

TECHNICAL SPECIFICATIONS

BUILDING ENVELOPE

- Building envelope above the third level will be a unitized fluoropolymer finish aluminum framing system, glazed with 1" insulating high performance vision glass and spandrel units.
- High performance vision glazing will be Viracom-Graphite Blue glass in a 1" insulating unit with tinted gray corner accents.
- Floor polymer finish will be white interior and exterior.
- Curtain wall framing members will be thermally enhanced and assembled in a unitized / stackable system.
- Roof top screening louver system will be Lavolux-Infinity Bin System-12" x 3" air coils and vertical 3" x 12" aluminum tubes finished to match the curtain wall framing.
- Architectural precast concrete shall consist of granite clad architectural precast concrete wall panels with some accent bands of light to medium sandblasted areas to provide proportion and texture to the first three levels of the Building base.

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STRUCTURAL

- Construction shoring will be required the full depth of the parking garage.
- The Shoring between Latta Arcade shall be a cast-in-place concrete pile secant wall system.
- Retaining wall system along Latta Arcade/Southwest side shall be a one-sided, poured in place wall system to keep excavation as far away as possible from adjacent Latta Arcade. Waterproofing/Volclay panels shall be placed on the exterior side of wall.
- Each structural column will be supported by caissons/drilled piers that are socketed into the bedrock below.
- Core shear walls will be supported with deeper rock sockets and/or rock anchors to resist uplift of lateral forces.
- Floor slabs will be 5"-3,500 PSI concrete, troweled finish with saw cut control joints.
- Parking garage elevated floors will be 5,000 PSI poured in place positioned 8' flat slabs with cropped beams on 30' centers typically.
- The office building structural system will be a poured in place concrete shear wall core at wall thicknesses up to 30 inches, and concrete strengths at up to 10,000 PSI regular weight poured in place concrete.
- Elevated floors will be a composite construction of steel beam, steel decking, shear studs at 6.25"-3,500 PSI light weight concrete floor beams, typically spanning from core/center of building out to the perimeter creating a mostly column free tenant space.



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ROOF TYPE

- Roof insulation shall be two layer, ashlar pattern, minimum of 3.5" thickness polyisocyanurate board insulation over the main roof area to provide a minimum thermal resistance value at R-30.
- Roofing shall be 60 mill fully adhered white thermoplastic membrane (TPO) roofing system.
- An American Hydotech Inc. "green" roofing system shall be installed on the third level roof over portions of the retail areas.

ELEVATORS

- Two banks of 6 high speed gearless traction passenger elevators with 4,000 lbs. rated load operating at 800 FPM for the high-rise bank and 500 FPM for the low-rise bank plus 2 additional parking garage elevators that adhere to similar specifications.
- Service elevators will have a 4,500 lbs. rated load capacity operating at 350 FPM.

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PLUMBING

- All wall mounted toilets and urinals will be white china fixtures with automatic flush valves. Vanity basins shall be rectangular bowls underslung in stone countertops with electronic metered faucets.
- Roof mounted drains with emergency overflow through wall scuppers will handle storm water.
- A domestic service water pressure booster will ensure a minimum 30 PSI water service at all floors.
- Hot water will be provided by a gas-fired hot water boiler system and a series of circulating pumps.
- Polished stainless steel dual head water coolers will service each individual tenant floor.

FIRE SUPPRESSION SYSTEM

- NFPA 13 light hazard with recessed white concealed heads in all public/tenant areas with a head spacing of 12' x 12'.
- A fire pump with emergency generator power will drive upper level/remote water pressure.

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HVAC

- Based on ASHRAE 1% weather date for Charlotte, NC with indoor temperatures not to exceed 74 degrees cooling and no less than 70 degrees heating.
- The HVAC system will include two main water cooled central chillers connected in series.
- One primary chiller at 60% load and the second chiller at 40% load. A swing chiller of 25% capacity will provide part load cooling and partial backup to the series chillers.
- Piping for the chiller plant will include automated bypass around the series chillers.
- A series of plate heat exchangers and pumps will provide for economizer operation cooling ahead of all chillers and includes a bypass when not in use at the building capacity when the outside air temperature is 50 degrees.
- Dual pumping variable speed chilled water pumps to provide chilled water to modular VAV air handling units on each floor.
- Heat will be provided at all perimeter zones by electric resistant heaters at each perimeter fan powered VAV box.
- Interior zones will be serviced by cooling only VAV boxes above ceiling.



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ELECTRICAL

- New incoming service shall be provided underground and will be 277/480 volts.
- The electrical service shall be grounded as required by the National Electrical Code and surge protection will be provided for all panels.
- Each floor shall have panel circuit boards suitable for housekeeping power, core outlets, toilet outlets and 20 amp circuits as required to provide 4.0 watts per square foot of 120/208 power to tenant space (thru 4/42 circuit parcels) per floor and a 112 KVA transformer.
- Generator set shall be sized for all high-rise emergency requirements and shall be capable of running two additional tenant floors at full load including lights and HVAC rated standby 227/480 volt three-phase 4 wire, diesel system, 24-hour day tank.
- Electrical lighting will be LED at all public areas.