**SECTION 27 11 16 – Communications Cabinets, Racks, Frames, and Enclosures**

 GENERAL

 SUBMITTALS

 Action Submittals:

 Product Data: Manufacturer’s descriptive and dimensional data and product attributes.

 Closeout Submittals:

 Operation and Maintenance Data.

 A minimum of 2 identified keys for the keyed alike lockable front and backbox.

 QUALITY ASSURANCE

 Regulatory Requirements:

 UL 2416, Audio/Visual Information and Communications Technology Equipment Cabinets, Enclosures and Rack Systems

 EIA/ECA-310-E, Cabinets, Racks, Panels and Associated Equipment

 ANSI/TIA 607-D, Generic Telecommunication Bonding and Grounding (Earthing) for Customer Premises

 PRODUCTS

 EQUIPMENT RACKS

 Contract documents are based on Lowell Manufacturing Company. Phone (636) 257-3400. Website [www.lowellmfg.com](http://www.lowellmfg.com). E-mail sales@lowellmfg.com

 Substitutions: [Refer to Division 01.] [Not permitted.]

 GENERAL RE: RACK CONSTRUCTION

 Racks are to be UL listed, constructed from certified U.S. steel with a factory applied black wrinkle powder epoxy finish and sized to suit the equipment to be installed plus 20% spare capacity. Additional requirements are as follows:

 Wall-mount racks are to be welded #16 gauge steel backbox and front mounting section that swings open.

 Front corner edges are to be beveled.

 WALL-MOUNT RACK

 Lowell Manufacturing Co. “LWR” Series wall racks, each complete with

 Mounting Section: attaches to backbox with 2 heavy-duty, spring-loaded and self-seating L-pins which can be attached on either side to alter swing orientation. Side vents.

 Backbox: 5.8-inch deep with keyhole mounting slots on 16-inch centers. 10-in. x 10-in. rear opening to accommodate a pull box. Ground connection stud. Embossed dimples and lacing points on back plane for installation of board mounted accessories. Top and bottom laser-cut knock-out panels. Knock-outs for wireless antennae. Keyed side locks to secure front mounting section which can swing open for access when not locked.

 Adjustable rack rails: #11 gauge black finish steel 10-32 threaded rails on E.I.A. spacing with bi-directional numbered RU increments. 1-pr.

 Hardware: Black pilot point screws with captive washers

 Rack Model Number:

* + - * 1. Model LWR-719: Height 7U [18.38in./467mm], Depth 19.05in.[484mm], Width 23.06in.[586mm], Load Capacity 125 lbs.[56.6kg].
				2. Model LWR-1019: Height 10U [23.63in./600mm], Depth 19.05in.[484mm], Width 23.06in.[586mm], Load Capacity 150 lbs.[68kg].
				3. Model LWR-1219: Height 12U [27.13in./689mm], Depth 19.05in.[484mm], Width 23.06in.[586mm], Load Capacity 150 lbs.[90.7kg].
				4. Model LWR-1619: Height 16U [34.13in./867mm], Depth 19.05in.[484mm], Width 23.06in.[586mm], Load Capacity 200 lbs.[90.7kg].
				5. Model LWR-1819: Height 18U [37.50in./953mm], Depth 19.05in.[484mm], Width 23.06in.[586mm], Load Capacity 250 lbs.[113.3kg].
				6. Model LWR-2119: Height 21U [42.88in./1089mm], Depth 19.05in.[484mm], Width 23.06in.[586mm], Load Capacity 250 lbs.[113.3kg].
				7. Model LWR-2419: Height 24U [48.13in./1223mm], Depth 19.05in.[484mm], Width 23.06in.[586mm], Load Capacity 300 lbs.[136kg].]
				8. Model LWR-3519: Height 35U [67.38in./1711mm], Depth 19.05in.[484mm], Width 23.06in.[586mm], Load Capacity 300 lbs.[136kg].]
				9. Model LWR-723: Height 7U [18.38in./467mm], Depth 23.05in.[585mm], Width 23.06in.[586mm], Load Capacity 125 lbs.[56.6kg].]
				10. Model LWR-1023: Height 10U [23.63in./600mm], Depth 23.05in.[585mm], Width 23.06in.[586mm], Load Capacity 150 lbs.[68kg].]
				11. Model LWR-1223: Height 12U [27.13in./689mm], Depth 23.05in.[585mm], Width 23.06in.[586mm], Load Capacity 150 lbs.[90.7kg].]
				12. Model LWR-1623: Height 16U [34.13in./867mm], Depth 23.05in.[585mm], Width 23.06in.[586mm], Load Capacity 200 lbs.[90.7kg].]
				13. Model LWR-1823: Height 18U [37.50in./953mm], Depth 23.05in.[585mm], Width 23.06in.[586mm], Load Capacity 250 lbs.[113.3kg].]
				14. Model LWR-2123: Height 21U [42.88in./1089mm], Depth 23.05in.[585mm], Width 23.06in.[586mm], Load Capacity 250 lbs.[113.3kg]. ]
				15. Model LWR-2423: Height 24U [48.13in./1223mm], Depth 23.05in.[585mm], Width 23.06in.[586mm], Load Capacity 300 lbs.[136kg]. ]
				16. Model LWR-3523: Height 35U [67.38in./1711mm], Depth 23.05in.[585mm], Width 23.06in.[586mm], Load Capacity 300 lbs.[136kg].]

 Optional Accessories:

 Solid steel surface-mount front door with key lock Model [LFD-7] [LFD-10] [LFD-12] [LFD-16] [LFD-18] [LFD-21] [LFD-24] [LFD-35]

 Smoked plexiglass surface-mount front door with key lock Model [LFD-7P] [LFD-10P] [LFD-12P] [LFD-16P] [LFD-18P] [LFD-21P] [LFD-24P] [LFD-35P]

 Fully-vented surface-mount front door with key lock Model [LFD-7FV] [LFD-10FV] [LFD-12FV] [LFD-16FV] [LFD-18FV] [LFD-21FV] [LFD-24FV] [LFD-35FV]

 Additional pair of mounting rails Model [RRD-7] [RRD-10] [RRD-12] [RRD-16] [RRD-18] [RRD-21] [RRD-24] [RRD-35]

 EXECUTION

 INSTALLATION OF EQUIPMENT RACKS

 Provide equipment racks as shown/required with exact quantity and sizes to suit system equipment and the required spare capacity. Confirm exact locations prior to roughing-in.

 Install in accordance with the manufacturer’s published instructions.

 Ensure that rack locations permit full opening of doors.

 Ground and bond all racks in accordance with requirements of [Section 27 05 26], Grounding and Bonding for Communications Systems.

END OF SECTION