

TECHNICAL CRITERIA

THE SHOPS AT ATLAS PARK



MACERICH® THE PLACE TO SHOP

THE SHOPS AT ATLAS PARK

ADDENDUM LOG

- April, 2011
 - Updated to current layout
- September, 2011
 - Waterproof membrane requirement updated
- March, 2014
 - Distribution of utilities through exit corridors is prohibited with exception (t21)
- October, 2014
 - At grade level electrical conduit is not allowed to be installed in the slab (t6)
- December, 2014
 - Wiring language updated (t7, #9)
- January, 2015
 - Language regarding the waterproofing membrane on page (t18) revised. (t18)
- March, 2015
 - Updated Plumbing content to list specific location of main water shut off valve to be at eye level. (t18)
- March, 2016
 - Added Electric / Water Sub-meter Requirements (t4)
- April, 2016
 - Added Water Efficiency language (t19)
- May, 2016
 - Added Underground Work Requirements (t23)
- February, 2017
 - Inserted New York City Energy Efficiency Code Requirements, Electrical Sub-Metering and Lighting Efficiency (t9)

THE SHOPS AT ATLAS PARK

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ELECTRICAL CRITERIA

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ELECTRIC / WATER SUB-METER REQUIREMENTS

As applicable for property, if there is an existing electric or water sub-meter in the Tenant's space, then the Tenant must have the meter recommissioned to ensure proper installation and functionality. Alternatively, the Tenant can choose to install a new meter that meets Macerich's meter specifications. Either option must be performed by a Landlord-approved electrician and verified by Macerich, and will be at the Tenant's sole cost.

METER SPECS

Tenant may install the meter specified by Macerich or the like. Meter must meet the following criteria:

Electric:

- Meters must be revenue grade.
- There must be at least a 6-digit display.
- Meter must be able to read demand (kW) and usage (kWh).
- The meter must capture the electric usage of the entire Tenant space, including HVAC units. If this is not possible, then it must be noted.
- If using a meter with CTs, note if a multiplier is required and what the multiplier is on the face of the meter.

Water:

- Meter must be properly sized for the water flow in the space. Generally this means the size of the meter should match the size of the water line, or the meter can be 1/4" smaller than the line. This means that if there is a 1" water line servicing the space, a properly sized meter would be 3/4" or 1".

Installation Requirements:

- Meters must be installed by a Landlord approved electrician.
- Installation must be verified and approved by the Operations Manager, or a member of the Operations staff, at the property.
- Proof of inspection must be sent to the Energy Management Department (Alaine Marx, alaine.marx@macerich.com) and should include the following:
 - Date of installation or recommissioning
 - Picture of the meter at time of installation or recommissioning.
 - Picture should be clear and should display kWh and kW legibly.
 - Confirmation that the meter covers whole tenant space.
 - Meter make and model
 - Units that the meter reads in
 - Multiplier, if applicable

General Design/Construction Coordination

The electrical criteria is provided for the purpose of designing the Tenant's electrical system. This criteria is provided as a guideline for Tenant's Engineer. It is the Tenant's responsibility to verify existing conditions and comply with all applicable codes and standards.

1. Conduit and raceway hangers, clamps, light fixtures, junction boxes, supports, etc. must be fastened to joists and/or beams. Do not attach directly to the slab, roof deck, ductwork, piping or conduit above.
2. Tenant's equipment in the Mall electric room must be clearly identified with Tenant's name and space number.
3. Provide access panels at all junction box locations and at smoke detectors above the ceiling.
4. All outlet boxes, floor boxes, wire raceways, power/telephone poles, plug-in molding, wiring devices, hanger supports and other items required for a complete distribution must be furnished and installed by Tenant.
5. Furnish and install power to roof top units, water heater, store fixtures, signage, music systems and any other fixtures or equipment provided by Tenant. All cutting and patching must be provided by Tenant.

Complete Engineered drawings must be submitted to the Landlord's Tenant Coordinator for review and approval. Landlord will review the plans for conformance to basic Mall requirements. The Landlord does not review for electrical design, nor does the Landlord accept responsibility for the Tenant's adherence to governing codes.

The documents to be submitted for Landlord approval must include the following:

1. Complete plans and specifications for all electrical work, including lighting, power and one line riser Diagram. Documents must be signed and sealed by a Licensed Engineer in the state where the Shopping Center is located.
2. Drawings must include panel schedules, load calculations and meter information.
3. Structural drawings must be submitted for all equipment that will be suspended from the steel structure.

Electric Service/Distribution

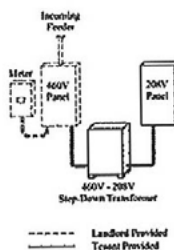
1. If specified in the Work Letter, the Landlord shall provide the Tenant with the availability of a 460Y/265 volt, 3-phase electrical service. The Tenant's service is fed from a switch and fuse from a main distribution panel (MDP) in the Landlord's electric room. The Landlord will provide the switch and fuses in the MDP and the conduit to the Tenant's space.
2. If specified in the Work Letter, the Landlord will provide a utility grade submeter in the Tenant's space for recording the peak demand and overall power consumption. The Landlord will use this meter to generate the Tenant's electric bill. If the Tenant provides the submeter, the submeter must be purchased from and installed by the Landlord's designated meter installer, Ral-Bar Electric.
3. The Tenant will need to provide a step-down transformer and panel to serve all 208Y/120 volt loads in their space as needed. All downstream branch wiring from the 460Y/265 volt distribution panel will be the responsibility of the Tenant unless specifically state otherwise in this document.

ELECTRICAL CRITERIA

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- All step-down transformers shall be floor mounted. Suspending and wall mounting of transformers is not allowed.
- All electrical wiring must be copper and must be installed in conduit in accordance with the National Electric Code, New York City Electrical Code and other applicable codes. Branch circuits concealed within walls or above finished ceilings may be MC (Metal Clad) Cable with an insulated ground conductor.
- The Tenant shall provide electrical connection(s) to the HVAC equipment serving the Tenant's space. This will include the rooftop unit(s) (RTU) and smoke exhaust fans (SEF).
- The Tenant shall acquire approval from the Landlord for any roof penetrations, which shall be by Landlord's approved contractors.
- The provided service size is based on the tenant's square footage and usage. This is illustrated in the table below:



- Should the Tenant require less capacity, the fuses in the Landlord's MDP can be replaced with small fuses with no disruption of service to other Tenants.
- Tenants that require more capacity than provided by the Landlord may incur a charge.
- Any requests for increases in service size shall be made in writing to the Landlord and supported by an electrical load breakdown including total connected and demand loads.
- The Tenant's Electrical Engineer shall submit final project drawings for review to the Landlord for approval.
- Below is a table showing a comparison between the common service sizes at 460 volts and the corresponding amperage at 208 volts. This is to help the Tenant understand the capacity of the higher voltage service that they are receiving at 460 volts compared to services at 208 volts that they may be more familiar with. The power (given in KVA) provided to a tenant is a function of voltage and current. As shown below, as the voltage is increased the current decreases, but the power delivered is the same. E.G.: 30 Amps at 460 volts results in 24 KVS. 24 KVA at 208 volts yields 67 Amps.

Tenant Electrical Service Sizes (460Y/265 volt)								
Function	Service Capacity	Service Size Maxium Area of Coverage (SqFt)						Comments
		30 Amps	60 Amps	100 Amps	200 Amps	400 Amps	800 Amps	
Retail	20 Watts / SF	1,076	2,151	3,585	7,171	14,341	28,683	(0.9 Power Factor)
Restaurant	30 Watts / SF	717	1,434	2,390	4,780	9,561	19,122	(0.9 Power Factor)

Service Voltage Comparison		
460 Volts	Power	208 Volts
30 Amps	➔ 24 KVA	➔ 67 Amps
60 Amps	➔ 48 KVA	➔ 133 Amps
100 Amps	➔ 80 KVA	➔ 222 Amps
200 Amps	➔ 159 KVA	➔ 441 Amps
400 Amps	➔ 319 KVA	➔ 885 Amps

ELECTRICAL CRITERIA

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Power Source

All work required to connect Tenant to the main power source must be performed by Landlord approved electrician, at Tenant's expense. Exceptions to this requirement may be granted by the Tenant Coordinator.

Tenant is responsible for feeders to the Tenant space, installation of a dry type transformer, panels and complete distribution throughout the Tenant space. A General Electric demand check meter must be installed in the Mall electric room.

Landlord will make available the main power source for Tenant's connection. Power source will be 277/480v or 120/280v, 3 phase, 4 wire and will be available in the nearest Mall electric room. Tenants are responsible for installation of the fused buss duct disconnect switch and must pull the feeder wires to the Tenant's demised premises. Landlord will provide an empty 2" conduit with pull-wire from the mall electric room to the Tenant space. If a larger conduit is required, Tenant is responsible for installation of same from the power source to the demised premises.

Telephone Service

All work at Landlord's telephone demark must be performed by Landlord's approved telephone subcontractor.

Tenants are required to contact the local Telephone Company for service and shall comply with their requirements. Tenant is responsible for installing a complete telephone system within their premises.

The Landlord will provide a 1" empty conduit to the Tenant's space from the nearest Telecom room with pull string.

The Tenant will be responsible for providing a plywood backboard and punch down blocks in their space. The Tenant will be responsible for all wiring, and wiring connections.

The Building's telephone service capacity per Tenant is based on 6 telephone lines and 1 additional line per each 1,000 square feet of Tenant space. The actual service requirements will be ultimately up to the Tenant's needs and coordination with Verizon.

Music/Speaker System

These systems will not be provided by the Landlord and will be the responsibility of the Tenant to provide, as the Tenant requires.

Any sound systems installed by the Tenant in their space must be designed to minimize sound emission into adjacent spaces.

Cable Television System

Provisions for Cable Television (CTV) service will be located in the buildings Telecom rooms. It will be the responsibility of the Tenant to coordinate with the CTV Compy for service connections and cabling.

The Tenant shall have all proposed cable routings through the building approved by the Landlord prior to starting work.

Satellite Television Capabilities

The Landlord is not providing this service for the Tenant.

Tenant's requiring Satellite Television Service shall make a request to the Landlord

for roof penetrations and conduit routings through the building. All proposed cable routings through the building, roof penetrations, and mounting details to the roof must be approved by the Landlord prior to starting work. Tenant's architect to submit mounting detail to Landlord for approval. Roof work must be performed by Landlord's approved roofing contractor at Tenant's expense. Approval is required prior to scheduling installation.

Security Systems

The Landlord is not providing a security system in the Tenant's space. It is recommended that the Tenant install a system of their choice to secure their assets.

Lighting

Provide a lighting schedule for review in conjunction with a reflected ceiling plan. Lighting must conform to the following guidelines:

1. Display window lighting must be controlled by a time clock and be on during the hours the Shopping Center is open. Display window lighting at the ceiling must be glare-free and at approved levels at the storefront glass line and not hang down below the top of storefront glass.
2. Recessed incandescent down lights may be used.
3. Exit, emergency and night lights must be provided throughout, as determined by governing codes.
4. Fluorescent lighting in the sales area must be recessed and must use metal parabolic louver type lenses with a minimum of 18 cell configuration for a standard 2' x 4' fixture. Bare lamp fluorescent or fluorescent fixtures with acrylic prismatic lenses may be used only in concealed areas or stock rooms.
5. Track lighting may be used if the track is painted to match the ceiling color.

Tenant is responsible for lighting system control, including connection to the Building Management system and connection to the Fire Alarm system. All emergency lighting, exit signs, horns and strobes must be provided by Tenant as required by code.

Material/Equipment Specifications

1. Drawings must include complete material specifications including manufacturer's name and product number and complete schedules of all equipment and fixtures to be installed.
2. All material and equipment must be new and of a commercial grade and must bear Underwriter's labels where such labeling applies.
3. At grade level electrical conduit may be installed at least 4" under the slab and must be in Schedule 40 PVC conduit. But never allowed to be installed in the slab or less than 4" below slab.
4. Floor boxes must be watertight.
5. Pull boxes or junction boxes must be a minimum of 12 gauge galvanized steel outlets. Boxes in walls must be galvanized pressed steel or case metal. Caulk around boxes to eliminate noise transmission.
6. All main and branch feeders and circuitry wiring must be copper. All conductors to have 600 volt insulation type THW, THWN or THHN.
7. Convenience receptacles must be specification grade, 120 volt, 20 amps and be grounding type per NEC.
8. Manual or magnetic starters, switches, contactors, relays, time switches, safety devices, dimmers and other controls must be commercial type with heavy duty ratings and must be installed in strict conformance with the manufacturer's recommendation and applicable codes.

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9. Any exposed low voltage wiring must be plenum graded.
10. All wiring of any type must be installed in conduit or must be armored cable (BX). Armored cable will only be allowed for concealed branch circuit wiring within the demised premises. Exposed and/or open wiring of any kind will not be allowed. Flexible conduits must be used for connections to vibrating equipment.

Fire Alarm System - Life Safety

1. Tenant must provide a complete fire alarm detection system within the Tenant space as an extension of the Landlord's building-wide addressable fire alarm system.
2. Tenant is required to use Landlord's designated contractor for installation of the necessary smoke detectors and connection to the main fire alarm system. System must comply with the requirements of the governing authority.
3. All emergency lighting, exit signs, horns and strobes must be provided by Tenant as required by code.
4. The building is protected by an addressable Interior Fire Alarm (IFA) system. Speakers, voice evacuation commands and firefighter phones are not required in the space.
5. When required by the New York City Building Code, or other authorities having jurisdiction, Tenants shall furnish and install their own complete, addressable, fire alarm system that is compatible with the Landlord's networked system. Tenant is responsible for any devices and connection costs as may be required to interface with the Landlord's system. All work shall be performed at the Tenant's expense for any portion of the system, whether inside or outside the Tenant's premises. All interface connections shall be made by the Landlord's nominated fire alarm contractor at the sole cost and expense of the Tenant.

6. The Tenant will be required to add additional horn/strobe devices throughout their space as required by code. Each Tenant space will have a minimum of 1 existing horn/strobe.
7. The Tenant's horn/strobe circuit is connected to the FACP (Fire Alarm Control Panel) via a BPS (Booster Power Supply). The Landlord is providing 1 BPS circuit per tenant.
8. The Tenant will be responsible for coordinating with the Landlord for having the system tested when additional devices are added. The Tenant will make arrangements with the Landlord to have the Landlord's preferred contractor perform all final acceptance testing of the system.
9. The Tenant shall coordinate with the Landlord for any required connections to the FACP. This includes restaurant tenants with exhaust hoods that would require a dry contact connection at the FACP.
10. The Tenant will provide all wiring and connection(s) for the Tenant's RTU(s) and SEF(s) to the FACP.

Fire Protection/Sprinkler System - General Requirements

1. All work must be carried out by the Landlord's required sprinkler contractor at the Tenant's sole cost and expense.
2. All work on the sprinkler system must be carried out between the hours of 7:00 am and 3:00 pm, Monday through Friday, so that the fire system can be filled and tested by 3:30 pm. The Sprinkler shut down fees are \$400 if occurring between 7:00 am and 3:00 pm Monday to Friday and \$500 at all other times or part thereof plus associated costs for additional security, fire watching, etc. The Tenant's approved sprinkler contractor will drain and fill the system.

3. The Tenant's Contractor shall notify the Landlord in writing at least 72 hours in advance of making any modifications to the sprinkler systems in order for Landlord to notify the fire department and alarm monitoring company. The Tenant's Contractor must notify the Landlord when the system is ready to go back on line.
4. The contractor shall contact Atlas Park maintenance supervisor at least 60 minutes prior to any drain down. Contractor shall remain for one hour after the system has been refilled to check for leaks or other problems.
5. No system will be left to drain over night. All systems have to be charged and operational when personnel leave at the end of the working day.
6. All piping shall be installed as close to walls and as high to underside of roof/floor framing as possible. Minimum 12'-3" AFF to bottom of any utility piping.
7. The Tenant shall contact FDNY for specific requirements relating to quantity, location and type of fire extinguishers.
8. All sprinkler heads in public service or sales area must be concealed type.

Sprinkler System Design Criteria

1. Automatic sprinkler system feeds have been supplied by the Landlord in accordance with, Subchapter 17, Article 4 of the New York City Building Code. Sprinkler design is based on ordinary hazard group 1.
2. All materials and construction shall meet code requirements and be to the complete satisfaction of the local or State fire marshal at a minimum.
3. All sprinkler system piping shall be steel pipe schedule 40 black.

4. Standard sprinkler heads in areas without ceilings will be Quick Response Type, upright bronze heads.
5. Standard sprinkler heads in areas with finished ceilings will be Quick Response Type, recessed heads.

Fire Standpipe System Design Criteria

1. Tenants with single-story buildings and those that are located on the first-floor of buildings with direct access from the surrounding streets are exempt from fire standpipe requirements.
2. In buildings greater than one-story, standpipes have been supplied in accordance with Subchapter 17, Article 3 of the New York City Building Code.
3. Standpipe locations have been supplemented with remote hose cabinets as required to ensure that a 125-foot hose plus 20 feet of hose stream will access all portions of the floor plan.
4. If a tenant installs partitions such that the hose coverage requirements can no longer be met, the tenant shall at their expense install an additional auxiliary hose station(s) and interconnect with the standpipe system.
5. All materials and construction shall meet code requirements and be to the complete satisfaction of the local or State fire marshal at a minimum.

New York City Energy Efficiency Code Requirements

Electrical Sub-Metering

Tenants 5000 gross square feet and above are required to provide and install Electrical Sub-Meters, per New York City Council File Number Int 1160-2016. Electrical Plans showing meter location and installation shall be submitted and approved prior to tenant build-out. Tenant is required to coordinate with local utility and Ownership for any shutdowns as a result of meter installation. Ownership reserves the right to back charge installation fees to Tenant found not to have required sub-meter.

Lighting Efficiency

Tenants are required to upgrade their lighting system to meet or exceed New York City Energy Conservation code in accordance with New York City Council Fire Number Int 1165-2016. Lighting designs shall be submitted and approved by Ownership and local authority prior to tenant build-out. Ownership reserve the right to back charge installation fees to Tenant found not to be in compliance with New York City Energy Conservation code.

MECHANICAL CRITERIA

THE SHOPS AT ATLAS PARK

GENERAL DESIGN - CONSTRUCTION COORDINATION

The mechanical criteria is provided for the purpose of designing the Tenant's heating, ventilating and air conditioning system. This criteria is provided for Tenant's Engineer. It is the Tenant's responsibility to verify existing conditions and comply with all applicable codes and standards.

Complete Engineered drawings must be submitted to Landlord's Tenant Coordinator for review and approval. Landlord will review the plans for conformance to basic Mall requirements. The Landlord does not review for mechanical design, nor does the Landlord accept responsibility for the Tenant's adherence to governing codes.

The documents to be submitted for Landlord approval must include the following:

1. Complete plans and specifications covering the heating, ventilating and air conditioning system. Show make, type and performance of all equipment. Documents must be signed and sealed by a Licensed Engineer in the state where the Shopping Center is located.
2. Calculations showing the heating and cooling required, including transmission and ventilation losses in the space and heat and cooling provided for the ventilation supply and exhaust required for the space. Calculations shall be as described in "Load Calculations" included below.
3. Temperature control system data showing make, control and energy management systems.
4. Exhaust system layout including CFM and equipment specifications.
5. Structural details for support of all roof top equipment and equipment suspended from the steel structure.

Load Calculations

The Tenant must perform all calculations in accordance with methods set forth in the latest American Society of Heating, Refrigeration and Air Conditioning Engineers' Guide and Data Book and in accordance with good engineering practice. All calculations must be tabulated in a concise, orderly manner.

Heating load calculation: All spaces must be calculated to maintain the minimum space temperatures in sales and public spaces of 68°F and 50°F in non-public spaces.

Cooling load calculation: All spaces must be calculated to maintain the minimum space temperature of 73°F and a maximum relative humidity of 55°F and shall take into account all interior heat producing items such as people, equipment, roof and exterior walls.

The Tenant is required to submit calculations indicating the heating and cooling loads for the space and calculations for exhaust and make-up air.

Tenants must design for a maximum noise criteria of NC40 for all spaces except kitchens and other similar work areas.

Exhaust Requirements

Tenants whose operation produces objectionable odors such as restaurants, pet shops, hair salons, nail salons and the like must maintain 10% negative air pressure with respect to the Mall by providing make-up air equal to 90% exhaust air volume. Tenant may be required to provide, at Landlord's discretion, a separate make-up outside air supply system to balance Tenant's exhaust system. Spaces that require exhaust must be designed to provide negative air pressure relative to adjoining conditioned spaces to prevent odor transfer.

Roof mounted exhaust fans must be ducted to ceiling grilles located approximately in the center and rear of the demised premises and specifically near the area where the odors are generated. The system shall be designed to cause the exhaust air to gravitate from the Mall common area to the odor producing area and then exhausted out.

Air filtration systems and bathroom exhaust fans are not acceptable solutions.

The exhaust fan must be interlocked with the light switches for the store customer service area.

The combined HVAC and exhaust system must be in operation during all hours that the Tenant is open for business.

Roof Penetrations

If use of roof top units, roof-type supplemental supply, condensing units or exhaust air units by the Tenant is permitted by the Landlord, units must be located on that part of the roof of the building directly above the demised premises as designated by Landlord. Tenant must provide and install all necessary piping and other necessary appurtenances for the operation of the roof top equipment. To the extent any of Tenant's equipment is to be located on the roof, the Tenant agrees to erect roof units in accordance with the requirements of the Landlord and the Tenant further agrees to repair any and all damage to the roof and structure caused by hoisting installation and the maintenance and/or servicing of such equipment, all of which must be at the sole cost and expense of the Tenant.

The Tenant must furnish and install all curbs, supports, lintels, pipes, ducts, vent caps, air inlets, exhaust hoods, louvers, flashings, counterflashing, etc. as required for any equipment requiring openings through the roof and/or exterior walls. The use of curb adapters is not allowed.

The Landlord has the right to inspect the quality of the work and approve locations and, if found unsatisfactory, reject same.

All cutting, patching and restoring of roofing is to be done by the Landlord's roofing contractor at the Tenant's expense. All repairs, maintenance and damage to the roof and/or building due to Tenant's installation must be at the Tenant's cost and expense.

MECHANICAL CRITERIA

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Building Management System

If applicable, Tenant must connect to the Mall's existing Energy Management System. In the process of Tenant renovation, the system must be upgraded to meet current criteria at Tenant's expense. Tenant must contact Landlord's designated contractor for the purchase and installation of the necessary controls and connection to the main control panel.

Duct mounted smoke detectors are required and must be connected to the main fire alarm panel, if applicable. Each duct smoke detector must have a remote key operated reset/test device mounted within the Tenant space and an addressable relay module. Use Landlord's designated contractor for connection to the main fire alarm loop.

Closeout Requirements

Tenant must submit as-built drawings and certified air balance reports prior to construction close out showing the exact location of all equipment and duct work.

Tenant is required to properly abandon old and unused roof top equipment (HVAC units, exhaust fans, etc.) by full removal, including curb with an appropriate metal deck and roof material patch. All roofing work must be performed by the Mall approved roofing contractor.

Pavers must be placed around the roof top equipment and from the main pathway to the equipment in order to protect the roof from traffic.

General Design/Construction Coordination

The following criteria is provided for the purpose of designing the Tenant's plumbing system. This criteria is provided for Tenant's Engineer. It is the Tenant's responsibility to verify existing conditions and comply with all applicable codes and standards.

Complete Engineered drawings must be submitted to Landlord's Tenant Coordinator for review and approval. Landlord will review the plans for conformance to basic Mall requirements. The Landlord does not review for plumbing design, nor does the Landlord accept responsibility for the Tenant's adherence to governing codes.

The documents to be submitted for Landlord approval must include the following:

Complete plans and specifications covering the complete plumbing system. Documents must be signed and sealed by a Licensed Engineer in the state where the Shopping Center is located.

The Tenant shall provide a complete plumbing system for the Tenant space. The Landlord has provided connections in each Tenant space for sanitary waste and potable cold water.

Tenant is responsible for all plumbing including toilets, sinks, urinals, drains, hot water heaters, water coolers, grease trap/interceptors and connections into existing water and sewer lines.

HVAC

A. General Tenant Requirements

1. Tenant will provide the Landlord with engineering calculations which assure the adequacy and Code compliance of the HVAC system the Tenant is installing.
2. Tenant will provide Landlord with shop drawings, installation guidelines and product samples (where requested) detailing all equipment to be installed. Landlord will have the final right of approval for all materials and equipment.
3. The Tenant is to provide design drawings stamped by a Mechanical engineer licensed in the State of New York.
4. All installations shall comply with governing codes and shall be approved by the Fire Marshal.
5. Interior Design Conditions For All Tenants: 72°F heating; 78°F, 50% Relative Humidity (RH) cooling.
6. Outdoor Design Conditions: As per 1997 ASHRAE 2-1/2% design (where outside air is not pre-conditioned).
7. Tenants requiring additional services beyond what is provided (i.e. increased ventilation CFM, increased cooling capacity, etc.) will notify the Landlord in writing not less than 30 days from Lease signature date. This will allow time for design feasibility, drawing review, and Lease amendment.
8. Theater: No HVAC provisions will be made for the theater area; the theater tenant is responsible for all associated HVAC.
9. The Tenants connecting to Landlord's smoke purge system must provide a smoke-purge damper to Landlord's specification.
10. All air handling units over 2,000cfm and any air handling units connected to Landlord's smoke purge system (regardless of size) must include a switch to enable shut down during alarm.
11. All air and hydronic balancing must be performed and (2) copies of the report provided to the Landlord.
12. Drainage pans must be provided at all condenser pumps.

B. HVAC System Overview

Depending on the tenant location and subject to the Work Letter attached to the Lease, the Landlord provided air-conditioning units shall be one of the following:

- Type 1: Packaged rooftop units with gas heat.
- Type 2: Air-cooled split system units with electric heat (heating element by tenant).
- Type 3: Water-cooled self-contained units with electric heat (heating element by tenant).
- Type 4: Air-cooled self-contained units with electric heat (heating element by tenant).

Atlas Park - HVAC Systems Overview				
Building	Level	HVAC System	Outdoor Air	Toilet Exhaust
3	1	Split-System Air-Cooled (Type 2)	Direct	Central
	2S	Rooftop unit (Type 1)	Direct	Central
	2N	Split-System Air-Cooled (Type 2)	Direct	Central
	3N	Rooftop unit (Type 1)	Direct	Central
4	Bsmt	Split-System Air-Cooled (Type 2)	Central (Heated)	Central
	1	Split-System Air-Cooled (Type 2)	Direct	Central
	2	Rooftop unit (Type 1)	Direct	Roof
6	Bsmt	Water-cooled self contained (Type 3)	Central (Heated)	Central
	1	Water-cooled self contained (Type 3)	Central (Heated)	Central
	2	Water-cooled self contained (Type 3)	Central (Heated)	Central
	3	Rooftop unit (Type 1)	Direct	Roof
7	1	Rooftop unit (Type 1)	Direct	Roof
8	Bsmt	Split-System Water-Cooled (Type 3)	Central (Heated)	Central
	1	Water-cooled self contained (Type 3)	Direct	Central
	2	Rooftop unit (Type 1)	Direct	Central
	3	Rooftop unit (Type 1)	Direct	Roof
NOTES: "Direct" outdoor air may come from roof intake or wall louver as appropriate. All "Central" systems shall be installed by Landlord with tenant taps located at demising walls or risers. All rooftop toilet exhaust and structural framing is by Tenant.				

C. HVAC System Type 1

1. A constant volume, gas-fired rooftop unit(s) shall be provided by the Landlord with supply and return air ducts stubbed into the tenant space at one location.
2. The unit shall be sized to provide all ventilation, cooling and heating requirements for the tenant space.
3. Rooftop units larger than 5-tons shall be provided with an economizer. Relief air shall be discharged through power exhaust or barometric relief at the Owner's discretion.
4. Distribution ductwork shall be by the tenant.
5. Unit shall be provided with a packaged controls system and a programmable electronic thermostat. Tenant is responsible for installation of control wiring, programming and startup.

D. HVAC System Type 2

1. A split-system DX air-handling unit(s) may be provided for a tenant space depending on exhibit B of Lease ("Work Letter"); the Landlord shall install all associated refrigerant piping and the outdoor condensing unit.
2. Air-handling unit installation shall be by the tenant. The unit shall contain an electric heating coil. Refrigerant system change shall be by the tenant.
3. The unit connection to the ventilation air ductwork and all distribution ductwork shall be by the tenant.
4. Unit shall be provided with a packaged controls system and a programmable electronic thermostat. Tenant is responsible for installation of control wiring, programming and startup.

E. HVAC System Type 3

1. Condenser water taps shall be provided for each tenant space; the Landlord may provide the appropriate water-cooled air-conditioning unit(s) depending on exhibit B of Lease ("Work Letter").
2. Unit installation must be by the tenant. The unit shall contain an electric heating coil.
3. The unit connection to the ventilation air ductwork and all distribution ductwork shall be by the tenant.
4. Unit shall be provided with 2-way control valves for condenser water control; valves must be regulating valve to modulate the flow of condenser water in response to demand. Such valves shall meet Landlord requirements.
5. Unit shall be provided with a packaged controls system and a programmable electronic thermostat. Tenant is responsible for installation of control wiring, programming and startup.

F. HVAC System Type 4

1. An air-cooled air-conditioning unit(s) may be provided for a tenant space depending on exhibit B of Lease ("Work Letter").
2. Unit installation must be by the tenant. The unit shall contain an electric heating coil.
3. The unit connection to the louvres and all distribution ductwork shall be by the tenant.
4. Unit shall be provided with a packaged controls system and a programmable electronic thermostat. Tenant is responsible for installation of control wiring, programming and startup.

G. Cooling Capacity

1. The Landlord provided HVAC units shall have sufficient capacity to serve the tenant space based on the following parameters:
 - a. Building envelope load
 - b. Occupant load (with occupant activity per ASHRAE for retail):
 - Retail tenants (first floor): 1 person/25 sq. ft.
 - Retail tenants (above first floor): 1 person/50 sq. ft.
 - Restaurant tenants: 1 person/19 sq. ft.
 - c. Ventilation load as defined by the NYC Building Code.
 - d. Lighting/equipment load:
 - Restaurant and Retail tenants 6 w/sq. ft.
 - Office tenants 4 w/sq. ft.

H. Heating Capacity

1. The Landlord furnished air-conditioning units shall be provided with sufficient heating capacity to provide a unit leaving air temperature of at least 75°F based on:
 - a. Ventilation load as defined by the NYC Building Code.
 - b. Outdoor air conditions of 10°F or 55°F where a tempered outdoor air supply is provided by the Landlord.
2. With the exception of rooftop units (which shall be gas-fired), all tenant spaces shall be heated via electric heat.
3. Each tenant shall be responsible to provide supplemental electric heaters and/or heating coils to offset perimeter heat losses and to maintain the design conditions stated previously.

Outdoor (Ventilation) Air

1. Ventilation air quantities shall be provided to tenant spaces as defined by the NYC Building Code. Depending on the tenant location, ventilation air shall be introduced to the tenant equipment either directly, or through a centralized outdoor air system.
2. Where a centralized outdoor air system is installed, ventilation air will be ducted to each tenant area and an outdoor air system point of connection shall be provided at the demising wall. The ventilation air shall be heated to 55°F Summer, 55°F Winter and filtered, but not cooled.
3. Where a direct ventilation system is in place, outdoor air shall be introduced either through tenant rooftop units or through louvers local to the tenant space.
4. Tenant HVAC documentation must show a table detailing compliance with the Building Code Index for Ventilation.
5. Unless tenant is served by a rooftop unit, tenant shall provide ductwork from their point of connection and directly connect to their air handler.

Smoke Purge System

1. With exception of the theater area, a complete smoke purge exhaust system shall be provided by the Landlord per Subchapter 13, Article 1 of the New York City Building Code.
2. The purpose of the smoke purge system is to exhaust smoke after a fire event has occurred. The smoke purge system, shall be capable of exhausting 6 air changes per hour of the single largest floor (or 1 CFM per square foot - whichever is greater).
3. Where smoke purge ductwork shafts shall serve multiple floors, combination fire/smoke dampers will be provided at each level to isolate the floor being evacuated.

4. Within certain buildings of the Atlas park campus, the outside air ductwork will also serve as the smoke purge ductwork. All remaining areas will utilize separate outside air and smoke purge systems.
5. Tenants shall not obstruct duct, or alter smoke purge system components.
6. All Tenants connecting to Landlord's smoke purge system must provide a smoke-purge damper to Landlord's specification (applicable to Buildings #3, 4, 6, and #8).
7. All air handling units over 2,000cfm and any air handling units connected to Landlord's smoke purge system (regardless of size) must include a switch to enable shut down during alarm.

Toilet Exhaust

1. Depending on tenant location, tenant shall be provided with access to the roof for a tenant installed toilet exhaust fan, or access to a central exhaust riser.
2. Where applicable, roof fan installation shall be by the tenant. The tenant may either utilize a Landlord provided roof curb, or where approved by the Landlord, provide a roof curb and all associated structural framing at their expense.
3. In some locations, a central toilet exhaust system including exhaust fan(s) and ductwork riser(s) shall be provided by the Landlord, according to the following specifications:
 - a. The capacity of the toilet exhaust system shall be such that selected tenants can connect to the central system.
 - b. The toilet exhaust allowance for each tenant is 2 CFM for every 5% of tenant floor space (equivalent to 0.1 CFM/sq. ft.). Actual exhaust CFM shall be determined by the tenant based on the applicable code.

- c. Tenants will be responsible for the ductwork installation from their space to the central exhaust riser. Location of ductwork shall be approved by the Landlord. Where ductwork passes through adjacent tenant spaces, installation shall be coordinated with that tenant's requirements.
- d. After connection is made, the central exhaust system shall be rebalanced at the tenant's expense.

Condenser Water System

- 1. Where a tenant is served by HVAC system Type 3, the Landlord shall provide valved and capped condenser water connections at the tenant demising wall.
- 2. Landlord shall deliver condenser water based on 3 GPM per ton. Tenant requirements beyond this rate shall be reviewed by Landlord at Tenant's expense.
- 3. Where the existing condenser water system piping is being extended, the new piping shall be isolated from the existing system and shall be thoroughly flushed and cleaned and pressure tested before the existing condenser water is circulated through it. All HVAC system flushes must be performed by base building contractor at Tenant's cost.
- 4. Tenant must provide and install a regulating valve to modulate the flow of condenser water in response to demand.
- 5. Tenants must install meters on condenser water provided by Landlord.

Special Requirements for Restaurant Tenants

A. Landlord provisions

- 1. Large restaurant tenants (greater than 1,000 sq. ft.) shall be provided with provisions for kitchen exhaust, dishwasher exhaust and makeup air.
- 2. Small restaurant tenants (less than 1,000 sq. ft.) shall be provided with provisions for dishwasher exhaust only.

B. Kitchen exhaust

- 1. Spatial provisions for kitchen hood exhaust duct risers shall be made, but no ductwork or exhaust fans shall be provided by the Landlord.
- 2. Kitchen exhaust fans shall be located on the roof, the exact location shall be coordinated with the Landlord prior to installation.
- 3. Tenant shall install at its sole cost and expense around all roof exhaust fans the UL Listed G2 Guard Rooftop Defense System by Facilitec (contact Facilitec at 800-282-8273; address: 3851 Clearview Court, Gurnee, IL 60631), or a substitute approved by Landlord. Tenant shall be responsible for obtaining a maintenance agreement for the upkeep of the G2 Grease Guard Rooftop Defense System (or the approved substitution), and a copy of the maintenance agreement must be submitted to the management office annually.

C. Kitchen Makeup air

- 1. Spatial provisions for makeup air ducts shall be made, but no ductwork or exhaust fans shall be provided by the Landlord.
- 2. Makeup air equipment shall be gas-fired roof-mounted and shall be provided by the restaurant tenant.

D. Dishwasher exhaust

1. Spatial provisions for dishwasher exhaust duct risers shall be made, but no ductwork or exhaust fans shall be provided by the Landlord.

E. Other

1. All exhaust hoods shall be commercial grade. Hoods for grease-producing equipment shall be provided with grease filters/baffles and fire extinguishing systems.
2. All exhaust ductwork must be installed in conformance with NFPA Bulletin 96, and the NYC Building Code. Location of exhaust ductwork penetrations must be approved by the Landlord prior to installation.
3. A grease containment system is required for food service installations. The Tenant will provide the Landlord with a copy of the maintenance agreement for the grease containment system.

Special Requirements for Odor Producing Tenants

The following special requirements apply to odor producing Tenants (including but not limited to hairstyle shops, pet shops, restaurants, fast food use shops or any other premise at the Landlord's discretion):

1. Tenant is required to furnish and install the necessary equipment to remove or neutralize any odors. This work will be approved in writing by the Landlord and at the sole expense of the Tenant.
2. The tenant shall provide additional makeup air, as required to balance supplemental exhaust systems. This may come in the form of increased air supply from the base building system (where approved by the Landlord), or from an additional makeup air unit installed by the tenant. All costs incurred by the additional makeup air will be the responsibility of the Tenant.

3. Tenants shall operate HVAC system between 5% and 10% negative pressure (when referenced to adjacent areas) and shall provide air balance report prior to store opening, and on an annual basis as required by the Landlord.

Tenant Testing and Balancing

Tenant must provide for balancing of all hydronic and air systems. Balancing will be performed at the sole cost and expense of the Tenant. The hydronic and air balance report is to be provided to the Landlord prior to the tenant opening. The Tenant's mechanical contractor shall cooperate with the selected balance agency in the following manner:

1. Provide sufficient time before final completion date so that testing and balancing can be accomplished.
2. Provide immediate labor and tools to make corrections required without undue delay. Install balancing dampers as required by test and balance energy.
3. Mechanical contractor and balancing agency shall not alter or disable the smoke control dampers or any other equipment associated with the smoke control or evacuation systems.
4. The contractor shall put all heating, ventilating and air conditioning systems and equipment into full operation and shall continue the operation during each working day of testing and balancing.

Testing and balancing agency shall be kept informed on any major changes made to system during construction and shall be provided with a complete set of 'as-built' drawings.

The system is to be balanced by the Tenant upon completion. A copy of this report must be sent to the Landlord for their records.

Rooftop Equipment Installed by Tenant

1. A rooftop curb will be supplied at Tenant's expense to a location specified by the Landlord. Should the Tenant wish to create a new curb other than the one provided, Structural drawings must be submitted to the Landlord for review and approval.
2. The responsibility of installation of the rooftop equipment is to be taken on by the Tenant, who should plan accordingly by anticipating a crane hoist.
3. Tenant is responsible for properly labeling all equipment on roof and for obtaining proper Equipment Use Permits for all rooftop equipment.

Minimum Construction Standards/Design Parameters

1. All Tenant HVAC systems shall utilize a ducted supply and plenum return. Ducted returns (above an acoustic or hard) ceiling will not be allowed. This requirements for plenum returns is due to the smoke purge system employed by the Landlord.
2. Relief air (excess air), may be relieved directly into (or out of) the Tenant Premises if the Tenant Premises are not odor producing. The Tenant will provide mechanical exhaust as required by code.
3. Where base building systems are being extended within tenant space (i.e. outdoor air ductwork, condenser water piping), provide mechanical identification for all piping, equipment and specialties to match base building installation.
4. All ductwork shall be galvanized sheet metal unless otherwise noted. All ductwork shall be installed in accordance with the latest publication of the ASHRAE guide and SMACNA.
5. All kitchen exhaust ductwork must be installed in conformance with NFPA Bulletin 96, and the NYC Building Code.

6. Provide vibration isolation on all duct connections to fans and other equipment with rotary parts.
7. Duct mounted smoke detectors shall be provided in all air handling units. Tenant is responsible for connection to Base Building Fire Alarm System and shall hire the Landlord required Contractor to complete all work necessary.
8. Local control of all Tenant air handling systems shall be by electronic, programmable thermostat with setback capability.
9. Landlord required Fire Alarm contractor is responsible for tying the Fire Alarm for the system and dampers back to the designated Fire Alarm Panel. Consult with Landlord's required fire alarm contractor for details.
10. Air conditioning condensate drain piping shall be copper type "1" seamless hard drawn, with wrought copper fittings.
11. Refrigerant piping shall be copper: up to 5/8" O.D., type 1 soft tempered with compression fittings. 7/8" O.D. and over, type 1 hard tempered with high temperature brazed joints.
12. Fire Dampers and Combination Fire/Smoke Dampers.
 - a. All ductwork shall be installed with fire-dampers or combination fire/smoke dampers between floors and through rated walls as required.
 - b. The separation between tenants need be a rated assembly of not more than 1 hour. As per code, in a fully sprinklered building, any duct penetrations through this fire separation assembly will not be required to have a fire damper or combination fire/smoke damper. All dampers shall meet BSA #176-82-SM

13. Duct Shafts

- a. The design and installation of all HVAC equipment, including ducts, shafts and their required penetration of rated partitions, ceilings and floors, shall conform to the requirements of the mechanical criteria and applicable building code. HVAC ducts that penetrate through any floor level must be enclosed in a 2-hour rated shaft. The tenant being served by the ductwork shall install shafts.

14. Flexible duct shall only be used as a branch take-off from main trunk duct to a single diffuser. Maximum length of run shall be 6 feet.

15. Provide capped manual air vents at all hydronic system high points, and before all vertical drops in direction of flow, provide capped hose drains at all system low points, so as to enable the complete down-drain of the system.

PLUMBING CRITERIA

THE SHOPS AT ATLAS PARK

Water Efficiency

1. The Tenant is required to install waterless urinals in tenant restrooms when urinals are used.
2. Low-Flow water closets using 1.6 GPF or less gallons per flush will be installed in all tenant spaces..
3. Operation sensors and low-flow heads using 0.5 GPM or less in lavatories.

Tenant shall provide a main water shut off valve located at eye level in a wall behind a labelled access door. Locate in or near employee restroom as designated by Landlord.

All domestic supply lines shall be copper. Sanitary and vent lines traversing the ceiling area to be cast iron or copper (no PVC). Tenant will utilize electric water heaters for domestic hot water.

Every Tenant must install a handicapped restroom facility with a minimum of one water closet and one lavatory and in accordance with local code officials. An exception to this requirement is only permitted for Food Court Tenants who are within close proximity to the public restrooms upon approval of the Landlord and local code official.

Low water consumption fixtures and controls shall be required for water conservation.

The Tenant shall install floor drains with trap primers in each Tenant toilet room.

Water hammer arrestors shall be installed per PDI requirements.

A water meter to measure the amount of water used must be installed by the Tenant below the lavatory. If applicable, second level restrooms must install a floor drain. Mop sinks and water fountains must be installed per local code requirements.

Tenant must install clean outs as required by code and Landlord's requirements and these shall terminate flush with the finish floor or wall. No clean outs are permitted above the ceiling.

Garbage disposals are not allowed.

Waterproofing must be installed in all "wet areas" such as kitchens, restrooms, mop sinks, drinking fountains, etc. The waterproof membrane must extend 4" vertically on all demising walls. This membrane will be water tested by the General Contractor and inspected and signed off by Mall Personnel. If the membrane fails the water test, it must be replaced.

Tenants on the upper level must coordinate with lower level Tenants and the Landlord for floor penetrations and any plumbing under the upper level floor/deck. Tenant will be responsible for all cost associated with this work.

Tenants must submit calculations to the Landlord which show the size selection or basis of capacity of all equipment and piping.

Domestic Water

A backflow prevention device shall be provided by the Landlord at the water service entrance to each building.

The Landlord shall provide a capped domestic water service to or near to each leased premises. The service shall generally be a 1-1/2" service for retail tenants and 2" service for restaurant tenants. The domestic cold water shall be provided at a pressure sufficient to enable use of flush valves (12 PSI).

No domestic hot water shall be provided for tenants. Domestic water heaters shall be supplied by tenant using tank type electric. Water shall be stored at temperatures not less than 140 degrees Fahrenheit and temperature controlled to prevent scalding.

PLUMBING CRITERIA

THE SHOPS AT ATLAS PARK

CONTINUED

Each Restaurant tenant shall be responsible for the coordination, supply and installation of a water meter at the point of connection to the Landlord provided service. Water meters with remote reading capabilities shall be installed in the tenant space. The Tenant is responsible for all work associated with the meter and remote reading hardware installation.

- Restaurant Tenants: 2" size, Model #572IIS, with ER-1 Encoder.
- Output conductor on ER-1 Encoder shall connect to Landlord's Building Management System (BMS). Output conductors shall be installed by the Landlord.

Domestic water piping material shall be Type "L" copper with sweat type fittings.

A reduced pressure backflow preventer shall be installed by the tenant on all tenant water connection to systems or equipment that are deemed hazardous. This includes, but is not limited to; photo processing equipment, carbonation systems, etc.

Food service, hair salons or other Tenants with equipment or operations that have the possibility of backflow will be required to install an approved backflow preventer. These must be certified and acceptable to the water district and checked yearly or as required by the local authority having jurisdiction.

Sanitary

Sanitary and vent piping material shall be service weight cast iron with mechanical fittings.

A sanitary riser or main is available within approximately 75 feet of the tenant space. A vent riser will be made available at the same location or within each tenant space.

Each tenant will have the ability to connect to the vent riser/main within the ceiling cavity of the floor they occupy and to connect to the sanitary riser/main within the ceiling cavity of the floor below. All lateral sanitary and vent connections from tenant spaces to risers/mains to be by tenant.

Tenant shall trench to sanitary main below slab or pump discharge to ceiling as appropriate. Any required sewage ejector and pit shall be provided by the tenant and shall discharge into the sanitary main located at the basement ceiling level.

Where a building has no basement, a sanitary main below the first floor slab shall be provided by the Landlord. All lateral sanitary and vent connections from tenant spaces to risers/mains to be by tenant.

Any plumbing fixtures that receive hair, as in pet shops and hair salons, etc. are required to install lint and/or hair traps beneath each trapped fixture.

Hair salons and pet shops shall provide hair and solids interceptors on all sinks and basins which may receive human or animal hair. After installation, these hair interceptors shall be properly maintained so as to keep the sanitary system free from any adverse conditions.

PLUMBING CRITERIA

THE SHOPS AT ATLAS PARK

CONTINUED

Grease Waste

Except with Landlord's prior written permission for non-compliance, all pot sinks, scullery sinks, pre-wash sinks and other kitchen units must be connected to a grease trap. Dishwashers may not be connected to grease trap.

If outside Tenants lease line, location of grease interceptor must be designed and approved by Landlord prior to installation.

Tenants that prepare or serve food shall discharge waste from grease producing plumbing fixtures through tenant provided grease interceptor prior to connection to the base building grease waste system.

In certain buildings, an independent grease waste system shall be provided by the Landlord. This system shall be routed to an external grease interceptor, the discharge of which shall connect to the sanitary sewer.

A grease waste riser or main will be made available within 75 feet of each tenant space.

Tenant is still required to provide a local grease interceptor.

All grease interceptors shall be completely contained within demised premises, and shall be above floor type complete with flow control fitting and sized as using manufacturers procedure for sizing grease interceptors. Grease interceptors must be approved by the Landlord prior to installation.

At the Tenant's expense, designated Tenants must employ an independent service contractor to clean and maintain the grease interceptor within their premises. Tenant must provide Landlord with the name of the contractor and their plumbing/grease disposal license number.

Gas Service

All tenants shall arrange for their own gas service account from the local gas utility.

Gas may be available at the Center. Tenant, at its sole cost and expense and in compliance with local code must procure gas service to and within the demised premises and will make all necessary arrangements with the local Gas Company for such service. Tenant is responsible for installation of a gas meter at the gas meter header.

Pressure regulators and piping required for connection to Tenant's equipment is the responsibility of the Tenant. Coordinate with Landlord for regulator vent routing.

Gas piping on the roof must be placed on pillow blocks or similar arrangement.

Only Tenants with rooftop HVAC units, and those specifically designated as Restaurants shall have the benefit of a natural gas service.

Each restaurant tenant will be provided with (2) gas connections; a connection for equipment (cooking) within their space and a connection on the roof for a makeup air rooftop unit (heating).

Gas piping from the meters at the manifold, to the restaurant tenant space will be schedule 40 black steel and be able to deliver an operating pressure of 6 to 11 inches W.C. A manual shut-off valve will be provided and the piping will be capped at the ceiling of each leased space.

PLUMBING CRITERIA

THE SHOPS AT ATLAS PARK

CONTINUED

Size of gas piping shall be determined based on the following criteria:

- Rooftop units: capacity required to offset building envelope losses and head ventilation air.
- Kitchen equipment: 150 Btuh/sq. ft. for restaurant tenants
- Makeup air units: 100 Btuh/sq. ft. for restaurant tenants

Tenants who require a gas service larger than the service being provided, will be responsible for the complete installation of the new gas service.

- All tenant gas piping must follow the route designated by the Landlord from the point of the gas manifold to the leased premises.
- All gas pipe joints outside the leased premises greater than 2" shall be welded.

All natural gas piping shall be installed as per applicable Local, State and Mechanical Codes.

Ventilation

Tenants will provide vertical exhaust ducts at a location designated by Landlord. All hood exhaust must be connected to vertical duct in accordance with code. Tenants are required to provide for the upkeep and maintenance for such vertical exhaust duct and related devices and materials.

All sanitary sewer and plumbing vent piping shall comply with all local codes.

Minimum Construction Standards

Air conditioning condensate drain piping shall be copper "L" seamless hard drawn. All condensate drain lines shall discharge to a receptor in compliance with code.

Domestic water piping materials shall be Type "L" copper with sweat type fittings. Insulate all domestic water piping.

Waste and vent piping materials shall be Type "L" copper with sweat type fittings. Insulate all domestic water piping.

Gas piping shall be schedule 40 black steel pipe with malleable fittings. All piping in plenum spaces shall be welded connections.

No PVC or ABS piping shall be used in any above grade plumbing installations.

STRUCTURAL CRITERIA

THE SHOPS AT ATLAS PARK

STRUCTURAL CRITERIA

The following criteria is provided for the purpose of designing the Tenant's structural drawings. This criteria is provided as a guideline for Tenant's Engineer. It is the Tenant's responsibility to verify existing conditions and comply with all applicable codes and standards.

Complete Engineered drawings must be submitted to the Landlord's Tenant Coordinator for review and approval. Landlord will review the plans for conformance to basic Mall requirements. The Landlord does not review for design, nor does the Landlord accept responsibility for the Tenant's adherence to governing codes.

The documents to be submitted for Landlord approval must include the following:

- Complete plans and specifications for all structural work. Documents must be signed and sealed by a Licensed Engineer in the state where the Shopping Center is located.

General Requirements

1. The Tenant's storefront must be structurally self-supported. Tenant may not support the storefront from the bulkhead or fascia. Structural lateral bracing support for Tenant storefronts must be from the roof joists.
2. Fixtures and equipment may not be attached to or supported from the roof deck.
3. Structural drawings are required for all items weighing 300 lbs. or more.
4. Joist reinforcing is required for roof top equipment as well as steel support for all roof openings.
5. Upper level Tenant's must review base building structural drawings prior to installing a security safe, ovens or any equipment weighing 300 lbs. or more.
6. Maximum load on all levels is 75 lbs. reducible load per square foot. For loads exceeding 75 lbs. per square foot (i.e. safes, restaurant equipment, etc.) the Tenant will provide engineered drawings depicting the required additional structural support framing to be reviewed and approved by the Landlord's structural engineer. Any structural work shall be installed by Tenant at Tenant's expense.
7. Roof Deck: 1 1/2" x 22 gauge galvanized "B" deck
8. Floor Deck: 3" hard rock concrete on 3" x 20 gauge composite deck
9. Landlord's architect shall design the building shell in which the Tenant Premises are located. Said building shall be constructed and sprinklered in accordance with the applicable building code. Exterior walls shall be masonry or such other materials, as Landlord's architect shall select.
10. Construction of the building in which the Premises are located shall be Type VN typically, with theatre being Type II 1-hour. If restaurants are over the occupancy of 300 people, they fall into the category of type A 2.1 occupancy and classified as Type II 1-hour construction.
11. The floor area of the Premises shall have lease measurements provided in Exhibit "A" of the Tenant lease.
12. The demising partitions may be on column centerlines, in which case the column and the structural braces are thicker than the wall and will extend into the Premises.
13. Exterior walls (if and where they occur in the Tenant Premises) shall be metal studs/masonry or other materials as Landlord's architect shall select.
14. Any alterations, additions or reinforcements to Landlord's structure required to accommodate Tenant's Work shall be performed only at Tenant's expense with Landlord's structural engineer and Landlord's prior written approval.

UNDERGROUND WORK

All tenant intrusive construction work taking place within Building 3, Building 7, and Building 8 (Parcel B) must be conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP). The SMP details institutional and engineering controls required for Parcel B to address residual contamination remaining after remediation under the Brownfield Cleanup Program (BCP). To comply with the SMP, Tenant is responsible for notifying Macerich management and providing required submissions to Macerich and their remedial engineer at least 15 days prior to intrusive construction. The notification procedure and required submissions are described below:

At least 15 days prior to ground intrusive construction:

- Tenant must notify Macerich management about the proposed intrusive activities; and
- Macerich management will notify the remedial engineer.

Concurrent with the notification, tenant should provide the following documents to Macerich and remedial engineer:

- Detailed plans indicating the extent of concrete cutting, disruption of materials below slabs/asphalt/clean cover, etc;
- OSHA certificates for equipment operators and laborers (if deemed necessary), in accordance with the Health and Safety Plan (HASP) previously prepared for the site;

- Proposed plan for off-site disposal or on-site reuse of excavated materials;
- Proposed sources and clean certifications for any imported materials for back fill purposes;
- Procedures for soil stockpiling (i.e., protection of stockpile surfaces, and covering); and
- Procedures for odor, dust and nuisance control.

Proceeding with intrusive work without the proper notifications and without following the procedure outlined above is in violation of NY State laws and could result in a revocation of the NYSDEC Certificate of Completion (COC).

EXIT CORRIDORS

Distribution of utilities through a newly constructed or an altered exit passageway is prohibited except for equipment and ductwork specifically serving the exit passageway, sprinkler piping, standpipes, electrical raceway for fire department communication and electrical raceway serving the exit passageway.