

Construction Specifications for:
Lumpkin County Fire Station #7

ITB # 2015-005

2149 Town Creek Church Rd

Dahlonega, GA 30533

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Sec 101 Architect and Engineering

All construction plans will be provided by Lumpkin County. All engineered components are the responsibility of the contractor for the respective trade. All work is to be completed in accordance with the drawings, specifications and ICC codes as approved by Georgia DCA. All work will be inspected by the Lumpkin County Planning Department.

Sec 102 Permits and Fees

All construction permit fees will be the responsibility of Lumpkin County.

Sec 103 Water System

103.1 Well: Water well will be located as shown on plans. Well shall be capable of producing a minimum of 15 gpm for a minimum of 120 minutes and able to recharge in less than 24 hours. Well shall be bid on a per foot basis.

103.2 Pumps and Tanks:

Pump: Pump shall be sized based on well characteristics. Pump size and manufacturer shall be approved by Lumpkin County.

Pressure Tank: 85 gal pre-charged

Tank: A 4,000 gallon, green, plastic water storage tank shall be placed as per plans. Tank shall be piped from the proposed well with 1 ½" PVC pipe and include a ball valve, check valve, and float valve. Tank discharge line shall be 2" PVC and include a gate valve and fire truck hose connection.

Sec 104 Excavation

104.1 Erosion Control: Lumpkin County will be responsible for the installation and maintenance of all erosion control BMP's. Subcontractors will be responsible for repair of any damage to BMP's caused by their actions.

104.2 Site Work: Lumpkin County will complete grading and place aggregate to within 0.10' of finished subgrade. Subcontractor will be responsible for finish grading or repairs to damage caused by their actions where required.

104.3 Driveway/Parking: Lumpkin County will be responsible for Subgrade preparation.

104.4 Foundation Grading: All excavation and grading for footings will be the responsibility of the subcontractor. Subgrades for all footings shall be dry and firm prior to the placement of any foundations.

Sec 105 Foundation

105.1 Concrete Materials:

Strength: 3,000 psi at 28 days

Slump: 3" maximum

Water/cement ratio: .57 or less (by weight)

Mix temperature: less than 90 degrees when placed

105.2 Concrete Placement: Do not add water to concrete during delivery or during placement. Concrete shall not be placed when the air temperature is below 40 degrees. Surface of finished concrete shall be insulated to prevent freezing if temperature drops below 32 degrees within 4 days of finishing. Finished concrete surface shall be treated with an approved curing compound to prevent loss of moisture during curing.

105.3 Concrete Footings: Footings will be constructed as per plans. All concrete will be 3,000 psi. All reinforcing shall be grade 60 deformed bars. Reinforcing bar splices shall be as per ACI code.

105.4 Concrete Wall: Concrete wall shall be constructed as per plans. All concrete will be minimum 3,000 psi concrete. All reinforcing shall be grade 60 deformed bars.

105.5 Concrete Slab: Concrete slab shall be constructed as per plans. All concrete will be 6" thick, 3,000 psi concrete with #4 bars at 16" on centers both ways (o.c.b.w.) and 2" from the bottom of the slab. All rebar will be supported on rebar chairs. All reinforcing shall be grade 60 deformed bars. Slab shall be underlain with 4" of #57 stone and a 6 mil vapor barrier. Control joints will be cut as per plans within 12 hours of concrete placement. Joints shall be sealed with a flexible concrete joint sealer. Slab shall be sealed with Eagle Natural Seal, or equivalent, and installed per manufacturer's specifications.

105.6 Termite Treatment: The County will be responsible for termite treatment. Contractor will coordinate with County on scheduling of treatment.

Sec 106 Framing

106.1 Exterior Walls: The building will have an 18' eave height. All walls will be 2x6 framed 16" on center, 2 rows of purlins evenly spaced, and 7/16" osb wall sheeting. Anchor bolts will be 1/2" galvanized with 4' maximum spacing.

106.2 Interior Walls: All load bearing walls will be 2x6 framed 16" on center. Bedroom partition walls will be 2x4 framed 7' high with 1' clear opening between top of wall and ceiling.

106.3 Roof system: Roof will be engineered truss construction 16" o.c. as per plans with 7/16" osb sheeting, and 2x6 spruce sub fascia and barge rafters.

106.4 Flooring system: Floor system will be open web engineered joist system with Advantech tongue and groove, or approved equivalent, subfloor. Joists will have a 24" wide HVAC duct chase at center span. Joists shall be engineered to accommodate 8' ceiling heights on both floors.

106.5 Stairs: Interior stairs will be bull nosed, pine tread with oval handrails with 12" skirt board on each side. Treads will be surfaced with stick down anti-slip safety tread. No osb is to be used in the stair framing. Exterior stairs will be framed with pressure treated 6x6 posts; 2x12 stringers 4 each with 2x4 reinforcements on back of stringers. Treads and landing decking will be constructed of 5/4" composite material. The porch framing will be constructed of 2x10 treated lumber.

Sec 107 Windows/Doors

- 107.1 Windows: All windows to be vinyl, low E, single hung, no grills, applied jambs, with screens. Interior and exterior finish will be white.
- 107.2 Exterior Doors: All doors will be metal ½ glass as per door schedule with panic bars. All door hardware to be Best Lock Stanley Security Solutions and ADA compliant.

Sec 108 Plumbing

- 108.1 Plumbing Rough-In: All piping to be DWV PVC or CPVC.
- 108.2 Plumbing Materials: Materials shall be as listed or approved equivalent:
- Shower stalls: 2-36" fiberglass Aquatic model #1363C white with Sioux Chief 825-2P stainless steel strainer PVC shower drain, Delta R10000-IP valve body, Delta T14278-LHP Chrome Leland shower trim and H778 lever handle.
 - Water heater: 80 gallon Rheem electric
 - Lavatory sinks: 4- Gerber 12884CHWHT 19" round drop-in with Delta B2596LF chrome Windermere 4" center set faucet.
 - Toilet: 4- Gerber 21928 Handicap elongated bowl 1.28 gpf 12" rough-in, with Gerber 28990 tank and Bemis 585EC-000 closed front seat white.
 - Urinal: 1- Zorn Z5730 top spud siphon jet urinal with Zorn Z6003 flush valve.
 - Kitchen sink: 1- Elkay NLX3322104 33"x22" Neptune stainless steel double bowl top mount sink with Delta 2497LFChrome Cassidy faucet and Oatey brass basket strainers.
 - Laundry tub: 1- Mustee 18F fiberglass laundry tub with Delta 2133LF 4" faucet
 - Dishwasher and Ice maker hook ups
 - Spigots: 5 -(3 are frost proof/ 2 are interior)

Sec 109 Electrical

- 109.1 Rough-in: All electrical to be installed as per code. 200 amp service bolt in breaker panel; square D bolt in breakers or equivalent.
- 109.2: Fixtures:
- Outside lighting: As per plan
 - Inside lighting: As per plan
 - Ceiling fans: Hunter fans or equivalent
 - Generator backup: Generator to be 30 KW, propane fueled, water cooled, with automatic transfer switch.
 - Phone jacks: RJ45 As per plan
 - Television jacks: As per plan
 - Data cabling: CAT 5 or 6 as per plan
 - Smoke alarms: as per plan
 - Exit signs and emergency lighting: As per plan
 - Stove: electric circuit for
 - Water heater: electric circuit for
 - Bay exhaust fan: electric circuit for
 - Bathroom vent fans: as per plan
 - Dryer: electric circuit for
- All switch plate and outlet covers are to be stainless steel metal.

Sec 110 HVAC

110.1 Heating and Cooling Systems:

Living/office area: Dual fuel heat pumps, propane fueled. 1 up draft unit and 1 down draft unit. Two, 3ton, 13 SEER, 93% efficient furnaces, 80,000 BTU. Only Lennox or Trane will be accepted. Ductwork shall be metal with flex tributaries. It will be the responsibility of the contractor to install the gas line per total BTU requirements for all units.

Bay Heating: 4 100,000 BTU propane infrared bay heaters each thermostatically controlled.

Thermostats: Programmable one each floor and each bay heater

Bay exhaust fan: 48" with framed duct to bay as per plan. Duct shall be metal. Minimum air flow capacity shall be 2700 cfm. Fan shall be controlled by switch with a CO and N2O sensor switch override. (No matter which position switch is in, if emissions detected, sensor will turn on fan.)

An AC drop will be needed in mechanical room

110.2 Ventilation: Bathroom, dryer and stove vents will be vented to the outside. Duct shall be metal.

Sec 111 Insulation

111.1 Insulation Materials: All insulation to be fiberglass.

111.2 R-Values:

Walls: 19 minimum. (All exterior walls including bay walls and the wall separating the bay from the office/living area.)

Floor: 30 minimum

Ceiling: 38 minimum (Includes ceiling above bay area and living area)

Sec 112 Drywall

112.1 All drywall will be 5/8" knock-down finished. A 2- hour rated firewall will be located as per plans.

Sec 113 Siding

113.1 Siding Type: The lower 4' of siding will be queen size brick. County retains the right to choose brick within a budget of \$250 per 1,000. The remainder will be HardiePlank lap siding or equivalent. Siding shall be installed per manufacturer's specifications. Flashing shall be installed at all butt joints. The exterior of the building will be wrapped with Tyvek or an equivalent material prior to the installation of siding.

113.2 Cornice Type: vinyl, Color to be chosen by Lumpkin County.

113.3 Porch Ceiling Type: vinyl, Color to be chosen by Lumpkin County.

Sec 114 Roofing

114.1 Underlayment: Underlayment shall be Titanium UDL 30 or approved equivalent.

114.2 Shingles: 30 Yr. architectural singles. Contractor shall use 1 1/4" roofing fasteners. Color to be approved by Lumpkin County.

114.3: Flashing: All flashing shall be as per code and shall include drip edge.

114.4 Ridge Vent: Ridge vent shall not interconnect bay attic area to living area attic.

Sec 115 Gutters and Downspouts

115.1 All gutters to be 6". Gutters and downspouts shall be seamless aluminum with expansion joints where required. Color to be approved by Lumpkin County.

Sec 116 Paint

116.1 Interior: Walls will be semi-gloss. Trim shall be semi-gloss. Color to be approved by Lumpkin County. Ceilings will be flat white.

116.2 Exterior: Siding will be a satin finish. Color to be approved by Lumpkin County. Trim will be a semi-gloss finish. Color to be approved by Lumpkin County. Exterior stairs will have no finish.

Sec 117 Overhead Doors

117.1 Overhead doors to be 14' x 14' metal, insulated with 1 full view glass panel. Doorlink Manufacturing Inc. Model 6500 R10.25 insulated sandwich door with a steel back. Liftmaster T5011 openers with remote will be installed on each overhead door. Doors shall be chained for manual operation.

Sec 118 Cabinets and Vanities

118.1 All cabinets and vanities will be natural finish alder and match throughout the building. Countertops will standard role form laminate top and match throughout the building. Color to be approved by Lumpkin County.

Sec 119 Interior Doors and Trim

119.1 All doors will be 3'0" doors. Doors between office area and bay area will be 2 hour fire rated metal doors. Access door between bay attic and bunk attic will be 2 hour fire rated. Bunk room doors will be hollow core 6 panel masonite. All other interior doors will be commercial flush doors with metal frames. Door locks to be Best Lock Stanley Security Solutions and ADA compliant. Base molding to be C-617 MDF speed base, 5 1/4" in carpeted areas and vinyl cove base in VCT areas.

Sec 120 Flooring

All carpet and tile texture and color to be approved by Lumpkin County.

120.1 Carpet: Main floor offices and second floor, except bathrooms and utility areas, will be carpeted with grade A carpet tiles. Color to be chosen by Lumpkin County.

120.2 Tile: All floor areas not carpeted, excluding bay area, will be tiled with VCT. Lumpkin County reserves the right to choose a color within \$1.99 per square foot pricing.

Sec 121 Site Paving

- 121.1 Paving: All paving to be 6" 3,000 psi concrete reinforced with 6x6 w1.4xw1.4 welded wire mesh located 2" from the bottom of the slab. 2" deep saw joints will be cut at 15' on center both ways. All saw joints will be cut within 12 hours of concrete placement. Construction joints will be placed as needed. All joints will be sealed.
- 121.2 Bollards: 6" diameter SCH 40 steel pipe, concrete filled, will be placed on each side of the overhead doors, at building corners and at stair way. Bollards will project 4' above finished pavement grade and be concreted in ground 3' deep. Bollards will be 2' from the structure. Bollard foundations shall be a minimum of 1' in diameter.

Sec 122 Clean-up / Sanitation

- 122.1 Dumpster: Lumpkin County will provide dumpsters for the disposal of construction debris as needed. Each contractor will be responsible for the daily clean-up of their respective construction generated debris. All debris shall be placed in provided dumpster(s).
- 122.2 Portable Toilet: Lumpkin County will provide 1 portable toilet.