GENERAL NOTES

This document is to be used as a checklist to verify compliances with Mall Design Criteria. Tenant's drawings are to clearly show ALL modifications to existing installation that are required to accommodate Tenant improvements.

Tenant's MEP drawings shall be prepared and stamped by a Professional Engineer. Indicate column line designations on all plans.

Unless already existing and in compliance with Landlord's requirements, Tenant is required to install, upgrade and/or furnish any and all equipment, ductwork, piping, etc. for Tenant's MEP service installation.

The design, materials and installation shall conform to the best current practice in the respective trades and shall be consistent with good engineering practice, manufacturer's recommendations, industry technical references and standards.

Any modification or upgrade of existing base building services or construction must receive the prior written approval from the Landlord, prior to drawing submission. Upgrades shall be subject to building capacity and access availability.

HVAC CRITERIA

HVAC SYSTEM
Packaged rooftop units shall be provided and installed by the Tenant to condition the leased space. Equipment shall be sized based on Tenant's HVAC space load calculatlons.

Tenant's design shall not hinder the operation or performance of the mall's common area systems. Landlord comments, or lack of comments on Tenant's drawings shall not be construed as written approval.

Any unused HVAC equipment, ductwork, piping, wiring, etc within or serving the demised premises must be removed.

STRUCTURE
Locate RTU where designated by Landlord or provide written documentation by a Registered Structural Engineer where alternate location is proposed or a location is unavailable.

When required, Tenant shall provide supplemental structural support framing designed by a licensed structural engineer employed by Tenant to adequately support the Tenant's equipment.

The Landlord may require that engineering analysis, review or design be performed by Landlord's engineer at Tenant's expense.

No alterations, additions, reinforcements or modifications to Landlord's structure to accommodate Tenant's work shall be performed without obtaining Landlord's prior written approval.

The Landlord may require that approved structural modifications be performed by the Landlord's contractor under contract to Tenant at Tenant's expense.

Tenant shall not drill, screw, weld or shoot into Landlord's structure or structural members.

All attachments shall be with beam clamps, clips or bolts with washers. Do not attach any construction directly to Landlord's roof deck. Joists, beams, trusses and girders may be used for lateral bracing and spanning support.

Do not support any construction from Landlord's cross-bracing or bridging.

Roof openings greater than 12" on any side shall have a steel angle frame below the roof, clamped to the structure to support the deck opening.

ROOFTOP UNIT
Tenant must incorporate computer generated HVAC load calculations into their submission to the Landlord. All calculations shall be performed per ASHRAE.

Unit must be sized appropriately to maintain space comfort. As a guideline, the unit shall be sized for 90% to 110% of the calculated load.

If existing rooftop unit is over 10 years old or unless otherwise approved by the Landlord in writing, Tenant shall provide a new rooftop unit(s).

Landlord will not consider permitting the reuse of existing rooftop unit(s) until a report on the capacity and condition of the existing equipment by a company employing full time certified hvac/refrigeration specialists has been submitted by the Tenant.

Rooftop units must be located a minimum of 5'-0" from Landlord's demising walls when possible to maintain a 10'-0" min. clearance between adjacent tenants' rooftop equipment.

Curb adapters are not permitted. If existing RTU is supported on post & rail system it shall be replaced with a full perimeter curb.

Hail guard is required on condensing coil.

Tenant's HVAC contractor must label all of the Tenant's rooftop equipment to ensure proper identification.

All roof work shall be done by the Landlord's roofing contractor at Tenant's expense.

AIR DISTRIBUTION
All ductwork shall be galvanized sheet-metal, designed, shop fabricated and installed to SMACNA standards. Ductboard is not permitted.

All supply air ductwork shall be externally insulated with 1-1/2" thick foil face Insulation.

Internally lined ductwork may be used for acoustic purposes only, NOT as a substitute for external insulation.

Externally insulated flexible duct, not to exceed 5'-0" in length, may only be used for connection to supply diffusers. Flex duct shall be properly supported and fastened to metal duct and diffuser with mechanically tightened draw bands.

Install volume/control dampers on each duct to a diffuser.

The heat gain from enclosed display windows must be ventilated.

RETURN AIR
An open ceiling plenum return air system shall be used. Ducted return system is not permitted except at food Tenants and other odor producing Tenants or as determined by the Landlord.

Provide return / relief grilles. Size at one square foot of grille for 300 square feet of gross leasable area.

TOILET EXHAUST
Tenant shall use central toilet exhaust duct where one exists.

Exhaust systems requiring continuous operation or exhaust requirements in excess of 150 CFM must be provided entirely by the Tenant and routed independently to the building exterior.

Where the Landlord central toilet exhaust duct does not exist tenant shall discharge directly to roof.

Locate roof penetration a minimum of 10' from any existing outdoor air intakes or designated equipment locations.

Gooseneck type exhaust discharge is prohibited.

All roof work associated with exhaust system, shall be performed by Landlord's designated roofer at Tenant's expense.

Tenant shall provide a ceiling exhaust fan, with a backdraft damper sized to overcome the resistance of Tenant installed components and all ductwork. Minimum duct size shall be 6" diameter.

The toilet room light switch (with delay timer if included) shall control the fan to provide intermittent operation.

AIR BALANCE
Tenant's drawings must incorporate outdoor / exhaust air balance summary calculations into their design drawings.

Tenant must employ an air balancing firm designated by the Landlord. Provide a certified air balance report to the Landlord when construction has been completed.

CONDENSATE DRAINAGE
Condensate drain and trap shall be copper. Condensate trap should be at a depth sufficient to overcome positive/ negative static pressure of fan (3" minimum).

Route rooftop unit condensate drain into the building through a waterproof penetration in the side of the tenant's rooftop unit curb, down into the tenant's leased space and discharge into tenant provided floor drain or where applicable into a condensate main if provided by Landlord.

HVAC CONTROLS
Control system shall employ a seven day timeclock or programmable thermostat to automate equipment operation. Supply fan operation shall be continuous during occupied hours.

Controls shall provide for closure of outside air dampers when fans are off to prevent uncontrolled infiltration of air. The outside air damper shall be opened during occupied operation.

PLUMBING CRITERIA

PIPING SYSTEM
Tenant may or may not be a customer of the Utility Company, however the design should be executed as if Tenant was acquiring water and sewer directly from the Utility Company.

Only one connection to the Landlord's plumbing system is permitted.

Domestic water is supplied at the pressure available from the utility minus piping pressure losses to the point of connection.

Tenants requiring specific pressures should test the available pressure and install regulators or booster pump systems to meet their needs.

Tenants shall connect to vent header if existing, or extend vents thru roof.

All roofing work must be by Landlord's roofer at Tenant's expense.

Tenant shall provide sanitary/vent riser diagrams and a water piping riser diagram on design drawings.

Any unused plumbing equipment, piping, etc within or serving the demised premises must be removed.

PIPING MATERIALS
Below ground waste and vent shall be service-weight cast iron or schedule 40 PVC.

All no-hub connections shall be with cast iron couplings, similar to "MG" couplings including tie in to Landlord main.

Stainless steel band no-hub connections are not permitted below ground.

Above ground waste shall be service weight cast iron. Above ground vent shall be cast iron or Schedule 40 galvanized steel.

PVC piping is not permitted above ground.

Below ground water shall be type "K" (soft) copper with no joints below ground.

Above ground water shall be type "L" copper.

LOCATION of PIPING
All plumbing equipment shall be properly suspended from Landlord's structure.

All floor mounted equipment (water heaters, etc.) shall impose a floor load no greater than 75 psf.

No sanitary, vent, water or gas piping will be permitted within the demising walls.

Hinged access doors must be installed to provide access to all plumbing equipment including but not limited to; valves, cleanouts, meters, and indirectly connected piping or as designated by the Landlord.

PIPING COMPONENTS
Tenant's connection to Landlord's cold water main is to include a service isolation valve.

Any and all piping not reused, within the demised premises must be removed.

Insulate all hot water, cold water, and condensate drain piping.

Tenants shall provide at least one, full size, cleanout in toilet and kitchen areas. Cleanout may be wall or floor type, but must be accessible from within the Tenant's space.

One floor drain must be installed in toilet rooms and other locations that may be exposed to liquids, such as food service areas.

All floor drains must have trap primers.

Interceptors and separators shall be provided to prevent the discharge of oil, grease, hair, coffee granules and other substances harmful to the building's drainage system.

WATERPROOF MEMBRANE
If the Premises concrete slab is not on grade, Tenant shall install a waterproofing barrier membrane, in accordance with Landlord's specifications, in all areas that may be exposed to fluids or liquids including, but not limited to, restrooms, food preparation and service areas, laundry and dry cleaning areas, and photo processing areas.

All floor pipe penetrations, cleanouts, and floor drains must be sealed watertight, with membrane and flashing extended into clamping collar, per manufacturer's specifications. Refer to Architectural Criteria.

WATER HEATERS
Storage type water heaters shall be installed with relief valves and drain pans discharging to a floor drain.

Instantaneous water heaters are only acceptable if they do not substantially impact the Tenant's electrical service.

All water heaters 3KW and larger shall be 3 phase.

Shock absorbers, thermal expansion tanks, and vacuum breakers shall be provided in accordance with good engineering practices.

Natural gas water heaters are not permitted except where written approval from Landlord has been granted prior to drawing submission.

GAS SERVICE
Tenant is responsible for verifying available capacity, pressure, service connection, and meter installation with the Landlord and the local utility.

Gas meter is by tenant at tenant's expense, install per utility company requirements.

All piping above the roof shall be finished with a rust inhibitive primer. All gas piping shall have identification labels.

Roof-mounted piping shall be installed on free floating, prefabricated supports similar to Miro model 24-R on walkway tread pads.

Remove ballast (stones) from beneath any roof support. The use of wood for supports is prohibited.

All roof pipe penetrations shall be made through a pre-molded flashing, specifically manufactured for the mall's roofing system, with a UV-stable neoprene or EPDM boot that conforms to the size of the pipe.

Flexible piping or conduit shall not pass thru roof penetrations or flashings.

DOMESTIC WATER
Tenant is responsible for verifying available capacity, pressure, service connection, and meter installation with the Landlord and the local utility.

Where tenant is not a customer of the utility company, all Food Tenants and other heavy water users shall provide a double check valve assembly and a Rockwell or equal, utility grade water meter with both directly read and remote reader.

Metering assembly to be properly located and adequately supported to allow for easy reading, maintenance, repair and replacement.

The meter and checks shall be accessible for maintenance and reading without removing the device from the line.

FIRE PROTECTION CRITERIA

FIRE PROTECTION SYSTEM
Tenant's fire protection drawings shall be prepared and stamped by a Certified Sprinkler Designer.

Unless already existing and in compliance with Landlord's requirements, Tenant is required to install, upgrade and/or furnish any and all equipment, piping, etc. for Tenant's sprinkler installation, including services.

Fire protection water is supplied at the pressure available from the utility minus piping pressure losses to the point of connection.

Tenants shall design their piping system to accommodate the existing available pressure.

Simon Property Group requires all tenants to use SimplexGrinnell for all fire protection work.

Tenant or Tenant's General Contractor is required to contract with (and pay for) all tenant sprinkler work directly with SimplexGrinnell. Simplext Grinnell is required to comply with Landlord's Fire Protection System requirements.

All shut-downs must be scheduled with Landlord Representative.

Fire protection system shall be charged and operable when contractor's not on site.

Sprinkler heads shall be quick response.

ELECTRICAL CRITERIA

ELECTRICAL SYSTEM
Tenant may or may not be a customer of the Utility Company, however the design should be executed as if Tenant was acquiring power directly from the Utility Company.

Only one connection to the Landlord's power distribution system is permitted. Temporary power will not be provided.

Tenant contractor must install permanent feeder conductors from the Landlord's service distribution point immediately for use as the source of light and power during construction.

Any unused electrical equipment, conduit, wiring, etc within or serving the demised premises must be removed.

ELECTRICAL PANELS
Landlord will not consider permitting the reuse of existing electrical panel(s) until a report on the capacity and condition of the existing equipment by a company employing full time certified electrical service specialists has been submitted by the Tenant to the Landlord in writing.

This report shall include test data used in confirming the equipment's capabilities and shall be signed by the Tenant's Electrical Engineer, indicating they have reviewed the information and find it accurate and the equipment suitable for reuse.

Tenant shall provide detailed service sizing calculation on their drawings by filling out form in the manual or other similar summary form. All calculations shall be per NEC.

Tenant shall provide a detailed one-line diagram, depicting all existing conditions and new work to be performed.

ELECTRICAL CRITERIA

Diagram is to include the Landlord's distribution equipment, metering (where utility metered), means to disconnect the service and overcurrent protection.

Coordinate metering requirements, location of service, access to service, location of service disconnect and type of overcurrent protection (fused is preferred) including fault current data with existing conditions, local code authorities and the local utility company.

Tenant's engineer shall specify appropriate AIC rating for Tenant equipment.

Tenant shall provide a main disconnect means within the leased space in addition to any required by code or the utility company at service entry point.

Circuit breakers shall be bolt-on, not plug-in type. Switching duty breakers on all devices used for turning loads on/off. Tenant shall have breaker locks on control and timeclock circuits.

Arrange load to maintain a balance between phases of 10% or less.

24-Hour/7-Day Time Clock is required to control storefront entry lights, show window lights, show window receptacles,and storefront signage.

Electrical devices, time-clocks, panels, cabinets, etc. shall be mounted on a plywood backer-board.

GROUNDING
Grounding must be to building steel with exothermic weld or split bolt connection. Do not ground to cold water pipe.

TRANSFORMERS
All transformers shall be 3 phase. Single phase transformers are not permitted. 30 KVA and smaller transformer may be suspended from Landlord's roof structure. Mount transformer on vibration isolators.

HVAC WIRING
Tenant shall provide a main disconnecting means at each HVAC unit.

Rooftop units and exhaust fans are to be wired within their roof curbs if so designed, or utilize factory fabricated roof piping curbs.

Pitch pockets are not permitted.

A 110 volt, duplex outlet shall be installed within reach of the HVAC unit.

SERVICE ACCESS
All electrical work shall be installed so as to be readily accessible for operating, servicing, maintaining and repairing.

FLOURESCENT LIGHTING
Exposed flourescent tubes or fixtures with paracube, or prismatic lenses are not permitted in public areas.

Ballasts shall be high power factor, electronic with CBM or ETL label and have a THD of + 20%.

CONDUIT AND WIRING
All wiring must be in conduit. All conduits shall be concealed where possible.

Flexible conduit shall be MC only. Flexible conduit is not permitted within demising walls.

Exposed conduit shall be installed in straight lines, parallel with or at right angles to the building structure. Do not loop excess flexible conduit in ceiling space.

Wire shall be copper THHN or THWN with insulation.

SPECIALTY TENANT CRITERIA

ODOR PRODUCING TENANTS
Tenants with internally generated odors or other contaminates shall include all Food Service Tenants, Nail Salons, Hair Salons, Pet Shops, Photo Processors, and others if determined by the Landlord, shall be required to install and maintain an exhaust air system to mitigate odor migration to adjoining tenants or the exterior of the building.

Minimum Exhaust Calculation for Odor Producing Tenants (Non-Food Court Tenants): O.A. cfm + (Supply Air cfm x .10) = Minimum Exhaust cfm required.

Replacement (make-up) air shall be drawn from dedicated makeup air units for larger exhaust capacities. Total replacement air through makeup air units and outside air through the air conditioning unit shall be a minimum of 10% less than the exhaust air quantity.

Tenant shall install an indicator pilot lamp 12" above thermostat for the purpose of verifying exhaust fan operation.

Odor exhaust and makeup air fan operation shall be continuous during occupied hours.

REPLACEMENT AIR (MAKEUP AIR)
The make-up air shall be heated and air-conditioned when introduced into public areas. In non-public areas, the make-up air shall be heated to a minimum of 45°F.

Replacement air units shall be installed on full perimeter curbs, similar to packaged RTU's.

Interior make-up air ductwork shall be wrapped with 1-1/2" thick, foil-faced, fiberglass insulation.

All supply air diffusers within 10'-0" of any hood shall be adjusted or designed to blow air away from the hood.

SANITARY WASTE SYSTEMS
Grease Interceptors, lint traps, and solids interceptors shall be installed on any plumbing fixtures that have the potential off introducing grease, lint, hair, etc. Into the building sanitary system.

Tenants shall not dispose of any hazardous chemicals into the building sanitary system. Photo Processing Tenants, If necessary, shall Install an approved system for silver recovery. Locate all interceptors to allow adequate access for cleaning and maintenance.

FOOD TENANT CRITERIA

GREASE EXHAUST SYSTEM
All new or renovated spaces must comply with current Criteria and Codes.

GREASE EXHAUST FANS
Grease exhaust fans shall be designed to be roof mounted directly on top of the exhaust duct in an upblast configuration.

Utility set or "squirrel cage" type fans are prohibited.

Fans are to be UL 762 listed for grease and be provided with a drain that allows for single point drainage of grease, water and other residues.

The drain shall empty into a weatherproof grease containment system, either a baffled grease trap as manufactured by Greenheck or containing specially engineered absorbent material similar to Grease Terminator 2 as manufactured by the Loren Cook Co.

The roof area around the exhaust fan shall be protected with a Grease-Guard G-2, grease collection system, as manufactured by Facilitec Corporation, 1-800-284-8273.

Fan base shall be hinged to allow easy access for duct cleaning and have a safety chain or cable to prevent fan housing from damaging the roof when fan is hinged open.

All fan discharges shall be 40" above adjoining surfaces, and a minimum of 10'-0" from intakes, buildings, or roof edges.

Unobstructed access panels in ductwork are required at each change in direction and as required to clean the entire length of the ductwork.

Access panel locations shall be approved by the Landlord's representative and/or the local authority.

Access panels shall be gasketed "grease-tight", and be of the same, black iron material as the ductwork.

Galvanized, double wall, or other comfort air-conditioning access doors shall not be used.

All grease ductwork must be tested to 1-1/2" positive pressure, and demonstrated to the Landlord's representative to have no loss in pressure after 10 minutes.

Installation shall not proceed beyond this point until this test has been verified by the Landlord's representative.

After pressure testing and inspection by the Landlord's representative and the local authority, the ductwork shall be wrapped with fireproof insulation UL listed as a 1-hour separation for kitchen exhaust applications.

Access panels shall be gasketed "grease-tight", and be of the same, black iron material as the ductwork.

Galvanized, double wall, or other comfort air-conditioning access doors shall not be used.

All grease ductwork must be tested to 1-1/2" positive pressure, and demonstrated to the Landlord's representative to have no loss in pressure after 10 minutes.

Installation shall not proceed beyond this point until this test has been verified by the Landlord's representative.

After pressure testing and inspection by the Landlord's representative and the local authority, the ductwork shall be wrapped with fireproof insulation UL listed as a 1-hour separation for kitchen exhaust applications.

POLLUTION CONTROL UNIT (e.g. scrubber system)
All restaurant and odor producing Tenants are required to provide an exhaust pollution control system, or scrubber system to prevent a majority of the grease/smoke/odor laden particulate matter from entering the atmosphere.

All such pollution control units shall comply with NFPA standards, applicable codes, and shall require the approval of the Landlord.

FOOD TENANT CRITERIA

GREASE HOODS
Compensating and short circuit hoods, those hoods that introduce outdoor air directly into the hood, are not permitted.

Water wash down type kitchen hoods are required.

Hoods shall bear a current (2002 or later) UL 710 Label for Type I hoods. Labels and listings prior to 2002 are not acceptable.

Where feasible, partial or full end panels shall be installed on the open ends of the hood.

All island type hoods shall have a minimum overhang of 12" on any open sides rather than the 6" code minimum.

Hood systems shall include grease extraction filters similar to Grease-X-Tractor filters as manufactured by the Greenheck Fan Corporation, (715) 359-6171 or KSA multi-cyclone filters by Halton Mfg. (270) 237-5600.

Standard, baffle type filters are not acceptable.

COOKING OIL MANAGEMENT AND FILTRATION
Cooking oil shall be captured in a waste oil containment tank, similar to Shortening Management Systems by FrontLine International, Inc.

Containment tank to be located next to waste oil producing equipment. Tenants have two options:

1. Provide properly sized Containment Tank and separate wall mounted pump station, where shortening is suctioned from the fry vat and pumped to the containment tank.
Or
2. Provide properly sized Containment Tank and direct plumbed manifold system, where the shortening is pumped directly from the fryer to the containment tank, similar to Frontline's Magic-Line concept. The manifold system utilizes the filter of the fryer to pump waste shortening to the tank. The filter's pump powers the system.

Suggested manufacturers: Highland Tank, Inc. (856)985-1214. and FrontLine International, Inc. (330)665-4239.

DISHWASHER EXHAUST
Dishwasher vapors must be captured by a hood. An exhaust grill at the ceiling is not acceptable for this purpose.

Hood and ductwork shall be constructed of aluminum or stainless steel, and be watertight.

Pitch ductwork and install joints in such a manner to allow moisture to drain back to hood or drain.

GREASE INTERCEPTORS
Do not connect hand-wash sinks, toilet room fixtures, or garbage disposals to the grease interceptor unless otherwise required by the local authorities.

Grease interceptors shall be sized as required by Local Building Codes and as required by the Landlord.

Sizing calculations shall be submitted to the Landlord for approval prior to construction.

Grease Interceptors may be installed above the floor where they receive the discharge from only one sink.

Where the grease Interceptor receives waste from more than one fixture, grease producing tenants shall Install either a recessed Interceptor when the Tenant is on a slab-on-grade and the interceptor is 150 lb capacity or less, or a remotely located interceptor when the larger than 150 lb. or required by the local authorities to be remotely located.

All Exterior grease interceptors will be installed by the Landlord at the Tenant's expense.

BEVERAGE LINES
PVC piping is NOT permitted in ceiling plenums above or below the Tenant's space, including beverage lines and sleeves.

Flame and smoke rated polyethylene or equal shall be used.

Beverage line floor penetrations in upper level installations shall be provided with sleeves that extend up through the floor a minimum of 1", and are sealed to prohibit spills from leaking to the Tenant below.

REFRIGERATION EQUIPMENT
All refrigeration equipment shall be either located within the tenant's leased space or in a Landlord approved location on the roof.

Refrigeration equipment is not permitted in plenum space.

Note: Landlord is not responsible for heating loads created by Tenants' equipment during off hours.

Kitchen equipment Loads shall be submitted for Landlord review and approval.

ROOF PROTECTION
Roof protection boards shall be installed around any roof top HVAC equipment by the LANDLORD'S roofing contractor under contract to the Tenant Contractor at the Contractor's expense.

Roofing penetrations require advance approval by the Landlord.

All work including structural supports, curbing and flashing shall be installed in accordance with Landlord's Standard Project Details.

All roof work including cutting of the roof shall be performed by the LANDLORD'S roofing contractor under contract to Tenant Contractor at Contractor's expense.

KITCHEN DESIGNER NOTICE: Kitchen designers and kitchen equipment suppliers should be made aware of the specific requirements of this document as it pertains to specifications and/or installation of services and equipment for Food Service Tenants.

SIMON
Property Group
225 West Washington Street
Indianapolis, Indiana 46204

FASHION AT KEYSTONE WEST
8702 Keystone Crossing
Indianapolis, IN 46240
(317) 574-4000

CONTACT INFORMATION:
For questions regarding site access, storefront & architectural criteria, engineering design, delivery dates, construction rules & regulations, the scope of Landlords and Tenants work and store opening requirements, please contact your Tenant Coordinator or call 317-636-1600 for assistance. For questions regarding MEP Criteria or other MEP related questions please contact TES Engineering at (440)614-0315 for Bob Scherry, or -0316 for Bob Catino.

FASHION AT KEYSTONE WEST
MEP/FP CRITERIA - PACKAGED ROOFTOP UNITS
(Enclosed Malls)

GENERAL NOTE:
These criteria provide general design information and construction requirements. However, for specific information regarding the division of responsibilities of the Landlord and Tenant with respect to the Premises, see the Design Manual for this specific project.

DRAWING INDEX:
Preconstruction Drawing
A-1 / Architectural Criteria
MEP-1 / Mechanical, Electrical, Plumbing & Fire Protection Criteria
Design Manual / Project Specific Guidelines (in Tenant Information Package)

Sheet:
MEP-1
Date: 07/22/10