

SECTION 113100

APPLIANCES

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. This Section includes microwave ovens, refrigerator/freezers, dishwashers, ranges and kitchen exhaust hoods.
- B. Related Sections include the following:
 - 1. Division 12 Section "Residential Casework" for cabinets and counter tops.
 - 2. Division 21 Section "Fire Protection" for cooking suppression systems.
 - 3. Division 22 Section "Plumbing" for water distribution piping connections.
 - 4. Division 23 Section "Heating Ventilating and Air Conditioning" for exhaust requirements.
 - 5. Division 26 Section "Electrical" for services and connections to residential appliances.

1.3 SUBMITTALS

- A. Make Submittals in accordance with Division 01 Section "Submittal Procedures."
- B. Product Data: For each type of product indicated. Include operating characteristics, dimensions of individual appliances, and finishes for each appliance.
 - 1. Submit documentation indicating that all products are ENERGY STAR rated.
- C. Appliance Schedule: For appliances; use same designations indicated on Drawings.
- D. Manufacturer Certificates: From manufacturer, certifying products comply with requirements.
- E. Maintenance Data: For each product to include in maintenance manuals.
- F. Warranties: Special warranties specified in this Section.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer for installation and maintenance of units required for this Project.
- B. Manufacturer Qualifications: A qualified manufacturer. Maintain, within 20 miles of Project site, a service center capable of providing training, parts and emergency maintenance repairs.
- C. Source Limitations: Obtain residential appliances through one source.

1. Provide products from same manufacturer for each type of appliance required.
2. To the greatest extent possible, provide appliances by a single manufacturer for the entire Project.

D. **Product Options:** Information on Drawings and in Specifications establishes requirements for product's aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including preconstruction testing, field testing, and in-service performance.

E. **Regulatory Requirements:** Comply with provisions of the following product certifications:

1. **NFPA:** Provide electrical appliances listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
2. **UL and NEMA:** Provide electrical components required as part of residential appliances that are listed and labeled by UL and that comply with applicable NEMA standards.
3. **NAECA:** Provide residential appliances that comply with NAECA standards.

F. **Regulatory Requirements, Accessibility:** Where residential appliances are indicated to comply with accessibility requirements, comply with applicable requirements of the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG), and the Rhode Island State Building Code - ANSI A117.1, as amended.

1. **Operable Parts:** Provide controls with forward reach no higher than 48 inches above the floor, horizontal front reach no more than 25 inches, horizontal side reach no more than 24 inches, and that do not require tight grasping, pinching or twisting of the wrist and that operate with a force of not more than 5 lbf.
2. **Refrigerator/Freezer:** Provide 50 percent of freezer space within 54 inches of the floor.

G. **AHAM Standards:** Provide appliances that comply with the following AHAM standards:

1. **Dishwashers:** AHAM DW-DW1.
2. **Household Refrigerators:** AHAM HRF-1.

H. **Energy Ratings:** Provide residential appliances that carry labels indicating energy-cost analysis (estimated annual operating costs) and efficiency information as required by the FTC Appliance Labeling Rule.

1. Provide appliances that qualify for the EPA/DOE ENERGY STAR program.

I. **Pre-installation Conference:** Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

1.5 WARRANTY

A. **Special Warranties:** Manufacturer's standard form in which manufacturer of each appliance specified agrees to repair or replace residential appliances or components that fail in materials or workmanship within specified warranty period.

1. **Microwave Oven:** Five-year limited warranty for in-home service on defects in the magnetron tube.

2. Electric Range: Five-year limited warranty for in-home service on surface burner elements.
3. Refrigerator/Freezer: Five-year limited warranty for in-home service on the sealed refrigeration system.
4. Kitchen Exhaust Hood: Five years warranty on ventilator motors and lifetime warranty on stainless steel.
5. Dishwasher: 10-year warranty for in-home service against deterioration of tub/door liner.
6. Other items not identified above: One-Year.

PART 2 - PRODUCTS

2.1 COOKING APPLIANCES

A. Microwave Oven:

1. Basis-of-Design Product: Countertop mounted microwave Model No. PEM31DMBB by General Electric Company or a comparable product by one of the following:
 - a. Amana Appliances.
 - b. KitchenAid.
 - c. Maytag.
2. Standard features include the following:
 - a. Oven Capacity: 1.0 cu. ft.
 - b. Oven Features: Digital control panel w/timer display, turntable, temperature probe.
 - c. Built-in incandescent lighting.
 - d. Electrical Power: 800 W.
 - e. Oven Door: Counter-balanced with observation window.
 - f. Color: Black.

2.2 REFRIGERATION APPLIANCES

A. Refrigerator/Freezer:

1. Basis-of-Design Product: General Electric Company Energy Star 18.0 Cu. Ft. Top-Freezer Refrigerator Model No. GSS25GFXBB or a comparable product by one of the following:
 - a. Amana Appliances.
 - b. Maytag.
 - c. KitchenAid.
 - d. Whirlpool Corporation.
2. Standard Features include the following:
 - a. Type: Freestanding, frost-free with freezer on top.
 - b. Compartment Storage: Vegetable crisper, meat compartment.
 - c. Door Storage: Dairy compartment, modular compartments.
 - d. Interior light in compartment.
 - e. Automatic icemaker and storage bin.
 - f. Circulator fan.
 - g. Temperature Controls: Separate temperature controls for each compartment.
 - h. Color: Black.

2.3 CLEANING APPLIANCES

A. Dishwasher:

1. Basis-of-Design Product: General Electric Company; Model No. PDW1800NBB or a comparable product by one of the following:
 - a. Amana Appliances.
 - b. KitchenAid.
 - c. Maytag.
 - d. Whirlpool Corporation.
2. Complying with AHAM DW-1 and ASSE 1006.
3. Type: Built-in under the counter, 18 inches wide by 32 inches high by 23 inches deep, operable at water pressures from 15 to 120 psi.
4. Tub and Door Liner: Manufacturer's standard.
5. Detergent Dispenser: Sealed automatic rinsing-aid dispensers in door.
6. Rack System: Nylon-coated sliding dish racks, with removable cutlery basket.
7. Controls: Solid-state, electronic, press-to-start type.
8. Sound Level: Maximum 42 dB.
9. Self-cleaning food-filter system.
10. Hot-water booster heater for 140 deg F wash water with incoming water at 100 deg F.
11. Digital display panel.
12. Energy Performance, ENERGY STAR: Provide appliances that qualify for the EPA/DOE ENERGY STAR product labeling program.
13. Front Panel: Manufacturer's standard.
14. Appliance Color/Finish: Black.

2.4 RANGES

- A. Basis-of-Design Product: General Electric Company; Model No. JSP42DNBB or a comparable product by one of the following:
 1. Amana; a division of Whirlpool Corporation.
 2. Maytag.
 3. Whirlpool Corporation.
- B. Electric Range: Freestanding range with one oven and complying with AHAM ER-1.
 1. Width: 30 inches.
 2. Electric Burner Elements: Four.
 3. Anti-Tip Device: Manufacturer's standard.
 4. Electric Power Supply: 208 V, 60 Hz, 1 phase, 30 A.
 5. Material: Ceramic-glass cook top.
 6. Color/Finish: Black.

2.5 KITCHEN EXHAUST HOOD/VENTILATION

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Model VWH4248 Wall Hood, professional Series by Viking Range.
 1. Type: Wall-mounted exhaust-hood system with integral halogen lights and heat sensor.
 2. Size: 42 inches wide by 24 inches deep.
 3. Exhaust Fan: Variable-speed fan built into hood and with 600-cfm capacity.

- a. Venting: Vented to outside through wall with weatherproof wall cap, backdraft damper and rodent-proof screening.
- b. Fan Control: Wall-mounted fan switch, with separate hood-light control switch.
4. Duct Type: Manufacturer's standard.
5. Finish: Brushed stainless steel.
6. Features: Permanent, washable aluminum mesh filter and built-in lighting.
7. Options: Provide the following:
 - a. In-line ventilator kit, Model #VIV-600.
 - b. Duct hood extension to match hood to cover gap between soffit and hood.
 - c. Stainless steel backsplash between cook surface and hood.
8. Coordinate installation of Ansul system with mechanical and fire protection contractors.

2.6 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Stainless-Steel Finish: Provide appliances with manufacturer's standard finish complying with manufacturer's written instructions for surface preparation including ground and polished stainless-steel surfaces for uniform, directionally textured finish.
- D. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances, power connections and other conditions affecting installation and performance of appliances.
- B. Examine roughing-in for piping systems to verify actual locations of piping connections before appliance installation.
- C. Examine walls, ceilings, cabinets and roofs for suitable conditions where overhead exhaust hoods will be installed.
- D. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Comply with manufacturer's written instructions.
- B. Built-in Equipment: Securely anchor units to supporting cabinets or countertops with concealed fasteners. Verify that clearances are adequate for proper functioning and rough openings are completely concealed.
- C. Freestanding Equipment: Place units in final locations after finishes have been completed in each area. Verify that clearances are adequate to properly operate equipment.
- D. Range Anti-Tip Device: Install at each range according to manufacturer's written instructions.
- E. Utilities: Refer to Divisions 21 through 26 for fire protection, plumbing, mechanical and electrical requirements.

3.3 FIELD QUALITY CONTROL

- A. Remove packing material from residential appliances and leave units in clean condition, ready for operation.
- B. Tests and Inspections:
 - 1. Test each appliance to verify proper operation. Make necessary adjustments.
 - 2. Verify that accessories required have been furnished and installed.
 - 3. Perform visual, mechanical and electrical inspection and testing for each appliance according to manufacturers' written recommendations. Certify compliance with each manufacturer's appliance-performance parameters.
 - 4. Leak Test: After installation, test for leaks. Repair leaks and retest until no leaks exist.
 - 5. Operational Test: After installation, start units to confirm proper operation.
 - 6. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and components.
 - 7. Prepare test and inspection reports.
- C. An appliance will be considered defective if it does not pass tests and inspections.

3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain residential appliances. Refer to Division 01 Section "Demonstration and Training."

3.5 APPLIANCE SCHEDULE

- A. Refrigerator/Freezer and Microwave: Provide one each in Kitchen #103, Pantry #217 and Pantry #303.
- B. Range, Hood and Dishwasher: Provide one each in Kitchen #103.

END OF SECTION 113100