

STRUCTURAL SPECIFICATIONS	ELECTRICAL SPECIFICATIONS	ELECTRICAL SPECIFICATIONS (continued)
<div>1. CONCRETE COLUMNS AND SLABS:</div> <div>A. Ground Floor Slab: Steel wire mesh reinforced slab on grade with water-proof membrane over 6" of crushed stone.</div> <div>B. Second Floor And Roof Slab: Double layer of reinforcing rods with a 3" space between each layer. Slab construction includes drop heads at each column.</div> <div>C. Concrete Columns: Poured 12" by 12" concrete with vertical reinforcing bars.</div> <div>2. EXTERIOR WALLS: Concrete masonry blocks with brick veneer. Concrete blocks are 60-percent solid and a 1" air space between block and brick.</div> <div>3. INTERIOR WALLS:</div> <div>A. Interior walls between offices and warehouse area, around stairs, and around the freight elevator are 6" size 60-percent solid concrete masonry blocks.</div> <div>B. Interior walls in the office and toilet areas are 3-1/2" steel studs with painted drywall (plasterboard) on both sides. Walls extend 6" above the finished ceiling.</div> <div>4. CEILINGS:</div> <div>A. Offices: Suspended lay-in acoustical 2'by 4' tile with exposed "T"-bar suspension system.</div> <div>B. Toilets, Corridors, Stairways, & File Room: Painted drywall (plasterboard).</div> <div>C. Mechanical Equipment Room, & Warehouse: Exposed concrete slab.</div> <div>5. FLOORS:</div> <div>A. Warehouse And Stairs: Exposed concrete with a polymer sealer.</div> <div>B. All Other Areas: 1/8" thick vinyl floor tile.</div> <div>6. ROOF: Bonded 20-year roof with gravel topping.</div> <div>7. FLOOR & ROOF PENETRATIONS: The general contractor shall provide all trenching and all backfilling below the first floor. The general contractor shall also provide openings (or sleeves) for all electrical conduit and mechanical pipe penetrations through all concrete floors and ceilings.</div> <div>8. EQUIPMENT FOUNDATIONS AND SUPPORTS:</div> <div>A. The mechanical contractor will furnish and install all foundations, anchors, fasteners, and supports for all mechanical equipment.</div> <div>B. The electrical contractor will furnish and install all foundations and structural steel supports for all electrical equipment, lighting fixtures, and electrical circuitry.</div> <div>9. CONCRETE POURING SCHEDULE: All poured concrete floors and ceilings will be completed as early as practical so that construction crafts can use rolling scaffolding as early as possible.</div> <div>10. TEMPORARY DOORS & WINDOWS: Temporary plywood doors, plastic window coverings, and temporary heating will be installed by the general contractor if the permanent doors and windows are not in place by November 1st.</div>	<div>1. INSTALLATION:</div> <div>A. All electrical systems must conform with the requirements of the National Electrical Code and all electrical materials must be listed with the Underwriters Laboratories.</div> <div>B. No changes or deviations from these specifications and the installation drawings will be allowed. All electrical systems shall be installed as shown on these installation drawings. No re-circuiting will be allowed.</div> <div>2. THE MAIN DISTRIBUTION SWITCHBOARD: The main distribution switch-board (abbreviated MSB hereafter) shall be a Square D with 1000 Ampere bussing and shall include all the components as shown on drawing E-6. The weight of the MSB is 1800 pounds and will be shipped in one piece.</div> <div>3. PANELBOARDS: All panelboards shall be dead front safety type incorporating the number of branch circuit breakers and poles as listed in the Panelboard Schedule. All panelboards shall have Main Lugs Only (abbreviated MLO hereafter). All circuit breakers shall be molded case thermal-magnetic plug-in type with ratings as shown in the Panelboard Schedule.</div> <div>4. RACEWAYS:</div> <div>A. Conduit 1 1/4" and smaller, concealed in furred space, may be electrical metallic conduit (EMT). The minimum size shall be 3/4".</div> <div>B. All conduit up to and including 1" may be field bent. All 90 deg. changes in direction in conduit sizes 1-1/4" and larger shall be with factory-made elbows.</div> <div>C. Conduit up to and including 1-1/2" is permitted in the concrete slabs and in the masonry block walls. Conduit 2" and larger shall be installed below the floor slab unless otherwise noted on the installation drawings.</div> <div>D. All exposed conduit 1-1/2" and smaller shall be fastened with one-hole straps every 5 feet and within 1 foot of each exposed conduit termination. All exposed conduit 2" and larger shall be fastened with two-hole straps and self-drilling anchors at least every 8 feet.</div> <div>E. Underfloor duct shall be the insert type, 3" nominal size for power and 6" nominal size for telephone, and in 8 foot lengths. Junction boxes shall be 16" by 16" sheet steel. Supports are required every 5 feet and within 1 foot of each junction box</div> <div>5. OUTLETS:</div> <div>A. Outlet boxes for concealed wiring shall be 4" square pressed galvanized steel with knockouts. For concealed wiring lighting fixture outlets in poured concrete slabs, 4-3/8" octagonal pressed steel concrete boxes may be used. Plaster rings as required for the device being installed, shall be used to bring the box to the finished surface.</div> <div>B. Outlet boxes for exposed wiring shall be the cast type with threaded hubs. Cover plates for galvanized steel outlet boxes shall be galvanized steel of the appropriate size. Cover plates for cast outlet boxes shall also be cast.</div> <div>6. CONDUCTORS & CABLES:</div> <div>A. All conductors and cables shall be copper. Aluminum conductors are not allowed.</div> <div>B. The minimum conductor size shall be #12 AWG except that #14 AWG may be used for thermostat circuits. Conductor sizes #8 AWG and larger shall be stranded. Conductor sizes #10 AWG and smaller shall be solid conductors.</div>	<div>C. Conductor installation shall be Type THHN.</div> <div>D. Type SJ stranded copper cord shall be used to connect lighting fixtures Type "J" where shown on the installation drawings.</div> <div>7. BRANCH CIRCUIT WIRING DEVICES:</div> <div>A. Lighting fixtures shall be as listed in the Lighting Fixture Schedule on drawing E-4.</div> <div>B. All duplex receptacles shall be Hubbell #53821 rated 20 Ampere self-grounding and mounted 18" above the finished floor unless noted otherwise on the installation drawings.</div> <div>C. All special purpose single receptacles shall be mounted 24" above the finished floor unless noted otherwise on the installation drawings.</div> <div>D. All convenience switches for lighting shall be rated 20 Ampere and mounted 48" above the finished floor.</div> <div>E. Coverplate for flush mounted devices shall be nylon, same color as wiring device it covers.</div> <div>8. DISCONNECT SWITCHES:</div> <div>A. Disconnect switches shall be fusible or non-fusible and of the sizes shown on the installation drawings. Disconnect switches shall be rated "Heavy Duty" and shall be enclosed in NEMA 1 metal enclosures.</div> <div>B. Fused switches shall include Buss Type FRN dual element fuses. Main switch fuses shall be buss type KRP-C.</div> <div>9. EQUIPMENT CONNECTIONS:</div> <div>A. All motor starters, duct heaters, unit heaters, and overhead motor operated door wiring beyond the circuit disconnect switch will be furnished and installed by others.</div> <div>B. The final raceway connections to motors shall be in flexible steel conduit. The minimum length of the flexible steel conduit connection shall be 18".</div> <div>10. INSTALLATION INSTRUCTIONS:</div> <div>A. All panelboards are 36" high, 24" wide, 6" deep and shall be surface mounted with the tops 72" ABOVE FLOOR(bottoms will be 3 feet above the floor).</div> <div>B. The telephone cabinet is 60" high, 24" wide, 6" deep and shall be surface mounted with the top 48" below the ceiling (the bottom will be approximately 3 feet above the finished floor) 200lbs.</div> <div>C. Conductors Tie-in Allowances:</div> <div>a. Each conductor entering or leaving the MSB shall have 6 feet of conductor for tie-in.</div> <div>b. Each conductor entering or leaving a service head, panelboard, starter, or disconnect switch shall have 3 feet of conductor for tie-in.</div> <div>c. Each conductor connected to a lighting fixture, wiring device, motor, or entering or leaving a junction box shall have 1 foot of conductor for the tie-in.</div>

SPECIFICATIONS AND DETAILS
OFFICE AND WAREHOUSE FOR
ATLANTIC FOOD COMPANY

REVISIONS		JOB. NO	DATE	DRAWING NO.
DATE				
		DRAWN BY	SCALE 1/4"=1'-0"	E-8