

105.00 GENERAL CONDITIONS OF THE CONTRACT

105.01 General Conditions shall be per Owners Contract.

110.00 PERMITS AND FEES:

110.01 The Contractor shall be responsible for obtaining any required building permits and Certificates of Occupancy and shall include the cost of all necessary permits, fees, testing and inspection in this price.

115.00 TEMPORARY UTILITIES:

115.01 The Contractor shall be responsible for any temporary utilities required during construction.

120.00 SUBSTITUTIONS:

120.01 Where products are specified by manufacturer, brand name specified. Owner will consider substitutions for materials in place of those specified, in order to save time or cost, provided same quality is maintained. Owner must approve all substitutions prior to ordering material.

125.00 COORDINATION:

125.01 The Contractor and trades shall coordinate all work with the following entities: all local, municipal, state and federal agencies having jurisdiction over the project; all separate Contractors and/or agents of the tenant; and the Contractor shall be responsible for the coordination of all work necessary for the completion of the project in accordance with the plans and specifications, including the connection of equipment and installation of materials supplied by other, unless clarified by bid submittals, with monetary stipulations. No changes in the contract amount will be made due to lack of coordination. Areas where problems may occur are:

- 1. Gas piping to equipment boilers, hot water heaters, HVAC equipment.
2. Water supply and drain to HVAC equipment with humidifiers.
3. Condensate drains.
4. Spaces with internal heat loads.
5. Presence of electrical starters (control areas, fans, pumps, etc.).
6. Electrical connection characteristics of equipment installed by other trades.
7. Design intent supplied by the Owner and/or Tenant that the Contractor feels may be inadequate.
8. Items required by a municipal agency or a federal, state, or local statute or code.

130.00 CHANGES OR ADDITIONAL WORK:

130.01 The Contractor is not to make changes or perform additional work without written authorization from Owner. If requested by the tenant, refer the tenant to the Construction Manager.
130.02 Operation and Maintenance Data:
130.03 Data: Furnish complete operation and maintenance data, including equipment warranties, for water heaters, hot water, exhaust fans, A/C equipment, electrical equipment and other equipment for which the manufacturer normally supplies operation and maintenance data and/or equipment warranties. Include model number, serial number, operating power requirements or parts data.
130.04 Instructions: Instruct Tenant's designated operating personnel in operation, adjustment, lubrication, etc. of equipment which will require seasonal and/or periodic inspection, adjustment and/or lubrication.

140.00 CLEANUP:

140.01 Contractors are responsible, individually or collectively, for cleaning on a day-to-day basis. Failure to abide by the provisions set forth in this section shall result in the Contractor being responsible for the cost of the original contract.
140.02 Visit prior to delivery of project to Owner or Tenant. Contractor shall clean entire project suitable for occupancy including, but not limited to:
1. Replace any broken glass.
2. Remove stains, spots, marks and dirt from finished surfaces and clean hardware.
3. Wash all glass and mirrors.
4. Clean all walls and all bathroom fixtures.
5. Vacuum carpets, water mop and wax tile floors, and sweep warehouse floor.
6. Dispose of all waste materials.

145.00 PROJECT RECORD DOCUMENTS:

145.01 Maintain at the site, clean, legible copies of all drawings. Mark each sheet to indicate "Project Record Documents". Refer to 105.02 for submittal. Legibly mark to show the following, as it occurs:
1. A reproducible set of drawings for each of HVAC, electrical, fire suppression, and plumbing systems.
2. Location of underground and/or concealed utilities, referenced to visible, permanent construction features.
3. Field changes of dimension and/or detail.
4. Substitutions of materials in place of those originally specified.
5. Other matters not on original documents.

150.00 CUTTING AND PATCHING OF EXISTING WORK:

150.01 Submit a written request, fully detailed and with verbal explanation where required, for approval of Owner where cutting and/or patching is required which will affect aesthetic effect, weather tightness, and/or structural integrity of existing surface.
150.02 Owner reserves the right to require Contractor to employ original subcontractor to perform cutting and/or patching of these surfaces.

155.00 FINAL PAYMENT:

155.01 Retainage payment will be paid thirty (30) days after Contract completion and a copy of the punch list signed by the Tenant verifying completion of all items.

160.00 GENERAL NOTES:

160.01 In case of conflict between the specifications and drawings, the drawings shall govern.
160.02 The term "PROVIDE" where used on the drawings is intended to make clear that the item pointed out is to be furnished and installed by the general contractor and is not an existing item.
160.03 The phrase "By Tenant" shall mean that the item called for on the drawings shall be furnished and installed by the tenant at his expense and is not a part of the Contract. (The contractor is to cooperate to assure the tenant has timely access to the facility).
160.04 The phrase "Furnished by Tenant" shall mean that the item called for on the drawings shall be furnished by the tenant and installed by the general contractor. Only the cost of installation is included in the contract.

200.00 SITE WORK:

200.01 It is the responsibility of the Contractor to move or cap off all lawn sprinkler lines, risers, heads, etc. that might conflict with the installation of concrete, rebar, sidewalks, doors, etc.
200.02 All shrubbery, trees, ground cover, etc., that must be taken out due to sidewalks, ramps, etc., shall be replanted in locations as directed by the Owner. All exterior grounds must be kept clean and neat on a daily basis.
200.03 All exterior grounds must be brought back to their original clean and neat condition upon completion of each lease space.
200.04 All interior adjacent spaces to a lease under construction must be kept neat and clean. At the completion of each lease space, the adjacent space must be brought back to its original condition.

300.00 CONCRETE

300.01 GENERAL

1. Concrete work furnished under this contract shall conform to original specifications for the building shell, but in no case less than 5" thick, with #3 rebar 18" O.C. on chairs, 3,000 PSI concrete @ 28 days.

300.02 WALKS AND STEPS

1. Concrete work furnished under this contract shall conform to original specifications for the building shell, but in no case less than a minimum of thick 3000 psi concrete reinforced with 10" x 10", 10/10 W/MH (welded wire mesh). Properly level and compact subgrade; provide uniform light brown finish unless otherwise noted.
2. Where steps occur near existing steps in multi-tenant buildings, match configuration of existing steps.

300.03 RECESSED STEPS

1. Slope concrete 1/8" per foot minimum away from building. If concrete has been placed previously to level plan, break out and replace to achieve proper drainage.

300.04 RAMPS

1. Construct of minimum 5" thick reinforced 3000 psi concrete reinforced with #3 rebar 18" O.C. on chairs over full P.F.I. less than or equal to 12' completed to min. 45% Standard Proctor Density. (See Standard Detail).

300.05 INTERIOR FLOORS

1. Apply Acrylic Floor Seal with a minimum solids content of 20% to all concrete floor surfaces.
2. Where carpet, resilient tile or other floor coverings, follow manufacturer's directions for application rates and procedures.
3. Portions of existing slab to be removed for plumbing, electrical or other purposes shall be saw out. Concrete used to fill in leave cuts in the slab shall conform to specs in 300.01 above. Each leave cut to be dowelled to existing slab with 3/4" smooth, galvanized steel bars extending minimum 8" into existing concrete, 18" O.C. Where replacement concrete is required (i.e., slabbing trenches), the replacement slab is to be dowelled at alternating sides of the existing slab.
4. Electrical connection characteristics of equipment installed by other trades.

400.00 MASONRY

400.01 CONCRETE MASONRY UNIT FIRE/RATEDS:

1. Construct concrete masonry unit party walls in accordance with code requirements for 2 hour fire resistive construction.
a. Concrete masonry units: ASTM C90, Grade N, Type I.
b) 8" block for walls less than 15' in height.
c) 12" block for all other walls.

400.02 HORIZONTAL REINFORCING:

AA Wire Products "Block-Lok" every third course in a full bed of mortar lapped 4" at joints of reinforcement and secured to columns where appropriate.
3. Bond beams: Provide at 14th course of walls not exceeding 24' - 0" in height; reinforce with two #5 bars. Walls exceeding 24' - 0" in height shall be designed by Registered Structural Engineer and submitted to landlord for approval prior to construction.
d. Provide one 8" x 14" plate for each 100 linear feet of wall, or fraction thereof; reinforce with two #5 bars.
2. Provide lintels of adequate design (contractor to submit engineer's calculations to landlord for approval) for openings cut in existing masonry walls.

500.00 METALS

500.01 STRUCTURAL STEEL FRAMING:

1. Structural design of storage mezzanines, if included, shall be by Registered Structural Engineer, using 125 lb./sq. ft. min. live load.
2. Additions and/or alterations to existing structural steel frame shall be fully detailed by Registered Structural Engineer, and submitted to landlord for approval.
3. Hinges: Hager 1214 x 4-1/2 x 4-1/2 x USP ball bearing type for doors with closers, non-removable pin type for exterior doors.
4. Door stops: Where possible, provide wall mounted door stops, Trimco 1214CGS/OVB; otherwise, floor type, Trimco 1210X/OB. Finish: oil rubbed bronze or as specified.

500.02 HANDRAILS AND RAILINGS:

1. Fabricate from 1-1/2" O.D. steel pipe with smooth, uniform bends and full welds, ground smooth.
2. Provide 1" min. horizontal rails at top, bottom and mid-points not exceed 4'-0" max. center line of adjacent rails and vertical clear at 4'-0" o.c. between. Conform to OSHA requirements.
3. Master Key entire system to match shell building.
4.000 FINISHES
410.01 Drywall
410.02 Deming walls shall be built to the deck using 48" x 5/8" gypsum board (fire rated where required) on 3-5/8" metal studs, 20 gauge or thicker, spaced 16 inches on center. All other walls shall be 24 inches on center. The deming wall shall receive unfinished sheetrock on both sides, unless stated otherwise on the plans or the contract. When a deming wall has two layers of sheetrock, the wall board joints shall be staggered so that no two joints coincide.
410.03 Wall separating the office from the warehouse shall receive 48" x 108" x 5/8" gypsum board (fire rated where required) on 2-5/8" metal studs, 20 gauge or thicker, spaced 24 inches on center. A separation wall shall be one (1) foot in height unless the building contains a fire sprinkler system in which case the wall shall be terminated, with stud spacing as outlined in 410.01, unless noted otherwise.
410.04 Office partition walls shall be nine (9) feet in height unless specified otherwise and receive 48" x 108" x 5/8" gypsum board on 3-5/8" metal studs, 25 gauge or thicker, spaced 24 inches on center, unless otherwise specified. The gypsum board surface finish shall be specified on the plans. Color selections shall be as noted in the finish schedule.
410.05 Each cabinet shall have a 4-inch backslab and the hardware shall be Stanley 4483 1/2 UB 240 pulls, Yountdale No. 5 hinges and KV drawer guides. All cabinetry shall be installed complete.
410.06 Backing shall be included where required for all units bearing on a wall.
410.07 A finished vanity shall be included by the Contractor for each restroom unless wall hung lavatories or counters are specified.
410.08 All backslashes will be sealed with clear silicone caulk.

100.00 THERMAL AND MOISTURE PROTECTION

100.01 INSULATION:

A. Thermal batts: Owens-Corning batts 3-1/2" thick in partitions separating A/C from non-A/C spaces, and 3-1/2" thick above ceilings over A/C spaces.
B. Acoustical batts: Minimum 2" thick, 4 lb./cu. ft. density, unfaced mineral fiber sound attenuation batts in restroom walls in office areas and deming partitions separating offices between leases shall be installed to ceiling height. Installation of existing deming walls including the removal and replacement of existing sheetrock shall be included only when specifically so noted to do so on the working drawings).
C. Concrete walls: Owens-Corning 1" assembly wall insulation placed between framing at concrete walls in A/C spaces.

100.02 MEMBRANE ROOFING:

A. Submit drawings for penetrations, equipment and pipe supports, etc. to landlord for approval prior to beginning construction.
B. Employ roofing contractor designated by Building Services to perform cutting, repairs, etc.

100.03 MISCELLANEOUS LEAK PREVENTION STEPS:

A. At the substantial completion of the job, the landlord's representative will conduct a "walk-around inspection" of the roof with a designated representative from each of the major trades, including specifically but not limited to the Roofing Contractor, the Air-Conditioning Contractor, the Electrical Contractor and the Plumbing Contractor in order to produce a punch list of each.
B. All flat caps and vent caps are to be screened on tightly by the appropriate trades.
C. All center flashings are to be caulked and sealed by the appropriate trades.
D. All lead flashings are to be turned down into the pipes by the Plumbing Contractor.
E. All condensate lines are to be sealed.
F. All scraps on the roof resulting from various trades work, such as screws, pieces of sheetmetal, sand, fiters, bottles, cans, and miscellaneous items are to be removed by the appropriate trades.
G. All pitch pans are to be filled and examined to provide a watertight edge as needed.

800.00 DOORS AND WINDOWS

800.01 EXTERIOR DOORS:

A. Doors: Match Original Shell Building Specification but in case less than 20 ga. 18" flush, 1-3/4" thick hollow metal with fibreglass honeycomb core, vertical edges welded 4" o.c. maximum, filled and ground smooth.
B. Frames: Match Original Shell Building Specification but in no case less than 18 ga with 2" faces and 5/8" stops formed integrally with frame. Provide rubber insert, slingers, four 1/4 ga wall anchors and one adjustable floor anchor per jamb. Ship with removable angle spacer.
C. Finish: 20 minute rated doors and/or frames bearing UL label of proper designation and closers where one (1) hour label are required by code.

800.02 OVERHEAD DOORS:

A. Match original Shell Building Specifications but in no case less than Raynor Hfg. Co. Series 5-24, flush panel sectional, hand pull rope operation or approved equal.
B. Where new dock door openings are required, provide original Shell Building Specification but in no case less than:

- 1. Two dock bumpers per opening, type and size to match existing, if none exist, provide durable Flat Co. No. 13-118-34 or equal. Weld to angle at dock edge.
2. 4" x 4" x 1/4" thick angle, 4'-0" high, secured to each jamb.

800.03 ENTRANCES AND STOREFRONT:

A. Acceptable Manufacturers: Match original Shell Building Specifications or Approved Equal
B. Framing system: Match original Shell Building Specifications aluminum flush glazing system. Provide horizontal safety bar 3" above floor unless otherwise indicated.

800.04 FINISH HARDWARE:

A. Locksets and latchesets: Match original Shell Building Specification Exterior doors, Falcon T Series "Quantum" Satin Chrome 424 Model T501 or equal with thumb-turn device on inside. On steel finish-out work or new buildings, change front door lockset and return original lockset to owner.
1. Passage sets: Match original shell building Specification Falcon T Series "Quantum" Satin Chrome 424 Model T501
2. Locksets: Match original shell building Specification Falcon T Series "Quantum" Satin Chrome 424 Model T501
3. Privacy sets: Match original shell building Specification Falcon T Series "Quantum" Satin Chrome 424 Model T301
4. Strike: Match original shell building Specification
5. Schlage Grade A hardware (Standard Duty Commercial) or D (Heavy Commercial) may be substituted if approved by Owner.
6. Entry door: Match original Shell Building Specification
B. Closers: Match original Shell Building Specification or equal with finish to match locksets. Provide closers on restroom doors and doors between A/C and non-A/C spaces. Properly size in accordance with manufacturer's sound tables.
C. Hinges: Hager 1214 x 4-1/2 x 4-1/2 x USP ball bearing type for doors with closers, non-removable pin type for exterior doors.
D. Door stops: Where possible, provide wall mounted door stops, Trimco 1214CGS/OVB; otherwise, floor type, Trimco 1210X/OB. Finish: oil rubbed bronze or as specified.
E. Keying: Provide master key keys for each lockset; label each key to indicate lockset; it opens. Bundle keys and deliver to Owner upon project completion.
Master Key entire system to match shell building.

110.00 DOORS/JAMBS/HARDWARE

110.01 Interior doors will be 3'-0" x 7'-0" solid core wood, unless noted otherwise. The Contractor shall furnish all labor and materials necessary to hang all doors, jambs and hardware shown or noted on the plans.
110.02 The jambs shall be pre-finished steel Trimly Frames or approved equal in aluminum color.
110.03 The doors shall be 1-3/4 inch pre-finished wood, stained birch as supplied by Gerald Johnson Sales Co., or approved equal, with cores, sungs, and sizes specified in the plans.
110.04 The doors shall be mortised for hardware and bored with a 2-3/4 inch back-set.

110.05 HARDWARE:

The hardware shall be Falcon T Series "Quantum" lever series in 424 finish, with matching Hager hinges. Locksets shall be provided where called for on plans and keying of same shall be coordinated with Owner. All locks shall have interchangeable cores and rope operation or approved equal.
110.06 All multi-occupant restrooms shall receive 424 Finish door closers installed inside the restroom and push/pull plates to match other finish hardware, unless noted otherwise on the plans.

110.07 ALL SINGLE OCCUPANT RESTROOMS:

110.07 All single occupant restrooms shall receive privacy set hardware unless noted otherwise on the plans.

110.08 PASSAGE SETS:

110.08 Passage sets shall be used on all other interior doors unless noted otherwise on the plans. Locksets shall be provided where called for on plans and keying of same shall be coordinated with Owner.

110.09 ONE AND ONE-HALF BUTTS:

110.09 One and one-half butts (1/2) shall be included for each door.

110.10 ALL DOORS:

110.10 All doors shall be protected with 424 finish wall mounted door stops.

110.11 NO DOOR SHALL HAVE MORE THAN THREE MATCHED VENEER PANELS.

115.00 FLOOR COVERINGS

115.01 Carpet shall be level loop or cut pile as specified on plans.
115.02 The carpet shall be directly glued to the slab without pad, unless specified otherwise in the plans.
115.03 Incidental floor preparation shall be included by the Contractor for all flooring installations. Any extensive floor preparation must be approved in writing by the Owner.
115.04 All vinyl composition tile shall be Armstrong Specilon 3/32 of 3/4 fiberglass ductboard. All flex duct shall be installed type in the plans. Style shall be Imperial Texture.
115.05 The wall base shall be four inch rubber cover base and shall be installed in all areas receiving carpet or vinyl composition tile.
115.06 The base shall be Burke, Roger, or approved equal and the door shall be as specified in the finish schedule of the plans.

115.07 NO RUBBER BASE JOINT SHALL COINCIDE WITH A WALL PANEL JOINT.

115.08 THE INSTALLATION OF ALL FLOORING SHALL BE ACCORDING TO ACCEPTED INDUSTRY PRACTICES AND IS SUBJECT TO APPROVAL BY THE OWNER.

115.09 VINYL TRANSITION STRIPS SHALL BE INCLUDED AT ALL FLOORING TRANSITIONS.

115.10 RESTROOM FLOORS WILL RECEIVE SHEET VINYL WHERE APPLICABLE BY CODE UNLESS OTHERWISE SPECIFIED ON PLANS.

117.00 TAPE, BED, TEXTURE AND PAINT

117.01 The Contractor shall, when required by code, tape and bed all firewalls, all fire-rated drywall ceilings, and fire rated walls above acoustic ceilings.
117.02 According to the plans, in those areas requiring paint, the Contractor shall include all labor and materials to tape, sand and texture and paint. Paint to be flat latex with medium sand texture unless otherwise noted.
117.03 The texture shall be a sand texture unless specified otherwise in the plans.
117.04 All taping and bedding shall be floated twice with a minimum 1/4" bed sand.
117.05 The Contractor shall provide a sufficient number of coats to provide uniform color, and texture, over the entire painted area.

117.06 WHEN FIELD APPLIED VINYL IS SPECIFIED, CONTRACTOR SHALL BED AND SAND ALL JOINTS AND SCREW-HOLES TO SMOOTH FOR VINYL WALL COVERING. CONTRACTOR SHALL FURNISH ALL VINYL AND INSTALL SAME AS CALLED FOR ON PLANS.

117.07 WAREHOUSE WALLS SHALL BE TYPED UNLESS INDICATED OTHERWISE.

117.08 ALL EXTERIOR EXPOSED PIPING, ELECTRICAL PANELS, ETC. SHALL BE PAINTED WITH ENAMEL TO MATCH BUILDING.

117.09 ALL EXTERIOR WALLS SHALL BE REPAIRED WHERE DAMAGED TO COVER EXPOSED CONCRETE CAUSED BY CONSTRUCTION WORK.

148.00 FLOOR SEALER

148.01 The Contractor shall apply Clear Acrylic Concrete Sealer with 20% solids, or approved equal, on concrete floors which are to remain exposed. Application shall be done in accordance with manufacturer's recommendation to provide uniform and consistent coverage.
148.02 The Contractor shall sand, clean and de-grease the floors to be sealed before sealing.

1000.00 SPECIALTIES

1010.00 TOILET PARTITIONS - STILL SIZES MUST MEET T.A.S. STANDARDS. SEE T.A.S. SHEET FOR SIZES.

1010.01 The Contractor shall provide all necessary labor and materials for installing the toilet partitions and/or urinal screens shown on the plans.
1010.02 All toilet partitions and urinal screens shall be steel baked enamel by Knott/Brockner, color - white, unless noted otherwise, or approved equal.
1010.03 All toilet partitions shall be floor mounted unless specified otherwise in the plans.
1010.04 The Contractor shall be responsible for meeting all applicable handicap code requirements per the Plans.

1010.05 TOILET ACCESSORIES - ALL ACCESSORIES SHALL BE MOUNTED TO MEET T.A.S. STANDARDS - SEE T.A.S. SHEET

1010.01 The Contractor shall provide all necessary labor and materials to install all toilet accessories.
1010.02 A chrome, double roll toilet paper holder by Bobrick, B-40 or manufacturer's equal shall be included by each toilet.
1010.03 Brushed chrome handicap bars, Bobrick B40-160 or equal shall be included when required by the applicable codes.
1010.04 A 24" x 34" stainless steel framed mirror, Bobrick B-316 shall be installed above each lavatory unless noted otherwise.
1010.05 All other toilet accessories shall be Bobrick or approved equal, unless specified otherwise in the plans.
1010.06 Each restroom shall receive one (1) roll mounted paper - Mandabond 155B Plastered Pattern or approved equal and shall be fire rated where required by code.

1020.00 SIGNS

1020.01 A sign shall be included on each restroom door designating it to be a Men's or Women's restroom.
1020.02 Each sign shall be in accordance with Texas Accessibility Standards for design and installation per the Plans.
1020.03 Sign numbers shall be installed on all exit doors leaving lease space. Plan front entrance and all other storefront door entrances shall have letters and numbers as required by the City and Texas Accessibility Standards.

1200.00 FURNISHINGS

1210.00 BLINDS/DRAPERIES

1210.01 The Contractor shall include all necessary labor and materials to install the blinds and/or drapes specified in the plans.
1210.02 The blinds shall be Levolor or approved equal and the color shall match existing window millions.
1210.03 The blinds shall be installed to hang in between the storefront mullions and/or vision panel frames, and behind any safety bars.
1210.04 The installation shall be such that nothing obstructs the efficient operation of the blinds.
1210.05 The blinds shall be manufactured to cover the entire length of the window unless specified otherwise in the plans.
1210.06 The blinds shall be installed on all transoms above storefront doors, but shall not be installed on storefront doors unless noted otherwise.

1500.00 MECHANICAL

1510.02 OFFICE HVAC:

A. Roof top equipment must be located a minimum of 30' from any edge of the building and behind any equipment screen (if present) and clear a structural column and proper notification as per ILOA is provided in all cases. This requirement will be rigidly adhered to. The Contractor may be responsible for the removal, patching and reinstallation of the equipment should he not have authority to proceed as specified in ILOA.
B. Each area designed to be air conditioned with heat pump HVAC system designed to maintain a 25 degree temperature differential at 100 degrees FDB and 18 degree FDB outside and minimum 48 degrees during winter season at 10 degrees outside based on one person per 150 sq. ft. and 4 watts per sq. ft. total electric load. All compressors are to have time delay per code and short cycling - Provide SCM.
C. H.V.A.C systems shall be rooftop units equipped with a ducted return system shall be in a central location. Remote offices shall be equipped with in-line returns. Units shall be equipped with gas heat in buildings where gas service is available. Use standard factory packaged equipment or Carrier, Trane (General Electric), Lennox or York.
D. Mount rooftop units on curbs as recommended and/or manufacturer's unit manufacturer.
E. All duct work shall be galvanized sheetmetal with 2" of 3/4 fiberglass ductboard. All flex duct shall be installed type and a minimum length of 10'. All installations shall meet the requirements of SMACNA for pressure application.
F. All condensate piping shall be Type M Copper.
G. Install adequate facilities for balancing air flow to provide even distribution of conditioned air and to maintain uniform space comfort conditions. The Contractor shall return to the leasee space and balance the distribution system as often as required during the first year.
H. Internal Heat Loads: Verify all internal heat loads on equipment to be used by tenant.

1510.03 TOILET EXHAUST FANS

A. Acceptable manufacturers: Nottone or approved equal.
B. Provide exhaust fans in each restroom, sized and installed in accordance with manufacturer's instructions. Duct exhaust through roof.

1510.04 GRILLS AND DIFFUSERS

A. As manufactured by Krueger Co. Metal Aire, Environmental Air Products or approved equal. Install a minimum of one 2' by 2' perforated face grill diffuser with guide vanes per each room and minimum one per 150 sq. ft. Restrooms may use smaller standard face grills.
1510.05 CONTROLS
A. Locate thermostats on the wall in accordance with best engineering practices.
B. Provide complete low voltage snap-action control system for each rooftop unit.
1510.04 FILTERS
A. Standard three-way type filters mounted in ceiling return or grills easily accessible from within the air conditioned space.
1520.00 PLUMBING
A. Water.
1. Piping to be Type L Copper with connections soldered.
2. Valves in copper piping-gate valves (NIBCO 313 STOCKHAM B10)
3. Installation will rigidly secure water pipes in chases.
4. Each pipe to the back side of the studs.
5. Insulate all water piping above ceiling tiles and in exterior walls with 1" ARMAFLEX insulation.
6. Sanitary faucets: Undergroud system per code, connected to City sewer. One-in-wash cleanout (with chrome cover) per restroom or one-in-wash cleanout for back-to-back restrooms. Exposed in-floor cleanouts will be sealed with chrome covers.
7. Gas lines: Visit site to become familiar with gas service locations and type of gas service. Provide regulators as required by local codes and ordinances. Coordinate with appropriate utility company, install black Schedule 40 black steel pipe with wrought iron fittings above grade. Protective coated black steel or ASTM D2515 poly pipe below grade per utility and code requirements.

1520.02 PLUMBING FIXTURES:

(a) Office restrooms: Vanity mounted, Kohler RK-2905 white 4cc or equal.
(b) Warehouse restrooms: Wall hung, Kohler RK-2054 20 x 18 white 4cc or equal.
1520.03 LAVATORY FAUCETS: Kohler RK-1443-5A-CP TRITON or equal.
1. Lavatories.
2. Lavatory faucets: Kohler RK-1443-5A-CP TRITON or equal.
4. Water closets: TOILET FLUSH LEVER TO BE LOCATED PER T.A.S. (WIDE SIDE OF TOILET)
(a) Kohler RK-3411 white or equal.
(b) Closet seats to be Kohler RK-4650 white or equal.

1520.04 WATER HEATERS:

1520.04 Water heaters: Six (6) gallon glass-lined electric Ruid, Rheem or state unless otherwise noted on the plans. Location to be above restroom ceilings.

4. Electric Water Heater: Halsey Taylor, light level model HACFBBL-Q-ADA. ANY REQUEST FOR SUBSTITUTE MUST BE APPROVED IN WRITING.

7. Urinals:

(a) Kohler ZK-410-ET white or equal.
(b) Flush valves to be Sloan #1814-1 or equal.
8. Bar sinks:
(a) Single: Elkay Celebrity or equal
(b) Double: Elkay Celebrity or equal
faucet: Kohler K-1304-5A-CP TRITON or equal
9. Wall mounted fixtures shall be placed on partitions which have been reinforced with future chairs, corners, or other heavy-duty reinforcement which has been approved by JSC Realty Services. Wall hung fixtures shall be securely fastened to the wall.
10. Furnish, install and connect, complete with working trim, a plumbing fixture at each location so indicated by a symbol.
11. Provide escutcheons on all pipes passing through subject to view. Install all fixtures plumb, level and flush to finished surface. Caulk the edge of the joint between the fixture and surface with silicone or butyl type waterproof caulking.

1530.00 FIRE SPRINKLER SYSTEM:

1530.01 Design and construction of revisions to fire sprinkler system necessitated by work of the contract shall be performed by qualified sprinkler company. Assure that:
A. All sprinkler systems installed in warehouses shall conform to Texas State Board of Fire Marshal's Form system back to Occupancy per NFPA 231 Requirements.
B. Revised system will be approved by Fire Marshal and receive proper credit of the State Board of Insurance.
C. Building sprinkler credit must remain in effect at all times.
1530.02 No "in rack" or hose stations are provided unless specifically noted on plans.
1530.03 Schedule work so that building systems do not remain turned off over night or weekend hours. Turn system back on immediately after modifications are complete, verify that system is working properly prior to leaving at the end of a work day.

1530.04 NOTIFY STATE BOARD OF INSURANCE UPON COMPLETION OF MODIFICATIONS AND PROVIDE A COPY OF SUCH REQUEST TO SCM SERVICES.

1600.00 ELECTRICAL

1610.00 SERVICE

1610.01 A complete wiring system shall be installed in accordance with all of the following:
1. National Electrical Code
2. All Federal, State, and/or local codes, ordinances, and regulations.
3. Latest approved standards of AIEE, ANSI, NEMA, and Underwriters Laboratories when applicable.
1610.02 Insure that 100/208 or 120/240 volt, 3 phase 150 amp or 217/460 volt 3 phase/100 amp, 40 ckt. panel service is provided to building. Determine main panel size (minimum 150 amp, 40 ckt.) and arrange by usage requirements of lighting, heating, ventilating and air conditioning, and standard 110 volt convenience outlets.
1610.03 Panels
1. Locate office/warehouse panels on wall