

(ELECTRICAL)

A. GENERAL REQUIREMENTS

1. All electrical work shall be designed and installed in accordance with the plan requirements.
2. Codes and ordinances - shall conform to standards of the National Electrical Code (NEC), O.S.H.A., serving public telephone company, State Fire Marshal and local ordinances.
3. Service equipment shall be located in separate electrical/mechanical room with proper working clearances and grounding. All breakers shall be clearly identified.

B. INTERIOR LIGHTING

1. Fluorescent lamps shall generally be 34 watt, 430-milli-amp, rapid-start, cool-white, including energy efficient ballasts.
2. The lighting shall be designed to maintain a uniform level of illumination of the minimum foot -candles designated. Lighting levels shall be based on working plan thirty inches (30") above floor, appropriate coefficient of utilization for the fixture and maintenance factor. Conform to Title 24, Division 9 for lighting requirements. Provide not less than ten foot-candles in halls, thirty foot-candles in rest rooms and fifty foot-candles in all other areas, unless specifically noted otherwise. (eighty foot-candles in drafting room areas).
3. Each working space, utility or storage room shall have at least one receptacle. Each office shall have a minimum of one (1) receptacle on each twelve feet (12') of wall space. See plans for additional and/or special outlets.
4. Provide twenty-four (24) hour lighting for security.
5. Emergency lighting - Shall be provided where required by applicable codes, or natural lighting will not provide sufficient lumens for emergency exiting of building.

C. EXTERIOR LIGHTING

1. Install sufficient lighting to provide a minimum of five (5) foot-candles of illumination at each building entrance, around the perimeter of the building, in the parking and maneuvering areas and on driveways.
2. All exterior lighting shall be high or low-pressure sodium as specified by the County. Fixtures shall be controlled by photocell, time clocks, or combinations of both.

(TELEPHONE AND COMMUNICATIONS)

(Updated November 10, 2008)

A. GENERAL REQUIREMENTS

1. All communications requirements shall conform to the standards of Riverside County Information Technology (RCIT) and the serving public telephone company as noted below.
2. **The RIVERSIDE COUNTY INFORMATION TECHNOLOGY (RCIT) COMMUNICATIONS BUREAU TELECOMMUNICATIONS ENGINEER shall be consulted during the Programming, Conceptual Design, Design Development, and Construction Design stages to plan the design and provide input for the Telecommunications Infrastructure.**

B. TELECOMMUNICATIONS ROOM SPECIFICATIONS

1. **Dedicated Use: Telecommunications Rooms must be dedicated to the telecommunications function and related support facilities.** Equipment not related to the support of the Telecommunications Room, such as piping, duct work, and distribution of building power, must not be located in, or pass through the room. The Telecommunications Room may not be shared with building or custodial services. Cleaning materials such as mops, buckets or solvents must not be located or stored in the Telecommunications Room. Building alarms, fire monitoring equipment and building automation equipment shall not be installed in the Telecommunications Room without written permission of the RCIT Communications Bureau Telecommunications Engineer. In the event the RCIT Communications Bureau Telecommunications Engineer grants such permission, all building alarms and fire-monitoring equipment shall be installed only in the location designated.
2. **Room Physical Specifications - the room must be completed a minimum of thirty (30) days prior to occupancy.** Large projects (more than 20,000 sq. ft.) will require the Telecommunications Room (s) to be completed a minimum of 45 days or as directed by RCIT Communications Bureau Telecommunications Engineer prior to beneficial occupancy. All specifications for said room as outlined in this agreement shall be completed, including, but not limited to, installation of plywood, lighting, electrical circuits, HVAC, ceiling tiles, ground, floor tile and door with lock and three (3) sets of keys.

It should be understood that the contractor will have to schedule various trades in sooner than the normal construction schedule to complete the Telecommunications Room (HVAC, Electrician, Painter, etc.) as required by the RCIT Communications Bureau Telecommunications Engineer.

- a. **Location:** The Telecommunications Room shall be as close to the geographic center of the occupied space as possible. **Maximum distance from the center of the Telecommunications Room to the farthest WAO location shall not exceed a radius of 175 feet unless**

reviewed by RCIT Communications Bureau Telecommunications Engineer. If occupying more than one floor of a building, a **separate Telecommunications Room shall be required on each floor**, preferably stacked above one another. Provisions shall be made available for easy access into the Telecommunications Room for telephone and data wiring and shall be dedicated for telephone and data use only. Telecommunications Rooms should not be planned next to elevators, restrooms, electrical rooms, air shafts, mechanical rooms, and outside walls. If occupying more than one building, each building will require Telecommunications Rooms that meet the above requirements.

- b. **Minimum Room Sizes:** The Telecommunications Room shall be rectangular in shape and conform to the following inside room dimensions:

<u>Leased Premises – sq. ft.</u>	<u>Room Size</u>
5,000 sq. ft. or less	12' x 9'
5,000 – 10,000 sq. ft.	12' x 12'
10,000 – 30,000 sq. ft.*	12' x 14'
30,000 sq. ft. or larger**	12' x 14'

* May require more than one room

** Will require more than one room.

- c. **Plywood Wall Lining:** All walls will be lined with AC grade or better, void-free, 4'x8' sheets of 3/4" plywood. Plywood sheets shall be mounted vertically from ceiling height towards floor. Plywood must be painted on all sides with one coat of primer and two coats of white fire resistant paint. The plywood should be installed with the grade "C" surface facing the wall.
- d. **Doors:** The door will be a minimum of three (3) feet wide and 80 inches tall and be located as near as possible to a room corner. The door shall be equipped with a lock. Where practical, the door should open outward to provide additional usable space.
- e. **Air Conditioning:** The environmental control systems for the Telecommunications Room should be able to maintain a room temperature between 18°C and 24°C (64°F and 75°F) at all times (24 hours per day, 365 days per year). All building supplied HCAC inlets to the Telecommunications Room shall be controlled using a Variable Air Valve (VAV) with its own thermostat to prohibit heating the Telecommunications Room. The VAV will be installed in such a fashion to introduce conditioned air if the primary split A/C unit fails to cool the room. It will serve two purposes:
1. Provide ventilation air to the room, cooling only.
 2. Serve as an additional backup.

If a building's HVAC system cannot ensure continuous operation

(including weekends and holidays), provide a standalone HVAC unit with independent controls for the Telecommunications Room. If an emergency power source is available in the building, connect the HVAC system that serves the Telecommunications Room to the emergency power source. Sensors and controls must be located in the Telecommunications Room, ideally placed 5 feet AFF (thermostat location will be specified on the Telecommunications Room drawing provided by RCIT Communications Bureau Telecommunications Engineer). If an in-room air conditioner is installed, the air conditioner will be hard wired to the thermostat and the location must be approved by RCIT Communications Bureau Telecommunications Engineer before installation. If remote-monitoring equipment is available, this room should have its own independent sensor. Average heat load for equipment is approximately 150 BTU/SQ Ft of Telecommunications Room space (specific heat load will be provided for each room).

- f. If **fire sprinklers** are located in the Telecommunications Room, the sprinkler shall have a high temperature standard response full circle head with a heavy-duty cover. Sprinkler lines located inside the TR shall not be "charged" under normal conditions. Coordinate placement of the sprinklers with RCIT Communications Bureau Telecommunications Engineer. Sprinkler heads must be a minimum of 10 ft. AFF.
- g. **Room Lighting** – Lighting to provide a minimum of 500 lux (50 foot candles) measured 3 ft. AFF. Coordinate placement of light fixtures with RCIT Communications Bureau Telecommunications Engineer to avoid interference with low voltage equipment. Light fixtures must be a minimum of 10 ft. AFF. Use white paint on the walls and ceiling to enhance room lighting. Power for the lighting should not come from the power panel located inside the Telecommunications Room.
- h. **Emergency Lighting** – Emergency lighting within the Telecommunication Room shall be provided to ensure that the loss of power to normal lights will not hamper an emergency exit from the room.
- i. **Floors:** The floor shall be capable of supporting a minimum load bearing of one hundred (100) pounds per square foot and maximum concentration loading of 2,000 lbs. per foot. Standard VCT floor covering shall be installed unless otherwise specified.
- j. **Ceiling:** If a ceiling will be installed in the Telecommunications Room it must be installed at a **minimum of 10' AFF**. Ceiling protrusions (e.g. sprinkler heads) must be placed to assure a minimum clear height of 10 feet that is clear of obstructions, to provide space over the equipment frames for cables and suspended cable trays. Ceiling finish must minimize dust and be light colored to enhance the room lighting. A hard ceiling shall not be allowed in the Telecommunications Room.

C. ELECTRICAL REQUIREMENTS

- a. **Dedicated Power Feeder** – The Telecommunications Room will have its own dedicated power feeder terminated in an electrical panel located inside the room and flush mounted in the wall. **Location of this electrical sub-panel shall be closely coordinated with RCIT Communications Bureau Telecommunications Engineer to ensure it does not impact the overall design and use of the space within the room. Power required for other equipment in the room (e.g. fluorescent lighting, motors, air conditioning equipment) should be supplied by a separate feeder, conduit, and distribution panel.** If an emergency power source is available, connect the Telecommunications Room electrical sub-panel into it.
- b. **General Purpose Outlets:** Provide 110 Volt, 20 Amp duplex outlets installed at standard height on all walls of the Telecommunications Room; maximum spacing between outlets shall not exceed 12 feet.
- c. **Telephone System:** Install one (1) dedicated 208 VAC, 20 Amp circuits terminated into a single surface mounted 4S electrical box with a NEMA L6-20 outlet at a height of 18 inches AFF from center. The circuit will have its own separate hot, neutral, and ground wire all the way back to the power distribution panel. The circuit will be clearly labeled on the cover plate and sub-panel.
- d. **Equipment Racks:** Install two (2) dedicated 20 Amp, 110 VAC circuit with isolated ground for each equipment rack (9' x 12' room – 2 racks, 12' x 12' room – 3 racks, 12' x 14' room – 4 racks). Install one (1) dedicated 30 Amp, 208 VAC circuit with isolated ground for every two equipment racks. The breaker number shall be identified on each of these outlets. Terminate each circuit on double duplex outlets in a surface mounted 4S box in the vertical cable manager 23" above the floor. Equipment Rack locations, circuit locations and quantity will be specified in the room layout provided by the RCIT Communications Bureau Telecommunications Engineer.
- e. **Paging – A/V: If required, install** one dedicated 20 Amp, 110 VAC circuit with isolated ground. Terminate on a double duplex outlet in a 4S box. The location of the outlet will be specified in the Telecommunications Room layout provided by the RCIT Communications Bureau Telecommunications Engineer.
- f. **Security:** Install one dedicated 20 Amp, 110 VAC circuit with isolated ground. Terminate on double duplex outlets in a 4S box. The location of the outlet(s) will be specified in the Telecommunications Room layout provided by the RCIT Communications Bureau Telecommunications Engineer.
- g. **Emergency Air Conditioner Outlet (To Support IT Telephone System):** Install one dedicated 208/220 VAC, 20 Amp circuit terminated on a single NEMA 6-20 receptacle. The location of the outlet will be specified in the Telecommunications Room layout provided by the RCIT

Communications Bureau Telecommunications Engineer.

- h. **Grounding** – A Telecommunications Main Grounding Busbar (TMGB) shall be installed in the Telecommunications Room at the location specified in the room layout that will be provided by the RCIT Communications Bureau Telecommunications Engineer. **The Grounding Busbar must be CPI Chatsworth Products, part #13622-020.** The Busbar shall be insulated from its supporting structure by at least two inches of separation. Bond the Busbar to the building AC grounding electrode system. The minimum size of the bonding conductor should be #3 AWG and be sized to carry the maximum short time rating Amps of the building grounding electrode conductor. A supplemental bonding connection is required to be Exothermically Welded to the structural steel of the building and local AC sub-panel located inside the Telecommunications Room. Resistance should be no more than .1 ohms between the TMGB and the building main grounding source measured following the two-point bonding test method using an earth ground resistance tester. All grounding conductors shall be run in rigid conduit.

D. CONDUIT REQUIREMENTS

1. Work Area Outlets (WAO):

- a. **General Specifications:** Each WAO shall consist of one 4 in. by 4 in. by 2.5 in. deep outlet box with a 2 in. by 4 in. reducing adapter installed.
- b. **Height Requirements:** Each WAO shall be installed at the same height as the adjacent electrical outlet. The height of jacks for wall telephones shall conform to any ADA rules pertaining to handicapped use. This height is typically 44 inches AFF to the center of the outlet box.
- c. **Conduits Specifications:**
- (1) **Accessible Ceilings:** When there is an accessible ceiling such as suspended acoustical tile, provide a rigid trade size 1 conduit (**flex not allowed**) stubbed into the ceiling space from the outlet box. Ceiling must be accessible from the WAO location back to the Telecommunications Room. If a WAO location is at wall phone height (+44"), install an additional outlet box at standard floor height. Connect a rigid 1-inch conduit from the bottom of the wall height box to the top of the standard floor height box. Ream all conduit ends and fit with insulated bushings.
- (2) **Non-Accessible Ceilings:** When the ceiling is not accessible, provide a rigid 1¼-inch conduit (**flex not allowed**) run from the WAO location all the way to the Telecommunications Room or to the nearest accessible ceiling space. Runs cannot have more than the equivalent of two 90-degree bends without installing a pull box (pull box must be accessible upon completion of construction). **All conduits will have a pull string installed.**

Where multiple outlets are installed, each location will have its own dedicated conduit run; no daisy chaining is allowed.

2. **System Furniture Wall In-feeds:** Wall in-feeds will be one rigid 1.25 in. conduit per 3 WAO locations of systems furniture. The conduit shall be stubbed into the ceiling area from a 4 in. by 4 in. by 2.5 in. deep outlet box. Ream all conduit ends and fit with insulated bushings. In-feed location will be accessible either by cutout or access panel in furniture or placed next to furniture where location will be accessible for service. Consult RCIT Communications Bureau Telecommunications Engineer for location, quantity, and size of in-feeds. Exact location will be verified with furniture vendor.
3. **System Furniture Floor Poke-Thru In-feeds:** Poke-Thru locations requiring power/voice/data will require Wiremold P/N RC9FFTC Poke-Thru's with EMT 1.25 in. conduit per 3 WAO locations of systems furniture. Color to be specified by Architect. The conduit shall be continuous and stubbed into the ceiling area of that floor being serviced with pull string installed. No more than two 90's will be allowed, J-Box for furniture supplier power whip connections to be anchored to the ceiling of the floor below with unistrut. J-Box must be with-in 6' of furniture whip connection. Ream all conduit ends and fit with insulated bushings. Consult RCIT Communications Bureau Telecommunications Engineer for location, and quantity. Exact location will be verified with furniture vendor.
4. **System Furniture Power and Data Floor Boxes:** Floor Box locations requiring power/voice/data will require Wiremold P/N RFB4-C1-1 Floor Box with EMT 1.25 in conduit per 3 WAO locations of systems furniture for communications. Color to be specified by Architect. The conduit shall be continuous and stubbed into the ceiling area of that floor being serviced with pull string installed. O more than two 90's will be allowed. All boxes shall be configured for dual service which will require accessory items for separation of power and data. All boxes shall include (1) internal duplex receptacle for power, (1) Wiremold P/N RFB-2-SSRT for communications and (1) flanged cover P/N S28BBTCAL. Ream all conduit ends and fit with insulated bushings. Consult RCIT Communications Bureau Telecommunications Engineer for location, and quantity. Exact location will be verified with furniture vendor.
5. **Hard Wall Office Floor Poke-Thru:** Poke-Thru locations requiring power/voice/data will require Wiremold P/N RC4ATC Poke-Thru's with the optional Communications Adapter P/N Com75 installed for Voice and Data conduits. Install two (2) EMT 0.75 in. conduits per location. The conduits shall be continuous and stubbed into the ceiling area of that floor being serviced with pull sting installed. No more than two 90's will be allowed. Ream all conduit ends and fit with insulated bushings. Consult RCIT Communications Bureau Telecommunications Engineer for location, quantity, and size of in-feeds. Exact location will be verified with furniture vendor.
6. **Hard Wall Power and Data Floor Boxes:** Floor Box locations required power/voice data will require Wiremold P/N RFB4-C1-1 Floor Box with (1) EMT 1.25 in. conduit for communications. Color to be specified by Architect. The conduit shall be continuous and stubbed into the ceiling area of that floor being

serviced with pull string installed. No more than two 90's will be allowed. All boxes shall be configured for dual service which will require accessory items for separation of power and data. All boxes shall include (1) internal duplex receptacle for power, (1) Wiremold P/N RFB-2-SSRT for communications and (1) flanged cover P/N S38BBTCAL. Ream all conduits ends and fit with insulated bushings. Consult RCIT Communications Bureau Telecommunications Engineer for location, and quantity. Exact location will be verified with furniture vendor.

7. **Backbone Pathways:**

- a. **Telecommunications Rooms On the Same Floor:** When two or more Telecommunications Rooms exist on the same floor, provide two (2) rigid metallic trade size 4 conduits between the main Telecommunications Room and each secondary Telecommunications Room. Conduits are to be run in the most direct route possible with no more than the equivalent of two 90-degree sweeps without a pull box. The minimum size of a pull box shall be 24" W x 36" L x 12" D. Ream all conduit ends and fit with insulated bushings. Conduits are to be bonded to ground in accordance with all local and national requirements. Location of conduits will be identified on drawings provided by the RCIT Communications Bureau Telecommunications Engineer and provided on a site-by-site basis. The bend radius of the conduit shall be 10 times the outside conduit diameter. **Install a pull string with minimum tensile strength of 30 lbs in each conduit.**
- b. **Telecommunications Rooms On Different Floors:** When two or more Telecommunications Rooms exist on different floors, provide a minimum of two (2) rigid trade size 4 conduits between the main Telecommunications Room and each secondary Telecommunications Room. Conduits are to be run in the most direct route possible with no more than the equivalent of two 90-degree bends without a pull box. The minimum size of a pull box shall be 24" W x 36" L x 12" D. Ream all conduit ends and fit with insulated bushings. Conduits are to be bonded to ground in accordance with all local and national requirements. The bend radius of the conduit shall be 10 times the outside conduit diameter. **Install a pull string with minimum tensile strength of 30 lbs in each conduit.** In multi-level buildings with **stacked Telecommunications Rooms**, sleeves shall be provided from the ceiling of the lowest level to the floor of the top level. Size, quantity, and location will be provided by the RCIT Communications Bureau Telecommunications Engineer.
- c. **MPOE:** If the MPOE (minimum point of entry) is not physically located in the Telecommunications Room it shall be necessary to install two (2) trade size 4 conduits from the MPOE to the Telecommunications Room. Conduits are to be run in the most direct route possible with no more than the equivalent of two 90-degree bends without a pull box. The minimum size of a pull box shall be 24" W x 36" L x 12" D. Ream all conduit ends and fit with insulated bushings. Conduits are to be bonded to ground in accordance with all local and national requirements. Location of conduits will be identified on drawings provided by the RCIT Communications

Bureau Telecommunications Engineer and provided on a site-by-site basis. The bend radius of the conduit shall be 10 times the outside conduit diameter. **Install a pull string with minimum tensile strength of 30 lbs in each conduit.**

d. **Telecommunications Rooms in Multiple Buildings on Same or Adjacent Properties:** The number of conduits will be determined by the **size and scope of each project. The items listed below are BASIC** requirements only as the scope of the project increases, some or all of the items listed below may undergo major changes:

- (1) Conduits shall be rigid and shall be four (4) trade size 4. A **minimum** of two (2) conduits will be installed from the primary Telecommunications Room and each building as defined by the RCIT Communications Bureau Telecommunications Engineer. Conduits shall be installed in the most direct route possible.
- (2) Conduits shall be buried a minimum of 36 inches below finish grade.
- (3) Conduits shall be encased in 2,000 PSI concrete where vehicle traffic occurs and encased in slurry everywhere else for the entire length.
- (4) Tracer tape shall be installed the entire conduit length. Tracer tape shall be 12 inches wide, flat, and metallic and shall be installed 12 inches above concrete encasement. Tape shall be imprinted with the words "WARNING - FIBER OPTIC CABLE" spaced at a minimum of 24 inches on center.
- (5) No more than the equivalent of two (2) 90-degree bends shall be installed without the addition of a pull box, vault, or maintenance hole, which size and requirements will be defined by the RCIT Communications Bureau Telecommunications Engineer.
- (6) Conduit runs in excess of 500 feet shall have a pull box, vault, or maintenance hole installed, which size and requirements will be defined by the RCIT Communications Bureau Telecommunications Engineer. All sweeps shall have a minimum bending-radius of 10 times the diameter of the conduit.
- (7) All four inch conduits should have a minimum ¼-inch nylon pull rope. All four inch conduits over 400 feet should have a minimum 3/8-inch nylon pull rope. The size and requirements of pull boxes, vaults, or maintenance holes can only be determined by the scope of the project and will be defined by the RCIT Communications Bureau Telecommunications Engineer.

8. **Firewalls:** If any firewalls are present, conduit/sleeve access through the wall must be provided by the contractor. The ends of any conduit/sleeve penetrating

a firewall will be sealed with the appropriate fire stop. Identification of the areas that must be sealed shall be identified by the contractor at the time of wiring. Size and location of the sleeves will be determined by the RCIT Communications Bureau Telecommunications Engineer. Sleeves should penetrate the wall a minimum of 3 inches. Ream each end of conduit and fit with insulated bushing.

9. **Primary Service Conduit Requirements (New Construction):**

- a. The number of all primary service conduits will be determined by the **size and scope of each project**. The items listed below are **BASIC** requirements only and as the scope of the job increases, some or all of the items listed below may undergo major changes:
- (1) Entrance conduits shall be rigid and shall be four (4) trade size 4. **A minimum** of two (2) conduits will be installed into the Telecommunications Room. Conduits shall be installed in the most direct route possible.
 - (2) Conduits shall be buried a minimum of 36 inches below finish grade.
 - (3) Conduits shall be encased in slurry for sections indentified by RCIT Communications Bureau Telecommunications Engineer as no traffic or low risk.
 - (4) Conduits shall be encased in 2,000 PSI concrete for sections not identified in section 5a3.
 - (5) Tracer tape shall be installed the entire conduit length. Tracer tape shall be 12 inches wide, flat, and metallic and shall be installed 12 inches above concrete encasement. Tape shall be imprinted with the words "WARNING - FIBER OPTIC CABLE" spaced at a minimum of 24 inches on center.
 - (6) No more than the equivalent of two (2) 90-degree sweeps shall be installed without the addition of a pull box, vault, or maintenance hole, which size and requirements will be defined by the RCIT Communications Bureau Telecommunications Engineer.
 - (7) Conduit runs in excess of 500 feet shall have a pull box, vault, or maintenance hole installed, which size and requirements will be defined by the RCIT Communications Bureau Telecommunications Engineer. All bends shall have a minimum-bending radius of 10 times the diameter of the conduit.
 - (8) All four-inch conduits should have a minimum ¼-inch nylon pull rope. All four-inch conduits over 400 feet should have a minimum 3/8-inch nylon pull rope. The size and requirements of pull boxes, vaults, or maintenance holes can only be determined by the scope of the project and will be defined by the RCIT Communications

Bureau Telecommunications Engineer.

E. **CABLE TRAYS:**

1. If the structural ceiling height is greater than 16' AFF or the occupied space is greater than 25,000 square feet, a cable tray system will be required to support the voice and data wiring. Consult with the RCIT Communications Bureau Telecommunications Engineer requirements to assist in the design of the cable tray system. A structural Engineer will be required to design the cable tray system to code and manufacturer specification and submit design to the RCIT Communications Bureau Telecommunications Engineer for approval.

**RCIT
System's Furniture
Telecommunications Standards
June 16, 2004**

1. Work Area Outlets

- 1.1. **Definition: Work Area Outlet (WAO)** – consists of a telecommunications faceplate and its component (s) – what telephones and PC's are plugged into at a user's desk location or work area.
- 1.2. Furniture communications outlet openings shall accommodate the installation of an industry-standard, single gang faceplate, with a minimum opening of 2 inches by 3 inches.
 - 1.2.1. Two (2) factor or field-installed threaded openings shall be provided for single gang faceplate mounting and shall accommodate a 10x22 screw.
- 1.3. Furniture communications outlet openings shall provide a minimum mounting depth of 44.5 mm (1.75 in).
- 1.4. Extender plates shall be provided for WAO's (Work Area Outlet's) within furniture system – one for each workstation space, fax location, and printer location.
 - 1.4.1. Extender plates shall be a minimum 7/8 inch deep.

2. Cabling Pathways

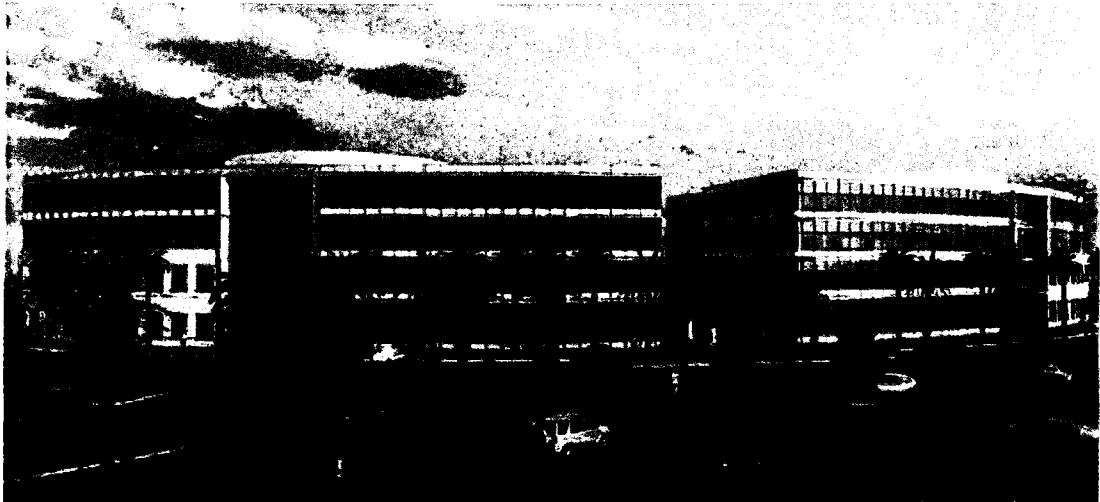
- 2.1. Furniture pathways shall have capacity for a minimum of (12) communications cables with an outside diameter of .25 inches and not exceed 40% of pathway capacity.
 - 2.1.1. Remaining pathway capacity will be utilized to accommodate future moves, adds, and changes (MAC's).
 - 2.1.2. This requirement applies to ALL areas of the furniture pathway

INCLUDING corners, panel to panel pathways, etc.

- 2.1.3. Consideration will include space used in furniture for connecting hardware.
- 2.2. Furniture system shall completely conceal all communications cabling in all cabling pathways.
- 2.3. Entire communications cabling pathway shall contain a continuous and rigid support infrastructure within each panel.
- 2.4. When communications cabling pathways run parallel to electrical pathways:
 - 2.4.1. A metallic barrier shall be provided (i.e. metallic divider, conduit, corrugated or solid) and shall be bonded to ground.
 - 2.4.2. Electrical components shall not impede on communications cabling pathways so as to restrict in any way the fill requirements noted above.
- 2.5. The minimum size pathway shall not force the cable bend radius to be less than 25 mm (1 in) under conditions of maximum cable fill.
- 2.6. Metallic pathway edges shall utilize protective bushings.
- 2.7. All panels shall be equipped with at least one (1) of the following raceways and shall singularly conform to all of the above noted cabling pathway requirements:
 - 2.7.1. Base Raceway
 - 2.7.2. Top Raceway
- 3. **Furniture In-Feeds**
 - 3.1. Furniture in-feeds shall have capacity for a minimum of (12) communications cables with an outside diameter of .25 inches and not exceed 40% of pathway capacity.
 - 3.1.1. Remaining pathway capacity will be utilized to accommodate future moves, adds, and changes (MAC's).
 - 3.1.2. Consideration will include space used in furniture for connecting hardware.
 - 3.2. Furniture in-feeds shall have the ability to provide for separate entry points for power and communications cabling.

- 3.2.1. Where entry points are closer than 6 inches, a physical / mechanical barrier shall be provided to separate cabling entry points.
- 3.3. Metallic in-feed edges shall utilize protective bushings.
- 3.4. One furniture in-feed shall be provided for every four (4) WAO's (Work Area Outlets).
- 3.5. Placement of furniture in-feeds shall be coordinated and verified by County IT.

Notwithstanding the above specifications as outlined in the Exhibit "F", County has approved the base building systems and common area finishes in the building and agrees to accept them in "as-is" condition as Exhibit F-1, and as such has approved Lessor's standard building materials and quantities used in consideration of the Tenant Improvements.



**THE TOWERS AT RIVERWALK
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RIVERSIDE, CALIFORNIA**

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SECTION I

PART I : BUILDING STANDARDS

PARTITIONS

A. DEMISING PARTITIONS

1. 3-1/2" - 20 gauge metal studs - 16" or 24" on center maximum from floor to underside of structure above. (Provide backing for cabinet as required)
2. 5/8" gypsum wallboard one layer each side of studs.
3. Height from floor to underside of structure above.
4. Seismic bracing per code.
5. Two rows of continuous acoustical sealant - top and bottom tracks.
6. R-11 batt type fiberglass insulation between studs. Acoustical sealant at bottom track.
7. Partition taped smooth and sanded to receive paint or wall covering.

B. TYPICAL INTERIOR PARTITION (Non rated)

1. 3-1/2" - 25 gauge metal studs - 24" (16" on First Floor) on center maximum to underside of ceiling grid (provide backing for wall mounted cabinetry or equipment as required).
2. 5/8" gypsum wallboard one layer each side of studs.
3. Height from floor to ceiling grid - 11'-6" at first floor, 9'-0" at second, third and fourth floors.
4. Seismic bracing per code.
5. Partition taped smooth and sanded to receive paint or wallcovering.
6. All exterior corners with corner beads. All exposed edges finished with metal trim.

C. PERIMETER DRYWALL (where required)

1. 3-1/2" - 25 gauge metal studs 24" on center.
2. 5/8" gypsum wallboard one layer on one side.
3. Height - floor slab to 6" above ceiling grid or up to windowsill height.
4. All exterior corners to be bull nose metal.
5. Gypsum wallboard taped smooth and sanded to receive paint or wallcovering.

D. COLUMN FURRING

1. 5/8" gypsum wallboard, one layer on 3 1/2" - 25" gauge metal studs, UNO.
2. Height - floor slab to 6" above ceiling grid.
3. Gypsum wallboard taped smooth and sanded to receive paint or wallcovering.
4. All exterior corners with corner beads.

E. INSULATION

1. Partition acoustical insulation in demising partitions, rated walls, and where required by code. Tenant to install R-19 batt insulation above ceiling and R-19 batt insulation between exposed studs at exterior walls in accordance with Title 24 minimum requirements.

F. PARTITIONS AT EXTERIOR WINDOWS

1. Partitions abutting window mullions to receive continuous metal end cap to match window interior finish at exposed edge.

DOORS, FRAMES AND HARDWARE

A. TENANT SUITE ENTRY DOOR ASSEMBLY (rated doors within corridors)

White Oak, rift cut, clear finish (see below spec's)

B. INTERIOR TENANT DOOR ASSEMBLY (non-rated doors within office suites)

1. Mohawk Premium 2000 Sample Collection – Oak Clear ~~Maple~~ – ~~Teak~~ color finish Rift Cut
 3'-0" x 8'-0" x 1-3/4" doors. Certification of applicable ratings and warranties to be provided. Doors shall be pre-finished and match existing core doors in finish, material and appearance. Finish all edges. 5" top blocking at doors w/closers.
2. Door frames to be non-rated Western Integrated frames with flush aluminum trim, factory finish; Color: Clear aluminum.
3. Hardware:

(a) Single Door

<u>QTY</u>	<u>SUBTYPE</u>	<u>ITEM DESCRIPTION</u>
4	Hinges	1279 4.5x4.5 652 HAGER
1	Latchset	D10S SPARTA 626 SCHLAGE
1	Wall/Floor stops	1270WVTB 630 TRIMCO/ W1210626 TRIMCO

(b) Pair of Doors

<u>QTY</u>	<u>SUBTYPE</u>	<u>ITEM DESCRIPTION</u>
8	Hinges	1279 4.5x4.5 652 HAGER
1	Latchset	D10S SPARTA 626 SCHLAGE
1	Auto Flush Bolt	942 626 DCI
1	Dust Proof Strike	80 626 DCI
2	Wall/Floor stops	1270WVTB 630 TRIMCO/ W1210626TRIMCO

C. INTERIOR GLAZING

1. (a) 3/8" thick clear glass in non-rated, prefinished frames by Western Integrated with flush aluminum trim. Frame to be factory finished; Color: Clear Aluminum.
(b) 3/8" thick clear glass in non-rated, M-121 glass stops; Color: Clear Aluminum.
2. 3/8" thick tempered safety glass where required per code.
3. Return gypsum board into opening at both sides, provide metal corner bead all around opening. Finish to match wall.
4. Provide two 20 Ga. metal studs fastened at 12" O.C. back-to-back at jambs and head (min.) as per detail. Provide seismic brace per code.

SUSPENDED ACOUSTICAL CEILING

(#589 Optional)

1. Grid: Armstrong 9/16" Silhouette, White, Bolt Slot, 1/4" reveal
2. Tile: Armstrong, Cirrus #538, 24"x 24" x 7/8" Beveled Tegular 9/16", White. NRC: 0.70
3. Ceiling height 11'-6" on First Floor, 9'-0" on Second, Third and Fourth Floors
4. Seismic bracing per code.
5. Provide seismic wires for lighting and electrical to be provided by acoustical ceiling contractor.

WINDOW COVERINGS

1. Vertical Blinds, Mechoshade, 0900 Series Dense Vertical Weave, 0911 Porcelain
2. ~~Blackout Shade, Mechoshade, 0700 Series, 0706 Oyster~~

FIRE SPRINKLER SYSTEM

1. Fire Sprinkler coverage light hazard, .33 gpm / 3,000 SF in shell and modified per improvement.
2. Concealed sprinkler head to be centered on ceiling tile. Reliable Model G4 Concealed automatic sprinkler with 1/2" - 1 1/2" adjustment - White Paint Finish

SECURITY SYSTEM

F.B.D.

1. Each building is equipped with a security camera that provides 24/7 video surveillance of the lobby and parking areas.
2. Night-time security patrol officer monitors the parking lot areas.
3. Both buildings have a security alarm system that is activated after-hours.

SIGNAGE

1. Building standard ground floor directory tenant identification/suite number strip.
2. Building standard tenant identification/suite number or sign adjacent to suite entry door.

CABINETS

A. CABINETS

1. Plastic laminate horizontal and vertical surfaces.
2. Horizontal and Verticals: See individual options below for plastic laminate specifications
3. Cabinetry Construction: Designation, APA C-D plugged with exterior glue, $\frac{3}{4}$ " thick or $\frac{3}{4}$ " high pressure particle board. Min. density 45 PSF, U.N.O.
4. Plastic laminate finish, countertops and splashes shall be constructed in accordance with WIC manual of Millwork, "Custom" grade.

B. HARDWARE

1. Hinges to be self-closing type, fully concealed when the doors are closed.
2. Hinges shall have independent vertical, horizontal and depth adjustment.
3. Hinges shall be steel with nickel-plated finish and shall be one of the following products:

Brass America, Inc. Nos. 1200/1201

Julius Blum, Inc. No.91.650

Stanley Hardware Nos. 1511-2/1511-9x or equal.

4. Pulls: 4" X 5/16" diameter wire pulls, brushed chrome finish. U.N.O.
5. Adjustable Shelf Supports to be hole & pin type, Hafele 282.24.710 5MM steel pin.
6. Drawers: Provide heavy-duty $\frac{3}{4}$ extension drawer slides.
7. Mutes: Clear vinyl dot.
8. Fasteners an Anchorage's: Provide nails, screws, or other anchoring devices of type, size material and finish suitable for intended use and required to provide secure installation.

C. CASEWORK

1. Drawer Boxes: Provide sub-front and applied finish fronts securely fastened, with square corners and self-edges. Provide drawers with metal studs.
2. Doors: Flush overlay type with square corners, and self edged. Do not notch door, cabinet ends or dividers to receive hinges.
3. Shelves: $\frac{3}{4}$ " thick for spans up to 35" and 1" thick for spans over 35" up to 48" and adjustable to 1" centers. Do not recess metal shelf standards into end panels; notch shelving to clear standards.

TENANT SUITE FINISH MATERIALS

A. PAINT

1. Field Color: Color To Be Selected - Eggshell finish

B. STANDARD FIELD CARPET (MULTI-COLOR)

1. Manufacturer: Shaw Contract
2. Color: TBD
3. Construction: Textured Loop
4. Style: Terra 5A037
5. Fiber: Solution Q nylon / 24 oz. 100% solution dyed
6. Width: 12'
7. Installation: Direct glue down

C. STANDARD FIELD CARPET (SOLID COLOR)

1. Manufacturer: Shaw Contract
2. Color: TBD
3. Construction: Solid Cut Pile
4. Style: Design Series V 30
5. Fiber: 100% nylon / 30 oz. 100% continuous dyed
6. Width: 12'
7. Installation: Direct glue down

D. VINYL COMPOSITION TILE

1. Manufacturer: Armstrong
2. Style Name: Excelon Stonetex Vinyl Composition Tile
3. Size: 12"x 12" x 1/8"
4. Color: TBD

E. RUBBER BASE

1. Manufacturer: Johnsonite
2. Material: Rubber 1/8"
3. Color: TBD
4. Size: 2 1/2" cove base at resilient flooring, 2 1/2" straight base at carpet.
5. Transition: Transition strip between carpet and resilient flooring, Color to match base.

F. PLASTIC LAMINATE

1. Manufacturer: Wilsonart
2. Material: Plastic laminate textured
3. Color: TBD

HEATING, VENTILATION AND AIR CONDITIONING

Furnish and install all materials and equipment necessary to provide complete and usable air conditioning systems in tenant spaces including, but not necessarily limited to, the following:

A. Requirements shall be in accordance with title 24 and all other applicable codes.

B. CEILING DIFFUSER SPECIFICATION

1. Ceiling diffusers shall have perforated face with frame style compatible with the type of ceiling used. Surface mounted diffusers shall have gaskets to prevent leakage. Diffuser faceplate shall have concealed hinges and latches. Face plates shall be easily removable from the frame.
2. Diffusers shall be modular core and shall have curved, adjustable blades and shall be capable Of delivering 1-way,2-way,3-way or 360 degree horizontal ceiling pattern and be adjustable to obtain a down air pattern. Diffuser must have high anti-smudge characteristics with center aspiration.
3. Material shall be steel. Finish shall be Standard White baked enamel.
4. Supply diffusers shall be Titus modular core PMC perforated face-size 24"x24" for lay-in ceiling tile.
5. Return/Exhaust diffusers shall be Titus PMR.
6. Perforated ceiling diffusers shall be tested in accordance with Air Diffusion Council (ADC) code 10602R4. *Sound data for diffusers shall be calculated in accordance with International Standard ISO 3741 Comparison Method.*
7. The following manufactures shall be considered equal, providing corresponding models meet specified requirements. Equivalent substituted equipment named herein shall be submitted for the Architect's review. Submit alternate selections at a time of bid listing major equipment.

ITEM	MANUFACTURER
AIR FILTERS	
DIFFUSERS	Registers & Hart Cooley
GRILLES	

C. THERMOSTATS

Thermostats shall be provided for each zone. ~~Trobert Shaw, Programmable Model 9620.~~

D. SUBMITTALS

Material Lists/Product Data: Within 10 days of contract award, and prior to ordering any materials or equipment, submit for Owner's review complete material list including catalogue data of materials and products for work in this section.

E. DUCTWORK

1. Supply ducts, return ducts, and exhaust ducts plenum chambers, housing, and panels shall be fabricated from zinc-coated (galvanized) steel sheets conforming to the latest ASTM Specification A-525. Zinc-coating shall be of the "Commercial" class.
2.
 - a. Insulated low-pressure flexible duct shall be a factory fabricated assembly consisting of a zinc-coated spring steel helix, nonperforated inner liner, consisting of a zinc-coated wrapped with a nominal 1-1/2" thick fiber glass insulation. The assembly shall be sheathed in vapor barrier jacket. The composite assembly, including insulation and vapor barrier, shall meet the Class I requirements of flame spread of 25 or less, smoke developed of 50 or less as set forth NFPA Bulletin No. 90-A and be labeled by Underwriters' Laboratories, Inc.
 - b. Flexible ducts shall be installed in a fully extended condition free of sags and kinks, using only the minimum length to make the connection. Where horizontal support is required. Flexible duct shall be suspended on 36" centers with a minimum of 3/4" wide flat banding material. All joints and connections shall be made in accordance with the recommendations of Underwriters' Laboratories, Inc. for jointing material. Connections to rigid sheet metal shall be made with minimum 1/2" wide collar positively clamped and secured with screws or other approved fastening.
 - c. Flexible ducts shall be supported with 2" wide, 28 gage steel collar attached to the structure with an approved duct hanger. Installation shall minimize sharp radius turns or offsets.

F. DUCTWORK INSULATION

1. As per Shell/Core Standards
2. All insulation shall meet Title 24 requirements.

ELECTRICAL

A. GENERAL

All work, material or equipment shall comply with the codes, ordinance and regulations of the local government having jurisdiction, including Title 24 and any participating government agencies having jurisdiction.

B. RACEWAYS

1. Conduit shall be rigid galvanized steel(RGS), electrical metallic tubing (EMT), metal clad (MC) cable, polyvinyl chloride (PVC), and flexible or liquid tight flexible conduit.
2. Type 'AC' and 'NM' cable are not acceptable.
3. Support per seismic zone 4 requirements.

C. WIRING DEVICES

1. Receptacles, toggle switches and coverplates shall be white (dedicated- gray).
2. Device quantities and locations per plans.
3. Leviton, Decora style.

D. TELEPHONE / DATA OUTLETS

1. Telephone/data outlets shall be installed with a mud ring and pull string to accessible ceiling space.
2. Cabling, devices, and coverplates shall be telephone/data supplier/installer.
3. Device quantities and locations per plans.

E. TRANSFORMERS

1. Transformers shall be UL listed and suitable for the application- NEMA 1 or 3 R.
2. Transformers shall be 480V (primary) – 208y/120V (secondary), rated for 80 C rise above an ambient temperature of 40 C.
3. Support for seismic zone 4 requirements.
4. Acceptable manufacturers shall be General Electric, Cutler-Hammer, Siemens, Square D, or Westinghouse.

F. PANEL BOARDS

1. Panel boards shall be UL listed and suitable for the application- NEMA 1 or 3R.
2. All circuit breakers shall be molded case, bolt-on type.
3. Support per seismic zone 4 requirements.
4. Acceptable manufactures shall be General Electric, Cutler-Hammer, Siemens, Square D, or Westinghouse.

G. LIGHT FIXTURES

1. Light fixtures shall be 24"x 24"x 5 1/2" or 24"x 48"x 5 1/2", MDR diffuser with two or three 32 Watt T8 lamps per fixture size. Fixtures shall be Lithonia 2PM3N-G-B-3-17-9-ND-277-GEB (2x2) or 2PM3N-G-B-3-32-18-ND-277-GEB (2X4).
2. Support per seismic zone 4 requirements.
3. Quantities and locations per plan.

Light Fixture Upgrades:

4. Downlights: Lithonia AFV-32TRT-6AR-LD-77-GEB10-TRW
5. Wallwashers: Lithonia AFVW-32TRT-6AR LD-277-GEB10-TRW

H. EXIT SIGNS

1. The standard exit sign shall be a green letter edge-lit on clear panel, ceiling mount, recessed, or surface mount as required, powered by long life light emitting diodes (LED's) with an 90 minute emergency battery pack.
2. Quantities and locations per exiting and lighting plans.
3. Single or double face and directional arrows per lighting plans.
4. Fixture shall be Lithonia LED Lamps – LQM EL N Type X LQMSW3G120/277EL

PART 2: HVAC SYSTEM STANDARDS

1. New equipment installed shall have proper vibration and isolation as required.
2. Manual volume dampers shall be installed in each duct run immediately adjacent to the WYE connection.
3. No VAV boxes shall be cross-zoned and no two tenants shall share the same VAV box.
4. Two pieces of flexible duct joined together shall not be accepted.
5. New VAV boxes shall be manufactured by Titus (see plans) (interior) and with one inch lining at discharge plenum, or approved by Landlord.
6. Provide minimum duct radius on elbows at 1-1/2 times duct size.
7. Specify design CFM per register.
8. VAV box schedule to include:
 - a. Zone number
 - b. Box size
 - c. Maximum and minimum air quantities (CFM)
 - d. Remarks
9. Supply air grilles to be 4 way throw unless otherwise noted.
10. Balance report shall be submitted to owner's agent and should include all air quantities, zone number, room number, outlet number, size of duct, type of duct, free area, required CFM and test CFM, minimum and maximum CFM settings.
11. Upon completion of air balancing the Owner's Agent shall be notified for verification and acceptance of air balance report by building engineer.
12. Heating/Cooling zones will correspond to the leased premises. No heating/cooling zones to overlap demised spaces or zones.
13. Any problems found shall be reported immediately to the Owner's Agent. Repairs will be handled by priority in order to maintain completion schedule.
14. Return air grilles consist of 2 X 2 perforated grilles.
15. All air distribution equipment shall be in accordance with existing base building specifications.

PART 2: HVAC SYSTEM STANDARDS - con't

16. Contractor shall verify existing conditions.
17. When installing new VAV boxes please meet with Owner's Agent to review morning warm up and normal HVAC pneumatic switching.
18. Any relocated temperature-sensing device shall be labeled with the zone number corresponding to the VAV box, which it controls. The device shall be supplied with a minimum of two feet (2') of lead wire in the terminal box. The "as-builts" shall reflect the new location of the sensor.
19. All drawings are considered to be part of the contract documents. The Contractor shall be responsible for the review and coordination of all drawings prior to any construction, including architectural, structural, plumbing, air conditioning and electrical. Any discrepancies that occur shall be brought to the attention of the Owner's Agent prior to the start of construction so that a clarification can be issued. Any work performed in conflict with any code requirement shall be corrected by the Contractor at his own expense.
20. All symbols and abbreviations used on the drawings are considered to be construction standard.
21. Contractor shall provide and be responsible for protection and repair of adjacent existing surfaces and areas, which may be damaged as a result of demolition and/or new work.
22. All mechanical equipment that is removed and not reused shall be returned to the building owner.
23. Install VAV boxes to provide optimum access to service controls. Do not position VAV boxes over Gyp board ceilings, in or over walls or in any manner which will impede service access.
24. Contractor shall coordinate all duct locations with electrical, structural, plumbing and other trades.
25. Provide fusible link fire dampers where ducts pierce fire separations.
26. Provide 3 feet (3') flexible duct for diffuser connection.
27. Duct lining, flexible vibration connectors and duct shall be city approved.
28. Fire dampers shall be installed as required by City building code and shall be of City approved construction with permanent identification.
29. Supplemental HVAC equipment will require electrical consumption metering equipment be installed.

PART 3: PLUMBING STANDARDS

1. Provide a final layout as required by Landlord's standards and the Tenant Improvement Architectural Plan prior to commencing work. Complete plans shall show all new piping and points of connections.
2. All work shall conform to local code. Submit for plan check review as required, obtain permits and pay all fees.
3. Extending existing plumbing lines size with shut-off valves to allow for future Tenant Improvements. All piping shall be rigid type "L" copper.
4. No piping shall be permanently closed up, furred in or covered over before it has been tested, inspected and approved by Owners' Agent.
5. Piping shall be concealed where space provided. Pipes shall not be exposed in finished rooms unless approved by the Architect and Owner's Agent.
6. Fixtures must be approved prior to commencing with the work, with copy to Owner's Agent (include in submittals). Kohler and American Standard models shall be used.
7. Piping Materials
 - a. Hot and cold water: Type "L" hard drawn copper tubing with wrought copper fittings.
 - b. Condensate Drain: Type "L" hard drawn copper tubing with wrought copper fittings.
 - c. Soil, waste and vent: No hub cast iron soil pipe and fittings.
 - d. Hot water: all domestic hot water piping shall be insulated in accordance with State of California, Title 24, energy conservation regulations. The insulation shall be applied over clean dry pipe with all joints butted firmly together and covered with FRJ stapled in place.
 - e. Hot water heaters are above standard. If installed must be approved by Landlord and per code.
 - f. All water piping shall be isolated at each hanger and supported as per code to prevent noise transmission by means of prefabricated hair felt pans in formed steel sleeves. Isolators shall be Semco "Trisolator" or Crane "Felt Spaces".
8. Valves
 - a. Gate valves: All existing to be replaced by ball valves per item
 - b. Ball valves: 2" and smaller: Nibco T-580-M bronze ball valve, screwed.
 - c. All abandoned plumbing must be removed back to source.

PART 4: AUTOMATIC FIRE SPRINKLERS / EXTINGUISHER STANDARDS

1. The final layout as required and approved by Landlord's standards and the Tenant Improvement Architectural Plan. Design prints must bear engineer's P.E. fire protection stamp and O.I.S. or the agency specified.
2. Fire Sprinklers
 - a. U.L. listed, recessed head, Reliable Automatic Sprinkler Co. Model #F950 or Viking Model/e listed 589-A.
 - b. Building Chief Engineer must be notified 48 hours prior to each and every draining or recharging of the sprinkler system.
 - c. Sprinkler pipe and fittings - as per NFPA #13.
 - d. Center of tile (+- 1") installation only.
3. Fire Extinguishers

ABC rated dry chemical, UL listed and rechargeable, quantity per code.

PART 5: ELECTRICAL SYSTEM STANDARDS

1. The final layout as required and approved by Landlord's standards and the tenant improvements architectural plan. Plans indicating all panels, W & C runs, sizes, light fixtures, number and types, etc. are required before commencing with the work.
2. Telephone Outlets - Conduit
 - a. Pedestal: Walker #501E or approved, satin finish, die cast aluminum.
 - b. Flush (floor); Walker #896, with carpet flange, brass cover plate.
 - c. Wall: Leviton plaster ring (plastic plate by phone supplier).
 - d. Install conduit to top of ceiling high walls, empty, except with nylon pull cable.
 - e. Exposed ceiling cable must be plenum rated, installed per code. If tenant is not using approved cable (Teflon coated), full conduit is required.
3. Fire Report Systems

As per code requirements and building system will allow
4. Exit Signs

Existing single circuit by Prescolt Edge lite series, single face or twin face #E24-SG-ANZ or Lithonia. Provide ceiling or wall mount as may be indicated. UL listed.
5. Emergency and Night Lights

As required by code. Same fixture is to serve both functions. Use same fixture type as used for general lighting. Provide code and/or minimum of one (1) FC in exit way.
6. Pull Stations

As per building code standard.

PART 5: ELECTRICAL SYSTEM STANDARDS - con't

7. Lighting

- a. Lithonia 3 lamp, 2x4 18-cell parabolic fixture, T-8 tube.
- b. Ballast or Magnetek, low wattage (electronic).
- c. Lamp - Sylvania T-8 F40+8+L830 3000K CRI = 85
- d. Motion sensor at all offices shall be a Wattmaster or Novitas.
- e. Down light - 26 watt maximum Halo fluorescent two tube with electronic ballast.

8. Fire-Life Safety

- a. Full size CAD or better quality drawings.
- b. Drawings to illustrate point of connection at building fire control panel and point of connection to existing fire life safety devices.
- c. Drawings should include all device smoke detectors, speakers, and strobes.
- d. Specify speaker volts and watts. Specify smoke detectors (brand, type). Specify strobes (brand, type, etc.)
- e. Remote L.E.D. indicators for smoke detectors.

PART 6: DISCLAIMER

Architect/engineer must conform all standards to existing conditions. If any discrepancy is found, please notify the Landlord immediately. Landlord reserves the right to modify these standards at any time.

ESTOPPEL CERTIFICATE

1. The County of Riverside, as Tenant, or County, and _____, as Lessor, entered into a written office lease dated _____ in which Lessor leased to County and County leased from Lessor those certain premises consisting of approximately _____ square feet of office space located at _____. The office lease, as amended is referred to in this Certificate as the Lease.
2. The Lease has not been amended, modified, nor supplemented, except by _____.
3. County has paid Rent through _____. The next payment of Rent is due on _____. The current rent is _____. County has not paid Lessor a security deposit.
4. Under the Lease, the term began on _____, and the expiration date of the Lease is _____, subject to County's right to terminate the Lease and any options the County may have to extend the term as identified in this Certificate.
5. The Lease provides for no options to extend the term of the Lease.
6. The County has the right of first refusal to renew the Lease, after the original term and any options to extend have expired, on the same terms and conditions received by Lessor as a bona fide offer from a third party to Lease the premises.
7. The County has the right to early termination of this Lease if funding is reduced or becomes unavailable or if the County determines for any reason or cause that the Premises are no longer suitable for its use.
8. There are no oral or written amendments, modifications, or supplements to the Lease except as previously stated in this Certificate. A true, correct, and complete copy of the lease, including all amendments, is attached to this Certificate. The Lease is in full force and effect and represents the entire agreement between Lessor and the County pertaining to the Premises.
9. All space and improvements leased by County have been completed and furnished in accordance with the provisions of the Lease, and County has accepted and taken possession of the Premises. All contributions required to be paid by Lessor to date for improvements to the Premises have been paid in full.
10. Lessor and County are not in default in the performance of any of the terms and provisions of the Lease. To the best knowledge of each Party, no event or condition has occurred that, with the giving of notice or passage of time, or both, would constitute such default by Lessor or County.
11. Lessor has not assigned, transferred, or hypothecated the real property or any interest in the real property.

12. The County has not assigned, transferred, or hypothecated the Lease or any interest in the Lease or subleased all or part of the Premises.
13. There are no mortgages, beneficiaries under deeds of trust, or other holders of a security interest in the Real Property, except as follows: _____.
14. There are no setoffs or credits against Rent payable under the Lease. No free periods or rental abatements, rebates, or concessions have been granted to County, except as follows: _____.
15. There are no pending actions, voluntary or involuntary, under any bankruptcy or insolvency laws of the United States or any state against either Lessor or County
16. The execution of this Certificate by Lessor and the County does not amend the Lease or waive any of Lessor's or County's rights under the Lease.
17. This Certificate is given to _____ with the understanding that as a lender or purchaser of the above described real property or assignee of either Lessor or _____ may rely on it in connection with either the assignment or acquisition of the above described real property or making a loan secured by the above described real property. Following that acquisition, assignment by Lessor or loan, County intends to keep the Lease full force and effect and shall bind and inure to the benefit of _____ and its successor in interest.

COUNTY:

By: _____
Robert Field,
Assistant County Executive Officer/EDA

APPROVED AS TO FORM:
Pamela J. Walls, County Counsel

By: _____
Patricia Munroe
Deputy County Counsel

EXHIBIT "H"
SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT

THIS AGREEMENT executed on the date(s) indicated on each acknowledgment, but to be effective as of _____, 20__, among **BANK OF THE OZARKS** (hereinafter referred to as "**Lender**"), _____, a _____ (hereinafter referred to as "**Tenant**"), and _____, a _____ (hereinafter referred to as "**Landlord**").

STATEMENT OF BACKGROUND

Landlord and Tenant (or the successor or predecessor in interest to either) entered into that certain lease (hereinafter referred to as the "**Lease**") dated _____, 20__, executed by Landlord and Tenant, relating to the premises described therein (hereinafter referred to as the "**Premises**") and being part of the Property (as hereinafter described). Lender has made or has committed to make a loan to Landlord (or Landlord's successor in interest) secured by a deed of trust, mortgage or security deed (hereinafter referred to as the "**Mortgage**") and an assignment of leases and rents from Landlord to Lender covering certain property described in Exhibit A attached hereto and by this reference made a part hereof (the "**Property**") including the Premises. Tenant has agreed that the Lease shall be subject and subordinate to the Mortgage held by Lender, provided Tenant is assured of continued occupancy of the Premises under the terms of the Lease;

STATEMENT OF AGREEMENT

For and in consideration of the mutual covenants herein contained, the sum of Ten Dollars (\$10.00) and other good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, and notwithstanding anything in the Lease to the contrary, it is hereby agreed as follows:

1. Lender, Tenant and Landlord do hereby covenant and agree that the Lease with all rights, options (including options to acquire or lease all or any part of the Premises), liens and charges created thereby, is and shall continue to be subject and subordinate in all respects to the Mortgage and to any renewals, modifications, consolidations, replacements and extensions thereof and to all advancements made thereunder.

2. Lender does hereby agree with Tenant that, in the event Lender becomes the owner of the Premises by foreclosure, conveyance in lieu of foreclosure or otherwise, so long as Tenant complies with and performs its obligations under the Lease, (a) the Lease shall continue in full force and effect as a direct Lease between the succeeding owner of the Property and Tenant, upon and subject to all of the terms, covenants and conditions of the Lease, for the balance of the term of the Lease, and Lender will not disturb the possession of Tenant, and (b) the Premises shall be subject to the Lease and Lender shall recognize Tenant as the tenant of the Premises for the remainder of the term of the Lease in accordance with the provisions thereof; provided, however, that Lender shall not be subject to any claims, offsets or defenses

which Tenant might have against any prior landlord (including Landlord) nor shall Lender be liable for any act or omission of any prior landlord (including Landlord), nor shall Lender be bound by any rent or additional rent which Tenant might have paid for more than the current month or any security deposit or other prepaid charge paid to any prior landlord (including Landlord) nor shall it be bound by any amendment or modification of the Lease made without its written consent. Nothing contained herein shall prevent Lender from naming Tenant in any foreclosure or other action or proceeding initiated by Lender pursuant to the Mortgage to the extent necessary under applicable Law in order for Lender to avail itself of and complete the foreclosure or other remedy.

3. Tenant does hereby agree with Lender that, in the event Lender becomes the owner of the Premises by foreclosure, conveyance in lieu of foreclosure or otherwise, then Tenant shall attorn to and recognize Lender as the landlord under the Lease for the remainder of the term thereof, and Tenant shall perform and observe its obligations thereunder, subject only to the terms and conditions of the Lease. Tenant further covenants and agrees to execute and deliver upon request of Lender an appropriate agreement of attornment to Lender and any subsequent titleholder of the Premises.

4. Tenant acknowledges that Landlord will execute and deliver to Lender an assignment of the Lease as security for said loan, and Tenant hereby expressly consents to such assignment. Tenant agrees to notify Lender of any default(s) by Landlord under the Lease; Lender shall have the same right to cure such default(s) as is provided to Landlord under the Lease.

5. Lender shall have no obligation or incur any liability with respect to the construction or completion of the improvements in which the Premises are located or for completion of the Premises or any improvements for Tenant's use and occupancy. Lender shall have no obligations nor incur any liability with respect to any warranties of any nature whatsoever, including, any warranties respecting use, compliance with zoning, hazardous wastes or environmental laws, Landlord's title, Landlord's authority, habitability, fitness for purpose or possession. In the event that Lender shall acquire title to the Premises or the Property, Lender shall have no obligation, nor incur any liability, beyond Lender's then equity interest, if any, in the Premises, and Tenant shall look exclusively to such equity interest of Lender, if any, in the Premises for the payment and discharge of any obligations or liability imposed upon Lender hereunder, under the Lease or under any new lease of the Premises.

6. If any portion or portions of this Agreement shall be held invalid or inoperative, then all of the remaining portions shall remain in full force and effect, and, so far as is reasonable and possible, effect shall be given to the intent manifested by the portion or portions held to be invalid or inoperative.

7. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

8. Lender shall not, either by virtue of the Mortgage, the Assignment of Leases or this Agreement, be or become a mortgagee in possession or be or become subject to any liability or obligation under the Lease or otherwise until Lender shall have acquired the interest of

Landlord in the Premises, by foreclosure or otherwise, and then such liability or obligation of Lender under the Lease shall extend only to those liability or obligations accruing subsequent to the date that Lender has acquired the interest of Landlord in the Premises as modified by the terms of this Agreement.

9. Any and all notices, elections, approvals, consents, demands, requests and responses thereto ("Communications") permitted or required to be given under this Agreement shall be in writing and shall be deemed to have been properly given and shall be effective upon the earlier of receipt thereof or deposit thereof in the United States mail, postage prepaid, certified with return receipt requested, to the other party at the address of such other party set forth hereinbelow or at such other address within the continental United States as such other party may designate by notice specifically designated as a notice of change of address and given in accordance herewith; provided, however, that the time period in which a response to any Communication must be given shall commence on the date of receipt thereof; and provided further that no notice of change of address shall be effective with respect to Communications sent prior to the time of receipt thereof. Any notice, if given to Lender, must be addressed as follows, subject to change as provided hereinabove:

Lender: BANK OF THE OZARKS
 8201 Preston Road
 Suite 700
 Dallas, Texas 75225
 Attn: Dan Thomas

with a copy to: BANK OF THE OZARKS
 6th and Commercial
 P.O. Box 196
 Ozark, Arkansas 72949
 Attn: Robert Lloyd

and, if given to Tenant, must be addressed as follows, subject to change as provided hereinabove:

and, if given to Landlord, must be addressed as follows, subject to change as provided hereinabove:

10. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, legal representatives, successors, successors-in-title and assigns.

When used herein, the term "landlord" refers to Landlord and to any successor to the interest of Landlord under the Lease.

11. This Agreement may be executed in any number of counterparts, each of which shall be effective only upon delivery and thereafter shall be deemed an original, and all of which shall be taken to be one and the same instrument, for the same effect as if all parties hereto had signed the same signature page. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures thereon and may be attached to another counterpart of this Agreement identical in form hereto but having attached to it one or more additional signature pages.

[SIGNATURE PAGE FOLLOWS]

EXECUTED to be effective as of the date first written above.

LENDER:

BANK OF THE OZARKS

By: _____

Name: Brannon Hamblen

Title: Director – Real Estate Specialties Group

STATE OF TEXAS §
 § SS:
COUNTY OF DALLAS §

BEFORE ME, a Notary Public in and for said County and State, personally appeared Dan Thomas, President – Real Estate Specialties Group of Bank of the Ozarks, LENDER in the foregoing, and he acknowledged that he did sign said instrument for and on behalf of said banking corporation, as the voluntary act and deed of said banking corporation, for all the uses and purposes therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my notarial seal on this ____ day of _____, 20__.

Notary Public

Commission Expiration Date: _____

TENANT:

_____,
a _____

By: _____
Name: _____
Title: _____

(CORPORATE SEAL)

STATE OF _____ §
 § SS:
COUNTY OF _____ §

BEFORE ME, a Notary Public in and for said County and State, personally appeared _____,
_____, of _____,
a(n) _____, TENANT in the foregoing, and (s)he acknowledged that
(s)he did sign said instrument for and on behalf of said _____, as the
voluntary act and deed of said _____, for all the uses and purposes
therein mentioned.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my notarial
seal on this _____ day of _____, 20__.

Notary Public

Commission Expiration Date: _____

LANDLORD:

_____,
a _____

By: _____,
a _____,
its _____

STATE OF _____

§
§
§

COUNTY OF _____

BEFORE ME, the undersigned authority, personally appeared _____,
known to me to be the _____ of _____, a
_____, _____ of _____, a
_____, who executed the foregoing document in the capacity
therein stated and for the purposes therein described.

Given under my hand and seal of office this ____ day of _____, 20__.

[S E A L]

Notary Public, State of _____

My Commission Expires:

Printed Name of Notary Public