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| **Project** | **:** |  |
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| **Project Team** | **:** |  |
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| **Project No.** | **:** |  |
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| **Project Architect** | **:** |  |
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| **Mechanical Engineer** | **:** |  |
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| **Electrical Engineer** | **:** |  |
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| **Structural Engineer** | **:** |  |
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| **Civil Engineer** | **:** |  |
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| **Project Phase** | **:** |  |

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**M.E.P PROJECT – CHECKLIST**

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| **Project** | **:** |  |
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| **Project Team** | **:** |  |
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| **Project No.** | **:** |  |
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| **Project Architect** | **:** |  |
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| **Mechanical Engineer** | **:** |  |
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| **Electrical Engineer** | **:** |  |
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| **Structural Engineer** | **:** |  |
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| **Civil Engineer** | **:** |  |
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| **Project Phase** | **:** |  |

 **Coordinated**

1. **Plan Check MECHANICAL AND PLUMBING - Verify that: Yes No N/A BY Date**
2. Division 15 floor plans match architectural floor plans. ( )
3. New gas, water, sewer, etc., lines connect to existing ( ) ( ) ( ) ( )

 or new utilities on civil drawing

1. Plumbing fixtures match plumbing schedules and ( ) ( ) ( ) ( )

 architectural locations.

1. Roof drain locations and roof slopes match architectural ( ) ( ) ( ) ( )

 Roof plan.

1. Firewall locations match architectural. Type wall also ( ) ( ) ( ) ( )
2. Wall chases are provided on architectural to conceal

Vertical piping ( ) ( ) ( ) ( )

1. Sanitary drain system pipes are sized and all fixtures

Are connected. ( ) ( ) ( ) ( )

1. HVAC floor plans match architectural. ( ) ( ) ( ) ( )
2. Sprinkler heads are in appropriate room and do not

Interfere with other ceiling items. Heads are pop down

 flush type. ( ) ( ) ( ) ( )

1. Mechanical/plumbing ducts and pipes do not conflict with

Architectural features or structural members. ( ) ( ) ( ) ( )

1. Adequate ceiling height exists at worst case duct intersection

or largest beam. ( ) ( ) ( ) ( )

1. Structural supports required for mechanical equipment

are indicated on structural drawing. ( ) ( ) ( ) ( )

1. Dampers are indicate at smoke and fire walls. ( ) ( ) ( ) ( )
2. Diffuser locations match architectural reflected ceiling plans.( ) ( ) ( ) ( )

**Coordinated**

 **Yes No N/A By Date**

1. Openings for roof penetrations (ducts, fans, etc.) are indicated

On structural roof plans. ( ) ( ) ( ) ( )

1. Notes are referenced. ( ) ( ) ( ) ( )
2. Air conditioning units, heaters, and exhaust fans match

Architectural roof plan. ( ) ( ) ( ) ( )

1. Mechanical equipment will fit in spaces allocated and that ( ) ( ) ( ) ( )

There is room For maintenance such as removing filters or tubes.

1. Horsepower ratings, phases, and voltages of major items of

Equipment on mechanical and electrical drawings and

specifications match ( ) ( ) ( ) ( )

1. Thermostat locations have been coordinated with ( ) ( ) ( ) ( )

 architectural drawings

1. Verify and coordinate building roof drain line connecting to

Storm system. ( ) ( ) ( ) ( )

1. Verify all under slab roof drain and other storm line ( if ( ) ( ) ( ) ( )

Location outside of building limits is impractical) are cast

Iron by Division 15.

1. Confirm nature and extend of potential conflicts in elevations ( ) ( ) ( ) ( )

Between underground site utilities including underground

Electrical duct banks.

1. Locate all underground utilities a minimum of 36’’ below grade ( ) ( ) ( ) ( )

At mobile technology sites.

1. Confirm two source water feed on hospital sites to meet code ( ) ( ) ( ) ( )

requirement for dual fire protection feed.

1. Verify that static and residual water pressures on the site ( ) ( ) ( ) ( )

( building and street hydrants ) have been verified.

1. Check for interference with underground utilities and ( ) ( ) ( ) ( )

grade beams.

1. Crawl space depth to be sufficient for personnel movement ( ) ( ) ( ) ( )

Below cast iron and other utility work.

1. Ascertain impact of all new underground utilities on pavement, ( ) ( ) ( ) ( )

Curbs, traffic flow, etc. coordinate with architectural phasing plans.

1. Confirm all post indicator valves have supervisory switch tie-ins. ( ) ( ) ( ) ( )
2. Determine extent, nature and requirements for new utility ( ) ( ) ( ) ( )

Penetrations through existing foundation walls. Structural Engineer input

1. Site fire hydrant locations to be approved by local fire marshal. ( ) ( ) ( ) ( )
2. If boilers are oil fed, confirm that oil tank and day tank ( ) ( ) ( ) ( )

Configuration allows for low temperature supply.

1. Confirm status and responsibility for existing underground ( ) ( ) ( ) ( )

fuel oil storage tank removal. New tanks to be above ground.

1. Check for interference between drain lines/footing etc. ( ) ( ) ( ) ( )
2. Cross check architectural crawlspace extent against that ( ) ( ) ( ) ( )

Shown on mechanical plans.

1. Confirm site survey shows depth of all Division ( ) ( ) ( ) ( )

15 underground utilities.

1. Confirm locations of the following exterior building items

Against architectural plans:

1. Overflow Drains ( ) ( ) ( ) ( )
2. Fire Hydrants and Standpipe station ( ) ( ) ( ) ( )
3. Hose Spigots ( ) ( ) ( ) ( )
4. Irrigation System Components. ( ) ( ) ( ) ( )
5. Double check architectural storm drainage structure numbers ( ) ( ) ( ) ( )

And locations against architectural and civil storm drainage plans.

1. Confirm new underground utilities do not conflict with light poles ( ) ( ) ( ) ( )
2. Check for adequate clearance between new and existing ( ) ( ) ( ) ( )

underground utilities and new grade elevation. Check loading

docks. Pit depths.

1. Confirm city tie-in requirements for new utilities out to street ( ) ( ) ( ) ( )

Show actual tie-ins and who is responsible.

1. Code water meter pit locations against new sidewalk. ( ) ( ) ( ) ( )
2. Verify standpipe hose cabinets (with extinguisher) have been ( ) ( ) ( ) ( )

provided per code. Check against architectural. If fed from

bottom, not to be over beam. Confirm wall depth.

1. Confirm State requirements for sprinkler protection in

the following areas:

1. Operating Rooms ( ) ( ) ( ) ( )
2. Electrical Gear Rooms ( ) ( ) ( ) ( )
3. Computer Rooms ( ) ( ) ( ) ( )
4. Elevator shafts ( ) ( ) ( ) ( )

Verify if Halon systems are allowed by the State and

E.P.A. In the following:

1. Computer Rooms ( ) ( ) ( ) ( )

2. M.R.I. and other sensitive equipment Rooms ( ) ( ) ( ) ( )

 E. X-ray film file rooms are to be water sprinklered ( ) ( ) ( ) ( )

 46. Confirm fire pump size, amperage and emergency power ( ) ( ) ( ) ( )

 Tie-in. Confirm with electrical.

47.Confirm if building is high-rise. Confirm all requirements with respect to:

 **Coordinated**

 **Yes No N/A By Date**

1. Standpipes ( ) ( ) ( ) ( )
2. Smoke Proof Towers ( ) ( ) ( ) ( )
3. Smoke Evacuation ( ) ( ) ( ) ( )
4. Etc. ( ) ( ) ( ) ( )
5. Confirm code requirements for smoke evacuation versus ( ) ( ) ( ) ( )

Removal requirements in the mechanical system. Confirm

System designed per code.

1. For vertical duct chases, confirm floor or wall dampers. ( ) ( ) ( ) ( )

Check against architectural and structural for floor

Penetrations. Rated Shafts .

1. Check for interference between angle iron bracing and

The following:

1. Perimeter ducts as exterior walls, storefronts ( ) ( ) ( ) ( )
2. Interior ducts at interior storefronts, movable

Wall, etc., framing. ( ) ( ) ( ) ( )

1. Confirm ductwork is not centered on and running parallel ( ) ( ) ( ) ( )

With rated walls.

1. All ductwork penetrations through rated walls to ( ) ( ) ( ) ( )

be perpendicular.

1. Confirm all ceiling access door requirements and locations ( ) ( ) ( ) ( )

against architectural ceiling plans.

1. In renovated construction, provide new chase space for ( ) ( ) ( ) ( )

vertical pipe runs As required.

1. Confirm all vertical chase and wall furring requirements ( ) ( ) ( ) ( )

for vertical pipe runs.

1. Overlay architectural plans on plumbing plans. Confirm ( ) ( ) ( ) ( )

Locations of all roof drains and vertical pipe runs. Confirm

Metal stud depth. Confirm recessed Architectural accessory

Location conflicts.

1. Confirm floor drain and curb locations in mechanical rooms. ( ) ( ) ( ) ( )
2. Confirm Owner preferred medical gas outlets are specified. ( ) ( ) ( ) ( )
3. Confirm medical gas zone valve box locations against ( ) ( ) ( ) ( )

architectural plans. Confirm adequate space and wall depth

for installation.

1. Confirm roof top mechanical equipment controller locations. ( ) ( ) ( ) ( )
2. Confirm sump drains provided at elevator pits and other pits ( ) ( ) ( ) ( )

as required.

1. Confirm mechanical room louver requirements. Size, location,( ) ( ) ( ) ( )

blank off panels and airflow resistance.

1. Provide acoustical separation for interior mechanical rooms. ( ) ( ) ( ) ( )
2. Confirm Owner requested deep , double sink locations. ( ) ( ) ( ) ( )

Provide adequate cabinet depth.

1. Confirm film processor rough-in and vent requirements. ( ) ( ) ( ) ( )
2. Confirm adequate air flow for high B.T.U. areas such as labs ( ) ( ) ( ) ( )

film illuminator banks, computer rooms, telecommunication

llosets, etc. Computer rooms to be maintained at 60 degree F

Confirm requirements with Owner. Check electrical drawing

for location.

1. Confirm all Biological Hood venting, utility airflow ( ) ( ) ( ) ( )

requirements . Provide drains as needed.

1. In Laboratories, confirm histology tabletop venting ( ) ( ) ( ) ( )

 requirements

1. Confirm all clean-out locations. Locate so as not to occure ( ) ( ) ( ) ( )

In public spaces. In carpeted areas, provide with carpet plug.

1. Confirm all handicapped toilet, lavatory locations. ( ) ( ) ( ) ( )
2. Confirm Owner requested bed pan flushing requirements ( ) ( ) ( ) ( )

on toilets

1. Confirm routing of all utilities to exterior wall fan coil units. ( ) ( ) ( ) ( )
2. Confirm how linear diffusers are to interface with ( ) ( ) ( ) ( )

ceiling grids. To one side of spline, split the tile, or take the

place of the spline. Include nite on details.

1. No ductwork over radiology rooms. ( ) ( ) ( ) ( )
2. Confirm all medical gas placements coincide with ( ) ( ) ( ) ( )

Architectural elevations and owner requirements.

1. Check all fixed hospital equipment locations. ( ) ( ) ( ) ( )
2. Confirm scrub sinks have adequate wall space ( ) ( ) ( ) ( )

for 6” each side.

1. Confirm glass shading coefficients and room top insulation ( ) ( ) ( ) ( )

Values with Architectural plans.

1. For laboratory and pharmacy casework, double check ( ) ( ) ( ) ( )

Connection and installation requirements, i.e.: who

Furnishes traps, tailpieces, etc.; and who installs.

1. Confirm methods employed for vibration isolation of ( ) ( ) ( ) ( )

mechanical equipment. Do not locate mechanical units at

midspan in long direction. Confirm concerns with

Structural Engineer.

1. For firestopping purposes, confirm mechanical and ( ) ( ) ( ) ( )

Demolition drawings provided enough information for

Adequste firestopping bid.

1. At pediatric rooms, confirm negative pressure rooms. ( ) ( ) ( ) ( )
2. Identify all negative pressure isolation rooms. ( ) ( ) ( ) ( )

 **Coordinated**

 **Yes No N/A BY Date**

1. Check de-watering requirements for deep underground ( ) ( ) ( ) ( )

Utilities against subsurface report.

1. Confirm patient room handicapped fiberglass shower locations ( ) ( ) ( ) ( )

Against ceramic tile showers.

1. In renovation, confirm existing ceilings that are removed, ( ) ( ) ( ) ( )

Reinstalled for installation of new services. Confirm who patches.

1. All public toilets wall mounted unless owner approves otherwise. ( ) ( ) ( ) ( )
2. Floor mounted toilets at all two-hour wall unless Architect ( ) ( ) ( ) ( )

approves .

1. On demolition plans, confirm fixtures removed, remaining. ( ) ( ) ( ) ( )

Check against architectural demolition plans.

1. Confirm building steam, steam traps at sterilizers. ( ) ( ) ( ) ( )
2. Overlay structural framing plan on plumbing plans to confirm ( ) ( ) ( ) ( )

drain lines do not occur over beams.

1. In demolition, confirm extent of existing wall and hard ceiling ( ) ( ) ( ) ( )

patchwork fir new utility installation and tie in. Follow utilities

down through floor slab.

1. On roofs designed for vertical expansion, ensure all vent stacks ( ) ( ) ( ) ( )

are located outside of column cap extension enclosures.

1. Confirm Division 15 provided sterilizer exhaust hood need and ( ) ( ) ( ) ( )

requirements. Check ceiling heights.

1. In demolition, confirm new fire dampers in existing walls that ( ) ( ) ( ) ( )

are upgraded.

1. Confirm U.L. labeled ceiling, floor or roof assembly locations. ( ) ( ) ( ) ( )

Confirm U.L. Alternare A or B duct penetration protection provided.

1. Check ductwork configuration at operating rooms for ( ) ( ) ( ) ( )

Interference with light, gas column supports.

1. Confirm water cooler locations. Check against architectural. ( ) ( ) ( ) ( )
2. Clearance for coil pull out in mechanical rooms provided. ( ) ( ) ( ) ( )
3. Interlock wiring on lab fume and biological cabinets. ( ) ( ) ( ) ( )
4. Confirm thermostat cover types with Owner. ( ) ( ) ( ) ( )
5. Oxygen and vacuum outlets are spaced properly. Slides ( ) ( ) ( ) ( )

placement works with Owner vacuum equipment.

1. Mechanical rooms are ventilated. ( ) ( ) ( ) ( )
2. Corrosion resistant ductwork at chemical storage exhaust. ( ) ( ) ( ) ( )
3. Indoor air quality meets ASHRAE Standard 62-89. ( ) ( ) ( ) ( )
4. Medical gas certification from Owner prior to renovation. ( ) ( ) ( ) ( )
5. Mechanical loads for renovation based on existing envelope. ( ) ( ) ( ) ( )
6. Does building meet energy design code requirements. ( ) ( ) ( ) ( )
7. Adjustable shivs on A.H.U. fan pulleys to facilitate static ( ) ( ) ( ) ( )

pressure adjustments at Test & Balance. Also final filters

replaced during test and balance.

 **Coordinated**

 **Yes No N/A BY Date**

1. Kitchen hoods specified and furnished under Division 15 ( ) ( ) ( ) ( )

for balance reason .

1. Architect /Owner has reviewed cut sheets on all plumbing ( ) ( ) ( ) ( )

fixtures.

1. Sterilizers to be piped in to allow for required clearances. ( ) ( ) ( ) ( )
2. Vacuum slides specified without backboxes. ( ) ( ) ( ) ( )
3. Condition of existing risers verified prior to renovation. ( ) ( ) ( ) ( )

Secure direction from Owner for replacement.

1. Investigate means of existing support for pipe, conduit, etc. ( ) ( ) ( ) ( )

Cover in contract documents.

1. Engineer needs to review Architect front end specification. ( ) ( ) ( ) ( )

Coordinate for submittals, substantial completion of

System, warranties , etc.

1. Vibration Isolation. Acoustical tests for all mechanical room ( ) ( ) ( ) ( )

and other isolated equipment.

1. Carpet markers at all floor cleanouts in carpet. ( ) ( ) ( ) ( )
2. Precast terrazzo clinical bases specified under Division 15. ( ) ( ) ( ) ( )
3. Mop basins have tile flanges. Mop basins specified fit in rooms. ( ) ( ) ( ) ( )
4. Offset traps specified at all lavatory counters with sloping skirts.( ) ( ) ( ) ( )
5. Drain line can get down in outside column enclosures. ( ) ( ) ( ) ( )
6. Rough-in countertop ice machines from below. ( ) ( ) ( ) ( )
7. Ceiling lights are to be shown on mechanical plans. ( ) ( ) ( ) ( )
8. Roof drain leaders are extended out to storm lines in field. ( ) ( ) ( ) ( )

Not just stop at 5’ outside building.

1. All cast-iron storm sewer work is picked up under Division 15. ( ) ( ) ( ) ( )
2. Vacuum breaker assemblies for clinical sinks do not interfere ( ) ( ) ( ) ( )

With wall cabinetry above.

1. All ductwork and piping over 2” in diameter passes thru rated ( ) ( ) ( ) ( )

Wall at 90-degree agle.

1. Piping sleeve details thru rated walls approved by code ( ) ( ) ( ) ( )

Authorities.

1. Pneumatic control systems and materials approved by Owner’s ( ) ( ) ( ) ( )

Maintenance staff.

1. Trial operational and seasonal change over periods of time are ( ) ( ) ( ) ( )

Established for all new mechanical systems prior to Substantial

Completion acceptance.

1. Medical gas riser valves identified to meet code requirements. ( ) ( ) ( ) ( )

Establish multiple certifications for phased construction.

1. Do not tie new pneumatic control systems into existing ( ) ( ) ( ) ( )

equipment

 **Coordinated**

 **Yes No N/A BY Date**

1. Interlock wiring provided for all biological/hot lab hoods. ( ) ( ) ( ) ( )
2. Chemical storage areas are exhausted directly into the outside. ( ) ( ) ( ) ( )
3. X-ray rom medical gases are located behind the table. ( ) ( ) ( ) ( )
4. Provide at least two vacuum outlets and one scavenger vacuum ( ) ( ) ( ) ( )

Outlet for each procedure or operating room.

1. Disconnects provided at all roof top fans and other monitors. ( ) ( ) ( ) ( )
2. All fire protection valves are supervised. Chains not permitted. ( ) ( ) ( ) ( )
3. Minimum two season balance of HVAC systems specified. ( ) ( ) ( ) ( )
4. Elevator shafts sprinklered per code. ( ) ( ) ( ) ( )
5. A.H.U. shut down switches at Nurses Station. Confirm smoke ( ) ( ) ( ) ( )

evacuation considerations.

1. Fire alarm matrix is prepared by mechanical Engineer and ( ) ( ) ( ) ( )

Coordinated with Electrical Engineer. Covered in Specs.

1. Elevator shafts above code levels are vented ( ) ( ) ( ) ( )
2. Vacuum slides specified without backboxes. ( ) ( ) ( ) ( )
3. Eyewash stations per OSHA are provided in all labs and Film ( ) ( ) ( ) ( )

Processing rooms.