- A. Granite: Comply with ASTM C 615. B. Granite GRT-1 Basis of Design Product: The design for GR-1 granite countertops is based on Tremain 3-cm thick Contractor Grade Series 1 San Gabriel Black, Polished finish with chamfered profile leading edges. Subject to compliance with requirements, provide the named product or a product that is equal in appearance, quality and durability.
- C. Granite GRT-2 Basis of Design Product: The design for GR-2 granite countertops is based on Tremain 3-cm thick Contractor Grade Series 1 Giallo Ornamental, Polished finish with chamfered profile leading edges. Subject to compliance with requirements, provide the named product or a product that is equal in appearance, quality and durability.
- D. Granite countertops in Baths as indicated on Drawings shall be 3/4-inch (19-mm) thick of the Basis of Design Product indicated, Polished finish with eased
- exposed edges and 4-inch (102-mm) high matching backsplash 2.2 ADHESIVES, GROUT, SEALANTS AND STONE ACCESSORIES
- A. Water-Cleanable Epoxy Adhesive: ANSI A118.3, with a VOC content of 65 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24). 12 36 61 - SYNTHETIC COUNTERTOPS

1.1 SUMMARY

- A. This Section includes the following:
- 1. Solid-surfacing-material countertops and backsplashes.

2.1 COUNTERTOP MATERIALS

- A. Solid-Surfacing Material: Homogeneous solid sheets of filled plastic resin complying with ISSFA-2.
- B. Countertops: 3/4-inch- (19-mm-) thick, solid-surfacing material with built-up
- C. Backsplashes: 3/4-inch- (19-mm-) thick, solid-surfacing material. 14 21 13 - RESIDENTIAL TRACTION ELEVATORS 1.1 SUMMARY
- A. This Section includes residential traction elevators.

2.1 MANUFACTURERS

- A. Basis of Design: Subject to compliance with requirements, provide residential elevators as manufactured by Residential Elevators, Inc, which is located at 20 Residential Drive, Crawfordville, FL 32327; Tel: 1-800-832-2004 or (850) 926-6022; Fax: 1-850-926-5319; Website: www.residentialelevators.com; Email: sales@residentialelevators.com
- ELEVATORS
- A. Elevator Description:
- Machine Location: Hoistway; no machine room is provided.
- 2. Rated Load: 950 lb.(431 kg)
- 3. Rated Speed: 40 fpm (290.0 m/s)
- 4. Auxiliary Operations:
- a. Standby power operation.
- b. Battery-powered lowering. 5. Car Enclosures:
- a. Inside Width: 40 inches (1016 mm) from side wall to side wall.
- b. Inside Depth: 53 ½ inches (1360 mm) from back wall to front wall
- (return panels). c. Inside Height: 80 inches (2032 mm) to underside of ceiling.
- d. Front Walls (Return Panels): Prefinished Oak
- e. Car Fixtures: Satin stainless steel, No. 4 finish.
- f. Side and Rear Wall Panels: Prefinished Oak. g. Ceiling: Prefinished Oak
- h. Handrails: 1-1/2 inches (38 mm) round prefinished oak, at rear of car.
- i. Floor prepared to receive wood flooring (specified in Division 09 Section "Wood Flooring").
- Gate: Aluminum scissor gate, silver tone finish
- Threshold finish: Silver
- 6. Hoistway Entrances: As follows:
- a. Width: 36 inches (914 mm.
- b. Height: 84 inches (2134 mm). c. Type: Single swing
- d. Frames at all floors: Prefinished oak. 7. Hall fixtures at all floors: Satin stainless steel, No. 4 finish.
- 8. Recessed incandescent light in center of ceiling

22 40 00 - PLUMBING FIXTURES (OF/CI) 1.1 Verify that Section titles referenced in this Section are correct for this Project's

- Specifications; Section titles may have changed. 2. SUMMARY
- A. Fixtures shall be furnished by Owner, installed by Contractor. B. This Section includes the following:
- 1. Faucets for lavatories, showers and sinks.
- 2. Disposers.
- 3. Water closets.
- 4. Lavatories. 5. Bathtubs.
- 6. Individual showers.
- 7. Kitchen sinks.
- 2.1 PLUMBING FIXTURES A. Subject to compliance with requirements, provide the products indicated on
 - Drawings.
 - 1. Lavatory Faucets 2. Bathtub/Shower Faucets
 - 3. Shower Faucets 4. Sink Faucets
 - 5. Disposers 6. Water Closets
 - 7. Lavatories
 - 8. Bathtubs
 - 9. Individual Showers
 - 10. Kitchen Sinks
 - 11. Service Sinks

23 05 00 - GENERAL MECHANICAL REQUIREMENTS

1.1 SUMMARY

- A. This Section includes general administrative and procedural requirements for mechanical installations.
- B. The Contract Documents depict the scheduled equipment and components as a basis of design. Should the Contractor submit and receive approval for equipment that is acceptable by specification, but differs from that of the basis of design, the Contractor shall be responsible for coordination of that equipment with all other trades. Costs incurred to provide increased service to or from said piece of equipment or system shall be borne by the Contractor supplying the equipment or system at no additional cost to the Owner.

- components for complete and operable systems.
- D. This project includes the following systems:
 - Air Distribution System
- Domestic Water Distribution Piping Sanitary Waste, Condensate, and Vent System
- 23 05 93 COMMISSIONING, TESTING, ADJUSTING & BALANCING
- A. Section includes commissioning process requirements for HVAC&R systems,
- assemblies, and equipment. 1.2 DEFINITIONS A. Commissioning Plan: A document that outlines the organization, schedule,
- allocation of resources, and documentation requirements of the commissioning
- process. B. CxA: Commissioning Authority.
- C. HVAC&R: Heating, Ventilating, Air Conditioning, and Refrigeration. D. Systems, Subsystems, Equipment, and Components: Where these terms are used together or separately, they shall mean "as-built" systems, subsystems,
- equipment, and components. 3.1 GENERAL TESTING REQUIREMENTS
- A. Provide technicians, instrumentation, and tools to perform commissioning test at the direction of the CxA.
- B. Scope of HVAC&R testing shall include entire HVAC&R installation, from central equipment for heat generation and refrigeration through distribution systems to each conditioned space. Testing shall include measuring capacities and effectiveness of operational and control functions.
- C. Test all operating modes, interlocks, control responses, and responses to abnormal or emergency conditions, and verify proper response of building automation system controllers and sensors.
- D. The CxA along with the HVAC&R Contractor, testing and balancing Contractor and HVAC&R Instrumentation and Control Contractor shall prepare detailed testing plans, procedures, and checklists for HVAC&R systems, subsystems, and 2.1 MANUFACTURERS
- E. Tests will be performed using design conditions whenever possible.
- Simulated conditions may need to be imposed using an artificial load when it is not practical to test under design conditions. Before simulating conditions, calibrate testing instruments. Provide equipment to simulate loads. Set simulated conditions as directed by the CxA and document simulated conditions and methods of simulation. After tests, return settings to normal operating
- G. The CxA may direct that set points be altered when simulating conditions is not practical.
- H. The CxA may direct that sensor values be altered with a signal generator when design or simulating conditions and altering set points are not practical.
- If tests cannot be completed because of a deficiency outside the scope of the HVAC&R system, document the deficiency and report it to the Owner. After deficiencies are resolved, reschedule tests.
- J. If the testing plan indicates specific seasonal testing, complete appropriate initial performance tests and documentation and schedule seasonal tests.

26 05 00 - GENERAL PROVISIONS/ ELECTRICAL

1.1 SUMMARY:

- A. The Electrical Contractor shall furnish all labor and materials required to provide a complete electrical system. Work shall include but not be limited to the following:
- 1. Electrical service entrance
- 2. Feeder conduits and conductors
- 3. Panelboards for lighting and power circuits as required
- 4. Branch circuit wiring to lighting and receptacles 5. Connections to all equipment furnished by owner and other trades
- 6. Exit and emergency lighting
- 7. Interior lighting system
- 8. Wiring devices
- 9. Grounding 10. Electrical demolition
- 11. Temporary electrical power and lighting for construction
- 12. Temporary removal of existing light fixtures to be re-installed.
- 13. Temporary electrical service entrance during construction

26 27 26 - SWITCHES AND RECEPTACLES

- 1.1 SUMMARY:
- A. The electrical Contractor shall provide all wiring devices as indicated on the Drawings. All wiring devices shall be Underwriter's listed.

26 50 00 - LIGHTING FIXTURES

1. 1 SUMMARY

A. Lighting fixtures will be furnished by the Owner. The Electrical Contractor shall receive and install all lighting fixtures required for the Project. See Division 1 Section "Scope of Work" for owner-provided light fixtures. Lighting fixtures shall be equipped with proper accessories, lenses, louvers, reflectors, shields, hangers, clips, frames, lamps, ballasts, and other essentials to properly install the fixtures and accessories in or upon walls, ceilings, or other construction features. All lighting fixtures shall be properly painted for protection and preservation appropriate to the place installed.

B. It shall be the responsibility of the Electrical Contractor to check all ceiling construction, finishes, lamping, mounting accessories, etc., as required for the approved installation of the equipment.

2. 1 MATERIAL

A. All lighting fixtures shall be as called for in the Lighting Fixture Schedule and/or noted on the Drawings. Light fixtures of equal quality, performance and finishes by alternate manufacturers may be considered for approval by the architect and engineer. Alternate light fixtures shall be submitted at least 3 working days prior to bid for review and approval.

31 12 00 - SELECTIVE SITE CLEARING

1.1 SUMMARY

- A. This Section includes the following:
- 1. Removing trees, shrubs and other vegetation.
- 2. Relocating trees, shrubs noted for relocation. 3. Clearing and grubbing.
- 4. Topsoil stripping.
- 5. Removing above-grade site improvements, fences, sidewalks, etc. 6. Disconnecting, capping or sealing, and abandoning site utilities in place.

7. Disconnecting, capping or sealing, and removing site utilities.

31 31 16 - TERMITE CONTROL 1.1 SUMMARY

- B. This Section includes the following: 1. Soil treatment with termiticide.
- 2. Wood treatment with borate.
- A. Manufacturers: Subject to compliance with requirements, provide products by
- one of the following: 1. Termiticides:
 - a. Aventis Environmental Science USA LP; Termidor.
 - b. Bayer Corporation; Premise 75.
 - c. Dow AgroSciences LLC; Sentricon d. FMC Corporation, Agricultural Products Group; Talstar.

32 13 13 - CONCRETE PAVING

- A. This Section includes exterior cement concrete pavement for the following: 1. Driveways, sidewalks, steps, and stoops.
- 2.1 STEEL REINFORCEMENT A. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from
- as-drawn steel wire into flat sheets B. Deformed-Steel Welded Wire Reinforcement: ASTM A 497, flat sheet.
- C. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420); deformed. D. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in
- place. Manufacture bar supports according to CRSI's "Manual of Standard Practice." 2.1 FIBER REINFORCEMENT A. Synthetic Fiber: Monofilament polypropylene fibers engineered and designed for use in concrete pavement, complying with ASTM C 1116, Type III, 1/2 to 1-1/2
- inches (13 to 38 mm) long. 2.2 CURING MATERIALS A. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured
- for application to fresh concrete. B. Clear Waterborne Membrane-Forming Curing Compound:
- ASTM C 309, Type 1, Class B, dissipating. 2.3 RELATED MATERIALS
- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber 2.4 CONCRETE MIXTURES
- A. Prepare design mixtures, proportioned according to ACI 301, with the following properties:
 - Compressive Strength (28 Days): 4000 psi.
- 2. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.50. 3. Slump Limit: 4 inches, plus or minus 1 inch (25 mm).
- 4. Air Content: 4-1/2 percent plus or minus 1.5 percent.

B. Synthetic Fiber: Uniformly disperse in concrete mix at manufacturer's recommended rate, but not less than 1.0 lb/cu. yd.

32 14 13- POROUS PRECAST CONCRETE UNIT PAVING

- 1.1 SUMMARY
- A. Section Includes
 - 1. Permeable interlocking concrete pavers.
- 2. Crushed stone bedding material.
- 3. Open-graded subbase aggregate. 4. Open-graded base aggregate.
- 5. Bedding and joint/opening filler materials.

7. Geotextiles.

- 6. Edge restraints.

- 2.1 PERMEABLE INTERLOCKING CONCRETE PAVERS
- A. Manufacturer: Belgard Hardscapes
- Belgard Hardscapes 1. Contact:
 - 375 Northridge Rd., Suite 350 Atlanta, GA 30350 P: 800-580-5838 W: www.belgard.biz
- B. Permeable Interlocking Concrete Paver Units:
- Pervious Paving System A Drainstone Collection a. Material Standard: Comply with ASTM C 936 [CSA A231.2]. b. Color to be selected by Owner from Manufacturer's standard colors. c. Color Pigment Material Standard: Comply with ASTM C 979. d. System to include underlayment per manufacturer's recommendation.
- 1. Pervious Paving System B Turfstone Collection a. Material Standard: Comply with ASTM C 936 [CSA A231.2]. b. Color to be selected by Owner from Manufacturer's standard colors. c. Color Pigment Material Standard: Comply with ASTM C 979.

d. System to include underlayment per manufacturer's recommendation. 32 31 29 - WOOD FENCES AND GATES

1.1 SUMMARY

- A. This Section includes the following: 1. Privacy wood fencing.
- 2.1 WOOD FENCING, GENERAL
- A. General: Comply with DOC PS 20, "American Softwood Lumber Standard," and with applicable grading rules of inspection agencies certified by ALSC's Board
- B. Preservative Treatment: Pressure treat fencing with waterborne solution to comply with AWPA C2 for above ground use.
- 1. After treatment, redry fencing to 19 percent maximum moisture content. 2. Use preservative solution without water repellents or other substances that might interfere with application of indicated finishes.

2.2 MATERIALS

- A. Fencing Species and Grade: wood species, A grade; NLGA or WWPA.
- B. Moisture Content: Provide lumber with 19 percent maximum moisture content at time of dressing.
- C. Dressing: Provide dressed lumber (S4S).
- D. End Sealer: Manufacturer's standard, transparent, colorless wood sealer that is effective in retarding the transmission of moisture at cross-grain cuts and is compatible with indicated finish.

E. Penetrating Sealer: Manufacturer's standard, transparent, penetrating wood sealer.

- F. Connectors, Anchors, and Accessories: Fabricate from structural-steel shapes, plates, and bars complying with ASTM A 36; steel bars complying with ASTM
- A 575, Grade M 1020; and hot-rolled steel sheet complying with ASTM A 570,
- 1. Provide bolts, complying with ASTM A 307, Grade A; nuts complying with ASTM A 563; and, where indicated, flat washers. 2. Hot-dip galvanize each assembly and fastener after fabrication to comply
- with ASTM A 123 or ASTM A 153.
- 3. Wood Screws: ASME B18.6.1. 2.3 FABRICATION
- A. Seal Coat: After fabricating and surfacing each unit, apply a saturation coat of penetrating sealer on surfaces of each unit, except for treated wood where the

treatment included a water repellent. 33 05 00 - GENERAL UTILITIES REQUIREMENTS

- 1.1 SUMMARY
- C. This Section includes the following: 1. Piping joining materials.

5. Grout.

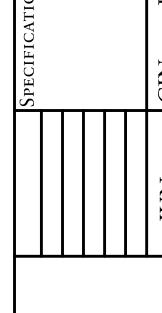
2. Dielectric fittings. 3. Sleeves.

8. Concrete bases.

4. Identification devices.

6. Piping system common requirements. 7. Equipment installation common requirements.

9. Metal supports and anchorages.



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