customer ID: NOVA30

Customer PO:

Project ID:

**Attention:** Curtis Moses

Nova Engineering & Environmental, Inc.

3900 Kennesaw 75 Parkway

Suite 100

Kennesaw, GA 30144

**Project:** 2017

**Phone:** (678) 982-5576

**Fax:** (770) 425-1113

**Collected Date:** 02/17/2023

**Received Date:** 02/17/2023 11:50 AM

**Analyzed Date:** 02/23/2023 - 02/24/2023

### Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	072301725-0004			072301725-0005			072301725-0006				
	A4	A5	A6	Hall/Nursery			Sanctuary			Mens RR	
Spore Types	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total		
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-		
Ascospores	-	-	-	1	40	22.2	1	40	10		
Aspergillus/Penicillium	7	300	66.7	1	40	22.2	1	40	10		
Basidiospores	3	100	22.2	3	100	55.6	4	200	50		
Bipolaris++	-	-	-	-	-	-	-	-	-		
Chaetomium++	-	-	-	-	-	-	-	-	-		
Cladosporium	1	40	8.9	-	-	-	2	90	22.5		
Curvularia	-	-	-	-	-	-	-	-	-		
Epicoccum	-	-	-	-	-	-	1*	10*	2.5		
Fusarium++	-	-	-	-	-	-	-	-	-		
Ganoderma	-	-	-	-	-	-	-	-	-		
Myxomycetes++	1*	10*	2.2	-	-	-	-	-	-		
Pithomyces++	-	-	-	-	-	-	-	-	-		
Rust	-	-	-	-	-	-	-	-	-		
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-		
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-		
Unidentifiable Spores	-	-	-	-	-	-	-	-	-		
Zygomycetes	-	-	-	-	-	-	-	-	-		
Cercospora++	-	-	-	-	-	-	1*	10*	2.5		
Torula++	-	-	-	-	-	-	1*	10*	2.5		
<b>Total Fungi</b>	<b>12</b>	<b>450</b>	<b>100</b>	<b>5</b>	<b>180</b>	<b>100</b>	<b>11</b>	<b>400</b>	<b>100</b>		
Hyphal Fragment	-	-	-	1	40	-	-	-	-		
Insect Fragment	-	-	-	-	-	-	-	-	-		
Pollen	-	-	-	-	-	-	-	-	-		
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-		
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-		
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-		
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-		
Background (1-5)	-	1	-	-	1	-	-	1	-		

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

Daoxin Li, PH.D, Microbiology Laboratory Manager  
or other Approved Signatory

No discernable field blank was submitted with this group of samples.

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. Skin & Fibrous ratings: 1 (1-25%), 2 (26-50%), 3 (51-75%), 4 (76-100%) of the background particles.

Samples analyzed by EMSL Analytical, Inc Smyrna, GA AIHA LAP, LLC-EMLAP Accredited #100662

Initial report from: 02/24/2023 09:55 AM

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://www.emsl.com)



# Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.  
2205 Corporate Plaza Pkwy SE, Suite 200  
Smyrna, GA 30080

EMSL ANALYTICAL, INC.  
TESTING LABS • PRODUCTS • TRAINING

072301725

PHONE: (770) 956-9150

EMAIL: atlantab@EMSL.com

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization

Customer Information	Customer ID:	NOVA30	Billing Information	Billing ID:	
	Company Name:	NOVA Eng.		Company Name:	
	Contact Name:	C. Moses		Billing Contact:	
	Street Address:	3900 Kennesaw 75 Hwy		Street Address:	
	City, State, Zip:	Kennesaw, GA, 30144		City, State, Zip:	
	Country:			Country:	
Phone:		Phone:			
Email(s) for Report:	CMoses@USANOVA.COM		Email(s) for Invoice:		

Project Information		
Project Name/No:	2017	Purchase Order:
EMSL LIMS Project ID:		State of Connecticut (CT) must select project location
(if applicable, EMSL will provide)		<input type="checkbox"/> Commercial (Taxable) <input type="checkbox"/> Residential (Non-taxable)
State Samples Collected:	GA	Zip Code Samples Collected:

Sampled By Name:	C. MOSES	Sampled By Signature:	[Signature]	No. of Samples in Shipment:
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Sterile, Sodium Thiosulfate Preserved Bottle Used  Biocide Used in Source (specify)

Public Water Supply Samples:  Note: All results may automatically be reported to DOH if required by State.

Turn-Around-Time (TAT) Please call ahead for large projects and/or turnaround times 6 Hours or Less. \*32 Hour TAT available for select tests only; samples must be submitted by 11:30am

3 Hour
  6 Hour
  24 Hour
  32 Hour
  48 Hour
  72 Hour
  96 Hour
  1 Week
  2 Week

MICROBIOLOGY TEST CODES			
M001 Air-O Cell	M174 MoldSnap	M012 Pseudomonas aeruginosa (P/A**)	M115 Sewage Screen - Water (P/A**)
M030 MICRO 5	M032 Allergenco-D	M024 Pseudomonas aeruginosa (MFT*)	M116 Sewage Screen - Water (MPN**)
M041 Fungal Direct Examination		M015 Heterotrophic Plate Count	M117 Sewage Screen - Swab (P/A**)
M169 Pollen ID & Enumeration		M017 Total Coliform & E. Coli (Colliert P/A**)	M013 Sewage Screen - Swab (MFT*)
M280 Dust Characterization Level-1		M018 Total Coliform & E. Coli (MFT*)	M730 Methicillin-resistant Staph. aureus (MRSA)
M281 Dust Characterization Level-2		M114 Total Coliform & E. Coli Enumeration (Colliert MPN**)	M031 Rapid-growing non-TB Mycobacteria Detection & Enumeration
M005 Viable Fungi-Air Samples (Genus ID & Count)		M019 Fecal Coliform (MFT*)	M014 Endotoxin Analysis
M006 Viable Fungi-Air Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)		M020 Fecal Streptococcus (MFT*)	M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M007 Culturable Fungi-Surface Samples (Genus ID & Count)		M029 Enterococci (MFT*)	M095 Bacteroides
M008 Culturable Fungi-Surface Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)		M129 Enterococci (Enterolert P/A**)	Other - See Analytical Price Guide for Test Code
M009 Bacteria Culture Gram Stain & Count		M180 Real Time qPCR-ERMI 36 Panel	Legionella Analysis Please use EMSL Legionella COC
M010 Bacteria Count & ID - 3 Most Prominent		M025 Sewage Screen - Water (MFT*)	
M011 Bacteria Count & ID - 5 Most Prominent			

\*MFT= Membrane Filtration Technique  
\*\*MPN = Most Probable Number  
\*\*\*P/A = Presence/Absence

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
Example: Sample 1	Kitchen	Water	Potable	M017	1,000 ml	1/1/2021 3:30pm	
A1	Exterior-Front	Air	—	M001	75L	0912-2/17	
A2	Exterior-At Walk	Air	—	M001	75L	0923 2/17	
A3	Kitchen	Air	—	M001	75L	0953 2/17	
A4	Hall/Nursery	Air	—	M001	75L	1004 2/17	
A5	Sanctuary	Air	—	M001	75L	1015 2/17	
A6	Mens RR	Air	—	M001	75L	1028 2/17	

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment:	Client	1150	Sample Condition Upon Receipt:
Relinquished by:	[Signature]	Date/Time: 2/17/23	Received by: [Signature]
Relinquished by:		Date/Time:	Received by: [Signature]
			Date/Time: 2/17/23 11:50

Controlled Document - COC-34 Micro R13 03/02/2021

AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance of the terms and conditions by Customer.

## APPENDIX C

# PERSONNEL QUALIFICATIONS

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# *The Environmental Institute*

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## *Nickolaus DaSantos*

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Social Security Number - XXX-XX-6996  
Nova Engineering - 3900 Kennesaw 75 Parkway, Kennesaw, GA 30144

*Has completed 8 hours of coursework and satisfactorily  
passed an examination that meets all criteria required for  
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation*

### *Asbestos in Buildings: Inspector & Management Planner Refresher*

*August 16, 2022*

Course Date

*19051*

Certificate Number

*August 16, 2022*

Examination Date

*August 15, 2023*

Expiration Date



*Beverly B. Campbell*

Beverly B. Campbell - Course Director/Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1 CM point - Approval #11-583)  
(FL Provider Registration #FL49-0001342 - Inspector Ref. Course #0002805 - Mgmt. Plan Ref. Course #0002806)

TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124- Marietta, GA 30067  
Phone: 770-427-3600 - Website: [www.tei-atl.com](http://www.tei-atl.com)





## CURTIS MOSES

### Staff Professional

#### PROFESSIONAL EXPERIENCE

Mr. Moses is a Staff Professional with NOVA's Environmental Group. Mr. Moses has experience as an environmental professional providing various aspects of environmental consultation. His experience includes performing pre-renovation/pre-demolition asbestos inspections, lead based paint inspections, lead risk assessments, indoor air quality studies, microbial assessments, Phase I Site Assessments as well as large-scale asbestos and lead abatement oversight. He has worked in this industry since 2006.

#### Certifications /Registrations:

NIOSH 582, Certificate No. 2260  
AHERA (Asbestos) Building Inspector, Certificate No.18965  
South Carolina (Asbestos) No. BI-00805  
North Carolina (Asbestos) No. 12831  
Alabama (Asbestos) No. AIN0516610139  
West Virginia (Asbestos) No. AI008032  
U.S. EPA Lead Risk Assessor Certificate No. 1849  
GA EPD Lead Risk Assessor Certificate No. 70RA00715  
U.S. EPA Lead Inspector, Certificate No. 1969  
North Carolina Lead Risk Assessor No. 120265

#### REPRESENTATIVE PROJECT EXPERIENCE

##### Airport

Taxiway Extension-LaFayette Airport, LaFayette, GA  
AJR| Existing FBO Building Site, Cornelia, GA

##### Education

Read Hall Renovations & Additions, GA  
J-273 Atlanta Metropolitan State College, Atlanta, GA  
GA Tech Baseball Stadium Renovation, Atlanta, GA  
GT Chandler Stadium Bldg Envelope, Atlanta, GA  
NGTC Aquaponics/ Hydroponics Lab, Clarkesville, GA  
Atlanta's John Marshall Law School Parki, Atlanta, GA  
KSU English Building Asbestos Survey, GA  
KSU Library Building, GA  
Proposed Edgewood Ave. Student Housing, GA  
Gwinnett Tech. College Student Affairs, GA  
LBP Operation & Maint. Plan (O&M Plan), Newnan, GA  
Phase I ESA - 80 Jackson St., Newnan, GA  
Cy Grant Gymnasium, Clarksville, GA  
Agnes Scott College - Rebekah Hall, Decatur, GA  
Norton Hall - Kennesaw State University, Marietta, GA

Pettit 095 Building, Atlanta, GA  
Kennesaw State University - Marietta Cam, Marietta, GA  
KSU Library Building - Phase 2, Kennesaw, GA  
J-269 UWG Biology Building #58 Site, Carrollton, GA  
Oglethorpe University - Goslin Hall Ren., Atlanta, GA  
New Housing - Macon, Macon, GA  
KSU Abatement Oversight, Kennesaw, GA  
Talmadge Hall - Cochran, Albany, GA  
Browning Hall - Cochran, Albany, GA  
KSU English Building-Floor Tile/Mastic A, Kennesaw, GA  
Dalton State College-Sequoia Hall Renova, Dalton, GA  
KSU - Marietta Campus - Building B Mecha, Marietta, GA  
GTRI Cobb South Campus Site, Marietta, GA  
Morehouse School of Medicine - Mixed Use, Atlanta, GA  
KSU Howell Residence Hall Floor Tile Aba, Marietta, GA  
Rockefeller Hall, Atlanta, GA  
Wellstar Clinic, 3215 Campus Loop Road, Kennesaw, GA  
J-330 - University of West GA - Col, Carrollton, GA  
KSU Center, 3333 Busbee Drive NW, Kennesaw, GA  
GSU Window Restoration Monitoring, Atlanta, GA



GA EPD Lead Inspector,  
Certificate No. 60INS00215  
Control of Respirable  
Crystalline Silica Dust  
Training 40 Hr. HAZWOPER,  
Certificate No.  
2749407 8 Hr.  
HAZWOPER  
Certificate No.  
1608045175860  
Radiation Safety  
and Operation,  
Certificate  
No. RS0038000001TmpqA  
Geo-Seal Certified Inspector  
472018

120 E Memorial Drive, Dallas, GA  
KSU Marietta Campus English  
Building, Marietta, GA  
Oglethorpe University-Goodman Hall  
Renov, Atlanta, GA  
897 South Milledge Avenue Site,  
Athens, GA  
Kennesaw State University-Student  
Center, Kennesaw, GA  
Mike Cottrell College of Business UNG  
BO, Dahlonega, GA  
Howell Hall, KSU - Marietta Campus,  
Marietta, GA  
Dalton State College Bandy Gym  
Student R, Dalton, GA  
Gwinnett Technical College Building  
100 , Lawrenceville, GA  
1398 Reinhardt College Parkway  
Site, Canton, GA  
Howell Hall Abatement, Marietta, GA  
Select Dormitories-Oglethorpe  
University, Atlanta, GA  
TCSG-334 North GA Technical  
College, Clarkesville, GA  
Colvard North, Level 2000  
Renovation, NC  
UNCC Student Counseling Center,  
Charlotte, NC  
UNCC Sycamore Hall Renovation,  
Charlotte, NC  
UNCC - Colvard 2000, NC  
New Cherokee Middle School "C", GA  
St. Pius X High School, GA  
Woodland HS Renovations,  
Cartersville, GA  
AHERA 3 Year, GA  
Our Lady of the Assumption School,  
GA  
Immaculate Heart of Mary AHERA, GA  
Decatur Schools AHERA, GA  
St. John Neumann Catholic School,  
GA  
758 Scott Boulevard, GA  
Decatur High School, GA  
Lovett Field House, GA  
1083 Marietta Hwy Site, GA  
Marist School - Enviro Services, GA  
Norcross Cluster Elm. School, GA

International Community School,  
Decatur, GA  
Dug Gap Elementary School Site,  
Dalton, GA  
Fulton Science Academy Site,  
Alpharetta, GA  
Valley Point Middle School  
Fieldhouse, Dalton, GA  
Jordan Hall, Atlanta, GA  
100 College Street, Adairsville, GA  
AHERA 3-Year Re-Inspection/Update  
to O&M, Decatur, GA  
Renfroe Middle School, Decatur, GA  
Pine Log Elementary School - 500  
Block, Rydal, GA  
KIPP South Fulton Academy, East  
Point, GA  
Renfroe Middle School Renovations,  
Decatur, GA  
Decatur High School, Decatur, GA  
ECLC Modular Classroom Site,  
Decatur, GA  
740 Cameron Alexander Blvd. Site,  
Atlanta, GA  
222 Piedmont Confirmatory Limited  
ACM, Atlanta, GA  
569 Martin Luther King Jr. Site,  
Atlanta, GA  
Cartersville Primary School,  
Cartersville, GA  
Decatur High School Renovations,  
Decatur, GA  
KIPP Vision Primary School, Atlanta,  
GA  
College Heights Early Childhood  
Learning, Decatur, GA  
Clairemont Elementary School,  
Decatur, GA  
Heard Mixon Elementary School - 2nd  
Grad, Covington, GA  
Clayton Co Information Technology  
Bldg, Atlanta, GA  
Winnona Park Elementary School,  
Decatur, GA  
East Point Auditorium Site, East  
Point, GA  
Oconee County Elementary School,  
Watkinsville, GA



Decatur City Schools AHERA, Decatur, GA  
Ficquett Elementary School, Covington, GA  
Atlanta Public Schools AHERA 3 Year Re-I, Atlanta, GA  
Renfroe Middle School, Decatur, GA  
540 Kentucky Street, Decatur, GA  
Multiple Sites-Alpharetta & Cumming GA, Alpharetta, GA  
City Schools of Decatur, Decatur, GA  
Renfroe Middle School-Limited Indoor Air, Decatur, GA  
Ficquett Elementary School, Newton, GA  
Decatur High School, Decatur, GA  
St. Jude Catholic School, Atlanta, GA  
Winnona Park Elementary School, Decatur, GA  
5710 Namon Wallace Drive Site, Cumming, GA  
1890 Donald Lee Howell Parkway, Atlanta, GA  
Booker T Washington High School, Atlanta, GA  
Atlanta Public Schools Legionella Sampli, Atlanta, GA  
APS Legionella Sampling Retesting, Atlanta, GA  
APS-Legionella Sampling Testing, Atlanta, GA  
Old Hickory Flat Gym, Canton, GA  
APS Legionella 2nd Event Re-Sampling, Atlanta, GA  
APS-Limited Fungir Air Assessment, Atlanta, GA  
City Schools of Decatur Legionella Sampl, Decatur, GA  
City School of Decatur Limited Drinking, Decatur, GA  
Existing Gymnasium - KIPP Soul Campus, Atlanta, GA  
Anson Co. Schools AHERA 3 Yr Re-Insps, Wadesboro, NC  
Kiddie Academy Site - Harrisburg Ph. I, Harrisburg, NC

**Government**

U.S. Courthouse/Post Office - Columbus, Columbus, GA  
GS-P-03-14-AZ-0028 Peachtree Summit Fed, Atlanta, GA  
U.S. Courthouse/Post Office - Columbus, Columbus, GA  
Sam Nunn Federal Building PDS, Atlanta, GA  
Columbus Federal Courthouse Site, Columbus, GA  
2630 Tuttle Building, Atlanta, GA  
Paulding County - New GA Library, Dallas, GA  
Ponce City Market, GA  
1.7-Acre Chattin Drive Site, GA  
Environmental Assessment-Clayton County, GA  
130 East Main Street, GA  
Cobb County Water Laboratory, GA  
Cherokee County Fire Station #17, GA  
555 Battlecreek Road, GA  
3121 Norman Berry Drive Site, East Point, GA  
Forsyth County Courthouse Site, Cumming, GA  
11575 Maxwell Road Site, Roswell, GA  
CDBG HOME Lead Assessment, Canton, GA  
Bells Ferry Station #1, Acworth, GA  
55 Savannah Street Site, Newnan, GA  
956 Univeter Road Site, Canton, GA  
242 Hames Road Site, Canton, GA  
511 Chattin Drive Site, Canton, GA  
Fire Station 11 Site, Canton, GA  
Cherokee County Historic Courthouse Site, Canton, GA  
310 Technology Parkway, Peachtree Corners, GA  
1467 Reinhardt College Parkway Site, Canton, GA  
Jones Building Renovations, Canton, GA  
204 Main Street Site, Adairsville, GA  
Fire Station 24, Canton, GA  
East Pointe Fire Station Site, East Point, GA  
East Point City Hall Limited Phase II, East point, GA



Juvenile Justice Center-Building C-  
Office, Cumming, GA  
Fire Station 2 and Fire Station 3,  
Canton, GA  
Forsyth County Detention Center,  
Cumming, GA  
Cobb County Fire Station 7, Marietta,  
GA  
Juvenile Justice Center Courthouse,  
Cumming, GA  
Cherokee County Sheriff's Office -  
IAQ, Cherokee, GA  
Fire Station 15, Canton, GA  
430 Commerce Park Drive, Marietta,  
GA  
Fire Station 15, Canton, GA  
Juvenile Justice Center, Cumming, GA  
1.10-Acre Namon Wallace Road Site,  
Cumming, GA  
25 Jefferson Street, Newnan, GA  
Animal Services Site, Cumming, GA  
Douglas County Courthouse  
Renovations, Douglasville, GA  
Six Fulton County Libraries, College  
Park, GA  
Dick's Creek Water Reclamation  
Facility, Cumming, GA  
Cherokee County Historical Society  
Site, Canton, GA  
East Point City Hall - Radon Testing,  
East Point, GA  
8485 West Courthouse Square Road  
Site, Douglasville, GA  
11565 Maxwell Road Site, Atlanta,  
GA  
5130 South Jett Road Site,  
Woodstock, GA  
Dick's Creek Water Reclamation  
Facility/, Suwanee, GA  
Nicholson Library New Annex,  
Nicholson, GA  
Forsyth County Juvenile Court Site,  
Cumming, GA  
2115 Chloe Road Sexton Hall,  
Cumming, GA  
57 E Broad Street, Newnan, GA  
Escambia County, AL Courthouse  
ENV, Brewton, AL

Fulton County Courthouse Facility,  
Atlanta, GA  
Lee Arrendale Prison- BE Condition  
Asses, Alto, GA  
GBA-180 2 Capitol Square  
Renovation, GA  
GBA-181 Capitol Plaza, GA  
Fernbank Museum of Natural History,  
Atlanta, GA  
GBA-184 GEMA & Homeland Security  
Agency, Atlanta, GA  
DCY-104 Central PDC Conversion,  
Caldwell, GA  
GDOT Building Capital Square, GA  
Asheville Federal Courthouse Site,  
Asheville, NC  
Metro State Prison Site, Atlanta, GA  
GDPS Buildings 26 & 29, Atlanta, GA  
GEMHSA Bldgs 1 and 2, Atlanta, GA  
Augusta State Medical Prison,  
Augusta, GA  
Pulaski State Prison, Hawkinsville, GA  
Washington State Prison Dental  
Clinic, Davisboro, GA  
Arnall Building Site, Milledgeville, GA  
Lee Arrendale Prison- Envelope  
Cond., Alto, GA  
Metro State Prison - Phase 2,  
Atlanta, GA

#### **Healthcare**

South Dekalb Plaza-Humana,  
Decatur, GA  
Newnan Hospital Redevelopment, GA  
Dacula Medical Office Building, GA  
Hamilton Mill Medical Office Building,  
GA  
Newnan Hospital Redevelopment, GA  
Atlanta VA Specialty Outpatient Clinic,  
Decatur, VA  
1460 E. Victory Drive - ACM Survey,  
Savannah, GA  
113 Minis Avenue - ACM Survey,  
Garden City, GA  
475 Gateway Center Blvd. - ACM  
Survey, Brunswick, GA  
312 N. River Street - ACM Survey,  
Claxton, GA



1357 Hembree Road Site, Roswell, GA  
USRC Fitzgerald 0144 Site, Fitzgerald, GA  
1605 CHANTILY DRIVE SITE, Atlanta, GA  
Emory Winship at Midtown, Atlanta, GA  
Grady Health System Aldredge Bldg ENV, Atlanta, GA  
CDC Roybal East Parking Deck, Atlanta, GA  
Clinical Decision Unit Kennestone, Marietta, GA  
CDU Kennestone - Mastic Abatement, Marietta, GA  
400 S Pinetree Blvd-Southwestern State C, Thomasville, GA  
Woodbridge for Clinton Sr. Lvg. Asbestos, Clinton, NC  
Appalachian Regional HCS Expansion Ph. 1, Boone, NC

#### **Hotel**

North Decatur Road Properties, Atlanta, GA  
Piedmont Center - Suite 600, Atlanta, GA  
Stone Mountain Marriott Renovation, Stone Mountain, GA

#### **Manufacturing**

Majestic Logistics Center-UPS, Atlanta, GA  
Glock Facility, GA  
Former Larkin Coils Inc. Facility, Atlanta, GA  
Stonewall Tell Road Site, Atlanta, GA  
Stonewall Tell Road Development Site, College Park, GA  
Lenny Boy Brewery - 3000 S. Tryon Asbest, Charlotte, NC  
1599 Memorial Drive, Atlanta, GA  
6300 Button Gwinnett Drive, Atlanta, GA  
Indian Trail Distribution Center, Lilburn, GA  
5000 Kristie Way, Chamblee, GA

#### **Multifamily/Mixed-Use**

Donald Lee Hollowell Parkway Project, Atlanta, GA  
Donald Lee Hollwell Project, Atlanta, GA  
Ponce City Market, GA  
8th and Spring St. Sewer Line Relocation, GA  
Ponce City Market - Parcel F, GA  
Oxford Encore (Special Inspections), GA  
250 East Ponce de Leon Parking Deck, Decatur, GA  
Peachtree & Stratford Development, Atlanta, GA  
563 Memorial Drive, Suites R1-R2-R3, Atlanta, GA  
39-Acre Collier Ridge Tract, Atlanta, GA  
ALTA Dairies, Atlanta, GA  
348 Mitchell Street - Environmental Serv, Atlanta, GA  
Memorial Drive Tract, Atlanta, GA  
20-Acre Halcyon Tract, Alpharetta, GA  
Canton Mills Apartments, Canton, GA  
Silica Dust Sampling-8 Hour TWA, Atlanta, GA  
Huff Road Tract, Atlanta, GA  
The Fields at Peachtree Corners Apartmen, Norcross, GA  
Anglier Avenue Tract, Atlanta, GA  
Canton Mill Apartments, Canton, GA  
1979 Mars Hill Road Site, Acworth, GA  
CPH No. W13775 WM XPS #86874 Gurley, AL, AL  
CPH No. W13766 WM XPS #86869 Grant, AL, AL  
CPH No. W13765 WM XPS #86870 Hokes Bluff, AL  
CPH No. W13805 WM XPS #87109 Campobello,, SC  
CPH No. W13776 WM XPS #86887 Gray Court, SC  
Ashley Place Apartments, Charlotte, NC  
**Office**  
425 Horizon Drive, GA



GA Pacific 27th Floor Supplemental ACM, GA  
GA Pacific - Loading Dock Asbestos Sampl, Atlanta, GA  
Grant Building CAPEX Roof Replacement, Atlanta, GA  
Ponce City Market Service Building, GA  
MailChimp at PCM, GA  
Atlantic Yards, Atlanta, GA  
Project Fusion, Atlanta, GA  
Project Fusion-Holder, Atlanta, GA  
Project Acorn, GA  
730 Peachtree Street, GA  
GA Pacific Center LBP, GA  
West Peachtree & 14th Street, GA  
Yancey Augusta, GA  
1000 Circle 75 Building, GA  
2150 Parklake, GA  
133 Univeter Road, GA  
Heritage Maclellan Apartments, LLC, Chattanooga, TN  
Ponce City Market-7th Floor Air Testing, Atlanta, GA  
359 East Paces Ferry, Atlanta, GA  
2700 Delk Road Site, Marietta, GA  
Zep Facility - 1360 Annex, Atlanta, GA  
1776 Peachtree Street Site, Atlanta, GA  
The Candler Building, Atlanta, GA  
Proposed NCR Office Development Site, Atlanta, GA  
222 Piedmont Avenue NE, Atlanta, GA  
Barrett Business Center Site, Kennesaw, GA  
CryoLife Renovations, Kennesaw, GA  
The Pointe at CommNet, Atlanta, GA  
6105 Peachtree Dunwoody Site, Sandy Springs, GA  
1905 Scenic Highway Site, Snellville, GA  
GA Pacific Center Renovations Phase, Atlanta, GA  
SGPS-Suite 410 Expansion, Norcross, GA  
Old Genuine Parts Building, Atlanta, GA  
1700 Commerce Drive, Atlanta, GA  
Environmental Consultation, Atlanta, GA  
3750 Crown Road and 3849 Browns Mill Roa, Atlanta, GA  
The Candler Building Site, Atlanta, GA  
Equitable Building, Atlanta, GA  
300 & 306 Luckie Street, Atlanta, GA  
Grant Building Site, Atlanta, GA  
Silica Dust Sampling - Multiple Projects, Marietta, GA  
Peachtree Center Renovations ACM, Atlanta, GA  
The Candler Building ACM Roof Sampling, Atlanta, GA  
673 & 771 Juniper Street, Atlanta, GA  
58 Hospital Road, Newnan, GA  
Midtown Heights Site, Atlanta, GA  
One Baltimore Place, Atlanta, GA  
Larkin Building B, Atlanta, GA  
Confidential - Project Fusion, Atlanta, GA  
48th Floor ACM Sampling, Atlanta, GA  
Post Centennial Park Site, Atlanta, GA  
Peachtree Summitt Federal Building, Atlanta, GA  
1600 Dunwoody Club Drive Site, Atlanta, GA  
Lifecycle Building Center, Atlanta, GA  
330 Auburn Avenue, Atlanta, GA  
22 7th Street & 21 8th Street, Atlanta, GA  
25th Floor Montag Server Room, Atlanta, GA  
GA Pacific Renovations Ph III & IV, Atlanta, GA  
1400 Lake Hearn Drive, Atlanta, GA  
3225 Cumberland Blvd Site, Atlanta, GA  
760 Herlong Avenue Site, Rock Hill, SC  
1900 Lake Park Drive, Smyrna, GA  
GA Pacific-Supplemental Sampling, Atlanta, GA  
7 East Building, Newnan, GA  
Solomon and Martin Street Site, Atlanta, GA  
1439 Peachtree Street, Atlanta, GA  
1330 West Peachtree Street Site, Atlanta, GA



202 Milton Avenue SE, Atlanta, GA  
795 South Cobb Drive Expansion,  
Marietta, GA  
Waldo's Old Fourth Yard Project,  
Atlanta, GA  
1850 Parkway Place, Marietta, GA  
GMA Office Renovations, Atlanta, GA  
Promenade II - 18th Floor, Atlanta, GA  
550 Farr Building 2nd and 3rd Floor,  
Atlanta, GA  
1944 Piedmont Site, Atlanta, GA  
Docutab Site, Atlanta, GA  
Tuttle Building Hazardous Materials,  
Atlanta, GA  
27 8th Street, Atlanta, GA  
Stone Mountain 3rd Floor, Stone  
Mountain, GA  
75 Atlanta Street, Marietta, GA  
111 John Wesley Dobbs Avenue,  
Atlanta, GA  
Lake Mirror Road Site, Forest Park,  
GA  
1044 Booth Road Site Warner  
Robins, GA, Warner Robbins, GA  
1975 Lakeside Parkway, Tucker, GA  
748 Virginia Avenue, Hapeville, GA  
GA's Own IAQ, Atlanta, GA  
75 Bennett Street NW, Atlanta, GA  
170 Mitchell Street SW, Atlanta, GA  
Kennesaw First Baptist, Kennesaw,  
GA  
Hampton Inn Project, Atlanta, GA  
Concourse One - Mastic Sampling,  
Atlanta, GA  
2329 Cheshire Bridge Road Site,  
Atlanta, GA  
Tuttle Building Suite 233, Atlanta,  
GA  
Former Johns Creek Rite Aid Radon,  
Johns Creek, GA  
1111 Quintard Avenue Site, Anniston,  
NC  
2730 & 2732 Candler Road, Decatur,  
GA  
100 Peachtree Street, Atlanta, GA  
335A Academy Drive Site, Dallas, GA  
1170 Howell Mill Road Fungi, Atlanta,  
GA

Asbestos Containing Material  
Awareness T, Atlanta, GA  
Project Fusion, Atlanta, GA  
Sharon Towers Development  
Environmental, Charlotte, NC  
1451 Bryant Street Asbestos & Paint  
Surv, Charlotte, NC  
305 Doggett Street ENV, Charlotte,  
NC  
3811 Kimwell Drive ACM & LBP  
Survey, Winston-Salem, NC

### Recreational

Atlanta United Training Ground -  
Academy, Marietta, GA  
72 GA Avenue, Atlanta, GA  
Herodian Way 10-Acre Outparcel, GA  
Warren/Holyfield Boys and Girls Club,  
Atlanta, GA  
Harland Boys & Girls Club Site,  
Atlanta, GA  
Utopian Center for the Arts  
Subsurface E, Riverdale, GA  
3350 Gwinnett Place Drive Site,  
Duluth, GA

### Religious

St. John The Evangelist, Atlanta, GA  
St. JohnThe Evangelist, GA  
Central Baptist Church Additions,  
Newnan, GA  
St. Jude the Apostle AHERA, GA  
Saint Peter Claver Catholic School  
AHERA, GA  
St. Pius Catholic HS Ahera, GA  
Christ the King Catholic School, GA  
Beth Jacob of Atlanta, GA  
4900 Ivey Road - 9.33 Acre Lot,  
Acworth, GA  
First Baptist Church of Newnan  
Renovatio, Newnan, GA  
810 Joseph E. Boone Blvd. Site,  
Atlanta, GA  
Our Lady of the Mount Roman  
Catholic Chu, Lookout Mountain, GA  
Cathedral of St. Philip Renovations,  
Atlanta, GA  
Our Lady of the Mount Roman  
Catholic Chu, Lookout Mountain, GA

Cathedral of Christ the King Renovations, Atlanta, GA  
Cathedral of Christ the King Renovations, Atlanta, GA  
Westminster Presbyterian Church-Sanctuar, Atlanta, GA  
Cathedral of Christ the King Gymnasium, Atlanta, GA  
1255 Collier Road Site, Atlanta, GA  
Our Lady of Mount Roman Catholic Church, Lookout Mountain, GA  
St. Jude Catholic School, Atlanta, GA  
4280 Atlanta Road, Smyrna, GA  
AHERA 3 Year Re-Inspection/Our Lady of t, Atlanta, GA  
Interfaith Outreach Home Site, Doraville, GA  
Basilica of the Sacred Heart of Jesus Si, Atlanta, GA  
St. Jude AHERA 3 Year Re-Inspection, Atlanta, GA  
St. Jude the Apostle Catholic Church, Sandy Springs, GA  
St. John Neumann Catholic Church, GA  
Selwyn Ave Presbyterian Church - Asbesto, Charlotte, NC

**Residential**

Residential Tower & Parking Deck, GA  
198 Old Hull Road Site, Athens, GA  
3455 Old AL Road, GA  
6024 and 6038 Roswell Road, GA  
Mabry Road Tract, GA  
Oak Forest Circle Tract, GA  
Oakridge Plantation Tract, GA  
3rd and Peachtree, GA  
2420 Peachtree Road Site, GA  
6151 Avery Street, GA  
935 Confederate Avenue Bldg 18, GA  
1000 West Peachtree Street, Atlanta, GA  
12th Street Project, Atlanta, GA  
312 South Candler Street Site, Decatur, GA  
455 Coleman Drive Site, Roswell, GA  
Residential Site - Loxley, AL, Loxley, GA

824 Santa Fe Trail Site, Woodstock, GA  
33059 Residential Site, Loxley, AL  
1719 Scenic Road ACM, Snellville, GA  
Ponce De Leon Project, Atlanta, GA  
504 Thrasher Street, Norcross, GA  
Lenbrook Expansion, Atlanta, GA  
West Wieuca Road Tract, Atlanta, GA  
Central Baptist Church Additions, Newnan, GA  
701 and 711 North Price Road, Buford, GA  
Lidl 690 Holcomb Bridge Road, Roswell, GA  
2015 Memorial Tract Drive, Atlanta, GA  
Peachtree City Site, Peachtree City, GA  
Dilbeck Road Tract, Atlanta, GA  
Shepherd Center Share Apartments, Atlanta, GA  
1722 Harbin Road SW, Atlanta, GA  
Tatum Road Property, Palmetto, GA  
933 Kirkwood Avenue SE, Atlanta, GA  
Eleven Residential Structures, Austell, GA  
1072 West Peachtree Street, Atlanta, GA  
Hapeville Assemblage-60 Parcels, Hapeville, GA  
566 Church Street, Marietta, GA  
848 Tanner Road Site, Greenville, SC  
Hampton Court Apartments, GA  
Bradley Park Apartments, Cumming, GA  
Brookside Heights Apartments, Cumming, GA  
Greenville Downtown Lofts, Greenville, SC  
S. Suber Road Lead & Asbestos Survey, Greer, SC  
2444 Vail Avenue Pre-Demo, Charlotte, NC

**Retail**

Procter & Gamble, GA  
Laundry Commons, GA  
Tarrant City Family Dollar, AL  
Tri-Cities Plaza, GA





OxBlue Corporation Building  
Renovation, GA  
2865 Log Cabin Drive Site, GA  
Floor & Decor - Buford Store, Buford,  
GA  
Twelve Greater Atlanta Area Sites,  
Greater Atlanta Area, GA  
Stonecrest Mall - H & M, Lithonia, GA  
Stonecrest Mall Site, Lithonia, GA  
1599/1605 Memorial Drive Sites,  
DeKalb, GA  
3760 & 3780 South Cobb Drive Site,  
Smyrna, GA  
Franklin Plaza Shopping Center,  
Marietta, GA  
1402 Brevard Road Site Phase I ESA  
Updat, Asheville, NC  
Atlantic Station - T3 West Midtown,  
Atlanta, GA  
Atlantic Station - Block C, Atlanta, GA  
129 North Avenue, Atlanta, GA  
Atlantic Station Buildings 5 and 6  
Demo, Atlanta, GA  
Underground Atlanta Mold Sampling,  
Atlanta, GA  
NTB 930-Anderson, SC, Atlanta, GA  
10102 Main Street Site, Woodstock,  
GA  
Phase II - Alta Dairies, Atlanta, GA  
NTB - 885 Marathon Parkway,  
Lawrenceville, GA  
30 Ac. Johnston Road-Providence  
West Sit, Charlotte, NC  
Underground Atlanta Block 3 & 4,  
Atlanta, GA  
Presidential Markets Shopping  
Center Sui, Snellville, GA  
North Point-Former Babies R Us,  
Alpharetta, GA  
Atlanta Underground Supplemental  
Samplin, Atlanta, GA  
Atlanta Dairies Music Venue, Atlanta,  
GA  
Hapeville Theater, Hapeville, GA  
Ponce City Market ACM, Atlanta, GA  
Presidential Markets Shopping Ctr  
#110, Snellville, GA  
Sandtown Crossing, Atlanta, GA

Bo Ginn Aquarium Site, College Park,  
GA  
1020 Spring Street, Atlanta, GA  
Dirty Dogs Car Wash - Douglasville,  
Douglasville, GA  
Atlanta Mission Ethel Street Shelter,  
Atlanta, GA  
Presidential Markets Shopping  
Center-AMC, Snellville, GA  
Amsterdam Walk, Atlanta, GA  
5500 Frontage Road, Forest Park, GA  
Former Johns Creek Rite Aid Radon,  
Johns Creek, GA  
3201 Peachtree Corners Circle,  
Peachtree Corners, GA  
Frito-Lay Sites, Spanish fort, AL  
2772 Candler Road, Decatur, GA  
862 Harbins Road, Dacula, GA  
Lidl Norcross Jimmy Carter Blvd,  
Norcross, GA  
4285 Washington Road, Evans, GA  
2172 Lawrenceville Suwanee Road,  
Suwanee, GA  
Walmart Express - Dawson, GA ENV,  
GA  
Walmart Express - Pelham, GA ENV,  
GA  
Waldo Rood Site - Pet Palace, Cary,  
NC

#### **Transportation**

DOT-74A Welcome Ctr - South(Lake  
Park), Lake Park, GA  
GDOT MMIP 400 Exp Lanes  
PI#0001757, Kennesaw, GA  
GDOT I-285 @ I-20 W Interch PI  
#0013918, Various, GA  
GDOT Master On-Call Drilling  
Contract, Carroll, GA  
GDOT I-285 @ I-20 West Interchange  
TO#4, Various, GA  
Delta Museum, GA  
Henry County Roadway, McDonough,  
GA  
Andrew Jackson Highway Tract  
LBP/ACM Sur, Charlotte, NC  
GDOT GEC MMIP I-285/I-20 E.  
Interchange, Kennesaw, GA



GDOT SR3 CONN @ CR392 Upper  
Riverdale Rd, Riverdale, GA  
US 17 Bridge Replmnt. over Edisto  
River, Columbia, SC  
SCDOT US1 Bridge Repl. over Shaws  
Creek, Charleston, SC

**Utilities**

GA Pacific Center Renovations,  
Atlanta, GA

**Water/Wastewater**

Riverside Drive WTP-Chemical Bldg,  
Gainesville, GA  
Oglethorpe University Residential  
Covid in Water Sampling  
Atlanta, GA

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# ***The Environmental Institute***

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## ***Curtis Moses***

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Social Security Number - XXX-XX-9977  
Nova - 3900 Kennesaw 75 Parkway, Kennesaw, GA 30144

*Has completed 4 hours of coursework and satisfactorily  
passed an examination that meets all criteria required for  
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation*

***Asbestos in Buildings: Inspector Refresher***

***May 17, 2022***

Course Date

***18965***

Certificate Number

***May 17, 2022***

Examination Date

***May 16, 2023***

Expiration Date



*Beverly B Campbell*  
Beverly B. Campbell - Course Director/Training Manager

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)  
TEI - 1395 S. Marietta Parkway SE - Building 100, Suite 124 - Marietta, GA 30067  
Phone: 770-427-3600 - Website: [www.tei-atl.com](http://www.tei-atl.com)

## APPENDIX D

### QUALIFICATIONS OF CONCLUSIONS

## QUALIFICATIONS OF CONCLUSIONS

The findings and opinions presented are relative to the dates of our site work and should not be relied on to represent conditions at substantially later dates or locations not investigated.

The opinions included herein are based on information obtained during the study and our experience. If additional information becomes available which might impact our environmental conclusions, we request the opportunity to review the information, reassess the potential concerns and modify our opinions, if necessary.

Assessments may include interviews, a review of documents prepared by others or other secondary information sources. NOVA has not verified the provided information and has no responsibility for the accuracy or completeness of the information.

Although this assessment has attempted to identify the potential for environmental impacts to the subject property, potential sources of contamination may have escaped detection due to: (1) the limited scope of this assessment, (2) the inaccuracy of public records, (3) the presence of undetected or unreported environmental incidents, (4) inaccessible areas and/or (5) deliberate concealment of detrimental information. It was not the purpose of this study to determine the actual presence, degree or extent of contamination at the site, except as specifically described in the previous sections of this report. This would require additional exploratory work, including supplemental sampling and laboratory analysis.

This report is intended for the sole use of ***Cherokee County Board of Commissioners***. The scope of work performed during this study was developed for purposes specifically intended by ***Cherokee County Board of Commissioners*** and may not satisfy other user requirements. Use of this report or the findings and conclusions by others will be at the sole risk of the user.

Our professional services have been performed, our findings obtained, our conclusions derived and our recommendations prepared in accordance with generally accepted engineering practices and principles. This statement is in lieu of all other statements or warranties, either expressed or implied.