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RESPONSE TO CEC STAFF DATA REQUEST SET 2 (60-85)

STACK Trade Zone Park (21-SPPE-02)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION SUBMITTED BY: **STACK Infrastructure**

September 2022



INTRODUCTION

Attached are STACK Infrastructure's (STACK) supplemental responses to California Energy Commission (CEC) Staff Data Request Set No. 2 (60-85) for the Trade Zone Park (TZP) Application for Small Power Plant Exemption (SPPE) (21-SPPE-02). Staff issued Data Request Set No. 2 on August 20.

The Data Responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as Staff presented them and are keyed to the Data Request numbers (60-85). Additional tables, figures, or documents submitted in response to a data request (e.g., supporting data, stand-alone documents such as plans, folding graphics, etc.) are found in Attachments at the end of the document and labeled with the Data Request Number for ease of reference.

For context, the text of the Background and Data Request precedes each Data Response.

In addition to these data responses, STACK is developing a revised project description that will be filed under separate cover. The revised project description will capture minor changes to the project in response to the update noise report and air quality impact analysis and comments received from the City of San Jose.

GENERAL OBJECTIONS

STACK objects to all data requests that require analysis beyond which is necessary to comply with the California Environmental Quality Act (CEQA) or which require STACK to provide data that is in the control of third parties and not reasonably available to STACK. Notwithstanding this objection, STACK has worked diligently to provide these responses swiftly to allow the CEC Staff to prepare the Draft Environmental Impact Report (DEIR).

BIOLOGICAL RESOURCES

BACKGROUND: Nitrogen Deposition Modeling

As reported in the response to the CEC staff Data Requests Set 1 number 24, the proposed project is a "covered project" under the Santa Clara Valley Habitat Plan (SCVHP), and fees imposed for mitigation of nitrogen deposition are related to mobile emission sources only. Although mitigation for nitrogen deposition from stationary sources under the SCVHP is not required or covered, there still may be an impact to sensitive habitat, which if significant, would need to be mitigated (CEQA criteria "a", "b", and "c" are pertinent to this potential impact).

Impacts of excessive nitrogen deposition to plant communities include direct toxicity and changes in species composition among native species such as enhancement of non- native invasive species. The increased dominance and growth of invasive annual grasses is especially prevalent in low-bio-mass vegetation communities that are naturally nitrogen limited such as serpentine habitats.

Although the project site is highly developed and does not contain sensitive habitat, there is critical habitat for the California red-legged frog (federally threatened) within 6 miles of the site, which is, in staff's experience, the typical depositional zone, and the extent to which emissions of nitrogen from a source could have a potentially significant impact, as depicted through modeling. Air emissions, including nitrogen oxides (NOx) and ammonia, were discussed in the SPPE application (TN 240910) and response to the CEC staff Data Requests Set 1 number 5 (TN 243473). However, no modeling results or data were included to determine the total nitrogen deposition rate as well as the extent of the plume from the testing and maintenance of the proposed project's backup generators. Nitrogen deposition resulting from NOx and ammonia emissions during the testing and maintenance of the backup generators of the proposed project may have potentially significant impacts on sensitive habitats (including critical habitat) and species nearby if the nitrogen deposition plume covers these areas. Therefore, a separate evaluation of nitrogen deposition must be made for the backup generators, which contribute as a point source for NOx and ammonia emissions and hence nitrogen deposition.

DATA REQUESTS

Within a 6-mile radius of the SPPE project site:

60. Please use AERMOD or an equivalent model to provide an analysis of impacts due to total annual nitrogen deposition (from NOx and ammonia) from the testing

and maintenance of the backup generators. The analysis should specify the amount of total annual nitrogen deposition in kilograms/hectare/year at the

Response to Data Request 60

After further discussions with Staff, we understand that Staff will conduct an analysis using existing data from other data center projects. While STACK does not agree that the TZP backup generators will cause significant nitrogen deposition impacts to any protected habitat, STACK does not object to voluntarily contributing to the Santa Clara Valley Habitat Agency up to \$1000 to be used in its nitrogen deposition mitigation efforts and as a community benefit.

61. Please provide an isopleths graphic over the most recent aerial photographs (or equally detailed maps) of the direct total annual nitrogen deposition rates caused by the backup generators. This will be a graphical depiction of the project's nitrogen deposition contribution. Include on the aerial the location of the proposed project and the California red-legged frog critical habitat.

Response to Data Request 61

Please See Response to Data Request 60.

CULTURAL RESOURCES

BACKGROUND

Staff has further reviewed the results of the Archaeological Resources Assessment (ARA) written by PaleoWest (PaleoWest 2022) and the March 8, 2022, SPPE Application Supplement – Section 4.5 Cultural Resources. In reviewing these documents, staff has determined that additional missing information is required to complete staff's analysis. The terms Project, Project Site, Study Area, Project Area, and Project Location are loosely used and/or not used consistently in the text of the ARA or depicted on figures in the ARA. By way of example, on pages 11 and 12 in section "Archival Research Results" of the ARA, the terms Project area, Project, study area, and project location are used as descriptors. This is confusing to staff.

As discussed in a conference call held on June 16, 2022, various determinations and/or clarifications regarding terminology were made. It was understood during the conference call that:

- The project description (Project) is still in preparation and that a revised project description will be supplied by Scott Galati for use by PaleoWest in the revised ARA.
- The term Project Site is defined as an area defined by all Project related construction including the proposed new building location, and the length of and both ends of the proposed new above and below ground transmission line.
- The term Project Area is defined as that area including a one-building-band surrounding the Project Site.
- The term Study Area is defined as a 0.25-mile buffer surrounding the Project Area.
- Any other designators deemed necessary by PaleoWest should also be clearly defined and used consistently in the text throughout the ARA.

DATA REQUEST

62. Please clearly define the terms Project area, Project, study area, and project location in the text of the ARA and consistently use these terms as appropriate throughout the text of the ARA. Study Area, Project Area, and Project Site appear as the most used terms, and it is requested that these terms also be applied to all figures in the report.

Response to Data Request 62

STACK has forwarded this request to PaleoWest and requested the report adhere to these requirements.

BACKGROUND

There are various issues with the figures in the ARA including terminology and descriptors used on the figures, and/or references in the text to data depicted on the figures. By way of example, Figure 1 and Figure 3 on pages 2 and 4 of ARA are both labelled Project Site Map, but they also use the descriptor Project Area and depict two different Project Areas. Additionally, there is no 0.25-mile buffer depicted on Figure 1 as referenced in the text of the ARA on page 1, paragraph 2. Figure 1 is also referenced in the text as collectively depicting the Study Area, and Figure 1 does not depict or refer to a Study Area. The reference to Figure 3 on page 1 paragraph 1 of the ARA references specific parcels and addresses. Much of this information is not depicted on Figure 3.

DATA REQUEST

63. Please revise existing figures in the ARA to include all data and all references described in the text and use the same descriptors on each figure. Also, ensure that any new figures contain information referenced in the text. Minimally, please depict the Study Area, Project Area, and Project Site on one or more figures as necessary.

Response to Data Request 63

STACK has forwarded this request to PaleoWest and requested the report adhere to these requirements.

GREENHOUSE GAS EMISSIONS

BACKGROUND: ENERGY CONSUMPTION

Note 2 of Table 4.8-1 on page 23 of the applicant's responses to Data Requests Set 1 (TN 243473) states that the maximum capacity of the project would include 90 megawatts (MW) for data center buildings plus 3 MW for the advanced manufacturing building (AMB). With the assumed PG&E 2018 carbon intensity factor of 206 pounds of carbon dioxide per megawatt-hour (lbs. CO2/MWh), staff calculates the greenhouse gas (GHG) emissions for energy consumption to be 76,124 metric tons of carbon dioxide per year (MTCO2/yr). However, Table 4.8-1 shows the GHG emissions for energy consumption would be 73,668 MTCO2/yr, which would be based on a maximum capacity of 90 MW. To correctly estimate the GHG emissions due to energy consumption, staff needs clarification on the maximum capacity of the whole project, including the data center buildings and the AMB.

DATA REQUEST:

64. Please clarify the maximum capacity of the whole project, including the data center buildings and the AMB.

Response to Data Request 64

The correct maximum energy consumption of the entire project is 93 MW. The 3 MW load of the AMB was inadvertently left out of the previous data response.

BACKGROUND: HYDROFLUOROCARBON PROHIBITIONS

California is required to reduce hydrofluorocarbon (HFC) emissions 40 percent below 2013 levels by 2030 under Senate Bill 1383 (Health & Saf. Code § 39730.5). To help meet the HFC reduction goal, California Air Resources Board (CARB) adopted HFC prohibitions and consolidated the California HFC prohibition regulation (previously Cal. Code Regs., tit. 17, §§ 95371-95377) and the statute (SB 1013, Health and Saf. Code § 39734) into one place:The current Cal. Code Regs., tit. 17, § 95375(c)(1)1 states that no person shall sell, lease, rent, install, use, or otherwise enter into commerce in the State of California any end-use equipment or product manufactured after the effective date that does not comply with Table 3 (which includes chillers) of section 95374(c) of the subarticle, with exceptions stated under Cal. Code Regs., tit. 17, § 95375(c)(2).

Under Cal. Code Regs., tit. 17, § 95375(c)(2)(A), new centrifugal chillers and new positive displacement chillers are allowed to use HFC-134a for military marine vessels and allowed to use R-404A and HFC-134a for human-rated spacecraft and related support equipment where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements. A summary of the HFC prohibitions and the effective dates from Cal. Code Regs., tit. 17, § 95374 can be found on the CARB website: https://ww2.arb.ca.gov/resources/factsheets/hydrofluorocarbon-hfcprohibitions-california. In the response to CEC staff Data Requests Set 1 number 36, the applicant states that the data center buildings would use air cool chillers and the chillers would use refrigerant R-134a. However, the CARB website, which is based on Cal. Code Regs., tit. 17, § 95374, shows that the use of refrigerant R-134a in chillers would be unacceptable as of January 1, 2024, except where allowed under a narrowed use limit. To correctly estimate the GHG emissions due to refrigerant use, staff needs to confirm whether the project would be able to use R-134a in the chillers or if an alternative refrigerant/technology would be used.

DATA REQUESTS:

65. Please confirm when the chillers would be installed and whether the project would be able to use R-134a in the chillers after January 1, 2024, and if the project would be able to use this refrigerant, please explain how it would be allowed.

Response to Data Request 65

The TZP will use R-134a in its air-cooled chillers because the equipment will be *manufactured prior to January 1, 2024*, the effective date for *new air-cooled chillers* identified on Table 3 of Section 95374 (c). Additionally, STACK will receive the new air-cooled chillers prior to January 1, 2024. The data request asks when they will be installed which is not relevant to the prohibition effective date.

In the Applicant Presentation at the Informational Hearing, STACK reported that it would not use R-134a in its air-cooled chillers. Further research into the phase-out date has led to the TPZ for qualifying for an exemption as described above.

66. If the project would not be able to use R-134a, please confirm which alternative refrigerant would be used in the chillers and clarify why that refrigerant is permissible or if alternative cooling technology would be used.

Response to Data Request 66

Please See Response to Data Request 65.

BACKGROUND: SULFUR HEXAFLUORIDE PHASE-OUT

In the response to CEC staff Data Requests Set 1 number 38, the applicant states that sulfur hexafluoride (SF6) would be used in the 1200A 115 kilovolt (kV) breakers.

However, the Amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear has been approved on December 30, 2021 and became effective on January 1, 2022. The Final Regulation Order can be found at CARB's website: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2020/sf6/fro.pdf. Based on the amended regulation (Cal. Code Regs., tit. 17, § 95352), starting on the applicable phase-out dates, no person may acquire SF6 gas-insulated equipment (GIE) for use in California unless one of following provisions apply:

- 1. An SF6 phase-out exemption was approved by the Executive Officer, or SF6 GIE were acquired in response to a failure, pursuant to section 95357.
- 2. The SF6 GIE device was present in California and reported to CARB pursuant to section 95355(a) for a data year prior to the applicable phase-out date listed in Table 1 or Table 2.
- 3. The SF6 GIE device was purchased by the GIE owner prior to the applicable phase- out date listed in Table 1 or Table 2 for the relevant GIE characteristics, and enters California no later than 24 months after the purchase date.
- 4. The SF6 GIE manufacturer replaces a defective SF6 GIE device under the terms of the manufacturer's warranty.

Staff needs to confirm which of the four provisions the applicant would rely upon to comply with the current SF6 phase out regulation (Cal. Code Regs., tit. 17, § 95352) and what the applicable phase out date is based on the proposed GIE characteristics. If SF6 would not be used, staff needs information on the non-SF6 alternative to be used in the breakers.

DATA REQUESTS:

67. If the applicant still proposes to use SF6, given the SF6 phase out regulation, staff needs to determine the applicable SF6 phase out date. So that staff can determine this date, as listed in Table 1 or Table 2, please provide the short- circuit current rating in kilovolt amperes of the breaker and related GIE.

Response to Data Request 67

The SF6 GIE will have a rated voltage of 115kV and a short circuit current rating of 25kA. Table 2 contains the applicable phase out date.

68. Please confirm which of the four provisions the applicant would rely upon to comply with the current SF6 regulation (Cal. Code Regs., tit. 17, § 95352).

Response to Data Request 68

STACK is relying on Exemption 3.

69. If the applicant is going to seek an exemption from the Executive Officer under option 1 of the provisions shown above, please provide a copy of the exemption request application and a copy of the approved exemption.

Response to Data Request 69

Please see response to Data Request 68.

70. If the applicant is going to use option 3 of the provisions shown above, please confirm whether the proposed 115 kV breakers would be purchased before the applicable SF6 phase-out date and enter California no later than 24 months after the purchase date, therefore, the project would be able to use SF6 in the breakers.

Response to Data Request 70

STACK will purchase SF6 GIE by January 1, 2023, prior to the phase-out date and it will enter California prior to January 1, 2025.

71. If SF6 would not be used, please provide information on the non-SF6 alternative to be used in the breakers.

Response to Data Request 71

Please see Responses to Data Requests 67 through 70.

BACKGROUND: REFRIGERANT MANAGEMENT PROGRAM

The Refrigerant Management Program (RMP) requires facilities with refrigeration systems containing more than 50 pounds of high-global warming potential (GWP) refrigerant to conduct and report periodic leak inspections, promptly repair leaks; and keep service records on site. Stationary refrigeration facilities with more than 50 pounds of high-GWP refrigerant in the largest on-site refrigeration system must register with the RMP. Those with at least 200 pounds of high-GWP refrigerant in the largest system have annual reporting and additional duties. Staff needs to confirm how the project would meet the RMP requirements.

DATA REQUEST:

72. Please confirm how the project would meet the RMP requirements.

Response to Data Request 72

The RMP was developed by CARB and its requirements are contained in Title 17 California Code of Regulations (CCR) Section 95380 et seq. Section 95381 sets forth the applicability of the RMP as follows:

(a) This subarticle applies to any person who owns or operates a stationary refrigeration system, as defined in this subarticle. This subarticle also applies to any person who installs, repairs, maintains, services, replaces, recycles, or disposes of a stationary refrigeration or air-conditioning appliance, and to any person who distributes or reclaims refrigerants with high global warming potential.

STACK will not be an owner or operator of a stationary refrigerant system as defined by Section 95382 (a) (57):

"Refrigeration system" means stationary, non-residential equipment that is an industrial process refrigeration, commercial refrigeration, or other refrigeration appliance with a single refrigerant circuit that requires more than 50 pounds of any combination of high-GWP refrigerant to maintain normal operating characteristics and conditions. "Refrigeration system" does not include an air-conditioning appliance. A single refrigeration system is defined by a single refrigerant circuit.

Section 95382 (a) (2) defines air conditioning as:

"Air-conditioning" means any stationary, non-residential appliance, including a computer-room air conditioner, that provides cooling to a

space to an intended temperature of not less than 68°F for the purpose of cooling objects or occupants.

Section 95382 (a) (5) defines an appliance as:

"Appliance" means any device which contains and uses a high-GWP refrigerant, including any air conditioner, refrigerator, *chiller*, freezer, or refrigeration system.

Therefore, STACK will not be an owner or operator of a "Refrigeration System." STACK will be an owner or operator of an "Air Conditioning Appliance." The RMP does not apply to the owner or operator of an Air Conditioning Appliance, but rather only applies to a business entity that *installs, repairs, maintains, services, replaces, recycles, or disposes of a stationary refrigeration or air-conditioning appliance.* STACK will contract with such a business entity which may be subject to participation in the RMP.

LAND USE

BACKGROUND: PLANNED DEVELOPMENT ZONING PLAN

In its preliminary review letter dated July 2, 2021 (Appendix J of the SPPE application), the City of San Jose Planning, Building, and Code Enforcement Department recommended that the applicant apply for a Planned Development Rezoning. The City stated that as part of the application for the Planned Development Rezoning, the applicant should provide a plan set with proposed allowed uses and draft development standards, including setbacks, heights, and parking requirements. Additionally, the City stated that the plan set should also confirm the site layout, building locations, massing, and setbacks.

The applicant informally shared a copy of the site plan with staff, and upon review, staff saw that some requirements were not included, such as landscaping and lighting. So that staff can properly understand the requirements under the Planned Development overlay and those under the Industrial Park base zoning district, staff needs to know the requirements under the Planned Development Overlay and the requirements under the Industrial Park base zoning district applicable to the project.

DATA REQUESTS

73. Please provide, for the project record, the most recent site plan submitted to the City with draft development standards and allowed uses, and the current status of the City's review and acceptance of the proposed plan.

Response to Data Request 73

Appendix LU DR-73 includes the most recent set of Civil and Landscape Plans submitted to the City that STACK believes is responsive to the City's comments on previous versions. For clarification on the land use designations and proposed rezoning, STACK provides the following description.

The site is currently zoned *Industrial Park (IP)*, which permits medium manufacturing, while data centers are allowed upon issuance of a Special Use Permit, and utility facilities are allowed upon issuance of a Conditional Use Permit. Because the site is designated *TEC* (not *IP*) in the General Plan, in its Preliminary Review letter, the City recommended the applicant apply for a Planned Development Rezoning from the current *IP Zoning District* to the *IP(PD) Planned Development Zoning District* using the *TEC* zoning designation for primary guidance.

Per the City's requirements described in the Preliminary Review letter, the project has outlined draft development standards for the proposed allowed uses under the *IP(PD) Planned Development Zoning District*. The proposed land uses are consistent with the *Transit Employment Center* General Plan Land Use Designation, all General Plan policies listed in Section 4.11.1.1, and all applicable City Council policies. Table LU DR-74 contains the proposed development standards.

With the proposed rezoning to *IP(PD)* Planned Development Zoning District and implementation of the proposed development standards, the project would be consistent with the City's General Plan and Municipal Code. Based on the discussion above, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purposes of avoiding or mitigating an environmental effect.

Table LU DR-73

Development Standards			
Standards	Industrial Park (IP)	Transit Employment Center (TEC)	PD Development
New Manufacturing Building a Permitted Use? Type of use?	Yes; Permitted	Yes; Permitted	Yes, as part of Mixed Use Project.
New Data Center Buildings a Permitted Use? Type of use?	Yes; Special Use	No per Note 2 of Table 20-110	Yes, as part of Mixed Use Project.
New Mixed Use of Manufacturing and Data Center Buildings a Permitted Use? Type of use?	Yes; Special Use	No per Note 2 of Table 20-110	Yes. Construction of manufacturing use (to warm shell condition) required to be constructed concurrent with or before new data center.
FAR	10	12	1.55
Minimum Lot Size (sf)	10,000	6,000	-
Building Setbacks (Front)	15	15	15
Parking Setbacks (Front)	25	25	25
Building Setbacks (Side)	0 (or 25 from residential)	0 (or 25 from residential)	0 (or 25 from residential)
Parking Setbacks (Side)	0 (or 25 from residential)	0 (or 25 from residential)	0 (or 25 from residential)
Building Setbacks (Rear)	0 (or 25 from residential)	0 (or 25 from residential)	0 (or 25 from residential)
Parking Setbacks (Rear)	0 (or 25 from residential)	0 (or 25 from residential)	0 (or 25 from residential)
Maximum Building Height	60	120	80
Landscape & Irrigation (Section 15.11)	per landscape and irrigation guidelines	per landscape and irrigation guidelines	per landscape and irrigation guidelines
Lighting (Section 20.50.250)	per Zoning	per Zoning	per Zoning
Parking Space Requirements*	Parking by Land Use: Manufacturing (SVYAM) = 1 per 350 sq. ft. of floor area plus 1 per company vehicle Data Centers (SVY05 & SVY06) = 1 per 250 square feet of office/meeting/technician work space, plus 1 for each 5,000 square feet of floor area, or fraction thereof, devoted to computer equipment space	Parking by Land Use: Manufacturing (SVYAM) = 1 per 350 sq. ft. of floor area plus 1 per company vehicle Data Centers (SVY05 & SVY06) = 1 per 250 square feet of office/meeting/technician work space, plus 1 for each 5,000 square feet of floor area, or fraction thereof, devoted to computer equipment space	*Parking by Land Use: Manufacturing (SVYAM) = 1 per 575 sq. ft. of floor area Data Centers (SVY05 & SVY06) = 1 per 5,300 sq. ft. of floor area
Bicycle Parking Requirements	Parking by Land Use: Manufacturing (SVYAM) = 1 per 5,000 sq. ft. of floor area Data Center (SVY05 & SVY06) = 1 per 5,000 sq. ft. of office/meeting/technician work space, plus 1 for each 50,000 sq. ft. of floor area, or fraction thereof devoted to computer equipment space	Parking by Land Use: Manufacturing (SVYAM) = 1 per 5,000 sq. ft. of floor area Data Center (SVY05 & SVY06) = 1 per 5,000 sq. ft. of office/meeting/technician work space, plus 1 for each 50,000 sq. ft. of floor area, or fraction thereof devoted to computer equipment space	Parking by Land Use: Manufacturing (SVYAM) = 1 per 5,000 sq. ft. of floor area Data Center (SVY05 & SVY06) = 1 per 5,000 sq. ft. of office/meeting/technician work space, plus 1 for each 50,000 sq. ft. of floor area, or fraction thereof devoted to computer equipment space

^{*}The project will implement a Transportation Demand Management (TDM) plan for City review and approval to support a reduction in parking. TDM provisions can be found in Section 20.90.220 of the City of San Jose's Municipal Code.

74. Please provide a list of any standards that may not be referred to on the plan, such as landscaping and lighting, that are required for this project under the Industrial Park base zoning district.

Response to Data Request 74

Please see Response to Data Request 73, Table LU DR-73.

BACKGROUND: COMMENTS FROM OTHER CITY DEPARTMENTS

The City's letter dated July 2, 2021 (Appendix J of the SPPE application) referred to attached comments from Building, Fire, Environmental Planning, and Public Works.

DATA REQUESTS

75. Please provide the attached comments, referenced on pages 13 and 14 of the City's letter in Appendix J, from the City's Building, Fire, Environmental Planning, and Public Works departments.

Response to Data Request 75

Please see Appendix LU DR-75.

76. Please provide comments received from the City's Building, Fire, Environmental Planning, and Public Works departments on the most recent site plan submitted to the City.

Response to Data Request 76

The latest comment letters from the City are included in Appendix LU DR-75.

PROJECT DESCRIPTION

BACKGROUND

For health safety reasons, the building at 1849 Fortune Drive is scheduled for demolition in early 2022 pursuant to a City of San Jose demolition permit.

DATA REQUEST

77. Please provide an update of the demolition status of the building at 1849 Fortune Drive. If the building has not been demolished, please provide an updated estimate of when demolition would occur.

Response to Data Request 77

Preliminary discussions with the City prior to submission of the SPPE Application revealed that the City could issue a demolition permit for 1849 Fortune Drive under its health and safety exemptions. After further review the City determined that the exemptions would not apply and therefore, the demolition of 1849 Fortune Drive should be treated as part of the TZP Project Description. Including 1849 Fortune Drive into the Project Description will not affect any of the analyses provided to date. For example the construction timelines, estimates of construction workers, emissions estimates for the phase I construction remain unaffected by the building's demolition inclusion. STACK requests the CEC include demolition of 1849 Fortune Drive into the Project Description for the Environmental Impact Report (EIR).

TRANSPORTATION

BACKGROUND: SURFACE AND GARAGE PARKING

Section 2.3.1.2 of the SPPE application (TN 240910) states that surface parking would be provided for the data center; however, staff cannot find any more detail about the surface parking in the SPPE application. The General Arrangement and Site Plan of the Project (2.2-4) appears to show 17 regular parking spaces and 5 accessible spaces; however, Appendix GHG DR-34 Figure 3.1 Comprehensive Proposed Site Plan from STACK TZP Responses to CEC Data Request Set 1 (TN 243473) notes the location of the parking garage where the surface parking was shown in Figure 2.2-4 from the SPPE application. Neither figure shows where both the surface parking and parking garage are proposed in one figure.

DATA REQUESTS

78. Please provide details on the surface parking and confirm the number of parking spaces, including accessible or other classification (such as EV- electric vehicle).

Response to Data Request 78

The TZP will not include any surface parking. Any reference to surface parking in the original SPPE Application was a mistake. All parking will be in the parking garage which will allow a total of 339 parking spaces. The following tables demonstrate compliance with Cal Green and California Building Code Standards.

CALGREEN PARKING REQUIREMENTS			
STALL TYPE	REQUIRED	PROVIDED	
EV STANDARD ADA STALL	1	1	
EV AMBULATORY ADA STALL	1	1	
EV VAN ACCESSIBLE STALL	1	1	
EV STALL	34	37	
CLEAN AIR/VANPOOL STALL/EV STALL	41	44	
SHORT TERM BIKE PARKING	17	17	
LONG TERM BIKE PARKING	17	17	

CALIFORNIA BUILDING CODE PARKING REQUIREMENTS			
STALL TYPE	REQUIRED	PROVIDED	
STANDARD ACCESSIBLE	6	6	
VAN ACCESSIBLE	2	2	
TOTAL 8 8			

79. Please update Appendix GHG DR-34 Figure 3.1 and Figure 2.2-4 to clearly show the location of the surface parking spaces and parking garage.

Response to Data Request 79

Please See Appendix LU DR-73. All references to the Site Plans should be to the drawings contained in the LU DR-73.

BACKGROUND: THERMAL PLUME ANALYSIS

On page 46 of the SPPE application (TN 2407341-1), the applicant states that the SVY Data Center "will utilize air cooled chillers for office and critical cooling". However, the SPPE application does not address thermal plumes from this building/server cooling system. The SPPE application also does not discuss the thermal plumes associated with the operation of the emergency standby generators. Staff will need to determine whether the thermal plumes from the cooling system and emergency standby generators would be of concern for local aircraft using the nearby airport.

DATA REQUESTS

Staff requests the following information to complete its evaluation of thermal plumes from the currently proposed emergency standby generators and building/server cooling system:

80. Please perform thermal plume modeling of the emergency standby generators and the equipment used to reject heat from the building and data servers.

Response to Data Request 80

ADI has begun the thermal plume analysis which will be submitted under separate cover.

81. Please describe the equipment used to reject heat from the building and data servers with enough detail so that staff can confirm the thermal plume modeling.

Response to Data Request 81

The information requested in this data request will be submitted in the thermal plume analysis requested by Data Request 80.

- 82. Where not already included in the SPPE application, please provide at least the following to support the thermal plume modeling of the emergency standby generators and the equipment used to reject heat from the building and data servers (provide equivalent data if necessary):
 - a. Stack (or cooling tower fan cowl) height (m) above ground level (agl)
 - b. Exhaust Temperature (degrees K)

- c. Exit Velocity (m/s)
- d. Stack Diameter (m)

Response to Data Request 82

The information requested in this data request will be submitted in the thermal plume analysis requested by Data Request 80.

UTILITIES AND SERVICE SYSTEMS

BACKGROUND

In the SPPE application, Project Description, it is stated that the total water demand for project operation would be about 3 acre-feet per year (AFY) of potable water for indoor uses and about 1 AFY of recycled water for outdoor uses (landscaping). As the Project Description explains, the project would be air cooled and hence water demand would be low. However, in the Utilities section of the SPPE application it is stated that water demand during project operation would be about 3.5 million gallons per year for indoor uses and about 72 million gallons per year for outdoor uses, for a total of about 76 million gallons per year, or about 232 AFY. That is about 80 times the quantity stated in the Project Description. Also, in the Project Description it is stated that water for landscaping would be recycled water while the Utilities section is silent on the source of the water for outdoor uses.

DATA REQUEST

83. Please provide correct information about the amounts and source(s) of water for indoor and outdoor uses for project operation (data center and AMB).

Response to Data Request 83

The SPPE Application Utilities and Service Systems Section incorrectly relied on estimates of potential water use from CalEEMod which significantly overestimated the amount of potential water use for the TZP. The actual estimates of potable water for each building based on engineering and design team calculations are significantly less as follows:

SVY05 Data Center Building - 1.54 AFY

SVY06 Data Center Building- 1.54 AFY

Advanced Management Building - 8.00 AFY

Additionally, the TZP would use 1 AFY of Recycled Water for landscaping uses.

Therefore, the TZP would use up to approximately 11 AFY of potable water and 1 AFY of recycled water. It should be noted that all of the potable water is based on employee's needs and none of the water is used for cooling or any other industrial process.

BACKGROUND

Sections 10910 et seg. of the California Water Code set forth the circumstances in which CEQA lead agencies must seek the preparation of, or prepare themselves, water supply assessments (WSA) for proposed projects that meet certain criteria. The applicant stated in the Utilities section of the SPPE application, under CEQA criterion "b", that a WSA is not required since the project does not meet the criteria of an industrial, manufacturing/processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area. However, one of the criteria for a project to be deemed a "project" for a WSA to be required is if the project's water demand is equal to or greater than the total demand of 500 dwelling units. In the state of California, the demand of a dwelling unit ranges between 0.25 and 0.5 AFY, depending on several factors, such as the area and the cost of water, among other factors. Using those numbers, the demand of 500 dwelling units is between 125 and 250 AFY, with an average of 188 AFY. The California Energy Commission has been leaning towards using the lower end of that range, or 125-150 AFY range because of the drought spell and water deficit in the state that led to implementation of conservation measures. These conservation measures resulted in reductions in water consumption, especially in the southern parts of the state. If the correct demand for the proposed project is 232 AFY, that would be greater than the average demand for 500 dwelling units, and thus the project would meet this criterion triggering the need for a WSA to be prepared.

A fundamental task of a WSA is to determine whether the water supplier's total projected water supplies available during normal, single-dry, and multiple-dry water years will meet the projected water demand associated with a proposed project, in addition to the water supplier's existing and planned future uses. When making such a determination, the authors of the WSA must address several factors including information regarding existing water supplies, projected water demand, and dry year supply and demand. Suppliers are expressly permitted to rely on information contained in the most recently adopted Urban Water Management Plans, so long as the water needed for the proposed project was accounted for therein.

DATA REQUESTS

84. Please provide any information the applicant might have received from the City of San Jose regarding availability of water (potable and recycled) for the project and the likelihood that the City would grant approval to the project to access recycled water.

Response to Data Request 84

STACK will be obtaining its potable water from San Jose Water Company (SJWC), which is a private retailer and not part of the City of San Jose government. STACK continues to work with SJWC to finalize its service agreement. However, STACK will seek confirmation that SJWC can serve the project up to 11 AFY of potable water.

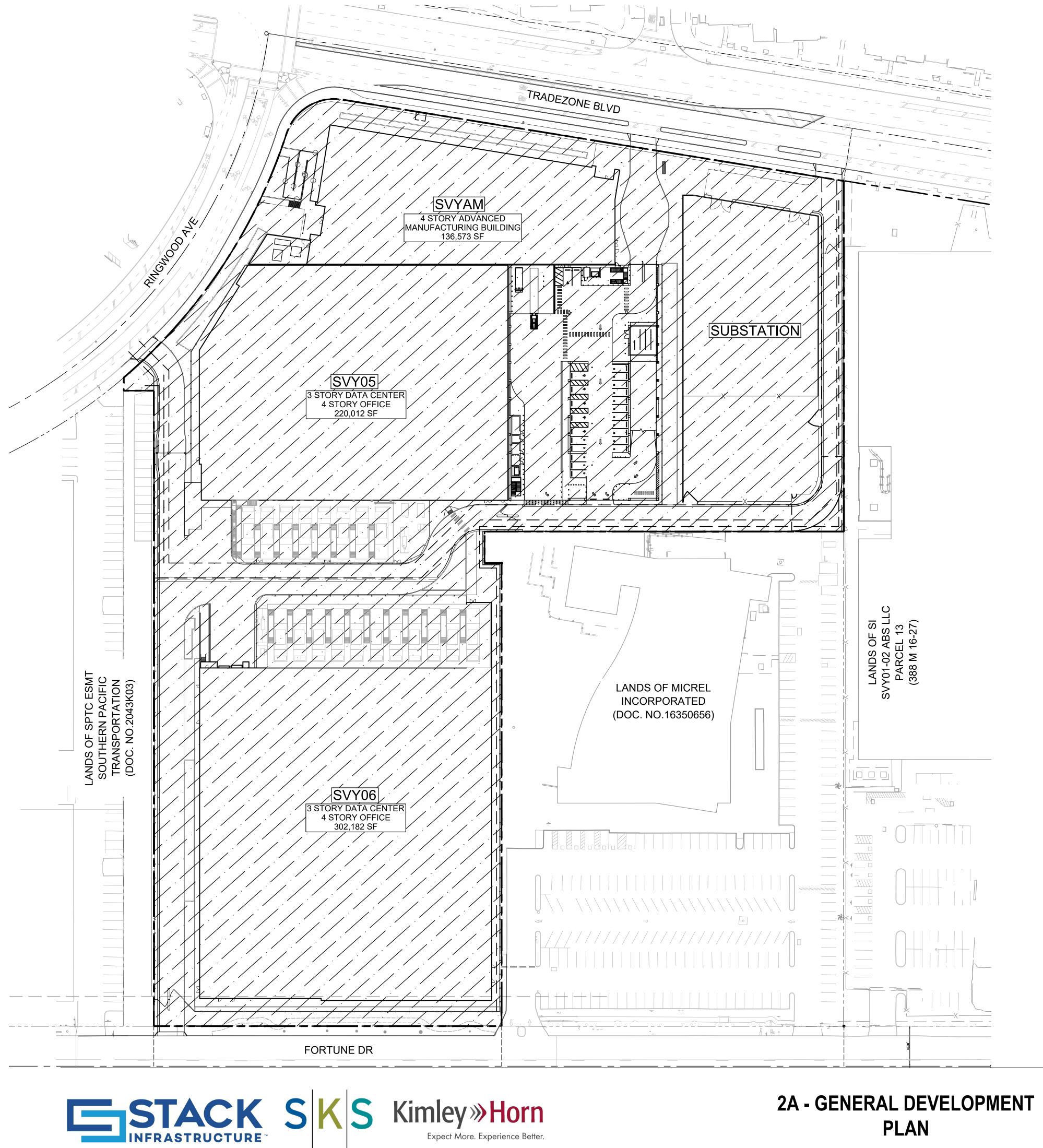
85. Please consult with the City on the need to prepare a WSA for the project. Please either provide confirmation from the City that a WSA is not required, or if required, provide an estimated time frame for the city to review and approve the WSA, including the approved WSA.

Response to Data Request 85

California Water Code (CWC) Section 10910 requires a Water Supply Assessment to be performed for a project subject to the California Environmental Quality Act. The term "project" is specifically defined by CWC Section 10912. The Trade Zone Park is a mixed-use project because it combines industrial and commercial uses. The AMB's designed to be an incubator for AMB jobs and the data center buildings include a cross between commercial space to be used by STACK's clients and the majority of space used to house computer servers. This is further demonstrated by the fact that none of the water proposed for use at the Trade Zone Park is used for cooling or any industrial process. Therefore, since the amount of water used is significantly below the Staff's threshold for requiring a WSA and the project is a mixed-use project and not an industrial use, no WSA is required.

APPENDIX LU DR-73

Revised Site Civil and Landscape Drawings





FILE NO. PDC22-001 1849 FORTUNE DRIVE DEVELOPMENT STANDARDS

08/02/2022

IN ANY CASES WHERE THE GRAPHIC PLANS AND TEXT MAY DIFFER, THIS TEXT TAKES PRECEDENCE

ZONING

THE EXISTING ZONING FOR THIS SITE IS INDUSTRIAL PARK (IP). PER THE ADOPTED CITY OF SAN JOSE'S 2040 GENERAL PLAN, THE PROJECT'S BASE ZONING DISTRICT IS TRANSIT EMPLOYMENT CENTER (TEC). THE PROJECT WILL COMPLY WITH THE TEC DEVELOPMENT REGULATIONS UNLESS SPECIFICALLY AMENDED BELOW.

ALLOWABLE USES

ALL ALLOWABLE, PROHIBITED, SPECIAL AND CONDITIONAL USES SHALL BE ACCORDING TO THE LAND USE REGULATIONS SET FORTH BY SECTION 20.50 OF THE MUNICIPAL CODE.

DEVELOPMENT REGULATIONS AND STANDARDS

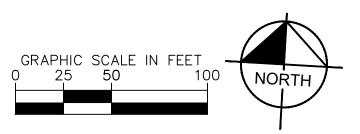
PROJECT DEVELOPMENTS SHALL MEET THE DEVELOPMENT REGULATIONS SET FORTH ON TABLE 20-120 IN SECTION 20.50 UNLESS OTHERWISE PROVIDED BELOW:

PARKING SPACE REQUIREMENTS: PER CHAPTER 20.90 OF THE SAN JOSE MUNICIPAL CODE, DATA CENTERS SHALL BE PARKED AT 1 STALL PER 250 SQUARE FEET OF OFFICE/MEETING/WORKSPACE, PLUS 1 STALL FOR EVERY 5,000 SQUARE FEET OF FLOOR AREA DEVOTED TO COMPUTER EQUIPMENT SPACE. THE PROJECT SHALL AMEND THE PARKING REQUIRED TO A PROPOSED PARKING RATIO OF 1 STALL PER 5,300 SQUARE FEET OF FLOOR AREA.

PARKING REQUIREMENTS FOR MANUFACTURING PER CODE IS 1 STALL PER 350 SQUARE FEET OF FLOOR AREA PLUS STALL PER COMPANY VEHICLE. THE PROJECT SHALL AMEND THE PARKING REQUIREMENT AND PROVIDE A PARKING RATIO OF 1 STALL PER 575 SQUARE FEET OF FLOOR AREA. ALTERNATIVE PARKING ARRANGEMENTS AND PARKING REDUCTIONS DUE TO DEMAND ANALYSIS MAY BE APPROVED THROUGH A TRAFFIC ANALYSIS AND PLANNED DEVELOPMENT PERMIT.

ENVIRONMENTAL MITIGATIONS

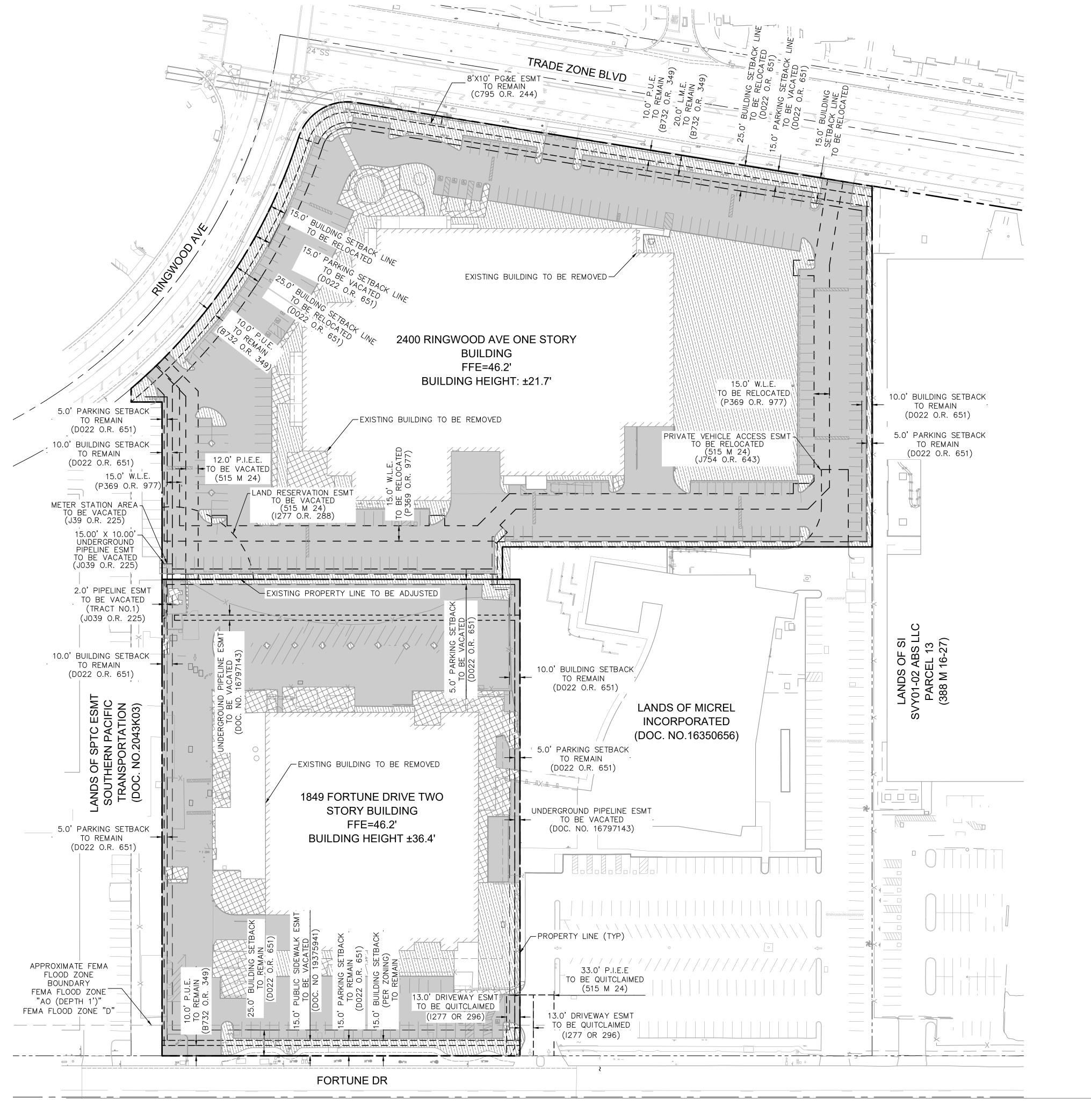
CONFORM TO ALL APPLICABLE REQUIREMENTS OF MITIGATION MONITORING AND REPORTING PROGRAM APPROVED FOR THIS REZONING BY CITY COUNCIL RESOLUTION NO. ______.











EXISTING PROPERTY INFORMATION

ADDRESS: NORTH OF FORTUNE DR. LOCATED AT THE CORNER OF RINGWOOD AVE & TRADE

ZONE BLVD. 224-17-009

PROJECT SIZE: ±9.78 AC ZONING: INDUSTRIAL PARK (IP)

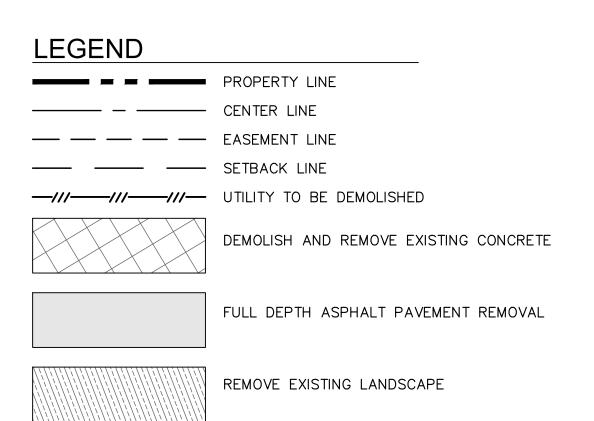
EXISTING RESIDENTIAL DENSITY: 0 UNITS / ACRE EXISTING PARKING COUNT: ±349 SPACES

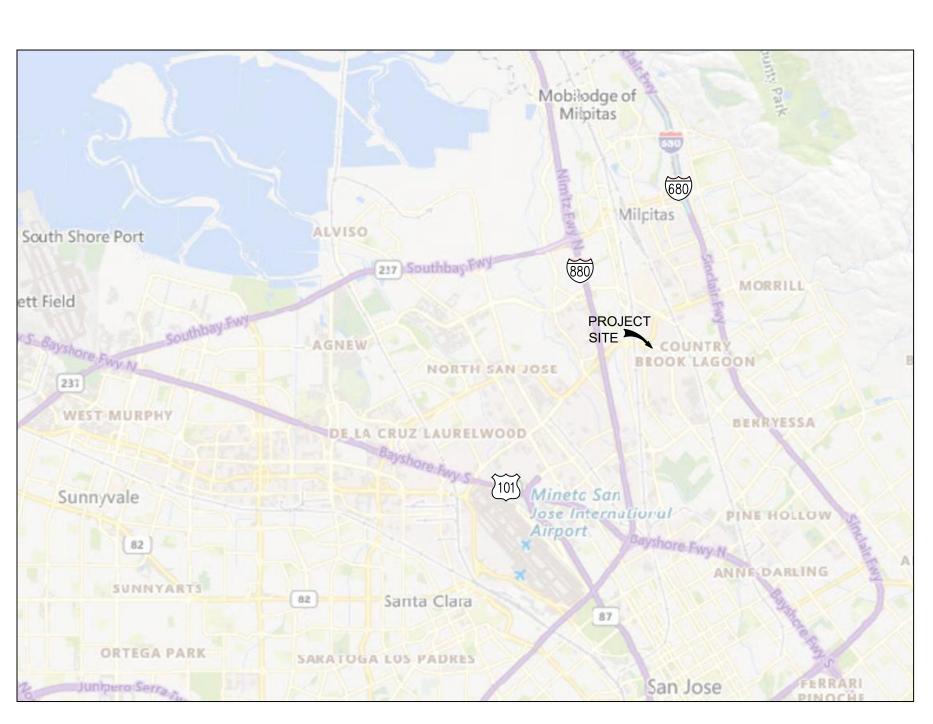
ABBREVIATIONS

ESMT - EASEMENT FFE - FINISHED FLOOR ELEVATION L.M.E. - LANDSCAPE MAINTENANCE EASEMENT

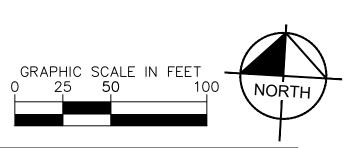
O.R. - OFFICIAL RECORD P.I..E. - PRIVATE INGRESS/EGRESS EASEMENT

P.U.E. - PUBLIC UTILITY EASEMENT W.L.E. - WATER LINE EASEMENT





FILE NUMBER: PD220-001









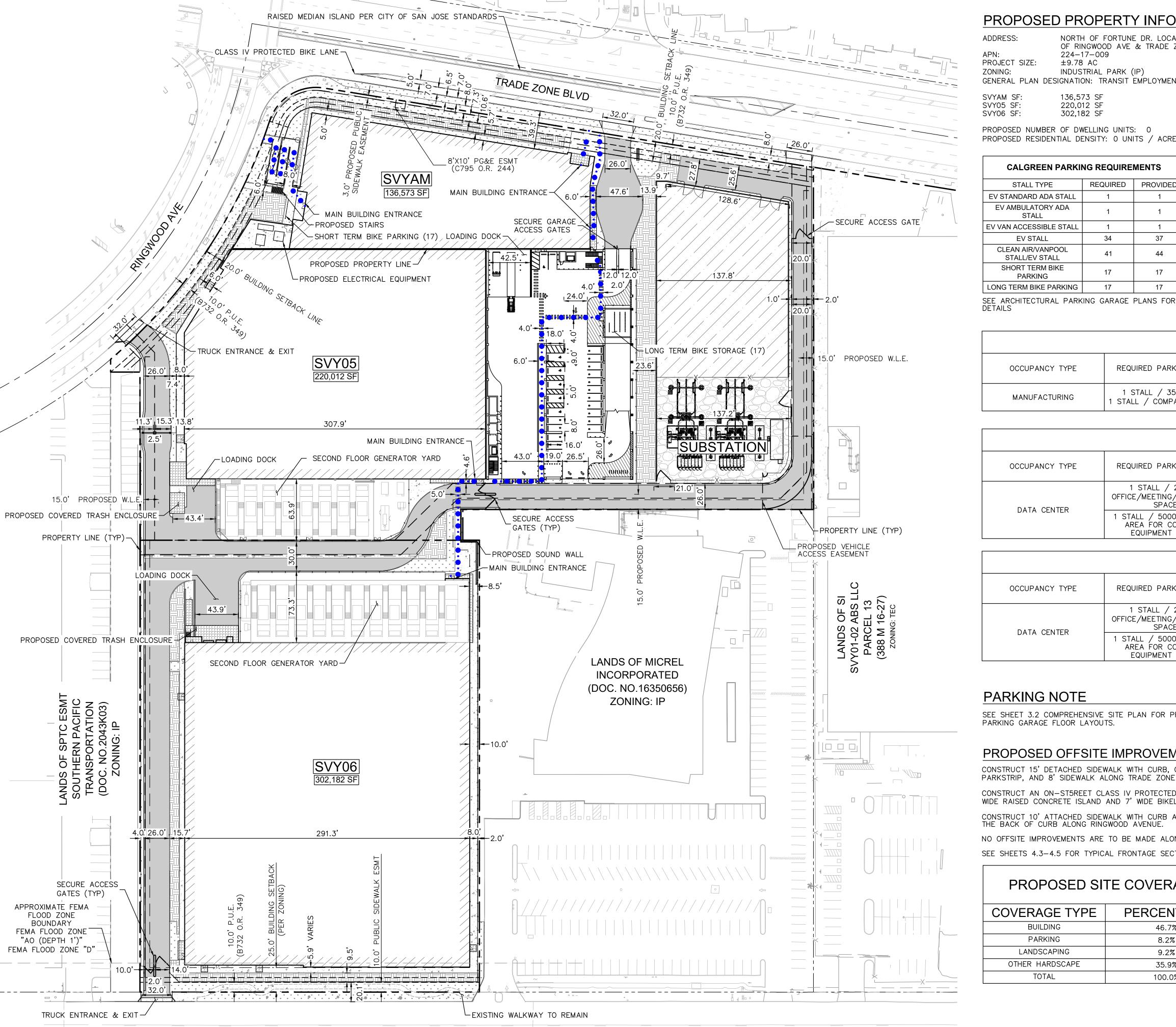
3.0 - COMPREHENSIVE EXISTING SITE PLAN



VICINITY MAP
N.T.S.







PROPOSED PROPERTY INFORMATION

NORTH OF FORTUNE DR. LOCATED AT THE CORNER OF RINGWOOD AVE & TRADE ZONE BLVD.

224-17-009 PROJECT SIZE: ±9.78 AC

ZONING:

INDUSTRIAL PARK (IP) GENERAL PLAN DESIGNATION: TRANSIT EMPLOYMENT CENTER (TEC)

136,573 SF 220,012 SF SVY05 SF: 302,182 SF

PROPOSED NUMBER OF DWELLING UNITS: 0 PROPOSED RESIDENTIAL DENSITY: 0 UNITS / ACRE

CALGREEN PARKING REQUIREMENTS			
STALL TYPE	REQUIRED	PROVIDED	
EV STANDARD ADA STALL	1	1	
EV AMBULATORY ADA STALL	1	1	
EV VAN ACCESSIBLE STALL	1	1	
EV STALL	34	37	
CLEAN AIR/VANPOOL STALL/EV STALL	41	44	
SHORT TERM BIKE PARKING	17	17	
LONG TERM BIKE PARKING	17	17	

CALIFORNIA BUILDING CODE PARKING REQUIREMENTS				
STALL TYPE	REQUIRED	PROVIDED		
STANDARD ACCESSIBLE	6	6		
VAN ACCESSIBLE	2	2		
TOTAL 8 8				
TOTAL 8 8				

LEGEND	
	PROPERTY LINE
	CENTER LINE
	EASEMENT LINE
	SETBACK LINE
xxx	PROPOSED FENCE
0-0-0-0-0-0-0-0-0-0-0-0-0-0	ADA PATH OF TRAVEL
	PROPOSED BUILDING
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	PROPOSED LANDSCAPING
	PROPOSED CONCRETE
	PROPOSED ASPHALT
	PROPOSED STRIPING
	PROPOSED FLOW THROUGH PLANTER
	PROPOSED GRAVEL
	PROPOSED BUILDING OVERHANG

	SVYA	M - PARKING SUMI	MARY	
OCCUPANCY TYPE	REQUIRED PARKING RATIO	REQUIRED PARKING STALLS	PROPOSED MAXIMUM PARKING RATIO	PROPOSED PARKING STALLS
MANUFACTURING	1 STALL / 350 SF + 1 STALL / COMPANY VEHICLE	391	1 / 575 SF	239

	SVY05 - PARKING SUMMARY			
OCCUPANCY TYPE	REQUIRED PARKING RATIO	REQUIRED PARKING STALLS	PROPOSED MAXIMUM PARKING RATIO	PROPOSED PARKING STALLS
DATA CENTER	1 STALL / 250 SF OFFICE/MEETING/TECHNICIAN SPACE	43	1 STALL / 5,300 SF	42
DATA CENTER	1 STALL / 5000 SF FLOOR AREA FOR COMPUTER EQUIPMENT SPACE	19	1 STALL / 3,300 SF	4 2

SVY06 - PARKING SUMMARY				
OCCUPANCY TYPE	REQUIRED PARKING RATIO	REQUIRED PARKING STALLS	PROPOSED MAXIMUM PARKING RATIO	PROPOSED PARKING STALLS
DATA CENTER	1 STALL / 250 SF OFFICE/MEETING/TECHNICIAN SPACE	41	1 STALL / 5,300 SF	58
DATA CENTER	1 STALL / 5000 SF FLOOR AREA FOR COMPUTER EQUIPMENT SPACE	29	7 3 TALL / 3,300 31	36

PARKING NOTE

SEE SHEET 3.2 COMPREHENSIVE SITE PLAN FOR PROPOSED PARKING GARAGE FLOOR LAYOUTS.

PROPOSED OFFSITE IMPROVEMENTS

CONSTRUCT 15' DETACHED SIDEWALK WITH CURB, GUTTER, 6.5' PARKSTRIP, AND 8' SIDEWALK ALONG TRADE ZONE BOULEVARD FRONTAGE.

CONSTRUCT AN ON-ST5REET CLASS IV PROTECTED BIKELANE THAT INCLUDES A 5'

WIDE RAISED CONCRETE ISLAND AND 7' WIDE BIKELANE.

CONSTRUCT 10' ATTACHED SIDEWALK WITH CURB AND GUTTER AND TREE WELLS AT THE BACK OF CURB ALONG RINGWOOD AVENUE.

NO OFFSITE IMPROVEMENTS ARE TO BE MADE ALONG FORTUNE DRIVE.

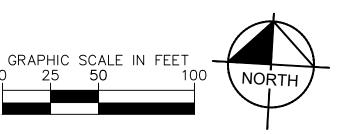
SEE SHEETS 4.3-4.5 FOR TYPICAL FRONTAGE SECTIONS

PROPOSED SITE COVERAGE

COVERAGE TYPE	PERCENTAGE
BUILDING	46.7%
PARKING	8.2%
LANDSCAPING	9.2%
OTHER HARDSCAPE	35.9%
TOTAL	100.0%

TOTAL PROPOSED PARKING: 339 TOTAL REQUIRED PARKING (IP): 523 PROPOSED PARKING REDUCTION (%): 35%

FILE NUMBER: PD220-001





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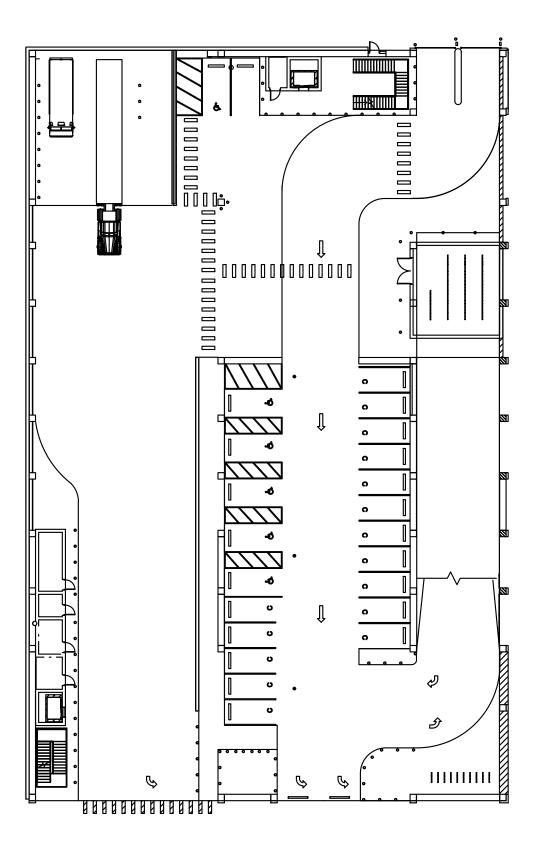


3.1 - CONCEPTUAL PROPOSED SITE PLAN

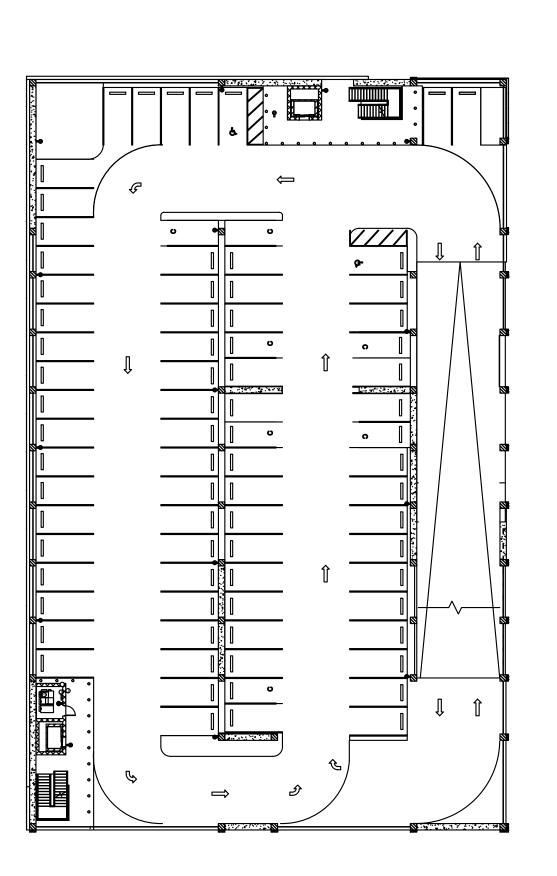




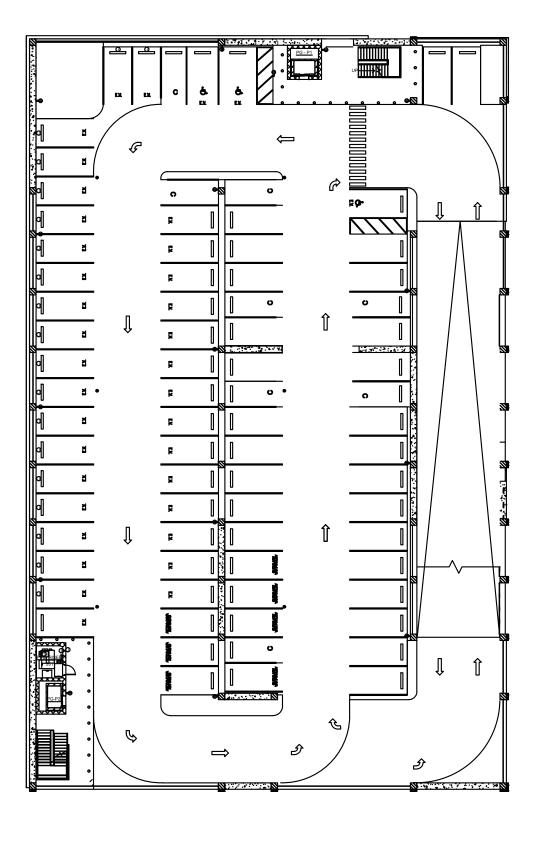




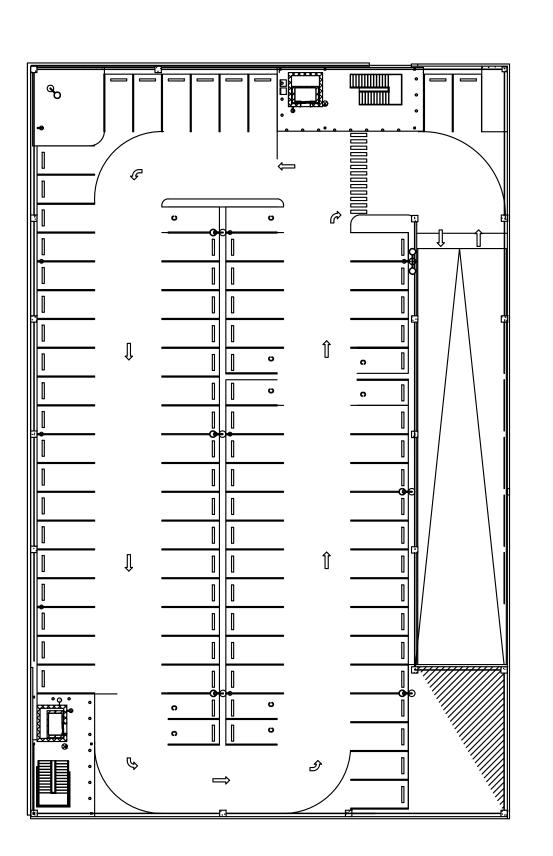
PARKING GARAGE - LEVEL 1



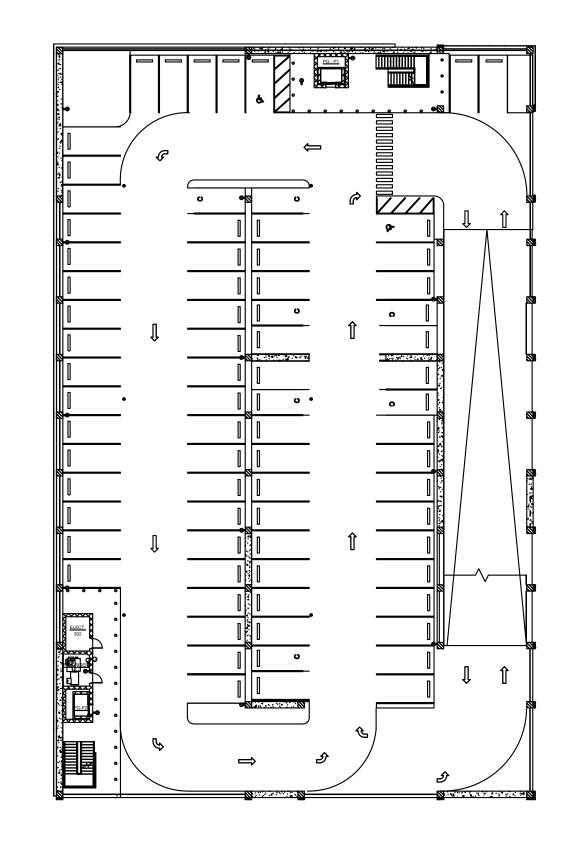
PARKING GARAGE - LEVEL 4
1: 30



PARKING GARAGE - LEVEL 2



PARKING GARAGE - LEVEL 5
1: 30



PARKING GARAGE - LEVEL 3
1: 30

TYPE	COUNT
LEVEL 01	1
ADA STANDARD	4
ADA VAN	2
COMPACT	15
STANDARD	1
LEVEL 02	
ADA AMBULATORY EV	1
ADA STANDARD EV	1
ADA VAN EV	1
CLEAN AIR/EV/VAN POOL	7
COMPACT	8
STANDARD	26
STANDARD EV	34
LEVEL 03	_
ADA STANDARD	2
COMPACT	7
STANDARD	67
LEVEL 04	
LEVEL 04	
ADA STANDARD	7
COMPACT STANDARD	
STANDARD	69
LEVEL 05	
COMPACT	10
STANDARD	75
	10
GRAND TOTAL	295
GRAND TOTAL WITH EV	339

FILE NUMBER: PD220-001





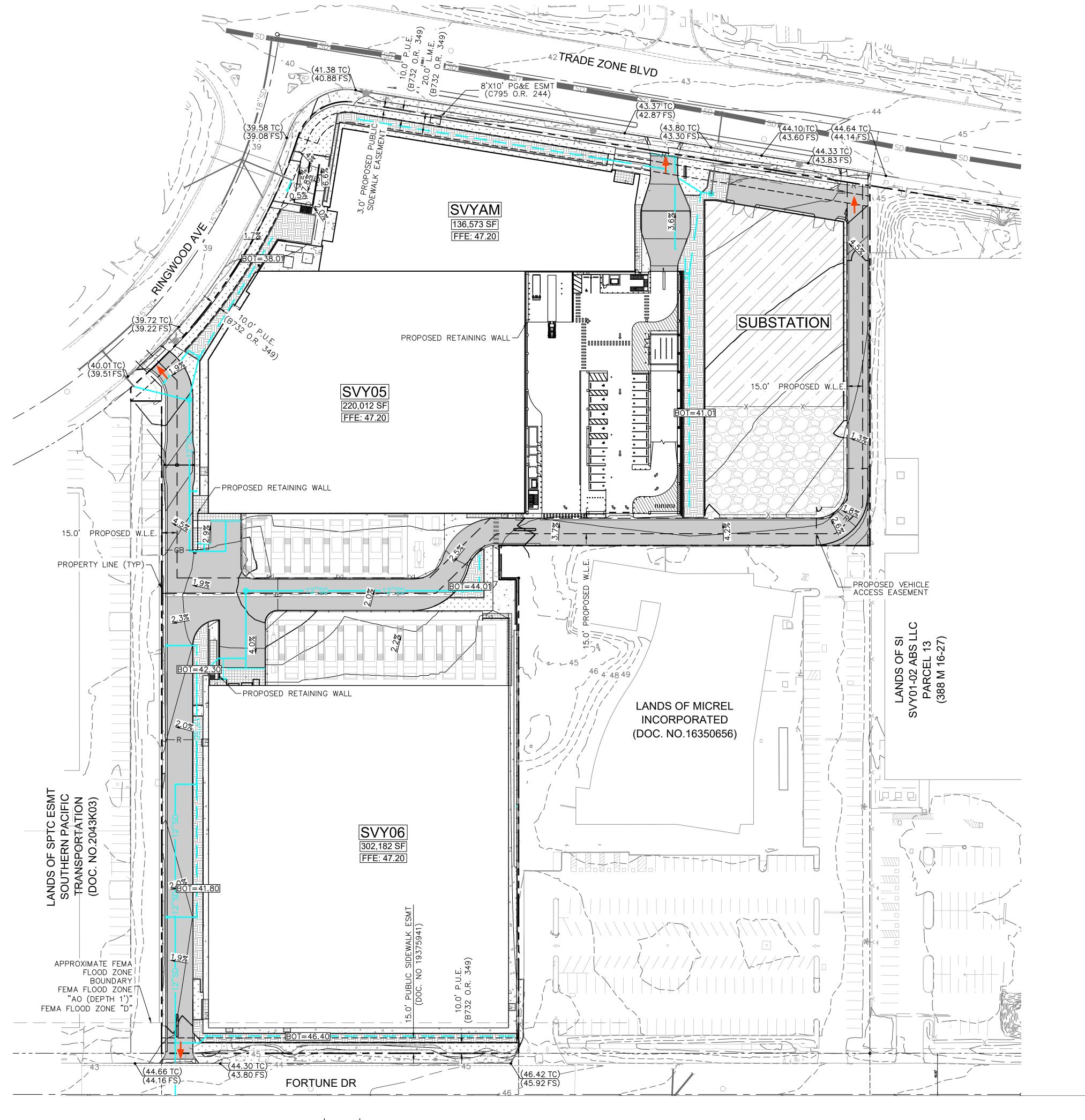


3.2 - CONCEPTUAL PARKING PLAN

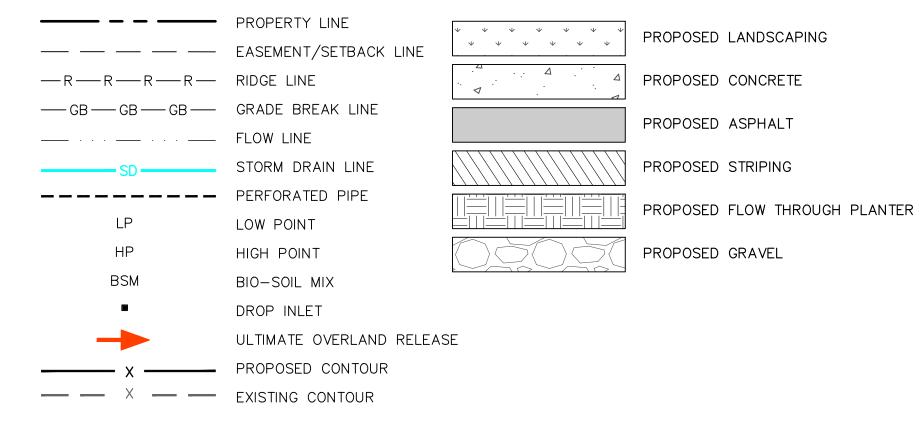








LEGEND



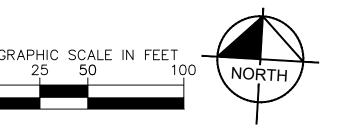
FEMA FLOODPLAIN NOTE

CITY OF SAN JOSE REQUIRES NEW BUILDINGS WITHIN FEMA FLOODPLAIN AO TO BE RAISED 1' ABOVE THE EXISTING CONDITION HIGHEST ADJACENT GRADE. EXISTING HIGHEST ADJACENT GRADE IS ± 46.2 '. PROPOSED BUILDING FFE WILL BE 47.2'.

LANDSCAPING NOTE

SEE SHEET 10.0 FOR ALL EXISTING AND PROPOSED LANDSCAPING AND TREE REMOVAL.

FILE NUMBER: PD220-001





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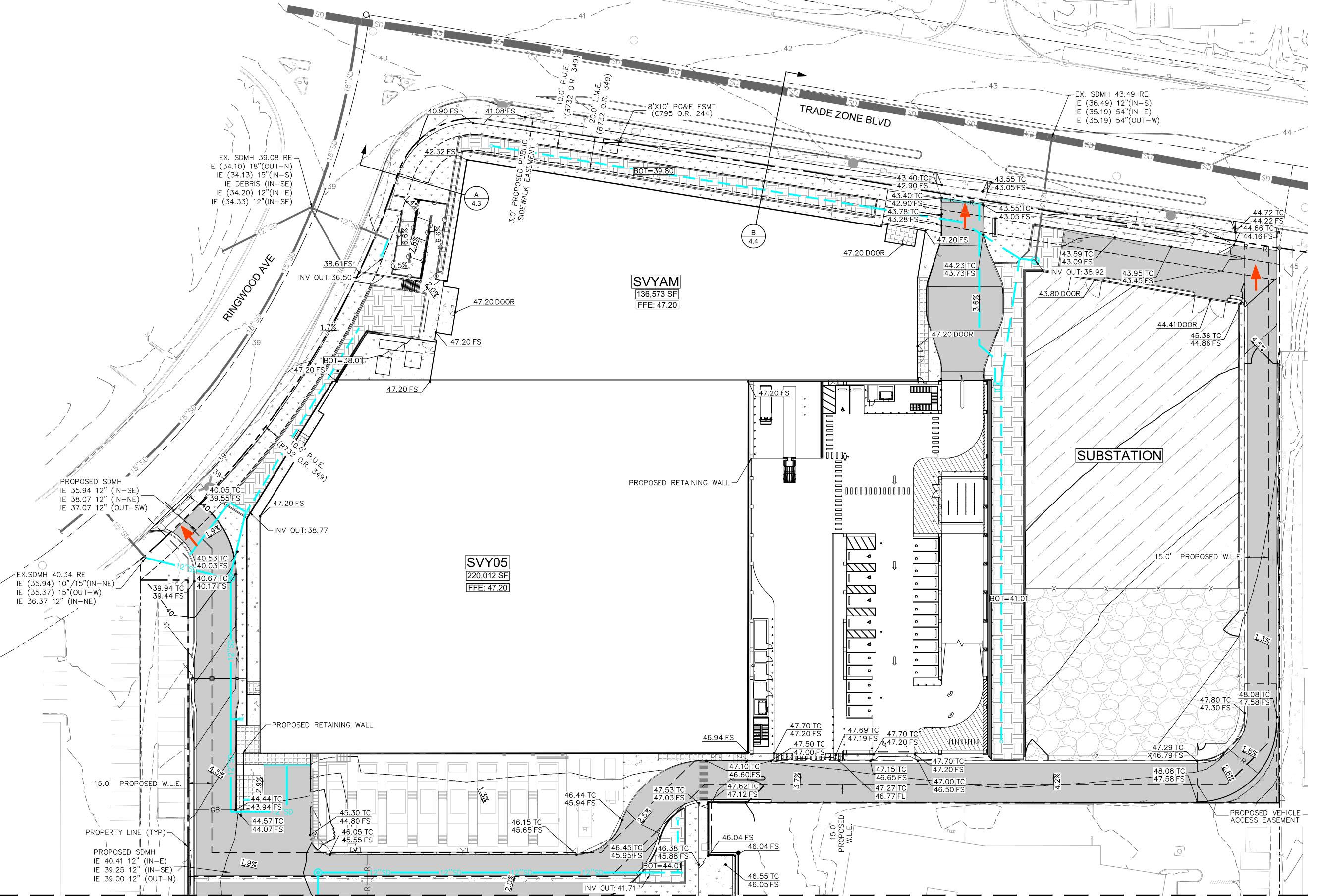








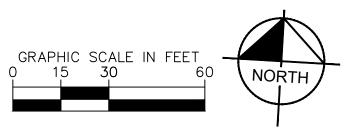




MATCH LINE - SEE SHEET C802



- - PROPERTY LINE — — — EASEMENT/SETBACK LINE -R-R-R-R-R-RIDGE LINE — GB — GB — GRADE BREAK LINE . ____ FLOW LINE STORM DRAIN LINE LOW POINT HIGH POINT BIO-SOIL MIX DROP INLET ULTIMATE OVERLAND RELEASE PROPOSED CONTOUR — EXISTING CONTOUR PROPOSED LANDSCAPING PROPOSED CONCRETE PROPOSED ASPHALT PROPOSED STRIPING PROPOSED FLOW THROUGH PLANTER PROPOSED GRAVEL







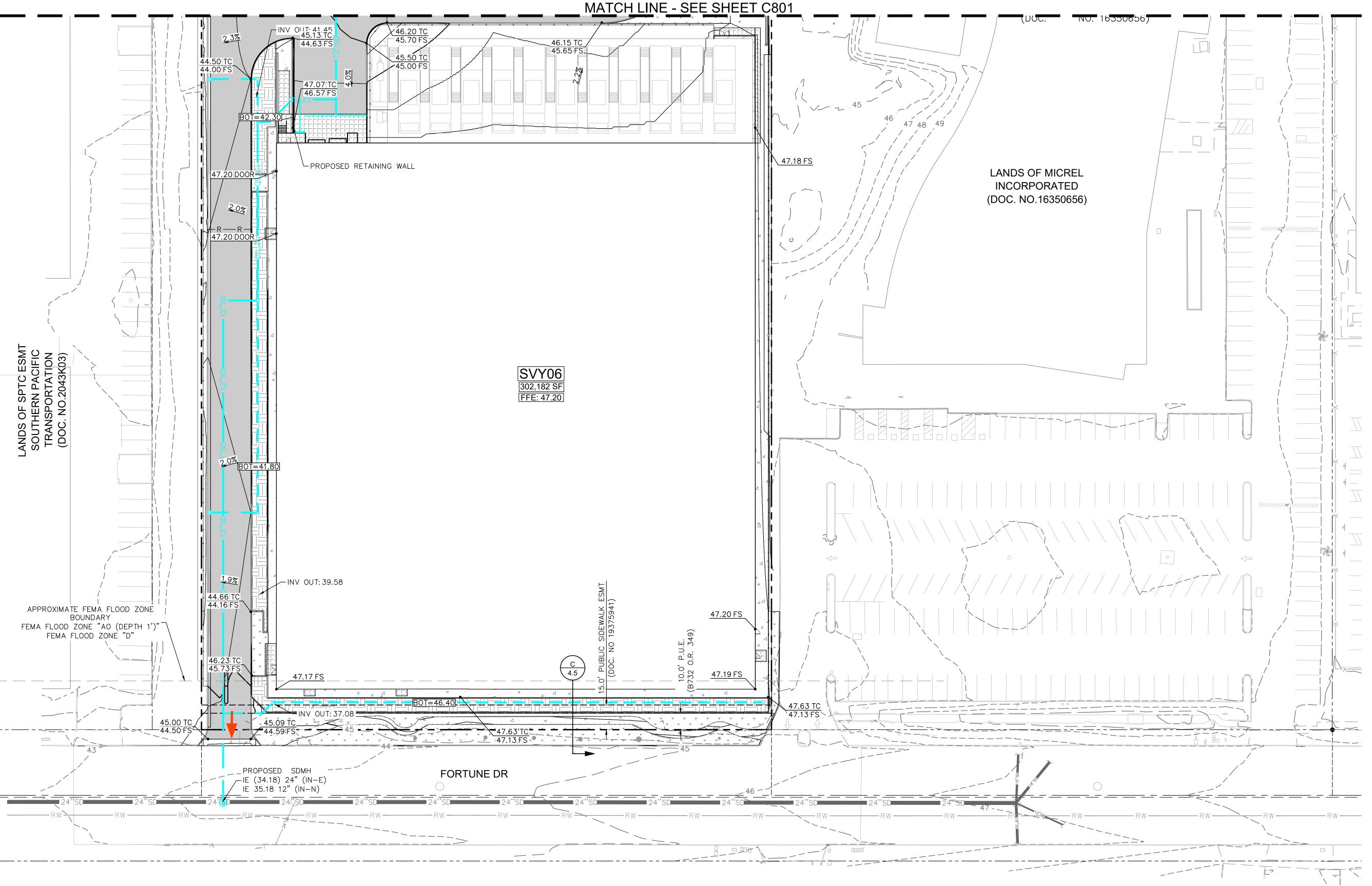








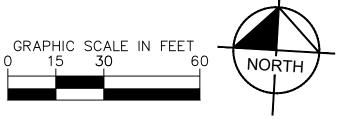




LEGEND

- - - PROPERTY LINE — — — EASEMENT/SETBACK LINE -R-R-R-R-R-RIDGE LINE · — · · · — FLOW LINE STORM DRAIN LINE ---- PERFORATED PIPE LOW POINT HIGH POINT BIO-SOIL MIX DROP INLET ULTIMATE OVERLAND RELEASE PROPOSED CONTOUR — EXISTING CONTOUR PROPOSED LANDSCAPING *** * * * *** PROPOSED CONCRETE PROPOSED ASPHALT PROPOSED STRIPING PROPOSED FLOW THROUGH PLANTER PROPOSED GRAVEL

FILE NUMBER: PD220-001









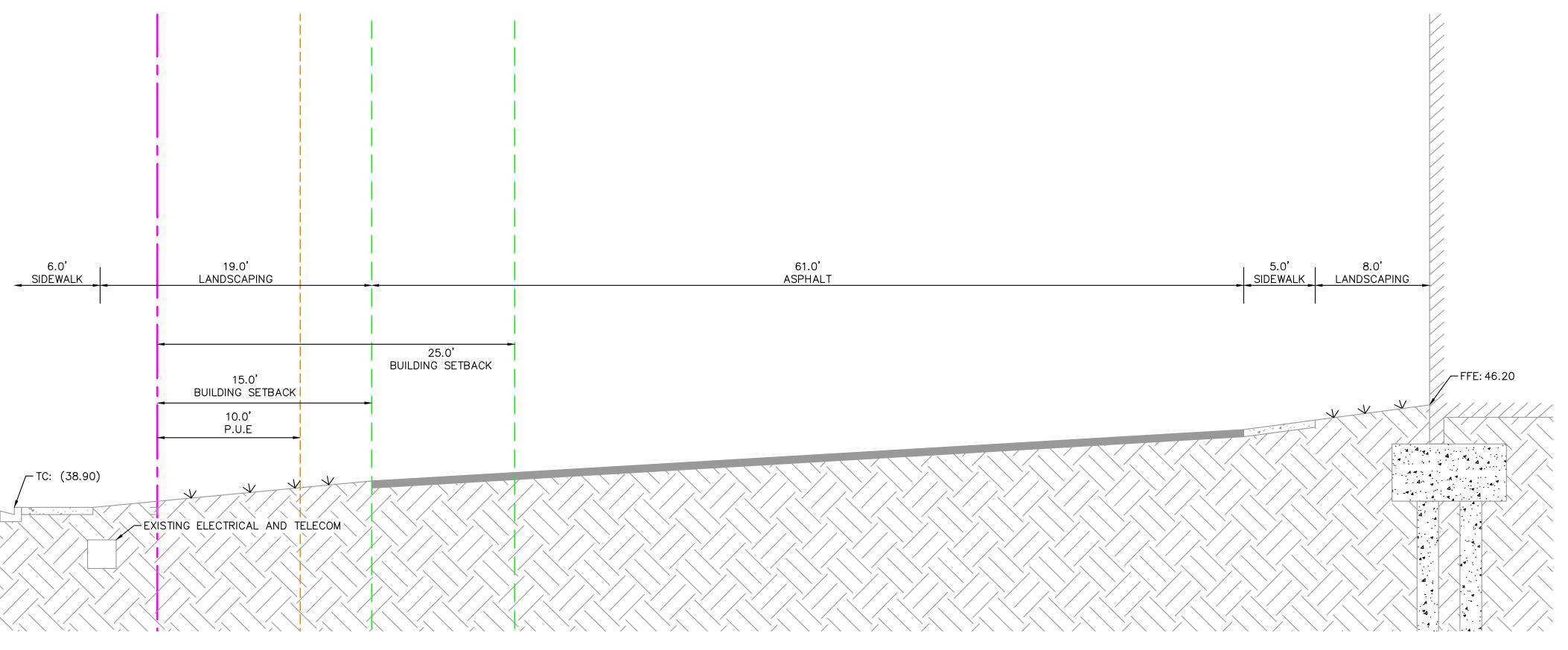






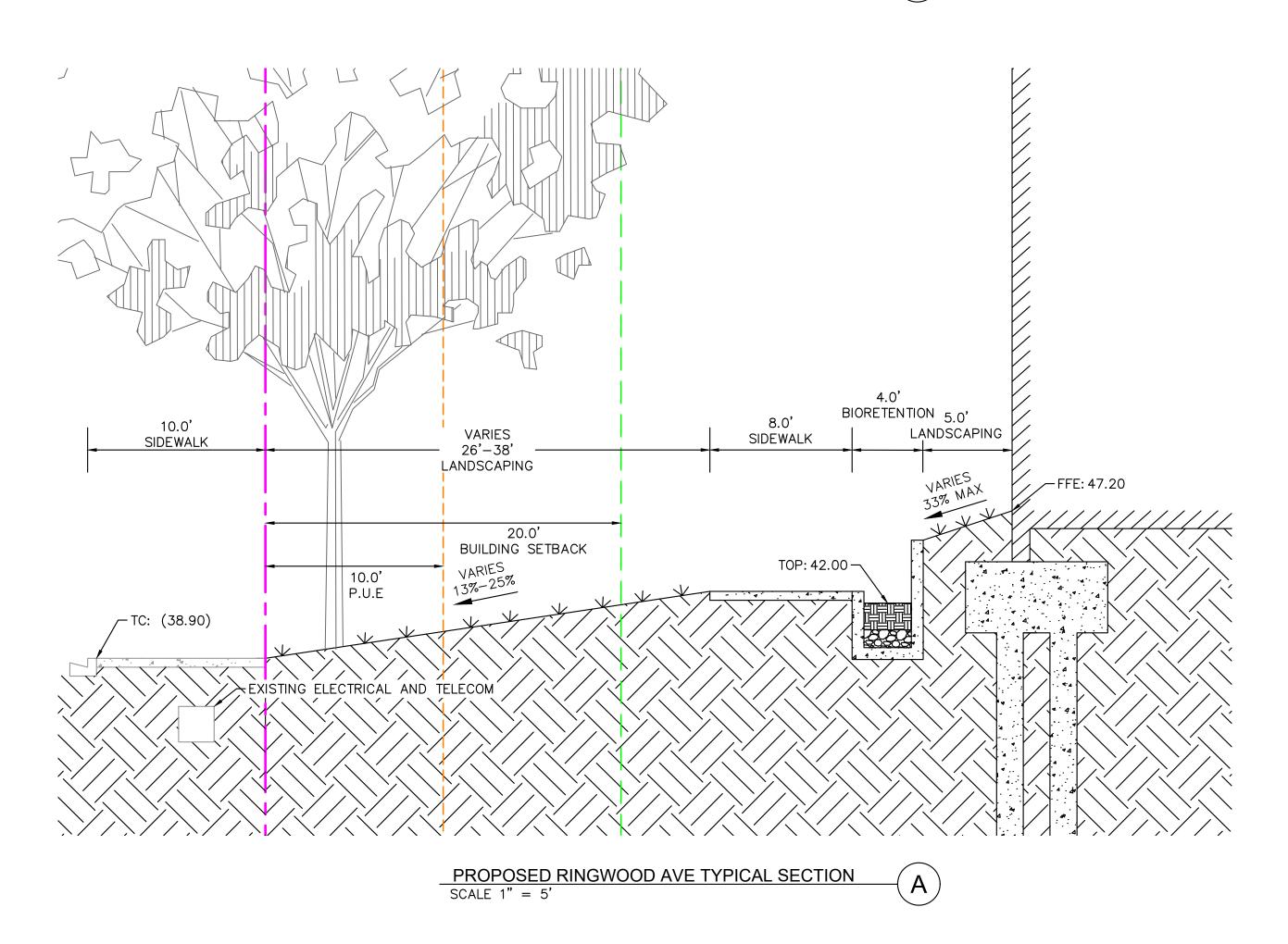


This document is incomplete and may not be used for regulatory approval, permit or construction.



EXISTING RINGWOOD AVE TYPICAL SECTION

SCALE 1" = 5'



FILE NUMBER: PD220-001





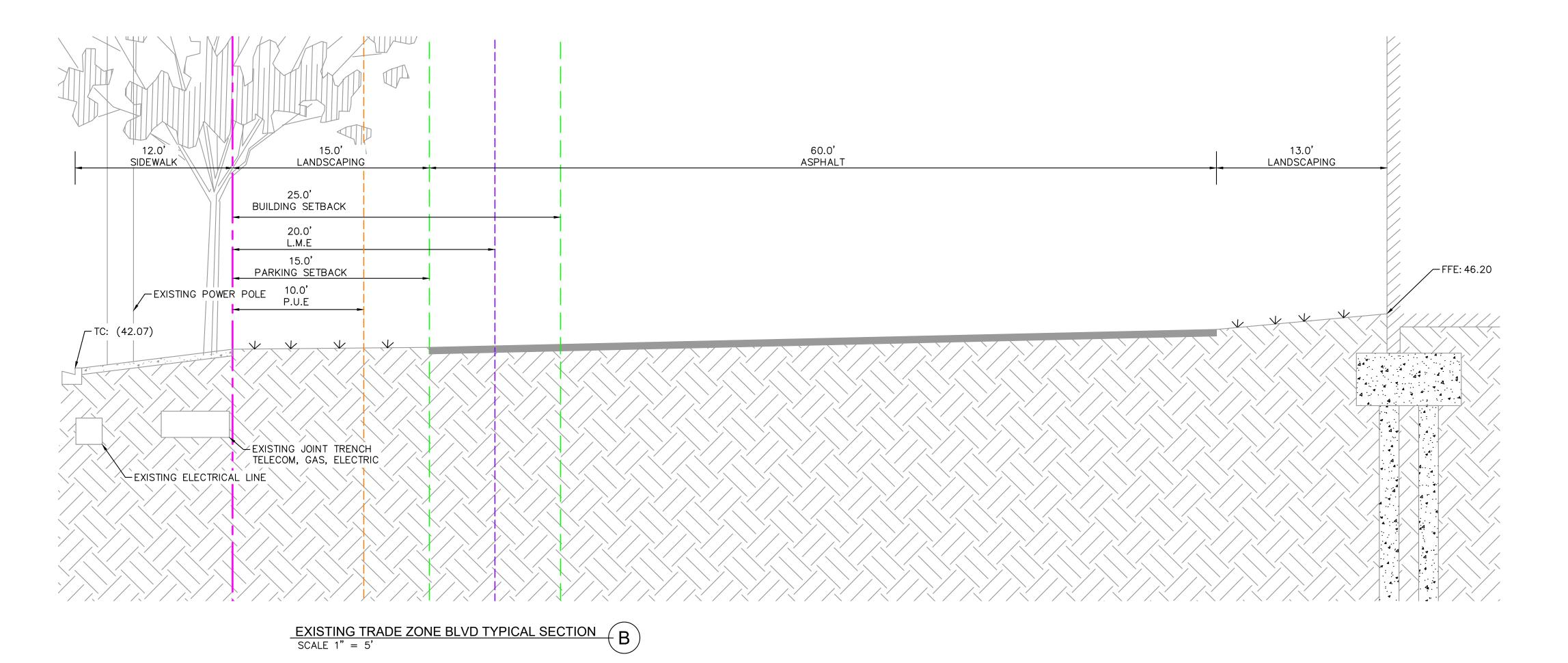


4.3 - CONCEPTUAL TYPICAL RINGWOOD AVE SECTION









20.0 BUILDING SETBACK EXISTING POWER POLE -20.0' L.M.E 7.0' PROTECTED BIKE LANE ±22.0' DRIVE AISLE ±14.0' RAISED MEDIAN | LANDSCAPE SIDEWALK BIORETENTION PARK STRIP LANDSCAPE 5.0' CONCRETE ISLAND SIDEWALK EASEMENT 10.0 P.U.E TC: (42.07) ¬ TOP: 42.00 ¬ EXISTING JOINT TRENCH TELECOM, GAS, ELECTRIC

FILE NUMBER: PD220-001

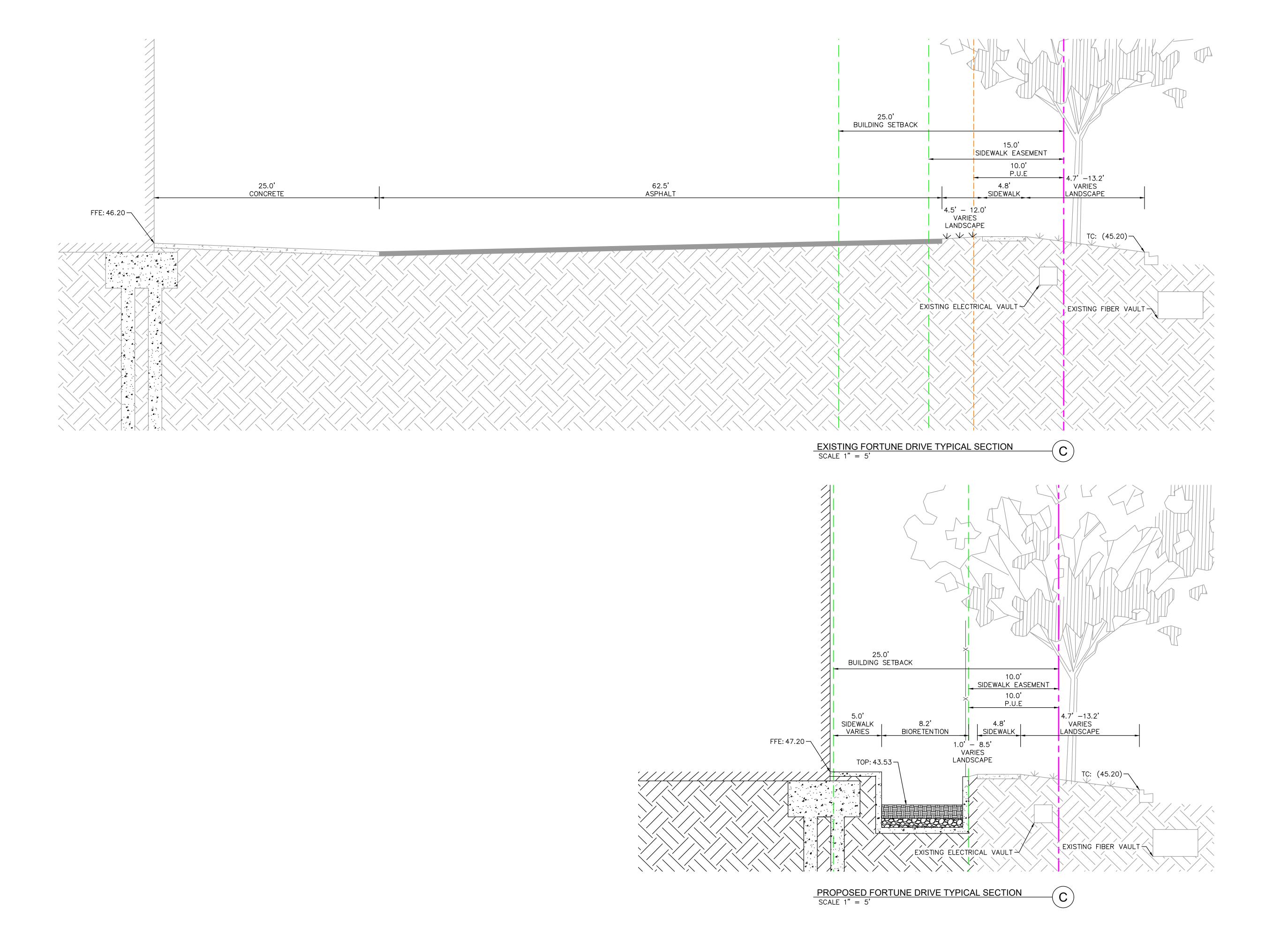


4.4 - CONCEPTUAL TYPICAL TRADEZONE BLVD SECTION











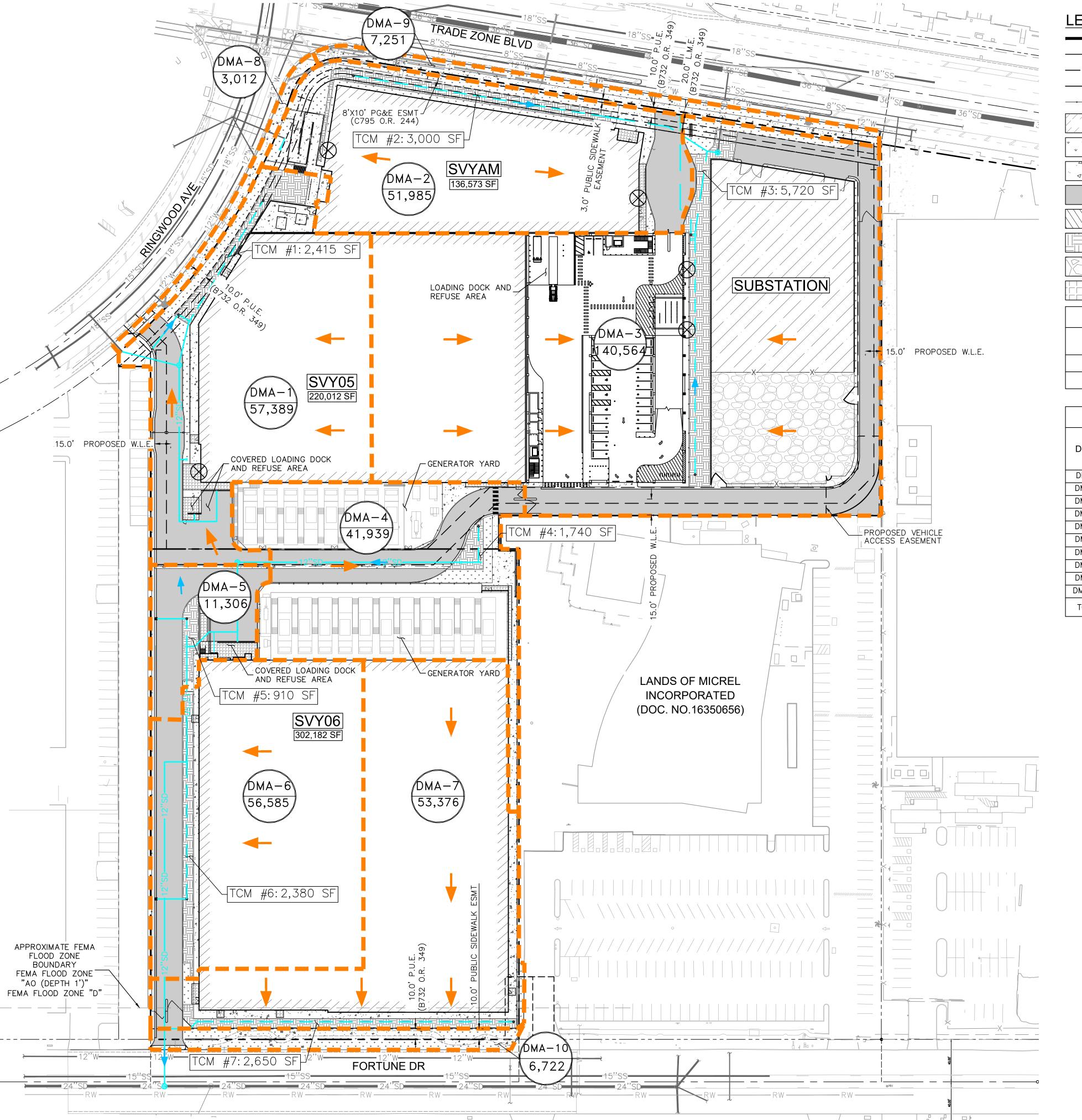












LEGEND DENOTES DMA DESIGNATION - PROPERTY LINE (100/ DENOTES DRAINAGE AREA IN S.F. — CENTER LINE

DENOTES DRAINAGE MANAGEMENT AREA (DMA) BOUNDARY\ PROPOSED FENCE PROPOSED BIORETENTION AREA PROPOSED BUILDING PROPOSED PIPE SLOPE DIRECTION PROPOSED LANDSCAPING PROPOSED CONCRETE PROPOSED SURFACE FLOW DIRECTION PROPOSED ASPHALT

41,129

PROPOSED STRIPING PROPOSED FLOW THROUGH PLANTER

PROPOSED GRAVEL

AREA (SF)

430,129

430,129

EXISTING

PROPOSED

PROPOSED STORM DRAIN LINE SD — EXISTING STORM DRAIN LINE SELF TREATING AREA

APPROXIMATE ROOF DOWNSPOUT LOCATION

PROPOSED BUILDING OVERHANG IMPERVIOUS VS PERVIOUS AREA TOTAL PROPERTY PERVIOUS AREA IMPERVIOUS AREA PERCENT (SF) **PERVIOUS** 84,807 345,322 19.72%

389,000

EARTHWORK

7,136 CY 19,091 CY FILL: 11,955 CY (FILL)

ABOVE QUANTITIES ARE APPROXIMATE IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE SURVEY. PROPOSED FINISHED GRADE, IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S).

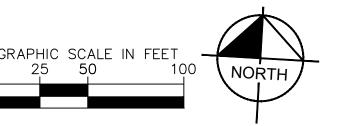
THE EARTHWORK QUANTITIES ABOVE ARE FOR PERMIT PURPOSES ONLY. THEY HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, OVER- EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS. NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, FOOTINGS, SLABS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE NEW PAVEMENTS, ETC. THE CONTRACTOR SHALL RELY ON THEIR OWN EARTHWORK ESTIMATES FOR BIDDING PURPOSES.

HYDROMODIFICATION APPLICABILITY

PER THE HYDROMODIFICATION MANAGEMENT PLAN (HMP) APPLICABILITY MAP FOR THE CITY OF SAN JOSE, THIS PROJECT IS NOT IN THE AREA CONSIDERED "SUBWATERSHEDS LESS THAN 65% IMPERVIOUS" THEREFORE HYDROMODIFICFICATION IS NOT REQUIRED FOR THIS PROJECT.

DMA SURFACE BREAKDOWN **IMPERVIOUS TOTAL AREA ROOFTOP AREA** OTHER STREET (SF) DMA# SIDEWALK (SF) AREA (SF) (SF) **HARDSCAPE** 57,389 52,289 1,400 36,000 1,860 13,029 DMA-242,135 940 51,985 34,200 2,995 4,000 DMA-3140,564 132,764 43,930 68,500 19,356 978 40,339 DMA-4 41,939 3,186 29,909 7,244 0 DMA-5 11,306 9,906 9,906 0 Ο 0 54,205 DMA-6 56,585 46,250 1,540 6,415 0 49,326 DMA-753,376 44,660 2,600 2,066 0 B-AMD 3,012 3,012 3,012 0 0 0 DMA-9 7,251 4,451 0 4,451 0 0 6,722 573 DMA-10 303 0 0 270 TOTAL 389,000 76179 430,129 229,610 20892 62319

FILE NUMBER: PD220-001





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5.0 - CONCEPTUAL STORMWATER CONTROL PLAN







	TABLE 1 ROUTINE MAINTENANCE ACTIVITIES FOR FLOW-THROUGH PLANT	ERS
NO.	MAINTENANCE TASK	FREQUENCY OF TASK
1	INSPECT THE PLANTER SURFACE AREA, INLETS AND OUTLETS FOR OBSTRUCTIONS AND TRASH; CLEAR ANY OBSTRUCTIONS AND REMOVE TRASH.	QUARTERLY
2	INSPECT PLANTER FOR STANDING WATER. IF STANDING WATER DOES NOT DRAIN WITHIN 2-3 DAYS, THE SURFACE BIOTREATMENT SOIL SHOULD BE TILLED OR REPLACED WITH THE APPROVED SOIL MIX AND REPLANTED. USE THE CLEANOUT RISER TO CLEAR ANY UNDERDRAINS OF OBSTRUCTIONS OR CLOGGING MATERIAL.	QUARTERLY
3	CHECK FOR ERODED OR SETTLED BIOTREATMENT SOIL MEDIA. LEVEL SOIL WITH RAKE AND REMOVE/REPLANT VEGETATION AS NECESSARY.	QUARTERLY
4	MAINTAIN THE VEGETATION AND IRRIGATION SYSTEM. PRUNE AND WEED TO KEEP FLOW-THROUGH PLANTER NEAT AND ORDERLY IN APPEARANCE.	QUARTERLY
5	EVALUATE HEALTH AND DENSITY OF VEGETATION. REMOVE AND REPLACE ALL DEAD AND DISEASED VEGETATION. REMOVE EXCESSIVE GROWTH OF PLANTS THAT ARE TOO CLOSE TOGETHER.	ANNUALLY, BEFORE THE RAINY SEASON BEGINS
6	USE COMPOST AND OTHER NATURAL SOIL AMENDMENTS AND FERTILIZERS INSTEAD OF SYNTHETIC FERTILIZERS, ESPECIALLY IF THE SYSTEM USES AN UNDERDRAIN.	ANNUALLY, BEFORE THE RAINY SEASON BEGINS
7	INSPECT THE OVERFLOW PIPE TO MAKE SURE THAT IT CAN SAFELY CONVEY EXCESS FLOWS TO A STORM DRAIN. REPAIR OR REPLACE ANY DAMAGED OR DISCONNECTED PIPING. USE THE CLEANOUT RISER TO CLEAR UNDERDRAINS OF OBSTRUCTIONS OR CLOGGING MATERIAL.	ANNUALLY, BEFORE THE RAINY SEASON BEGINS
8	INSPECT THE ENERGY DISSIPATOR AT THE INLET TO ENSURE IT IS FUNCTIONING ADEQUATELY, AND THAT THERE IS NO SCOUR OF THE SURFACE MULCH. REMOVE ANY ACCUMULATION OF SEDIMENT.	ANNUALLY, BEFORE THE RAINY SEASON BEGINS
9	INSPECT AND, IF NEEDED, REPLACE WOOD MULCH. IT IS RECOMMENDED THAT 2" TO 3" OF COMPOSTED ARBOR MULCH BE APPLIED ONCE A YEAR.	ANNUALLY, BEFORE THE RAINY SEASON BEGINS
10	INSPECT SYSTEM FOR EROSION OF BIOTREATMENT SOIL MEDIA, LOSS OF MULCH, STANDING WATER, CLOGGED OVERFLOWS, WEEDS, TRASH AND DEAD PLANTS. IF USING ROCK MULCH, CHECK FOR 3" OF COVERAGE.	ANNUALLY AT THE END OF THE RAINY SEASON AND/OR AFTER LARGE STORM EVENTS,
11	INSPECT SYSTEM FOR STRUCTURAL INTEGRITY OF WALLS, FLOW SPREADERS, ENERGY DISSIPATORS, CURB CUTS, OUTLETS AND FLOW SPLITTERS.	ANNUALLY AT THE END OF THE RAINY SEASON AND/OR AFTER LARGE STORM EVENTS,
	TABLE 1 ROUTINE MAINTENANCE ACTIVITIES FOR BIORETENTION AREA	.s
NO.	MAINTENANCE TASK	FREQUENCY OF TASK
1	REMOVE OBSTRUCTIONS, WEEDS, DEBRIS AND TRASH FROM BIORETENTION AREA AND ITS INLETS AND OUTLETS; AND DISPOSE OF PROPERLY.	QUARTERLY, OR AS NEEDED AFTER STORM EVENTS
2	INSPECT BIORETENTION AREA FOR STANDING WATER. IF STANDING WATER DOES NOT DRAIN WITHIN 2-3 DAYS, TILL AND REPLACE THE SURFACE BIOTREATMENT SOIL WITH THE APPROVED SOIL MIX AND REPLANT.	QUARTERLY, OR AS NEEDED AFTER STORM EVENTS
3	CHECK UNDERDRAINS FOR CLOGGING. USE THE CLEANOUT RISER TO CLEAN ANY CLOGGED UNDERDRAINS.	QUARTERLY, OR AS NEEDED AFTER STORM EVENTS
4	MAINTAIN THE IRRIGATION SYSTEM AND ENSURE THAT PLANTS ARE RECEIVING THE CORRECT AMOUNT OF WATER (IF APPLICABLE).	QUARTERLY
5	ENSURE THAT THE VEGETATION IS HEALTHY AND DENSE ENOUGH TO PROVIDE FILTERING AND PROTECT SOILS FROM EROSION. PRUNE AND WEED THE BIORETENTION AREA. REMOVE AND/OR REPLACE ANY DEAD PLANTS.	ANNUALLY, BEFORE THE WET SEASON BEGINS
6	USE COMPOST AND OTHER NATURAL SOIL AMENDMENTS AND FERTILIZERS INSTEAD OF SYNTHETIC FERTILIZERS, ESPECIALLY IF THE SYSTEM USES AN UNDERDRAIN.	ANNUALLY, BEFORE THE WET SEASON BEGINS
7	CHECK THAT MULCH IS AT APPROPRIATE DEPTH (2 - 3 INCHES PER SOIL SPECIFICATIONS) AND REPLENISH AS NECESSARY BEFORE WET SEASON BEGINS. IT IS RECOMMENDED THAT 2" – 3" OF ARBOR MULCH BE REAPPLIED EVERY YEAR.	ANNUALLY, BEFORE THE WET SEASON BEGINS

PROJECT SITE INFORMATION:

- 1. SOILS TYPE: SC, CL, SM, AND SP.
- 2. GROUND WATER DEPTH: 8.5' 16'
- 3. NAME OF RECEIVING BODY: COYOTE CREEK
- 4. FLOOD ZONE: AO
- 5. FLOOD ELEVATION (IF APPLICABLE): 1'

SOURCE CONTROL MEASURES:

- 1. CONNECT THE FOLLOWING FEATURES TO SANITARY SEWER: a. INTERIOR PARKING STRUCTURES.
- b. COVERED LOADING DOCKS AND MAINTENANCE BAYS.
- 2. BENEFICIAL LANDSCAPING. 3. USE OF WATER EFFICIENT IRRIGATION SYSTEMS.
- 4. MAINTENANCE (PAVEMENT SWEEPING, CATCH BASIN CLEANING, GOOD HOUSEKEEPING).
- 5. STORM DRAIN LABELING.

OPERATION AND MAINTENANCE INFORMATION:

PROPERTY INFORMATION:

I.A. PROPERTY ADDRESS: 2400 RINGWOOD AVE SAN JOSE, CA 95131

I.B. PROPERTY OWNER: SI SVLY2, LLC

II. RESPONSIBLE PARTY FOR MAINTENANCE:

II.A. CONTACT:

Zenith Rathore

II.B. PHONE NUMBER OF CONTACT: <u>650-397-5793</u>

II.C. EMAIL:

<u>zrathore@stackinfra.com</u>

II.D. ADDRESS:

<u>Denver, CO 80290</u>

1700 Broadway, Suite 1750

BIOTREATMENT SOIL REQUIREMENTS

- BIORETENTION SOIL MIX SHALL MEET THE REQUIREMENTS AS OUTLINED IN APPENDIX C OF THE C.3 STORM WATER HANDBOOK AND SHALL BE A MIXTURE OF FINE SAND AND COMPOST MEASURED ON A VOLUME BASIS OF 60-70% SAND AND 30-40% COMPOST. CONTRACTOR TO REFER TO APPENDIX C FOR SAND AND COMPOST MATERIAL SPECIFICATIONS. CONTRACTOR MAY OBTAIN A COPY OF THE C3 HANDBOOK AT: HTTPS: //CLEANWATER.SCCGOV.ORG/SITES/G/FILES/EXJCPB461/FILES/SCVURPPP_C.PDF
- PRIOR TO ORDERING THE BIOTREATMENT SOIL MIX OR DELIVERY TO THE PROJECT SITE, CONTRACTOR SHALL PROVIDE A BIOTREATMENT SOIL MIX SPECIFICATION CHECKLIST, COMPLETED BY THE SOIL MIX SUPPLIER AND CERTIFIED TESTING LAB.

BIORETENTION & FLOW-THROUGH PLANTER NOTES:

- SEE GRADING PLAN FOR BASIN FOOTPRINT AND DESIGN ELEVATIONS.
- 2. PLACE 3 INCHES OF COMPOSTED, NON-FLOATABLE MULCH IN AREAS BETWEEN STORMWATER PLANTINGS.
- SEE LANDSCAPE PLAN FOR MULCH, PLANT MATERIALS AND IRRIGATION REQUIREMENTS
- CURB CUTS SHALL BE A MINIMUM 18" WIDE AND SPACED AT MAXIMUM 10' O.C. INTERVALS AND SLOPED TO DIRECT STORMWATER TO DRAIN INTO THE BASIN. CURB CUTS SHALL ALSO NOT BE PLACED INLINE WITH OVERFLOW CATCH BASIN. SEE GRADING PLAN FOR MORE DETAIL ON LOCATIONS OF CURB CUTS.
- 5. A MINIMUM 0.2' DROP BETWEEN STORM WATER ENTRY POINT (I.E. CURB OPENING, FLUSH CURB, ETC.) AND ADJACENT LANDSCAPE FINISHED GRADE.
- 6. DO NOT COMPACT NATIVE SOIL / SUBGRADE AT BOTTOM OF BASIN. LOOSEN SOIL TO 12" DEPTH.

SITE DESIGN MEASURES:

- 1. PROTECT EXISTING TREES, VEGETATION, AND SOIL.
- 2. CREATE NEW PERVIOUS AREAS:
- a. LANDSCAPING
- 3. DIRECT RUNOFF FROM ROOFS, SIDEWALKS, PATIOS TO LANDSCAPED AREAS.
- 4. CLUSTER STRUCTURES/PAVEMENT.
- 5. PLANT TREES ADJACENT TO AND IN PARKING AREAS AND ADJACENT TO OTHER IMPERVIOUS AREAS.
- 6. PARKING:
- a. ON TOP OF OR UNDER BUILDINGS.
- b. NOT PROVIDED IN EXCESS OF CODE.

REATMENT CONTRO	L MEASURE	SUMMARY	TABLE

						•	•		1	•		Bioretention	•	
DMA#	TCM#	Location	Treatment Type	LID or Non-LID	Sizing Method	Drainage Area (s.f.)	Impervious Area (s.f.)	Pervious Area (Permeable Pavement) (s.f.)	Pervious Area (Other) (s.f.)	% Onsite Area Treated by LID or Non- LID TCM	Bioretention Area Required (s.f.)	Bioretention Area Provided (s.f.)	Overflow Riser Height (in)	Comments
1	1	Onsite	Flow-Through planter (concrete lined*) w/ underdrain	LID	2C. Flow: 4% Method **	57,389	52,289	0	5,100	13.89%	2,112	2,415	6	
2	2	Onsite	Flow-Through planter (concrete lined*) w/ underdrain	LID	2C. Flow: 4% Method **	51,985	42,135	0	9,850	12.58%	1,725	3,000	6	
3	3	Onsite	Flow-Through planter (concrete lined*) w/ underdrain	LID	2C. Flow: 4% Method **	140,564	132,764	0	7,800	34.02%	5,342	5,720	6	
4	4	Onsite	Flow-Through planter (concrete lined*) w/ underdrain	LID	2C. Flow: 4% Method **	41,939	40,339	0	1,600	10.15%	1,620	1,740	6	
5	5	Onsite	Flow-Through planter (concrete lined*) w/ underdrain	LID	2C. Flow: 4% Method **	11,306	9,906	0	1,400	2.74%	402	910	6	
6	6	Onsite	Flow-Through planter (concrete lined*) w/ underdrain	LID	2C. Flow: 4% Method **	56,585	54,205	0	2,380	13.70%	2,178	2,380	6	
7	7	Onsite	Flow-Through planter (concrete lined*) w/ underdrain	LID	2C. Flow: 4% Method **	53,376	49,326	0	4,050	12.92%	2,123	2,650	6	
8	8	Offsite	Maintenance	Non-LID	N/A	3,012	3,012	0	0	-	0	0	0	
9	9	Offsite	Maintenance	Non-LID	N/A	7,251	4,451	0	2,800	-	0	0	0	
10	10	Offsite	Maintenance	Non-LID	N/A	6,722	573	0	6,149	-	0	0	0	
	'		•	•	Totals:	430,129	389,000	0	41,129	100.00%		•	•	

ANNUALLY, BEFORE THE WET

ANNUALLY, BEFORE THE WET

ANNUALLY, BEFORE THE WET

SEASON BEGINS

SEASON BEGINS

SEASON

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* "Lined" refers to an impermeable liner placed on the bottom of a Bioretention basin or a concrete Flow-Through Planter, such that no infiltration into native soil occurs.

** Sizing for Bioretention Area Required calculated using the 4% Method (Impervious Area x 0.04)

INSPECT THE ENERGY DISSIPATION AT THE INLET TO ENSURE IT IS FUNCTIONING

ADEQUATELY, AND THAT THERE IS NO SCOUR OF THE SURFACE MULCH. REMOVE

INSPECT OVERFLOW PIPE TO ENSURE THAT IT CAN SAFELY CONVEY EXCESS

REPLACE BIOTREATMENT SOIL AND MULCH, IF NEEDED. CHECK FOR STANDING

INSPECT BIORETENTION AREA USING THE ATTACHED INSPECTION CHECKLIST.

WATER, STRUCTURAL FAILURE AND CLOGGED OVERFLOWS. REMOVE TRASH AND

FLOWS TO A STORM DRAIN, REPAIR OR REPLACE DAMAGED PIPING.

ACCUMULATED SEDIMENT.

DEBRIS. REPLACE DEAD PLANTS.

*** Per Chapter 2.3 of the C3 Stormwater Handbook Roadway projects that add new sidewalk along an existing roadway are exempt from Provision C.3.c of the Municipal Stormwater Permit.



5.1 - CONCEPTUAL STORMWATER **CONTROL NOTES**

THE SQUARE FOOTAGES PROVIDED ARE NOT BOMA SQUARE FOOTAGES. IN PREPARING THESE APPROXIMATE SQUARE FOOTAGE NUMBERS, THE ARCHITECT HAS RELIED ON PROGRAM AND PLAN INFORMATION PROVIDED BY THE PERSPECTIVE OWNER AND/OR PREPARED BY THE ARCHITECT TO DATE. SOME OF WHICH REMAIN SUBJECT TO CHANGE AS THE WORK PROCEEDS. THESE APPROXIMATE SQUARE FOOTAGE NUMBERS AND ANY ASSOCIATED DRAWINGS ARE PROVIDED FOR THE CLIENT'S GENERAL UNDERSTANDING OF THE ALLOCATION OF SPACE IN THE BUILDING. NOTWITHSTANDINGANYTHING HEREIN TO THE CONTRARY, THE ARCHITECT MAKES NO WARRANTY, EXPRESS OR IMPLIED, OF THE COMPLETENESS OR ACCURACY OF THE CALCULATIONS, NOR

ACCEPTS LIABILITY FOR THE CLIENT 'S USE OF THEM, SPECIFICALLY INCLUDING BUT NOT LIMITED TO THEIR INCLUSION IN OR APPLICATION TO SALE, LEASE OR ANY OTHER CONTRACTUAL AGREEMENTS. USE OF THE SQUARE FOOTAGES IS AT CLIENT'S SOLE RISK

RECEIVING BODY OF WATER

1. THIS PROJECT IS LOCATED WITHIN THE LOWER PENITENCIA WATERSHED.

GEOTECHNICAL NOTE

1. SOIL TYPES FOUND INCLUDE: SC, CL, SM, AND SP. 2. GROUNDWATER IDENTIFIED AT DEPTHS RANGING FROM 8.5' TO 16' BELOW THE SURFACE

GEOTECHNICAL REPORT

THE GEOTECH ENGINEERING DESIGN REPORT DATED AUGUST 13, 2021 PREPARED BY CORNERSTONE EARTH GROUP AND ALL ADDENDA SHALL BE CONSIDERED PART OF THESE CONSTRUCTION DOCUMENTS.

2.d IMPERVIOUS AREAS - IA	Pre-Project Existing IA sq. ft.	Existing IA Retained As-Is ¹ sq. ft.	Existing IA Replaced with IA ² sq. ft.	New IA Created ² sq. ft.	Total Post Project IA sq. ft.
Site Totals					
Total IA	d.1 343,811	d.2 0	d.3 343,811	d.4 48,538	d.5 (d.2+d.3+d.4) 392,349
Total New and Replaced IA			d.6 (d.3+d.4) 395,446		
Public Street Totals					
Total Public Streets IA ³	d.8 1,511	d.9 1,511	d.10 0	d.11 0	d.12 (d.9+d.10+d.11) 1,511
Total New and Replaced Public Streets IA			d.13 (d.10+d.11) 0		
Total Site and Public Streets IA	d.14 (d.1.+d.8) 345,322				d.15 (d.5+d.12) 393,860
Percent Replacement of IA in Redevelop	ment Projects (d.	3÷d.1) x 100:			d.16 100
2.e PERVIOUS AREAS - PA	Pre-Project Existing PA sq. ft.				Total Post Project PA sq. ft.
Total PA ⁴	e.1 84,807				e.2 37,780
2.f Total Area (IA + PA)	f.1 (d.14 + e.1) 430,129				f.2 (d.15 + e.2) 430,129

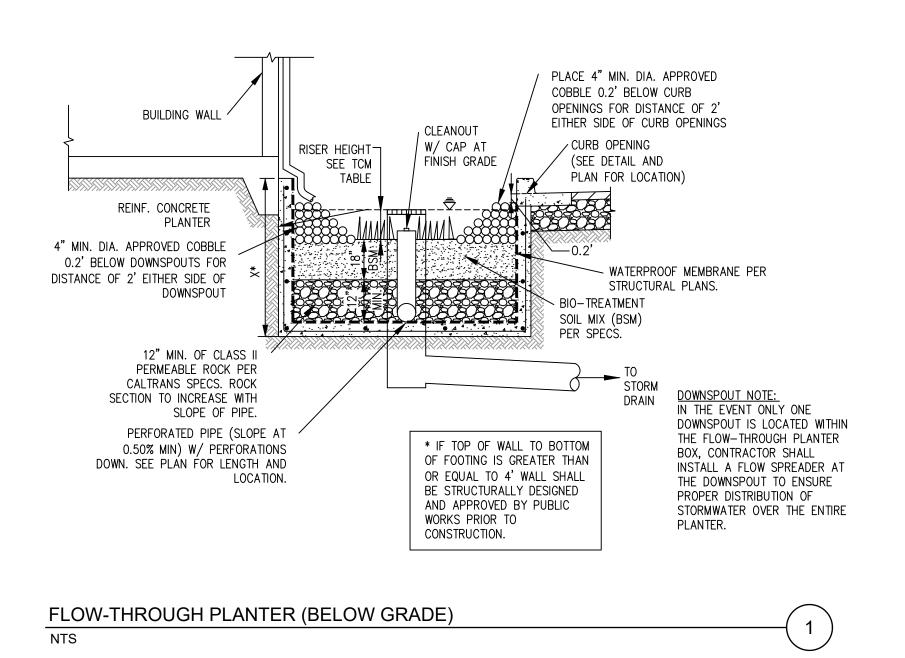
COMPARISON OF IMPERVIOUS AND PERVIOUS AREAS AT PROJECT SITE:

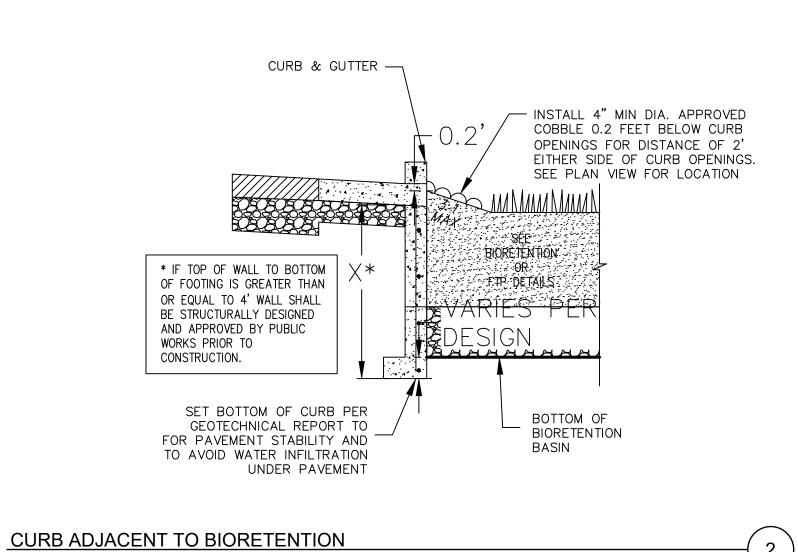
STANDARD STORMWATER CONTROL NOTES:

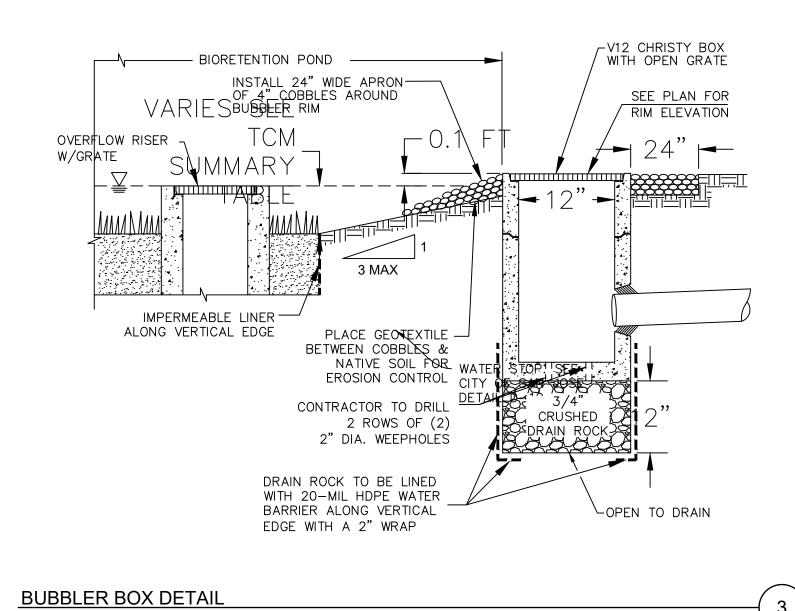
- STANDING WATER SHALL NOT REMAIN IN THE TREATMENT MEASURES FOR MORE THAN FIVE DAYS, TO PREVENT MOSQUITO GENERATION. SHOULD ANY MOSQUITO ISSUES ARISE, CONTACT THE SANTA CLARA VALLEY VECTOR CONTROL DISTRICT (DISTRICT). MOSQUITO LARVICIDES SHALL BE APPLIED ONLY WHEN ABSOLUTELY NECESSARY, AS INDICATED BY THE DISTRICT. AND THEN ONLY BY A LICENSED PROFESSIONAL OR CONTRACTOR. CONTACT INFORMATION FOR THE DISTRICT IS PROVIDED BELOW.
- DO NOT USE PESTICIDES OR OTHER CHEMICAL APPLICATIONS TO TREAT DISEASED PLANTS, CONTROL WEEDS OR REMOVED UNWANTED GROWTH. EMPLOY NON-CHEMICAL CONTROLS (BIOLOGICAL, PHYSICAL AND CULTURAL CONTROLS) TO TREAT A PEST PROBLEM. PRUNE PLANTS PROPERLY AND AT THE APPROPRIATE TIME OF YEAR. PROVIDE ADEQUATE IRRIGATION FOR LANDSCAPE PLANTS. DO NOT OVER WATER.

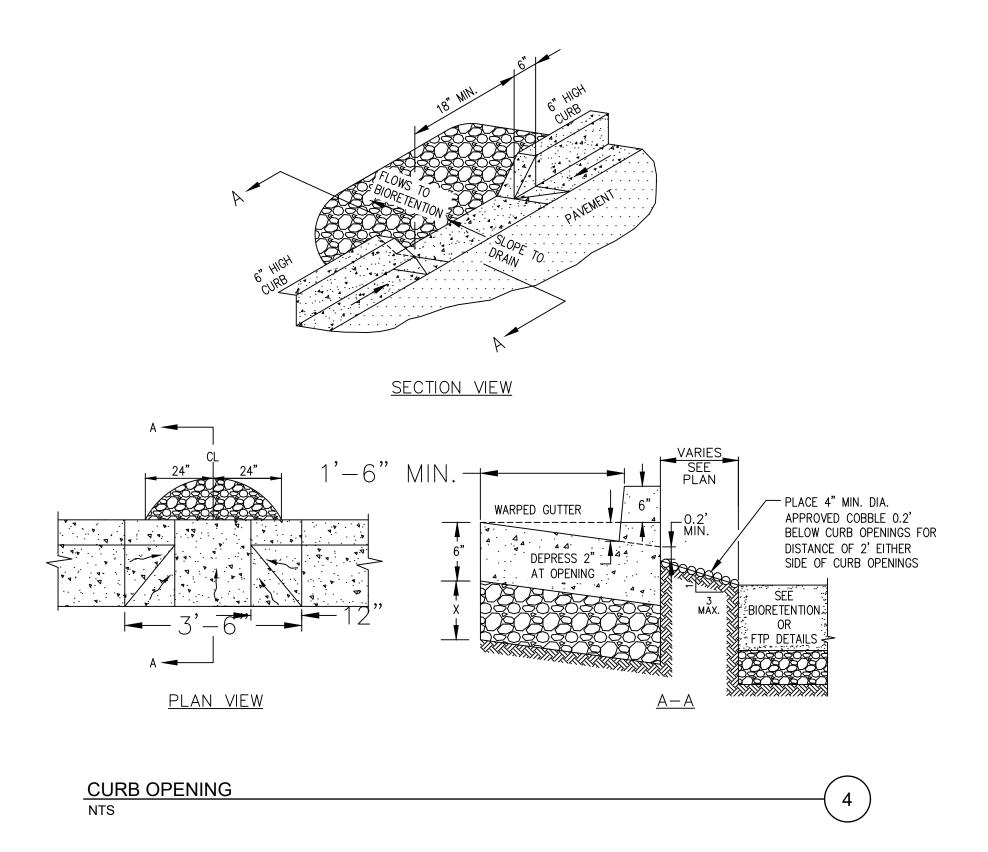














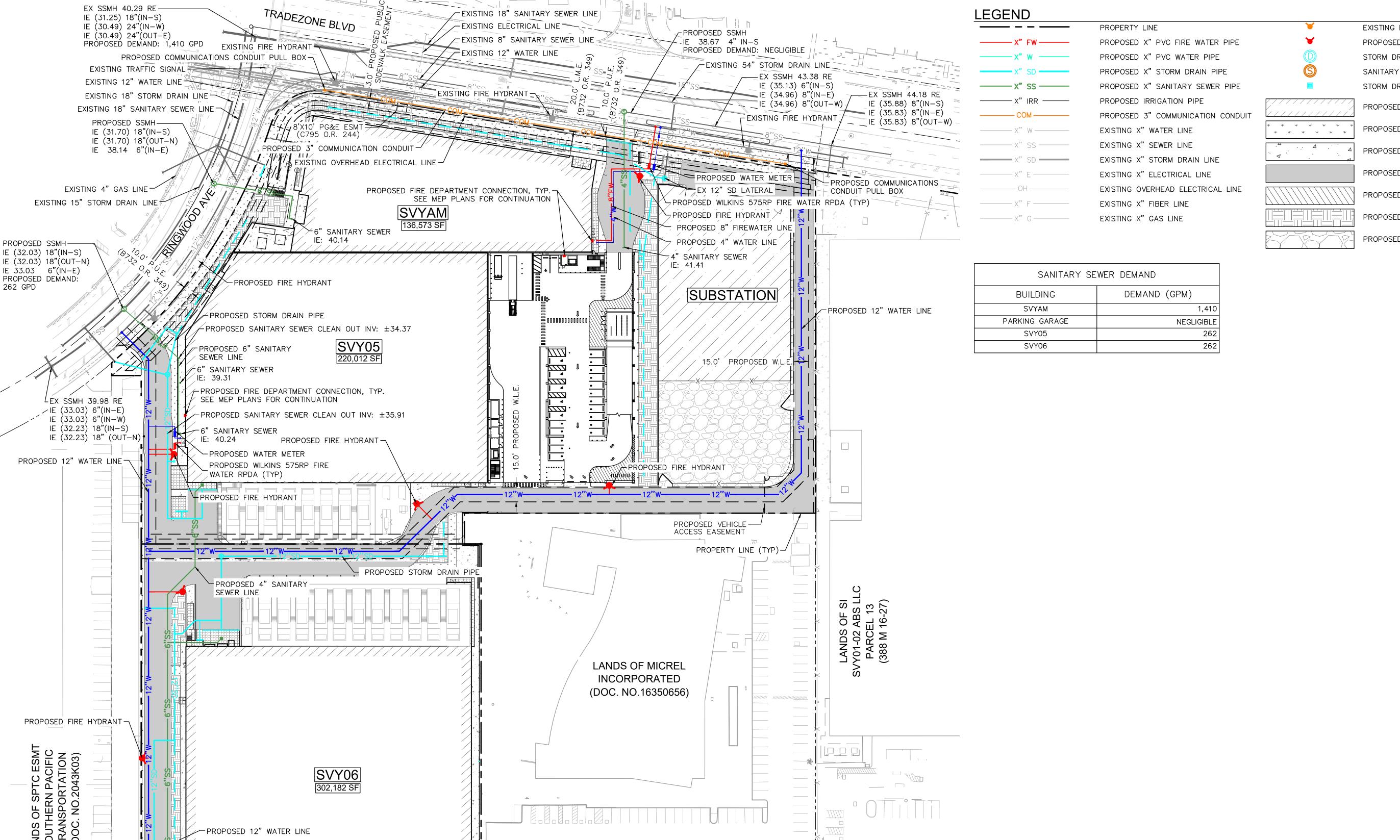


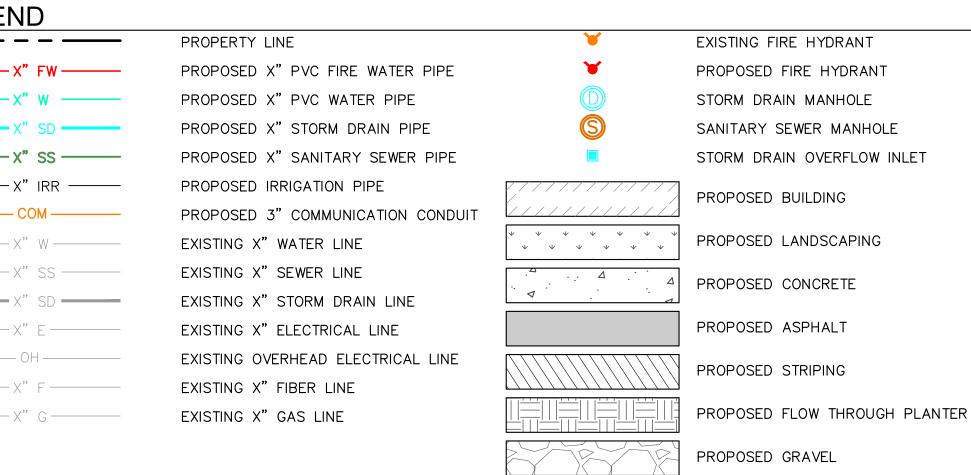




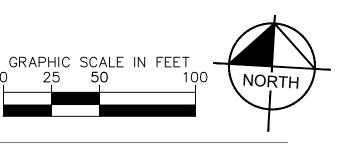








FILE NUMBER: PD220-001







6" SANITARY SEWER

IE: 40.24

IE (36.52) 10"(IN-S)

= IE (36.24) 8"(IN−N)

¡IE (36.08) 15"(IN-É)

PROPOSED DEMAND: 262 GPD

PROPOSED FIRE HYDRANT

PROPOSED WATER METER

PROPOSED WILKINS





₩ŢEXISTING 15" SANITARY

SEWER LINE

6.0 - CONCEPTUAL UTILITY PLAN





PROPOSED 3" WATER LINE

PROPOSED 8"-FIREWATER LINE

APPROXIMATE FEMA FLOOD ZONE BOUNDARY

FEMA FLOOD ZONE

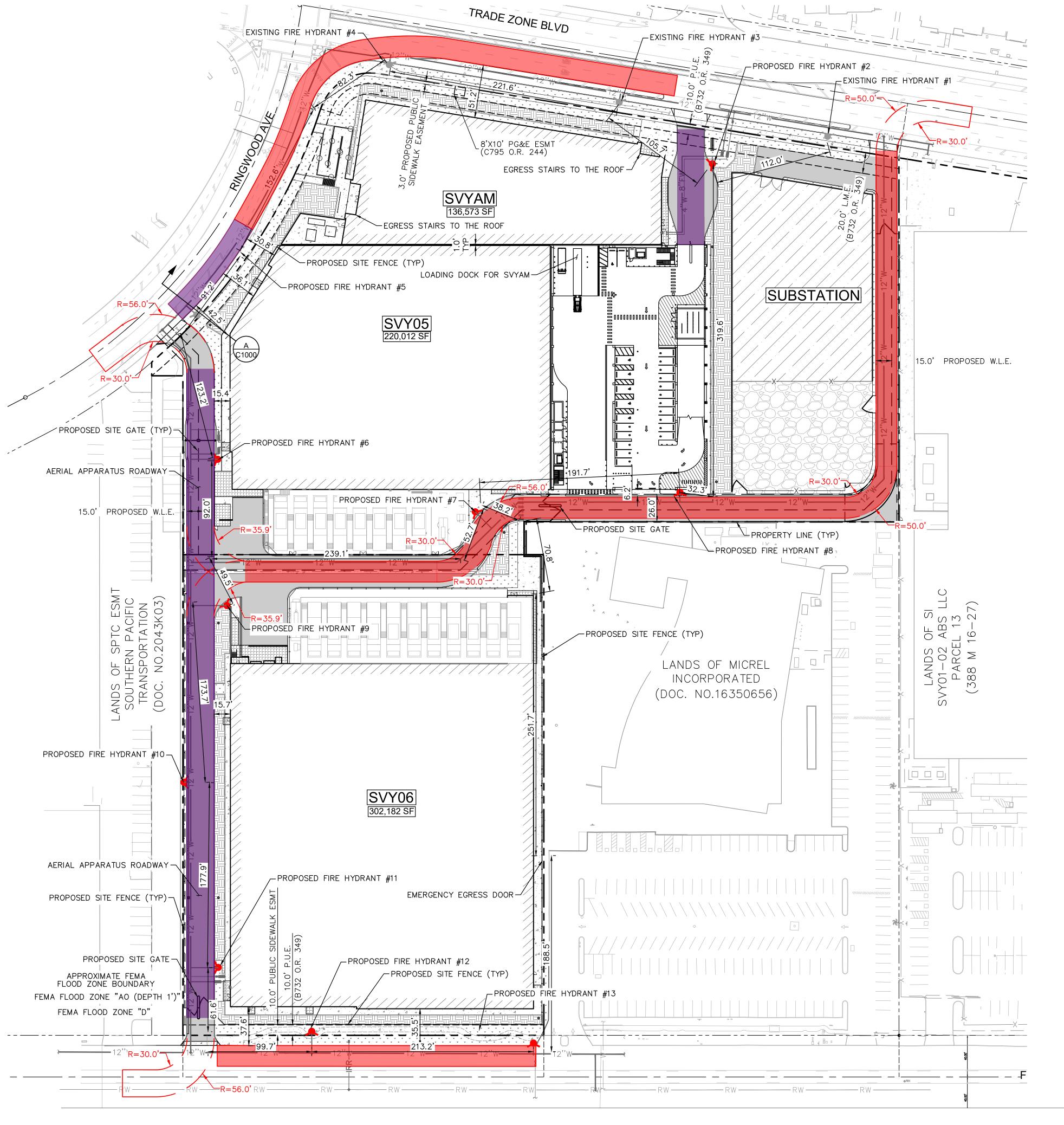
"AO (DEPTH 1')"

FEMA FLOOD ZONE "D"

EX SSMH 44.13 RE —

IE (36.25) 8"(IN-S) IE (36.13) 15"(IN-E)

[IE (36.01) 15"(OUT-W)



SITE DATA

SVYAM: IIA SVY05: IIA BUILDING CONSTRUCTION TYPE: SVY06: IIA GARAGE: IA

SVYAM:136,573 SF SVY05: 220,012 SF SVY06: 302,182 SF GARAGE: 166,182 TOTAL BUILDING SQUARE FOOTAGE: TOTAL: 824,949 SF

REQUIRED FIRE FLOW (PER CFC TABLE B105.1, BEFORE REDUCTION): 6,000 GPM

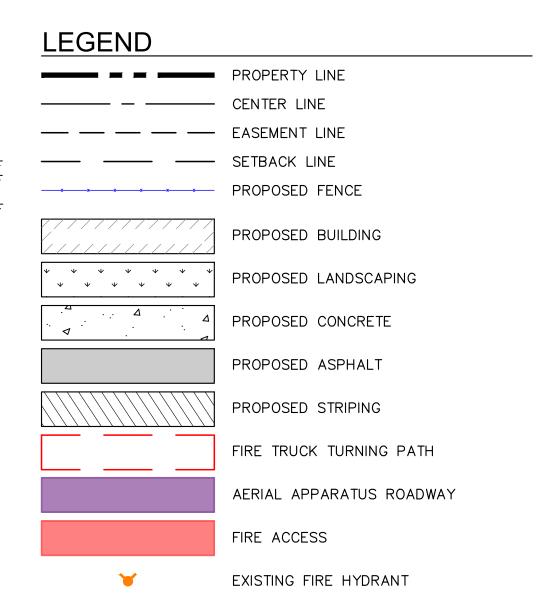
MINIMUM REQUIRED HYDRANTS (PER CFC TABLE C102.1): 6 HYDRANTS HYDRANTS PROVIDED:

AVERAGE HYDRANT SPACING:

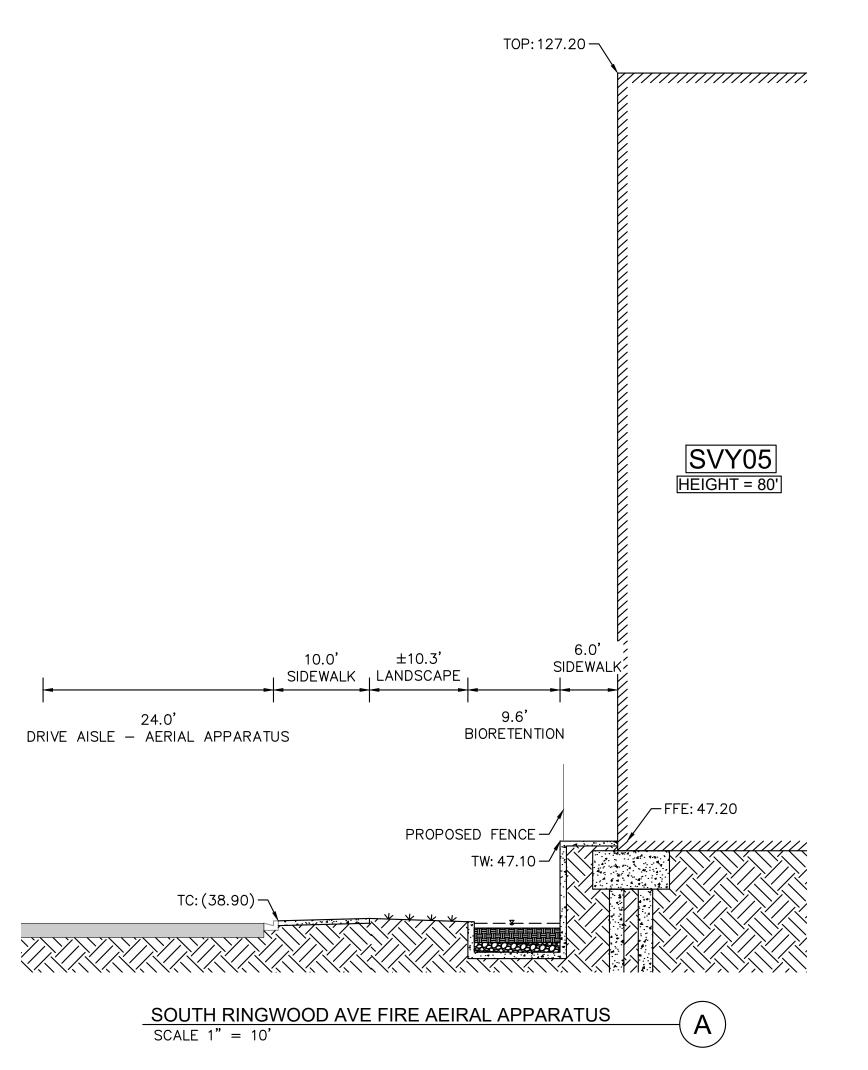
6 HYDRANTS 250 FT

HYDRANT SPACING TAB	LE (ON FOOT)
HYDRANT PATH	TOTAL DISTANCE
HYDRANT 1 TO 2	112 FEET
HYDRANT 2 TO 3	106 FEET
HYDRANT 3 TO 4	222 FEET
HYDRANT 4 TO 5	236 FEET
HYDRANT 5 TO 6	214 FEET
HYDRANT 6 TO 7	385 FEET
HYDRANT 7 TO 8	191 FEET
HYDRANT 8 TO 2	352 FEET
HYDRANT 6 TO 9	142 FEET
HYDRANT 9 TO 10	173 FEET
HYDRANT 10 TO 11	178 FEET
HYDRANT 11 TO 12	161 FEET
HYDRANT 12 TO 13	213 FEET
HYDRANT 12-7	549 FEET
TOTAL	3234 FEET
AVERAGE	249 FEET

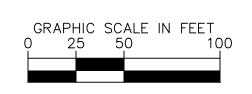
R ABOVE FF
63 FEET
60 FEET
60 FEET

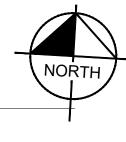


PROPOSED FIRE HYDRANT



FILE NUMBER: PD220-001







F1.0 - CONCEPTUAL FIRE ACCESS PLAN







This document is incomplete and may not be used for regulatory approval, permit or construction.

EE # COMMON NAME	-	DBH (IN.)	ORDINANCE	SPREAD (FT.)	CONDITIO N	IMPACTS	STATUS
Liquidambar	Liquidambar styraciflua	9	NO	20	Good	Footprint	Remove
Southern Magnolia	Magnolia grandiflora	11.9	NO	25	Good	Footprint	Remove
Southern Magnolia	Magnolia grandiflora	12.4	YES	25	Good	Footprint	Remove
Canary Island Pine	Pinus canariensis	20.3	YES	20	Good	Footprint	Remove
56 Shamel Ash	Fraxinus uhdei	23.5	YES	55	Good	Footprint	Remove
57 Shamel Ash	Fraxinus uhdei	6.2	NO	15	Good	Footprint	Remove
Shamel Ash	Fraxinus uhdei	17.7	YES	25	Good	Footprint	Remove
Shamel Ash	Fraxinus uhdei	17.5	YES	25	Good	Footprint	Remove
Shamel Ash	Fraxinus uhdei	17.3	YES	35	Good	Footprint	Remove
Shamel Ash	Fraxinus uhdei	25.7	YES	55	Good	Footprint	Remove
Shamel Ash	Fraxinus uhdei	16.8	YES	35	Good	Footprint	Remove
Shamel Ash	Fraxinus uhdei	19.2	YES	30	Good	Footprint	Remove
Shamel Ash	Fraxinus uhdei	21.1	YES	45	Good	Footprint	Remove
Canary Island Pine	Pinus canariensis	16.2	YES	25	Good	Footprint	Remove
Canary Island Pine	Pinus canariensis	17.5	YES	25	Good	Footprint	Remove
67 Bradford Pear	Pyrus calleryana 'Bradford'	14.8	YES	25	Poor*	Footprint	Remove
58 Bradford Pear	Pyrus calleryana 'Bradford'	9.6	NO	15	Poor	Footprint	Remove
59 Bradford Pear	Pyrus calleryana 'Bradford'	12	NO	25	Poor	Footprint	Remove
70 Bradford Pear	Pyrus calleryana 'Bradford'	13.7	YES	25	Fair	Footprint	Remove
71 Bradford Pear	Pyrus calleryana 'Bradford'	10.1	NO	20	Poor	Footprint	Remove
72 Bradford Pear	Pyrus calleryana 'Bradford'	14.2	YES	25	Fair	Footprint	Remove
73 Bradford Pear	Pyrus calleryana 'Bradford'	11.2	NO NO	20	Good	Footprint	Remove
Liquidambar	Liquidambar styraciflua	7.4	NO	20	Fair	Footprint	Remove
75 Liquidambar	Liquidambar styraciflua	13.2	YES	35		Footprint	
	Liquidambar styraciflua	13.2			Good	Footprint	Remove
	<u> </u>	•	YES	35	Good	·	Remove
, , , ,	Liquidambar styraciflua	14.1	YES	35	Good	Footprint	Remove
78 Liquidambar	Liquidambar styraciflua	11.3	NO	25	Good	Footprint	Remove
79 Liquidambar	Liquidambar styraciflua	18.3	YES	45	Good	Footprint	Remove
30 Coast Redwood	Sequoia sempervirens	15.9	YES	15	Fair	Footprint	Remove
31 Coast Redwood	Sequoia sempervirens	14.6	YES	15	Fair	Footprint	Remove
32 Coast Redwood	Sequoia sempervirens	12.4	YES	15	Fair	Footprint	Remove
33 Coast Redwood	Sequoia sempervirens	13.7	YES	15	Fair	Footprint	Remove
34 Coast Redwood	Sequoia sempervirens	20.4	YES	20	Good	Footprint	Remove
Fruiting Cherry	Prunus spp.	5.3	NO	10	Good	Footprint	Remove
36 White Birch	Betula pendula	8.6	NO	15	Dead	Footprint	Remove
6A Evergreen Ash	Fraxinus uhdei***	31	YES	70	Good	Direct impacts, soil compaction, root loss.	Retain/Protec t
137 Liquidambar	Liquidambar styraciflua	9.3	NO	15	Dead	Footprint	Remove
38 Liquidambar	Liquidambar styraciflua	11.6	NO	10	Dead	Footprint	Remove
39 Liquidambar	Liquidambar styraciflua	14.2	YES	35	Dead	Footprint	Remove
90 Liquidambar	Liquidambar styraciflua	7	NO	10	Dead	Footprint	Remove
21 Crapemyrtle	Lagerstroemia indica	14	YES	20	Good	Footprint	Remove
Hollywood Juniper	Juniperus chinesis 'Torulosa'	11.3, 10.2.	YES	25	Good	Footprint	Remove
93 Liquidambar	Liquidambar styraciflua	14.8	YES	30	Good	Footprint	Remove
Southern Magnolia	Magnolia grandiflora	13.8	YES	30	Fair	Footprint	Remove
Southern Magnolia	Magnolia grandiflora	15.3	YES	30	Fair	Footprint	Remove
	Magnolia grandiflora					Footprint	
	Magnolia grandiflora	17.7	YES	35	Fair	Footprint	Remove
	Magnolia grandiflora	16	YES	35	Poor	Footprint	Remove
	+	15.4	YES	30	Poor	·	Remove
	Pinus canariensis	29	YES	35	Good	Footprint	Remove
Canary Island Pine	Pinus canariensis	12.5	YES	15	Good	Footprint	Remove
Canary Island Pine	Pinus canariensis	18.2	YES	20	Good	Footprint	Remove
Canary Island Pine	Pinus canariensis	21.7	YES	30	Good	Footprint	Remove
Canary Island Pine	Pinus canariensis	18.1	YES	20	Good	Footprint	Remove
Canary Island Pine	Pinus canariensis	26	YES	40	Good	Footprint	Remove
A Shamel Ash	Fraxinus uhdei		eighbor's tree; west		Good	Monitor	Retain
Shamel Ash	Fraxinus uhdei		eighbor's tree; west		Good	Monitor	Retain
Shamel Ash	Fraxinus uhdei		eighbor's tree; west		Good	Monitor	Retain
Shamel Ash	Fraxinus uhdei	Ne	eighbor's tree; west	side.**	Good	Monitor	Retain
Shamel Ash	Fraxinus uhdei	Ne	eighbor's tree; west	side.**	Good	Monitor	Retain
Shamel Ash	Fraxinus uhdei	Ne	eighbor's tree; west	side.**	Good	Monitor	Retain
Shamel Ash	Fraxinus uhdei	Ne	eighbor's tree; west	side.**	Good	Monitor	Retain
H Shamel Ash	Fraxinus uhdei	Ne	eighbor's tree; west	side.**	Good	Monitor	Retain
Shamel Ash	Fraxinus uhdei	Ne	eighbor's tree; west	side.**	Good	Monitor	Retain
J Shamel Ash	Fraxinus uhdei	Ne	eighbor's tree; west	side.**	Good	Monitor	Retain
Shamel Ash	Fraxinus uhdei		eighbor's tree; west		Good	Monitor	Retain
Shamel Ash	Fraxinus uhdei		eighbor's tree; west		Good	Monitor	Retain
							Retain
			· .				Retain
			·	Jiuc.	1 0000	IVIOTITO	NELAIII
· · · · · · · · · · · · · · · · · · ·							
** Trees on neighboring p	roperty, did not physically access	to measure tr	ee diameters.	1		Τ	
			Fraxinus uhdei ana suffering infestation of fire blight from mild to hea		Fraxinus uhdei Neighbor's tree; west side.** rana suffering infestation of fire blight from mild to heavy.	Fraxinus uhdei Neighbor's tree; west side.** Good rana suffering infestation of fire blight from mild to heavy.	Fraxinus uhdei Neighbor's tree; west side.** Good Monitor ana suffering infestation of fire blight from mild to heavy.

ON-SITE TREE INVENTORY CONTINUED (2400 RINGWOOD AVENUE, SAN JOSE, CA 95121)

TREE #	COMMON NAME	GENUS/SPECIES	DBH (IN.)	ORDINANCE	SPREAD (FT.)	CONDITIO N	IMPACTS	STATUS
205	Red Oak	Quercus rubra (street tree)	17.9	YES	50	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
206	Shamel Ash	Fraxinus uhdei (street tree)	34	YES	65	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
207	Shamel Ash	Fraxinus uhdei (street tree)	28.8	YES	55	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
208	Shamel Ash	Fraxinus uhdei (street tree)	25.6	YES	55	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
209	Shamel Ash	Fraxinus uhdei (street tree)	27	YES	65	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
210	Shamel Ash	Fraxinus uhdei (street tree)	23.3	YES	40	Good	Direct impacts, soil compaction, root loss.	Retain/Protec t
***	Tree located on adjacent property. High risk for direct impacts and root damage.							
						1	<u> </u>	

OFF-SITE TREE INVENTORY (2400 RINGWOOD AVENUE, SAN JOSE, CA 95121)

TREE #	CONTRACT NAME	GENUS/SPECIES	DBH (IN.)	ORDINANCE	SPREAD (FT.)	CONDITION	INADACTS	STATUS
IKEE#	COMMON NAME	GENOS/SFECIES	DDIT (IIV.)	ORDINANCE	(11.)	CONDITION	IMPACTS	_
211	London Plane Tree	Platanus x hispanica (street tree)	22.2	YES	50	Good	Direct impacts, soil compaction, root loss.	Remove
212	London Plane Tree	Platanus x hispanica (street tree)	14.1	YES	30	Good	Direct impacts, soil compaction, root loss.	Remove
213	London Plane Tree	Platanus x hispanica (street tree)	8.5	NO	25	Dead	Direct impacts, soil compaction, root loss.	Remove
214	London Plane Tree	Platanus x hispanica (street tree)	13.5	YES	30	Poor	Direct impacts, soil compaction, root loss.	Remove
215	London Plane Tree	Platanus x hispanica (street tree)	14.3	YES	30	Poor	Direct impacts, soil compaction, root loss.	Remove









ON-SITE TREE INVENTORY (1849 FORTUNE DRIVE, SAN JOSE, CA 95121)

				,	SPREAD			STATUS
TREE #	COMMON NAME	GENUS/SPECIES	DBH (IN.)	ORDINANCE	(FT.)	CONDITION	IMPACTS	D
152	Liquidambar	Liquidambar styraciflua	9	NO	20	Good	Footprint	Remove
153	Southern Magnolia	Magnolia grandiflora	11.9	NO	25	Good	Footprint	Remove
154	Southern Magnolia	Magnolia grandiflora	12.4	YES	25	Good	Footprint	Remove
155	Canary Island Pine	Pinus canariensis	20.3	YES	20	Good	Footprint	Remove
156	Shamel Ash	Fraxinus uhdei	23.5	YES	55	Good	Footprint	Remove
157	Shamel Ash	Fraxinus uhdei	6.2	NO	15	Good	Footprint	Remove
158	Shamel Ash	Fraxinus uhdei	17.7	YES	25	Good	Footprint	Remove
159	Shamel Ash	Fraxinus uhdei	17.5	YES	25	Good	Footprint	Remove
160	Shamel Ash	Fraxinus uhdei	17.3	YES	35	Good	Footprint	Remove
161	Shamel Ash	Fraxinus uhdei	25.7	YES	55	Good	Footprint	Remove
162	Shamel Ash	Fraxinus uhdei	16.8	YES	35	Good	Footprint	Remove
163	Shamel Ash	Fraxinus uhdei	19.2	YES	30	Good	Footprint	Remove
164	Shamel Ash	Fraxinus uhdei	21.1	YES	45	Good	Footprint	Remove
165	Canary Island Pine	Pinus canariensis	16.2	YES	25	Good	Footprint	Remove
166	Canary Island Pine	Pinus canariensis	17.5	YES	25	Good	Footprint	Remove
167	Bradford Pear	Pyrus calleryana 'Bradford'	14.8	YES	25	Poor*	Footprint	Remove
168	Bradford Pear	Pyrus calleryana 'Bradford'	9.6	NO	15	Poor	Footprint	Remove
169	Bradford Pear	Pyrus calleryana 'Bradford'	12	NO	25	Poor	Footprint	Remove
170	Bradford Pear	Pyrus calleryana 'Bradford'	13.7	YES	25	Fair	Footprint	Remove
170	biduioiu reai	Pyrus calleryana	15./	TES	25	ган	Тоосрініс	Remove
171	Bradford Pear	'Bradford' Pyrus calleryana	10.1	NO	20	Poor	Footprint	Remove
172	Bradford Pear	'Bradford'	14.2	YES	25	Fair	Footprint	
173	Bradford Pear	Pyrus calleryana 'Bradford'	11.2	NO	20	Good	Footprint	Remove
174	Liquidambar	Liquidambar styraciflua	7.4	NO	20	Fair	Footprint	Remove
175	Liquidambar	Liquidambar styraciflua	13.2	YES	35	Good	Footprint	Remove
176	Liquidambar	Liquidambar styraciflua	12.4, 9.1.	YES	35	Good	Footprint	Remove
177	Liquidambar	Liquidambar styraciflua	14.1	YES	35	Good	Footprint	Remove
178	Liquidambar	Liquidambar styraciflua	11.3	NO	25	Good	Footprint	Remove
179	Liquidambar	Liquidambar styraciflua	18.3	YES	45	Good	Footprint	Remove
180	Coast Redwood	Sequoia sempervirens	15.9	YES	15	Fair	Footprint	Remove
181	Coast Redwood	Sequoia sempervirens	14.6	YES	15	Fair	Footprint	Remove
182	Coast Redwood	Sequoia sempervirens	12.4	YES	15	Fair	Footprint	Remove
183	Coast Redwood	Sequoia sempervirens	13.7	YES	15	Fair	Footprint	Remove
		Sequoia sempervirens					Footprint	Remove
184 185	Coast Redwood Fruiting Cherry	Prunus spp.	5.3	YES NO	20 10	Good	Footprint	Remove
186	White Birch	Betula pendula	8.6	NO	15	Dead	Footprint	Remove
100	writte birch	Detaila periadia	0.0	NO	13	Dead	Direct	Retain/Protec
	Evongrasia Asla						impacts, soil compaction,	t
186A	Evergreen Ash	Fraxinus uhdei***	31	YES	70	Good	root loss.	Remove
187	Liquidambar	Liquidambar styraciflua	9.3	NO	15	Dead	Footprint	
188	Liquidambar	Liquidambar styraciflua	11.6	NO	10	Dead	Footprint	Remove
189	Liquidambar	Liquidambar styraciflua	14.2	YES	35	Dead	Footprint	Remove
190	Liquidambar	Liquidambar styraciflua	7	NO	10	Dead	Footprint	Remove

ON-SITE TREE INVENTORY CONTINUED (1849 FORTUNE DRIVE, SAN JOSE, CA 95121)

<u> </u>	<u> </u>	INTOINT CONTI	10 00 (10	7-01-0111-011		1110001, 0/1	00121)	
191	Crapemyrtle	Lagerstroemia indica	14	YES	20	Good	Footprint	Remove
192	Hollywood Juniper	Juniperus chinesis 'Torulosa'	11.3, 10.2.	YES	25	Good	Footprint	Remove
193	Liquidambar	Liquidambar styraciflua	14.8	YES	30	Good	Footprint	Remove
193	Southern Magnolia	Magnolia grandiflora	13.8	YES	30	Fair	Footprint	Remove
194	Southern Magnolia	Magnolia grandiflora		YES	30	Fair	Footprint	Remove
	Southern Magnolia	Magnolia grandiflora	15.3				Footprint	Remove
196	Southern Magnolia	Magnolia grandiflora	17.7	YES	35	Fair	Footprint	Remove
197	Southern Magnolia	Magnolia grandiflora	16	YES	35	Poor	Footprint	Remove
198	Canary Island Pine	+	15.4	YES	30	Poor	Footprint	Remove
199	Canary Island Pine	Pinus canariensis	29	YES	35	Good	Footprint	Remove
200	<u> </u>	Pinus canariensis	12.5	YES	15	Good	<u> </u>	Remove
201	Canary Island Pine	Pinus canariensis	18.2	YES	20	Good	Footprint	
202	Canary Island Pine	Pinus canariensis	21.7	YES	30	Good	Footprint	Remove
203	Canary Island Pine	Pinus canariensis	18.1	YES	20	Good	Footprint	Remove
204	Canary Island Pine	Pinus canariensis		26	40	Good	Footprint	Remove
Α	Shamel Ash	Fraxinus uhdei	Neighbor's tree; west side.**			Good	Monitor	Retain
В	Shamel Ash	Fraxinus uhdei	Neigh	Neighbor's tree; west side.**			Monitor	Retain
С	Shamel Ash	Fraxinus uhdei	Neigh	nbor's tree; west s	ide.**	Good	Monitor	Retain
D	Shamel Ash	Fraxinus uhdei	Neigh	nbor's tree; west s	ide.**	Good	Monitor	Retain
E	Shamel Ash	Fraxinus uhdei		nbor's tree; west s		Good	Monitor	Retain
F	Shamel Ash	Fraxinus uhdei		nbor's tree; west s		Good	Monitor	Retain
				nbor's tree; west s		Good	Monitor	Retain
G	Shamel Ash	Fraxinus uhdei		,		Good	Monitor	Retain
Н	Shamel Ash	Fraxinus uhdei	Neigr	nbor's tree; west s	ide.**			Retain
1	Shamel Ash	Fraxinus uhdei	Neigh	nbor's tree; west s	ide.**	Good	Monitor	Retain
J	Shamel Ash	Fraxinus uhdei	Neigh	nbor's tree; west s	ide.**	Good	Monitor	Retain
K	Shamel Ash	Fraxinus uhdei	Neigh	nbor's tree; west s	ide.**	Good	Monitor	
L	Shamel Ash	Fraxinus uhdei	Neigh	nbor's tree; west s	ide.**	Good	Monitor	Retain
М	Shamel Ash	Fraxinus uhdei	Neigh	nbor's tree; west s	ide.**	Good	Monitor	Retain
N	Shamel Ash	Fraxinus uhdei	Neigh	nbor's tree; west s	ide.**	Good	Monitor	Retain
*	All Pyrus calleryana suffering infestation of fire blight from mild to heavy.							

OFF-SITE TREE INVENTORY (1849 FORTUNE DRIVE, SAN JOSE, CA 95121)

TREE #	COMMON NAME	GENUS/SPECIES	DBH (IN.)	ORDINANCE	SPREAD (FT.)	CONDITION	IMPACTS	STATUS
205	Red Oak	Quercus rubra (street tree)	17.9	YES	50	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
206	Shamel Ash	Fraxinus uhdei (street tree)	34	YES	65	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
207	Shamel Ash	Fraxinus uhdei (street tree)	28.8	YES	55	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
208	Shamel Ash	Fraxinus uhdei (street tree)	25.6	YES	55	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
209	Shamel Ash	Fraxinus uhdei (street tree)	27	YES	65	Poor	Direct impacts, soil compaction, root loss.	Retain/Protec t
210	Shamel Ash	Fraxinus uhdei (street tree)	23.3	YES	40	Good	Direct impacts, soil compaction, root loss.	Retain/Protec t



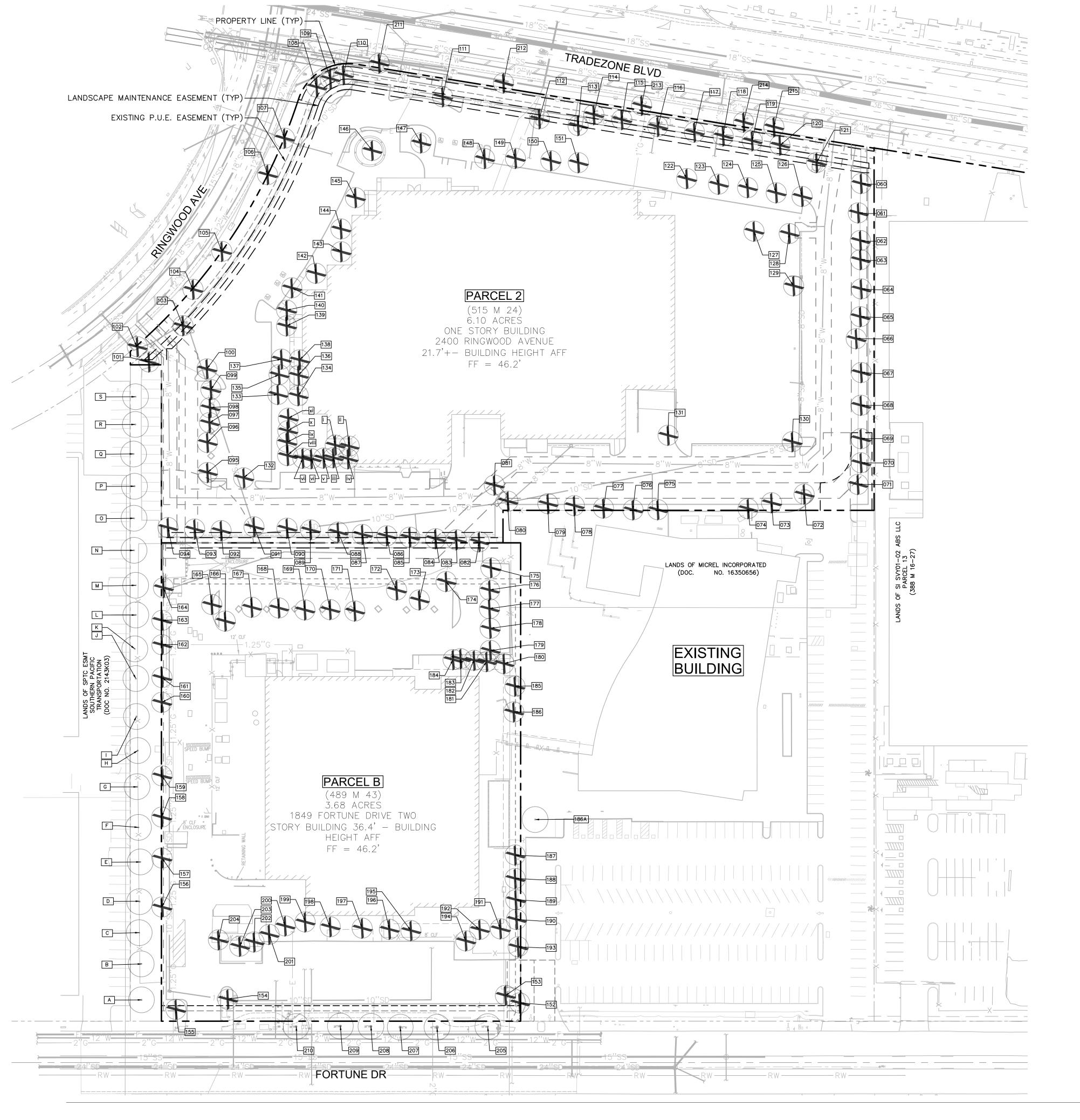






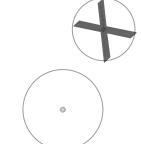








CODE BOTANICAL NAME



EXISTING TO BE REMOVED 161

EXISTING TO REMAIN

ON-SITE TREE REPLACEMENT RATIOS

CIRCUMFERENCE OF TREE TO BE		TREE TO BE I		REQUIRED REPLACEMENT TREES (15
REMOVED	NATIVE	NON- NATIVE	ORCHARD	GAL / 24" BOX)
(ORDINANCE TREE) 38 INCHES OR MORE	10 (5:1)	91 (4:1)	NONE	414 x 15-GAL / 207 x 24" BOX
19 TO 38 INCHES	3 (3:1)	40 (2:1)	NONE	89 x 15-GAL / 45 x 24" BOX
LESS THAN 19 INCHES	0 (1:1)	12 (1:1)	NONE	12 x 15-GAL / 6 x 24" BOX
TOTAL		·	·	515 x 15-GAL / 258 x 24" BOX

NOTE TO REVIEWER: ONE (1) 24" BOX SIZE TREE MAY BE SUBSTITUTED FOR EVERY TWO (2) 15-GALLON TREES REQUIRED

REQUIRED REPLACEMENT: 515 x 15 GAL / 258 x 24" BOX PROPOSED REPLACEMENT: 48 x 24" BOX SIZE TREES (EQUIVALENT OF 96 x 15-GAL REPLACEMENT TREES) REPLACEMENT DEFICIT: 419 x 15 GAL / 210 x 24" BOX

- 1. A SINGLE-TRUNK ORDINANCE SIZE TREE IS 38 INCHES OR MORE IN CIRCUMFERENCE, MEASURED AT 54 INCHES ABOVE GROUND
- 2. A MULTI-TRUNK ORDINANCE SIZE TREE IS WHERE THE CIRCUMFERENCE OF EACH TRUNK, MEASURED AT 54 INCHES ABOVE GROUND, ADDS UP TO 38 INCHES OR MORE.

SITE PREPARATION NOTES

- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL MEET THE OWNER OR OWNER'S REPRESENTATIVE AND IDENTIFY TREES WHICH ARE TO BE REMOVED AND WHICH ARE TO BE PROTECTED. DO NO CLEARING WITHOUT A CLEAR UNDERSTANDING OF EXISTING CONDITIONS TO BE PRESERVED.
- 2. IF, IN ORDER TO PERFORM EXCAVATION WORK, IT BECOMES NECESSARY TO CUT ROOTS OF PLANTS TO BE SAVED WITHIN THE PROPERTY LIMITS OR LOCATED ON ADJACENT PROPERTY, SUCH ROOTS SHOULD BE CUT NEATLY, COVERED WITH BURLAP AND KEPT MOIST UNTIL ROOTS ARE BACK FILLED
- 3. TREE REMOVAL SHALL INCLUDE THE FILLING, CUTTING, GRUBBING OUT OF ENTIRE ROOTBALLS AND SATISFACTORY OFF-SITE DISPOSAL OF ALL TREES, SHRUBS, STUMPS, VEGETATIVE AND EXTRANEOUS DEBRIS PRODUCED BY THE REMOVAL OPERATIONS.
- 4. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE INSIDE AND OUTSIDE THE LIMITS OF WORK DUE TO HIS
- 5. ALL REFUSE, DEBRIS, UNSUITABLE MATERIALS AND MISCELLANEOUS MATERIALS TO BE REMOVED SHALL BE
- 6. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES IN THE SITE SURVEY TO THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO STARTING WORK

NOTE TO CONTRACTOR

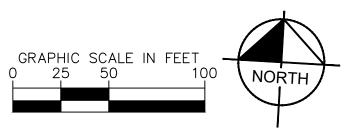
- 1. PER COUNTY OF SANTA CLARA TREE PRESERVATION AND REMOVAL GUIDELINES, TREES OF SIGNIFICANT STATUS OR CIRCUMFERENCE (37.7") WITHIN PROJECT LIMITS THAT ARE TO BE REMOVED SHALL REQUIRE A TREE REMOVAL PERMIT. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS. PRIOR TO BEGINNING ANY CONSTRUCTION
- 2. ALL TREES WITHIN THE PROJECT LIMITS ARE CALLED OUT FOR REMOVAL, PER PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL TREES NOT CALLED OUT FOR REMOVAL AND NOT SPECIFICALLY SHOWN ON THESE PLANS IN THE NEARBY VICINITY OF THIS PROJECT. IF THE LIMITS OF DISTURBANCE AFFECT NEARBY TREES TO REMAIN, THE CONTRACTOR SHALL IMPLEMENT TREE PROTECTION MEASURES TO ENSURE EXISTING TREES TO
- AFTER CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR A 90-DAY MAINTENANCE PERIOD FOR ALL PROPOSED AND EXISTING PLANT MATERIAL TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY DEAD OR IN-DECLINE PLANT MATERIAL AFFECTED BY CONSTRUCTION OR INSTALLED DURING THIS PROJECT FOR AN ADDITIONAL ONE-YEAR GUARANTEE PERIOD. PLANTS THAT DIE DURING THE ONE-YEAR PERIOD SHALL BE REPLACED PROMPTLY IN-KIND AND OF A COMPARABLE SIZE.

COUNTY OF SANTA CLARA TREE DISPOSITION NOTES

- ALL TREES TO BE RETAINED SHALL BE PROTECTED WITH CHAIN LINK FENCING OR OTHER RIGID FENCE ENCLOSURE ACCEPTABLE BY THE PLANNING OFFICE. FENCED ENCLOSURES FOR TREES TO BE PROTECTED SHALL) BE PRESERVED SHALL BE PROTECTED WITH MINIMUM 5-FOOT HIGH FENCES ARE TO BE MOUNTED ON 2-INCH DIAMETER GALVANIZED IRON POSTS, DRIVEN INTO THE GROUND TO A DEPTH OF AT LEAST 2 FEET, AT NO MORE THAN 10-FOOT SPACING (SEE DETAIL, AVAILABLE AT WWW.SCCPLANNING.ORG). THIS DETAIL SHALL APPEAR ON GRADING, DEMOLITION AND BUILDING PERMIT PLANS. TREE FENCING SHALL BE ERECTED BEFORE ANY DEMOLITION, GRADING OR CONSTRUCTION BEGINS AND REMAIN
- IN PLACE UNTIL THE FINAL INSPECTION.
- "WARNING" SIGNS: A WARNING SIGN SHALL BE PROMINENTLY DISPLAYED ON EACH TREE PROTECTIVE FENCE PER THE REQUIREMENTS OF DEVELOPMENT PURSUANT TO THE SANTA CLARA COUNTY PLANNING OFFICE. (SEE ATTACHED EXAMPLE). THE SIGNS ARE AVAILABLE AT THE PLANNING AND BUILDING INSPECTION OFFICES OR AT
- IRRIGATION PROGRAM IRRIGATE TO WET THE SOIL WITHIN THE TPZ DURING THE DRY SEASON AS SPECIFIED BY THE PROJECT ARBORIST
- DURING PERIODS OF EXTENDED DROUGHT, OR GRADING, SPRAY TRUNK, LIMBS AND FOLIAGE TO REMOVE ACCUMULATED CONSTRUCTION DUST.



- 1. PROJECT PROPOSES TO REMOVE AND MITIGATE FOR 156 ON-SITE TREES. OFF SITE/STREET TREES SHALL BE MITIGATED FOR PER PUBLIC WORKS DIRECTION.
- CURRENT MITIGATION INFORMATION IS SUBJECT TO CHANGE BASED ON FUTURE PLAN UPDATES.

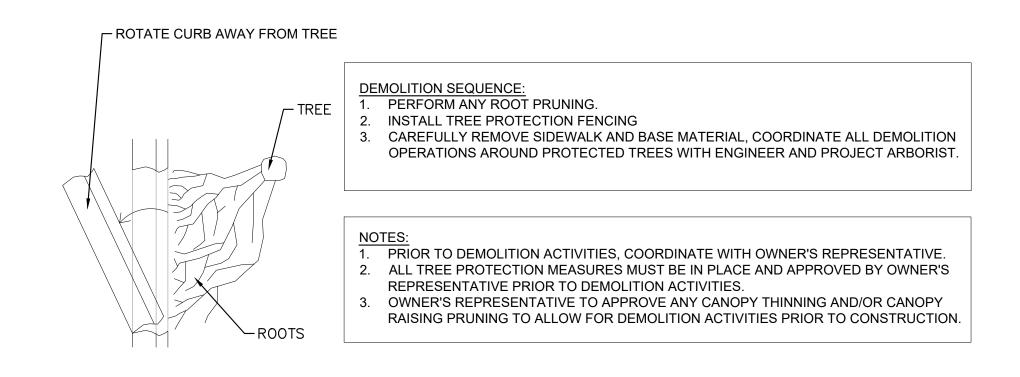


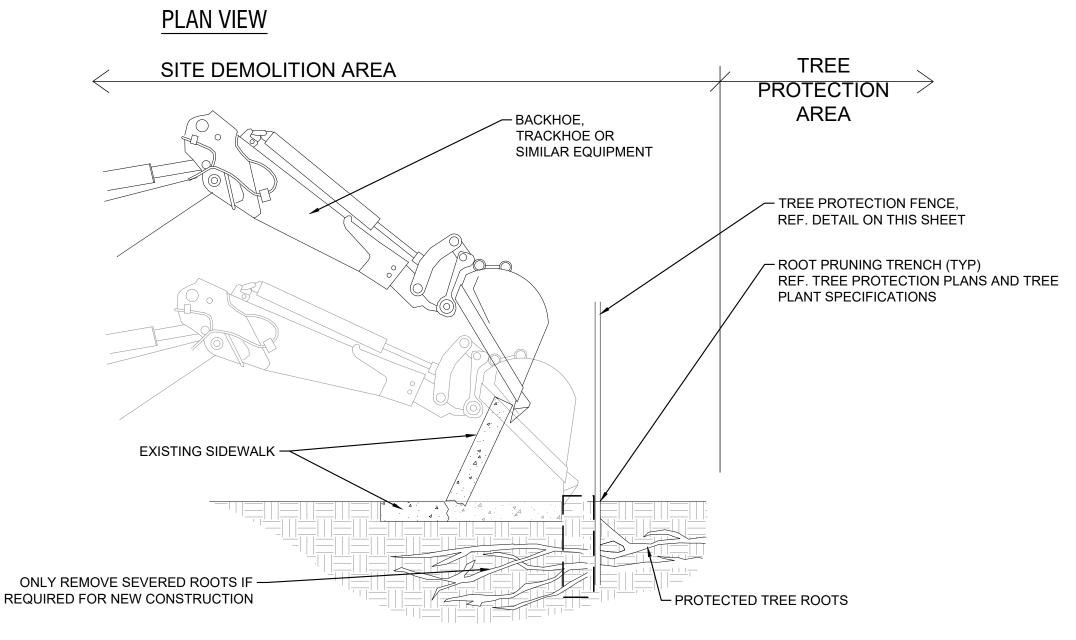




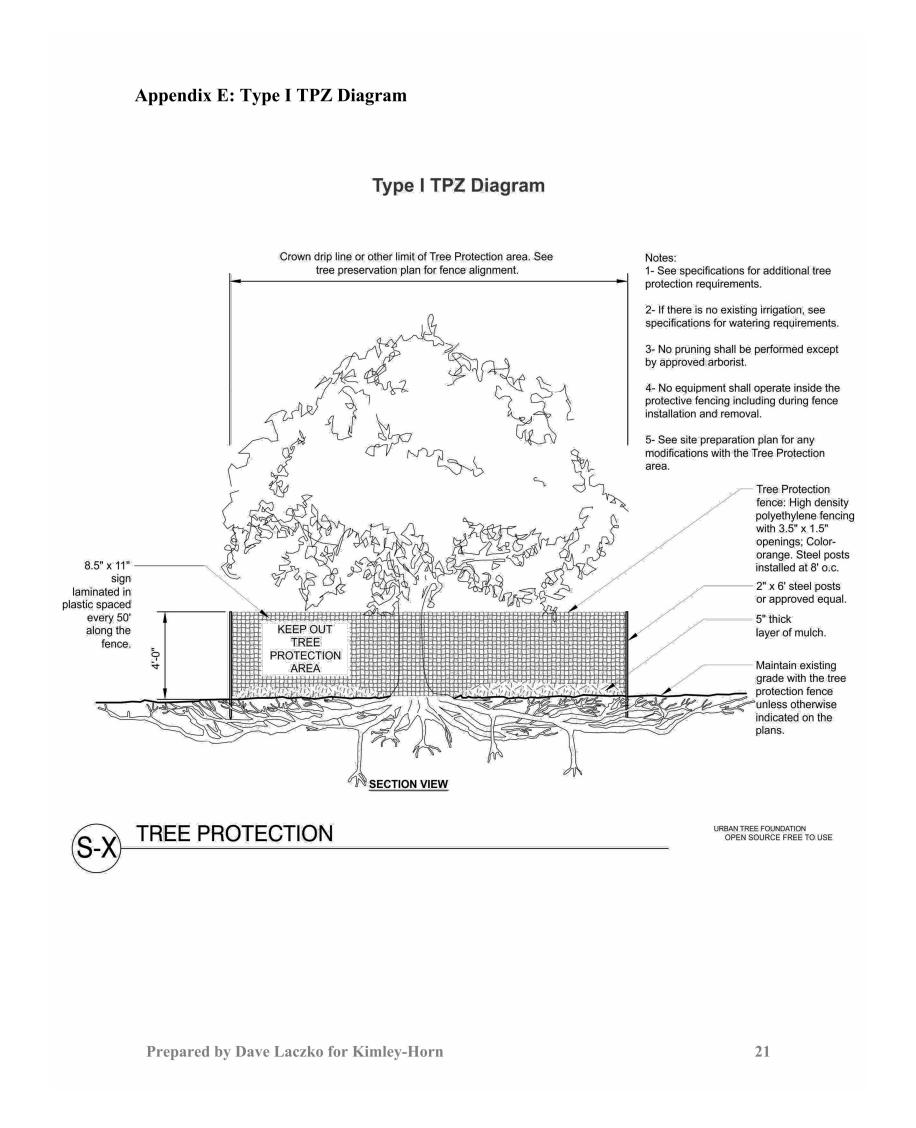


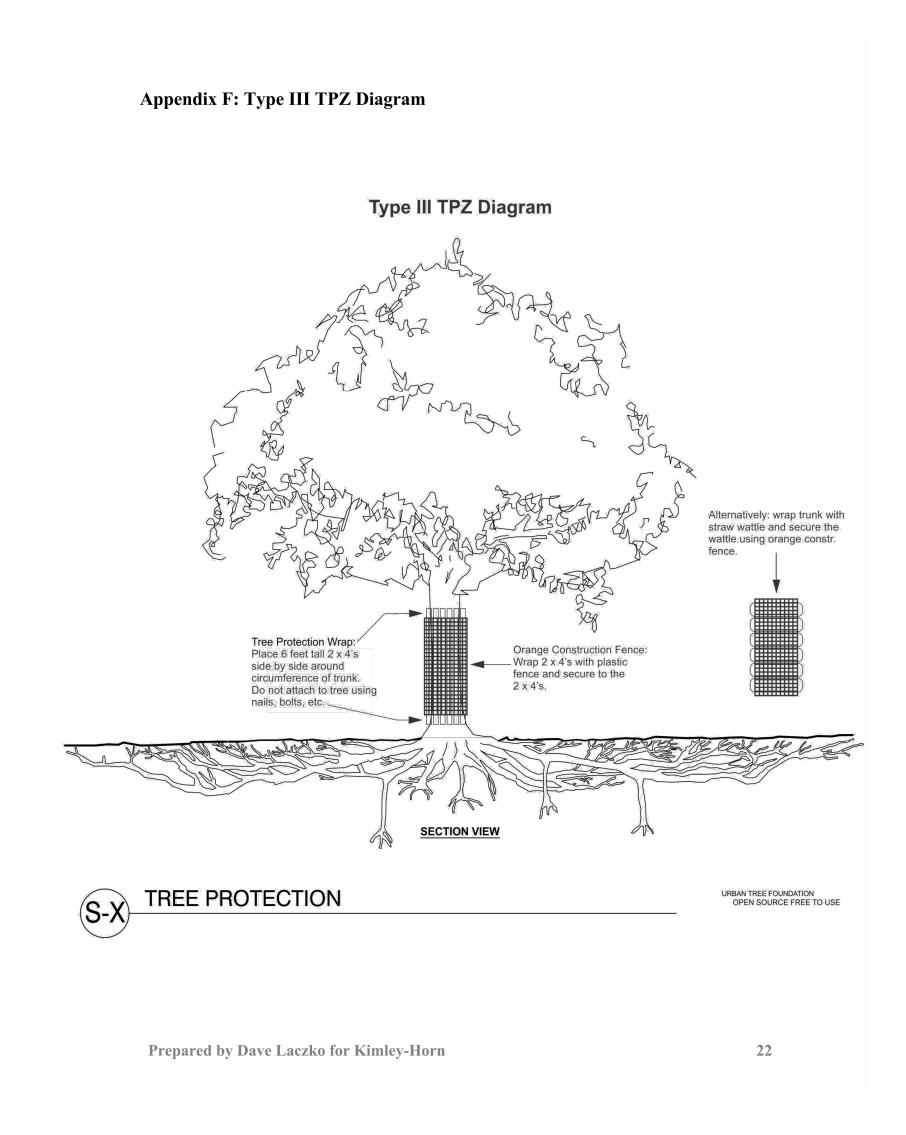


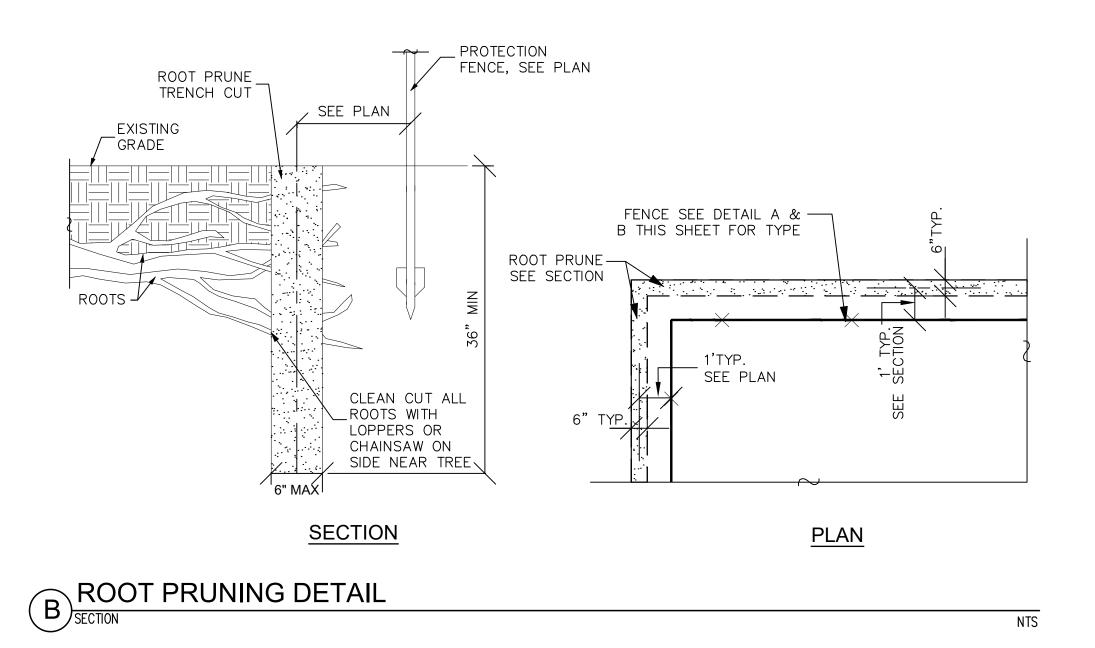
























6/22/22

Mr. Miles Johnson/KHA Project Manager Kimley-Horn and Associates, Inc. 4637 Chabot Drive, Suite 350 Pleasanton, CA 94588 (669) 800-4140 miles.johnson@kimley-horn.com

RE: Project Name: Stack D.C. San Jose KHA Project: #197459001 2400 Ringwood Road & 1849 Fortune Drive San Jose, CA 95131

Greetings Mr. Johnson,

At your request, I have visited the two above referenced site addresses: 2400 Ringwood Road and 1849 Fortune Drive in San Jose to obtain and compile the tree related data pertinent to the preparation of this arborist report that is prepared for you and your project called Stack D.C. San Jose #197459001 This letter will serve to summarize my observations and recommendations.

SUMMARY

There are a total of 187 trees at risk of adverse impacts.

- 11 street trees were identified. Street trees #205-210 are growing along Fortune Drive and require tree protection in the form of chained link fencing and/or wrapping the trunks for protection against direct impacts. Street trees #211-215 are growing in front of 2400 Ringwood Road along Trade Zone Blvd. and are requested for removal.
- 19 trees (lettered A-S) are growing on adjacent properties along the western property lines which require on site monitoring for all development activities occurring within the trees' driplines.
- 1 tree (#186A) is growing on the adjacent property at the eastern side of 1849 Fortune Drive and requires tree protection in the form of chained link fencing and/or wrapping the trunk for protection against direct impacts.

Prepared by Dave Laczko for Kimley-Horn

- i. 1 of the trees (#82) is growing in a planting bed along the southern rear property line of 2400 Ringwood Road and appears to be in a good state of structural and physiological well-being.
- ii. The remaining 12 trees (#152, #174-179, #187-190, and #193) are growing in various locations at 1849 Fortune Drive, 8 of which are in a good state of structural and physiological well-being with the remaining 4 being dead.
- 4. There is a total of **12 maturing oleanders** (i-iv, and #134-140) growing in the rear patio and western entrance to 2400 Ringwood Road. All 12 trees appear to be in a good state of structural and physiological well-being.
- 5. There is a total of **9 maturing canary island pine trees** (#155, #165-166, and #199-204) growing in front of and at the rear of 1849 Fortune Drive. All 9 trees appear to be in a good state of structural and physiological well-being.
- 6. There is a total of **8 maturing cherry trees** (v-xi, and #185), 7 are flowering cherries and 1 is a fruiting cherry. The 7 flowering cherries are growing in the rear patio area at 2400 Ringwood Road and all are dead or near death. The fruiting cherry is located at 1849 Fortune Drive and appears to be in a good state of structural and physiological well-
- 7. There is a total of 7 maturing southern magnolia trees (#153-154, and #194-198) growing in front of 1849 Fortune Drive and all appear to be in varying levels of water related distress from mild to severe.
- 8. There is a total of **6 maturing London plane trees** (#111, #211-215) growing in front of 2400 Ringwood Road along Tradezone Blvd.; 5 are street trees and 1 tree is growing on the subject property. The five street trees have suffered the effects of utility pruning (topping) and most are in a state of decline which is being exacerbated by water deprivation. 1 street tree #213 is dead. London plane tree #111 on the subject property is in a good state of structural and physiological well-being
- 9. There is a total of **5 maturing coast redwood trees** (#180-184) growing at the rear of 1849 Fortune Drive. All 5 trees are suffering mild to moderate water deprivation.
- 10. There is a total of **4 maturing white alder trees** (#127-129, and #131) growing at 2400 Ringwood Road. 3 of the trees appear to be in a good state of structural and physiological well-being with the 4th tree #127 having visible mushrooms growing atop the buttress roots on the day of my inspection. The mushrooms appear to be oak root fungus (Armillaria mellea).
- 11. There is a total of **3 maturing valley oak trees** (#96-98) growing in the parking lot planting island at 2400 Ringwood Road. All 3 tree are suffering mild to moderate levels of water deprivation.
- 12. There is a total of **3 maturing Chinese tallow trees** (#108-109) growing at 2400 Ringwood Road in the planting bed near the flag poles. All 3 trees are suffering mild levels of water deprivation.

- The remaining 156 trees are growing on the two subject properties and are proposed for removal due to their locations being within the building footprints and/or the footprints of other infrastructure. See Appendix A: Tree Locations, Appendix B: TPZ MAP, and Appendix C: Tree Tables
- Five hundred thirty three 15-gallon replacement trees are required to be planted. See Appendix D: San Jose Tree Replacement Ratios.

ASSIGNMENT

This arborist report will inventory the existing trees onsite and directly adjacent to the property. This report will provide recommendations for the care and protection of the trees before, during, and after construction, based on the preliminary site plan. The arborist will provide an assessment of the health of existing trees onsite and will address proposed site improvements that will impact existing trees. This report will provide the code required replacement program for trees removed due to proposed project improvements.

BACKGROUND

Anderson's Tree Care Specialists, Inc. understands that the project consists of two existing parcels located at 2400 Ringwood Road and 1849 Fortune Drive in San Jose, CA. The combined acreage of these two parcels is approximately 9.78-acres. This proposal is based on the conceptual site plan prepared by Corgan Associates, Inc. dated January 20, 2021. We understand that the project consists of two buildings, one four-story parking structure (first level at-grade), and a 100-MW substation. Based on the conceptual site plan, the northern building consists of a Data Hall (3-levels, 180,910 GSF), Data Center Office Space (4-levels, 26,000 SF), Advanced Manufacturing (3-levels, 95,600 SF), and Advanced Manufacturing Office Space (1-level, 22,730 GSF). Adjacent to the northern building is a proposed 400-stall parking structure (no subterranean levels). The southern building consists of a Data Hall (2-levels, 159,320 GSF) and Data Center Office Space (3-levels, 42,000 GSF). We understand that the intent is to obtain City entitlements for the full site redevelopment, including both buildings, the parking garage, and the substation. [W]e understand that the construction documents would be divided into two phases: Phase 1 would include the northern building, parking structure, and substation; Phase 2 would include the southern building and drive aisles that surround the southern building. This proposal assumes the entire site will be Entitled as one project[.]

LIMITS OF ASSIGNMENT

No Civil or Architectural plans or drawings were reviewed by me. All site and tree observations were made from the ground. No root collar excavations were performed.

Prepared by Dave Laczko for Kimley-Horn

- 13. 1 maturing Japanese maple tree (#146) is growing in the planting bed at the front entrance to 2400 Ringwood Road. The tree appears to be in a good state of structural and physiological well-being.
- 14. 1 maturing coast live oak tree (#147) is growing in the planting bed at the front entrance to 2400 Ringwood Road. The tree appears to be in a good state of structural and physiological well-being.
- 15. 1 maturing red oak tree (#205) is a street tree growing in the park strip along 1849 Fortune Drive. The tree is suffering moderate levels of water deprivation witnessed by copious amounts of deadwood in the canopy.
- 16. 1 maturing white birch tree (#186) is growing near the west side patio at 1849 Fortune Drive. The tree is dead.
- 17. 1 maturing crapemyrtle tree (#191) is growing against the front of the bldg. at 1849 Fortune Drive. The tree appears to be suffering mild levels of water deprivation.
- 18. 1 maturing Hollywood juniper tree (#192) is growing against the front of the bldg. at 1849 Fortune Drive. The tree appears to be in a good state of structural and physiological

TESTING & ANALYSIS

This report is based on our review of the preliminary site plan titled "Existing Trees" that is dated 5/5/21 provided by Kimley-Horn which shows tree locations and the existing infrastructure with buildings that is overlaid with the proposed buildings and infrastructure.

DISCUSSION

Tree Construction Tolerance

Healthy trees are generally better able to withstand construction stressors than are unhealthy trees, as they have stored nutrients available to use for recovery. A tree's roots grow in unpredictable patterns, generally within the top two feet of soil and the root systems of mature trees may extend much farther than the dripline. The tolerance of disturbance varies widely among species. The relative tolerance of London plane trees in California to withstand development impacts is rated "Good." (Clark pg. 174)

Most soil compaction results from vehicle and equipment traffic, although foot traffic and rainwater impact may also contribute to a lesser extent. The severity of compaction depends on the force per area unit applied to the soil, frequency of application, surface cover, soil texture, and soil moisture. Soils with a clay or loam texture, high moisture content, or low levels of organic matter are more susceptible to compaction than are dry or frozen, coarse-textured soils, and those high in organic matter. (Fite pg. 3)

PURPOSE & USE OF REPORT

The purpose of this report is to provide a tree protection and preservation report that will be submitted for review to the City of San Jose for the project located at 2400 Ringwood Road and 1849 Fortune Drive a.k.a. "Stack D.C. San Jose #197459001.

OBSERVATIONS

San Jose Code of Ordinances:

13.32.130 - Safeguarding Trees During Construction.

For the purpose of safeguarding trees during construction, all of the following conditions shall apply to all such trees except for trees for which a tree removal permit has been issued or which are required to be removed pursuant to Chapter 13.28:

A. Prior to the issuance of any approval or permit for the construction of any improvement on the building site, all trees on the site shall be inventoried by the owner or contractor as to size (including diameter/circumference), species and location on the lot and the inventory shall be submitted on a topographical map to the director; and

B. Damage to any tree during construction shall be immediately reported by a person causing the damage, the responsible contractor, or the owner to the director, and the contractor and/or owner shall treat the tree for damage in the manner specified by the city arborist; and C. No construction equipment, vehicles or materials shall be stored, parked or standing within

D. Drains shall be installed according to city specifications so as to avoid harm to trees due to excess watering; and

E. Wires, signs and other similar items shall not be attached to trees; and F. Cutting and filling around the base of trees shall be done only after consultation with the city arborist and then only to the extent authorized by the city arborist; and

G. No paint thinner, paint, plaster or other liquid or solid excess or waste construction materials or wastewater shall be dumped on the ground or into any grate between the dripline and the base of the tree or uphill from any tree where certain substances might reach the roots through a leaching process; and

H. Fencing shall be installed outside the canopy of the tree to the dripline unless otherwise directed by the certified arborist to prevent injury to trees making them susceptible to disease

I. Wherever cuts or soil disturbances are made in the ground near the roots of trees, appropriate measures shall be taken to prevent exposed soil from drying out and causing damage to tree roots as prescribed in a certified arborist report.

Trees Impacted by Development Activities

There is a combined total of 187 trees from both properties that are at risk of adverse impacts, they include: 72 Bradford Flowering Pear (*Pyrus calleryana* 'Bradford'), 39 Shamel Ash (Fraxinus uhdei), 13 Liquidambar (Liquidambar styraciflua), 12 Oleander (Nerium oleander), 9 Canary Island Pine (*Pinus canariensis*), 7 Flowering Cherry (*Prunus spp.*), 7 Southern Magnolia (Magnolia grandiflora), 6 London Plane Tree (Platanus x hispanica), 5 Coast Redwood (Sequoia sempervirens), 4 White Alder (Alnus rhombifolia), 3 Valley Oak (Quercus lobata), 3 Chinese Tallow (*Triadica sebifera*), 1 Fruiting cherry (*Prunus spp.*), 1 Coast Live Oak (Quercus agrifolia), 1 Red Oak (Quercus rubra), 1 White Birch (Betula pendula), 1

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Soil and Root Protection within the TPZ

When activities cannot be kept outside the tree's dripline actions can be taken to disperse the load, minimizing soil compaction and mechanical root damage. These include:

- Applying 6 to 12 inches of wood chip mulch to cover the area where roots are located • Laying ³/₄ inch minimum thickness plywood, beams, or road mats over a 4+ inch thick
- layer of wood chip mulch • Applying 4 to 6 inches of gravel over a taut, staked, geotextile fabric

Supplemental Irrigation

Supplemental irrigation should be provided prior to beginning construction activities and continue weekly throughout the duration of the project for all trees planned for root pruning or for trees with reduced tree protection zones that encroach to within the tree's dripline.

Irrigation water should penetrate the soil to the depth of the tree roots, generally within the upper 6 to 18 inches of the original soil surface. It is best to monitor soil moisture under high-value trees with soil moisture sensors. Lacking sensors, a general rule in humid, temperate regions is to provide a minimum of 1 inch of irrigation water weekly in the absence of normal rainfall. With drought adapted species in Mediterranean climates, a guideline is to provide 1 or 2 inches monthly. Water needs will vary with the season and tree species. Irrigation application methods include aboveground sprinklers, bubblers, soaker hoses, or injection of water into the soil. (Fite pg. 23)

Pruning Specifications

All tree pruning activities shall be performed prior to beginning development activities by a qualified Arborist with a C-61/D-49 California Contractors License. Tree maintenance and care shall be specified in writing according to American National Standard (ANSI) for Tree Care Operations: Tree, Shrub and Other woody Plant Management: Standard Practices parts 1 through 10, adhering to ANSI Z133.1 safety standards and local regulations. Work shall be performed according to the most recent edition of the International Society of Arboriculture© Best Management Practices for each subject matter (Tree Pruning etc.) The use of spikes and/or gaffs when climbing is strictly prohibited unless the tree is being removed.

- Elevate Crown (a.k.a. raise crown)-The selective removal of lower growing or low hanging limbs to gain vertical clearance. Do not remove living stems greater than 4" in diameter without the approval of the Project
- Reduce end-weight-Cut the offending stem[s] back to a lateral that is ½ the diameter or more of the parent stem and capable of maintaining apical dominance. Remove no more than 25 percent of the living tissue from the offending stem[s]. Remove all existing dead stubs and/or damaged

Japanese Maple (Acer palmatum), 1 Crapemyrtle (Lagerstroemia indica), and 1 Hollywood Juniper (*Juniperus chinesis* 'Torulosa'). See Appendix B: Tree Table

- 1. There is a total of **72 bradford pears.** All 72 pears are mature specimens exhibiting varying degrees of structural and physiological well-being. Nearly all the pears are infected with a mild to heavy infestation of a fungal disease called fire blight (Erwinia
 - i. 65 of the trees (#60-81, #83-95, #99-101, #103, #112-126, #130, #132, #141-145 and #148-151) are growing at 2400 Ringwood Road.
- ii. The 7 remaining trees (#167-173) are growing at 1849 Fortune Drive. 2. There is a total of **39 maturing shamel ash trees.**
 - i. 19 of the trees (A-S) are growing on the adjacent properties along the western property lines each appearing to be in a good state of structural and physiological well-being. All 19 have limbs and roots encroaching into the proposed project development envelopes and will require on site monitoring by a certified arborist to prevent undue damage to the trees when development activities occur within the drip lines of the trees.
 - ii. 5 of the shamel ash (#205-210) are street trees growing in the parkstrip along Fortune drive that require tree protection. The trees appear to be suffering the effects of water deprivation witnessed by copious amounts of deadwood throughout their canopies. The copious amount of deadwood presents an elevated risk for breakage and presents a safety hazard for the public at large. Additionally, there appears to be recently placed underground utility markings (paint) on the side walk in close proximity to the trees implying trenching is planned. Trenching will result in extensive root damage. Additional information is required regarding the exact placement and excavation of the underground utilities before a prescription of protection and preservation can be crafted.
 - iii. 9 of the shamel ash (#156-164) are growing along the western property line at 1849 Fortune Drive. The trees appear to be in good state of structural and physiological well-being.
 - iv. 5 of the shamel ash (#102, #104-107) are growing in the planting bed along Ringwood Road. The trees are suffering varying degrees of water deprivation witnessed by copious amounts of deadwood in their canopy.
 - v. 1 shamel ash (#186A) is growing on the adjacent property west of 1849 Fortune Drive. The tree is in a good state of structural and physiological well-being and is at risk of direct impacts and root damage.
- 3. There is a total of 13 maturing liquidambar trees.

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branches per occurrence. Do not cut back into living stems that are 4" or greater in diameter without the approval of the Project Arborist.

Root Pruning Specifications

Root pruning is the process of cleanly cutting roots prior to mechanical excavation to minimize damage to the tree's root system. Root pruning and root damage from excavation can cause great harm to a tree, especially if structural roots are affected. Damage to these roots can reduce tree health and/or structural stability...Air, water, [or hand excavation] prior to root pruning allows the arborist to examine the roots and determine the best places to make cuts, preferably beyond sinker roots or outside root branch unions. (Fite pg. 17)

The principles of Compartmentalization of Decay in Trees (CODIT) apply to roots as well as to stems. Because root injuries are common in nature, roots have evolved to be strong compartmentalizers. Small root cuts do not usually lead to extensive decay. Decay development because of root cutting can take years or decades to develop in temperate climates. Just as flush cutting branches is no longer an acceptable practice, a pruning cut that removes a root at its point of origin should not cut into the parent root. The final cut should result in a flat surface with adjacent bark firmly attached. Smaller pruning cuts are preferred. (Costello pg. 17)

Should roots 2" in diameter or greater be unearthed, root pruning may prove necessary. Halt activities and contact the project arborist to advise. The following guidelines should be adhered to with the project Arborist on site to advise work crews.

- Pruning roots 2" in diameter or greater requires the use of a commercial grade 15-amp reciprocating saw with at least 3 new unused wood cutting blades available while on-site.
- Cleanly sever the root without ripping or tearing the root tissue. It is preferable to cut back to a lateral root, much like when reducing the length of a stem or branch.

Underground Utilities

All underground utilities shall be routed outside the dripline of any protected tree. If the utilities cannot be routed outside the dripline, use boring equipment or hand excavate the trenches leaving roots 2 inches in diameter or greater intact and route the utilities below the roots.

CONCLUSIONS

1. The 5 street trees #211-215 along Trade Zone Blvd. are requested for removal. The 6 street trees #205-210 along Fortune Drive require tree protection in the form of chained link fencing or wrapping their trunks to protect against direct impacts. Trees #205-210 pose a safety hazard to the public at large as well and should be pruned to reduce the risk of dead limb breakage. Additional information regarding the excavation and installation of underground utilities in close proximity to the street trees is required to ensure all available tree protection and preservation efforts are being identified and employed.

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