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SECTION 2.0 PROJECT DESCRIPTION

2.1 OVERVIEW OF PROPOSED GENERATING FACILITIES

LBGF will be a backup generating facility with a generation capacity of up to 99.8 MW to support the need for the LDC to provide uninterruptible power supply for its tenant's servers. The LBGF will consist of 44 diesel-fired backup generators arranged in a generation yard located on the south side of the LDC. Project elements will also include switchgear and distribution cabling to interconnect the generators to their respective portion of the buildings.

2.2 GENERATING FACILITY DESCRIPTION, CONSTRUCTION AND OPERATION

2.2.1 Site Description

The proposed LDC site encompasses approximately 15.45 acres and is located at 2825 Lafayette Street in Santa Clara, California, APN 224-04-093. There are currently two legal parcels within the project site, the northern 13.04-acre parcel located at 2825 and 2845 Lafayette Street and the southern 9.72-acre parcel located at 2805 Lafayette Street. A lot line adjustment is proposed for this project to create an expanded 15.45-acre parcel at 2825 Lafayette Street and a smaller 7.31-acre parcel at 2805 Lafayette Street.

The property is zoned Heavy Industrial. The site is currently developed with two two-story office buildings and associated paved parking and loading dock areas. The total area of the existing office buildings is approximately 326,000 square feet. The existing buildings consist of a mix of architectural styles and materials, including corrugated metal siding, wood, and stucco. The building facades are a mix of materials and architectural styles, including corrugated metal siding, wood and stucco. The project site encompasses a portion of 2805 Lafayette Street, APN 224-04-094, where a substation would be constructed as part of the LDC. There is an existing data center building at 2805 Lafayette Street that is separate from the proposed project.

The two-story office buildings at 2825 and 2845 Lafayette Street would be demolished. The address for the new building of the proposed project would be 2825 Lafayette Street. The main entrance to the 2845 Lafayette Street building is located on north side of the building facing Central Expressway, with a secondary entrance on the west side of the building facing Lafayette Street. The main entrance to the 2825 Lafayette Street building is located on east side of the building facing the railroad tracks, with a secondary entrance on the north side of the building facing Central Expressway.

A raised concrete loading dock is located on west side of the 2845 Lafayette Street building and on the south side of the 2825 Lafayette Street building. The load docks adjoin the paved driveways and paved parking arounds on the west and north side of the 2845 Lafayette Street building and on the north, east, and south side of the 2825 Lafayette Street building. The 2825 and 2845 Lafayette Street buildings share private drive lines and access to Lafayette Street.

Non-native trees and ornamental landscaping are located along the Lafayette Street frontage of the property, as well as the northern, western, and southern property boundaries. The project proposes to demolish the existing shrubs and groundcovers on the site, while protecting-in-place trees not in

conflict with proposed utilities, grading, stormwater treatment facilities, and architectural improvements.

The property is bound to the North by Central Expressway, to the South by 2403 Walsh Avenue and a pair of buildings with different industrial uses, to the East by the Union Pacific Railroad (UPRR) rail line, and to the West by Lafayette Street. The project area consists primarily of industrial land uses. Buildings in the area are similar in height and scale to the existing building on the project site. The Norman Y. Mineta San José International Airport is located approximately 0.3 miles east of the site.

2.2.2 General Site Arrangement and Layout

The 45 backup generators (44 for the data center suites, one for the PBB) will be located at the site in a generation yard adjacent to the south side of the LDC building. Figure 2-4.1 shows the general arrangement and site layout of the LBGF within the LDC site. The PBB generator will be solely connected to the administrative portion of the building located on the LDC building to the west side of the generation yard and at the northeast corner of the LDC.

Each backup generator is a fully independent package system with dedicated fuel tanks located on a skid below the generator. The generation yard will be electrically connected to the LDC building through combination of underground and above ground cable bus to a location within the building that houses electrical distribution equipment.

2.2.3 Generating Capacity

2.2.3.1 Overview

In order to determine the generating capacity of the LBGF, it is important to consider and incorporate the following critical and determinative facts.

1. The LBGF uses internal combustion engines and not turbines.
2. The LBGF internal combustion engines have a peak rating and a continuous rating.
3. The LBGF through software technology and electronic devices is controlled exclusively by the (LDC).
4. The LBGF has been designed with 11 systems with a 4-to-make-3 redundancy as described in Section 2.2.3.2
5. There is a total of 11 data center generators which are redundant.
6. The LBGF will only be operated for maintenance, testing and during emergency utility power outages.
7. The LBGF will only operate at a load equal to the demand by the LDC during an emergency utility outage.
8. The LBGF is only interconnected to the LDC and is not interconnected to the transmission or distribution grid.

2.2.3.2 *Generating Capacity and PUE*

Based on the methodology recently adopted by the Commission's Final Decisions Granting a SPPEs for the McLaren Backup Generating Facility and the Laurelwood Data Center, the maximum generating capacity of the LBGF is determined by the maximum of capacity of the load being served.

The design demand of the LDC, which the LBGF has been designed to reliably supply with redundant components during an emergency, is based on the maximum critical IT load and maximum mechanical cooling electrical load occurring during the hottest hour in the last 50 years. Such conditions are possible but extremely unlikely to ever occur. The LDC load on that worst-case day is 99.8 MW, based on 99.0 MW of load in the data center suites and 0.8 MW of load in the PBB.

As described in Section 2.2.4, there are eleven data center suites, each with four 3.0 MW (3,000 kW) generators serving each suite. Only three of the four generators are counted towards the overall capacity of the building, since the system is designed for one generator in each four-generator data center suites to be taken out of service at any moment in time (called '4-to-make-3').

Summary LBGF Calculation:

- 11 Data Center Suites x (3 Generators x 3.0 MW per Generator) = 99.0 MW
- 1 Admin/PBB System x 1 Generator x 1.0 MW per Generator x 0.8 Load Factor = 0.8 MW
- Total LBGF Load: 99.0 MW + 0.8 MW = 99.8 MW

It is important to understand that while the LDC will be designed to accommodate the full IT equipment load of the building, it is Digital Realty's experience that the customers that lease data center space from Digital Realty do not utilize the entire load identified in their lease. This typically results in Digital Realty data center demand loads between 50 and 60 percent. Therefore, a fully leased 99.8 MW data would only be expected to reach a demand load around 60 MW.

The data center industry utilizes a factor called the Power Utilization Efficiency Factor (PUE) to estimate the efficiency of its data centers. The PUE is calculated by dividing the total demand of the data center by the Critical IT load. The theoretical peak PUE for the Worst Day Calculation would be 1.50 (Total 99.0 MW demand of Building on Worst Case Day divided by 66.0 MW Total Critical IT Load). The annual PUE would be 1.42 (Total 93.8 MW demand of Building average conditions divided by 66.0 MW Design Critical IT Load). These PUE estimates are based on design assumptions and represent worst case.

As described above, the expected PUE is much lower because the Critical IT that is leased by clients is rarely fully utilized. Digital Realty's experience with operation of other data centers is that the actual PUE will be closer to 1.30.

2.2.4 Backup Electrical System Design

2.2.4.1 Overview

There will be eleven data center suites in the LDC. Each data center suite will be designed to handle 6.0 MW (megawatts) of IT equipment load. The total load of each data center suite will be 9.0 MW which includes the IT equipment load, mechanical equipment to cool the IT equipment load, lighting and data center monitoring equipment. The sum of the eleven data center suite will result in 66.0 MW of IT equipment load and 99.0 of total electrical load.

The load in each data center suite will be served by four electrical “capacity groups” with each electrical capacity group sized at 3.0 MW (3,000 kW) of total power. An electrical capacity group consists of one 3,000 kW generator, one 3,000 kW 12kV-480V medium voltage transformer, one 4,000 ampere 480 volt service switchboard and a 2,000 kW uninterruptible power supply (UPS) system.

The IT equipment will have dual cords that will take power from two different capacity groups. The dual cords are designed to evenly draw power from both cords when power is available on both cords, and automatically draw all of its power from a single cord when power becomes un-available on the other cord.

The data center suite will be designed to continue supporting all of the IT equipment load in the suite when one of the four capacity groups is either scheduled to be out-of-service for maintenance or becomes un-available due to equipment failure. Therefore, the 12.0 MW of total power installed for each data center suite effectively provides only 9.0 MW of total power.

The dual corded IT equipment load gets power from two different capacity groups. Six different cord configurations are used to evenly balance the loads between these pairs of capacity groups: A-B, A-C, A-D, B-C, B-D and C-D.

As an example of the electrical system design, when electrical capacity group A becomes un-available, the IT equipment connected to the A and B electrical capacity group will automatically shift its entire load to the B electrical capacity group. IT equipment connected between the A-C and A-D electrical capacity groups also performs a similar power transfer in the event of an A capacity group failure.

As part of the electrical design, the IT equipment load that started on electrical capacity group A is evenly transferred to the B capacity group (750 kW), C capacity group (750 kW) and D capacity group (750 kW). To allow for this power transfer, each electrical capacity group can only be loaded to 75 percent (2,250 kW of the 3,000 kW electrical capacity group capacity).

The electrical load on each electrical capacity group is monitored by the building automation system. When the any of the electrical capacity groups reach 67.5 percent loaded (based on 90 percent of the 75 percent maximum loading under normal operation), an alarm is activated in the engineering office. The operations staff will work with the tenants to ensure that the leased power levels are not exceeded.

The consequence of electrical capacity groups exceeding 75 percent loaded could lead to dropping IT equipment when coupled with a capacity group failure event. If all the capacity groups serving a data center suite (four capacity groups) are loaded over 75 percent and an electrical capacity group fails, the resulting load transferring to the three available capacity group would exceed the rating of the capacity groups and would lead to over-current protection devices tripping open due to the overload condition. Therefore, it is vital to the reliability of the data center to make sure that all capacity groups remain below 75 percent loaded.

2.2.4.2 *Utility-to-Generator Transfer Control Components and Logic*

In an outdoor rated switchboard located next to the Generator Alternator, there will be a Load Disconnect Breaker that is Normally Closed while the generator is both in and out of operation. From that load disconnect, 480V rated power cable bus, rated for the full ampacity output rating of the generator, will traverse from the generator to a Generator Switchboard, and then into the data center facility terminating on a dedicated Main Generator Input Breaker.

The generator switchboard includes a load bank breaker, allowing each generator to be individually connected to a load bank for periodic maintenance and testing. This breaker is an electrically operated breaker that is normally open when the generator is not in operation, and the Main Switchboard has not requested generator power.

This Generator Main Breaker is electrically interlocked with an adjacent Utility Transformer Main Breaker to allow only one of the Breakers to closed at any time. Upon the loss of utility power, the PLC transfer controller will send a start signal to the generator, followed by the Utility Breaker opening, followed by a confirmation that the generator has started leading to the Generator Main Breaker being closed.

Once the Generator Main Breaker is closed, the power created from the individual generator is then transmitted to the IT equipment (via a 2.0 MW (2,000 kW) uninterruptable power supply (UPS) system) and mechanical equipment designed to cool the IT equipment load served by the UPS. This load is the same load that the dedicated Utility Transformer was supplying power to prior to the utility interruption. Power from this individual generator cannot be transferred to any other load or system, or anywhere outside the facility.

The uninterruptible power supply (UPS) system includes back-up batteries sized for five minutes of battery back-up time. During the time between a transfer between utility and generator power, the UPS system continues to support the IT equipment load without interruption. During a utility-to-generator transfer, the duration of the power outage between the sources will typically be around 15 seconds; it takes around ten seconds to get the generator started and up to voltage. During a generator-to-utility transfer, the duration of the power outage between the sources will typically be around five seconds.

2.2.4.3 *Uninterruptible Power Supply (UPS) System Description*

The UPS System and Batteries are part of the LDC and are not part of the LBGF. However, the following description is provided to describe how the UPS system is intended to operate. The UPS will protect the load against surges, sags, under voltage, and voltage fluctuation. The UPS will have

built-in protection against permanent damage to itself and the connected load for all predictable types of malfunctions. The load will be automatically transferred to the bypass line without interruption in the event of an internal UPS malfunction. The status of protective devices will be indicated on a LCD graphic display screen on the front of the UPS. The UPS will operate in the following modes:

- Normal - IGBT Rectifier converts AC input power to DC power for the inverter and for charging the batteries. The IGBT inverter supplies clean and stable AC power continuously to the critical load. The UPS Inverter output shall be synchronized with the bypass AC source when the bypass source is within the AC input voltage and frequency specifications.
- Loss of Main Power - When Main Power is lost, the battery option shall automatically back up the inverter so there is no interruption of AC power to the critical load.
- Return of Main Power or Generator Power - The system shall recover to the Normal Operating Mode and shall cause no disturbance to the critical load while simultaneously recharging the backup battery.
- Transfer to Bypass AC source - If the UPS becomes overloaded, or an internal fault is detected, the UPS controls shall automatically transfer the critical load from the inverter output to the bypass AC source without interruption. When the overload or internal warning condition is removed, after a preset “hold” period the UPS will automatically re-transfer the critical load from the bypass to the inverter output without interruption of power to the critical load.
- Maintenance Bypass - An optional manual make-before-break maintenance bypass panel may be provided to electrically isolate the UPS for maintenance or test without affecting load operation.

The UPS system batteries will have tab washers mounted on front terminal posts capable of accepting the wiring components of a battery monitoring system. Batteries will have an expected life of ten years. Each battery bank will provide a minimum of five minutes of backup at 100 percent rated inverter load of 1000kW, @ 77°F (25°C), 1.67 end volts per cell, beginning of life.

2.2.5 Generator System Description

Each of the 45 generators for the data center suites will be a Tier-4 standby diesel fired generator equipped with the Miratch system which includes both Selective Catalytic Reduction (SCR) System and diesel particulate filters (DPF). The generators will be Cummins Model C3000 D6e and the PBB Generator will be a Cummins Model DQGAF.

The maximum peak generating capacity of Model C3000 D6e is 3.0 MW for standby applications (short duration operation). Under normal operation will all generators available for use, the maximum load on each generator is designed to be 2.25 MW. The N+1 redundancy of the generator system is designed for one-out-of-four data center suite generators to be taken out-of-service or unexpectedly fail at any given moment in time (called a ‘4-to-make-3’ design).

The maximum peak generating capacity of Model DQGAF is 1.0 MW for standby applications (short duration operation). The load on the generator will be designed to remain below 0.8 MW. Specification sheets for each manufacturer and evidence of the steady state continuous ratings are provided in Appendix A.

Each individual generator will be provided with its own package system. Within that package, the prime mover and alternator will be automatically turned on and off by a utility-generator PLC transfer controller located in the 480-volt main switchboard located within the LDC. Each generator will be controlled by a separate, independent transfer controller. The generator will be turned on if the electrical utility power becomes unavailable and will be turned off after utility power has been restored and the transfer controller has returned the utility to the active source of power serving the computer and mechanical loads within the LDC.

The generator package will integrate a dedicated fuel tank with a capacity of 6,400 gallons. The generators will be placed on a concrete slab. The generators including the enclosure and SCR equipment are approximately 13 feet wide, 50.5 feet long and 30.2 feet high. Each generator will have a stack height of approximately 70 feet. When placed on slab, they will be spaced approximately seven feet apart horizontally. The generator yard will be enclosed with 22 feet high precast concrete screen walls on the south and east ends.

Some of the generators are proposed within a Turning Safety Zone (TSZ) identified of Figure 7 of the Comprehensive Land Use Plan (CLUP) for the Norman Y. Mineta San José International Airport by the Santa Clara County Airport Land Use Commission (ALUC). The TSZ is associated with a smaller runway that has been decommissioned and not been used for a decade. However, the CLUP has not been revised. The CLUP prohibits above ground fuel tanks within the TSZ. Notwithstanding that the designated TSZ is obsolete due to the elimination of the runway it was designed to protect, Digital Realty has ensure that all of the generators within the TSZ are below grade as shown on Figures ESK-01 and E 1.2, TN242558.

2.2.6 Fuel System

The backup generators will use renewable diesel fuel as its primary fuel, with ultra-low sulfur diesel as fuel (<15 parts per million sulfur by weight) used as secondary backup fuel in the event that renewable diesel is unavailable. See PD GHG-1 below.

Each of the 44 generator units serving the data center area will have a 6,400-gallon diesel fuel storage tank with high fuel level at 5,120 gallons. 4,872 gallons are required for 24-hour operation.

The 1.0 MW PBB generator would include a 3,000-gallon diesel fuel storage tank, with high fuel level at 2,400 gallons. 1,728 gallons are required for 24-hour operation.

The 44 x 3.0 MW generators and 1 x 1.0 MW generator would have a combined diesel fuel storage capacity of 284,600 gallons, with fuel tanks filled to high fuel level, total fuel to be onsite estimated at 227,680 gallons to provide 24 hours of emergency generation at full demand of the LDC.

2.2.7 Diesel Exhaust Fluid System

The SCR system will use Diesel Exhaust Fluid (DEF) which will be stored in 500 gallon capacity tanks per generator. A Safety Data Sheet for the DEF is contained in Appendix A. The estimated

shelf life of the DEF is dependent on ambient temperature. For the Santa Clara area the shelf life of the DEF is approximately 12-18 months.

Based on the testing and maintenance schedule Digital Realty does not anticipate the need for replacement of degraded DEF. The replacement strategy is to have the supplier replenish the DEF supply by adding DEF from a bulk tanker to the tank inside the genset enclosure. In the unlikely event that DEF is degraded, the supplier will pump out the tank and haul the degraded DEF for proper disposal. The tank will be refilled with new DEF.

2.2.8 Cooling System

Each generator will be air cooled independently as part of its integrated package and therefore there is no common cooling system for the LBGF.

2.2.9 Water Supply and Use

The LBGF will not require any consumption of water.

2.2.10 Waste Management

The LBGF will not create any waste materials other than minor amounts of solid waste created during construction and maintenance activities.

2.2.11 Hazardous Materials Management

The LBGF will prepare a Spill Prevention, Control and Countermeasure Plan (SPCC) to address the storage, use and delivery of diesel fuel for the generators.

Each generator unit and its integrated fuel tanks have been designed with double walls. The interstitial space between the walls of each tanks is continuously monitored electronically for the existence of liquids. This monitoring system is electronically linked to an alarm system in the engineering office that alerts personnel if a leak is detected. Additionally, the standby generator units are housed within a self-sheltering enclosure that prevents the intrusion of storm water.

Diesel fuel will be delivered on an as-needed basis in a compartmentalized tanker truck with maximum capacity of 8,500 gallons. The tanker truck parks on the access road to the south of the generator yard and extends the fuel fill hose through one of multiple hinged openings in the precast screen wall surrounding the generator equipment yard.

There are no loading/unloading racks or containment for re-fueling events; however, a spill catch basin is located at each fill port for the generators. To prevent a release from entering the storm drain system, storm drains will be temporarily blocked off by the truck driver and/or facility staff during fueling events. Rubber pads or similar devices will be kept in the generation yard to allow quick blockage of the storm sewer drains during fueling events.

To further minimize the potential for diesel fuel to come into contact with stormwater, to the extent feasible, fueling operations will be scheduled at times when storm events are improbable.

Warning signs and/or wheel chocks will be used in the loading and/or unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed transfer lines. An emergency pump shut-off will be utilized if a pump hose breaks while fueling the tanks. Tanker truck loading and unloading procedures will be posted at the loading and unloading areas.

To meet the Tier 4 emission standards, DEF, which contains urea is used to enable the SCR system to achieve NOx emission reduction. The DEF is required to be stored and managed appropriately. The DEF does not trigger the CalARP Program and therefore neither an offsite consequence analysis nor Risk Management Plan are required. However, proper management and storage include the DEF tank for each generator set will have secondary containment and filling the tank will be performed by the DEF supplier and follow best management practices similar to the use of diesel fuel refilling.

2.2.12 LBGF Project Construction

Construction activities for the LDC are expected to begin in ~~May January 2023~~²⁰²² and are discussed in more detail in Section 2.3.4. Since the site preparation activities for the LDC will include the ground preparation and grading of the entire LDC site, the only construction activities for the LBGF would involve construction the generation yard. This will include construction of concrete slabs, fencing, installation of underground and above ground conduit and electrical cabling to interconnect to the LDC Building switchgear, construction of the racking system to support the second level of generators, and placement and securing the generators.

The generators themselves will be assembled offsite and delivered to site by truck. Each generator will be placed within the generation yard by a crane.

Construction of the generation yard and placement of the generators is expected to take six months and is included in the overall construction schedule for the LDC described in section 2.3.4. Construction personnel for the LBGF are estimated to range from ten to 15 workers including one crane operator.

2.2.13 LBGF Facility Operation

The backup generators will be run for short periods for testing and maintenance purposes and otherwise will not operate unless there is a disturbance or interruption of the utility supply. BAAQMD's Authority to Construct and the California Air Resources Board's Airborne Toxic Control Measures (ATCM) limits each engine to no more than 50 hours annually for reliability purposes (i.e., testing and maintenance). Please see Section 4.3 for a complete description of the testing and maintenance frequencies and loading proposed for the LBGF.

2.3 LAFAYETTE DATA CENTER FACILITIES DESCRIPTION

2.3.1 Overview

As described in Section 1.2.2 and 1.3, the Commission SPPE's determination is limited to solely to the LBGF. However, in order for the Commission to inform the decision-makers of the potential environmental effects of the LBGF, in combination with the LDC, the applicant has included a complete description of the LDC.

There are currently two legal parcels within the project site, the northern 13.04-acre parcel located at 2825 and 2845 Lafayette Street and the southern 9.72-acre parcel located at 2805 Lafayette Street. A lot line adjustment is proposed for this project to create an expanded 15.45-acre parcel at 2825 Lafayette Street and a smaller 7.31-acre parcel at 2805 Lafayette Street.

The existing 13.04-acre site, located at 2825 and 2845 Lafayette Street, is currently developed with two two-story office buildings and associated paved parking and loading areas. The two buildings are 164,000 square feet and 162,400 square feet respectively.

The LDC will include demolition of the existing improvements on the 13.04-acre site to construct a three-story 575,401¹ square foot data center building, utility substation, generator equipment yard (the LBGF), surface parking and landscaping. The data center building will house computer servers for private clients in a secure and environmentally controlled structure and would be designed to provide 66 megawatts (MW) of power to information technology (Critical IT) equipment. The data center will utilize air cooled condensers for interior climate control. No water will be used for cooling purposes. ~~A site plan of the proposed development is shown on Figure 2.3-1.~~

The data center building will consist of two main components: a three-level power base building (PBB) component and a three-level data center suite component. The PBB will be located on the Lafayette Street side of the building and on Central Expressway side of the building towards the east side of the site. The PBB components will include support facilities such as the building lobby, restrooms, conference rooms, landlord office space, customer office space, loading dock and storage.

The data center suite components will consist of three levels of data center space. Level 1 and Level 2 will contain four data center suites and corresponding electrical/UPS rooms. Level 3 will contain three data center suites and corresponding electrical/UPS rooms. A portion of the building along the east side of the site will be reduced to a two-story building due to its proximity to the north end of the Norman Y. Mineta San José International Airport runway.

The elevation of the PBB roof would correspond with the elevation of the floor slab of the third data hall level. The project would also construct a new 100 MVA (mega volt-ampere) electrical substation along Lafayette Street (the western side of the site). SVP will have direct access to the site from Lafayette Street. The three-bay substation (three 50 MVA 60 kV-12kV step-down transformers) will be designed to allow one of the three transformers to be taken out of service, effectively providing 100 MVA of total power (a 3-to-make-2 design)¹.

¹ The relationship between MVA and MW is $MVA = MW \times \text{power factor}$. A typical factor for a data center is around 0.95. Power factor is a function of the loads, not the utility substation. At 0.95 power factor, a 100 MVA

Transformers have an all-weather asphalt surface underlain by an aggregate base. A concrete masonry unit screen wall, 13 feet in height, would surround the substation. The substation will be capable of delivering electricity to the LDC from Silicon Valley Power but will not allow any electricity generated from the LBGF to be delivered to the transmission grid.

2.3.2 Building Heights and Setbacks

The data center building will be approximately ~~64 ½ feet~~ in height to the top of parapet (approximate elevation 104 ½ feet AMSL) ~~to top of the Level 1 slab plus an addition seven feet in elevation change to the top of the Fire Department access road.~~

The mechanical equipment screen on the roof the building will extend to a height of 73 feet in height (approximate elevation 113 feet AMSL) ~~from the top of the Level 1 slab plus an addition seven feet in elevation change to the top of the Fire Department access road.~~

The building would also include an elevator penthouse that will extend to a height of 82 feet in height (approximate elevation 122 feet AMSL) ~~from the top of the Level 1 slab plus an addition seven feet in elevation change to the top of the Fire Department access road.~~

The building will be located in the center of the site and will be set back at a minimum of 15 feet from the front yard to the west (Lafayette Street), a minimum of 15 feet from side yard to the north (Central Expressway), a minimum of 0 feet from the side yard to the south (adjacent to a non-residential zone) and a minimum of 50 feet from the rear yard to the east (adjacent to a non-residential zone; railroad tracks).

2.3.3 Site Access and Parking

The overall project site has two driveways on Lafayette Street, one that serves the existing 2805 building and one that serves the existing 2825 and 2845 Lafayette Street. No changes are proposed to the location of the existing driveways.

A new driveway will be constructed on Lafayette between the two existing driveways to provide access to the new SVP utility substation.

The project would provide ~~767~~ parking spaces for the 2805 building and would provide ~~17790~~ spaces for the 2825 building. Parking is spaced throughout the project site with a heavy concentration of parking at the northwest and southeast corners of the property.

2.3.4 Site Grading, Excavation, and Construction

The existing building at 2805 Lafayette Street would remain, while the existing improvements on the 2825 and 2845 Lafayette Street site would be demolished to allow for construction of the new LDC building.

substation can provide 95 MW of power. Therefore, the SVP utility substation will limit the LDC to below 100 MW of total load.

Demolition and construction activities are estimated to last approximately 24 months to the initial occupancy of the building. Interior room buildout will continue as suites are leased ~~Construction activities are estimated to last an additional 60 months indoors~~ to bring the building to full occupancy.

Roughly 4,000 cubic yards of soil and undocumented fill would be removed from the site to be replaced by 34,000 cubic yards of fill to be imported to the site.

2.3.5 Landscaping

The LDC proposes to remove 375 (mostly parking lot) trees on-site, due to transmission line clearance requirements mandated by Silicon Valley Power (SVP), and various conflicts with proposed civil and architectural improvements. The City of Santa Clara's landscape ordinance mandates a 2:1 replacement with 24-inch box size trees, or 1:1 replacement with 36-in box size trees. The LDC proposes to mitigate for the loss of all 375 trees through a combination of 24-inch box size and 36-inch box size.

New landscaping consisting of trees, large and medium shrubs, and groundcovers will be installed along the property boundaries, building perimeters, stormwater treatment facilities, and landscape beds distributed throughout the parking facilities. Trees would be planted five feet away from new or existing water mains or utility lines. Recycled water will be used for irrigation.

A site plan of the proposed landscaping is shown in Figure 2.3-2.

2.3.6 Stormwater Controls

The LDC proposes to construct stormwater treatment areas consisting of bioretention areas and at-grade flow-through planter boxes totaling approximately 25,000 square feet. The stormwater treatment areas would be located around the perimeter of the site and adjacent to paved parking areas.

In the existing condition, stormwater discharges the site into the public system at three locations; the southwest corner of the 2805 Lafayette Street property, the northwest corner of the 2825 Lafayette Street property and the northeast corner of the 2825 property. The proposed project will connect to these three existing outfall points and is not proposing any new connections to the public storm drain system.

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has issued a Municipal Regional Stormwater NPDES Permit (MRP) to regulate stormwater discharges from municipalities and local agencies. Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g. rainwater harvesting for non-potable uses). Examples of C.3 LID measures include bioretention areas, flow-through planters, and subsurface infiltration systems.

Downspouts for the roof drainage will discharge directly into bioretention areas or flow-through planters located adjacent to the building. In some cases, roof drainage will be piped under sidewalks and discharged to the pavement surface where stormwater will then surface flow to at-grade bioretention planters located along the perimeter of the site.

Flow-through planters and bioretention planters will include perforated underdrains and overflow structures that connect to the on-site storm drains system which eventually discharges to the public storm system in Lafayette Street and Central Expressway.

2.3.7 Facilities Utilities

As part of the construction of the new building, domestic water, fire water, sanitary sewer, fiber, and natural gas connections will be made from the City infrastructure systems located along Lafayette Street and Central Expressway as shown on Figure 2.3-1.

2.3.8 SVP Electrical Distribution Facilities

SVP will construct a new distribution substation to support the LDC. The substation will be ultimately owned and operated by SVP as part of its distribution network. The proposed new substation will be interposed on SVP's South Loop between the 115kV receiving station and an adjacent 60kV substation. The South Loop terminal ends are comprised of 115kV receiving stations (#1 and #2) which are connected to the greater SVP Bulk Electric System (BES). Each 115kV receiving station steps the voltage down to SVP's service territory transmission voltage of 60kV. Reliability is maintained such that, if there is a fault along any section of the Loop, electric service is still supplied from the receiving stations from either end.

The new conductor that interconnects the new substation to the BES will be an ACCR type, size 715 double bundle with a carrying capacity of 310 MVA. SVP's general practice is to use tubular steel transmission poles for the two dead end structures. While SVP has not yet designed the 60 kV transmission lines that interconnect the new substation, SVP has estimated that one transmission line will come in to the site from the north and one from the south, both routes paralleling the future Lafayette Street lines. There may be up to two new transmission poles.

2.3.9 City Project Clearance Committee Review

Digital Realty submitted an application to the City of Santa Clara Project Clearance Committee (PCC) review in 2020. After receiving multiple rounds of comments and making revisions, the PCC process was completed whereby the City of Santa Clara PCC had no additional comments on the PCC drawing set. Revised drawings were provided to the CEC Docket in response to various data requests. For consistency, a complete set of the current PCC drawing set is included as Attachment 1 to this Revised Project Description.

2.4 MITIGATION INCORPORATED INTO PROJECT DESIGN

2.4.1 Air Quality

PD AQ-1: To ensure that fugitive dust impacts are less than significant, the project will implement the BAAQMD's recommended BMPs during the construction phase. These BMPs are incorporated into the design of the project and will include:

- All exposed surfaces (soil piles, graded areas, and unpaved access roads) shall be watered at least two times per day.
- All haul trucks transporting material offsite shall be covered.
- All track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day.
- All vehicle speeds on unpaved surfaces shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks shall be paved as soon as possible. Building pads shall be completed as soon as possible after grading unless seeding or soil binders are used.
- Equipment idling times shall be minimized to 5 minutes per the Air Toxics Control Measure (ATCM). Idling time signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer specifications. All equipment shall be checked by a certified visible emissions evaluator.
- Information on who to contact, contact phone number, and how to initiate complaints about fugitive dust problems will be posted at the site.

2.4.2 Biological Resources

PD BIO-1: The project will incorporate the following measures to reduce impacts to nesting birds.

- If possible construction activities, including removal of trees and vegetation clearing shall take place between September and January. If construction activities, including tree removal and vegetation clearing, must occur during the nesting season (February 1 through August 31) a preconstruction survey for nesting raptors and other protected native or migratory birds shall be conducted by a qualified ornithologist, approved by the City of Santa Clara, to identify active nesting that may be disturbed during project implementation. Between February 1 through August 31 (inclusive) pre-construction surveys shall be conducted no more than 14 days prior to the initiation of construction activities, including tree removal or vegetation clearing. Surveys will be repeated if project activities are suspended or delayed for more than 14 days during the nesting season. The surveying ornithologist shall inspect all trees in and immediately adjacent to the construction area to be disturbed by these activities, and the ornithologist shall, in consultation with the State of California, Department of Fish and Wildlife (CDFW), designate a construction-free buffer zone around the nest. The size of all buffer zones will initially be a 250- foot radius around the nest of non-raptors and a 500-foot radius around the nest for raptors. Any changes to a buffer zone must be approved by the City of Santa Clara in consultation with CDFW. The nests and buffers will be field checked weekly by the approved ornithologist. The approved buffer zone will be marked in the field with exclusion fencing, within which no construction, tree removal, or vegetation clearing will

commence until the ornithologist and the City of Santa Clara, in consultation with CDFW, verify that the nest(s) are no longer active. If an active bird nest is discovered during construction, then a buffer zone shall be established under the guidelines specified.

- The ornithologist shall submit a copy of the pre-construction nest survey report(s) indicating the results of the survey and any designated buffer zones to the City of Santa Clara's Director of Planning and Inspection prior to the start of construction activities or the issuance of a tree removal permit by the City Arborist. The report(s) will contain maps showing the location of all nests, species nesting, status of the nest (e.g. incubation of eggs, feeding of young, near fledging), and the buffer size around each nest (including reasoning behind any alterations to the initial buffer size). The report will be provided within 10 days of completing a pre-construction nest survey.

~~The project will incorporate the following measures to reduce impacts to nesting birds.~~

- ~~• If removal of the trees on site would take place between January and September, a pre-construction survey for nesting raptors shall be conducted by a qualified ornithologist to identify active nesting raptor nests that may be disturbed during project implementation. Between January and April (inclusive) pre-construction surveys shall be conducted no more than 14 days prior to the initiation of construction activities or tree relocation or removal. Between May and August (inclusive), pre-construction surveys shall be conducted no more than 30 days prior to the initiation of these activities. The surveying ornithologist shall inspect all trees in and immediately adjacent to the construction area to be disturbed by these activities, and the ornithologist shall, in consultation with the State of California, Department of Fish and Wildlife (CDFW), designate a construction-free buffer zone (typically 250 feet) around the nest until the end of the nesting activity.~~
- ~~The applicant shall submit a report indicating the results of the survey and any designated buffer zones to the satisfaction of the Director of Planning and Inspection prior to the issuance of a tree removal permit by the City Arborist.~~

PD BIO-2: The project will incorporate the following measures, in accordance with the arborist recommendations, to protect trees from harm that could occur during construction. Any additional measures required by the City of Santa Clara would also be implemented.

- Remove trees #1-25, 30-32, 42-97, 99-273, 275-313, 316-328, 330-332, 335-354, 411, 414, 420-433, 440-442, 446-448, 450-453, 456-470, 475, and 476, upon approval from the City of Santa Clara.
- Remove deadwood from remaining Callery pears and Raywood ashes. This will benefit both tree health and worker safety.
- All tree work must be completed by trained tree care personnel under the direction of an International Society of Arboriculture Certified Arborist.
- The Applicant shall alert the Project Arborist when new drawings are available showing grading, utilities, retention area details, or material changes to project features.
- Tree protection fencing shall be installed prior to any demolition equipment entering the site.
 - Fencing shall be installed at or outside the tree protection areas of all trees to be retained.

- Where existing pavement is within tree protection zones, install tree protection fencing at the edge of pavement. After demolition, relocate tree protection fencing to the edge of the tree protection area.
- Install tree protection fencing at the edge of the project features.
- For areas where no construction will occur, tree protection fencing will be installed at the perimeter of the area instead of around each tree individually.
- Spread wood chips at least four inches thick within tree protection fencing.
- For existing hardscape to be demolished within tree protection zones:
 - Demolish the area nearest the tree first, and work outwards.
 - Do not operate machinery on unpaved areas within tree protection zones.
 - Upon completion of demolition, relocate tree protection fencing to at or outside the tree protection area.
- Minimize grading near trees. Do not complete any grading inside tree protection fencing.
- If live roots over one inch in diameter are encountered at any time, in any location, they must be pruned with a sharp saw or bypass pruners, as close to the edge of the excavation as possible. If roots over three inches in diameter are encountered, do not prune, but instead contact the Project Arborist to determine the best course of action.
- Irrigate all trees to be retained on a monthly basis with potable water, in the absence of heavy rain.
 - Irrigate using a soaker hose placed as close to the tree driplines as practical. Irrigate for 2-4 hours at a very low flow. If this causes runoff, reduce the flow rate. If this is impractical for any tree for any reason, contact the Project Arborist.

2.4.3 Cultural Resources

PD CUL-1: The project proposes to implement the following measures to ensure the project's impacts to archaeological resources are less than significant:

- A Secretary of the Interior-qualified archaeologist and a Native American cultural resources monitor shall be on site to monitor grading of native soil once all pavement is removed from the project site. The project applicant shall submit the name and qualifications of the selected archaeologist and Native American Monitor to the Director of Planning and Inspection prior to the issuance of a grading permit. Preference in selecting Native American monitors shall be given to Native Americans with:
 - Traditional ties to the area being monitored.
 - Knowledge of local historic and prehistoric Native American village sites.
 - Knowledge and understanding of Health and Safety Code, Section 7050.5 and Public Resources Code, Section 5097.9 et seq.
 - Ability to effectively communicate the requirements of Health and Safety Code, Section 7050.5 and Public Resources Code, Section 5097.9 et seq.
 - Ability to work with law enforcement officials and the Native American Heritage Commission to ensure the return of all associated grave goods taken from a Native American grave during excavation.
 - Ability to travel to project sites within traditional tribal territory.
 - Knowledge and understanding of Title 14, California Code of Regulations, Section 15064.5.

- Ability to advocate for the preservation in place of Native American cultural features through knowledge and understanding CEQA mitigation provisions.
 - Ability to read a topographical map and be able to locate site and reburial locations for future inclusions in the Native American Heritage Commission's Sacred Lands Inventory.
 - Knowledge and understanding of archaeological practices, including the phases of archaeological investigation.
- After removal of pavement and prior to grading, the archaeologist shall conduct a pedestrian survey over the exposed soils to determine if any surface archaeological manifestations are present. The archaeologist will monitor full-time all grading and ground disturbing activities in native soils associated with construction of the proposed project. If the archaeologist and Native American monitor believe that a reduction in monitoring activities is prudent, then a letter report detailing the rationale for making such a reduction and summarizing the monitoring results shall be provided to the Director of Planning and Inspection. Department of Recreation 523 forms shall be submitted along with the report for any cultural resources encountered over 50 years old.
 - In the event that prehistoric or historic resources are encountered during on-site construction activities, all activity within a 50-foot radius of the find shall be stopped, the Director of Planning and Inspection shall be notified, and a Secretary of the Interior-qualified archaeologist shall examine the find and record the site, including field notes, measurements, and photography for a Department of Parks and Recreation 523 Primary Record form. The archaeologist shall make a recommendation regarding eligibility for the California Register of Historical Resources, data recovery, curation, or other appropriate mitigation. Ground disturbance within the 50-foot radius can resume once these steps are taken and the Director of Planning and Inspection has concurred with the recommendations. Within 30 days of the completion of construction or cultural resources monitoring, whichever comes first, a report of findings documenting any cultural resource finds, recommendations, data recovery efforts, and other pertinent information gleaned during cultural resources monitoring shall then be submitted to the Director of Planning and Inspection. Once finalized, this report shall be submitted to the Northwest Information Center at Sonoma State University.
 - Prior to and for the duration of ground disturbance, the project owner shall provide Worker Environmental Awareness Program training to all existing and any new employees. This training should include: a discussion of applicable laws and penalties under the laws; samples or visual aids of artifacts that could be encountered in the project vicinity, including what those artifacts may look like partially buried, or wholly buried and freshly exposed; and instructions to halt work in the vicinity of any potential cultural resources discovery, and notify the city-approved archaeologist and Native American cultural resources monitor.

PD CUL-2: The project proposes to implement the following measure to ensure the project's impacts to human remains are less than significant:

- In the event that human remains are discovered during on-site construction activities, all activity within a 50-foot radius of the find shall be stopped. The Santa Clara County Coroner

shall be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission. All actions taken under this mitigation measure shall comply with Health and Human Safety Code § 7050.5(b).

2.4.4 Geology and Soils

PD GEO-1: In order to ensure the project design conforms to the requirements of a final geotechnical engineering investigation and California and local building standards and codes, the following is proposed as mitigation incorporated into the project. Incorporation will ensure seismic hazards are reduced to less than significant levels.

- To avoid or minimize potential damage from seismic shaking, the project would be built using standard engineering and seismic safety design techniques. Building redevelopment design and construction at the site shall be completed in conformance with the recommendations of a design-level geotechnical investigation, which will be included in a report to the City. The report shall be reviewed and approved by the City of Santa Clara's Building Division as part of the building permit review and issuance process. The building shall meet the requirements of applicable Building and Fire Codes, including the 2016 California Building Code, as adopted or updated by the City. The project shall be designed to withstand potential geologic hazards identified on the site and the project shall be designed to reduce the risk to life or property to the extent feasible and in compliance with the Building Code.

PD GEO-2: The project proposes to implement the following measures to as best management practices to ensure impacts to paleontological resources are less than significant.

- Prior to the start of any subsurface excavations that would extend beyond previously disturbed soils, all construction forepersons and field supervisors shall receive training by a qualified professional paleontologist, as defined by the Society of Vertebrate Paleontology, who is experienced in teaching non-specialists, to ensure they can recognize fossil materials and shall follow proper notification procedures in the event any are uncovered during construction. Procedures to be conveyed to workers include halting construction within 50 feet of any potential fossil find and notifying a qualified paleontologist, who shall evaluate its significance.
- If a fossil is found and determined by the qualified paleontologist to be significant and avoidance is not feasible, the paleontologist shall notify the Director of Planning and Inspection and develop and implement an excavation and salvage plan in accordance with Society of Vertebrate Paleontology standards. Construction work in these areas shall be halted or diverted to allow recovery of fossil remains in a timely manner. Fossil remains collected during the monitoring and salvage portion of the mitigation program shall be cleaned, repaired, sorted, and cataloged. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall then be deposited in a scientific institution with paleontological collections. A final Paleontological Mitigation Plan Report shall be prepared that outlines the results of the mitigation program. The Director of Planning and

Inspection shall be responsible for ensuring that the paleontologist's recommendations regarding treatment and reporting are implemented.

2.4.5 Greenhouse Gas Emissions

PD GHG-1: The project owner shall use renewable diesel for 100 percent of total energy use by the emergency backup generators, and only use ultra-low sulfur diesel (ULSD) as a secondary fuel in the event of supply challenges or disruption in obtaining renewable diesel. The City of Santa Clara Community Development Department may grant temporary relief from the 100 percent renewable diesel requirement if the project owner can demonstrate a good faith effort to comply with the requirement and that compliance is not practical. The project owner shall provide an annual report of the status of procuring and using renewable diesel to the director, or director's designee, of the City of Santa Clara Community Development Department demonstrating compliance.

PD GHG-2: The project owner shall ensure that 100 percent of the electricity purchased to power the project is covered by carbon-free resources using one of the following options:

- (1) participate in SVP's LCRE program or other renewable energy program that accomplishes the same objective as SVP's LCRE Program for 100 percent carbon-free electricity, or
- (2) purchase renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity.

The project owner shall provide documentation to the director, or director's designee, of the city of Santa Clara Electric Utility Department of enrollment and annual reporting of continued participation in SVP's LCRE program with 100 percent carbon-free electricity coverage. If not enrolled in SVP's LCRE Program, the project owner shall provide documentation and annual reporting to the director, or director's designee, of the city of Santa Clara Electric Utility Department that confirms that alternative measures achieve the same 100 percent carbon free electricity as SVP's LCRE program, with verification by a qualified third-party auditor specializing in greenhouse gas emissions.

2.4.5-2.4.6 Hazards

PD HAZ-1: The project will implement the following measures to would reduce potentially significant soil and or groundwater impacts to construction workers to a less than significant level.

- Prior to the issuance of grading permits, shallow soil samples shall be taken in areas where soil disturbance is anticipated to determine if contaminated soils with concentrations above established construction/trench worker thresholds may be present due to historical agricultural use and from historical leaks and spills. The soil sampling plan must be reviewed and approved by the Santa Clara Fire Department Fire Prevention and Hazardous Materials Division prior to initiation of work. Once the soil sampling analysis is complete, a report of the findings will be provided to the Santa Clara Fire Department Fire Prevention and Hazardous Materials Division and other applicable City staff for review.
- Documentation of the results of the soil sampling shall be submitted to and reviewed by the City of Santa Clara Director of Planning and Inspection prior to the issuance of a grading permit. Any soil with concentrations above applicable Environmental Screening Levels or hazardous waste limits would be characterized, removed, and disposed of off-site at an appropriate landfill according to all state and federal requirements.

- A Site Management Plan (SMP) will be prepared to establish management practices for handling impacted groundwater and/or soil material that may be encountered during site development and soil-disturbing activities. Components of the SMP will include: 1) a detailed discussion of the site background; 2) a summary of the analytical results; 3) preparation of a Health and Safety Plan by an industrial hygienist; 4) protocols for conducting earthwork activities in areas where impacted soil and/or groundwater are present or suspected; 5) worker training requirements, health and safety measures and soil handling procedures shall be described; 6) protocols shall be prepared to characterize/profile soil suspected of being contaminated so that appropriate mitigation, disposal or reuse alternatives, if necessary, can be implemented; 7) notification procedures if previously undiscovered significantly impacted soil or groundwater is encountered during construction; 8) notification procedures if previously unidentified hazardous materials, hazardous waste, underground storage tanks are encountered during construction; 9) on-site soil reuse guidelines; 9) sampling and laboratory analyses of excess soil requiring disposal at an appropriate off-site waste disposal facility; 10) soil stockpiling protocols; and 11) protocols to manage groundwater that may be encountered during trenching and/or subsurface excavation activities. Prior to issuance of grading permits, a copy of the SMP must be approved by the Santa Clara County Environmental Health Department, and the Santa Clara Fire Department Fire Prevention and Hazardous Materials Division.
- If contaminated soils are found in concentrations above risk-based thresholds pursuant to the terms of the SMP, remedial actions and/or mitigation measures will be taken to reduce concentrations of contaminants to levels deemed appropriate by the selected regulatory oversight agency for ongoing site uses. Any contaminated soils found in concentrations above thresholds to be determined in coordination with regulatory agencies shall be either 1) managed or treated in place, if deemed appropriate by the oversight agency or 2) removed and disposed of at an appropriate disposal facility according to California Hazardous Waste Regulations and applicable local, state, and federal laws.

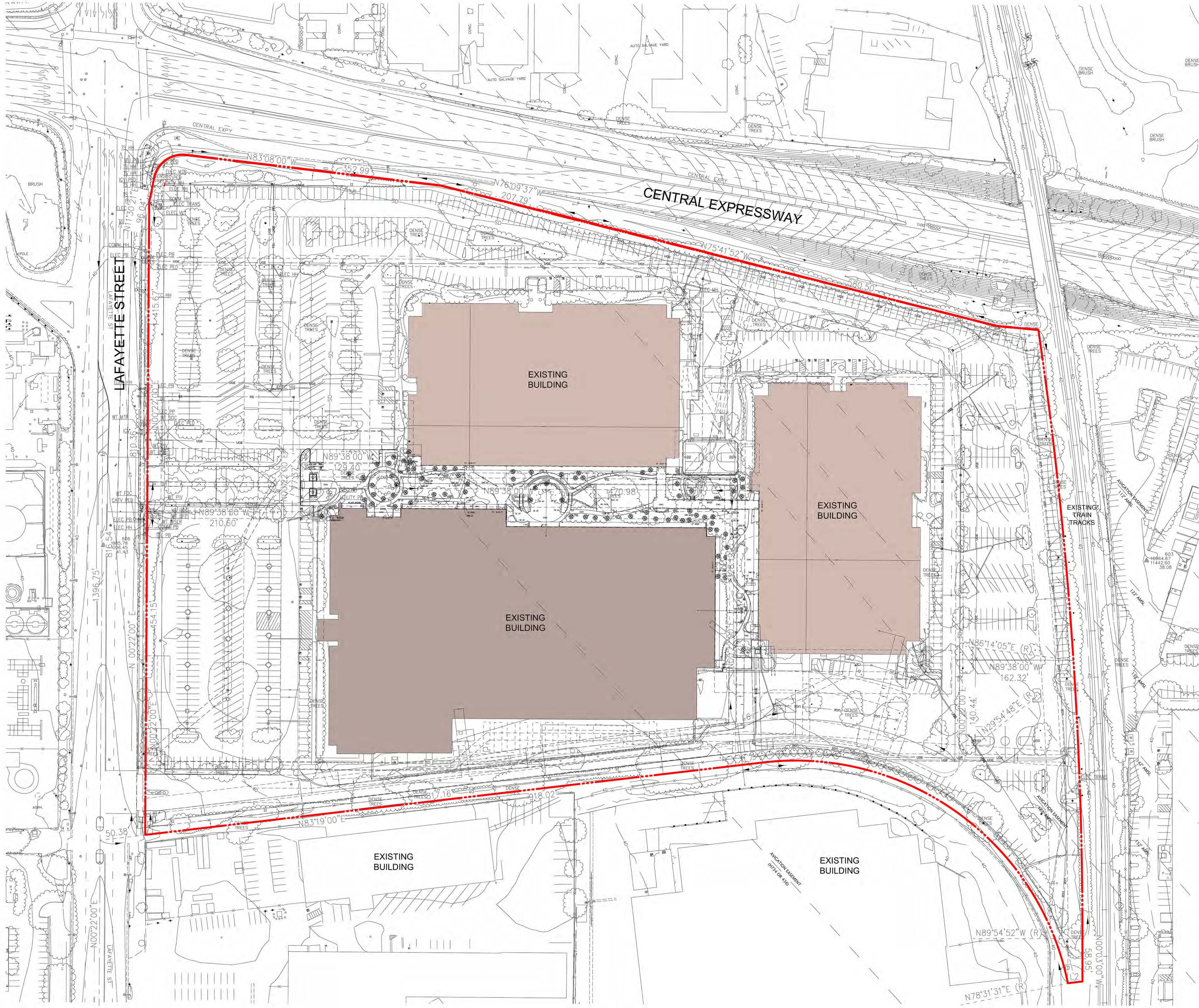
~~2.4.6~~ 2.4.7 **Hydrology and Water Quality**

PD HYD-1: The LDC will incorporate the following into the design and these measures should be treated as mitigation incorporated into the project. The following will reduce construction-related water quality impacts:

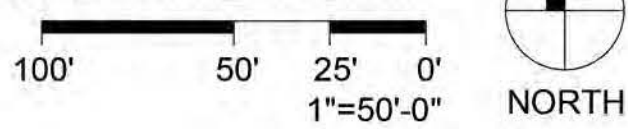
- Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities shall be suspended during periods of high winds.
- All exposed or disturbed soil surfaces shall be watered at least twice daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered.

- All trucks hauling soil, sand, and other loose materials shall be required to cover all trucks or maintain at least two feet of freeboard.
- All paved access roads, parking areas, and staging areas adjacent to the construction sites shall be swept daily (with water sweepers).
- Vegetation in disturbed areas shall be replanted as quickly as possible.
- All unpaved entrances to the site shall be filled with rock to knock mud from truck tires prior to entering City streets. A tire wash system may also be employed at the request of the City.

ATTACHMENT 1
PCC Drawing Set



EXISTING SITE PLAN



SITE INFORMATION:

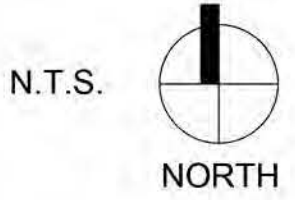
OWNER: DIGITAL REALTY
2825 LAFAYETTE STREET
SANTA CLARA, CA 95050-2627

LEGAL: BOUNDED BY CENTRAL EXPRESSWAY TO THE NORTH,
LAFAYETTE STREET TO THE WEST, 2825 LAFAYETTE
STREET (SITE) AND RAILROAD TRACKS TO THE EAST, AND
2805 LAFAYETTE STREET (DLR) TO THE SOUTH COUNTY OF
SANTA CLARA: 1.78M POPULATION (2010 CENSUS)
TAX ASSESSOR'S PARCEL NUMBER (APN): 224-04-093

OWNER: MH - HEAVY INDUSTRIAL
PROCESSING AND STORAGE USES PERMITTED
(MH - ZONING ORD 18.50.030)
COMMERCIAL STORAGE AND WHOLESALE DISTRIBUTION

FEMA: FLOOD ZONE X

VICINITY MAP:



DIGITAL REALTY
Data Center Solutions

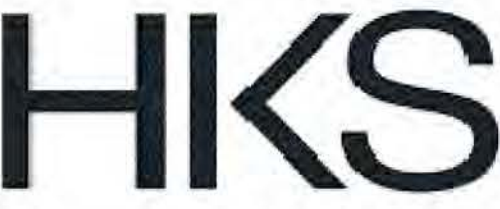
2825 LAFAYETTE STREET
SANTA CLARA, CA
95050-2627

MEP ENGINEER



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ARCHITECT



STRUCTURAL ENGINEER



CIVIL ENGINEER



2	PCC ISSUANCE	06.19.20
1	PCC ISSUANCE	10.28.19
NO.	RECORD	DATE

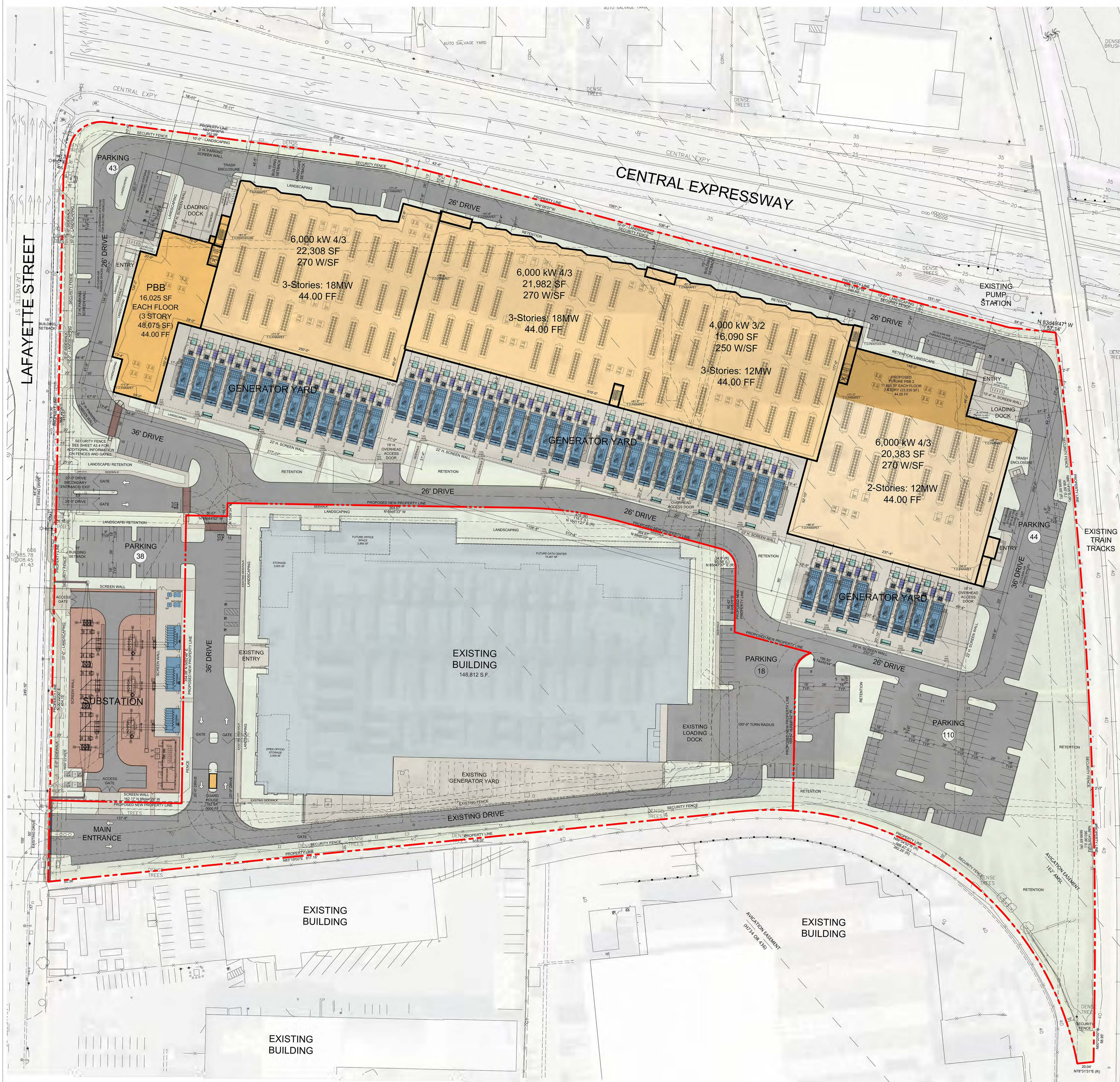
MASTER PLAN

EXISTING
SITE PLAN

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 6/19/2020
PROJECT ENGINEER	SHEET NUMBER

SCALE
AS NOTED

A1.0



SITE INFORMATION:

PROJECT NAME:	2825 LAFAYETTE STREET
PROJECT DESCRIPTION:	NEW DATA CENTER
PROJECT CONTACT:	CHAD MENDELL ENVIRONMENTAL SYSTEMS DESIGN, INC. 233 SOUTH WACKER DRIVE, SUITE 5300 CHICAGO, ILLINOIS 60606 312-372-1200
OWNER:	DIGITAL LAFAYETTE, LLC 2825 LAFAYETTE STREET SANTA CLARA, CA 95050-2627
PARCEL NUMBER:	NORTH PARCEL: 224-04-093 SOUTH PARCEL: 224-04-094
LOT NUMBER:	NORTH PARCEL: LOT 2 SOUTH PARCEL: LOT 1
TRACT NUMBER:	NORTH PARCEL: 93 SOUTH PARCEL: 94
LEGAL:	BOUNDED BY CENTRAL EXPRESSWAY TO THE NORTH, LAFAYETTE STREET TO THE WEST, 2825 LAFAYETTE STREET (SITE) AND RAILROAD TRACKS TO THE EAST, AND 2805 LAFAYETTE STREET (DLR) TO THE SOUTH COUNTY OF SANTA CLARA: 1.78M POPULATION (2010 CENSUS) TAX ASSESSOR'S PARCEL NUMBER (APN): 224-04-093
ZONING:	MH - HEAVY INDUSTRIAL PROCESSING AND STORAGE USES PERMITTED (MH - ZONING ORD 18.50.030) COMMERCIAL STORAGE AND WHOLESALE DISTRIBUTION
FEMA:	NORTH PARCEL: FLOOD ZONE X SOUTH PARCEL: FLOOD ZONE AH
BUILDING SETBACKS:	FRONT YARD: 15'-0" EACH LOT SHALL HAVE A STREET SIDE FRONT YARD OF NOT LESS THAN FIFTEEN (15) FEET IN DEPTH SIDE YARD: 15'-0" THE STREET SIDE YARD OF EACH CORNER LOT EXCLUSIVE OF THE FRONT YARD SHALL BE NOT LESS THAN FIFTEEN (15) FEET IN DEPTH REAR YARD: 0'-0" SETBACK ADJACENT TO NON-RESIDENTIAL 0' REAR YARD
LANDSCAPE SETBACKS:	FRONT, SIDE YARDS: 10'-0" A MINIMUM OF TEN FEET OF THE REQUIRED FRONT AND STREET SIDE YARDS, EXCLUSIVE OF CITY-PERMITTED DRIVEWAY CUTS, SHALL BE DEVELOPED INTO AND PERMANENTLY MAINTAINED AS OPEN LANDSCAPED AREAS SUBJECT TO THE APPROVAL OF THE DIRECTOR OF PLANNING AND INSPECTION.
HEIGHT:	70 FT MAX HEIGHT (ZONING ORD. 18.50.070) MECH AND PARAPETS CAN BE PLACED ABOVE THIS (ZONING ORD. 18.54.010). VARIABLE MAX. HEIGHT BASED ON FEA REGULATIONS.
SITE AREA:	NORTH PARCEL: 691,526.384 S.F. SOUTH PARCEL: 299,683.550 S.F. TOTAL: 991,209.934 S.F. (22.755 ACRES)
TYPE OF USE:	OFFICE/ DATA CENTER
OCCUPANCY GROUP:	BUSINESS GROUP B (CHAPTER 3, SECTION 304)
TYPE OF BUILDING CONSTRUCTION:	TYPE 2B (FULLY SPRINKLERED) (CHAPTER 6, TABLE 601)
BUILDING AREA:	EXISTING BUILDING - 2805: 148,812 S.F. DATA CENTER: 299,683.550 S.F. NEW BUILDING - 2825: 575,401 S.F. DATA CENTER: 724,213 S.F. TOTAL: 108,631 S.F.
GENERATOR YARD:	30 %
% LOT COVERAGE:	(209,869/ 691,526.384 = 0.3034)
FLOOR-TO-AREA RATIO (FAR)	0.90
PROPOSED NEW BUILDING	36 SPACES (1 SPACE PER 4,000 S.F.) (148,812 S.F. / 4000 = 36 SPACES)
PARKING REQUIRED:	DATA CENTER (EXISTING) 144 SPACES DATA CENTER (NEW) 144 SPACES (1 SPACE PER 4,000 S.F.) (575,401 S.F. / 4000 = 144 SPACES)
TOTAL PARKING REQUIRED:	182 SPACES
DATA CENTER (NEW):	(144 + 38 = 182 SPACES)

PARKING PROVIDED FOR BUILDING 2805:	76 SPACES
PARKING PROVIDED FOR BUILDING 2825:	177 SPACES
TOTAL PARKING PROVIDED:	253 SPACES

* NOTE: THERE ARE 0 COMPACT PARKING STALLS ON THIS SITE.

BICYCLE RACKS REQUIRED:	
DATA CENTER (NEW):	(CLASS 1 - 5% OF 182 PARKING STALLS) = 10 RACKS (CLASS 2 - 5% OF 182 PARKING STALLS) = 10 RACKS
BICYCLE RACKS PROVIDED:	
DATA CENTER (NEW):	CLASS 1 = 10 RACKS CLASS 2 = 10 RACKS

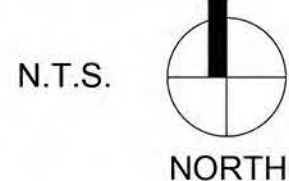
CHARGING STATION PARKING SPACES REQUIRED:	
DATA CENTER (NEW):	(6% OF 182 PARKING STALLS) = 11 SPACES
CHARGING STATION PARKING SPACES PROVIDED:	
DATA CENTER (NEW):	11 SPACES

CLEAN AIR PARKING SPACES REQUIRED:	
DATA CENTER (NEW):	(8% OF 182 PARKING STALLS) = 15 SPACES
CLEAN AIR PARKING SPACES PROVIDED:	
DATA CENTER (NEW):	15 SPACES

GENERAL NOTES:

- ALL GATES INSTALLED ON DESIGNATED FIRE DEPARTMENT ACCESS ROADS ARE REQUIRED TO BE ELECTRICALLY AUTOMATIC POWERED GATES. GATES SHALL BE PROVIDED WITH AN EMERGENCY BATTERY POWER SUPPLY, OR SHALL BE A FAIL-SAFE DESIGN, ALLOWING THE GATE TO BE PUSHED OPEN WITHOUT THE USE OF SPECIAL KNOWLEDGE OR EQUIPMENT. TO CONTROL THE AUTOMATIC GATES A DETECTOR/STROBE SWITCH SHALL BE INSTALLED TO ALLOW EMERGENCY VEHICLES (E.G., FIRE, POLICE, EMS) TO FLASH A VEHICLE MOUNTED STROBE LIGHT TOWARDS THE DETECTOR/STROBE SWITCH, WHICH IN TURN OVERRIDES THE SYSTEM AND OPENS THE GATE. THE GATES SHALL BE EQUIPPED WITH A TOWER STROBE SWITCH OR 3M OPTICOM DETECTOR TO FACILITATE THIS OVERRIDE.

VICINITY MAP

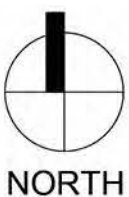


LEGEND:

LOCATION OF OVERHEAD POWER LINES AND POLES

PROPOSED NEW SITE PLAN

80' 40' 20' 0' 1"=40'-0"



DIGITAL REALTY
Data Center Solutions

2825 LAFAYETTE STREET
SANTA CLARA, CA
95050-2627

MEP ENGINEER



Environmental Systems Design, Inc.

233 South Wacker Drive, Suite 5300
Chicago, Illinois 60606
312.372.1200
www.esdglobal.com
DPR License No. 184-000892 IL

ARCHITECT



STRUCTURAL ENGINEER

PEOPLES ASSOCIATES
STRUCTURAL ENGINEERS

CIVIL ENGINEER

Kimley»Horn

2	PCC ISSUANCE	06.19.20
1	PCC ISSUANCE	10.28.19
NO.	RECORD	DATE

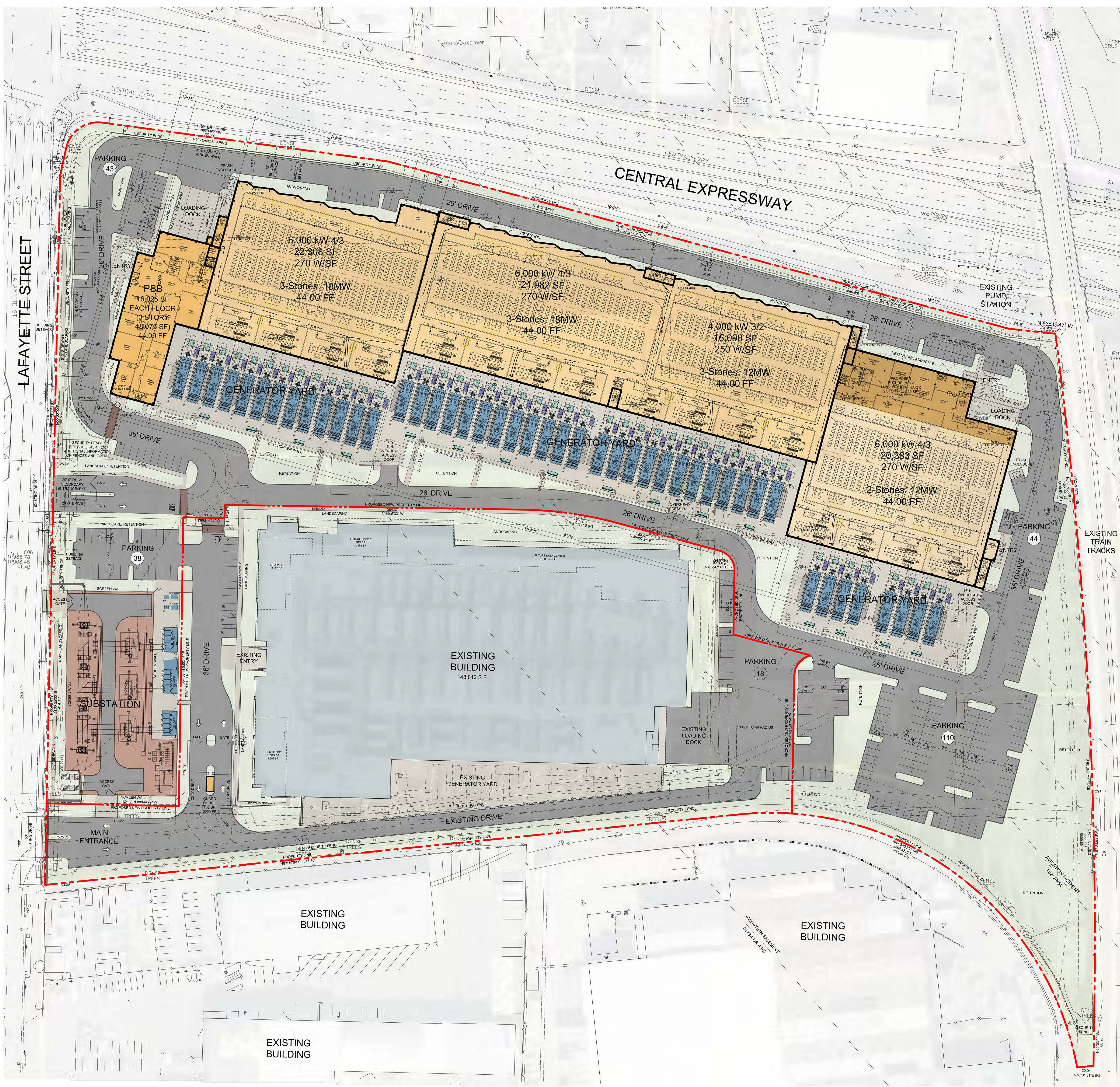
MASTER PLAN

PROPOSED NEW
SITE PLAN

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 06/19/2020
PROJECT ENGINEER	SHEET NUMBER

SCALE
AS NOTED

A1.1



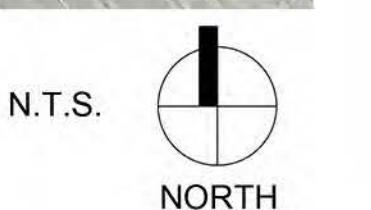
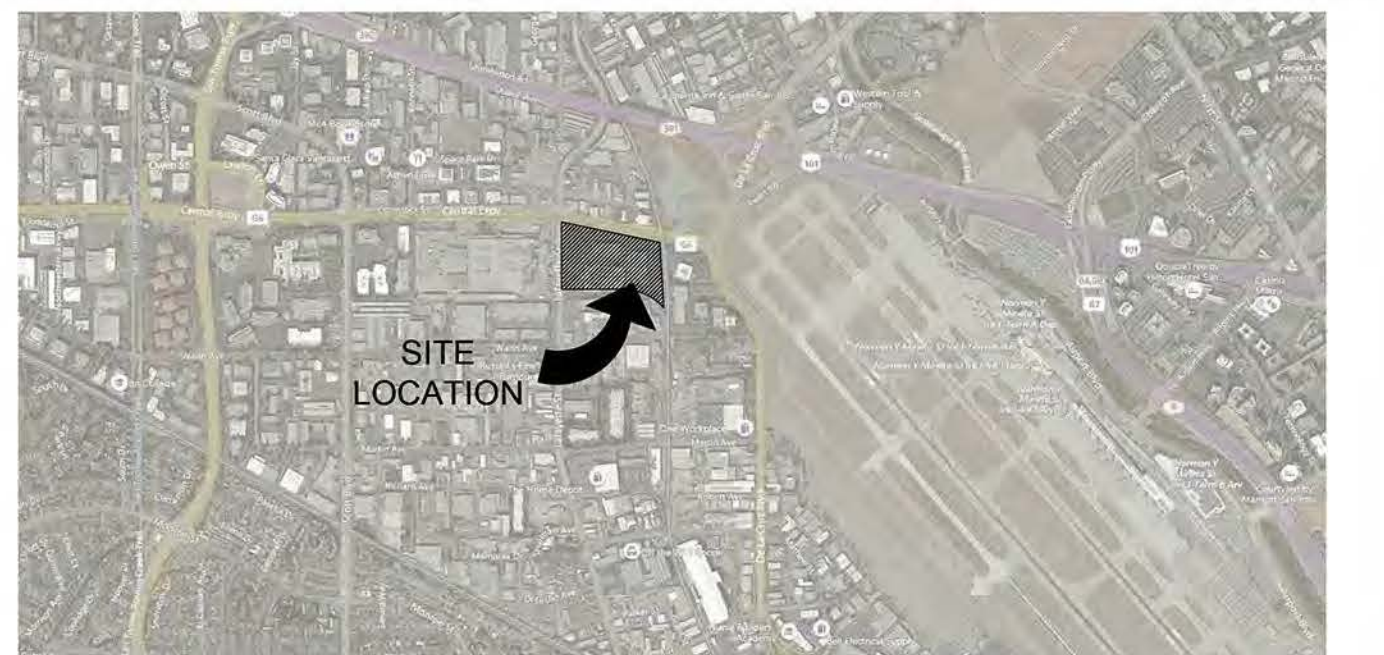
SITE INFORMATION:

PROJECT NAME:	2825 LAFAYETTE STREET
PROJECT DESCRIPTION:	NEW DATA CENTER
PROJECT CONTACT:	CHAD MENDELL ENVIRONMENTAL SYSTEMS DESIGN, INC. 233 SOUTH WACKER DRIVE, SUITE 5300 CHICAGO, ILLINOIS 60606 312-372-1200
OWNER:	DIGITAL LAFAYETTE, LLC 2825 LAFAYETTE STREET SANTA CLARA, CA 95050-2627
PARCEL NUMBER:	NORTH PARCEL: 224-04-093 SOUTH PARCEL: 224-04-094
LOT NUMBER:	NORTH PARCEL: LOT 2 SOUTH PARCEL: LOT 1
TRACT NUMBER:	NORTH PARCEL: 93 SOUTH PARCEL: 94
LEGAL:	BOUNDED BY CENTRAL EXPRESSWAY TO THE NORTH, LAFAYETTE STREET TO THE WEST, 2825 LAFAYETTE STREET (SITE) AND RAILROAD TRACKS TO THE EAST, AND 2805 LAFAYETTE STREET (DLR) TO THE SOUTH COUNTY OF SANTA CLARA: 1.78M POPULATION (2010 CENSUS) TAX ASSESSOR'S PARCEL NUMBER (APN): 224-04-093
ZONING:	MH - HEAVY INDUSTRIAL PROCESSING AND STORAGE USES PERMITTED (MH - ZONING ORD 18.50.030) COMMERCIAL STORAGE AND WHOLESALE DISTRIBUTION
FEMA:	NORTH PARCEL: FLOOD ZONE X SOUTH PARCEL: FLOOD ZONE AH
BUILDING SETBACKS:	FRONT YARD: 15'-0" EACH LOT SHALL HAVE A STREET SIDE FRONT YARD OF NOT LESS THAN FIFTEEN (15) FEET IN DEPTH SIDE YARD: 15'-0" THE STREET SIDE YARD OF EACH CORNER LOT EXCLUSIVE OF THE FRONT YARD SHALL BE NOT LESS THAN FIFTEEN (15) FEET IN DEPTH REAR YARD: 0'-0" SETBACK ADJACENT TO NON-RESIDENTIAL 0' REAR YARD
LANDSCAPE SETBACKS:	FRONT, SIDE YARDS: 10'-0" A MINIMUM OF TEN FEET OF THE REQUIRED FRONT AND STREET SIDE YARDS, EXCLUSIVE OF CITY-PERMITTED DRIVEWAY CUTS, SHALL BE DEVELOPED INTO AND PERMANENTLY MAINTAINED AS OPEN LANDSCAPED AREAS SUBJECT TO THE APPROVAL OF THE DIRECTOR OF PLANNING AND INSPECTION.
HEIGHT:	70 FT MAX HEIGHT (ZONING ORD. 18.50.070) MECH AND PARAPETS CAN BE PLACED ABOVE THIS (ZONING ORD. 18.54.010). VARIABLE MAX. HEIGHT BASED ON FAA REGULATIONS.
SITE AREA:	NORTH PARCEL: 691,526.384 S.F. SOUTH PARCEL: 299,683.550 S.F. TOTAL: 991,209.934 S.F. (22.755 ACRES)
TYPE OF USE:	OFFICE/ DATA CENTER
OCCUPANCY GROUP:	BUSINESS GROUP B (CHAPTER 3, SECTION 304)
TYPE OF BUILDING CONSTRUCTION:	TYPE 2B (FULLY SPRINKLERED) (CHAPTER 6, TABLE 601)
BUILDING AREA:	EXISTING BUILDING - 2805: 148,812 S.F. DATA CENTER: 299,683.550 S.F. NEW BUILDING - 2825: 575,401 S.F. DATA CENTER: 575,401 S.F. TOTAL: 724,213 S.F. 108,631 S.F.
GENERATOR YARD:	209,869/ 691,526.384 = 0.3034
% LOT COVERAGE:	(209,869/ 691,526.384 = 0.3034)
FLOOR-TO-AREA RATIO (FAR)	0.90
PROPOSED NEW BUILDING	0.90
PARKING REQUIRED:	DATA CENTER (EXISTING) 36 SPACES (1 SPACE PER 4,000 S.F.) (148,812 S.F. / 4000 = 36 SPACES) DATA CENTER (NEW) 144 SPACES (1 SPACE PER 4,000 S.F.) (575,401 S.F. / 4000 = 144 SPACES)
TOTAL PARKING REQUIRED:	182 SPACES
DATA CENTER (NEW):	(144 + 38 = 182 SPACES)
PARKING PROVIDED FOR BUILDING 2805:	76 SPACES
PARKING PROVIDED FOR BUILDING 2825:	177 SPACES
TOTAL PARKING PROVIDED:	253 SPACES
* NOTE: THERE ARE 0 COMPACT PARKING STALLS ON THIS SITE.	
BICYCLE RACKS REQUIRED:	DATA CENTER (NEW): (CLASS 1 - 5% OF 182 PARKING STALLS) = 10 RACKS (CLASS 2 - 5% OF 182 PARKING STALLS) = 10 RACKS
BICYCLE RACKS PROVIDED:	DATA CENTER (NEW): CLASS 1 = 10 RACKS CLASS 2 = 10 RACKS
CHARGING STATION PARKING SPACES REQUIRED:	DATA CENTER (NEW): (6% OF 182 PARKING STALLS) = 11 SPACES
CHARGING STATION PARKING SPACES PROVIDED:	DATA CENTER (NEW): 11 SPACES
CLEAN AIR PARKING SPACES REQUIRED:	DATA CENTER (NEW): (8% OF 182 PARKING STALLS) = 15 SPACES
CLEAN AIR PARKING SPACES PROVIDED:	DATA CENTER (NEW): 15 SPACES

GENERAL NOTES:

- ALL GATES INSTALLED ON DESIGNATED FIRE DEPARTMENT ACCESS ROADS ARE REQUIRED TO BE ELECTRICALLY AUTOMATIC POWERED GATES. GATES SHALL BE PROVIDED WITH AN EMERGENCY BATTERY POWER SUPPLY, OR SHALL BE A FAIL-SAFE DESIGN, ALLOWING THE GATE TO BE PUSHED OPEN WITHOUT THE USE OF SPECIAL KNOWLEDGE OR EQUIPMENT. TO CONTROL THE AUTOMATIC GATES A DETECTOR/STROBE SWITCH SHALL BE INSTALLED TO ALLOW EMERGENCY VEHICLES (E.G., FIRE, POLICE, EMS) TO FLASH A VEHICLE MOUNTED STROBE LIGHT TOWARDS THE DETECTOR/STROBE SWITCH, WHICH IN TURN OVERRIDES THE SYSTEM AND OPENS THE GATE. THE GATES SHALL BE EQUIPPED WITH A TOMAR STROBE SWITCH OR 3M OPTICOM DETECTOR TO FACILITATE THIS OVERRIDE.

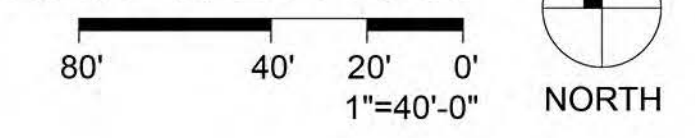
VICINITY MAP



LEGEND:

	LOCATION OF OVERHEAD POWER LINES AND POLES
--	--

PROPOSED NEW SITE PLAN



DIGITAL REALTY
Data Center Solutions

**2825 LAFAYETTE STREET
SANTA CLARA, CA
95050-2627**

MEP ENGINEER

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PEOPLES ASSOCIATES
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CIVIL ENGINEER

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MASTER PLAN

**PROPOSED NEW
SITE PLAN
AND FLOOR PLAN**

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 06/19/2020
PROJECT ENGINEER	SHEET NUMBER

SCALE
AS NOTED

A1.2

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BUILDING INFORMATION:

CODE: 2016 CALIFORNIA BUILDING CODE
TYPE OF USE: OFFICE/ DATA CENTER
OCCUPANCY GROUP: BUSINESS GROUP B (CHAPTER 3, SECTION 304)
TYPE OF BUILDING CONSTRUCTION: TYPE 2B (FULLY SPRINKLER) (CHAPTER 6, TABLE 601)

BUILDING SQUARE FOOTAGE:
GROUND FLOOR: 209,869 S.F.
SECOND FLOOR: 209,440 S.F.
THIRD FLOOR: 156,092 S.F.
TOTAL: 575,401 S.F.



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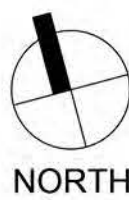
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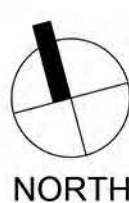
Kimley»Horn



SECOND FLOOR PLAN



GROUND FLOOR PLAN



MASTER PLAN

PRELIMINARY
FLOOR PLAN

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 6/19/2020
PROJECT ENGINEER	SHEET NUMBER

SCALE
AS NOTED

A2.1

BUILDING INFORMATION:

CODE: 2016 CALIFORNIA BUILDING CODE
TYPE OF USE: OFFICE/ DATA CENTER
OCCUPANCY GROUP: BUSINESS GROUP B (CHAPTER 3, SECTION 304)
TYPE OF BUILDING CONSTRUCTION: TYPE 2B (FULLY SPRINKLER) (CHAPTER 6, TABLE 601)

BUILDING SQUARE FOOTAGE:
GROUND FLOOR: 209,869 S.F.
SECOND FLOOR: 209,440 S.F.
THIRD FLOOR: 156,092 S.F.
TOTAL: 575,401 S.F.



ROOF PLAN
60' 30' 15' 0'
1"=30'-0" NORTH



THIRD FLOOR PLAN
60' 30' 15' 0'
1"=30'-0" NORTH



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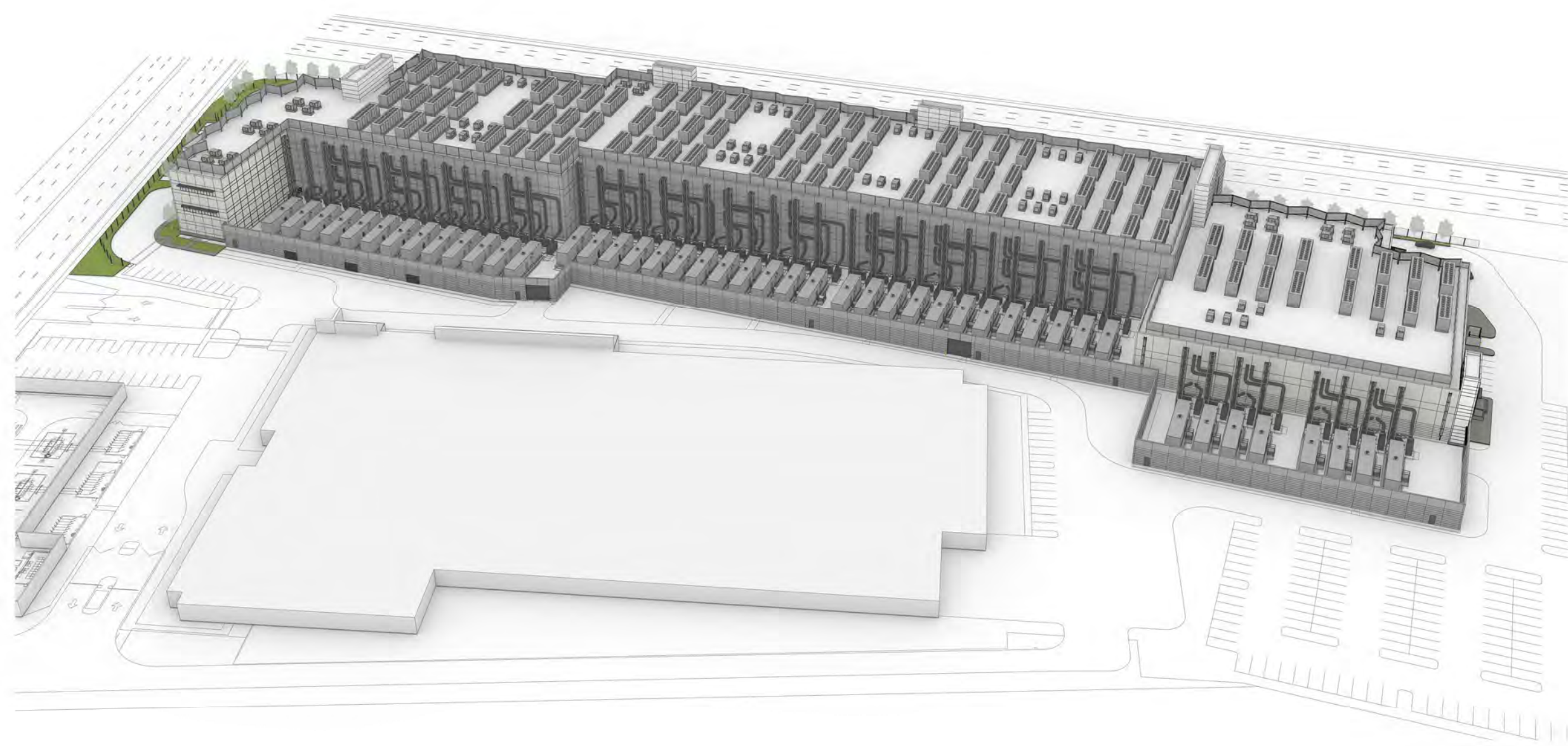
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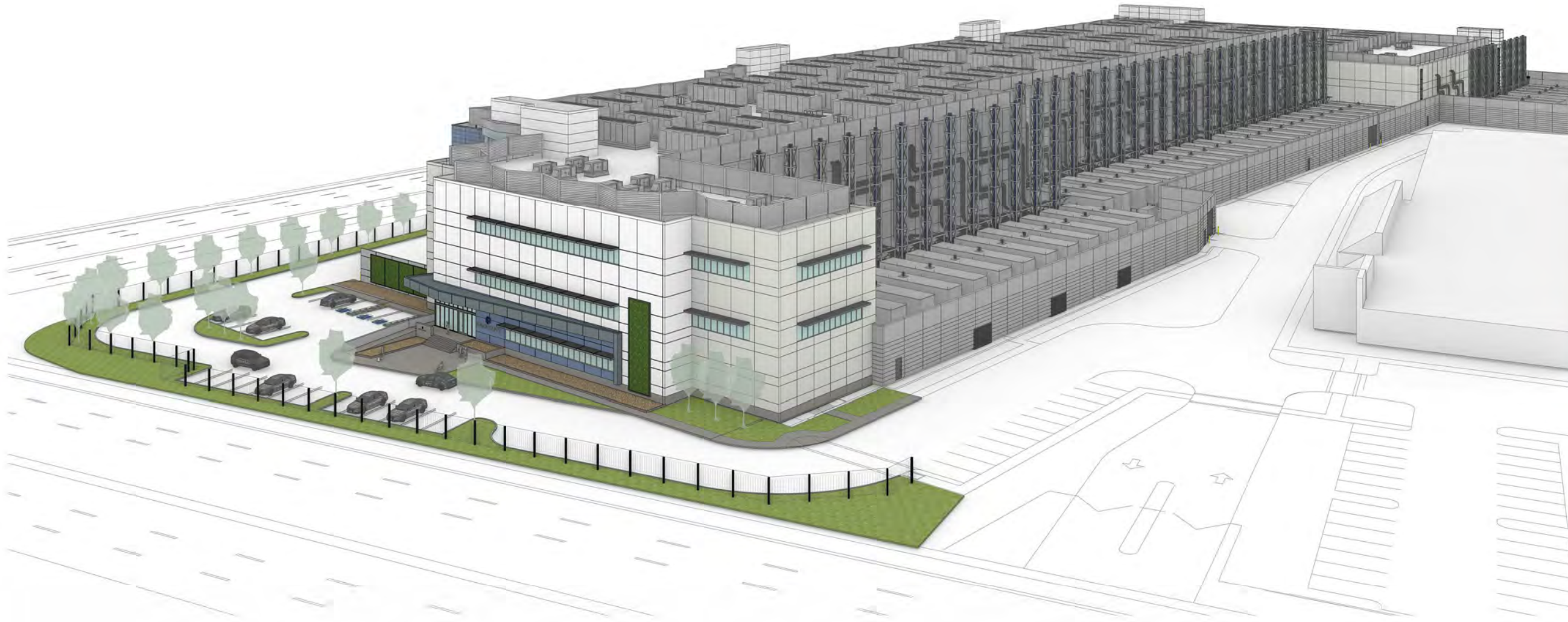
MASTER PLAN

PRELIMINARY
FLOOR PLAN

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 06/19/2020
PROJECT ENGINEER	SHEET NUMBER A2.2
SCALE AS NOTED	



09 OVERALL SOUTH AERIAL PERSPECTIVE



06 SOUTHWEST AERIAL PERSPECTIVE



03 SOUTHWEST PERSPECTIVE RENDERING
1 1/2" = 1'-0"



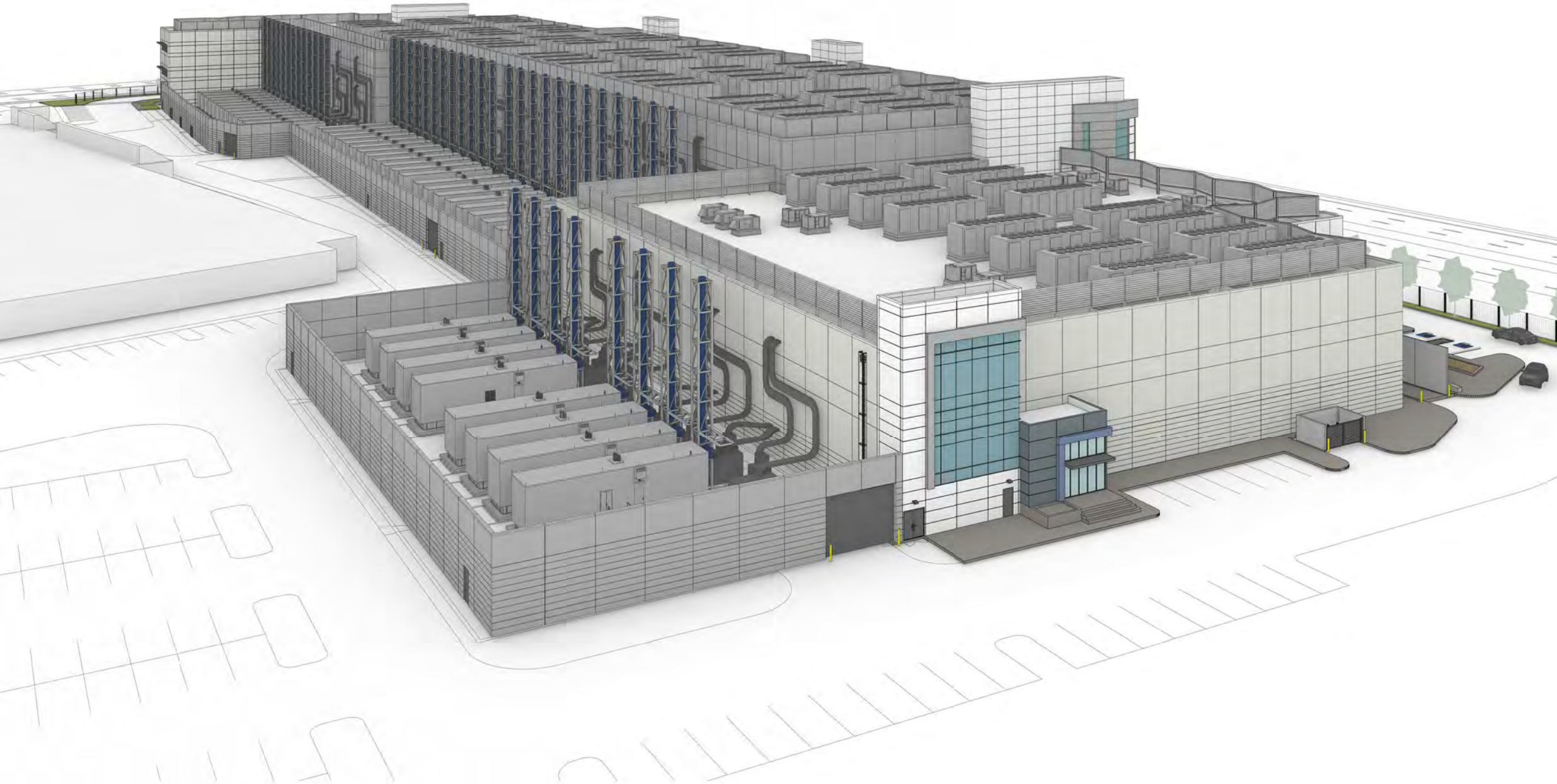
08 OVERALL NORTH AERIAL PERSPECTIVE



05 NORTHWEST AERIAL PERSPECTIVE



02 NORTHWEST PERSPECTIVE RENDERING
1 1/2" = 1'-0"



07 SOUTHEAST AERIAL PERSPECTIVE



04 NORTHEAST AERIAL PERSPECTIVE



01 NORTHWEST PERSPECTIVE RENDERING
1 1/2" = 1'-0"

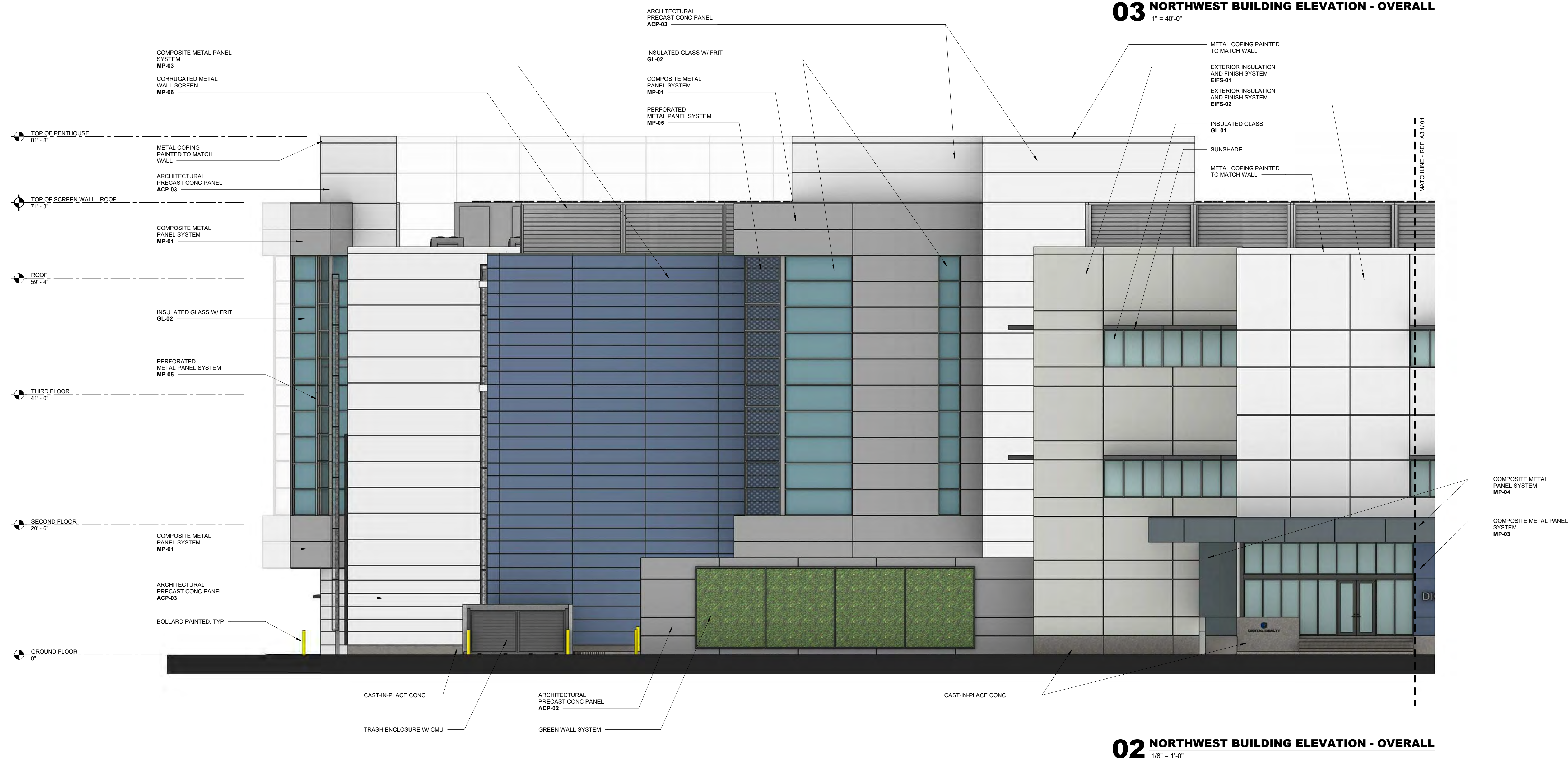
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Arch. Reg. No.: XXXX
Date: XXXXXXXX

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MASTER PLAN

BUILDING
PERSPECTIVES

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 06/19/2020
PROJECT ENGINEER	SHEET NUMBER
SCALE	A3.0



EXTERIOR MATERIALS LEGEND:

ARCHITECTURAL CONCRETE PANEL (ACP):

- ACP-01 ARCHITECTURAL PRECAST CONC PANEL
COLOR: DARK GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS
- ACP-02 ARCHITECTURAL PRECAST CONC PANEL
COLOR: LIGHT GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: DATA CENTER WALL, SCREEN WALL
- ACP-03 ARCHITECTURAL PRECAST CONC PANEL
COLOR: WHITE
FINISH: SMOOTH W/ REVEALS
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS

EXTERIOR GLAZING (GL):

- GL-01 1" INSULATED LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
LOCATION: TYPICAL VISION GLAZING
- GL-02 1" INSULATED LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
SOLID CERAMIC FRIT - 40%
LOCATION: STAIR TOWERS

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS):

- EIFS-01 COLOR: LIGHT GRAY
LOCATION: OFFICES
- EIFS-02 COLOR: WHITE
LOCATION: OFFICES

METAL PANEL (MP):

- MP-01 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-02 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: NORTH ELEVATION
- MP-03 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT BLUE
LOCATION: NORTH ELEVATION
- MP-04 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: GRAY VELVET
LOCATION: NORTH ELEVATION
- MP-05 PERFORATED METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-06 CORRUGATED METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: SCREEN WALL

GREEN SCREEN SYSTEM:

- FLATIRON ARTICULATED W/ TENSIONING EXTRUSIONS
MOUNTED DIRECTLY TO STRUCTURE

COLORS:

- PT-01 DARK GRAY
- PT-02 LIGHT GRAY
- PT-03 WHITE
- PT-04 LIGHT BLUE
- PT-05 GRAY VELVET
- PT-06 WEB GRAY



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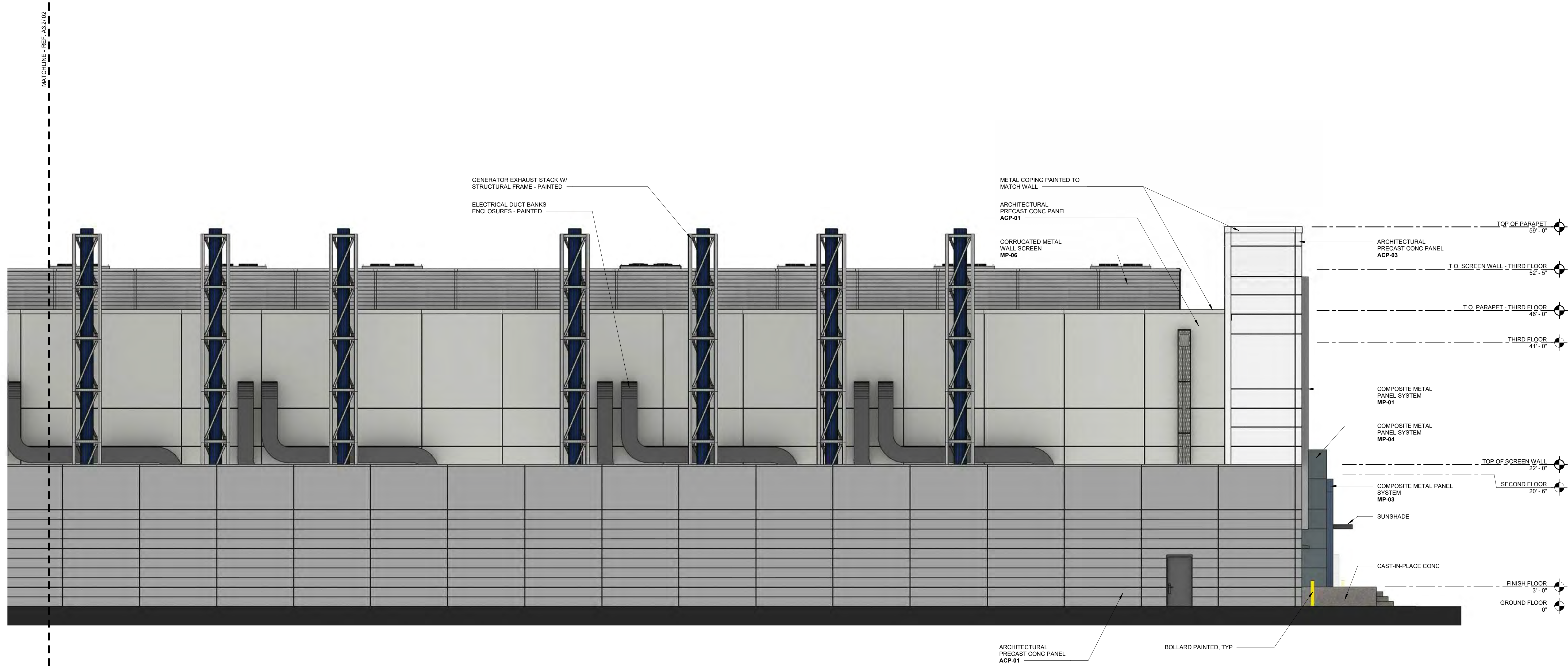
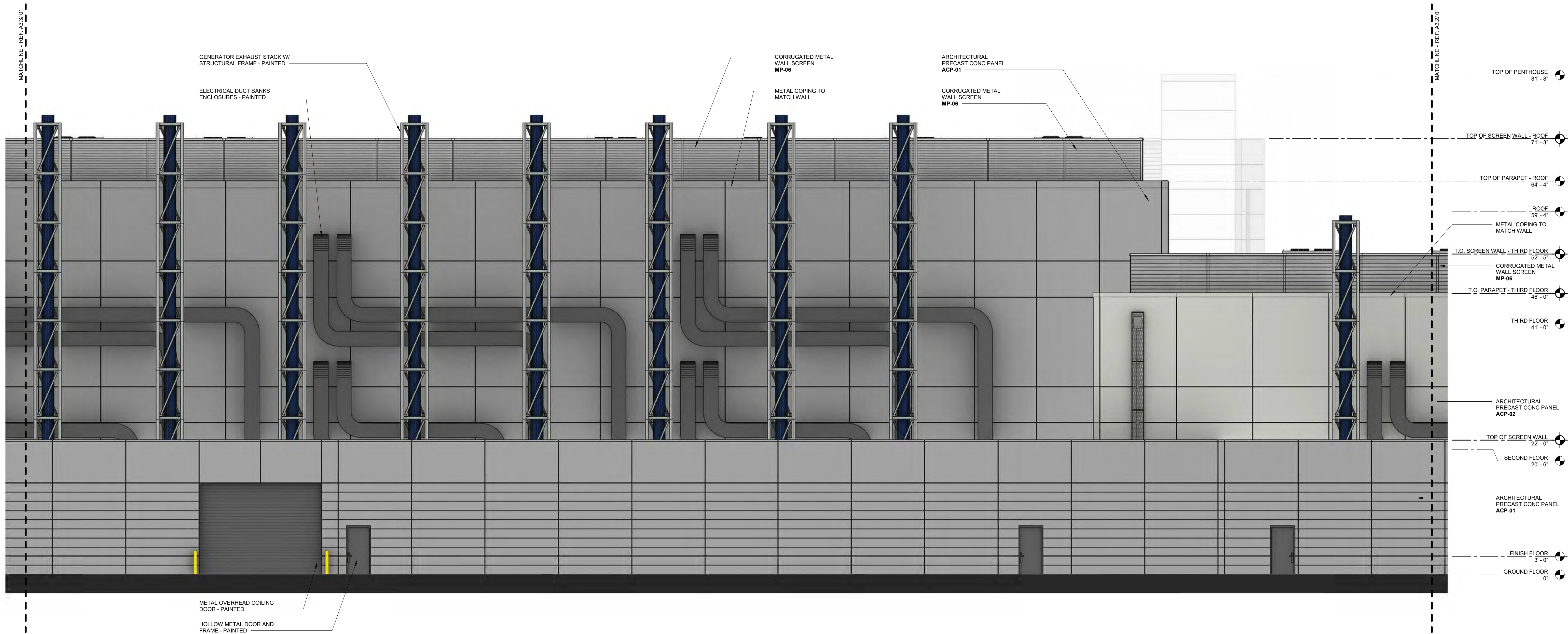
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Arch. Reg. No.: XXXXX
Date: XXXXXXXXXX

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NO.	RECORD	DATE

MASTER PLAN

BUILDING ELEVATIONS
- NORTHWEST

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 06/19/2020
PROJECT ENGINEER	SHEET NUMBER
SCALE	A3.1



EXTERIOR MATERIALS LEGEND:

ARCHITECTURAL CONCRETE PANEL (ACP):

- ACP-01 ARCHITECTURAL PRECAST CONC PANEL
COLOR: DARK GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS
- ACP-02 ARCHITECTURAL PRECAST CONC PANEL
COLOR: LIGHT GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: DATA CENTER WALL, SCREEN WALL
- ACP-03 ARCHITECTURAL PRECAST CONC PANEL
COLOR: WHITE
FINISH: SMOOTH W/ REVEALS
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS

EXTERIOR GLAZING (GL):

- GL-01 1" INSULATED / LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
LOCATION: TYPICAL VISION GLAZING
- GL-02 1" INSULATED / LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
SOLID CERAMIC FIBER - 40%
LOCATION: STAIR TOWERS

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS):

- EIFS-01 COLOR: LIGHT GRAY
LOCATION: OFFICES
- EIFS-02 COLOR: WHITE
LOCATION: OFFICES

METAL PANEL (MP):

- MP-01 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-02 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: NORTH ELEVATION
- MP-03 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT BLUE
LOCATION: NORTH ELEVATION
- MP-04 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: GRAY VELVET
LOCATION: NORTH ELEVATION
- MP-05 PERFORATED METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-06 CORRUGATED METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: SCREEN WALL

GREEN SCREEN SYSTEM:

- PLATINUM ARTICULATED W/ TENSIONING EXTRUSIONS
MOUNTED DIRECTLY TO STRUCTURE

COLORS:

- PT-01 DARK GRAY
- PT-02 LIGHT GRAY
- PT-03 WHITE
- PT-04 LIGHT BLUE
- PT-05 GRAY VELVET
- PT-06 WEB GRAY



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Date: XXXXXXXXXX

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MASTER PLAN

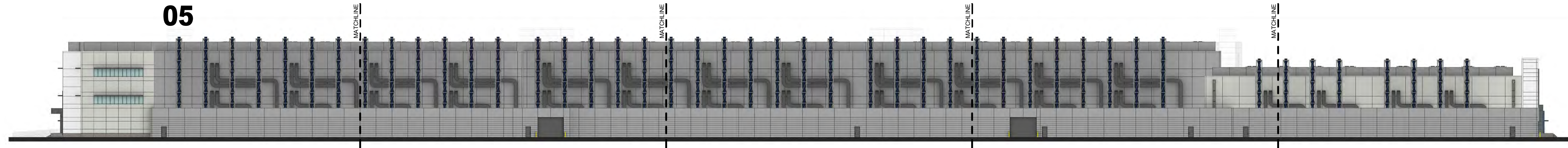
BUILDING ELEVATIONS
- SOUTHWEST

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 06/19/2020
PROJECT ENGINEER	SHEET NUMBER
SCALE	A3.2



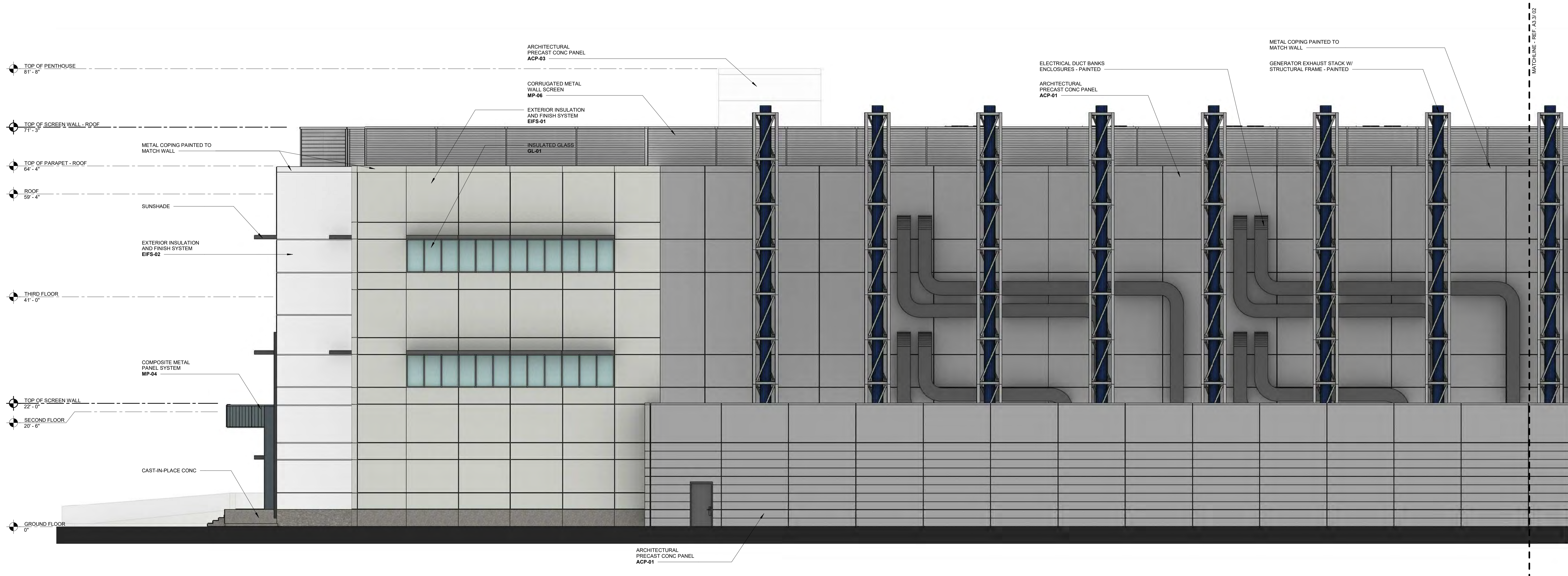
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05



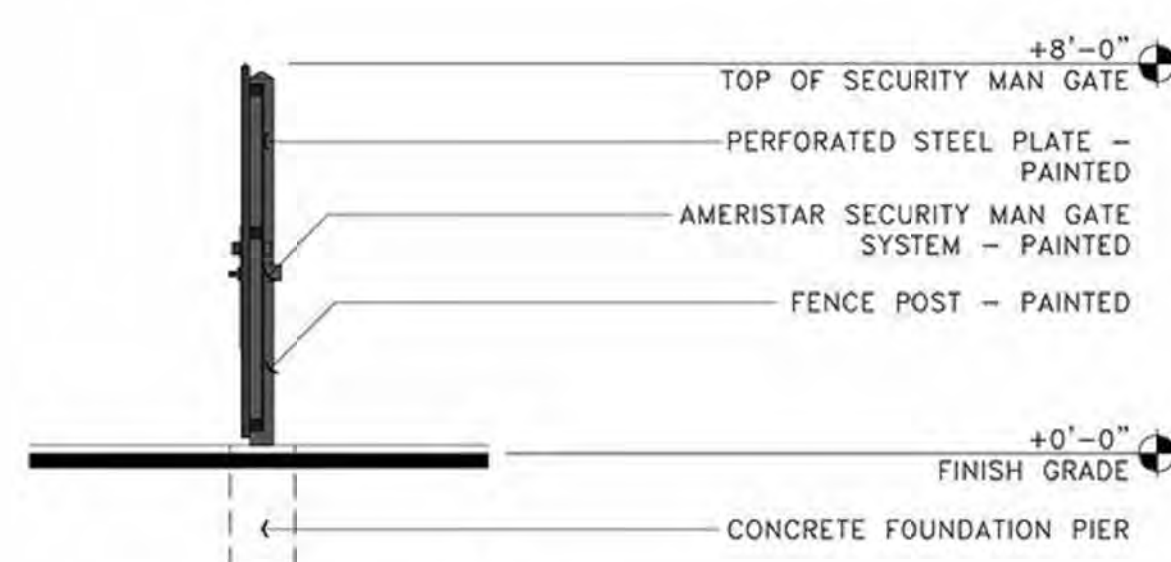
03 SOUTHWEST BUILDING ELEVATION - OVERALL

1" = 40'-0"

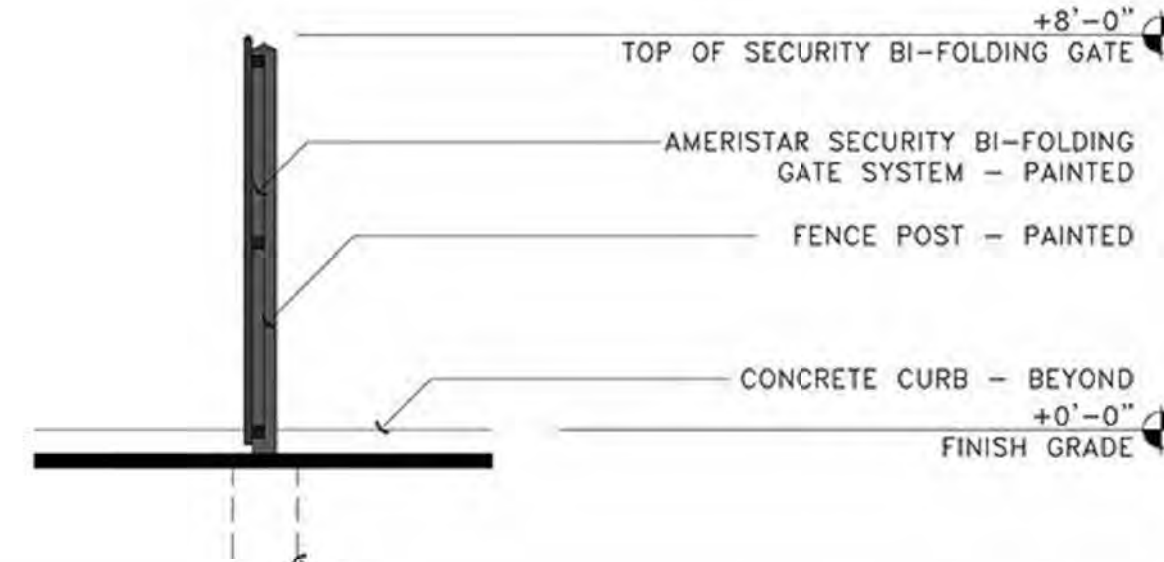


02 SOUTHWEST BUILDING ELEVATION - AREA 05

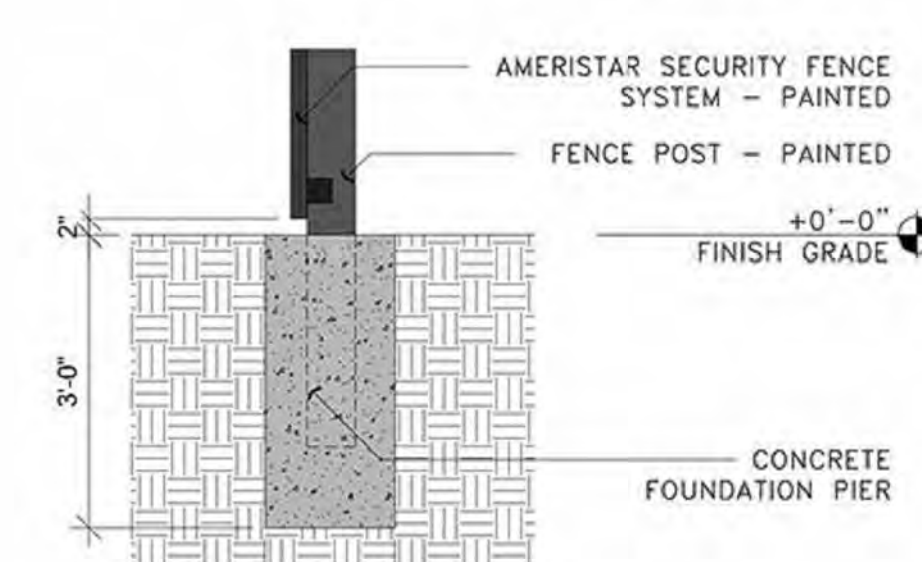
1/8" = 1'-0"



SECTION

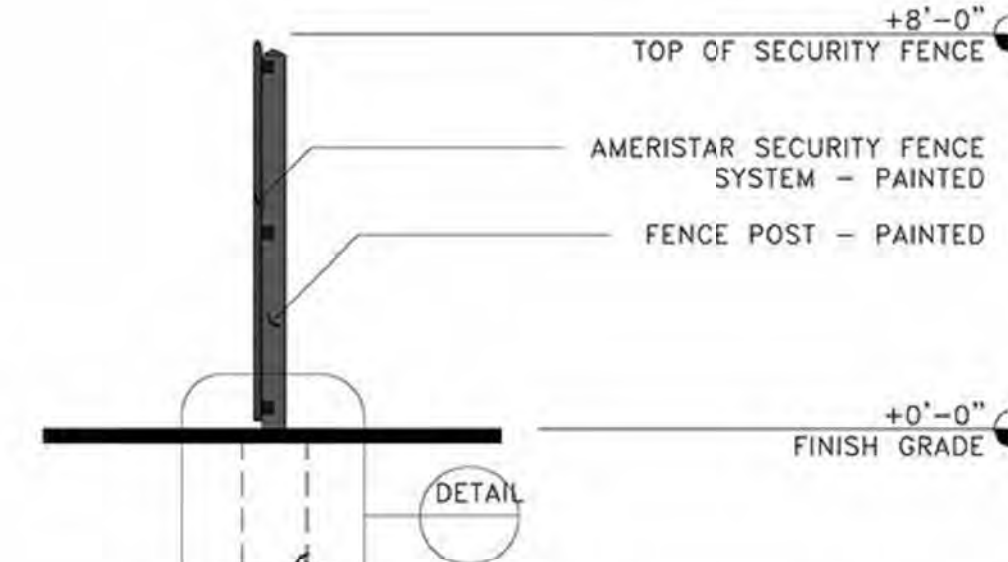


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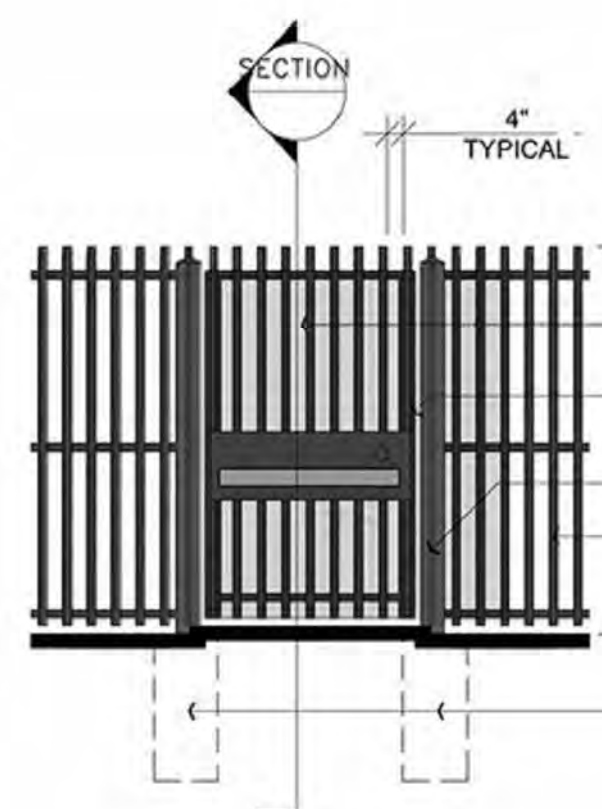


DETAIL

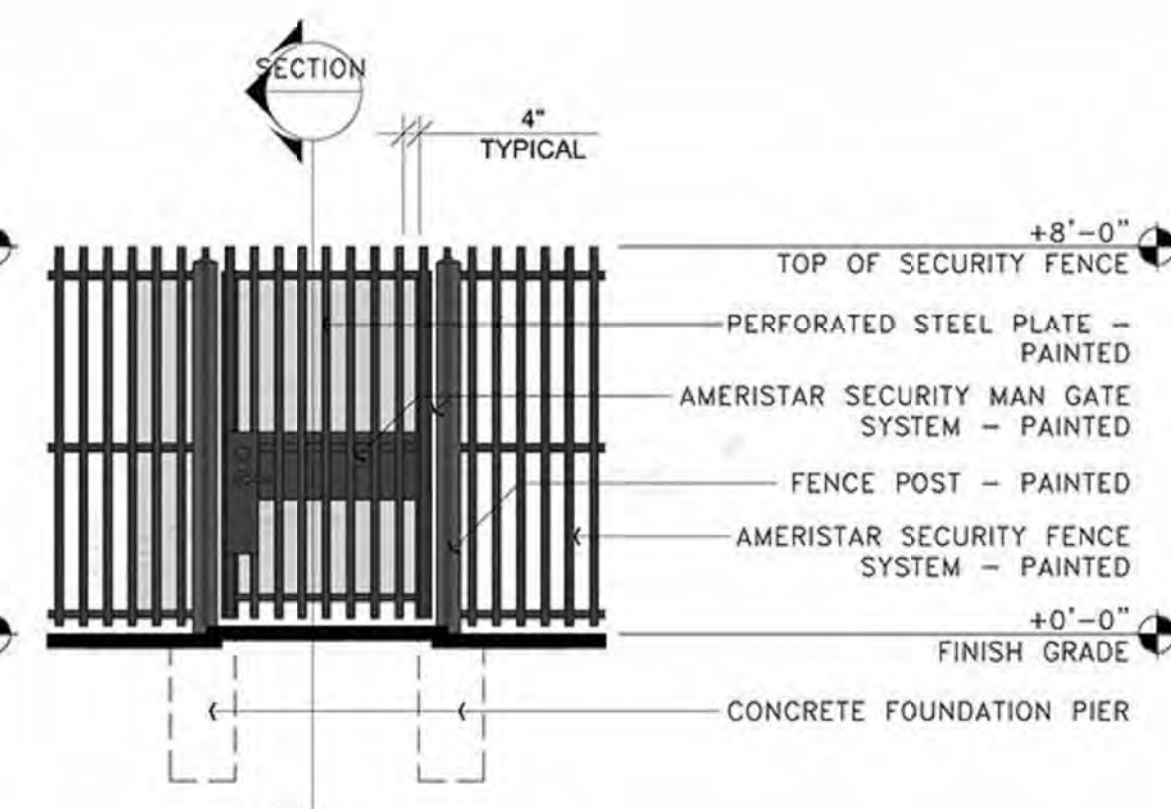
SCALE: 1/2" = 1'-0"



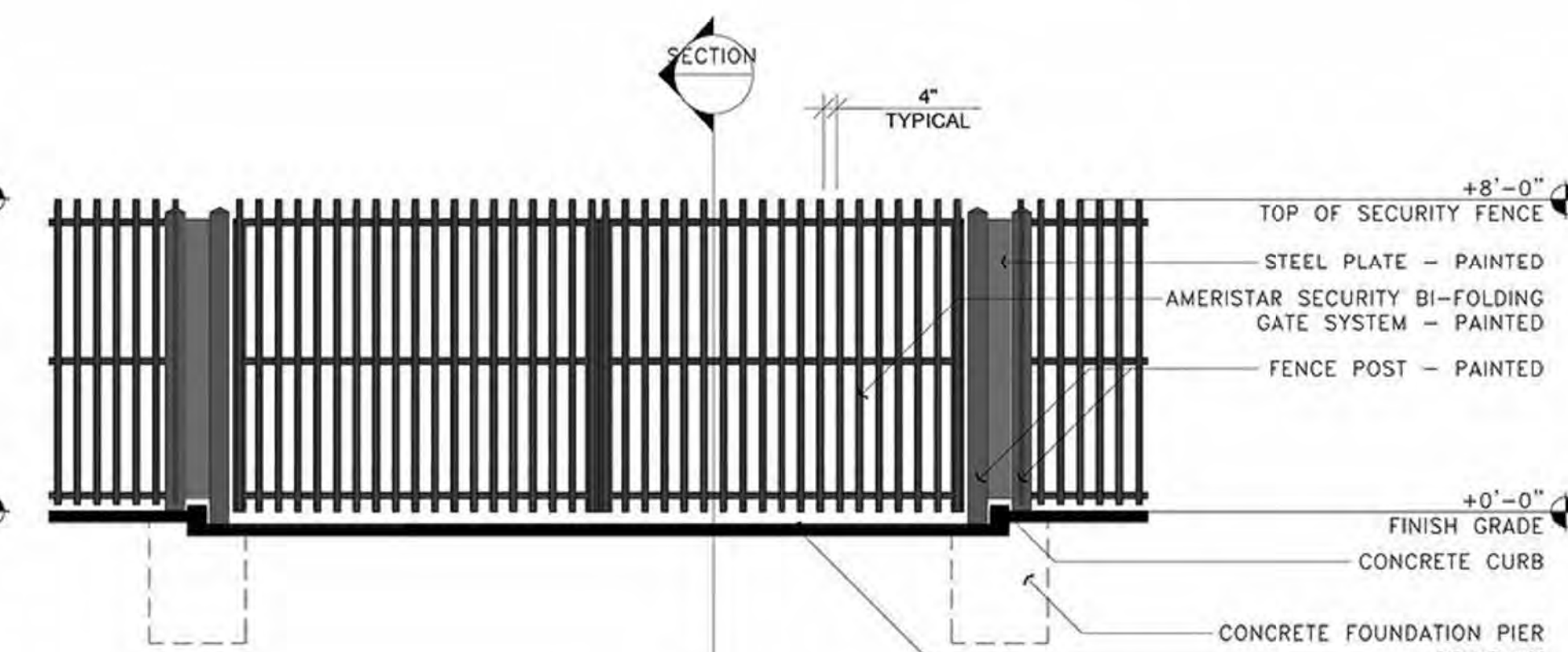
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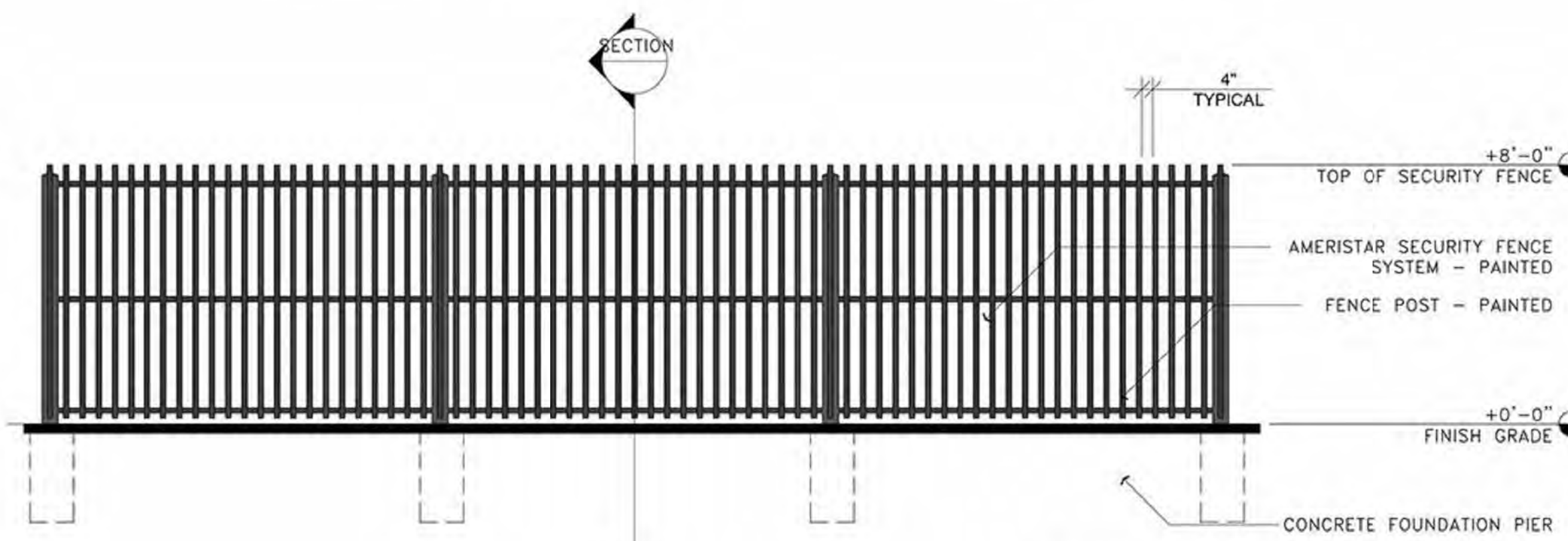
ELEVATION B



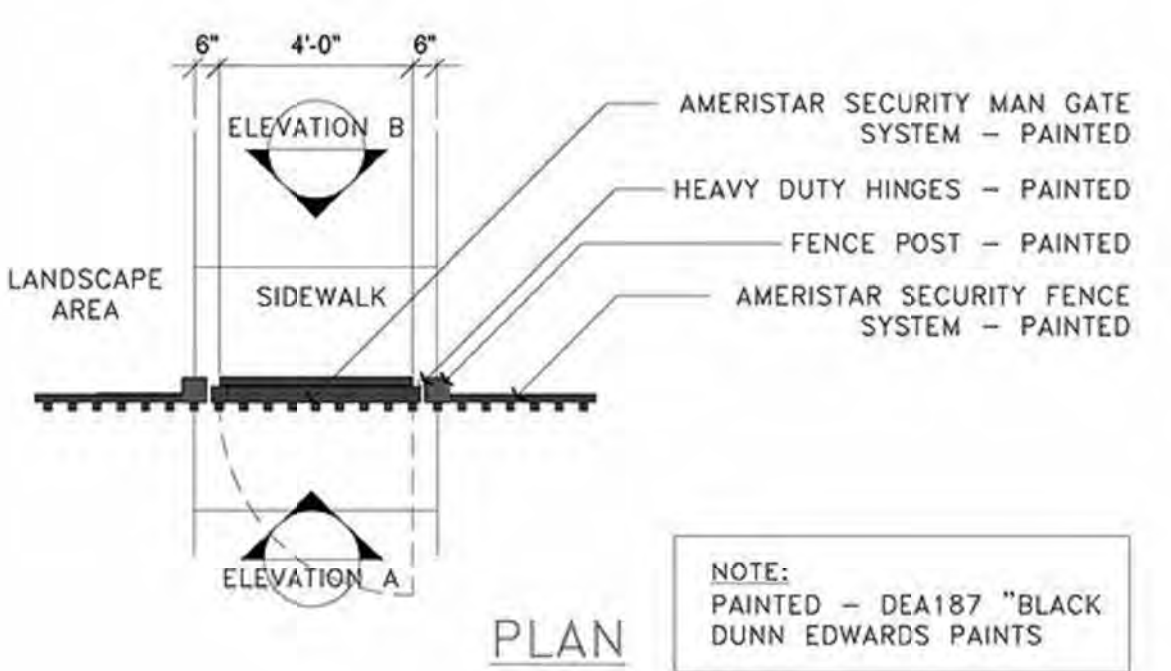
ELEVATION A



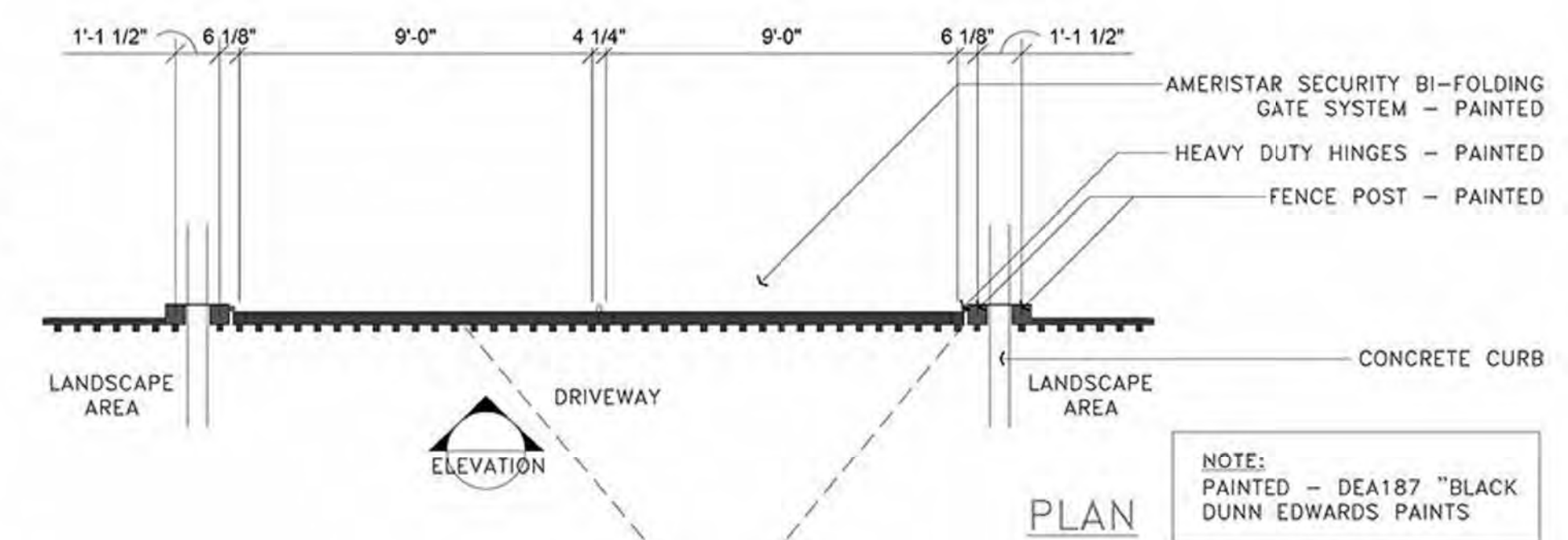
ELEVATION



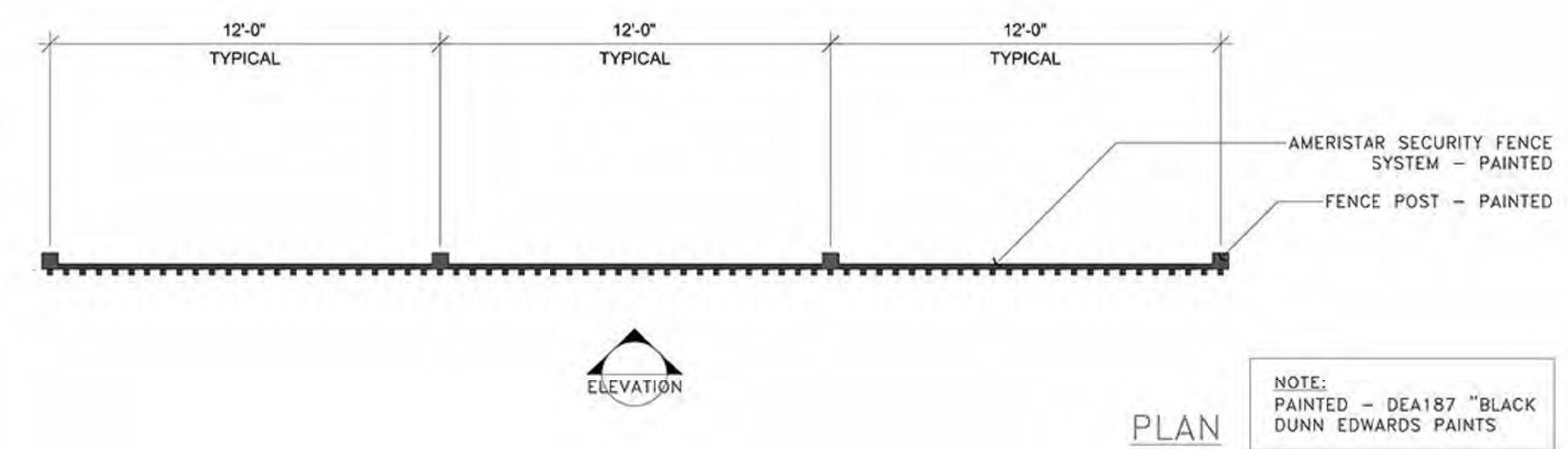
ELEVATION



PLAN



PLAN



PLAN

01 SECURITY FENCE AND GATE DETAILS

1/4" = 1'-0"

EXTERIOR MATERIALS LEGEND:

ARCHITECTURAL CONCRETE PANEL (ACP):

- ACP-01 ARCHITECTURAL PRECAST CONC PANEL
COLOR: DARK GRAY
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS
- ACP-02 ARCHITECTURAL PRECAST CONC PANEL
COLOR: LIGHT GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: DATA CENTER WALL, SCREEN WALL
- ACP-03 ARCHITECTURAL PRECAST CONC PANEL
COLOR: WHITE
FINISH: SMOOTH W/ REVEALS
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS

EXTERIOR GLAZING (GL):

- GL-01 1" INSULATED LOW-E VISION GLASS
GLASS SELECTION: VISION SOLARBAN 70XL CLEAR
LOCATION: TYPICAL VISION GLAZING
- GL-02 1" INSULATED LOW-E VISION GLASS
GLASS SELECTION: VISION SOLARBAN 70XL CLEAR
SOLID CERAMIC FBST - 40%
LOCATION: STAIR TOWERS

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS):

- EIFS-01 COLOR: LIGHT GRAY
LOCATION: OFFICES
- EIFS-02 COLOR: WHITE
LOCATION: OFFICES

METAL PANEL (MPI):

- MP-01 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-02 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: NORTH ELEVATION
- MP-03 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT BLUE
LOCATION: NORTH ELEVATION
- MP-04 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: GRAY VELVET
LOCATION: NORTH ELEVATION
- MP-05 PERFORATED METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-06 CORRUGATED METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: SCREEN WALL

GREEN SCREEN SYSTEM:

- PLATINUM ARTICULATED W/ TENSIONING EXTRUSIONS
MOUNTED DIRECTLY TO STRUCTURE

COLORS:

- PT-01 DARK GRAY
- PT-02 LIGHT GRAY
- PT-03 WHITE
- PT-04 LIGHT BLUE
- PT-05 GRAY VELVET
- PT-06 WEB GRAY



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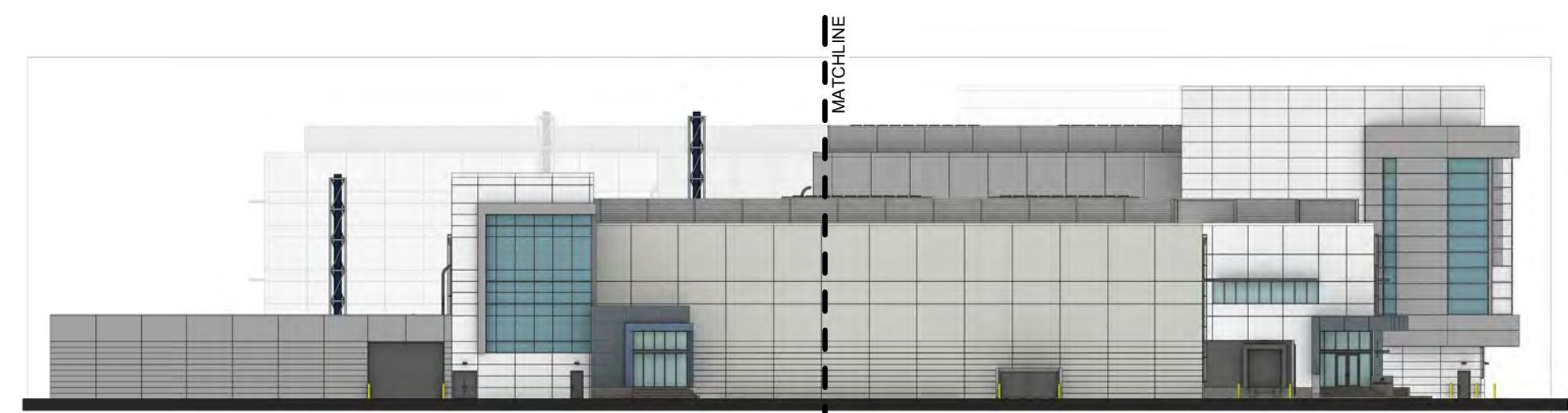
MASTER PLAN

BUILDING ELEVATIONS
- SOUTHWEST

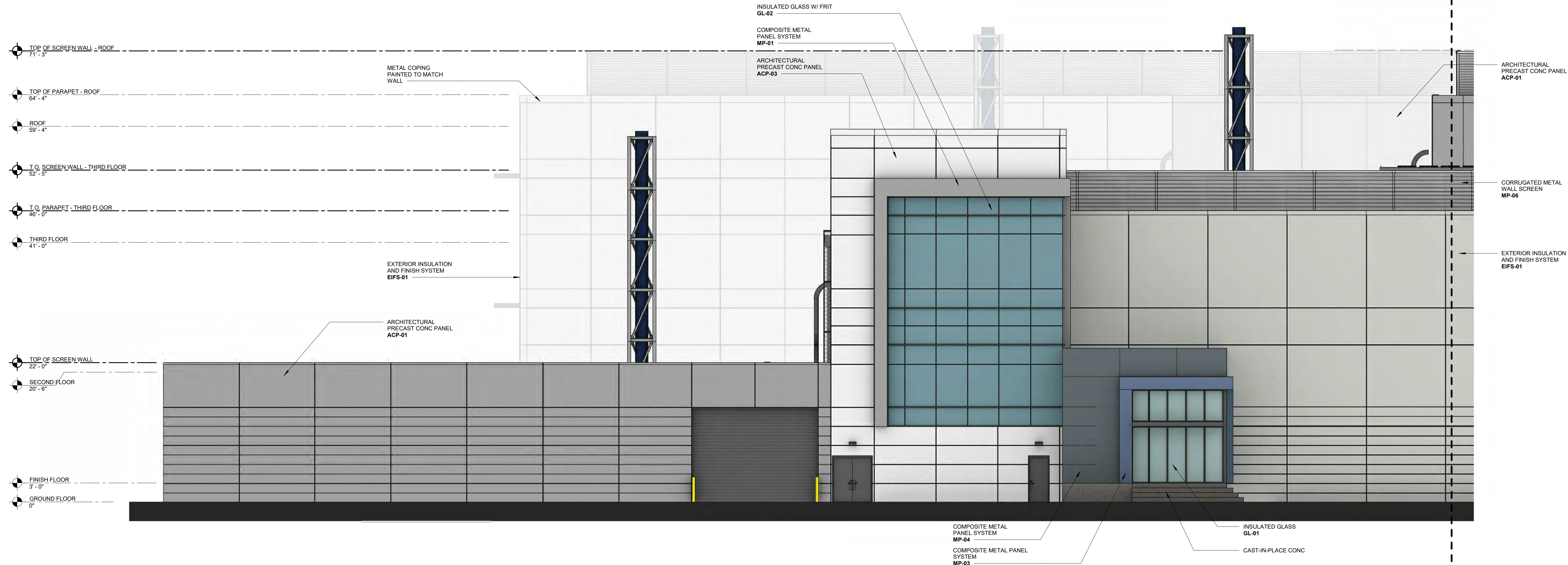
PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 06/19/2020
PROJECT ENGINEER	SHEET NUMBER
SCALE	A3.4

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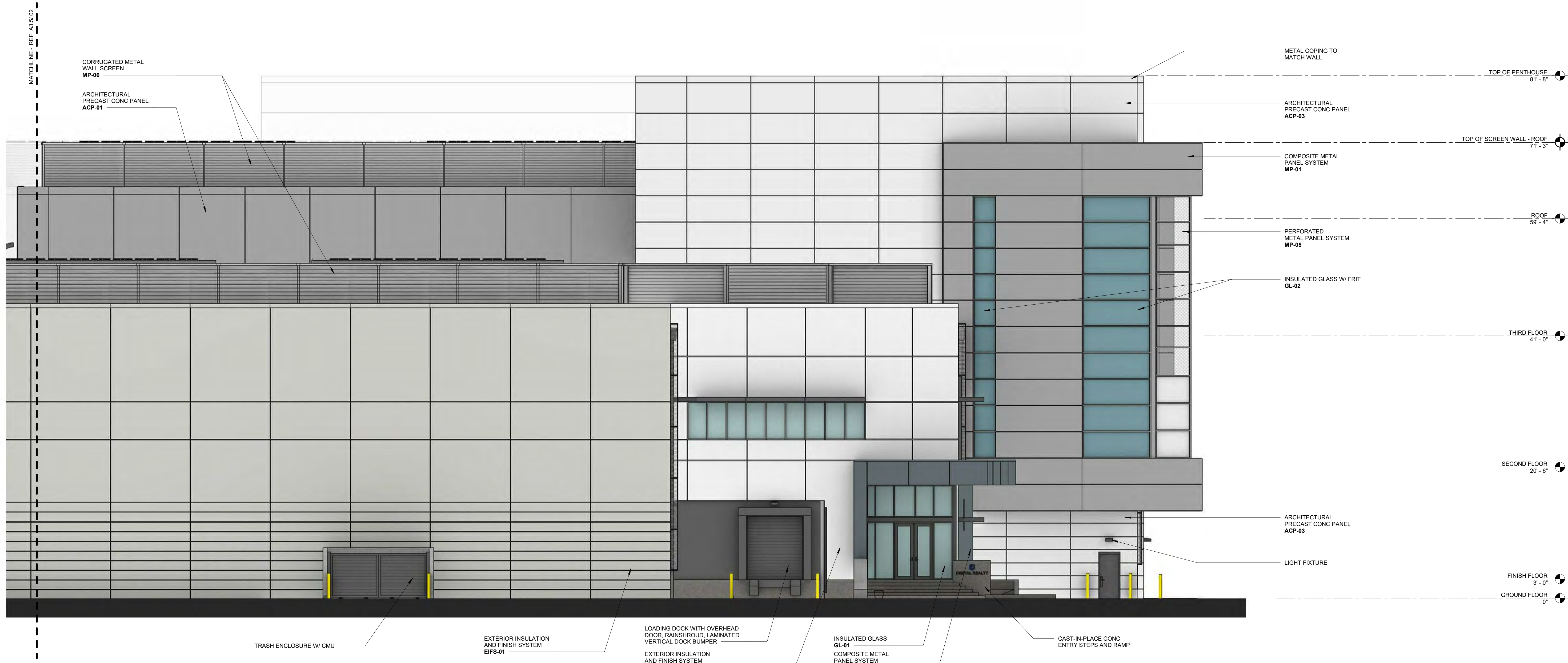
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03 SOUTHEAST BUILDING ELEVATION - OVERALL
1" = 40'-0"



02 SOUTHEAST BUILDING ELEVATION - AREA 02
1/8" = 1'-0"



01 SOUTHEAST BUILDING ELEVATION - AREA 01
1/8" = 1'-0"

EXTERIOR MATERIALS LEGEND:

ARCHITECTURAL CONCRETE PANEL (ACP):

- ACP-01 ARCHITECTURAL PRECAST CONC PANEL
COLOR: DARK GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: STAR TOWERS, SOUTH DATA CENTER WALLS
- ACP-02 ARCHITECTURAL PRECAST CONC PANEL
COLOR: LIGHT GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: DATA CENTER WALL, SCREEN WALL
- ACP-03 ARCHITECTURAL PRECAST CONC PANEL
COLOR: WHITE
FINISH: SMOOTH W/ REVEALS
LOCATION: STAR TOWERS, SOUTH DATA CENTER WALLS

EXTERIOR GLAZING (GL):

- GL-01 1" INSULATED LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
LOCATION: TYPICAL VISION GLAZING
- GL-02 1" INSULATED LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
SOLID CERAMIC FRIT - 40%
LOCATION: STAR TOWERS

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS):

- EIFS-01 COLOR: LIGHT GRAY
LOCATION: OFFICES
- EIFS-02 COLOR: WHITE
LOCATION: OFFICES

METAL PANEL (MP):

- MP-01 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAR TOWER
- MP-02 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: NORTH ELEVATION
- MP-03 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT BLUE
LOCATION: NORTH ELEVATION
- MP-04 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: GRAY VELVET
LOCATION: NORTH ELEVATION
- MP-05 PERFORATED METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAR TOWER
- MP-06 CORRUGATED METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: SCREEN WALL

GREEN SCREEN SYSTEM:

- PLATINUM ARTICULATED W/ TENSIONING EXTRUSIONS
MOUNTED DIRECTLY TO STRUCTURE

COLORS:

- PT-01 DARK GRAY
- PT-02 LIGHT GRAY
- PT-03 WHITE
- PT-04 LIGHT BLUE
- PT-05 GRAY VELVET
- PT-06 WEB GRAY



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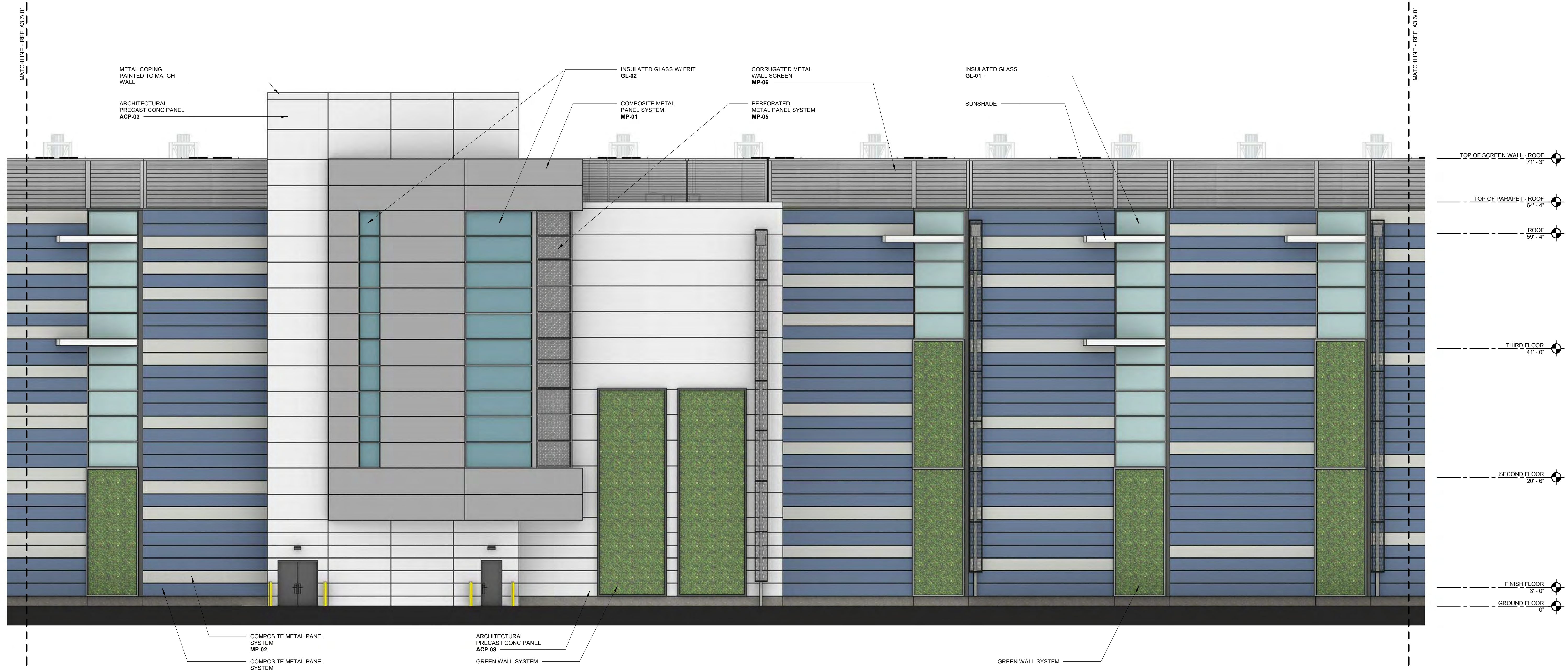
MASTER PLAN

BUILDING ELEVATIONS
- SOUTHEAST

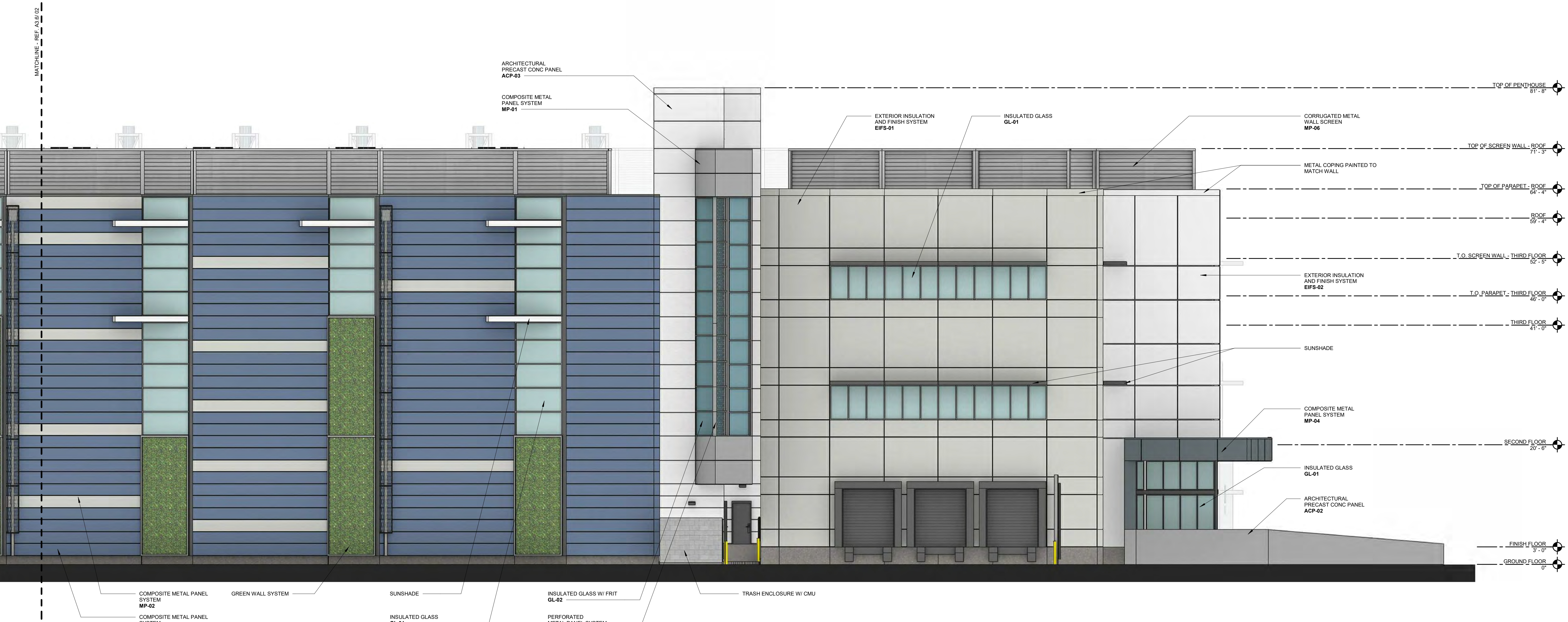
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PROJECT MANAGER CM	DATE 06/19/2020
PROJECT ENGINEER	SHEET NUMBER
SCALE	A3.5



03 NORTHEAST BUILDING ELEVATION - OVERALL
1" = 40'-0"



02 NORTHEAST BUILDING ELEVATION - AREA 02
1/8" = 1'-0"



01 NORTHEAST BUILDING ELEVATION - AREA 01
1/8" = 1'-0"

EXTERIOR MATERIALS LEGEND:

ARCHITECTURAL CONCRETE PANEL (ACP):

- ACP-01 ARCHITECTURAL PRECAST CONC PANEL
COLOR: DARK GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS
- ACP-02 ARCHITECTURAL PRECAST CONC PANEL
COLOR: LIGHT GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: DATA CENTER WALL, SCREEN WALL
- ACP-03 ARCHITECTURAL PRECAST CONC PANEL
COLOR: WHITE
FINISH: SMOOTH W/ REVEALS
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS

EXTERIOR GLAZING (GL):

- GL-01 1" INSULATED / LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
LOCATION: TYPICAL VISION GLAZING
- GL-02 1" INSULATED / LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
SOLID CERAMIC FRIT - 40%
LOCATION: STAIR TOWERS

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS):

- EIFS-01 COLOR: LIGHT GRAY
LOCATION: OFFICES
- EIFS-02 COLOR: WHITE
LOCATION: OFFICES

METAL PANEL (MP):

- MP-01 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-02 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: NORTH ELEVATION
- MP-03 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT BLUE
LOCATION: NORTH ELEVATION
- MP-04 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: GRAY VELVET
LOCATION: NORTH ELEVATION
- MP-05 PERFORATED METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-06 CORRUGATED METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: SCREEN WALL

GREEN SCREEN SYSTEM:

PLATINUM ARTICULATED W/ TENSIONING EXTRUSIONS
MOUNTED DIRECTLY TO STRUCTURE

COLORS:

- PT-01 DARK GRAY
- PT-02 LIGHT GRAY
- PT-03 WHITE
- PT-04 LIGHT BLUE
- PT-05 GRAY VELVET
- PT-06 WEB GRAY



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MASTER PLAN

BUILDING ELEVATIONS
- NORTHEAST

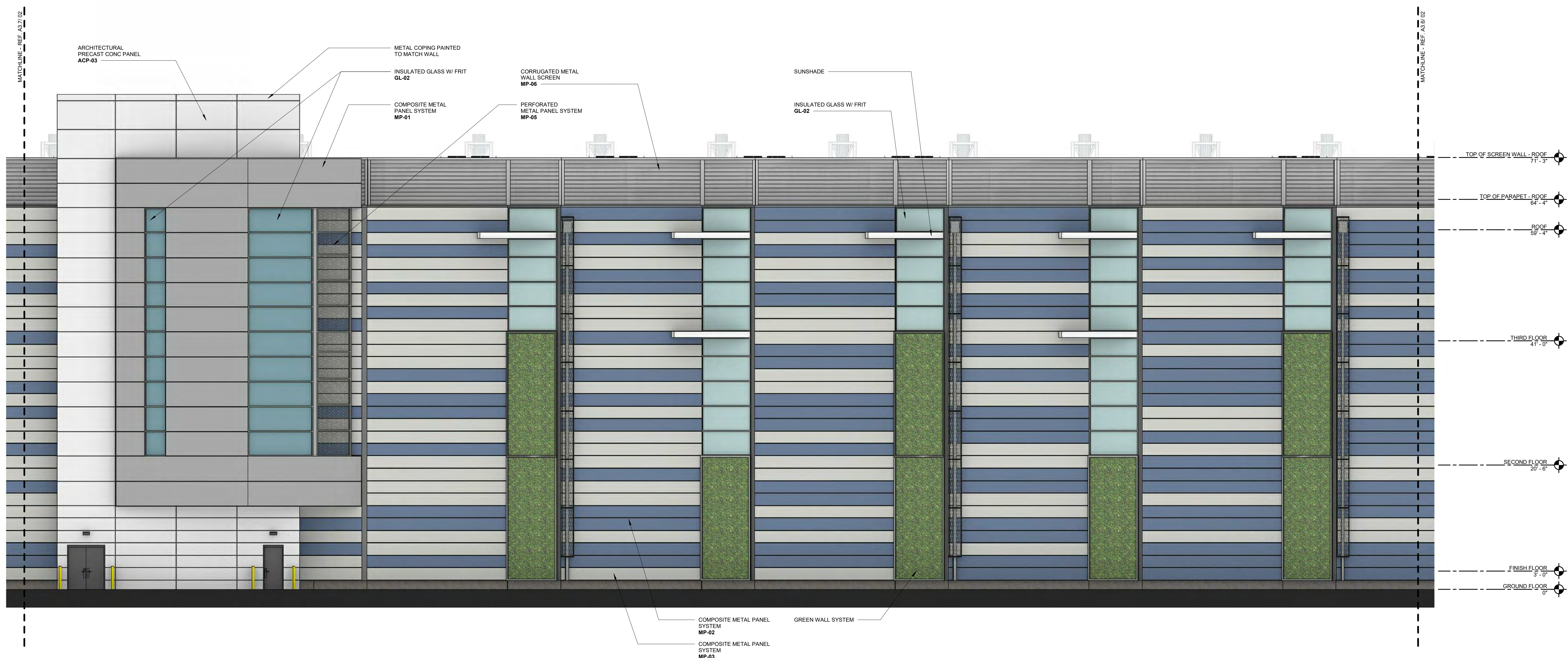
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PROJECT MANAGER CM	DATE 06/15/2020
PROJECT ENGINEER	SHEET NUMBER
SCALE	A3.6



03 EXTERIOR ELEVATION - NORTHEAST - OVERALL
1" = 40'-0"



02 NORTHEAST BUILDING ELEVATION - AREA 04
1/8" = 1'-0"



01 NORTHEAST BUILDING ELEVATION - AREA 03
1/8" = 1'-0"

EXTERIOR MATERIALS LEGEND:

ARCHITECTURAL CONCRETE PANEL (ACP):

- ACP-01 ARCHITECTURAL PRECAST CONC PANEL
COLOR: DARK GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: STAR TOWERS, SOUTH DATA CENTER WALLS
- ACP-02 ARCHITECTURAL PRECAST CONC PANEL
COLOR: LIGHT GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: DATA CENTER WALL, SCREEN WALL
- ACP-03 ARCHITECTURAL PRECAST CONC PANEL
COLOR: WHITE
FINISH: SMOOTH W/ REVEALS
LOCATION: STAR TOWERS, SOUTH DATA CENTER WALLS

EXTERIOR GLAZING (GL):

- GL-01 1" INSULATED LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
LOCATION: TYPICAL VISION GLAZING
- GL-02 1" INSULATED LOW-E VISION GLASS
GLASS SELECTION: VIRACON SOLARBAN 70XL CLEAR
SOLID CERAMIC FRIT - 40%
LOCATION: STAR TOWERS

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS):

- EIFS-01 COLOR: LIGHT GRAY
LOCATION: OFFICES
- EIFS-02 COLOR: WHITE
LOCATION: OFFICES

METAL PANEL (MP):

- MP-01 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAR TOWER
- MP-02 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: NORTH ELEVATION
- MP-03 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT BLUE
LOCATION: NORTH ELEVATION
- MP-04 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: GRAY VELVET
LOCATION: NORTH ELEVATION
- MP-05 PERFORATED METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAR TOWER
- MP-06 CORRUGATED METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: SCREEN WALL

GREEN SCREEN SYSTEM:

PLATINUM ARTICULATED W/ TENSIONING EXTRUSIONS
MOUNTED DIRECTLY TO STRUCTURE

COLORS:

- PT-01 DARK GRAY
- PT-02 LIGHT GRAY
- PT-03 WHITE
- PT-04 LIGHT BLUE
- PT-05 GRAY VELVET
- PT-06 WEB GRAY



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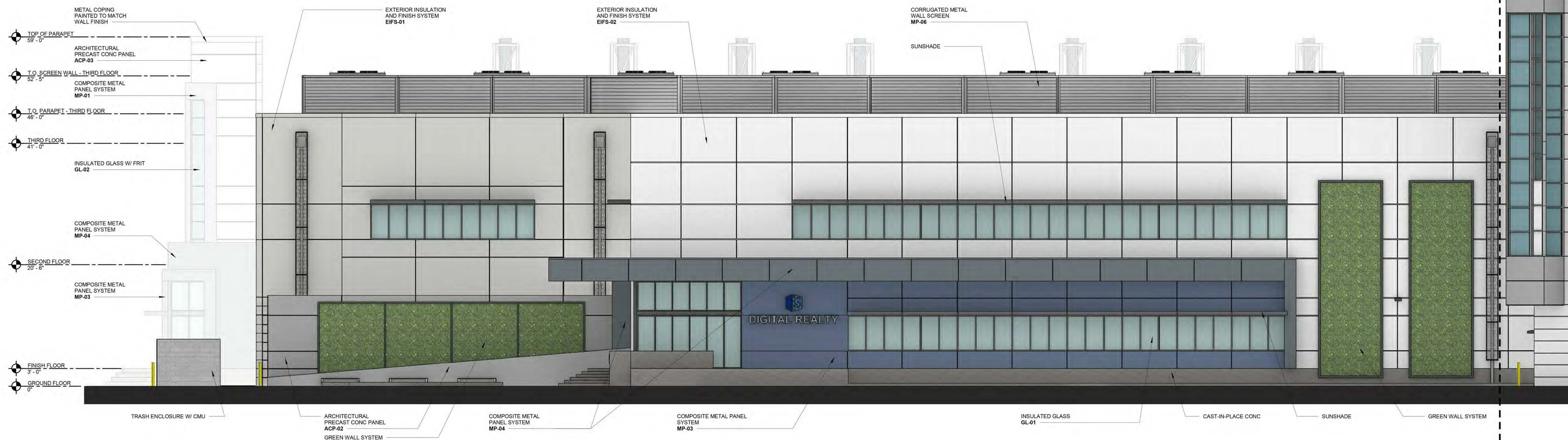
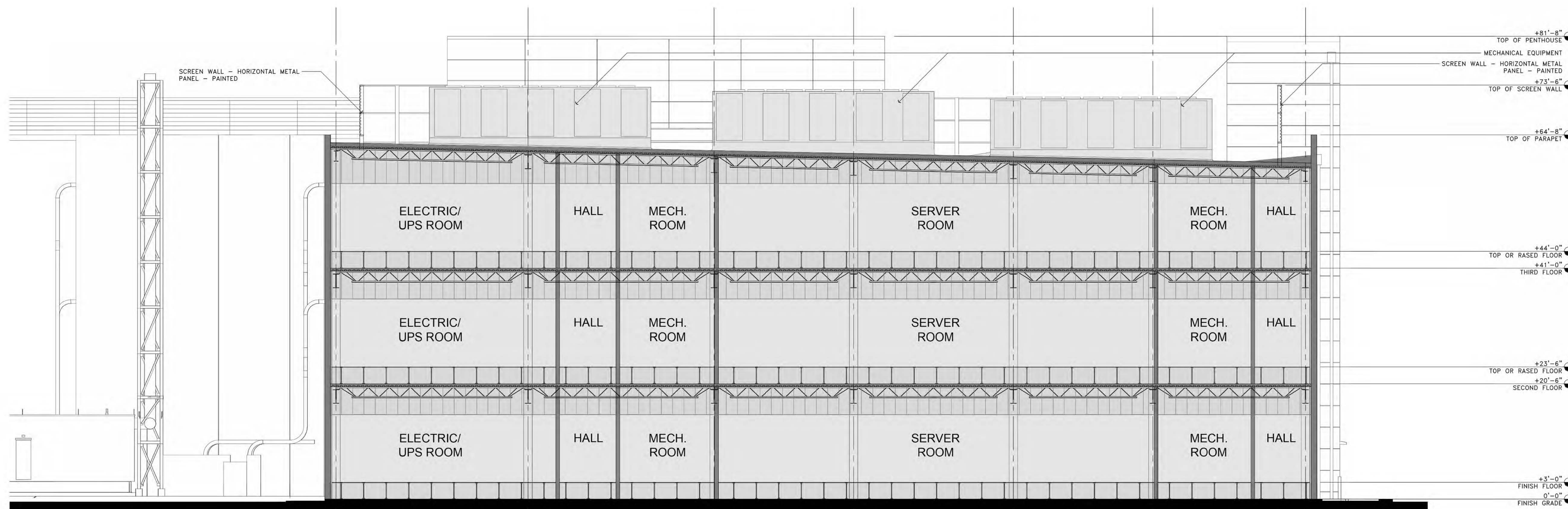
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MASTER PLAN

BUILDING ELEVATIONS
- NORTHEAST

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 06/19/2020
PROJECT ENGINEER	SHEET NUMBER A3.7
SCALE	

05

03 EXTERIOR ELEVATION - NORTHEAST - OVERALL
1" = 40'-0"02 NORTHEAST BUILDING ELEVATION - AREA 05
1/8" = 1'-0"01 BUILDING SECTION
1/8" = 1'-0"

EXTERIOR MATERIALS LEGEND:

ARCHITECTURAL CONCRETE PANEL (ACP):

- ACP-01 ARCHITECTURAL PRECAST CONC PANEL
COLOR: DARK GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS
- ACP-02 ARCHITECTURAL PRECAST CONC PANEL
COLOR: LIGHT GRAY
FINISH: SMOOTH W/ REVEALS
LOCATION: DATA CENTER WALL, SCREEN WALL
- ACP-03 ARCHITECTURAL PRECAST CONC PANEL
COLOR: WHITE
FINISH: SMOOTH W/ REVEALS
LOCATION: STAIR TOWERS, SOUTH DATA CENTER WALLS

EXTERIOR GLAZING (GL):

- GL-01 1" INSULATED / LOW-E VISION GLASS
GLASS SELECTION: WIPACON SOLARBAN 70XL CLEAR
LOCATION: TYPICAL VISION GLAZING
- GL-02 1" INSULATED / LOW-E VISION GLASS
GLASS SELECTION: WIPACON SOLARBAN 70XL CLEAR
SOLID CERAMIC FRIT - 40%
LOCATION: STAIR TOWERS

EXTERIOR INSULATION AND FINISH SYSTEM (EIFS):

- EIFS-01 COLOR: LIGHT GRAY
LOCATION: OFFICES
- EIFS-02 COLOR: WHITE
LOCATION: OFFICES

METAL PANEL (MP):

- MP-01 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-02 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: NORTH ELEVATION
- MP-03 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT BLUE
LOCATION: NORTH ELEVATION
- MP-04 COMPOSITE METAL PANEL
BASIS OF DESIGN:
COLOR: GRAY VELVET
LOCATION: NORTH ELEVATION
- MP-05 PERFORATED METAL PANEL
BASIS OF DESIGN:
COLOR: DARK GRAY
LOCATION: STAIR TOWER
- MP-06 CORRUGATED METAL PANEL
BASIS OF DESIGN:
COLOR: LIGHT GRAY
LOCATION: SCREEN WALL

GREEN SCREEN SYSTEM:

- PLATINUM ARTICULATED W/ TENSIONING EXTRUSIONS
MOUNTED DIRECTLY TO STRUCTURE

COLORS:

- PT-01 DARK GRAY
- PT-02 LIGHT GRAY
- PT-03 WHITE
- PT-04 LIGHT BLUE
- PT-05 GRAY VELVET
- PT-06 WEB GRAY

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MASTER PLAN

BUILDING ELEVATIONS
- NORTHEAST

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
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PROJECT ENGINEER	SHEET NUMBER A3.8
SCALE	

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PT-01
DARK GRAY



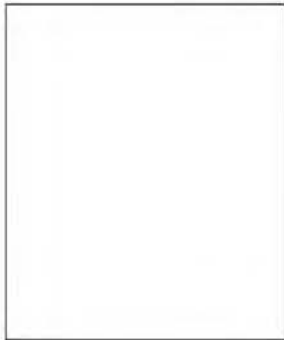
GL-01
INSULATED GLAZING
SOLARBAN 70XL CLEAR
VIRACON



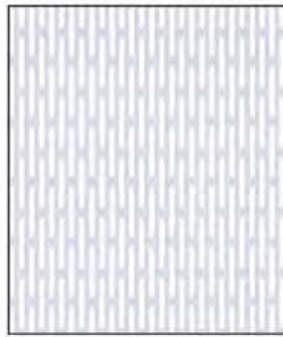
PT-02
LIGHT GRAY



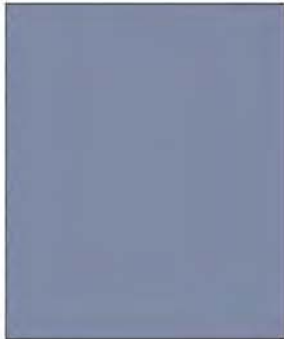
GL-02
INSULATED GLAZING
SOLARBAN 70XL CLEAR, 40%
FRIT
VIRACON



PT-03
WHITE



MP-05
PERFORATED METAL PANEL



PT-04
LIGHT BLUE



PT-05
GRAY VELVET



PT-06
WEB GRAY



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MASTER PLAN

**MATERIALS
BOARD**

PRINCIPAL IN CHARGE MC	PROJECT NUMBER C190280
PROJECT MANAGER CM	DATE 08/19/2020
PROJECT ENGINEER	SHEET NUMBER
SCALE AS NOTED	A4.0

K:\BAY_LDEV\197250001 - DLR Data Center (Lafayette St.) - MRJ\CAD\Exhibits\Entitlement Drawings\L1.0 PRELIM TREE DISPOSITION PLAN OPT 2.dwg 11/18/2020 5:45 PM Michael.Thomson

TREE INVENTORY

Tree #	Species	Latin Name	DBH (in.)	TPZ radius (ideal; feet)	Project Feature(s) Impacting	Disposition
1	Evergreen pear	Pyrus kawakamii	17	21.3	Driveway	REMOVE
2	London plane	Platanus x acerifolia	8.9	8.9	Driveway	REMOVE
3	London plane	Platanus x acerifolia	8.5	8.5	Driveway	REMOVE
4	London plane	Platanus x acerifolia	11.9	11.9	Driveway	REMOVE
5	London plane	Platanus x acerifolia	8.2	8.2	Driveway	REMOVE
6	London plane	Platanus x acerifolia	8.6	8.6	Driveway	REMOVE
7	London plane	Platanus x acerifolia	13.4	13.4	Transmission Lines	REMOVE
8	London plane	Platanus x acerifolia	12.8	12.8	Transmission Lines	REMOVE
9	London plane	Platanus x acerifolia	9.2	9.2	Transmission Lines	REMOVE
10	London plane	Platanus x acerifolia	8.8	8.8	Transmission Lines	REMOVE
11	London plane	Platanus x acerifolia	11	11	Transmission Lines	REMOVE
12	London plane	Platanus x acerifolia	12.9	12.9	Transmission Lines	REMOVE
13	London plane	Platanus x acerifolia	13.1	13.1	Transmission Lines	REMOVE
14	London plane	Platanus x acerifolia	11.6	11.6	Transmission Lines	REMOVE
15	London plane	Platanus x acerifolia	12	12	Transmission Lines	REMOVE
16	London plane	Platanus x acerifolia	11.9	11.9	Transmission Lines	REMOVE
17	London plane	Platanus x acerifolia	13.3	13.3	Transmission Lines	REMOVE
18	Purple-leaf plum	Prunus cerasifera	5.9	5.9	Transmission Lines	REMOVE
19	Purple-leaf plum	Prunus cerasifera	5.3	5.3	Transmission Lines	REMOVE
20	Purple-leaf plum	Prunus cerasifera	6.3	6.3	Transmission Lines	REMOVE
21	Purple-leaf plum	Prunus cerasifera	4.8	4.8	Transmission Lines	REMOVE
22	Purple-leaf plum	Prunus cerasifera	6.7	6.7	Transmission Lines	REMOVE
23	Purple-leaf plum	Prunus cerasifera	6.8	6.8	Substation	REMOVE
24	London plane	Platanus x acerifolia	13.1	13.1	Substation	REMOVE
25	London plane	Platanus x acerifolia	9.2	9.2	Substation	REMOVE
26	London plane	Platanus x acerifolia	8	8	None	Retain
27	London plane	Platanus x acerifolia	6.9	6.9	None	Retain
28	London plane	Platanus x acerifolia	11.1	11.1	None	Retain
29	London plane	Platanus x acerifolia	11	11	None	Retain
30	London plane	Platanus x acerifolia	11	11	Civil Improvement	REMOVE
31	London plane	Platanus x acerifolia	14.4	14.4	Retention Area	REMOVE
32	London plane	Platanus x acerifolia	12.5	15.6	Retention Area	REMOVE
33	London plane	Platanus x acerifolia	15.4	15.4	None	Retain
34	London plane	Platanus x acerifolia	13	13	None	Retain
35	London plane	Platanus x acerifolia	15.7	15.7	None	Retain
36	London plane	Platanus x acerifolia	15	15	None	Retain
37	London plane	Platanus x acerifolia	14.8	14.8	None	Retain
38	London plane	Platanus x acerifolia	14.1	14.1	None	Retain
39	London plane	Platanus x acerifolia	14.9	14.9	None	Retain
40	London plane	Platanus x acerifolia	11.1	11.1	None	Retain
41	London plane	Platanus x acerifolia	12.8	12.8	None	Retain
42	London plane	Platanus x acerifolia	5.9	5.9	Driveway	REMOVE
43	London plane	Platanus x acerifolia	7.6	7.6	Substation	REMOVE
44	Raywood ash	Fraxinus angustifolia 'Raywood'	10.4	13	Substation	REMOVE
45	Raywood ash	Fraxinus angustifolia 'Raywood'	13.5	16.9	Substation	REMOVE
46	Raywood ash	Fraxinus angustifolia 'Raywood'	10.8	13.5	Substation	REMOVE
47	Raywood ash	Fraxinus angustifolia 'Raywood'	12.1	15.1	Substation	REMOVE
48	Raywood ash	Fraxinus angustifolia 'Raywood'	12	15	Substation	REMOVE
49	Raywood ash	Fraxinus angustifolia 'Raywood'	10.1	12.6	Substation	REMOVE
50	Raywood ash	Fraxinus angustifolia 'Raywood'	12.6	15.8	Substation	REMOVE
51	London plane	Platanus x acerifolia	8.7	10.9	Substation	REMOVE
52	London plane	Platanus x acerifolia	7.2	9	Substation	REMOVE
53	London plane	Platanus x acerifolia	9.3	9.3	Substation	REMOVE
54	London plane	Platanus x acerifolia	6.8	6.8	Substation	REMOVE
55	Raywood ash	Fraxinus angustifolia 'Raywood'	9.8	12.3	Substation	REMOVE
56	Raywood ash	Fraxinus angustifolia 'Raywood'	13.4	16.8	Substation	REMOVE
57	Raywood ash	Fraxinus angustifolia 'Raywood'	13.1	16.4	Substation	REMOVE
58	Raywood ash	Fraxinus angustifolia 'Raywood'	7.5	9.4	Substation	REMOVE
59	Raywood ash	Fraxinus angustifolia 'Raywood'	2.1	2.1	Substation	REMOVE
60	London plane	Platanus x acerifolia	5.8	5.8	Substation	REMOVE
61	London plane	Platanus x acerifolia	5.1	5.1	Substation	REMOVE
62	London plane	Platanus x acerifolia	5.6	5.6	Substation	REMOVE
63	London plane	Platanus x acerifolia	7.5	7.5	Substation	REMOVE
64	Raywood ash	Fraxinus angustifolia 'Raywood'	3.8	4.8	Substation	REMOVE
65	Raywood ash	Fraxinus angustifolia 'Raywood'	3	3.8	Substation	REMOVE
66	Raywood ash	Fraxinus angustifolia 'Raywood'	5.6	7	Substation	REMOVE
67	Raywood ash	Fraxinus angustifolia 'Raywood'	7.8	9.8	Substation	REMOVE
68	Raywood ash	Fraxinus angustifolia 'Raywood'	8.7	10.9	Substation	REMOVE
69	Raywood ash	Fraxinus angustifolia 'Raywood'	8.1	10.1	Substation	REMOVE
70	Raywood ash	Fraxinus angustifolia 'Raywood'	9.2	11.5	Driveway	REMOVE
71	London plane	Platanus x acerifolia	6.4	8	Driveway	REMOVE
72	London plane	Platanus x acerifolia	8	8	Driveway	REMOVE
73	London plane	Platanus x acerifolia	9.5	9.5	Driveway	REMOVE
74	London plane	Platanus x acerifolia	8.7	8.7	Driveway	REMOVE
75	London plane	Platanus x acerifolia	6.9	6.9	Driveway	REMOVE
76	London plane	Platanus x acerifolia	9.9	9.9	Driveway	REMOVE
77	London plane	Platanus x acerifolia	9	9	Driveway	REMOVE
78	London plane	Platanus x acerifolia	7.7	7.7	Driveway	REMOVE
79	London plane	Platanus x acerifolia	10.1	10.1	Driveway	REMOVE
80	London plane	Platanus x acerifolia	10.9	10.9	Driveway	REMOVE
81	London plane	Platanus x acerifolia	8.1	8.1	Driveway	REMOVE
82	London plane	Platanus x acerifolia	8.5	8.5	Driveway; PL fence	REMOVE
83	London plane	Platanus x acerifolia	8	8	Driveway; PL fence	REMOVE
84	London plane	Platanus x acerifolia	10	10	Transmission Lines	REMOVE

85	London plane	Platanus x acerifolia	9.6	9.6	Transmission Lines	REMOVE
86	London plane	Platanus x acerifolia	9.2	9.2	Transmission Lines	REMOVE
87	London plane	Platanus x acerifolia	10.9	10.9	Transmission Lines	REMOVE
88	London plane	Platanus x acerifolia	14.9	14.9	Transmission Lines	REMOVE
89	London plane	Platanus x acerifolia	8.2	8.2	Transmission Lines	REMOVE
90	London plane	Platanus x acerifolia	12.4	12.4	Transmission Lines	REMOVE
91	London plane	Platanus x acerifolia	14.6	14.6	Transmission Lines	REMOVE
92	London plane	Platanus x acerifolia	15	15	Transmission Lines	REMOVE
93	London plane	Platanus x acerifolia	15.6	15.6	Transmission Lines	REMOVE
94	London plane	Platanus x acerifolia	16.2	16.2	Transmission Lines	REMOVE
95	London plane	Platanus x acerifolia	19	19	Transmission Lines	REMOVE
96	London plane	Platanus x acerifolia	12	12	Driveway	REMOVE
97	London plane	Platanus x acerifolia	16	16	Driveway	REMOVE
98	Weeping willow	Salix babylonica	35.5	26.6	None	Retain
99	Hackberry	Celtis sp.	9.4	7.1	Building	REMOVE
100	Crape myrtle	Lagerstroemia indica	6.8	5.1	Building	REMOVE
101	Crape myrtle	Lagerstroemia indica	6.8	5.1	Building	REMOVE
102	Callery pear	Pyrus calleryana	8.5	6.4	Building	REMOVE
103	African fern pine	Afrocarpus gracilior	9.7	4.9	Building	REMOVE
104	Callery pear	Pyrus calleryana	7.4	5.6	Building	REMOVE
105	Callery pear	Pyrus calleryana	7.3	5.5	Building	REMOVE
106	Crape myrtle	Lagerstroemia indica	3.6	3.6	Building	REMOVE
107	Ornamental cherry	Prunus sp.	4.6	5.8	Building	REMOVE
108	Crape myrtle	Lagerstroemia indica	5.5	4.1	Generator yard	REMOVE
109	African fern pine	Afrocarpus gracilior	8.4	4.2	Generator yard	REMOVE
110	Crape myrtle	Lagerstroemia indica	5.4	4.1	Generator yard	REMOVE
111	Callery pear	Pyrus calleryana	7.8	5.9	Generator yard	REMOVE
112	Crape myrtle	Lagerstroemia indica	6.2	4.7	Generator yard	REMOVE
113	Callery pear	Pyrus calleryana	10.3	7.7	Generator yard	REMOVE
114	London plane	Platanus x acerifolia	15.5	19.4	Generator yard	REMOVE
115	London plane	Platanus x acerifolia	10	10	Generator yard	REMOVE
116	London plane	Platanus x acerifolia	14.9	18.6	Building	REMOVE
117	London plane	Platanus x acerifolia	10.2	12.8	Building	REMOVE
118	London plane	Platanus x acerifolia	9.7	9.7	Building	REMOVE
119	London plane	Platanus x acerifolia	8.9	8.9	Building	REMOVE
120	Green ash	Fraxinus pennsylvanica	12.8	9.6	Building	REMOVE
121	Green ash	Fraxinus pennsylvanica	12.8	9.6	Building	REMOVE
122	Green ash	Fraxinus pennsylvanica	10.7	8	Building	REMOVE
123	Green ash	Fraxinus pennsylvanica	8.4	6.3	Building	REMOVE
124	Green ash	Fraxinus pennsylvanica	8.5	6.4	Building	REMOVE
125	London plane	Platanus x acerifolia	4.8	7.2	Building	REMOVE
126	London plane	Platanus x acerifolia	14.7	14.7	Building	REMOVE
127	London plane	Platanus x acerifolia	13.1	13.1	Generator yard	REMOVE
128	London plane	Platanus x acerifolia	13.2	13.2	Generator yard	REMOVE
129	London plane	Platanus x acerifolia	7.9	7.9	Generator yard	REMOVE
130	London plane	Platanus x acerifolia	9.2	9.2	Building	REMOVE
131	London plane	Platanus x acerifolia	14.6	14.6	Generator yard	REMOVE
132	London plane	Platanus x acerifolia	11.9	11.9	Generator yard	REMOVE
133	London plane	Platanus x acerifolia	8.3	8.3	Building	REMOVE
134	London plane	Platanus x acerifolia	13	13	Building	REMOVE
135	London plane	Platanus x acerifolia	11.9	11.9	Building	REMOVE
136	Green ash	Fraxinus pennsylvanica	11.6	8.7	Building	REMOVE
137	Green ash	Fraxinus pennsylvanica	13.5	10.1	Building	REMOVE
138	Green ash	Fraxinus pennsylvanica	9.9	7.4	Building	REMOVE
139	Green ash	Fraxinus pennsylvanica	18.3	9.2	Building	REMOVE
140	Green ash	Fraxinus pennsylvanica	12.3	9.2	Driveway	REMOVE
141	Green ash	Fraxinus pennsylvanica	12.8	9.6	Driveway	REMOVE
142	London plane	Platanus x acerifolia	10	10	Driveway	REMOVE
143	London plane	Platanus x acerifolia	15.3	15.3	Building	REMOVE
144	London plane	Platanus x acerifolia	7.2	7.2	Building	REMOVE
145	London plane	Platanus x acerifolia	12.3	12.3	Building	REMOVE
146	London plane	Platanus x acerifolia	9.5	9.5	Driveway	REMOVE
147	London plane	Platanus x acerifolia	8.9	8.9	Driveway	REMOVE
148	London plane	Platanus x acerifolia	9.9	9.9	Driveway	REMOVE
149	London plane	Platanus x acerifolia	9.5	9.5	Driveway	REMOVE
150	London plane	Platanus x acerifolia	13.9	13.9	Building	REMOVE
151	London plane	Platanus x acerifolia	10.1	10.1	Driveway	REMOVE
152	London plane	Platanus x acerifolia	10.5	10.5	Driveway	REMOVE
153	London plane	Platanus x acerifolia	12.1	12.1	Driveway	REMOVE
154	London plane	Platanus x acerifolia	6.3	6.3	Driveway	REMOVE
155	London plane	Platanus x acerifolia	10.3	10.3	Driveway	REMOVE
156	Green ash	Fraxinus pennsylvanica	15.3	7.7	Driveway	REMOVE
157	Green ash	Fraxinus pennsylvanica	6.4	4.8	Driveway	REMOVE
158	London plane	Platanus x acerifolia	11.2	11.2	Building	REMOVE
159	London plane	Platanus x acerifolia	7.5	7.5	Building	REMOVE
160	London plane	Platanus x acerifolia	12.2	12.2	Building	REMOVE
161	London plane	Platanus x acerifolia	13.9	13.9	Building	REMOVE
162	London plane	Platanus x acerifolia	13.7	13.7	Building	REMOVE
163	London plane	Platanus x acerifolia	8.7	8.7	Driveway	REMOVE
164	London plane	Platanus x acerifolia	15.9	15.9	Building	REMOVE
165	London plane	Platanus x acerifolia	11.9	11.9	Building	REMOVE
166	London plane	Platanus x acerifolia	8.5	8.5	Building	REMOVE
167	London plane	Platanus x acerifolia	15.4	15.4	Building	REMOVE
168	London plane	Platanus x acerifolia	11	11	Building	REMOVE
169	Crape myrtle	Lagerstroemia indica	5.2	3.9	Building	REMOVE
170	Crape myrtle	Lagerstroemia indica	5.9	4.4	Building	REMOVE

171	African fern pine	Afrocarpus gracilior	10	5	Building	REMOVE
172	Bay laurel	Laurus nobilis	12.8	9.6	Building	REMOVE
173	Eastern redbud	Cercis canadensis	9.7	7.3	Building	REMOVE
174	Eastern redbud	Cercis canadensis	12.3	9.2	Building	REMOVE
175	Hackberry	Celtis sp.	7	5.3	Building	REMOVE
176	Hackberry	Celtis sp.	6.8	5.1	Building	REMOVE
177	Japanese maple	Acer palmatum	4.5	3.4	Building	REMOVE
178	Japanese maple	Acer palmatum	5	3.8	Building	REMOVE
179	Japanese maple	Acer palmatum	6.7	5	Building	REMOVE
180	Japanese maple	Acer palmatum	8.8	6.6	Building	REMOVE
181	Philodendron	Philodendron sp.	9	6.8	Building	REMOVE
182	Japanese maple	Acer palmatum	4.5	3.4	Building	REMOVE
183	Weeping cherry	Prunus subhirtella 'Pendula'	5	6.3	Building	REMOVE
184	Weeping cherry	Prunus subhirtella 'Pendula'	6	0	N/A (dead)	REMOVE
185	Weeping cherry	Prunus subhirtella 'Pendula'	4.8	3.6	Building	REMOVE
186	Japanese maple	Acer palmatum	4.9	3.7	Building	REMOVE
187	Japanese maple	Acer palmatum	6.3	4.7	Building	REMOVE
188	Japanese maple	Acer palmatum	6.7	5	Building	REMOVE
189	Hackberry	Celtis sp.	5.4	4.1	Building	REMOVE
190	Hackberry	Celtis sp.	7.8	5.9	Building	REMOVE
191	Hackberry	Celtis sp.	4.2	3.2	Building	REMOVE
192	Eastern redbud	Cercis canadensis	11.5	8.6	Building	REMOVE
193	Eastern redbud	Cercis canadensis	11	8.3	Building	REMOVE
194	bay laurel	Laurus nobilis	7.3	5.5	Building	REMOVE
195	Crape myrtle	Lagerstroemia indica	6.6	5	Building	REMOVE
196	Crape myrtle	Lagerstroemia indica	6.6	5	Building	REMOVE
197	Hackberry	Celtis sp.	7	5.3	Building	REMOVE
198	African fern pine	Afrocarpus gracilior	9.9	5	Building	REMOVE
199	Hackberry	Celtis sp.	11	8.3	Building	REMOVE
200	Evergreen pear	Pyrus kawakamii	13.1	16.4	Building	REMOVE
201	Evergreen pear	Pyrus kawakamii	12.7	15.9	Building	REMOVE
202	Raywood ash	Fraxinus angustifolia 'Raywood'	10	12.5	Building	REMOVE
203	Chinese pistache	Pistacia chinensis	9.3	4.7	Building	REMOVE
204	Raywood ash	Fraxinus angustifolia 'Raywood'	8.5	10.6	Building	REMOVE
205	Raywood ash	Fraxinus angustifolia 'Raywood'	9.5	11.9	Building	REMOVE
206	Evergreen pear	Pyrus kawakamii	11.8	17.7	Building	REMOVE
207	Evergreen pear	Pyrus kawakamii	10.1	12.6	Building	REMOVE
208	Evergreen pear	Pyrus kawakamii	11.9	14.9	Building	REMOVE
209	Evergreen pear	Pyrus kawakamii	10.2	15.3	Building	REMOVE
210	Unknown	Unknown sp.	6.3	6.3	Building	REMOVE
211	Unknown	Unknown sp.	5.1	5.1	Building	REMOVE
212	White birch	Betula pendula	7.2	9	Building	REMOVE
213	White birch	Betula pendula	9.1	9.1	Building	REMOVE
214	White birch	Betula pendula	5.4	5.4	Building	REMOVE
215	White birch	Betula pendula	7	7	Building	REMOVE
216	Japanese maple	Acer palmatum	6	4.5	Building	REMOVE
217	Japanese maple	Acer palmatum	5.4	4.1	Building	REMOVE
218	Japanese maple	Acer palmatum	6	4.5	Building	REMOVE
219	Weeping cherry	Prunus subhirtella 'Pendula'	6	4.5	Building	REMOVE
220	Japanese maple	Acer palmatum	4.3	3.2	Building	REMOVE
221	Japanese maple	Acer palmatum	7	5.3	Building	REMOVE
222	Weeping cherry	Prunus subhirtella 'Pendula'	4.5	3.4	Building	REMOVE
223	Ornamental cherry	Prunus sp.	4.8	4.8	Building	REMOVE
224	White birch	Betula pendula	6.6	6.6	Building	REMOVE
225	White birch	Betula pendula	8.1	8.1	Building	REMOVE
226	Japanese maple	Acer palmatum	5	3.8	Building	REMOVE
227	White birch	Betula pendula	6.6	6.6	Building	REMOVE
228	White birch	Betula pendula	7.1	7.1	Building	REMOVE
229	Japanese maple	Acer palmatum	5.9	5.9	Building	REMOVE
230	Japanese maple	Acer palmatum	4.4	4.4	Building	REMOVE
231	Japanese maple	Acer palmatum	6	4.5	Building	REMOVE
232	Crape myrtle	Lagerstroemia indica	5.8	4.4	Building	REMOVE
233	Crape myrtle	Lagerstroemia indica	5.6	4.2	Building	REMOVE
234	Raywood ash	Fraxinus angustifolia 'Raywood'	9.8	12.3	Building	REMOVE
235	Raywood ash	Fraxinus angustifolia 'Raywood'	13.2	16.5	Building	REMOVE
236	Raywood ash	Fraxinus angustifolia 'Raywood'	8.2	10.3	Driveway	REMOVE
237	Raywood ash	Fraxinus angustifolia 'Raywood'	8.5	10.6	Driveway	REMOVE
238	Evergreen pear	Pyrus kawakamii	5.3	6.6	Building	REMOVE
239	Evergreen pear	Pyrus kawakamii	12	15	Building	REMOVE
240	Evergreen pear	Pyrus kawakamii	12.8	16	Building	REMOVE
241	Raywood ash	Fraxinus angustifolia 'Raywood'	14.7	18.4	Building	REMOVE
242	Raywood ash	Fraxinus angustifolia 'Raywood'	12.9	16.1	Building	REMOVE
243	Green ash	Fraxinus pennsylvanica	8	4	Driveway	REMOVE
244	Raywood ash	Fraxinus angustifolia 'Raywood'	5.5	6.9	Driveway	REMOVE
245	London plane	Platanus x acerifolia	16.8	16.8	Driveway	REMOVE
246	Evergreen pear	Pyrus kawakamii	13.2	16.5	Building	REMOVE
247	Chinese pistache	Pistacia chinensis	4.8	2.4	Building	REMOVE
248	Chinese pistache	Pistacia chinensis	5.6	2.8	Building	REMOVE
249	Chinese pistache	Pistacia chinensis	5.6	2.8	Generator yard	REMOVE
250	Raywood ash	Fraxinus angustifolia 'Raywood'	10.7	13.4	Driveway	REMOVE
251	Raywood ash	Fraxinus angustifolia 'Raywood'	12.2	15.3	Driveway	REMOVE
252	London plane	Platanus x acerifolia	9.7	12.1	Transmission Line	REMOVE
253	Evergreen pear	Pyrus kawakamii	8.7	10.9	Driveway	REMOVE
254	Chinese pistache	Pistacia chinensis	3.5	1.8	Generator yard	REMOVE
255	Chinese pistache	Pistacia chinensis	4.6	2.3	Generator yard	REMOVE

256	Raywood ash	Fraxinus angustifolia 'Raywood'	16.8	21	Generator yard	REMOVE
257	Raywood ash	Fraxinus angustifolia 'Raywood'	13.1	16.4	Generator yard	REMOVE
258	Raywood ash	Fraxinus angustifolia 'Raywood'	6.8	8.5	Retention area	REMOVE
259	Evergreen pear	Pyrus kawakamii	14.7	18.4	Civil Improvement	REMOVE
260	Evergreen pear	Pyrus kawakamii	11.6	14.5	Civil Improvement	REMOVE
261	Evergreen pear	Pyrus kawakamii	16.6	20.8	Driveway	REMOVE
262	Evergreen pear	Pyrus kawakamii	15.8	19.8	Driveway	REMOVE
263	Raywood ash	Fraxinus angustifolia 'Raywood'	16.6	20.8	Driveway	REMOVE
264	Raywood ash	Fraxinus angustifolia 'Raywood'	8.2	10.3	Transmission Lines	REMOVE
265	London plane	Platanus x acerifolia	8.2	10.3	Transmission Lines	REMOVE
266	Evergreen pear	Pyrus kawakamii	15.1	18.9	Transmission Lines	REMOVE
267	Evergreen pear	Pyrus kawakamii	12.6	15.8	Transmission Lines	REMOVE
268	Evergreen pear	Pyrus kawakamii	4.8	6	Driveway	REMOVE
269	Evergreen pear	Pyrus kawakamii	14.3	17.9	Driveway	REMOVE
270	Raywood ash	Fraxinus angustifolia 'Raywood'	16.1	20.1	Driveway	REMOVE
271	Raywood ash	Fraxinus angustifolia 'Raywood'	13.8	20.7	Transmission Lines	REMOVE
272	Raywood ash	Fraxinus angustifolia 'Raywood'	13.6	17	Transmission Lines	REMOVE
273	London plane	Platanus x acerifolia	8.9	8.9	Transmission Lines	REMOVE
274	Raywood ash	Fraxinus angustifolia 'Raywood'	13	16.3	None	Retain
275	Raywood ash	Fraxinus angustifolia 'Raywood'	9.2	13.8	Transmission Lines	REMOVE
276	Raywood ash	Fraxinus angustifolia 'Raywood'	12.1	15.1	Transmission Lines	REMOVE
277	Crape myrtle	Lagerstroemia indica	5.1	3.8	Building	REMOVE
278	Crape myrtle	Lagerstroemia indica	5.4	4.1	Building	REMOVE
279	Crape myrtle	Lagerstroemia indica	5.9	4.4	Building	REMOVE
280	Crape myrtle	Lagerstroemia indica	4.3	3.2	Building	REMOVE
281	Crape myrtle	Lagerstroemia indica	5.5	4.1	Building	REMOVE
282	African fern pine	Afrocarpus gracilior	6.2	3.1	Building	REMOVE
283	African fern pine	Afrocarpus gracilior	8.1	4.1	Building	REMOVE
284	African fern pine	Afrocarpus gracilior	8.5	4.3	Building	REMOVE
285	African fern pine	Afrocarpus gracilior	8.9	4.5	Building	REMOVE
286	African fern pine	Afrocarpus gracilior	7.7	3.9	Building	REMOVE
287	Ornamental cherry	Prunus sp.	4	4	Building	REMOVE
288	Ornamental cherry	Prunus sp.	4.4	4.4	Building	REMOVE
289	Smoke tree	Cotinus coggygria	5.8	4.4	Building	REMOVE
290	Smoke tree	Cotinus coggygria	6	4.5	Building	REMOVE
291	Crape myrtle	Lagerstroemia indica	6.1	4.6	Building	REMOVE
292	Crape myrtle	Lagerstroemia indica	5.1	3.8	Building	REMOVE
293	Crape myrtle	Lagerstroemia indica	6	4.5	Generator yard	REMOVE
294	African fern pine	Afrocarpus gracilior	9	4.5	Generator yard	REMOVE
295	Crape myrtle	Lagerstroemia indica	5.8	4.4	Generator yard	REMOVE
296	Crape myrtle	Lagerstroemia indica	7.2	5.4	Generator yard	REMOVE
297	African fern pine	Afrocarpus gracilior	8.9	4.5	Generator yard	REMOVE
298	African fern pine	Afrocarpus gracilior	9	4.5	Generator yard	REMOVE
299	African fern pine	Afrocarpus gracilior	6.9	3.5	Generator yard	REMOVE
300	Crape myrtle	Lagerstroemia indica	5.7	4.3	Generator yard	REMOVE
301	Crape myrtle	Lagerstroemia indica	5.1	3.8	Generator yard	REMOVE
302	Crape myrtle	Lagerstroemia indica	5.2	3.9	Generator yard	REMOVE
303	Ornamental cherry	Prunus sp.	4.2	3.2	Generator yard	REMOVE
304	African fern pine	Afrocarpus gracilior	10.8	5.4	Driveway	REMOVE
305	Pygmy date palm	Phoenix robelenii	4.6	4.6	Driveway	REMOVE
306	Pygmy date palm	Phoenix robelenii	4.5	4.5	Driveway	REMOVE
307	Raywood ash	Fraxinus angustifolia 'Raywood'	8.2	10.3	Driveway	REMOVE
308	Chinese pistache	Pistacia chinensis	14.1	7.1	Driveway	REMOVE
309	Evergreen pear	Pyrus kawakamii	14.7	18.4	Driveway	REMOVE
310	Evergreen pear	Pyrus kawakamii	15	18.8	Driveway	REMOVE
311	Evergreen pear	Pyrus kawakamii	10.8	13.5	Driveway	REMOVE
312	Evergreen pear	Pyrus kawakamii	15.4	19.3	Driveway	REMOVE
313	Raywood ash	Fraxinus angustifolia 'Raywood'	18.3	22.9	Driveway	REMOVE
314	Chinese pistache	Pistacia chinensis	5.1	2.6	None	Retain
315	Crape myrtle	Lagerstroemia indica	4.5	3.4	None	Retain
316	Weeping willow	Salix babylonica	15.8	11.9	Driveway	REMOVE
317	Ornamental cherry	Prunus sp.	8.9	6.7	Driveway	REMOVE
318	Ornamental cherry	Prunus sp.	11.2	8.4	Driveway	REMOVE
319	Ornamental cherry	Prunus sp.	7.4	5.6	Driveway	REMOVE
320	Ornamental cherry	Prunus sp.	6.2	4.7	Concrete path	REMOVE
321	Ornamental cherry	Prunus sp.	5.4	4.1	Civil Improvement	REMOVE
322	Ornamental cherry	Prunus sp.	9	6.8	Driveway	REMOVE
323	Ornamental cherry	Prunus sp.	8.8	6.6	Driveway	REMOVE
324	Ornamental cherry	Prunus sp.	10.1	7.6	Driveway	REMOVE
325	White birch	Betula pendula	10.3	10.3	Driveway	REMOVE
326	China doll tree	Radermachera sinica	5.5	5.5	Driveway	REMOVE
327	China doll tree	Radermachera sinica	4.8	4.8	Driveway	REMOVE
328	China doll tree	Radermachera sinica	6	6	Civil Improvement	REMOVE
329	Ornamental cherry	Prunus sp.	11.1	8.3	None	Retain
330	Ornamental cherry	Prunus sp.	17.8	13.4	Concrete path	REMOVE
331	Ornamental cherry	Prunus sp.	7.9	5.9	Concrete path	REMOVE
332	Ornamental cherry	Prunus sp.	7.8	5.9	Concrete path	REMOVE
333	Ornamental cherry	Prunus sp.	12	9	None	Retain
334	Ornamental cherry	Prunus sp.	12.5	9.4	None	Retain

335	Ornamental cherry	Prunus sp.	8.5	6.4	Driveway	REMOVE
336	Hackberry	Celtis sp.	4.1	3.1	Driveway	REMOVE
337	Peruvian pepper	Schinus molle	12	9	Driveway	REMOVE
338	London plane	Platanus x acerifolia	24	24	Transmission Lines	REMOVE
339	Red ironbark	Eucalyptus sideroxylon	15.1	15.1	Transmission Lines	REMOVE
340	Red ironbark	Eucalyptus sideroxylon	19	0	N/A (dead)	REMOVE
341	Holly oak	Quercus ilex	10.2	5.1	Transmission Lines	REMOVE
342	Red ironbark	Eucalyptus sideroxylon	18.8	18.8	Transmission Lines	REMOVE
343	Peruvian pepper	Schinus molle	11.2	8.4	Transmission Lines	REMOVE
344	Red ironbark	Eucalyptus sideroxylon	19.2	19.2	Transmission Lines	REMOVE
345	Red ironbark	Eucalyptus sideroxylon	19.3	14.5	Transmission Lines	REMOVE
346	Red ironbark	Eucalyptus sideroxylon	23.7	11.9	Transmission Lines	REMOVE
347	Red ironbark	Eucalyptus sideroxylon	24.7	12.4	Transmission Lines	REMOVE
348	Blackwood acacia	Acacia melanoxylon	15.6	7.8	Transmission Lines	REMOVE
349	Red ironbark	Eucalyptus sideroxylon	25.1	12.6	Transmission Lines	REMOVE
350	Red ironbark	Eucalyptus sideroxylon	18.9	14.2	Transmission Lines	REMOVE
351	Red ironbark	Eucalyptus sideroxylon	30	15	Transmission Lines	REMOVE
352	Red ironbark	Eucalyptus sideroxylon	25.6	19.2	Transmission Lines	REMOVE
353	Evergreen pear	Pyrus kawakamii	18	18	Transmission Lines	REMOVE
354	Italian cypress	Cupressus sempervirens	12	9	Transmission Lines	REMOVE
355	Italian cypress	Cupressus sempervirens	13.8	10.4	None	Retain
356	Italian cypress	Cupressus sempervirens	12.5	9.4	None	Retain
357	Italian cypress	Cupressus sempervirens	11.5	8.6	None	Retain
358	Italian cypress	Cupressus sempervirens	9.5	7.1	None	Retain
359	Italian cypress	Cupressus sempervirens	8	6	None	Retain
360	Red ironbark	Eucalyptus sideroxylon	32.1	16.1	None	Retain
361	Italian cypress	Cupressus sempervirens	8	6	None	Retain
362	Italian cypress	Cupressus sempervirens	10	7.5	None	Retain
363	Italian cypress	Cupressus sempervirens	12	9	None	Retain
364	Italian cypress	Cupressus sempervirens	2	1.5	None	Retain
365	Italian cypress	Cupressus sempervirens	3	2.3	None	Retain
366	Italian cypress	Cupressus sempervirens	2	1.5	None	Retain
367	Italian cypress	Cupressus sempervirens	12	9	None	Retain
368	Italian cypress	Cupressus sempervirens	13	9.8	None	Retain
369	Italian cypress	Cupressus sempervirens	12	9	None	Retain
370	Italian cypress	Cupressus sempervirens	2	1.5	None	Retain
371	Italian cypress	Cupressus sempervirens	2	1.5	None	Retain
372	Italian cypress	Cupressus sempervirens	13.5	10.1	None	Retain
373	Italian cypress	Cupressus sempervirens	12.3	9.2	None	Retain
374	Italian cypress	Cupressus sempervirens	11.3	8.5	None	Retain
375	Italian cypress	Cupressus sempervirens	11.7	8.8	None	Retain
376	Italian cypress	Cupressus sempervirens	12.1	9.1	None	Retain
377	Italian cypress	Cupressus sempervirens	12.2	9.2	None	Retain
378	Italian cypress	Cupressus sempervirens	11.1	8.3	None	Retain
379	Italian cypress	Cupressus sempervirens	10.9	8.2	None	Retain
380	Italian cypress	Cupressus sempervirens	10.5	7.9	None	Retain
381	Italian cypress	Cupressus sempervirens	12	9	None	Retain
382	Italian cypress	Cupressus sempervirens	11.2	8.4	None	Retain
383	Italian cypress	Cupressus sempervirens	12	9	None	Retain
384	Italian cypress	Cupressus sempervirens	11.5	8.6	None	Retain
385	Italian cypress	Cupressus sempervirens	9.9	7.4	None	Retain
386	Italian cypress	Cupressus sempervirens	6.7	5	None	Retain
387	Italian cypress	Cupressus sempervirens	7.4	5.6	None	Retain
388	Italian cypress	Cupressus sempervirens	8.9	6.7	None	Retain
389	Italian cypress	Cupressus sempervirens	10.4	7.8	None	Retain
390	Italian cypress	Cupressus sempervirens	11.5	8.6	None	Retain
391	Italian cypress	Cupressus sempervirens	12	9	None	Retain
392	Italian cypress	Cupressus sempervirens	11.7	8.8	None	Retain
393	Italian cypress	Cupressus sempervirens	13	9.8	None	Retain
394	Italian cypress	Cupressus sempervirens	11.4	8.6	None	Retain
395	Italian cypress	Cupressus sempervirens	12.5	9.4	None	Retain
396	Italian cypress	Cupressus sempervirens	11	8.3	None	Retain
397	Italian cypress	Cupressus sempervirens	11.5	8.6	None	Retain
398	Italian cypress	Cupressus sempervirens	8.7	6.5	None	Retain
399	Blackwood acacia	Acacia melanoxylon	12	6	None	Retain
400	Blackwood acacia	Acacia melanoxylon	8	4	None	Retain
401	Blackwood acacia	Acacia melanoxylon	14.6	7.3	None	Retain
402	Italian cypress	Cupressus sempervirens	7.1	5.3	None	Retain
403	Blackwood acacia	Acacia melanoxylon	11.1	5.6	None	Retain
404	Blackwood acacia	Acacia melanoxylon	4.6	2.3	None	Retain
405	Blackwood acacia	Acacia melanoxylon	7.3	3.7	None	Retain
406	Blackwood acacia	Acacia melanoxylon	6.2	3.1	None	Retain
407	Red ironbark	Eucalyptus sideroxylon	31.2	15.6	None	Retain
408	Blackwood acacia	Acacia melanoxylon	5.7	2.9	None	Retain
409	Blackwood acacia	Acacia melanoxylon	18.8	9.4	None	Retain
410	Blackwood acacia	Acacia melanoxylon	8.7	4.4	None	Retain
411	Red ironbark	Eucalyptus sideroxylon	24	0	N/A (dead)	REMOVE
412	Red ironbark	Eucalyptus sideroxylon	23.4	11.7	None	Retain
413	Blackwood acacia	Acacia melanoxylon	21.8	10.9	None	Retain
414	Red ironbark	Eucalyptus sideroxylon	24	0	N/A (dead)	REMOVE
415	Blackwood acacia	Acacia melanoxylon	22.5	11.3	None	Retain
416	Red ironbark	Eucalyptus sideroxylon	28.7	14.4	None	Retain
417	London plane	Platanus x acerifolia	8.4	8.4	None	Retain
418	London plane	Platanus x acerifolia	10.5	10.5	None	Retain
419	London plane	Platanus x acerifolia	10.2	10.2	None	Retain

420	Gallery pear	Pyrus calleryana	10.2	7.7	Driveway	REMOVE
421	Gallery pear	Pyrus calleryana	10.5	7.9	Driveway	REMOVE
422	Gallery pear	Pyrus calleryana	10.7	8	Driveway	REMOVE
423	Gallery pear	Pyrus calleryana	10	10	Driveway	REMOVE
424	Gallery pear	Pyrus calleryana	8.4	6.3	Driveway	REMOVE
425	Gallery pear	Pyrus calleryana	11.6	8.7	Driveway	REMOVE
426	Crape myrtle	Lagerstroemia indica	7.6	5.7	Driveway	REMOVE
427	Crape myrtle	Lagerstroemia indica	7.3	5.5	Driveway	REMOVE
428	Crape myrtle	Lagerstroemia indica	6.5	4.9	Driveway	REMOVE
429	Crape myrtle	Lagerstroemia indica	7.6	5.7	Driveway	REMOVE
430	Ornamental cherry	Prunus sp.	4.1	5.1	Driveway	REMOVE
431	Crape myrtle	Lagerstroemia indica	7.4	5.6	Driveway	REMOVE
432	Crape myrtle	Lagerstroemia indica	5.4	4.1	Driveway	REMOVE
433	Crape myrtle	Lagerstroemia indica	7.1	5.3	Driveway	REMOVE
434	White birch	Betula pendula	6.4	6.4	None	Retain
435	White birch	Betula pendula	8.8	8.8	None	Retain
436	Japanese maple	Acer palmatum	6.1	4.6	None	Retain
437	White birch	Betula pendula	8.1	8.1	None	Retain
438	White birch	Betula pendula	9.9	9.9	None	Retain
439	White birch	Betula pendula	10.6	10.6	None	Retain
440	Weeping willow	Salix babylonica	21.8	16.4	Driveway	REMOVE
441	Eastern redbud	Cercis canadensis	6.2	4.7	Building	REMOVE
442	Eastern redbud	Cercis canadensis	6.5	4.9	Building	REMOVE
443	Eastern redbud	Cercis canadensis	5.3	4	None	Retain
444	Eastern redbud	Cercis canadensis	6.2	4.7	None	Retain
445	Japanese maple	Acer palmatum	4.7	3.5	None	Retain
446	Ornamental cherry	Prunus sp.	9.2	6.9	Generator yard	REMOVE
447	Ornamental cherry	Prunus sp.	5.9	4.4	Generator yard	REMOVE
448	Weeping willow	Salix babylonica	21.4	16.1	Generator yard	REMOVE
449	White birch	Betula pendula	12.8	12.8	None	Retain
450	Ornamental cherry	Prunus sp.	7.8	5.9	Driveway	REMOVE
451	Ornamental cherry	Prunus sp.	7.5	5.6	Driveway	REMOVE
452	Ornamental cherry	Prunus sp.	7.4	5.6	Driveway	REMOVE
453	Ornamental cherry	Prunus sp.	5.4	4.1	Driveway	REMOVE
454	Eastern redbud	Cercis canadensis	6.8	5.1	None	Retain
455	Eastern redbud	Cercis canadensis	5.2	3.9	None	Retain
456	Ornamental cherry	Prunus sp.	6	4.5	Generator yard	REMOVE
457	Ornamental cherry	Prunus sp.	7	5.3	Generator yard	REMOVE
458	White birch	Betula pendula	4.8	4.8	Building	REMOVE
459	White birch	Betula pendula	7.1	7.1	Building	REMOVE
460	White birch	Betula pendula	4.7	4.7	Building	REMOVE
461	Eastern redbud	Cercis canadensis	5.5	4.1	Building	REMOVE
462	Eastern redbud	Cercis canadensis	4.2	3.2	Building	REMOVE
463	Eastern redbud	Cercis canadensis	4.9	3.7	Generator yard	REMOVE
464	Ornamental cherry	Prunus sp.	7.5	5.6	Generator yard	REMOVE
465	Crape myrtle	Lagerstroemia indica	5.1	3.8	Generator yard	REMOVE
466	Crape myrtle	Lagerstroemia indica	5	3.8	Generator yard	REMOVE
467	Crape myrtle	Lagerstroemia indica	4.9	3.7	Generator yard	REMOVE
468	Ornamental cherry	Prunus sp.	6.1	4.6	Generator yard	REMOVE
469	Ornamental cherry	Prunus sp.	5.1	3.8	Generator yard	REMOVE
470	Ornamental cherry	Prunus sp.	9.1	6.8	Generator yard	REMOVE
471	White birch	Betula pendula	7.4	7.4	None	Retain
472	Crape myrtle	Lagerstroemia indica	5	3.8	None	Retain
473	Crape myrtle	Lagerstroemia indica	5.1	3.8	None	Retain
474	Crape myrtle	Lagerstroemia indica	5.1	3.8	None	Retain
475	Crape myrtle	Lagerstroemia indica	5.9	4.4	Driveway	REMOVE
476	Crape myrtle	Lagerstroemia indica	6.3	4.7	Driveway	REMOVE



7/28/2020

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Re: Tree Impacts from Proposed Development Project at 2825 Lafayette Street in Santa Clara

Dear Chad,

At your request, I have visited the property referenced above to evaluate the trees present with respect to the proposed construction project. The report below contains my analysis.

Summary

There are 476 trees on the project site, of which 377 are recommended for removal. Three hundred seventy-three of these conflict directly with project features, two are dead, and two are stumps of trees which were removed in the past, not in connection with this project.

Other trees may need to be removed for utility installation; however, no utilities are shown on the plans provided to me.

Assignment:

We have been asked to write a report detailing impacts to trees from construction of the proposed building, substation, and parking lot redesign at this address.

Introduction:

Many factors influence how a tree will respond to impacts from construction activities, including the extent of the activity; tree species; and tree vigor. Construction plans should accommodate trees insofar as practical, with the intent of preserving as many trees as reasonably possible.

Limits of the Assignment:

All observations were made from the ground. No root collar excavations or aerial inspections were performed.

No utilities, grading, or feature specifications are shown on the plans provided to me. I expect additional tree impacts will result from some or all of these factors.

No project features had been staked at the time of my site visit.

Purpose & Use of the Report:

This report is intended to inform tree management decisions for this project.

Observations:

Trees

Four hundred seventy-six trees are present. The five most common species are: London plane (*Platanus x acerifolia*), with 121 (25%); Italian cypress (*Cupressus sempervirens*), with 44 (9%); Raywood ash (*Fraxinus angustifolia* ‘Raywood’), with 44 (9%); crape myrtle (*Lagerstroemia indica*), with 41 (9); and ornamental cherries (*Prunus* spp.), with 32 (7%).

Four trees are dead. Two of these were removed prior to my site visit, though their stumps remain.

Many trees are in small planters surrounded by hardscape.

Orange tape was present around several tree trunks at the time of my site visit, as noted in the Tree Table. I do not know the significance of this tape; it is possible that the trees are slated for removal or pruning by others.

Project Features

A new building will be constructed in the north part of the property, with a generator yard to the south. A new substation will be constructed in the southwest part of the property. New transmission lines will be installed along the east and west property lines. Most parking lot and driving areas will be redesigned.

The existing building in the south part of the property will remain.

Tree Impacts

Four hundred three trees conflict directly with proposed project features (not including dead trees). Conflicting features are listed in the following table:

Conflicting Feature	Live Trees to be Removed	%
Building	139.0	37%
Civil improvement	1.0	0%
Concrete path	5.0	1%
Demolition	0.0	0%
Driveway	98.0	26%
Generator yard	42.0	11%
None	0.0	0%
Transmission lines	51.0	14%
Property line fence	0.0	0%
Retention area	10.0	3%
Substation	27.0	7%

Of the 99 trees to remain, all are in good condition.

Many of the trees to remain will likely be impacted by project activities as detailed in the following tables:

Impacting Feature	Trees to be Retained	%
Building	0.0	0%
Civil improvement	0.0	0%
Concrete path	3.0	3%
Demolition	0.0	0%
Driveway	1.0	1%
Generator yard	0.0	0%
None	92.0	93%
Transmission lines	0.0	0%
Property line fence	1.0	1%
Retention area	2.0	2%
Substation	0.0	0%

Likely Impact level	Trees to be Retained	%
Minor	99	100 %
Minor-moderate	0	0%
Moderate	0	0%
Moderate-major	0	0%
Major	0	0%

Testing & Analysis:

Tree DBHs¹ were taken using a diameter tape measure if trunks were accessible. The DBHs of trees with non-accessible trunks were estimated visually. All trees over four inches in DBH were inventoried, with some smaller trees included if prominently located.

Vigor ratings are based on tree appearance and experiential knowledge of each species.

Tree location data was collected using a GPS smartphone application and processed in GIS software to create the maps included in this report. Due to slight differences between GPS data and CAD drawings, tree locations shown on the map below are approximate.

I visited the site on 5/31/2019, 6/1/2019, and 6/3/2019. All observations and photographs in this report were taken at those site visits.

This report is based on sheet A1.1 of the plan set titled “Master Plan: Proposed New Site Plan,” provided to me electronically by the client. No utilities, grading, or feature specifications were provided.

¹ Diameter at breast height, a standard arboricultural metric

Discussion:

Critical Root Zone (CRZ)

Tree roots grow where conditions are favorable, and their spatial arrangement is therefore unpredictable. Favorable conditions vary among species, but generally include the presence of moisture, and soft soil texture with low compaction.

Contrary to popular belief, roots of all tree species grow primarily in the top two feet of soil, with a small number of roots sometimes occurring at greater depths. Some species have taproots when young, but these almost universally disappear with age. At maturity, a tree’s root system may extend out from the trunk farther than the tree is tall.

The optimal size of the area around a tree which should be protected from disturbance depends on the tree’s size, species, and vigor, as shown in the following table (adapted from *Trees & Construction*, Matheny and Clark, 1998)²:

Species tolerance	Tree vigor	Distance from trunk (feet per inch trunk diameter)
Good	High	0.5
	Moderate	0.75
	Low	1
Moderate	High	0.75
	Moderate	1
	Low	1.25
Poor	High	1
	Moderate	1.25
	Low	1.5

Species-Specific Issues

Some tree species on this property exhibit disease symptoms that, while unsightly, indicate common issues which can be managed with proper ongoing care. These trees were given higher health ratings than may appear reasonable without knowledge of these issues.

Raywood ash - these trees are susceptible to a syndrome called ash dieback. Though the exact causes remain unknown, disease susceptibility and drought stress appear to be major factors. This syndrome cannot be cured, but can only be managed through irrigation and regular removal of deadwood.

² Matheny and Clark use tree age instead of vigor; however, vigor is a stronger predictor of a tree’s response to wounding.

Callery pear - all pear trees, but especially Callery pear (*Pyrus calleryana*), are susceptible to a bacterial disease called fireblight (*Erwinia amylovora*). Fireblight infection causes progressive dieback, starting with buds and spreading to entire limbs.

Evergreen pear - a disease called leaf spot (*Entomosporium mespili*) causes copious black spots on the leaves of evergreen pear trees (*Pyrus kawakamii*). This disease is primarily aesthetic, though some infected trees may drop of one or more crops of leaves per year.

Conclusions:

Three hundred seventy-three trees must be removed in order for the project to move forward as currently proposed. Two others must be removed irrespective of project features, as they are dead. Another two were removed prior to my site visit, and only the stumps remain.

The remaining 99 trees can reasonably be protected, with a high likelihood of survival during and after construction.



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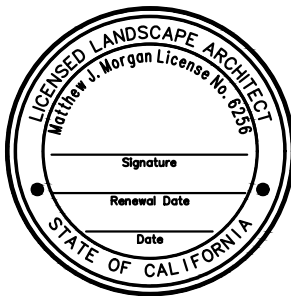
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LANDSCAPE ARCHITECT OF RECORD SEAL



3	PCC ISSUANCE	11.18.20
2	PCC ISSUANCE	06.19.20
1	PCC ISSUANCE	10.07.19
NO.	RECORD	DATE

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2825 LAFAYETTE STREET
SANTA CLARA, CA, 95050

ARBORIST
REPORT

PRINCIPAL IN CHARGE JP	PROJECT NUMBER 197250001
PROJECT MANAGER MJ	DATE 09/02/20
PROJECT ENGINEER KN	SHEET NUMBER
SCALE AS SHOWN	L1.4