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ONE SOUTH WACKER



2017

CONSTRUCTION MANUAL

John Hancock | Real Estate

INTRODUCTION

This Construction Manual has been developed to communicate specific standards of performance applicable to Contractors and Tenants performing construction at One South Wacker (Building). John Hancock Real Estate reserves the right to take whatever action is deemed necessary to assure compliance with these standards, including stopping construction or refusing contractors, sub.contractors or individuals access to the Building. John Hancock Real Estate (JHRE) will not be responsible for any costs or delays resulting from such action.

In the event construction is being managed by the Tenant, it is the responsibility of the Tenant to assure compliance with these guidelines. Any costs incurred by the JHRE for additional cleaning, security or repairs resulting from the actions of the Tenant's contractor or their failure to follow these guidelines shall be the responsibility of the Tenant.

Before any work begins, the tenant and/ or contractor must provide JHRE with all drawings and specifications for review and approval. The cost of such review by the JHRE's appropriate consultants will be paid by the tenant and will include an administrative fee.

All contractors, sub.contractors, furniture installers, movers, etc. shall be employed by and on the payroll of the respective contractor and fully covered under Workers Compensation Insurance. All labor must be affiliated with the appropriate trade union as required by local jurisdictional authorities. Presentation of union badges may be required anytime while in the Building. Any worker without a union badge will be required to leave the building.

To ensure the integrity of the building distribution systems, i.e. HVAC, plumbing, electrical, and life safety, it is the policy of the building that the JHRE's designated contractors be used to perform such work. To this end, the JHRE endeavors to ensure that the pricing of such work be competitive.

All work must comply with the Federal, State, County, and City Codes and guidelines, as applicable, and must meet generally accepted industry standards.

A pre.construction meeting shall be arranged by the tenant's project manager to include the tenant, contractor and a representative from the JHRE Team to identify and approve any on.site staging areas and to review the Construction Manual.

The standards outlined in this manual apply to all tenants, contractors (contractor means: general contractor, construction manager, sub.contractors and suppliers), architects and/or consultants performing construction or related work in the Building either directly for JHRE or the Tenant. No additional enforcement notification will be given.

Should you have any questions, please contact a John Hancock Real Estate Team Member.

Pat Barry
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**A copy of this manual along with work permits must be posted in the work area.
JHRE reserves the right to amend or revise the Construction Manual at any time.**

OFFICE OF THE BUILDING

Suite:	2285	Phone #:	312.578.0804
Hours:	8:30 a.m. to 5:00 p.m. Monday through Friday	Fax:	312.578.8586

The Building is closed on the Holidays listed below and Services are not provided.

- New Year's Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Christmas Day

The building adheres to a strict policy of Construction Quiet Time for our Tenants, which does not permit any loud, intrusive work to be performed by Contractors between the hours of 8:00AM – 6:00PM (M-F). Any work that violates this policy, while be ceased immediately by JHRE.

ACCESS TO BUILDING

Construction personnel are required to provide photo identification (state issued identification or company badge) in exchange for a contractor badge before being permitted access to the Building. When leaving for the day, the contractor badge must be returned to security in exchange for his/her photo identification. Contractors/Tenants will be billed \$50.00 for a lost/unreturned contractor badge. Any worker failing to wear a contractor badge attached to his/her clothing will be removed from the building.

BUILDING FOOT PRINT AND FLOOR AREA

Property acreage:	1.09 acres	
Property measurements:	Madison side	249.45'
	Wacker side	190.2'
Building gross square footage:	1,434,209	
Building rentable square footage:	1,195,170	
Total Building Height:	532'	
Floor to Floor Height:	11.5'	
Floor to Ceiling Height:	10'	

BUILDING STANDARDS

Acoustical Ceilings & Grid

Armstrong Silhouette, 9/16" bolt.slot system with 1/4" revel / White

Armstrong Dune, 24" x 24 ' x5/8"

Carpet

Carpet Tile

Corridor Doors & Frames

Primary Entrance Doors

3'.0" x Full Height x 1/2" tempered clear glass doors with full top and bottom chrome rails, pivot hinges, concealed closer in head, push/pull hardware and lock cylinder in bottom rail.

All electronic locking devices must conform to the City of Chicago codes for egress

Corridor Doors

3'.0" x Full Height x 1.3/4" Marshfield solid core Flat Cut African Mahogany Veneer door, finish match existing, 2" welded hollow metal frames, Building standard lock set, hinges and closer.

Door Closers

LCN Series 4040 / Aluminum Paint Finish
Verify function with use.

Faucets & Soap Dispensers

Sloan ETF80.8.P faucet .5 aerator. The faucet must be hard wired.

Sloan ESD.200 soap dispenser. The soap dispenser must be hard wired.

Flush Valves

Sloan RESSC G2 Closet 2.4 gal flush

Sloan RESSU G2 Urinal .5 gal flush

Hinges Two Pair per door / 625 Bright Chrome Plated
Hager 1279 4.12" (Interior Doors without Closers)
Hager BB1279 4.1/2" x 4.1/2" (Entrance Doors &
Interior Doors with Closers)

Interior Doors & Frames 2" Welded Hollow Metal Frames
Marshfield Doors – 3'.0" x 8'.0" x 1.3/4 solid core Flat
Cut African Mahogany Veneer
Mortise Lock Set
Building Standard Hinges
Door stops

Lighting All recessed light fixtures must be Chicago Plenum
approved.
Lightolier Alter Classic 2x2 recessed direct/indirect
lay.in fluorescent fixture
(2) TT5 Bi.Tube lamps with electronic ballast
QVS2GPFOS2FT.120.BR.CP.
Lightolier Alter Classic 2x4 recessed direct/indirect
lay.in fluorescent fixture
(3) T5 lamps with electronic ballast
QVS2GPFOS328.120.PI.CP.
Exit Lights must be LED

Switches

Toggle / White
Occupancy Sensors.Leviton 002.ODS10.IDW

Lock & Latch Sets Schlage L 9000 Series / 625 Bright Chrome Plated
Standard Fixed Core
Verify function for location and use & cylinder type

Signage All signage in multi.tenant corridors shall be building
standard provided by JHRE.

All changes to the initial signage will be at the tenant's
expense.

No other signage may be installed in the multi.tenant
corridor.

CARPETING

Carpeting is to be installed in accordance with pre-approved construction drawings. Carpet glued down directly onto the concrete slab is allowed, only with approval of the Office of the Building, and should be installed only if specified in the construction plans.

All carpeting must be delivered directly to the location of the installation upon arrival to the building. Deliveries must be pre-arranged through the Building Engines. The General Contractor must dispose of old carpeting. Any repairs to walls damaged as a result of the carpet installation will be the responsibility of the carpet installer or the General Contractor.

CEILING HEIGHTS

Slab to Slab	11'6"
Typical finished ceiling	8'6"

CERTIFICATE OF INSURANCE REQUIREMENTS

All vendors, contractors, sub-contractors, moving companies, etc. coming in the building are required to provide the Office of the Building with a Certificate of Insurance along with an Additional Insured Endorsement Form.

It is the responsibility of the General Contractor or Tenant to collect a valid COI from each of the sub-contractors and forward the original Certificates of Insurance to the Office of the Building along with a complete list of companies working on the project prior to the start of the project. **No company will be allowed into the building without a COI.**

All Certificates must meet the requirements below.

Worker's Compensation:	Statutory Amount (checkmark in WC Statutory Limits box on certificate)
Employer's Liability:	\$1,000,000 minimum
Commercial General Liability:	\$2,000,000 Combined Single Limit for Bodily Injury and property damage
Commercial Automobile Liability:	\$1,000,000 each occurrence combined single limit for bodily injury and property damage

Certificate Holder:
John Hancock Life Insurance (U.S.A.)
1 South Wacker Drive, Suite 2285
Chicago, IL 60606

Description of Operations:

Please include a description of operations and services in the building, if applicable

Please reference the tenant/company that work is being provided for.

Additional Insured (to be identified exactly as indicated below)*:

The Manufacturers Life Insurance Company (U.S.A.)

John Hancock Life Insurance Company (U.S.A.)

CERTIFICATE OF OCCUPANCY

Following the completion of the construction, a copy of the tenant's Certificate of Occupancy shall be delivered to JHRE before the Tenant will be allowed to move.in.

CHANGE ORDERS

All activities and changes that may result in a cost to the Building Owner or JHRE must be approved in writing prior to the cost being incurred. Claims for additional costs for activities or changes not previously approved by JHRE will be rejected without payment.

COLUMN SPACING:

Property combines a 30' X 30' structural bay system. Perimeter bays are 32.75' deep. The external planning module is 5'.

CONSTRUCTION DOCUMENTS

Tenant shall submit two (2) complete full sized sets of design drawings for JHRE's review and approval preferably prior to being submitted to the City of Chicago for permits. Please allow at least ten (10) business days for this review.

Upon completion of the project, architectural, mechanical, plumbing, sprinkler, fire alarm and electrical as-built drawings in a blue line format and on CD.ROM must be forwarded to JHRE. These drawings shall be accompanied by an air balance report, confirming the HVAC system balanced within 10% of design criteria, a copy of the re-labeled electrical panel schedule and all other record documentation required by the Contract Documents.

Upon receipt of authorization from JHRE, if deemed necessary, the Architect will prepare additional plans incorporating any changes or revisions requested by the Tenant. The Architect will prepare architectural plans, details, elevations, etc. in sufficient detail to be used as working drawings for construction and in obtaining permits. Architect will cause to be prepared system plans by JHRE's Engineer and structural plans by JHRE's Structural Engineer if applicable. A revised Space Study will then be prepared and resubmitted to the Tenant and JHRE.

It is the Architect's responsibility to field-verify existing conditions and to review existing tenant construction drawings and base building drawings as it relates to the build-out of the tenant's space in raw space or renovation of existing space.

CONSTRUCTION ADMINISTRATION

The Architect will be available for interpretation of the drawings and clarification as required during the construction phase. The Architect will visit all work in progress, as required, to observe construction, determine the quality of work, and offer any interpretation or direction to the general contractor or subcontractors as may be required.

Upon completion of construction, the Architect will inspect the premises and prepare a punch.list noting any deficiencies in the tenant build out. The Architect will then issue the punch.list to the General Contractor and JHRE for immediate completion or correction. The punch.list must be compiled prior to tenant occupancy. A representative from the JHRE Team shall participate in the final construction walk.through and punch list preparation (if the work is being performed for the Building Owner or HMGC). JHRE shall be notified at least 48 hours in advance via e.mail. JHRE will receive a copy of the punch.list and notification when all items have been satisfactory completed. At this time the Architect shall supply Owner with an "Architect Certificate of Substantial Completion".

Additionally, as.built drawings and a certified test and balance report must be delivered to JHRE. Copies of specifications for specialty systems such as AC units, UPS equipment and other equipment with drain/water lines or excessive power draws should be delivered to JHRE as well.

The construction drawings will include but not be limited to:

Legend Sheet

Indicating general notes, the symbol legend, building standard specifications, the door hardware schedule and the finish schedule.

Demolition Plan

Indicate existing conditions to be removed by dotted lines, including all interior partitions, doors, ceiling conditions, HVAC, plumbing, light fixtures, electrical outlets, communication outlets, wall covering, floor covering, etc.

Partition Plan

Indicate new partitions, existing partitions to remain, room names and numbers, critical dimensions, detail, elevation and section symbols, door number, door type, and door hardware symbols, and any other items necessary. Also, indicate starting point for grid line of 2' x 2' ceiling system.

Reflected Ceiling Plan

Indicate the locations of all switching, light fixtures, down lights, wall washers, emergency light fixtures and any other items necessary.

If a space is equipped with T12 fixture lamps and existing fixtures are to be reused, the ballasts must be changed to accommodate T5 bulbs.

Power & Communication Plan

Prepare electrical, telephone and data outlet plan indicating locations of all wall and floor outlets. Dimensional furniture and/or equipment should be incorporated into this drawing only where critical to the location of the outlets.

HVAC Plan

Indicate existing and new air supply ductwork and diffusers and supplemental air conditioning for high heat producing areas such as computer rooms. These units shall be water cooled with a pump connected to the tenant condenser water riser located in the north stairwell. A water sensor will be installed to monitor potential flooding conditions. Special provisions for tenant wash rooms, lunchrooms, etc. including exhaust requirements; a final air balance shall be completed on all systems and a report shall be given to the building engineer. Air cooled units are not permitted.

Fire Protection Plan

Indicate existing and modifications to the sprinkler system. Show locations of fire hose stations and fire extinguisher cabinets. Doors installed in the traffic lanes between the north and south stairwells shall have electronic locks. The locks shall be connected to the building fire panel. The locks will open in the event of a fire alarm and shall be failsafe.

Finish Plan

Indicate the location of carpet, tile, paint, wallcovering, etc., as well as any specialty items. All items should tie back to the Finish Schedule on the Legend Sheet.

Workstation panels and or furniture shall remain a minimum of 8" away from the convectors to allow for proper ventilation and servicing of the units.

Detail Sheet

Utilize the Building Standard Details; prepare details of wall sections, wall intersections, or any other item necessary to convey construction, finishes or detailing. Any above standard detailing pertinent to the tenant's build.out shall also be included.

Architect shall provide such shop drawing approvals and clarification as required by the Contractor.

Architect shall be responsible for conformance with all applicable codes and shall:

- Review such layouts and details as necessary with those authorities responsible to insure the issuance of all necessary permits; and
- Assist the Contractor in obtaining permits when the governing authority requires clarification of construction documents.

Architect shall distribute the following:

JHRE

Tenant approved Architectural Construction Documents

(2) Complete sets of Bluelines

(2) Set of Specifications

(1) Email AutoCAD.DWG Format (2000 or Higher)

Tenant

- (1) Complete set of Bluelines

General Contractor

(5) Complete sets of Bluelines of Tenant approved Architectural Construction Documents bearing the stamp of a registered Architect on each page for the purpose of filing for permit.

- (1) Set of reproducible Sepias
- (3) Sets of Specifications

Kent Consulting Engineers

(1) Either AutoCAD.DWG Format (2000 or Higher), Intergraph.DGN Format or DXF Format. The data shall be in a copy of the layer listing (4) Sets of Blue lines.

Architect shall also be responsible for submitting the following information to Tenant's Engineer for completion of Engineered Construction Drawings:

- 1) Networking of electrical and telephone/data outlets and locations of homeruns.
- 2) Catalog cut sheets or vendor data sheets of all new equipment.
- 3) Any other information available from vendors for telephone system, pantry equipment, audio/visual equipment, special light fixtures, etc.

Upon completion of the above construction drawings, the Architect will submit drawings to JHRE for approval. The Architect will then submit the approved construction drawings to the General Contractor for pricing.

COSTS TO TENANT

JHRE will charge Tenant for the following items in the construction estimate and/or guaranteed costs:

- 1) Cost of post construction professional cleaning which shall be performed by the building's janitorial service (\$0.30/rsf* - rates effective for 2016, subject to change depending on increase in labor costs.)
- 2) Keying of locks (\$22.13 per cylinder plus a charge for each key copy)
- 3) Final air balancing

Upon receipt of authorization from JHRE, the Architect will issue the construction drawings to the General Contractor for building permit and immediate construction.

DAMAGE

Contractor/Tenant shall be responsible for repairing any existing building equipment and fixtures damaged by the Contractor or subcontractors. Contractor must notify JHRE immediately (via e.mail) of the damage or discovery of pre.existing damage. Contractor/Tenant shall be deemed responsible for any correcting or any pre.existing damage not reported.

DELIVERIES

All delivery of materials shall be through the loading dock. Deliveries through the lobby is prohibited.

All requests for the freight/dock must be entered into Building Engines by the tenant with at least a 24-hour notice.

All deliveries requiring the use of the freight/dock for longer than 30 minutes must be scheduled by the tenant. The tenant will receive a confirmation via Building Engines once the reservation has been approved. The costs associated with the use of the dock/freight elevator will be billed to the tenant. A \$200.00 fee will be charged if the reservation is not cancelled by 1:00 p.m. on the day of the reservation or the Friday prior to the reservation if it is on a weekend.

Major deliveries (metal studs, drywall, conduit, piping, H.V.A.C. equipment, ceiling tile, wall covering, paint, and carpet) of materials into and through the Property must be done after normal business hours.

All construction materials/equipment are to be delivered into the building via the Dock located on Lower Wacker Drive. There is a 30 minute time limit for all deliveries. At no time are deliveries to come through any other entrance of the Building.

Scheduling the Dock/Freight Elevator for deliveries or service when the dock is closed, must be arranged by the tenant through Building Engines with at least a 24 hour notice. A security officer must be on duty during this time and the cost to have a security officer on site will be billed at Premium Time. Any costs associated with after.hours work will be the responsibility of the Tenant/General Contractor.

Any company that does not have a COI on file will be turned away.

DEMOLITION

The demolition work is to be performed after hours, Monday-Friday. Contractor will be held responsible for any interruption of services to other tenants or the building systems.

All wiring penetrations through the floor of ceiling deck shall be identified and brought to JHRE's attention via e.mail before wires are terminated. All existing wiring/cablings not being reused must be removed to the original point of connection in the respective floor's telephone and electrical closet. Circuit breakers may remain and are to be labeled as spare.

All copper, wiring, metal and conduit that is to be removed during demolition, is the property of the JHRE and cannot be removed from the building. Please see the Chief Engineer with questions.

An engineer and a security officer are required to be on site during demolition.

Any work done after 11:00 p.m. requires an engineer to be in the building. There will be a charge of \$90.00 per hour.

A security officer is also required to run the freight during demolition. There will be a charge of \$200.00 (4 hour minimum) and \$60.00 per hour after the first 4 hours.

DOCK

All construction materials are to be delivered into the building via the Dock located on Lower Wacker Drive. At no time are deliveries to come through the Lobby. All trucks must fit in the dock with the dock door closed.

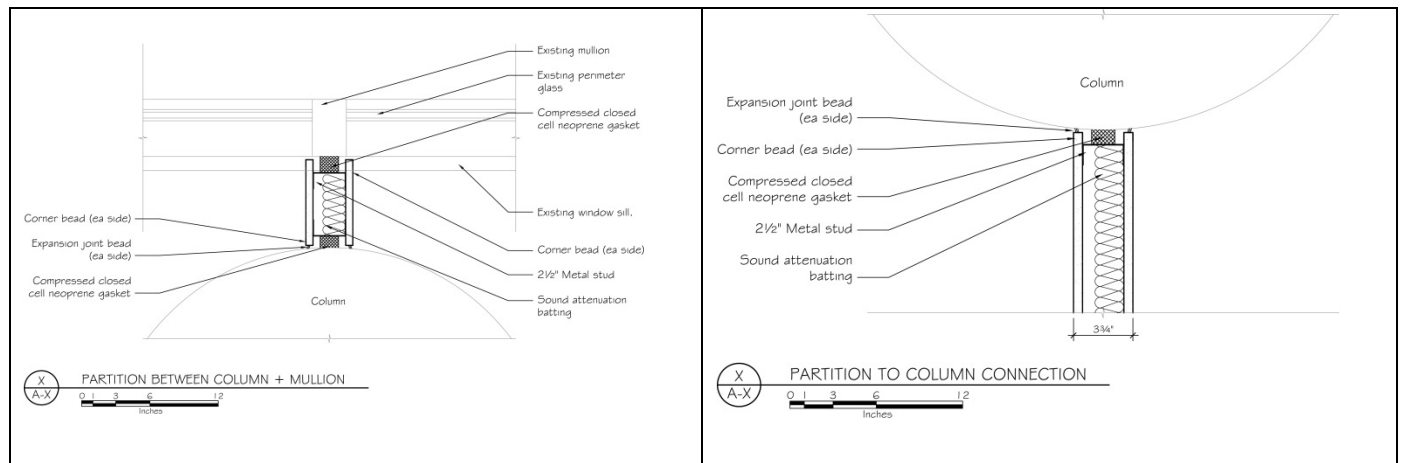
Dock Hours are Monday thru Friday, 6:00 a.m. until 5:00 p.m. There is a 30 minute time limit. Any vehicles remaining in the loading dock more than 30 minutes will be towed at owner's expense.

All requests for use of the dock outside of the normal dock hours must be requested by the Tenant through Building Engineers with at least a 24 hour notice. All costs associated with after.hours work are the responsibility of the Tenant.

Contractors/Tenants are not allowed to leave deliveries/equipment on the dock.

DRYWALL

Any drywall that is directly attached to the building columns must have an expansion joint. Any questions contact Chief Engineer.



DUCT WORK

Unless otherwise indicated on the approved drawings, One South Wacker utilizes a ducted supply system with a return air plenum. The duct work shall be no less than 22.gauge metal and the maximum allowable length of insulated flex duct from the diffuser to the metal duct shall be 8 feet. Slab to slab partitions are to have proper penetrations to permit adequate return air flow to the air handling unit.

ELECTRICAL CIRCUIT IDENTIFICATION

All electrical outlets and lighting circuits shall be properly identified. Outlets shall be labeled on the backside of the cover plate. Junction box covers shall be clearly marked with panel and circuit identification.

ELECTRICAL PANELS

Panel schedules must be completely replaced and dated, identifying all new circuits. All new panel schedules must be typewritten.

EXISTING EQUIPMENT

New construction shall not interfere with access to any induction unit, VAV Box or other HVAC equipment.

DUMPSTER

If a contractor requires space for a dumpster on the dock, the request must be enter into Building Engines by the Tenant. If space permits, the contractor will be assigned a space on the dock. Please include the following information when submitting your request:

- name of the company supplying the dumpster (a COI is required)
- size of the dumpster
- date of delivery

All permits and equipment are the responsibility of the Contractor/Tenant.

ELECTRICAL

Wiring shall be securely fastened to building structure and not allowed to lay on ceiling grid. No wiring of any kind shall penetrate fire dampers. All penetrations in rated walls shall be fire stopped. All wiring, including low voltage and communications, shall be in compliance with the applicable codes. Under no circumstance may wires be fastened to sprinkler piping or other building piping, conduct or ductwork.

Base building electrical system is capable of supporting a combined lighting and electrical load of 7 watts per square foot.

All Breaker panels and related electrical equipment must be inspected and repaired prior to use.

The building is fed by the ComEd power grid system featuring feeds from two different substations. Two utility owned transformers are located on every third floor; one for 480/277 volt 3.phase service for heat, one for 208/120 volt service for lighting and outlets. Typical tenant power supply is 5.2 watts per usable square foot and varies by floor. Electricity is currently provided by Constellation NewEnergy and tenants are individually metered

Metering

The building is metered as follows:

- General building services such as elevators, domestic water pumps and lighting.
- Heating and air conditioning equipment including refrigeration machines, pumps and lighting.
- Tenants are individually metered.

Distribution

In general the electrical loads will be served as follows:

- Light and Receptacles: 120/208 Volt, 3 Phase, 4 Wire distribution.
- Power Motor Loads: 480 Volt, 3 Phase, 4 Wire distribution.

Located on most floors will be an electrical distribution closet, which will contain distribution equipment, Tenant meters and panels. Maximum electrical load for lighting and receptacle use is 5 watts per square foot.

Electrical outlets and covers: White

EQUIPMENT

JHRE does not loan equipment (i.e. ladders, tools, etc.) to tenants, architects, or contractors.

EXIT SIGNS

All exit signs must be LED and City of Chicago approved.

FASTENING

Fastening to exterior walls, window frames and mullions is not permitted. See Chief Engineer for details.

FIRE PREVENTION: HOT WORK PERMIT

No Hot Work Permit will be issued if the sprinkler system is impaired. Hot work includes any work that produces sparks, heat or uses an open flame. Repairs on drains and HVAC may require hot work. Examples of hot work include cutting, welding, brazing, soldering, grinding and the thawing of pipes. Prior to proceeding with hot work, the Contractor must evaluate all other alternatives and choose a safer option such as bolting, hydraulic shears/reciprocal saw, mechanical clamps or threaded pipe/tube connections. If no alternative exists except for hot work, the Contractor must:

- Pre-screen all subcontractors, review their safety and loss records and confirm that they carry the Building's required insurance coverage's and limits. The Certificate of Insurance (COI) must be on file with the building prior to the commencement of work.
- Select a fire safety supervisor to coordinate hot work operations and monitor safety.
- Provide JHRE with the name of the subcontractor who will be performing the Hot Work along with their Safety & Loss Records and COI.
- Obtain a Hot Work Permit from the Chief Engineer at least 48 hours prior to beginning any hot work.

Before any cutting, soldering, or welding can take place, the Chief Engineer must inspect the work with the Contractor's project superintendent. After the inspection and if all concerns have been addressed, the Chief Engineer will allow work to proceed and issue a HOT PERMIT.

The Contractor will have a designated person perform fire watch during the work and for 30 minutes after completion. If a building engineer observes open.flame practices different from those outlined herein, the building engineer may suspend all open.flame work for the remainder of the shift.

Cutting, soldering, or welding is prohibited under the following circumstances:

1. In areas not authorized by the Chief Engineer.
2. In the presence of explosive or flammable atmospheres, or explosive or flammable atmospheres that may develop inside uncleaned or improperly prepared tanks or equipment that have previously contained such materials, or in areas with an accumulation of combustible dusts.
3. In areas near the storage of quantities of exposed, readily ignitable materials.
4. In areas where employees or workers are present, unless proper shields or guards and appropriate exhaust provisions are used.

Additional fire prevention precautions and suppression capability must be engaged whenever performing such work under any of the following conditions:

1. Appreciable combustible material in building construction or contents is closer than 35 feet from the point of operation.
2. Appreciable combustibles are more than 35 feet away but are easily ignited by sparks.
3. Wall or floor openings occur with a 35-foot radius of the point of operation where the potential exists of igniting exposed combustible material. This includes adjacent areas and concealed spaces in walls, floors, and ceilings.
4. Combustibles could be ignited by conduction or radiation through metal partitions, wall, ceilings, or roofs.

Suitable fire extinguishing equipment will always be maintained in a state of readiness for immediate use.

Fire extinguishers shall be located by the Tenant's Architect on the Construction Documents per requirements outlined in NFPA . 10.

FLOOR LOADS

Typical floor loads: Live: 80 lbs/sf Partition: 20lbs/sf

Areas around the core and the beam bands have higher load capabilities.

All coring at One South Wacker to be completed by Apple Concrete Coring, 630.350.1213

FREIGHT

The freight is available during dock hours and is available on a first.come, first.served basis. All requests for use of the freight outside of the normal hours must be requested by the Tenant through Building Engines with at least a 24 hour notice. All costs associated with after.hours work are the responsibility of the Contractor/Tenant.

No piggybacking of contractor's schedules is allowed.
Dimensions of the Freight elevators

	<u>Large Freight</u>	<u>Small Freight</u>
Cab	70" wide X 103" deep X 128" high	73" wide X 65" deep X 118 " high
Doors	53" wide X 100" high	53" wide X 100" high
Weight Capacity	6700 lbs	3500 lbs

HVAC

Base building HVAC system is capable of supporting (1) person per 100 square feet and a combined lighting and electrical load of 5 watts per square foot.

Exterior Perimeter Heat – Furniture must maintain a 6” separation from base board heating unit. Millwork or other permanent construction must make allowances for air circulation and servicing or units.

Interior Variable Air Volume System

Plenums return air system. Designs that vary from base building return plenum are not desirable. All electrical and low voltage work shall comply with the code requirements for plenum ceilings.

NEW VAV BOXES With DDC Controller

Building DDC VAV boxes are Titus DESV, Titus Omni supply and return air grills: white. Thermostats are DDC wired TTS-SD-LCD-1 or wireless SED-T00-U-5045. The perimeter heat interlock relay with VAV controller (I2866). For any questions please reach out to John Rumbuc of Schneider Electric John.Rumbuc@schneider-electric.com 708.271.4702

EXISTING BOXES

Building VAV boxes are Titus PESV, Titus Omni supply and return air grills: white. Thermostats are Honeywell TP973a with tamper proof covers. (14004406.One HONEYWELL CHROME NO DISPLAY PNEUMATICS CVR VERT). They will be installed single tube with inline restrictor. The perimeter heat interlock EP will be tied into the thermostat line.

All Perimeter VAV boxes must coordinate the convectors with the ventilation zone. The heating system is part of Base Building and all base building work must be done by the building electrician: Progress Electric, Contact: Mark Arnashus . 773.767.5533

HVAC INSPECTION AND AIR BALANCE

Inspection of the HVAC work shall be performed with the HVAC subcontractor, air balance engineer and JHRE’s Chief Engineer. Unless otherwise indicated on the approved drawings, the air distribution system shall be balanced prior to occupancy of the completed premises. All diffusers will be balanced within 10% of design criteria.

All test and balancing at One South Wacker to be completed by: International Test & Balance, Contact: Christopher Yacu, 847.759.1800.

INTERRUPTION TO BUILDING SERVICES

All work requiring the interruption of building services shall be scheduled with JHRE via e.mail no less than 72 hours in advance. JHRE reserves the right to require any work involving interruption of service to be performed after hours. The Contractor will be responsible for damages arising out of loss of building services, including power due to its actions and the actions of subcontractors.

ISOLATION VALVES

Ball type isolation valves shall be installed on all tenant A/C units, new plumbing fixtures, appliances and other equipment.

KEYS & LOCKS

Whenever it is deemed necessary by Tenant or JHRE to temporarily issue any key to the Contractor, the Contractor will be responsible for controlling possession and use of same until returned daily to the issuing party.

All lock changes shall require an e.mail from the Contractor to JHRE and must comply with established building standard specifications. Suite entry doors that require a combination lock set must have a key override. Two keys for the override must be delivered to JHRE.

Doors with magnetic locks installed must be supervised by the base building fire alarm lock circuit and tested for proper operation to verify the lock release when the fire alarm is activated.

It is the contractor's responsibility to give the building locksmith all of the cylinders for a suite. All cylinders must be installed by the building locksmith. The installation cost is \$30.00 per cylinder. Once all of the cylinders have been installed, the Tenant Office Manager will receive a list of all cylinder numbers and locations. Each cylinder comes with two keys, any additional keys required will be provided at a cost of \$5.00 per key.

JHRE COSTS

JHRE 's engineer time required to assist or direct construction personnel shall be invoiced at the rate of \$60.00 per hour during normal business hours and \$90.00 per hour on after hours and weekends. Any costs associated with the engineer's time will be the responsibility of the Tenant.

LIFE SAFETY SYSTEM

The building's life safety system is designed to meet the Chicago High Rise Code. The building systems must be maintained in accordance with all Federal, State, County and Local codes and standards including but not limited to the latest revisions of the Chicago Building Code, Chicago High Rise / Fire Prevention Code, NFPA101 Life Safety Code, NFPA72 National Fire Alarm Code and NFPA 70 National Electric Code. Compliance with these codes and standards is mandatory (where applicable).

Emergency Voice evacuation communications and strobe system is Edwards.

Full Floor Tenants: Recent updates to Chicago building codes present new factors to consider when designing floor plans integrated around our freight elevator lobby (Ref: CBC 10(13.160.269). A tenant may select to secure the elevator freight lobby or construct an open corridor connecting to the base building stairwell. In either case, the design must satisfy CBC 10(13.160.269). Please consult building management with any questions regarding previously utilized systems on other full tenant floors.

The Fire Command Panel is located in the lobby and consists of:

- Annunciation of fire alarms
- One-way communication between the panel and the Tenant areas.
- Two-way communication between the panel and elevators and stairwells.
- Actuation of smoke management system
- Building stairways are automatically unlocked during an emergency. During non-emergencies, access is restricted.

All work, including demolition, on the Building Life Safety Systems (smoke detectors, speaker strobes & fire doors) must be performed by: Progress Electric, Contact: Mark Arnashus, 773.767.5533.

All work that may activate, deactivate or alter any smoke detector(s), fire door(s), sprinklers, electronics, fire protection, life safety or security systems shall require prior notification to JHRE via e.mail. Such work shall not commence until approved by JHRE via e-mail. A JHRE representative must be present when work is done. False alarms resulting from failure to receive authorization or improper procedures shall result in a \$500.00 fine from JHRE in addition to any fee, penalty or fine assessed by jurisdictional authorities.

As part of the close-out of a Tenant construction project that requires life safety work, the contractor must present a certificate from Converjint Technologies, LLC stating that the system for the Tenant suite is in proper working order. Final payments for work will not be made without this certificate.

For work inside the tenant's space, the tenant may choose the electrical contractor of their choice. The electrical contractor(s) shall work with the building's fire alarm service provider for work related to the fire alarm detection and notification systems. This includes system engineering, the location and spacing and of notification appliances and detection devices, capacity to add new devices to existing circuits, capacity to add new circuits to existing control panels, procurement of equipment that is UL Listed and compatible with the existing EST3 systems, system programming and commissioning. All system renovations and alterations shall be documented and submitted to Chicago Fire Prevention (773.366.3477) for approval.

Emergency power is provided as required by code. Loads served from the emergency system are:

- Exit and Emergency Lighting
- Fire Commands Panel
- Freight Elevator
- Fire Pumps

Automatic transfer switches will be provided to transfer power from the normal building feeder to the emergency distribution system in the event of interruption. A 500 KW Diesel Generator is on standby if required.

All new, existing and relocated equipment and devices shall be easily accessible (i.e., not blocked by new or existing construction or furniture). Any alterations to any part of the Life Safety System

within the suite, requires that the entire Life Safety System be synced and certified by Convergent Technologies, LLC.

LIGHTING

Existing T12 lighting must be rebalasted to accommodate T5 bulbs. All lenses and fixtures must be cleaned and fully operational. Any specialty bulbs must be stocked by the tenant.

OCCUPIED AREAS

The Contractor will only be allowed access to the floors and/or suites on and in which they are working. Access to adjacent suites and to other floors in the Building is prohibited without the JHRE Team's prior written approval. Access to occupied areas is to be requested via e.mail with a 24 hour notice.

ODOR & NOISE

All activities in the sole judgment of JHRE that may create excessive noise, vibration or odor (i.e., core drilling, drilling, shooting track, spray painting, any painting using oil base or lacquer, pipe threading, etc.) must be performed after hours.

PARKING

Unless permitted by the Office of the Building, Contractors are strictly prohibited from parking on the dock.

PASSENGER ELEVATOR

Contractors are prohibited from riding the passenger elevators at all times to access various floors/work areas. The freight elevator must be used at all times. Any violators of this rule will be removed from the Property.

PERSONAL CONDUCT

Contractor's personnel are to behave at all times to avoid disturbance to tenants and visitors of One South Wacker. JHRE, at its discretion, reserves the right to remove any individual whose presence or behavior within the building is in any way creating a disruption or disturbance of any kind or violating any of the specific guidelines contained herein.

- Eating and breaks are permitted within the unoccupied contracted work area(s) only.
- Construction personnel shall not congregate in the public areas of the building or on the floor in which the work is being done.
- No abusive or offensive language. No physical or mental abuse will be tolerated.
- Restroom use by Contractor and subcontractors is restricted to the floor on which work is being performed or as designated by JHRE. The contractor must clean and repair existing restrooms as part of the final clean up.

Restrooms on multi-tenant floors shall be kept clean and free of construction debris and dirt by the Contractor on a daily basis. Any additional costs incurred by JHRE to maintain the cleanliness of the restrooms during construction will be the responsibility of the Contractor/Tenant.

- One South Wacker is a NO SMOKING building. Contractors are **only** allowed to smoke in the designated smoking area on Madison Street.

PERMITS AND INSPECTIONS

A copy of the building permit shall be provided to JHRE at the Pre-construction Meeting. During construction, copies of all inspection approvals shall be submitted to JHRE. At the completion of the construction, copies of all final approvals shall be provided to JHRE.

PREMIUM TIME

In the event that the Tenant and/or General Contractor requires premium time service from the building, including but not limited to, building engineers, security officers, or cleaning staff, a request must be entered in Building Engines by the tenant with the date and time of the service. Advance notice, not less than 24 hours is required.

PLUMBING

System installation by the Tenant must comply with the provisions of the *City of Chicago Plumbing Code*, latest edition, as well as the minimum requirements of the *State of Illinois Plumbing Code*.

Any modifications or additions to building systems are to comply with approved plans. Commencement of any work must be coordinated with the Chief Engineer. The General Contractor is responsible for coordinating this work.

There are two (2) strategically located wet stacks containing identical plumbing/ventilation capabilities found in the core (cold water only). Water service is provided via two (2) diverse route 12" connections bringing City of Chicago water to a series of pumps that service the property. Domestic water pressure is 50 psi.

- Building plumbing risers are located at columns B6, F5 and washrooms.
- Point of use hot water heaters, grease separators and floor drains are required at sink locations.

All piping for sinks, kitchen appliances, water closets, condensate piping and A/C units must be Type K copper. Use of plastic pipe of any kind is prohibited. Piping shall be securely fastened to the building structure and not be routed through penetrations in ducts.

PREFERRED & APPROVED CONTRACTORS

A list of all contractors and subcontractors shall be submitted to the JHRE Team for approval prior to construction. Contractors and subcontractors must be union affiliated and have a Certificate of Insurance on file with the Building prior to work commencing.

The contractors listed on **Exhibit A** that follows have all worked in One South Wacker, are familiar with the Building's Rules & Regulations and currently maintain a preferred status.

PROTECTION OF DRAINS

The Contractor shall provide protection for all drains in the work area to prevent clogging.

PROTECTION OF FINISHES

Contractor shall protect all surfaces including but not limited to elevator doors, frames and cabs, wall surfaces, doors, door frames, hardware with durable materials prior to commencement and throughout the duration of construction. Walk-off mats are to be provided at public corridor side of entrance doors. Materials and methods used to protect finishes shall be approved by JHRE. Contractor/Tenant may be required to reimburse JHRE for carpet cleaning at the completion of the project.

OSHA SIGNAGE & BARRICADES

The Contractor shall provide protection, barricades and signage as required by OSHA to ensure the safety of their personnel, JHRE employees, building tenants, visitors, etc. and strictly comply with all OSHA standards.

RESTROOM REMODELING

The issues listed below must be addressed when updating restrooms.

- 1) Because the building has settled, the pipes that connect the urinal drain and vent pipe (tucker T) are cracking. Pipes must be inspected and repaired as necessary.
- 2) Per City of Chicago Code, a floor drain must be installed if there is not one already installed.

RISER MANAGEMENT

IMG Technologies Inc. is the building's riser manager. All cabling installation within the building riser must be performed by IMG Technologies, 888.464.5520, 630.737.9800. Please contact IMG for pricing.

For work inside the tenant's space, the tenant may choose the voice/data contractor of their choice. All proprietary telephone or data cabling and/or equipment must be within the tenant space. Tenant equipment is not allowed in the riser closet.

SET-UP

From commencement to completion of the project, it is the responsibility of the General Contractor to install corner guards, carpet mask and all other protective coverings in the common areas. The General Contractor must keep the common area, clean and safe during the duration of the project.

SEPARATION OF WORK AREA

Work area shall be adequately separated from occupied areas to prohibit the migration of dust and odors. This may include, but not limited to, sealing of duct work or diffusers and construction of temporary barriers.

SIGNAGE

Contractor or subcontractor's signage may not be displayed in the building common areas or on any of the window glass.

SLAB PENETRATIONS

All slab penetrations required for new work are to be performed after hours, Monday through Friday and shall be x.rayed after hours or scanned to locate reinforcing bars, piping, conduits, etc.

At JHRE's discretion, penetrations may be reviewed by a third party structural engineering firm at the Tenant's expense.

SPRINKLER HEADS

Recessed concealed sprinkler heads must be used.

STRUCTURAL

Reinforced concrete foundation with two-level underground parking garage. Frame is reinforced concrete.

1. 80 lbs/sf is the typical live load condition with 20lbs/sf partition and ceiling allowance
2. All floor cores shall be pre-approved by the building's structural engineer (Refer to page
3. Any modifications, including but not limited to live loads in excesses of 80lbs/sf, partition and ceiling loads in excess of 20lbs/sf, floor reinforcement, removal or modifications to the floor slab, columns or beams must be reviewed and approved by the building's engineer at the tenant's expense.

Structural Engineer: Jason Loo
Bowman, Barrett & Associates, Inc.
130 East Randolph, Suite 2650
Chicago, IL 60601
312.228.0100 / 312.228.0706 Fax
jloo@bbandainc.com

SUPPLEMENTAL A/C UNITS

Air Cooled Units are not permitted. Tenants are allowed to install water-cooled condenser units which must be tied into the building's condenser water loop. All condenser lines need to be brazed. Manufacturer and specifications must be submitted to Chief Engineer for review and approval before installation. Connections are restricted to each floor. The building is designed for 20 tons per floor.

Tenants are responsible for all costs (pump, electric, annual maintenance, condenser water loop fees, etc.) associated with the supplemental units.

A condenser water loop is operational 24 hours a day, 7 days a week, and is available for special cooling loads. This would be used for water-cooled condensing units. The following charges will apply to usage of the building's condenser water loop: a \$500 one time hook-up fee plus an annual charge of \$371 per ton of cooling water (this fee is subject to change).

Once a year during business hours, maintenance will be done on the system with prior written notice from the JHRE. Tenants must monitor their system during this time to ensure proper operation.

TELEPHONE SERVICE PROVIDERS

The following telecom providers are in the building and they all have fiber service with the exception of Direct TV.

AT&T	Cogent	Comcast Business Services
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Direct TV Satellite	Light Tower	Verizon Business
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All proprietary telephone or data cabling and/or equipment must be within the tenant space. Tenant equipment is not allowed in the riser closet.

TEMPORARY FACILITIES

The General Contractor will be responsible for providing temporary facilities as required during the project, including telephone service, protective floor coverings, barricades, fire protection, debris removal, traffic control, cleaning, insurance, first.aid, temporary enclosures, material/equipment storage, etc. Costs for such services shall be borne by the General Contractor.

TRASH

All work areas must be kept clean of trash and debris and organized, to the satisfaction of JHRE. Common area corridors must be protected from dirt and wear during the construction process. Masonite or other protection must be placed from the entrance of the suite to the freight elevator to help prevent tracking dust onto the corridor carpet. Trash, boxes, mats, furniture, etc. cannot be placed in the public corridors.

On occupied floors, clean-up, including vacuuming of corridors must be completed throughout the day. Failure to do so will result in the JHRE providing a cleaning service and back charging the Contractor accordingly.

Contractors are required to monitor all traffic areas to/from the work areas including elevator lobbies and corridors to insure that dust and debris are not tracked into public areas.

All trash and debris must be covered prior to transport to the freight elevators to limit airborne dust and odor.

The General Contractor must remove rubbish, from the job site on a daily basis and deposit same into suitable rubbish containers provided by the General Contractor and located in the construction space. These containers should be water sprayed as necessary to prevent dust. These rubbish containers must be removed when full and emptied by placement of the rubbish into containers provided by the General Contractor on the dock. All building finishes (carpet, elevator doors and frames, wall covering, tenant space doors and frames, etc.) must be protected. The contractor will be liable for any damage that is caused by their negligence.

EXHIBIT A Preferred Contractors

AIR & HYDRONIC TESTING & BALANCING

International Test & Balance
847.159.1800
Christopher Yacu, cyacu@inttb.com

ARCHITECT

Hydzik, Schade & Associates
312.236.9366
Will Fischer

Wright Heerema Architects
312.913.1010
Jennie Kunsch

CARPENTRY

Bear Construction
847.593.6400
Mike Schultz, mikes@bearcc.com

CORING

Apple Concrete Coring
630.350.1213
Adam

ELECTRICAL

Progress Electric
773.767.5533
Mark Arnashus, msa@progresselectric.com

Titan Electric
630.530.4422
Sean Foley

ENGINEER

Kent Consulting Engineers
312.795.1230
Stephen Kent
skent@kceltd.com

GENERAL CONTRACTORS

Bear Construction
847.222.1900
Mike Schultz, mikes@bearcc.com

Corporate Construction
312.981.9640
Thomas Raveret

GLASS & ALUMINUM

Christopher Glass & Aluminum
312.256.8500
Tom O'Keefe, tokeefe@christoperh.inc.com

HVAC

Admiral Heating & Ventilation
708.544.3100
John Gerren, jgerren@admiralheating.com

Advance Mechanical
847.593.2510
Jeff Kaloustian

Anchor Mechanical
312.296.5892
Jack Winters

Competitive Piping
312.322.1900
Tom Muraski

Great Lakes Plumbing &
Heating
773.489.8121
Dan Quintell

PAINTING

Five Star Decorating
630.458.4477
James Knox, jk@fivestardecorating.com

Hester Commercial Painting
847.677.5130
John Jacob

National Decorating Service
773.268.8450
Marty Tew

O'Connell Painting
708.599.7119
Joe O'Connell

PLUMBING

Emerald Mechanical
773.503.9176
Jim Callanan

Johns Plumbing
773.286.9030
Bill Hildebran

Pientka Plumbing
847.573.9004
Ed Pientka

PNEUMATIC CONTROLS

Interactive Building Solutions
815.724.0525
Kevin Gleeson, Kgleeson@ibs.chicago.com

SPRINKLER SYSTEMS

Chicago Fire Protection
773.366.3477
Joseph Regan, joe@chicagofireprotect.com

Competitive Piping
Systems
312.322.1900
Tom Muraski

U.S. Fire Protection
847.816.0050
Clint Ross

WASTE REMOVAL

Independent Recycling
312.732.9253 ext. 242
Contact: Pat O'Connor

WINDOW BLINDS

Wizards of Windows
847.774.3036
Jeff Popp