Exhibit K

Mechanical, Electrical, Plumbing, and Fire Protection Assessment for Reuse Scenarios by Edwards & Zuck Consulting Engineers

Edwards & Zuck

1904 SANSOM MEP/FP Reuse Building Narratives

October 12th 2015

Edwards & Zuck

1904 SANSOM MEP/FP Narrative Option 1 (Restaurant):

DESCRIPTION

The function of the new building is understood to be Restaurant/Retail type occupancy and is comprised of one restaurant with a storage/ mechanical and back of house area. The total square footage of the building is listed as 2,506 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 600-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) Direct metering shall be provided for the restaurant tenant rs located in the main electrical service room.
   c) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new base building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) An elevator re-call system shall be included.
   c) New ansul systems shall be monitored by the new Fire Alarm system via monitoring modules. Fan shutdown relays shall be provided for all fans over 2000 CFM.

3) Mechanical

   a) A 5 ton VRF system with heat recovery for each restaurant floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted to diffusers.
   b) An outside air ERV unit (+/- 1,500 CFM) to provide ventilation to each restaurant floor, basement & a duct riser from each floor to each unit.
   c) A 2 ton VRF system with heat recovery the Basement storage room. The air cooled condenser will be located on the roof, with the indoor ceiling concealed units ducted diffusers.
   d) A toilet exhaust fan (+/-500 CFM) & duct riser to both restaurant floors & restaurant BOH. Terminate with gravity damper & gooseneck on roof.
   e) A BOH basement general exhaust fan (+/- 200 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.

f) An elevator machine room heat pump split unit (+/- 2 tons).
g) A mechanical equipment room unit heater (4KW).
h) A 10,000 CFM kitchen exhaust hood system for the restaurant kitchen BOH floor. Exhaust fan & indirect gas fired make up air unit with DX cooling on the roof.

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the storage area of the proposed building. The Domestic Water service shall be provided with a water meter & backflow preventer. Domestic cold water shall be provided to the restaurant by means of street pressure.
b) A new Natural Gas service shall be installed within the storage area. One gas meter shall be installed for the each restaurant tenant.
c) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
d) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire Water for the building shall be provided by means of a new Combined Domestic Water & Fire Water service. The Fire Water service shall be provided with a backflow preventer. All sprinklers in the building shall be fed from street pressure.
b) The building will be fully sprinklered throughout, with the restaurant tenant having their own sprinkler floor control valve assembly. Design criteria shall be light hazard occupancy (0.10 gpm/sq.ft.).

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1904 SANSOM MEP/FP Narrative Option 2 (Retail):

DESCRIPTION

The function of the new building is understood to be Retail type occupancy and is comprised of three retail units varying from 790 USF to 926 USF, and a storage/ mechanical and back of house area. The total square footage of the building is listed as 2,506 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 800-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) Direct metering shall be provided for each of the three retail tenants via three utility meters located in the main electrical service room. Each retail tenant shall be provided with 225 amps of electrical power for food prep, general lighting, plugs, and decorative display lighting.
   c) An additional direct meter configuration shall be provided for the house loads (elevator, hallway lighting, storage, BOH areas, etc.)
   d) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new base building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) An elevator re-call system shall be included.

3) Mechanical

   a) A 5 ton VRF system with heat recovery for each retail floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted to diffusers.
   b) An outside air ERV unit (+/- 1,250 CFM) to provide ventilation to each restaurant floor, basement & a duct riser from each floor to each unit.
   c) A 2 ton VRF system with heat recovery the Basement storage room. The air cooled condenser will be located on the roof, with the indoor ceiling concealed units ducted diffusers.
   d) A toilet exhaust fan (+/-300 CFM) & duct riser to all office floors. Terminate with gravity damper & gooseneck on roof.
   e) A BOH basement general exhaust fan (+/- 200 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.

f) An elevator machine room heat pump split unit (+/- 2 tons).
g) A mechanical equipment room unit heater (4KW).

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the storage area of the proposed building. The Domestic Water service shall be provided with a water meter & backflow preventer. Domestic cold water shall be provided to each retail tenant by means of street pressure.
b) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
c) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire Water for the building shall be provided by means of a new Combined Domestic Water & Fire Water service. The Fire Water service shall be provided with a backflow preventer. All sprinklers in the building shall be fed from street pressure.
b) The building will be fully sprinklered throughout, with each retail tenant having their own sprinkler floor control valve assembly. Design criteria shall be light hazard occupancy (0.10 gpm/sq.ft.).

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1904 SANSOM MEP/FP Narrative Option 3 (Residential):

DESCRIPTION

The function of the new building is understood to be Residential occupancy and is comprised of of 3 rental units of 1,352 USF each. The total square footage of the building is listed as 4,056 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 400-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) Direct metering shall be provided for each of the 3 rental apartments via a meter array located in the main electrical service room.
   c) One additional direct meter configuration shall be provided for the house loads in the cellar for back of house areas.
   d) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new base building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) An elevator re-call system shall be included.
   c) Local Smoke/CO detectors shall be wired locally to each rental unit and shall be stand-alone from the rest of the addressable base building system.

3) Mechanical

   a) A 4 ton VRF system with heat recovery for each residential floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted to diffusers.
   b) An outside air ERV unit (+/- 700 CFM) to provide ventilation to each residential floor, basement & a duct riser from each floor to each unit.
   c) A 3 ton VRF system for the Basement storage room. The air cooled condenser will be located on the roof, with the indoor ceiling concealed units ducted diffusers.
   d) A toilet exhaust fan (+/-300 CFM) & duct riser to the three residential floors. Terminate with gravity damper & gooseneck on roof.
   e) A kitchen exhaust fan (+/-300 CFM) & duct riser to the three residential floors. Terminate with gravity damper & gooseneck on roof.

f) A BOH basement general exhaust fan (+/- 100 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the storage area of the proposed building. The Domestic Water service shall be provided with a water meter & backflow preventer. Domestic cold water shall be provided to each residence & metered, by means of street pressure.
b) An electric or gas hot water storage heater will be provided within each residential unit.
c) A new Natural Gas service shall be installed within the storage area. One gas meter shall be installed for each residence.
d) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
e) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire water for the building shall be provided by means of a new Combined Domestic Water & Fire Water service. The Fire Water service shall be provided with a backflow preventer. All sprinklers in the building shall be fed from street pressure.
b) The building will be fully sprinklered throughout. Design criteria shall be light hazard occupancy (0.10 gpm/sq.ft.).

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1904 SANSOM MEP/FP Narrative Option 4 (Office):

DESCRIPTION

The function of the building is understood to be Business occupancy and is comprised of three office floors which are each 926 USF. The building will also have a back of house storage area in the cellar. The total square footage of the building is listed as 2,778 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 400-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) The incoming service shall be monitored by one utility and customer meter. Each of the office floors shall be sub-metered. The respective office tenants shall be charged for their electrical usage by the base-building.
   c) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) An elevator re-call system shall be included.
   c) All initiation and indication devices installed throughout office floors shall be tied into base-building system.

3) Mechanical

   a) A 5 ton VRF system with heat recovery for each office floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted to diffusers.
   b) An outside air ERV unit (+/- 700 CFM) to provide ventilation to each office floor, basement & a duct riser from each floor to each unit.
   c) A 2 ton VRF system with heat recovery the Basement storage room. The air cooled condenser will be located on the roof, with the indoor ceiling concealed units ducted diffusers.
   d) A toilet exhaust fan (+/-300 CFM) & duct riser to office floors. Terminate with gravity damper & gooseneck on roof.
   e) A BOH basement general exhaust fan (+/- 100 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
   f) An elevator machine room heat pump split unit (+/- 2 tons).

g) A mechanical equipment room unit heater (4KW).

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the storage area of the proposed building. The Domestic Water service shall be provided with a water meter & backflow preventer. Domestic cold water shall be provided to each office floor by means of street pressure.
b) An electric hot water heater shall be provided for each office floor toilet room.
c) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
d) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire water for the building shall be provided by means of a new Combined Domestic Water & Fire Water service. The Fire Water service shall be provided with a backflow preventer. All sprinklers in the building shall be fed from street pressure.
b) The building will be fully sprinklered throughout. Design criteria shall be light hazard occupancy (0.10 gpm/sq.ft.).

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1906-16 SANSOM MEP/FP Reuse Building Narratives

October 12th 2015

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1906-16 SANSOM MEP/FP Narrative Option 1 (Rentals):

DESCRIPTION

The function of the new building is understood to be Residential occupancy and is comprised of 18 rental units ranging from 625sf to 1,003 USF each, a public lobby area, and a leasing/loading/back of house area with storage. The total square footage of the building is listed as 15,425 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 600-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) Direct metering shall be provided for each of the 12 rental apartments via a meter array located in the main electrical service room.
   c) Two additional direct meter configurations shall be provided, one for the leasing area, and the other for the house loads (elevators, hallway lighting, lobby, BOH areas, etc.)
   d) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new base building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) An elevator re-call system shall be included.
   c) Local Smoke/CO detectors shall be wired locally to each rental unit and shall be stand-alone from the rest of the addressable base building system.

3) Mechanical

   a) PTAC heat pump units for all the apartment floors. Each apartment will have a total of two tons of cooling.
   b) A 3 ton corridor VRF heat pump system. The air cooled condenser will be located on the roof, with the indoor units ducted to diffusers on each floor.
   c) An 8 ton VRF heat pump system with heat recovery for the first floor and basement. The air cooled condenser will be located on the roof, with the indoor units ducted to diffusers on each floor.
   d) A toilet exhaust fan (+/-750 CFM) & duct riser to all apartments. Terminate with gravity damper & gooseneck on roof.
   e) A trash room exhaust fan (+/-200 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.

f) A loading dock exhaust fan (+/- 500 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
g) A BOH 1st floor and basement general exhaust fan (+/- 250 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
h) A toilet exhaust fan (+/-250 CFM) & duct riser serving the 1st floor and basement. Terminate with gravity damper & gooseneck on roof.
i) An outside air ERV unit (+/- 2,000 CFM) for all corridors, ground floor & basement ventilation with a duct riser.
j) An elevator machine room heat pump split unit (+/- 2 tons).
k) A mechanical room unit heater (4KW).

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the back of house area of the proposed building. The Domestic Water service shall be provided with a water meter, backflow preventer & booster pump to provide adequate water pressure throughout the entire building. Domestic cold water shall be provided to all apartments & will be metered.
b) A central domestic hot water heating system shall be provided within the back of house area. Central hot water shall be provided to all apartments & will be metered.
c) A new Natural Gas service shall be installed within the back of house area. Separate gas meters shall be installed for each apartment.
d) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap, & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures unable to connect to the house drain line by gravity.
e) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire Water for the building shall be provided from the combined domestic & fire water service. A new backflow preventer shall be installed on the fire service. A new fire pump located within the back of house area of the proposed new building shall provide water to the combined Fire Standpipe & Sprinkler system.
b) A Class I fire standpipe system shall be installed throughout, with 2-1/2" hose valve within the stairwells.
c) A dry pipe sprinkler valve shall be installed within the back of house area to protect the loading dock.
d) The building will be fully sprinklered throughout. Design criteria shall be light hazard (0.10 gpm/sq.ft.)

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1906-16 SANSOM MEP/FP Narrative Option 2 (Condominiums):

DESCRIPTION

The function of the building is understood to be Residential occupancy and is comprised of multiple condominiums each ranging from 1,100 to 1,508 USF, a public lobby area, and a leasing/loading/back of house area with storage. The total square footage of the building is listed as 15,617 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 600-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) Direct metering shall be provided for each of the 6 condominiums via a meter array located in the main electrical service room.
   c) Two additional direct meter configurations shall be provided, one for the leasing area, and the other for the house loads (elevators, hallway lighting, lobby, BOH areas, etc.)
   d) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new base building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) An elevator re-call system shall be included.
   c) Local Smoke/CO detectors shall be wired locally to each condominium and shall be stand-alone from the rest of the addressable base building system.

3) Mechanical

   a) A 4 ton VRF system for each condo floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted to linear diffusers.
   b) An 8 ton VRF heat pump system with heat recovery for the first floor and basement. The air cooled condenser will be located on the roof, with the indoor units ducted to diffusers on each floor.
   c) A toilet exhaust fan (+/-750 CFM) & duct riser to all condos. Terminate with gravity damper & gooseneck on roof.
   d) A kitchen exhaust fan (+/-600 CFM) connected to kitchen hoods at every condo unit. Terminate with gravity damper & gooseneck on roof.
   e) A trash room exhaust fan (+/-200 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.

f) A loading dock exhaust fan (+/-500 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
g) A BOH 1st floor and basement general exhaust fan (+/-250 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
h) A toilet exhaust fan (+/-250 CFM) & duct riser serving the 1st floor and basement. Terminate with gravity damper & gooseneck on roof.
i) An outside air ERV unit (+/-1,200 CFM) for all condos ventilation with a duct riser.
j) An outside air ERV unit (+/-1,000 CFM) for ground floor & basement ventilation with a duct riser.
k) An elevator machine room heat pump split unit (+/- 2 tons).
l) A mechanical equipment room unit heater (4KW).

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the back of house area of the proposed building. The Domestic Water service shall be provided with a water meter, backflow preventer & booster pump to provide adequate water pressure throughout the entire building. Domestic cold water shall be provided to all condos & will be metered.
b) A central domestic hot water heating system shall be provided within the back of house area. Central hot water shall be provided to all condos & will be metered.
c) A new Natural Gas service shall be installed within the back of house area. Separate gas meters shall be installed for each condo.
d) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap, & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
e) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire Water for the building shall be provided from the combined domestic & fire water service. A new backflow preventer shall be installed on the fire service. A new fire pump located within the back of house area of the proposed new building shall provide water to the combined Fire Standpipe & Sprinkler system.
b) A Class I fire standpipe system shall be installed throughout, with 2-1/2" hose valve within the stairwells.
c) A dry pipe sprinkler valve shall be installed within the back of house area to protect the loading dock.
d) The building will be fully sprinklered throughout. Design criteria shall be light hazard (0.10 gpm/sq.ft.).

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1906-16 SANSOM MEP/FP Narrative Option 3 (Office):

DESCRIPTION

The function of the building is understood to be Business occupancy and is comprised of six office floors each 2,800 USF, a public lobby area, and a leasing/loading/back of house area with storage. The total square footage of the building is listed as 16,895 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 800-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) The incoming service shall be monitored by one utility and customer meter. Each of the office floors shall be sub-metered. The respective office tenants shall be charged for their electrical usage by the base-building.
   c) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) An elevator re-call system shall be included.
   c) All initiation and indication devices installed throughout office floors shall be tied into base-building system.

3) Mechanical

   a) A 5 ton VRF system for each office floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted diffusers in each zone.
   b) An 8 ton VRF heat pump system with heat recovery for the first floor and basement. The air cooled condenser will be located on the roof, with the indoor units ducted to diffusers on each floor.
   c) A toilet exhaust fan (+/-1200 CFM) & duct riser to all office floors. Terminate with gravity damper & gooseneck on roof.
   d) A trash room exhaust fan (+/-200 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
   e) A loading dock exhaust fan (+/- 500 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.

f) A BOH 1st floor and basement general exhaust fan (+/- 250 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
g) A toilet exhaust fan (+/-250 CFM) & duct riser serving the 1st floor and basement. Terminate with gravity damper & gooseneck on roof.
h) An outside air ERV unit (+/- 1,500 CFM) for all office floors with a duct riser.
i) An outside air ERV unit (+/- 1,000 CFM) for the ground floor and basement ventilation with a duct riser.
j) An elevator machine room heat pump split unit (+/- 2 tons).
k) A mechanical equipment room unit heater (4KW).

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the back of house area of the proposed building. The Domestic Water service shall be provided with a water meter, backflow preventer & booster pump to provide adequate water pressure throughout the entire building. A common domestic water riser will be provided & distributed to each office floor. Each floor will be separately metered.
b) A local electric hot water heater shall be provided for each office floor toilet room. Additional hot water requirements shall be the responsibility of each office tenant.
c) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap, & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
d) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire Water for the building shall be provided from the combined domestic & fire water service. A new backflow preventer shall be installed on the fire service. A new fire pump located within the back of house area of the proposed new building shall provide water to the combined Fire Standpipe & Sprinkler system.
b) A Class I fire standpipe system shall be installed throughout, with 2-1/2" hose valve within the stairwells.
c) A dry pipe sprinkler valve shall be installed within the back of house area to protect the loading dock.
d) The building will be fully sprinklered throughout. Design criteria shall be light hazard (0.10 gpm/sq.ft.).

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1906-16 SANSOM MEP/FP Narrative Option 4 (Hotel):

DESCRIPTION

The function of the building is understood to be Hotel occupancy and is comprised of five guest room floors of about 2,606 USF, a public lobby area, hotel functions/loading/back of house area with storage. The seventh floor shall be utilized as a back of house area and mechanical areas. The total square footage of the building is listed as 13,030 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 800-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) The incoming service shall be monitored by one utility and customer meter. There will be no sub metering or separately direct metered distribution for any parts of the building.
   c) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) An elevator re-call system shall be included.
   c) All initiation and indication devices installed throughout guest rooms on all floors shall be tied into base-building system.

3) Mechanical

   a) A 5 ton VRF system with heat recovery for each hotel floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted to linear diffusers. Each corridor will be served from this system.
   b) A 3 ton VRF system with heat recovery the 7th floor BOH. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted diffusers.
   c) One 8 ton ton VRF heat pump systems with heat recovery for the first floor. The air cooled condenser will be located on the roof, with the indoor units ducted to diffusers on each floor.
   d) One 4 ton ton VRF heat pump systems with heat recovery for the basement. The air cooled condenser will be located on the roof, with the indoor units ducted to diffusers on each floor.

e) A toilet exhaust fan (+/-750 CFM) & duct riser to all hotel rooms. Terminate with gravity damper & gooseneck on roof.
f) A trash room exhaust fan (+/-200 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
g) A loading dock exhaust fan (+/- 750 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
h) A BOH 1st floor and basement general exhaust fan (+/- 350 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
i) A toilet exhaust fan (+/-250 CFM) & duct riser serving the 1st floor and basement. Terminate with gravity damper & gooseneck on roof.
j) An outside air ERV unit (+/- 1,000 CFM) for all hotel floor ventilation with a duct riser.
k) An outside air ERV unit (+/- 1,500 CFM) for ground floor & basement ventilation with a duct riser.
l) An elevator machine room heat pump split unit (+/- 2 tons).
m) A mechanical equipment room unit heater (4KW).

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the back of house area of the proposed building. The Domestic Water service shall be provided with a water meter, backflow preventer & booster pump to provide adequate water pressure throughout the entire building. Domestic cold water shall be provided to all hotel units, including back of house areas.
b) A central domestic hot water heating system shall be provided within the back of house area. Central hot water shall be provided to all hotel units, including back of house units.
c) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap, & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
d) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire Water for the building shall be provided from the combined domestic & fire water service. A new backflow preventer shall be installed on the fire service. A new fire pump located within the back of house area of the proposed new building shall provide water to the combined Fire Standpipe & Sprinkler system.
b) A Class I fire standpipe system shall be installed throughout, with 2-1/2" hose valve within the stairwells.
c) A dry pipe sprinkler valve shall be installed within the back of house area to protect the loading dock.

d) The building will be fully sprinklered throughout. Design criteria shall be light hazard (0.10 gpm/sq.ft.).

Edwards & Zuck

1918-20 SANSOM MEP/FP Reuse Building Narratives

October 12th 2015

Edwards & Zuck

1918-20 SANSOM MEP/FP Narrative Option 1 (Restaurant-Retail):

DESCRIPTION

The function of the new building is understood to be Retail/Restaurant type occupancy and is comprised of 2 separate tenants each making up about 2,156 USF, and a storage area located in the cellar. The total square footage of the building is listed as 4,312 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 1000-amps. The distribution equipment shall be circuit breaker construction rated at 65KAIC.
   b) Direct metering shall be provided for each of the 2 restaurant tenants via two utility meters located in the main electrical service room.
   c) An additional direct meter configuration shall be provided for the house loads (elevator, hallway lighting, storage, BOH areas, etc.)
   d) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new base building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) An elevator re-call system shall be included.
   c) New ansul systems shall be monitored by the new Fire Alarm system via monitoring modules. Fan shutdown relays shall be provided for all fans over 2000 CFM.

3) Mechanical

   a) A 10 ton VRF system with heat recovery for each retail/restaurant floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted to diffusers.
   b) An outside air ERV unit (+/- 1,750 CFM) to provide ventilation to each restaurant/retail floor, basement & a duct riser from each floor to each unit.
   c) A 4 ton VRF system with heat recovery the Basement storage room. The air cooled condenser will be located on the roof, with the indoor ceiling concealed units ducted diffusers.

d) A toilet exhaust fan (+/-1,000 CFM) & duct riser to both restaurant floors. Terminate with gravity damper & gooseneck on roof.
e) A BOH basement general exhaust fan (+/- 350 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.
f) An elevator machine room heat pump split unit (+/- 2 tons).
g) A mechanical equipment room unit heater (4KW).
h) If the space is a restaurant, a 10,000 CFM kitchen exhaust hood system for each restaurant floor. Exhaust fan & indirect gas fired make up air unit with DX cooling on the roof.

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the storage area of the proposed building. The Domestic Water service shall be provided with a water meter & backflow preventer. Domestic cold water shall be provided to each retail/restaurant tenant & metered, by means of street pressure.
b) A new Natural Gas service shall be installed within the storage area. One gas meter shall be installed for each restaurant tenant.
c) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
d) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire Water for the building shall be provided by means of a new Combined Domestic Water & Fire Water service. The Fire Water service shall be provided with a backflow preventer. All sprinklers in the building shall be fed from street pressure.
b) The building will be fully sprinklered throughout. Design criteria shall be light hazard occupancy (0.10 gpm/sq.ft.).

Edwards & Zuck

1918-20 SANSOM MEP/FP Narrative Option 2 (Residential-Single Family):

DESCRIPTION

The function of the new building is understood to be Residential type occupancy and is comprised of 2 single family dwelling units each about 2,642 USF, and a storage area located in the cellar. The total square footage of the building is listed as 5,284 based on SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 250-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) Direct metering shall be provided for each of the 2 residential apartments via service taps located in the main electrical service room.
   c) One additional direct meter configuration shall be provided for the leasing area and the house loads (hallway lighting, storage, BOH areas, etc.)
   d) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new base building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) Local Smoke/CO detectors shall be wired locally to each rental unit and shall be stand-alone from the rest of the addressable base building system.

3) Mechanical

   a) An 8 ton VRF system with heat recovery for each residential floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted to diffusers.
   b) An outside air ERV unit (+/- 500 CFM) to provide ventilation to each residential floor, basement & a duct riser from each floor to each unit.
   c) A 3 ton VRF system for the Basement storage room. The air cooled condenser will be located on the roof, with the indoor ceiling concealed units ducted diffusers.
   d) A toilet exhaust fan (+/-300 CFM) & duct riser to both residential floors. Terminate with gravity damper & gooseneck on roof.
   e) A kitchen exhaust fan (+/-200 CFM) & duct riser to both residential floors. Terminate with gravity damper & gooseneck on roof.

f) A BOH basement general exhaust fan (+/- 250 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the storage area of the proposed building. The Domestic Water service shall be provided with a water meter & backflow preventer. Domestic cold water shall be provided to each residence & metered., by means of street pressure.
b) An electric or gas hot water storage heater will be provided for each residential tenant.
c) A new Natural Gas service shall be installed within the storage area. One gas meter shall be installed for each residence.
d) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
e) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire water for the building shall be provided by means of a new Combined Domestic Water & Fire Water service. The Fire Water service shall be provided with a backflow preventer. All sprinklers in the building shall be fed from street pressure.
b) The building will be fully sprinklered throughout. Design criteria shall be light hazard occupancy (0.10 gpm/sq.ft.).

Edwards & Zuck

1918-20 SANSOM MEP/FP Narrative Option 3 (Office):

DESCRIPTION

The function of the new building is understood to be commercial type occupancy and is going to be comprised of two office tenants totaling 4,104 usable square feet. The design includes a storage and mechanical space, along with an elevator to serve the upper tenant. This square footage is based upon the SCB sketches of September 21st, 2015. The existing services and infrastructure do not have sufficient capacity to serve the new programs and will be demolished.

1) Electrical

   a) A new Electrical service shall be coordinated with PECO and installed in the back of house area of the proposed building. The new service shall be 120/208v, 3-phase, 4-wire, 400-amps. The distribution board shall be circuit breaker construction rated at 65KAIC.
   b) The incoming service shall be monitored by one utility and customer meter. Each of the office floors shall be sub-metered. The respective office tenants shall be charged for their electrical usage by the base-building.
   c) A tap ahead of the main service switch shall be provided to serve the new fire alarm electrical distribution.

2) Fire Alarm

   a) A new addressable fire alarm system shall be installed to serve the new building architectural layout. The system shall be comprised of manual and automatic initiation devices, as well as audio/visual alarms throughout.
   b) All initiation and indication devices installed throughout office floors shall be tied into base-building system.

3) Mechanical

   a) An 8 ton VRF system with heat recovery for each office floor. The air cooled condensers will be located on the roof, with the indoor ceiling concealed units ducted to diffusers.
   b) An outside air ERV unit (+/- 1000 CFM) to provide ventilation to each office floor, basement & a duct riser from each floor to each unit.
   c) A 4 ton VRF system with heat recovery the Basement storage room. The air cooled condenser will be located on the roof, with the indoor ceiling concealed units ducted diffusers.
   d) A toilet exhaust fan (+/-600 CFM) & duct riser to office floors. Terminate with gravity damper & gooseneck on roof.
   e) A BOH basement general exhaust fan (+/- 250 CFM) & duct riser. Terminate with gravity damper & gooseneck on roof.

f) An elevator machine room heat pump split unit (+/- 2 tons).
g) A mechanical equipment room unit heater (4KW).

4) Plumbing

a) A new combined Domestic Water & Fire Water service shall be installed within the storage area of the proposed building. The Domestic Water service shall be provided with a water meter & backflow preventer. Domestic cold water shall be provided to each office floor, by means of street pressure.
b) An electric hot water heater shall be provided for each office floor toilet room.
c) A complete sanitary & venting system shall be provided for all plumbing fixtures within the building. Sanitary waste will exit the building by means of a new house drain, house trap & connection to the city municipal sewer. Duplex ejector pumps shall be provided for all fixtures below grade unable to connect to the house drain line by gravity.
d) A complete storm water system shall be provided for all areas within the property line. Storm water will be detained, as required by the authority having jurisdiction, and released to the city municipal sewer by means of a new house drain & house trap, or as required by the site civil discharge location.

5) Fire Protection

a) Fire water for the building shall be provided by means of a new Combined Domestic Water & Fire Water service. The Fire Water service shall be provided with a backflow preventer. All sprinklers in the building shall be fed from street pressure.
b) The building will be fully sprinklered throughout. Design criteria shall be light hazard occupancy (0.10 gpm/sq.ft.).