

# PROJECT MANUAL SPECIFICATIONS

*for the Proposed*

## **Bottineau Ridge III - 50 Unit Apartment**

**80<sup>th</sup> Avenue North**

**Maple Grove, MN 55369**

### ARCHITECT

COLE GROUP ARCHITECTS, LLC  
216 Park Avenue South Suite 102  
St. Cloud, MN 56301  
(320) 654-6570 Office  
Norm Cole / David Majchrzak  
[norm@colegrouparchitects.com](mailto:norm@colegrouparchitects.com)  
[david@colegrouparchitects.com](mailto:david@colegrouparchitects.com)

### GENERAL CONTRACTOR

To Be Determined  
STREET  
City, State Zip  
(xxx) xxx-xxxx Office  
Project Manager  
[email@xx.com](mailto:email@xx.com)

### STRUCTURAL ENGINEER

SANDMAN STRUCTURAL ENGINEERING  
1587 30<sup>th</sup> Ave S  
Moorhead, MN 56560  
(218) 227-0022 Office  
Nathan Hoffman, P.E.

### ELECTRICAL ENGINEER (Performance Outline)

LINDELL ENGINEERING  
3411 Kilmer Lane North  
Minneapolis, MN 55441  
(763) 354-1098  
Jay Jagerson

### CIVIL ENGINEER

LOUCKS  
7200 Hemlock Lane Suite 300  
Maple Grove, MN 55369  
(763) 424-5505  
Clark Lohr

### MECHANICAL ENGINEER (Performance Outline)

LINDELL ENGINEERING  
3411 Kilmer Lane North  
Minneapolis, MN 55441  
(763) 542-9163  
Tim Johnson

### GEO-TECHNICAL ENGINEER

BRAUN-INTERTEC CORP.  
11001 Hampshire Avenue S  
Minneapolis, MN 55438  
(952) 995-2000 Office  
Bradley McCarter

### INTERIOR DESIGNER/FF&E

DUFFY DEVELOPMENT COMPANY

### FIRE ALARM & SUPPRESSION

DESIGN-BUILD

### DEVELOPER

DUFFY DEVELOPMENT COMPANY  
12708 Wayzata Blvd Suite 400  
Minnetonka, MN 55305  
(952) 544-6769  
Jeff Von Feldt

January 26th, 2021  
Bid Set  
Addendum #1

**Bottineau Ridge III – 50 Unit  
Specifications Table of Contents**

<u>Division</u>	<u>Section and Title</u>	<u>Page</u>
<b><u>080000-DOORS and WINDOWS</u></b>		
081100	Prefinished Steel Doors and Window Frames_____	081100-----1-4
081300	Standard Steel Doors_____	081300-----1-3
081400	Interior Wood Doors _____	081400-----1-3
081450	Pre-hung Wood Doors _____	081450 -----1-3
083100	Access Doors & Panels_____	083100-----1
083600	Power Operated Overhead Doors_____	083600-----1-2
084313	Aluminum Framed Storefront Doors _____	084313-----1-2
085300	Vinyl Windows_____	085300-----1-2
087000 - 087100	Finish Hardware, Weather stripping, Thresholds____	087000-----1-11
088000	Glazing_____	088000-----1-2
<b><u>090000 FINISHES</u></b>		
090000	Verify ALL FINAL product selections with Interior Designer _____	090000----- 1-8
092500	Gypsum Board Systems_____	092500----- 1-2
093000	Tiling _____	093000----- 1-4
095100	Suspended Acoustical Ceilings_____	095100-----1-2
096500	Resilient Flooring_____	096500----- 1-2
096570	Composite Decking _____	096570----- 1-4
096880	Carpeting_____	096880-----1-2
099000	Painting_____	099000----- 1-3
<b><u>100000 SPECIALTIES</u></b>		
101100	Visual Display Boards_____	101100-----1-2
101400	Identifying Devices _____	101400-----1
103100	<span style="border: 1px solid red; border-radius: 50%; padding: 2px;">A</span> Gas Fireplaces_____	103100----- 1
105220	Fire Extinguishers and Cabinets_____	105220-----1
105513	Mailboxes_____	105513-----1
105700	Wire Shelving_____	105700-----1
108000	Bath Accessories_____	108000-----1-2
109900	Miscellaneous Specialties _____	109900-----1
<b><u>110000 EQUIPMENT</u></b>		
112000	Residential Appliances – Energy Star _____	112000-----1-45
<b><u>120000 FURNISHINGS</u></b>		
122100	Horizontal Louver Blinds _____	122100 -----1
122111	Vertical Blinds _____	122111-----1
123500	Residential Casework _____	123500 -----1-2
123600	Countertops _____	123600 -----1-2
<b><u>140000 CONVEYING DEVICES</u></b>		
142000	Elevator _____	142000-----1-6
14918	Trash Chutes_____	149180-----

A

**Bottineau Ridge III – 50 Unit  
Specifications Table of Contents**

<b>Division</b>	<b>Section and Title</b>	<b>Page</b>
-----------------	--------------------------	-------------

**150000 MECHANICAL/PLUMBING**

150000 - 152700	Mechanical/Plumbing <b>PERFORMANCE SPECS ONLY by LINDELL</b> (DESIGN-BUILD)----by Lindell Engineering	
-----------------	--	--

**160000 ELECTRICAL**

160000 - 160090	Electrical Specs <b>PERFORMANCE SPECS ONLY by LINDELL</b> (DESIGN-BUILD)-----by Lindell Engineering	
-----------------	--	--

**31000 EARTHWORK**

**LOUCKS- CIVIL**

310000	Earthwork
311000	Site Clearing
312200	Grading
312316	Excavation
312323	Fill
316600	Retaining Wall

**320000**

**SITE IMPROVEMENTS**

321216	BITUMINOUS PAVING
321600	CONCRETE: Pavement, Curb, Gutter, Sidewalk
323100	FENCING & GATES
323223	SEGMENTAL REATINING WALLS
328000	LANDSCAPE IRRIGATION
329119	LANDSCAPE GRADING
329219	SEEDING & SODDING
329300	LANDSCAPE Trees & Plants, etc.

**330000**

**UTILITIES**

330000	UNDERGROUND UTILITIES
--------	-----------------------

A

DATE: \_\_\_\_\_(month) \_\_\_\_\_(day), 2021

TO: \_\_\_\_\_

BIDDER (Individual Name & Company Name): Please type or print

1. The undersigned, having become thoroughly familiar with the terms and conditions of the proposed Contract Documents, each entitled, The Bottineau III Housing, **Project No. 19027, dated January 6, 2021**, as prepared by Cole Group Architects LLC, and with local conditions affecting the performance and costs of the Work at the place where the Work is to be completed as scheduled in strict accordance with the proposed Contract Documents, for the following sum of money:

**A. BASE BID : Include upgraded appliances in community room; Refer to Division 09000 Product Guidelines provided by Owner for Phase 2. Also provide 4 extra appliances and A/C units for backup purposes:**

The Sum of \_\_\_\_\_

Dollars (\$) \_\_\_\_\_

THIS PROJECT IS PARTICIPATING IN IMPLEMENTING MINNESOTA HOUSING FINANCE AGENCY SUSTAINABLE HOUSING POLICIES, most notably the MN Overlay to the Green Communities Criteria, which can be referenced at [www.greencommunitiesonline.org/minnesota](http://www.greencommunitiesonline.org/minnesota). These include the required criteria as stated below as a minimum acceptable standard prior to approval.

Coordinate below with MFHA green criteria list:

**B. ALTERNATE SCHEDULE: 9 Alternates**

ALTERNATE #1: (DEDUCT or ADD ) Foundation Wall Design \_\_\_\_\_ Dollars (\$)

- Base Bid: CIP wall with rock block veneer like Phase II
- Alternate 1-a: Precast Wall Panel w/ stencil finish to match PH II
- Alternate 1-b: Block wall w/ rock face finish where it’s exposed to match PH II

ALTERNATE #2: (DEDUCT or ADD ) \_\_\_\_\_ Dollars (\$)

- Alternate 2: Provide Bike Storage for up to \_\_\_\_\_ bicycles. Verify bicycle count with Developer. 4-foot Garage storage shelf and bike rack with ladder hooks by TidyGarage (\$76.99 each) or approved equal. A

ALTERNATE #3: (DEDUCT or ADD ) \_\_\_\_\_ Dollars (\$)

- Alternate 3: Fencing to secure electrical switchgear. 6'-0" high with 4'-0" gate A

ALTERNATE #4: (DEDUCT or ADD ) \_\_\_\_\_ Dollars (\$)

- Alternate 4: Provide R-21 Spray Foam Insulation in stud wall cavity in lieu of Batt insulation.

ALTERNATE #5: (DEDUCT or ADD ) \_\_\_\_\_ Dollars (\$)

- Alternate 5: Provide Geotextile fabric under all asphalt.

ALTERNATE #6: (DEDUCT or ADD ) \_\_\_\_\_ Dollars (\$)

Alternate 6: Furnish and install Slant Fin Fineline 30 fin tube radiation in lieu of Slant Fin HD series as specified for the base bid in section 15170.

**B. ALTERNATE SCHEDULE: 9 Alternates**

**BASE BID** A \_\_\_\_\_ Dollars (\$)  
 Provide a price to make arrangements with Utility Management Solutions to install individual meters and all equipment required to remotely read hot and cold water meters. All costs for meters, equipment and installation shall be paid for by the mechanical contractor under this alternate.

**ALTERNATE #8: (DEDUCT or ADD )** \_\_\_\_\_ Dollars (\$)  
 Alternate 8: Provide a ceiling fan in each living room.

**ALTERNATE #9: (DEDUCT or ADD )** \_\_\_\_\_ Dollars (\$)  
 Alternate 9: Provide fire hydrant at building front. See Exhibit #1 A

**Alternate #10: (DEDUCT or ADD)** \_\_\_\_\_ Dollars (\$)  
 Alternate #10: Provide a ceiling feature at the top of two story lobby similar to detail 1/A110. See second floor RCP on sheet A110 to reference location. A

**Alternate #11: (DEDUCT or ADD)** \_\_\_\_\_ Dollars (\$)  
 Alternate #11: Provide microwave above the range hood in lieu of the recessed opening in the pantry. Finish recessed opening like the rest of the pantry. A

**C. ALLOWANCES SCHEDULE: Coordinate with MHFA Green Communities Criteria.**

- C-1. Playground Equipment: Provide a \$25,000.00 allowance** for furnishing and installation of playground equipment.
- C-2. Playground Surfacing: Provide a \$25,000.00 allowance** for furnishing and installation of playground surfacing.
- C-3. Lobby Mural: Provide a \$4,000 allowance** for large mural in lobby; verify design specs with owner.

2. It is understood that the Owner reserves the right to reject any or all bids without explanation, to waive irregularities, and to accept any bid other than the lowest bid, at his discretion. This bid shall remain open and to be withdrawn for a period of 30 days from the date prescribed for its opening.

3. Notice of acceptance, or request for additional information, may be addressed to the undersigned at the address set forth on following page.

4. Successful bidder shall execute the form of Contract, furnish a certificate of insurance and furnish a Performance Bond and Labor and Material Payment Bond each in the amount of the Contract within ten (10) days of receiving written Notice of Award as security for the construction and completion of the Work in accordance with the terms of the Contact, plans and specifications.

5. All Federal, State or Local Taxes are applicable to this work and are included in the Base Bid.

6. Bidder certifies that this proposal is made and submitted without fraud or collusion with any other persons, firm or corporation. Bidder hereby declares that he has carefully examined all Bidding and Contract Documents, Plans and Specifications, and that he has personally inspected the actual location of the work and local sources of supply, has satisfied himself as to all the quantities and conditions, and understands that in signing this Bid he waives all right to plead any misunderstanding regarding the same.

7. Time of Completion.

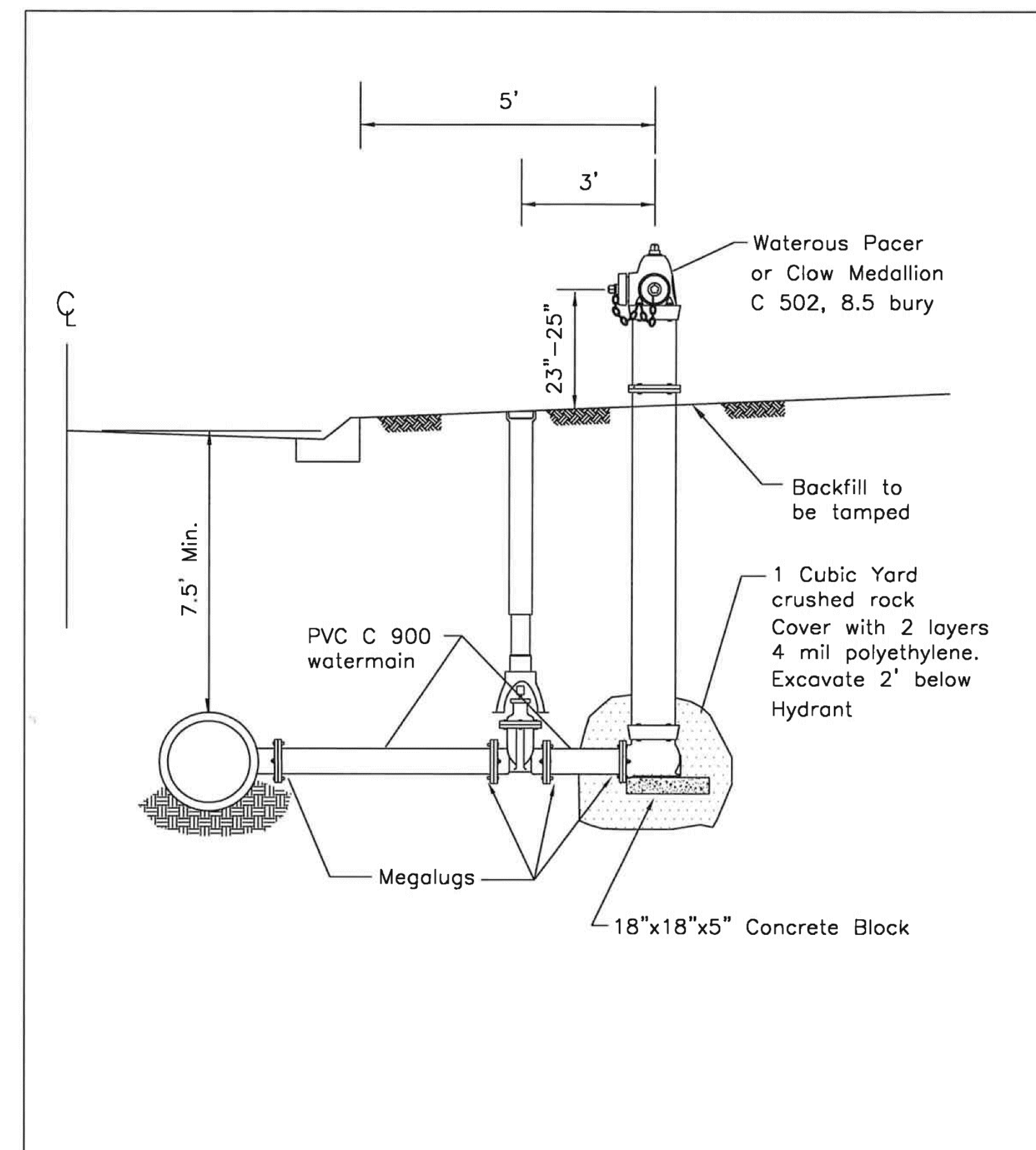
I (We) do hereby propose to complete all work described in the plans and specifications \_\_\_\_\_ days after notice to proceed.

8. Refer to spec section 00 73 80 for liquidated damages.

**Exhibit #1**

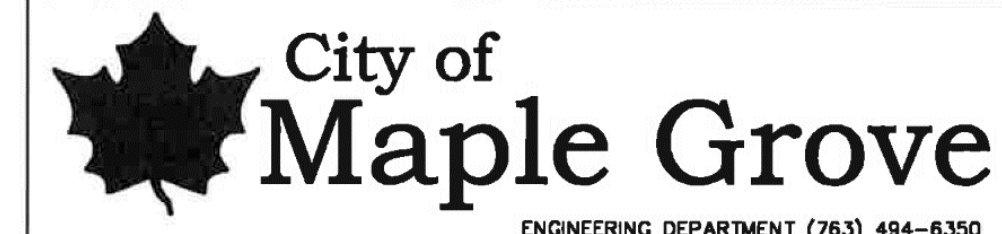
**UTILITY NOTES**

- SEE SHEET C4-1 FOR UTILITY PLAN NOTES



AJH 4/08

NOT TO SCALE



ENGINEERING DEPARTMENT (763) 494-6350

**VALVE AND HYDRANT  
INSTALLATION**

Last Revision  
Jan 2009

Plate Number  
1005

**CADD QUALIFICATION**

CADD files prepared by the Consultant for this project are instruments of the Consultant's professional services for use solely with respect to this project. These CADD files shall not be used on other projects, for additions to this project, or for completion of this project by others without written approval by the Consultant. With the Consultant's approval, others may be permitted to obtain copies of the CADD drawing files for information and reference only. All intentional or unintentional revisions, additions, or deletions to these CADD files shall be made at the full risk of that party making such revisions, additions or deletions and that party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims, and liabilities.

**SUBMITTAL/REVISIONS**

10/12/20	PUD APPLICATION
11/18/20	CITY COMMENT RESPONSE
01/12/21	FIRE HYD BID ALT

**PROFESSIONAL SIGNATURE**

I hereby certify that this plan, specification, report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer in the State of Minnesota.

**PRELIMINARY  
NOT FOR  
CONSTRUCTION**

**QUALITY CONTROL**

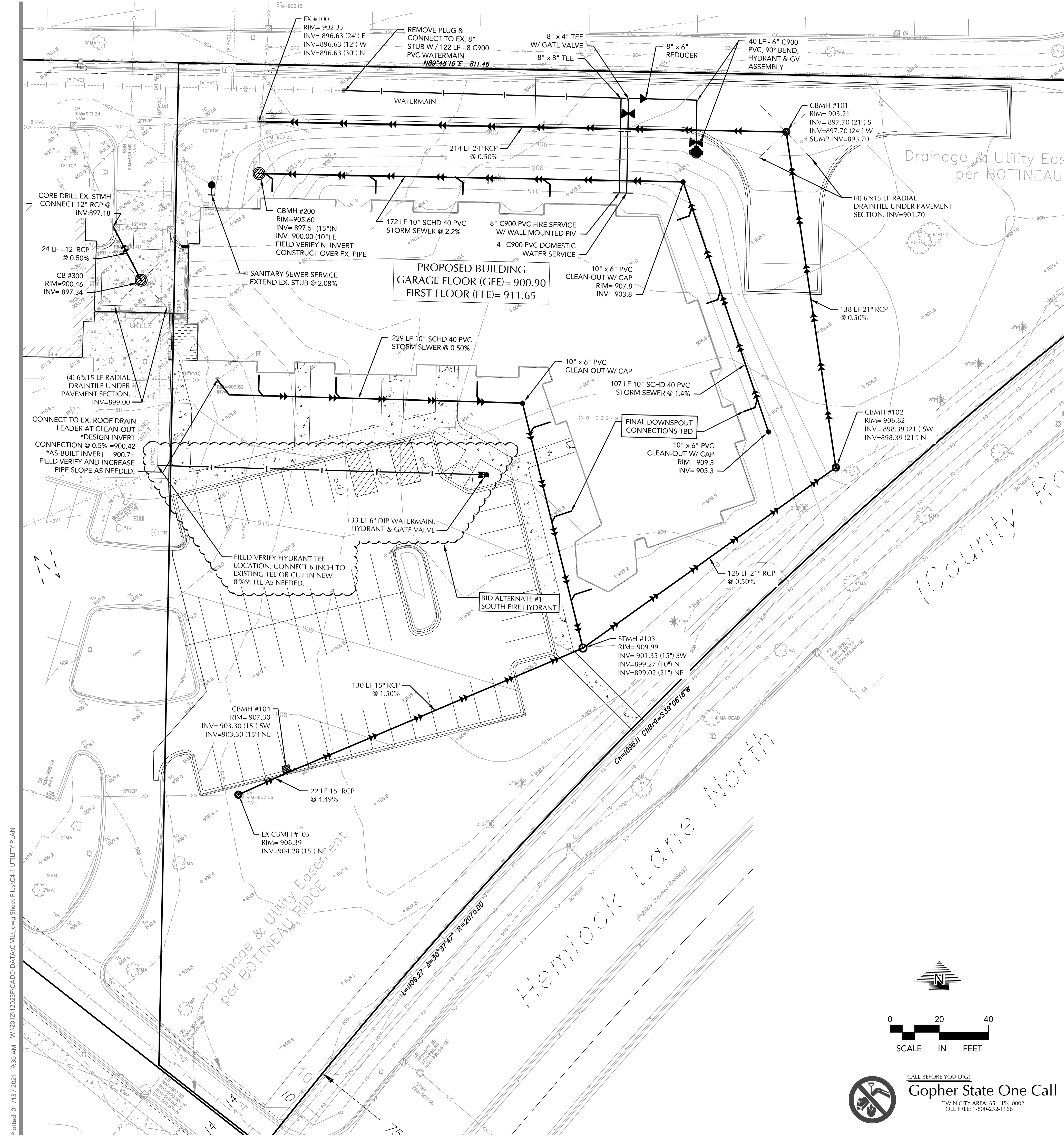
Locucks Project No.	12023F
Project Lead	MJS
Drawn By	GAJ
Checked By	MJS
Review Date	10/09/20

**SHEET INDEX**

C1-1	BOUNDARY SURVEY
C1-2	TOPOGRAPHIC SURVEY
C1-3	PRELIMINARY PLAN
C1-4	FINAL PLAN
C1-5	SITE DEMOLITION PLAN
C2-1	SITE PLAN
C3-1	GRADING PLAN
C3-2	SWPPP PLAN
C3-3	SWPPP NOTES & DETAILS
C4-1	UTILITY PLAN
C8-1	CIVIL DETAILS
C8-2	CIVIL DETAILS
L1-1	LANDSCAPE PLAN
L2-1	LANDSCAPE DETAILS

**FIRE HYDRANT  
UTILITY  
PLAN BID  
ALTERNATE**

**C4-1A**



Plotted: 01/13/2021 9:30 AM W:\2021\12023F\CADD DATA\CIVIL.dwg Sheet Files\C4-1 UTILITY PLAN

C#	M/O	Criteria Title	Criteria Description	How Will Criteria Be Implemented? And, where in the plans, specifications, or other place will compliance be documented?	Intent to Comply				
					Yes	No	N/A	WR	OP

### 5. Energy Efficiency Category

5.1a	M	<b>Building Performance Standard: NC Energy Star for Homes</b> (Mandatory for NC, Single Family and Low-rise MF)	Certify each dwelling unit in the project through the ENERGY STAR New Homes or Multifamily New Construction (MFNC) program.	We will certify each dwelling to EnergyStar New Homes.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1b	M	<b>Building Performance Standard: NC ASHRAE 90.1/Energy Star MFHR</b> (Mandatory for NC 4 & 5 + NC 6 Story or more)	Follow one of Three Compliance Pathways: 1) Buildings 4 Stories or more WITH Heated Garage 2) Buildings 4 Stories or more WITHOUT Heated Garage 3) Buildings with up to 5 Stories (dwelling units with own heating, cooling, and hot water heating) WITH or WITHOUT a Heated Garage Or, follow the ENERGY STAR Multifamily New Construction (MFNC) program.	We will follow the prescriptive design for buildings <u>without heated garages.</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1c	M	<b>Building Performance Standard</b> (Mandatory for Sub/Gut and Mod Rehab: Single Family and Low-rise Multifamily)	For Sub/Gut Rehab, each dwelling unit, achieve a HERS Index score of 85 or less. For Mod Rehab, Performance Pathway HERS 85 or 100; OR, MN Overlay Prescriptive Pathway.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1d	M	<b>Building Performance Standard:</b> (Mandatory for Sub/Gut and Mod Rehab: Mid-rise and High-rise Multifamily)	For Sub/Gut Rehab, each dwelling unit, follow a Performance Pathway and demonstrate equivalent Performance to ASHRAE 90.1-2010. For Mod Rehab, each dwelling unit, follow Performance Pathway; OR, Prescriptive Pathway.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2a	5 - 12	<b>Additional Reductions in Energy Use</b>	Design and construct a building that is projected to be at least 5% more efficient than what is required of the project by Criteria 5.1a-d. (Projects may receive points in Criteria 5.2a or 5.2b, but not both)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2b	12	<b>Advanced Certification: Net Zero</b>	Certify the project in a program that requires advanced levels of building envelope performance such as PHIUS, Living Building Challenge and/or DOE Zero Energy Ready Home. (Projects receiving points in Criterion 5.2b may not receive points per Criterion 5.2a)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Key to Column Headers:

C# = Criteria Number, M/O = Mandatory Criterion or Optional Criteria Points,  
N/A = Not Applicable, WR = Waiver Request, OP = Selected Optional Points

**Optional Universal Design Features** [Eight (8) minimum new construction/ adaptive re-use; for (4) minimum rehab.]

Item	Included	
High contrast finish selections that include floor to wall transitions, top treads of stairs, counters and adjacent flooring and walls	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Single lever, hands free, or touch type faucets are provided throughout the UD dwelling unit	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
At least 50% of kitchen storage space is within reach ranges from pull-out shelves, full extension glide drawers, or is within a roll-in pantry	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
A variety of work surface heights and one five foot open radius in the kitchen	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Roll under vanity or sink in 25% of UD qualifying units, rounded up to the nearest whole number	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Cabinet hardware with “D” type pull handles or operation for people with limited dexterity	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Zero threshold shower or transfer space at tub is provided at a minimum of half the qualifying UD units, rounded up to the nearest whole number	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Slip resistant flooring in kitchens and baths in the UD dwelling units *	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Toilets provided with seats that are 17” – 19” from the floor	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Windows are provided with a maximum sill height of 36”, parallel approach, clear floor space and locks/operating mechanism within 48” and easily operable with one hand. Sidelight or view window at main entry door from a seated position	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Thermostats are designed for visually impaired or have the ability to be monitored and operated with an electronic device such as a tablet computer	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Majority of closets within UD units must have shelving that is adjustable <b>OR</b> provide multiple shelving/hanger rod configuration whereby majority of shelving/hanger rods are within one of the reach ranges of the Minnesota Accessibility Code – Section 308	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
An audio/visual doorbell is included at all main dwelling unit entry doors	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
A covered canopy with adequate lighting is provided at exterior main unit entry. An interior or exterior bench space for parcels or groceries is provided	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Parking spaces for at least 50% of the UD units (rounded up to the nearest whole number).	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Include a five (5) foot wide adjacent auxiliary space (access aisle) connected to an accessible route	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Residential elevator or chair lift space structured for future use in multiple level homes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Enterprise Green Communities Model Specifications are used for applicable sections in the UD units.	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
On-site accessible physical activity is provided via a fitness area, biking path, walking path or community garden	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes
Other modifications that make units livable for disabled populations, as demonstrated with credible evidence. Approval is at the sole discretion of Minnesota Housing	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes

No  Yes



**\* Guidance**

Slip resistance – tile products: Use slip resistant tile with coefficient of friction of 0.60 or greater (wet) as identified by the Ceramic Tile Institute. Consider smaller or mosaic tiles on floors in wet areas to increase traction provided by grout lines and to provide greater control in establishing proper drainage slopes for floor drains. Use matt finishes in product choice to eliminate glare.

Slip resistance sheet vinyl products: Refer to a manufacturer’s enhanced slip retardant surfaces. Use matt finishes in product choice to eliminate glare.

**Comments**

Provide additional comments or support to answers from the questions above, as needed.

**PART 1 GENERAL****1.1 DESCRIPTION**

- A. This Section describes the limits of the requested alternates to the Contract work. Refer to the Product/Execution Articles of the appropriate Specifications and the Drawings for information pertaining to the work of each alternate.
- B. Each proposal under an alternate shall include all incidental work and all adjustments necessary to accommodate the changes. All work shall meet the requirements of the Drawings, Specifications and appropriate details.
- C. Submit each alternate proposal as an individual cost for the particular alternate and shall be proposed under the premise that no other alternates have been accepted. Should the work of an alternate called for by the Bid Form not affect the cost of the work, state "No Change" in the space provided. If an alternate is left blank, the Owner reserves the right to throw out the entire bid or interpret the alternate as "No Change".
- D. Include taxes which are applicable to work involved in alternates as well as costs, if any, for increased coverage of bonds and insurance.
- E. Any of the alternates may be accepted by Owner and will be used in determining the low bidder.
- F. Owner may, at his option, vary the scope of the work by authorizing alternates which will add to the work, deduct from the work or substitute materials, equipment or methods.
- G. Each Bidder shall examine the Drawings and Specifications to determine the extent to which his work is affected by bid alternates. Include in the space provided on the bid form the cost of any added or deducted work resulting from each alternate.
- H. Contractor is responsible for providing work if applicable to each alternate, whether or not an added or deducted cost is included on his bid form.

**PART 2 PRODUCTS****2.1 IMPLEMENTATION**

- A. If the Owner elects to proceed on the basis of one or more of the alternates, make all modifications to the Work required in the furnishing and installation of the selected alternate or alternates subject to the approval of the Architect at no additional cost to the Owner except as proposed in the Bid.
- B. Coordinate pertinent related work and modify surrounding work as required to properly integrate the work under each alternate, and to provide the complete construction required by Contract Documents.
- C. If so stated in the Agreement or modifications thereto, provide alternate materials, equipment and/or construction as specified.

**2.2 ALTERNATES SCHEDULE: 9 Alternates**


Refer to Page 17 for Alternates

**PROJECT SCOPE****A. SECTION INCLUDES Construction Waste Recycling**

- 1.1. Reuse & Recycling Goals
- 1.2. Material Handling Procedures.
- 1.3. Segregated Dumpsters definitions.
- 1.4. Education and Training
- 1.5. Waste Auditing Procedures

**1.1 Reuse and Recycling Goals and Intent for construction waste recycling are as follows:**

- a. Reduce and Reuse: It is intended that the project shall generate the least amount of waste possible and that methods shall be used that minimize waste due to error, poor planning, breakage, mishandling, contamination, or similar factors.

- b.  Recycle: 50% of construction waste must be diverted to recycling per EGCC 6.12

**1.2. Materials Handling Procedures**

- a. All Contractors and subcontractors are required to abide by the guidelines stated below. All contractors will use dumpsters provided by the General Contractor. The General Contractor shall provide and pay for these dumpsters. The General Contractor shall provide receipts to the owner to show recycling amounts. In doing so, the owner will be able to effectively track all materials entering the landfill or being recycled providing us with the most accurate reporting.
- b. Method Site Separation: This project will use the site separation method. Dumpsters will be placed on site, each one containing a different product. The workers on site will be responsible for placing the correct material in the correct dumpster. Each dumpster shall be labeled with easy to understand signs explaining what material belongs in that dumpster.  
If a contractor contaminates a dumpster, that contractor will be responsible for any additional costs associated with re-sorting that dumpster and/ or additional tipping fees. This will be coordinated by the General Contractor.

**1.3. Segregated Dumpsters and Material Definitions and Examples Recyclable Material Commingled Recyclables:**

- a. Definition: bottles, cans, paper ,etc. that qualify as acceptable household recyclables
- b. Includes but not limited to: pop bottles, pop cans, office paper, newspaper, etc.
- c. Concrete, Brick and Masonry: Definition: any concrete, asphalt, and brick material with minimum rebar  
Includes but not limited to: concrete slabs/ footings/ etc., block, brick, asphalt, masonry, etc.
- d. Cardboard: Definition: any non-contaminated corrugated cardboard. Notebook covers/ cereal box type cardboard is not corrugated and NON-Recyclable. Includes but not limited to: boxes from materials, equipment, etc.
- e. Metal: Definition: any clean/bare metal products. Includes but not limited to: duck work, metal piping, bare metal light fixtures, ceiling tile grid, wire, steel door frames, metal hardware, etc.
- f. Wood: Definition: any non-treated, non-painted, clean dimensional lumber/wood.  
Includes but not limited to: pallets, crates, wood studs, etc.
- g. Disposed Material Construction & Demolition Debris (C&D): Definition: Waste or debris generated solely from construction of pavement, building or other structures. Includes but not limited to: ceiling tile, floor tile, gypsum board, insulation, shingles, windows, etc.
- h. Municipal Solid Waste (MSW): Definition: any garbage or refuse. The non-hazardous material that cannot be recycled, or disposed of in a C&D landfill. Included but not limited to: Lunch garbage, carpet pad, treated lumber, job trailer waste that cannot be recycled, etc.

**1.4 Education and Training:**

A kickoff meeting explaining that waste management plan shall be held at the beginning of the project, during the pre-construction meeting. The waste management plan and implementation shall also be discussed at all regular job site meetings, during work orientation, and on an ongoing basis on the job site.

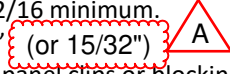

**1.5. Waste Auditing Procedures:**

Contractors and subcontractors are responsible for daily site cleanup and ensuring that all containers are kept free of contamination. The owner shall be responsible for dumpster inspections, any dumpsters contaminated should be re-sorted. It's very important to eliminate dumpster contamination to a)avoid additional disposal fees and b)lower recycling rates.

**2.4 DIMENSION LUMBER FOR CONCEALED APPLICATIONS**

- A. Grading Agency: Southern Pine Inspection Bureau, Inc; SPIB (GR).
- B. Sizes: Nominal sizes as indicated on drawings, S4S.
- C. Moisture Content: S-dry or MC19.
- D. Stud Framing (2 by 2 through 2 by 6 (50 by 50 mm through 50 by 150 mm) ):
  - 1. Species: Spruce-Pine-Fir.
  - 2. Grade: No. 2.
- E. Joist, Rafter, and Small Beam Framing (2 by 6 through 4 by 16 (50 by 150 mm through 100 by 400 mm) ):
  - 1. Machine stress-rated (MSR) as follows:
    - a. Fb-single (minimum extreme fiber stress in bending): 1350 psi (9,300 kPa).
    - b. E (minimum modulus of elasticity): 1,300,000 psi (8960 MPa).
  - 2. Species: Spruce-Pine-Fir (South).
- F. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring <WD BLKG>:
  - 1. Lumber: S4S, No. 2 or Standard Grade.
  - 2. Boards: Standard or No. 3.

**2.5 CONSTRUCTION PANELS**

- A. General Wood Panel Products:
  - 1. Thickness: As needed to comply with requirements specified, but not less than thickness indicated.
  - 2. Factory mark panels to indicate compliance with applicable standards.
- B. Floor Sheathing <WD SHTG-1>: APA PRP-108, Rated Sturd-I-Floor, unless otherwise noted on drawings.
  - 1. Bond Classification: Exposure 1.
  - 2. Span Rating: 16.
  - 3. Edges: Tongue and groove.
  - 4. Thickness: 3/4 inch.
- C. Roof Sheathing <WD SHTG-14>: Oriented strand board wood structural panel; PS 2.
  - 1. Grade: Structural 1 Sheathing.
  - 2. Performance Category: 1/2 PERF CAT. with H-Clips.
- D. Wall Sheathing <WD SHTG-#>: Oriented strand board, PS 2, Structural I Rated Sheathing, Exterior Exposure Class, unless otherwise noted on drawings, and as follows:
  - 1. <WD SHTG-20>: 15/32 inch thick.
  - 2. <WD SHTG-24>: 3/4 inch thick.
- E. Fiberglass Reinforced Plastic (FRP) Panels <FRP PNL-10>:
  - 1. Product: P100 - Pebble Surface by Marlite FRP or approved equal.
  - 2. Color: As selected from manufacturer's full range.
  - 3. FRP Trim and Fasteners: Same color, finish, and manufacturer as FRP panel, provide all matching trim needed for installation of FRP panels.
  - 4. Application: Provide within 4 feet of mop sinks and other locations as indicated.
- F. Other Applications:
  - 1. Plywood Concealed From View But Located Within Exterior Enclosure: PS 1, C-C Plugged or better, Exterior grade.
  - 2. Plywood Exposed to View But Not Exposed to Weather: PS 1, A-D, or better.
  - 3. Other Locations: PS 1, C-D Plugged or better.
- G. Wood Sheathing: Comply with DOC PS 1-07 and DOC PS 2-04 requirements of specified grading agencies.
  - 1. Roof sheathing: APA PRP-108, Rated Sheathing, Exterior Exposure Class
    - a. Span Rating: 32/16 minimum.
    - b. Thickness: 1/2" (or 15/32")  
    - c. Edges: Provide panel clips or blocking per Structural drawings.
  - 2. Wall sheathing:
    - a. Span Rating: 24/16 minimum.
    - b. Thickness: 7/16"
    - c. Edges: Blocking at panel edges per Structural Drawings.
  - 3. Floor sheathing (AdvanTech):
    - a. Thickness: 3/4"
    - b. Edges: Blocking at panel edges per Structural Drawings.
  - 4. Communications and Electrical Room Mounting Boards: Plywood, Exposure I, C-D Plugged, fire-retardant treated, not less than 1/2" thick.
- H. Miscellaneous Lumber (Non-structural):
  - 1. Construction, Stud or No. #3 grade of any species for nailers and similar members.

**PART 1: GENERAL**

All caulking must have low-VOC contents per EGCC 6.2

- A. Exterior material shall be as manufactured by Sonneborn Building Products, Inc. (Hydrocide Mastic); Toch Brother, Inc. (RIW Marine Mastic); The Phillip Carrey Manufacturing Company (Carrey Mastic); or approved equal.
- B. Interior caulking shall be 100% silicone material treated to prevent formation of mildew.
- C. Foam rope material shall be used prior to caulking all expansion joints.

**PART 2: MATERIALS**

- A. Remove all projections from the face of surfaces to be caulked, brush down all dirt and loose particles before applying materials.
- B. Fill holes and voids prior to applying caulking material with foam rope caulk material. Backing material to be applied to allow for caulking material to be at a thickness of at least 1/8" and remain embedded just below the surface of the surrounding material surface.
- C. Apply damp-proofing material in one coat, to a thickness of at least 1/8". Coating shall be continuous without breaks or pinholes. Carry mastic over tops of footings, into all corners, reveals and grooves.
- D. No work is to be done during wet weather or when the temperature is below 45° F. unless the walls are enclosed, heated and dried.

**PART 3: EXECUTION**

- A. Interior Caulking shall be installed at the following locations:
  - 1. Around entire perimeter of all windows
  - 2. Around perimeter of all built-in air conditioning sleeves (prior to installing trim work)
  - 3. At all countertop and wall connection.
  - 4. Around entire perimeter of bath and shower bays.
- B. Prior to placing caulking material all adjoining surfaces are to be completely clean and free of loose particles.
- C. Caulking of interior surfaces is to be installed after the area has reached the point of substantial completion to avoid excessive dust and dirt accumulation on newly caulked surfaces.
- D. Caulking is to be places in a smooth, continuous, coating at least 1/8" thick. Place material into joint under pressure to force into voids. Finger smooth all caulk beads.
- E. Immediately clean excess caulking from surrounding materials using solvent to remove all residue.

## 1. PART GENERAL

### 1.1 SECTION INCLUDES

- A. Preformed prefinished steel siding system for walls, related flashings and accessory components.
- B. Air infiltration barrier back-up over sheathed walls.
- C. Flashing

### 1.2 RELATED SECTIONS

- A. Section 04 20 00 – Concrete Unit Masonry
- B. Section 06 10 00 – Framing and Sheathing
- C. Section 07 46 50 - Preformed Metal Facia and Soffits.
- D. Section 09 90 00 - Painting.

### 1.3 REFERENCES

- A. ASTM A525/A525M - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, General Requirements.
- B. ASTM A606 - Steel Sheet and Strip, Hot-Rolled and Cold-Rolled, High-Strength, Low-Alloy, with Improved Corrosion Resistance.
- C. ASTM A755/A755M - Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil Coating Process For Exterior Exposed Building Products.
- D. ASTM B209/B209M - Aluminum and Aluminum-Alloy Sheet and Plate.

### 1.4 SYSTEM DESCRIPTION

- A. System: Preformed and prefinished vinyl siding system of profile indicated; site assembled. Vinyl siding with vinyl window and door trim

A

### 1.5 DESIGN REQUIREMENTS

- A. Components: Design and size components to withstand dead and live loads caused by positive and negative wind pressure acting normal to plane of wall as calculated in accordance with building code.
- B. Maximum Allowable Deflection of Panel: 1/90 of span.
- C. Movement: Accommodate movement within system without damage to components or deterioration of seals, movement within system; movement between system and perimeter components when subject to seasonal temperature cycling; dynamic loading and release of loads; deflection of structural support framing.
- D. Drainage: Provide positive drainage to exterior for moisture entering or condensation occurring within panel system.
- E. Air Seal: **Seal all penetrations of the air barrier (pipes, ducts, fans, lights, electrical boxes and other miscellaneous penetrations) to meet the air door testing.**

### 1.6 SUBMITTALS FOR REVIEW

- A. Submit two samples of siding finish, illustrating finish color, sheen, and texture.

### 1.7 QUALITY ASSURANCE

- A. Contractor shall complete all installations using OSHA approved ladders, scaffold, harnesses or other required devices.
- B. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- C. Installer: Installer with 3 years minimum experience who has completed siding installations similar in material, design and extent with a record of successful performance.

### 1.8 DELIVERY, STORAGE, AND PROTECTION

- A. Section 01 60 00 - Material and Equipment: Transport, handle, store, and protect products.
- B. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.
- C. Store prefinished material off ground protected from weather, to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- D. Prevent contact with materials which may cause discoloration or staining.

### 1.9 COORDINATION

- A. Coordinate the Work with installation of windows and doors.

### 1.10 EXTRA MATERIALS

- A. Furnish full lengths of siding in a quantity equal to 2 % of installed amount.

## 2. PART PRODUCTS

### 2.1 MANUFACTURERS

- A. Horizontal Vinyl Lap Siding EDCO double 6" ~~Steel Siding~~ – Colors as shown on drawings.
- B. Certainteed
- C. Window and Door Trim: Vinyl trim to be provided by vinyl manufacturer- Colors as selected by Owner.
- D. Substitutions under provisions of Section 01 60 00.

Vinyl siding to match Phase II

A

### 2.2 ACCESSORIES

- A. Gaskets: Manufacturer's standard type suitable for use with system, permanently resilient; ultraviolet and ozone resistant; color as selected.
- B. Sealants: Specified in Section 07900 color as selected.
- C. Accessory Components: Starter strips, trim, inside corners, outside corners, batten strips, drip edges, fixture bases, flashings, channels, trim sheet, etc.; of same material, thickness, and finish/color as siding or fascia/soffit; ribbed for strength and rigidity.
- D. Bituminous Paint: Asphalt base.
- E. Air Infiltration Barrier: Tyvek or prior approved equal.
- F. Flashing: Sheet Flashings: ASTM A361/A361M; 26 gage thick precoated steel with minimum 1.25 z/sq ft galvanized coating; precoating of PVC color as selected.
- G. Anchors: Galvanized steel or Stainless steel.

### 2.3 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Form pieces in longest practicable lengths.

## 3. PART EXECUTION

### 3.1 EXAMINATION

- A. Verify substrate framing.
- B. Verify that building framing members are ready to receive panel system.

### 3.2 INSTALLATION - INFILTRATION BARRIER

- A. Install 1 layer of infiltration barrier horizontally on walls to receive siding. Lap over and tape to window fins.
- B. Weather lap edges 6 inches ends minimum 6 inches, minimum.
- C. Stagger vertical joints of each layer.
- D. Securely nail in place.

### 3.3 INSTALLATION

- A. Install siding system on walls in accordance with manufacturer's instructions and ASTM D 4756/AAMA 1402. Install siding in maximum continuous lengths with minimum seams.
- B. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint. Allow to dry prior to installation.
- C. Fasten siding to structural supports; aligned, level, and plumb.
- D. Locate joints over supports.
- E. Conceal fasteners unless otherwise approved by Architect/Engineer.
- F. Seal and place gaskets to prevent weather penetration. Maintain neat appearance.
- G. Provide pre-finished matching sample to GC.

### 3.4 TOLERANCES

- A. Maximum Offset From True Alignment Between Adjacent Members Butting or In Line: 1/16 inch.
- B. Maximum Variation from Plane or Location Indicated on Drawings: 1/8 inch.

### 3.5 CLEANING

- A. Clean work under provisions of Section 01 77 00.
- B. Remove site cuttings from finish surfaces.
- C. Clean and wash prefinished surfaces with mild soap and water; rinse with clean water.

**PART 2 PRODUCTS**

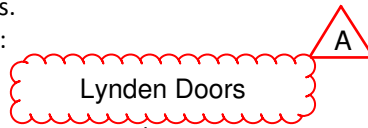
**2.1 HOLLOW CORE RAISED PANEL DOORS**

A. Manufacturers:

1. Marshfield Door Systems.

B. Other Acceptable Manufacturers:

1. VT Industries.
2. Mohawk.
3. Substitutions: Section 01 60 00 – Product Requirements.



**2.2 CONSTRUCTION**

A. Non-Rated hollow Core:

1. Panel Size: See Schedule.
2. Panel Thickness: 1 3/8 inch.
3. Panel type: CB601 6 panel.
4. Finish: Pre-finished KD Colonial Casing– color by Architect.
5. Profiles and dimensions shall be manufacturer's standard unless otherwise noted in the drawings and elevations.

**2.3 FABRICATION**

- A. Fabricate doors in accordance with AWI Quality Standards requirements.
- B. Furnish lock blocks at lock edge and top of door for closer for hardware reinforcement.
- C. Factory fit and machine doors at factory for frame opening dimensions identified on shop drawings.
- D. Provide accurate measurements of hardware locations in wood or metal frames before proceeding with factory machining.
- E. Factory machine doors for finish hardware in accordance with hardware requirements and dimensions, door frame shop drawings and with hardware templates to ensure proper fit of doors and hardware. Do not machine for surface hardware. Furnish solid blocking for through bolted hardware.
- F. Tolerances: Comply with WDMA tolerance requirements for fitting.
- G. Fit and Bevel Doors 1/8" in 2 inches. Ensure proper gaps are maintained on fire doors to comply with NFPA 80 requirements.

**2.4 SHOP FINISHING**

- A. Composite wood doors shall be factory prefinished.

**PART 3 EXECUTION**

**3.1 EXAMINATION**

- A. Section 01 31 16 – Coordination & Meeting: Coordination and project conditions.
- B. Verify opening sizes and tolerances are acceptable.
- C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.
- D. Beginning of work will indicate acceptance of existing conditions by installer.

**3.2 INSTALLATION**

- A. Install doors in accordance with AWI Quality Standards requirements and with manufacturer's recommendations to comply with WDMA IS 1A 04 and NFPA 80.
  1. Installation by Section 06 20 00 – Finish Carpentry.
  2. Installer to assure compliance with the requirements of the manufacturer's door warranty provisions.
- B. After sizing doors, fit for hardware as scheduled.
- C. Hang doors to be free of binding with hardware functioning properly.

**3.3 INSTALLATION TOLERANCES**

- A. Section 01 40 00 – Quality Requirements: Tolerances.
- B. Conform to AWI requirements for fit and clearance tolerances.
- C. Maximum Diagonal Distortion (Warp): 1/8 inch measured with straight edge or taut string, corner to corner, over imaginary 36 x 84 inches surface area.
- D. Maximum Vertical Distortion (Bow): 1/8 inch measured with straight edge or taut string, top to bottom, over imaginary 36 x 84 inches surface area.
- E. Maximum Width Distortion (Cup): 1/8 inch measured with straight edge or taut string, edge to edge, over imaginary 36 x 84 inches surface area.

**3.4 ADJUSTING**

- A. Section 01 70 00 – Contract Closeout Requirements: Testing, adjusting, and balancing.
- B. Adjust door for smooth and balanced door movement and leave in proper operating condition.
- C. Adjust closer for full closure.
- D. Refinish or replace doors damaged during installation.

SECTION 08 36 00 - POWER OPERATED SECTIONAL OVERHEAD DOORS

1. PART 1: GENERAL

1.1 SECTION INCLUDES

- A. Power Operated overhead sectional doors.
- B. Steel, insulated, thermally broken panels of ribbed design.
- C. Operating hardware and supports.

1.2 RELATED SECTIONS

- A. Section 07 90 00 - Joint Sealers: Perimeter sealant and backup materials.
- B. Division 16 - Electrical.

1.3 REFERENCES

- A. ANSI A216.1 - Sectional Overhead Type Door (NAGDM 102).
- B. ASTM A446 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Structural (Physical) Quality.
- C. ASTM A526 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality.
- D. ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.

1.4 SYSTEM DESCRIPTION

- A. Raised Panel, 26 ga. Prefinished, insulated ( ~~R-13~~ min), steel, two-sided door.
- B. Vertical Lift, high headroom, standard headroom, and low headroom track appropriate for location indicated on drawings with appropriate hardware. Fit track as close to wall and ceiling construction as hardware permits.
- C. Operation: Power operation with manufacturers recommended (select) operator, interior single button push button station, (verify locations with owner), photo electronic safety and reversing edges, to comply with all applicable safety requirements.
- D. Design and size components to withstand dead and live loads caused by pressure and suction of wind acting normal to plane of wall as measured in accordance with ANSI/ASTM E330.

R-13 A

Loop in concrete to exit and operators to enter A

1.5 SUBMITTALS

- A. Product Data: Provide component construction, anchorage method and hardware.
- B. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.6 OPERATIONS AND MAINTENANCE DATA

- A. Submit under provisions of Section 01 77 00.

1.7 QUALITY ASSURANCE

- A. Perform Work in accordance with ANSI A216.1, Application Type Commercial.

1.8 WARRANTY

- A. Provide manufacturers standard warranties.

PART 2: PRODUCTS

2.1 MANUFACTURERS

- A. Overhead Door Company
- B. Raynor
- C. Midland Garage Door Manufacturing Company
- D. RSIC-GDS Motor Kit Parts
- E. Substitutions under provisions of Section 01 60 00.

3inch wide commercial grade track system A

2.2 DOOR COMPONENTS

- A. Track: 17 gauge thick; ~~2 inch~~ wide rolled steel track.
- B. Hinge and Roller Assemblies: Heavy duty hinges and adjustable roller holders of galvanized steel.
- C. Lift Mechanism: Torsion spring on cross head shaft, with braided steel lift cables. Operation: A maximum lift of 25 lbs. force.
- D. Sill Weatherstripping: Resilient vinyl strip, one piece; fitted to bottom of door panel, full length contact.
- E. Jamb Weatherstripping: Roll formed steel section full height of jamb, fitted with resilient weatherstripping, placed in moderate contact with door panels.
- F. Lock: Setup for overhead door opener.
- G. RSIC-GDS Motor Kit Parts List:
  - 2 ea RSIC-GDS Motor Isolators 2 ea 3/4" bolts
  - 4 ea 3-1/2" coarse thread screws 2 ea nyloc nuts
  - 4 ea RSIC 1-1/2" Fender washers 4 ea 3/4" washers

2.3 FINISHES

- A. Exterior Surfaces: Color selection by Owner.
- B. Interior Surfaces: White.

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Vinyl-framed, factory-glazed windows.
- B. Operating hardware.

### 1.2 RELATED REQUIREMENTS

- A. Section 07 9200 - Joint Sealants:  
Sealing joints between frames and adjacent construction.

### 1.3 REFERENCE STANDARDS

- A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for windows, doors, and skylights; 2011.
- B. AAMA 701/702 - Combined Voluntary Specifications for Pile Weatherstrip and Replaceable Fenestration Weatherseals; 2011.
- C. ASTM E2112 - Standard Practice for Installation of Exterior Windows, Doors and Skylights; 2007.

### 1.4 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.
  - 1. Manufacturer's representative shall be required to attend meeting.

### 1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide component dimensions, anchors, fasteners, glass, and internal drainage.
- C. Shop Drawings: Indicate opening dimensions, framed opening tolerances, affected related work, and installation requirements.
- D. Manufacturer's Certificate: Certify that products of this section meet or exceed specified requirements.
- E. Grade Substantiation: Prior to submitting shop drawings or starting fabrication, submit one of the following showing compliance with specified grade:
  - 1. Evidence of AAMA Certification.
  - 2. Evidence of WDMA Certification.
  - 3. Evidence of CSA Certification.
  - 4. Test report(s) by independent testing agency itemizing compliance and acceptable to authorities having jurisdiction.
- F. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

### 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years of documented experience.
- B. Installer Qualifications: Company specializing in performing of type specified and with at least three years documented experience.

### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond when exposed to sunlight or weather.
- B. Jig, brace, and box the window frame assemblies for transport to minimize flexing of members or joints.

### 1.8 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F (5 degrees C).
- B. Maintain this minimum temperature during and after installation of sealants.

### 1.9 MOCKUP

- A. Provide one window installed for approval. Mockup shall include the window and associated flashing and air barriers. Remaining windows cannot be installed until mockup has been reviewed and approved by Owner, Architect, window manufacturer and air barrier manufacturer.

### 1.10 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a ten year period after Date of Substantial Completion.
- C. Provide ten year manufacturer warranty for insulated glass units from seal failure, interpane dusting or misting, and replacement of same. Include coverage for degradation of color finish.



#### 2. Exterior Windows and Doors Per MHFA requirements

- (a) All new windows and doors must be ENERGY STAR-qualified. Confirm that the most updated ENERGY STAR requirements are met at the time of purchase. Confirm that the applicable Minnesota region is designated for ENERGY STAR requirements.
- (b) Special windows, such as those required for high-rise buildings, that are unable to meet ENERGY STAR qualifications are acceptable if they include double pane, low-e glass and thermally broken frames.
- (c) All windows and windows within doors must be furnished with window coverings for privacy and control of heat/solar shading.
- (d) All operable windows and operable windows within doors must have insect screens.
- (e) The sill of all windows must be solid wood, stone, man-made solid surface material, or other material approved by Minnesota Housing.
- (f) When possible, design the building garage overhead openings with two doors in lieu of one large door. This allows less energy to escape and provides an alternative opening in case of maintenance and repair.
- (g) Door viewers or sidelight must be provided at Dwelling Unit main entrances.
- (h) Window fall protection must be provided at all new and replacement window locations whenever lowest part of window opening is within 36-inches of floor.

## 087000 - 087100 FINISH HARDWARE

---

### 2.12 EXIT DEVICES

A. Acceptable manufacturers and respective catalog numbers:

Von Duprin Sargent Detex  
Wide Stile, Push Pad 98/99 Series GL-43-80 Series Advantex (Wide Stile)  
Wide Stile, Electric Latch  
Retraction  
QEL 98/99 Series GL-43-56-80 Series Advantex-ER (Wide Stile)  
Lever Trim 996 Series 740 ET "D/DM" Trim  
Pull Trim 990 Series 800 MAL "C" Trim

B. Obtain exit devices from a single manufacturer, although several may be indicated as offering products complying with requirements.

C. All exit devices shall be equipped with a sound-dampening feature to reduce touch pad return noise.

D. Quiet Electric Latch Retraction shall be accomplished using a motor driven assembly, and shall incorporate the following features:

1. Motor shall retract both the push pad assembly and latchbolt.
2. Automatic calibration of latch throw and pull.
3. Built-in time delay.
4. On-board installation and troubleshooting diagnostics built into power supply and device.
5. Retry mode if device does not pull on the first try.

E. All exit devices shall be provided with flush end caps to reduce potential damage from impact.

F. All exit devices shall be provided with dead-locking latch bolts to insure security.

G. All exit devices shall be U.L. listed for accident hazard. Exit device for use on fire doors shall also be U.L. listed for fire exit hardware.

H. Provide optional strikes, special length rods, and adapter plates to accommodate door and frame conditions. Provide narrow style series devices in lieu of wide stile series devices where optional strikes will not accommodate door and frame conditions.

I. Coordinate with related trades to insure adequate clearance and reinforcement is provided in doors and frames. Provide thru bolts as required.

J. Refer to hardware groups for exit device applications utilizing the option of: "less bottom rod and floor strike" (LBR)

K. All exit devices shall be provided with optional trim designs to match other lever and pull designs used on the project.

L. Unless specific exit device dogging options are noted within hardware sets, provide dogging options as follows:

1. Fire Rated devices: Dogging not permitted.
2. Non-Rated Exit Only functions not equipped with outside trim or pull: Less Dogging.
3. Non-Rated Classroom functions: Less Dogging.
4. Non-Rated devices utilizing electric latch retraction or electrified outside trim: Less Dogging.
5. All Other Non-Rated devices: Cylinder Dogging utilizing interchangeable core cylinders. Cylinder keyway shall match locksets furnished on this project.

M. Provide glass bead kits as required to accommodate door conditions. Screws shall not be visible through full glass doors.

N. Where specified, provide compatible keyed mullions with cylinder for pairs of doors.

O. Provide reinforced crossbars for all traditional style exit devices applied to doors over 36" wide.

### 2.13 CLOSERS

A. Acceptable manufacturers and respective catalog numbers:

LCN Norton Sargent Corbin  
4050/4050 EDA R7500/PR7500 351/351P10 DC8000 A10/DC8000 A3



B. Obtain door closers from a single manufacturer, although several may be indicated as offering products complying with requirements.

C. Provide extra heavy duty arm (EDA / HD) when closer is to be installed using parallel arm mounting.

D. Hardware supplier shall coordinate with related trades to insure aluminum frame profiles will accommodate specified door closers.

E. Closers shall use high strength cast cylinders, forged main arms, and 1 piece forged steel pistons.

F. Closers shall utilize a stable fluid withstanding temperature range of +120 deg F to -30 deg F without seasonal adjustment of closer speed to properly close the door. Closers for fire-rated doors shall be provided with temperature stabilizing fluid that complies with standards UL10C.

G. Unless otherwise specified, all door closers shall have full covers and separate adjusting valves for sweeps, latch, and backcheck.

H. Provide closers for all labeled doors. Provide closer series and type consistent with other closers for similar doors specified elsewhere on the project.

I. Provide closers with adjustable spring power. Size closers to insure exterior and fire rated doors will consistently close and latch doors under existing conditions. Size all other door closers to allow for reduced opening force not to exceed 5 lbs.

J. Install closers on the room side of corridor doors, stair side of stairways and interior side of exterior doors.

K. Closers shall be furnished complete with all mounting brackets and cover plates as required by door and frame conditions, and by adjacent hardware.

L. Door closers shall be provided with a powder coat finish to provide superior protection against the effects of weathering. Powder coat finish shall successfully pass a 100 hour salt spray test.

M. Pressure Relief Valve, PRV, shall not be acceptable.

- A. Verify ALL Interior Finishes with Interior Designer/ Owner.
  - 1. Rubber flooring material on stairwells by Interior Designer.
- B. THIS PROJECT IS PARTICIPATING IN IMPLEMENTING MINNESOTA HOUSING FINANCE AGENCY SUSTAINABLE HOUSING POLICIES, most notably the **MN Overlay to the Green Communities Criteria**, which can be referenced at [www.greencommunitiesonline.org/minnesota](http://www.greencommunitiesonline.org/minnesota). These include the required criteria as stated below as a minimum acceptable standard prior to approval.
- C. Specifications/cut sheets from Interior Designer shall be provided with final submittal.

**Product Guidelines are provided by Owner below to match Phase 2.**

DIVISION 4

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
BRICK-1	4" Face Brick	BrickCraft	Modular	Harvest Blend	Includes molded units
CMU-2	16x8 Rock Face CMU	Anchor Block	Rock Face	Tumbleweed	Singled side exterior at exposed foundation
CAST STN-1	Cast Stone	Sill Reading Rock	Rockcast	Charlotte Tan Brick	Capstone
	Culture stone				Fireplace

DIVISION 5

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
05 5913	Metal Juliette Balcony	Classic Industries	Alumadeck	Black	At sliding glass doors, not at grade

DIVISION 6

Or by AI's Ornamental Iron & Welding

A

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
WD BASE-1	Wood Baseboard	Lianga	Legacy	Honey	Units
WD BASE-2	Wood Baseboard	Prefinished			Lobby, Clubroom, Fitness
WD TRIM-1	Wood Trim	Lianga	Legacy	Honey	Units
WD TRIM-2	Wood Trim	Prefinished			Lobby, Clubroom, Fitness
WD PNLG-2	Wood Paneling	Prefinished			Lobby, Clubroom, Fitness

A

Sloped roof deck

Canopy deck

DIVISION 7

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
SHINGLE-1	Asphalt shingles	GAF	Timberline HD	Weather Wood	
SIDING-95	Vinyl lap siding	Certainteed	Wolverine	American Legend Savannah Wicker	4 1/2" dutch lap
SIDING-96	Vinyl shingle siding	Certainteed	Cedar Impressions	Hearthstone	Double 7" straight edge
SMF-1	metal trim, gutters/ds	EDCO	Steel Entex	Desert Tone	Paint downspouts in front of brick
SMF-2	Metal trim	EDCO	Steel Entex	Black	Main entry canopy
INSUL-1	Extruded polystyrene				Exterior walls
INSUL-2	Extruded polystyrene				Foundations walls
INSUL-20	Fiberglass batt insul, unfaced				
INSUL-34	Bulk fiberglass insul pneumatic placement				In attic
RF UNDLMT-5	Self-adhering ice/water shield				Roof edges, ridges and valleys
VPR RET-1	6 mil poly vapor retarder sheet				Exterior walls
VPR RET-2	10 mil poly reinforced vapor retarder				Under conc slab
FR STOP	Through penetration fire stopping				
WTR PRF-7	60 mil membrane waterproofing	W.R. Meadow	Mel-Rol		With Mel-Drain drainage system
SEALANT-1	Sealant				
RF VENT-2	Soffit vent	EDCO	Steel Entex	White	Canopy soffits
EPDM-2	60 mil epdm roofing self-adhered				Entry canopies

## DIVISION 8

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
ALUM STOR-1	Aluminum framed storefront	Tubelite	Center Set	Black	Medium stile door
	Solid core doors		Public & unit entry doors w/ redi-Frame	w/match wood both sides	
	Hollow core doors	Sienna			Unit interior doors trim to match door
	Vinyl window	Thermo-tech	Classic Series	White	
	Vinyl sliding glass door	Thermo-tech	Slim Line	White	
	Overhead door	CHI Commercial	3216	TBD std color	Horizontal ribs
	Aluminum louvers	Airolite	Stationary	TBD std color	
ACC PNL-2	Attic access panel	Best Access Door	BA-PFI-GyP	White	Fire rated, insulated, drywall flange

## DIVISION 9

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
ACT-1	24"X24" ceiling tile	USG Mars	ClimaPlus	White	Tegular, fine texture
CER TILE-10	12"x12" wall tile grout	Daltile	Continental Slate	Moroccan Brown	Restroom installation
CER TILE-20	12"x12" floor tile grout	Daltile	Continental Slate	Moroccan Brown	Restroom installation
CER TILE-21	12"x12" floor tile grout	Daltile	Continental Slate	Moroccan Brown	Best, stir entrance and elevator
RES PLNK-1	6x36 luxury vinyl plank	Armstrong	Vivero	Hickory Point	Units
RES PLNK-2	6x36 luxury vinyl plank	Armstrong	Vivero	Hickory Point	Club room
VNL SHT-1	Resilient vinyl flooring	Mannington	Benchmark	Kingsbridge	Unit Bath and utility
VCT-1	Vinyl composite tile	Armstrong	Standard	Excelon Coaster Greige	Elec, trash, utility
RB BASE-1	4" rubber base, cove	Johnsonite	Clay		Resilient tile areas
RB BASE-3	6" rubber base, toeless	Johnsonite	Brown		corridors, stairwells
CPT-1	Broadloom carpet	Mannington	Canopy II	Hickory (83163)	Lobby club and corridor accents
CPT-2	Broadloom carpet	Shaw	Capital III	Eminence	Public carpet
CPT-3	Broadloom carpet	Kinetex	Spreed	Shindig	Fitness room
	Kinetex Dart		Dash or Sprint		Fitness room accent
CPT-4	Broadloom carpet	Shaw	Capital III	Eminence	Units (could use old color instead of sheet vinyl in accessible units)
GYP BD-1	5/8" gyp - type x				
GYP BD-4	5/8" gyp - type c				
MET FURG-4	Resilient furring chan.				
PT-1	Paint Sherwin Williams Pure White	7005			
PT-2	Paint Sherwin Williams Gobi Desert				
PT-	Paint Sherwin Williams Pearly White				
PT-	Paint Sherwin Williams Moody Blue				
PT-3	Paint Sherwin Williams				
INSUL-80	Acoustical batt insul				
VNL NOS	Flexible stair nosing	Johnsonite	VIVCD-XXX		

RF - Rubber Flooring - Raised  
round for landing surfaces and  
grit tape inserts for treads  
FM - Reese Perfec Mat  
Aluminum Hinge

A

Ceilings

Walls in units

Common Areas &amp; Community Room: Top of wall

Common Areas &amp; Community Room: Bottom of wall

Exterior hollow metal frames

Exterior mechanical metal

Accent color to stair carpet

## DIVISION 10

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
MAILBOX-1	Recessed front load	Florence	4C15D	Black 51	mailboxes, 3 w/ADA reach
WIRE SHLV-1	Wire storage shelves				
MIRROR-50	Frameless mirror				
FIREPLACE-1	Direct vent gas Heat & Glo	Mezzo	36	single sided Black trim	Loft forge front

## DIVISION 11

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
FRIDGE-1	18.2 CF fridge	GE	GTE18ITHWW		1 bd units
FRIDGE-2	21.2 CR fridge	GE	GTE21GTHWW		2+ bd units
RANGE-1	30" electric range	GE	JB250DFWW		Type b units
RANGE-2	30" ADA elec. Range	GE	JB250DFWW		Type a units
RANGE HD-1	30" under cabinet hood	GE	JCX3300DJWW		Type a units
MICROWAVE-2	Countertop microwave	GE	JESI460DSWW		Type a units (opt A 1.4 CF)
MICROWAVE-3	Countertop microwave	GE	PEM31DFWW		Type a units (opt B 1.1CF)
DISHWASHER-1	Built-in dishwasher	GE	GSD3301KWW		Type b units
DISHWASHER-2	ADA dishwasher	GE	GLDT690JWW		Type a units
WASHER-1	4.2 CF capacity washer	GE	GTW485ASHWS		Type b units

## 090000 - INTERIOR FINISHES

---

### DIVISION 11- continued from previous page

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
WASHER-2	3.9 CF front load washer	Frigidaire	FFFW5000QW		Type a units
DRYER-1	8.3 CF front load dryer	GE	GFD48ESSKWW		Type b units
DRYER-2	7.0 CF front load dryer	Frigidaire	FFQE5000QW		Type a units
	Playground equipment	Game time			Verify with Owner/Interior Designer
	Playground safety surfacing – rubber tile	Game time	GT IMPAX		Border: EPDM Orange FIELD: EPDM Brown

### DIVISION 12

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
RES CASE-1	Residential casework	Advanta	Premier series	Mocha	Club room
RESS CASE-2	Residential casework	Advanta	Premier series	honey	Units
PLAM CTOP-1	Laminate countertops	Wilsonart	Milano	amber	Unit kitchens
SOLID SURF-20	Solid surface window sills	Central marble	Standard colors	965 white on white matt	
SSURF CTOP-21	Solid surface countertops	Central marble	Standard colors	965 white on white matt	Unit bathrooms
BLINDS-10	Vinyl horizontal miniblinds	Bali	Customizer	Almost White Gloss	Metal at unit windows
BLINDS-20	Vertical louver blinds	Graber	G-85	Tan Alum	at unit sliding doors and public windows
FLR MAT-1	Entrance floor mat	Resse	Enterprise	Perfec floor mat	
	Midnight carpet anodized clear				Rubber hinged with embedded anod alum frame

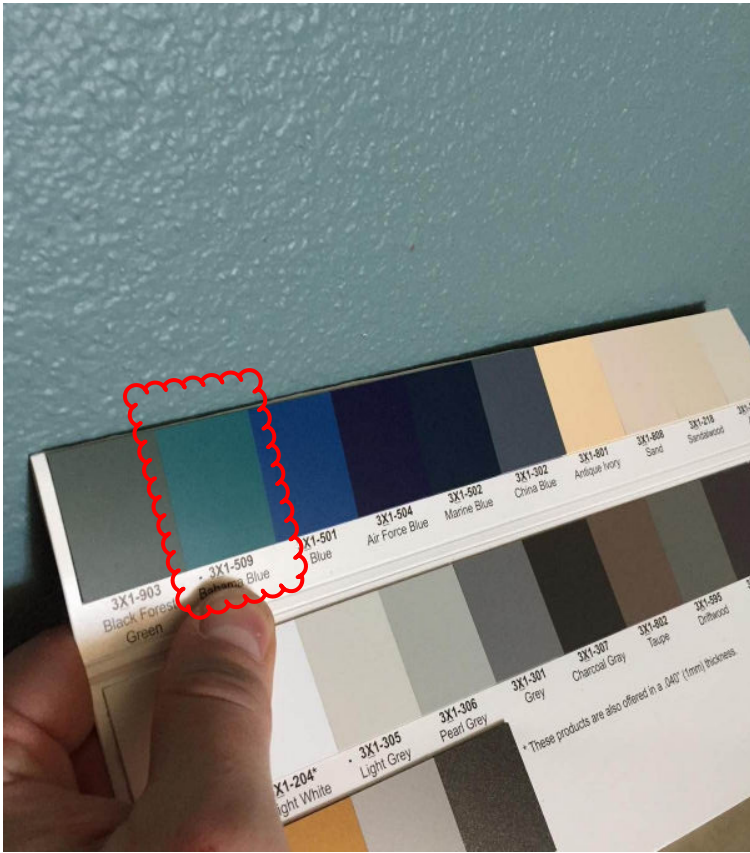
### DIVISION 14

MATERIAL ID	DESCRIPTION	MANUFACTURER	STYLE	COLOR	COMMENTS
CHUTE	Trash chute	Chutes intl			30" diam chute
ELEV	Holeless hydraulic elec	3500 lbs schindler	330A	Dual Jack	Side front/rear openings plastic lam side and rear walls, ss front and ceiling

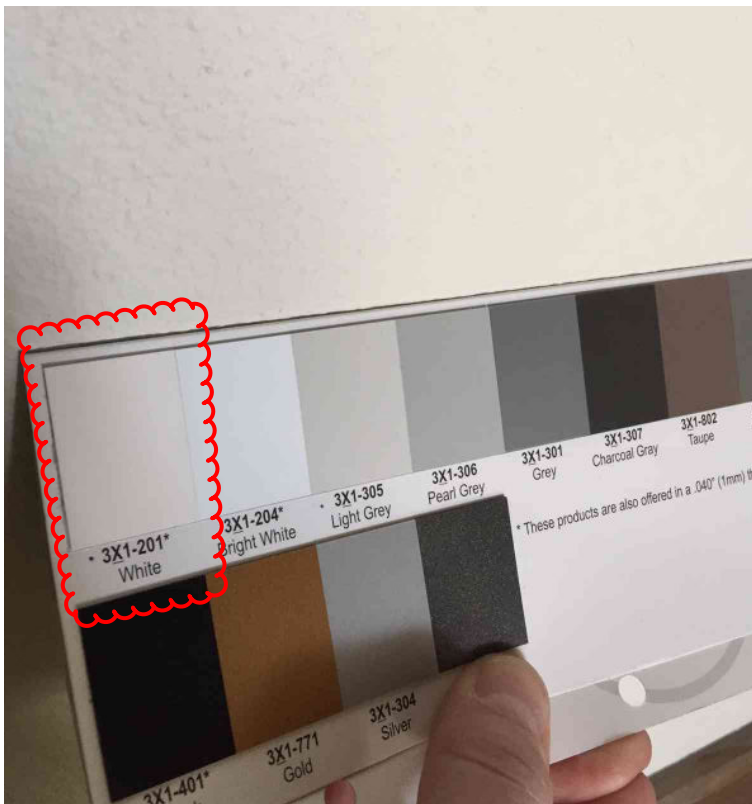
**INSERT CUT SHEETS from Interior Designer**

**INTERIOR SIGNAGE  
COLOR SELECTIONS:**

**Body of Interior Signs =  
3X1-509  
Bahama Blue**



**Lettering, Numbers, Etc.=  
3X1-201  
White**





2525 Co. Rd. 24 • ST. CLOUD, MN 56301 • PHONE: 320/252-2314

## Stainless Steel Appliance List

Date 1/11/2018  
 Direct: 320.241.2176  
 Email: mloesch@karlsinc.com

**Project:** Bottineau Ridge II  
 TBA 11875 80th Ave N  
 Maple Grove, MN 55311

Quantity	Units	Model #	Description E-STAR Stainless Steel Appliances
47	Std.	FFHT2032TS	21 Cu Ft <b>E-Star</b> , 2 Glass Shelves; Full Width Freezer Shelf
4	ADA & CR	FFHT1821TS	Refer.; ADA; E-Star; Refer. 18 Cu. Ft. Glass Shelves
47	Std.	FFEF3054TS	Elec. Self Clean Range; Smooth Top; ES300 Clock & Timer; 2-9" & 2-6" Burners
4	ADA & CR	<b>FFED3026TS</b>	<b>ADA 30" Drop-In Elec. Range w/FRONT CONTROLS, Self Clean; Smooth Top, W/clock &amp; wi</b>
51	ALL	PL4000	4', 4 Wire Range Cords
51	ALL	FHWC3025MS	30" Convertible Hood; 2 Speed fan w/light
51	ALL	FFMO1611LS	1.6 CU. FT. Counter Top Microwave
47	Std.	FFCD2413US	D/W; Energy Star, Full Electronic Controls, Tall Tub 1 Piece Door, 5 Level Wash, Precision
4	ADA & CR	FDB2410HIC	ADA Compliant Dishwasher; E-STAR, 5 CYC, 4 OPT, 4 CONSOLE, SS TUB, NYLON RAC
51	ALL	MISCC26	Dishwasher Cord 3 wire
47	Std.	WTW7000DW	27", <b>E-Star Top Load Washer</b> ; 4.8 CU FT
47	Std.	WED7000DW	Elec. Dryer 29", 7.0 CU FT, 4 TEMPS, ACCUDRY, EOC, WRINKLE SHIELD 40, 3 KNOB
3	ADA	EFLW317TIW	Front Load Washer, ADA - E-Star; 4.3 cu ft
3	ADA	EFDE317TIW	27" Electric Dryer with 8.0 cu. ft. Capacity
50	ALL	MISC3805FFSS	Stainless Steel Supply Hose; 5' Two per Pack
50	ALL	PT600L	6 ft., 4 Prong Dryer Cord
94	ALL	FFTA1233U2	12,000 BTU, 230 VOLT Energy Star
94	ALL	5304514430	A/C Sleeves (No Assembly Required)
94	ALL	21206	6"A/C Inside Cover
51	ALL	EP300108	Grease Shields 24' by 30" <b>(Installed)</b>

## FFTA1233U2



### SIGNATURE FEATURES

#### Effortless™ Remote Temperature Control

Remote control thermostat precisely maintains preset room temperature, so you can remain comfortable at all times.

#### Programmable 24-Hour On/Off Timer

With the 24-Hour On/Off Timer, you can ensure your home will be cool and comfortable when you want it to be without having to worry about running up your utility bills. The built-in timer allows you to preset the unit to turn on and off in half-hour increments.

#### Energy Saver Mode

Reduce your utility bills in this mode. It cools similarly to central air, with the unit turning on and off at different intervals to ensure the room temperature stays at the set temperature.

#### Multi-Speed Fan

Features three different fan speeds, for more cooling flexibility.

### HOME COMFORT

#### THROUGH-THE-WALL AIR CONDITIONER

#### PRODUCT DIMENSIONS

Height	14-1/2"
Width	24"
Depth	20-5/8"

#### MORE EASY-TO-USE FEATURES

##### Sleep Mode

With Sleep Mode, the temperature gradually increases a few degrees over the evening, saving energy and creating a comfortable environment during the evening hours.

##### Remote Control

Offers you the flexibility to control the temperature and fan speed from anywhere in the room.

##### Effortless™ Clean Filter

Our antibacterial filter reduces bacteria, room odors and other airborne particles for a healthier, more comfortable environment.

##### Power Cord

Comes with an extra long three-prong cord — makes extension cords unnecessary.

##### Effortless™ Restart

Automatically resumes operating at its previous settings when power is restored to your unit.

##### Clean Filter Alert

Alert notifies you when your filter needs to be cleaned so you don't have to keep track of it yourself.

##### Ready-Select® Controls

Easily select options with the touch of a button.

#### CERTIFICATIONS

ENERGY STAR®



PERFORMANCE	BTUs
Cool	12,000/11,700

## THROUGH-THE-WALL AIR CONDITIONER

### PERFORMANCE

BTU (Cool)	12,000/11,700
Dehumidification (Pints/Hour)	3.4
Cool Area (Up To Sq. Ft.)	550
Combined Energy Efficiency Ratio	10.5
Energy Efficiency Ratio	10.5

### ELECTRICAL

Volts	230/208
Amps (Cool)	5.2/5.6
Watts (Cool)	1,140/1,110
Length of Power Cord (Min./Max.)	5.5'/6'
Plug Type (NEMA)	LCDI (6-15P)

### FEATURES

Electronic Controls	Ready-Select® Controls
Fan Speeds (Cool/Fan)	3/3
Low Voltage Start-Up	Yes
Auto Cool Function	Yes
Energy Saver Mode	Yes
Sleep Mode	Yes
Filter Check	Yes
24-Hour On/Off Timer	Yes
Clean Air Ionizer	
Remote Control	Full-Function Remote Thermostat
Air CFM (High/Med/Low)	310/282/253
Air Direction Control	6-Way
Fresh Air/Exhaust Vent/Closed	No/No/Yes
Filter Type	Antibacterial Mesh
Filter Access	Slide-Out
Slide-Out Chassis	
Warranty <sup>1</sup>	Yes

### OPTIONAL ACCESSORIES

Through-The-Wall 18" Sleeve Kit	PN# 5304514430
Trim Kit (for larger existing sleeve)	Included
Architectural-Style Exterior Louvered Grille	PN# 5304515640

### CERTIFICATIONS

ENERGY STAR®	Yes
Performance	AHAM

### SPECIFICATIONS

Refrigerant	R410a
Shipping Weight (Approx.)	99 Lbs.

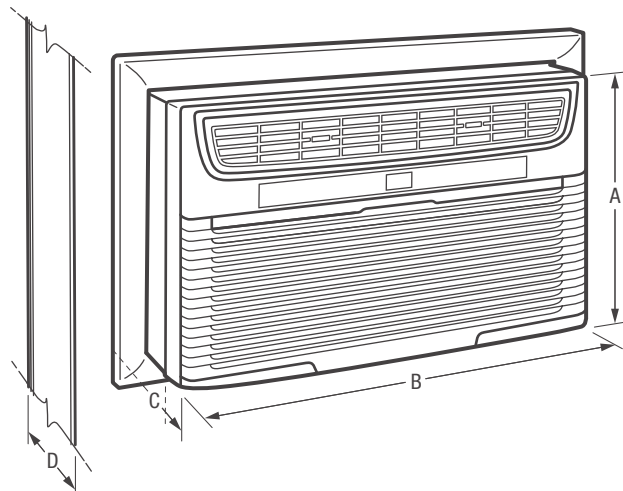
<sup>1</sup>Warranty five (5) years full parts and labor.

### PRODUCT DIMENSIONS

A - Height	14-1/2"
B - Width	24"
C - Depth	20-5/8"
D - Max. Wall Thickness	18"

### SLEEVE CUTOUT DIMENSIONS

Height	15-5/8"
Width	25-15/16"

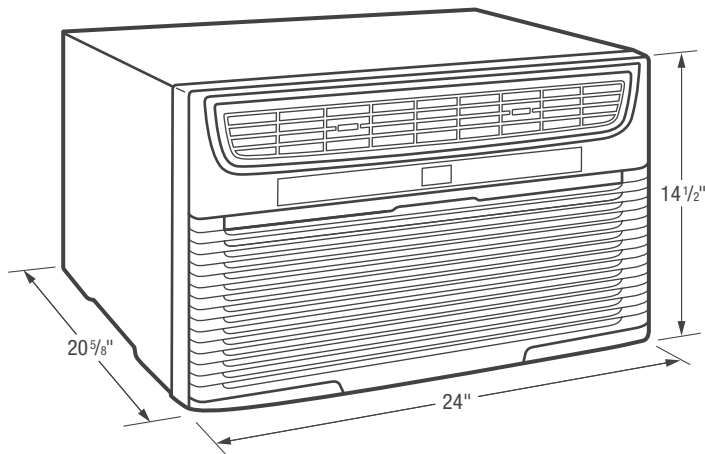


Plug Type (NEMA)  
6-15P

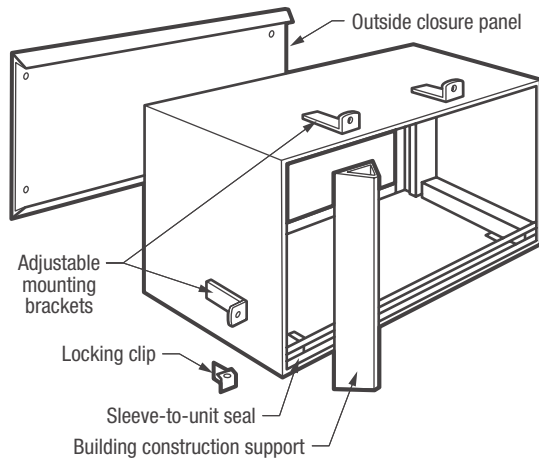


**Note:** For planning purposes only. Always consult local and national electric, gas and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at [frigidair.com](http://frigidair.com).

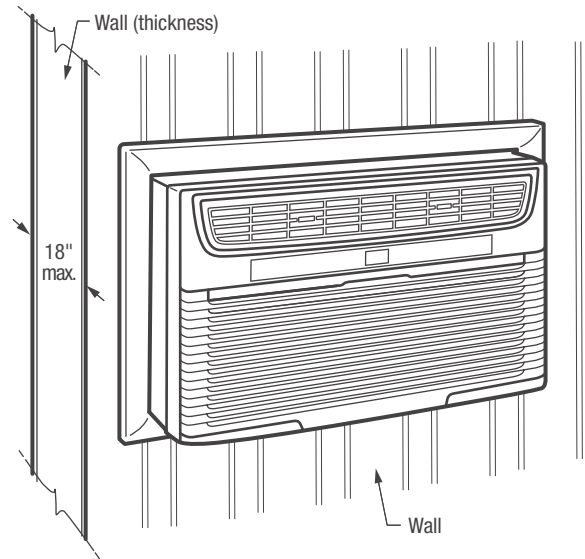
Specifications subject to change. Accessories information available on the web at [frigidair.com](http://frigidair.com)



**Through-The-Wall 18" Sleeve Kit**  
(PN # 5304514430)



**Through-The-Wall Installation**



Plug Type (NEMA)  
6-15P

**INSTALLATION SPECIFICATIONS**

- Product Shipping Weight (approx.) - 99 Lbs.
- Single phase 3-wire cable, 230/208 Volt, 60 Hertz AC only electrical supply with ground required on separate circuit fused on both sides of line.
- Voltage Rating - 230V/208V/60 Hz
- Amps @ 230/208 Volts = 5.2/5.6 Amps
- Recommended Circuit Breaker - 15 Amps
- Unit equipped with 230/208V 3-wire power supply cord, NEMA plug type 6-15P, approximately 72" long.
- Unit's increased performance characteristics result from two rear intakes. For unit to operate at maximum efficiency, carefully follow complete, detailed new or replacement installation instructions provided in Product Installation Guide on web.
- Unit requires rearward slope when installation is complete, to allow condensate to drain from rear of sleeve.

**NEW INSTALLATION**

- For new installation, Frigidaire® Through-The-W all 18" Sleeve Kit PN# 5304514430 available. Recommended for proper installation.
- Through-the-wall installation requires 18" maximum wall thickness.
- For energy-saving purposes, install unit in shady location, preferably a northern exposure; and do not block airflow inside with blinds, curtains or furniture; or outside with shrubs, enclosures or other buildings.

**REPLACEMENT INSTALLATION**

- When replacing existing air conditioner with new unit, refer to Product Installation Guide on web to identify existing wall-sleeve manufacturer and size compatibility. If proper installation and slope are suspect, then correct installation of Frigidaire® Through-The-Wall 18" Sleeve Kit PN# 5304514430 recommended.
- Use of existing wall sleeve to mount new unit requires original sleeve be in sound structural condition with rear grille that attaches securely, or rear flange that serves as stop for unit.
- Preferable installation option, for increased efficiency and possibility of drafts reduced, requires existing rear grille (*mounted to sleeve*) be replaced with new unit's rear air-directional louvered grille (*provided in accessory kit, shipped with unit*). Non-preferable installation option of directly mounting rear louvered grille to unit can be considered, requiring grille be mounted to unit prior to sleeve installation.
- Existing decorative exterior grille may be left in place, provided that proper air-directional rear louvered grille is installed.
- For installation into larger existing sleeve, optional Trim Kit is included.

**OPTIONAL ACCESSORIES**

- Through-The-Wall 18" Sleeve Kit - (PN# 5304514430).
- Trim Kit (*for larger existing sleeve*) - Included.
- Architectural-Style Exterior Louvered Grille - (PN# 5304515640).

*Note: For planning purposes only. Always consult local and national electric, gas and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at frigidaire.com. Specifications subject to change. Accessories information available on the web at frigidaire.com*



# ELECTRIC FRONT LOAD DRYER

8.0 Cu. Ft.

EFDE317TIW

With IQ-Touch™ Controls



## PRODUCT DIMENSIONS

Height	38"
Width	27"
Depth	31-5/8"

## MORE EASY-TO-USE FEATURES

### 5 CYCLES TO CARE FOR EVERY FABRIC

Perfectly dry every item with tailored cycles for towels, delicates, and more.

### FITS MORE ROOMS WITH REVERSIBLE DOOR

Enjoy easy loading no matter how your washer and dryer are configured.

### OPTIONAL PEDESTALS AND STACKING KIT FOR MORE INSTALLATION OPTIONS

Raise your units with optional pedestal drawers that provide extra storage. Or use the optional stacking kit for convenient placement in small spaces.

Available in:



Island White  
(IW)

<sup>1</sup>Based on manufacturer specifications among common 27" platforms.

<sup>2</sup>Eligibility based on product registration with Electrolux North America within 60 days of purchase. Products must have been purchased on or after July 1, 2013. See limited warranty for details. Limited time offer.

## SIGNATURE FEATURES



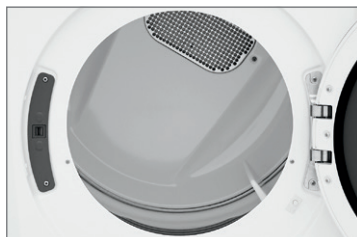
### KEEPS CLOTHES LOOKING THEIR BEST

Clothes are gently tumbled while moisture sensors detect when clothes are dry to prevent over-drying. Customizable options and cycles allow you to care for every fabric.



### ENERGY STAR®-CERTIFIED

Rigorously tested to do more with less. Electrolux dryers meet strict criteria to guarantee high-quality energy efficient performance.



### LARGEST CAPACITY DRYER

Dry more in each load. Our 8.0 cu.ft. dryers have the largest capacity for a standard 27" platform.<sup>1</sup>



### PLATINUM STAR® LIMITED WARRANTY

Our exclusive limited warranty that includes three year coverage on parts and one year on labor.<sup>2</sup>

# ELECTRIC FRONT LOAD DRYER

EFDE317TIW



## 27" ELECTRIC FRONT LOAD DRYER

Capacity D.O.E.	8.0 Cu.Ft.
-----------------	------------

### FEATURES

Pull-to-Open Door	Yes
IQ-Touch™ Controls	Yes

Dry System	Luxury-Dry™
Sound System	Luxury-Quiet™
Lighting	
Tumble System	Gentle Tumble™
Moisture Sensor	Yes
Dryer Drum	Painted Steel
Tumble Speed (RPM)	50
Reversible Door	Yes
Adjustable Leveling Legs	Yes
ENERGY STAR®	Yes
NSF® Certified	

### CYCLES

Timed Dry (Auto, 60, 30), Heavy Duty, Towels, Normal, Delicates	5
---	---

### OPTIONS

Temperature Selections	3
------------------------	---

Electronic Auto Dry System	
Manual Timed Dry Selections	3
Eco	Yes
End-of-Cycle Chime	On/Off
Extended Tumble	
Anti-Static	
Line Dry	
Shrink Guard	
Dryness Levels	3

### INSTALLATION OPTIONS

Freestanding, Under Counter*, Stacked (Above Washer), Pedestal, Hidden (In Closet), Second Floor	Yes
4-Way Dryer Venting	Yes

### ACCESSORIES

Luxury-Glide® Pedestal with Spacious Storage Drawer – Island White – PN# EPWD157SIW	Optional
Dryer Stacking Kit – PN# STACKIT7X	Optional
Drying Rack – PN# A04840701	Optional

### SPECIFICATIONS

Color –	
Island White	IW
Maximum Exhaust Duct Length** (Ft.)	125
Power Supply Connection Location	Rear
Voltage Rating	240V / 60 Hz / 30A
Connected Load (kW Rating) @ 240 Volts	6.0
Amps @ 240 Volts	25
Heating Element @ 240 Volts (Watts)	4,700
Shipping Weight (Approx.)	140 Lbs.

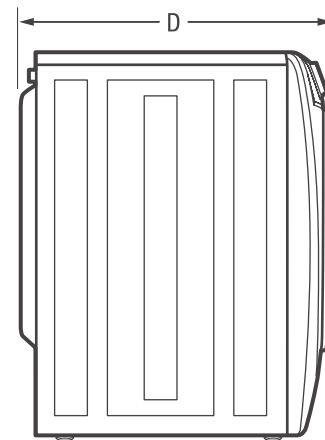
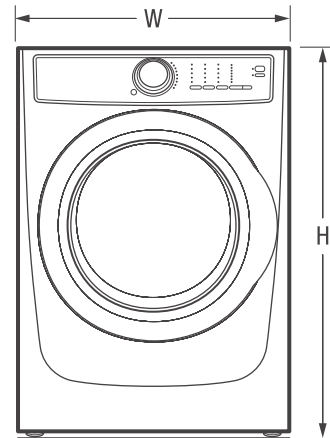
\*Side-by-Side units in under-counter installation require custom-built countertop and/or cabinetry.

\*\*Rigid metal duct preferred, semi-rigid optional and allow deductions for elbows and vents.

Refer to Installation Guide on web for additional information.

NOTE: Always consult local and national electric and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at [electroluxappliances.com](http://electroluxappliances.com).

Specifications subject to change.



### PRODUCT DIMENSIONS

Height (without 15" Pedestal)	38"
(with 15" Pedestal)	53-1/4"
Width	27"
Depth (to Center of Arc Not Including Hose)	31-5/8"
(with Door 90° Open)	53-1/2"

## Electrolux Major Appliances, N.A.

USA • 10200 David Taylor Drive • Charlotte, NC 28262 • 1-877-4electrolux (1-877-435-3287) • [electroluxappliances.com](http://electroluxappliances.com)  
 CANADA • 5855 Terry Fox Way • Mississauga, ON L5V 3E4 • 1-800-265-8352 • [electroluxappliances.ca](http://electroluxappliances.ca)

EFDE317T 01/17

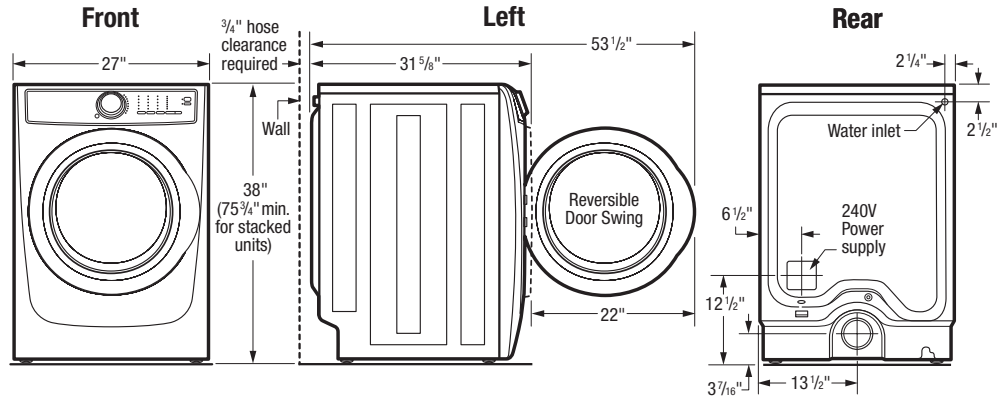
© 2017 Electrolux Home Products, Inc.



High standards of quality at Electrolux Home Products, Inc. mean we are constantly working to improve our products. We reserve the right to change specifications or discontinue models without notice.

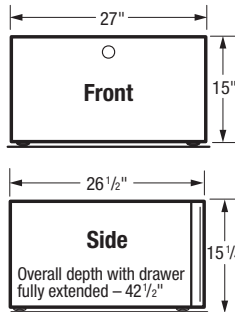
# ELECTRIC FRONT LOAD DRYER

EFDE317TIW

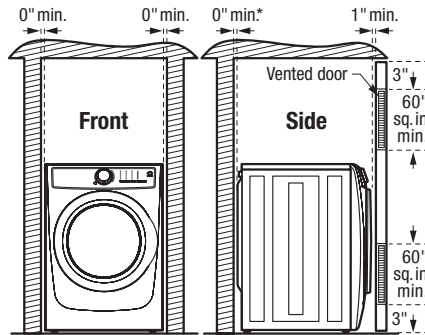


## 15" Pedestal Drawer Installation

Elevates dryer height to 53 1/4". For detailed pedestal installation, refer to instructions included with pedestal or on web. Pedestal Installation may require modified utility hookup locations. For details, refer to Product Installation Guide on web.



## Built-In Installations



\*Steam dryer requires additional 3/4" hose clearance.

### Closet Installation:

If washer and dryer are installed in same closet, door(s) MUST be vented with 120 sq. in. minimum louvered opening, equally divided, located 3" from top and bottom of door. Louvered door(s) with equivalent air openings for full-length of door is acceptable. Air openings MUST remain unobstructed with door(s) installed.

### Installation Clearances:

Dryer can be built in alone or with washer (side by side or stacked) in closet, recess or under counter installation with 0" minimum clearance required around sides and back of unit(s). To achieve 0" minimum rear clearance, dryer MUST be vented straight back or with quick-turn 90° elbow. Steam dryer requires additional 3/4" steam hose clearance at back of unit(s). Installation of closet door(s) requires additional 1" minimum clearance between front of unit(s) and door(s). Location of plumbing, exhaust and utility hookups MUST be considered when planning any built-in installation. For additional installation details, refer to Product Installation Guides on web.

### Under Counter Installation:

Installation of dryer alone or side by side with washer under counter, requires custom-built countertop and/or cabinetry to accommodate unit(s) height.

### Stacking Units:

Stacking dryer above washer requires use of optional Stacking Kit (PN# STACKIT7X) with modified utility hookup locations for dryer. For complete installation details, refer to instructions included with Stacking Kit or on web.

## Electric Dryer Specifications

- Product Weight – 130 Lbs. / Shipping Weight – 140 Lbs.
- Voltage Rating – 240V / 60 Hz / 30A
- Single phase 3- or 4-wire cable, 240 Volt, 60 Hertz AC only electrical supply with ground required on separate circuit fused on both sides of line. (Do not use same circuit as washer.)
- Connected Load (kW Rating) @ 240 Volts = 6.0 kW
- Amps @ 240V = 25A
- Dryer MUST employ a 3-conductor NEMA 10-30 type SRDT or 4-conductor NEMA 14-30 type SRDT or ST (as required), rated at 240 volt AC minimum, 30 amp power supply cord marked for use with clothes dryers (not supplied).
- Grounding through neutral link prohibited in specific applications and certain locales, requiring use of 4-wire system. (For detailed electrical requirements, refer to Product Installation Guide on web.)
- Always consult local and national electric & plumbing codes.
- Can be installed alone, with or without optional 15" pedestal drawer, or stacked above matching Electrolux Washer, which requires installation of optional dryer stacking kit. (For installation details, refer to instructions included with optional pedestal or stacking kit or on web.)
- Can be built in alone or with matching Electrolux Washer (side by side or stacked) in closet, recess or under counter installation with 0" minimum clearance required around sides and back of unit(s). To achieve 0" minimum rear clearance, dryer MUST be vented straight back or with quick-turn 90° elbow. Steam dryer requires additional 3/4" steam hose clearance at back of unit(s). Installation of closet door(s) requires additional 1" minimum clearance between front of unit(s) and door(s). Location of plumbing, exhaust and utility hookups MUST be considered when planning any built-in installation.
- Under-counter installation requires custom-built countertop and/or cabinetry to accommodate unit(s) height.

- Do NOT install in area exposed to dripping water or outdoor weather conditions, or where gasoline or other flammables, including automobiles, are kept or stored.
- For garage installation, dryer MUST be located minimum 18" above floor.
- Floor MUST be solid with 1" maximum slope. To ensure vibration or movement does not occur, reinforcement of floor may be necessary. Do NOT install on carpeted surface.
- Dryer MUST exhaust to outside of building, NOT into any concealed space.
- Dryer equipped for 4-way venting and approved for up to 125-foot-equivalent of duct length, determined by length of run and number of elbows needed.
- Exhaust installation requires minimum 4"-diameter rigid or semi-rigid metal duct with approved, unobstructed vent hood having swing-out damper(s). If installing rigid metal duct (preferred), do not exceed MAXIMUM venting run length of 125 ft., allow deductions for elbows and vents. If installing semi-rigid metal duct, do not exceed MAXIMUM venting run length of 8 ft., always allow deductions for elbows and vents (Refer to Product Installation Guide on web for additional information). Do NOT use flexible plastic or metal foil duct and use shortest run possible.
- Leveling legs supplied to level dryer properly and reduce excessive noise and vibration.
- Water inlet hose for steam setting connects to cold water supply with "Y" connector and requires 3/4" clearance between back of unit and wall.

Note: For planning purposes only. Refer to Product Installation Guide on the web at [electroluxappliances.com](http://electroluxappliances.com) for detailed instructions.

## Optional Accessories

- Pedestal Drawers – Island White (PN# EPWD157SIW).
- Dryer Stacking Kit – (PN# STACKIT7X).
- Drying Rack – (PN# A04840701).



## Electrolux Major Appliances, N.A.

USA • 10200 David Taylor Drive • Charlotte, NC 28262 • 1-877-4electrolux (1-877-435-3287) • [electroluxappliances.com](http://electroluxappliances.com)  
 CANADA • 5855 Terry Fox Way • Mississauga, ON L5V 3E4 • 1-800-265-8352 • [electroluxappliances.ca](http://electroluxappliances.ca)

EFDE317T 01/17

© 2017 Electrolux Home Products, Inc.

High standards of quality at Electrolux Home Products, Inc. mean we are constantly working to improve our products. We reserve the right to change specifications or discontinue models without notice.

# FRONT LOAD WASHER

4.3 Cu. Ft.

EFLW317TIW

With LuxCare™ Wash and IQ-Touch™ Controls



## PRODUCT DIMENSIONS

Height	38"
Width	27"
Depth	32"

## MORE EASY-TO-USE FEATURES

### 5 CYCLES TO CARE FOR EVERY FABRIC

Clean all your special items with tailored cycles for delicates, heavy duty, and more.

### FITS MORE ROOMS

With four-way venting and a standard 27" platform, our products are designed to fit just about anywhere you want to put them.

### SPACIOUS CAPACITY

Easily cleans a king-sized comforter with spacious 4.3 cu. ft. drum.

Available in:



Island White  
(IW)

\*As tested on conventional wood floor construction with vinyl floor covering.

## SIGNATURE FEATURES



### THOROUGH CLEANING WITH THE LUXCARE™ WASH SYSTEM

Our LuxCare™ Wash System offers a thorough clean with improved wash actions, temperature control, and smart load sensing.



### ENERGY STAR®-CERTIFIED

Electrolux washers meet strict criteria to guarantee high-quality energy efficient performance — without sacrificing clean.



### 10-YEAR MOTOR WARRANTY PLUS LIFETIME TUB WARRANTY

Rest easy knowing your washer is backed by a 10-year motor and lifetime tub warranty.



### PERFECT BALANCE® SYSTEM & SECOND FLOOR GUARANTEE

Balances loads for smooth, quiet operation. So quiet\* you can even run your washer on the second floor or near bedrooms without noticing it.

# FRONT LOAD WASHER

EFLW317TIW



## 27" FRONT LOAD WASHER

Capacity D.O.E.	4.3 Cu.Ft.
-----------------	------------

### FEATURES

Pull-to-Open Door	Yes
IQ-Touch™ Controls	Yes

Balance System	Perfect Balance®
Sound System	Luxury-Quiet™
Lighting	
Pull-to-Open Dispenser Drawer	Yes
Wash System	LuxCare™
Integral Water Heater	
Wash Drum	Stainless Steel
Automatic Temperature Control	Yes
Automatic Water Level Adjustment	Yes
Auto Prewash Detergent Dispenser (Liquid/Powder)	
Auto Bleach Dispenser (Liquid Only)	Yes
Auto Detergent Dispenser (Liquid/Powder)	Yes
Auto Fabric Softener Dispenser (Liquid Only)	Yes
Tumble Speed (RPM)	Variable
Spin Speed (RPM)	1,100
Reversible Door	
Adjustable Leveling Legs	Yes
ENERGY STAR®	Yes
NSF® Certified	

### CYCLES

Heavy Duty, Normal, Delicates, Rinse & Spin, Clean Washer	5
---	---

### OPTIONS

Wash/Rinse Temperature Combinations	4
Temperature Selections	3

Spin Speed Selections	3
Soil Level Selections	3
Delay Start	Yes
End-of-Cycle Chime	On/Off

### INSTALLATION OPTIONS

Freestanding, Under Counter*, Stacked (Under Dryer), Pedestal, Hidden (In Closet), Second Floor	Yes
---	-----

### ACCESSORIES

Luxury-Glide® Pedestal with Spacious Storage Drawer – Island White – PN# EPWD157SIW	Optional
Dryer Stacking Kit – PN# STACKIT7X	Optional
Drain Hose Extension Kit – PN# 137098000	Optional

### SPECIFICATIONS

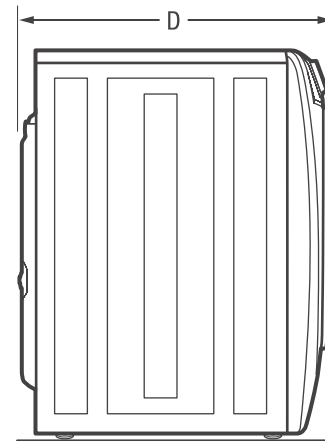
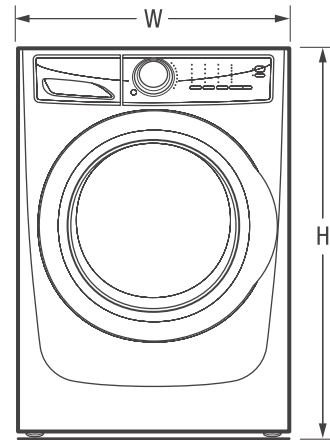
Color –	
Island White	IW
Power Supply Location	Top Right Rear
Water Inlet Location	Top Left Rear
Voltage Rating	120V/60 Hz
Connected Load (kW Rating) @ 120 Volts <sup>†</sup>	1.2
Watts @ 120 Volts	1,200
Amps @ 120 Volts	12
Shipping Weight (Approx.)	247 Lbs.

\*Side-by-Side units in under-counter installation require custom-built countertop and/or cabinetry.

<sup>†</sup>An electrical supply with grounded three-prong receptacle is required. The power supply circuit must be installed in accordance with current edition of National Electrical Code (NFPA 70) and local codes & ordinances.

NOTE: Always consult local and national electric and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at [electroluxappliances.com](http://electroluxappliances.com).

Specifications subject to change.



### PRODUCT DIMENSIONS

Height (without 15" Pedestal)	38"
(with 15" Pedestal)	53-1/4"
Width	27"
Depth (to Center of Arc Not Including Hose)	32"
(with Door 90° Open)	53-1/2"

## Electrolux Major Appliances, N.A.

USA • 10200 David Taylor Drive • Charlotte, NC 28262 • 1-877-4electrolux (1-877-435-3287) • [electroluxappliances.com](http://electroluxappliances.com)  
 CANADA • 5855 Terry Fox Way • Mississauga, ON L5V 3E4 • 1-800-265-8352 • [electroluxappliances.ca](http://electroluxappliances.ca)

EFLW317T 01/17

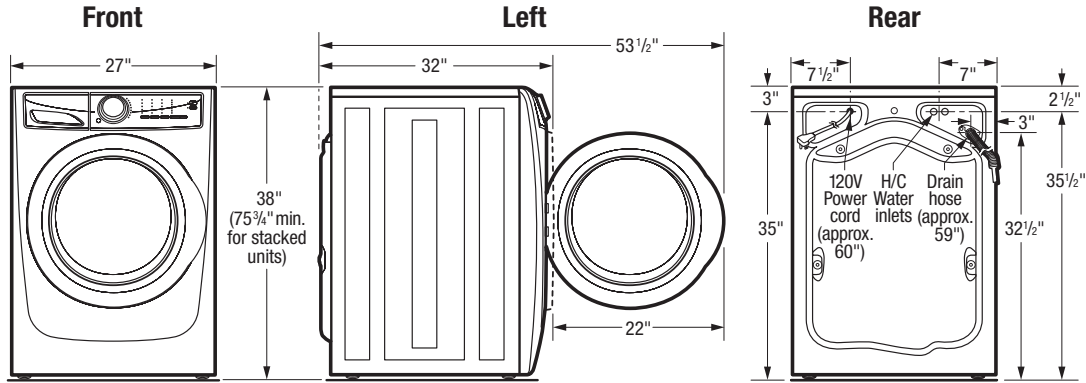
© 2017 Electrolux Home Products, Inc.



High standards of quality at Electrolux Home Products, Inc. mean we are constantly working to improve our products. We reserve the right to change specifications or discontinue models without notice.

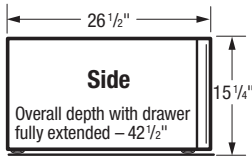
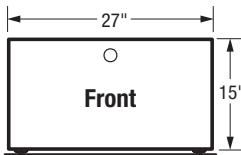
# FRONT LOAD WASHER

EFLW317TIW

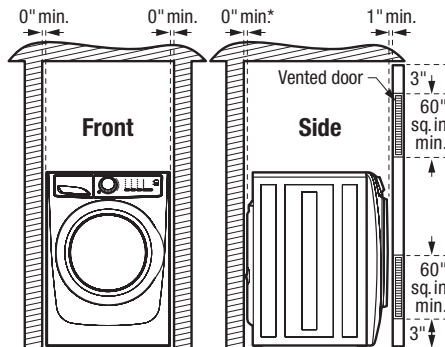


## 15" Pedestal Drawer Installation

Elevates washer height to 53 1/4". For detailed pedestal installation, refer to instructions included with pedestal or on web. Pedestal Installation may require modified utility hookup locations. For details, refer to Product Installation Guide on web.



## Built-In Installations



\*Installation with steam dryer requires additional 3/4" hose clearance.

### Closet Installation:

If washer and dryer are installed in same closet, door(s) MUST be vented with 120 sq. in. minimum louvered opening, equally divided, located 3" from top and bottom of door. Louvered door(s) with equivalent air openings for full-length of door is acceptable. Air openings MUST remain unobstructed with door(s) installed.

### Installation Clearances:

Washer can be built in alone or with dryer (*side by side or stacked*) in closet, recess or under counter installation with 0" minimum clearance required around sides and back of unit(s). To achieve 0" minimum rear clearance when installed with dryer, dryer MUST be vented straight back or with quick-turn 90° elbow. Steam dryer requires additional 3/4" steam hose clearance at back of unit(s). Installation of closet door(s) requires additional 1" minimum clearance between front of unit(s) and door(s). Location of plumbing, exhaust and utility hookups MUST be considered when planning any built-in installation. For additional installation details, refer to Product Installation Guides on web.

### Under Counter Installation:

Installation of washer alone or side by side with dryer under counter, requires custom-built countertop and/or cabinetry to accommodate unit(s) height.

### Stacking Units:

Stacking dryer above washer requires use of optional Stacking Kit (PN# STACKIT7X) with modified utility hookup locations for dryer. For complete installation details, refer to instructions included with Stacking Kit or on web.

## Front Load Washer Specifications

- Product Weight – 237 Lbs. / Shipping Weight – 247 Lbs.
- An electrical supply with grounded three-prong receptacle is required. The power supply circuit must be installed in accordance with current edition of National Electrical Code (ANSI/NFPA 70) and local codes & ordinances. (*Do not use same circuit as dryer.*)
- Voltage Rating – 120V/60Hz
- Connected Load (kW Rating) @ 120 Volts = 1.2 kW
- Amps @ 120V = 12A
- Equipped with 120V 3-wire power supply cord, approx. 60" long.
- Always consult local and national electric & plumbing codes.
- To maximize detergent effectiveness, ambient temperature should never be below 60°F.
- Can be installed alone, with or without optional 15" pedestal drawer, or stacked beneath matching Electrolux Dryer, which requires installation of optional dryer stacking kit. (*For installation details, refer to instructions included with optional pedestal or stacking kit or on web.*)
- Can be built in alone or with matching Electrolux Dryer (*side by side or stacked*) in closet, recess or under counter installation with 0" minimum clearance required around sides and back of unit(s). To achieve 0" minimum rear clearance when installed with dryer, dryer MUST be vented straight back or with quick-turn 90° elbow. Steam dryer requires additional 3/4" steam hose clearance at back of unit(s). Installation of closet door(s) requires additional 1" minimum clearance between front of unit(s) and door(s). Location of plumbing, exhaust and utility hookups MUST be considered when planning any built-in installation.
- Under-counter installation requires custom-built countertop and/or cabinetry to accommodate unit(s) height.

- Do NOT install in area exposed to dripping water or outdoor weather conditions, or where gasoline or other flammables, including automobiles, are kept or stored.
- For garage installation, washer MUST be located minimum 18" above floor.
- Floor MUST be solid with 1" maximum slope. To ensure vibration or movement does not occur, reinforcement of floor may be necessary. Do NOT install on carpeted surface.
- Leveling legs supplied to level washer properly and reduce excessive noise and vibration.
- H/C water faucets MUST be installed within 42" of washer's water inlet and MUST be 3/4" garden hose type, to connect to 48-1/2" inlet hoses.
- Water pressure MUST be between 30 and 120 psi with NOT more than 10 psi pressure difference between hot and cold.
- Drain required with standpipe diameter of 1-1/4" min. and height of 24" min./96" max. above floor, capable of eliminating 17 gallons per minute. Attached 59" drain hose can reach 79"-high standpipe.

**Note:** For planning purposes only. Refer to Product Installation Guide on the web at [electroluxappliances.com](http://electroluxappliances.com) for detailed instructions.

## Optional Accessories

- Pedestal Drawers – Island White (PN# EPWD157SIW).
- Dryer Stacking Kit – (PN# STACKIT7X).
- Drain Hose Extension Kit – (PN# 137098000).

## Electrolux Major Appliances, N.A.

USA • 10200 David Taylor Drive • Charlotte, NC 28262 • 1-877-4electrolux (1-877-435-3287) • [electroluxappliances.com](http://electroluxappliances.com)  
 CANADA • 5855 Terry Fox Way • Mississauga, ON L5V 3E4 • 1-800-265-8352 • [electroluxappliances.ca](http://electroluxappliances.ca)

EFLW317T 01/17

© 2017 Electrolux Home Products, Inc.



High standards of quality at Electrolux Home Products, Inc. mean we are constantly working to improve our products. We reserve the right to change specifications or discontinue models without notice.



# Dishwashers

FDB2410HI C/S/B

24" Built-In



## Product Dimensions

Height (Adjustable)	32-1/2" - 34-7/8"
Width	24"
Depth (Including Door)	23"

## More Easy-To-Use Features

### Multiple Cycle Options

Features easy-to-use cleaning cycle options.

### Delay Start

Set your dishwasher to run on your schedule.

### Ready-Select® Controls

Easily select options with the touch of a button.

### Energy Saver Plus Cycle

Eco-friendly cycle uses less energy without compromising cleaning performance.

### Energy Saver Dry Option

No heat dry option.

### Attractive Stainless Steel Exterior<sup>1</sup>

### Low Rinse-Aid Indicator Light

### Control Lock Option

### 5-Level Wash Design

### UltraQuiet™ 3

### Sound Reduction System

ENERGY STAR®  
A.D.A. Compliant<sup>2</sup>



### Available in:



Stainless  
(C)



White  
(S)



Black  
(B)

## Signature Features

### Stainless Steel Interior

Premium stainless steel interior for maximum durability.

### Tall-Tub Design

Our large capacity, tall-tub dishwasher fits up to 12 place settings so you can wash more at once.

### Quiet Dishwasher

A quiet performance every time.

### SpaceWise® Silverware Basket

There's a place for all of your silverware in our multicompartment, removable basket.

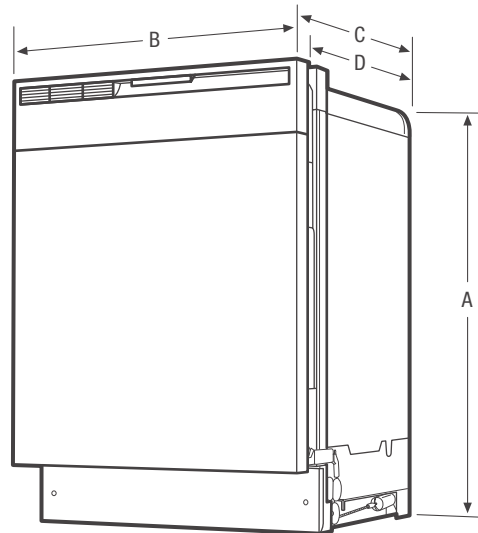
<sup>1</sup>Select model only.

<sup>2</sup>When properly installed, meets the appliance standards in the Americans with Disabilities Act and the Architectural Barriers Act Accessibility Guidelines as published by the United States Access Board on June 23, 2004, as amended August 5, 2005.

<b>Features</b>	
Control Design	Ready-Select*
Digital Display	Yes
Door Latch	Yes
Stay-Put Door Hinge Design	Yes
Low Rinse-Aid Indicator Light	Yes
Interior Design	Tall Tub
Interior Color	Stainless Steel
Wash System	Direct
Wash Levels/Wash Speeds	5/1
Sound Package	UltraQuiet™ 3
Filter	Stainless Steel
Filter Trap	Removable
Soft Food Disposer	Yes
dB Level	56
Drying System	Static
<b>Cycles</b>	
Number of Cycles	5
Heavy	Yes
Normal	Yes
Light	
Delicate	
Favorite	
China/Crystal	Yes
Rinse Only	Yes
Energy Saver Plus	Yes
Upper Rack Wash Only	
Cycle Indicator Light	
Control Lock	Yes
<b>Options</b>	
Heat/No Heat Dry	Yes
Hi-Temp Wash	Yes
NSF® Certified Sanitize Rinse	
Delay Start	1-24 Hour
<b>Rack System</b>	
Rack Design/Rack Coating	Deluxe/Nylon TuffRacks™
Upper Rack -	
Stemware/Champagne Glass Holders	Yes
Fold-Down Tines	Yes
Cup Shelves	2
Lower Rack -	
SpaceWise® Silverware Basket	3-Piece Split
Fold-Down Tines	
Small Items Cover	3
<b>Certifications</b>	
ENERGY STAR®	Yes
A.D.A. Compliant <sup>1</sup>	Yes
<b>Specifications</b>	
Water Inlet Location	Left Bottom Front
Water Usage (Gallons)	5.4
Water Pressure (PSI)	20 - 120
Integral Air Gap on Supply	Yes
Leveling Legs	4
Power Supply Connection Location	Right Bottom Front
Voltage Rating	120V / 60 Hz / 15A
Connected Load (kW Rating) @ 120 Volts <sup>2</sup>	1.44
Amps @ 120 Volts	10
Shipping Weight (Approx.)	69 Lbs.

<sup>1</sup>When properly installed, meets the appliance standards in the Americans with Disabilities Act and the Architectural Barriers Act Accessibility Guidelines as published by the United States Access Board on June 23, 2004, as amended August 5, 2005.

<sup>2</sup>For use on adequately wired 120V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.



NOTE: For planning purposes only. Always consult local and national electric and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at [frigidaire.com](http://frigidaire.com).



Meets requirements of ASSE 1006

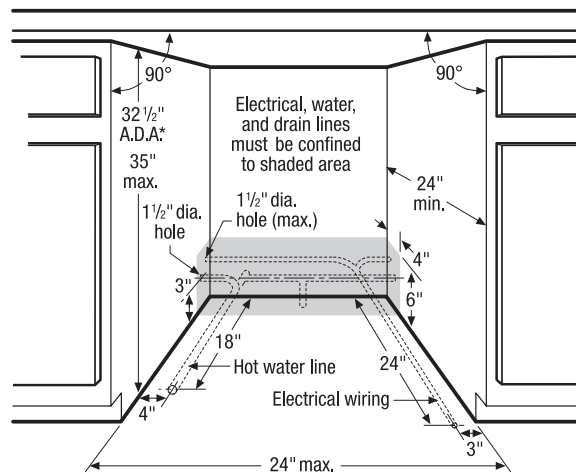
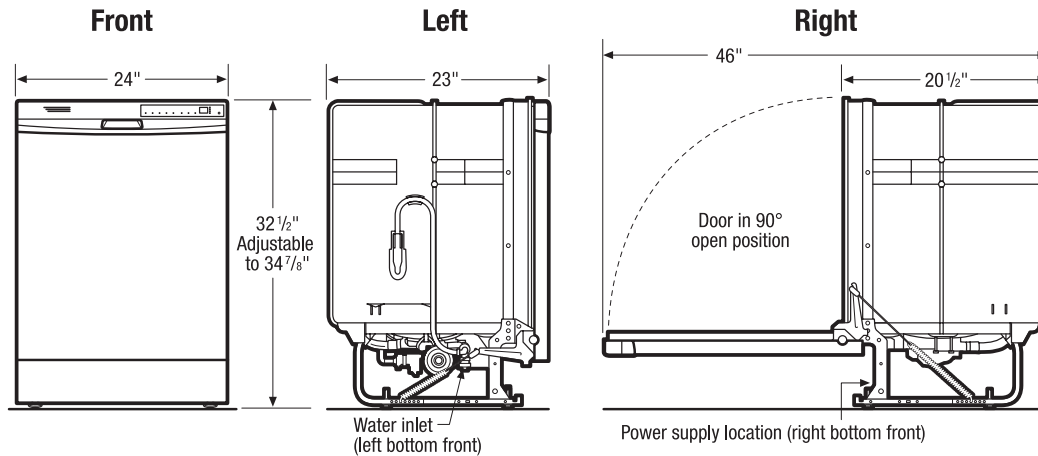
Product Dimensions	
A - Height (Adjustable)	32-1/2" - 34-7/8"
B - Width	24"
C - Depth (Including Door)	23"
D - Depth (To Tub Flange)	20-1/2"
Depth with Door Open 90°	46"

Cutout Dimensions	
Height (Min.)	32-1/2" (A.D.A.!)
Height (Max.)	35"
Width (Max.)	24"
Depth (Min.)	24"

Accessories information available on the web at [frigidaire.com](http://frigidaire.com)

FRIGIDAIRE

USA • 10200 David Taylor Drive • Charlotte, NC 28262 • 1-800-FRIGIDAIRE • [frigidaire.com](http://frigidaire.com)  
 CANADA • 5855 Terry Fox Way • Mississauga, ON L5V 3E4 • 1-800-265-8352 • [frigidaire.ca](http://frigidaire.ca)



\*A.D.A. installation, (32 1/2") beneath 34"- high countertop may be accomplished by adjusting toekick and leveling legs.

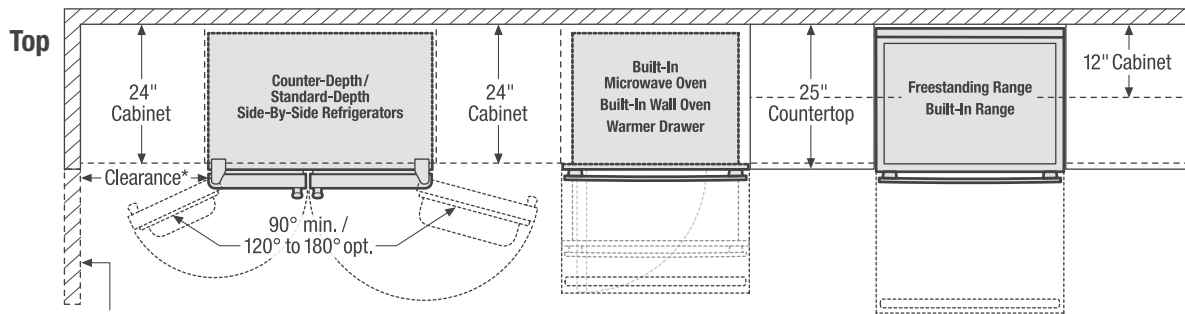
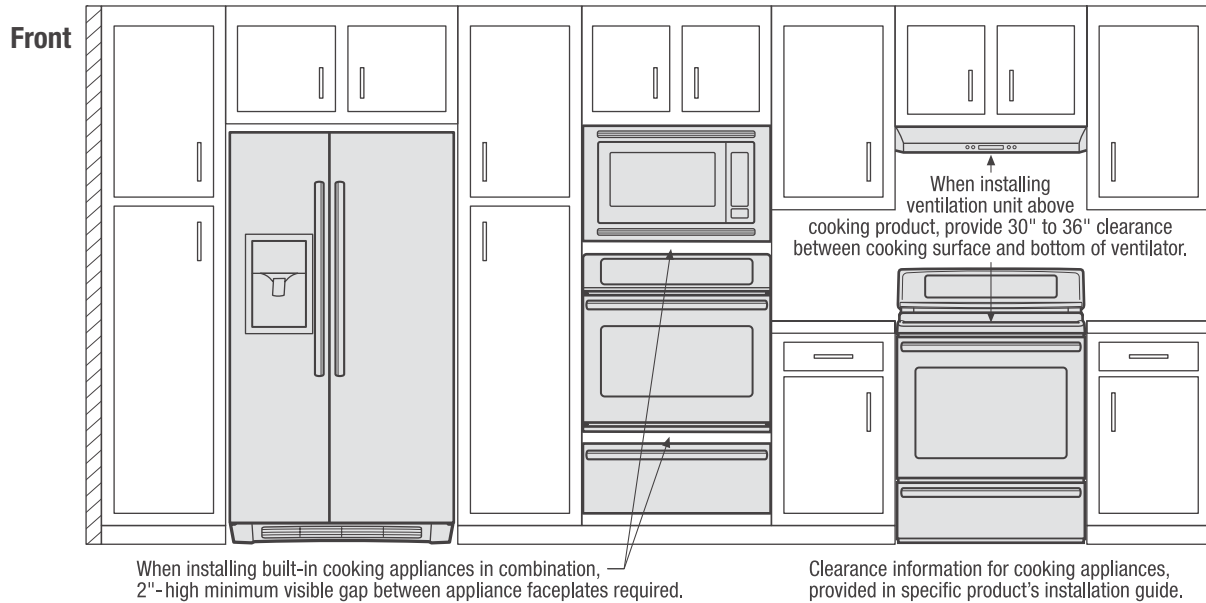
**Dishwasher Specifications**

- Product Shipping Weight (approx.) - 69 Lbs.
- Voltage Rating - 120V/60 Hz/15 Amps (maximum 20 Amps if connected with disposer)
- Connected Load (kW Rating) @ 120 Volts = 1.44 kW (For use on adequately wired 120V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.)
- Amps @ 120V = 10 Amps
- Always consult local and national electric & plumbing codes. Meets requirements of ASSE 1006 – integral air gap on supply.
- Dishwasher enclosure requires that adjacent cabinets be square and plumb. Unit must be fully enclosed on top, sides and back; and not support any part of enclosure.
- For A.D.A. installation, (32 1/2") beneath 34"- high countertop may be accomplished by adjusting toekick and leveling legs.
- When installing unit adjacent to wall, cabinet or other obstruction that extends beyond front edge of unit, allow 2" minimum clearance between opened door and obstruction.
- Do not install unit beneath cooktop, damage will occur.

- Make sure location has required drain, water and electrical outlets to make proper connections.
- Air gap required if drain is connected to waste tee or disposer lower than 18" above floor. If no air gap required, minimum 32"-high drain loop must be used. Total drain hose length must not exceed 10' to drain outlet.
- Electrical and water supplies should enter enclosure on floor, or through rear or cabinet side walls, as shown in designated shaded area. Hot water line may pass through same hole as electrical cable and drain hose; or through additional 1-1/2" dia. hole designated to accommodate line.
- Water connection located on left side of dishwasher. Install hot water inlet line using no less than 3/8" O.D. copper and extend forward at least 18" from rear wall with hand shut-off valve accessible beneath sink.
- Water Pressure - Hot water line to dishwasher must provide between 20 and 120 pounds per square inch (psi).

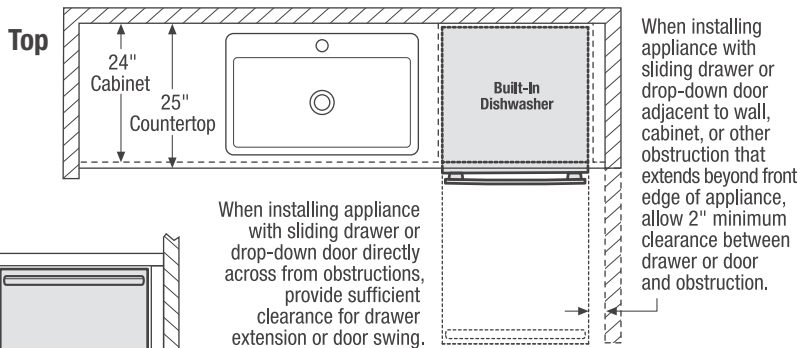
**Note:** For planning purposes only. Refer to Product Installation Guide on the web at [frigidaire.com](http://frigidaire.com) for detailed instructions.

Use these dimensions and clearance instructions for planning purposes only. For detailed installation instructions, refer to installation guide, packed with product, or on the web at frigidaire.com.

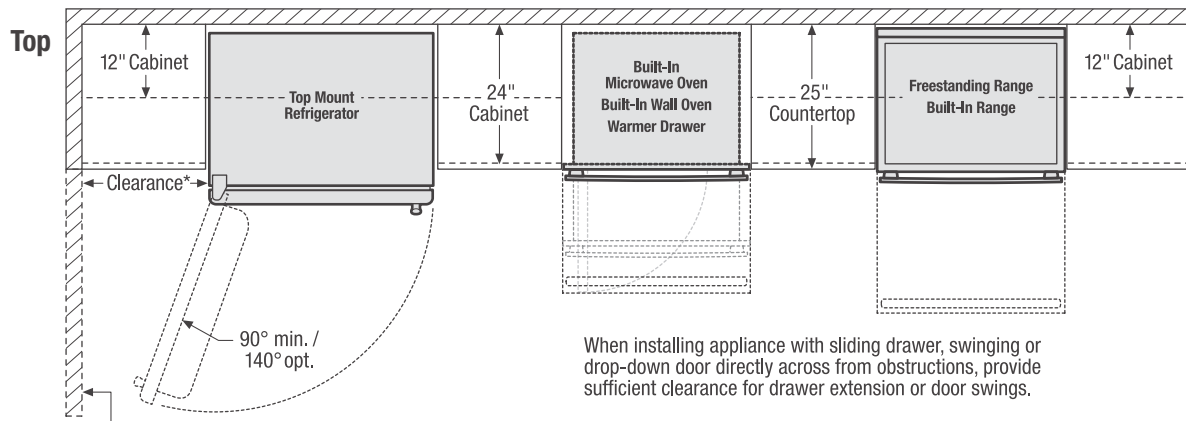
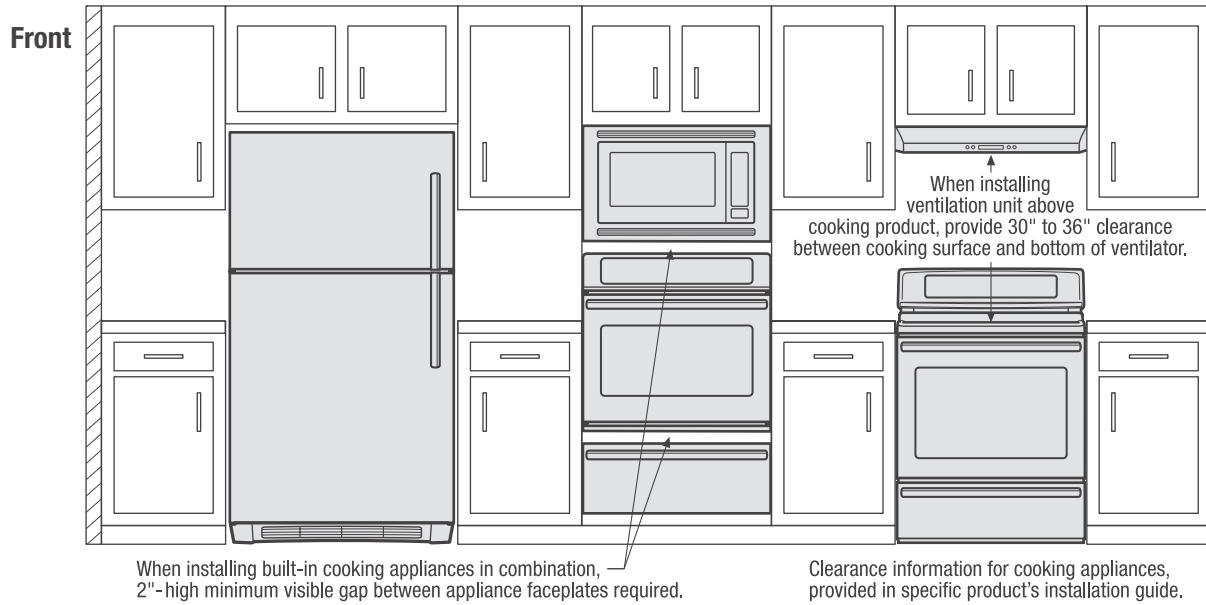


\*When installing side-by-side refrigerator adjacent to wall, cabinet or another appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 120° to 180° door swing, providing complete drawer/crisper access and removal. (Absolute 4-1/2" minimum clearance will ONLY allow for 90° door swing which will provide limited drawer/crisper access with restricted removal.)

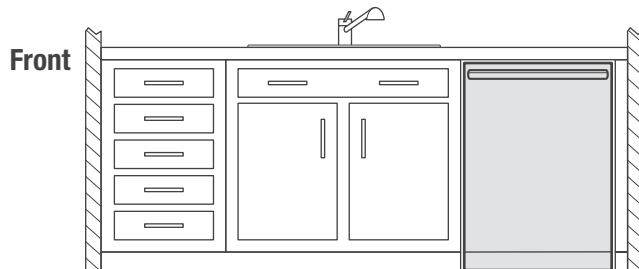
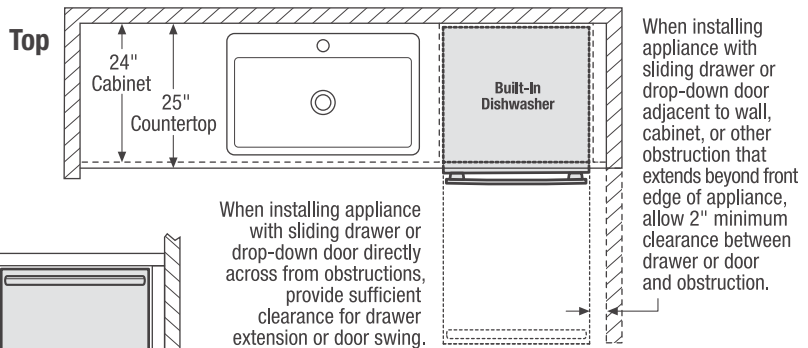
When installing appliance with sliding drawer, swinging or drop-down door directly across from obstructions, provide sufficient clearance for drawer extension or door swings.



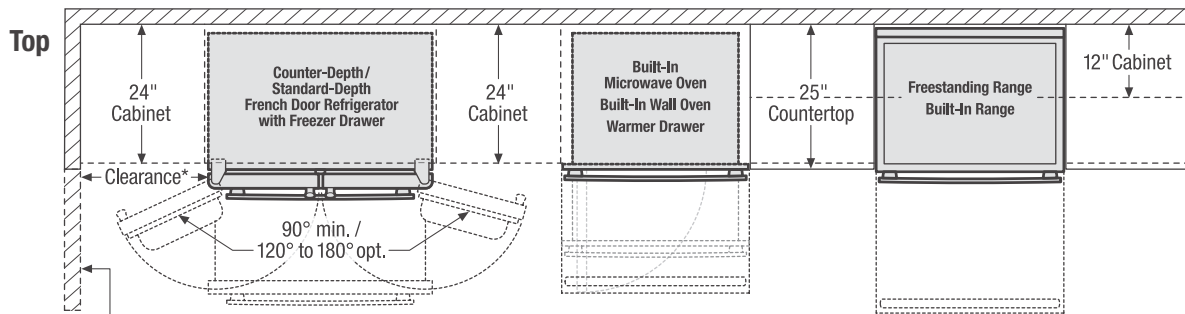
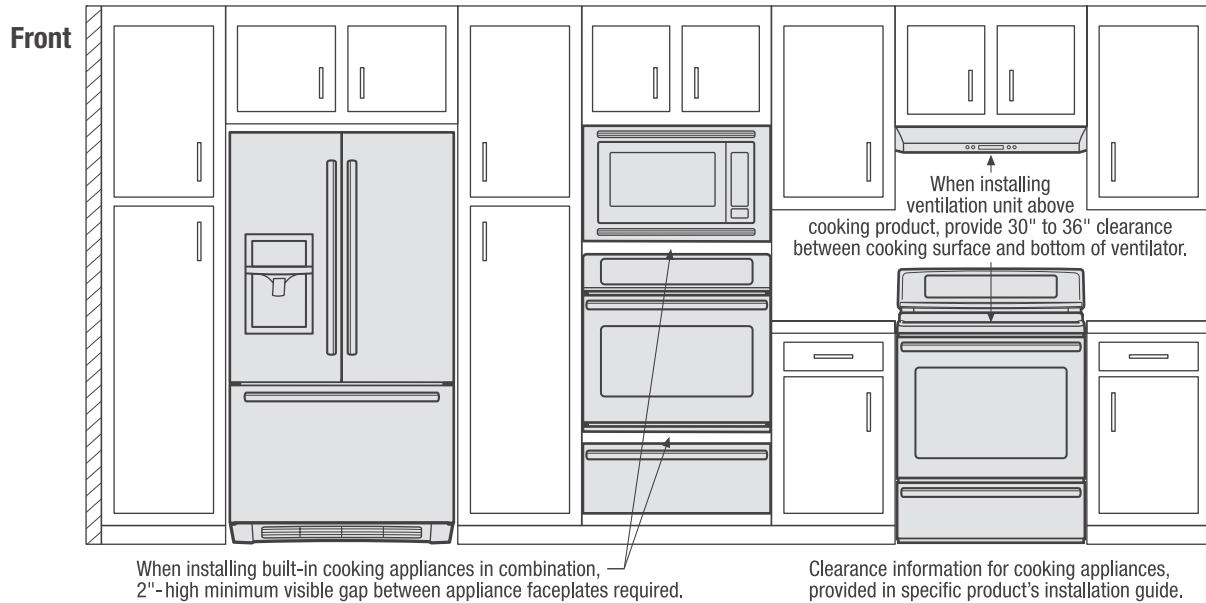
Use these dimensions and clearance instructions for planning purposes only. For detailed installation instructions, refer to installation guide, packed with product, or on the web at frigidaire.com.



\*When installing top mount refrigerator adjacent to wall, cabinet or other appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 140° door swing, providing complete crisper access and removal. (Absolute 3" minimum clearance will ONLY allow for 90° door swing which will provide limited crisper access with restricted removal.)

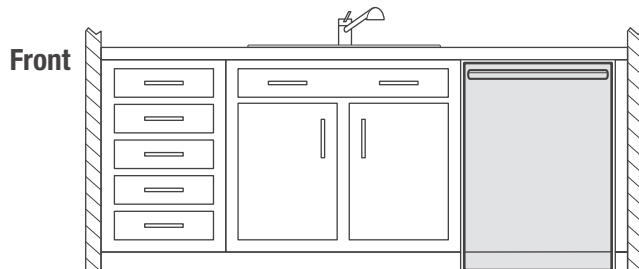
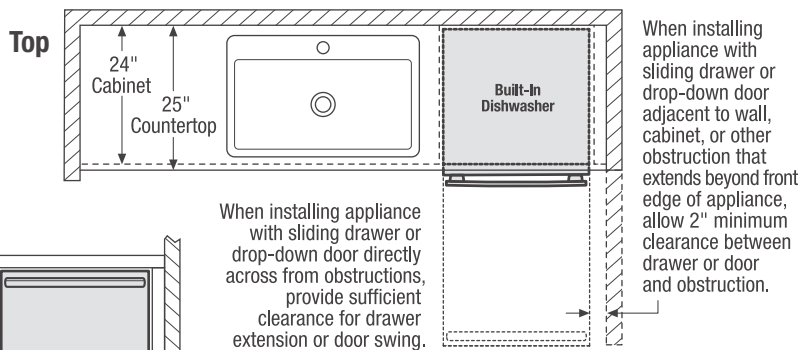


Use these dimensions and clearance instructions for planning purposes only. For detailed installation instructions, refer to installation guide, packed with product, or on the web at [frigidaire.com](http://frigidaire.com).

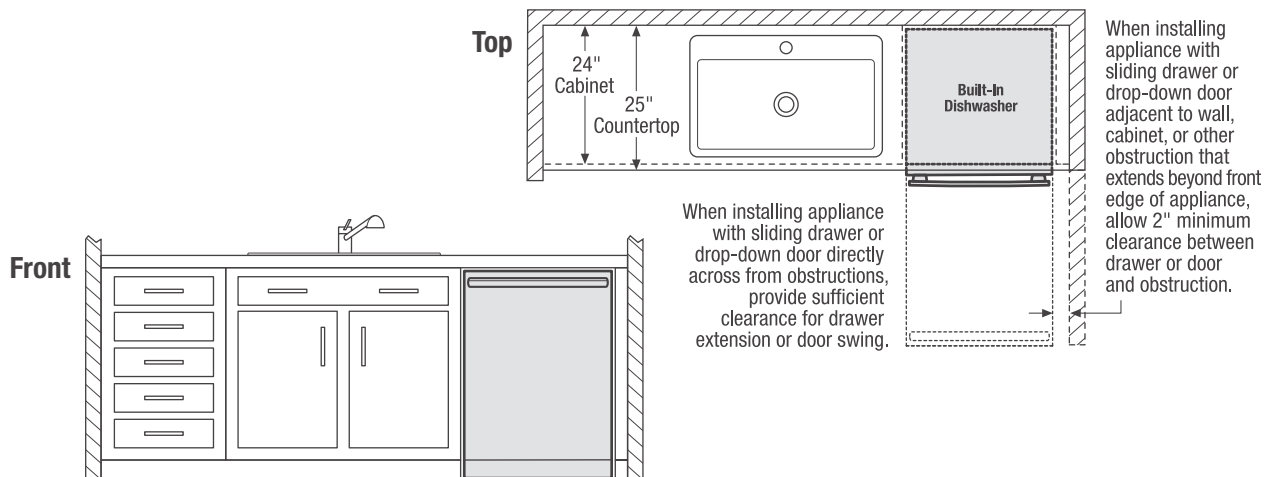
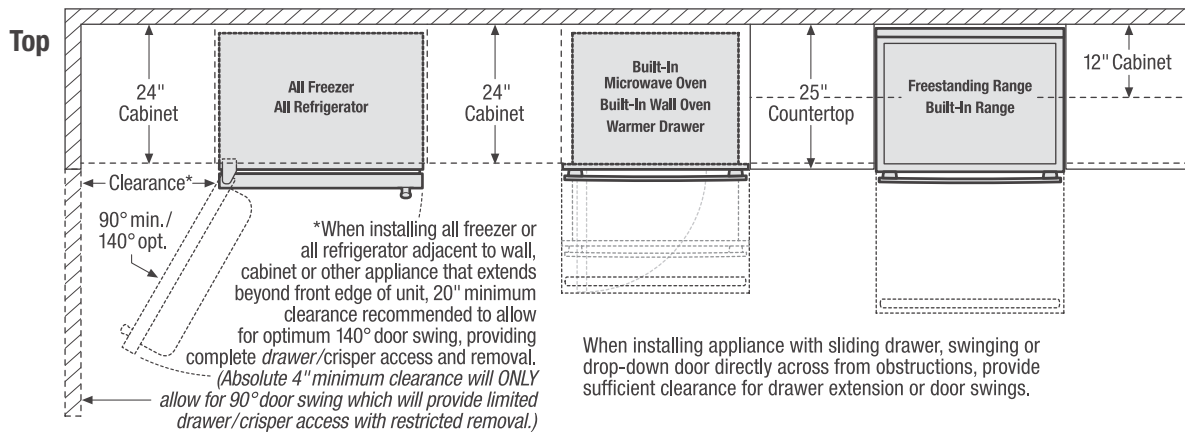
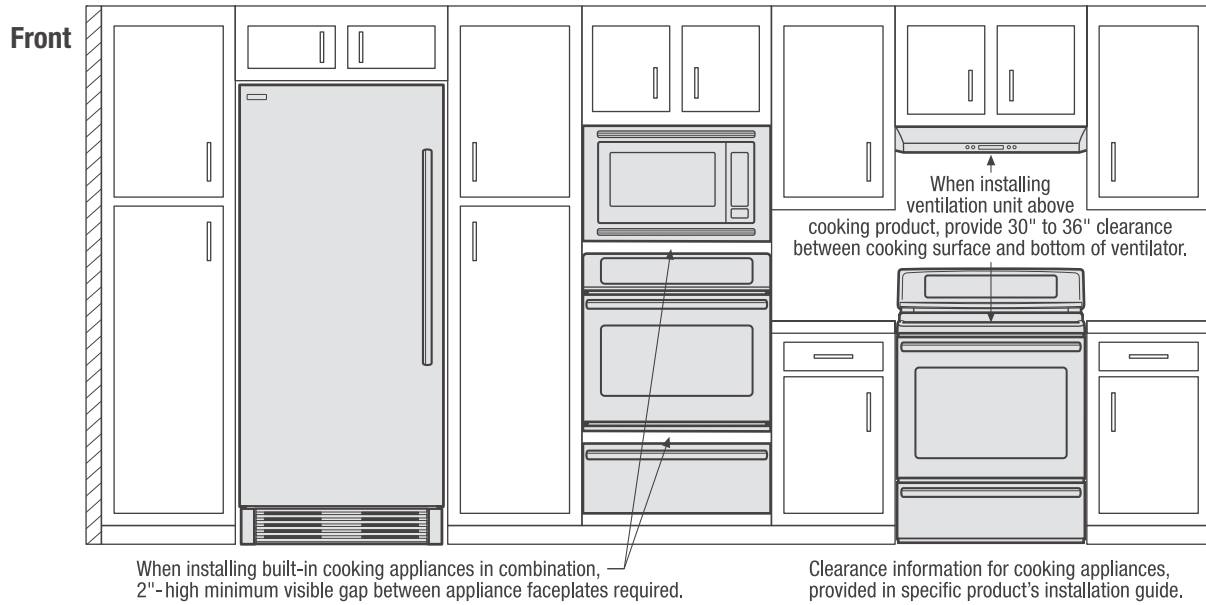


\*When installing French door refrigerator adjacent to wall, cabinet or another appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 120° to 180° door swing, providing complete drawer/crisper access and removal. (Absolute 4-1/2" minimum clearance will ONLY allow for 90° door swing which will provide limited drawer/crisper access with restricted removal.)

When installing appliance with sliding drawer, swinging or drop-down door directly across from obstructions, provide sufficient clearance for drawer extension or door swings.



Use these dimensions and clearance instructions for planning purposes only. For detailed installation instructions, refer to installation guide, packed with product, or on the web at frigidaire.com.



## FFCD2413U S/W/B

### DISHWASHER

24" BUILT-IN



#### AVAILABLE COLORS



Stainless



White



Black

#### PRODUCT DIMENSIONS

Height (Min. - Max.)	33-1/2" - 35"
Width	24"
Depth	25"

#### MORE EASY-TO-USE FEATURES

##### ENERGY STAR® Certified

Maximize your energy and dollar savings with ENERGY STAR® Certified Appliances.

##### Time Saving 4-Hour Delay Start

Set your dishwasher to run on your schedule. It can be set to run 4 hours in advance.

##### Cycle Status Indicators

Know when your dishes are washing, drying and clean with the status indicators.

##### Filtration System

Self-cleaning filter eliminates food particles, keeping dishes clean.

##### Stay-Put Door Allows For Easier Loading

The door stays put at whatever angle you open it for easy loading and unloading.

##### Durable Polymer Wash Tub

Supports the drying process, keeping dishes dry the first time.

##### Built with American Pride

Designed, engineered and assembled in the U.S.A.

#### CERTIFICATIONS

ENERGY STAR®



### SIGNATURE FEATURES

#### A Thorough Clean Every Time

Three separate spray arms give your dishes the ultimate clean every time.

#### Fits up to 14 Place Settings

Cleans 14 place settings in one cycle.

#### Heated Drying System

Heating element helps dry your dishes the first time.

#### Multiple Cleaning Cycle Options

Features easy-to-use cleaning cycle options for your different cleaning needs including Energy Saver, Light Wash and Heavy Wash.

# FFCD2413U S/W/B DISHWASHER

# FRIGIDAIRE

## 24" BUILT-IN

### FEATURES

Control Design	Ready-Select®
Door Latch / Stay-Put Door Hinge Design	Yes / Yes
Low Rinse-Aid Indicator Light	Yes
Interior Color / Interior Design	Greystone / Tall Tub
Wash System	Direct Feed
Wash Levels / Wash Speeds	5 / 5
Sound Package	UltraQuiet™ I
Filter / Filter Trap	Poly / Removable
Food Disposer	Hard
dB Level	60
Drying System	Static Vent

### CYCLES

Number of Cycles	3
PowerPlus™ (Heavy)	Yes
Normal	Yes
Light	Yes
Cycle Indicator Light / Control Lock	Yes / Yes

### OPTIONS

Heat / No Heat Dry	Yes / Yes
Hi-Temp Wash	Yes
Delay Start	4 Hours

### RACK SYSTEM

Rack Design	Standard
Rack Coating	PVC

#### Lower Rack -

SpaceWise® Silverware Basket	Standard
------------------------------	----------

#### Upper Rack -

Rack Type	Basic
-----------	-------

### CERTIFICATIONS

ENERGY STAR®	Yes
--------------	-----

### SPECIFICATIONS

Water Inlet Location	Left Bottom Front
Water Usage (Gallons)	6.0
Water Pressure (PSI)	20 - 120
Integral Air Gap on Supply	Yes
Leveling Legs	Yes
Power Supply Connection Location	Right Bottom Front
Voltage Rating	120V / 60 Hz / 15A
Connected Load (kW Rating) @ 120 Volts¹	1.44
Amps @ 120 Volts	10.0
Shipping Weight (Approx.)	83 Lbs.

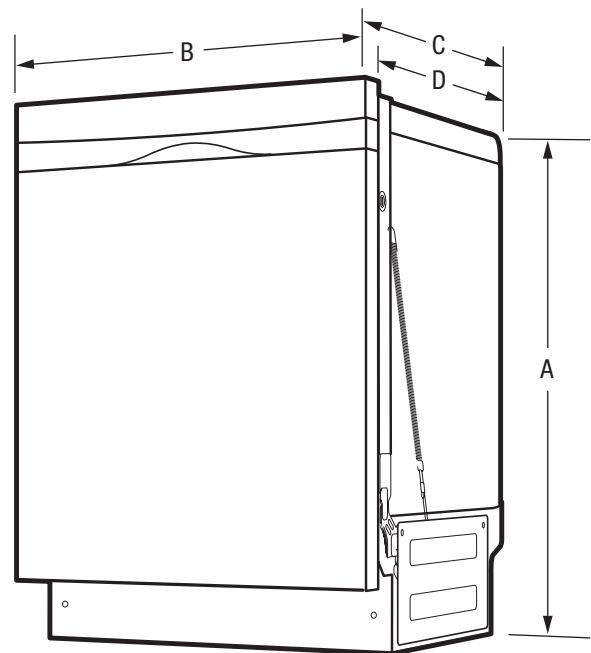
<sup>1</sup>For use on adequately wired 120V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.

### PRODUCT DIMENSIONS

A - Height (Min.-Max.)	33-1/2" - 35"
B - Width	24"
C - Depth	25"
Depth with Door Open 90°	49-1/4"

### CUTOUT DIMENSIONS

Height (Min.)	33-1/2"
Height (Max.)	35-1/4"
Width (Min.)	24"
Depth (Min.)	24"



**Note:** For planning purposes only. Always consult local and national electric, gas and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at [frigidaire.com](http://frigidaire.com) / [frigidaire.ca](http://frigidaire.ca).  
Specifications subject to change. Accessories information available on the web at [frigidaire.com](http://frigidaire.com) / [frigidaire.ca](http://frigidaire.ca)

**FRIGIDAIRE**

USA • 10200 David Taylor Drive • Charlotte, NC 28262 • 1-800-FRIGIDAIRE • [frigidaire.com](http://frigidaire.com)  
CANADA • 5855 Terry Fox Way • Mississauga, ON L5V 3E4 • 1-800-265-8352 • [frigidaire.ca](http://frigidaire.ca)

FFCD2413U 06/18  
© 2018 Electrolux Home Products, Inc.





## Microwaves

FFMO1611L S/W/B

22" Countertop



Shown with optional Built-In Trim Kit



### Product Dimensions

Height	12-7/8"
Width	21-3/4"
Depth	18-1/2"

### More Easy-To-Use Features

Extra-Large 14-1/4" Diameter Glass Turntable

10 Cooking Power Levels

Control Lock Option

Electronic Clock & Timer

Attractive Stainless Steel Exterior<sup>1</sup>

Available in:



Stainless  
(S)



White  
(W)



Black  
(B)

<sup>1</sup>Select models only.

## Signature Features

### One-Touch Options

Our microwaves feature easy-to-use one-touch buttons so you can cook baked potatoes, popcorn, or even add 30 seconds with the touch of a button.

### Multi-Stage Cooking

Our Multi-Stage Cooking option allows you to program power levels and cooking times in advance, so you can program it to defrost, cook and keep a meal warm all at once.

### Ready-Select® Controls

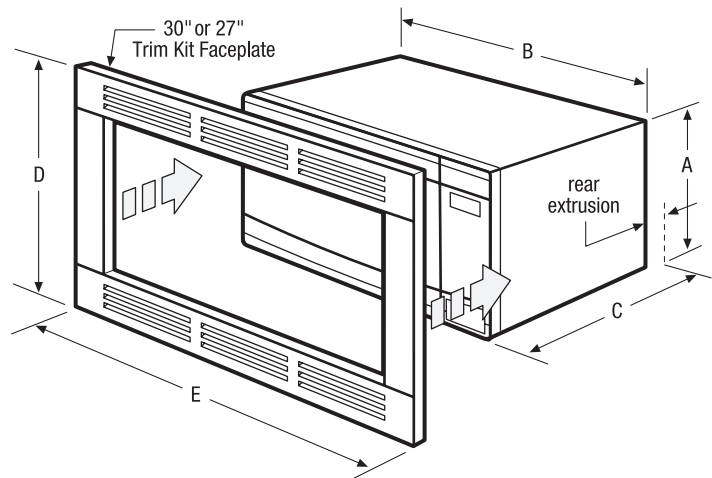
Easily select options with the touch of a button.

### Sensor Cooking Options

Microwave automatically adjusts power levels and cooking times to cook a variety of items, effortlessly.

<b>Features</b>	
Control/ Timing System	Ready-Select®
Exterior Door Finish	Stainless Steel (S), Color-Coordinated (W/B)
Handle Design	Push Button
<b>Microwave Features</b>	
Microwave Capacity (Cu.Ft.)	1.6
Watts (IEC-705 Test Procedure)	1,100
Interior Light	Yes
Interior Color	White
Turntable Diameter	14-1/4"
Turntable On/Off	
Control Lock	Yes
Clock	Yes
Touch Pad Buttons	23
Power Levels	10
Accessory Metal Rack	
<b>Microwave Control Options</b>	
Easy-Set™ Start	Yes
Popcorn Button	Yes
Chicken Nugget Button	
Baked Potato Button	Yes
Sensor Reheat Button	Yes
Snack Button	
Beverage	
Melt & Soften Options	
Auto Reheat Options	
Snack Menu Options	
Auto Cook Options	Yes
Auto Defrost Options	Yes
Multi-Stage Cooking Option	Yes
Keep Warm	
Add-30-Seconds	Yes
Sensor Cooking Options	8
Vegetable Cook Sensor	Yes
Delay Start	
User Preferences	
<b>Power Ratings</b>	
Frequency (Mhz)	2,450
Watts @ 120 Volts	1,550
Amps @ 120 Volts	13.0
<b>Optional Accessories</b>	
30" Stainless Steel Trim Kit	PN# FFMOTK30LS
30" White Trim Kit	PN# FFMOTK30LW
30" Black Trim Kit	PN# FFMOTK30LB
27" Stainless Steel Trim Kit	PN# FFMOTK27LS
27" White Trim Kit	PN# FFMOTK27LW
27" Black Trim Kit	PN# FFMOTK27LB
<b>Specifications</b>	
Oven Interior (HxWxD)	10-5/16" x 17-1/4" x 15-3/8"
Power Supply Connection Location	Right Top Rear
Voltage Rating	120V / 60Hz / 15A
Connected Load (kW Rating) @ 120 Volts <sup>1</sup>	1.55
Minimum Circuit Required (Amps)	15
Shipping Weight (Approx.)	44 Lbs.

<sup>1</sup>For use on adequately wired 120V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.



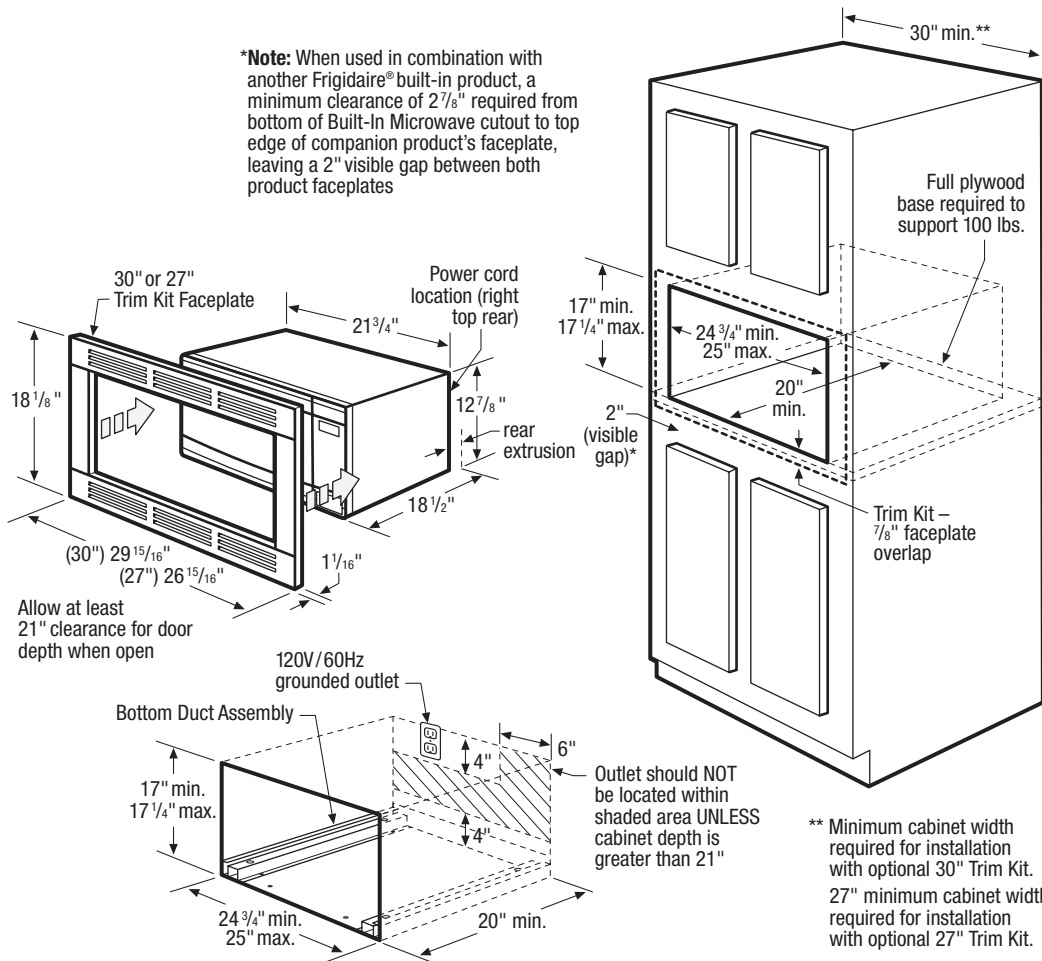
NOTE: For planning purposes only. Always consult local and national electric codes. Refer to Product Installation Guide for detailed installation instructions on the web at [frigidaire.com](http://frigidaire.com).



Product Dimensions		Cutout Dimensions	
A - Height	12-7/8"	Height (Min.)	17"
B - Width	21-3/4"	Height (Max.)	17-1/4"
C - Depth	18-1/2"	Width (Min.)	24-3/4"
D - Height (Trim Kit Faceplate)	18-1/8"	Width (Max.)	25"
E - Width (30" Trim Kit Faceplate)	29-15/16"	Depth (Min.)	20"
E - Width (27" Trim Kit Faceplate)	26-15/16"		

Accessories information available on the web at [frigidaire.com](http://frigidaire.com)

**\*Note:** When used in combination with another Frigidaire® built-in product, a minimum clearance of 2<sup>7</sup>/<sub>8</sub>" required from bottom of Built-In Microwave cutout to top edge of companion product's faceplate, leaving a 2" visible gap between both product faceplates



**Microwave Specifications**

- Product Shipping Weight (Approx.) - 44 Lbs. (not incl. Trim Kit)
- Voltage Rating - 120V/60 Hz/15 or 20 Amps
- Connected Load (kW Rating) @ 120 Volts = 1.55 kW (For use on adequately wired 120V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.)
- Amps @ 120 Volts = 13 Amps
- Always consult local and national electric codes.
- Microwave can stand alone on countertop or be built in with optional 30" or 27" Trim Kit (ordered by individual part number) which includes Bottom Duct Assembly - shipped in separate box.
- Allow 21" minimum clearance for 90° door swing.
- Minimum 20" deep oven cutout dimension is critical for proper installation for oven and faceplate to fit flush against cabinet front.
- Consult local building code, in the event that cutout opening may be required to be enclosed with sides, ceiling and rear partition.
- Full oven base of solid plywood or similar material required, capable of supporting 100 Lbs.

- Base must be level and front of cabinet square for proper operation.
- Grounded outlet should NOT be located in shaded area, as indicated, UNLESS cabinet depth is greater than 21".
- Can NOT be installed above any gas wall oven.
- Built-In Microwave is approved to be used in combination with any Frigidaire® Electric Single Wall Oven and/or Warmer Drawer. (Refer to model-specific Combination Installation Specification pages on web.)
- When used in combination with another Frigidaire® built-in product, a minimum clearance of 2-7/8" required from bottom of Built-In Microwave cutout to top edge of companion product's faceplate, leaving a 2" visible gap between both product faceplates.

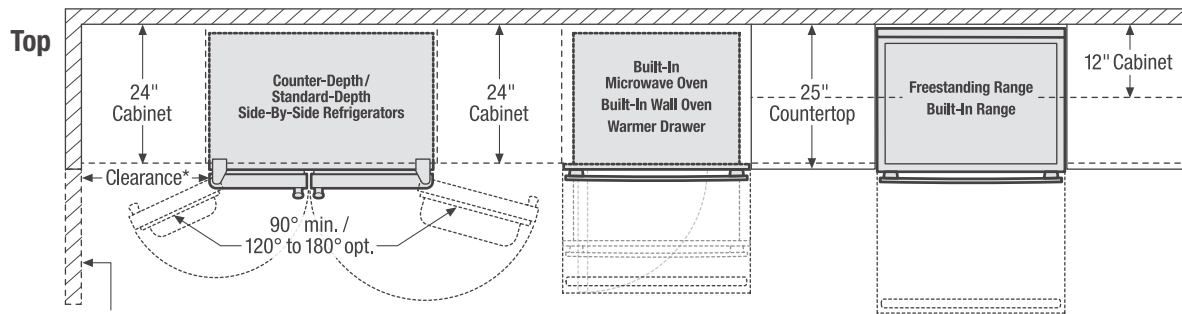
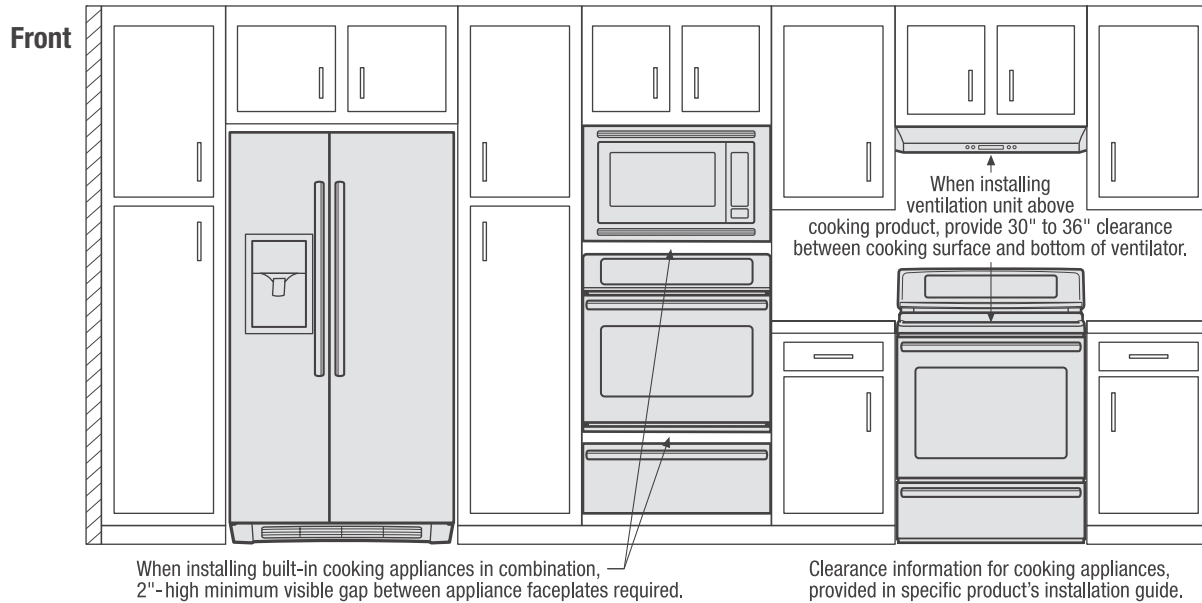
**Note:** For planning purposes only. Refer to Product Installation Guide on the web at [frigidaire.com](http://frigidaire.com) for detailed instructions.

**Optional Accessories**

- 30" Stainless Steel Trim Kit - (PN# FFMOTK30LS).
- 27" Stainless Steel Trim Kit - (PN# FFMOTK27LS).
- 30" White Trim Kit - (PN# FFMOTK30LW).
- 27" White Trim Kit - (PN# FFMOTK27LW).
- 30" Black Trim Kit - (PN# FFMOTK30LB).
- 27" Black Trim Kit - (PN# FFMOTK27LB).

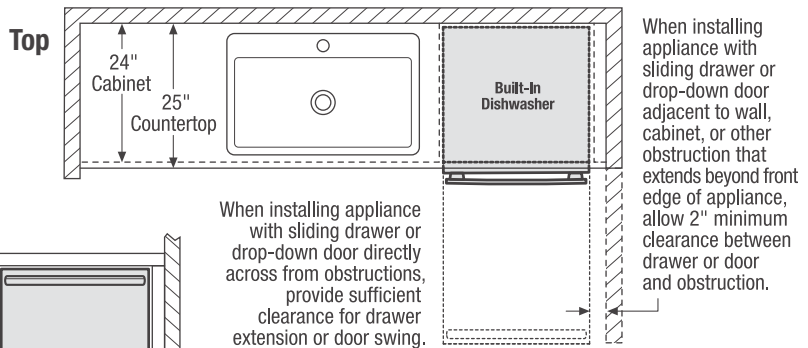


Use these dimensions and clearance instructions for planning purposes only. For detailed installation instructions, refer to installation guide, packed with product, or on the web at [frigidaire.com](http://frigidaire.com).

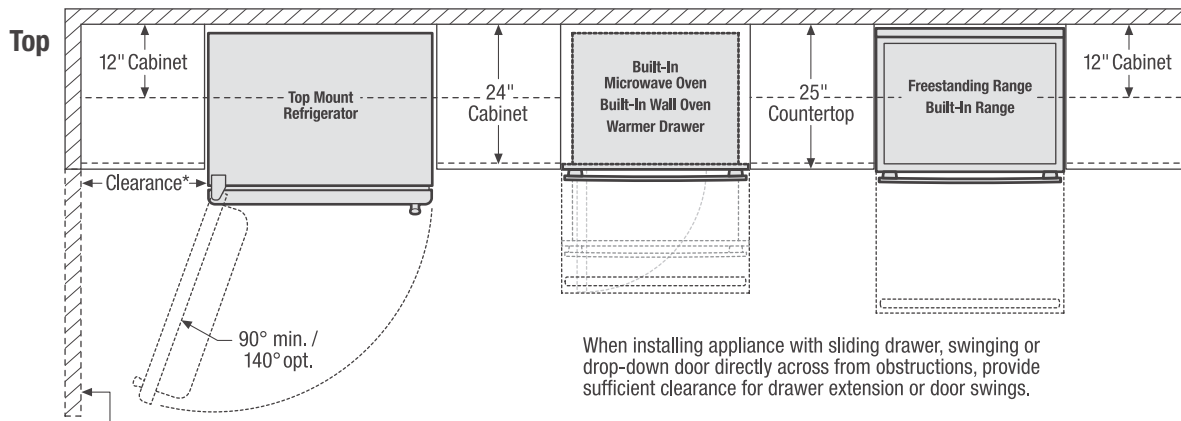
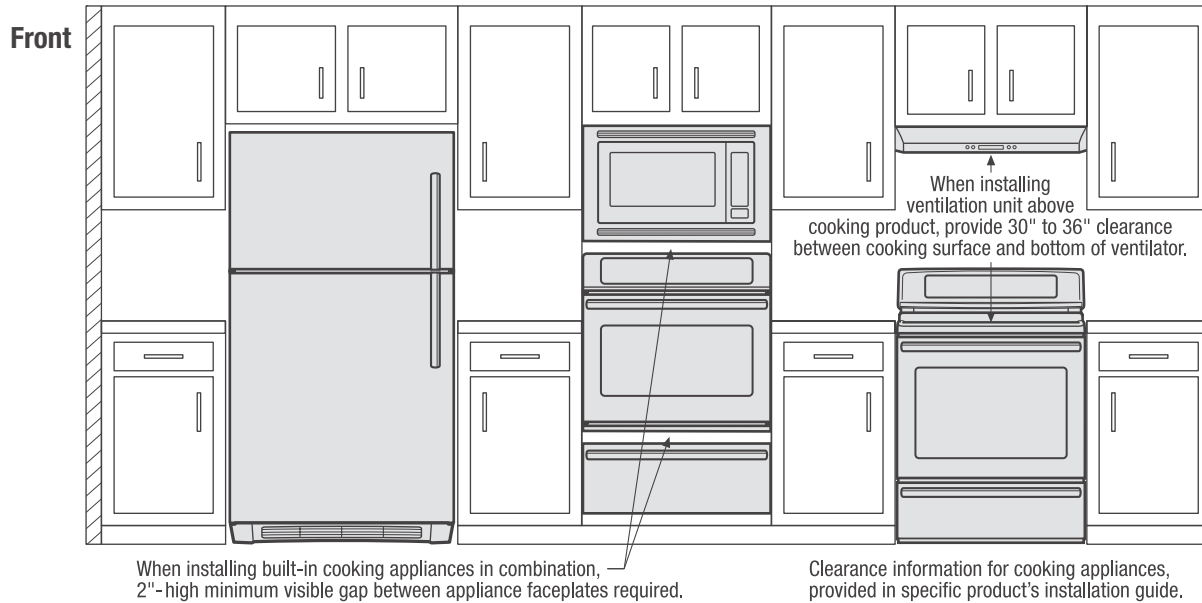


\*When installing side-by-side refrigerator adjacent to wall, cabinet or another appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 120° to 180° door swing, providing complete drawer/crisper access and removal. (Absolute 4-1/2" minimum clearance will ONLY allow for 90° door swing which will provide limited drawer/crisper access with restricted removal.)

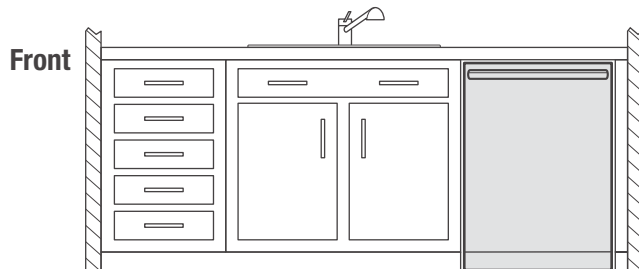
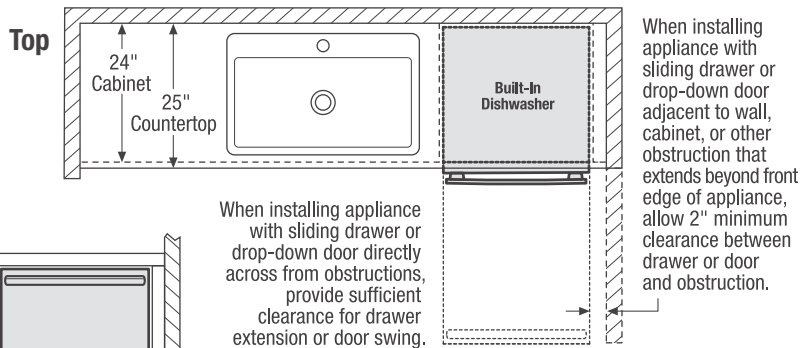
When installing appliance with sliding drawer, swinging or drop-down door directly across from obstructions, provide sufficient clearance for drawer extension or door swings.



Use these dimensions and clearance instructions for planning purposes only. For detailed installation instructions, refer to installation guide, packed with product, or on the web at frigidaire.com.

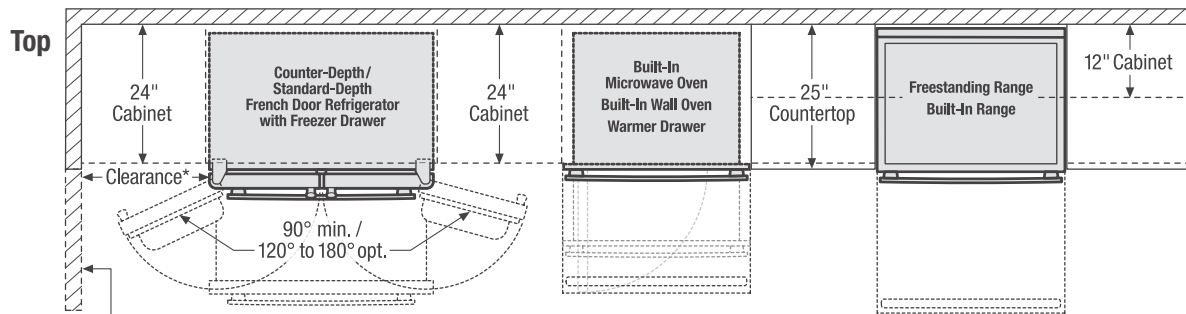
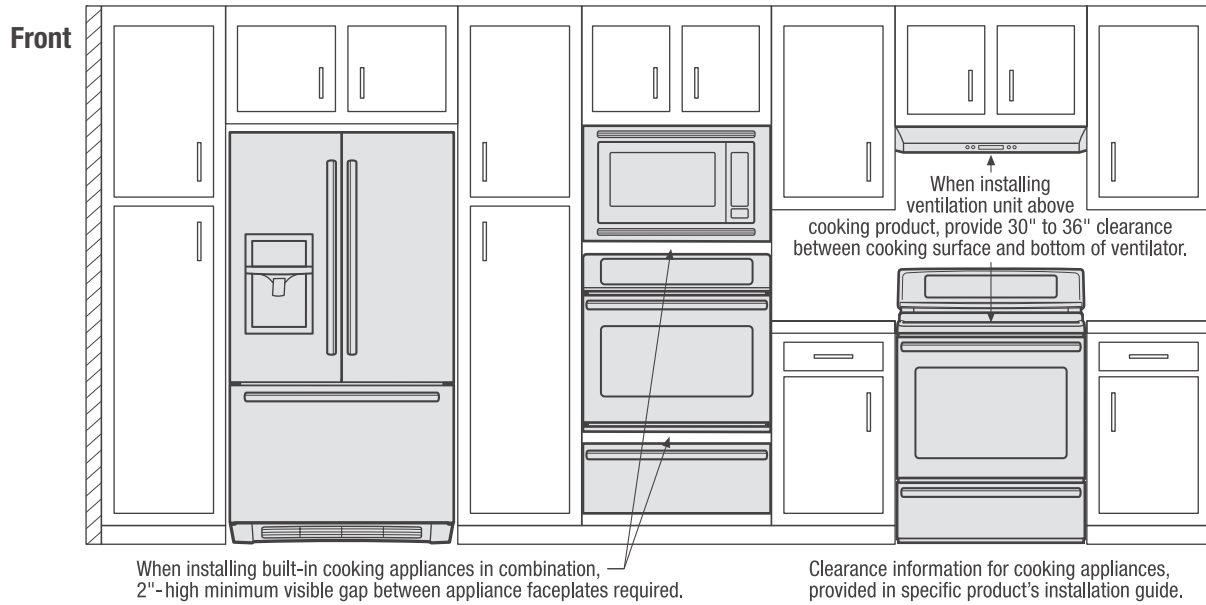


\*When installing top mount refrigerator adjacent to wall, cabinet or other appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 140° door swing, providing complete crisper access and removal. (Absolute 3" minimum clearance will ONLY allow for 90° door swing which will provide limited crisper access with restricted removal.)



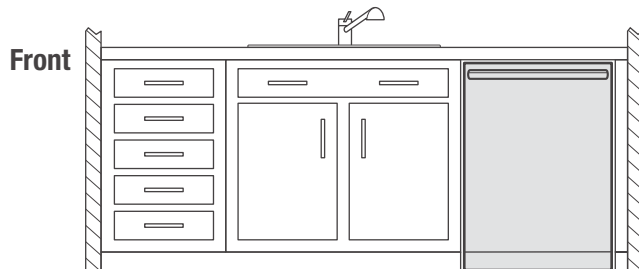
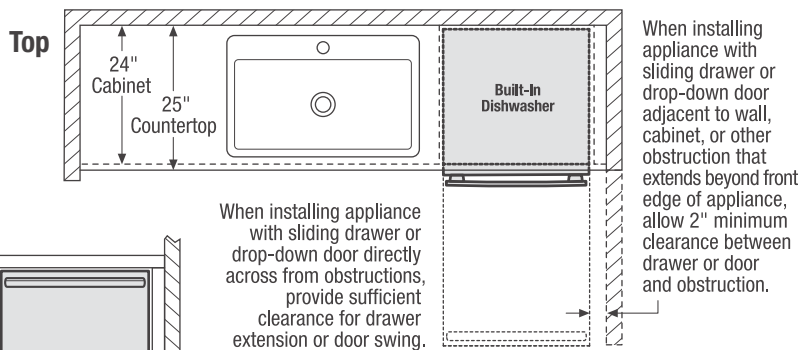
When installing appliance with sliding drawer or drop-down door directly across from obstructions, provide sufficient clearance for drawer extension or door swing.

Use these dimensions and clearance instructions for planning purposes only. For detailed installation instructions, refer to installation guide, packed with product, or on the web at frigidaire.com.

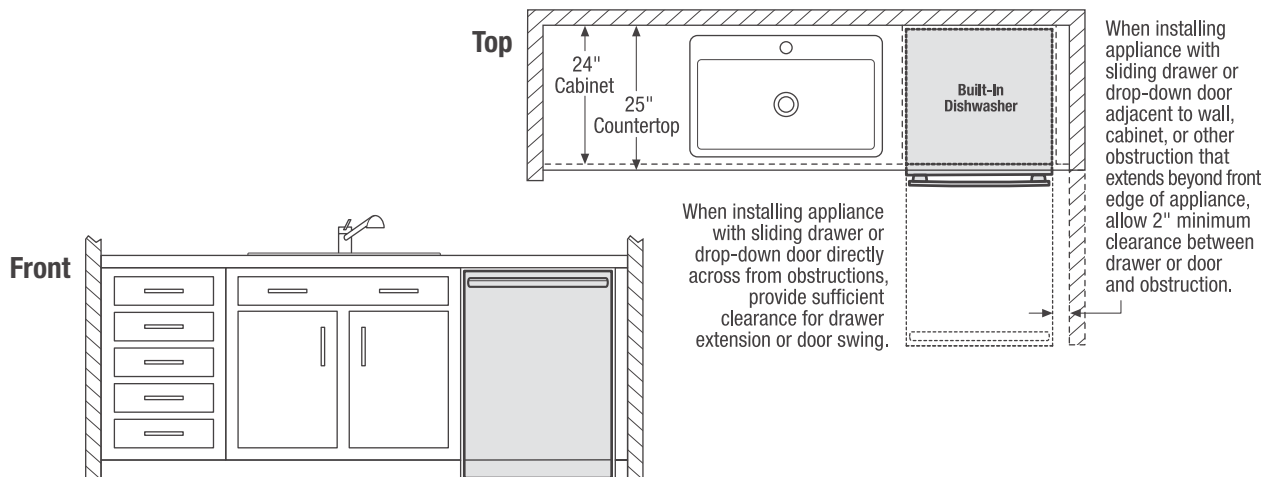
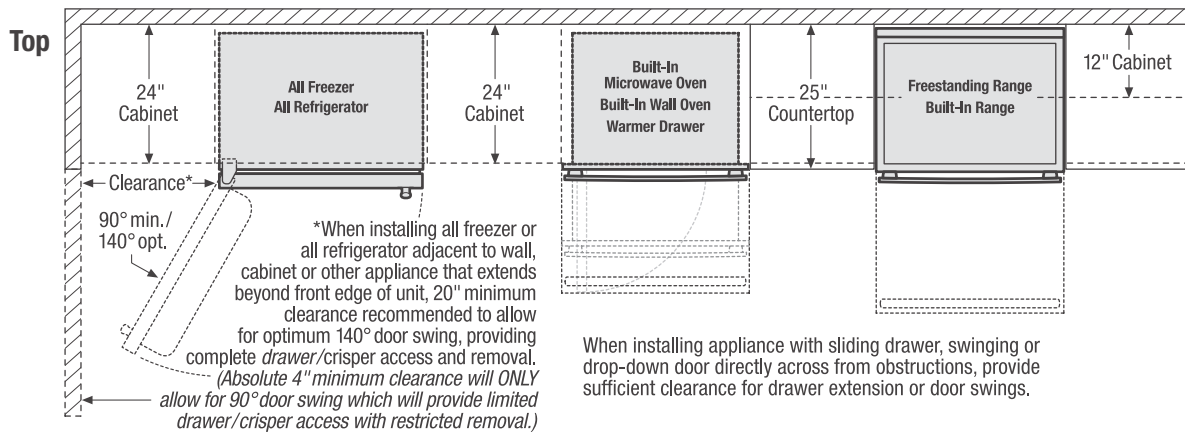
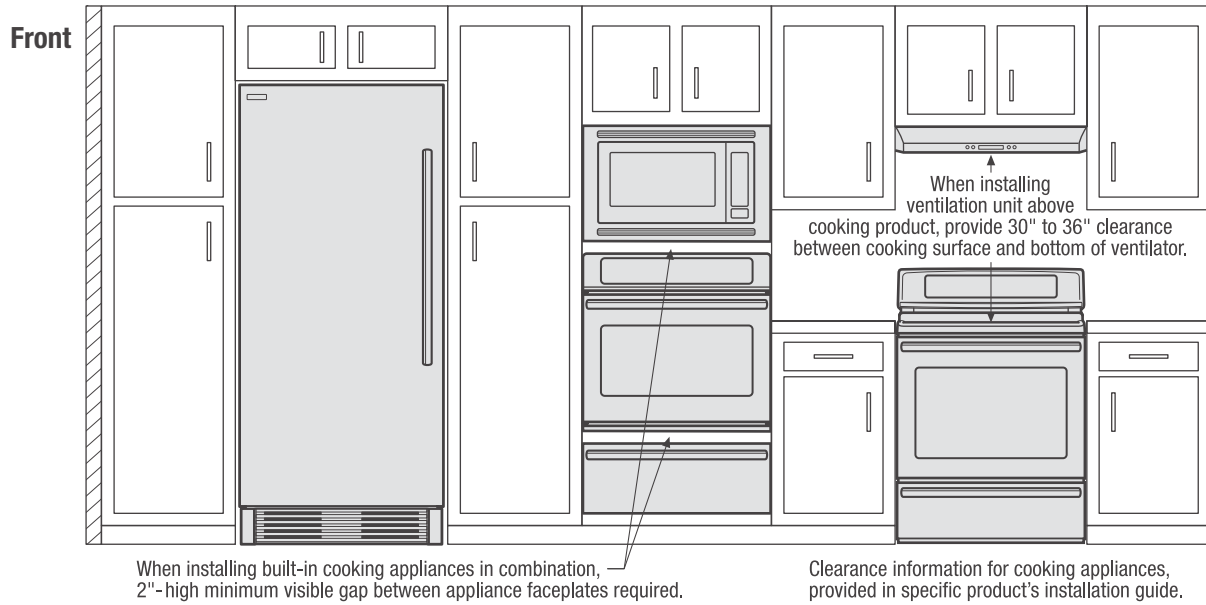


\*When installing French door refrigerator adjacent to wall, cabinet or another appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 120° to 180° door swing, providing complete drawer/crisper access and removal. (Absolute 4-1/2" minimum clearance will ONLY allow for 90° door swing which will provide limited drawer/crisper access with restricted removal.)

When installing appliance with sliding drawer, swinging or drop-down door directly across from obstructions, provide sufficient clearance for drawer extension or door swings.



Use these dimensions and clearance instructions for planning purposes only. For detailed installation instructions, refer to installation guide, packed with product, or on the web at [frigidaire.com](http://frigidaire.com).





# Overhead Hoods

FHWC3025M S/W/B

30" Under-Cabinet



## Signature Features

### 2-Speed Fan

Effectively and quietly removes smoke, vapors and smells from the kitchen.

### Dishwasher-Safe Filter

Dishwasher-safe for easy cleaning.

### Cooking Surface Light

Provides ample illumination of the cooking surface.

### Convertible Exhaust Duct Options<sup>1</sup>

Ventilation is convertible to be either ducted outside, or recirculated inside requiring no ducting.

## Features

Nominal Width	30"
Installation Type	Under-Cabinet
Style	Canopy
Controls	Rocker Switch
Air Discharge	Vertical or Horizontal
Air Delivery (CFM)	220
Blower Type	Fan
Sound Level (dBA)	67.9
Fan Speeds	2
Cooktop Light(s)	1 Incandescent (Not Included)
Dishwasher-Safe Filter(s)	Yes
Exhaust Duct	Convertible <sup>1</sup>
Duct Required	7" Round <sup>2</sup> or 3-1/4" x 10"

## Optional Accessories

Charcoal Filter	PN# 5304486302
7" Round Transition Duct	PN# 5304487139

## Specifications

Product Dimensions -	
Height	5"
Width	30"
Depth	18-5/8"
Voltage Rating	120V / 60Hz / 15A
Connected Load (kW Rating) @ 120 Volts <sup>3</sup>	.72
Amps @ 120 Volts	1.06
Shipping Weight (Approx.)	18 Lbs.
Sones Rating	5.8

<sup>1</sup> Ventilation is convertible to be either ducted outside, or recirculated inside requiring no ducting. (Recirculated option requires use of a cover.)

<sup>2</sup> 7" round duct requires use of optional transition duct.

<sup>3</sup> For use on adequately wired 120V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.

NOTE: Always consult local and national electric codes. Check local building codes for installation requirements, as they may vary per locale. Refer to Product Installation Guide for detailed installation instructions on the web at [frigidaire.com](http://frigidaire.com).

Specifications subject to change.

## Available in:



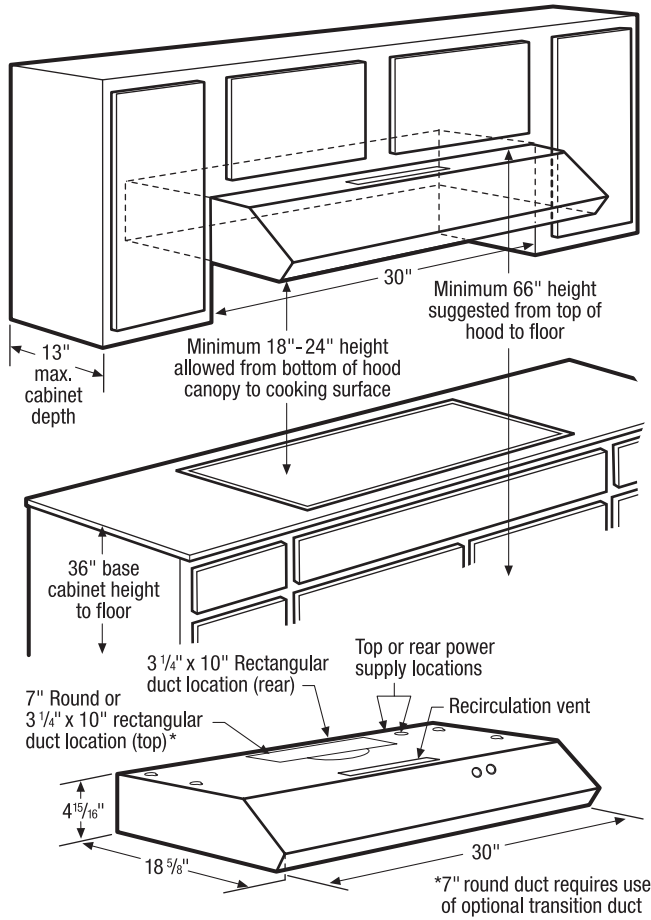
Stainless (S)



White (W)



Black (B)

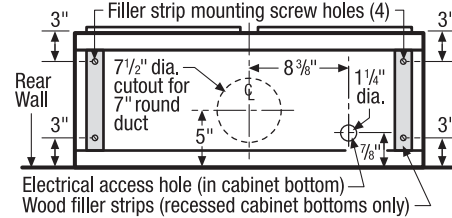


**Exhaust Options**

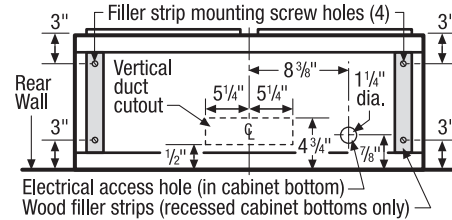
Vent hood can be vertically or horizontally ducted outside using round or rectangular duct; or recirculated inside with no ducting required.

For detailed duct preparation and installation specifications, refer to installation instructions on web.

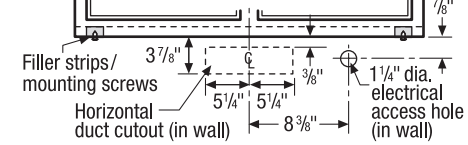
**Outside Vertical – 7" Round Duct Cabinet Bottom**



**Outside Vertical – 3 1/4" x 10" Rectangular Duct Cabinet Bottom**



**Outside Horizontal – 3 1/4" x 10" Rectangular Duct Cabinet Front**



**Under-Cabinet Hood Specifications**

- Product Shipping Weight (Approx.) - 18 Lbs.
- Under-Cabinet Installation - can be ducted vertically or horizontally.
- Ventilation system can exhaust air outside, either vertically through roof or horizontally through wall. (Refer to Ducting Option Specifications for outside ventilation.). If ducting outside is not possible, the system can be alternately set to recirculate air inside, requiring use of recirculating kit, included with hood.
- Sones Rating - 5.8
- Voltage Rating - 120V / 60 Hz / 15 Amps
- Connected Load (kW Rating) @ 120 Volts = .72kW (For use on adequately wired 120V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.)
- Amps @ 120 Volts = 1.06 Amps
- Always consult local and national electric codes. Check local building codes for installation requirements, as they may vary per locale.
- Makeup air systems may be required by local building codes when using ventilation systems greater than specified CFM of air movement. Specified CFM varies per locale.
- Connect vent hood with copper wire only. (For installation pre-wired with aluminum wiring, refer to Product Installation Guide on web for correct wiring procedure.)
- Locate vent hood away from strong draft areas, such as windows, doors or strong heating vents.
- Minimum 18" - 24" installation height allowed from bottom of hood canopy to cooking surface; minimum 66" height suggested from top of hood to floor.
- When installing vent hood under cabinets with recessed bottoms, two 2"-wide filler strips required with length and thickness determined by recess dimensions.

**Ducting Option Specifications**

- Vent system MUST terminate outside through roof or wall; do NOT terminate into attic or other enclosed area.
- Exhaust Duct Required - 3-1/4"x10" rectangular with 35' maximum vent length or 7" round with 50' maximum vent length. Refer to Product Installation Guide on web for calculations needed to determine total duct length.
- Installation of 7" Round Duct requires use of optional 7" Round Transition Duct (PN# 5304487139) and can only be vented vertically.
- To provide efficient performance, length of vent system and number of elbows should be kept to minimum. Flexible vent greatly reduces performance and is NOT recommended.
- Use 3-1/4"x10" rectangular metal vent only - rigid metal vent recommended; plastic or metal foil vent NOT recommended.
- For cold weather installation, additional backdraft damper and thermal break should be installed. Thermal break will minimize conduction of outside temperatures as part of the vent system with damper on cold air side of break, as close as possible to where vent system enters heated portion of house.
- Refer to Product Installation Guide on web for detailed vent system preparation instructions.

**Note:** For planning purposes only. Refer to Product Installation Guide on the web at [frigidaire.com](http://frigidaire.com) for detailed instructions.

**Optional Accessories**

- 7" Round Transition Duct - (PN# 5304487139).
- Charcoal Filter - (PN# 5304486302).

Accessories information available on the web at [frigidaire.com](http://frigidaire.com)



## FFED3026T S/W/B

**DROP-IN RANGE**  
**30" ELECTRIC**



**AVAILABLE COLORS**



**PRODUCT DIMENSIONS**

Height	26-1/2"
Width	30"
Depth	28-5/16"

**MORE EASY-TO-USE FEATURES**

**Extra-Large Window**

Check on the status of your dish without having to open the oven door.

**Oven Rack Handles**

Oven racks are designed with space for you to easily pull out the racks, even when wearing an oven mitt.

**Large Capacity**

Our large capacity oven gives you room to cook more dishes at once.

**Built with American Pride**

Designed, engineered and assembled in the U.S.A.

**Auto Oven Shut-Off**

As an extra safety measure, the oven will automatically shut off after 12 hours.

**Hi/Lo Broil Options**

Offers two-position broiling and variable temperature control for more control.

**SIGNATURE FEATURES**

**One-Touch Self Clean**

Your oven cleans itself — so you don't have to. Self clean options available in 2- and 3-hour cycles.

**Quick Boil**

Get meals on the table faster with our 3,000W element — water boils faster than the traditional setting.

**Extra-Large Element**

With our extra-large 12" element, you have more flexibility to fit larger pots and pans.

**SpaceWise® Expandable Elements**

Flexible elements expand to meet your cooking needs — big or small.

**CERTIFICATIONS**

**A.D.A. - Compliant**

When properly installed, this model is A.D.A.-qualified based on the United States Access Board's A.D.A./A.B.A. Accessibility Guidelines and the Department of Justice's 2010 A.D.A. Standards for Accessible Design.



ELEMENTS	SIZE	WATTS
Right Front	12"	2,700
Right Rear	6"	1,200
Left Front	6"/9"	1,400/3,000
Left Rear	7"	1,500

# FFED3026T S/W/B DROP-IN RANGE

30" ELECTRIC

FRIGIDAIRE

## FEATURES

Oven Control/Timing System	Ready-Select® Controls
Surface Type	Black Ceramic Glass (S), Color-Coordinated Ceramic Glass (W/B)
Window	Large
Exterior Door Finish	Stainless Steel (S), Color-Coordinated (W/B)
Handle Design	Stainless Steel (S), Color-Coordinated (W/B)
Exterior Finish (Side Panels)	Black (S), Color-Coordinated (W/B)
Convection System	
Oven Cleaning System	Self-Clean
Drawer Functionality	

## OVEN CONTROLS

Bake	Yes
Broil	Variable
Add-a-Minute	
Delay Start	Yes
Self Clean	2, 3 Hours
Steam Clean	
Delay Clean	Yes
Kitchen Timer	Yes
Timed Cook Option	Yes
Auto Oven Shut-Off	12 Hours

## COOKTOP FEATURES

Right Front Element (Watts)	12" - 2,700
Right Rear Element (Watts)	6" - 1,200
Left Front Element (Watts)	6/9" - 1,400/3,000
Left Rear Element (Watts)	7" - 1,500
Center Element (Watts)	
Hot Surface Indicator Light	Yes
Coil Cooktop/Drip Bowls	

## OVEN FEATURES

Capacity (Cu.Ft.)	4.6
Oven Light	1 Halogen
Hidden Bake Element	
Rack Configuration	2 Handle Racks
Baking System	Even Baking Technology
Broiling System	Vari-Broil™ Hi/Lo
Bake Element / Broil Element (Watts)	2,750/3,400

## OPTIONAL ACCESSORIES

Rear Filler Kit - White (W)/ Black (B)	(W) PN# 901193-9011 (B) PN# 901193-9010
Side Panel Kit - White (W)/ Black (B)	(W) PN# 903074-9011 (B) PN# 903074-9010
Backguard Kit - Stainless Steel (S)/ White (W)/Black (B)	(S) PN# 903046-9015 (W) PN# 903046-9011 (B) PN# 903046-9010
Side Trim Kit - White (W)/Black (B)	(W) PN# 903076-9011 (B) PN# 903076-9010
Bottom Trim Kit - White (W)/ Black (B)	(W) PN# 903068-9011 (B) PN# 903068-9010

## CERTIFICATIONS

A.D.A. Compliant <sup>1</sup>	Yes
-------------------------------	-----

## SPECIFICATIONS

Oven Interior (H x W x D)	17-1/2" x 24-1/8" x 18-3/4"
Power Supply Connection Location	Left Bottom Rear
Voltage Rating	240V / 208V / 60 Hz
Connected Load (kW Rating) @ 240/208 Volts <sup>2</sup>	11.8/8.9
Amps @ 120 Volts	33/32.5
Minimum Circuit Required (Amps)	40
Shipping Weight (Approx.)	185 Lbs.

<sup>1</sup>When properly installed, this model is A.D.A.-qualified based on the United States Access Board's A.D.A./A.B.A. Accessibility Guidelines and the Department of Justice's 2010 A.D.A. Standards for Accessible Design.

<sup>2</sup>Single phase 3- or 4-wire cable, 120/240 or 120/208 Volt, 60 Hertz AC only electrical supply with ground required on separate circuit fused on both sides of line.

## PRODUCT DIMENSIONS

A - Height	26-1/2"
B - Width	30"
C - Depth	28-5/16"
Depth with Door Open 90°	47-9/16"

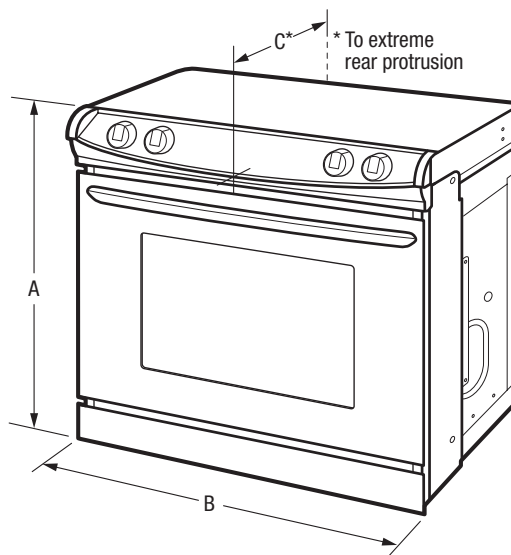
## CABINET CUTOUT DIMENSIONS

Height	29"†
Width (Min./Max.)	29-15/16" / 30-1/16"*
Depth (Min./Max.)	21-3/4" / 22-1/8"***

†27-1/2" min. if additional front cabinet filler panel is required (refer to product installation guide on web for filler panel details).

\*Cutout and countertop cutout width should match.

\*\*24" with optional backguard installed.



FRIGIDAIRE

USA • 10200 David Taylor Drive • Charlotte, NC 28262 • 1-800-FRIGIDAIRE • frigidare.com  
CANADA • 5855 Terry Fox Way • Mississauga, ON L5V 3E4 • 1-800-265-8352 • frigidare.ca



Note: For planning purposes only. Always consult local and national electric, gas and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at frigidare.com.

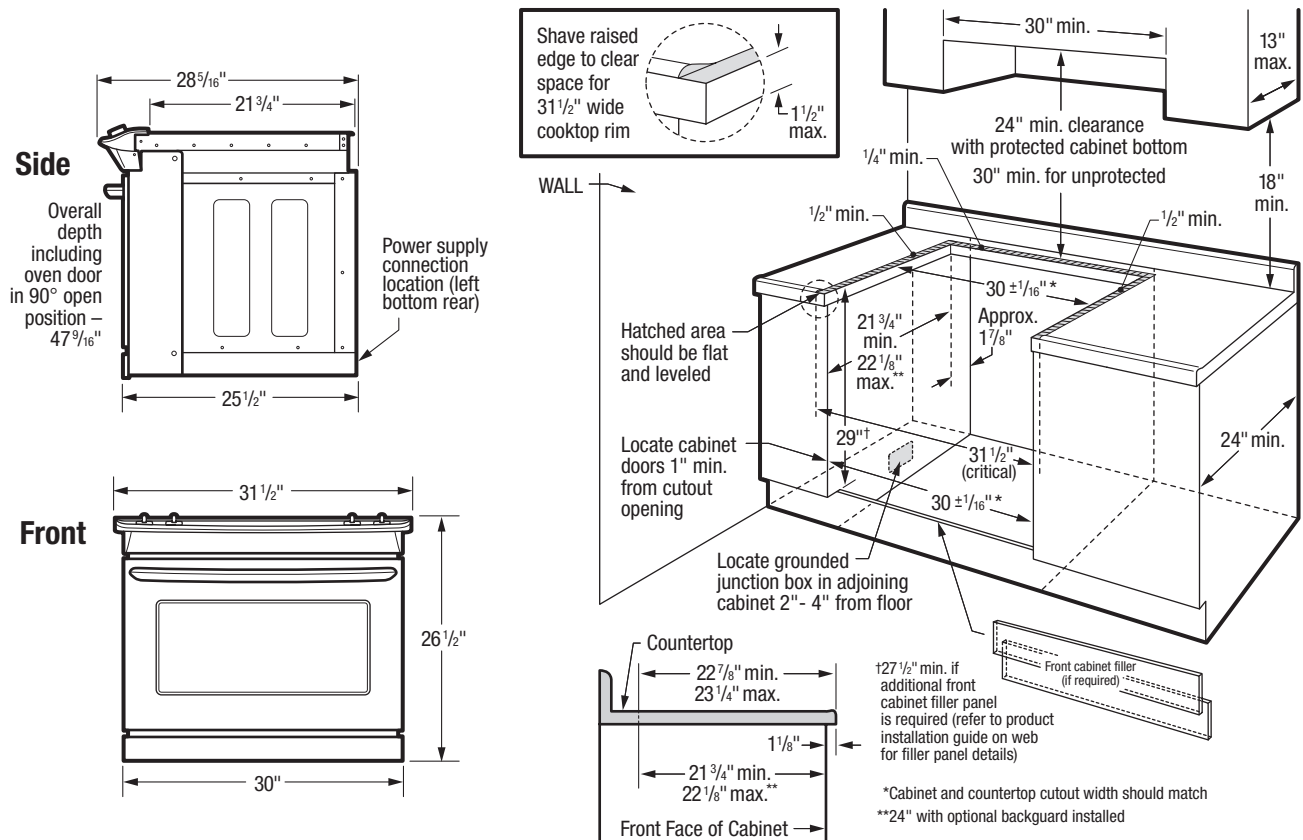
Specifications subject to change. Accessories information available on the web at frigidare.com

FFED3026T 07/17  
© 2017 Electrolux Home Products, Inc.

# FFED3026T S/W/B DROP-IN RANGE

30" ELECTRIC

FRIGIDAIRE



## INSTALLATION SPECIFICATIONS

- Product Shipping Weight (approx.) – 185 Lbs.
- Single phase 3- or 4-wire cable, 120/240 or 120/208 Volt, 60 Hertz, fused on both sides of line with ground. (If local code permits, range may be connected by hard-wiring or by means of power supply cord kit.)
- Connected Load (kW Rating) @ 240/208 Volts = 11.8/8.9 kW
- Amps @ 240/208 Volts = 33/32.5 Amps
- Recommended Circuit Breaker – 40 Amps
- Always consult local and national electric codes.
- Make sure wall coverings around range can withstand heat generated by range.
- Linoleum or any other synthetic floor covering located beneath range, must be capable of withstanding minimum heat of 90°F above room temperature without shrinking, warping or discoloring. Insulating pad or 1/4"-thick plywood required between range and a carpeted floor.
- When installing optional Backguard Kit, cutout depth of 21-3/4" minimum/ 22-1/8" maximum needs increased to 24".
- Overhead cabinetry should not exceed a 13" maximum depth.
- Absolute minimum horizontal distance between overhead cabinets installed to either side of appliance must be no less than maximum width of appliance.
- Allow 24" minimum clearance between rangetop and bottom of cabinet when bottom of wood or metal cabinet is protected by not less than 1/4" flame-retardant millboard covered with not less than No. 28 MSG sheet steel, 0.015" stainless steel, 0.024" aluminum or 0.020" copper. Allow 30" minimum clearance when cabinet is unprotected.
- To reduce risk of fire when using overhead cabinetry, install range hood that projects horizontally a recommended minimum of 5" beyond bottom of cabinets.

### COUNTERTOP PREPARATION

Rangetop's side flanges overlap countertop cutout edges – for detailed preparation instructions, refer to product installation guide on the web.

- Flat Square-Finish Countertops – require no preparation since rangetop's flange lays directly on countertop edge.
- Formed Front-Edged Countertops – require front molded edge to be shaved flat 3/4" from each front corner of opening.
- Tile Countertops – may need trim cut back 3/4" from each front corner of opening and/or rounded edge flattened.
- For existing cutout width greater than 30-1/16" reduce the 3/4" overlap dimension; for cutout width of 29", replace actual side trim panels with smaller side trim panels, available with optional Side Trim Kit (refer to detailed kit installation instructions).

### OPTIONAL ACCESSORIES

- Rear Filler Kit: White – (PN# 901193-9011), Black – (PN# 901193-9010).
- Side Panel Kit: White – (PN# 903074-9011), Black – (PN# 903074-9010).
- Backguard Kit: Stainless Steel – (PN# 903046-901S), White – (PN# 903046-9011), Black – (PN# 903046-9010).
- Side Trim Kit: White – (PN# 903076-9011), Black – (PN# 903076-9010).
- Bottom Trim Kit: White – (PN# 903068-9011), Black – (PN# 903068-9010).



FRIGIDAIRE

USA • 10200 David Taylor Drive • Charlotte, NC 28262 • 1-800-FRIGIDAIRE • frigidare.com  
CANADA • 5855 Terry Fox Way • Mississauga, ON L5V 3E4 • 1-800-265-8352 • frigidare.ca

Note: For planning purposes only. Always consult local and national electric, gas and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at frigidare.com.

Specifications subject to change. Accessories information available on the web at frigidare.com

FFED3026T 07/17

© 2017 Electrolux Home Products, Inc.

## Freestanding Ranges

FFEF3054T D/S/W/B

30" Electric



### Product Dimensions

Height (Max.)	47"
Width	29-7/8"
Depth (Including Handle)	28-1/2"

### More Easy-To-Use Features

#### SpaceWise® Expandable Elements

Flexible elements expand to meet your cooking needs — big or small.

#### Store-More™ Storage Drawer

With the Store-More™ Storage Drawer, you will have extra space to store your cookware.

#### Large Capacity

Our large capacity oven gives you room to cook more dishes at once.

#### Built with American Pride

Designed, engineered and assembled in the U.S.A.

#### Color-Coordinated Oven Door with Extra-Large Window

Our extra-large oven window makes it easier to check on the status of your dish without having to open the oven door.

#### Timed Cook Option

Lets you set the oven to begin cooking at a predetermined time.

#### Electronic Kitchen Timer

Times up to 12 hours.

## Signature Features

### One-Touch Self Clean

Your oven cleans itself - so you don't have to. Self clean options available in 2- and 3-hour cycles.

### Quick Boil

Get meals on the table faster with our 3,000W element — water boils faster than the traditional setting.

### Keep Warm Zone

Keep food warm until everything — and everyone — is ready.

### Extra-Large Element

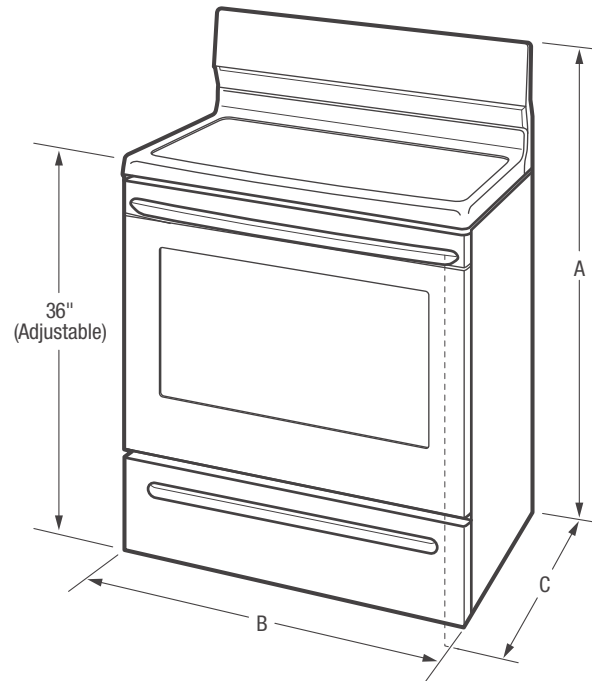
With our extra-large 12" element, you have more flexibility to fit larger pots and pans.

### Available in:



Elements	Size	Watts
Right Front	12"	2,700
Right Rear	6"	1,200
Left Front	6" / 9" Expandable	1,400 / 3,000
Left Rear	6"	1,200
Center	Keep Warm Zone	100

Features	
Oven Control/Timing System	Ready-Select® Controls
Surface Type	Black Ceramic Glass
Window	Extra-Large
Exterior Door Finish	Black Stainless (D), Stainless (S) Color-Coordinated (W/B)
Handle Design	Black Stainless (D), Stainless (S) Color-Coordinated (W/B)
Exterior Finish (Side Panels)	Black (D/S), Color-Coordinated (W/B)
Convection System	
Oven Cleaning System	Self Clean
Drawer Functionality	Storage
Oven Controls	
Bake	Yes
Broil	Variable (High/Low)
Add-a-Minute	
Delay Start	
Self-Clean	2, 3 Hour
Quick Clean Option	Yes
Delay Clean	Yes
Kitchen Timer	Yes
Timed Cook Option	Yes
Auto Oven Shut-Off	12 Hours
Oven Lock-Out	Yes
Cooktop Features	
Right Front Element (Watts)	12" - 2,700
Right Rear Element (Watts)	6" - 1,200
Left Front Element (Watts)	SpaceWise® Expandable 6"/9" - 1,400/3,000
Left Rear Element (Watts)	6" - 1,200
Center Element (Watts)	Keep Warm Zone - 100
Hot Surface Indicator Light	Yes
Element "On" Indicator Light	Yes
Coil Cooktop/Drip Bowls	
Oven Features	
Capacity (Cu. Ft.)	5.3
Oven Light	1
Hidden Bake Element	
Rack Configuration	2 Standard
Baking System	Even Baking Technology
Broiling System	Vari-Broil™ Hi/Lo
Bake Element/Broil Element (Watts)	2,600/3,000
Specifications	
Oven Interior (H x W x D)	19-3/4" x 24-3/8" x 19-1/8"
Power Supply Connection Location	Middle Bottom Rear
Voltage Rating	240V/208V/60Hz
Connected Load (kW Rating) @ 240/208 Volts	11.5/8.5
Minimum Circuit Required (Amps)	40
Shipping Weight (Approx.)	170 Lbs.



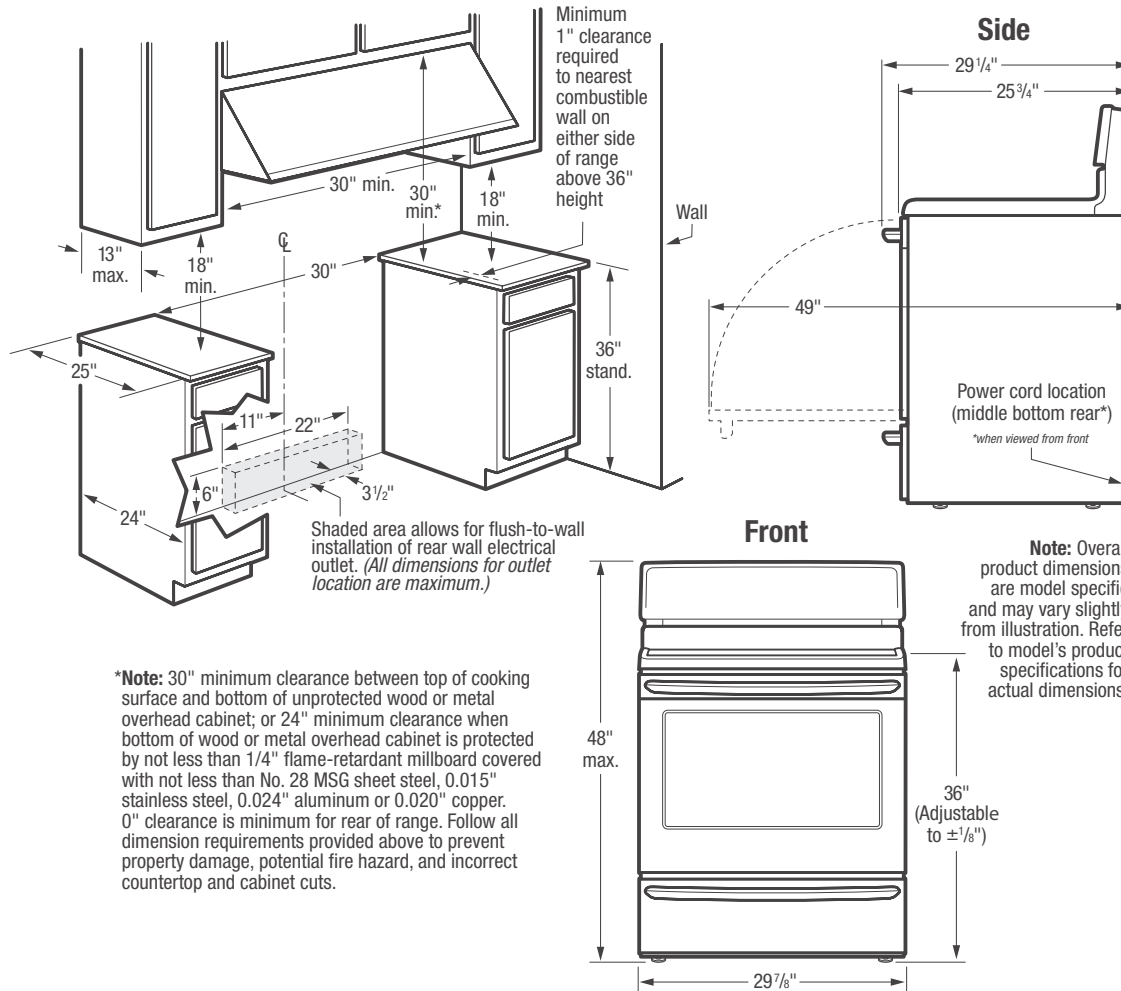
*NOTE: For planning purposes only. Always consult local and national electric codes. Refer to Product Installation Guide for detailed installation instructions on the web at frigidaire.com.*



Product Dimensions	
A - Height (Max.)	47"
B - Width	29-7/8"
C - Depth (Including Handle)	28-1/2"
Depth with Door Open 90°	48-5/8"

Cabinet Cutout Dimensions	
Height (Standard)	36"
Width (Min.)	30"
Depth (Min.)	24"

*Accessories information available on the web at frigidaire.com*



**Freestanding Range Specifications**

- Product Shipping Weight (approx.) - 170 Lbs.
- Single phase 3- or 4-wire cable, 120/240 or 120/208 Volt, 60 Hertz, fused on both sides of line with ground.
- Connected Load (kW Rating) @ 240/208 Volts = 11.5/8.5kW
- Recommended Circuit Breaker - 40 Amps
- Always consult local and national electric codes.
- Make sure wall coverings around range can withstand heat generated by range.
- Floor beneath range MUST be solid and level.
- Overhead cabinetry should not exceed a 13" maximum depth.
- Absolute minimum horizontal distance between overhead cabinets installed to either side of appliance must be no less than maximum width of appliance.
- Range can be installed flush to wall with 0" minimum rear clearance.
- Minimum 1" clearance required from edge of rangetop to nearest combustible wall on either side of range above 36" height.

- Allow 30" minimum clearance between top of cooking surface and bottom of unprotected wood or metal overhead cabinet; or 24" minimum clearance when bottom of wood or metal overhead cabinet is protected by not less than 1/4" flame retardant millboard covered with not less than No. 28 MSG sheet steel, 0.015" stainless steel, 0.024" aluminum or 0.020" copper.
- To reduce risk of fire when using overhead cabinetry, install range hood that projects horizontally a recommended minimum of 5" beyond bottom of cabinets.
- Follow all dimension requirements provided to prevent property damage, potential fire hazard, and incorrect countertop and cabinet cuts.

**Note:** For planning purposes only. Refer to Product Installation Guide on the web at [frigidaire.com](http://frigidaire.com) for detailed instructions.



# Top Mount Refrigerators

FFHT2032T S/M/P/E

20.4 Cu. Ft. Top Mount



## Product Dimensions

Height (Including Hinges & Rollers)	69"
Width	29-5/8"
Depth (Including Door)	32"

## More Easy-To-Use Features

### Bright LED Lighting

Find food faster with bright LED lighting.

### Full-Width Wire Freezer Shelf

Gives you a way to organize items in your freezer better so you can find food quickly.

### Reversible Door

Door can be installed to open left or right based on your needs.

### Clear Dairy Bin

Keep foods like butter, cheese and yogurt organized.



ENERGY STAR® Most Efficient

## Available in:



<sup>1</sup>Compared to 18 cu. ft. top mount refrigerators.

## Signature Features

### Same Width. More Capacity.<sup>1</sup>

With a 20 cu. ft. top freezer refrigerator, you can have a refrigerator that fits the same space as an 18 cu. ft. top freezer refrigerator, but get more capacity.

### Store-More™ Humidity-Controlled Crisper Drawers

Keep your fruits and vegetables fresh in our humidity-controlled crisper drawers.

### Store-More™ Gallon Door Shelf

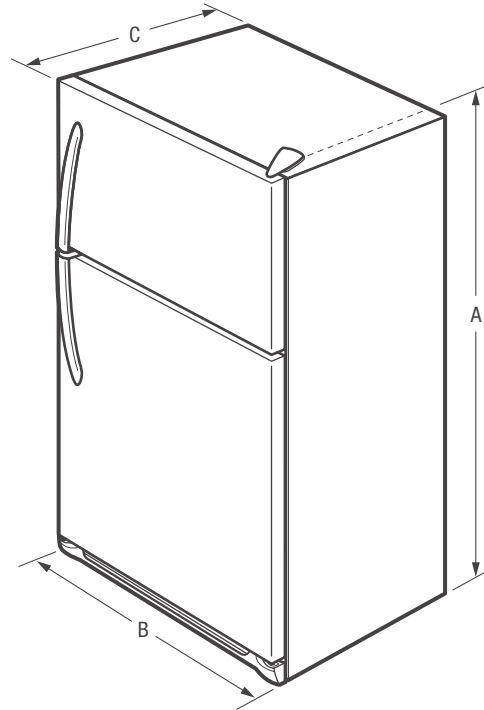
Door storage gives you room for larger items like a gallon of milk.

### SpillSafe® Shelves

Designed to keep spills contained, making cleanup a breeze.

<b>Features</b>	
Door Design	UltraSoft™
Door Handle Design	Stainless Steel (S), Color-Coordinated (M/P/E)
Cabinet Finish (Textured)	Black (S), Color-Coordinated (M/P/E)
Door Stops	Yes
Door Hinge Covers	Black (S), Color-Coordinated (M/P/E)
Door Reverse Option	Yes
Rollers - Front/Rear	Adjustable / Yes
Sound Package	
Toe Grille	Black (S), Color-Coordinated (M/P/E)
<b>Refrigerator Features</b>	
Interior Lighting	LED
Refrigerator Shelves	2 Full-Width SpillSafe®
Deli Drawer	1 Half-Width
Wine/Can Rack	
Store-More™ Crisper Drawers	2 Clear
Humidity Controls	2
Dairy Compartment	Clear Dairy Door
Door Bins	3 Full-Width White
Door Racks	
Non-Slip Bin Liner	
Tall Bottle Retainers	
Gallon Door Storage	1
<b>Freezer Features</b>	
Door Bins	2 Full-Width Clear
Door Racks	
Freezer Shelves	1 Full-Width Wire
Factory Ice Maker w/ Large Ice Bin	Optional (PN# IM115)
Lighting	
<b>Certifications</b>	
ENERGY STAR® Most Efficient	Yes
<b>Specifications</b>	
Total Capacity (Cu. Ft.)	20.4
Refrigerator Capacity (Cu. Ft.)	15.3
Freezer Capacity (Cu. Ft.)	5.1
Power Supply Connection Location	Right Bottom Rear
Water Inlet Connection Location	Bottom Right
Voltage Rating	120V / 60Hz
Connected Load (kW Rating) @ 120 Volts¹	0.72
Amps @ 120 Volts	6.0
Minimum Circuit Required (Amps)	15
Shipping Weight (Approx.)	220 Lbs.

<sup>1</sup>For use on adequately wired 120V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.

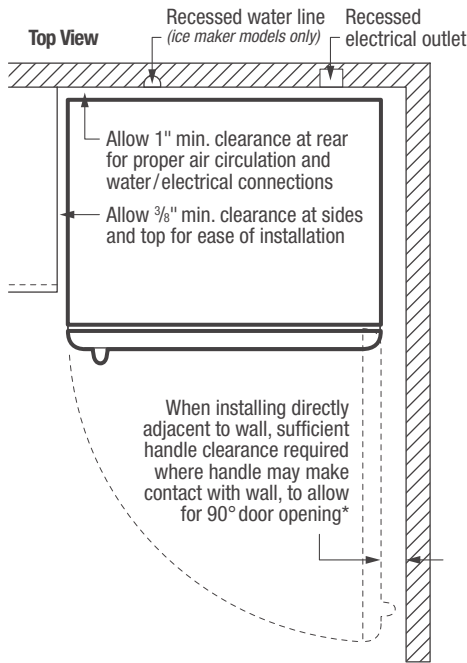


*NOTE: For planning purposes only. Always consult local and national electric and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at [frigidaire.com](http://frigidaire.com).*

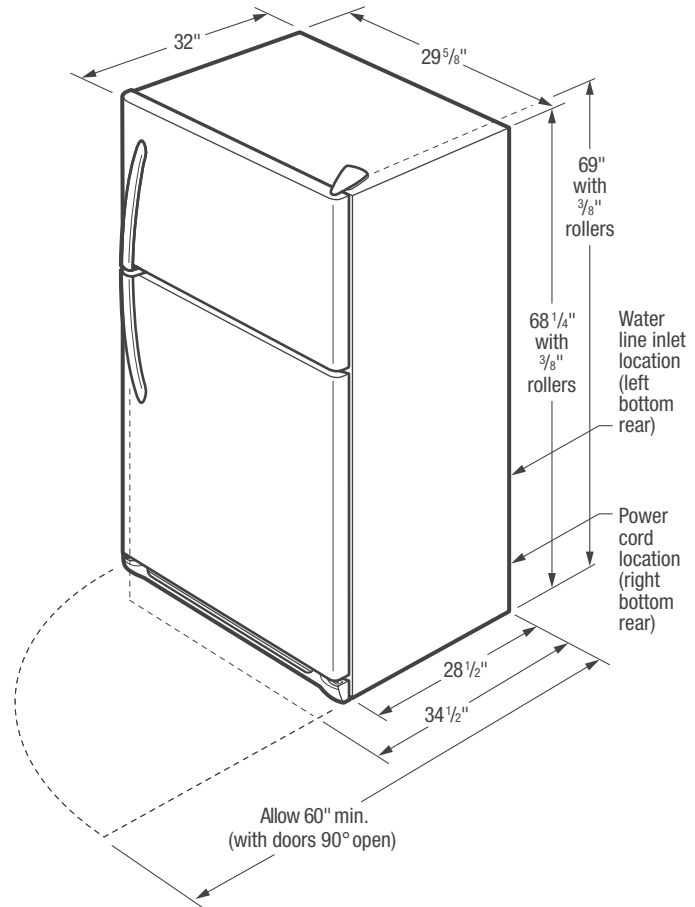


<b>Product Dimensions</b>	
A - Height (Incl. Hinges & Rollers)	69"
B - Width	29-5/8"
C - Depth (Incl. Door)	32"
Depth with Door Open 90°	60"

Accessories information available on the web at [frigidaire.com](http://frigidaire.com)



\* When installing refrigerator adjacent to wall, cabinet or other appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 140° door swing, providing complete crisper access and removal. (Absolute 3" minimum clearance will ONLY allow for 90° door swing which will provide limited crisper access with restricted removal.)



**Top Mount Refrigerator Specifications**

- Product Shipping Weight (approx.) - 220 Lbs.
- An electrical supply with grounded three-prong receptacle is required. The power supply circuit must be installed in accordance with current edition of National Electrical Code (NFPA 70) and local codes & ordinances.
- Voltage Rating - 120V/60 Hz
- Connected Load (kW Rating) @ 120 Volts = 0.72 kW
- Amps @ 120 Volts = 6.0 Amps
- Always consult local and national electric & plumbing codes.
- Floor should be level surface of hard material, capable of supporting fully loaded refrigerator.
- Minimum 3/8" clearance required for sides and top of refrigerator with 1" clearance at rear to allow for ease of installation, proper air circulation, and plumbing/electrical connections.
- When installing refrigerator adjacent to wall, cabinet or other appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 140° door swing, providing complete crisper access and removal. (Absolute 3" minimum clearance will ONLY allow for 90° door swing which will provide limited crisper access with restricted removal.)

- To ensure optimum performance, do not install in areas where temperature drops below 55° F or rises above 110° F and avoid installing in direct sunlight or close proximity to range, dishwasher or other heat source.
- For proper ventilation, front grille MUST remain unobstructed.
- Recess electrical outlet when possible.
- Optional Ice Maker Kit (PN# IM115) available for installation in ice maker-ready models only.
- Water recess on rear wall recommended to prevent water line damage.
- Water Pressure - Cold water line must provide between 30 and 100 pounds per square inch (psi).
- Copper tubing with 1/4" O.D. recommended for water supply line with length equal to distance from rear of unit to household water supply line plus 7 additional feet. Optional Water Supply Installation Kits available.
- Adjustable front rollers to assist with door alignment.

**Note:** For planning purposes only. Refer to Product Installation Guide on the web at [frigidaire.com](http://frigidaire.com) for detailed instructions.

**Optional Accessories**

- Ice Maker Kit - (PN# IM115).

# Whirlpool® 7.0 cu. ft. Cabrio® High-Efficiency Electric Dryer

 [Send Page to Printer](#)  [Close Window](#)



## WED7000DW

---

### AVAILABLE COLORS

- [White](#)  
[Model: WED7000DW](#)

### DIMENSIONS

Height      40 1/4 Inches  
 Depth      28 1/4 Inches  
 Width      29 Inches  
 Dimensions shown are for  
 planning purposes only. For  
 complete information, see  
 Installation Instructions packed  
 with product.

### ELECTRICAL

30 Amps Amps. 60 Hz. 240 V.

### KEY FEATURES

- Advanced Moisture Sensing
- Intuitive Touch Controls with Memory
- Estimated Time Remaining LED Display
- 7.0 Cu. Ft. Capacity
- Sanitize Cycle
- Designed, Engineered and Assembled in the U.S.A.

# Whirlpool® 4.8 cu. ft. Cabrio® High-Efficiency Top Load Washer with Industry-Exclusive ColorLast™ Option

 [Send Page to Printer](#)  [Close Window](#)



**WTW7000DW**



---

## AVAILABLE COLORS

- [White](#)  
[Model: WTW7000DW](#)

## DIMENSIONS

Height 40 1/4 Inches  
Depth 28 Inches  
Width 27 1/2 Inches

Dimensions shown are for planning purposes only. For complete information, see Installation Instructions packed with product.

## ELECTRICAL

15 Amps Amps. 120 V.

## KEY FEATURES

- Intuitive Touch Controls with Memory
- Adaptive Wash Technology with Active Bloom™ Wash Action
- ColorLast™ Option
- Low-Profile Impeller
- Estimated Time Remaining LED Display
- Smooth Wave Stainless Steel Wash Basket
- ENERGY STAR® Qualified
- Presoak Option

## Top Mount Refrigerators

FFHT1821T S/W/B

18 Cu. Ft. Top Mount



### Product Dimensions

Height (Including Hinges & Rollers)	66-1/8"
Width	30"
Depth (Including Door)	30-1/8"

### More Easy-To-Use Features

#### Clear Dairy Bin

Keep foods like butter, cheese and yogurt organized.

#### A.D.A. - Compliant<sup>1</sup>

With accessible shelving, and controls that are positioned within arm's reach and allow one-hand operation, our top-freezer refrigerator is A.D.A.-Compliant.



ENERGY STAR®

#### Available in:



Stainless (S)



White (W)



Black (B)

<sup>1</sup>When properly installed, this model is A.D.A.-qualified based on the United States Access Board's A.D.A./A.B.A. Accessibility Guidelines and the Department of Justice's 2010 A.D.A. Standards for Accessible Design.

## Signature Features

### Store-More™ Humidity-Controlled Crisper Drawers

Keep your fruits and vegetables fresh in our humidity-controlled crisper drawers.

### Store-More™ Gallon Door Shelf

Door storage gives you room for larger items like a gallon of milk.

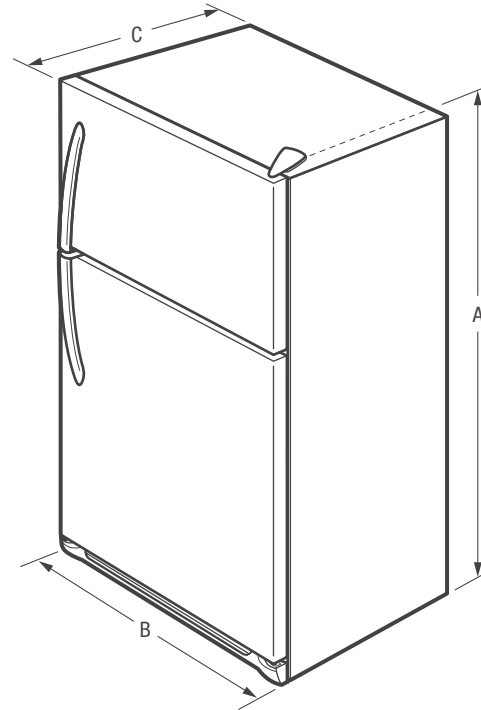
### Full-Width Wire Freezer Shelf

Gives you a way to organize items in your freezer better so you can find food quickly.

### Reversible Door

Door can be installed to open left or right based on your needs.

<b>Features</b>	
Door Design	UltraSoft™
Door Handle Design	Stainless Steel (S), Color-Coordinated (W/B)
Cabinet Finish (Textured)	Black (S), Color-Coordinated (W/B)
Door Stops	Yes
Door Hinge Covers	Black (S), Color-Coordinated (W/B)
Door Reverse Option	Yes
Rollers - Front/Rear	Fixed/Yes
Sound Package	
Toe Grille	Black (S), Color-Coordinated (W/B)
<b>Refrigerator Features</b>	
Interior Lighting	Standard
Refrigerator Shelves	2 Full-Width Glass
Deli Drawer	1 Half-Width
Wine/Can Rack	
Store-More™ Crisper Drawers	2 Clear
Humidity Controls	2
Dairy Compartment	Clear Dairy Door
Door Bins	
Door Racks	3 Full-Width White
Non-Slip Bin Liner	
Tall Bottle Retainers	
Gallon Door Storage	1
<b>Freezer Features</b>	
Door Bins	
Door Racks	2 Full-Width White
Freezer Shelves	1 Full-Width Wire
Factory Ice Maker w/ Large Ice Bin	Optional (PN# IM116)
Lighting	
<b>Certifications</b>	
A.D.A. - Compliant <sup>1</sup>	Yes
ENERGY STAR®	Yes
<b>Specifications</b>	
Total Capacity (Cu. Ft.)	18.0
Refrigerator Capacity (Cu. Ft.)	14.1
Freezer Capacity (Cu. Ft.)	3.9
Power Supply Connection Location	Right Bottom Rear
Water Inlet Connection Location	Bottom Right
Voltage Rating	120V / 60Hz
Connected Load (kW Rating) @ 120 Volts <sup>2</sup>	0.72
Amps @ 120 Volts	6.0
Minimum Circuit Required (Amps)	15
Shipping Weight (Approx.)	205 Lbs.



<sup>1</sup>When properly installed, this model is A.D.A.-qualified based on the United States Access Board's A.D.A./A.B.A. Accessibility Guidelines and the Department of Justice's 2010 A.D.A. Standards for Accessible Design.

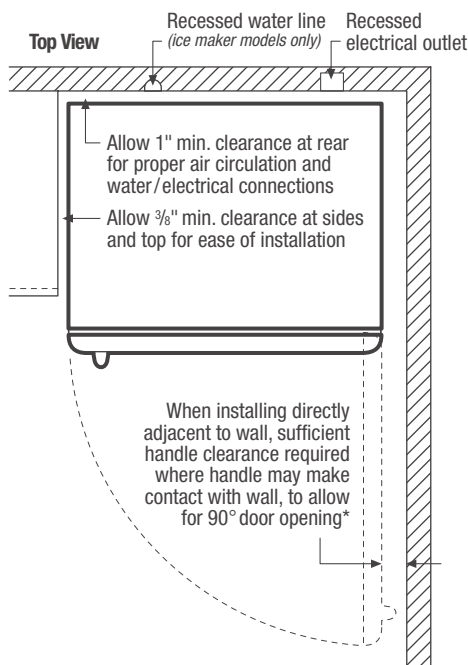
<sup>2</sup>For use on adequately wired 120V, dedicated circuit having 2-wire service with a separate ground wire. Appliance must be grounded for safe operation.

NOTE: For planning purposes only. Always consult local and national electric and plumbing codes. Refer to Product Installation Guide for detailed installation instructions on the web at [frigidaire.com](http://frigidaire.com).

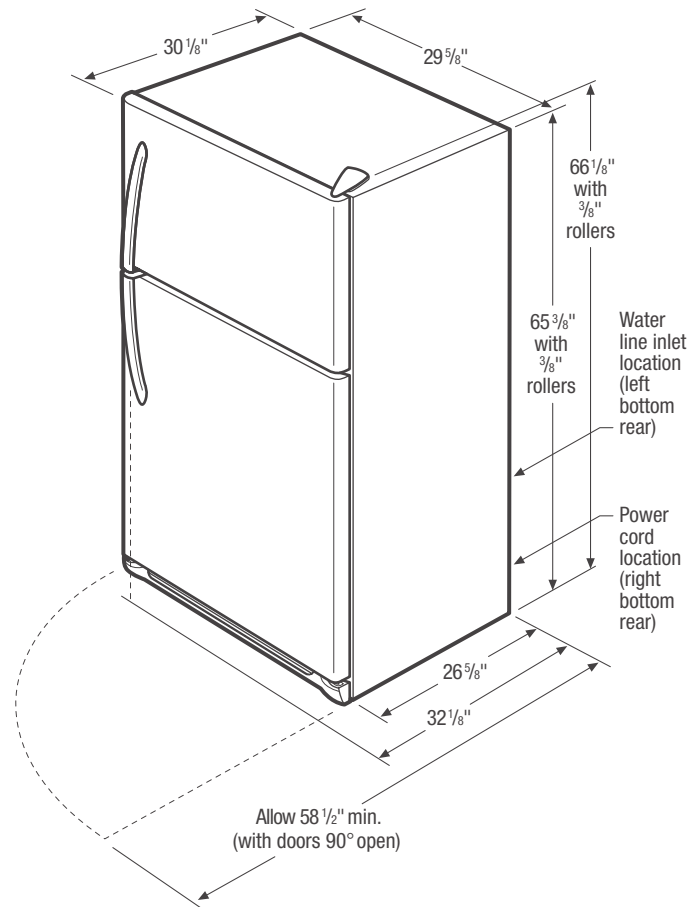


Product Dimensions	
A - Height (Incl. Hinges & Rollers)	66-1/8"
B - Width	30"
C - Depth (Incl. Door)	30-1/8"
Depth with Door Open 90°	58-1/2"

Accessories information available on the web at [frigidaire.com](http://frigidaire.com)



\* When installing refrigerator adjacent to wall, cabinet or other appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 140° door swing, providing complete crisper access and removal. (Absolute 3" minimum clearance will ONLY allow for 90° door swing which will provide limited crisper access with restricted removal.)



**Top Mount Refrigerator Specifications**

- Product Shipping Weight (approx.) - 205 Lbs.
- An electrical supply with grounded three-prong receptacle is required. The power supply circuit must be installed in accordance with current edition of National Electrical Code (NFPA 70) and local codes & ordinances.
- Voltage Rating - 120V/60 Hz
- Connected Load (kW Rating) @ 120 Volts = 0.72 kW
- Amps @ 120 Volts = 6.0 Amps
- Always consult local and national electric & plumbing codes.
- Floor should be level surface of hard material, capable of supporting fully loaded refrigerator.
- Minimum 3/8" clearance required for sides and top of refrigerator with 1" clearance at rear to allow for ease of installation, proper air circulation, and plumbing/electrical connections.
- When installing refrigerator adjacent to wall, cabinet or other appliance that extends beyond front edge of unit, 20" minimum clearance recommended to allow for optimum 140° door swing, providing complete crisper access and removal. (Absolute 3" minimum clearance will ONLY allow for 90° door swing which will provide limited crisper access with restricted removal.)

- To ensure optimum performance, do not install in areas where temperature drops below 55° F or rises above 110° F and avoid installing in direct sunlight or close proximity to range, dishwasher or other heat source.
- For proper ventilation, front grille MUST remain unobstructed.
- Recess electrical outlet when possible.
- Optional Ice Maker Kit (PN# IM116) available for installation in ice maker-ready models only.
- Water recess on rear wall recommended to prevent water line damage.
- Water Pressure - Cold water line must provide between 30 and 100 pounds per square inch (psi).
- Copper tubing with 1/4" O.D. recommended for water supply line with length equal to distance from rear of unit to household water supply line plus 7 additional feet. Optional Water Supply Installation Kits available.

**Note:** For planning purposes only. Refer to Product Installation Guide on the web at [frigidaire.com](http://frigidaire.com) for detailed instructions.

**Optional Accessories**

- Ice Maker Kit - (PN# IM116).

**2.3 ACCESSORIES**

- A. Acoustical Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board.
- B. Acoustical Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced, 3 inch thick.
- C. Corner Beads: Metal.
- D. Sound Channel: RC - 1 Resilient Channel.
- E. Furring Channel: as required.
- F. Edge Trim: GA 201 and GA 216; Type L or J bead.
- G. Joint Materials: ASTM C475; GA 201 and GA 216; reinforcing tape, joint compound, adhesive, and water.
- H. Control joints: USG 093 or equal.
- I. Fasteners: ASTM C1002, Type S12 W and GA-216.

**3. PART 3 EXECUTION****3.1 EXAMINATION**

- A. Verify that site conditions are ready to receive work and opening dimensions are as instructed by the manufacturer.

**3.2 GYPSUM BOARD INSTALLATION**

- A. Use moisture resistant gypsum board behind ceramic wall tile, at all toilet rooms, mechanical rooms, laundry rooms, and janitors closets. Use at all walls and chases containing plumbing. Do not use water resistant gypsum board for ceilings.
- B. Install acoustical insulation and sound channels at all corridor walls; all perimeter unit separation walls (interior); and where indicated.
- C. Install access panels furnished in Section 08 30 40 when part of a gypsum drywall finish system.
- D. Install gypsum board in accordance with GA-201, GA-216 and GA-600.
- E. Erect single layer fire rated gypsum board vertically, with edges and ends occurring over firm bearing.
- F. Utilize "floating interior angle" construction at ceiling/wall intersections.
  - 1. Provide installation utilizing slotted anchors and drywall chips at all truss/intermediate wall locations. Install according to gypsum board manufacturers' recommendations.
  - 2. Eliminate gypsum board fasteners at all truss/intermediate wall locations as follows:
    - a. Wall: eliminate fasteners from top 8" of wall
    - b. Ceiling: eliminate fasteners from 12" of ceiling adjacent wall.
- G. Use screws when fastening gypsum board to metal furring or framing.
- H. Use screws when fastening gypsum board to wood furring or framing.
- I. Place control joints consistent with lines of building spaces and at 30' - 0" on center maximum (coordinate location with architect.)
- J. Place corner beads at external corners and as indicated. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.
- K. Sound attenuation batts: Install full width of studs to achieve STC ratings indicated on Drawings. Cut and pack tight without voids around equipment, outlets and boxes penetrating the wallboard.
- L. Maintain integrity of fire and sound ratings:
  - 1. Install sound and fire rated walls continuously behind soffits and furred ceilings, behind bathtubs and shower stalls, and at pipe chases.
  - 2. All spaces or joints formed between fire or sound rated wall, floor, ceiling or roof assemblies, or penetrations through such assemblies by pipe, conduit, ductwork any other items or voids provided for possible use of any item shall be caulked, grouted, filled or otherwise protected in a manner to maintain fire or sound ratings.
  - 3. Where any opening or penetration would be subject to moisture or weather it shall also be moisture proof and/or weatherproof as required.
  - 4. Joints of shaft wall systems which are concealed by, or within, other walls need not be sanded for painting but shall be taped and sealed.
- M. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready receive finishes. Provide light orange peel at walls and knock down at ceiling (as approved by Interior Designer)
- N. Feather coats onto adjoining surfaces so that camber is maximum 1/32 inch.
- O. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet.

And at all unit bathroom fixtures such as showers and tubs that do not have a one-piece fiberglass enclosure. Still provide moisture resistant gypsum board above the enclosure on all sides.

A

**3.4 DIRECT ATTACHMENT: SINGLE LAYER SYSTEM AT WOOD FRAME**

- A. Apply gypsum panels to ceilings first.
- B. Position all ends over framing members in parallel application.
- C. Use maximum practical lengths to minimize end joints. Fit ends and edges closely, but not forced together.
- D. Stagger end joints in successive courses.
- E. Place end joints on opposite side of partitions on different studs.
- F. Secure panels in place, starting in center and working toward ends and edges.
  - 1. Space perimeter fasteners at least 3/8" from ends and edges.
- G. Method of attachment: Power-driven wood screws: attach gypsum panels with 1 1/4" type W screws spaced 16" oc maximum for walls and 12" oc for ceiling unless closer spacing is required by test assembly.

**PART 1 GENERAL**

**1.1 RELATED SECTIONS**

- A. Section 03 10 00 –Concrete
- B. Section 03 54 00 - Cementitious Underlayment
- C. Section 06 10 00 - Framing and Sheathing.
- D. Section 09 68 80 - Carpet - Glue Down to Slab

**1.2 SECTION INCLUDES**

- A. Vinyl flooring
- B. Resilient base
- C. Edge/reducer and divider strips
- D. Installation accessories
- E. Subfloor preparation

**1.3 SUBMITTALS**

- A. Submit on the following:
  - 1. Manufacturer’s color samples.

**1.4 QUALITY ASSURANCE**

- A. Provide each type of resilient flooring and accessories from a single manufacturer, including recommended primers, adhesives, sealants, and leveling compounds.

**1.5 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials to project site in manufacturer’s original, unopened containers with labels indicating brand names, colors and patterns, and quality designations legible and intact.
- B. Store and protect materials in accordance with manufacturer’s recommendations.

**1.6 PROJECT CONDITIONS**

- A. Maintain minimum temperature of 65 degrees F and maximum temperature of 90 degrees F in spaces to receive resilient flooring for at least 48 hours prior to installation, during installation, and for not less than 48 hours after installation. Subsequently, maintain minimum temperature of 55 degrees F in areas where work is completed.
- B. Store resilient flooring materials in spaces where they will be installed for at least 48 hours before beginning installation.
- C. Install, resilient flooring and accessories after other finishing operations, including painting, have been completed.
- D. Do not install resilient flooring over concrete slabs until they have been cured and are sufficiently dry to achieve bond with adhesive as determined by resilient flooring manufacturer’s recommended bond and moisture test.
- E. Close areas to traffic and to other work until flooring is firmly set. Tile shall have 72 hours with no traffic.
- F. Where solvent based adhesives are used, provide safety spark proof fans when natural ventilation is not adequate.

**2. PART 2 PRODUCTS** All hard surface flooring must meet Science Certification System's FloorScore per EGCC 6.7a



**2.1 MATERIALS**

- A. Sheet Vinyl:
  - 1. Congoleum
    - a. Air Step Evolution
  - 2. Color by Interior Designer
- B. Resilient Base: FS SS-W-40, Type 2 vinyl; top set; coved
  - 1. Height: 4 inch; coved at resilient flooring, straight at carpet.
  - 2. Thickness: 1/8 inch
  - 3. Length: roll
  - 4. Manufacturer: Johnsonite, VPI, Roppe
- C. Vinyl Skirt: 10” high, straight edge, 1/8” thick.

**PART 1 – GENERAL**

Gas fire place. See Div. 090000

A

- A. Description of Work: Furnish all products, materials, accessories, and labor necessary to provide a complete installation of the factory built fireplaces within the specifications, drawings and other guidelines set forth for this project. All work shall also be performed within the scope of the manufacturer’s warranty.
- B. Related Sections:
  - 1. Division 15 Mechanical
  - 2. Division 16 Electrical
- C. Delivery, Storage & Handling: Delivery of all products shall be scheduled so as to allow for prompt installation immediately following delivery. All materials shall be fully protected from damage from other trades as well as damage from inclement weather and other unforeseen job site hazards.
- D. Quality Assurance: Any variations from the manufacturer’s installation instructions must be approved by the manufacturer’s technical support department in writing and submitted to the architect prior to submitting a bid. In addition, each bidder shall submit a copy of the most recent installation instructions and product literature for the required products. All accessories required shall be fully described and noted in the bid.

**PART 2 – MATERIALS**

**2.1 MANUFACTURERS**

- A. A. Manufactured Fireplaces: Electric, Model as selected by Interior Designer. **VERIFY TYPE, STYLE, COLOR WITH OWNER.** Provide remote for operation. Direct vent, size as shown on drawings, electronic ignition and remote control. Fixed glass panel. Verify front finish with G.C.
  - 1. Basis of Design: Heat & Glo; Mezzo36 Loft Forge Front, black trim; www.heatnglo.com.
  - 2. Lennox Hearth Products: www.ihp.us.com.
  - 3. Vermont Castings: www.vermontcastings.com.
  - 4. Substitutions: See Section 01 6000 - Product Requirements.

**2.0 COMPONENTS**

- A. Fire Box: Formed insulated steel cabinet, rectangular shaped interior, configured to include chimney outlet and cleanout, front air inlet and integral air outlet.
  - 1. Hearth Opening (nominal): As shown on drawings. Verify with G.C.

**PART 3 EXECUTION**

**3.1 VERIFICATION OF CONDITIONS**

- A. Verify that prepared openings are ready to receive work and opening dimensions are as indicated on drawings.
- B. Verify that proper power supply and fuel source are available.

**3.2 INSTALLATION**

- A. Install unit assembly in accordance with manufacturer's instructions.
- B. INSTALLATION:
  - 1. Surface conditions: examine the areas and conditions under which the work of this section will be performed. Correct conditions detrimental to the timely and proper completion of the work.
  - 2. Installation: install in strict accordance with the manufacturer’s recommendations.
  - 3. Instruct On-Site Manager/ Maintenance Superintendent in the correct operation of the accessories; provide maintenance suggestions per manufacturer.

## PART 1 – GENERAL

### 1.1 SECTION INCLUDES

A. Multiple mail boxes with hinged doors.

### 1.2 RELATED SECTIONS

A. Section 06 10 00 – Rough Carpentry

### 1.3 SUBMITTALS

A. Submit shop drawings under provisions of Section 01 33 00. Indicate locations, construction and anchorage details, dimensions, rough-in openings sizes, quantity and arrangement of box sizes, box numbers (verify numbering system with Interior Designer).

### 1.4 FIELD MEASUREMENTS

A. Verify that field measurements are as indicated on shop drawings.

## PART 2 – PRODUCTS

### 2.1 MANUFACTURERS

MAILBOX-1 Recessed front load Florence 4C15D Black 51 mailboxes, 3 w/ADA reach



B. Substitutions under provisions of Section 01 60 00.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

A. Verify that prepared openings are ready to receive work.

### 3.2 INSTALLATION

A. Install in accordance with manufacturer's instructions and U.S. Postal Service regulations.

B. Install and secure boxes in position.

C. Install doors and adjust to operate smoothly.

## 108000 - BATH/TOILET ACCESSORIES

---

### PART 1 – GENERAL

#### 1.1 SECTION INCLUDES

A. Toilet and shower Accessories.

#### 1.2 RELATED SECTIONS

- A. Section 06 10 00 – Rough Carpentry
- B. Section 06 20 00 – Finish Carpentry

#### 1.3 QUALITY ASSURANCE

- A. Inserts and Anchorages: Furnish inserts and anchoring devices which must be set in concrete or built into masonry; coordinate delivery with other Work to avoid delay.
- B. Accessory Locations: Coordinate accessory locations with other Work to avoid interference and to assure proper operation and servicing of accessory units.

#### 1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's technical data and installation instructions for each toilet accessory.
- B. Setting Drawings: Provide setting drawings, templates, instructions, and directions for installation of anchorage devices in all Work.

### PART 2 - PRODUCTS

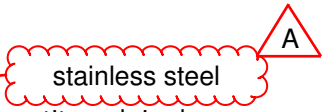
#### 2.1 ACCEPTABLE MANUFACTURERS

A. Toilet Accessories as indicated:

1. Bobrick Washroom Equipment, Inc. (specified products unless otherwise noted.)
2. Bradley Corporation
3. McKinney
4. American Specialties, Inc.
5. Koehler toilets or approved equal.
6. ADA Toilet Fixtures must be 17"-19" for compliance; avoid using Pfister faucets.
7. ADA Roll-in showers; verify with GC.

B. Resident Apartments (one each): By Interior Designer

1. Towel Bar
2. Towel Ring
3. Robe Hook
4. Toilet Paper Holder
5. Shower Rod
6. Shower Rod Ends
7. Medicine Cabinet 30" mirrored double door, surface mount (submit for approval)
8. Grab Bars:
  - a. Stools: 1 1/2" powder coat finish, ~~white~~, concealed mounting screws. Quantity and sized per drawings.
  - b. Showers: 1 1/2" stainless steel, knurled surface, concealed mounting screws. Quantity and sized per drawings.
  - c. All grab bars shall withstand a 250 lbs. load at midpoint without permanent deformation or pullout.



C. Common area

1. Bath/Shower:
  - a. Towel Bar (2)
  - b. Toilet Paper Holder
  - c. Paper Towel Dispenser
  - d. Grab Bars:
    1. Stools: 1 1/2" powder coat finish, white, concealed mounting screws. Quantity and sized per drawings.
    2. Showers: 1 1/2" stainless steel, knurled surface, concealed mounting screws. Quantity and sized per drawings.

**NOTE: ALL finishes & accessories to be verified with Interior Designer.**

**PART 1 – GENERAL**

A. Extent of miscellaneous specialties as specified and indicated on Drawings, include, but are not limited to the following:

- 1. Security System
- 2. ~~Flagpole~~ No flagpole ▲ A
- 3. Outdoor gas grill and post
- 4. Furniture
- 5. Walk off mats; one at elevator lobby. Verify other locations with Interior Designer.
- 6. Other

**PART 2 – PRODUCTS**

A. **Electronic Security System:** Supplied By By electrician Refer to electrical specifications for installation. ▲ A

B.  ▲ A

C. Gas grill and post: ▲ A  

charcoal grill to match Phase II

**PART 3 – EXECUTION**

- A. Install miscellaneous specialties in accordance with manufacturer’s printed instructions.
- B. Install items plumb, level, and true. Provide anchors, bolts, and any other fastenings and materials necessary and required for a complete, professional finished job.

## 112000 - RESIDENTIAL EQUIPMENT

---

### PART 1 – GENERAL

#### 1.0 SUMMARY

- A. Provide all equipment as shown on drawings or specified. Submittals required for approval. All appliances are to meet efficiency energy standards; “Energy Star” compliant.
- B. Proposal to include delivery and installation and any incidental items required for use.
- C. Supplier shall closely coordinate all items within this section with the Project Manager/ G.C. covering all aspects of the kitchen equipment and related items. Submittals shall include all information necessary for mechanical connections.
- D. Supplier shall include a one-time trip to the facility after all equipment is installed to instruct staff on operation and maintenance procedures.

#### 1.1 DESCRIPTION OF WORK

- A. Residential kitchen appliances and equipment, washers and dryers, and accessories. Coordination of equipment with Mechanical and Electrical Work.

#### 1.2 RELATED SECTIONS

- A. Section 12 35 30 – Residential Casework
- B. Division 15 Mechanical
- C. Division 16 Electrical

#### 1.3 SUBMITTALS

- A. Shop Drawings: Submit in accordance with Section 01 33 00.
- B. Samples: submit samples of factory finish to Owner for color selection and appearances acceptance.

#### 1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Provide suitable packing for all items to prevent damage from handling and from the elements during shipment and storage. Do not deliver until suitable storage space is available at the project site or installation can be made directly upon delivery.
- B. Deliver residential equipment to the project site, unload, distribute, uncrate, assemble as required, place in permanent position and connect up.

### PART 2 - PRODUCTS

#### 2.1 APARTMENT APPLIANCES: Verify with Owner/Interior Designer in consultation with Bottineau Phase II.

A.

See finish section with appliances from Phase II

B. INCLUDE IN BASE BID:

- 1. Nice appliances for Community Room
- 2. Four (4) extra appliances of each as well as AC units.

### PART 3 – EXECUTION

#### 3.1 INSTALLATION

- A. Install residential equipment appliances, washers and dryers in accordance with reviewed Shop Drawings and manufacturers printed instructions. Adjust operating parts of residential equipment for proper operation. Provide cords as required and anti-tip brackets.

#### 3.2 ADJUSTING AND CLEANING

- A. Adjust equipment to ensure proper working order and conditions.
- B. Clean and remove all rubbish from the job site.
- C. Coordinate all deliveries with the General Contractor or Owner in conjunction with the progress of the construction.
- D. Installation shall include all incidental items required for use.
- E. Promptly notify General Contractor or Owner of any defects or damage.