SECTION 074113.16 - STANDING-SEAM METAL ROOF PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes standing-seam metal roof panels.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.
- B. Shop Drawings:
 - 1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
 - 2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches (1:10).
- C. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below.
 - 1. Metal Panels: 12 inches (305 mm) long by actual panel width. Include clips, fasteners, closures, and other metal panel accessories.

1.4 INFORMATIONAL SUBMITTALS

A. Sample Warranties: For special warranties.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.
- B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.

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- C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.
- D. Retain strippable protective covering on metal panels during installation.

1.6 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

1.7 COORDINATION

- A. Coordinate sizes and locations of roof curbs, equipment supports, and roof penetrations with actual equipment provided.
- B. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.
- B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
- C. Special Weathertightness Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that fail to remain weathertight, including leaks, within specified warranty period.

PART 2 - PRODUCTS

2.1 STANDING-SEAM METAL ROOF PANELS

- A. General: Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates, and accessories required for weathertight installation.
 - 1. Unless more stringent requirements are indicated, comply with ASTM E1514.

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- B. Vertical-Rib, Seamed-Joint, Standing-Seam Metal Roof Panels. Formed with vertical ribs at panel edges and a flat pan between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and mechanically seaming panels together.
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Advanced Architectural Products.
 - b. AEP Span; A BlueScope Steel Company.
 - c. ATAS International, Inc.
 - d. CENTRIA Architectural Systems.
 - e. Firestone Building Products.
 - f. Morin A Kingspan Group Company.
 - g. Ultra Seam Incorporated.
 - 2. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with ASTM A653/A653M, G90 (Z275) coating designation, or aluminum-zinc alloy-coated steel sheet complying with ASTM A792/A792M, Class AZ50 (Class AZM150) coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A755/A755M.
 - a. Nominal Thickness: 0.025 inch (0.635 mm)
 - b. Exterior Finish: Thermoplastic fluoropolymer
 - c. Color: As selected by Architect from manufacturer's full range.
 - 3. Clips: One-piece fixed to accommodate thermal movement.
 - a. Material: 0.025-inch- (0.635-mm) nominal thickness, zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet.
 - 4. Joint Type: As standard with manufacturer.
 - 5. Panel Coverage: 16 inches (406 mm)
 - 6. Panel Height: 1.5 inches (38 mm)

2.2 UNDERLAYMENT MATERIALS

- A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of 30 mils (0.76 mm) thick, consisting of slip-resistant, polyethylene-film top surface laminated to a layer of butyl or SBS-modified asphalt adhesive, with release-paper backing. Provide primer when recommended by underlayment manufacturer.
 - 1. Thermal Stability: Stable after testing at 240 deg F (116 deg C); ASTM D1970.
 - 2. Low-Temperature Flexibility: Passes after testing at minus 20 deg F (29 deg C); ASTM D1970.
 - 3. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

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- a. Carlisle Residential; a division of Carlisle Construction Materials.
- b. Drexel Metals.
- c. GCP Applied Technologies Inc.
- d. Owens Corning.

2.3 MISCELLANEOUS MATERIALS

- A. Miscellaneous Metal Subframing and Furring: ASTM C645; cold-formed, metallic-coated steel sheet, ASTM A653/A653M, G90 (Z275 hot-dip galvanized) coating designation or ASTM A792/A792M, Class AZ50 (Class AZM150) coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.
- B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.
 - 1. Closures: Provide closures at eaves and ridges, fabricated of same metal as metal panels.
 - 2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
 - 3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch- (25-mm-) thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.
- C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.
- D. Gutters: Formed from same material as roof panels, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch- (2400-mm-) long sections, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Furnish gutter supports spaced a maximum of 36 inches (914 mm) o.c., fabricated from same metal as gutters. Provide wire ball strainers of compatible metal at outlets. Finish gutters to match metal roof panels.
- E. Downspouts: Formed from same material as roof panels. Fabricate in 10-foot- (3-m-) long sections, complete with formed elbows and offsets, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Finish downspouts to match gutters.
- F. Roof Curbs: Fabricated from same material as roof panels, 0.048-inch (1.2-mm) thickness; with bottom of skirt profiled to match roof panel profiles and with welded top box and integral fulllength cricket. Fabricate curb subframing of 0.060-inch- (1.52-mm-) nominal thickness, angle-, C-, or Z-shaped steel sheet. Fabricate curb and subframing to withstand indicated loads of size and height indicated. Finish roof curbs to match metal roof panels.
 - 1. Insulate roof curb with 1-inch- (25-mm-) thick, rigid insulation.

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- G. Panel Fasteners: Self-tapping screws designed to withstand design loads.
- H. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.
 - 1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.
 - 2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
 - 3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

2.4 FABRICATION

- A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
- B. On-Site Fabrication: Subject to compliance with requirements of this Section, metal panels may be fabricated on-site using UL-certified, portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate according to equipment manufacturer's written instructions and to comply with details shown.
- C. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.
- D. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.
- E. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.
 - 1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
 - 2. Seams: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
 - 3. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
 - 4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
 - 5. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.

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a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal panel manufacturer for application, but not less than thickness of metal being secured.

2.5 FINISHES

- A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are unacceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Steel Panels and Accessories:
 - 1. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 2. Three-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 3. Mica Fluoropolymer: AAMA 621. Two-coat fluoropolymer finish with suspended mica flakes containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 4. Metallic Fluoropolymer: AAMA 621. Three-coat fluoropolymer finish with suspended metallic flakes containing not less than 70 percent PVDF resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 5. FEVE Fluoropolymer: AAMA 621. Two-coat fluoropolymer finish containing 100 percent fluorinated ethylene vinyl ether resin in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - 6. Siliconized Polyester: Epoxy primer and silicone-modified, polyester-enamel topcoat; with a dry film thickness of not less than 0.2 mil (0.005 mm) for primer and 0.8 mil (0.02 mm) for topcoat.
 - 7. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil (0.013 mm).

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PART 3 - EXECUTION

3.1 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C754 and metal panel manufacturer's written recommendations.

3.2 UNDERLAYMENT INSTALLATION

A. Self-Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply at locations indicated below, wrinkle free, in shingle fashion to shed water, and with end laps of not less than 6 inches (152 mm) staggered 24 inches (610 mm) between courses. Overlap side edges not less than 3-1/2 inches (90 mm). Extend underlayment into gutter trough. Roll laps with roller. Cover underlayment within 14 days.

1. Apply over the entire roof surface.

2.1. Apply over the roof area indicated below:

- a. Roof perimeter for a distance up from eaves of 24 inches (610 mm) beyond interior wall line.
- b. Valleys, from lowest point to highest point, for a distance on each side of 18 inches (460 mm). Overlap ends of sheets not less than 6 inches (152 mm).
- c. Hips and ridges for a distance on each side of 12 inches (305 mm)
- d. Roof-to-wall intersections for a distance from wall of 18 inches (460 mm)
- e. Around dormers, chimneys, skylights, and other penetrating elements for a distance from element of 18 inches (460 mm)
- e.f. And any other roof area over conditioned space
- B. Flashings: Install flashings to cover underlayment to comply with requirements specified in Section 076200 "Sheet Metal Flashing and Trim."

3.3 METAL PANEL INSTALLATION

- A. General: Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.
 - 1. Shim or otherwise plumb substrates receiving metal panels.
 - 2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.
 - 3. Install screw fasteners in predrilled holes.
 - 4. Locate and space fastenings in uniform vertical and horizontal alignment.
 - 5. Install flashing and trim as metal panel work proceeds.

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- 6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
- 7. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
- 8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.
- B. Fasteners: Use stainless-steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.
- C. Anchor Clips: Anchor metal roof panels and other components of the Work securely in place, using manufacturer's approved fasteners according to manufacturers' written instructions.
- D. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.
- E. Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer.
 - 1. Install clips to supports with self-tapping fasteners.
 - 2. Install pressure plates at locations indicated in manufacturer's written installation instructions.
 - 3. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel, and factory-applied sealant are completely engaged.
 - 4. Watertight Installation:
 - a. Apply a continuous ribbon of sealant or tape to seal joints of metal panels, using sealant or tape as recommend in writing by manufacturer as needed to make panels watertight.
 - b. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
 - c. At panel splices, nest panels with minimum 6-inch (152-mm) end lap, sealed with sealant and fastened together by interlocking clamping plates.
- F. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.
 - 1. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal roof panel manufacturers; or, if not indicated, types recommended by metal roof panel manufacturer.
- G. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
 - 1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet

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metal flashing and trim to fit substrates and achieve waterproof and weather-resistant performance.

- 2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet (3 m) with no joints allowed within 24 inches (610 mm) of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with mastic sealant (concealed within joints).
- H. Gutters: Join sections with riveted and soldered or lapped and sealed joints. Attach gutters to eave with gutter hangers spaced not more than 36 inches (914 mm) o.c. using manufacturer's standard fasteners. Provide end closures and seal watertight with sealant. Provide for thermal expansion.
- I. Downspouts: Join sections with telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch (25 mm) away from walls; locate fasteners at top and bottom and at approximately 60 inches (1524 mm) o.c. in between.
 - 1. Provide elbows at base of downspouts to direct water away from building.
 - 2. Connect downspouts to underground drainage system indicated.
- J. Roof Curbs: Install flashing around bases where they meet metal roof panels.
- K. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to metal roof panels as recommended by manufacturer.

3.4 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align metal panel units within installed tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on slope and location lines as indicated and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.

3.5 CLEANING AND PROTECTION

- A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.
- B. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074113.16

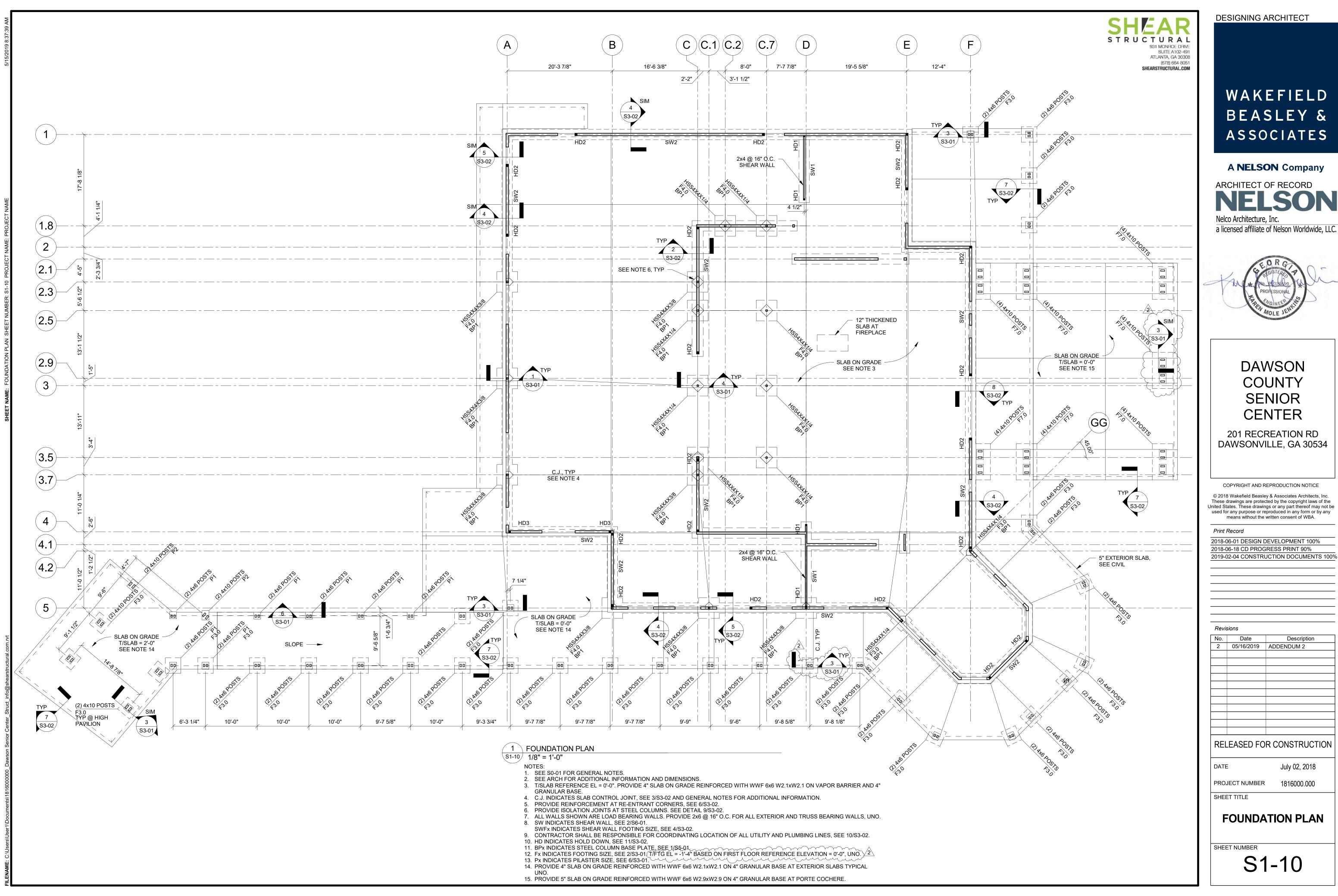
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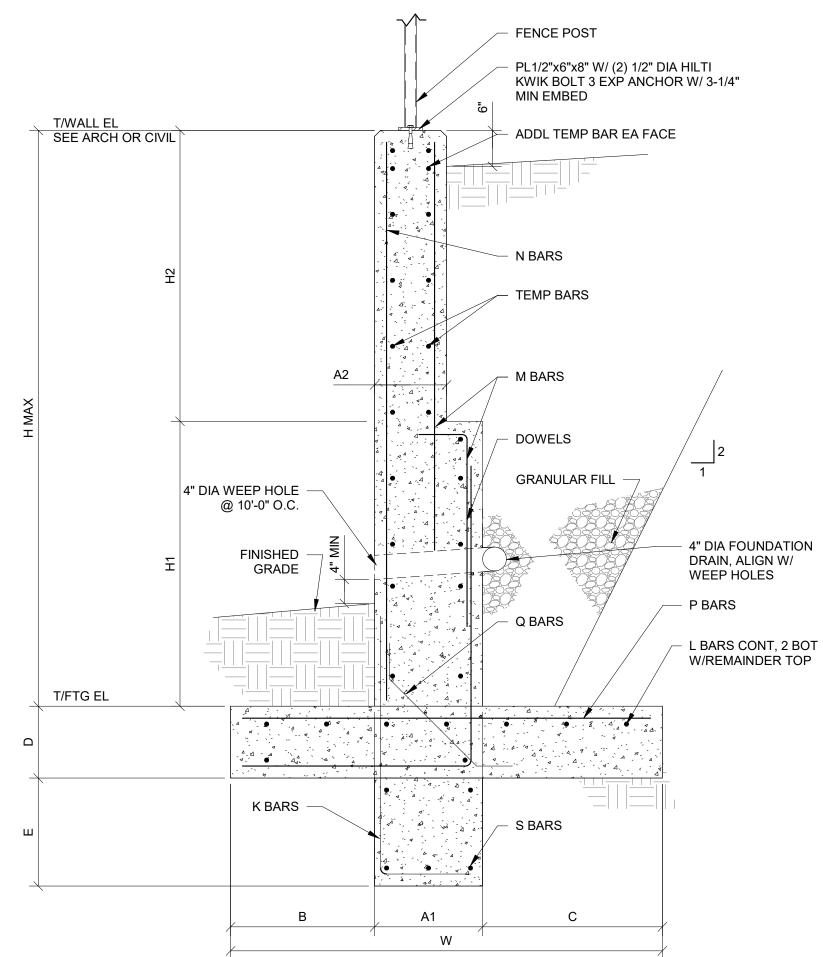
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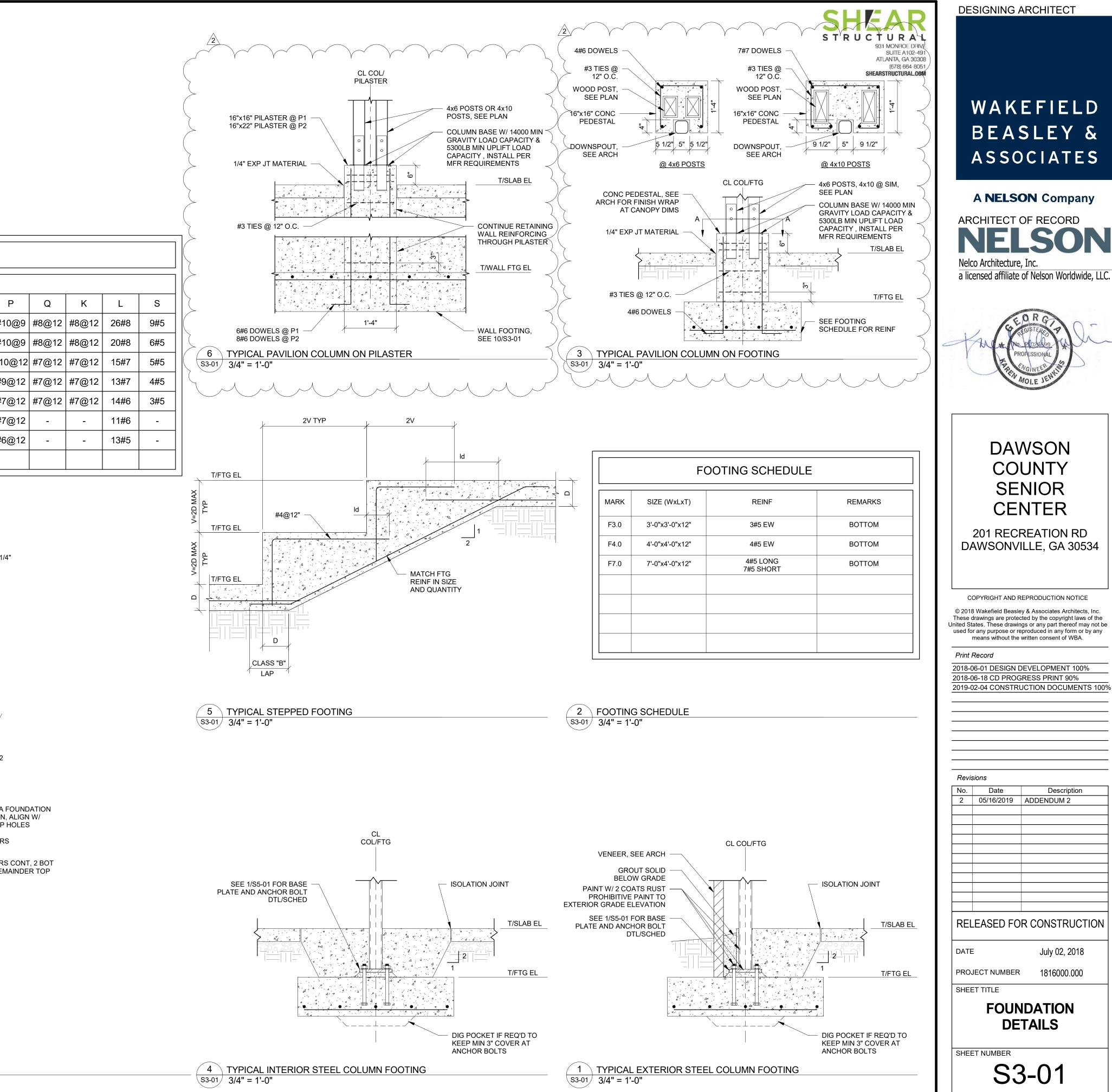


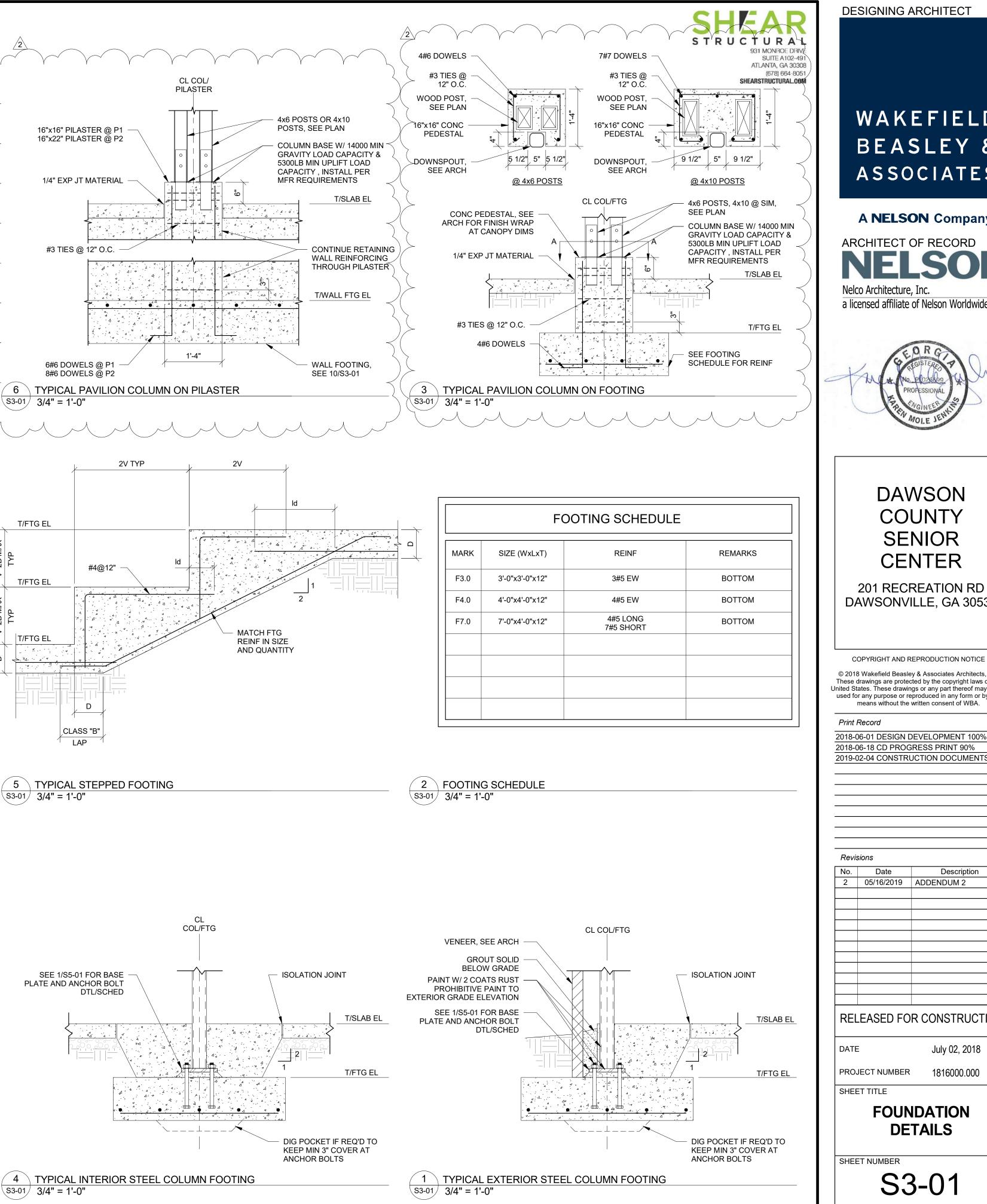
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H1	H2	W	A1	A2	В	С	D	Е	DOWELS	М	N	TEMP	Р
15'-0"	17'-0"	26'-6"	34"	18"	11'-9"	11'-11"	36"	3'-6"	#10@4	#10@4	#6@12	@6@12	#10@9
11'-0"	17'-0"	22'-3"	26"	18"	10'-0"	10'-1"	30"	3'-0"	#10@4	#10@4	#6@12	@6@12	#10@9
7'-0"	17'-0"	17'-3"	22"	18"	7'-9"	7'-8"	24"	3'-0"	#9@6	#9@6	#6@12	@6@12	#10@12
-	-	14'-3"	18"	-	6'-6"	6'-3"	24"	2'-6"	#9@6	#9@6	#6@12	@6@12	#9@12
-	-	11'-6"	18"	-	4'-6"	5'-6"	24"	1'-4"	#9@9	#9@9	#5@12	@5@12	#7@12
-	-	9'-0"	12"	-	3'-6"	4'-6"	24"	-	#9@12	#9@12	#5@12	@5@12	#7@12
-	-	7'-3"	12"	-	3'-0"	3'-3"	24"	-	#7@12	#7@12	#5@12	@5@12	#6@12
	H1 15'-0" 11'-0" 7'-0" - -	15'-0" 17'-0" 11'-0" 17'-0" 7'-0" 17'-0" - - - - - - - - - - - - - - - -	H1 H2 W 15'-0" 17'-0" 26'-6" 11'-0" 17'-0" 22'-3" 7'-0" 17'-0" 17'-3" - - 14'-3" - - 11'-6" - - 9'-0"	H1 H2 W A1 15'-0" 17'-0" 26'-6" 34" 11'-0" 17'-0" 22'-3" 26" 7'-0" 17'-0" 17'-3" 22" - - 14'-3" 18" - - 11'-6" 18" - - 9'-0" 12"	H1 H2 W A1 A2 15'-0" 17'-0" 26'-6" 34" 18" 11'-0" 17'-0" 22'-3" 26" 18" 7'-0" 17'-0" 17'-3" 22" 18" - - 14'-3" 18" - - - 11'-6" 18" - - 9'-0" 12" -	H1 H2 W A1 A2 B 15'-0" 17'-0" 26'-6" 34" 18" 11'-9" 11'-0" 17'-0" 22'-3" 26" 18" 10'-0" 7'-0" 17'-0" 17'-3" 22" 18" 7'-9" - - 14'-3" 18" - 6'-6" - - 11'-6" 18" - 4'-6" - - 9'-0" 12" - 3'-6"	H1 H2 W A1 A2 B C 15'-0" 17'-0" 26'-6" 34" 18" 11'-9" 11'-11" 11'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 11'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 7'-0" 17'-0" 17'-3" 22" 18" 7'-9" 7'-8" - - 14'-3" 18" - 6'-6" 6'-3" - - 11'-6" 18" - 4'-6" 5'-6" - 9'-0" 12" - 3'-6" 4'-6"	H1 H2 W A1 A2 B C D 15'-0" 17'-0" 26'-6" 34" 18" 11'-9" 11'-11" 36" 11'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 7'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 7'-0" 17'-0" 17'-3" 22" 18" 7'-9" 7'-8" 24" - - 14'-3" 18" - 6'-6" 6'-3" 24" - - 11'-6" 18" - 4'-6" 5'-6" 24" - - 9'-0" 12" - 3'-6" 4'-6" 24"	H1 H2 W A1 A2 B C D E 15'-0" 17'-0" 26'-6" 34" 18" 11'-9" 11'-11" 36" 3'-6" 11'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 3'-0" 7'-0" 17'-0" 17'-3" 22" 18" 7'-9" 7'-8" 24" 3'-0" 7'-0" 17'-0" 17'-3" 22" 18" 7'-9" 7'-8" 24" 3'-0" - - 14'-3" 18" - 6'-6" 6'-3" 24" 2'-6" - - 11'-6" 18" - 4'-6" 5'-6" 24" 1'-4" - - 9'-0" 12" - 3'-6" 4'-6" 24" -	H1 H2 W A1 A2 B C D E DOWELS 15'-0" 17'-0" 26'-6" 34" 18" 11'-9" 11'-11" 36" 3'-6" #10@4 11'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 3'-6" #10@4 7'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 3'-0" #10@4 7'-0" 17'-0" 17'-3" 22" 18" 7'-9" 7'-8" 24" 3'-0" #9@6 - - 14'-3" 18" - 6'-6" 6'-3" 24" 2'-6" #9@6 - - 11'-6" 18" - 4'-6" 5'-6" 24" 1'-4" #9@9 - - 9'-0" 12" - 3'-6" 4'-6" 24" - #9@12	H1 H2 W A1 A2 B C D E DOWELS M 15'-0" 17'-0" 26'-6" 34" 18" 11'-9" 11'-11" 36" 3'-6" #10@4 #10@4 11'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 3'-6" #10@4 #10@4 7'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 3'-0" #10@4 #10@4 7'-0" 17'-0" 17'-3" 22" 18" 10'-0" 10'-1" 30" 3'-0" #10@4 #10@4 7'-0" 17'-0" 17'-3" 22" 18" 7'-9" 7'-8" 24" 3'-0" #9@6 #9@6 - - 14'-3" 18" - 6'-6" 6'-3" 24" 2'-6" #9@0 #9@0 - - 11'-6" 18" - 4'-6" 5'-6" 24" 1'-4"	H1 H2 W A1 A2 B C D E DOWELS M N 15'-0" 17'-0" 26'-6" 34" 18" 11'-9" 11'-11" 36" 3'-6" #10@4 #10@4 #6@12 11'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 3'-0" #10@4 #10@4 #6@12 7'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 3'-0" #10@4 #10@4 #6@12 7'-0" 17'-0" 17'-3" 22" 18" 7'-9" 7'-8" 24" 3'-0" #9@6 #9@6 #6@12 - - 14'-3" 18" - 6'-6" 6'-3" 24" 3'-0" #9@6 #9@6 #6@12 - - 14'-3" 18" - 6'-6" 6'-3" 24" 2'-6" #9@0 #9@9 \$5@12 - - 11	H1 H2 W A1 A2 B C D E DOWELS M N TEMP 15'-0" 17'-0" 26'-6" 34" 18" 11'-9" 11'-11" 36" 3'-6" #10@4 #10@4 #6@12 @6@12 11'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 3'-0" #10@4 #10@4 #6@12 @6@12 7'-0" 17'-0" 22'-3" 26" 18" 10'-0" 10'-1" 30" 3'-0" #10@4 #10@4 #6@12 @6@12 7'-0" 17'-0" 17'-3" 22" 18" 7'-9" 7'-8" 24" 3'-0" #9@6 #9@6 #6@12 @6@12 7'-0" 17'-3" 22" 18" 7'-9" 7'-8" 24" 3'-0" #9@6 #9@6 #6@12 @6@12 - - 14'-3" 18" - 6'-6" 6'-3" 24" 2'-6" #9@6 #9@6 #6@12 @5@12 - - 11'-6" 18"

WALL REINFORCING SCHEDULE

NOTE: FOR INFORMATION NOT SHOWN, SEE ARCH AND CIVIL







SITE DEVELOPMENT PLANS FOR:

DAWSON COUNTY SENIOR CENTER EXPANSION 201 RECREATION RD

DAWSONVILLE, GA 30534 LAND LOTS 248 & 249, 13TH DISTRICT, PARCEL #: 091035 ZONED: RA

SHEET INDEX

G-1	COVER
G-2	CONSTRUCTION RESPONSIBILITY PLAN
V-1	SURVEY
C-0	DEMOLITION PLAN
C-1	SITE & PAVING PLAN
C-1.1	ACCESSIBILITY PLAN AND DETAILS
C-2	GRADING AND DRAINAGE PLAN
C-2.1	STORM DRAINAGE PROFILES
C-2.2	STORM DRAINAGE DETAILS
C-3	UTILITIES PLAN
C-3.1	SANITARY SEWER PROFILES
C-4	EROSION, SEDIMENTATION, & POLLUTION CONTROL COVER
C-4.1	EROSION, SEDIMENTATION, & POLLUTION CONTROL NOTES
C-4.2	EROSION, SEDIMENTATION, & POLLUTION CONTROL NOTES
C-4.3	INITIAL EROSION, SEDIMENTATION, & POLLUTION CONTROL PLAN
C-4.4	INTERMEDIATE EROSION, SEDIMENTATION, & POLLUTION CONTROL PLAN
C-4.5	FINAL EROSION, SEDIMENTATION, & POLLUTION CONTROL PLAN
C-4.6	EROSION, SEDIMENTATION, & POLLUTION CONTROL DETAILS
C-4.7	EROSION, SEDIMENTATION, & POLLUTION CONTROL DETAILS
C-4.8	EROSION, SEDIMENTATION, & POLLUTION CONTROL DETAILS
C-5	CONSTRUCTION DETAILS
C-5.1	CONSTRUCTION DETAILS
C-6	UTILITY DETAILS
C-6.1	UTILITY DETAILS
L-1	LANDSCAPE PLAN
L-2	LANDSCAPE DETAILS

PREPARED BY:



 Foresite Group, Inc.
 w | www.fg-inc.net

 3740 Davinci Ct.
 o | 770.368.1399

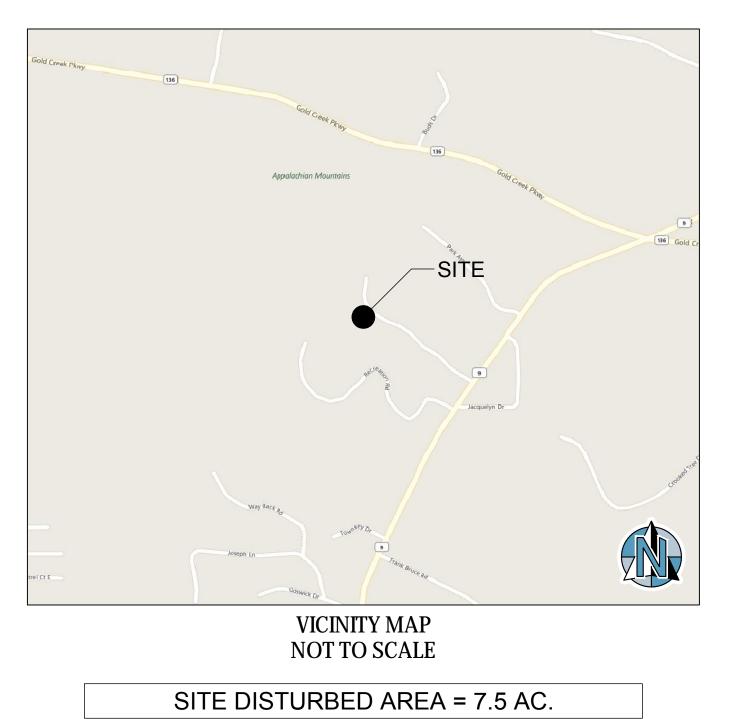
 Suite 100
 f | 770.368.1944

 Peachtree Corners, GA 30092

24 HR CONTACT: DAVID MCKEE (706) 344-3501

ISSUED: MARCH 28, 2018 121.029

CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY UPON COMPLETION OF INITIAL EROSION BMP'S AS SHOWN ON SHEET C-4 IN ORDER FOR ENGINEER TO SCHEDULE THE INITIAL 7 DAY EROSION CONTROL INSPECTION. THE CONTRACTOR SHALL VERIFY THAT ALL EXISTING INITIAL BMP'S ARE INSTALLED PROPERLY. ALL COMPENSATION FOR DESIGN ENGINEER'S REINSPECTION TO VERIFY THAT THE INITIAL BMP'S ARE PROPERLY INSTALLED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.



	ANTICIPATED BEGIN CONSTRU END CONSTRU	СТІ	ON:	20	S(19-0 20-0	04-0	1	DU	LE			
	ACTIVITY		.0 ГН	.0 ГН	6 M	.0 ГН	8. M	-	10 M).0 ГН	12 M	
1	INSTALL SEDIMENT CONTROLS											
2	DEMOLITION											
3	CLEARING, GRUBBING, & GRADING											
4	GRASS TEMP.											
5	BUILDING CONSTRUCTION											
6	MAINTAIN EROSION CONTROL											
7	PAVING			 								
8	FINAL LANDSCAPING			 								
9	DISPOSITION OF TEMP. SEDIMENT CONTROLS											

PROJECT DIRECTORY

OWNER DAWSON COUNTY BOARD OF COMMISSIONER 25 JUSTICE WAY, SUITE 2223 DAWSONVILLE, GA 30534 (706) 344-3500 CONTACT: MELISSA HAWK

CIVIL ENGINEER FORESITE GROUP, INC. 3740 DAVINCI COURT, SUITE 100 PEACHTREE CORNERS, GA 30092 (770) 344-3700 CONTACT: DAWN PRUETT

ARCHITECT ERIC PEEK 5200 AVOLON BLVD ALPHARETTA, GA 30009 (770) 209-9393 CONTACT: WAKEFIELD BEASLEY & ASSCIATES, INC.

UTILITY PROVIDERS

WATER SERVICE PROVIDER

ETOWAH WATER AND SEWER AUTHORITY 1162 HWY 53 E DAWSONVILLE, GA 30534 (706) 216-8474 CONTACT: JOHN CRONAN

SANITARY SEWER SERVICE PROVIDER DAWSON CO. ENVIRONMENTAL HEALTH 189 HIGHWAY 53 WEST, SUITE 102 P.O. BOX 2020, DAWSONVILLE, GA 30534 (706) 265-2930 CONTACT: BILL RINGLE

CERTIFICATION STATEMENT:

"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 THE BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001. ADDITIONALLY, I CERTIFY UNDER 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 SUPERVISION."

Jack Mohn John	4/0
GNATURE OF ENGINEER	DATE
0006080827	2019-03-24
ERTIFICATION #	EXPIRATION

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT CERTIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

SIGNATURE OF PRIMARY PERMITEE

CI

DATE

AS USED HEREIN, THE WORD CERTIFY SHALL MEAN AN EXPRESSION OF THE CONSULTANT S PROFESSIONAL OPINION TO THE BEST OF ITS INFORMATION, KNOWLEDGE, AND BELIEF, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE BY THE CONSULTANT.

DESIGNING ARCHITECT

SURVEYOR GEOSURVEY, LTD 1660 BARNES MILL RD MARIETTA, GA 30062 (770) 795-9900 CONTACT: JOHN NEWMAN

GEOTECHNICAL ENGINEER GEOHYDRO ENGINEERS 1000 COBB PLACE BLVD, SUITE 290 KENNESAW, GA 30144 (770) 426.7100 CONTACT: A. MARTY PENINGER

ELECTRICAL SERVICE PROVIDER GEORGIA POWER COMPANY 823 JEFFERSON ST. ATLANTA, GA 30318 (404) 506-4569 CONTACT: IKE COLLINS

GAS SERVICE PROVIDER SOUTHEN COMPANY GAS 10 PEACHTREE ST. NE ATLANTA, GA 30309 (404) 584-4338 CONTACT: HAYDEN HINTON

TELEPHONE SERVICE PROVIDER WINDSTREAM COMMUNICATION 750 N. JEFFERSON ST. NE MILLEDGEVILLE, GA 31061 (888) 599-3166

LOCAL MUNICIPALITY DAWSON COUNTY 25 JUSTICE WAY, SUITE 2223 DAWSONVILLE, GA 30534 (706) 344-3500 CONTACT: DAVID MCKEE

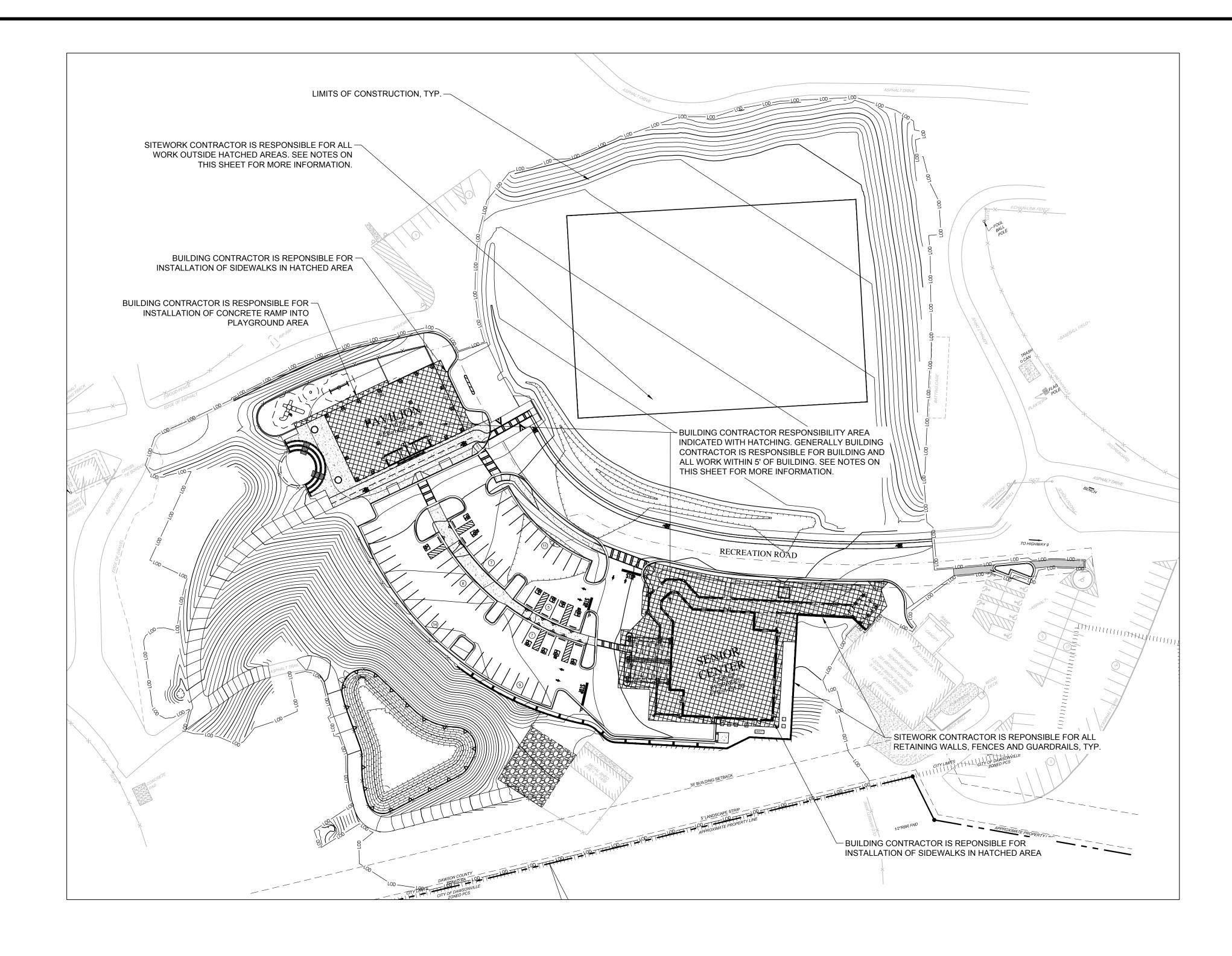


3/19



SHEET NUMBER

G-



1. ALL DEMOLITION.

- SEE NOTES BELOW.
- 8. ALL AMPHITHEATER INFRASTRUCTURE. 9. ALL CURB AND GUTTER.
- EXHIBIT.
- CONSTRUCTION. 12. ALL LANDSCAPING AND IRRIGATION. 13. ALL PAVEMENT STRIPING AND SIGNAGE.
- CONSTRUCTION.

BUILDING CONTRACTOR RESPONSIBILITIES:

- 2. UTILITY CONNECTIONS TO BUILDING. ABOVE.
- CONSTRUCTION.



CONTRACTOR RESPONSIBILITY NOTES:

SITEWORK CONTRACTOR RESPONSIBILITIES:

2. ALL GRADING, EARTHWORK, STORMWATER MANAGEMENT AND DRAINAGE INFRASTRUCTURE INCLUDING ROOF DRAINS STUBBED AT 5' OUTSIDE THE

BUILDING ENVELOPE.
SITEWORK CONTRACTOR IS RESPONSIBLE TO BRING THE BUILDING PADS TO GRADE IN ACCORDANCE WITH THE REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING PREPARED BY GEOHYDRO ENGINEERS, DATED

APRIL 3, 2018.
ALL UTILITIES STUBBED AT 5' OUTSIDE BUILDING ENVELOPE (INCLUDING UNDERGROUND ROOF DRAINAGE LINES). SITE WORK CONTRACTOR IS RESPONSIBLE FOR ALL COSTS AND COORDINATION WITH UTILITY PROVIDERS FOR INSTALLATION OF SERVICES, RELOCATION AND/OR MODIFICATION OF SERVICES. 5. SITEWORK CONTRACTOR IS RESPONSIBLE FOR TRANSFORMER PAD. BUILDING CONTRACTOR RESPONSIBLE FOR ALL OTHER BUILDING UTILITY EQUIPMENT PADS,

ALL RETAINING WALLS, FENCES AND GUARDRAILS (SEE BUILDING STRUCTURAL PLANS FOR FENCE CONNECTION DETAIL TO TOP OF RETAINING WALL).
 ALL PLAYGROUND INFRASTRUCTURE UNLESS OTHERWISE NOTED HERE ON.

10. ALL CONCRETE SIDEWALK, UNLESS OTHERWISE NOTED IN THE RESPONSIBILITY

11. ALL ROADWAY, TRAIL, AND PARKING LOT ASPHALT PAVING TO THE BINDER COURSE OF ASPHALT. THE BUILDING CONTRACTOR WILL BE RESPONSIBLE TO INSTALL THE FINISH COURSE OF ASPHALT AT THE COMPLETION OF

14. REPLACEMENT OF ANY IMPROVEMENTS INSTALLED BY THE BUILDING CONTRACTOR THAT ARE DAMAGED BY SITEWORK CONTRACTOR DURING

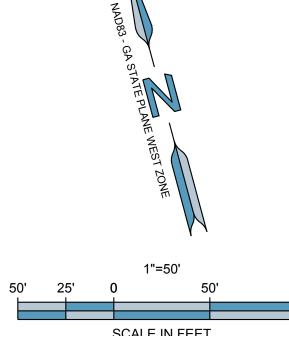
15. ALL OTHER SITEWORK INDICATED IN THE PLANS AND SPECIFICATIONS NOT COVERED BY THE BUILDING CONTRACTOR.

1. COMPLETE BUILDING PER BUILDING PLANS

3. HVAC AND OTHER EQUIPMENT PADS EXCEPT TRANSFORMER PAD. SEE NOTES

 DOWNSPOUT CONNECTIONS TO UNDERGROUND ROOF DRAINAGE LINES.
 CONCRETE PAVEMENT IN PORTE COCHERE AREA. PORTIONS OF CONCRETE SIDEWALK INDICATED IN THE RESPONSIBILITY EXHIBIT. INSTALLATION THE FINISH COURSE OF ASPHALT AT THE COMPLETION OF

 REPLACEMENT OF ANY SIDEWALK, CURBS OR OTHER IMPROVEMENTS INSTALLED BY THE SITEWORK CONTRACTOR THAT ARE DAMAGED BY BUILDING CONTRACTOR DURING CONSTRUCTION.



DESIGNING ARCHITECT



A NEL FON Company



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DAWSONVILLE, GA 30534

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Print Record

2019-01-14 SCHEMATIC DESIGN PACKAGE 2019-02-04 BID PACKAGE 2019-03-08 GRANT REVIEW DOCUMENTS 2019-04-03 COUNTY COMMENTS 1 2019-05-16 ADDENDUM 2

Revis	Revisions							
No.	Date	Description						
DEI	FASED FO	R CONSTRUCTION						

| RELEASED FOR CONSTRUCTION |

DATE

100

PROJECT NUMBER

SHEET TITLE CONSTRUCTION RESPONSIBILITY PLAN

SHEET NUMBER





THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE DEMOLITION PERMIT FROM WSON COUNTY PRIOR TO DEMOLITION OF THE SITE.

ALL INITIAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY WORK INCLUDING DEMOLITION.

ALL CONSTRUCTION RELATED PERMITS DURING THE CONSTRUCTION PHASE OF THIS ROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR.

REMOVE SHRUBS AND TREES AS NOTED. GRUB OUT ROOTS AND STUMPS AND LEGALLY ISPOSE OF DEBRIS.

) CONTRACTOR SHALL BE FAMILIAR WITH AND FOLLOW ALL RECOMMENDATIONS GIVEN BY SEOTECHNICAL REPORT BY GEOHYDRO ENGINEERS DATED APRIL, 3 2018 DURING DEMOLITION AND SITE CONSTRUCTION.

EROSION CONTROL NOTES SEE ALSO EROSION CONTROL PLAN)

EROSION CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO ANY CLEARING OR ARTHWORK OPERATIONS AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ALL DISTURBED AREAS.

THE CONTRACTOR SHALL PROVIDE DUST CONTROL AND SHALL PROTECT ADJACENT AVEMENTS FROM SOIL ACCUMULATION DURING CONSTRUCTION.

ADDITIONAL EROSION CONTROL DEVICES MAY BE REQUIRED BY THE ENGINEER OR OTHER ISPECTORS AS DETERMINED BY FIELD CONDITIONS.

LEGEND UTILITIES, FENCE, AND/OR WALL TO BE REMOVED AND/OR RELOCATED. SEE NOTE FOR DETAIL. BUILDING/CONCRETE TO BE REMOVED ••••• ASPHALT, GRAVEL, AND/OR CURB & GUTTER TO BE REMOVED EXISTING FENCE ____X____X____X____ PROPERTY LINE _____ LIMITS OF DISTURBANCE — LOD — _ LOD — _ LOD — ____¥_____

¥¥	TREE PROTECTION FENCE
	EXISTING TREE TO BE REMOVED
441.9	0)0000000000000000000000000000000000000

EXISTING PARK BENCH AND \neq

SHALL COORDINATE

~PLAYGROUND~

EXISTING BUILDING

(TO BE REMOVED)

XISTING POWER METER -

(TO BE REMOVED)

BENCH SWING TO BE RELOCATED

EXISTING PLAYGROUND -

TO BE RELOCATED TO

AREA AND INSTALLED

PER MANUFACTURERS

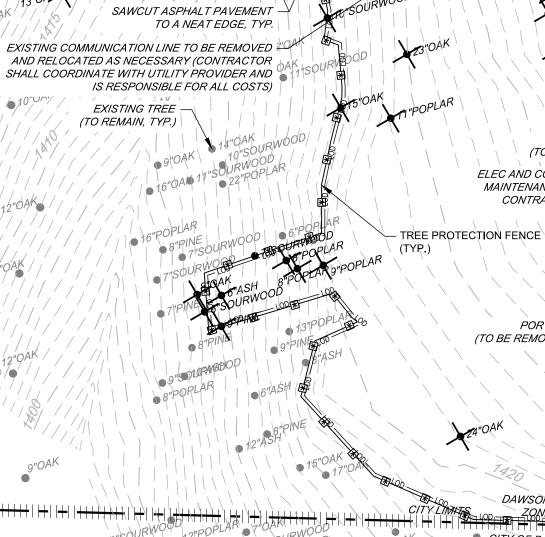
RECOMMENDATIONS)

NEW PLAYGROUND

BY THE COUNTY. CONTRACTOR

PORTION OF EXISTING STORM PIPE

(TO BE REMOVED





EXISTING TREE -

EXISTING SHED -

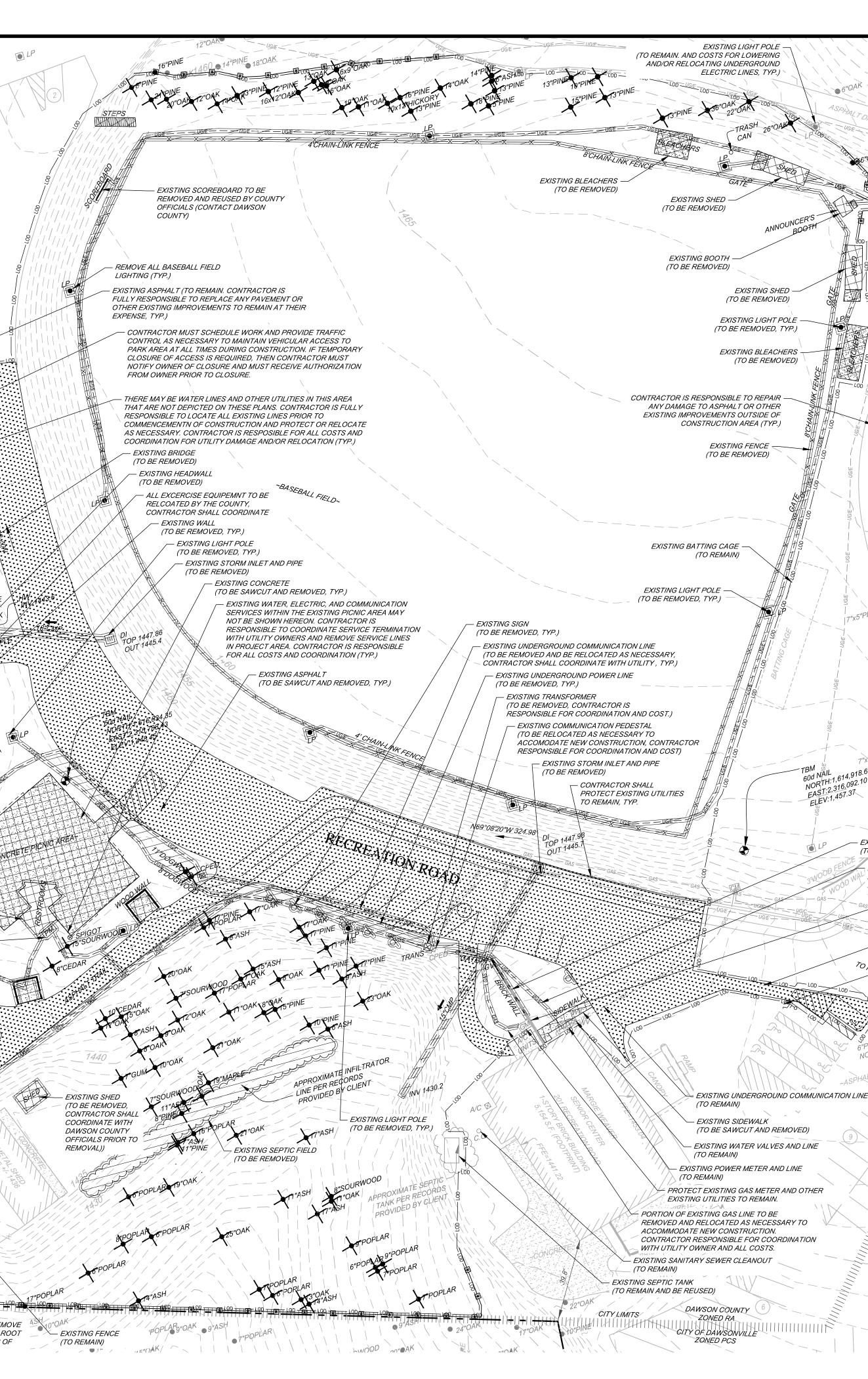
PORTIONS OF EXISTING FENCE -

(TO BE REMOVED AND REPLACED, TYP.)

(TO REMAIN)

(TO BE REMOVED, TYP.) ELEC AND COMMUNICATION SERVICE TO MAINTENANCE SHED TO BE REROUTED, CONTRACTOR IS RESPONSIBLE FOR COSTS AND COORDINATION

CITY OF DAWSONVILLE ZONED PCS CONTRACTOR SHALL REMOVE ALL BRUSH, TREES AND ROOT



DEMOLITION NOTES:

1) ALL NEW WORK SHOWN IN THESE SHEETS SHALL COMPLY WITH APPLICABLE STATE, FEDERAL, AND LOCAL BUILDING AND UTILITY INSTALLATION CODES.

2) ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ÁCCORDANCE WITH <DOT> STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES EXCEPT IN CASES WHERE, WITHIN DAWSON COUNTY JURISDICTION, THE COUNTY STANDARD SPECIFICATIONS ARE MORE STRINGENT.

THERE MAY BE ADDITIONAL UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR LOCATIONS SHOWN, AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION AND TO NOTIFY THE OWNER IN CASE OF DISCREPANCIES THAT AFFECT THE CONSTRUCTION PROJECT

4) THE CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION OF AND LIAISON WITH UTILITY COMPANIES IN THE PROCESS OF LOCATION AND RELOCATION OF AND TIE-IN TO PUBLIC UTILITIES.

5) CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR TO ANY ADJACENT STRUCTURES OR PROPERTY, OR ANY EXISTING STRUCTURES WITHIN LIMITS OF CONSTRUCTION THAT ARE DESIGNATED ON THE PLANS TO REMAIN, AND SHALL REPAIR OR REPLACE SUCH DAMAGED PROPERTY TO THE PROPERTY OWNER'S SATISFACTION AT NO COST TO THE OWNER.

6) THE CONTRACTOR SHALL NOT DEVIATE FROM THESE PLANS AND SPECIFICATIONS WITHOUT THE PRIOR WRITTEN CONSENT OF THE ENGINEER.

7) CONTRACTOR IS RESPONSIBLE FOR CONTACTING DAWSON COUNTY AND ALL EXISTING UTILITY PROVIDERS BEFORE REMOVING ANY/ALL UTILITIES FROM THEIR EXISTING LOCATION ON THE SITE THE CONTRACTOR SHALL PERFORM ALL UTILITY DEMOLITION OR RELOCATION ACTIVITIES IN ACCORDANCE WITH THE EXISTING UTILITIES SPECIFICATIONS, MATERIALS, AND REQUIREMENTS.

8) THE CONTRACTOR SHALL SEQUENCE THE WORK AND PROVIDE TEMPORARY MEASURES AS NECESSARY TO MAINTAIN ACCESS TO THE SITE THROUGH ALL ENTRANCES AT ALL TIMES DURING CONSTRUCTION. TEMPORARY PROVISIONS MAY INCLUDE, BUT ARE NOT LIMITED TO: BARRICADES, FLASHING LIGHTS, FLAGMAN, TEMPORARY PAVEMENT, AND DIRECTIONAL SIGNAGE AS NECESSARY TO ACCOMPLISH THE WORK.

9) CONTRACTOR SHALL CONSIDER COORDINATION ASPECTS OF CRANES AND CONSTRUCTION EQUIPMENT OPERATIONS DURING DEMOLITION ACTIVITY.

10) COORDINATE WITH DAWSON COUNTY AS REQUIRED DURING ALL DEMOLITION AND NEW CONSTRUCTION ACTIVITIES.

11) APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY DAWSON COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND AREA DISTURBANCE.

12) ALL BUFFERS AND SAVE AREAS SHALL BE CLEARLY IDENTIFIED BY FLAGGING AND/OR FENCING PRIOR TO COMMENCEMENT OF ANY I AND DISTURBANCE

13) THE CONTRACTOR SHALL DISPOSE OF ANY HAZARDOUS MATERIALS IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.

14) ALL ITEMS DESIGNATED FOR REMOVAL SHALL BE LEGALLY DISPOSED OF, OFF SITE.

15) CONTRACTOR TO CONTACT UTILITIES PROTECTION CENTER PRIOR TO ANY EXCAVATION

16) UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THESE PLANS. CONTRACTOR IS FULLY RESPONSIBLE TO LOCATE ALL UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND IS RESPONSIBLE FOR COORDINATION WITH UTILITY OWNERS FOR ANY UTILITY RELOCATIONS REQUIRED TO ACCOMMODATE THE PROPOSED CONSTRUCTION AND ALL ASSOCIATED COSTS.

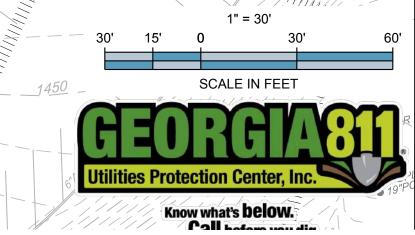
17) CONTRACTOR TO POT HOLE EXISTING WATER LINE, UNDERGROUND ELECTRICAL LINES, GAS LINE, UNDERGROUND TELEPHONE, FIBER OPTIC, AND ANY OTHER UTILITY LINES WITHIN THE LIMITS OF DISTURBANCE DURING DEMOLITION ACTIVITIES AND COORDINATE FIELD LOCATIONS AND DEPTHS OF THESE UTILITIES WITH ENGINEER FOR PROPOSED UTILITY CROSSINGS AND PROPOSED PAVEMENT OVER EXISTING LINES. THESE LINES MAY REQUIRE RELOCATION.

EXISTING RETAINING WALL (TO BE PARTIALLY REMOVED)

PORTION OF EXISTING ELECTRIC LINE TO BE REMOVED AND RELOCATED AS NECESSARY TO ACCOMMODATE NEW CONSTRUCTION. CONTRACTOR RESPONSIBLE FOR COORDINATION WITH UTILITY OWNER AND ALL COSTS. PROTECT PORTION OF EXISTING RETAINING WALL TO REMAIN AND BE PROTECTED

(SEE STRUCTURAL PLANS FOR LIMITS OF WALL TO REMAIN) - SAWCUT PAVEMENT TO NEAT EDGE AND

- REMOVE TO INSTALL WATER LINE (SEE C-3)
- EXISTING STRIPING (TO BE REMOVED AND REPLACED)
- 1" = 30'



ESIGNING ARCHITECT



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Print Record

2019-01-14 SCHEMATIC DESIGN PACKAGE 2019-02-04 BID PACKAGE 2019-03-08 GRANT REVIEW DOCUMENTS 2019-04-03 COUNTY COMMENTS 2019-05-16 ADDENDUM 2

No.	Date	Description
DELI		R CONSTRUCTION

DATE

PROJECT NUMBER

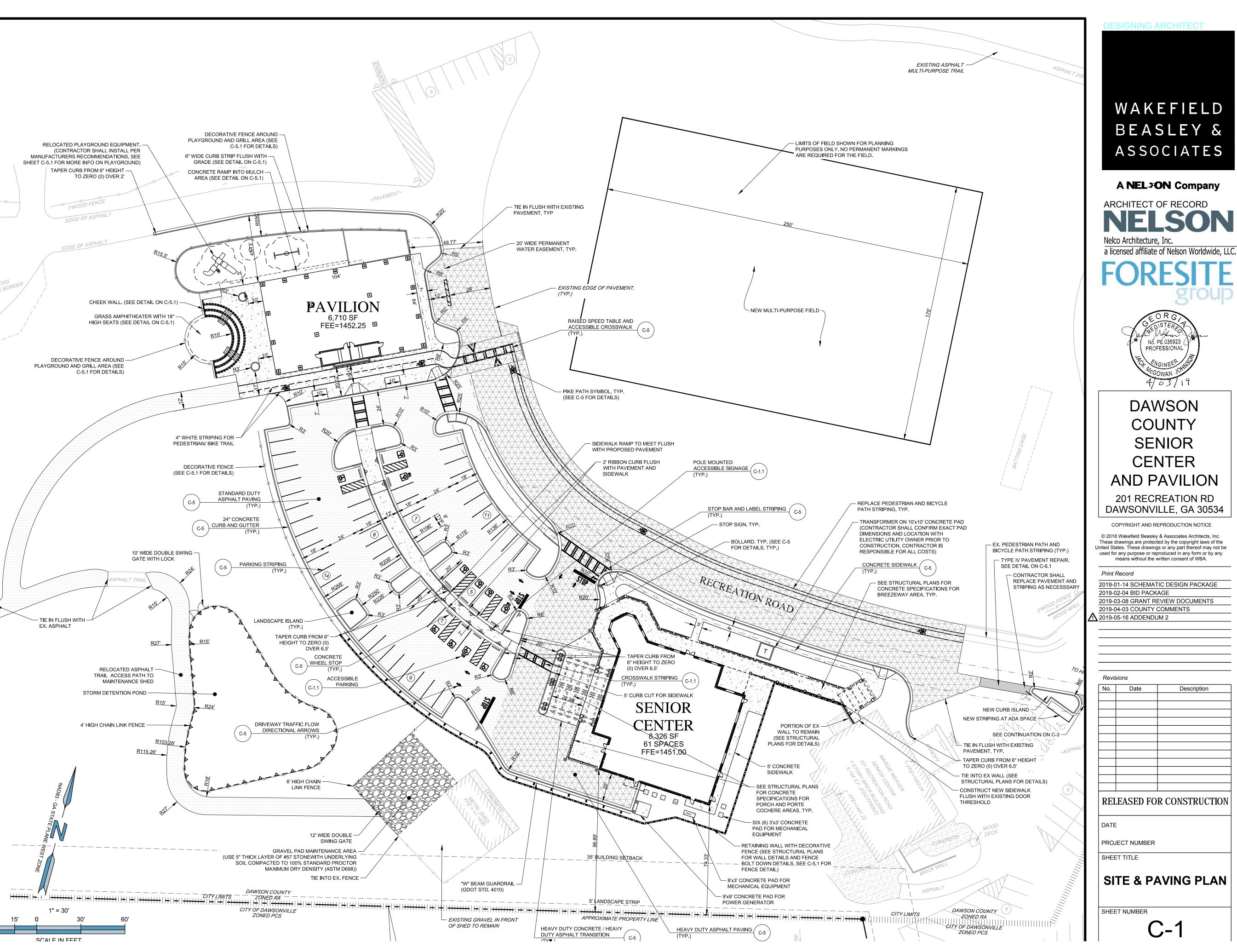
SHEET TITLE

DEMOLITION PLAN

SHEET NUMBER

GENERAL NOTES:

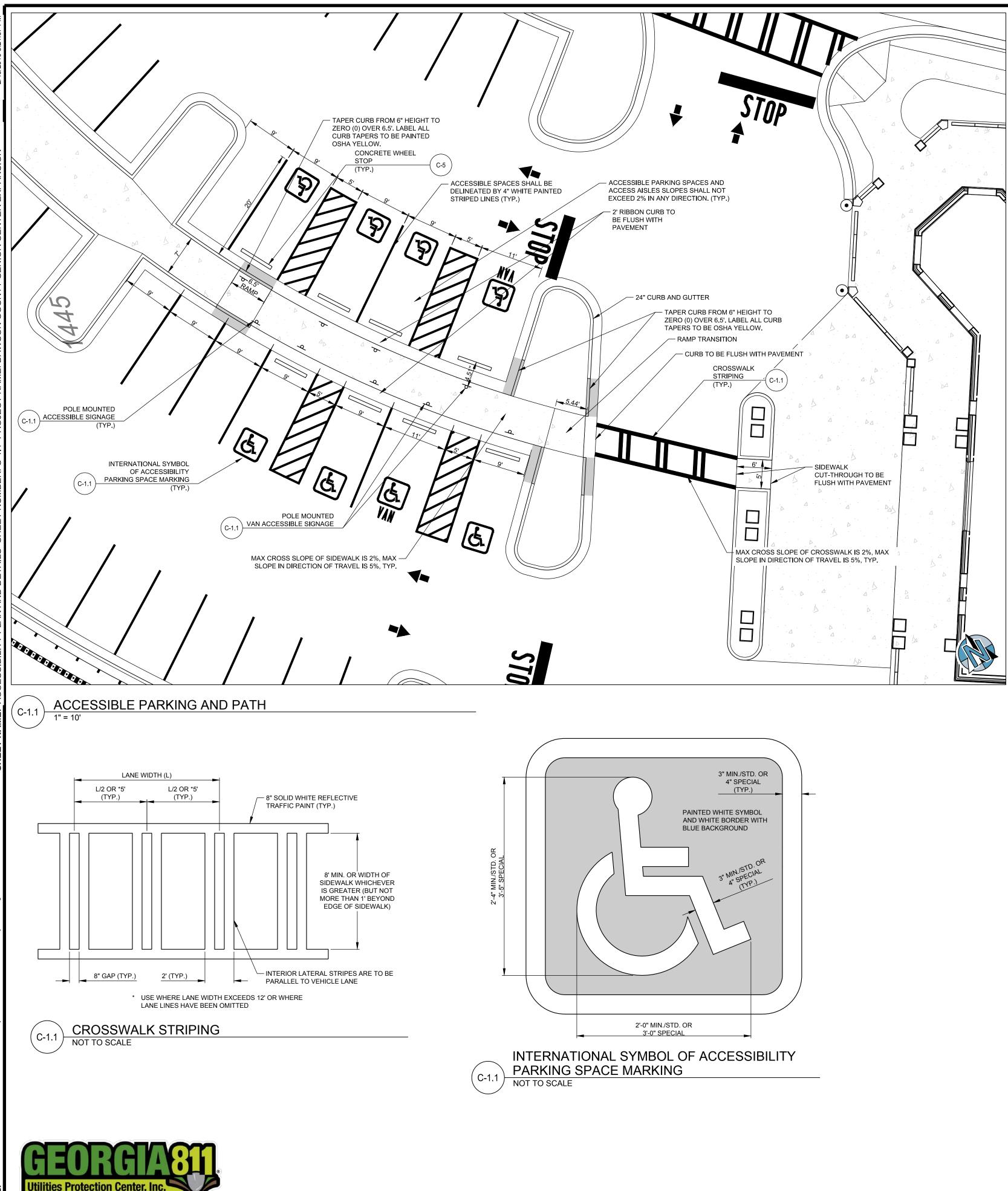
ALL PROPOSED DIMENSIONS USED TO SHOW THE GEOMETRIC LAYOUT OF THE PROPOSED PARKING LOT ARE SHOWN AT THE FACE OF CURB. ALL PROPOSED DIMENSIONS USED TO SHOW THE GEOMETRIC LAYOUT OF THE PROPOSED BUILDING LOCATION ARE GIVEN AT THE OUTSIDE FACE OF THE BUILDING CORNERS. ALL CURB RADII ARE GIVEN AT THE FACE OF CURB. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS IN THE FIELD AND THE SURVEY SHOWN ON THE PLANS BEFORE PROCEEDING WITH ANY NEW CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR CORRECT HORIZONTAL AND VERTICAL ALIGNMENT OF ALL TIES BETWEEN PROPOSED AND EXISTING PAVEMENTS, CURB AND GUTTER, SIDEWALKS, WALLS, AND UTILITIES. SITE NOTES: TRACT IS ZONED: RA (RESIDENTIAL EXURBAN/AGRICULTURAL)) SEE ARCHITECTURAL PLANS FOR BUILDING FLOOR PLAN DIMENSIONS, DOOR LOCATIONS, SITE LIGHTING PLAN, AND OTHER ARCHITECTURAL DFTAILS TAPER CURB FROM 6" HEIGHT -NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL SITE TO ZERO (0) OVER 2' MPROVEMENTS HAVE BEEN COMPLETED ON THE SITE. ALL BUFFERS, TREE SAVE AREAS, AND UNDISTURBED AREAS SHALL BE CLEARLY IDENTIFIED BY FLAGGING AND/OR FENCING PRIOR TO 3'WOOD FENL COMMENCEMENT OF ANY LAND DISTURBANCE. SIGNS (LOCATION, NUMBER, AND SIZE) ARE NOT APPROVED UNDER THIS EDGE OF ASPHAL DEVELOPMENT PERMIT. A SEPARATE PERMIT IS REQUIRED FOR ON-SITE SIGNAGE. ALL CONSTRUCTION RELATED PERMITS DURING THE CONSTRUCTION PHASE OF THIS PROJECT ARE THE RESPONSIBILITY OF THE OWNER, HOWEVER A CONTRACTOR/DEVELOPER CAN DO PERMITTING WITH AGENT AUTHORIZATION. ALL EROSION, SEDIMENT CONTROL AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO ANY GRADING. MAXIMUM CUT OR FILL SLOPE=2H:IV CONTRACTOR SHALL COORDINATE WITH THE CITY/COUNTY JURISDICTION, WATER AND SEWER JURISDICTION, AND DEPARTMENT OF TRANSPORTATION INSPECTORS REGARDING ALL CERTIFICATE OF CCUPANCY REQUIREMENTS AND COORDINATE WITH THE ENGINEER APPROXIMATELY 8 WEEKS PRIOR TO ANTICIPATED CERTIFICATE OF OCCUPANCY DATE REGARDING ANY ITEMS REQUIRING APPROVAL OR CERTIFICATIONS BY THE ENGINEER. SITE DATA RA (RESIDENTIAL EXURBAN/AGRICULTURAL ZONING: PARCEL IDENTIFICATION DECORATIVE FENCE AROUND 091035 NUMBER: PLAYGROUND AND GRILL AREA (SEE C-5.1 FOR DETAILS) 7.5 AC DISTURBED AREA: IMPERVIOUS SURFACE AREA PROPOSED (%) 1.434 AC. ANDSCAPE STRIP - FRONT: 10 F1 REAF BUILDING SETBACK - FRONT: 40 FT 20 F1 35 F1 SIDE RFAR SENIOR CENTER BUILDING 8,326 S.F FLOOR AREA (GROSS): 27' - 1.5" UILDING HEIGHT: BUILDING HEIGHT (MAX (1 SPACE / 10 SENIORS) + (1 SPACE PARKING RATIO REQUIRED -EMPLOYEE) SENIOR CENTER PARKING REQUIRED 24 SPACES 100 SENIORS + 14 EMPLOYEES = 61 SPACES PARKING PROVIDED: ACCESSIBLE PARKING REQUIRED 3 SPACES ACCESSIBLE PARKING PROVIDED 11 SPACES

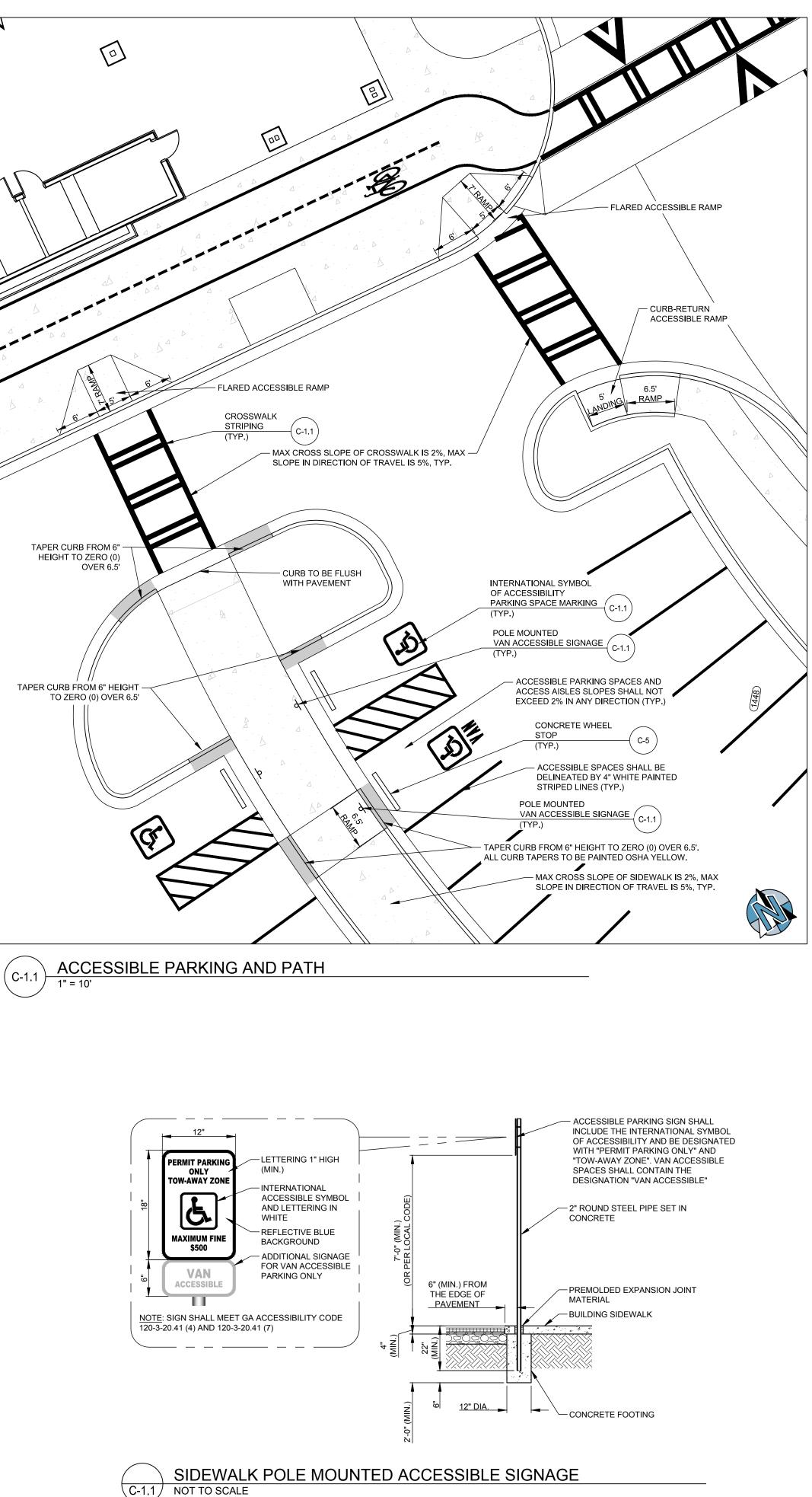


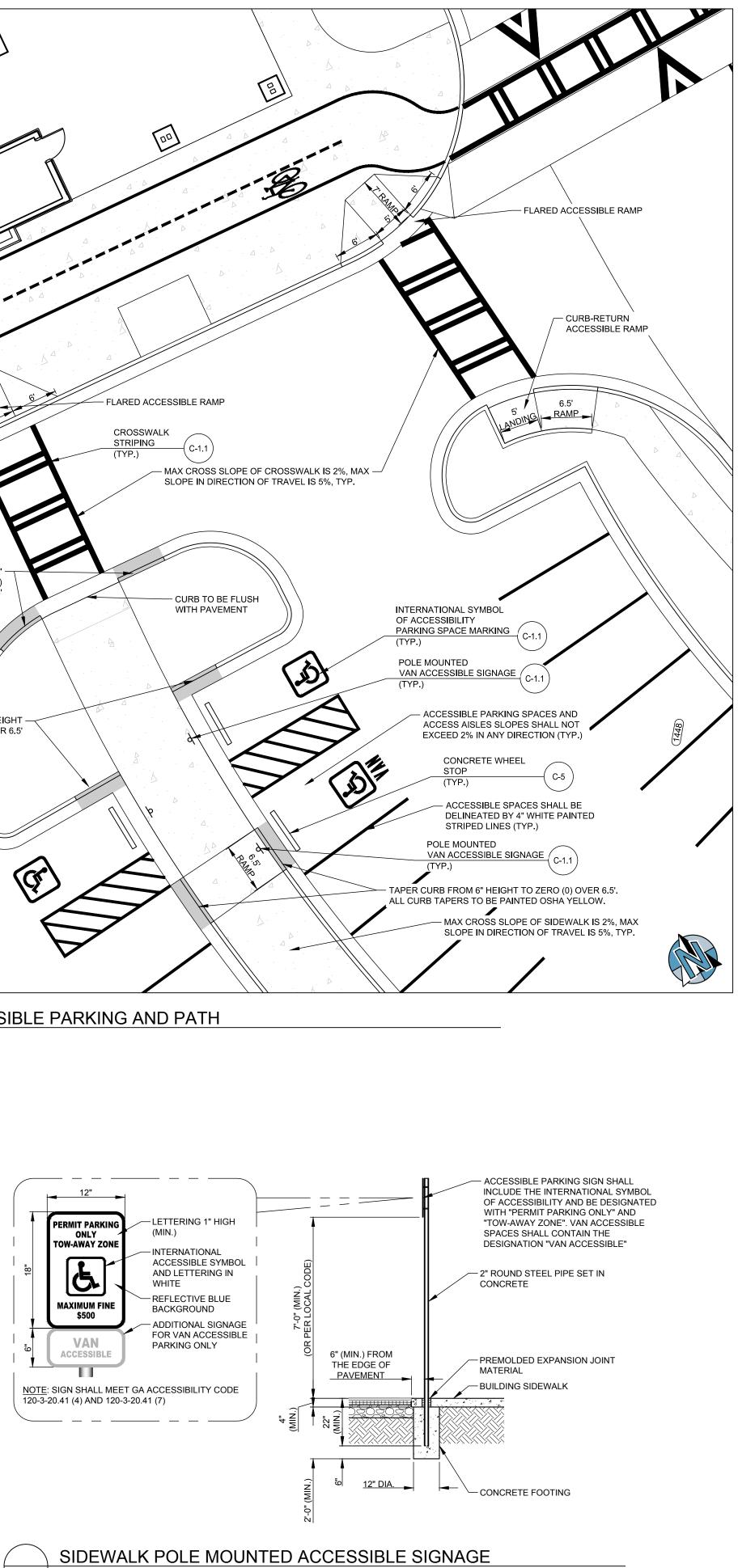
LEGEND STANDARD DUTY ASPHALT PAVING HEAVY DUTY ASPHALT PAVING ASPHALT PAVEMENT REPAIR (TYPE IV, SEE C-6.1) CONCRETE SIDEWALK PAVING HEAVY DUTY CONCRETE PAVING PROPERTY LINE PARKING COUNT TRAFFIC SIGN PAINTED TRAFFIC ARROWS TRAFFIC FLOW LANE DESIGNATION



XX

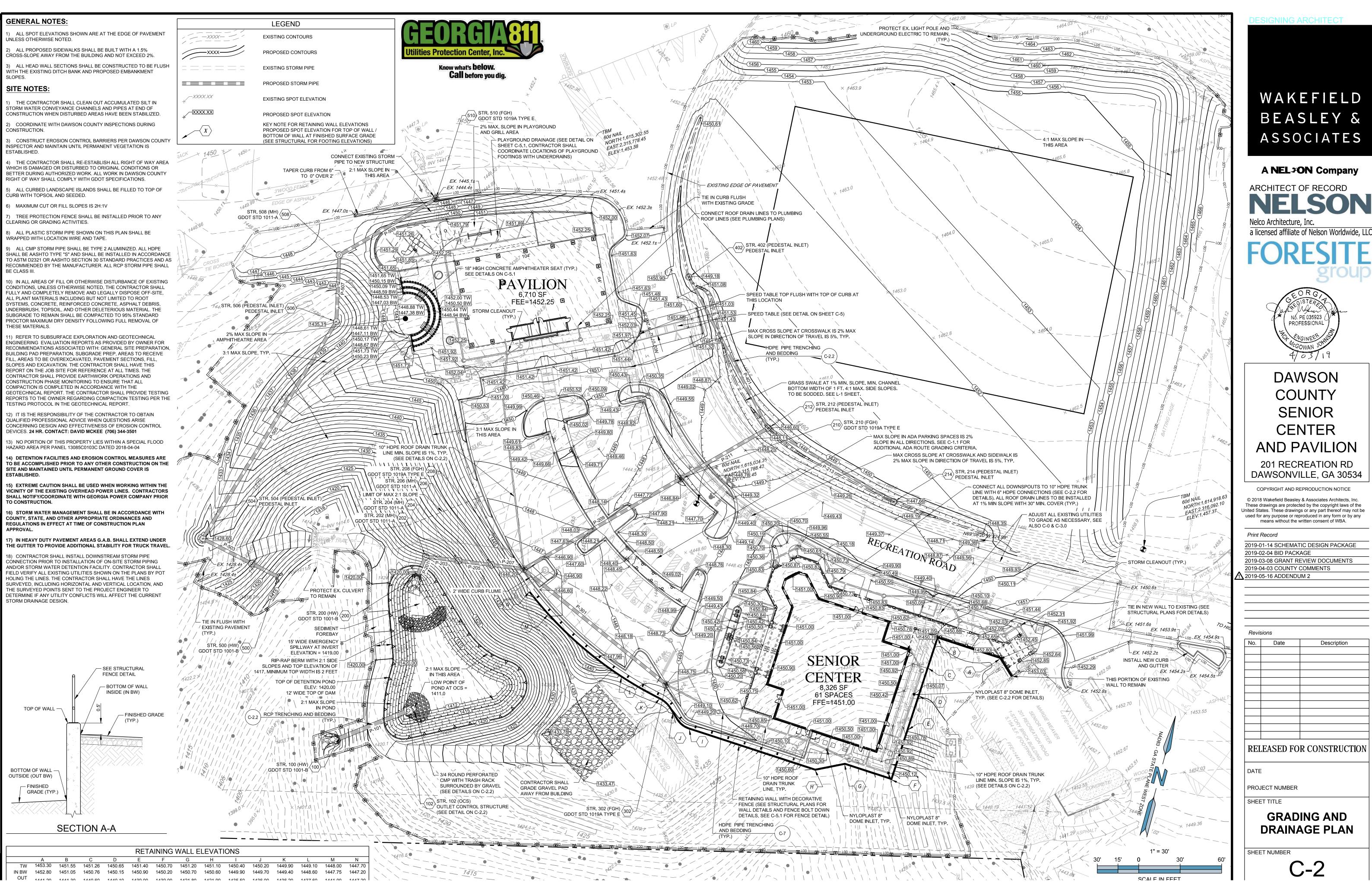


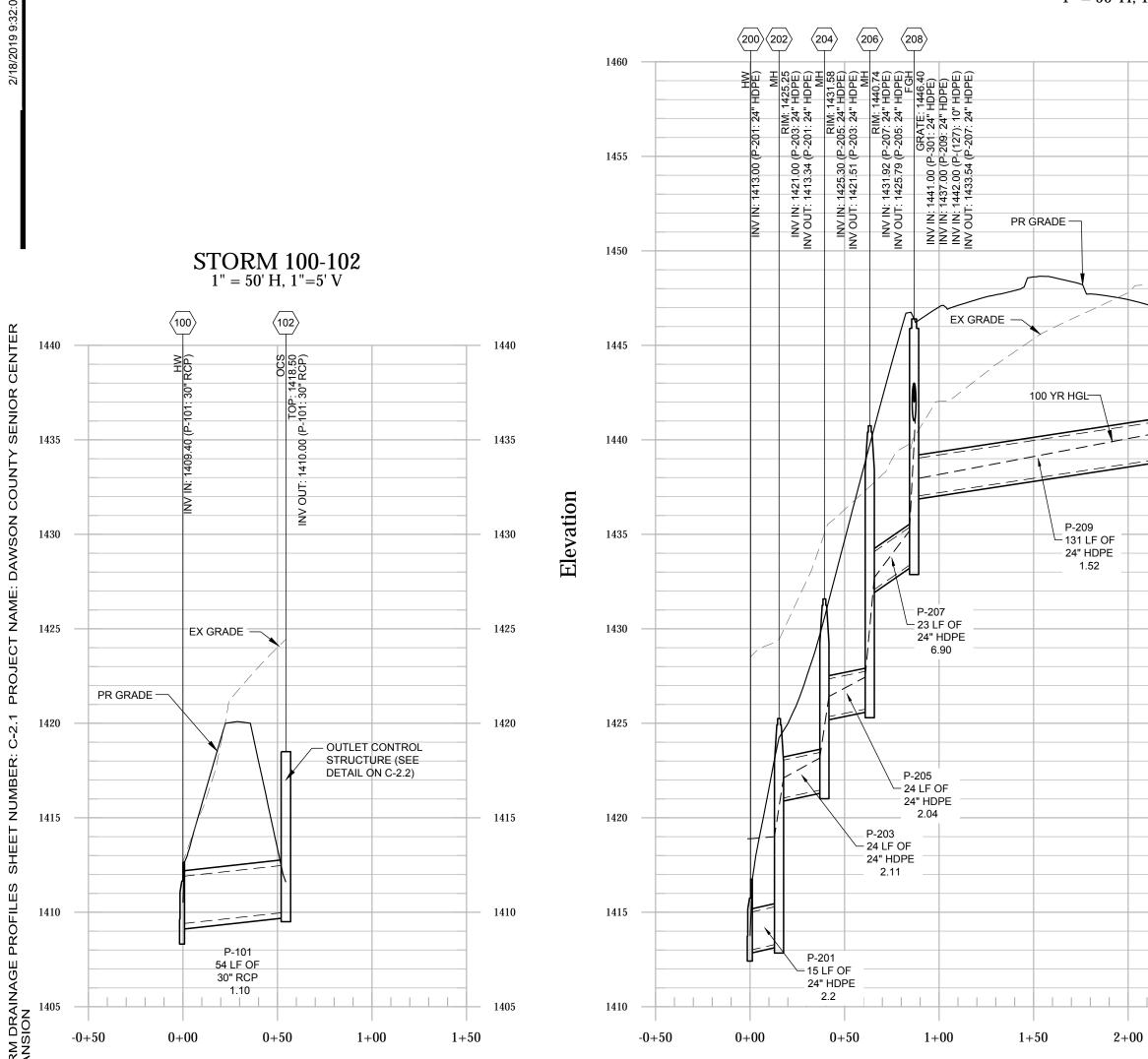




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DESIGNING ARCHITECT





100-YR PIPE CHART:

Line No.	Line ID	Drng Area	Inlet Time	Runoff Coeff	lncr Q	Line Length	Line Type	Line Slope	n-val Pipe	HGL Up	HGL Dn	Vel Ave	Line Size
		(ac)	(min)	(C)	(cfs)	(ft)		(%)		(ft)	(ft)	(ft/s)	(in)
1	201	0.00	0.0	0.00	0.00	14.959	Cir	2.27	0.012	1419.00	1418.89	6.73	24
2	203	0.00	0.0	0.00	0.00	24.000	Cir	2.13	0.012	1423.16	1422.11	9.75	24
3	205	0.00	0.0	0.00	0.00	24.000	Cir	2.04	0.012	1427.44	1426.42	9.66	24
4	207	0.72	5.0	0.80	5.73	23.462	Cir	6.90	0.012	1435.19	1432.71	13.02	24
5	301	0.46	5.0	0.81	3.71	133.000	Cir	1.14	0.012	1443.19	1441.51	4.94	24
6	209	0.35	5.0	0.78	2.72	131.296	Cir	1.52	0.012	1440.36	1437.96	7.86	24
7	211	1.64	5.0	0.34	5.55	72.796	Cir	2.06	0.012	1441.75 j	1440.36	5.62	24
8	213	2.64	5.0	0.37	9.72	105.000	Cir	1.52	0.012	1443.80	1441.92	7.49	18
9	401	0.23	5.0	0.20	0.46	123.000	Cir	2.52	0.012	1444.35 j	1441.75	1.44	18
Line No.	Line ID	Drng Area	Inlet Time	Runoff Coeff	Incr Q	Line Length	Line Type	Line Slope	n-val Pipe	HGL Up	HGL Dn	Vel Ave	Line Size
		(ac)	(min)	(C)	(cfs)	(ft)		(%)		(ft)	(ft)	(ft/s)	(in)
1	501	0.00	0.0	0.00	0.00	21.397	Cir	1.07	0.012	1415.00	1415.00	0.42	24
2	503	0.00	0.0	0.00	0.00	39.717	Cir	1.86	0.012	1420.26	1419.39	4.09	24
3	505	0.00	0.0	0.00	0.00	184.369	Cir	1.99	0.012	1428.85	1425.05	4.35	24
4	507	0.00	0.0	0.00	0.00	48.197	Cir	4.75	0.012	1432.94	1430.44	5.42	24
5	509	0.45	5.0	0.48	1.81	81.000	Cir	1.31	0.012	1439.57	1438.39	4.14	24

1455

1460

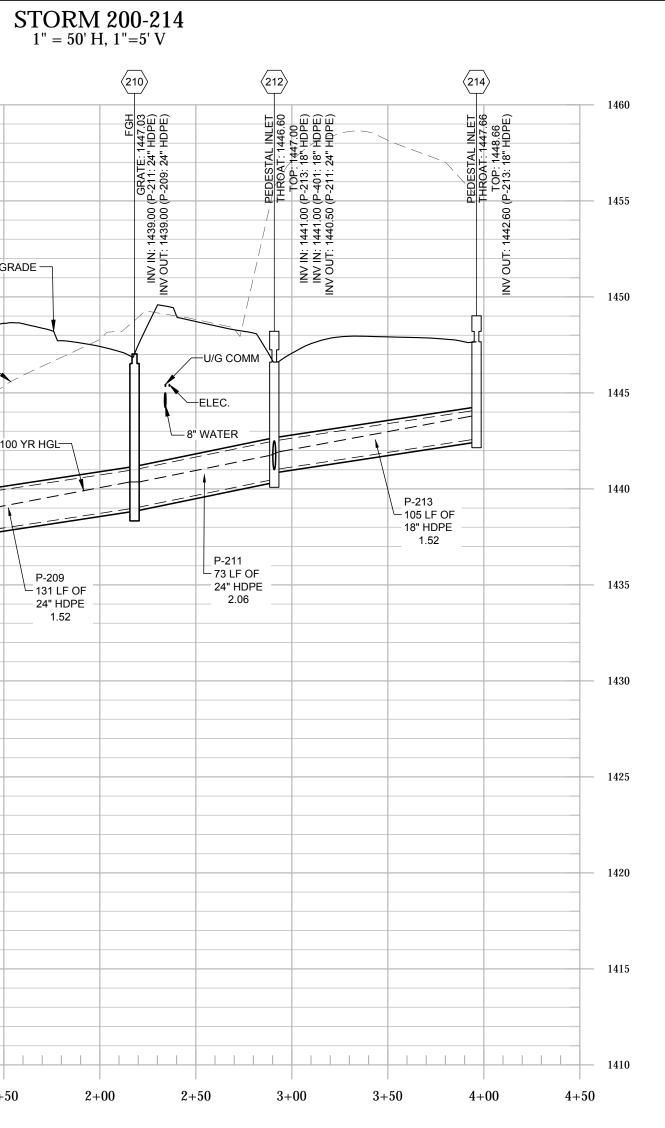
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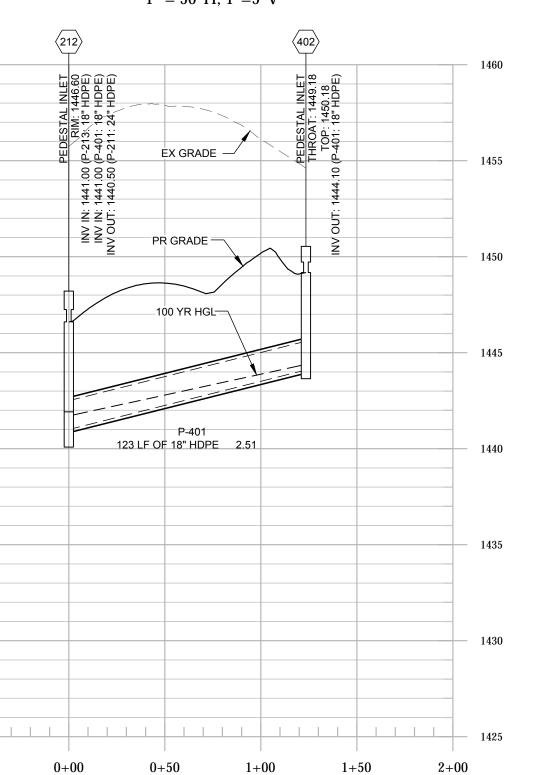
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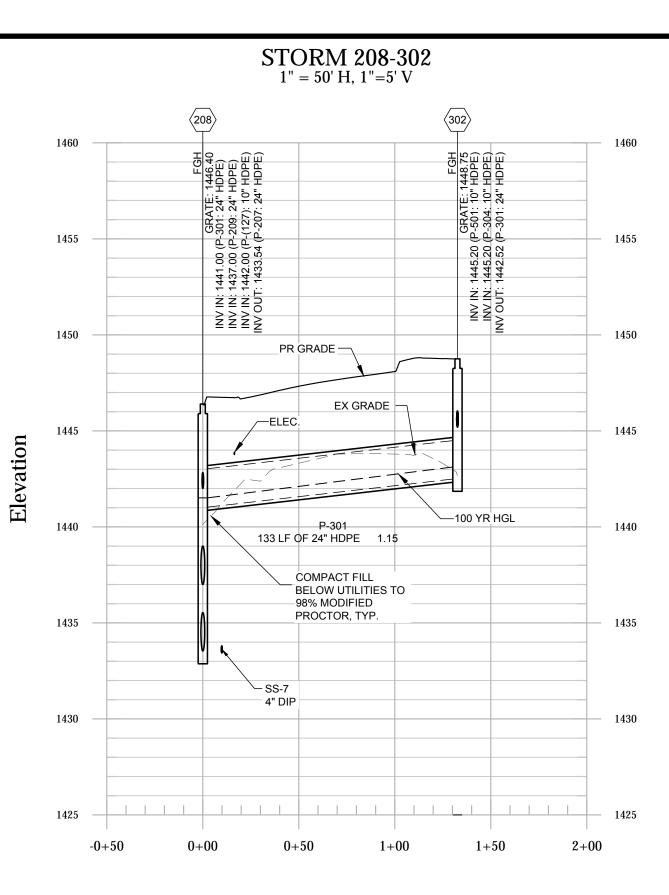
1430



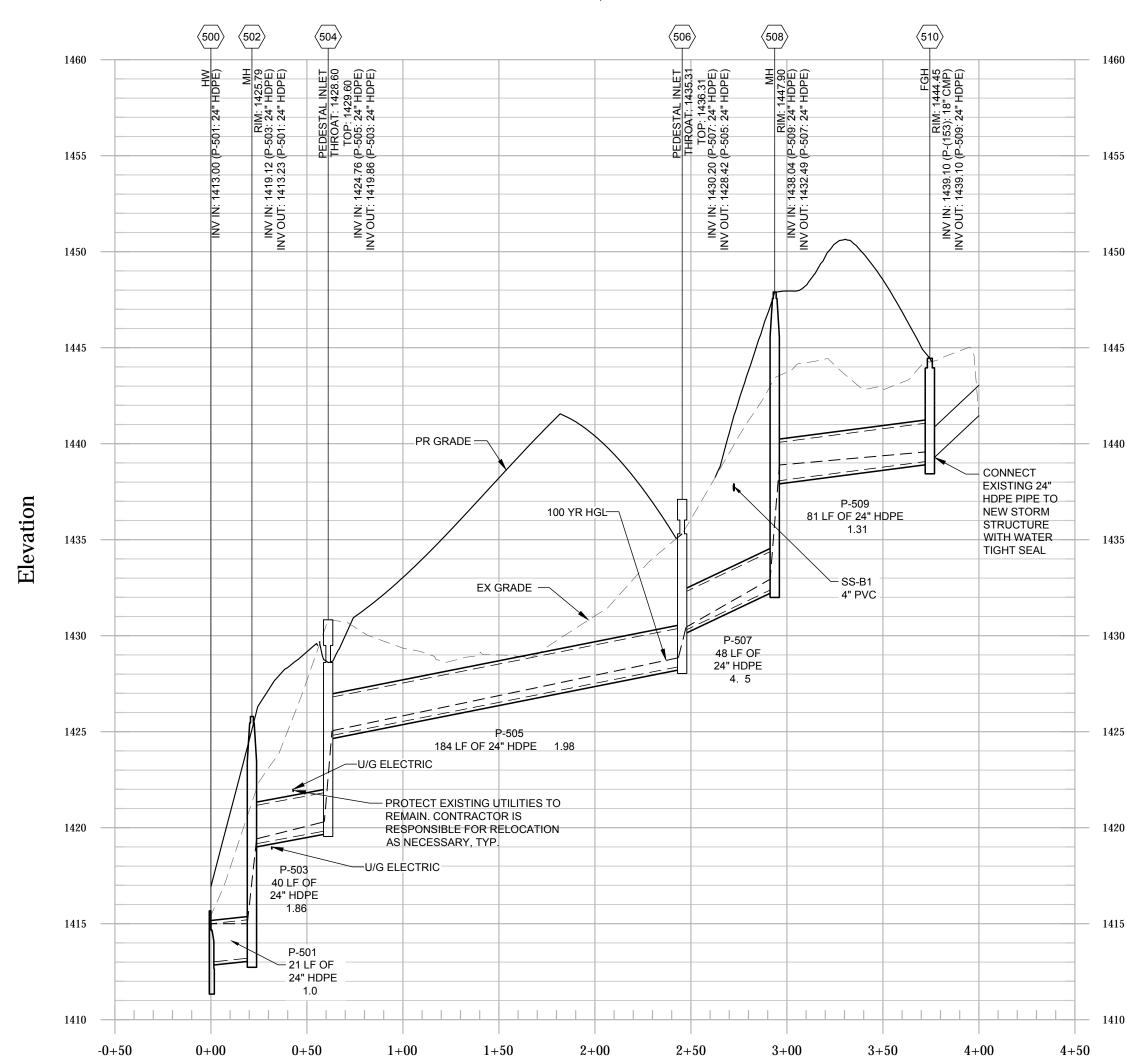
$STORM 212-402 \\ 1" = 50' \text{ H}, 1"=5' \text{ V}$



Ē



$\begin{array}{l} STORM \ 500\text{--}508 \\ 1" = 50' \ H, \ 1" = 5' \ V \end{array}$



GENERAL NOTES:

1) PIPE LENGTHS REFLECT THE PIPES LINEAR LENGTH AND ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

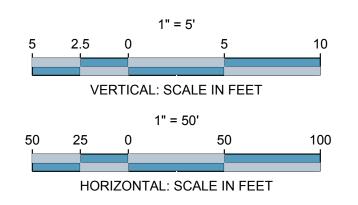
2) EXISTING UTILITY DEPTHS ARE APPROXIMATED BASED ON 4 FT COVER FROM THE EXISTING GROUND SURFACE. PROPOSED UTILITY DEPTHS ARE BASED ON 4 FT OF COVER FROM THE PROPOSED GROUND SURFACE. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY DEPTHS AT CROSSING AND CONTACT ENGINEER IMMEDIATELY IF CONFLICTS AR ENCOUNTERED.

3) CONTRACTOR TO FIELD VERIFY EXISTING ELEVATIONS OF UTILITIES IN RIGHT OF WAY TO AVOID CONFLICTS. CONTACT ENGINEER IMMEDIATELY IF FIELD ELEVATIONS DIFFER FROM THE DESIGN DRAWINGS.

4) MAINTAIN MINIMUM 2 OF COVER OVER METAL AND PLASTIC PIPES DURING CONSTRUCTION ACTIVITIES.

5) CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY INFORMATION OF THE CONTROL STRUCUTRE TO THE ENGINEER 4 WEEKS PRIOR TO REQUESTING FINAL ACCEPTANCE. AS-BUILT INFORMATION SHOULD INCLUDE ALL RIM, INVERT, ORIFICE, WEIR, AND BOX DIMENSIONS FOR THE CONTROL STRUCTURES ALONG WITH AS-BUILT TOPOGRAPHY O THE STORMWATER POND, INCLUDING TOPOGRAPHY BELOW THE WATER SURFACE ELEVATION TO THE BOTTOM OF THE POND. THE AS-BUILT SURVEY INFORMATION SHOULD ALSO INCLUDE THE AS-BUILT INFORMATION FOR THE DISCHARGE PIPE FROM THE OUTLET CONTROL STRUCTURE TO WHERE IT DISCHARGES INTO THE RIGHT OF WAY OR ON-GRADE. ONE REVIEW OF THE AS-BUILT SYSTEM AND STORM MODELING IS COVERED BY THE OWNER. ADDITIONAL ENGINEERING COSTS FOR AS-BUILT REVIEW AND STORM MODELING OF THE DETENTION SYSTEM WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6) IN ORDER TO ADDRESS SAFETY CONSIDERATIONS ASSOCIATED WITH THE DETENTION POND, CONTRACTOR SHOULD INSTALL A 4' HIGH BLACK VINYL COATED CHAI LINK FENCE AROUND THE DETENTION POND.





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





DESIGNING ARCHITECT

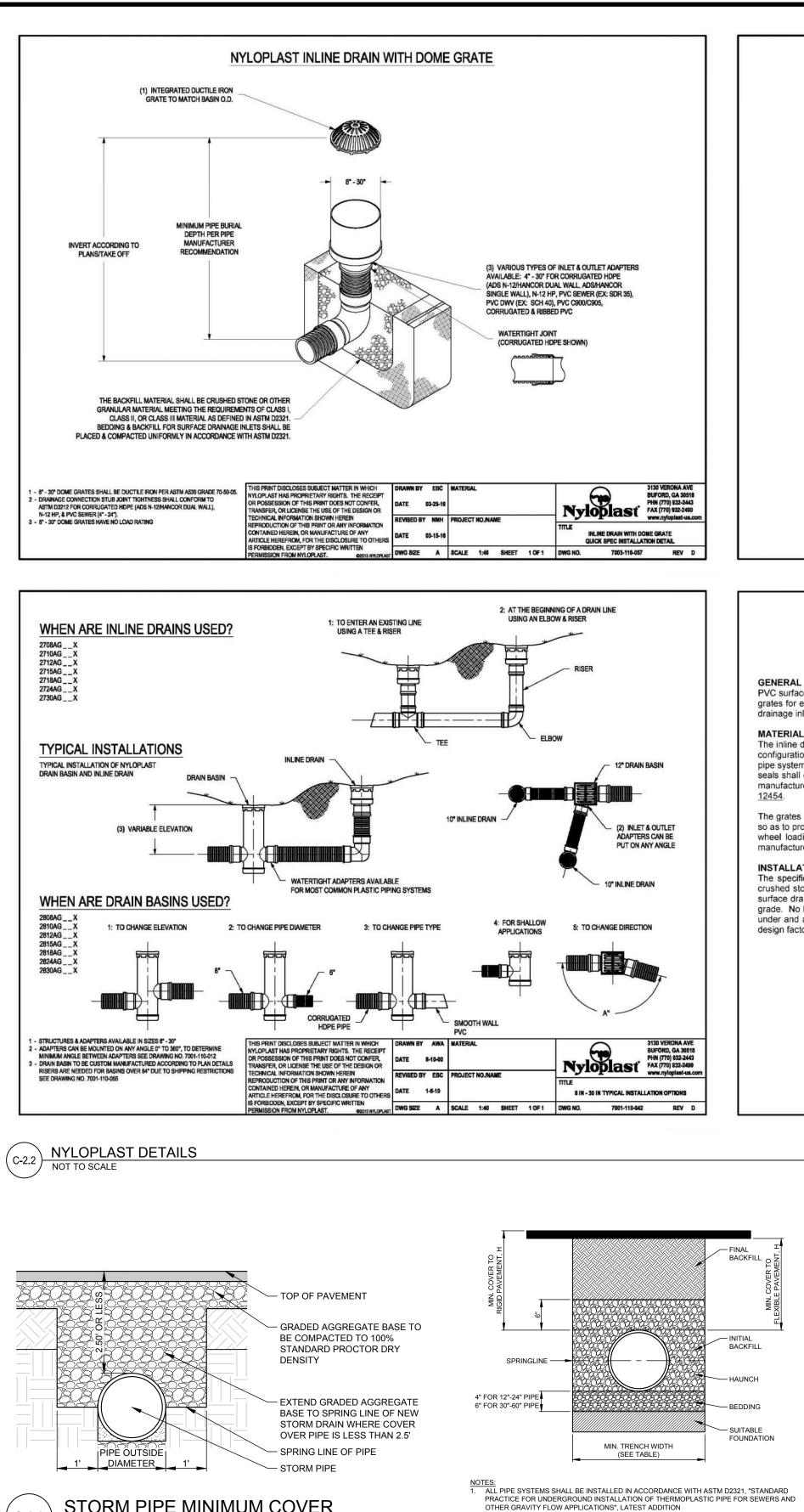
PROJECT NUMBER

SHEET TITLE

STORM DRAINAGE PROFILES

C-2.1

SHEET NUMBER



- FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN
- ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm) INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE
- DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. MINIMUM COVER, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H. IS 12" UF 0 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF
- HDPE BEDDING, TRENCHING, AND BACKFILI

PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.



RECOMMENDED MINIMUM TRENCH WIDTHS

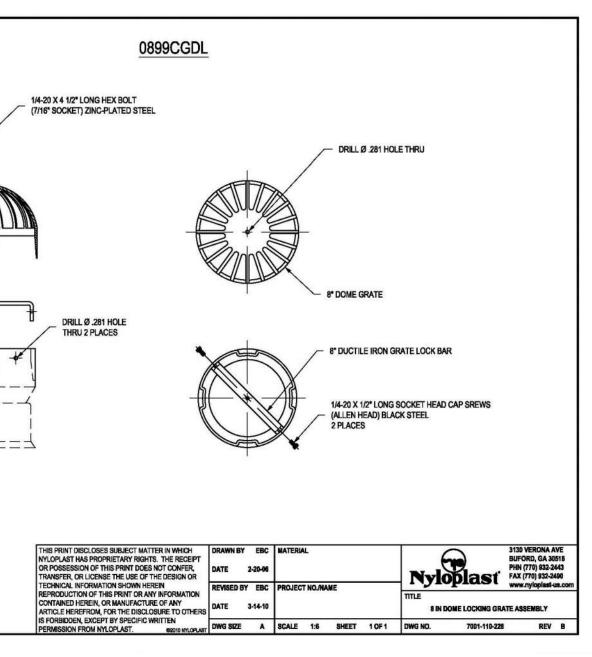
ADDITIONAL COVER

と== キニ== MATERIALS

The inline drain required for this contract shall be manufactured from PVC pipe stock, utilizing a thermo-molding process to reform the pipe stock to the furnished configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The pipe bell spigot shall be joined to the inline drain body by use of a swage mechanical joint. The raw material used to manufacture the pipe stock that is used to manufacture the inline drain body and pipe stubs of the surface drainage inlets shall conform to ASTM D1784 cell class

INSTALLATION The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for surface drainage inlets shall be well placed and compacted uniformly in accordance with ASTM D2321. The drain basin body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For H-20 load rated installations, a concrete ring will be poured under and around the grate and frame. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to ASTM D2321 guidelines.





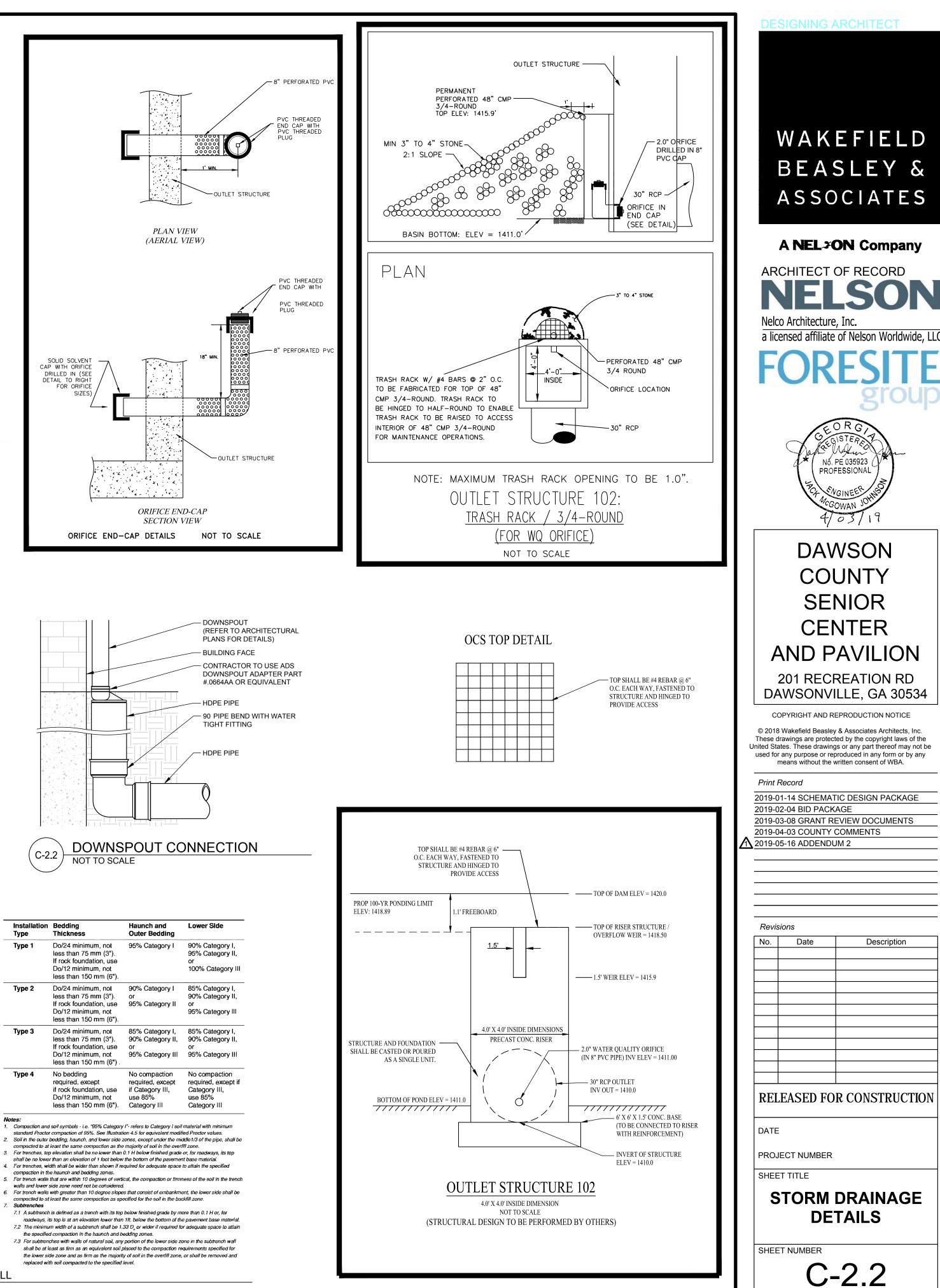
Section 2722

Engineered Surface Drainage Products

PVC surface drainage inlets shall be of the inline drain type as indicated on the contract drawing and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc., or prior approved equal.

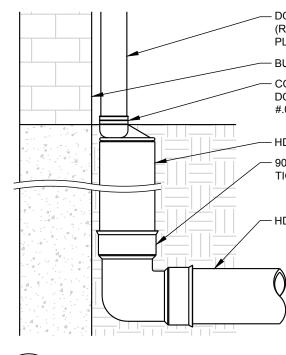
The grates furnished for all surface drainage inlets shall be ductile iron grates for sizes 8", 10", 12", 15", 18", 24" and 30" shall be made specifically for each fitting so as to provide a round bottom flange that closely matches the diameter of the surface drainage inlet. Grates for inline drains shall be capable of supporting H-20 wheel loading for traffic areas or H-10 loading for pedestrian areas. 12" and 15" square grates will be hinged to the frame using pins. Metal used in the manufacture of the castings shall conform to ASTM A536 grade 70-50-05 for ductile iron. Grates shall be provided painted black.

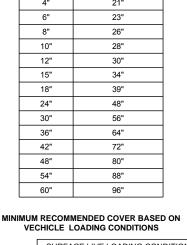
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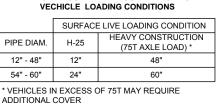


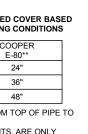
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Description









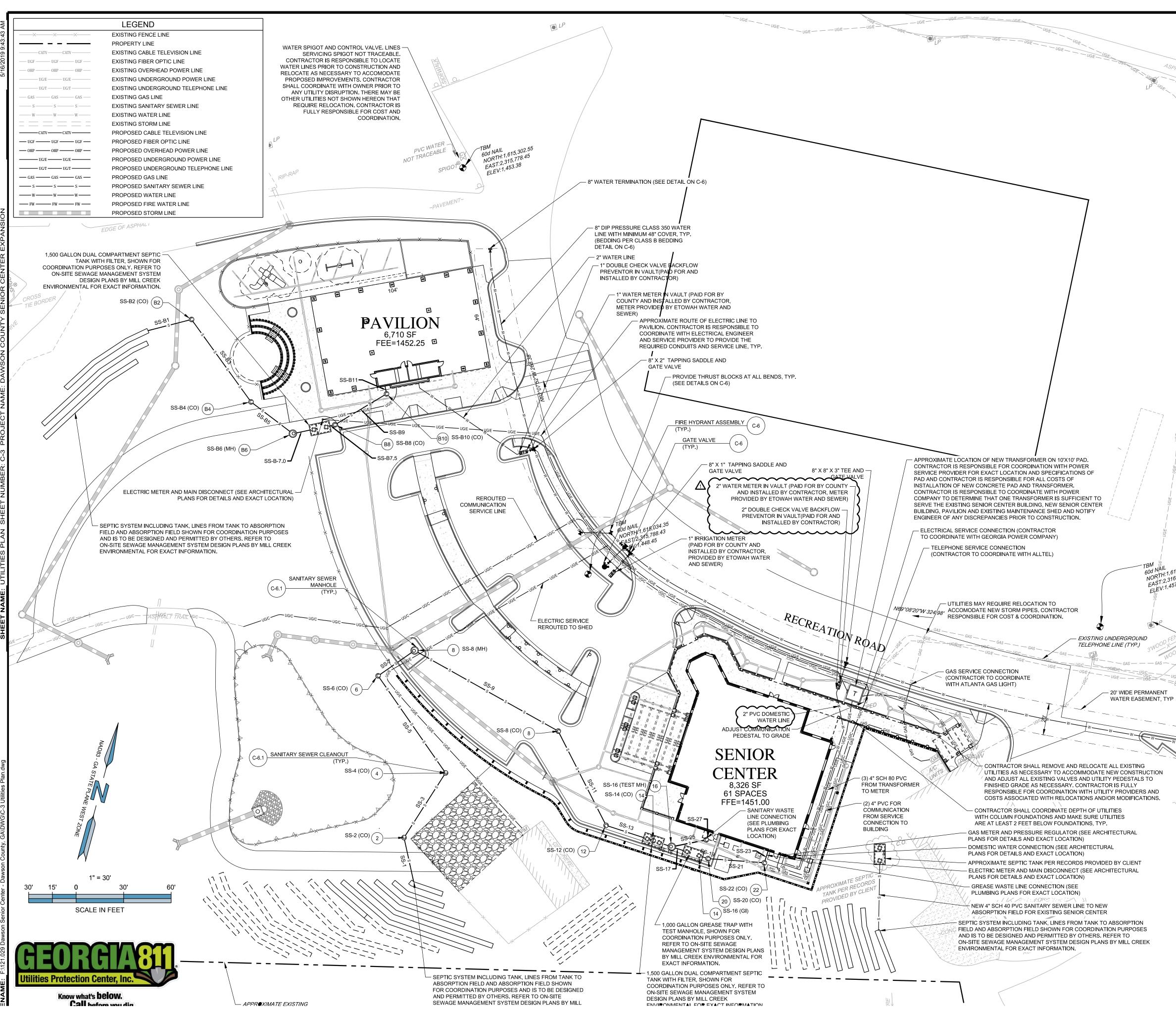
Overfill Soil Category I, II, III D₀/6 —— D_o (Min.) ———• - Do Haunch - See Illustration 4.4 Springline /Lower Side - Se Illustration 4.4 Beddina Middle Bedding loosely See Illustrations 4.4 & 4.5 → D₀/3 ŀ placed uncompacte bedding except Type 4 Outer bedding materials and compaction each side same requirements as

Illustration 4.3 Standard Trench/Embankment Installation The SPIDA design runs with the Standard Installations were made with medium compaction of the bedding under the middle-third of the pipe, and with some compaction of the overfill above the springline of the pipe. This middlethird area under the pipe in the Standard Installations has been designated as loosely placed, uncompacted material. The intent is to maintain a slightly yielding bedding under the middle-third of the pipe so that the pipe may settle slightly into the bedding and achieve improved load distribution. Compactive efforts in the

Installation Type	Bedding Thickness	Haunch and Outer Bedding	Lower Side
 Туре 1	Do/24 minimum, not less than 75 mm (3"). If rock foundation, use Do/12 minimum, not less than 150 mm (6").	95% Category I	90% Category I 95% Category I or 100% Category
Туре 2	Do/24 minimum, not less than 75 mm (3"). If rock foundation, use Do/12 minimum, not less than 150 mm (6").	90% Category I or 95% Category II	85% Category I 90% Category I or 95% Category I
Туре 3	Do/24 minimum, not less than 75 mm (3"). If rock foundation, use Do/12 minimum, not less than 150 mm (6").	85% Category I, 90% Category II, or 95% Category III	85% Category I 90% Category I or 95% Category I
Туре 4	No bedding required, except if rock foundation, use Do/12 minimum, not less than 150 mm (6").	No compaction required, except if Category III, use 85% Category III	No compaction required, except Category III, use 85% Category III

- I. Compaction and soil symbols i.e. "95% Category I"- refers to Category I soil material with minimum standard Proctor compaction of 95%. See Illustration 4.5 for equivalent modified Proctor values.
- compacted to at least the same compaction as the maiority of soil in the overfill zone. 3. For trenches, top elevation shall be no lower than 0.1 H below finished grade or, for roadways, its top
- compaction in the haunch and bedding zones.
- 6. For trench walls with greater than 10 degree slopes that consist of embankment, the lower side shall be compacted to at least the same compaction as specified for the soil in the backfill zone.
- 7.1 A subtrench is defined as a trench with its top below finished grade by more than 0.1 H or, for roadways, its top is at an elevation lower than 1ft. below the bottom of the pavement base material. 7.2 The minimum width of a subtrench shall be 1.33 D or wider if required for adequate space to attain
- 7.3 For subtrenches with walls of natural soil, any portion of the lower side zone in the subtrench wall shall be at least as firm as an equivalent soil placed to the compaction requirements specified for the lower side zone and as firm as the majority of soil in the overfill zone, or shall be removed and replaced with soil compacted to the specified level.





UTILITY NOTES:

1) GEORGIA POWER COMPANY WILL PROVIDE UNDERGROUND ELECTRICAL SERVICE FROM THE EXISTING SERVICE POLE TO THE TRANSFORMER PAD. CONTRACTOR MUST PROVIDE TWO 6" PVC (SCH 80) CONDUITS AND A PULL STRING FROM THE EXISTING ELECTRICAL SERVICE POLE TO THE PROPOSED TRANSFORMER LOCATION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR INSTALLING THREE 4" PVC CONDUITS AND SECONDARY WIRING FROM THE TRANSFORMER PAD TO THE PROPOSED BUILDING. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE POWER SERVICE INSTALLATION AND SHALL COORDINATE WITH THE POWER COMPANY FOR FINAL UNDERGROUND CONDUIT LOCATIONS.

2) SOUTHEN COMPANY GAS WILL PERFORM THE GAS SERVICE CONNECTION, INSTALL THE CONDUIT, AND SET THE METER FOR THE BUILDING. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE SERVICE FROM THE METER INTO THE PROPOSED BUILDING. CONTRACTOR MUST COORDINATE WITH SOUTHEN COMPANY GAS.

3) CONTRACTOR MUST PROVIDE AND INSTALL TWO (2) 4" PVC CONDUITS WITH PULL STRING. FROM THE EXISTING TELEPHONE SERVICE POLE TO THE TELEPHONE BOARD IN THE BUILDING. THE CONTRACTOR MUST ALSO PROVIDE A #6 GROUND WIRE AT THE TELEPHONE BOARD FOR THE TELEPHONE COMPANY TO INSTALL A PHONE LINE.

4) ETOWAH WATER AND SEWER AUTHORITY WILL FURNISH THE DOMESTIC WATER METER. THE CONTRACTOR MUST TAP THE EXISTING WATER LINE, PROVIDE AND INSTALL THE METER BOX, DOUBLE CHECK BACKFLOW PREVENTER AND ENCLOSURE, AND THE WATER SERVICE LINE FROM THE WATER METER TO THE BUILDING. WATER METERS TO BE PAID FOR BY COUNTY AND INSTALLED BY CONTRACTOR.

5) THE CONTRACTOR WILL INSTALL THE IRRIGATION METER FOR FUTURE USE. NO IRRIGATION TO BE PROVIDED AS PART OF THIS PROJECT. WATER METERS TO BE PAID FOR BY COUNTY AND COORDINATED AND INSTALLED BY CONTRACTOR.

6) COORDINATE AS REQUIRED WITH DAWSON COUNTY INSPECTIONS DURING CONSTRUCTION FOR REQUIRED INSPECTIONS.

7) THIS SITE INDICATES POTABLE WATER SERVICE AND SANITARY SEWER LATERALS. THIS WORK TO BE INSTALLED BY A LICENSED PLUMBER IF STATE LAW REQUIRES. ALL WORK MUST BE INSPECTED DAWSON COUNTY CODES AND INSPECTION DEPARTMENT.

8) ALL ON-SITE PVC PIPE SHALL HAVE CLASS B BEDDING.

9) ALL CONDUIT, PIPE, AND CHASE PIPE SHALL BE WRAPPED WITH THE APPROPRIATE LOCATION WIRE AND TAPE.

10) NO PRESSURE REDUCING VALVES ARE TO BE INSTALLED ON FIRE LINES. ALL FIRE LINES ARE TO BE INSPECTED BY DAWSON COUNTY FIRE SERVICE PRIOR TO COVERING.

11) NOTIFY WATER AND SEWER INSPECTOR PRIOR TO START OF CONSTRUCTION.

12) THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS INCLUDING ALL RIM ELEVATIONS, INVERT ELEVATIONS, PIPE SIZES, AND PIPE MATERIAL FOR ALL PUBLIC MAINS TO THE ENGINEER AS SOON AS INSTALLATION IS COMPLETE.

13) OWNER SHALL BE RESPONSIBLE FOR ANY REPAIR OR REPLACEMENT OF ANY IMPROVEMENTS WITHIN THE SANITARY SEWER, WATER, DRAINAGE EASEMENT(S) DUE TO MAINTENANCE OF SEWER, WATER, STORM DRAIN OF DAWSON COUNTY.

14) CONTRACTOR SHALL INSTALL THE DOWNSTREAM SANITARY SEWER CONNECTION PRIOR TO THE INSTALLATION OF THE ON-SITE SERVICE LATERALS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES SHOWN ON THE PLANS BY POT HOLING THE LINES. THE CONTRACTOR SHALL HAVE THE LINES SURVEYED, INCLUDING HORIZONTAL AND VERTICAL LOCATION, AND THE SURVEYED POINTS SENT TO THE PROJECT ENGINEER TO DETERMINE IF ANY UTILITY CONFLICTS WILL AFFECT THE CURRENT SANITARY SEWER DESIGN.

15) PVC WATER LINES LESS THAN 3" SHALL BE ASTM D 2241, SDR 21 WITH INTEGRALLY MOLDED BELL ENDS, ASTM D 2672. PVC WATER LINES 3" AND LARGER SHALL BE AWWA C900, RATED DR 18 (CLASS 150) WITH INTEGRALLY MOLDED BELL ENDS, ASTM D3139. DIP WATER LINES SHALL BE AWWA C151, PRESSURE CLASS 350.

16) PVC SANITARY SEWER LINES SHALL BE ASTM D 3034, RATED SDR 35 WITH INTEGRALLY MOLDED BELL ENDS, ASTM D 3034, TABLE 2, WITH FACTORY SUPPLIED ELASTOMERIC GASKETS AND LUBRICANT. DIP SANITARY SEWER LINES SHALL BE ASTM A746, CLASS 50 WITH AWWA C111, RUBBER GASKET JOINT DEVICES.

17) DEMOLISHED UTILITIES NOT DEPICTED ON THIS SHEET. REFER TO THE DEMOLITION PLAN.

18) SITE LIGHTING POLES ARE NOT SHOWN ON THESE PLANS. CONRACTOR IS RESPONSIBLE FOR COORDINATION WITH OWNER AND GEORGIA POWER TO DESIGN AND INSTALL SITE AND PARKING LOT LIGHTING PER COUNTY AND OWNER REQUIREMENTS.

EXISTING LIGHT POLE (TYP.)- 8" DIP PRESSURE CLASS 350 WATER LINE WITH MINIMUM 48" COVER, TYP. (BEDDING PER CLASS B BEDDING DETAIL ON C-6) - 6" TO 8" REDUCER GATE VALVE — c-e APPROXIMATE LOCATION OF 6" PVC WATER MAIN THRUST BLOCK -/ C-6 (TYP.) - WET TAP WITH TAPPING SLEEVE AND VALVE WATER SERVICE CONNECTION (UTILITY CONTRACTOR TO COORDINATE WITH ETOWAH WATER AND SEWER PRIOR TO COMMENCEMENT OF CONSTRUCTION UTILITY CONTRACTOR AND EWSA WILL COORDINATE TIE-IN TO EXISTING WATER MAIN IN THE FIELD AT THE START OF CONSTRUCTION.) — EXISTING FIRE HYDRANT TYPE IV PAVEMENT REPAIR -(C-6.1

DESIGNING ARCHITECT



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Print Record

2019-01-14 SCHEMATIC DESIGN PACKAGE 2019-02-04 BID PACKAGE 2019-03-08 GRANT REVIEW DOCUMENTS 2019-04-03 COUNTY COMMENTS 2019-05-16 ADDENDUM 2

Revisions

No.	Date	Description
REL	EASED FO	R CONSTRUCTION

RELEASED FOR CONSTRUCTION

DATE

PROJECT NUMBER

SHEET TITLE

UTILITIES PLAN

SHEET NUMBER



GENERAL NOTES:

PIPE LENGTHS REFLECT THE PIPES LINEAR LENGTH AND ARE SHOWN FROM CENTER OF TRUCTURE TO CENTER OF STRUCTURE.

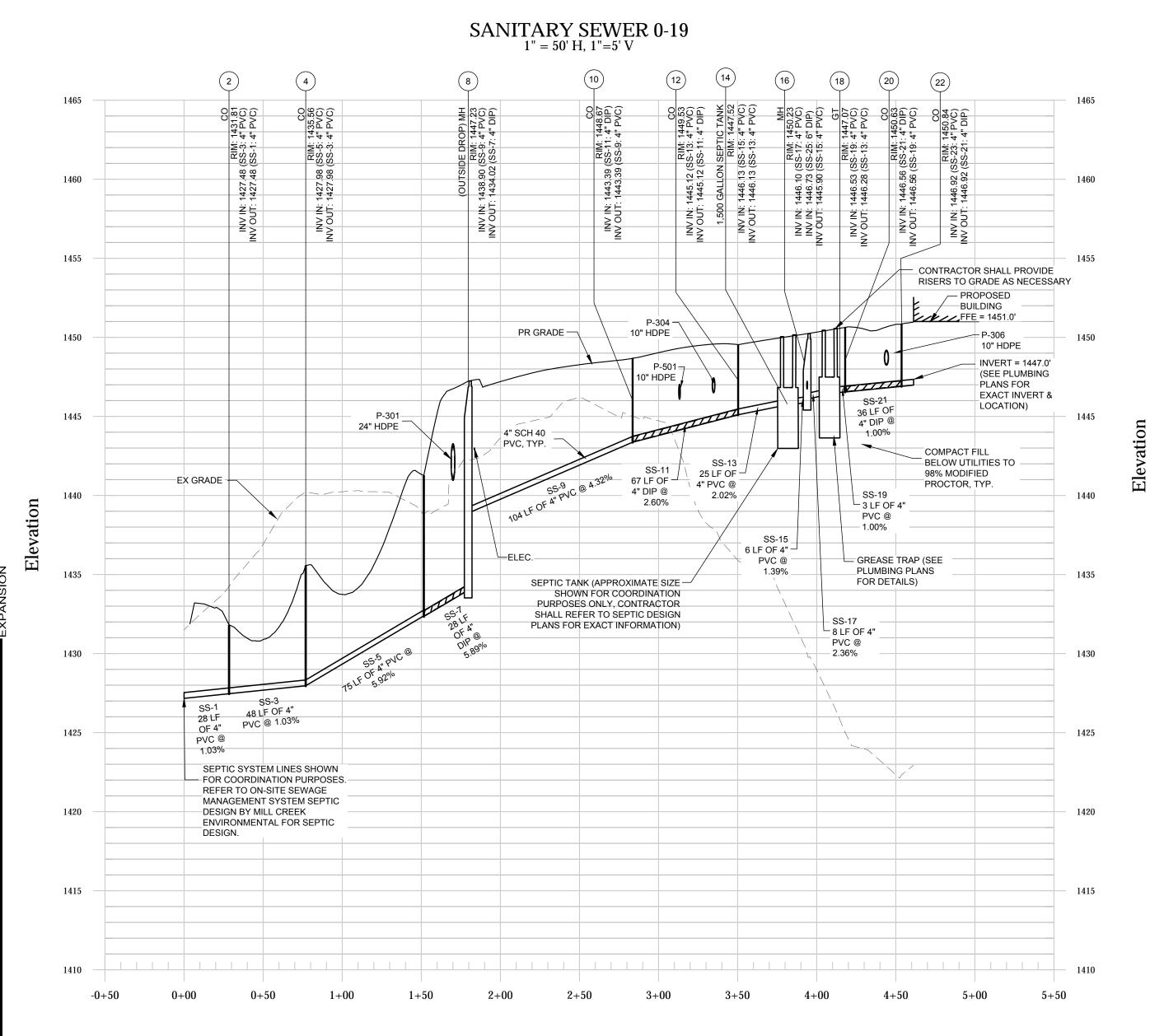
EXISTING UTILITY DEPTHS ARE APPROXIMATED BASED ON 4 FT COVER FROM THE EXISTING GROUND SURFACE. PROPOSED UTILITY DEPTHS ARE BASED ON 4 FT OF COVER FROM THE PROPOSED GROUND SURFACE. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY DEPTHS AT CROSSING AND CONTACT ENGINEER IMMEDIATELY IF CONFLICTS ARE

ENCOUNTERED.) CONTRACTOR TO FIELD VERIFY EXISTING ELEVATIONS OF UTILITIES IN RIGHT OF WAY TO

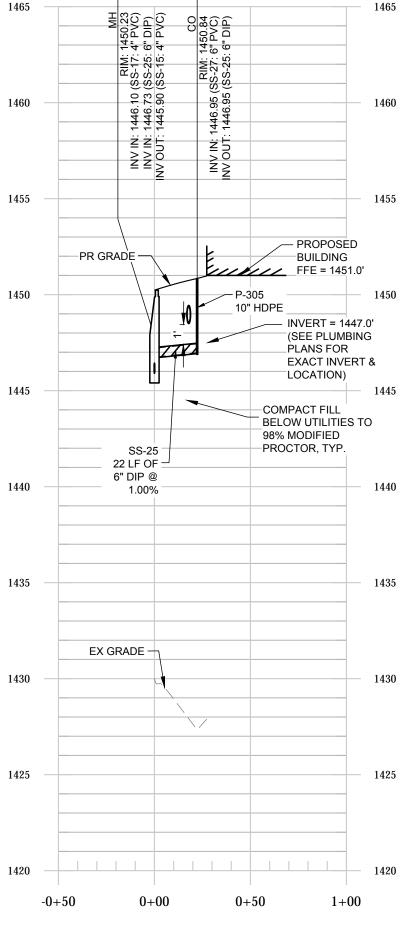
ÁVOID CONFLICTS. CONTACT ENGINEER IMMEDIATELY IF FIELD ELEVATIONS DIFFER FROM THE DESIGN DRAWINGS.

MAINTAIN MINIMUM 2 OF COVER OVER METAL AND PLASTIC PIPES DURING ONSTRUCTION ACTIVITIES.

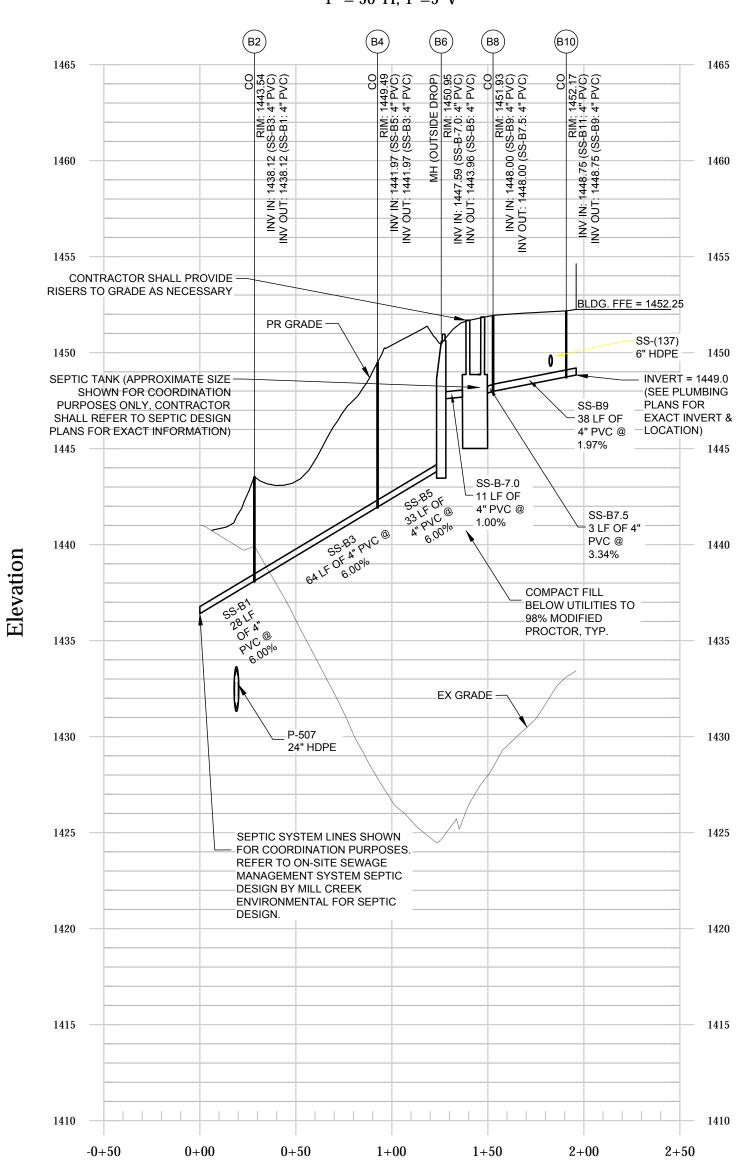
5) CONTRACTOR SHALL PROVIDE WATER AND SEWER ASBUILT SURVEY A MINIMUM OF 8 WEEKS PRIOR TO CERTIFICATE OF OCCUPANCY.

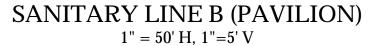


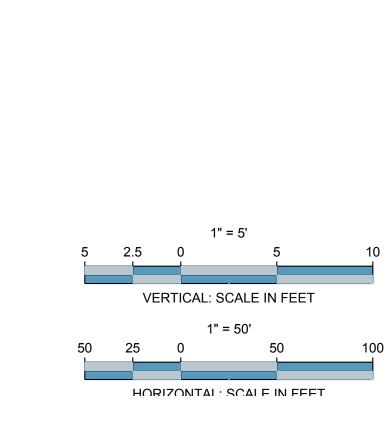




SANITARY SEWER12-23 1'' = 50' H, 1''=5' V(16) (26)









C-3.1

DESIGNING ARCHITECT

EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLANS (ESPCP) FOR: DAWSON COUNTY SENIOR **CENTER EXPANSION** IN ACCORDANCE WITH GEORGIA NPDES PERMIT GAR #100001 **201 RECREATION RD**

DAWSONVILLE, GA 30534

ESPCP SHEET INDEX

-4	EROSION,	SEDIMENT	CATION, &	POLLU	FION C	CONTROL	COVER

- C-4.1 EROSION, SEDIMENTATION, & POLLUTION CONTROL NOTES
- C-4.2 EROSION, SEDIMENTATION, & POLLUTION CONTROL NOTES
- INITIAL EROSION, SEDIMENTATION, & POLLUTION CONTROL PLAN
- INTERMEDIATE EROSION, SEDIMENTATION, & POLLUTION CONTROL PLAN C-4.5 FINAL EROSION, SEDIMENTATION, & POLLUTION CONTROL PLAN
- C-4.6 EROSION, SEDIMENTATION, & POLLUTION CONTROL DETAILS
- C-4.7 EROSION, SEDIMENTATION, & POLLUTION CONTROL DETAILS C-4.8 EROSION, SEDIMENTATION, & POLLUTION CONTROL DETAILS
- C-4.9 EROSION, SEDIMENTATION, & POLLUTION CONTROL DETAILS

SITE DETAILS:

- THE PROPOSED SITE IMPROVEMENTS INCLUDE A NEW SENIOR CENTER AND ASSOCIATED
- INFRASTRUCTURE INCLUDING A PARKING LOT, DETENTION FACILITY, AND UTILITIES
- 2) TOTAL AREA OF THE SITE = 7.5 ACRES
- CURVE NUMBER, EXISTING CONDITION = 66 CURVE NUMBER, DEVELOPED CONDITION = 72
- ARE ARE NO KNOWN STATE WATERS PRESENT ON SITE. THERE ARE NO KNOWN STATE WATERS WITHIN 200 FEET OF THE SITE. APPROXIMATE LOCATION OF OFF-SITE WATERS AND RECEIVING WATER ARE SHOWN ON THE LOCATION MAP (THIS SHEET)
- THERE ARE NO KNOWN WETLANDS ON THE SITE. ALL WETLANDS DELINEATED ARE SHOWN IN THIS PLAN.
- 7) NO PORTION OF THE SUBJECT PROPERTY LIES WITHIN A 100 YEAR FLOOD HAZARD AREA PER FIRM MAP NUMBER 13085C0103C DATED 2018-04-04

A COPY OF THIS APPROVED PLAN MUST BE RETAINED ON-SITE OR AT A READILY ACCESSIBLE LOCATION

THIS PLAN SHALL BE AMENDED WHEN A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE HAS A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT (INCLUDING SpB, Sd2, Sd3, Sd4, Rt, Ss, Rd, AND OTHER MEASURES IN CONCENTRATED FLOW AREAS). SUCH AMENDMENTS MUST BE CERTIFIED BY THE ENGINEER.

CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY UPON START OF CONSTRUCTION IN ORDER FOR ENGINEER TO SCHEDULE THE INITIAL 7 DAY EROSION CONTROL INSPECTION. THE CONTRACTOR SHALL VERIFY THAT ALL EXISTING INITIAL BMP'S ARE INSTALLED PROPERLY. ALL COMPENSATION FOR DESIGN ENGINEER'S REINSPECTION TO VERIFY THAT THE INITIAL BMP'S ARE PROPERLY INSTALLED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

PREPARED BY:



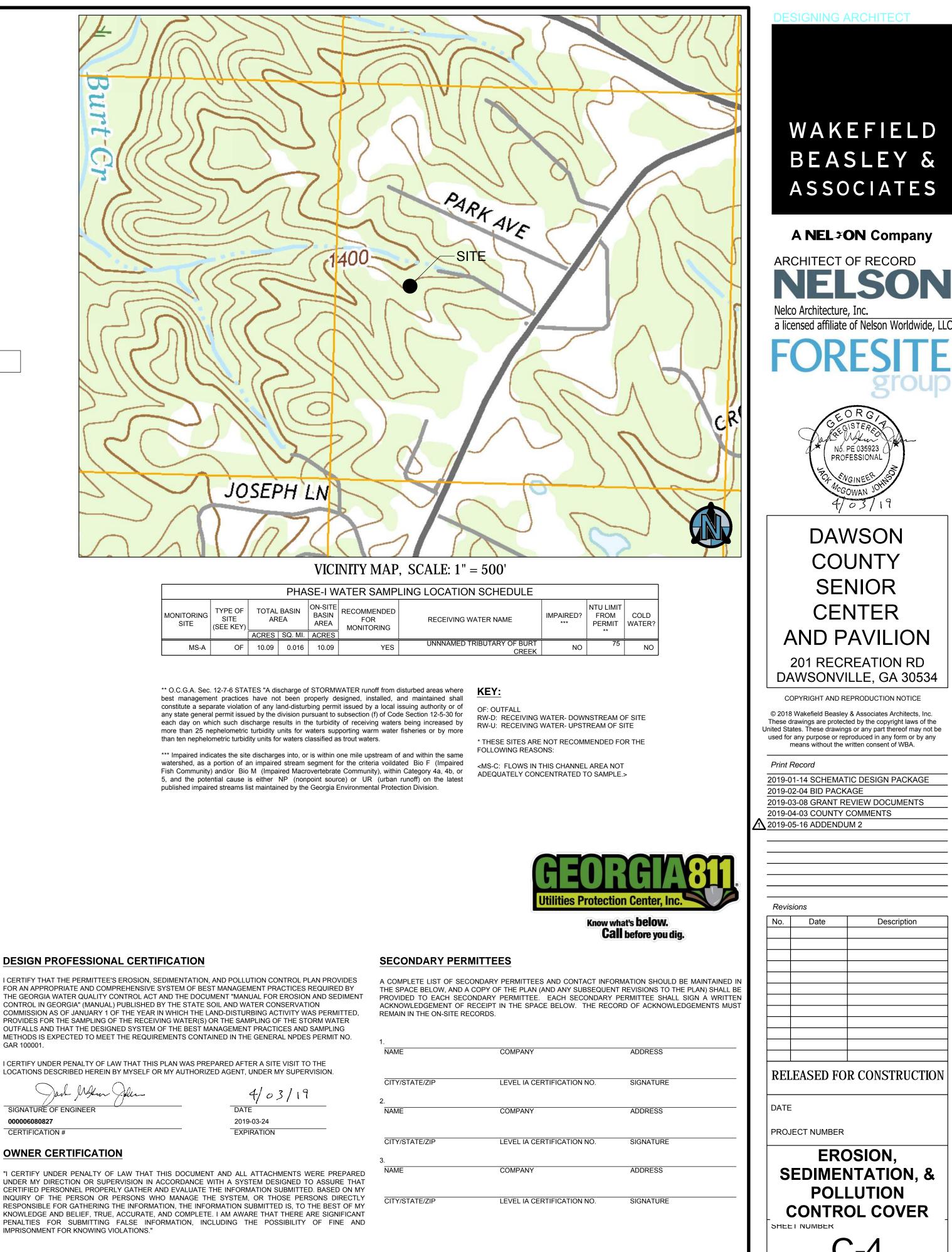
Foresite Group, Inc. 5185 Peachtree Pkwy. Suite 240 Mororocc CA 20009

o | 770.368.1399 f | 770.368.1944 W/ WANNY for_inc not

24 HR CONTACT: DAVID MCKEE (706) 344-3501

ISSUED: MARCH 28, 2018 101 000

SITE DISTURBED AREA = 7.5 AC



	PHASE-I WATER SAMPLING L										
MONITORING	TYPE OF SITE (SEE KEY)	E AREA		ON-SITE BASIN AREA	RECOMMENDED FOR MONITORING						
		ACRES	SQ. MI.	ACRES							
MS-A	OF	10.09	0.016	10.09	YES	l					

	ANTICIPATED A BEGIN CONSTRU END CONSTRU	СТІ	ON:		04	/01/	CH 201 202	9	DU	LE			
	ACTIVITY		.0 TH	4.0 MTH		6.0 MTH		8.0 MTH		10.0 MTH		12.0 MTH	
1	INSTALL SEDIMENT CONTROLS												
2	DEMOLITION												
3	CLEARING, GRUBBING, & GRADING												
4	GRASS TEMP.												
5	BUILDING CONSTRUCTION												
6	MAINTAIN EROSION CONTROL												
7	PAVING												
8	FINAL LANDSCAPING												
9	DISPOSITION OF TEMP. SEDIMENT CONTROLS												

DESIGN PROFESSIONAL CERTIFICATION

CERTIFICATION #

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 THE BEST MANAGEMENT PRACTICES AND SAMPLING METHODS IS EXPECTED TO MEET THE REQUIREMENTS CONTAINED IN THE GENERAL NPDES PERMIT NO. GAR 100001

I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE

UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT CERTIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

GENERAL EROSION CONTROL NOTES:

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO LL LAND DISTURBING ACTIVITIES THROUGHOUT THE ENTIRE PROJECT

EROSION AND SEDIMENT 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 HE SEDIMENT SOURCE

ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE WHENEVER LAND DISTURBANCE ACTIVITY IS IN

THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND BEST MANAGEMENT PRACTICES. WHETHER TEMPORARY OR PERMANENT

EROSION CONTROL DEVICES THAT ARE INSTALLED AS DIRECTED BY AN INSPECTOR BUT NOT SHOWN ON THE APPROVED PLAN ARE THE

RESPONSIBILITY OF THE CONTRACTOR

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN QUALIFIED PROFESSIONAL ADVICE WHEN QUESTIONS ARISE CONCERNING TIMING, DESIGN ND EFFECTIVENESS OF EROSION CONTROL DEVICES. 24 HR CONTACT: DAVID MCKEE (706) 344-3501.

8) ALL SLOPES STEEPER THAN 2.5:1 WITH A HEIGHT OF TEN FEET OR GREATER SHALL STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING AS SLOPES ARE CONSTRUCTED

9) THE CONTRACTOR SHALL STOCKPILE AND REUSE TOPSOIL TO DRESS FINAL GRADES. CONFIRM THE STOCKPILE LOCATION WITH THE OWNER PRIOR TO COMMENCEMENT OF CONSTRUCTION. SEE GRADING AND DRAINAGE PLANS FOR NOTES REGARDING EXCESS TOPSOIL AND OTHER UNCLASSIFIED FILL/EXCAVATION.

10) THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANING OUT OF ANY ACCUMULATED SILT IN THE STORM DRAINAGE PIPES AT END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.

11) CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES UNTIL THE ENTIRE PROJECT HAS UNDERGONE FINAL STABILIZATION AND ALL CONSTRUCTION HAS BEEN COMPLETED.

12) RED LINE COMMENTS ON WORKING SETS OF PLANS SHOULD BE MAINTAINED ON SITE FOR ANY CHANGES MADE TO EROSION CONTROL PLAN. COMMENTS SHOULD INCLUDE DATE AND JUSTIFICATION FOR CHANGES.

13) OFF SITE VEHICLE TRACKING OF DIRT SOILS AND SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED OR FLIMINATED TO THE MAXIMIN EXTENT PRACTICAL. DUST CONTROL MEASURES MAY CONSIST OF APPLICATION OF MULCHES, VEGETATIVE COVER, SPRAY-ON ADHESIVES, CALCIUM TH ORIDE: THE USE OF IRRIGATION: AND/OR THE CONSTRUCTION OF BARRIERS TO PROTECT FROM WIND OR SCREEN AIRBORNE PARTICULATES

14) IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT PAD DOES NOT SUFFICIENTLY REMOVE MUD FROM VEHICLE TIRE THE TIRES SHOULD BE WASHED BEFORE LEAVING THE PROJECT SITE. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON THE CONSTRUCTION PAD OR OTHER AREA STABILIZED WITH CRUSHED STONE. ALL RUNOFF FROM WASHING AREAS BUST BE DIRECTED TO A SEDIMENT TRAP OR SEDIMENT BASIN INCLUDED IN THESE PLANS

STREAMS AND WETLANDS

NO CONSTRUCTION ACTIVITY SHALL BE CONDUCTED WITHIN THE BANKS OF STREAMS OR WITHIN A WETLAND AREA EXCEPT UPON RECEIPT OF AUTHORIZATION FOR SUCH ACTIVITY FROM THE U.S. ARMY CORPS OF ENGINEERS.

EXCEPT AS PROVIDED IN NO. 4 BELOW. NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 25 FOOT BUFFER ALONG THE BANKS OF ALI STATE WATERS. AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION. EXCEPT WHERE THE DIRECTOR HAS DETERMINED TO ALLOW A VARIANCE THAT IS AT LEAST AS PROTECTIVE OF NATURAL RESOURCES AND THE ENVIRONMENT IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A DRAINAGE STRUCTURE OR A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED IN THE PROJECT PLANS AND SPECIFICATIONS AND ARE IMPLEMENTED, OR ALONG ANY EPHEMERAL STREAM. OR WHERE BULKHEADS AND SEAWALLS MUST BE CONSTRUCTED TO PREVENT THE EROSION OF THE SHORELINE ON LAKE OCONEE AND LAKE SINCLAIR .. THE BUFFER SHALL NOT APPLY TO THE FOLLOWING ACTIVITIES PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS ARE IMPLEMENTED:.

A) PUBLIC DRINKING WATER SYSTEM RESERVOIRS;

- STREAM CROSSINGS FOR WATER LINES AND SEWER LINES, PROVIDED THAT THE STREAM CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER. AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER:
- STREAM CROSSINGS FOR ANY UTILITY LINES OF ANY ELECTRIC MEMBERSHIP CORPORATION OR MUNICIPAL ELECTRICAL SYSTEM OR ANY PUBLIC UTILITY UNDER THE REGULATORY JURISDICTION OF THE PUBLIC SERVICE COMMISSION. ANY UTILITY UNDER THE REGULATORY JURISDICTION OF THE FEDERAL ENERGY REGULATORY COMMISSION ANY CABLE TELEVISION SYSTEM AS DEFINED IN CODE SECTION 36-18-1 OR ANY ACENCY OR INSTRUMENTALITY OF THE UNITED STATES ENGAGED IN THE GENERATION, TRANSMISSION OR DISTRIBUTION OF POWER, PROVIDED THAT: (A) THE STREAM CROSSINGS OCCUR AT AN ANGLE. AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER. (B) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (C) THE ENTITY IS NOT A SECONDARY PERMITTEE FOR A PROJECT LOCATED WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PERMIT:
- BUFFER CROSSING FOR FENCES, PROVIDED THAT THE CROSSINGS OCCUR AT AN ANGLE, AS MEASURED FROM THE POINT OF CROSSING, WITHIN 25 DEGREES OF PERPENDICULAR TO THE STREAM AND CAUSE A WIDTH OF DISTURBANCE OF NOT MORE THAN 50 FEET WITHIN THE BUFFER. AND NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER:
- STREAM CROSSINGS FOR AERIAL UTILITY LINES. PROVIDED THAT: (A) THE NEW UTILITY LINE RIGHT-OF-WAY WIDTH DOES NOT EXCEED 100 LINEAR FEET (B) UTILITY LINES ARE ROUTED AND CONSTRUCTED SO AS TO MINIMIZE THE NUMBER OF STREAM CROSSINGS AND DISTURBANCES TO THE BUFFER. (C) ONLY TREES AND TREE DEBRIS ARE REMOVED FROM WITHIN THE BUFFER RESULTING IN ONLY MINOR SOIL EROSION (I.E., DISTURBANCE TO UNDERLYING VEGETATION IS MINIMIZED) AND (D) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY RARE OR DISTURBED AREAS WITHIN THE BUFFER. THE PLAN SHALL INCLUDE A DESCRIPTION OF THE STREAM CROSSINGS WITH DETAILS OF THE BUFFER DISTURBANCE INCLUDING AREA AND LENGTH OF BUFFER DISTURBANCE, ESTIMATED LENGTH OF TIME OF BUFFER DISTURBANCE, AND JUSTIFICATION UTILITY STRUCTURES WITHIN THE CURRENT RIGHT-OF-WAY UNDERTAKEN OR FINANCED IN WHOLE OR IN PART BY THE DEPARTMENT OF
- TRANSPORTATION, THE GEORGIA HIGHWAY AUTHORITY OR THE STATE ROAD AND TOLLWAY AUTHORITY OR UNDERTAKEN BY ANY COUNTY OR MUNICIPALITY, PROVIDED THAT: (A) THE AREA OF LAND DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE, (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE, (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITTEE FOR A PROJECT LOCATED WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PERMIT;
- RICHT-OF-WAY POSTS CUV-WIRES ANCHORS SURVEY MARKERS AND THE REPLACEMENT AND MAINTENANCE OF EXISTING UTILITY STRUCTURES. WITHIN THE CURRENT RIGHT-OF-WAY BY ANY ELECTRIC MEMBERSHIP CORPORATION OR MUNICIPAL ELECTRICAL SYSTEM OR ANY PUBLIC UTILITY UNDER THE REGULATORY JURISDICTION OF THE PUBLIC SERVICE COMMISSION. ANY UTILITY UNDER THE REGULATORY JURISDICTION OF THE FEDERAL ENERGY REGULATORY COMMISSION, ANY CABLE TELEVISION SYSTEM AS DEFINED IN CODE SECTION 36-18-1, OR ANY AGENCY OR INSTRUMENTALITY OF THE UNITED STATES ENGAGED IN THE GENERATION. TRANSMISSION OR DISTRIBUTION OF POWER, PROVIDED THAT: (A) THE AREA OF LAND DISTURBANCE DOES NOT EXCEED 100 SQUARE FEET PER STRUCTURE. (B) THE AREA OF BUFFER VEGETATION TO BE CUT (NOT GRUBBED) DOES NOT EXCEED 1,000 SQUARE FEET PER STRUCTURE, (C) NATIVE RIPARIAN VEGETATION IS RE-ESTABLISHED IN ANY BARE OR DISTURBED AREAS WITHIN THE BUFFER AND (D) THE ENTITY IS NOT A SECONDARY PERMITTEE FOR A PROJECT LOCATED WITHIN A COMMON DEVELOPMENT OR SALE UNDER THIS PERMIT AND
- MAINTENANCE (EXCLUDING DREDGING), REPAIR AND/OR UPGRADE OF SOIL AND WATER CONSERVATION DISTRICT WATERSHED DAMS WHEN UNDER THE TECHNICAL SUPERVISION OF THE USDA NATURAL RESOURCES CONSERVATION SERVICE

NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 50 FOOT BUFFER, AS MEASURED HORIZONTALLY FROM THE POINT WHERE VEGETATION HAS BEEN WRESTED BY NORMAL STREAM FLOW OR WAVE ACTION, ALONG THE BANKS OF ANY STATE WATERS CLASSIFIED AS "TROUT STREAMS" EXCEPT WHEN APPROVAL IS GRANTED BY THE DIRECTOR OF EPD FOR ALTERNATE BUFFER REQUIREMENTS IN ACCORDANCE WITH THE PROVISIONS OF O.C.G.A. 12-7-6, OR WHERE A ROADWAY DRAINAGE STRUCTURE MUST BE CONSTRUCTED; PROVIDED, HOWEVER, THAT SMALL SPRINGS AND STREAMS CLASSIFIED AS "TROIT STREAMS" WHICH DISCHARGE AN AVERAGE ANNIAL FLOW OF 25 CALLONS PER MINITE OR LESS SHALL HAVE A 25 FOOT BUFFER OR THEY MAY BE PIPED, AT THE DISCRETION OF THE PERMITTEE, PURSUANT TO THE TERMS OF A RULE PROVIDING FOR A GENERAL VARIANCE PROMULGATED BY THE BOARD OF NATURAL RESOURCES INCLUDING NOTIFICATION OF SUCH TO EPD AND THE LOCAL ISSUING AUTHORITY OF THE LOCATION AND EXTENT OF THE PIPING AND PRESCRIBED METHODOLOGY FOR MINIMIZING THE IMPACT OF SUCH PIPING SHORT OF THE DOWNSTREAM PERMITTEE'S PROPERTY. AND THE PERMITTEE MUST COMPLY WITH THE RUFFER REQUIREMENT FOR ANY ADJACENT TROUT STREAMS. THE BUFFER SHALL NOT APPLY TO ACTIVITIES LISTED IN 2.a THROUGH 2.h PROVIDED THAT ADEQUATE EROSION CONTROL MEASURES ARE INCORPORATED INTO THE PROJECT PLANS AND SPECIFICATIONS IMPLEMENTED

EXCEPT AS PROVIDED ABOVE, FOR BUFFERS REQUIRED PURSUANT TO NO. 2 . AND 3, NO CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN A 3UFFER AND A BUFFER SHALL REMAIN IN ITS NATURAL, UNDISTURBED, STATE OF VEGETATION UNTIL ALL LAND DISTURBING ACTIVITIES ON THE CONSTRUCTION SITE ARE COMPLETED, DURING COVERAGE UNDER THE NPDES PERMIT, A BUFFER CANNOT BE THINNED OR TRIMMED OF VEGETATION AND A PROTECTIVE VEGETATIVE COVER MUST REMAIN TO PROTECT WATER QUALITY AND AQUATIC HABITAT AND A NATURAL CANOPY MUST BE LEFT IN SUFFICIENT QUANTITY TO KEEP SHADE ON THE STREAM BED.

POST-CONSTRUCTION STORMWATER BMP'S (PART IV.D.3.b)

STORMWATER RUNOFF IS CAPTURED WITHIN THE PROPOSED CLOSED CONDUIT SYSTEM THAT DRAINS SOUTH TO THE REAR OF THE PROPERTY WHERE SITE WILL BE SERVED BY A PROPOSED ABOVE GROUND DETENTION POND WITH SEDIMENT FOREBAY . OFFISTE STORMWATER RUNOFF FROM THE NORHTWEST IS ROUTED AROUND THE PROJECT SITE AND BYPASSES THE ABOVE GROUND DETENTION POND WITH SEDIMENT FOREBAY SERVING THE SITE.

) THE POND DISCHARGES TO THE SOUTH THROUGH A ENERGY DISSIPATING HEADWALL WITH RIP-RAP OUTLET PROTECTION. NOTE RIP-RAP TO BE MAINTAINED AFTER CONSTRUCTION.



BMP MAINTENANCE (PART IV.D.5)

WHETHER OR NOT IT IS INCLUDED IN AN INSPECTION REPORT. 2) ALL STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES MUST BE CLEANED OUT OR RECONSTRUCTED WHEN SEDIMENT VOLUMES EXCEED 1/3 OF THE STORAGE CAPACITY OF THE MEASURE.

3) ALL SILT FENCE STORAGE SHALL BE CLEANED OUT OR RECONSTRUCTED WHEN SEDIMENT VOLUMES EXCEED 1/2 OF THE HEIGHT OF THE SILT FENCE.

4) SEDIMENT CLEANED OUT FROM STORAGE DEVICES AND SILT FENCE SHOULD BE SPREAD IN UPLAND AREAS, MIXED WITH TOPSOIL, AND MULCHED

5) WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE I PRECLUDED BY SNOW COVER OR OTHER ADVERSE WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.

6) WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED, (E.G., THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED LESS THAN 21 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE

NITIATED ON THAT PORTION OF THE SITE BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED. 7) REAPPLICATION OF VEGETATIVE BMPS MAY BE REQUIRED TO ACHIEVE FULL COVERAGE. REFER TO VEGETATIVE BMP NOTES AND DETAILS FOR INSTALLATION AND MAINTENANCE OF VEGETATIVE BMP'S.

INSPECTIONS (PART IV.D.4)

IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE SURE THAT INSPECTIONS ARE BEING PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PERMIT NOTED BELOW.

2) EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE. CERTIFIED PERSONNEL PROVIDED B' 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.

UNTIL A NOTICE OF TERMINATION IS SUBMITTED. 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.

4) CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE 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 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 ORSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY, WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER FROSION CONTROL MEASURES ARE FEFECTIVE 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.

5) CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (LE., UNTIL A NOTICE OF TERMINATION IS RECEIVED BY EPD) 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).

6) 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.

SAMPLING REQUIREMENTS (PART IV.D.6):

GENERA 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.

SAMPLE TYPE:

1) ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOCY AND TEST PROCEDURES ESTABLISHED BY 40 CER PART 136 (UNLESS OTHER TEST PROCEDURES HAVE REEN APPROVED): THE CURDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-8-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY

- SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
- B) SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER. C) 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.
- MANUAL AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATEL 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.
- 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 OF THE NPDES PERMIT.

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 STORM WATER 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 STORM WATER DISCHARGE FROM THE DEPARTTED ACTIVITY (I.F. THE DISCHARGE FARTHEST LIPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITED 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
- THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (LE., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER 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
- IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER **OUTFALL CHANNEL(S).**
- D) CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.
- THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS. 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 UNPAVED 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). 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 STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS 111.D.3. OR 111.D.4 . .. WHICHEVER IS APPLICABLE

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 STORM WATER DISCHARGE TO A MONIFORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN IN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.

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 STORM WATER 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 STORM WATER 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;
- 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 STORM WATER 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:
- 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:
- 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

1) THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION UPON DISCOVERY OF ANY DEFICIENCIES IN EROSION CONTROL BEST MANAGEMENT PRACTICES,

- OR SEEDED IMMEDIATELY. DO NOT SPOIL IN AREAS WHERE STRUCTURAL FILLS ARE REQUIRED (SUCH AS PAVEMENT, BUILDING FOOTPRINTS, ETC.)
- 3) MEASURE RAINFALL ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOURDAY

E) EXISTING CONSTRUCTION ACTIVITIES, LE., 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) ABOVI NOTE THAT THE PERMITEE 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

REPORTING (PART V.E)

1) THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART 11.C. OF THE ERMIT 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 STORM WATER 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 OF THE PERMIT. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THE PERMIT.

- ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
- A) SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
- B) THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS; C) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
- D) THE DATE(S) ANALYSES WERE PERFORMED:
- E) THE TIME(S) ANALYSES WERE INITIATED; F) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
- G) REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED H) THE RESULTS OF SUCH ANALYSES. INCLUDING THE BENCH SHEETS. INSTRUMENT READOUTS. COMPUTER DISKS OR TAPES. ETC., USED TO
- DETERMINE THESE RESULTS D RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND
- J) CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

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 VL IF AN ELECTRONIC SUBMITTAL IS PROVIDED BY EPD THEN THE WRITTEN CORRESPONDENCE MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMILAR SERVICE.

RETENTION OF RECORDS (PART IV.F)

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 SUBMITED IN ACCORDANCE WITH PART

- 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 MONITORING 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.(1)(C) OF THIS PERMIT.

2) COPIES OF ALL NOTS, NOT'S, REPORTS, PLANS, MONITORING REPORTS, MONITORING INFORMATION, INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONIFORING INSTRUMENTATION, 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.

RISK REDUCTION/POLLUTION CONTROL (PART IV.D.3.c)

- 1) AN EFFORT SHALL BE MADE TO MAINTAIN THE MINIMUM AMOUNT OF MATERIAL NEEDED TO COMPLETE THE JOB ONSITE.
- 2) ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS
- 3) PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL
- 4) SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER
- 5) WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER
- 6) MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED
- 7) THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

BULK STORAGE

BULK STORAGE INCLUDES THE STORAGE OF RAW OF FINISHED PRODUCTS AND BYPRODUCTS STORED IN LARGE PILES OR STACKS ON A TEMPORARY OR PERMANENT BASIS, INCLUDING GRAVEL, COMPOST, CHEMICALS, LOGS, TREATED WOOD, SAWDUST, WOOD CHIPS, COAL, BUILDING MATERIALS, CONCRETE AND METAL PRODUCTS FOR BULK STORAGE OF TOPSOIL REFER TO TOPSOIL STOCKPILING BMP'S

BULK MATERIALS SHOULD NOT BE ALLOWED TO WASH OFF THE SITE OR DISCHARGE INTO SURFACE WATERS. PROTECT STOCKPILES WITH A MATERIALS ARE NOT BEING USED. WHEN INFEASIBLE, RUNOFF FROM THE STOCKPILE SHOULD BE DIVERTED TO STRUCTURAL EROSION & SEDIMENT CONTROL BMP'S

- 3) LOCATE STOCKPILES A MINIMUM OF 50 FEET FROM CONCENTRATED FLOW AREAS.
- 4) INSPECT DAILY FOR EROSION AND/OR LEACHING OF STOCKPILES OF RAW MATERIALS

LIQUID STORAGE

1) LIQUID STORAGE CONTAINERS MUST HAVE TIGHT FITTING LIDS AND BE PROPERLY LABELED WITH THE CONTENTS AND ANY POSSIBLE HAZARDS. 2) ALL LIQUID STORAGE CONTAINERS SHOULD BE PLACED IN A DESIGNATED AREA WITH A SECONDARY CONTAINMENT SYSTEM. SUCH AS CURBING

BERMS DIKES LINERS OR USE OF SPILL PALLETS SUCH THAT CONTENTS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORMWATER. DRAINAGE SYSTEM IF THE CONTAINER LEAKS OR RUPTURES. SECONDARY CONTAINMENT SHOULD BE DESIGNED TO STORE 110% OF THE VOLUME OF THE LARGEST CONTAINER OR 10% OF THE VOLUME OF ALL CONTAINERS, WHICHEVER IS GREATER.

RUNOFF BEYOND SECONDARY STORAGE AREAS SHOULD BE DIVERTED TO EROSION CONTROL BMP'S. IF BMP'S WITH A SKIMMER DEVICE ARE

- CONSTRUCTED ON THE PROPERTY, LIQUID STORAGE CONTAINMENT RUNOFF SHOULD BE DIVERTED TO SUCH MEASURES.
- 4) PROVIDE BARRIERS AROUND LIQUID STORAGE AREAS TO PREVENT DAMAGE FROM VEHICLES OR EQUIPMENT.
- 6) ADDITIONAL REQUIREMENTS ARE INCLUDED IN THE PLAN FOR OIL/PETROLEUM STORAGE.INSPECT DAILY FOR LEAKS AND SPILLS.
- 7) USE DRY ABSORBENTS, SUCH AS ABSORBENT GRANULES, SOCKS, AND PADS TO CLEAN UP ANY SPILLS OR LEAKING FLUIDS.

WASTE DISPOSAL

1) ALL WASTE MATERIALS WILL BE COLLECTED AND STORED TO BE PROPERLY DISPOSED OF AT A LICENSED SOLID WASTE MANAGEMENT COMPANY 2) LOCATE WASTE COLLECTION AREAS AWAY FROM STREETS, GUTTERS, WATERCOURSES, AND STORM DRAINS. WASTE COLLECTION AREAS, SUCH AS DUMPSTERS, ARE OFTEN BEST LOCATED NEAR CONSTRUCTION SITE ENTRANCES OR THE SOURCE OF DISPOSAL TO MINIMIZE TRAFFIC ON DISTURBED SOIL, DISPOSAL SHALL BE PERIODICALLY AS NEEDED

- 3) COVER TEMPORARY WASTE PILES WITH A WATERPROOF COVER WHEN FEASIBLE TO DO SO.
- 4) NO CONSTRUCTION MATERIALS WILL BE BURIED ONSITE

5) ALL PERSONNEL WILL BE INSTRUCTED CONCERNING WASTE DISPOSAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR THIS INSTRUCTION, AND WILL BE RESPONSIBLE FOR SEEING THAT THESE INSTRUCTIONS ARE FOLLOWED.

6) INSPECT SOLID WASTE DISPOSAL AREAS DAILY TO ENSURE THERE ARE NO LEAKS OR SPILLS, AND THERE IS NO LOOSE/UNSECURED TRASH OR SOLID WASTE MATERIAL

HAZARDOUS MATERIALS

1) THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:

- A) PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RE-SEALABLE.
- B) ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED. C) IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

2) ALL HAZARDOUS WASTE MATERIALS (AS DEFINED IN 40 CFR PART 261) WILL BE SEPARATED FROM CONSTRUCTION WASTE AND WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES, AND THE CONTRACTOR WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

MATERIAL DATA SAFETY SHEETS FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF THE MSDS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING. PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.

HAZARDOUS WASTE STORAGE AREAS SHOULD, AT A MINIMUM, BE SHELTERED FROM PRECIPITATION AND RAISED OFF THE GROUND WITH SECONDARY CONTAINMENT (SUCH AS SPILL PALLETS) TO PREVENT LEACHING AND DELIVERY FROM RUNOFF. ALL STORAGE MUST COMPLY WITH STATE AND FEDERAL REGULATIONS

SANITARY WASTE

ON-SITE VEHICLE MAINTENANCE SPILLS AND DRIPS.

2) AVOID CHANGING MOTOR OIL OR OTHER VEHICLE FLUIDS, OR PERFORMING HEAVY EQUIPMENT MAINTENANCE NEAR A STORMWATER DRAIN, DRAINAGE DITCH. SURFACE WATER. OR ANYWHERE WHERE THE CONTAMINANTS COULD COME INTO CONTACT WITH RAIN OR STORMWATER RUNOFF

3) ALWAYS USE FUNNELS WHEN POURING LIQUIDS AND USE DRIP PANS UNDER A VEHICLE WHEN UNCLIPPING HOSES. UNSCREWING FILTERS AND REMOVING OTHER PARTS THAT ARE SUBJECT TO LEAKS. CLEAN UP VEHICLE FLUIDS WITH RAGS OR ABSORBENT MATERIALS IMMEDIATELY

CONCRETE WASHOUT

1) WASHOUT OF THE DRUM OF A CONCRETE TRUCK ON THE CONSTRUCTION SITE IS PROHIBITED. CONCRETE WASHDOWN OF TOOLS, CONCRETE MIXER CHUTES. HOPPERS. AND THE REAR OF VEHICLES WILL ONLY BE ALLOWED IN DESIGNATED CONCRETE WASHDOWN AREAS SHOWN IN THIS PLAN. AND CONCRETE WASHDOWN AREAS MUST HAVE THE CW BMP INSTALLED IN ACCORDANCE WITH PLAN REQUIREMENTS AND DETAILS. IF NO CONCRETE WASHOUT AREA IS SHOWN. THE PLAN MUST BE AMENDED FOR CONCRETE WASHOUT TO BE ALLOWED AT THE LOCATION THAT IS DESIGNATED ON THE PLAN WASHDOWN MUST ADDITIONALLY MEET THE FOLLOWING PRACTICES:

- OPERATIONS.

PETROLEUM / OIL PRODUCTS

INSPECT VEHICLES AND EQUIPMENT DAILY FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.

2) THERE SHALL BE NO ON-SITE STORAGE OF PETROLEUM FOR FUELING. MOBILE PETROLEUM TRUCKS SHALL BE USED TO FUEL CONSTRUCTION EQUIPMENT ON-SITE, ON-SITE FUELING SHOULD BE PERFORMED AT A MINIMUM OF 50 FEET AWAY FROM CONCENTRATED FLOWS OF STORMWATER. STORMWATER DRAINS. DRAINAGE DITCHES. AND SURFACE WATERS.PLACE TEMPORARY CAPS OVER NEARBY CATCH BASINS AND OPEN MANHOLES SO THAT IF A SPILL OCCURS IT IS PREVENTED FROM ENTERING THE STORMWATER DRAINAGE SYSTEM. WHERE POSSIBLE, DESIGNATE AREAS FOR FUELING WHERE RUNOFF DISCHARGES TO A SEDIMENT STORAGE AREA WITH A SKIMMER DEVICE.

3) ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

STORAGE WILL NOT BE PROVIDED

FERTILIZERS

FUNGICIDES/PESTICIDES

INSTRUCTIONS FOR SPILLS AND LEAKS

WITHIN 24 HOURS AT (800) 426-2675.

CONTACT WITH A HAZARDOUS SUBSTANCE

REQUIRED

ASSESSMENT

O SITE PERSONNEI

1) ALL SANITARY WASTE WILL BE MANAGED APPROPRIATELY BY PERMANENT EXISTING ON-SITE FACILITIES OR PORTABLE UNITS.

2) ALL SANITARY WASTE TO BE DISPOSED OF PROPERLY ACCORDING TO STATE AND FEDERAL CODE

3) A MINIMUM OF ONE SANITARY UNIT WILL BE PROVIDED FOR EVERY TEN (10) WORKERS ON SITE OR AS OTHERWISE REQUIRED BY LOCAL REGULATIONS.

1) FOR ALL OUTDOOR MAINTENANCE ACTIVITIES, A TARP OR GROUND CLOTH AND DRIP PANS SHOULD BE PLACED BENEATH THE VEHICLE TO CAPTURE

PREVENT WASHDOWN WATER FROM FLOWING OUT OF THE WASHDOWN AREA;

USE THE MINIMUM AMOUNT OF WATER TO WASH DOWN TOOLS, MIXER CHUTES, HOPPERS, AND THE REAR OF ANY VEHICLES; REMOVE ANY CONCRETE SEDIMENT FROM THE AREA SURROUNDING THE WASHOUT AREA BEFORE IT HARDENS: AND

REMOVE ANY CONCRETE RESIDUE FROM THE AREA ONCE IT HAS HARDENED

NEVER DISCHARGE OR DUMP RAW, EXCESS OR WASTE MATERIALS, SLURRY, OR RINSE WATER INTO A STORMWATER DRAIN, DRAINAGE DITCH, OR SURFACE WATER. APPROPRIATELY DISPOSE OF ANY SOLID CONCRETE OR ASPHALT WASTE, INCLUDING DUST PRODUCED FROM SAWCUTTING/MILLING

4) A SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN TO MEET THE EPA OIL SPILL PROGRAM REGULATIONS MAY BE REQUIRED IF ANY SINGLE PETROLEUM STORAGE UNIT EXCEEDS 660 GALLONS, OR A TOTAL OF MORE THAN 1.320 GALLONS OF FUEL ARE STORED ON SITE. THIS PLAN WAS PREPARED WITH THE UNDERSTANDING THRESHOLDS FOR THE PREPARATION OF AN SPCC PLAN WOULD NOT BE EXCEEDED, AND THAT ON-SITE FUEL

NOTHING IN THIS PERMIT SHALL BE CONSTRUED TO PRECLUDE THE INSTITUTION OF ANY LEGAL ACTION OR RELIEVE THE PERMITTEE FROM ANY RESPONSIBILITIES AND ADDRESS OF DENALTIES TO WHICH THE DEPARTTEE IS OF MAY BE SUBJECT UNDER THE GEORGIA HAZARDOUS WASTE MANAGEMENT ACT. O.C.G.A. 12-8-60. ET SEO, OR UNDER CHAPTER 14 OF TITLE 12 OF THE OFFICIAL CODE OF GEORGIA ANNOTATED: NOR IS THE OPERATOR RELIEVED FROM ANY RESPONSIBILITIES, LIABILITIES OR PENALTIES TO WHICH THE PERMITTEE IS OR MAY BE SUBJECT UNDER SECTION 311 OF THE CLEAN WATER ACT OR SECTION 106 OF COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT.

1) FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A CLEAN, DRY PLACE. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

2) AVOID FERTILIZER APPLICATION WHEN IT IS RAINING OR WHEN HEAVY RAIN IS FORECAST

3) FERTILIZER GRANULES SHOULD BE WORKED INTO THE SOIL RATHER THAN BROADCAST AND LEFT ON THE SURFACE.

4) SWEEP UP DRY FERTILIZER GRANULES THAT FALL ON PAVEMENT OR OTHER HARD SURFACES. DO NOT HOSE OR BLOW OFF.

1) DO NOT MIX OR PREPARE PESTICIDES OR FUNGICIDES NEAR A STORMWATER DRAIN. DRAINAGE DITCH. OR SURFACE WATER. PREPARE THE MINIMUM MOUNT OF PESTICIDE NEEDED FOR THE JOB AND USE THE LOWEST RATE THAT WILL EFFECTIVELY CONTROL PESTS/UNDESIRABLE VEGETATION.

2) READ AND FOLLOW THE LABEL DIRECTIONS AND APPLY ALL FUNGICIDES AND PESTICIDES AS DIRECTED. FOLLOW FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS GOVERNING THE USE, STORAGE, AND DISPOSAL OF PESTICIDES AND TRAINING OF APPLICATORS AND PEST CONTROL ADVISORS.

3) DO NOT APPLY FUNGICIDES OR PESTICIDES WHEN IT IS RAINING OR RAIN IS FORECAST.

4) PESTICIDES SHOULD NEVER BE APPLIED DIRECTLY TO SURFACE WATERS OR WITHIN 100' OF A STREAM BANK OR SHORELINE 5) SWEEP UP DRY PESTICIDE THAT FALLS ONTO PAVEMENT OR OTHER IMPERVIOUS SURFACES. DO NOT HOSE OFF. FOLLOW MANUFACTURER

1) ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS

2) FOR WATER-BASED PAINTS, CLEAN PAINTING EQUIPMENT IN A SINK OR BASIN CONNECTED TO THE SANITARY SEWER OR IN THE CONCRETE WASHOUT AREA, CLEAN UP NON-WATER BASED PAINTS, FINISHES, AND OTHER MATERIALS IN A MANNER THAT ENABLES COLLECTION OF WASTE PAINT AND SOLVENTS FOR RECYCLING AND PROPER DISPOSAL NEVER POUR WASTE PAINT DOWN A STORM DRAIN OR INTO A CONCENTRATED FLOW AREA

SPILL CLEANUP AND CONTROL

FOR SPILLS THAT IMPACT SURFACE WATER, OR FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED

FOR SPILLS GREATER THAN 25 GALLONS WITH NO SURFACE WATER IMPACT, GEORGIA EPD MUST BE CONTACTED WITHIN 24 HOURS.

FOR SPILLS LESS THAN 25 GALLONS WITH NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS

1) LOCAL, STATE, AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES MADE AVAILABLE

2) MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN OR NEAR MATERIAL STORAGE AREAS. THIS INCLUDES BUT IS NOT LIMITED TO BROOMS DUSTPANS MOPS RAGS GLOVES SORBENTS AND CLEARLY LABELED WASTE CONTAINERS. 3) ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY.

4) THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM

5) FOLLOWING A SPILL, MEASURES WILL BE TAKEN/PROCEDURES ADJUSTED TO PREVENT THIS TYPE OF SPILL FROM RE-OCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL BE INCLUDED IN THE

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Revisions Date Description

RELEASED FOR CONSTRUCTION

DATE

PROJECT NUMBER

EROSION **SEDIMENTATION, & CONTROL NOTES** SHEET NUMBER

CONSTRUCTION SEQUENCE (PART IV.D.1)		
THE FOLLOWING SEQUENCE OF ACTIVITIES ARE TO BE IMPLEMENTED IN THE ORDER SHOWN, UNLESS INCLEMENT WEATHER, SITE CONDITIONS, REVISIONS, RECOMMENDATIONS FROM THE PRE-CONSTRUCTION CONFERENCE, OR OTHER REASON JUSTIFIES A DEVIATION FROM THIS SCHEDULE. IF A DEVIATION IS UNDERTAKEN OR ANTICIPATED, THE LOCAL JURISDICTION SHALL BE NOTIFIED AND THE CHANGE OF SEQUENCE RECORDED IN THE		
DAILY LOG.	CODE	PRACTICE
 PHASE-I: CLEARING, GRADING, DEMOLITION, AND INSTALLATION OF INITIAL BMP'S OBTAIN AND POST A COPY OF THE LAND DISTURBANCE PERMIT ON THE SITE. A COPY OF THE FILED NOTICE OF INTENT (NOI) AND DELIVERY RETURN RECEIPT SHOULD BE STORED WITH THE APPROVED CONSTRUCTION PLANS ON-SITE, ALONG WITH SETTING UP STORAGE FOR THE DAILY SAMPLING LOG AND FILING FOR REPORTS REQUIRED BY THE NPDES PERMIT. LAND DISTURBANCE CANNOT COMMENCE LESS THAN 14 DAYS FROM 	Cd	CHECK DAM
THE DATE ON THE DELIVERY RECEIPT. 2) SET UP A PRE-CONSTRUCTION CONFERENCE ON-SITE WITH THE OWNER, CONTRACTOR, DESIGN TEAM MEMBERS AS NEEDED, AND LOCAL ISSUING AUTHORITY TO REVIEW CONSTRUCTION REQUIREMENTS.	Cd-S	CHECK DAM STONE CHECK D
 COORDINATE THE DISCONNECTION AND REMOVAL OF ANY EXISTING UTILITIES ON-SITE TO BE REMOVED OR ABANDONED. FIELD CONFIRM THE LOCATION OF ALL EXISTING UTILITIES BY POTHOLING. 	Cd-Hb	CHECK DAM STRAW-BALE CHECK
4) STAKE LIMITS OF DISTURBED AREA AND TREE PROTECTION AREAS.	Cd-Fs	CHECK DAM COMPOST FILTER S
 INSTALL TREE SAVE FENCING TO DELINEATE BUFFER AND TREE SAVE AREAS AS SHOWN ON THE PLAN. CONSTRUCT THE CONSTRUCTION ENTRANCE(S) AT THE PROPOSED LOCATION(S) SHOWN ON THE PLANS. (TEMPORARY STREET ACCESS 	(Ch)	CHANNEL STABILIZ
PERMITS MAY BE REQUIRED.) 7) INSTALL ALL PERIMETER SILT BARRIERS AS SHOWN ON THE PHASE-I PLAN SHEETS.		CHANNEL STABILIZ
 REFINE ALL FERMITER SET DARABLES AS DIOWN ON THE FINAD THEAR SHEETS. CLEAR AND GRUB ROUTES TO THE MINIMUM EXTENT NEEDED TO CONSTRUCT STRUCTURAL BEST MANAGEMENT PRACTICES IN CONCENTRATED FLOW AREAS SHOWN ON THE INITIAL PHASE PLAN. THIS INCLUDES EXCAVATED SEDIMENT TRAPS, SEDIMENT BASINS, ROCK 	Ch-1	CATEGORY 1 (0-5 I VEGETATED LINI
DAMS, SILT GATES, AND DIVERSIONS.	Ch-2	CHANNEL STABILIZ CATEGORY 2 (2-10 RIP RAP LININ
 9) INSTALL STRUCTURAL BMP'S IN CONCENTRATED FLOW AREAS WITH MINIMAL DISTURBANCE TO ADJACENT AREAS. 10) INSTALL SKIMMER DEVICES ON STRUCTURAL BMP'S AS SHOWN ON THE INITIAL PHASE PLANS. 	(Ch-3)	CHANNEL STABILIZ CATEGORY 3 (> 10
11) COMMENCE CLEARING, GRUBBING, AND DEMOLITION OPERATIONS. CONSTRUCT ALL REMAINING BMP'S SHOWN ON THE PHASE-I PLANS CONCURRENT WITH CLEARING AND GRUBBING OPERATIONS.		CONCRETE LINI
20 COMMENCE DEMOLITION ACTIVITY CONCURRENT WITH CLEARING AND GRUBBING ACTIVITY. CONSTRUCTION DEBRIS SHOULD BE SORTED FROM VEGETATIVE DEBRIS FOR PROPER DISPOSAL.	C 0	CONSTRUCTION E
3) APPLY TEMPORARY VEGETATION (Ds1/Ds2) IN ACCORDANCE WITH PLANS AND NOTES FOR CLEARED AREAS.	Cr	CONSTRUCTION R STABILIZATION
PHASE-II: GRADING AND UTILITY CONSTRUCTION) CONSTRUCT ALL STRUCTURAL BMP'S SHOWN ON THE PHASE-II PLAN WHERE COMPLETION OF GRADING AND UTILITY CONSTRUCTION IS NOT IECESSARY FOR INSTALLATION.	Cw	CONCRETE WASHOU
) COMMENCE ROUGH GRADING ON-SITE. INSTALL STRUCTURAL AND VEGETATIVE BMP'S AS SHOWN ON THE PHASE-II PLAN AS EACH AREA IS COMPLETED. FOR LARGE FILLS AND MAJOR EARTH MOVING ACTIVITIES THAT CHANGE CONVEYANCE OF STORMWATER RUNOFF, THE INSTALLATION OF DIVERSIONS, DOWN DRAINS, AND STRUCTURES ON THE PLANS SHOULD BE CONSTRUCTED TO MAINTAIN THE PROTECTION OF SLOPES AND COUTING OF WATER TO THE PHASE-II STRUCTURAL STORAGE LOCATIONS. THIS MAY INCLUDE PHASED INSTALLATION OF DOWN DRAINS WITH	Dc	STREAM DIVERSION C
IVERSIONS ALONG THE FACE OF LARGE FILL AREAS. INSTALL PERMANENT STORMWATER MANAGEMENT AREAS AS SHOWN. WHERE PERMANENT STORMWATER MANAGEMENT AREAS HAVE WATER	Dc-A	STREAM DIVERSION C (0-2.5 FT/S) GEOTE2
UALITY COMPONENTS, INSTALL SKIMMER OR RETROFITING DEVICES AS SHOWN ON THE PLAN AND DO NOT CONSTRUCT WATER QUALITY DEVICES NTIL FINAL STABILIZATION HAS TAKEN PLACE. WHERE INFILTRATION IS A PART OF A STORMWATER MANAGEMENT COMPONENT, MAINTAIN THE OTTOM OF THE INFILTRATION AREA A MINIMUM OF SIX INCHES ABOVE FINAL GRADE, TO BE EXCAVATED ONCE FINAL STABILIZATION OF THE SITE IS OMPLETE.	Dc-B	POLYETHYLENE FILM, STREAM DIVERSION C (0-2.5 FT/S) GEOTE: ALONE
CONSTRUCT TEMPORARY AND PERMANENT DRAINAGE STRUCTURES AS NECESSARY FOR CONVEYANCE DURING GRADING ACTIVITIES. INSTALL FORM OUTLET PROTECTION CONCURRENT WITH CONSTRUCTION OF ANY DRAINAGE OUTFALL.	Dc-C	ALONE STREAM DIVERSION C (0-2.5 FT/S) CLASS I F AND GEOTEXTII
AS FINAL GRADE OF SLOPES ARE ACHIEVED, TRACK OR BENCH AS SHOWN ON THE PLANS. INSTALL SLOPE STABILIZATION REQUIRED IN THE LANS CONCURRENT WITH THE ESTABLISHMENT OF FINAL GRADE OF SLOPES AND CONVEYANCE CHANNELS.	Di	DIVERSION
) INSTALL INLET SEDIMENT TRAPS CONCURRENT WITH THE CONSTRUCTION OF STORM DRAIN STRUCTURES. PROTECT INLETS WHERE XCAVATION HAS NOT BEEN BACKFILLED AND INLET PROTECTION ESTABLISHED BY DIVERTING TO COMPLETED INLET SEDIMENT TRAPS.		
) SPREAD FERTILIZER AND GRASS SEED/SODDING ALONG WITH RECOMMENDED MULCHING (IF SEEDED) AS SOON AS FINAL GRADE IS ACHIEVED NACCORDANCE WITH THE PHASE-III PLAN SHEETS AND ANY APPLICABLE LANDSCAPE PLAN.	Dn1	TEMPORARY DOWN STRUCTURE
 COMMENCE FINAL GRADING OF ALL ROADS, PARKING LOTS, AND BUILDING PADS. EXCAVATE AND BACKFILL UTILITY CONSTRUCTION IN SECTIONS TO MINIMIZE OPEN EXCAVATION. WHERE UTILITIES ARE AT FINAL GRADE, PLACE 	Dn2	PERMANENT DOWN STRUCTURE
PHASE-III - FINAL CONSTRUCTION, LANDSCAPING, AND PERMANENT STABILIZATION	(Fr)	FILTER RING
AS SOON AS CONCRETE BUILDING PADS ARE POURED, ALL AREAS AROUND THE PADS AND STREET/PARKING AREAS ARE TO BE TEMPORARILY EGETATED.		
 CONSTRUCT BUILDING PAD AND FOUNDATIONS. CONSTRUCT ALL LEVEL SPREADERS AND MAINTAIN STORM OUTLET PROTECTION AT PIPE OUTLETS AS SHOWN ON THE PLANS. 	Ga	GABIONS
) PLACE GRADED AGGREGATE BASE FOR ROADS AND DRIVES. MODIFY ALL CURB INLET SEDIMENT TRAPS AS NEEDED, BOTH FOR DIVERSION OF	Gr	GRADE STABILIZA STRUCTURE
ATER INTO THE RAISED THROATS AND FOR THE INLET. (Sd2-P MAY BE INSTALLED ON THE GUTTER IN MOST CASES). INSTALL CURBING AND SIDEWALKS. DURING THIS PHASE, CURBING MAY ACT AS A RUNOFF DIVERSION. THE CONTRACTOR MUST MAINTAIN ONVEYANCE AS SHOWN IN THE PLANS, WHICH MAY REQUIRE CONSTRUCTING A SEGMENT OF CURB AT A LATER DATE TO MAINTAIN PROPER ONVEYANCE OF STORMWATER.	Lv	LEVEL SPREADE
AFTER A CURING TIME OF NO LESS THAN SEVEN DAYS, BACKFILL CURBS AND SMOOTH SHOULDER GRADES. PLACE FINAL NDSCAPING/STABILIZATION ON SHOULDERS AS SOON AS SEASON AND CONSTRUCTION ACTIVITY ALLOWS. IF FINAL STABILIZATION WILL NOT BE	Rd	ROCK FILTER D
IMEDIATE, PLACE TEMPORARY SEEDING OR MULCH ON THE SHOULDERS. PAVE ALL STREETS AND PARKING AREAS. SEDIMENT INLET TRAP PROTECTION MAY REQUIRE MODIFICATION TO MATCH PHASE-III PLAN.	Re	RETAINING WAI
ALL SEDIMENT PONDS AND PERIMETER SILT FENCE IS TO BE MAINTAINED FOR THE DURATION OF BUILDING AND SITE CONSTRUCTION. AT COMPLETION OF BUILDING/SITE INFRASTRUCTURE CONSTRUCTION, ALL AREAS ARE TO BE PERMANENTLY VEGETATED. UPON FINAL STABILIZATION TO STORMWATER MANAGEMENT AREAS, INSTALLATION OF WATER QUALITY AND/OR INFILTRATION MEASURES	Rt	RETROFITTING
ALL BE COMPLETED. IMMEDIATELY UPON COMPLETION, AS-BUILT SURVEYS OF THESE SHOULD BE COMPLETED AND PROVIDED TO THE ENGINEER R REVIEW. NOTE THAT IMPROPERLY CONSTRUCTED STORMWATER MANAGEMENT AREAS MAY RESULT IN ADDITIONAL LAND DISTURBANCE. RRECTIVE ACTION, IF REQUIRED, SHOULD BE TAKEN BEFORE A NOTICE OF TERMINATION IS FILED.	Rt-P	RETROFITTING PERFORATED HALF- PIPE WITH STONE F
) UPON FINAL STABILIZATION OF 100% OF THE CONTRIBUTING ON-SITE DRAINAGE AREAS, REMOVE THE RESPECTIVE TEMPORARY STRUCTURAL MP'S USE PERMANENT VEGETATIVE BMP'S AND LANDSCAPING SHOWN ON THE PHASE-III AND LANDSCAPE PLAN TO STABILIZE DISTURBED AREAS ROM STRUCTURAL BMP'S AS THEY ARE REMOVED.	Rt-B	RETROFITTING SLOTTED BOARD DA STONE OR FILTER F
OTICE OF TERMINATION (NOT) THE PRIMARY PERMITTEE IS TO SUBMIT A NOTICE OF TERMINATION ONCE THE FOUR FOLLOWING CRITERIA ARE MET:	Rt-Sg	RETROFITTING SILT CONTROL G
 A) THE ENTIRE STANDALONE DEVELOPMENT HAS UNDERGONE FINAL STABILIZATION; B) ALL STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THE NPDES PERMIT HAVE CEASED; AND C) THE SITE IS IN COMPLIANCE WITH THIS PERMIT AND ALL TEMPORARY BMP'S HAVE BEEN REMOVED. 	(Sd1)	SEDIMENT BARR
) IF THE PRIMARY PERMITTEE HAS ELECTED TO SUBMIT NOIS FOR SEPARATE PHASES OF THE STANDALONE DEVELOPMENT, THE PHASE OR HASES OF THE STANDALONE DEVELOPMENT ON THE NOT MUST CORRESPOND TO THE PHASE OR PHASES IN THE NOI.	Sd1-NS	SEDIMENT BARR TYPE NS: NONSENS AREAS
	Sd1-S	SEDIMENT BARR TYPE S: SENSITIVE /
	Sd1-Fs	SEDIMENT BARR TYPE S: SENSITIVE / COMPOST FILTER S
	Sd1-BB	SEDIMENT BARR BRUSH BARRIE (TIMBER CLEARING
	642	



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

		GEORG	A UNIFO	RM CODING SYSTEM FOR EF	ROSIO	N AND SEDIMEN	T CONTRO	DL PRAC	TICES				
		STRUCT	URAL PRACT	TICES			STRUCTI	JRAL PRAC	TICES	SHEE	<u>Г Ү/М</u>	N NO	
CODE	PRACTICE	DETAIL	SYMBOL	DESCRIPTION	CODE	PRACTICE	DETAIL	SYMBOL	DESCRIPTION	C-4.2 C-4.0	Y	1.)	The applicat which the land Level II certit
Cd	CHECK DAM		\sim	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.	Sd2-P	INLET SEDIMENT TRAP CURB INLET PROTECTION	Curbing			C-4.0	Y	3.)	Limit of distu EPD approv
Cd-S	CHECK DAM STONE CHECK DAM		V	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.	Sd3	TEMPORARY SEDIMENT BASIN		Sd3	A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.	C-4.0 C-4.0 C-4.3 - C-4	Y Y 4.5 Y	4.) 5.) 6.)	Provide nam
Cd-Hb	CHECK DAM STRAW-BALE CHECK DAMS		×	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.	(Sd4)	TEMPORARY SEDIMENT TRAP		Sd4	A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.	C-4.0 C-4.0 C-4.0	Y Y Y	7.) 8.) 9.)	Initial date of Description of
Cd-Fs	CHECK DAM COMPOST FILTER SOCK		$\mathbf{\vee}$	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.	Sd4-A	TEMPORARY SEDIMENT TRAP OVERFLOW		Sd4-A	A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.	C-4.0 C-4.0	Y Y	10.)) Identify the p which may b
Ch	CHANNEL STABILIZATION		Ch	Improving, constructing or stabilizing an open channel, existing stream, or ditch.	Sd4-B	TEMPORARY SEDIMENT TRAP COMBINATION STRAW BALE AND SILT FENCE OUTLET		Sd4-B	A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.	C-4.0 C-4.0	Y Y	12.)	Part IV page
Ch-1	CHANNEL STABILIZATION CATEGORY 1 (0-5 FT/S) VEGETATED LINING		Ch-1	Improving, constructing or stabilizing an open channel, existing stream, or ditch.	Sd4-C	TEMPORARY SEDIMENT TRAF ROCK OUTLET		Sd4-C	A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.	C-4.0 C-4.0	Y	14.)	Clearly note
Ch-2	CHANNEL STABILIZATION CATEGORY 2 (2-10 FT/S) RIP RAP LINING		Ch-2	Improving, constructing or stabilizing an open channel, existing stream, or ditch.	Sk	FLOATING SURFACE SKIMMER		Sk	A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.	C-4.0	Y	16.)	Clearly note
Ch-3	CHANNEL STABILIZATION CATEGORY 3 (> 10 FT/S) CONCRETE LINING		Ch-3	Improving, constructing or stabilizing an open channel, existing stream, or ditch.	SpB	SEEP BERM		SpB	Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.	C-4.0 C-4.0	Y Y	17.)) component i) Clearly note permit."*
Co	CONSTRUCTION EXIT		C 0	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.	Sr	TEMPORARY STREAM CROSSING		Sr	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.	C-4.0	Y	19.) 20.)	Clearly note
Cr	CONSTRUCTION ROAD STABILIZATION		Cr	A travel way constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.	Sr-B	TEMPORARY STREAM CROSSING BRIDGE CROSSING		Sr-B	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.	C-4.1	Y	21.)) Clearly note seeding."
Cw	CONCRETE WASHOUT AREA	the and the second second			Sr-C	TEMPORARY STREAM CROSSING CULVERT CROSSING		Sr-C	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.	C-4.1	Y	22.)	Any construct same waters Appendix 1 If a TMDL in
Dc	STREAM DIVERSION CHANNEL		Dc	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.	St	STORM DRAIN OUTLET PROTECTION		St	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.	C-4.1	Y Y	23.)) months prior Plan.*
Dc-A	STREAM DIVERSION CHANNEL (0-2.5 FT/S) GEOTEXTILE, POLYETHYLENE FILM, OR SOD		Dc-A	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.	Su	SURFACE ROUGHENING		Su	A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.	C-4.1 C-4.1	Y Y	25.) 26.)) Provide BMI
Dc-B	STREAM DIVERSION CHANNEL (0-2.5 FT/S) GEOTEXTILE ALONE		Dc-B	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.	Тс	TURBIDITY CURTAIN		Tc	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).	C-4.1 C-4.1	Y Y	27.)) Description
Dc-C	STREAM DIVERSION CHANNEL (0-2.5 FT/S) CLASS I RIPRAP AND GEOTEXTILE		Dc-C	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.	Tc-F	TURBIDITY CURTAIN FLOATING TURBIDITY CURTAINS		Tc-F	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).	C-4.1	Y Y		stabilization)) Provide com
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.	Tc-S	TURBIDITY CURTAIN STAKED TURBIDITY CURTAINS		Tc-S	A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).	C-4.1 C-4.1 C-4.1		32.) 33.)	 Provide Con Provide com Description of Appendix B
Dn1	TEMPORARY DOWN DRAIN STRUCTURE		Dn1	A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.	Тр	TOPSOILING		Тр	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.	C-4.1 C-4.1	Y	35.)) Delineate all A description
Dn2	PERMANENT DOWN DRAIN STRUCTURE		Dn2	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.	Tr	TREE PROTECTION	\bigcirc	¥	- To protect desirable trees from injury during construction activity.	C-4.2 C-4.3 - C-4	4.5 Y	36.)	 sites where BMP's are th Graphic Sca
Fr	FILTER RING		Fr	A temporary stone barrier constructed at storm drain inlets and pond outlets.	Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL		Wt	Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.	C-4.X	Y	38.)	Flat (0-2%)
Ga	GABIONS		Ga	Rock filter baskets which are hand-placed into position forming soil stabilizing structures.				TIVE PRACT					Rolling (2-89 Steep (8%+) Use of altern) Design Profe
Gr	GRADE STABILIZATION STRUCTURE		Gr	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.	CODE	PRACTICE		SYMBOL	DESCRIPTION Strip of undisturbed original vegetation, enhanced or restored existing		N/A N/A	· ,	Alternative E
Lv	LEVEL SPREADER		Lv	A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.	Bf	BUFFER ZONE		Bf	vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.	C-4.3 - C-4 C-4.3 - C-4	-		 Delination of
Rd	ROCK FILTER DAM		Rd	A permanent or temporary stone filter dam installed across small streams or drainage ways.	Cs	COASTAL DUNE STABILIZATION DISTURBED AREA	HARAFARA A	Cs	Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished. Establishing temporary protection for disturbed areas where seedlings	C-4.3 - C-4 C-4.3 - C-4		44.)	 Delineation a Provide hydr An estimate
Re	RETAINING WALL	* ***	Re	A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.	Ds1	STABILIZATION (WITH MULCHING ONLY) DISTURBED AREA		Ds1	may not have a suitable growing season to produce an erosion retarding cover.	C-4.3 - C-4 C-4.3 - C-4 C-4.3 - C-4	4.5 Y	46.) 47.) 48.)	storm waterSoil series for
Rt	RETROFITTING		Rt	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.	Ds2	STABILIZATION (WITH TEMPORARY SEEDING) DISTURBED AREA		Ds2	Establishing a temporary vegetative cover with fast growing seeding on disturbed areas.	0-4.0 - 0			Provide a mi and/or excav all land distu
Rt-P	RETROFITTING PERFORATED HALF-ROUND PIPE WITH STONE FILTER		Rt-P	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.	Ds3	STABILIZATION (WITH PERMANENT VEGETATION) DISTURBED AREA	LUTTUR R	Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.	C-4.3 - C-4	i.5 Y	49.)	equivalent c sediment ba Worksheets required sed
Rt-B	RETROFITTING SLOTTED BOARD DAM WITH STONE OR FILTER FABRIC		Rt-B	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.	Ds4	STABILIZATION (WITH SODDING)		Ds4	A permanent vegetative cover using sods on highly erodible or critically eroded lands.	C-4.3 - C-4	4.5 Y	50.)	required to u the surface a
Rt-Sg	RETROFITTING SILT CONTROL GATE		Rt-Sg	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.	Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.	C-4.6 - C-4	4.8 Y	51.)	Provido dota
(Sd1)	SEDIMENT BARRIER		§d]	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.	FI-Co	FLOCCULANTS AND COAGULANTS		FI-Co	Substance formulated to assist in the solids/liquid separation of suspended particles in solution. The use of readily available native plant materials to maintain and	C-4.3 - C-4		52.) a project t	0
Sd1-NS	SEDIMENT BARRIER TYPE NS: NONSENSITIVE AREAS		Sd1-NS	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.	Sb	STREAM BANK STABILIZATION		Sb	enhance steam banks, or to prevent, or restore and repair small stream bank erosion problems.		c		TYPE
Sd1-S	SEDIMENT BARRIER TYPE S: SENSITIVE AREAS			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.	Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.	/ FaE \		I FINE S	SANDY LOAN
Sd1-Fs	SEDIMENT BARRIER TYPE S: SENSITIVE AREAS COMPOST FILTER SOCK		Sd1-Fs	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.	Tac	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.		HAYES	VILLE S	SANDY LOAN
Sd1-BB	SEDIMENT BARRIER BRUSH BARRIER (TIMBER CLEARING ONLY)		Sd1-BB	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.	Tac-1	TACKIFIERS TYPE I: SYNTHETIC POLYMERS		Tac-1	Substance used to anchor straw or hay mulch by causing the organic material to bind together.		PERCE)PES
(Sd2)	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.	Tac-2			Tac-2	Substance used to anchor straw or hay mulch by causing the organic material to bind together.				
Sd2-E	INLET SEDIMENT TRAP EXCAVATED INLET SEDIMENT TRAP	v v v v v v v v v v v v v v v v v v v		An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.	Tac-3	TACKIFIERS TYPE III: SYNTHETIC/ORGANIC BLENDS TACKIFIERS TYPE IV: ORGANIC		Tac-3	Substance used to anchor straw or hay mulch by causing the organic material to bind together.	CODE N/A			
Sd2-F	INLET SEDIMENT TRAP FILTER FABRIC WITH SUPPORTING FRAME			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.	Tac-4	TACKIFIERS WITH SYNTHETIC FIBERS TACKIFIERS TYPE V:		Tac-4	Substance used to anchor straw or hay mulch by causing the organic material to bind together.	N/A			STURBANCE
Sd2-B	INLET SEDIMENT TRAP BAFFLE BOX	* * * * * * * * * * * * * * * * * * *		An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.	Tac-5	SYNTHETIC/ORGANIC BLENDS WITH SYNTHETIC FIBERS		Tac-5	Substance used to anchor straw or hay mulch by causing the organic material to bind together.	N/A			NEATION
Sd2-Bg	INLET SEDIMENT TRAP BLOCK AND GRAVEL DROP INLET PROTECTION	**************************************		An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.									
Sd2-G	INLET SEDIMENT TRAP GRAVEL DROP INLET PROTECTION	**************************************		An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.									[
Sd2-S	INLET SEDIMENT TRAP SOD INLET PROTECTION	* * * * * * * * * * * * * * * * * * *		An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities									

GASWCC CHECKLIST
CHECKLIST DESCRIPTION
The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted.
Level II certification number issued by the Commission, signature and seal of the certified design professional. Limit of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the EPD district office. If
EPD approves the request to disturb 50 acres or more at any one time, the plan must include at least 4 of the BMP's listed in Appendix 1 of this checklist.* The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.
Provide name, address, email address and phone number of primary permittee. Note total and disturbed acreage of the project or phase under construction.
Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested therevisions. Description of the nature of construction activity
Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary. Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, etc. which may be affected.
Design Professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as Stated on Part IV page 19 of the permit.
Design Professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMP's and sampling to meet permit requirements as stated on Part IV page 19 of the permit.* Clearly note the statement that "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." in accordance with Part IV.A.5 of this permit* Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as
measured from the point of wrested vegetation without first acquiring the necessary variances and permits." Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
Clearly note the statement that "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."* Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404
permit."* Clearly note statement that "The escape of sediment from the site shall be prevented by the installation fo erosion and sediment control measures and practices prior to land disturbing activities."
Clearly note statement that "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." Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
Any construction activity which discharges stormwater into an impaired stream segment, or within 1 linear mile upstream of an within the same watershed as, any portion of a Biota Impaired Stream Segment must comply with Part III.C of the Permit. Include the completed Appendix 1 listing all the BMP's that will be used for those areas of the site which discharge to the Impaired Stream Segment.* If a TMDL implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 21 above) at least six months prior to submittal of a NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Plan.*
BMP'S for concrete washdown of tools, concrete mixer chutes, hoppers, and the rear of the vehicles. Washout of the drum at the construction site is prohibited.*
Provide BMP's for the remediation of all petroleum spills and leaks. Description of the measures that will be installed during the construction process to control pollutants in stormwater that will occur after
construction operations have been completed.* Description of practices to provide cover for building materials and building products on site.*
Description of the practices that will be used to reduce the pollutants in stormwater discharges.*
Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMP's, clearing & grubbing activities, excavation activities, utility activities, temporary and final stabilization).
Provide complete requirements of inspections and record keeping by the primary permittee.*
Provide Complete requirements of sampling frequency and reporting of sampling results.* Provide complete details for retention of records as per Part IV.F of the permit.*
Description of analytical methods to be used to collect and analyze the samples from each location.*
Appendix B rationale for NTU values at all outfall sampling points where applicable.* Delineate all sampling locations, perennial and intermittent streams, and other water bodies into which stormwater is discharged.*
A description of the appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the plan may combine all of the BMPs into a single phase.*
Graphic Scale and North Arrow Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following: SCALE: 1"=100' OR LARGER
Ground Slope (%)Contour Intervals (ft)Flat (0-2%)0.5 or 1
Rolling (2-8%) 1 or 2 Steep (8%+) 2, 5, or 10
Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org
Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition.* Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the
local issuing authority. Clearly note and delineate all areas of impact. Delination of on-site wetlands and all state waters located on and within 200 feet of the project site.
Delineation and acreage of contributing drainage basins on the project site.
Provide hydrology study and maps of drainage basins for both the pre- and post- developed conditions.* An estimate of hte runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points. Soil series for the project site and their delineation.
The limits of disturbance for each phase of construction.
Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the plan for each common drainage location in which a
sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are

es are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the plan.

Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6 with legend. Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for

Erosion and Sediment Control in Georgia. Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates, and seeding, fertilizer, lime, and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.

at is less than 1 acre and not part of a common development but within 200 ft of a perenial stream the * checklist items would be N/A

NDY LOAM, 10 TO 25

ANDY LOAM, 10 TO 25

		LEGEND	
ΓICE	DETAIL	SYMBOL	DESCRIPTION
NEATION	N/A		
TURBANCE	N/A	LOD	
IEATION	N/A		





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Print Record

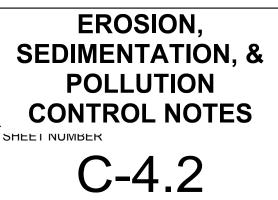
2019-01-14 SCHEMATIC DESIGN PACKAGE 2019-02-04 BID PACKAGE 2019-03-08 GRANT REVIEW DOCUMENTS 2019-04-03 COUNTY COMMENTS 2019-05-16 ADDENDUM 2

Revisions Date Description No.

RELEASED FOR CONSTRUCTION

DATE

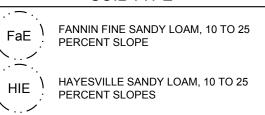
PROJECT NUMBER



SITE DATA LAND LOTS 248 & 249, 13TH DISTRIC OTAL SITE ADE

TOTAL SITE AREA =	7.266	AC.
TOTAL DISTURBED AREA =	7.5	AC.
TOTAL STORAGE REQUIRED =	498.51	CY.
STORAGE PROVIDED:		
Sd2 STORAGE PROVIDED =	194	CY.
Sd3 STORAGE PROVIDED =	668	
Sd4 STORAGE PROVIDED =	593	
TOTAL STORAGE PROVIDED =	1455	CY.

SOIL TYPE

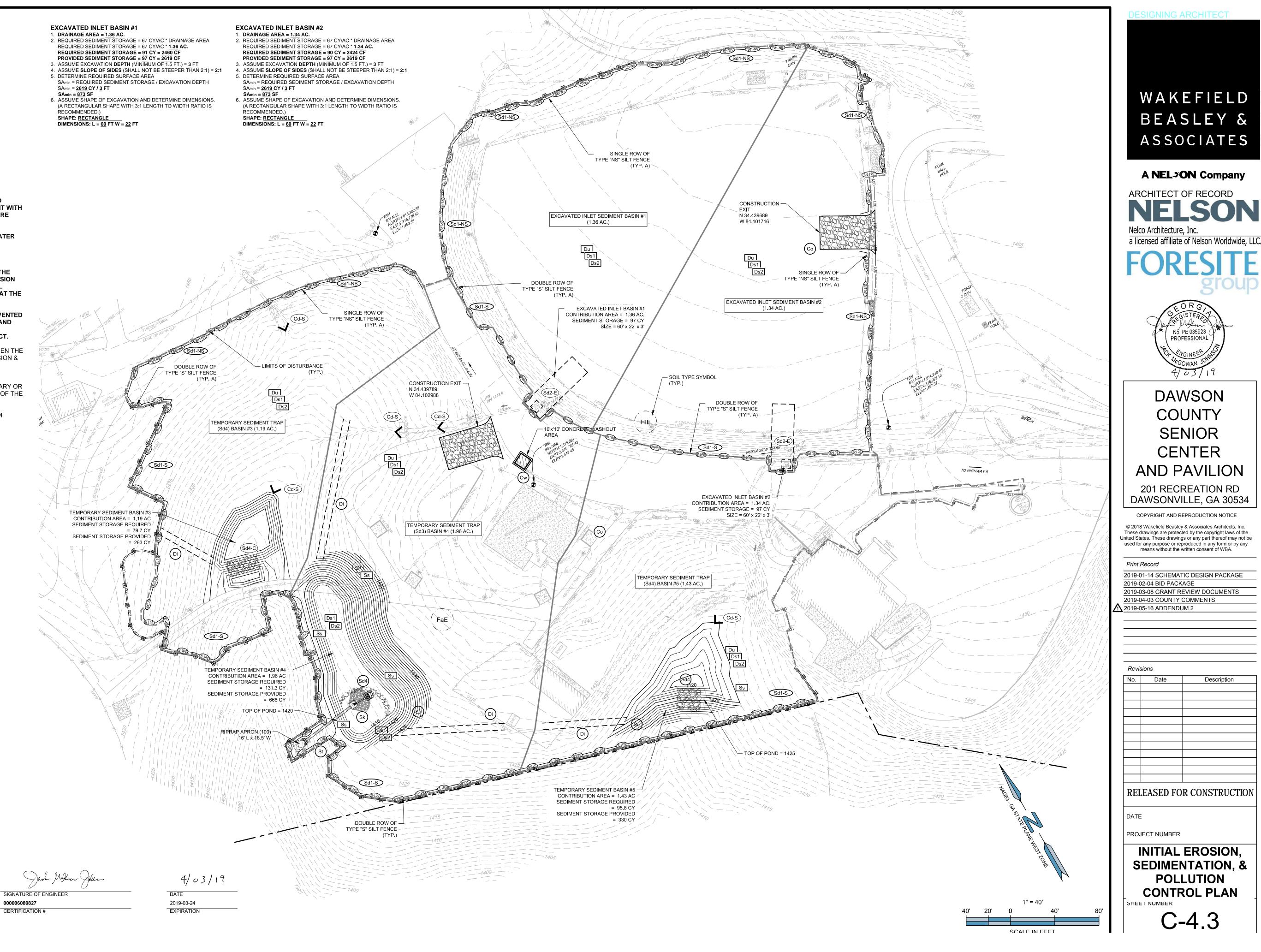


EROSION NOTES:

- . THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL TAKE PLACE PRIOR TO OR CONCURRENT WITH ALL LAND DISTURBING ACTIVITIES THROUGHOUT THE ENTIRE PROJECT.
- 2. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
- 3. EROSION AND SEDIMENT 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.
- 4. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, ALL LAND DISTURBING ACTIVITIES THROUGHOUT THE ENTIRE PROJECT.
- 5. THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE ACCUMULATED SILT IS ONE-THIRD (1/3) FULL FOR ALL EROSION & SEDIMENT CONTROL STRUCTURES.
- 6. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE PROPERTY OWNER.
- SEE ADDITIONAL EROSION CONTROL NOTES ON SHEETS C-4 THROUGH C-4.2

- REQUIRED SEDIMENT STORAGE = 67 CY/AC * 1.36 AC.
- SAmin = REQUIRED SEDIMENT STORAGE / EXCAVATION DEPTH SAmin = <u>2619</u> CY / <u>3</u> FT SAmin = 873 SF
- (A RECTANGULAR SHAPE WITH 3:1 LENGTH TO WIDTH RATIO IS RECOMMENDED.) SHAPE: RECTANGLE

- SAmin = 2619 CY / 3 FT
- SHAPE: RECTANGLE





Call before you dig.

SIGNATURE OF ENGINEER 000006080827

SITE DATA		
AND LOTS 248 & 249, 13TH DISTRIC	т	
TOTAL SITE AREA =	7.266	AC.
TOTAL DISTURBED AREA =	7.5	AC.
TOTAL STORAGE REQUIRED =	498.51	CY.
STORAGE PROVIDED:		
Sd2 STORAGE PROVIDED =	51.5	CY.
Sd3 STORAGE PROVIDED =	1435	CY.
Sd4 STORAGE PROVIDED =	265	CY.

SILT FENCE STORAGE =

OTAL STORAGE PROVIDED =

SOIL TYPE



EROSION NOTES:

. THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES SHALL TAKE PLACE PRIOR TO OR CONCURRENT WITH ALL LAND DISTURBING ACTIVITIES THROUGHOUT THE ENTIRE PROJECT.

65 CY.

1816.5 CY.

- 2. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR **TEMPORARY SEEDING.**
- 3. EROSION AND SEDIMENT 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.
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- MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE PROPERTY OWNER.
- SEE ADDITIONAL EROSION CONTROL NOTES ON SHEETS C-4 THROUGH C-4.2

SILT FENCE SEDIMENT BASIN #1-A DRAINAGE AREA = 1.31 AC.

- 2. REQUIRED SEDIMENT STORAGE = 67 CY/AC * DISTURBED AREA REQUIRED SEDIMENT STORAGE = 67 CY/AC * 1.31 AC. REQUIRED SEDIMENT STORAGE = 87.8 CY = 2370 CF
- PROVIDED SEDIMENT STORAGE = $\overline{18.75}$ CY = $\overline{506}$ CF 3. SEDIMENT CLEANOUT **DEPTH** (MINIMUM OF 1.5 FT.) = 1.5 FT 4. SLOPES = <u>3</u>:1
- 5. SEDIMENT STORAGE (SF) PER LINEAR FOOT OF SILT FENCE SF = ¹/₂*B*H = ¹/₂*4.5*1.5 = <u>3.375</u> SF per LF 6. SILT FENCE PROVIDED FOR USE AS STORAGE = **150.0 LF**
- 7. STORAGE VOLUME = <u>506</u> CF = <u>18.75</u> CY

EXCAVATED INLET BASIN #1-B DRAINAGE AREA = 1.31 AC.

- DRAINAGE AREA = <u>1.31</u> AC.
 REQUIRED SEDIMENT STORAGE = 67 CY/AC * DRAINAGE AREA REQUIRED SEDIMENT STORAGE = 67 CY/AC * <u>1.31</u> AC. REQUIRED SEDIMENT STORAGE = <u>87.8</u> CY = <u>2370</u> CF
- PROVIDED SEDIMENT STORAGE = 51.5 CY = 1391 CF 3. ASSUME EXCAVATION DEPTH (MINIMUM OF 1.5 FT.) = 3 FT 4. ASSUME SLOPE OF SIDES (SHALL NOT BE STEEPER THAN 2:1) = 2:1
- 5. DETERMINE REQUIRED SURFACE AREA SAmin = REQUIRED SEDIMENT STORAGE / EXCAVATION DEPTH SAmin = 1391 CY / 3 FT SAmin = 464 SF
- 6. ASSUME SHAPE OF EXCAVATION AND DETERMINE DIMENSIONS. (A RECTANGULAR SHAPE WITH 3:1 LENGTH TO WIDTH RATIO IS RECOMMENDED.)
- SHAPE: RECTANGLE DIMENSIONS: L = 50 FT W = 17 FT SHAPE:

7. STORAGE VOLUME = <u>506</u> CF = <u>18.75</u> CY

- SILT FENCE SEDIMENT BASIN #1-C
 1. DRAINAGE AREA = 1.31 AC.
 2. REQUIRED SEDIMENT STORAGE = 67 CY/AC * DISTURBED AREA REQUIRED SEDIMENT STORAGE = 67 CY/AC * 1.31 AC.
- **REQUIRED SEDIMENT STORAGE = 87.8 \text{ CY} = 2\overline{370} \text{ CF}**
- **PROVIDED SEDIMENT STORAGE =** 18.75 CY = 506 CF 3. SEDIMENT CLEANOUT DEPTH (MINIMUM OF 1.5 FT.) = 1.5 FT
- SLOPES = <u>3</u>:1 5. SEDIMENT STORAGE (SF) PER LINEAR FOOT OF SILT FENCE
- SF = $\frac{1}{2}$ *B*H = $\frac{1}{2}$ ***4.5*1.5** = **3.375** SF per LF 6. SILT FENCE PROVIDED FOR USE AS STORAGE = **150.0** LF
- MAINTAIN DOUBLE ROW OF -TYPE "S" SILT FENCE Sd2-F MAINTAIN DOUBLE ROW OF -TYPE "S" SILT FENCE
- SILT FENCE SEDIMENT BASIN #1-A + CONTRIBUTION AREA = 1.31 AC SEDIMENT STORAGE REQUIRED = 87.8 CY SEDIMENT STORAGE PROVIDED

= 18.75 CY OVER EXCAVATE AROUND THE -INLET TO ALLOW FOR TEMPORARY

SEDIMENT STORAGE RIPRAP APR (EXIST CULVERT

EXCAVATED INLET BASIN #1-B CONTRIBUTION AREA = 1.31 AC. SEDIMENT STORAGE = 51.5 CY

SILT FENCE SEDIMENT BASIN #1-C

CONTRIBUTION AREA = 1.31 AC SEDIMENT STORAGE REQUIRED = 87.8 CY SEDIMENT STORAGE PROVIDED = 18.75 CY

SIZE = 50' x 17' x 3'

6' L x 7.25'

SILT FENCE SEDIMENT BASIN #3-A DRAINAGE AREA = 0.72 AC. PROVIDED SEDIMENT STORAGE = $\overline{27.5}$ CY = $\overline{743}$ CF

- 3. SEDIMENT CLEANOUT DEPTH (MINIMUM OF 1.5 FT.) = 1.5 FT. 4. SLOPES = <u>3</u>:1
- 5. SEDIMENT STORAGE (SF) PER LINEAR FOOT OF SILT FENCE

SILT FENCE SEDIMENT

1125

IPRAP APRON (200

USE DETENTION POND FOR ightarrow

SEDIMENT STORAGE REQUIRED

SEDIMENT STORAGE PROVIDED

TOP OF POND = 1420

RIPRAP APRON (100) 16' L x 18 5' W

BASIN AREA = 5.23 AC

12' L x 14.5' W

STORAGE

= 350 CY

= 1435 CY

BASIN #1 (1.31 AC.)

7. STORAGE VOLUME = <u>743</u> CF = <u>27.5</u> CY

es Protection Center.

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

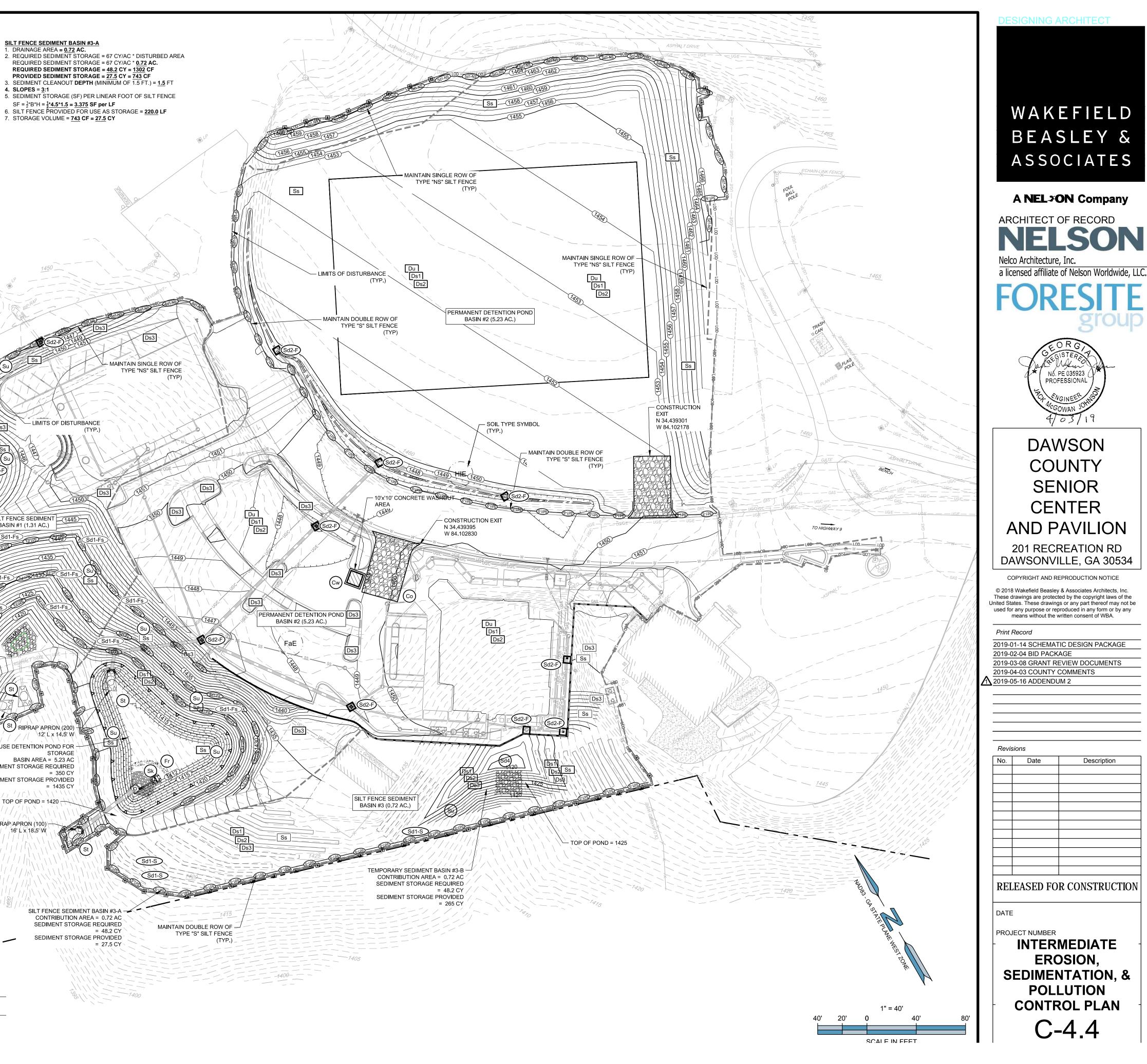
SIGNATURE OF ENGINEER

000006080827 CERTIFICATION #

4/03/19 2019-03-24 EXPIRATION

/RIPRAP APRON/(500)'-

6' L x 7/5' W



SOIL TYPE

FANNIN FINE SANDY LOAM, 10 TO 25 PERCENT SLOPE

HAYESVILLE SANDY LOAM, 10 TO 25 PERCENT SLOPES

EROSION NOTES:

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- **EROSION AND SEDIMENT 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.
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- SEE ADDITIONAL EROSION CONTROL NOTES ON SHEETS C-4 THROUGH C-4.2



Jan Mytun Joles SIGNATURE OF ENGINEER

🖤 🛞 MAINTAIN DOUBLE ROW OF –

MAINTAIN DOUBLE ROW OF -

TYPE "S" SILT FENCE

(TYP)

TYPE "S" SILT FENCE

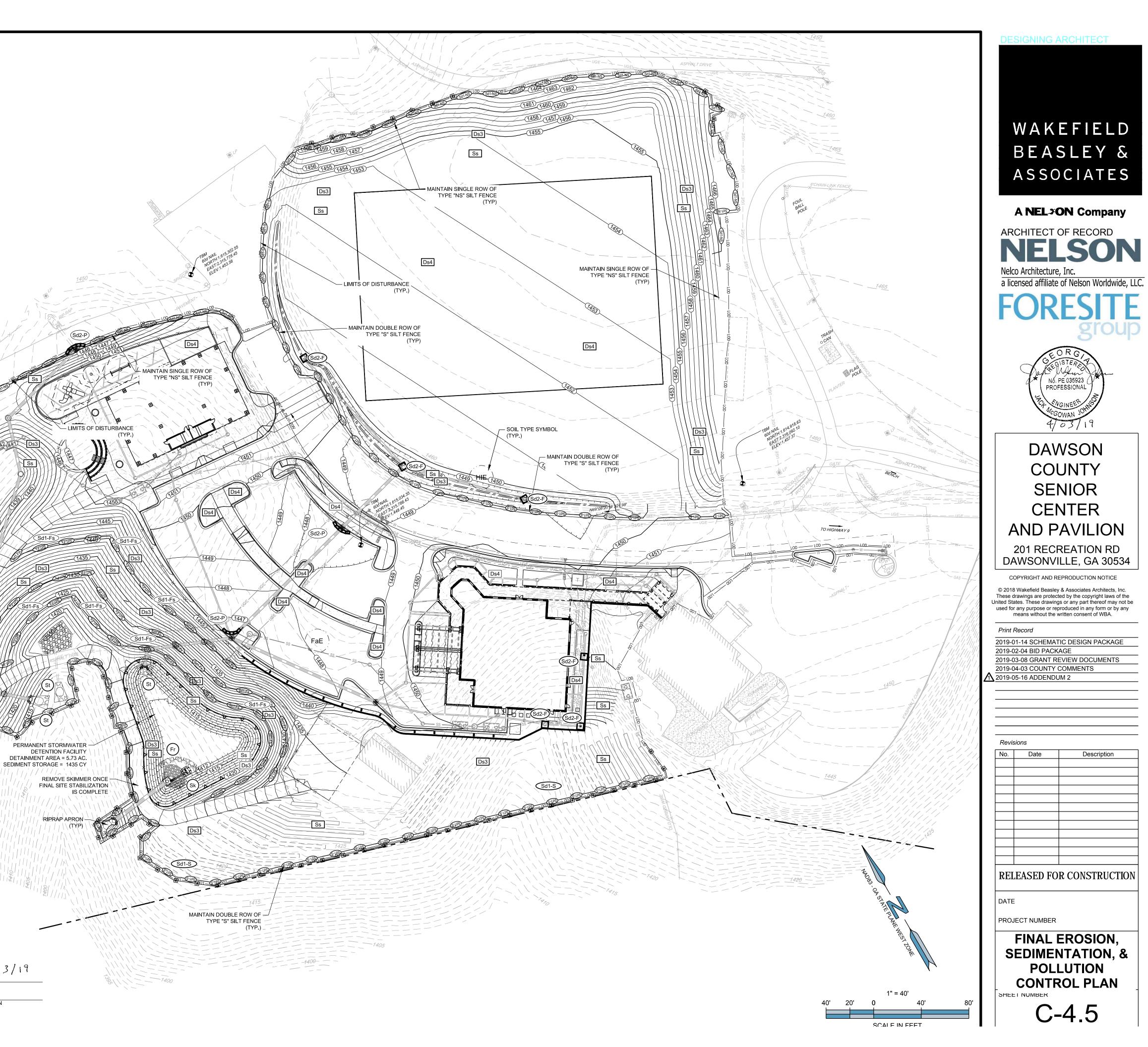
Ds3 1448

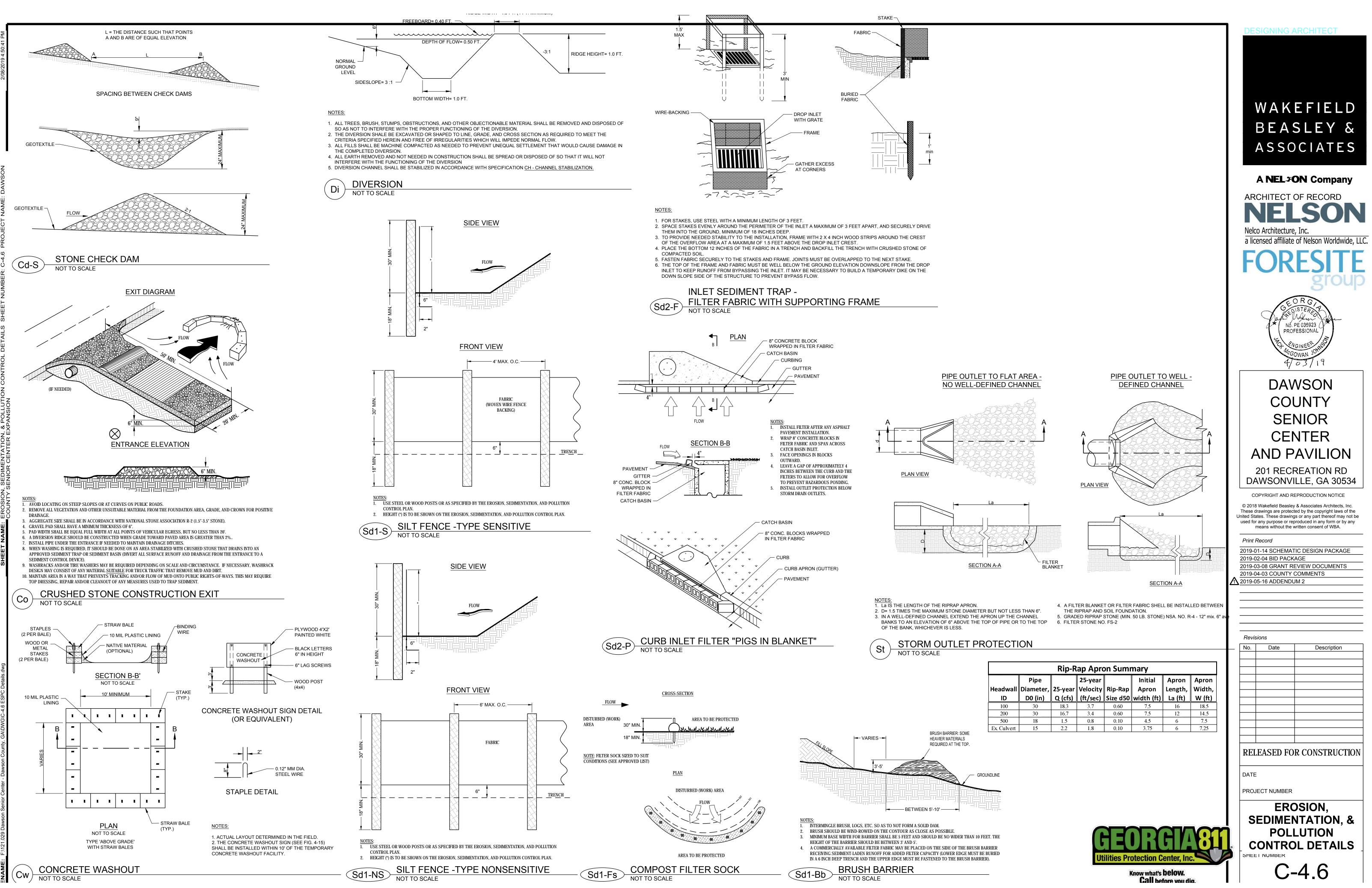
4/03/19 DATE 2019-03-24 EXPIRATION

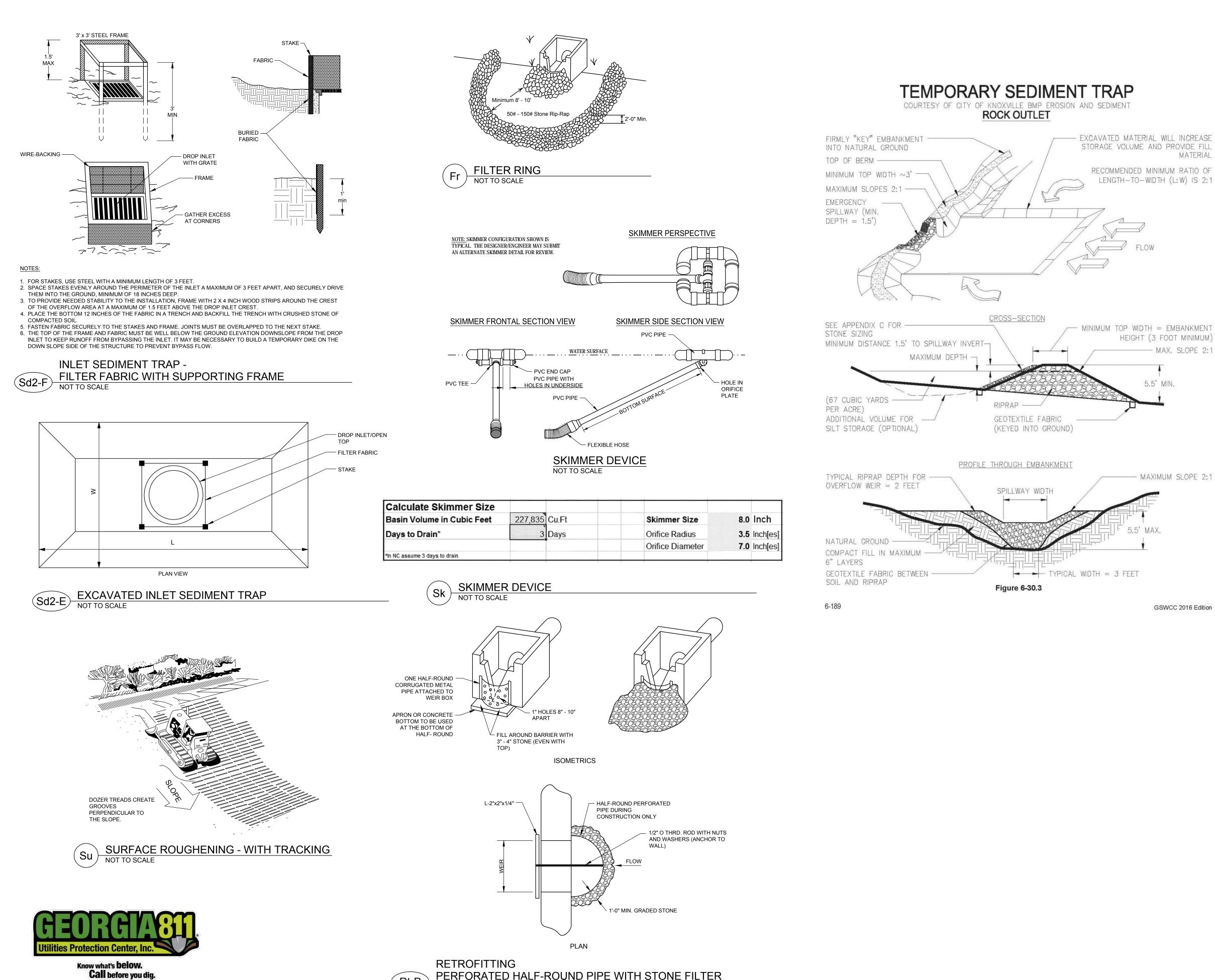
RIPRAP APRON

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

000006080827 CERTIFICATION #







Rt-P

NOT TO SCALE

PERFORATED HALF-ROUND PIPE WITH STONE FILTER

MATERIAL

- MAX. SLOPE 2:1

MAXIMUM SLOPE 2:1

GSWCC 2016 Edition

DESIGNING ARCHITECT

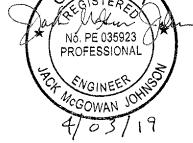


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DAWSON COUNTY SENIOR CENTER AND PAVILION 201 RECREATION RD

DAWSONVILLE, GA 30534

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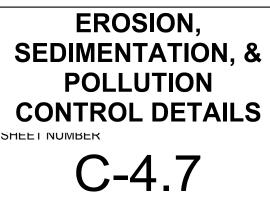
Revisions

No.	Date	Description

| RELEASED FOR CONSTRUCTION

DATE

PROJECT NUMBER



MULCHING FOR TEMPORARY STABILIZATION APPLICATION WITHOUT VEGETATION

WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.

SITE PREPARATION

- 1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND
- ANCHORING MULCH. 2. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS
- DIKES, DIVERSIONS, BERMS, TERRACES AND SEDIMENT BARRIERS.
- 3. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

MULCH MATERIALS AND APPLICATION RATES								
MATERIAL	RATE							
STRAW OR HAY	2-4" DEEP							
WOOD WASTE, CHIPS, SAW DUST, OR BARK	2-3" DEEP (ABOUT 6-9 TONS/ACRE)							
MATTING OR NETTING	ACCORDING TO MANUFACTURER RECOMMENDATIONS							
POLYETHYLENE FILM	CAN BE LAID OVER SENSITIVE AREAS AND STOCKPILES, MUST BE SECURED.							

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING

GRADING AND SHAPING

- 1. EXCESSIVE WATER RUNOFF SHALL BE REDUCED BY PRACTICES SUCH
- AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, AND OTHERS 2. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED
- BY HAND-SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

SEEDBED PREPARATION

- 1. WHEN A HYDRAULIC SEEDER IS USED. SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HAND-SEEDING. SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND
- NOT SEALED BY RAINFALL 2. WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND
- GERMINATE.

LIME AND FERTILIZER

- 1. SOIL TESTS MUST BE PERFORMED DETERMINE THE REQUIRED AMOUNTS OF FERTILIZER, LIME, AND OTHER AMENDMENTS. SOIL TESTS
- SHOULD INCLUDE RECOMMENDATIONS FOR APPLICATION RATES. 2. APPLY AGRICULTURAL LIME AT A RATE DETERMINED BY SOIL TEST FOR
- PH. QUICK ACTING LIME SHOULD BE INCORPORATED TO MODIFY PH DURING THE GERMINATION PERIOD.
- 3. ALL GRADED AREAS REQUIRE LIME APPLICATION UNLESS SOIL TEST
- INDICATE OTHERWISE. 4. BIOSTIMULANTS SHOULD ALSO BE CONSIDERED WHEN THERE IS LESS
- THAN 3% ORGANIC MATTER IN THE SOIL.
- 5. FERTILIZER SHOULD BE APPLIED BEFORE SEEDBED PREPARATION AND

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)									
		SEEDING	SEEDING	PLANTING DATES					
SPECI	ES	RATE PER 1,000 S.F.	RATE PER ACRE*	MTNS./ LIMESTONE	PIEDMONT	COASTAL			
BARLEY	(ALONE) (IN MIXTURE)	3.3 LBS. 0.6 LBS.	3 bu. 1/2 bu.	9/1-10/31	9/15-11/15	10/1-12/31			
RYE	(ALONE) (IN MIXTURE)	3.9 LBS. 0.6 LBS.	3 bu. 1/2 bu.	8/15-10/31	9/15-11/30	10/1-12/31			
ANNUAL RYEGRASS	ALONE	0.9 LBS.	40 LBS.	8/15-11/15	9/1-12/15	9/15-12/31			
ANNUAL LESPEDEZA	(ALONE) (IN MIXTURE)	0.9 LBS. 0.2 LBS.	40 LBS. 10 LBS.	3/1-3/31	3/1-3/31	2/1-2/28			
WEEPING LOVEGRASS	(ALONE) (IN MIXTURE)	0.1 LBS. 0.05 LBS.	4 LBS. 2 LBS.	4/1-5/31	4/1-5/31	3/1-5/31			
SUDANGRASS		1.4 LBS.	60 LBS.	5/1-7/31	5/1-7/31	4/1-7/31			
BROWN TOP MILLET	(ALONE) (IN MIXTURE)	0.9 LBS. 0.2 LBS.	40 LBS. 10 LBS.	4/15-6/15	4/15-6/60	4/15-6/30			
WHEAT	(ALONE) (IN MIXTURE)	4.1 LBS. 0.7 LBS.	3 bu. 1/2 bu.	9/15-11/30	10/1-12-15	10/15-12/31			

. UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES. 2. SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND LOCAL CONDITIONS.

3. SEE "THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA, SIXTH EDITION" FOR MAJOR LAND RESOURCE AREAS.

4. SEEDING RATES ARE BASED ON PURE LIVE SEED. (PLS)

DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.

2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, ADD 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT.

ANCHORING MULCH

- STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS 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 I INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR
- HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1, TH ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE, USE 100 GALLONS OF EMULSIFIED ASPHAL AND 100 GALLONS OF WATER PER TON OF MULCH. TACKIFERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLEASE REFER TO SPECIFICATION TB - TACKIFERS AND BINDERS. PLASTIC MESH OR
- NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. 3. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE
- AVERAGE SIZE OF THE WOOD WASTE CHIPS. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY

INCORPORATED WITH A DISK, RIPPER, OR CHISEL. ON SLOPES TOO STEEP FOR, OR INACCESSIBLE TO EQUIPMENT, FERTILIZER SHALL BE HYDRAULICALLY APPLIED, PREFERABLY IN THE FIRST PASS WITH SEED AND SOME HYDRAULIC MULCH, THEN TOPPED WITH THE REMAINING REQUIRED APPLICATION RATE.

6. FOR LOW FERTILITY SOILS, AGRICULTURAL LIME & FERTILIZER REQUIRED UNLESS SOIL TESTS SHOW IT IS NOT REQUIRED AND THAT SOILS ARE REASONABLY FERTILE. FOR LOW FERTILITY SOILS, APPLY 10-10-10 FERTILIZER AT 500-700 LB/ACRE. APPLY AGRICULTURAL LIME AT 1 TON PER ACRE.

SEEDING

SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER DRILL CULTIPACKER-SEEDER OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). DRILL OR CULTIPACKER-SEEDERS SHOULD NORMALLY PLACE SEED ONE-QUARTER TO ONE-HALF INCH DEEP. APPROPRIATE DEPTH OF PLANTING IS TEN TIMES THE SEED DIAMETER, SOIL SHOULD BE "RAKED" LIGHTLY TO COVER

MULCHING

WITHOUT THE USE OF MULCH. PROVIDED THERE IS LITTLE TO NO EROSION POTENTIAL. HOWEVER, THE USE OF MULCH CAN OFTEN ACCELERATE AND ENHANCE GERMINATION AND VEGETATION ESTABLISHMENT, MULCH PROTECTION. REFER TO DS1 - DISTURBED AREA STABILIZATION (Ds1).

IRRIGATION

DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL INSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

DISTURBED AREA STABILIZATION (WIT DERMANENT VEGETATION)

NOTE THAT IN THE CASE OF DISCREPANCIES BETWEEN A INFORMATION BELOW AND THE INFORMATION CONTAINE REPLACEMENT AND LANDSCAPE PLANS & DETAILS, THE SHALL BE USED.

GRADING AND SHAPING

- 1. GRADING AND SHAPING MAY NOT BE WHERE HYDRAULIC SEED FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHA TO ENABLE PLANT ESTABLISHMENT
- 2. WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE D AND SHAPE WHERE SO THAT EQUIPMENT CAN BE USED SAFELY EFFICIENTLY DURING SEEDBED PREPARATION. SEEDING, MUL MAINTENANCE OF THE VEGETATION.
- 3. CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE S SHALL BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTH PRACTICES SHALL CONFORM WITH THE APPROPRIATE STANDA SPECIFICATIONS

LIME AND FERTILIZER RATES

- 1. AGRICULTURAL LIME IS REQUIRED AT THE RATE OF ONE TO TW ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. ALL GRADED REQUIRE LIME APPLICATION UNLESS SOIL TEST INDICATE OTHE IS APPLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PE VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. AGRICULTUR BE WITHIN THE SPECIFICATIONS OF THE GEORGIA DEPARTMEN AGRICULTURE.
- 2. AGRICULTURAL LIME IS GENERALLY NOT REQUIRED WHERE OF SOME LANDSCAPING IS PLANTED, REFER TO TREE PROTECTION LANDSCAPE PLANS FOR LIME REQUIREMENTS IN AREAS OF TRI SHRUBS
- 3. REFER TO THE TABLE ON THIS SHEET OR TABLE 6-5.1 OF THE M EROSION & SEDIMENT CONTROL IN GA, SIXTH EDITION, FOR FEI REQUIREMENTS BY PLANTING SPECIES.

LIME AND FERTILIZER APPLICATION

- 1. WHEN HYDRAULIC SEEDING EQUIPMENT IS USED. THE INITIAL 1 SHALL BE MIXED WITH SEED, INNOCULANT (IF NEEDED), AND W CELLULOSE OR WOOD PULP FIBER MULCH AND APPLIED IN A S INNOCULANT IF NEEDED SHALL BE MIXED WITH THE SEED PRI PLACED INTO THE HYDRAULIC SEEDER. THE SLURRY MIXTURE AGITATED DURING APPLICATION TO KEEP THE INGREDIENTS TH MIXED. THE MIXTURE WILL BE SPREAD UNIFORMLY OVER THE ONE HOUR AFTER BEING PLACED IN THE HYDROSEEDER. 2. FINELY GROUND LIMESTONE CAN BE APPLIED IN THE MULCH S
- COMBINATION WITH THE TOP DRESSING. 3. WHEN CONVENTIONAL PLANTING IS TO BE DONE, LIME AND FER BE APPLIED UNIFORMLY IN ONE OF THE FOLLOWING WAYS:
- a. APPLY BEFORE LAND PREPARATION SO THAT IT WILL BE THE SOIL DURING SEEDBED PREPARATION.
- b. MIX WITH THE SOIL USED TO FILL THE HOLES, DISTRIBU FURROWS.
- c. BROADCAST AFTER STEEP SURFACES ARE SCARIFIED, 2 TRENCHED.
- d. A FERTILIZER PELLET SHALL BE PLACED AT ROOT DEPTI CLOSING HOLE BESIDE EACH PINE TREE SEEDLING.

PLANT SELECTION

1. PLANT AND LANDSCAPE SPECIES TO BE AS INDICATED ON THE REPLACEMENT PLAN AND LANDSCAPE PLANS. IN THE EVENT N HAS BEEN PREPARED, AND SPECIES IS NOT CALLED OUT SPEC THE PERMANENT VEGETATION PLAN, SPECIES ARE TO BE SELI ON THE TABLES SHOWN ON THIS SHEET OR FROM TABLES 6-4.1 OR 6.5-4 OF THE MANUAL FOR EROSION & SEDIMENT CONTROL SIXTH EDITION, AND APPROVED IN WRITING BY THE OWNER.

RYEGRASS SHALL NOT BE USED IN ANY SEEDING M CONTAINING PERENNIAL SPECIES DUE TO ITS ABILI OUT-COMPETE DESIRED SPECIES CHOSEN FOR PER PERENNIAL COVER.

SEEDBED PREPARATION

SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDR. AND FERTILIZING EQUIPMENT IS TO BE USED (BUT IS STRONGL' RECOMMENDED FOR ANY SEEDING PROCESS, WHEN POSSIBL CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATI DONE AS FOLLOWS:

BROADCAST PLANTINGS

- 1. TILLAGE, AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SO OF 4 TO 6 INCHES; ALLEVIATE COMPACTION; INCORPORATE LIN FERTILIZER: SMOOTH AND FIRM THE SOIL: ALLOW FOR THE PRO PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR TH OF STRAW OR HAY MULCH IF A DISK IS TO BE USED.
- 2. TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT 3. TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBL
- 4. ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAG THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAUL MAY ALSO BE USED.

INDIVIDUAL PLANTS

1. ALL INDIVIDUAL PLANTINGS SHOULD BE PERFORMED IN ACCOR LANDSCAPE OR TREE REPLACEMENT PLANS.

4" TO 6"

4" TO 6'

3" TO 5"

4" TO 6"

4" TO 6"

GRASS HAY

PINE NEEDLES

CHIPPED WOOD

MULCH

PINE BARK

OR GROUND COVERS ARE PLANTED

AND NO LANDSCAPE/TREE

REPLACEMENT PLANS HAVE BEEN

PREPARED THAT SPECIFY

OTHERWISE. REQUIRES ADVANCE

APPROVAL OF OWNER. NOT

APPROPRIATE FOR GRASS SEEDING

APPLICATIONS.

FERTILIZER PURE LIVE PLANTING DATES RATE YEARS TO N TOP ANALYSIS | FERTILIZER SEED (PLS) SPECIES PER APPLY DRESSING RATE (lb/Ac) PER ACRE FERTILIZER [RATE MTNS./ PIEDMONT COASTAL 1,000 S.F LIMESTONE WEEPING LOVEGRASS 0.1 LBS. 3/15 - 6/15 3/1 - 6/15 2/1 - 6/15 FIRST 1500 50 4 LBS. 6 12 12 VIRGATA OR SERICEA LESPEDEZA 1.4 LBS. 40 LBS. 1000 3/15 - 6/15 3/1 - 6/15 2/15 - 6/1 SECOND 0 | 10 | 10 SERICEA LESPEDEZA SEEDBEARING HAY 138 LBS. 3 TONS 10/1 - 3/1 10/1 - 3/1 10/15 - 2/1 FIRST 50 12 1500 OVERSEEDED WEEPING LOVEGRASS 0.05 LBS. 2 LBS. 3/1 - 6/15 3/1 - 6/15 2/1 - 6/15 SECOND 0 10 10 1000 HULLED COMMON BERMUDAGRASS 1500 0.2 LBS. 10 LBS. N/A 2/15 - 7/1 2/15 - 6/15 FIRST 6 | 12 | 12 50 SERICEA LESPEDEZA 1.4 LBS. 60 LBS. N/A 3/1 - 6/15 2/15 - 6/15 SECOND 0 | 10 | 10 1000 UNHULLED COMMON BERMUDAGRASS 11/1 - 2/1 1500 0.2 LBS. 10 LBS. N/A FIRST 6 | 12 | 12 | 50 1.4 LBS. 40 LBS. N/A 3/1 - 6/15 SECOND 0 | 10 | 10 1000 VIRGATA OR SERICEA LESPEDEZA SEED HAY 140 LBS. 3 TONS 10/1 - 3/1 10/15 - 2/1 N/A TALL FESCUEGRASS 30LBS 8/15 - 11/1 2/15 - 6/1 FIRST 50(1) 0.7 LBS 8/1 - 11/1 6 | 12 | 12 | 1500 0 | 10 | 10 | 1000 3/1 - 4/15 (3/15 -3/1 - 6/15 SECOND 1.4 LBS. 40 LBS. CLEAN COMBINE RUN VIRGATA OR SERICEA LESPEDEZA 5/1 FOR LESPEDEZA FIRST 6 12 12 1500 0-50(1),(2) TALL FESCUEGRASS (ALONE) 3/1-5/1, 8/15-11/1 1.1 LBS 50LBS 9/1-11/1 N/A FESTUCA ARUNDINACEA SECOND 6 | 12 | 12 1000 FIRST 6 12 12 1500 50-100 COMMON BERMUDA, HULLED ALONE 0.2 LBS. 10 LBS. N/A 4/1-4/31 3/15-5/31 CYNODON DACTYLON SECOND 800 50-100 6 | 12 | 12 1500 50-100 FIRST 6 | 12 | 12 COMMON BERMUDA, UNHULLED 0.2 LBS. 10 LBS. N/A 10/1-3/1 11/1-2/1 CYNODON DACTYLON (PLANT WITH WINTER ANNUALS) SECOND 6 12 12 800 50-100

PLANTING AND FERTILIZER SCHEDULE FOR PERMANENT GRASSING

- APPLY IN SPRING FOLLOWING SEEDING - APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED 3 - APPLY IN 3 SPLIT APPLICATIONS

4 - APPLY WHEN PLANTS ARE PRUNED 5 - APPLY TO GRASS SPECIES ONLY

6 - APPLY WHEN PLANTS GROW TO A HEIGHT OF 2-4 INCHES.

SEED WITH SOIL IF SEEDED BY HAND.

TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM

<u>rh</u>	INOCULANTS			DISTU		REA STA	BILIZATI	ON		<u>APPE</u>	ARANCE	OF GOO	<u>D SO</u>	
	1. ALL LEGUME SEED SHALL BE INOCULATED WITH APPROPRIATE			Ds4 DISTURBED AREA STABILIZATION (WITH SODDING)								1 1 1	١	
ANY OF THE D IN TREE	NITROGEN-FIXING BACTERIA. THE INOCULANT SHALL BE A PURE CULTURE PREPARED SPECIFICALLY FOR THE SEED SPECIES AND USED WITHIN THE DATES ON THE CONTAINER.			SOIL PRI	EPARATION					$\mathbb{N} \mathbb{N} \mathbb{N}$	ÿk /)			
LATTER	2. A MIXING MEDIUM RECOMME	ENDED BY THE MANUFACTURER SHALL BE USED	 BRING SOIL SURFACE TO FINAL GRADE. CLEAR SURFACE OF TRASH, WOODY DEBRIS, STONES AND CLODS LARGER THAN 1". APPLY SOD TO 							NNI NI LI			1	
	TWICE THE AMOUNT OF INOC	O THE SEED. FOR CONVENTIONAL SEEDING, USE CULANT RECOMMENDED BY THE MANUFACTURER.		S	OIL SURFACES O OILS.]]]{[]	
DING AND	RECOMMENDED BY THE MAN	OUR TIMES THE AMOUNT OF INOCULANT IUFACTURER SHALL BE USED.		2. TO	OPSOIL PROPER					())		- 1/ BILL	MX	
L BE SLOPED 3. ALL INOCULATED SEED SHALL BE PROTECTED FROM THE SUN AND HIGH TEMPERATURES AND SHALL BE PLANTED THE SAME DAY INOCULATED. NO INOCULATED SEED SHALL REMAIN IN THE HYDROSEEDER LONGER THAN ONE HOUR.			USE TOPSOIL RECENTLY TREATED WITH HERBICIDES OR SOIL STERILANTS.							\\ <i>\\\\\\\</i>			11))	
			LIME AND FERTILIZER RATES] V \\'	V/{ V \ '	J` //	
CHING AND	PLANTING				ERTILIZE AT RATI N THIS SHEET.	ES SHOWN IN	THE "FERTILIZEF	R RATES FO	R SOD" TABLE					
OIL EROSION IER TREATMENT	HYDRAULIC SEEDING			2. A	GRICULTURAL LI VAILABLE OR AT				ESTS IF					
ARDS AND	AND MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN			INSTALL										
		TO BE TREATED. APPLY WITHIN ONE HOUR			AY SOD WITH TIG	HT JOINTS AN	DINSTRAIGHFI	LINES. DON	ΓOVERLAP					
VO TONS PER	AFTER THE MIXTURE IS MADE.		JOINTS. STAGGER JOINTS AND DO NOT STRETCH SOD. 2. ON SLOPES STEEPER THAN 3:1, SOD SHOULD BE ANCHORED WITH PINS										0	
) AREAS ERWISE. IF LIME	CONVENTIONAL SEEDING SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER-SEEDER, DRILL, ROTARY		OR OTHER APPROVED METHODS. INSTALLED SOD SHOULD BE ROLLED OR TAMPED TO PROVIDE GOOD CONTACT BETWEEN SOD AND SOIL.							SC NO SOD				
RENNIAL RAL LIME SHALL			3. SOD SHOULD NOT BE CUT OR SPREAD IN EXTREMELY WET OR DRY WEATHER. IRRIGATION SHOULD BE USED TO SUPPLEMENT RAINFALL										SOD	
VT OF NLY TREES AND	LIGHTLY WITH 1/8 TO 1/4 INC	H OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH NG A CULTIPACKER OR OTHER SUITABLE			OR A MINIMUM OF OD SHOULD BE C		ALLED WITHIN 36	HOURS OF	DIGGING.	/.	- SWALE	/WATERWAY	Δ	
NLT TREES AND IN AND IEES AND	EQUIPMENT.				VOID PLANTING V RIGATION IS NOT		T TO FROST HE	AVE OR HOT	WEATHER, IF		· · · · ·	· · · · · · ·	· · ·	
MANUAL FOR	NO-TILL SEEDING NO-TILL SEEDING IS PERMISS	SIBLE INTO ANNUAL COVER CROPS WHEN			HE SOD TYPE SH ASE LANDSCAPE				,				ר * ר	
RTILIZER	PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE			OWNER.									ECTION C	
	GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO-TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEED MUST										* * *	` + +	* *	
FERTILIZER		AND PLANTED AT THE PROPER DEPTH.		FE	ERTILIZER		REMENTS	FOR SO	DD] · · · · · · · · · · · · · · · · · · ·	/ \ \ \ \ \ \		* *	
OOD SLURRY. THE	MULCHING			SPECIES	RESOURCE	MAINT	FERTILZER	RATE	NITROGEN TOP		· · · · · ·		· · · · ·	
OR TO BEING WILL BE		L PERMANENT VEGETATION APPLICATIONS. AREAS SHALL ACHIEVE 75% TO 100% SOIL		ARIETY	AREAS	YEAR	(N-P-K)	(LB/AC)	DRESSING (LB/AC)	LAY SOD ACRO	SS THE DIRE	CTION OF FLOV	N.	
HOROUGHLY AREA WITHIN		COVER SELECTION WHERE VEGETATION IS NOT O AS INDICATED ON TREE REPLACEMENT AND/OR		ERMUDA GRASS	M-L, P, C	FIRST	6-12-12	1500	50-100				NI	
LURRY OR IN		THE DIRECTION OR APPROVAL OF THE OWNER. PORARY COVER OF PERMANENT VEGETATION	0	COMMON		SECOND	6-12-12	800	50-100	-			N	
RTILIZER SHALL	SHALL BE BASED ON SELECT FOR PERMANENT STABILIZAT	TION GUIDELINES IN THE "MULCH REQUIREMENTS FION" TABLE ON THIS SHEET.	PE	IAIA GRASS ENSACOLA	P, C	FIRST SECOND	6-12-12 6-12-12	1500 800	50-100 50-100		PI	EG OR STAPI	le —	
E MIXED WITH	WOOD CELLULOSE AND WOO	DD PULP FIBERS SHALL NOT CONTAIN	CI	ENTIPEDE	P, C	FIRST SECOND	6-12-12 6-12-12	1500 800	50-100 50-100	* * * * * *	v v , v v	* * * * * *	* * *	
TE IN		NHIBITING FACTORS. THEY SHALL BE EVENLY DIN WATER. THE FI BERS SHALL CONTAIN A DYE		AUGUSTINE	P, C	FIRST SECOND	6-12-12 6-12-12	1500 800	50-100 50-100	*				
PIITED OR	TO ALLOW VISUAL METERING SEEDING. APPLYING MULCH	G AND AID IN UNIFORM APPLICATION DURING		ZOYSIA MERALD,	P, C	FIRST	6-12-12	1500	50-100	•				
'H IN THE	APPLYING MULCH			MYER	M-L, P	SECOND FIRST	6-12-12 6-12-12	800	50-100 50-100					
		BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER		ENTUCKY	MOUNTAIN-L	SECOND	6-12-12	1000	-		ΨΨ ,		× ¥	
	SPREADING EQUIPMENT, OT	THE MULCH MAY BE SPREAD BY BLOWER-TYPE HER SPREADING EQUIPMENT OR BY HAND. MULCH	SEE							LAY NET WITH	THE DIRECTION	ON OF FLOW.		
TREE IO SUCH PLAN		R 75% OF THE SOIL SURFACE D FIBER MULCH SHALL BE APPLIED UNIFORMLY	SEE "THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA, SIXTH EDITION FOR MAJOR LAND RESOURCE AREAS.											
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L TO A DEPTH			MATERIALS ARE AVAILABLE AT THE GEORGIA SOIL AND WATER CONSERVATION WEBSITE (HTTP://WWW.GASWCC.GEORGIA.GOV.)											
ME AND COPER	STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE-QUARTI TO ONE-HALF BUSHEL PER ACRE.		SITE PREPARATION							STEP 3: A. STAKE MAT INTO SLOT.				
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SERICEA LE HAY (CON	TAINING 3 TONS/ACRE	USE ON AREAS WHERE SERICEA LESPEDEZA IS MAY BE ESTABLISHED	 6. BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, BALES OF HAY, AND SIMILAR MATERIALS TO BE PLACED TO RIGHT ANGLES 						l Se l	TYPICA				
MATURE GRAIN S	,	FOR AREAS WHERE ORNAMENTALS	OF PREVAILING CURRENTS. TO BE EFFECTIVE, BARRIERS MUST BE AT INTERVALS OF APPROX. 15 TIMES THEIR HEIGHT.					NOT TO SCALE						

7. CALCIUM CHLORIDE APPLICATION - APPLY AS NEEDED TO KEEP SURFACE

3. STONE - COVER AREAS SUBJECT TO WIND EROSION AND HIGH TRAFFIC

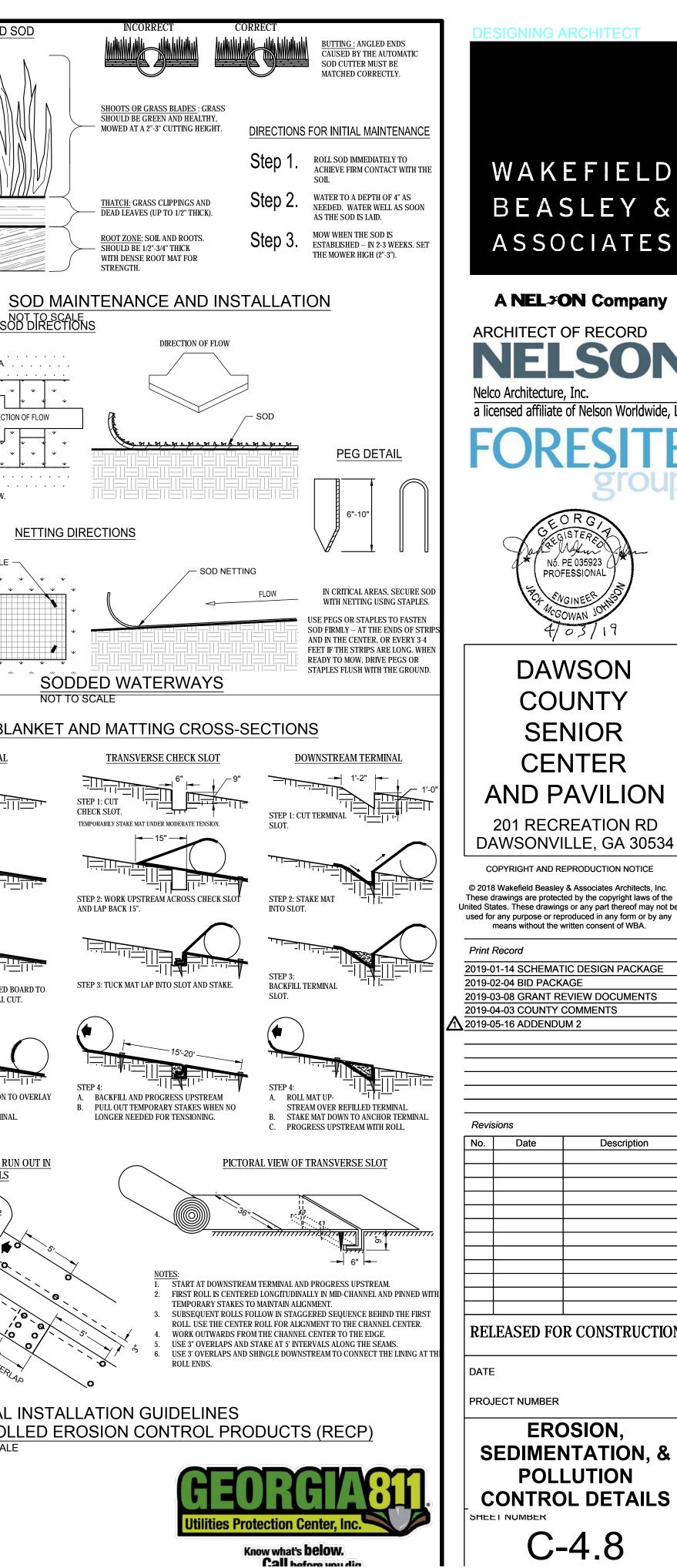
MOIST.

PREMANENT METHODS

1. PERMANENT VEGETATION - (SEE Ds3)

2. TOPSOILING - COVER WITH LESS EROSIVE TOPSOIL

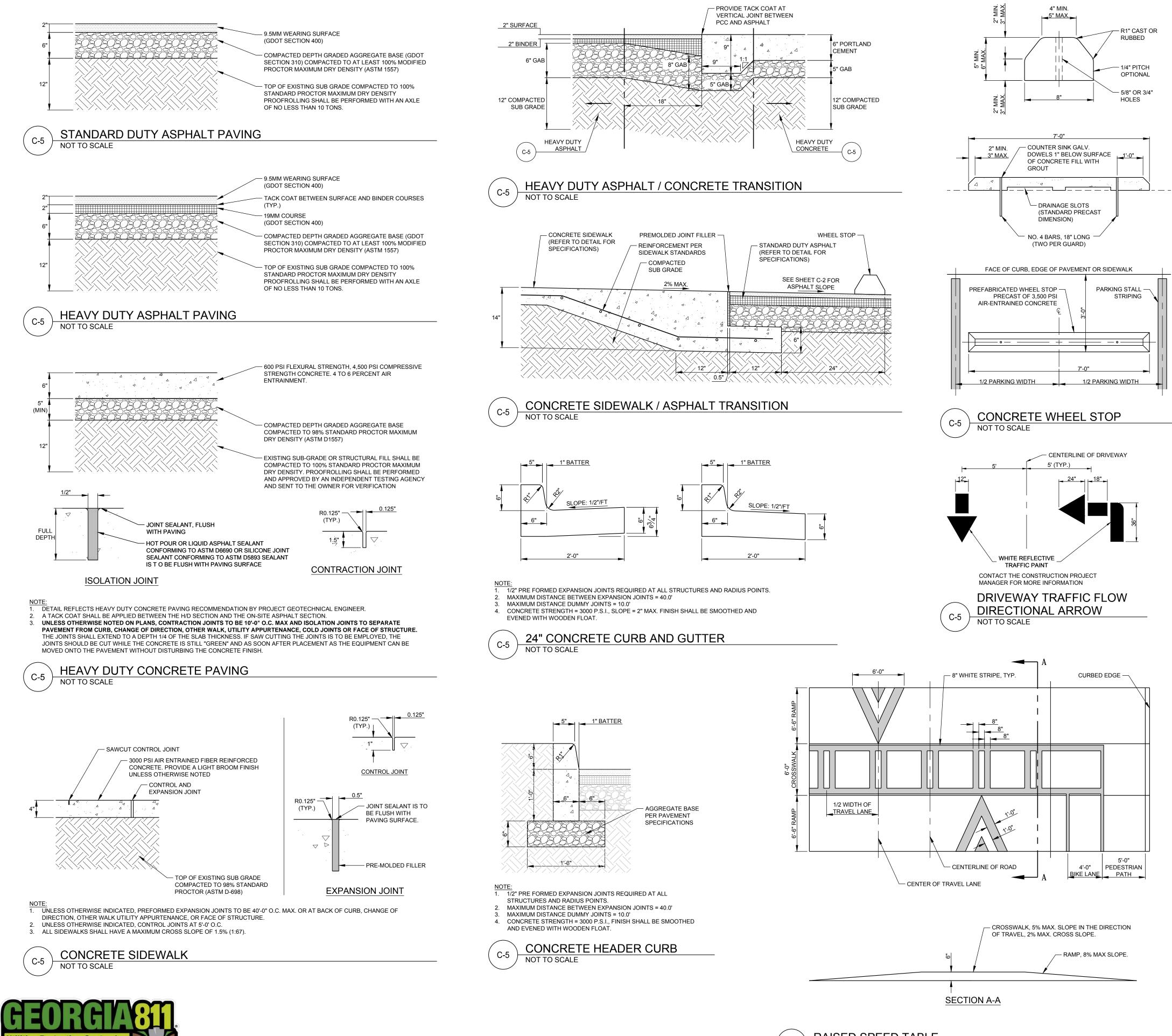
AREAS WITH CRUSHED STONE OR COARSE GRAVEL.



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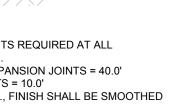
EROSION, **SEDIMENTATION, &** POLLUTION **CONTROL DETAILS** SHEET NUMBER



Know what's **below**. Call hefore you dig









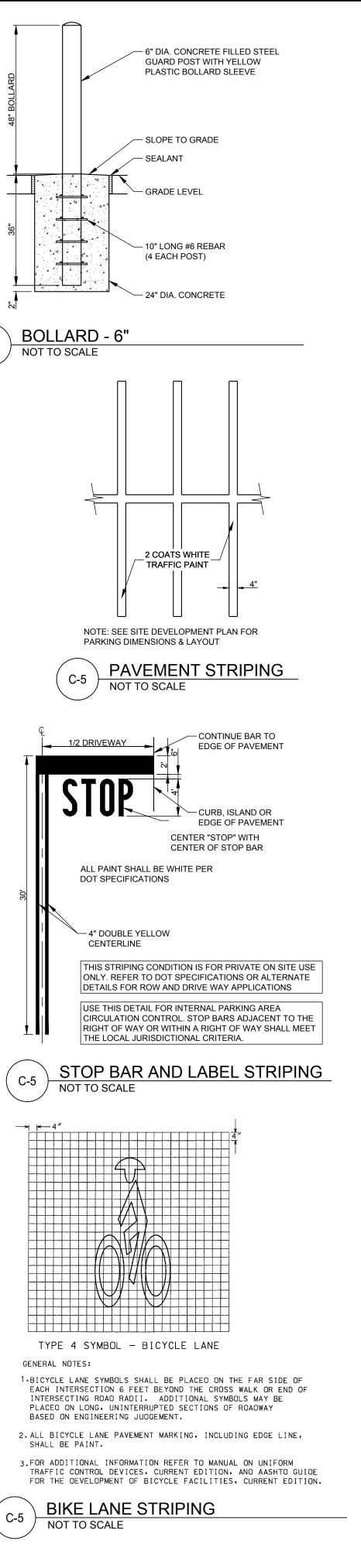


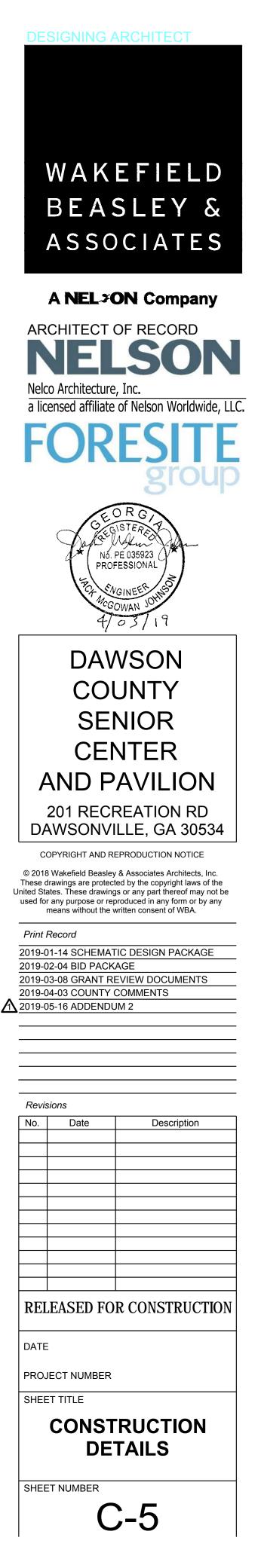


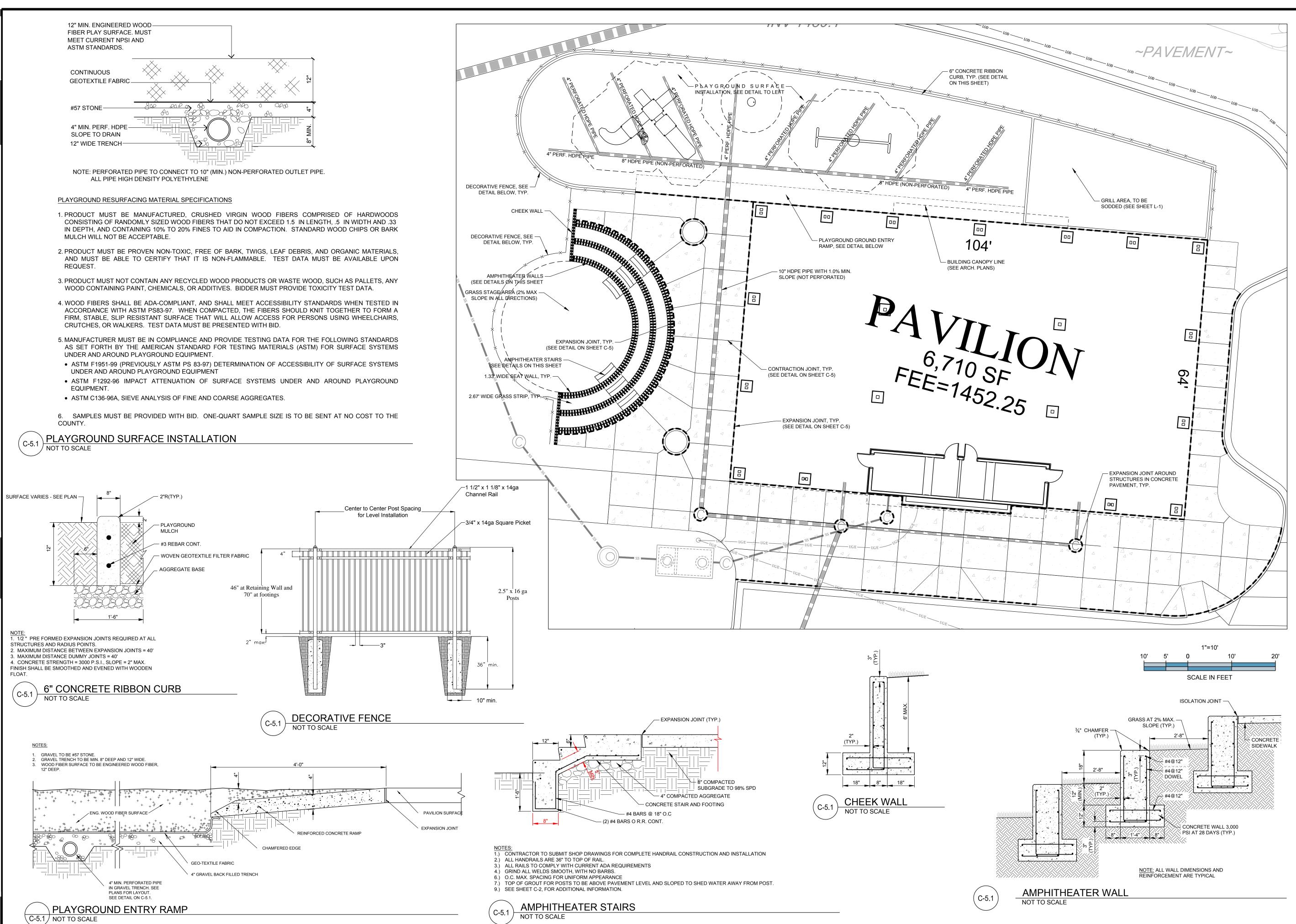


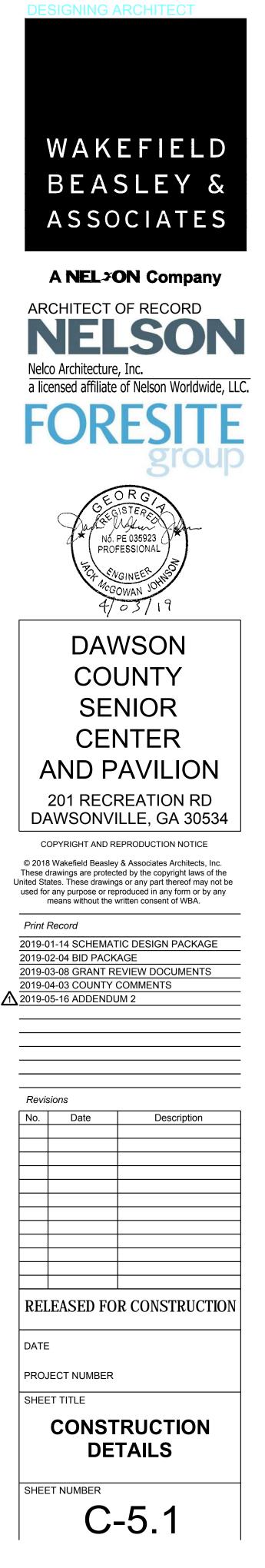


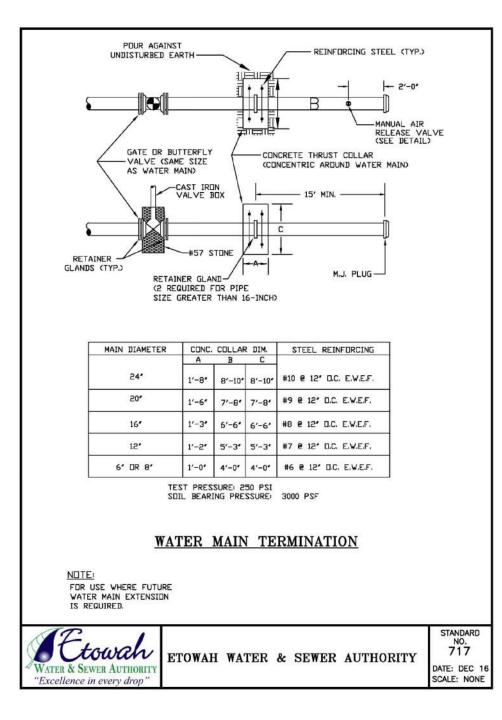
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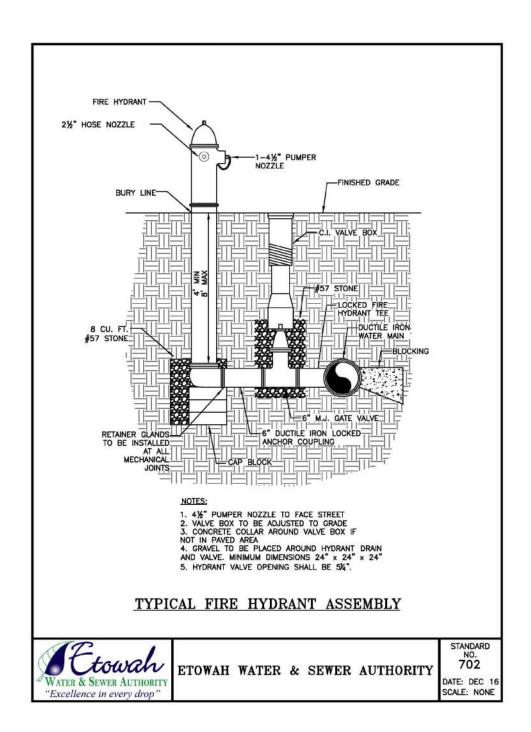


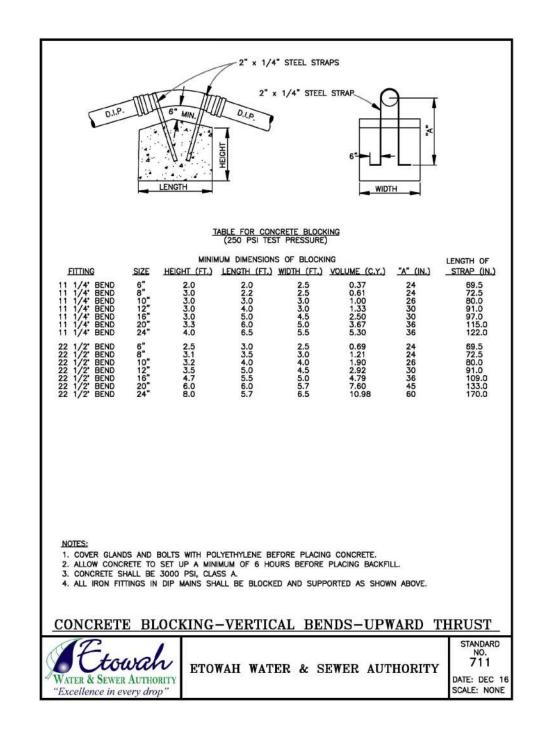


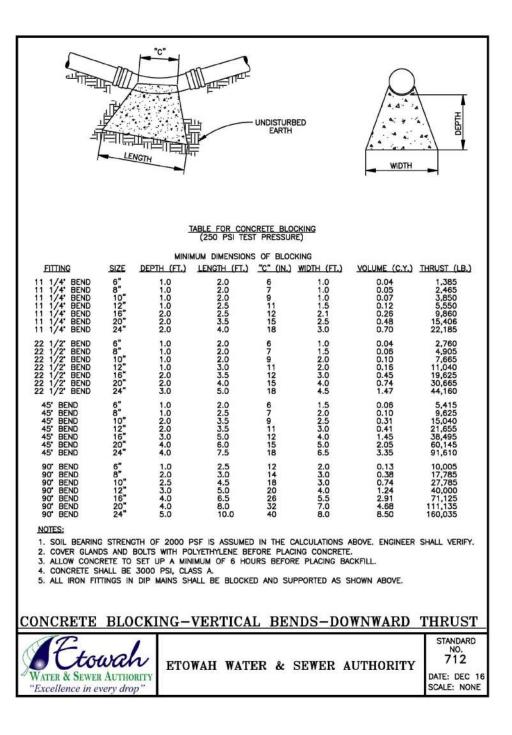




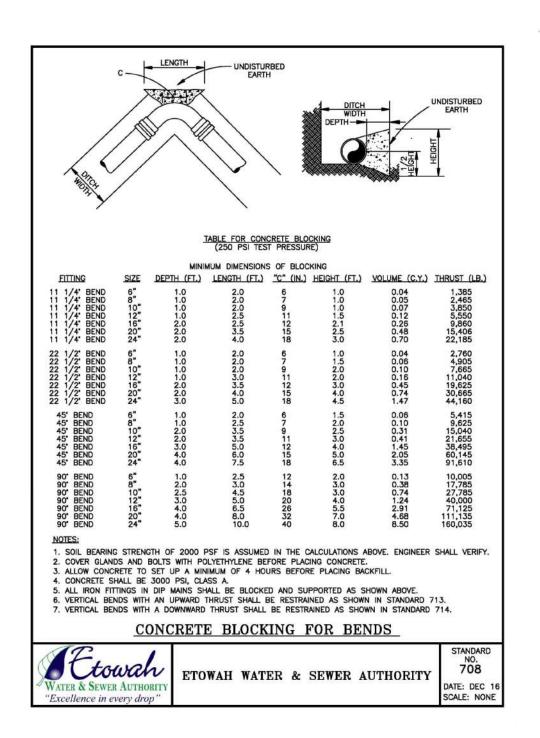


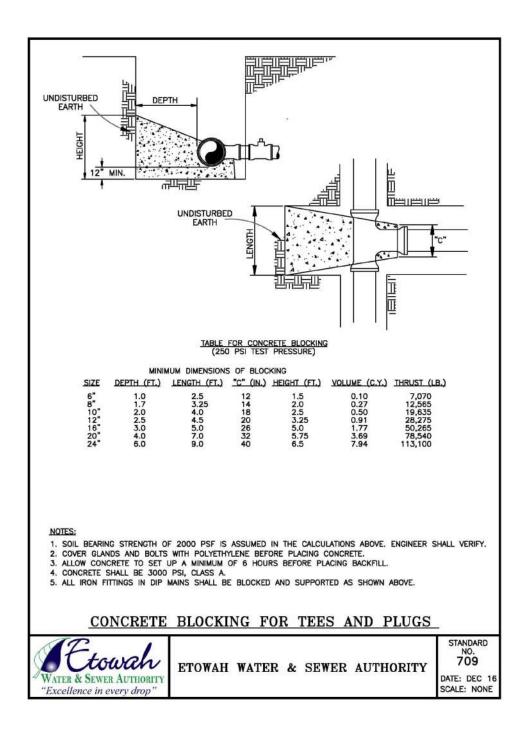


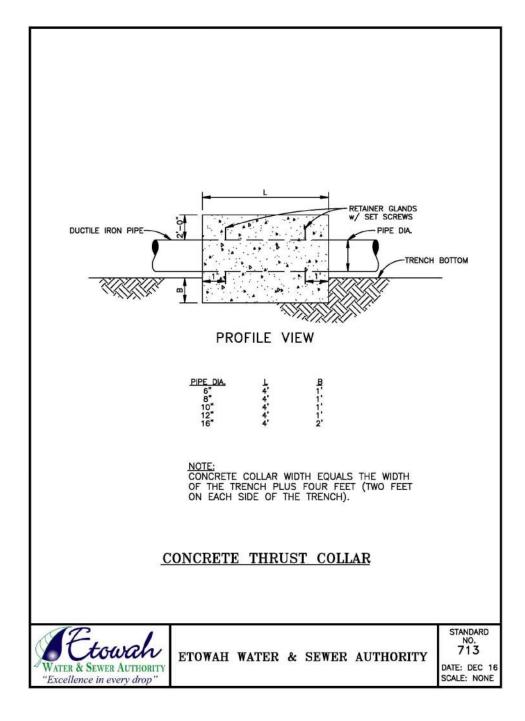


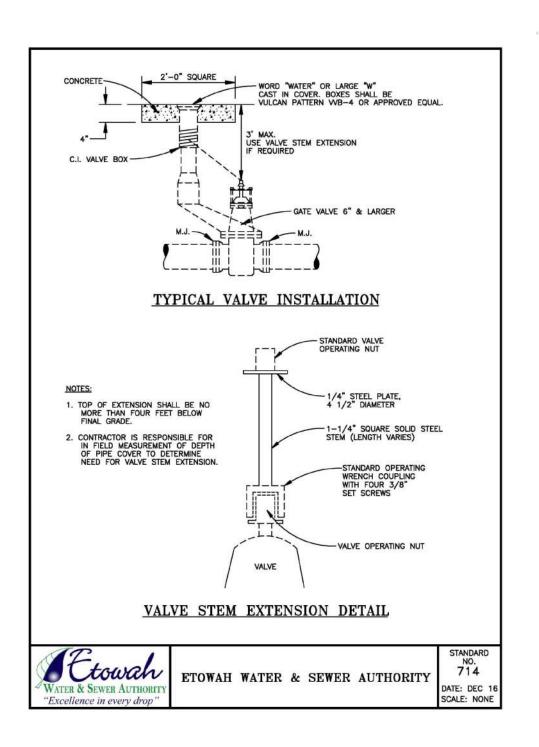


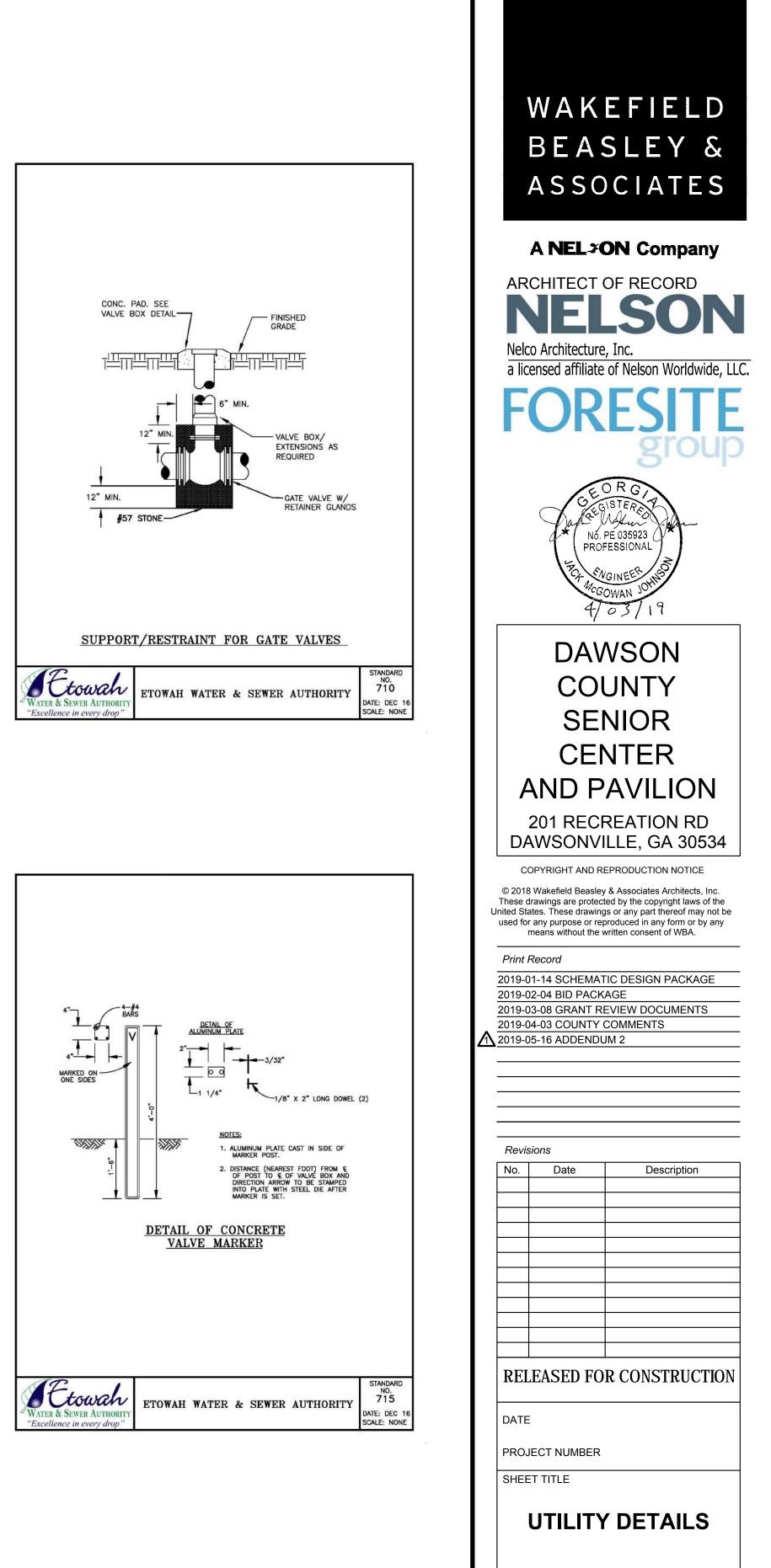








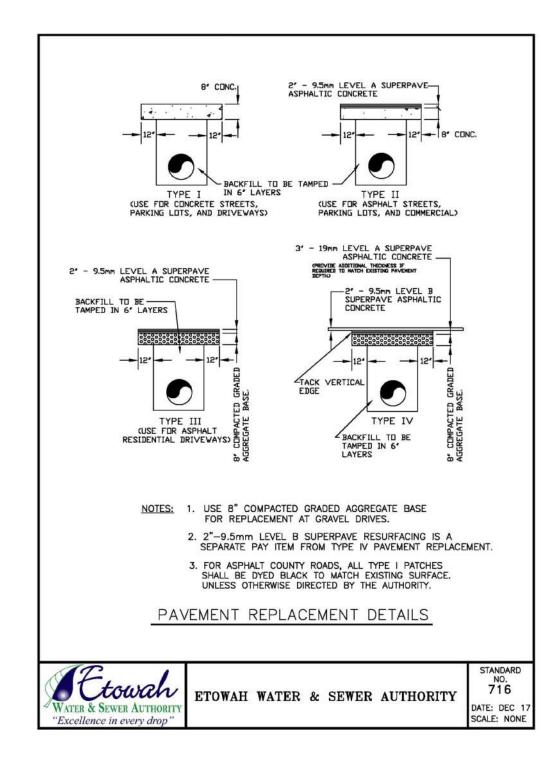


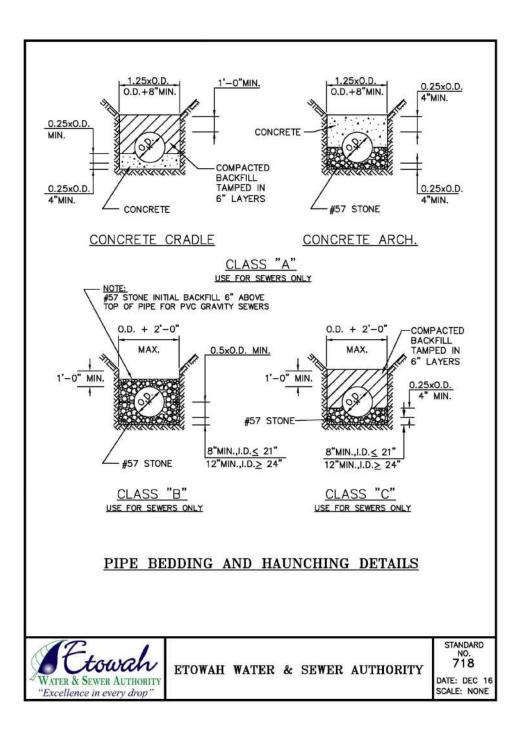


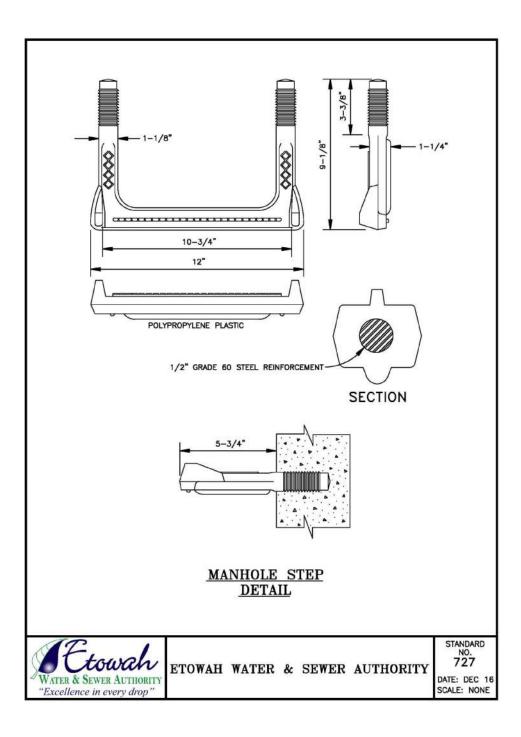
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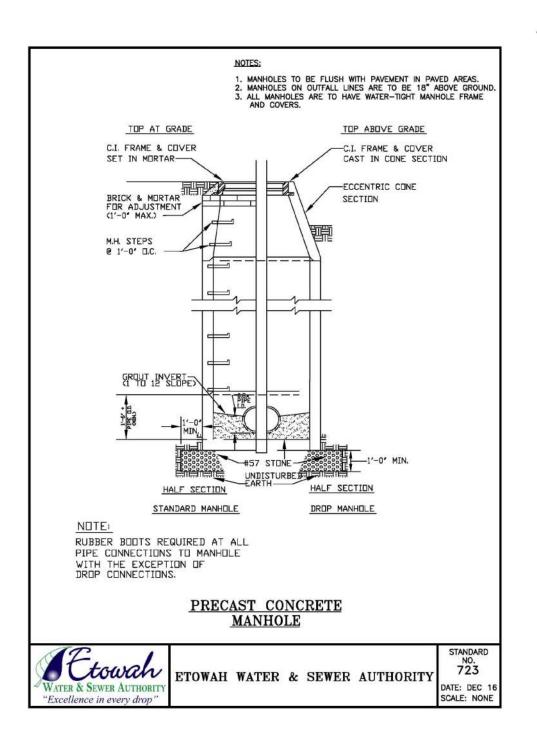
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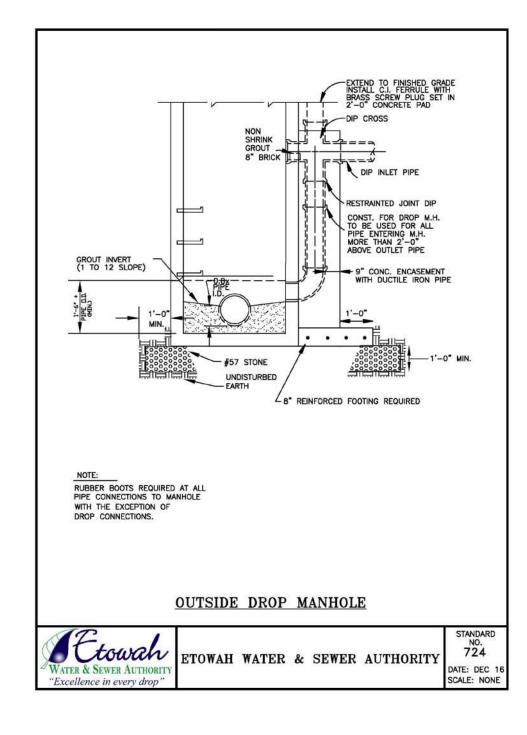


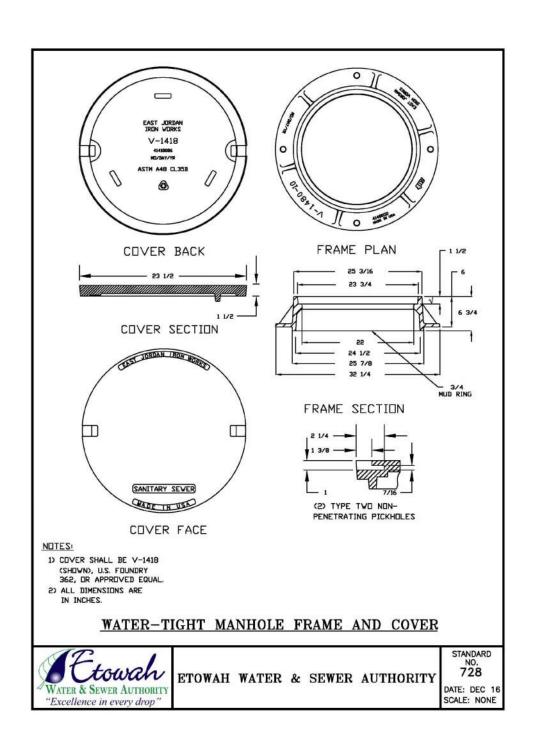


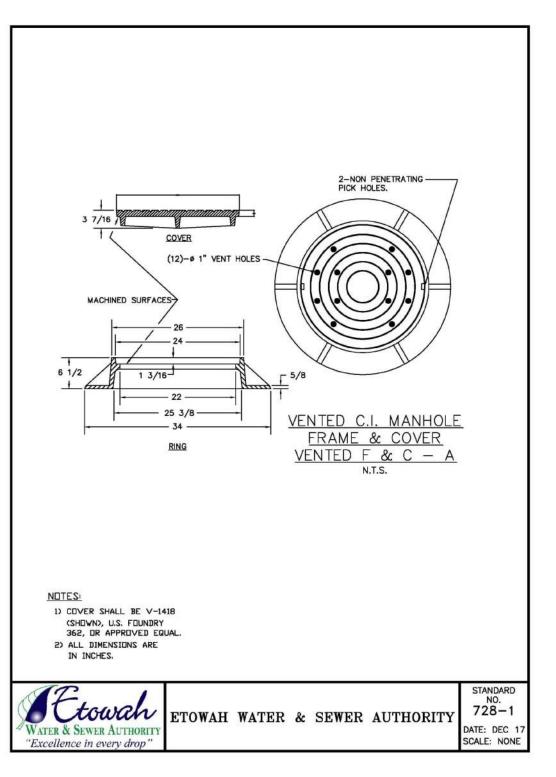


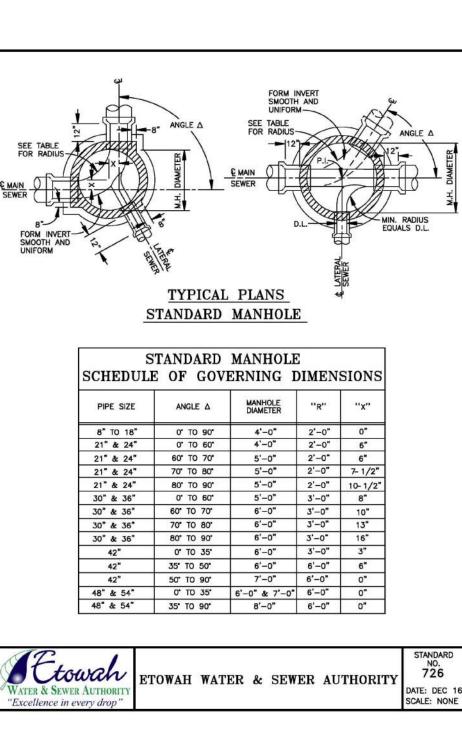




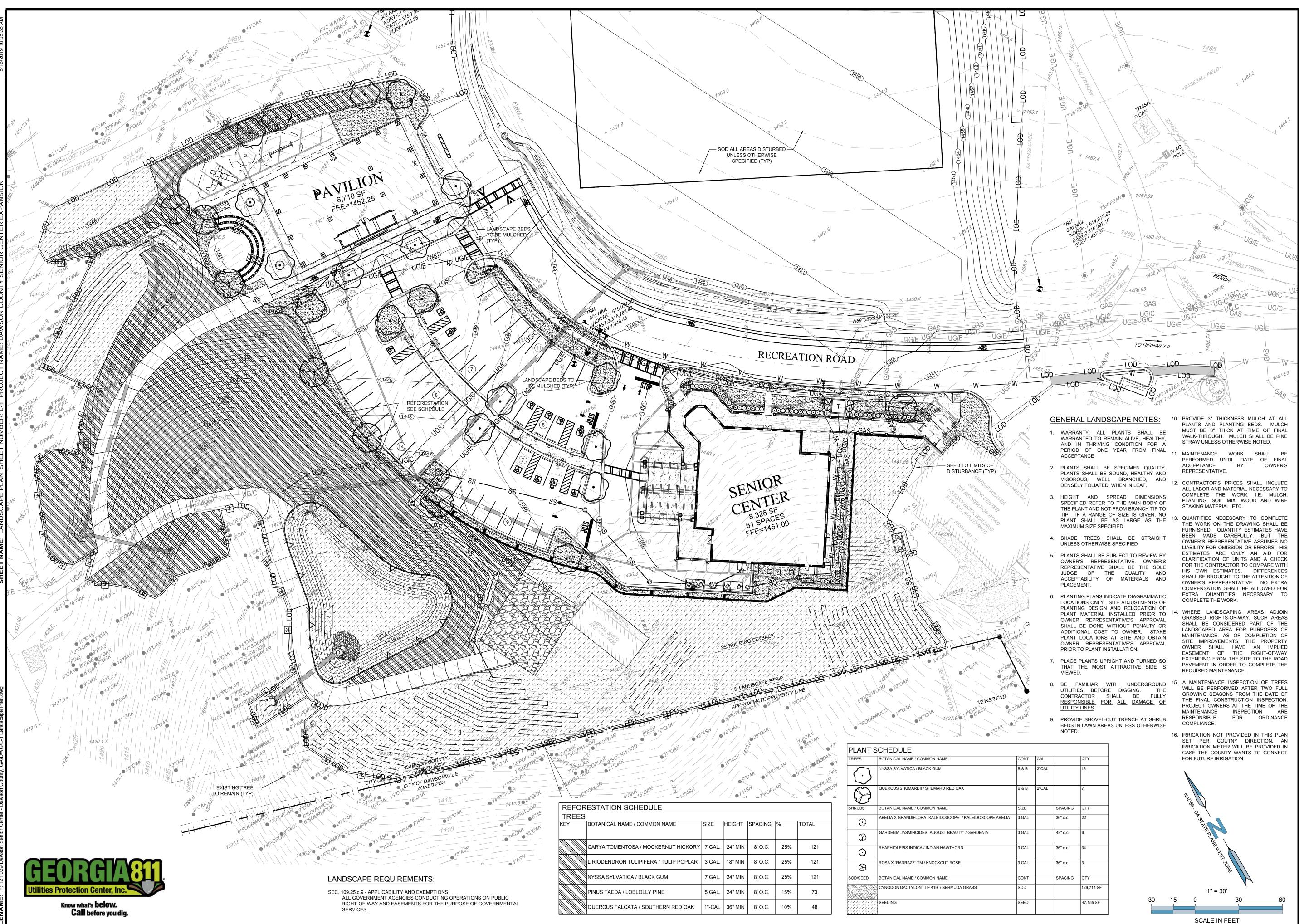




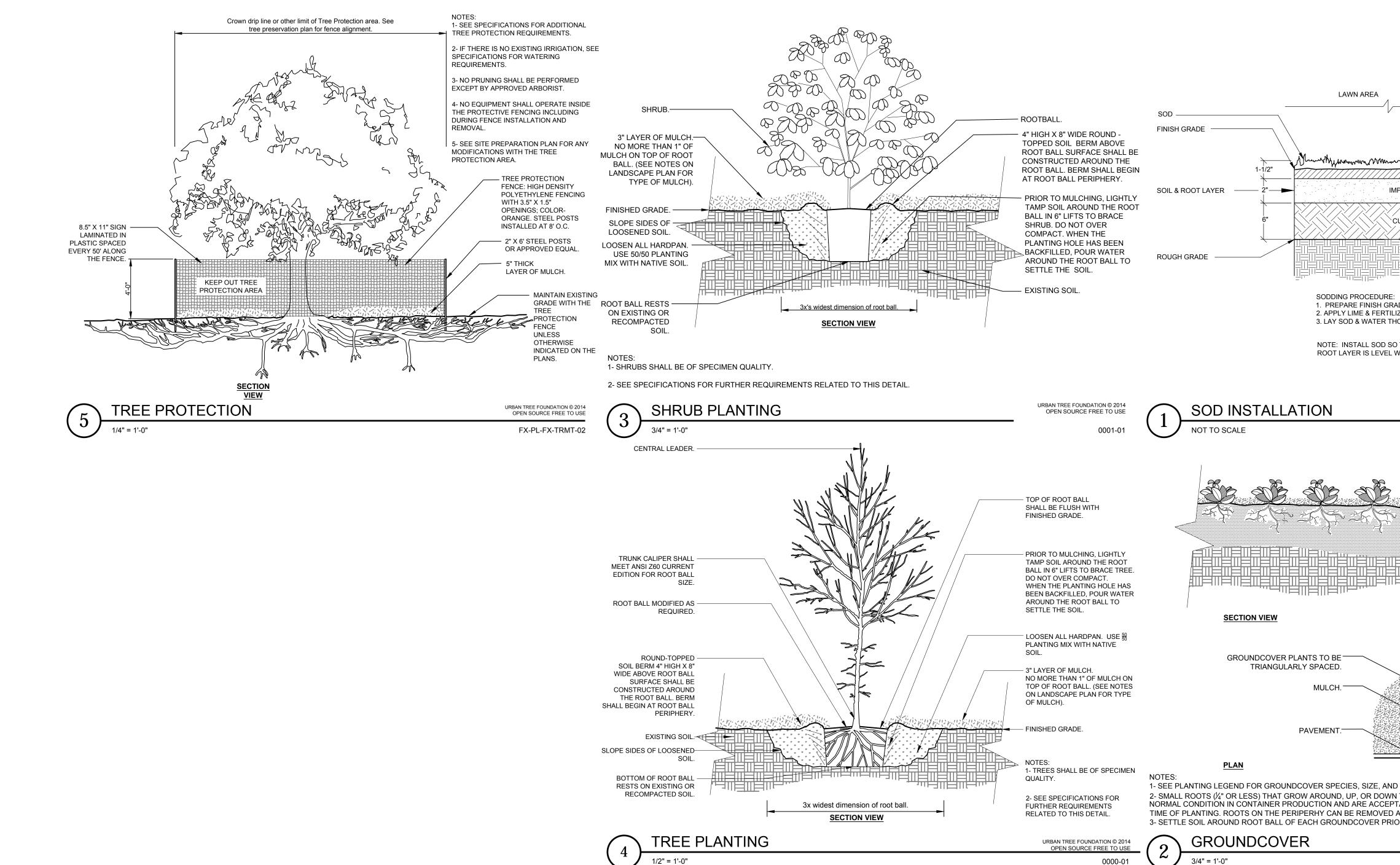














1/2" = 1'-0"

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N THE ROOT BALL PERIPHERY ARE CONSIDERED A TABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE AT THE TIME OF PLANTING. (SEE ROOT BALL SHAVING CONTAINER DETAIL).	
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SECTION 064116 - PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 01 specifications Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Plastic-laminate-faced architectural cabinets.
 - 2. Cabinet Hardware
 - 3. Wood furring, blocking, shims, and hanging strips for installing plastic-laminate-faced architectural cabinets that are not concealed within other construction.
- B. Related Sections
 - 1. Division 06 Section "Rough Carpentry" for wood furring, blocking and/ or shims required for installing cabinets.
 - 2. Division 12 Section "Plastic Laminate Clad Countertops" for plastic laminate countertops and countertop installation.
 - 3. Division 12 Section "Solid Surface Countertops" for solid surface countertops and countertop installation.
 - 4. Division 12 Section "Quartz Agglomerate Countertops" for quartz countertops and countertop installation

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product; cabinet hardware, panel products, high-pressure decorative laminate and finishing materials and processing.
 - 1. Include data for fire-retardant treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements.
- B. Shop Drawings: For plastic-laminate-faced architectural cabinets.
 - 1. Include plans, elevations, sections, and attachment details.
 - 2. Show details at large scale
 - 3. Show locations and sizes of furring, blocking and hanging strips, including concealed blocking and reinforcement specified in other sections
 - 4. Show locations and sizes of cutouts and holes for plumbing fixtures and other items installed in cabinets.
- C. Samples for Verification:

- 1. For each exposed product and for each color and texture specified; size not smaller than 8" x 10"
- 2. Exposed cabinet hardware and accessories, one unit for each type and finish.
- 3. PVC edgebanding to match plastic laminate.
- D. Maintenance Data: required as part of "close-out" documents

1.4 INFORMATIONAL SUBMITTALS

A. Quality Standard Compliance Certificates: AWI Quality Certification Program

1.5 QUALITY ASSURANCE

A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful inservice performance.

1.6 DELIVERY, STORAGE AND HANDLING

A. Do not deliver cabinets until painting and similar operations that could damage cabinets have been completed in installation areas. If cabinets must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet work is complete and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Field measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrications and indicated measures on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Locate concealed framing, locking, and reinforcements that support cabinets by field measurements before being enclosed and indicated measurements on Shop Drawings.
 - 2. Established Dimensions: Where field measurements cannot be made without delaying the work, establish dimensions and proceed with fabricating cabinets without field measurements. Provide allowance for trimming at site and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.8 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that cabinets can be supported and installed as indicated.

PART 2 - PRODUCTS

2.1 PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS

A. Quality Standard: Unless otherwise indicated, comply with the "Architectural Woodwork Standards" for grades of cabinets indicated for construction, finishes, installation, and other requirements.

- B. Type of Construction: Frameless
- C. Door and Drawer-Front Style: Flush overlay.
 - 1. Reveal Dimension: As indicated
- D. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or if not indicated, as required by quality standard.
 - 1. Laminate selections as indicated on drawings. Refer to Sheet I-001 Finish Legend& Key Notes.
- E. Laminate Cladding for Exposed Surfaces:
 - 1. Horizontal Surfaces: Grade HGS
 - 2. Vertical Surfaces: Grade VGS
 - 3. Edges: PVC edge banding, 0.12 inch (3 mm) thick, matching laminate in color, pattern, and finish as manufactured by Charter Industries, Basis of Design
 - 4. Pattern Direction: Vertically for drawer fronts, doors, and fixed panels
- F. Concealed Backs of Panels with Exposed Plastic-Laminate Surfaces: High-pressure decorative laminate, NEMA LD 3, Grade BKL.
- G. Drawer Construction: Fabricate with exposed fronts fastened to subfront with mounting screws from interior of body.
 - 1. Join subfronts, backs, and sides with glued dovetail joints.
- H. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
 - 1. As indicated on Drawings; refer to Sheet I-001 Finish & Millwork Key Notes & Legends

2.2 WOOD MATERIALS

^{1.} Provide inspections of fabrication and installation together with labels and certificates from AWI certification program indicating that woodwork complies with requirements of grades specified.

- A. General: Provide materials that comply with requirements of AWI's quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
 - 1. Fabricate cabinets free of urea formaldehyde
- B. Wood Products: Comply with the following:
 - 1. Hardboard: AHA A135.4
 - 2. Medium-Density Fiberboard: ANSI A208.2, Grade MD, made with binder containing no urea formaldehyde.
 - 3. Particleboard: ANSI A208.1, Grade M-2, made with binder containing no urea formaldehyde.
 - 4. Softwood Plywood: DOC PS 1, Medium Density Overlay.

2.3 CABINET HARDWARE AND ACCESSORIES

- A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets for a complete cabinet installation. Specific items below shall be included except where specifically indicated otherwise on drawings.
- B. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 135 degrees of opening, self-closing.
- C. Back-Mounted Pulls: BHMA A156.9, B02011.
- D. Wire Pulls: Back mounted, solid metal, 4 inches (100 mm) long, 5/16 inch (8 mm) in diameter.
- E. Shelf Rests: BHMA A156.9, B04013; metal.
- F. Drawer Slides: BHMA A156.9, B05091.
 - 1. Typical slides: Heavy Duty (Grade 1HD-100 and Grade 1HD-200): Side mounted; full-over travel-extension type; zinc-plated steel ball-bearing slides.
 - 2. Box Drawer Slides: Grade 1HD-100; for drawers not more than 6 inches (150 mm) high and 24 inches (600 mm) wide.
 - G. Door Locks: BHMA A156.11, E07121.
 - H. Drawer Locks: BHMA A156.11, E07041.
 - I. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.
 1. Satin Stainless Steel: BHMA 630.
 - J. For concealed hardware, provide manufacturer's standard finish that complies with product class requirements in BHMA A156.9.
 - K. Toe Kick Finish: As indicated on drawings

- L. Toe Kick Support: At accessible cabinet doors, if any, provided galvanized steel or aluminum "Z" Channel for attachment to bottom inside of cabinet doors. Door to receive plastic laminate to match base cabinet unless otherwise noted.
- M. Grommets for Cable Passage: size as indicated on drawings, molded plastic grommets and matching plastic caps with slots for wire passage.

2.4 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber kiln-dried to less than 15 percent moisture content.
- B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrousmetal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.
- C. Adhesive for Bonding Plastic Laminate: Urea Formaldehyde free
 - 1. Adhesive for Bonding Edges: as recommended by manufacturer

2.5 FABRICATION

- A. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
- B. Shop-cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Before installation, condition cabinets to average prevailing humidity conditions in installation areas.
- B. Before installing cabinets, examine shop-fabricated work for completion and complete work as required, including removal of packing.

3.2 INSTALLATION

A. Before installation, condition cabinets to humidity conditions in installation areas for not less than 24 hours.

- B. Grade: Install cabinets to comply with quality standard grade of item to be installed.
- C. Assemble cabinets and complete fabrication at Project Site to comply with requirements for fabrication in Part 2, to extent that is was not completed in shop.
- D. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with wafer-head cabinet installation screws.
- E. Install cabinets with no more than 1/8 inch in 96-inch (3 mm in 2400-mm) sag, bow, or other variation from a straight line.
 - 1. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
 - 2. Install cabinets without distortion so doors and drawers fit openings and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
 - 3. Fasten wall cabinets through back, near top and bottom, at ends and not more than 16 inches (400 mm) o.c. with No. 10 wafer-head screws sized for 1-1/2-inch (37-mm) penetration into wood framing, blocking, or hanging strips.

3.3 ADJUSTING AND CLEANING

- A. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects; where not possible to repair, replace cabinets. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean cabinets on exposed and semi exposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas

END OF SECTION 064116