SPECIAL MEETING AGENDA

Date: 9/26/2018
Time: 6:00 p.m.
City Hall - "Downtown" Conference Room
701 Laurel St., Menlo Park, CA 94025

A. Call to Order

B. Roll Call – Kabat, London, Chair Marshall, Martin, Payne, Vice Chair Price

C. Public Comment

Under "Public Comment," the public may address the Commission on any subject not listed on the agenda. Each speaker may address the Commission once under Public Comment for a limit of three minutes. Please clearly state your name and address or political jurisdiction in which you live. The Commission cannot act on items not listed on the agenda and, therefore, the Commission cannot respond to non-agenda issues brought up under Public Comment other than to provide general information.

D. Regular Business

D1. Review and consider a recommendation to the Planning Commission and City Council on a request to remove 14 heritage trees for Facebook at 180-200 Jefferson Drive and 220 Jefferson Drive (Staff Report #18-011-EQC)

D2. Review and discuss a recommendation to City Council to add an electric vehicle charging space exception to Menlo Park's municipal code for qualifying affordable housing developments (Staff Report #18-012-EQC)

D3. Discuss and consider Environmental Quality Commission meeting date for the month of November 2018

D4. Approve the June 20, 2018, Environmental Quality Commission meeting minutes (Attachment)

E. Reports and Announcements

E1. Commission reports and announcements

E2. Staff update and announcements

F. Adjournment

Agendas are posted in accordance with Government Code Section 54954.2(a) or Section 54956. Members of the public can view electronic agendas and staff reports by accessing the City website at menlopark.org/agenda and can receive e-mail notification of agenda and staff report postings by subscribing to the "Notify Me" service at menlopark.org/notifyme. Agendas and staff reports may also be obtained by contacting City Clerk at 650-330-6620. (Posted: 9/21/2018)

At every Regular Meeting of the Commission, in addition to the Public Comment period where the public shall have the right to address the Commission on any matters of public interest not listed on the agenda, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during the Commission's consideration of the item.

At every Special Meeting of the Commission, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during consideration of the item.

Any writing that is distributed to a majority of the Commission by any person in connection with an agenda item is a public record (subject to any exemption under the Public Records Act) and is available for inspection at the City Clerk's Office, 701 Laurel St., Menlo Park, CA 94025 during regular business hours.

Persons with disabilities, who require auxiliary aids or services in attending or participating in Commission meetings, may call the City Clerk's Office at 650-330-6620.

CITY OF MENLO PARK

STAFF REPORT

Environmental Quality Commission
Meeting Date: **9/26/2018**
Staff Report Number: **18-011-EQC**

Regular Business: **Review and consider a recommendation to the Planning Commission and City Council on a request to remove 14 heritage trees for Facebook at 180-200 Jefferson Drive and 220 Jefferson Drive**

Recommendation

Staff recommends that the Environmental Quality Commission review the City Arborist's recommendation to approve the heritage tree removal permit requests and recommend approval of the heritage tree removals to the Planning Commission and City Council. The project site includes two legal parcels and the heritage tree removal request includes the removal of nine trees at the 180-200 Jefferson Drive site and five trees at the 220 Jefferson Drive site, for a total of 14 trees associated with the following modifications to the comprehensive project site:

- Decrease the parking ratio;
- Modify on-site circulation for vehicles, pedestrians, and bicyclists;
- Modify the site landscaping plan;
- Increase the amount of building coverage to construct transit shelters;
- Construct new guard shacks consistent with Facebook's campus security plan; and
- Construct related infrastructure for the tenant's (Facebook) proposed inter-campus tram and shuttle operations.

Policy Issues

The proposed project will ultimately require the City Council to consider the requested conditional development permit (CDP) amendment for the 180-200 Jefferson Drive parcel, the use permit and architectural control requests for the 220 Jefferson Drive parcel, and the heritage tree removal permits associated with the proposed project (inclusive of both parcels). Both properties would be reviewed by the City Council to allow for a comprehensive review and evaluation of the overall modifications to the project removals, the City Arborist's review and recommendation, and the proposed replacement ratio and planting plan. Heritage tree removal permits are reviewed individually and the Environmental Quality Commission should provide input on whether the required findings for granting of the heritage tree removal permits can be made for this project. The Environmental Quality Commission's recommendation will be forwarded to the Planning Commission and ultimately to the City Council for each body's consideration as part of its review of the comprehensive project. The City Council's review and action on all land use entitlements, including the heritage tree removal permits, would be final. The heritage tree permits would not be appealable to the Environmental Quality Commission and therefore, the permits are being forwarded to the Environmental Quality Commission for review and recommendation at this time.

Background

In the spring of 2016, the City began working with Facebook on the company's proposed modifications and

build out of the 180-200 Jefferson Drive site. The first phase of work included phased tenant improvements and a temporary kitchen facility within the parking lot until Facebook could occupy enough building space to build out a permanent dining facility for employees at this campus. While the expansion into the 180-200 Jefferson Drive campus was generally for Facebook, more specifically the buildings were to be occupied by Instagram. Since the initial permit applications, the applicant has been approved for a number of minor modifications to site landscaping through the Community Development Director's administrative architectural control review process. Subsequently, Facebook also began the building permit process for the tenant improvements and site modifications for the 220 Jefferson Drive building in summer 2017. Those improvements are currently under construction.

The two parcels, addressed 180-200 Jefferson Drive and 220 Jefferson Drive, include four buildings and approximately 332,500 square feet of gross floor area (GFA) used as office space. The proposed project would incorporate pedestrian pathways that would link the proposed transit facility to the two office buildings at the Commonwealth Corporate Center (addressed 151 Commonwealth Drive and 164 Jefferson Drive), which contain approximately 260,000 square feet of gross floor area used as offices by Facebook. A location map is included in Attachment A.

Analysis

Project description

The applicant, Facebook, Inc., is proposing to modify the on-site circulation, specifically for Facebook's fleet of inter-campus trams and long range shuttles that link the project site to the broader Menlo Park campus network and longer range commuter origins and destinations. The proposed on-site circulation changes would require the removal of parking spaces for new bus and tram stops and vehicle drive aisles. In addition, some landscaping would be reworked to accommodate pedestrian and vehicle circulation and for more comprehensive landscaping updates adjacent to the proposed facilities. Additionally, the applicant is proposing to add trash enclosures and guard shacks. As part of the proposed project, approximately 100 square feet of gross floor area would be added for the new guard shacks as part of Facebook's campus security plan. The proposed additional gross floor area would be within the maximum gross floor area permitted at the site. In addition to a slight increase in gross floor area, the proposed project includes an increase in building coverage to accommodate the new transit shelters, guard shacks, and trash enclosures. For reference, selected sheets from the project plans associated with the applicant's proposed comprehensive site modifications are included in Attachment B (180-200 Jefferson Drive parcel) and Attachment C (220 Jefferson Drive parcel). The project description letter for the overall project is included in Attachment D.

To create a consolidated transit center, Facebook is proposing to remove 18 parking spaces on the 220 Jefferson Drive parcel and 149 parking spaces on the 180-200 Jefferson Drive parcel. The proposed parking reduction would comply with the minimum parking standard set by the O (Office) zoning district, which is a minimum of 2 spaces per 1,000 square feet of gross floor area but would require an amendment to the existing conditional development permit on the 180-220 Jefferson Drive parcel and revision to the use permit and architectural control approval on the 220 Jefferson Drive parcel. In addition to the meeting the minimum parking ratio of the zoning district, the applicant has submitted a Transportation Demand Management (TDM) plan that documents Facebook's robust transportation demand management measures that reduce trips made to the site by single occupancy vehicles, which identifies that the proposed parking would be appropriate for the project site given the unique operations of Facebook at the site and the relationship between the other campuses within the vicinity of the site. To accommodate the transit facility, site modifications would be required that necessitate the removal of heritage trees on the project site.

Heritage tree removal permits

The applicant has submitted an arborist report and associated heritage tree removal permit applications for each parcel, which are described individually below. The applicant is requesting the removal of 14 heritage trees. For the Environmental Quality Commission's reference, the criteria used by the City to evaluate heritage tree removal permits are listed below and referred to in the following tables based on the specific number:

1. The condition of the tree or trees with respect to disease, danger of falling, proximity to existing or proposed structures and interference with utility services;
2. The necessity to remove the tree or trees in order to construct proposed improvements to the property;
3. The topography of the land and the effect of the removal of the tree on erosion, soil retention and diversion or increased flow of surface waters;
4. The long-term value of the species under consideration, particularly life span and growth rate;
5. The ecological value of the tree or group of trees, such as food, nesting, habitat, protection and shade for wildlife or other plant species;
6. The number, size, species, age distribution and location of existing trees in the area and the effect the removal would have upon shade, privacy impact and scenic beauty;
7. The number of trees the particular parcel can adequately support according to good arboricultural practices;
8. The availability of reasonable and feasible alternatives that would allow for the preservation of the tree(s).

<u>180-200 Jefferson Drive</u>

This parcel would include the physical bus shelters and the majority of the site alterations to accommodate the vehicle and pedestrian circulation modifications, resulting in the proposed removal of nine heritage trees along the northern portion of the parcel. The project arborist's evaluation identified 368 trees on the site, 12 of which are heritage in size. The arborist report is included in Attachment E. The initial application included two additional heritage tree removal requests: a Canary island pine (Tree #362) along the southern portion of the site to allow for a bio-treatment area and another heritage size Aleppo pine (Tree #364) along the shared property line with the Commonwealth Corporate Center for a proposed trash enclosure. The plans have been revised to retain both trees, although the City Arborist had previously recommended removal of the Aleppo pine tree. Therefore, the proposed project includes nine heritage tree removals at the 180-200 Jefferson Drive site. The following table includes the trees proposed to be removed at the 180-200 Jefferson Drive site and the City Arborist's review and recommendation.

Table 1: Proposed Heritage Tree Removals at 180-200 Jefferson Drive			
Tree Number	**Species**	**Project Arborist Evaluation**	**City Arborist Recommendation/Criteria**
139	Raywood ash	Poor health; Fair to Poor structure	Remove (1)
381	Canary island pine	Good health; Good structure	Remove (2) (8)
384	Canary island pine	Good health; Good structure	Remove (2) (8)
388	Canary island pine	Good health; Fair structure	Remove (2) (8)
392	Silver dollar gum	Fair health; Fair structure	Remove (1)
399	Silver dollar gum	Poor health; Fair structure	Remove (1)
402	Canary island pine	Fair to Poor health; Fair structure	Remove (1)
404	Canary island pine	Good health; Good structure	Remove (2) (8)
415	Canary island pine	Good health; poor structure	Remove (1)

As identified in the table above, the heritage tree removals proposed at the 180-200 Jefferson Drive site are recommended for removal based on health (criteria 1) for five of the trees and based on construction impacts (criteria 2) and the lack of feasible alternatives (criteria 8) for four of the trees. For those trees, the proposed vehicle and pedestrian improvements, including the transit shelters would be in conflict with the existing heritage trees. Two trees were retained through the project where the City and applicant team identified feasible alternatives to the initial design. Staff recommends that the Environmental Quality Commission consider the applicant's modifications to preserve two heritage trees and support the City's consulting arborist's recommendation to the remove the nine heritage trees based on criteria 1, 2, and 8.

220 Jefferson Drive

Site improvements to the 220 Jefferson Drive parcel are more limited to circulation modifications to allow for the shuttles and trams to circulate from the 180-200 Jefferson Drive site through the 220 Jefferson Drive site, creating a better circulation pattern to limit potential traffic impacts on Chilco Street. The project arborist's evaluation identified 100 trees on site, 42 of which are heritage in size. It should be noted that as part of a recent administrative architectural control request for building modifications and site improvements, a number of heritage trees at the 220 Jefferson Drive site were removed through the heritage tree removal permit process and the site Arborist Report assesses the remaining trees on site. The proposed modifications would necessitate the removal of five heritage trees on 220 Jefferson Drive. Table 2 below identifies the tree number, species, project arborist evaluation and the City Arborist's recommendation on the tree removal requests:

Table 2: Proposed Heritage Tree Removals at 220 Jefferson Drive			
Tree Number	**Species**	**Project Arborist Evaluation**	**City Arborist Recommendation/Criteria**
96	Silver dollar gum	Fair health; Poor structure	Remove (1)
100	Silver dollar gum	Poor health; Poor structure	Remove (1)
386	Silver dollar gum	Fair to poor health; Fair structure	Remove (1)
398	Silver dollar gum	Good health; Fair structure	Remove (2) (8)
416	Willow leaf peppermint	Fair to poor health; poor structure	Remove (1)

As identified in the table above, the heritage tree removals proposed at the 220 Jefferson Drive site are recommended for removal based on health (criteria 1) for four of the trees and based on construction impacts (criteria 2) and the lack of feasible alternatives (criteria 8) for one tree, which would conflict with the proposed vehicle circulation. Staff recommends that the Environmental Quality Commission support the City Arborist's recommendation to the remove the five requested heritage trees based on criteria 1, 2, and 8.

Heritage Tree Replacements

The proposed project would replace the heritage tree removals at a ratio of 2:1 as required by the City's Heritage Tree Ordinance. A minimum of 28 heritage tree replacements are required by the ordinance and the applicant is proposing to plant 32 heritage tree replacements. The proposed heritage tree replacements would be able to be located on either parcel and the majority of the replacement trees would be planted on the 220 Jefferson Drive site due to space constraints on the 180-200 Jefferson Drive site. The applicant proposed a combination of crape myrtle, Canary Island pine, London plane, and purple leaf plum trees. However, since the crape myrtle and purple leaf plum trees do not meet the City's heritage tree replacement criteria, the applicant team has indicated that they will be revising the tree planting plan using the City's suggested list. In addition, the City Arborist has recommended a minimum of 25 feet spacing between the London plane trees and Canary Island pine trees. Due to potential site constraints and the need to revise the proposed planting species, the City Arborist has suggested the following alternate species to the London plane and Canary Island pine trees that could also be used to replace the plum and crape myrtle trees:

- Potential alternatives for London plane trees:
  - Hornbeam (Carpinus betulus ' Fastigiata')
  - Silver linden (Tilia tomentosa 'Sterling Silver')
  - Frontier elm (Ulmus 'Frontier')
- Potential alternatives for Canary Island pine trees:
  - Catalina ironwood (Lyonothamnus floribundus)
  - Brisbane box (Lophostemon confertus)
  - Island cherry (Prunus ilicifolia sp.lyonii)

The applicant has indicated that the Canary Island pines would be substituted with Brisbane box trees due to the spacing requirements for Canary Island pine trees. The applicant has also confirmed that the London plane trees would be planted a minimum of 25 feet apart. Staff will be working with the applicant team to identify appropriate alternative heritage tree replacements for the crape myrtle and purple leaf plum trees from the list above or other alternatives proposed by the applicant. However, a minimum of 28 replacement

trees in compliance with the required two-to-one replacement ratio would be provided on the project site. The Environmental Quality Commission may wish to suggest potential replacement species for the applicant's consideration, but final approval on the species and planting plan (replacement locations) would be under the authority of the City Council.

Conclusion

The City Arborist has reviewed and recommended removal of the 14 requested heritage tree removal permit applications at 180-220 Jefferson Drive. Nine of the requested removals are recommended for approval based on health/structure and five of the removal requests are recommended based on conflicts with construction and the lack of feasible alternatives for the proposed circulation changes for the proposed transit facility. In addition to the proposed heritage tree replacements, the proposed project includes updated landscaping within the vicinity of the new pathways and transit facilities that would be compatible with the extensive existing site landscaping. Staff recommends that the Environmental Quality Commission recommend that the Planning Commission and City Council approve the proposed tree removals. As stated previously, the requested heritage tree removals are being reviewed by the Environmental Quality Commission at this time since the City Council is the final decision making body and its action on the heritage tree removal permits would not be appealable to the Environmental Quality Commission.

Impact on City Resources

The project sponsor is required to pay Planning, Building and Public Works permit fees, based on the City's Master Fee Schedule, to fully cover the cost of staff time spent on the review of the project.

Environmental Review

The project is categorically exempt under Class 1 (Section 15301, "Existing Facilities") of the current California Environmental Quality Act (CEQA) Guidelines.

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

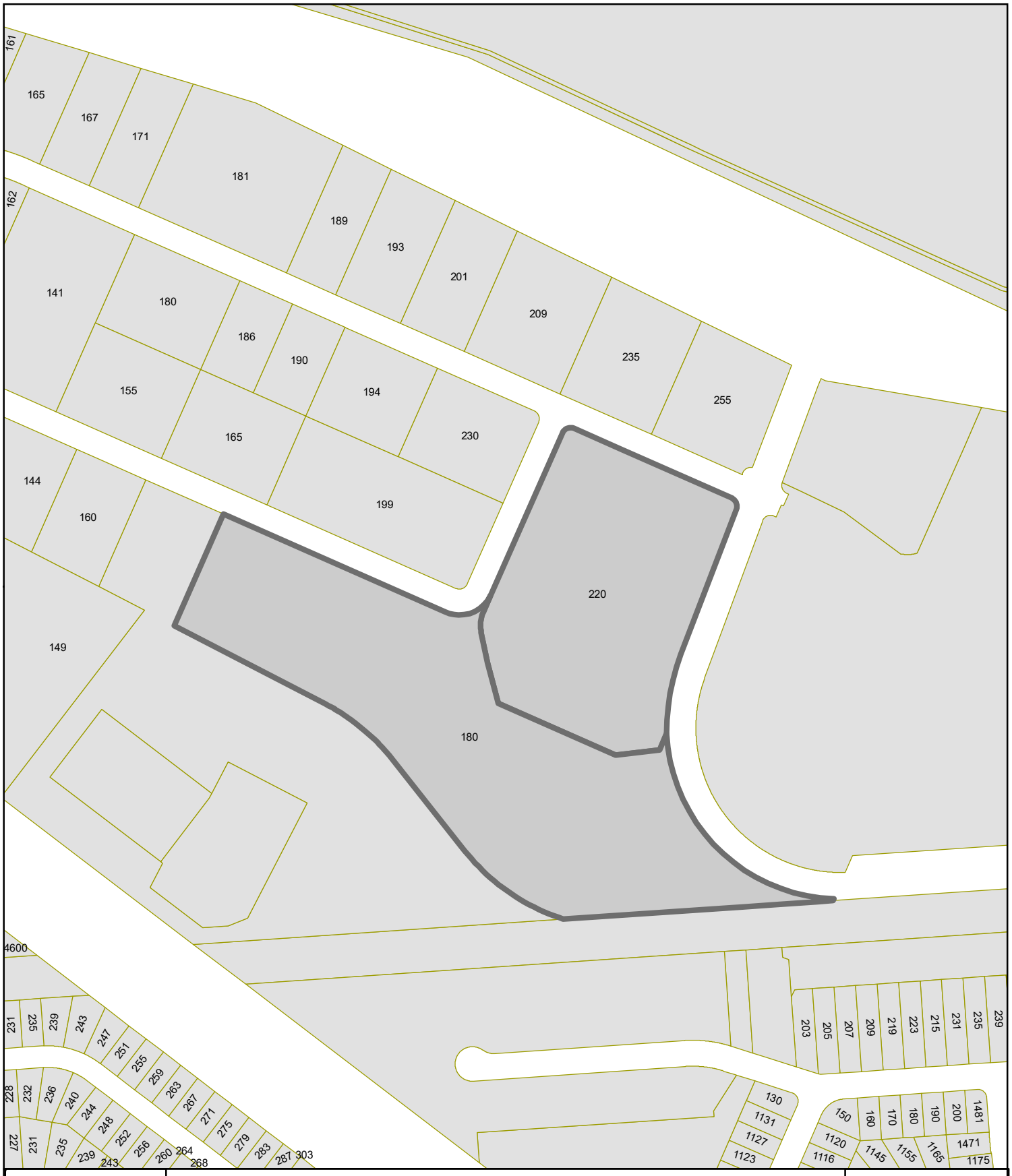
Attachments

A. Location Map
B. Selected Sheets from Project Plans (180-200 Jefferson Drive)
C. Selected Sheets from Project Plans (220 Jefferson Drive)
D. Project Description Letter
E. Arborist Report (180-200 Jefferson Drive)
F. Arborist Report (220 Jefferson Drive)

Report prepared by:
Kyle Perata
Acting Principal Planner

Report reviewed by:
Deanna Chow
Assistant Community Development Director

ATTACHMENT A



CITY OF MENLO PARK

LOCATION MAP

180-220 JEFFERSON DRIVE

DRAWN: TAS CHECKED: KTP DATE: 09/26/18 SCALE: 1" = 300' SHEET: 1

N

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facebook

PLANNING DEPARTMENT REVIEW

CHILCO CAMPUS BUS STOP

180, 190, 200 Jefferson Dr

Menlo Park CA 94025

17 August 2018

DATA SHEET - 180, 190, 200 JEFFERSON DRIVE

LOCATION: 180, 190, 200 JEFFERSON DRIVE
MENLO PARK CA 94025

EXISTING USE: OFFICE

PROPOSED USE: OFFICE

ZONING: 0-B

APPLICANT: FACEBOOK

PROPERTY OWNER(S): JEFFERSON PLACE ASSOCIATES

APPLICATION(S): PLANNING REVIEW

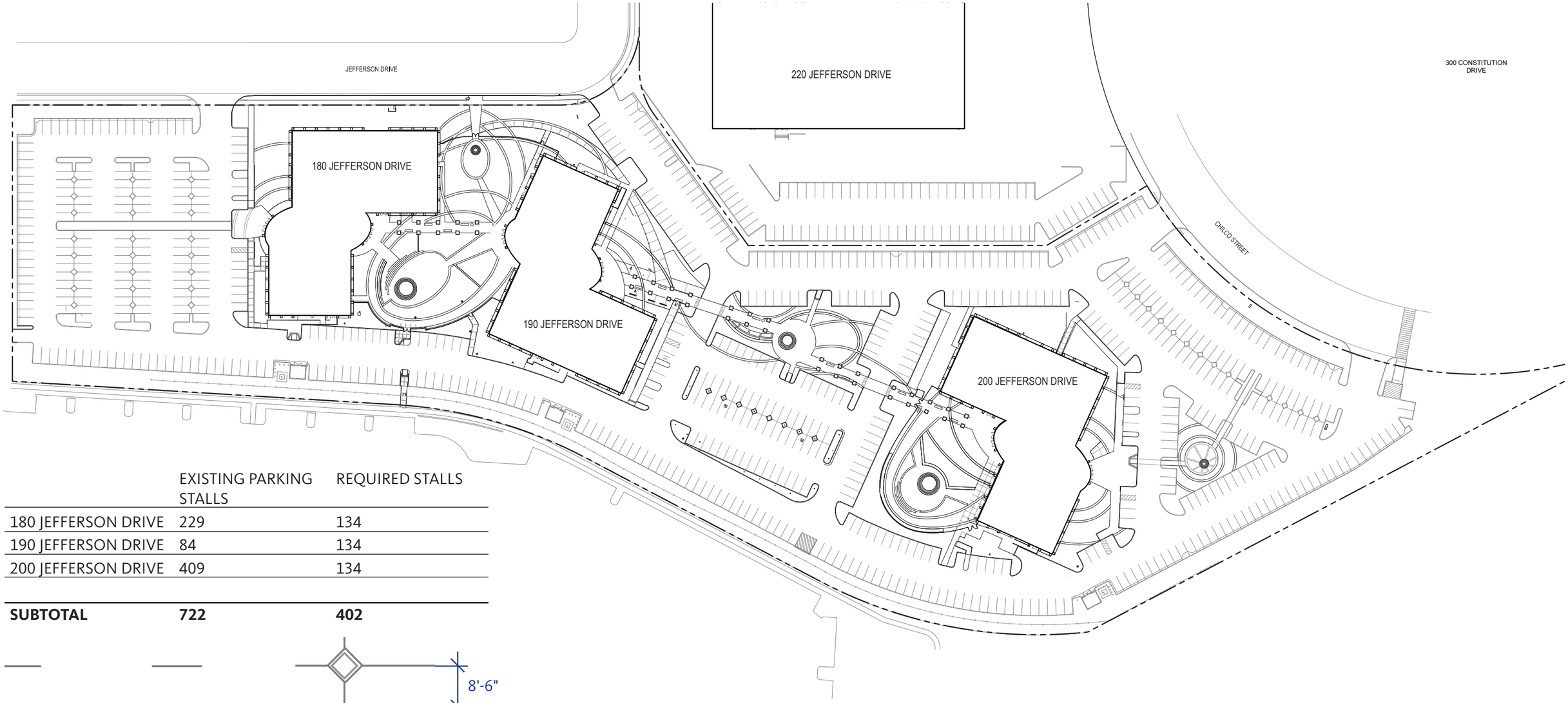
SCOPE OF WORK IN RED

DEVELOPMENT STANDARDS	PROPOSED PROJECT		EXISTING DEVELOPMENT		ZONING ORDINANCE	
Lot area	472,650	sf	472,650	sf	25,000	sf min.
Lot width	IRREGULAR LOT SHAPE REFER TO SITE PROPERTY + SETBACKS SHEET				100	ft. min.
Lot depth	IRREGULAR LOT SHAPE REFER TO SITE PROPERTY + SETBACKS SHEET				100	ft. min.
Setbacks						
MINIMUM SETBACK AT STREET	REFER TO SITE PROPERTY + SETBACKS SHEET				5	ft. min.
MAXIMUM SETBACK AT STREET					25	ft. min.
MINIMUM SETBACK AT INTERIOR SIDE					10	ft. min.
MINIMUM SETBACK AT REAR					10	ft. min.
Building coverage	70,589 15	sf %	67,181 14	sf %		sf max. % max.
FAR (Floor Area Ratio)*	0.43		0.426			sf max. % max.
FAL (Floor Area Limit)**		sf		sf		sf
Square footage						
180 JEFFERSON DRIVE	67,181	sf	67,181	sf		
190 JEFFERSON DRIVE	67,181	sf	67,181	sf		
200 JEFFERSON DRIVE	67,181	sf	67,181	sf		
		sf		sf		
OTHER (GUARDSHACKS)	106	sf		sf		
OTHER (OPEN BUS STOP STRUCTURES)	3,408	sf		sf		
Square footage of buildings	205,057	sf	201,543	sf		sf max.
Building height		ft.		ft.		ft. max.
Landscaping***	13,078 SCOPE OF 2.7	sf %		sf %		
Paving***	WORK IN 104,322 RED 22	sf %		sf %		
Parking	569	spaces	718	spaces		
Define Basis for Parking	OFFICE LAND USE / MINIMUM SPACES (PER 1000 SQ FT = 2) / MAXIMUM SPACES (PER 1000 SQ FT = 3)					
Trees	# of existing **Heritage** trees 12		# of existing **non-Heritage** trees 356		# of new trees 6	
	# of existing **Heritage** trees to be removed 9		# of **non-Heritage** trees to be removed 52		**Total** # of trees 314	

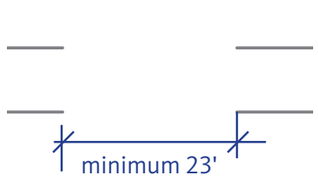
*** Commercial and Multiple-residential properties | ** Single family residential and R-2 zoned properties | *** Commercial, Multiple-residential, and R-2 zoned properties**

* Zoning ordinance development standards are enumerated through the CDP for the property

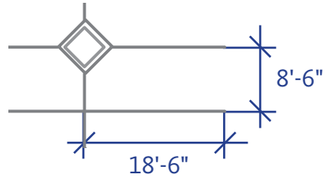
EXISTING CONDITIONS PLAN



	EXISTING PARKING STALLS	REQUIRED STALLS
180 JEFFERSON DRIVE	229	134
190 JEFFERSON DRIVE	84	134
200 JEFFERSON DRIVE	409	134
SUBTOTAL	**722**	**402**

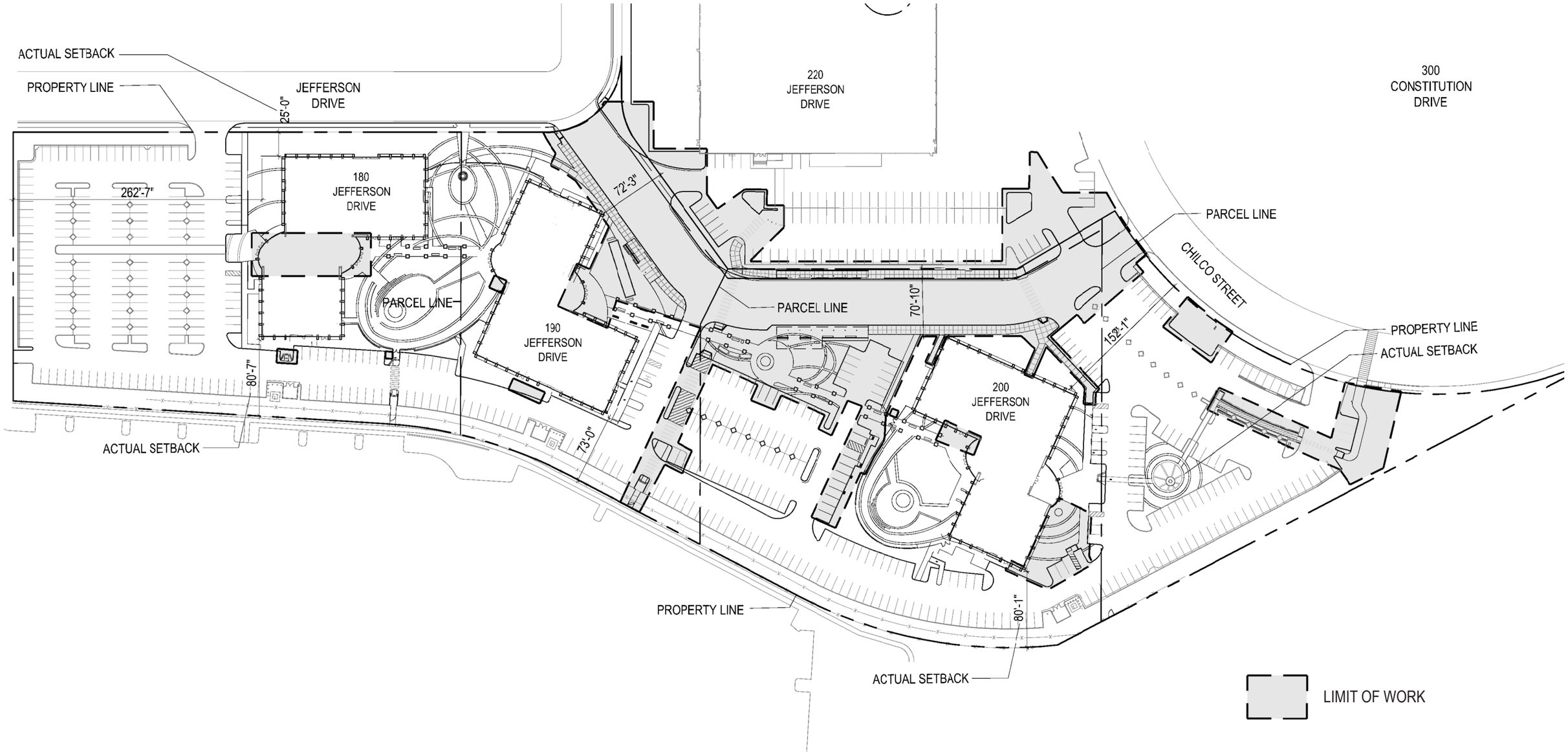


Drive Aisle Dimension

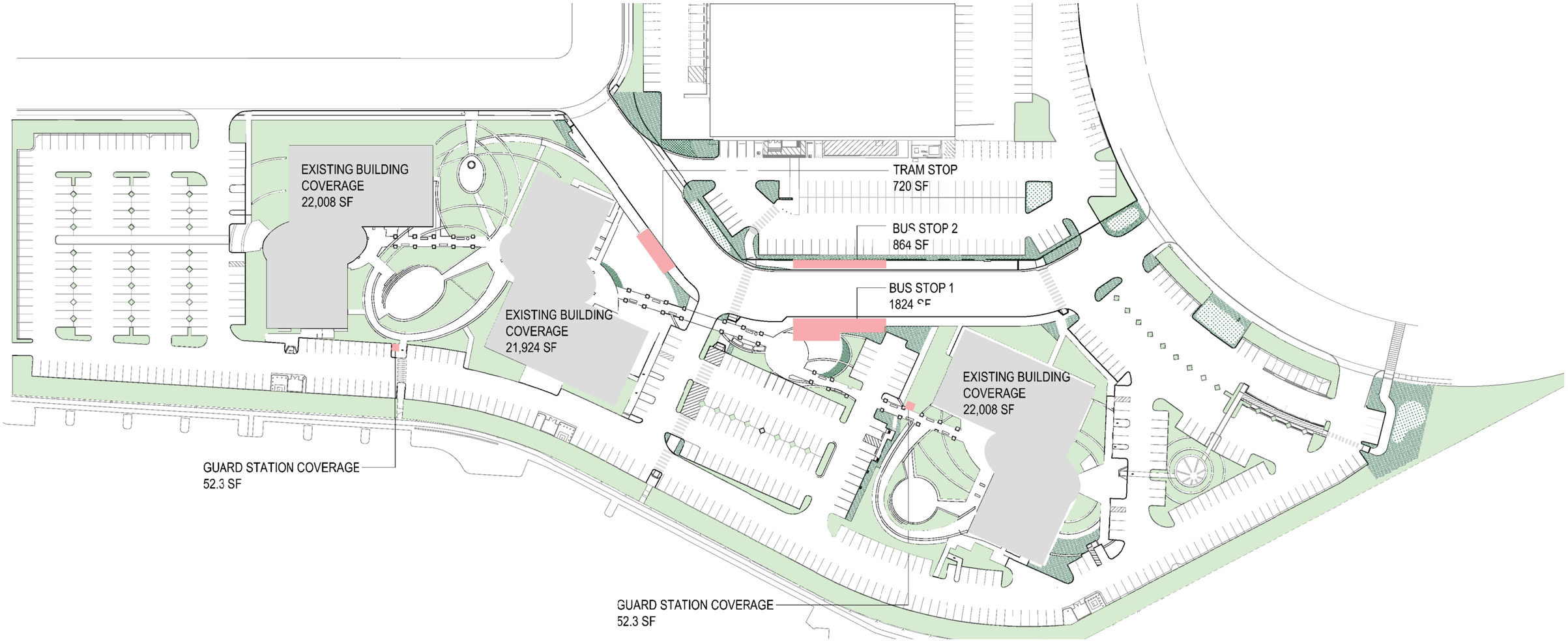


Typical Parking Stall Dimension

SITE PROPERTY + SETBACKS



BUILDING COVERAGE & AREAS DIAGRAM

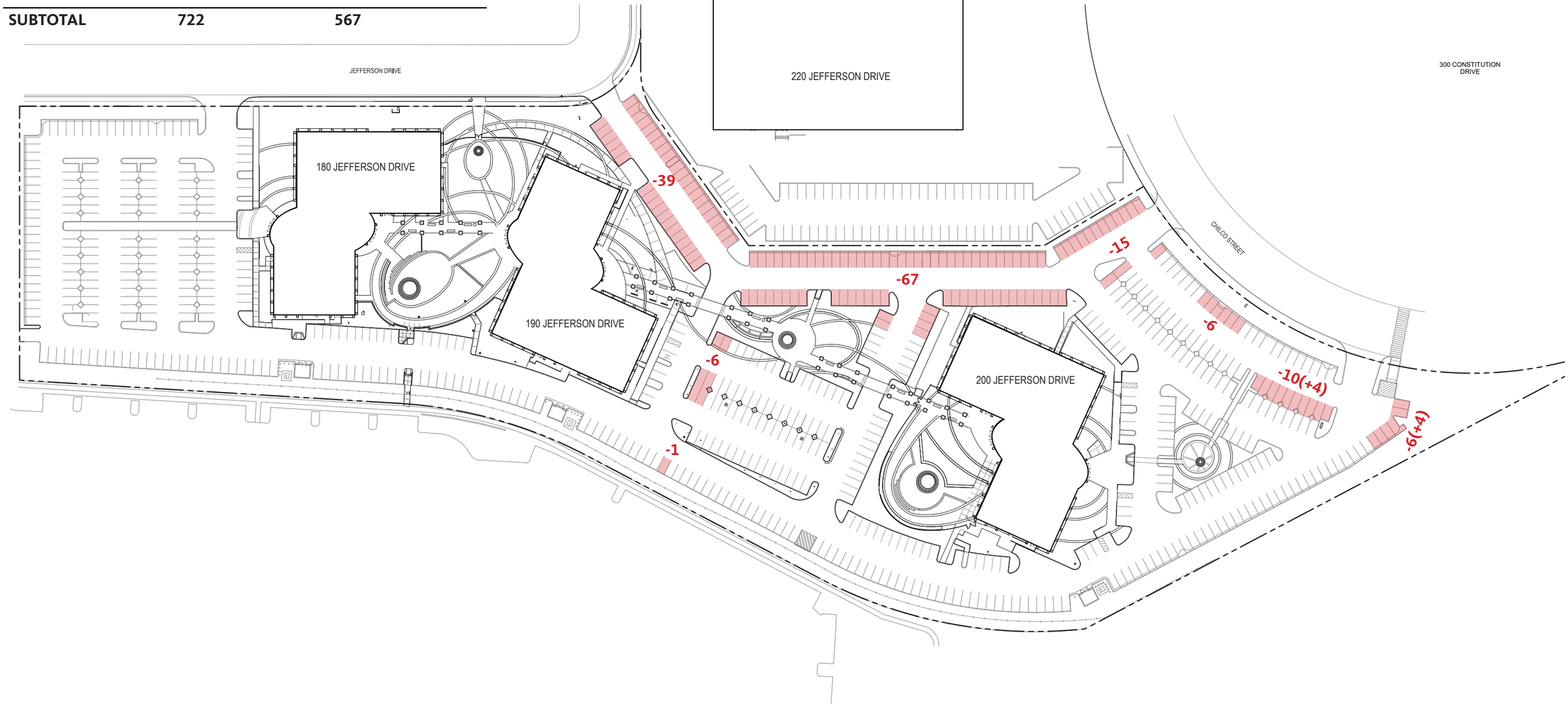


	EXISTING BUILDING COVERAGE	PROPOSED COVERAGE
180 JEFFERSON DRIVE	22,008 SF	
190 JEFFERSON DRIVE	21,194 SF	
200 JEFFERSON DRIVE	22,008 SF	
BUS STOP 1		864 SF
BUS STOP 2		1834 SF
TRAM STOP		720 SF
GUARDSHACK 1		53.2 SF
GUARDSHACK 2		52.3 SF
TOTALS	**65,210 SF**	**3,524.4 SF**

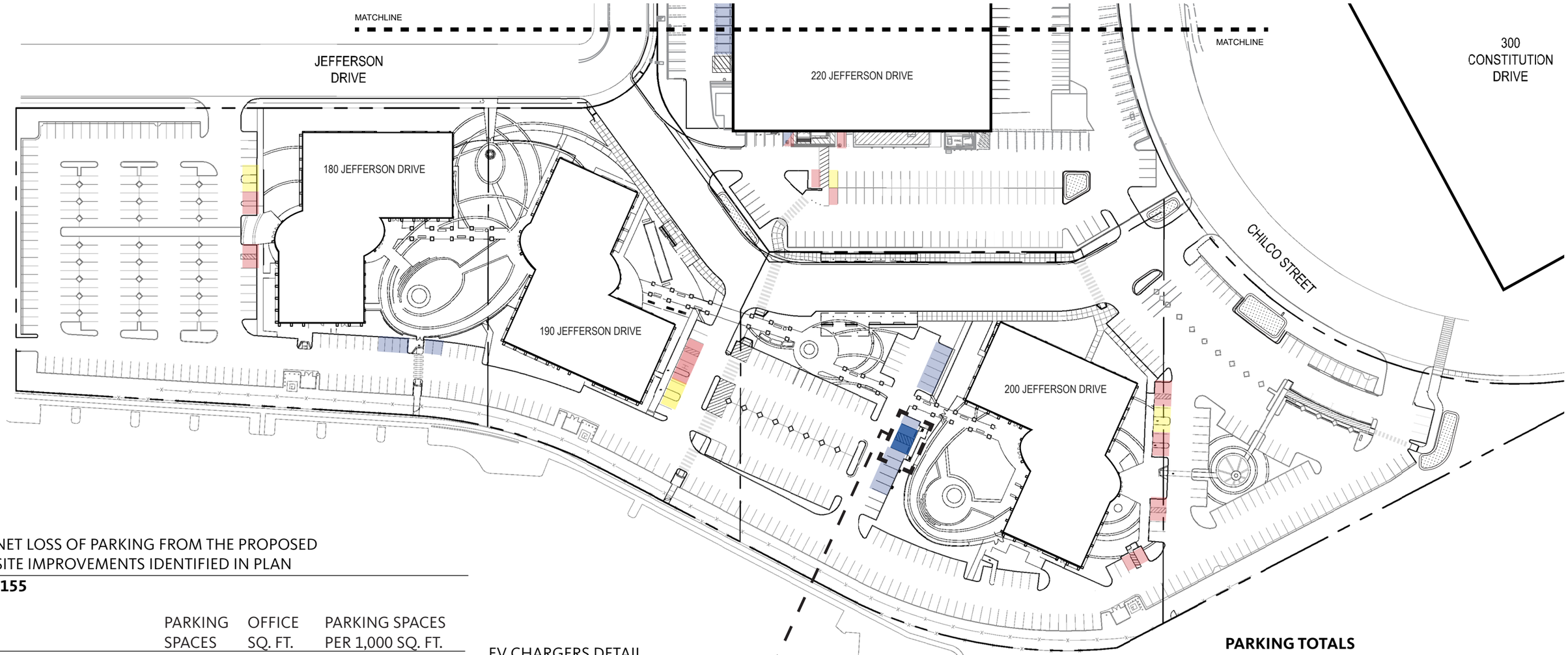
	TOTAL LOT AREA	100 %	472,650 SF
	TOTAL BUILDING COVERAGE	13.7%	65,210 SF
	ACCESSORY STRUCTURES	00.7 %	3,524.4 SF
	LANDSCAPE - PROPOSED	2.8%	13,078 SF
	LANDSCAPE - EXISTING	21.0%	98,186 SF
	PAVED AREAS - PROPOSED	**22.0%**	**104,322 SF**
	PAVED AREAS - EXISTING	**39.8%**	**188,330**

PARKING COUNT DISPLACEMENT

	EXISTING PARKING STALLS	PROPOSED PARKING STALLS
180 JEFFERSON DRIVE	229	229
190 JEFFERSON DRIVE	84	36
200 JEFFERSON DRIVE	409	302
SUBTOTAL	**722**	**567**



PARKING COUNT DISPLACEMENT



NET LOSS OF PARKING FROM THE PROPOSED SITE IMPROVEMENTS IDENTIFIED IN PLAN

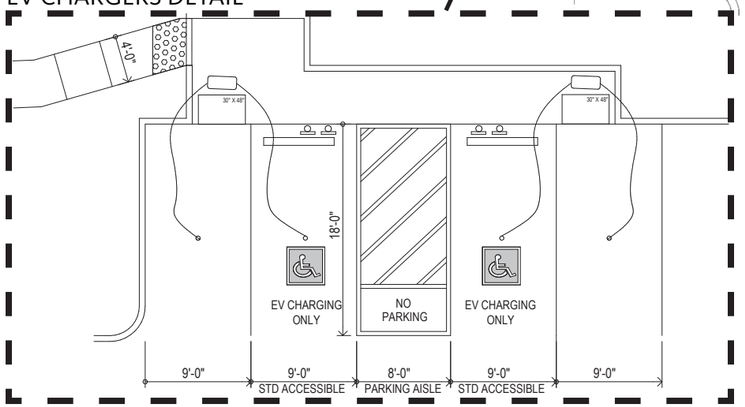
-155

	PARKING SPACES	OFFICE SQ. FT.	PARKING SPACES PER 1,000 SQ. FT.
180 JEFFERSON DRIVE	229	67,181	3.4
190 JEFFERSON DRIVE	84	67,181	0.5
200 JEFFERSON DRIVE	409	67,181	4.5
OTHERS		3,524	
TOTAL	**567**	**205,067**	**2.76**

*City of Menlo Park Parking Requirement for Office zoning
as per O District Standards DRAFT January 7, 2016 Page 6

Land Use	Minimum spaces (Per 1,000 Sq.Ft.)	Maximum spaces (Per 1,000 Sq.Ft.)
Office	2	3

EV CHARGERS DETAIL



PARKING TOTALS

TOTAL	**567 SPACES**
INCLUDING:	
ADA	16 SPACES
VAN ADA	6 SPACES
TOTAL ADA	**22 SPACES**
TOTAL EV	**20 SPACES (2 ADA)**

EV VAN ADA EV ADA

+/- Parking Spaces Delta

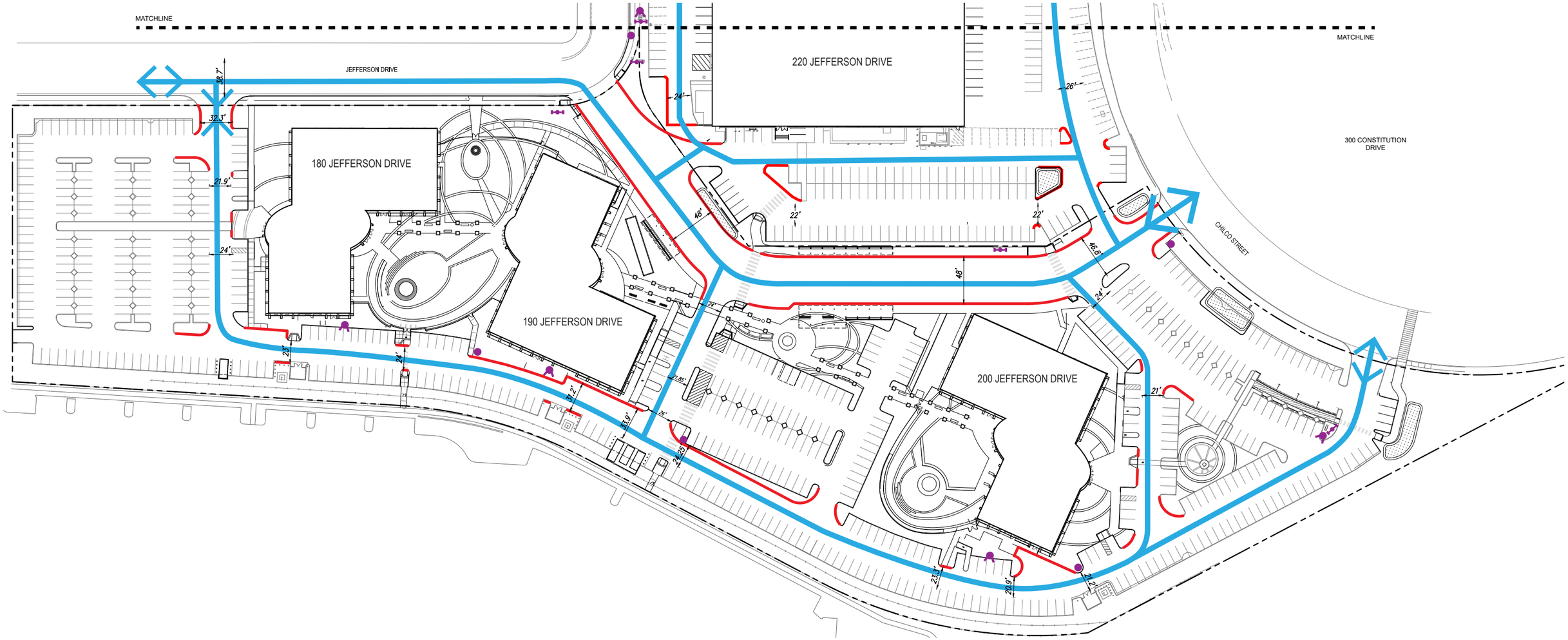
Existing

Proposed

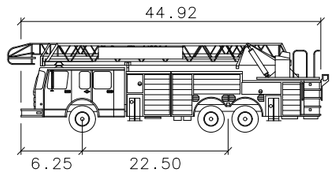
N

0 20 50 100 150 FT

FIRE DEPARTMENT ACCESS

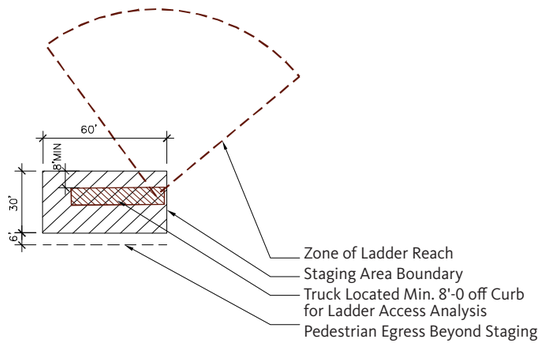


NOTES
1. FIRE HYDRANTS PROVIDED AT A MAXIMUM SPACING OF 300' ON CENTER.
2. FIRE HYDRANTS ARE PRIVATE
3. STAGING AREAS SHOWN ARE SUBJECT TO REVIEW BY THE MENLO PARK FIRE PROTECTION DISTRICT.
4. ROOF ACCESS TO BE CONSISTENT WITH THE FIRE DISTRICT REQUIREMENTS FOR MINIMUM 3'-0" DOORWAYS TO STAIRS FROM FLOOR BELOW.
5. PERMANENT FIXED LADDERS SHALL BE PROVIDED FOR PARAPETS OR ROOF ELEVATION CHANGES GREATER THAN 3'-0".



MENLO PARK FIRE TRUCK

	feet
Width	:8.25
Track	:8.25
Lock to Lock Time	:6.0
Steering Angle	:25.4



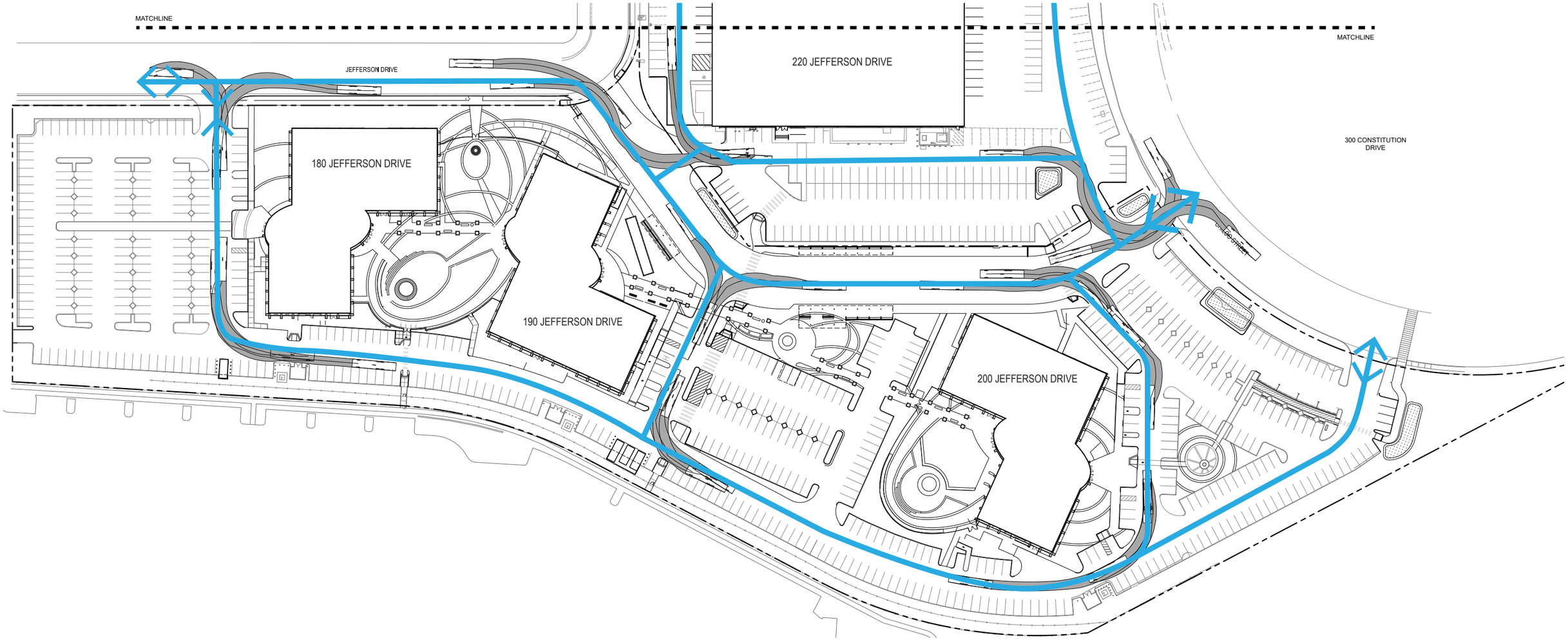
LEGEND

- FIRE ACCESS
- RED CURB
- BACK FLOW PREVENTER (BFP)
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION (FDC)

N

0 20 50 100 150 FT

FIRE DEPARTMENT ACCESS



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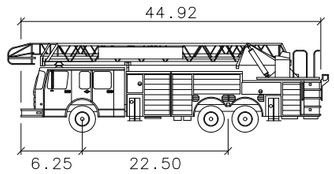
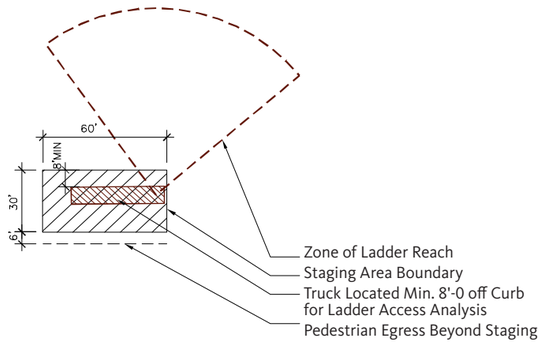
4. ROOF ACCESS TO BE CONSISTENT WITH THE FIRE DISTRICT REQUIREMENTS FOR MINIMUM 3'-0" DOORWAYS TO STAIRS FROM FLOOR BELOW.
5. PERMANENT FIXED LADDERS SHALL BE PROVIDED FOR PARAPETS OR ROOF ELEVATION CHANGES GREATER THAN 3'-0".

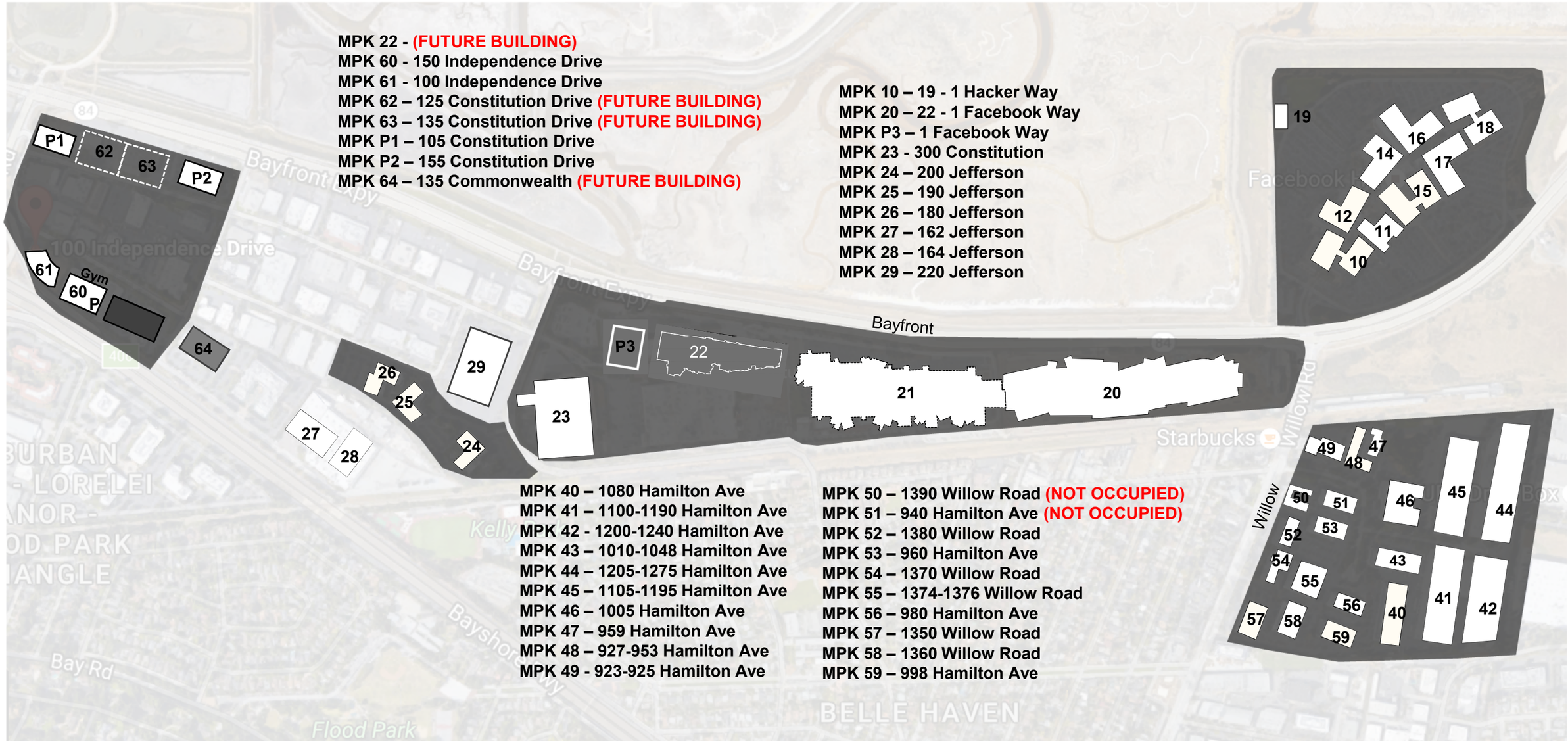


MENLO PARK FIRE TRUCK

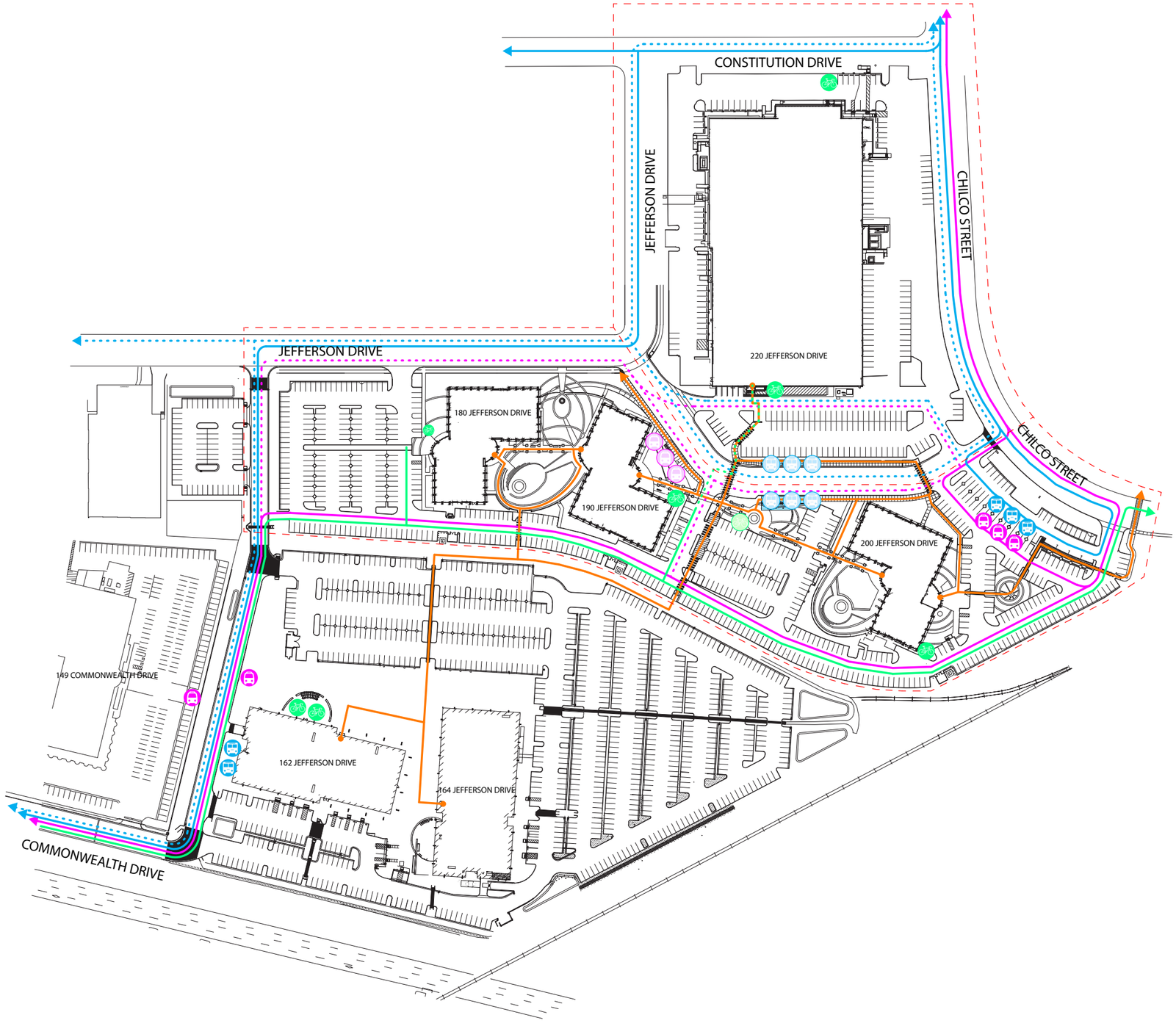
	feet
Width	:8.25
Track	:8.25
Lock to Lock Time	:6.0
Steering Angle	:25.4



OCCUPANCY PLAN



TRANSIT HUB PATHS OF TRAVEL



LEGEND

Bicycles
- (E) route
- (P) route
- (E) parking
- (P) parking

Shuttle
- (E) route
- (P) route
- (E) stop
- (P) stop

Tram
- (E) route
- (P) route
- (E) stop
- (P) stop

Pedestrian
- route

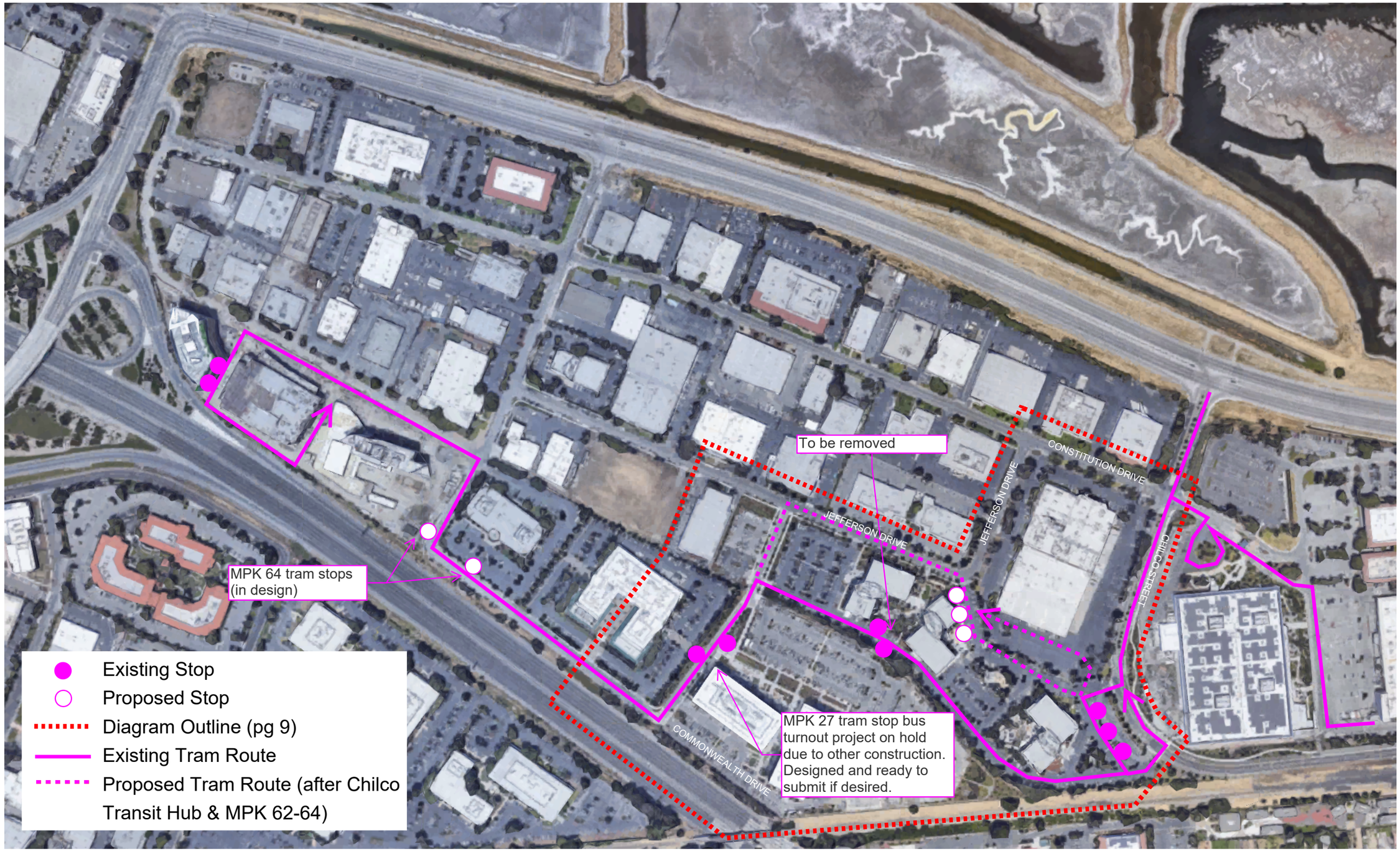
(E) existing
(P) proposed

N

0 20 50 100 150 FT

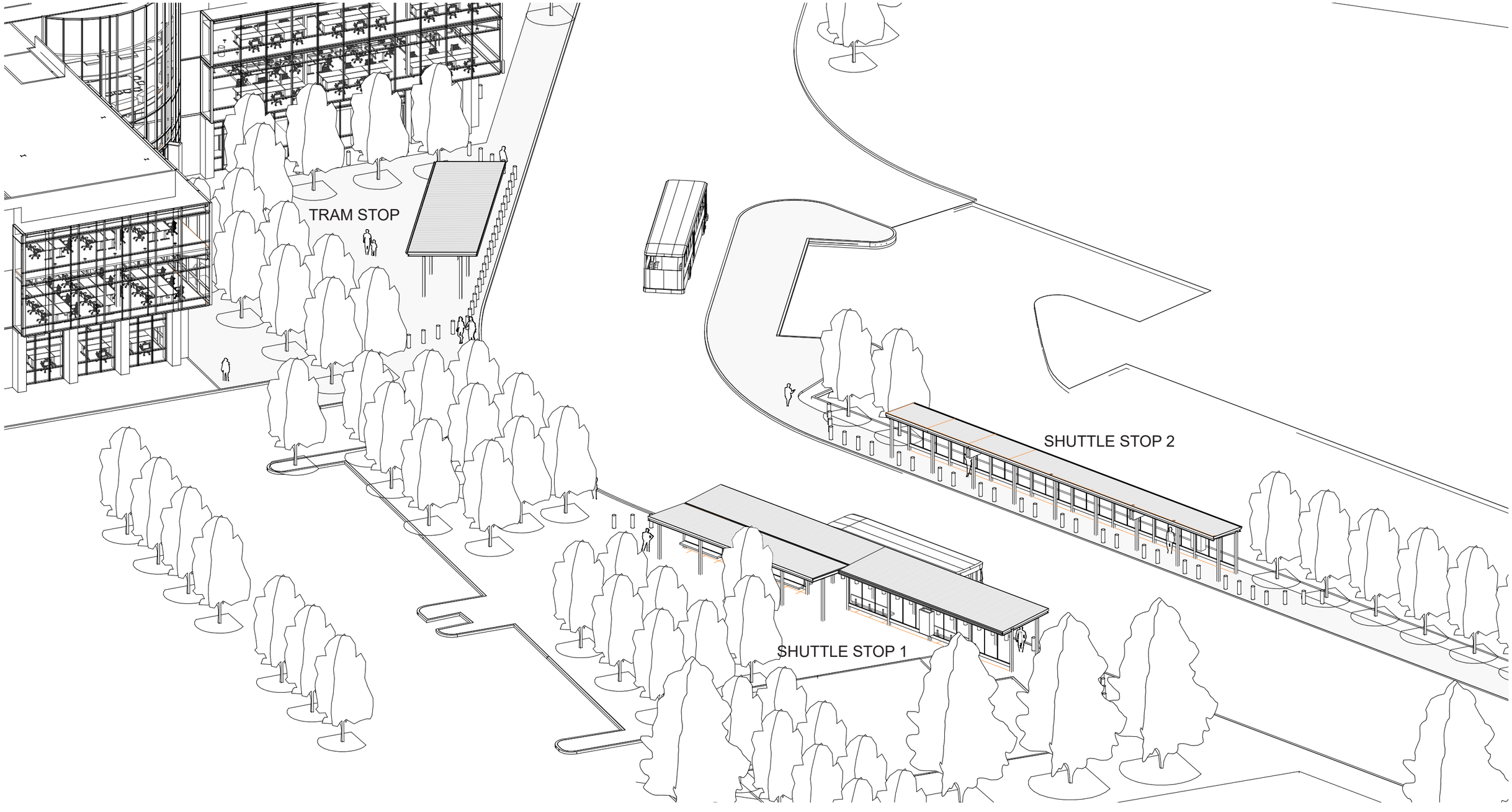
TRANSIT HUB PATHS OF TRAVEL - SITE CONTEXT

TRANSIT HUB PATHS OF TRAVEL - SITE CONTEXT



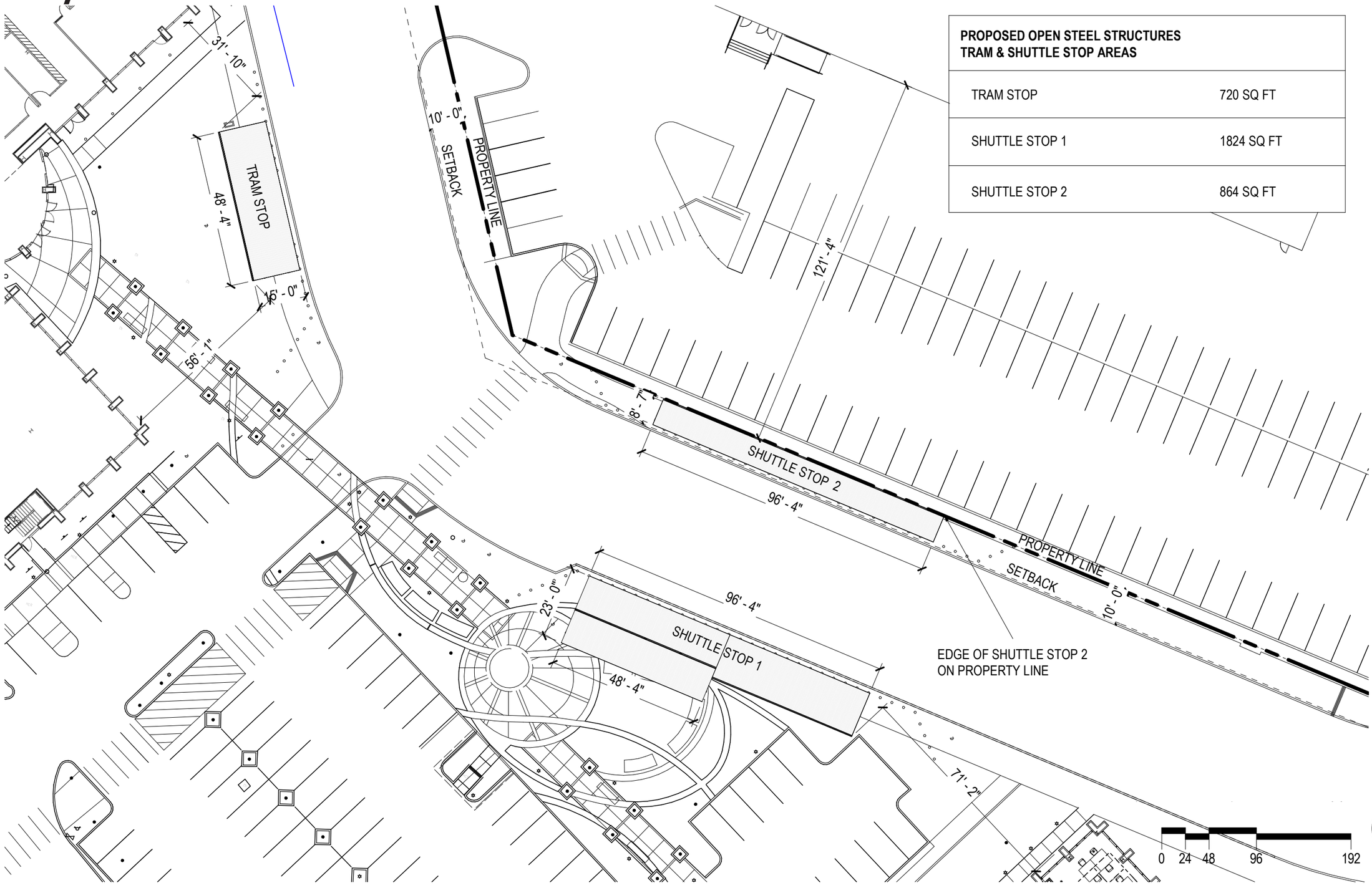
TRANSIT HUB PATHS OF TRAVEL - SITE CONTEXT

TRAM / SHUTTLE STOP SITE AXON

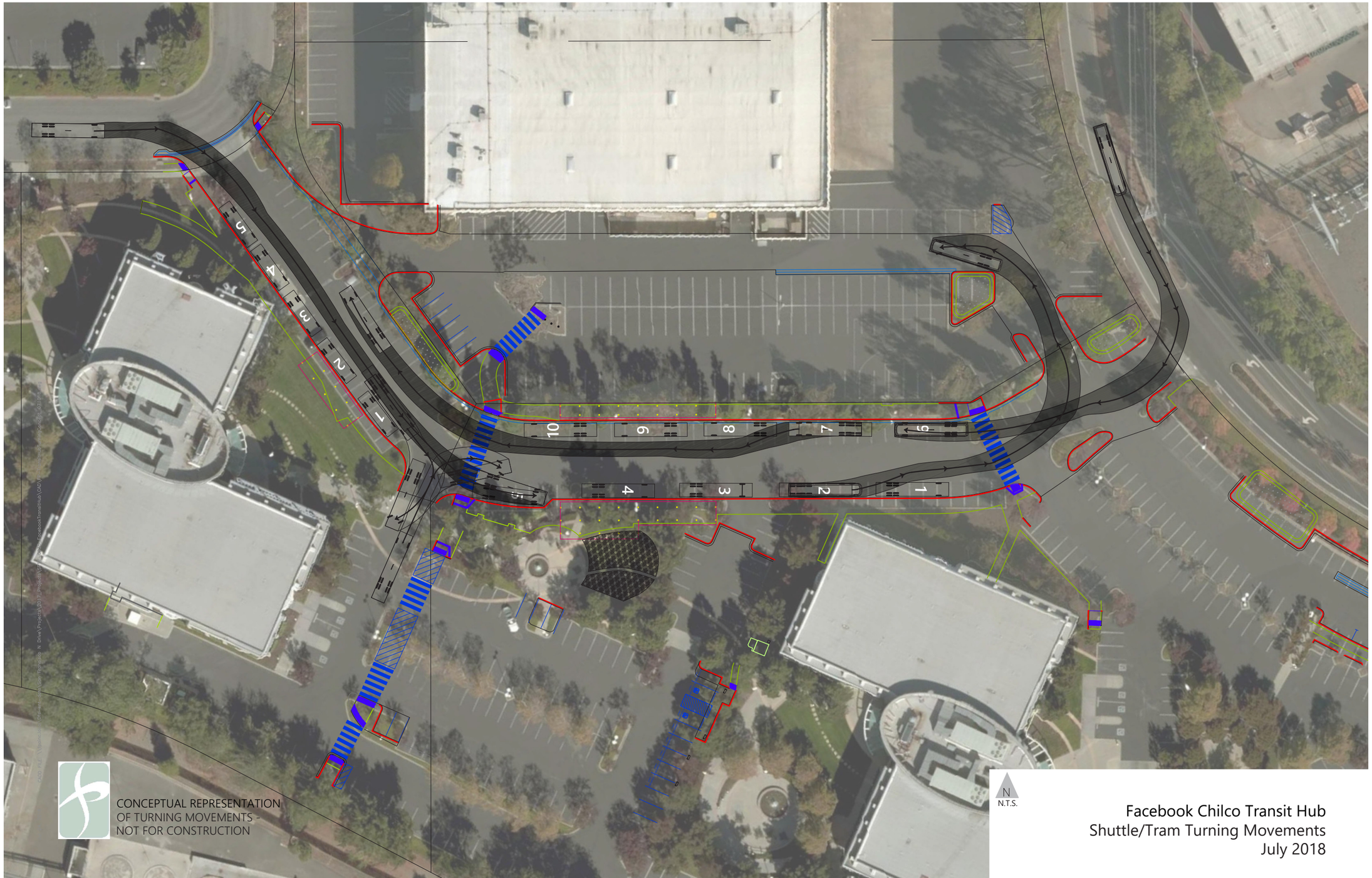


TRAM / SHUTTLE STOP OVERALL SITE PLAN

PROPOSED OPEN STEEL STRUCTURES TRAM & SHUTTLE STOP AREAS	
TRAM STOP	720 SQ FT
SHUTTLE STOP 1	1824 SQ FT
SHUTTLE STOP 2	864 SQ FT

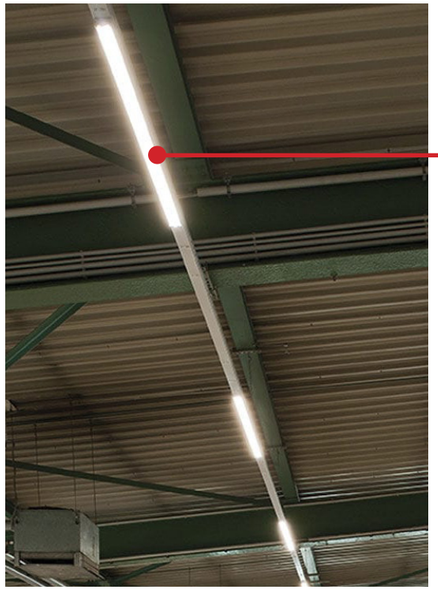


TRAM / SHUTTLE STOP TURNING MOVEMENTS

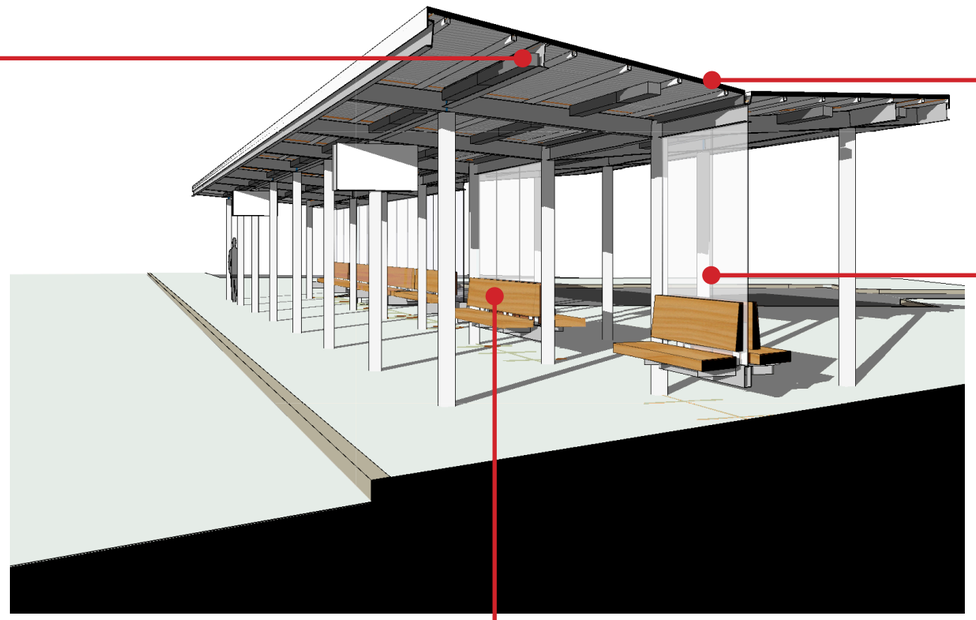


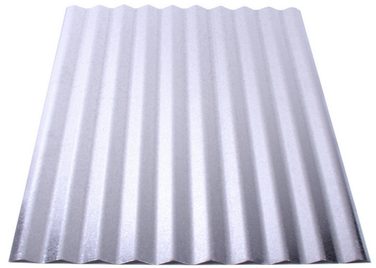
Facebook Chilco Transit Hub
Shuttle/Tram Turning Movements
July 2018

CHILCO BUS STOP MATERIAL PALETTE



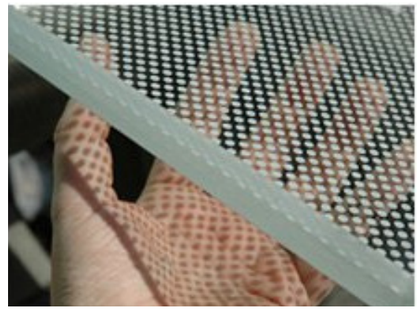
EXTERIOR LINEAR LIGHTING
MOUNTED ON STRUCTURE





GREY CORRUGATE METAL ROOF

FRITTED GLASS

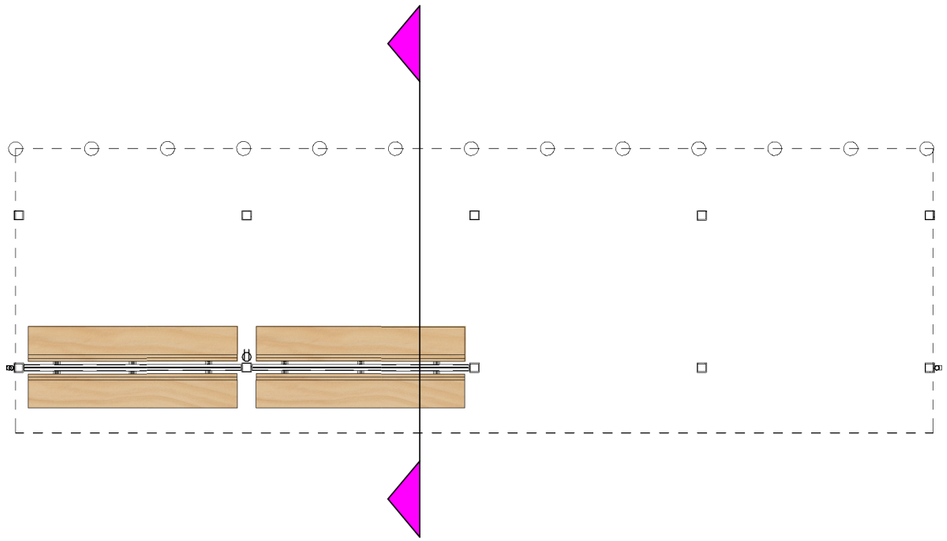


LIGHTING SPECIFICATION:
ECOSENSE TROV

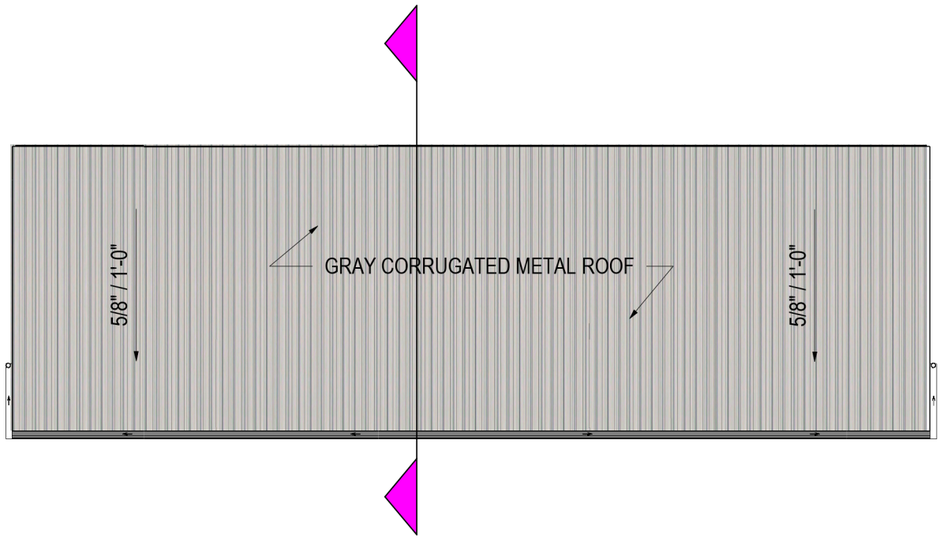
SOLID WOOD BENCHES
FSC CEDAR WITH NATURAL FINISH

REFERENCE
GEHRY PARTNERS - DESIGNED BUS STOP IN MAIN CAMPUS

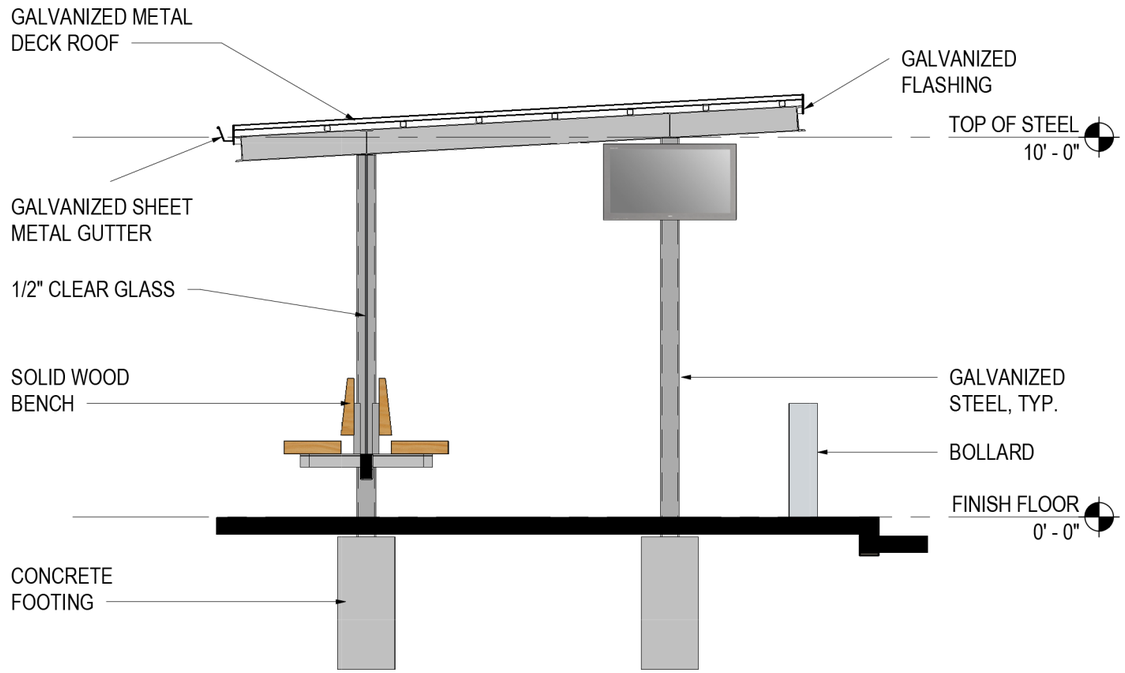
TRAM STOP DETAIL



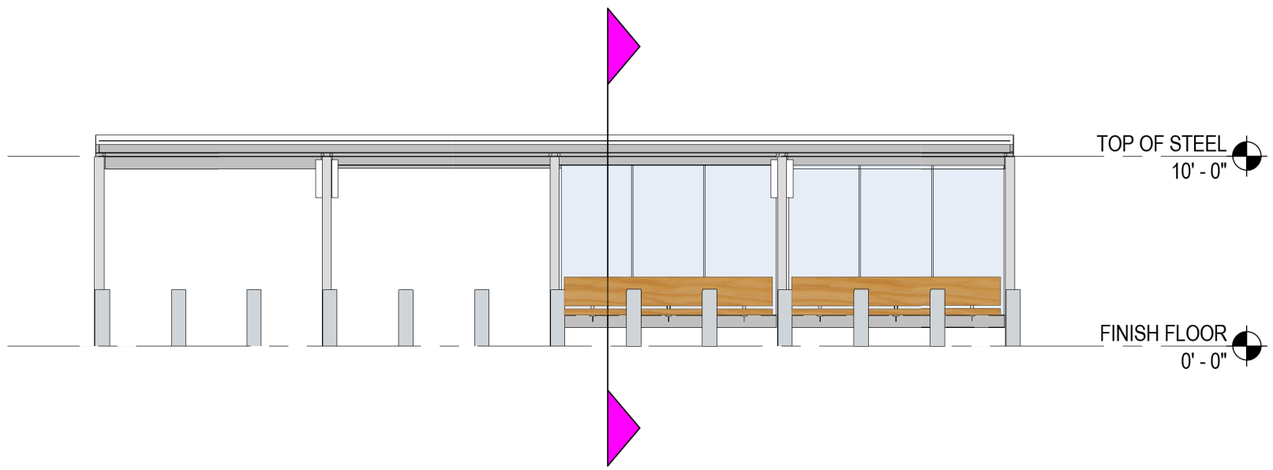
GROUND LEVEL PLAN



ROOF PLAN



SECTION 1

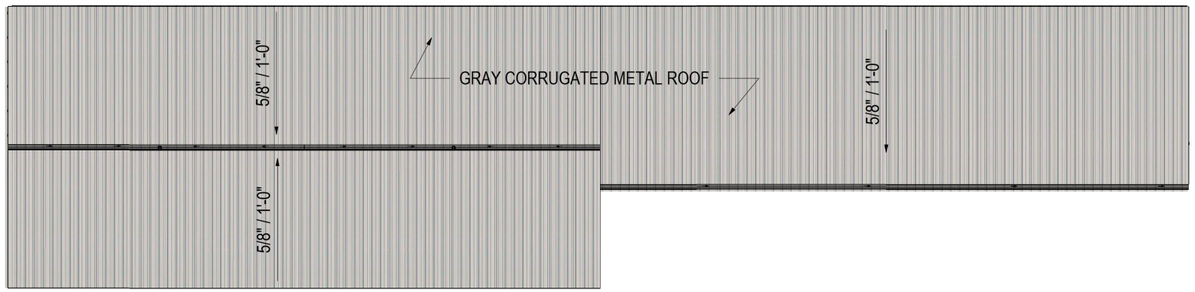


ELEVATION

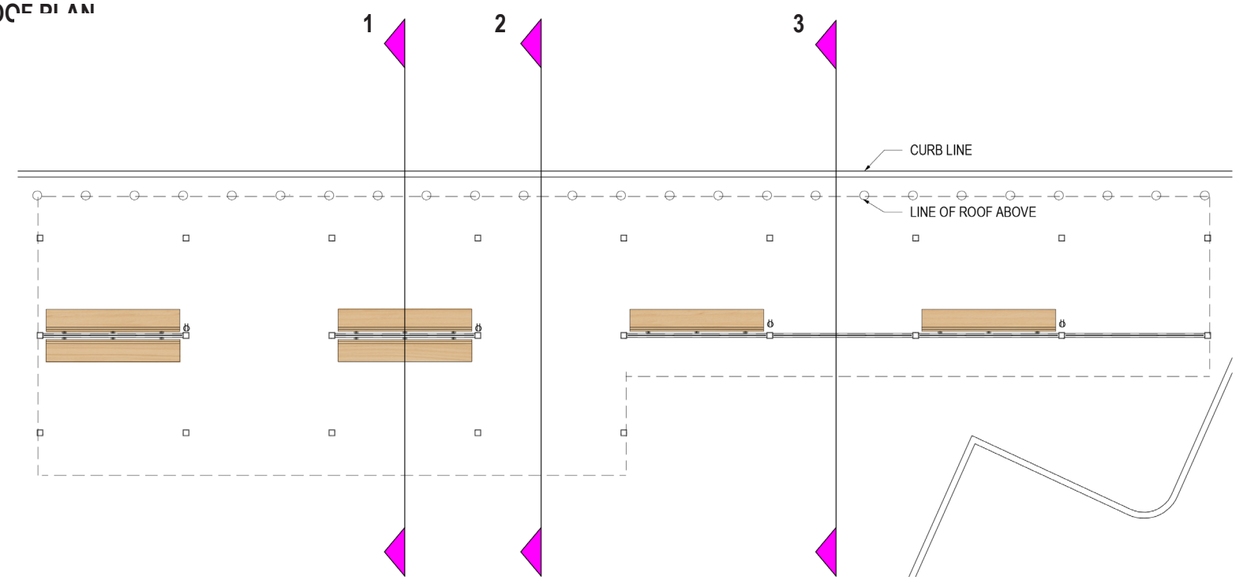
LOOK + FEEL

TRAM STOP - IN FRONT OF MPK 25

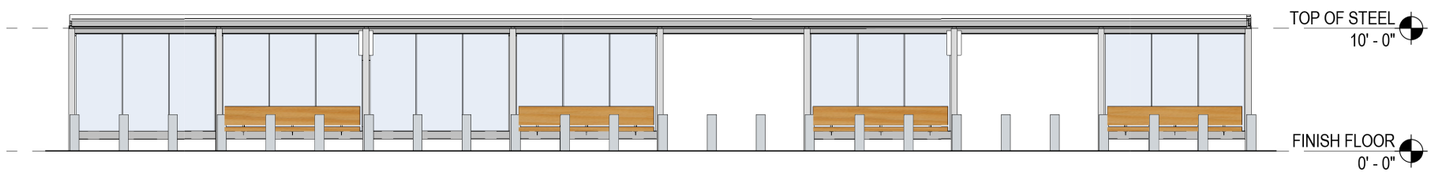
SHUTTLE STOP 1 DETAIL



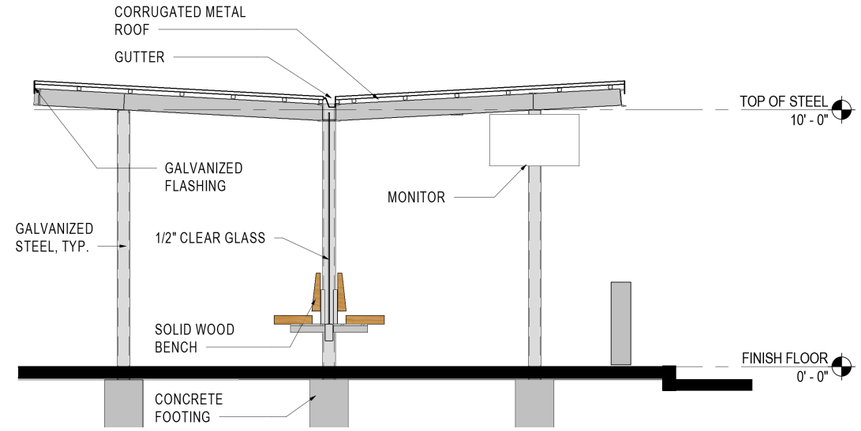
ROOF PLAN



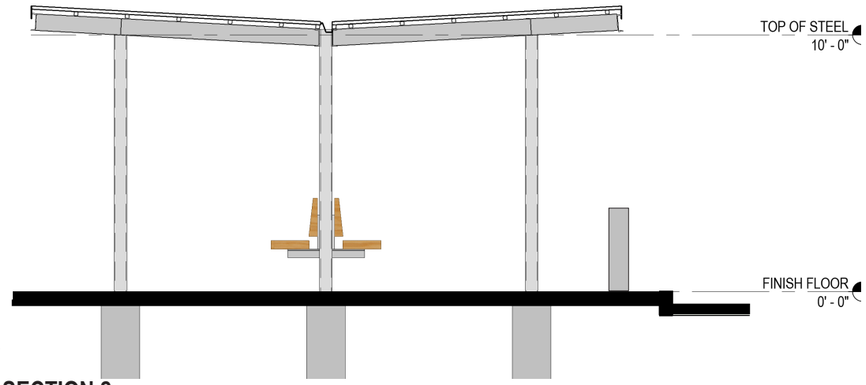
GROUND FLOOR PLAN



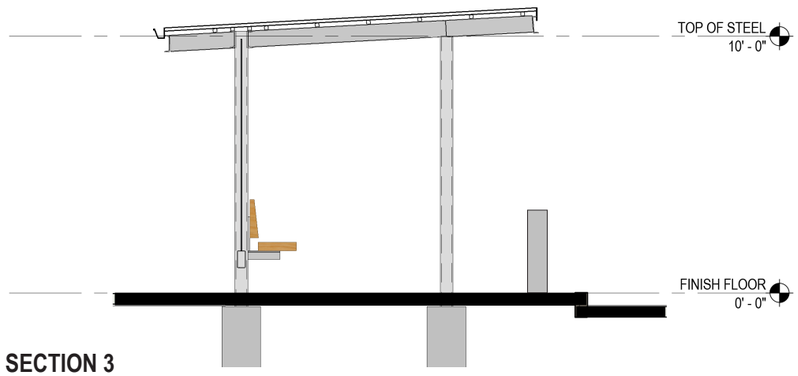
ELEVATION



SECTION 1



SECTION 2

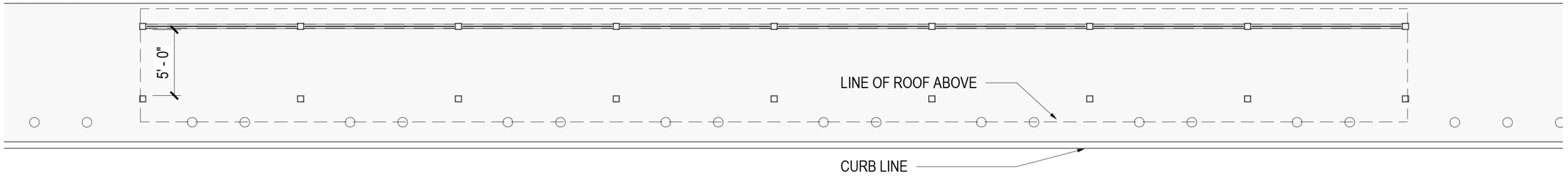


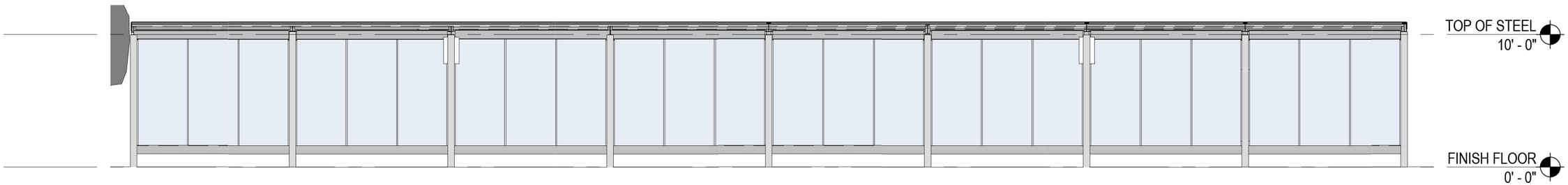
SECTION 3

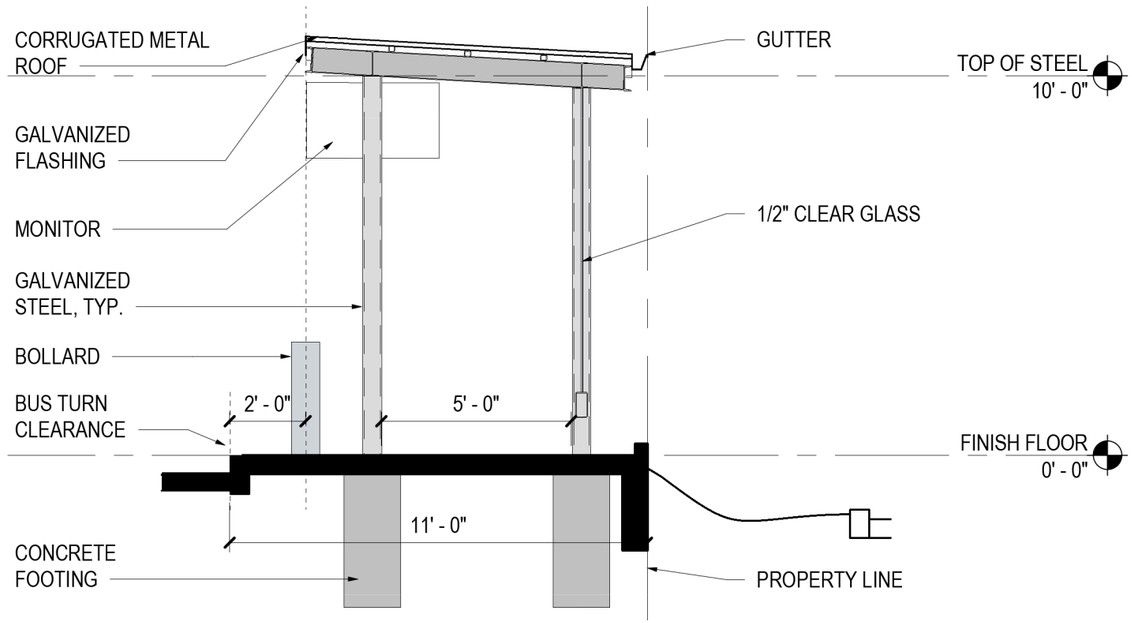
SHUTTLE STOP 1

SHUTTLE STOPS - EAST VIEW DOWN PROPOSED STREET

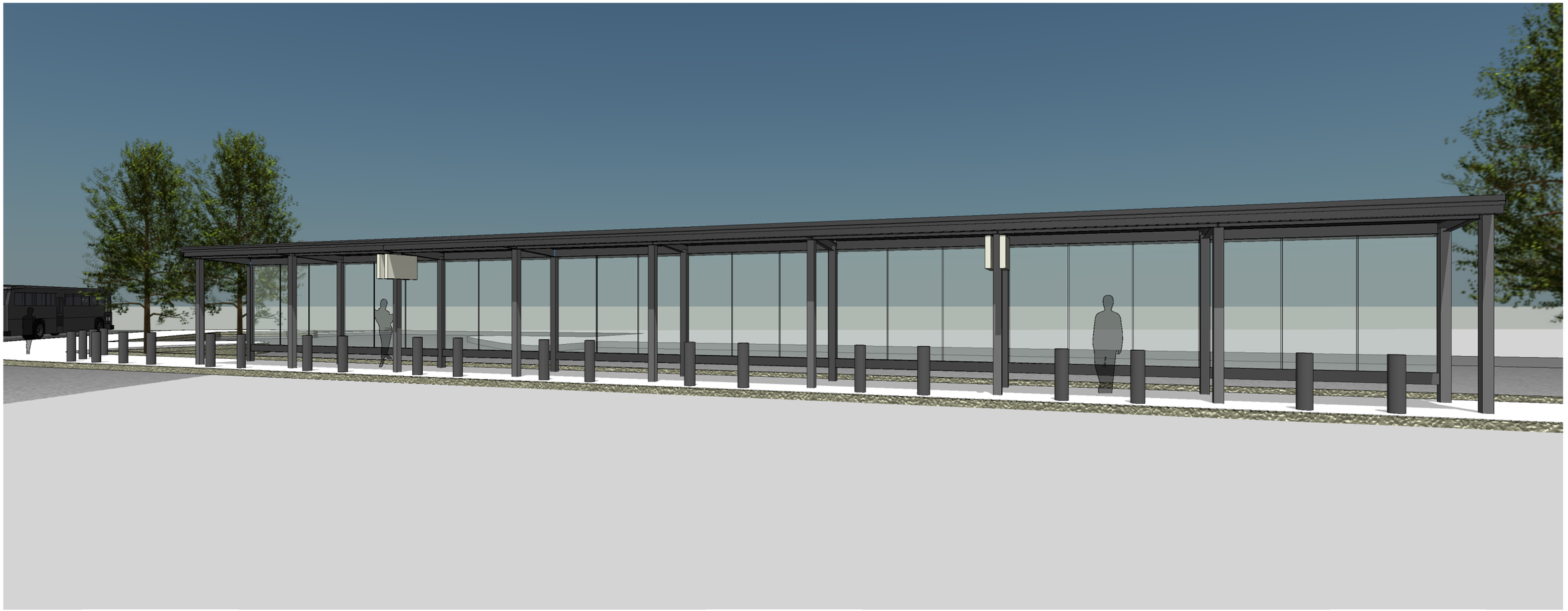
SHUTTLE STOP 2 DETAIL







SHUTTLE STOP 2

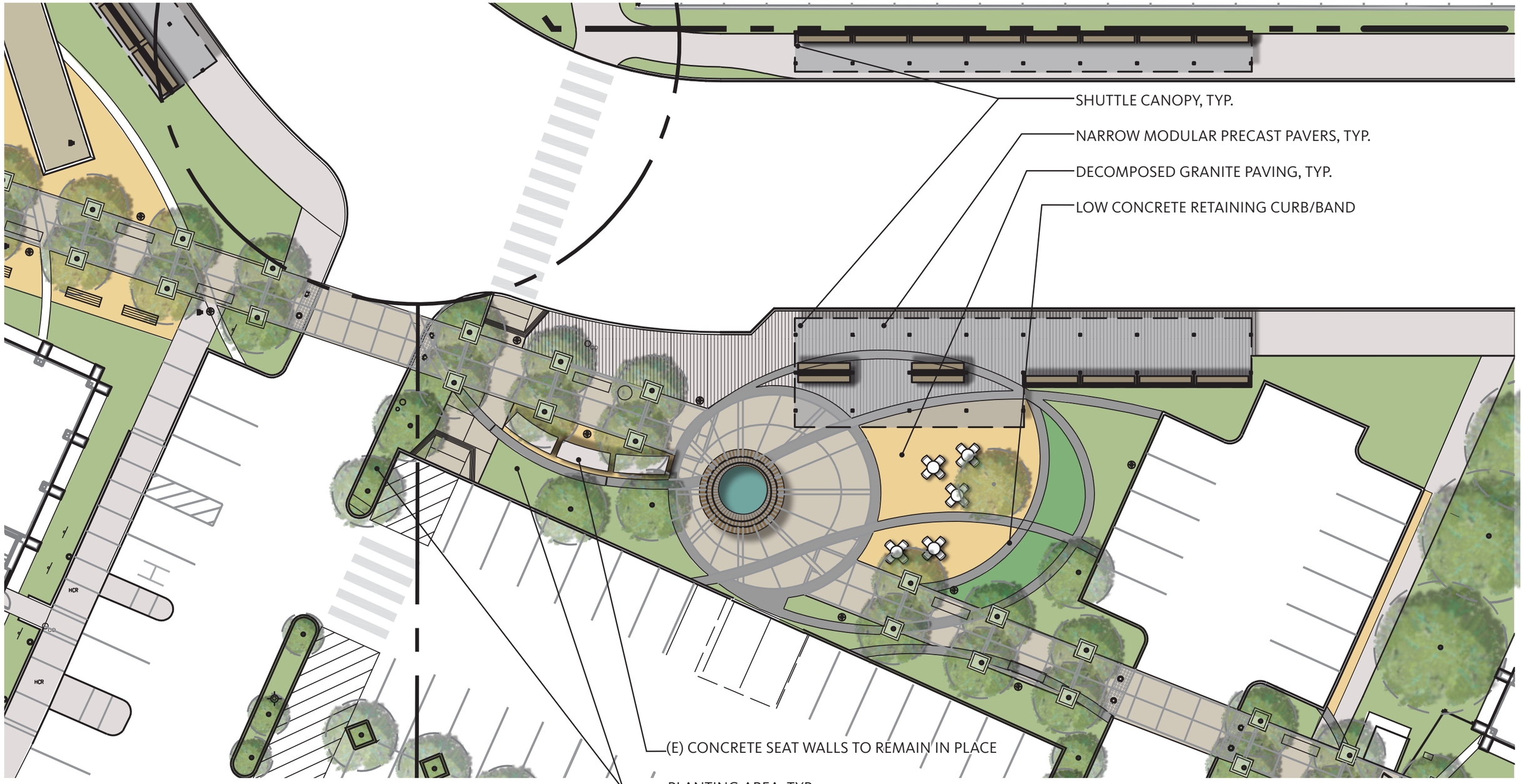


SHUTTLE STOP 2

SHUTTLE STOP 1 + 2

SHUTTLE STOPS - EAST VIEW DOWN PROPOSED STREET

CHILCO COMMONS PLAZA DESIGN

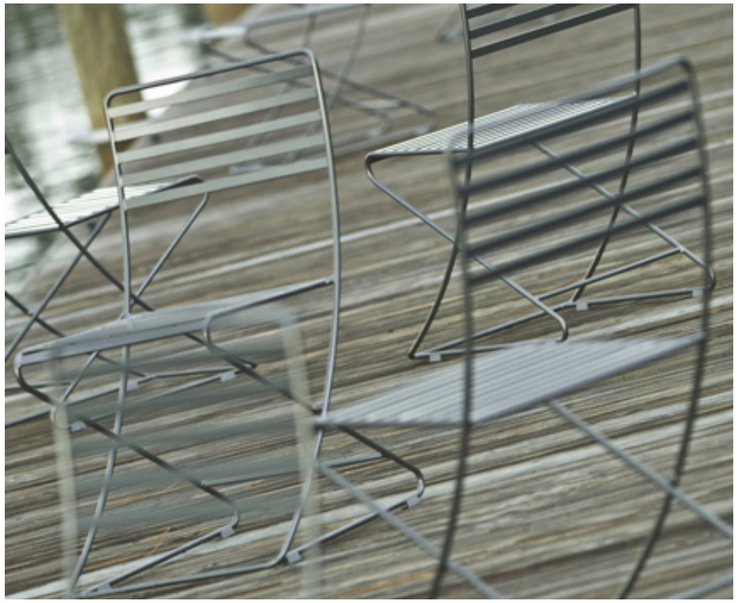


NOTE: ALL DECOMPOSED GRANITE AND NARROW MODULAR PRECAST PAVING AREAS TO HAVE NO SLOPE IN EXCESS OF 2.0%

CHILCO COMMONS MATERIAL PALETTE

EXISTING CONCRETE SIDEWALKS AND PAVING BANDS

DECOMPOSED GRANITE PAVING



LANDSCAPE FORMS PARC CENTRE STACKING CHAIR

STEPSTONE NARROW MODULAR PRECAST UNIT PAVERS

EXISTING WATER FEATURE WITH WOOD CLADDING

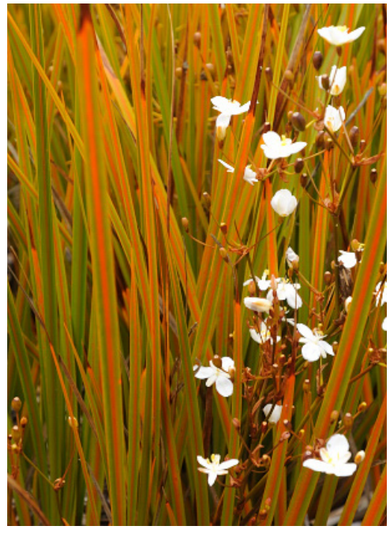
LANDSCAPE FORMS PARC CENTER 30" ROUND TABLE

CHILCO COMMONS PLANTING PALETTE

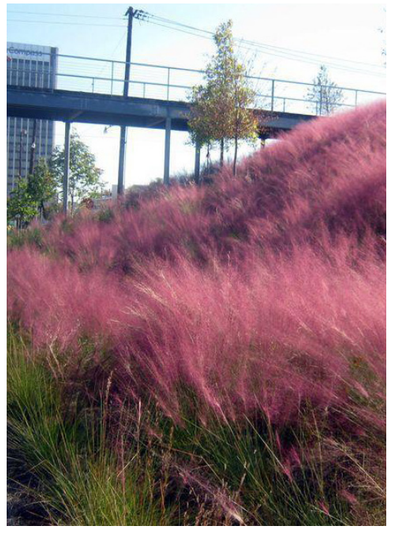
Calamagrostis x acutiflora 'Karl Foerster'

Carex remota

Festuca mairei

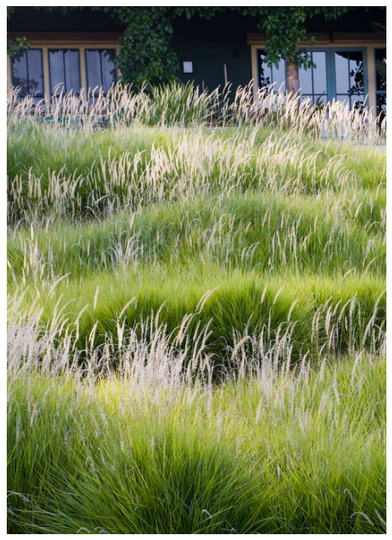


Libertia peregrinans



Muhlenbergia capillaris

Ophiopogon subspecies



Pennisetum 'Fairy Tails'

Pennisetum spathiolatum

Phormium 'Black Adder'

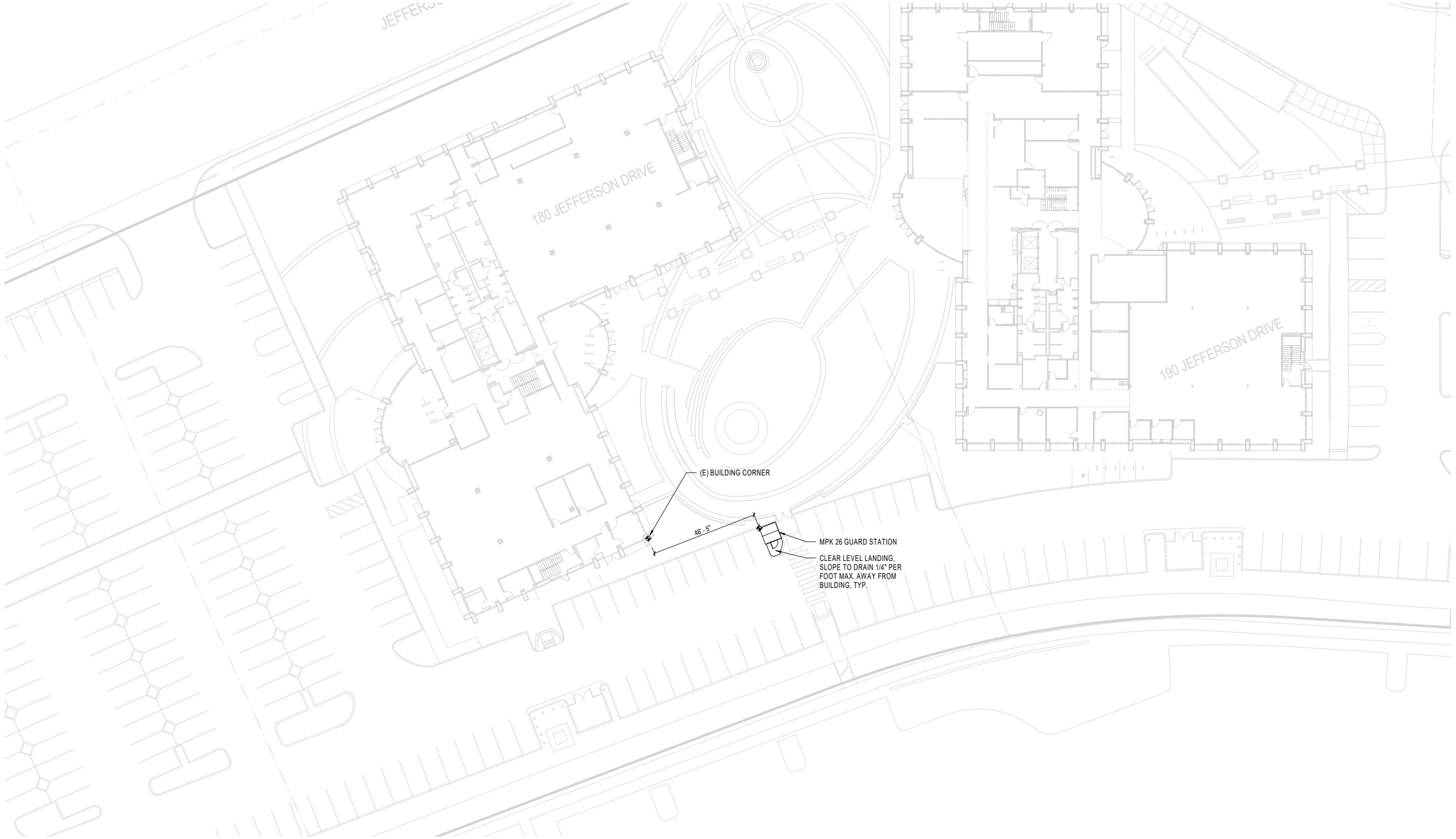
Platanus x acerifolia (existing)

Pyrus calleryana (existing)

Sesleria autumnalis

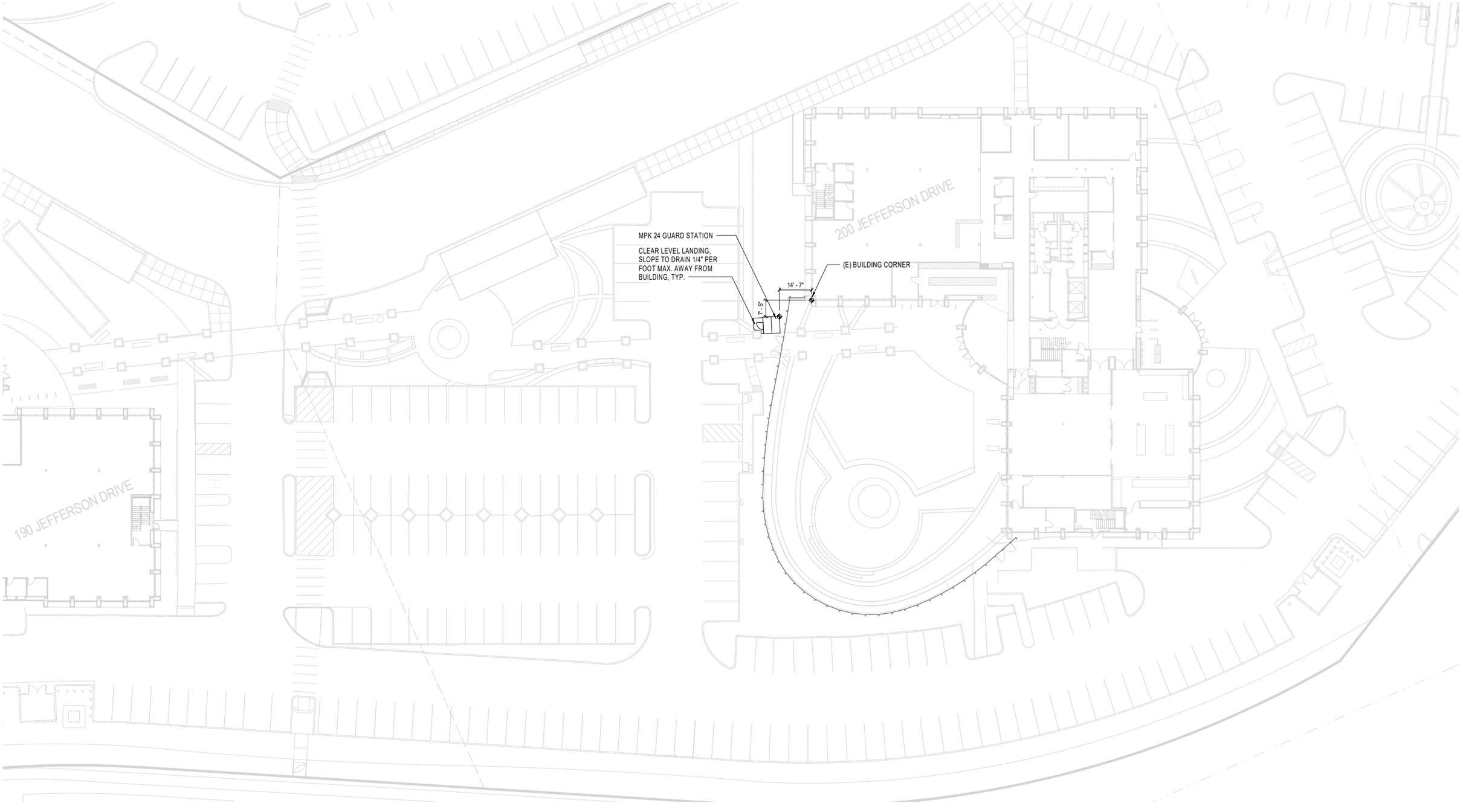
GUARDSHACKS LOCATIONS

180 JEFFERSON DRIVE



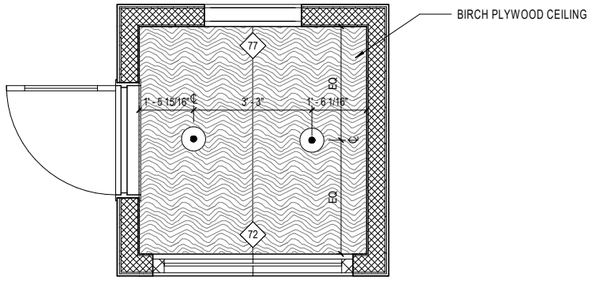
GUARDSHACKS LOCATIONS

200 JEFFERSON DRIVE

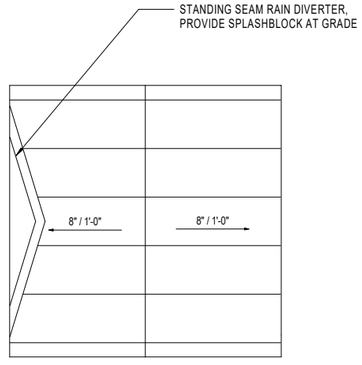


GUARDSHACKS LOOK + FEEL

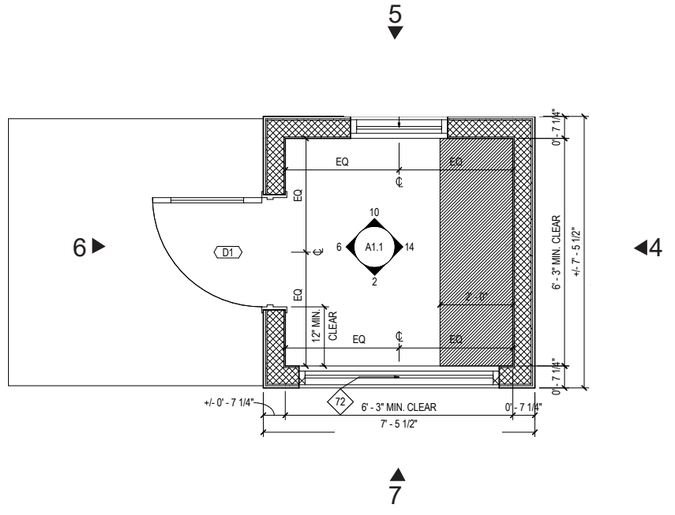
GUARDSHACKS ELEVATIONS / FLOOR PLANS



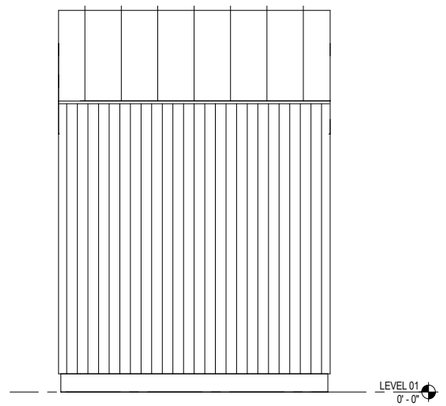
1 REFLECTED CEILING PLAN - GUARD STN
SCALE: 1/2" = 1'-0"



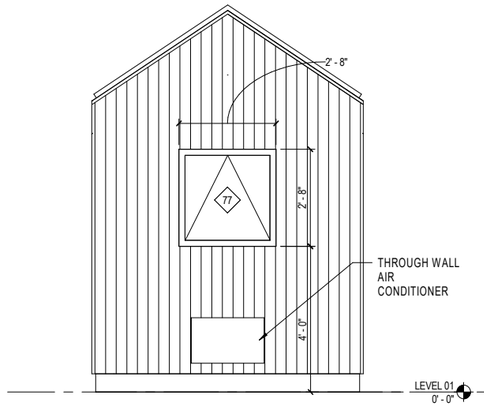
2 PLAN - GUARD STATION ROOF
SCALE: 1/2" = 1'-0"



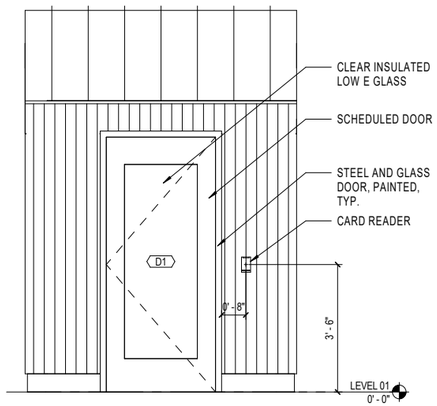
3 PLAN - GUARD STATION FLOOR
SCALE: 1/2" = 1'-0"



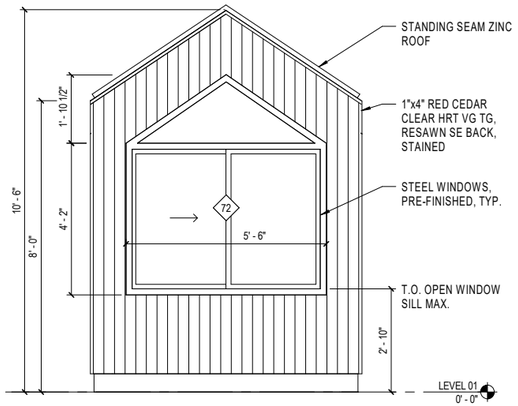
4 GUARD STATION ELEV EAST
SCALE: 1/2" = 1'-0"



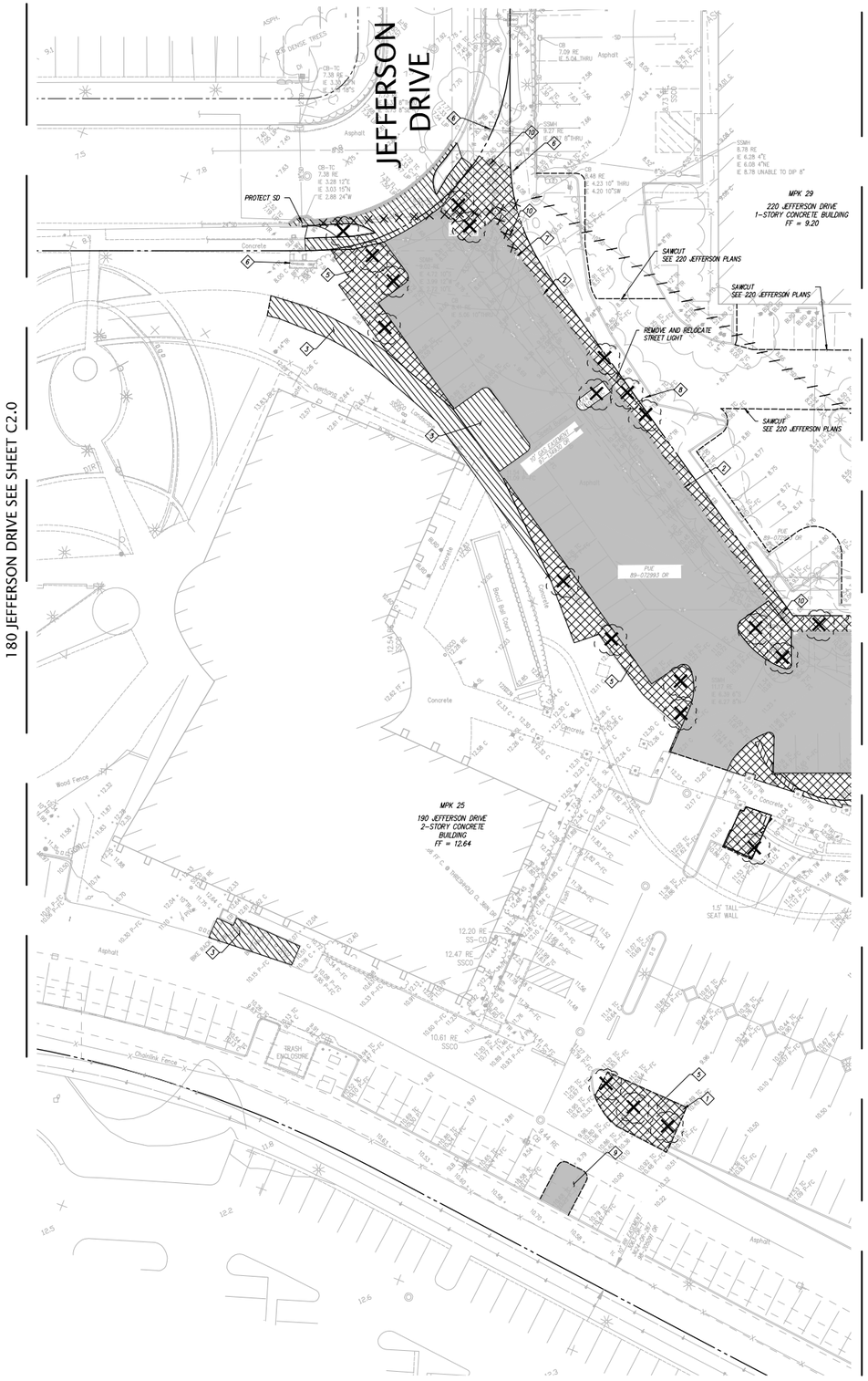
5 GUARD STATION ELEV NORTH
SCALE: 1/2" = 1'-0"

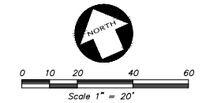


6 GUARD STATION ELEV WEST
SCALE: 1/2" = 1'-0"



7 GUARD STATION ELEV SOUTH
SCALE: 1/2" = 1'-0"



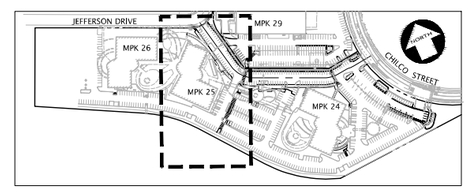


LEGEND

- EXISTING CURB & GUTTER TO BE REMOVED
- EXISTING AC PAVEMENT TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING LANDSCAPE TO BE REMOVED
- SAWCUT LINE
- EXISTING TREE TO BE REMOVED
- UNDERGROUND UTILITIES TO BE REMOVED
- UNDERGROUND UTILITIES TO BE ABANDONED
- PLUG AND CAP END

KEYNOTES

1. REMOVE CONCRETE CURB
2. REMOVE CONCRETE CURB & GUTTER
3. REMOVE CONCRETE
4. PROTECT EXISTING CATCH BASIN IN PLACE & ADJUST RIM ELEVATION PER PLAN
5. REMOVE EXISTING LANDSCAPING AND IRRIGATION
6. PROTECT EXISTING WATER INFRASTRUCTURE IN PLACE
7. PROTECT EXISTING CATCH BASIN IN PLACE AND CONVERT TO JUNCTION BOX
8. RELOCATE EXISTING STREET LIGHTS PER SHEET CE-2
9. REMOVE EXISTING AC PAVEMENT
10. PROTECT EXISTING STREET LIGHT IN PLACE



KEY MAP
SCALE: 1" = 200'

FACEBOOK

180-200 Jefferson Drive
Menlo Park CA 94025

Gensler
2 Harrison Street
Suite 400
San Francisco, CA 94105
United States
Tel 415.433.3700
Fax 415.836.4599

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-0000 Fax (650) 617-0002

PAE
Portland | San Francisco | Seattle
pae-engineers.com

KIER & WRIGHT
CIVIL ENGINEERS & SURVEYORS, INC.
2850 Collier Canyon Road Phone (925) 245-8788
Livermore, California 94551 Fax (925) 245-8795

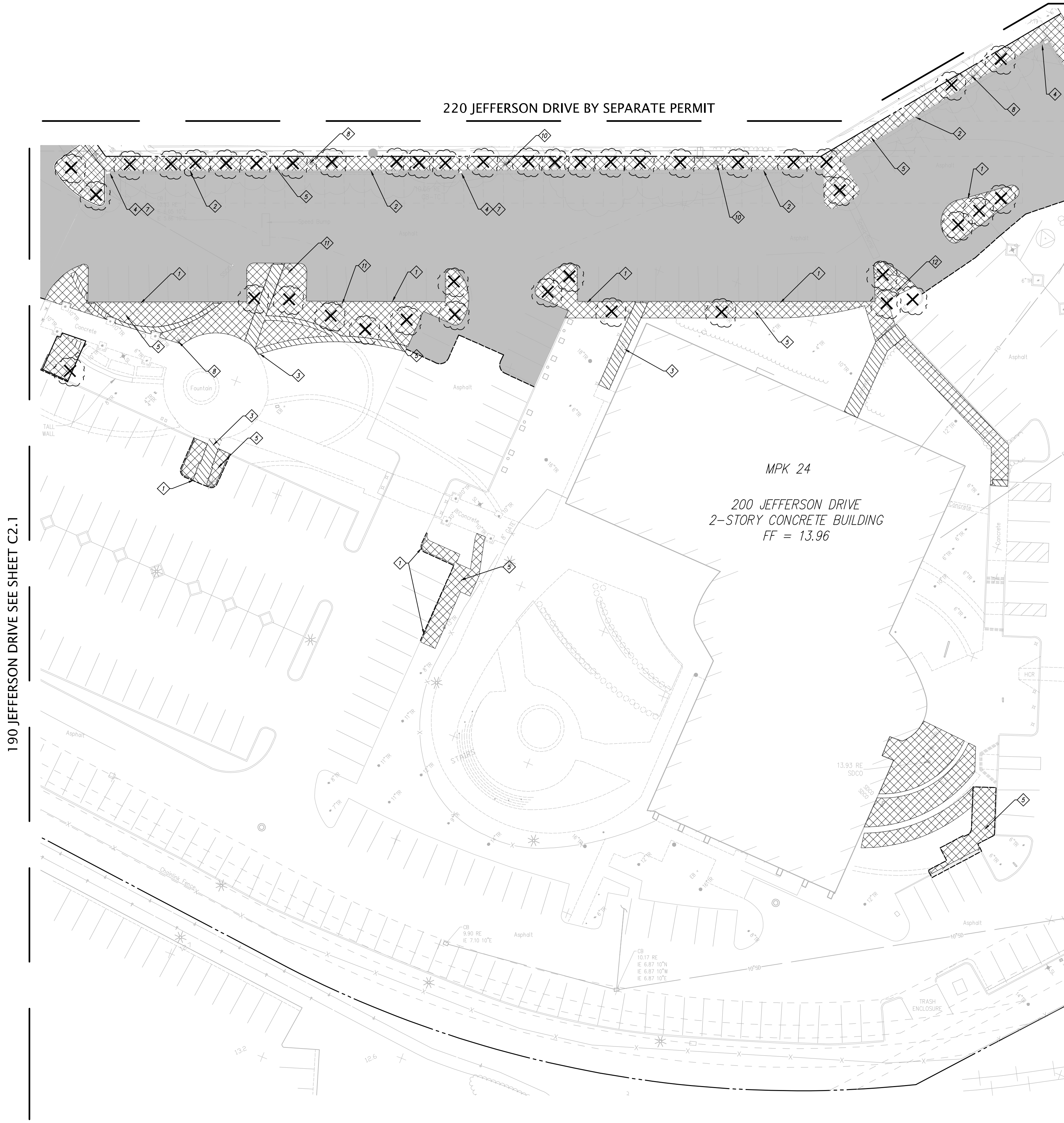
REGISTERED PROFESSIONAL ENGINEER JAMES SARTEUR 55535 CIVIL STATE OF CALIFORNIA

Seal / Signature

Date	Description
3/28/2018	PLAN CHECK SUBMITTAL
△ 6/4/2018	PLAN REVIEW REVISIONS
8/6/2018	PLAN CHECK SECOND SUBMITTAL

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS
Project Number
A16713-4
Description
DEMOLITION PLAN
Scale

C2.1



KEYNOTES

1. REMOVE CONCRETE CURB
2. REMOVE CONCRETE CURB & GUTTER
3. REMOVE CONCRETE
4. PROTECT EXISTING CATCH BASIN IN PLACE & ADJUST RIM ELEVATION PER PLAN
5. REMOVE EXISTING LANDSCAPING AND IRRIGATION
6. REMOVE EXISTING STREET LIGHT AND RELOCATE. SEE SHEET C6.0
7. PROTECT EXISTING CATCH BASIN IN PLACE AND CONVERT TO JUNCTION BOX
8. RELOCATE EXISTING STREET LIGHTS PER SHEET CE-2
9. REMOVE EXISTING AC PAVEMENT
10. PROTECT EXISTING STREET LIGHT IN PLACE
11. REMOVE EXISTING STREET LIGHT
12. REMOVE EXISTING SIGN

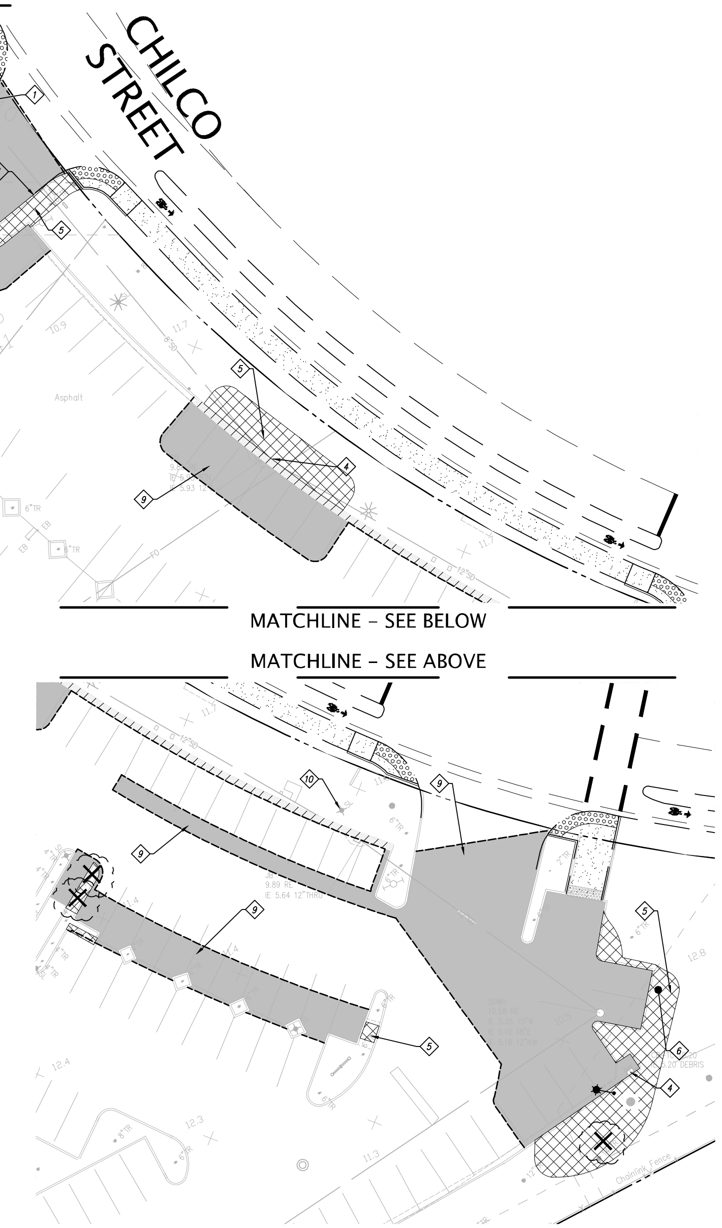
LEGEND

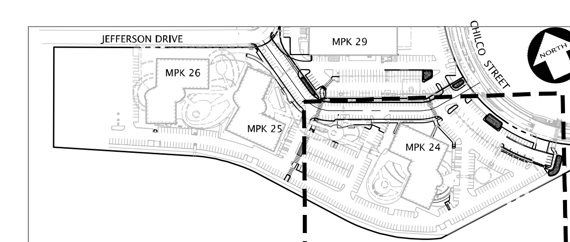
- EXISTING CURB & GUTTER TO BE REMOVED
- EXISTING AC PAVEMENT TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING LANDSCAPE TO BE REMOVED
- SAWCUT LINE
- EXISTING TREE TO BE REMOVED
- UNDERGROUND UTILITIES TO BE REMOVED
- UNDERGROUND UTILITIES TO BE ABANDONED
- [PLUG AND CAP END

NORTH

0 10 20 40 60

Scale 1" = 20'





KEY MAP

SCALE: 1" = 200'

FACEBOOK

180-200 Jefferson Drive
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REGISTERED PROFESSIONAL ENGINEER
ZIYAR SARYEDDEAN
No. 65838
CIVIL
STATE OF CALIFORNIA

Seal / Signature

Δ Date	Description
3/28/2018	PLAN CHECK SUBMITTAL
Δ 6/4/2018	PLAN REVIEW REVISIONS
8/6/2018	PLAN CHECK SECOND SUBMITTAL

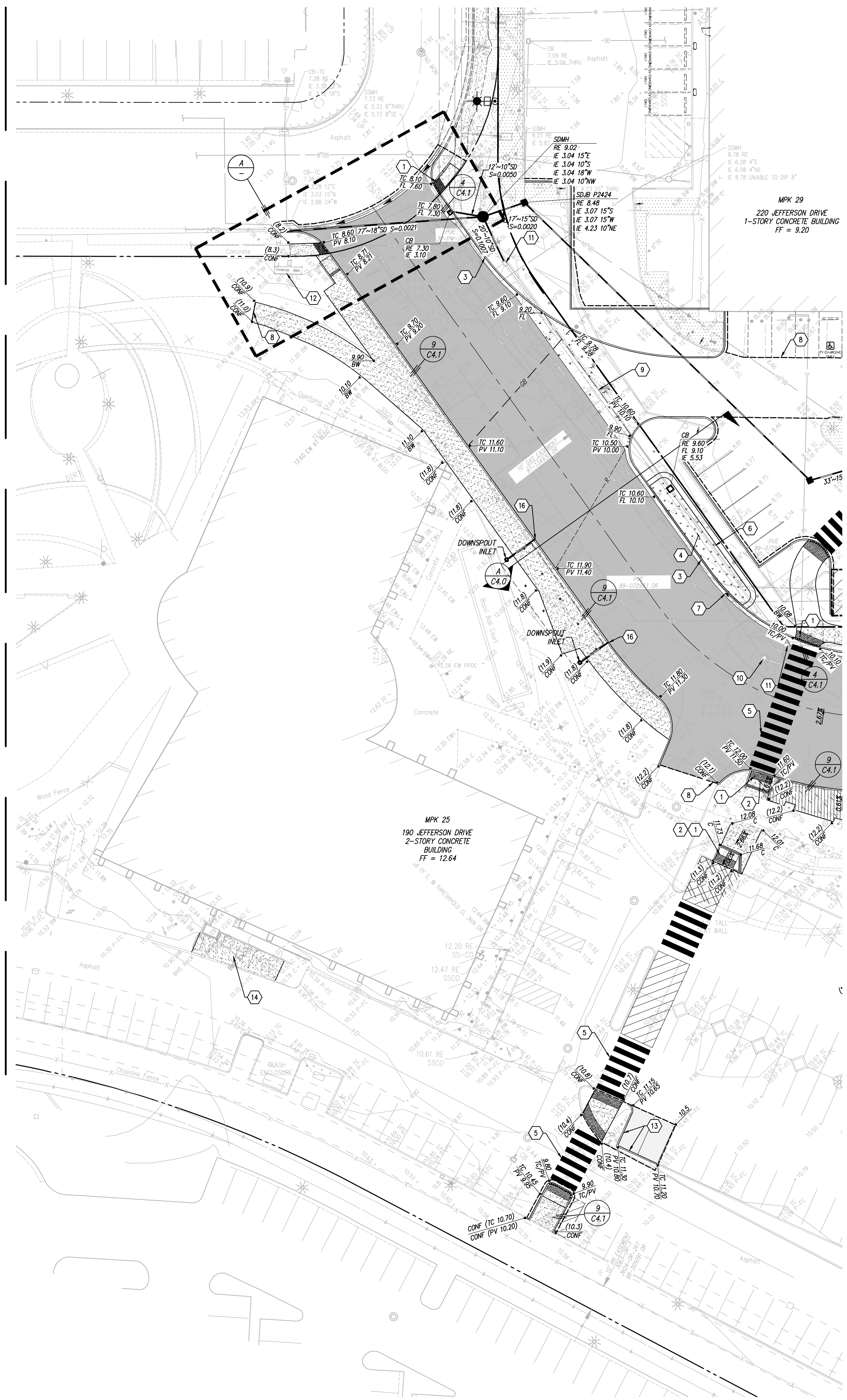
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
A16713-4

Description
DEMOLITION PLAN

Scale

C2.2



KEYNOTES

1. INSTALL TRUNCATED DOMES. SEE DETAIL 12/C4.1
2. INSTALL CURB RAMP
3. INSTALL 6" CURB AND GUTTER. SEE DETAIL 3/C4.1
4. BIORETENTION TREATMENT AREA
5. NEW CROSSWALK SEE DETAIL 5/C4.2
6. INSTALL NEW CATCH BASIN. SEE DETAIL 6/C4.1
7. CURB CUT. SEE DETAIL 2/C4.2
8. SAWCUT & CONFORM TO EXISTING PAVEMENT
9. NEW VALLEY GUTTER. SEE DETAIL 11/C4.1
10. ADJUST SSMH RIM ELEVATION TO GRADE
11. CONVERT CATCH BASIN TO JUNCTION BOX AND ADJUST RIM ELEVATION TO GRADE
12. PROTECT EXISTING WATER INFRASTRUCTURE IN PLACE
13. INSTALL 6" CURB. SEE DETAIL 1/C4.1
14. DEMO AND REPLACE CONCRETE AT SAME ELEVATION AS EXISTING
15. REFER TO OFFSITE PERMIT PACKAGE FOR WORK DONE IN CITY R/W
16. INSTALL CURB-O-LET. SEE DETAIL 10/C4.1

NORTH

0 10 20 40 60

Scale 1" = 20'

LEGEND

PROPOSED	EXISTING	
		ASPHALT BERM
		BLOCK/RETAINING WALL
		BUILDING LINE
		CENTER LINE
		CONCRETE CURB
		CONCRETE CURB CUT
		CONCRETE CURB & GUTTER
100	100	CONTOUR LINE
		DRIVEWAY
		EDGE OF PAVEMENT
		FLUSH CONCRETE CURB
		FENCE LINE
GB	GB	GRADE BREAK LINE
		GUARD RAIL
		LOT LINE
		MONUMENT/MONUMENT LINE
PERF. PIPE		PERFORATED STORM DRAIN PIPE
		PROPERTY LINE
RWL	RWL	RAINWATER LEADER
R	R	RIDGE LINE
		SIDEWALK
SD	SD	STORM DRAIN-MANHOLE & CATCH BASIN
		THRU CURB DRAIN
100.00	+100.00	SPOT ELEVATION
T	T	TRANSFORMER
		TRAFFIC SIGN
		TREE
		UTILITY BOX
AD	AD	AREA DRAIN
BW	BW	BACK OF WALK
		BOLLARD
BLDG	BLDG	BUILDING
BL	BL	BUILDING LINE
CB	CB	CATCH BASIN
COTG	COTG	CLEANOUT TO GRADE
C	C	CONCRETE
DR	DR	DOOR
DS	DS	DOWN SPOUT
DIP	DIP	DUCTILE IRON PIPE
ESMT	ESMT	EASEMENT
EW	EW	EDGE OF WALK
FB	FB	FACE OF BERM
FC	FC	FACE OF CURB
FW	FW	FACE OF WALL
FF	FF	FINISHED FLOOR
FL	FL	FLOW LINE
GB	GB	GRADE BREAK
HP	HP	HIGH POINT
IE	IE	INVERT ELEVATION
LP	LP	LOW POINT
LT	LT	LIGHT
OF	OF	OVERFLOW
OD	OD	OVERFLOW DRAIN
PV	P	PAVEMENT
POC	POC	POINT OF CONNECTION
RWL	RWL	RAINWATER LEADER
R	R	RIDGE
RE	RE	RIM ELEVATION
RD	RD	ROOF DRAIN
SL	SL	STREET LIGHT
SDJB	SDJB	STORM DRAIN JUNCTION BOX
SDMH	SDMH	STORM DRAIN MANHOLE
SWL	SWL	SWALE
TB	TB	TOP OF BERM
TC	TC	TOP OF CURB
TW	TW	TOP OF WALL
T	T	TRANSFORMER
TE	TE	TRASH ENCLOSURE

TRUCK PAVEMENT: 4" AC OVER 12" CLASS II AB BETWEEN 87%-92% R.C. SUBGRADE, AND BE AT LEAST 3% OVER THE OPTIMUM MOISTURE

AUTO PAVEMENT: 3" AC OVER 10" CLASS II AB BETWEEN 87%-92% R.C. SUBGRADE, AND BE AT LEAST 3% OVER THE OPTIMUM MOISTURE.

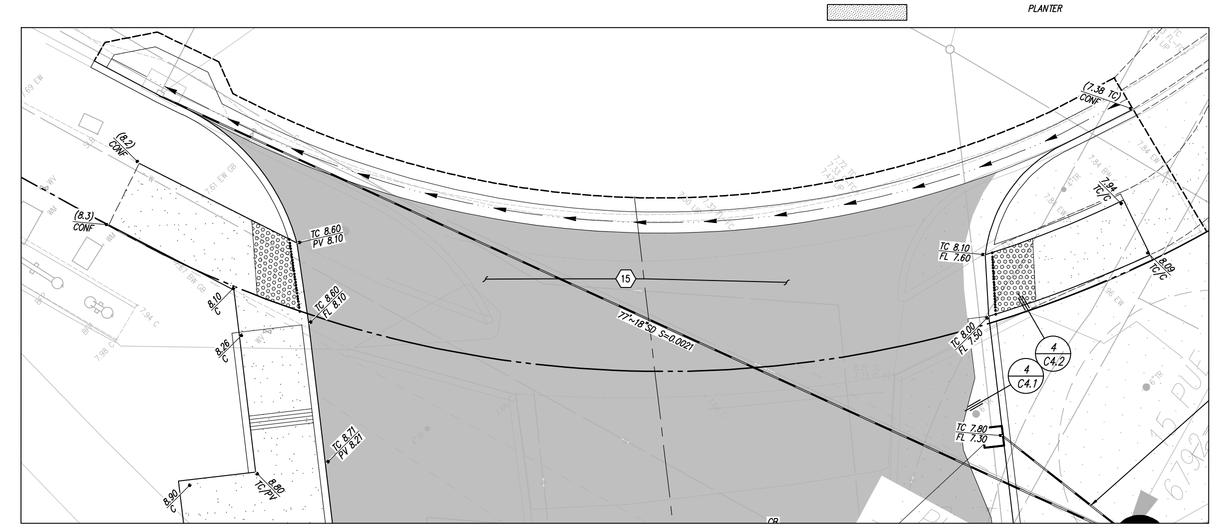
ASPHALT PAVEMENT OVERLAY

CONCRETE TRUCK PAVEMENT: 6" PCC OVER 12" CLASS II AB BETWEEN 87%-92% R.C. SUBGRADE, AND BE AT LEAST 3% OVER THE OPTIMUM MOISTURE. W/ # 3 BAR 18" O/C. CONTRACTION JOINTS 6' O/C

CONCRETE SIDEWALK: 4" PCC OVER 9" CLASS II AB

BIO-FILTRATION SWALE

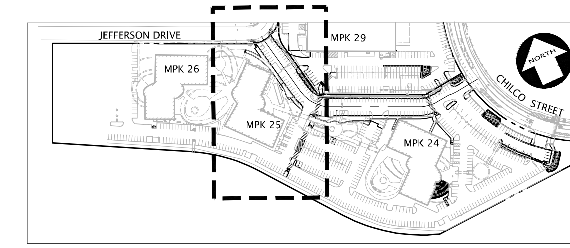
PLANTER



DETAIL

A

SCALE: 1" = 5'



KEY MAP

SCALE: 1" = 200'

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MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number

A16713-4

Description

GRADING & DRAINAGE PLAN

Scale

C5.1

LEGEND

PROPOSED / EXISTING

ASPHALT BERM	100.00	+100.00	SPOT ELEVATION	IE	IE	INVERT ELEVATION
BLOCK/RETAINING WALL	TF	TF	TRANSFORMER	LP	LP	LOW POINT
BUILDING LINE	SIGN	SIGN	TRAFFIC SIGN	LT	LT	LIGHT
CENTER LINE			TREE	OF	OF	OVERFLOW
CONCRETE CURB			UTILITY BOX	OD	OD	OVERFLOW DRAIN
CONCRETE CURB CUT	AD	AD	AREA DRAIN	PV	P	PAVEMENT
CONCRETE CURB & GUTTER	BW	BW	BACK OF WALK	POC	POC	POINT OF CONNECTION
CONTOUR LINE			BOLLARD	RWL	RWL	RAINWATER LEADER
DRIVEWAY	BLDG	BLDG	BUILDING	R	R	RIDGE
EDGE OF PAVEMENT	BL	BL	BUILDING LINE	RE	RE	RIM ELEVATION
FLUSH CONCRETE CURB	CB	CB	CATCH BASIN	RD	RD	ROOF DRAIN
FENCE LINE	COTG	COTG	CLEANOUT TO GRADE	SL	SL	STREET LIGHT
GRADE BREAK LINE	C	C	CONCRETE	SDJB	SDJB	STORM DRAIN JUNCTION BOX
GUARD RAIL	DR	DR	DOOR	SDMH	SDMH	STORM DRAIN MANHOLE
LOT LINE	DS	DS	DOWN SPOUT	SWL	SWL	SWALE
MONUMENT/MONUMENT LINE	DIP	DIP	DUCTILE IRON PIPE	TB	TB	TOP OF BERM
PERFORATED STORM DRAIN PIPE	ESMT	ESMT	EASEMENT	TC	TC	TOP OF CURB
PROPERTY LINE	EW	EW	EDGE OF WALK	TW	TW	TOP OF WALL
RAINWATER LEADER	FB	FB	FACE OF BERM	T	T	TRANSFORMER
RIDGE LINE	FC	FC	FACE OF CURB	TE	TE	TRASH ENCLOSURE
SIDEWALK	FW	FW	FACE OF WALL			
STORM DRAIN–MANHOLE & CATCH BASIN	FF	FF	FINISHED FLOOR			
THRU CURB DRAIN	FL	FL	FLOW LINE			
ELECTRIC VEHICLE CHARGING STATION	GB	GB	GRADE BREAK			
	HP	HP	HIGH POINT			

ELECTRICAL VEHICLE NOTES

1. ALL ELECTRICAL VEHICLE CHARGING DEVICES SHALL BE PROVIDED WITH OPERABLE PARTS
2. REFER TO ARCHITECTURAL PLANS FOR ALL EVCS & ADA SIGNAGE
3. AC OVERLAY, CONCRETE AND ALL HARDSCAPE TO BE DONE BY SEPARATE PERMIT.

ELECTRICAL VEHICLE KEYNOTES

1. EVCS ACCESS AISLES PER CBC 118–812.7
2. EV ADA STANDARD ACCESSIBLE STALL PER CBC 118–812.6.1 REFER TO ARCHITECTURAL PLANS
3. EV ADA VAN ACCESSIBLE STALL CBC 118–812.6.2 REFER TO ARCHITECTURAL PLANS

LEGEND

PROPOSED

- TRUCK PAVEMENT: 4" AC OVER 12" CLASS II AB BETWEEN 87%–92% RELATIVE COMPACTION, AND BE AT LEAST 3 PERCENT OVER THE OPTIMUM MOISTURE
- AUTO PAVEMENT: 3" AC OVER 10" CLASS II AB BETWEEN 87%–92% RELATIVE COMPACTION, AND BE AT LEAST 3 PERCENT OVER THE OPTIMUM MOISTURE
- ASPHALT PAVEMENT OVERLAY
- CONCRETE TRUCK PAVEMENT: 6" PCC OVER 12" CLASS II AB BETWEEN 87%–92% R.C. SUBGRADE, AND BE AT LEAST 3% OVER THE OPTIMUM MOISTURE. W/ # 3 BAR 18" O/C. CONTRACTION JOINTS 6' O/C
- CONCRETE SIDEWALK: 4" PCC OVER 6" CLASS II AB
- PRECAST CONCRETE UNIT PAVERS, SEE ARCHITECT PLANS
- BIO–FILTRATION SWALE
- PLANTER
- PERVIOUS CONCRETE PAVEMENT
- DECOMPOSED AGGREGATE

NORTH

0 10 20 40 60

Scale 1" = 20'

KEYNOTES

1. INSTALL TRUNCATED DOMES. SEE DETAIL 12/C4.1
2. INSTALL CURB RAMP
3. INSTALL 6" CURB AND GUTTER. SEE DETAIL 3/C4.1
4. BIORETENTION TREATMENT AREA
5. NEW CROSSWALK. SEE DETAIL 8/C4.2
6. INSTALL NEW CATCH BASIN. SEE DETAIL 6/C4.1
7. CURB CUT
8. SAWCUT & CONFORM TO EXISTING PAVEMENT
9. NEW VALLEY GUTTER. SEE DETAIL 11/C4.1
10. ADJUST SSMH RIM ELEVATION TO GRADE
11. CONVERT CATCH BASIN TO JUNCTION BOX AND ADJUST RIM ELEVATION TO GRADE
12. PROTECT EXISTING WATER INFRASTRUCTURE IN PLACE
13. INSTALL 6" CURB. SEE DETAIL 1/C4.1
14. DEMO AND REPLACE CONCRETE AT SAME ELEVATION AS EXISTING
15. REFER TO OFFSITE PERMIT PACKAGE FOR WORK DONE IN CITY R/W
16. EXISTING CATCH BASIN TO BE CAPPED AND ABANDONED.
17. H.C. PARKING SYMBOL & STRIPING. SEE DETAIL 9/C4.2 AND 10/C4.2
18. TAPERED CURB TO TRANSITION FROM FLUSH DRIVEWAY CONDITION TO FULL HEIGHT CURB PER DETAIL 13/C4.1
19. NEW SD CONNECTION TO CITY SYSTEM
20. ADJUST SDMH RIM ELEVATION TO GRADE
21. INSTALL CURB–O–LET. SEE DETAIL 10/C4.1

220 JEFFERSON DRIVE BY SEPARATE PERMIT

CHILCO STREET

MPK 24
200 JEFFERSON DRIVE
2–STORY CONCRETE BUILDING
FF = 12.64

MAX 2.0" GRIND AND OVERLAY TO ACHIEVE 2.0% SLOPE IN EACH DIRECTION

NEW STRIPING

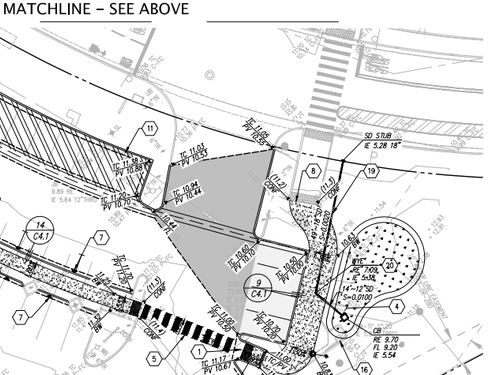
18" X 18" DRYWELL SEE DETAIL 1/C5.0

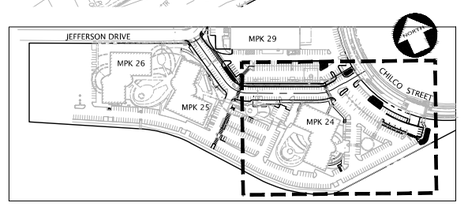
GUARDSHACK

MATCHLINE – SEE BELOW

MATCHLINE – SEE ABOVE

190 JEFFERSON DRIVE SEE SHEET C5.1





KEY MAP

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REGISTERED PROFESSIONAL ENGINEER — No. 65535 — CIVIL — STATE OF CALIFORNIA

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GRADING & DRAINAGE PLAN
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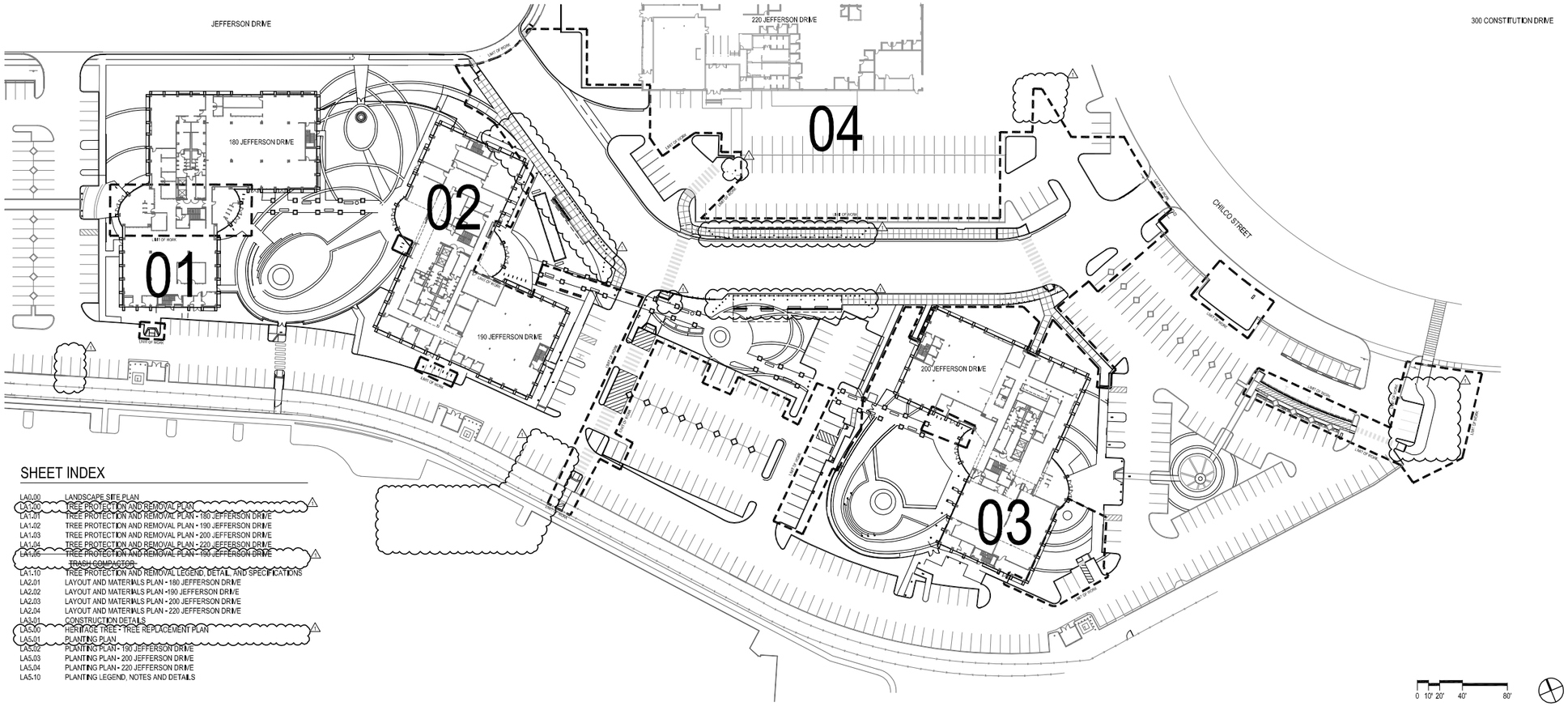
C5.2



SHEET INDEX

1 SITE PLAN
SCALE: 1" = 40'

GENERAL NOTES

1. THESE NOTES AND LEGENDS REFER TO THE LANDSCAPE DRAWINGS ONLY.
2. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
3. THE PLANS INDICATE THE GENERAL EXTENT OF NEW CONSTRUCTION NECESSARY FOR THE WORK, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE. ALL NEW WORK NECESSARY FOR A FINISHED JOB IN ACCORDANCE WITH THE INTENTION OF THE DRAWINGS IS INCLUDED REGARDLESS OF WHETHER SHOWN ON THE DRAWINGS OR MENTIONED IN THE NOTES AND SPECIFICATIONS
4. THE WORK INCLUDED UNDER THIS CONTRACT SHALL CONSIST OF ALL LABOR, MATERIALS, TRANSPORTATION, TOOLS AND EQUIPMENT NECESSARY FOR THE CONSTRUCTION OF THE PROJECT AND TO LEAVE ALL FINISHED WORK BROOM CLEAN AND READY FOR USE.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE BUILDING CODE REQUIREMENTS, OTHER LOCAL OR MUNICIPAL REQUIREMENTS AND APPLICABLE REQUIREMENTS OF OTHER REGULATORY AGENCIES.
6. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND PAY FEES FOR PERMITS, LICENSE, INSPECTIONS, FILINGS, AND APPROVALS REQUIRED BY LOCAL LAWS ORDINANCES, AND REGULATIONS NECESSARY FOR COMPLETION OF PROJECT.
7. UNLESS OTHERWISE SPECIFIED, SPECIFIC REFERENCES TO CODES, REGULATIONS, STANDARDS, MANUFACTURERS INSTRUCTIONS, OR REQUIREMENTS OF REGULATORY AGENCIES, WHEN USED TO SPECIFY REQUIREMENTS FOR MATERIALS OR DESIGN ELEMENTS SHALL MEAN THE LATEST EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION, OR THE DATE OF THE CHANGE ORDER OR FIELD ORDERS, AS APPLICABLE.
8. ALL ERRORS, OMISSIONS OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS IDENTIFIED BY THE CONTRACTORS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND THE OWNER FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK. SHOULD THE CONTACTOR PROCEED WITH THE WORK PRIOR TO RECEIVING CLARIFICATIONS, HE DOES SO AT HIS OWN RISK. ANY DEVIATION OR CHANGES FROM THESE DRAWINGS WITHOUT WRITTEN ACCEPTANCE BY THE LANDSCAPE ARCHITECT SHALL ABSOLVE THE LANDSCAPE ARCHITECT OF ANY AND ALL RESPONSIBILITY OF SAID DEVIATION AND CHANGE.
9. THE CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DOCUMENTS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION FOR USE BY ALL TRADES AND SHALL PROVIDE ALL SUBCONTRACTORS WITH CURRENT CONSTRUCTION DOCUMENTS AS REQUIRED. UPON RECEIPT OF DATED AND ISSUED REVISIONS TO THE CONSTRUCTION DOCUMENT BY THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL IMMEDIATELY REVISE THE FIELD SET OF CONSTRUCTION DOCUMENTS AND NOTIFY ALL AFFECTED TRADES OF SUCH REVISION.
10. THE CONTACTOR SHALL VERIFY AND ASSUME RESPONSIBILITY FOR ALL DIMENSIONS AND SITE CONDITIONS. THE CONTRACTOR SHALL INSPECT THE EXISTING PREMISES AND TAKE NOTE OF EXISTING CONDITIONS PRIOR TO SUBMITTING PRICES. NO CLAIM SHALL BE ALLOWED FOR DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE REASONABLY BEEN INFERRED FROM SUCH AN EXAMINATION.
11. THE CONTRACTOR SHALL NOT PROCEED WITH ANY ADDITIONAL WORK OR CHANGES FOR WHICH ADDITIONAL COMPENSATION IS EXPECTED WITHOUT A WRITTEN AUTHORIZATION FROM THE OWNER AND THE LANDSCAPE ARCHITECT.
12. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE WORK AND SCHEDULES OF OTHER TRADES TO PREVENT CONFLICTS BETWEEN TRADES OR DELAYS TO OVERALL CONSTRUCTION SCHEDULE.
13. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY WITH OWNER AND ARCHITECT ANY AND ALL ITEMS TO BE SAVED FOR REUSE AND SHALL REMOVE AND STORE THEM IN A PROTECTED AREA ON THE JOB SITE OR AS DIRECTED BY OWNER AND ARCHITECT.
14. CONTRACTOR SHALL PERFORM ALL PROTECTION, TRANSPORTATION, DEMOLITION, MATERIAL REMOVAL AND SITE PREPARATION NECESSARY FOR THE PROPER EXECUTION OF ALL WORK SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
15. THE CONTRACTOR SHALL REMOVE FROM THE SITE AND DISPOSE OF ACCORDING TO ALL APPLICABLE LOCAL CODES AND ORDINANCES ALL RUBBISH, DEBRIS, UNSUITABLE AND WASTE MATERIALS ON A REGULAR BASIS GENERATED BY CONTRACTOR'S OPERATIONS, INCLUDING SUBCONTRACTORS AND TRADES AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL EXERCISE STRICT CONTROL OVER JOB CLEANING TO PREVENT MATERIALS, DIRT, DEBRIS OR DUST FROM AFFECTING IN ANY WAY FINISHED AREAS OF THE JOB SITE OR AREAS OUTSIDE JOB SITE.
16. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC ON ALL EXISTING STREETS DURING CONSTRUCTION.
17. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES, CONSTRUCTION SCHEDULING AND SEQUENCING OF THE WORK.
18. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES, IMPROVEMENTS, AND STRUCTURES, INCLUDING ARCHITECTURAL WALLS, PAVING AND SURFACES, WHETHER SHOWN ON THE DRAWING OR NOT.
19. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATED LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE TO THE LANDSCAPE ARCHITECT AT THE TIME OF PREPARATION OF THESE SHEETS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY AND COMPLETENESS OF THE INFORMATION SHOWN.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE PRECISE LOCATIONS, DEPTHS AND SIZES OF ALL UNDERGROUND FACILITIES AT LEAST SEVEN (7) DAYS PRIOR TO EXCAVATION. CONTRACT SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA 1-800-227-2600) AT LEAST 48 HOURS PRIOR TO START OF WORK TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES.
21. IF LIVE UTILITIES ARE ENCOUNTERED PROTECT THE SAME FROM DAMAGE AND IN THE EVENT OF DAMAGE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND THE AFFECTED UTILITY PROVIDER. DO NOT PROCEED UNTIL FURTHER INSTRUCTIONS ARE RECEIVED.
22. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING, SUPERVISING AND MAINTAINING SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK.
23. THE CONTRACTOR SHALL SECURE THE PREMISES AND MATERIALS WITHIN THE CONSTRUCTION AREA FOR THE DURATION OF CONSTRUCTION UNTIL THE OWNER'S FINAL ACCEPTANCE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AT THE END OF EACH WORKDAY TO INSURE THAT UNAUTHORIZED PERSONS CANNOT ENTER THE JOB SITE.
24. THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO ALL REQUIRED FIELD OBSERVATIONS BY LANDSCAPE ARCHITECT.
25. THERE SHALL BE NO SUBSTITUTION OF MATERIALS WHERE A MANUFACTURER IS SPECIFIED. WHERE "OR APPROVED EQUAL" IS USED, THE LANDSCAPE ARCHITECT ALONE SHALL DETERMINE THE SUITABILITY AND ACCEPTABILITY OF A SUBSTITUTION REQUESTED BY THE CONTRACTOR. ALL MATERIALS SHALL BE NEW, UNUSED, AND OF THE HIGHEST QUALITY IN EVERY RESPECT.
26. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL ALL EQUIPMENT AND MATERIALS PER MANUFACTURER'S RECOMMENDATIONS.
27. CONTRACTOR SHALL SUBMIT LEGIBLE SHOP DRAWINGS FOR ALL ITEMS NOT SPECIFICALLY DETAILED.
28. I HAVE COMPLIED WITH THE CRITERIA OF THE WATER CONSERVATION IN LANDSCAPING ORDINANCE AND HAVE APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLAN.
29. IRRIGATION SHALL BE DELIVERED BY DRIP OR MICRO-SPRAY DEVICES ONLY, PER CITY RESOLUTION 6261. MICROSPRAY IS DEFINED AS HAVING A FLOW RATE NOT TO EXCEED 30 GALLONS PER HOUR AT 30 PSI.
30. A MINIMUM 3-INCH LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES, WITH THE EXCEPTION OF TURF.

ABBREVIATIONS

ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
&	AND	MISC	MISCELLANEOUS
@	AT	N/A	NOT APPLICABLE
AB	AGGREGATE BASE	NIC	NOT IN CONTRACT
AC	ASPHALT CONCRETE	NO/#	NUMBER
AD	AREA DRAIN	NOM	NOMINAL
ALT	ALTERNATE	NTS	NOT TO SCALE
APPROX	APPROXIMATE	OC	ON CENTER
ARCH	ARCHITECTURAL	PA	PLANTING AREA
ASPH	ASPHALT	PERF	PERFORATED
AVC	ARCHITECTURAL VAULT COVER	PL	PROPERTY LINE
BLDG	BUILDING	PROP	PROPERTY
BSW	BACK OF SIDEWALK	PVMT	PAVEMENT
BW	BOTTOM OF WALL	R	RADIUS
CIP	CAST-IN-PLACE	REF	REFER
CJ	CONTROL JOINT	REINF	REINFORCED
CL	CENTERLINE	REV	REVISION/REVISED
CONC	CONCRETE	S.A.D	SEE ARCHITECTURAL DRAWING
C.U.P	CONCRETE UNIT PAVER	S.C.D	SEE CIVIL DRAWING
DET/DETL	DETAIL	SECT	SECTION
D.G.	DECOMPOSED GRANITE	S.E.D.	SEE SITE ELECTRICAL DRAWING
DIA	DIAMETER	SHT	SHEET
DIM	DIMENSION	S.I.D.	SEE IRRIGATIONS DRAWING
DWG	DRAWING	SIM	SIMILAR
(E)	EXISTING	SPEC	SPECIFICATION
EA	EACH	S.F.	SQUARE FOOT / FEET
EL /ELEV	ELEVATION	S.S.D.	SEE STRUCTURAL DRAWING
EQ	EQUAL	S.S.	STAINLESS STEEL
FFE	FINISH FLOOR ELEVATION	STD	STANDARD
FG	FINISH GRADE	TBD	TO BE DETERMINED
FS	FINISH SURFACE	TC	TOP OF CURB
FT	FOOT OR FEET	TEMP	TEMPORARY
IN	INCH	TOC	TOP OF CONCRETE
IRR	IRRIGATION	TW / TOW	TOP OF WALL
IVC	INTEGRAL VAULT COVER	TYP	TYPICAL
JT	JOINT	VAR	VARIES
MIN	MINIMUM	VIF	VERIFY IN FIELD

FACEBOOK

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Date	Description
04/20/2018	FIRE DEPT PLAN CHECK
08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

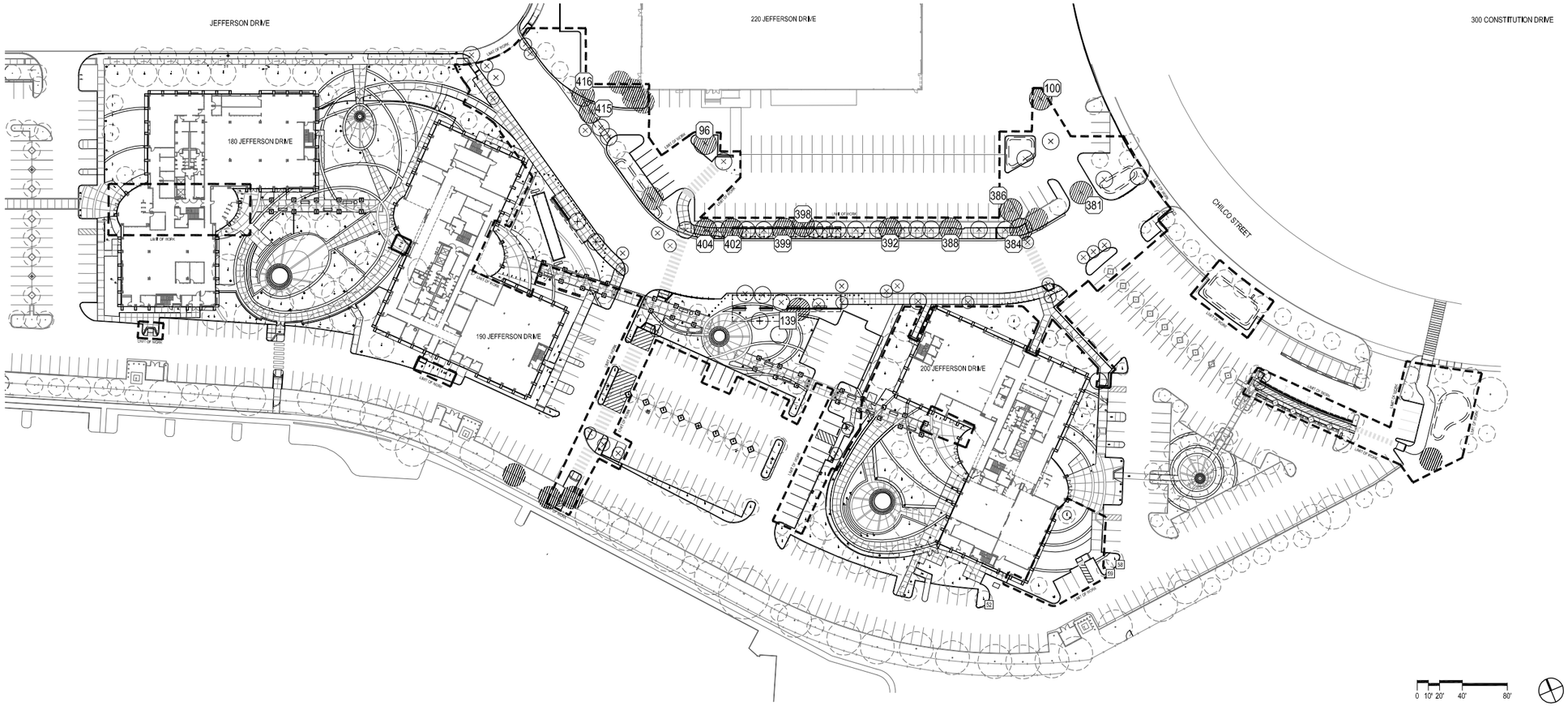
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
LANDSCAPE SITE PLAN

Scale
1" = 40'

LA0.00



1 TREE PROTECTION PLAN

SCALE: 1" = 40'

TREE PROTECTION LEGEND

SYMBOL	DESCRIPTION
+	EXISTING TREES TO BE RETAINED AND PROTECTED
	EXISTING HERITAGE TREE TO BE PROTECTED AND RETAINED
×	EXISTING TREES TO BE REMOVED (INCLUDING ROOTBALL)
	EXISTING HERITAGE TREE TO BE REMOVED (INCLUDING ROOTBALL)
+	EXISTING YOUNG TREE TO BE TRANSPLANTED
##	EXISTING TREE IDENTIFICATION, KEYED TO MPK 24, 25, & 26 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON MAY 20, 2016
#	EXISTING TREE IDENTIFICATION, KEYED TO MPK 29 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON NOVEMBER 15, 2017
	LIMIT OF WORK
	PROPERTY LINE
	PARCEL LINE

TREE REMOVAL IDENTIFICATION SCHEDULE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
139	FRAXINUS OXYCARPA 'RAYWOOD'	381	PINUS CANARIENSIS
		384	PINUS CANARIENSIS
		386	EUCALYPTUS POLYANTHEMOS
		388	PINUS CANARIENSIS
		392	EUCALYPTUS POLYANTHEMOS
		398	EUCALYPTUS POLYANTHEMOS
		399	EUCALYPTUS POLYANTHEMOS
		402	EUCALYPTUS POLYANTHEMOS
		404	PINUS CANARIENSIS
		415	PINUS CANARIENSIS
		416	EUCALYPTUS NICHOLII
		96	EUCALYPTUS POLYANTHEMOS
		100	EUCALYPTUS POLYANTHEMOS

HERITAGE TREE REPLACEMENT SUMMARY

HERITAGE TREES FOR REMOVAL	2:1 REPLACEMENT REQUIREMENT	PROPOSED QUANTITY REPLACEMENT TREES
14	28	32

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Seal / Signature

△	Date	Description
	04/20/2018	FIRE DEPT PLAN CHECK
△	08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

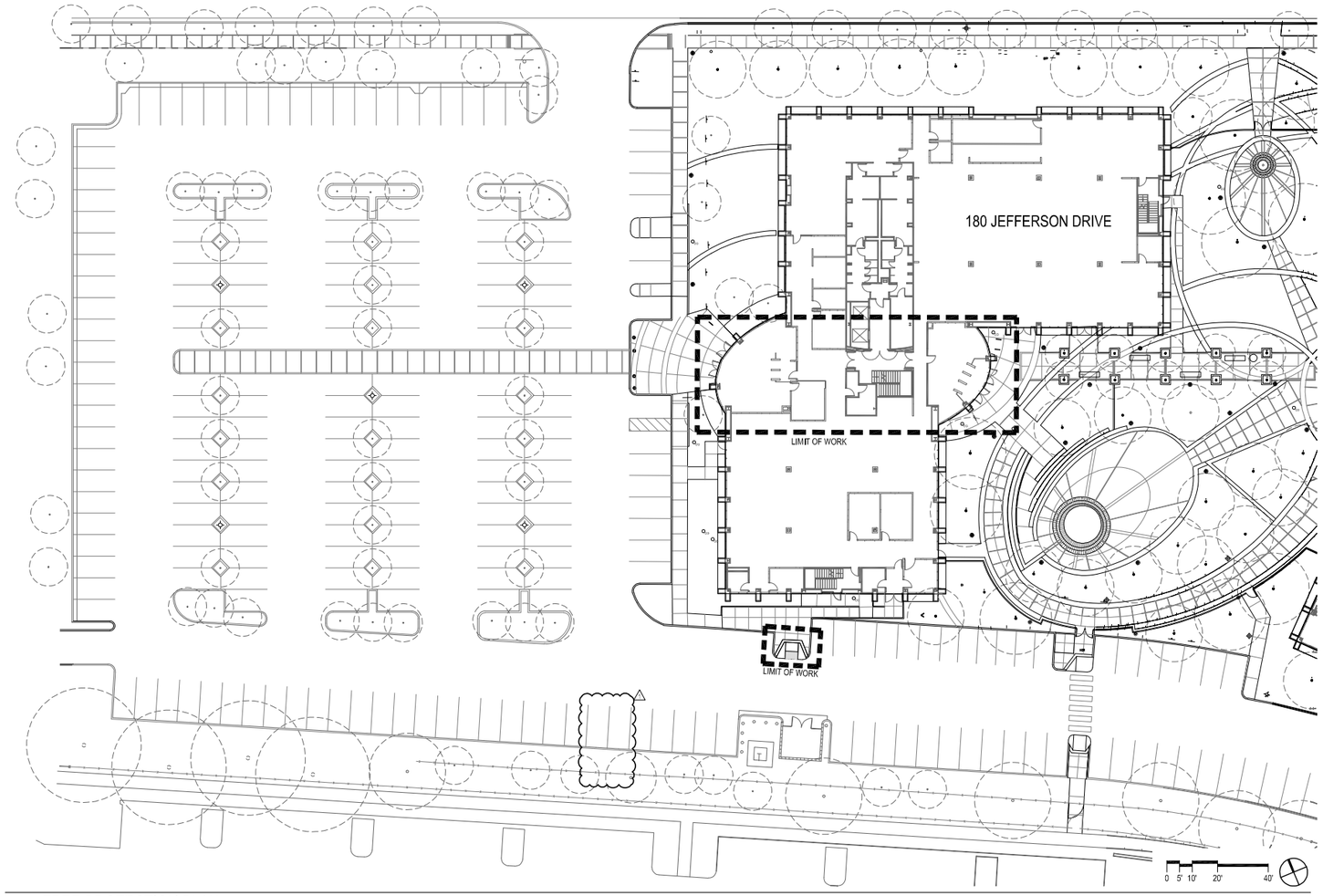
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
TREE PROTECTION AND REMOVAL PLAN

Scale
1" = 40'

LA1.00



1 TREE PROTECTION PLAN
SCALE: 1" = 20'

HERITAGE TREE REPLACEMENT SUMMARY

	HERITAGE TREES FOR REMOVAL	2:1 REPLACEMENT REQUIREMENT	PROPOSED QUANTITY REPLACEMENT TREES
180 Jefferson	0	0	0
190 Jefferson General Site	1	2	2
190 Jefferson Trash Compactor	0	0	0
200 Jefferson	8	16	4
220 Jefferson	5	10	26
TOTAL	14	28	32

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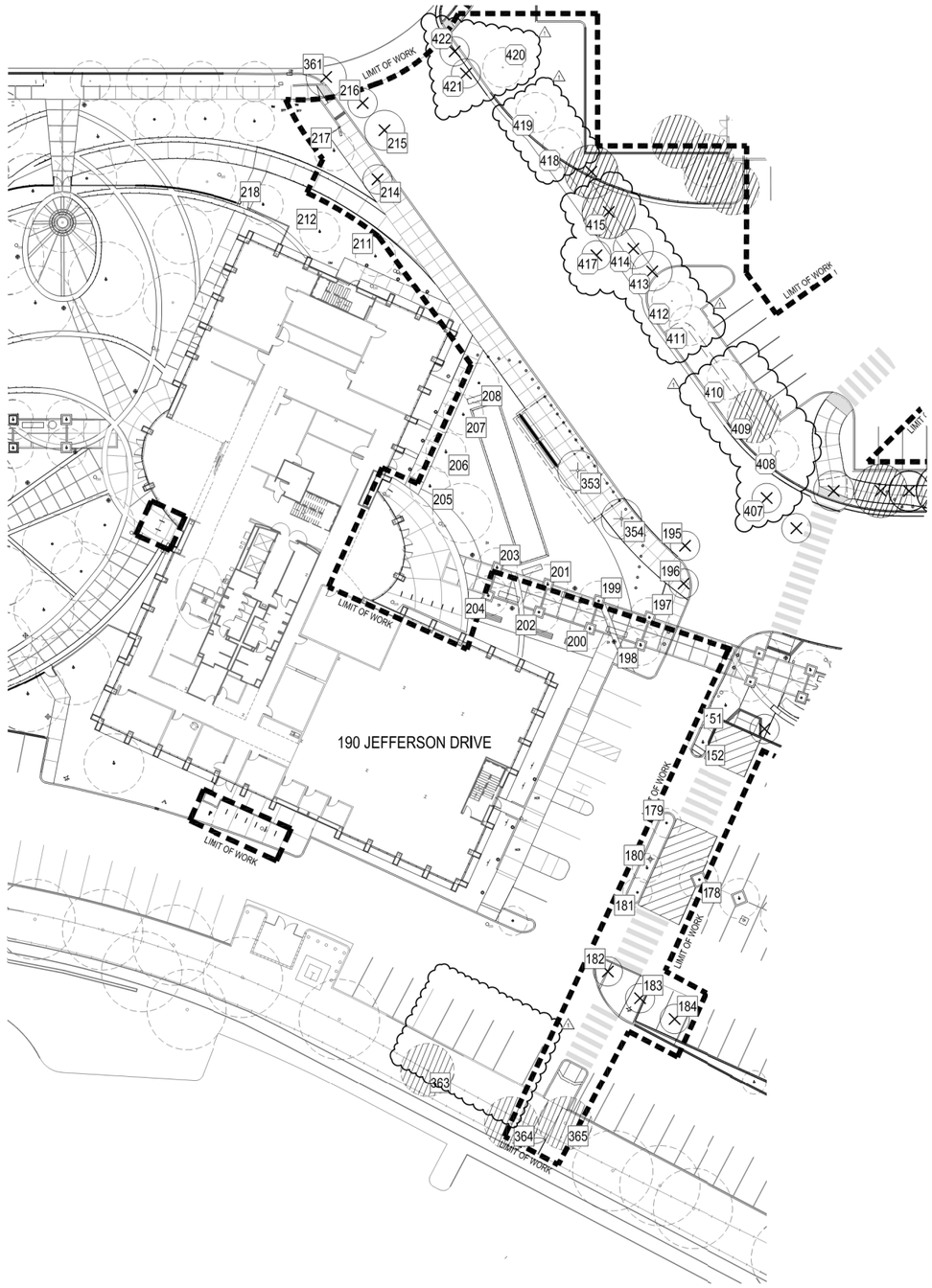
Date	Description
04/20/2018	FIRE DEPT PLAN CHECK
08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS
Project Number
01.2971.000
Description
TREE PROTECTION AND REMOVAL PLAN
180 JEFFERSON DRIVE
Scale
1" = 20'

LA1.01



0 5' 10' 20' 40'

1 TREE PROTECTION PLAN
SCALE: 1"=20'

HERITAGE TREE REPLACEMENT SUMMARY

	HERITAGE TREES FOR REMOVAL	2:1 REPLACEMENT REQUIREMENT	PROPOSED QUANTITY REPLACEMENT TREES
180 Jefferson	0	0	0
190 Jefferson General Site	1	2	2
~~190 Jefferson Trash Compactor~~	~~0~~	~~0~~	~~0~~
200 Jefferson	8	16	4
220 Jefferson	5	10	26
TOTAL	14	28	32

TREE REMOVAL IDENTIFICATION SCHEDULE

SYMBOL	DESCRIPTION
182	PRUNUS 'KRAUTER VESUVIUS'
183	PRUNUS 'KRAUTER VESUVIUS'
184	PRUNUS 'KRAUTER VESUVIUS'
195	PRUNUS 'KRAUTER VESUVIUS'
196	PRUNUS 'KRAUTER VESUVIUS'
214	GLEDITSIA TRIACANTHOS
215	PRUNUS 'KRAUTER VESUVIUS'
216	PRUNUS 'KRAUTER VESUVIUS'
253	PLATANUS x HISPANICA
407	PRUNUS CERASIFERA
413	EUCALYPTUS POLYANTHEMOS
414	EUCALYPTUS POLYANTHEMOS
415	PINUS CANARIENSIS
417	PRUNUS CERASIFERA
421	PRUNUS CERASIFERA
422	PRUNUS CERASIFERA

TREE TRANSPLANT SCHEDULE

SYMBOL	DESCRIPTION
353	PLATANUS x HISPANICA
354	PLATANUS x HISPANICA

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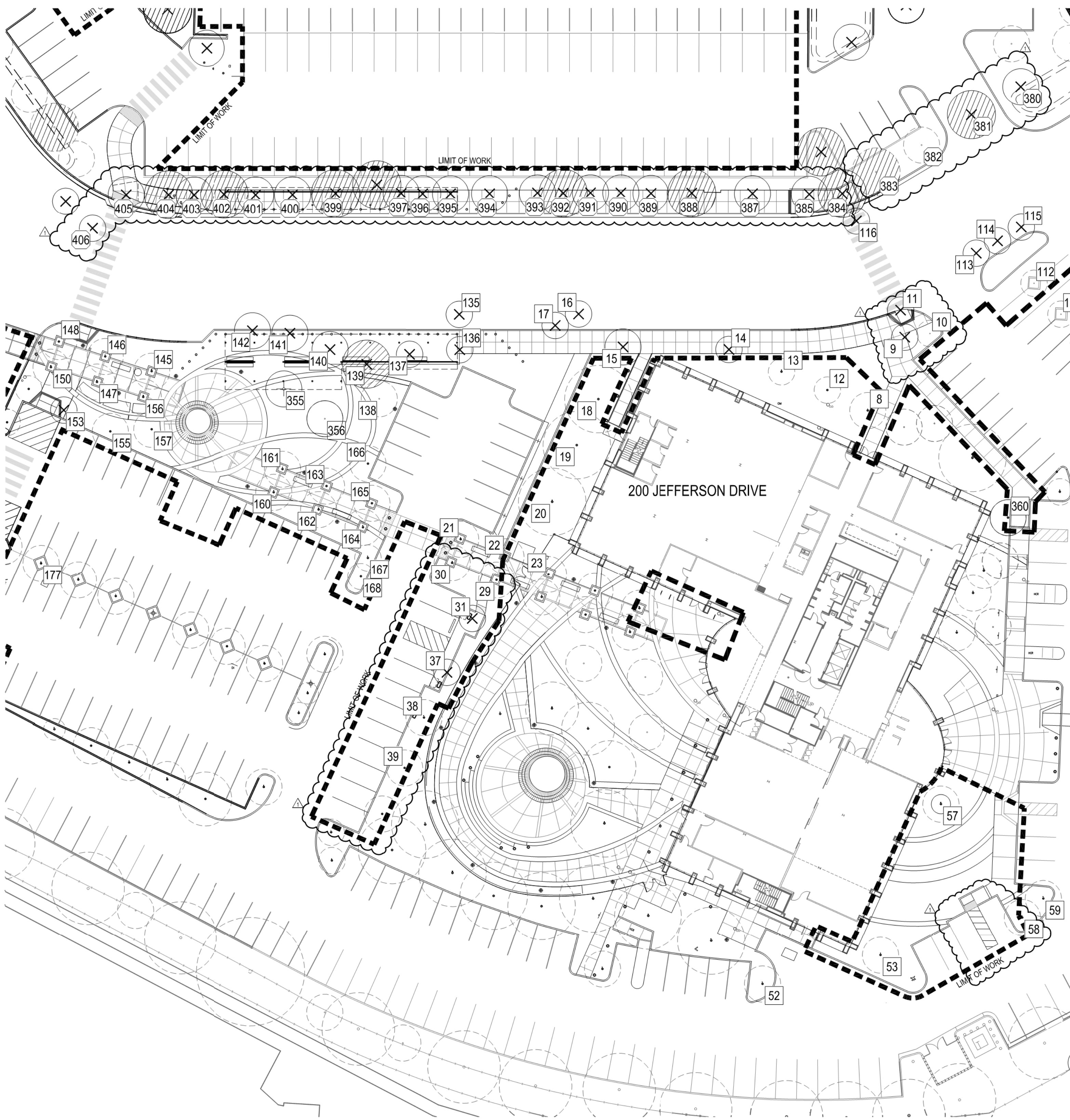
Seal / Signature

△	Date	Description
	04/20/2018	FIRE DEPT PLAN CHECK
△	08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS
Project Number
01.2971.000
Description
TREE PROTECTION AND REMOVAL PLAN
190 JEFFERSON DRIVE
Scale
1" = 20'

LA1.02



HERITAGE TREE REPLACEMENT SUMMARY

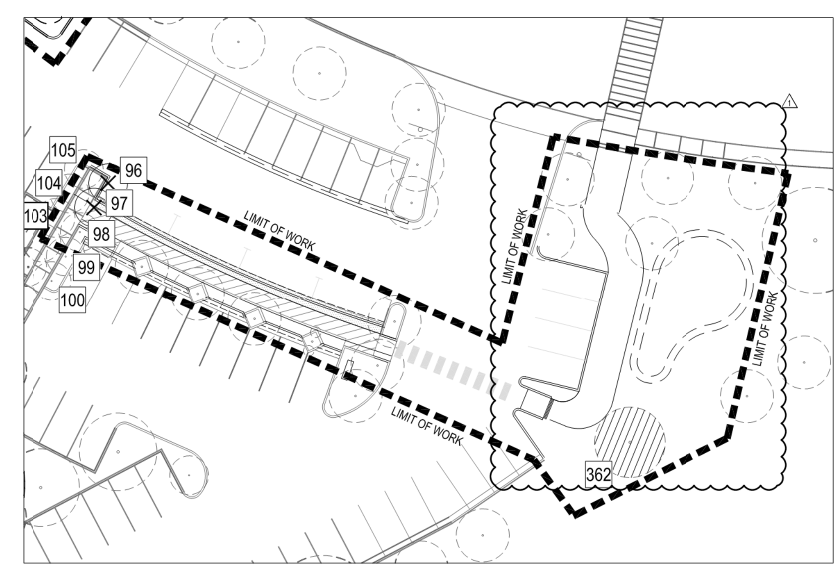
	HERITAGE TREES FOR REMOVAL	2:1 REPLACEMENT REQUIREMENT	PROPOSED QUANTITY REPLACEMENT TREES
180 Jefferson	0	0	0
190 Jefferson General Site	1	2	2
~~190 Jefferson Trash Compactor~~	~~0~~	~~0~~	~~0~~
200 Jefferson	8	16	4
220 Jefferson	5	10	26
TOTAL	14	28	32

TREE TRANSPLANT SCHEDULE

SYMBOL	DESCRIPTION
355	PLATANUS x HISPANICA

TREE REMOVAL IDENTIFICATION SCHEDULE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
9	PRUNUS 'KRAUTER VESUVIUS'	380	EUCALYPTUS POLYANTHEMOS
		381	PINUS CANARIENSIS
11	PRUNUS 'KRAUTER VESUVIUS'	384	PINUS CANARIENSIS
14	FRAXINUS OXYCARPA 'RAYWOOD'	385	PINUS CANARIENSIS
15	FRAXINUS OXYCARPA 'RAYWOOD'	387	EUCALYPTUS POLYANTHEMOS
16	PRUNUS 'KRAUTER VESUVIUS'	388	PINUS CANARIENSIS
17	PRUNUS 'KRAUTER VESUVIUS'	389	PINUS CANARIENSIS
31	PLATANUS X ACERIFOLIA	390	EUCALYPTUS POLYANTHEMOS
37	FRAXINUS OXYCARPA 'RAYWOOD'	391	EUCALYPTUS POLYANTHEMOS
96	LAGERSTROEMIA INDICA X FAURIEI	392	EUCALYPTUS POLYANTHEMOS
97	LAGERSTROEMIA INDICA X FAURIEI	393	EUCALYPTUS POLYANTHEMOS
113	PRUNUS 'KRAUTER VESUVIUS'	394	PINUS CANARIENSIS
114	PRUNUS 'KRAUTER VESUVIUS'	395	PINUS CANARIENSIS
115	PRUNUS 'KRAUTER VESUVIUS'	396	EUCALYPTUS POLYANTHEMOS
116	PRUNUS 'KRAUTER VESUVIUS'	397	EUCALYPTUS POLYANTHEMOS
135	PRUNUS 'KRAUTER VESUVIUS'	399	EUCALYPTUS POLYANTHEMOS
136	PRUNUS 'KRAUTER VESUVIUS'	400	PINUS CANARIENSIS
137	PRUNUS 'KRAUTER VESUVIUS'	401	PINUS CANARIENSIS
139	FRAXINUS OXYCARPA 'RAYWOOD'	402	EUCALYPTUS POLYANTHEMOS
140	FRAXINUS OXYCARPA 'RAYWOOD'	403	EUCALYPTUS POLYANTHEMOS
141	FRAXINUS OXYCARPA 'RAYWOOD'	404	PINUS CANARIENSIS
142	FRAXINUS OXYCARPA 'RAYWOOD'	405	PRUNUS CERASIFERA
153	FRAXINUS OXYCARPA 'RAYWOOD'	406	PRUNUS CERASIFERA



0 5' 10' 20' 40'

1 TREE PROTECTION PLAN
SCALE: 1"=20'

2 TREE PROTECTION PLAN - PEDESTRIAN PATH
SCALE: 1"=20'

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Seal / Signature

Δ	Date	Description
	04/20/2018	FIRE DEPT PLAN CHECK
1	08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
TREE PROTECTION AND REMOVAL PLAN 200 JEFFERSON DRIVE

Scale
1" = 20'

LA1.03

TREE PROTECTION SPECIFICATIONS

Purpose

These guidelines provide for the care and maintenance of the tree(s) before, during and after construction activities. Consideration during the design phase is critical to understanding if a tree is worthy of retention and, if so, what will be the costs associated with assuring the long term health.

The goal of tree protection and preservation is to provide for a successful transition to a modified site. To be most effective, health mitigation measures must begin before the time of disturbance. Healthy trees (measured in high starch reserves) are more likely to survive adverse impacts.

Project construction documents must provide clear and concise tree protection requirements. Documents must also provide procedures to be used for all activities occurring within the designated tree protection area.

Definitions

City Heritage Trees – Menlo Park's Tree Ordinance designates tree removal permits for trees having attained Heritage size:

1. Any tree having a trunk with a circumference of 47.1 inches (diameter of 15 inches) or more measured at 54 inches above natural grade.
2. Any oak tree native to California, with a circumference of 31.4 inches (diameter of 10 inches) or more measured at 54 inches above natural grade.
3. Any tree with more than one trunk measured at the point where the trunks divide, with a circumference of 47.1 inches (diameter of 15 inches) or more, with the exception of trees that are under twelve (12) feet in height, which are exempt from the ordinance.[1]

Protected Tree – Any tree that has been designated to be retained and is located within the scope of a construction project.

Project Arborist – A certified arborist appointed to oversee tree protection. Project arborist shall have the authority to halt all construction activities if tree protection guidelines are not being adhered to.

DBH – Diameter at Breast Height: Tree diameter measured at 54 inches above average soil grade.

Root Protection Zone (RPZ) – A radial distance from the base of the tree designated by project arborist. Sometimes equal the crown spread but is generally a distance of one-foot from the base of the tree for every one-inch in tree (DBH).

Soil Compaction – Soil compaction is excessive when planting soil is compacted generally over 80% ASTM from a standard Proctor compaction test. Soil compaction must be avoided and mitigated when identified within the designated RPZ.

Mechanical Damage – Damage to tree trunk, branches or roots that causes loss of bark and cambial damage.

Crown Pruning – Shortening or removal of branches in accordance with guidelines presented in ANSI A300 PRUNING STANDARDS. All such pruning must be approved of and conducted by qualified personnel.

Root Pruning – Pruning of tree roots must be approved of and conducted with project arborist.

Design

Whenever early design contemplates the retention of an existing tree in the modified environment, deference to the needs of the tree must be provided. This entails an understanding of the current conditions and the level of encroachment that will occur. Arborist involvement during the initial design period is important to understanding if the tree is worthy of saving and if the tree can be saved. Trees designated to be retained require both minimization of root loss and an overall improvement in the quality of the soil conditions.

The first logical step in tree preservation is to conduct a process called Site Analysis, which involves investigation of both physical soil properties and laboratory analysis. The purpose is to identify conditions that may limit the ability of the plant material to thrive. Once the site limitations have been identified, mitigation treatments can be prescribed.

Site analysis and early tree health mitigation

Prior tree survey and site analysis will designate trees to be retained and all procedures and treatments to be used to assure the trees survive the site modifications.

Soil Profile Examination – The soil profile examination determines soil texture and moisture levels. Soil compaction is also assessed. This information is vital to the understanding of the level of soil protection and mitigation that will be necessary.

Laboratory Analysis – Analysis of soil and plant tissue samples can help guide the use of soil amendments and fertilization.

Root Investigation – Preliminary excavation to determine the size, depth and amount of roots present in the impacted area. This information may trigger design modifications.

Mitigation of Limitations Identified – Limitations identified during site analysis are best mitigated as soon as possible to improve overall tree health. Possible limitations to be mitigated include soil compaction, nutritional deficiencies and soil moisture. Most basic mitigation entails: irrigation, mulching, water jet and air spade procedures. Soil amendments other than good quality mulch must be based upon laboratory soil analysis.

Pre-construction activities

These activities should be undertaken prior to initiation of construction activity.

Mulching – Use of good quality organic mulch (wood chips are best) on soil surface helps to reduce soil compaction and retain soil moisture. Recommended material is wood chips generated from tree trimming. Fresh redwood, incense cedar and walnut chips are not acceptable, nor is palm generated mulch.

Crown Pruning – Pruning must comply with ANSI A300 Pruning Standards. Pruning prior to construction should include: Necessary Clearance Pruning, Deadwood Removal and Safety Pruning.

Construction Documents to Show Protected Trees and Tree Protection Requirements – Project plans to show tree protection fencing layout, areas of encroachment, and list procedures for working around protected trees.

Designation of Tree Root Protection Zone (RPZ) –The tree Root Protection Zone designates an area surrounding a tree or grouping of trees that is to be fenced off from all access. The RPZ is commonly defined as a distance of one (1) foot radial distance from the base of the tree for every one (1) inch in tree diameter (DBH). A tree with a 10 inch diameter would have a RPZ equal to 10 feet out from the tree. Project arborist can modify the RPZ distance based upon physical evidence of root presence or absence.

Tree Root Protection Zone Fencing – Fencing is to be chain-link type metal fencing with metal posts driven two-feet into the soil. Signs shall be attached to tree protection fencing every 20' which read 'TREE PROTECTION ZONE: DO NOT ENTER'.

Procedures and Treatments for Work Activities that must occur Inside of the Designated RPZ – All such activities and relocation of fencing must be overseen by project arborist. Special trunk, scaffold and soil protection measures are required. When encroachment is anticipated prior to the beginning of construction activities, the protections must be in place prior to beginning work activities.

[1] http://menlopark.org/205/Heritage-Trees

Arborist Review and Approval of Tree Protection Measures – Project arborist to review tree protection guidelines and modify as deemed necessary.

Tree Protections Installation and Inspected – Project arborist must certify that all tree protection measures have been properly installed.

Pre-Construction Meeting – Project arborist shall meet with supervisor and work crew to review requirements of the tree protection. All personnel working on site must be provided an orientation to the tree preservation requirements. There will be no excuses for transgressions.

No construction activities may begin until this meeting has been conducted.

Project arborist can direct that all work activities stop if tree protection guidelines are not being followed. All work activities cease until such time as the problem has been corrected.

Work activities that encroach into the designated RPZ

Arborist Supervision – All activities occurring within the designated RPZ must be under direct supervision of project arborist. Encroachment is not permitted until additional protections are in place and have been approved.

Soil Protection – The effects of foot traffic can be mitigated through the use of six (6) inches of wood chip mulch and ¾ inch plywood placed on top.

Soil protections for equipment operating within the designated RPZ requires 12 inches of mulch with either metal trenching plates or 1 1/8 inch plywood placed on top.

Trunk and Scaffold Protection – Whenever construction activity must occur inside the tree protection zone, the base of the tree and the first eight-feet and exposed scaffold limbs must be armored. Protection is generally provided by wrapping the trunk with straw waddles covered with orange plastic construction fencing. Exposed scaffold limbs are best protected by strapping 2x4 boards to the part exposed to potential injury and wrapping with orange plastic fencing material.

Required Method of Excavation Within Critical Root Zone – Wherever possible, route utilities outside of the designated RPZ. Tunneling is the preferred method for utilities passing through the RPZ. When trenching is required, carefully hand excavation or the use of the Air Spade or Ditch Witch is required.

Project arborist must approve and supervise all such activity.

Root Protection – All exposed roots must be covered with 2 layers of damp burlap secured with jute staples. Burlap shall remain damp at all times and can remain in place when backfilled.

Necessary Root Pruning – Late fall season is the best time for root pruning and spring can be the most harmful. All necessary root pruning and shaving is conducted by project arborist after the roots have been exposed without damage.

Post construction mitigation

Arborist Designation of Health Mitigation Activities – Project arborist will designate tree health mitigation activities based upon the level of root loss and adverse impacts that have occurred.

Monitoring Tree Health – Trees that have been adversely impacted by construction activities are noted for regular visual inspection. Project arborist will direct further mitigation. Insects and fungal pathogens are a sign of poor tree health (low energy reserves) and indicate the need for health mitigation.

Monitoring of Soil Moisture –Moisture should be monitored using a soil probe or through the use of tensiometers placed at key locations and depths. Project arborist will designate supplemental irrigation. When root loss occurs, supplemental irrigation may be required for a number of years

Mitigation of Soil Compaction – The level and depth of soil compaction must be assessed and mitigated as necessary. Tools that are most suitable for mitigation of compacted soil are the water jet or air spade.

Landscaping – All landscaping planning must take precautions when planting within the designated RPZ. All plant materials should be selected for compatibility with the favored moisture regime (hydrazone) of the tree species and soil texture.

Continued Mulching – Mulch is extremely beneficial in creating a healthy root environment. A regular program of mulch application is recommended to help retain soil moisture, provide a source of nutrients, help with control weed control and reduce soil compaction.

Fertilization –Trees should be fertilized only when the nutritional limitations have been identified through laboratory analysis of soil or plant tissue. Excessive nitrogen fertilization is known to draw sucking insects (aphid, scale, etc.) to the plants and provide nutrition to fungal pathogens in the soil.

Pest Management Program – Healthy trees do not generally have serious pest problems. Stressed trees are attractive hosts to pathogens, which can contribute to further decline. Pest management is prescribed when monitoring indicates a need.

Below pavement treatments adjacent to existing trees or newly planted trees

Damage to pavement in close proximity to trees can be reduced and long term health and vigor in the tree can be improved through treatments that promote good soil gas exchange and allow for deeper root development. (Graphics provided)

1. Excavation Techniques – In the situation where tree roots are already present, excavation occurs by hand, air spade or ditchwitch. Crushed rock can be placed around exposed roots.
2. Tunneling under Roots – Utilities that must pass through the designated tree protection area are best installed by tunneling below the tree roots.
3. Use of Clean Crushed Rock Below Pavement – This treatment is easiest to implement during original landscape installation. The treatment excavates the area below pavement to 6" to 12" deeper and place a clean crushed rock. Compaction can occur only from the surface of the rock after it is a minimum 6" deep. The rock is then covered with tensile and or filter fabric. Aggregate base can be placed on the fabric and compaction can occur again prior to installing the pavement.
4. Use of 'Gap Graded' or 'Structural' Soil – Structural soil scan be purchased ready for installation or made from site soil and imported clean crushed rock. Supplemental information is provided.
5. Radial Trenching – Soil volume available for root development can be increased when soil conditions in immediate area. Trenches backfilled with amended or structural soil can lead roots to the soil area available for root development without causing hardscape displacement.

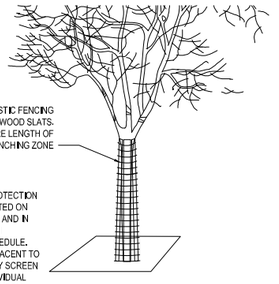
Treatment of contractor transgressions

Enforcement of Tree Protection – Without a method to assure that the tree protection guidelines are properly followed, it is often the situation that the protections are not adhered to. Transgressions occur both large and small as contractors make mistakes or attempt to cut corners to speed up their work. To be effective, the cost for contractor non-compliance must be greater than the savings to the contractor.

Penalties for Non-Compliance of Tree Protection Guidelines – It is recommended that contractors be required to place a bond to the value of the protected vegetation and potential soil mitigation. The bond is released when contractor compliance has been verified by project arborist. Should transgressions occur, the bond remains in place until such time at the situation has been fully mitigated.

TREE PROTECTION LEGEND

SYMBOL	DESCRIPTION
•	EXISTING TREES TO BE RETAINED AND PROTECTED
	EXISTING HERITAGE TREE TO BE PROTECTED AND RETAINED
×	EXISTING TREES TO BE REMOVED (INCLUDING ROOTBALL)
	EXISTING HERITAGE TREE TO BE REMOVED (INCLUDING ROOTBALL)
+	EXISTING YOUNG TREE TO BE TRANSPLANTED
##	EXISTING TREE IDENTIFICATION, KEYED TO MPK 24, 25, & 26 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON MAY 20, 2016
#	EXISTING TREE IDENTIFICATION, KEYED TO MPK 29 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON NOVEMBER 15, 2017
— — —	LIMIT OF WORK
———	PROPERTY LINE
———	PARCEL LINE



NOTES:
1. INDIVIDUAL TREE PROTECTION SHALL BE IMPLEMENTED ON CASE BY CASE BASIS AND IN COORDINATION WITH CONSTRUCTION SCHEDULE.
2. TREES LOCATED ADJACENT TO PROPOSED SECURITY SCREEN SHALL REQUIRE INDIVIDUAL TREE PROTECTION DURING SCREEN INSTALLATION.

1 TREE TRUNK PROTECTION
SCALE: NTS

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Seal / Signature

△	Date	Description
	04/20/2018	FIRE DEPT PLAN CHECK
△	08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

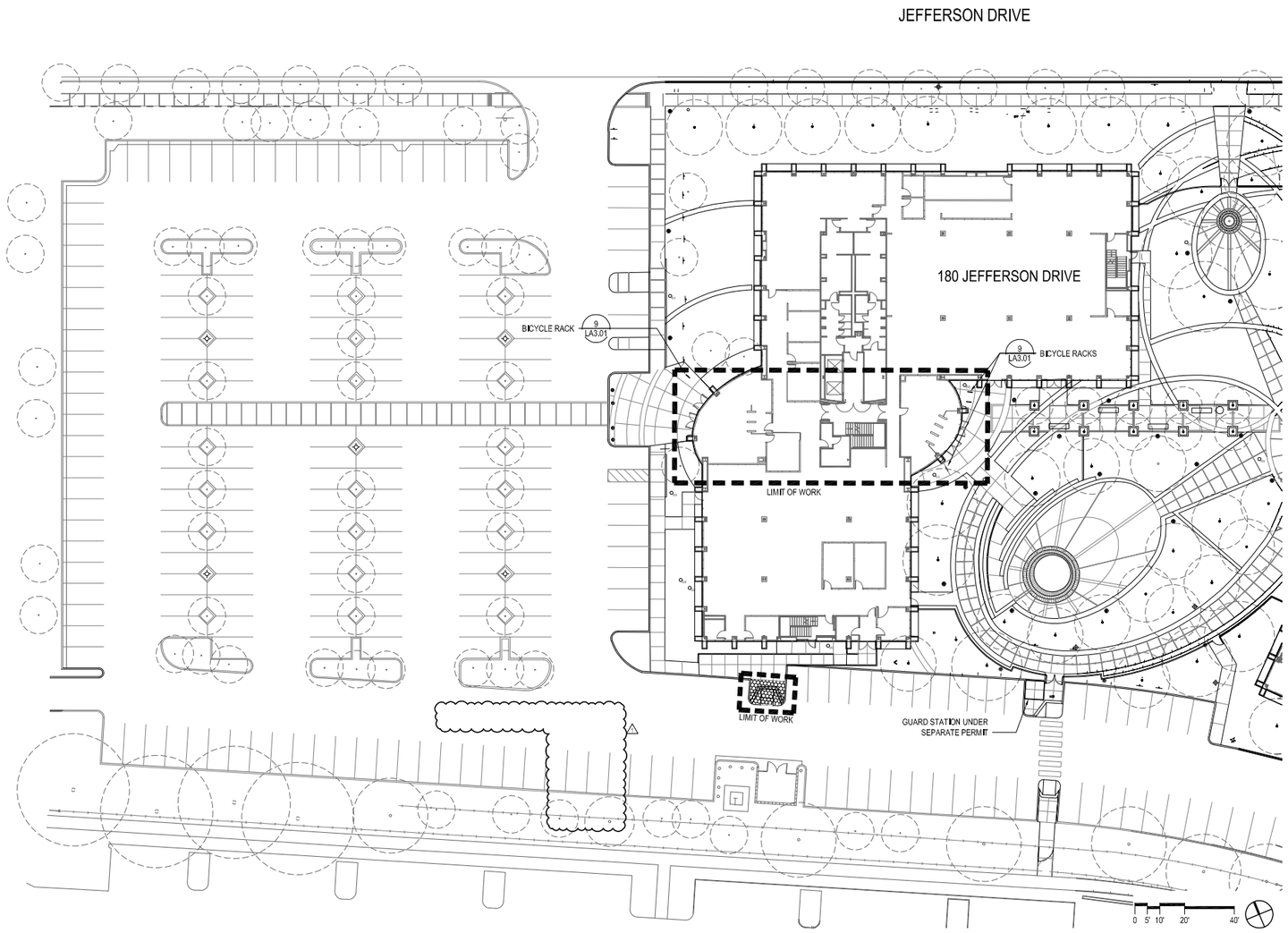
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
TREE PROTECTION AND REMOVAL LEGEND, DETAIL, AND SPECIFICATIONS

Scale
AS NOTED

LA1.10



1 LAYOUT PLAN

SCALE: 1"=20'

LAYOUT NOTES

1. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
2. ALL DIMENSIONS SHOWN TO ARCHITECTURAL GRID LINE, FACE OF BUILDING, FACE OF CURB, FACE OF WALL, EDGE OF WALKWAY, OR PROPERTY LINE UNLESS OTHERWISE NOTED.
3. ALL PAVING DIMENSIONS ARE FROM THE CENTERLINE OF JOINT TO THE CENTERLINE OF JOINT UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF LOCATION AND ELEVATION OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION AND SHALL REPORT ALL CONFLICT TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK.
5. THE CONTRACTOR SHALL VERIFY LAYOUT WITH RESPECT TO HORIZONTAL CONTROLS IN THE FIELD AND SHALL IMMEDIATELY BRING ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK. THE CONTRACTOR SHALL ASSUME FULL AND UNDIVIDED RESPONSIBILITY FOR THE ACCURACY, FIT AND STABILITY OF ALL PARTS OF THE WORK.
6. THE CONTRACTOR SHALL USE STAKES, STRINGS, CHALK, PAINT OR OTHER APPROPRIATE MATERIALS TO LAYOUT ALL HARDSCAPE, CAST IN PLACE CONCRETE PLANTERS, SITE FURNISHINGS AS SHOWN ON THE DRAWINGS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT BEFORE INSTALLATION COMMENCES. THE CONTRACTOR SHALL MAKE ALL CHANGES, DELETIONS, AND ADDITIONS APPROVED DURING THIS INSPECTION AND SUCH WORK WILL BE INCLUDED IN THE CONTRACTOR'S FIXED CONTRACT.
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8. LOCATIONS OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY.
9. ALL PEDESTRIAN PAVING SLOPES SHALL NOT EXCEED 5.0% IN DIRECTION OF TRAVEL AND ALL CROSS SLOPES SHALL NOT BE IN EXCESS OF 2.0%.

MATERIAL KEY

SYMBOL	DESCRIPTION	
	DECOMPOSED AGGREGATE SURFACE	3 / LA3.01
	NEW PERMEABLE CONCRETE PAVING	6 / LA3.01
	NEW CONCRETE PAVING TO MATCH EXISTING	4 / LA3.01
	PRECAST CONCRETE UNIT PAVERS	7 / LA3.01
	CONCRETE PAVING BANDS SMITH'S COLOR CF-130 GRAY STAIN	2 / LA3.01
P.A.	PLANTED AREA	

NOTE
1. ALL ENHANCED PAVING TO RECEIVE A SANDBLAST AND ACID ETCH COLOR FINISH
2. LANSCAPE ARCHITECT TO COORDINATE SANBLAST AND COLOR FINISH MOCK-UP WITH CONTRACTOR.

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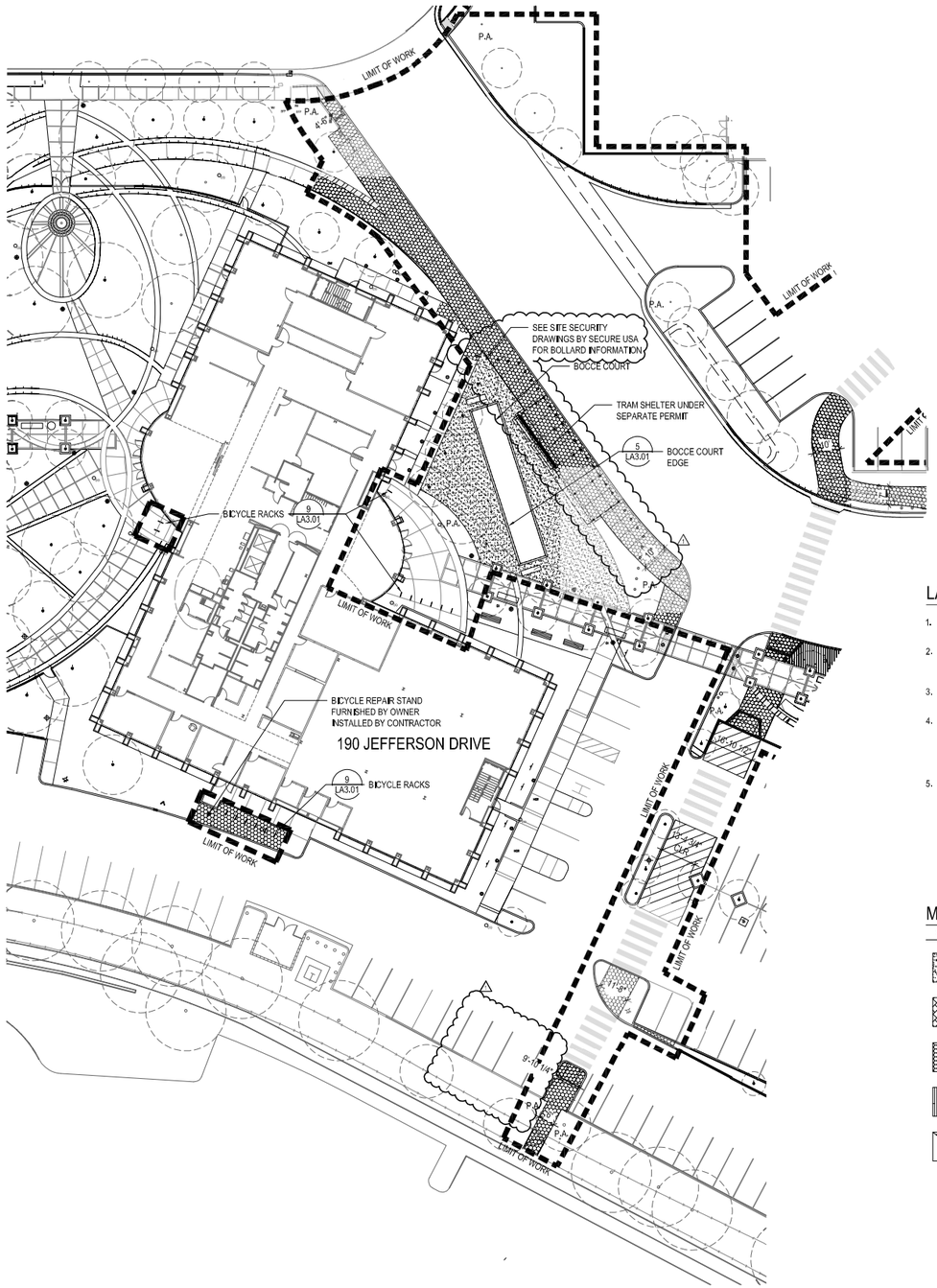
Seal / Signature

Date	Description
04/20/2018	FIRE DEPT PLAN CHECK
08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS
Project Number
01.2971.000
Description
LAYOUT AND MATERIALS PLAN
180 JEFFERSON DRIVE
Scale
1" = 20'

LA2.01



1 LAYOUT AND MATERIALS PLAN
SCALE: 1" = 20'

LAYOUT NOTES

1. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
2. ALL DIMENSIONS SHOWN TO ARCHITECTURAL GRID LINE, FACE OF BUILDING, FACE OF CURB, FACE OF WALL, EDGE OF WALKWAY, OR PROPERTY LINE UNLESS OTHERWISE NOTED.
3. ALL PAVING DIMENSIONS ARE FROM THE CENTERLINE OF JOINT TO THE CENTERLINE OF JOINT UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF LOCATION AND ELEVATION OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION AND SHALL REPORT ALL CONFLICT TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK.
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8. LOCATIONS OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY.
9. ALL PEDESTRIAN PAVING SLOPES SHALL NOT EXCEED 5.0% IN DIRECTION OF TRAVEL AND ALL CROSS SLOPES SHALL NOT BE IN EXCESS OF 2.0%.

MATERIAL KEY

SYMBOL	DESCRIPTION	
	DECOMPOSED AGGREGATE SURFACE	3 LA3.01
	NEW PERMEABLE CONCRETE PAVING	6 LA3.01
	NEW CONCRETE PAVING TO MATCH EXISTING	4 LA3.01
	PRECAST CONCRETE UNIT PAVERS	7 LA3.01
	CONCRETE PAVING BANDS SMITH'S COLOR CF-130 GRAY STAIN	2 LA3.01

P.A. PLANTED AREA

NOTE
1. ALL ENHANCED PAVING TO RECEIVE A SANDBLAST AND ACID ETCH COLOR FINISH
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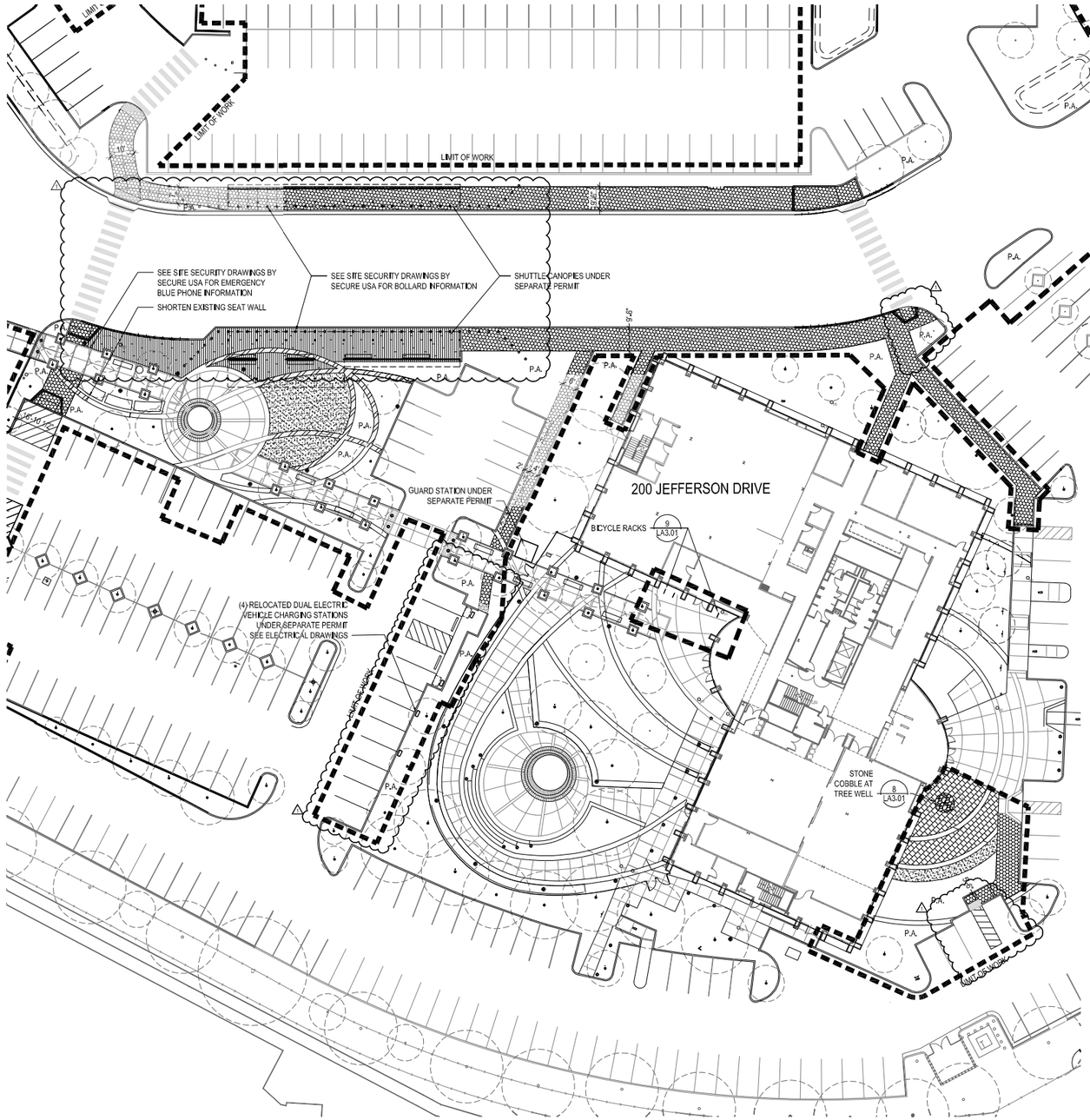
Seal / Signature

△	Date	Description
	04/20/2018	FIRE DEPT PLAN CHECK
△	08/06/2018	PD COMMENT RESPONSES

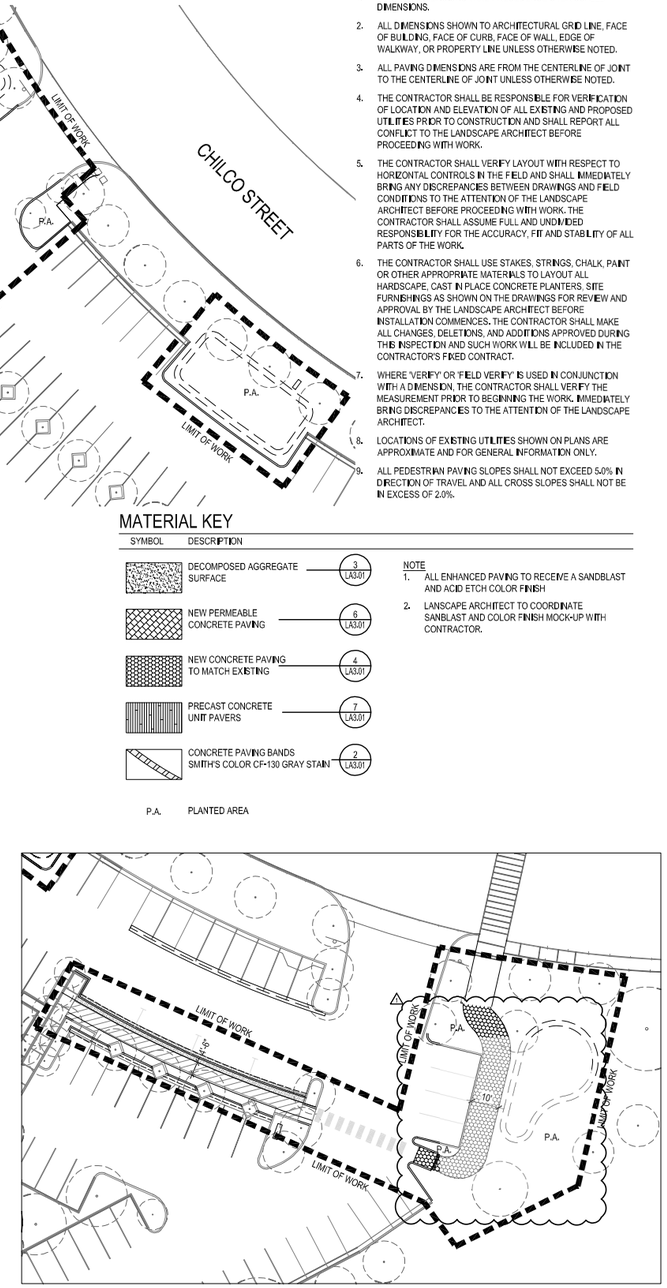
FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS
Project Number
01.2971.000
Description
LAYOUT AND MATERIALS PLAN
190 JEFFERSON DRIVE
Scale
1" = 20'

LA2.02



1 LAYOUT AND MATERIALS PLAN
SCALE: 1"=20'



2 LAYOUT AND MATERIALS PLAN - PEDESTRIAN PATH
SCALE: 1"=20'

LAYOUT NOTES

1. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
2. ALL DIMENSIONS SHOWN TO ARCHITECTURAL GRID LINE, FACE OF BUILDING, FACE OF CURB, FACE OF WALL, EDGE OF WALKWAY, OR PROPERTY LINE UNLESS OTHERWISE NOTED.
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MATERIAL KEY

SYMBOL	DESCRIPTION	
	DECOMPOSED AGGREGATE SURFACE	3 LA3.01
	NEW PERMEABLE CONCRETE PAVING	6 LA3.01
	NEW CONCRETE PAVING TO MATCH EXISTING	4 LA3.01
	PRECAST CONCRETE UNIT PAVERS	7 LA3.01
	CONCRETE PAVING BANDS SMITH'S COLOR CF-130 GRAY STAIN	2 LA3.01
P.A.	PLANTED AREA	

NOTE
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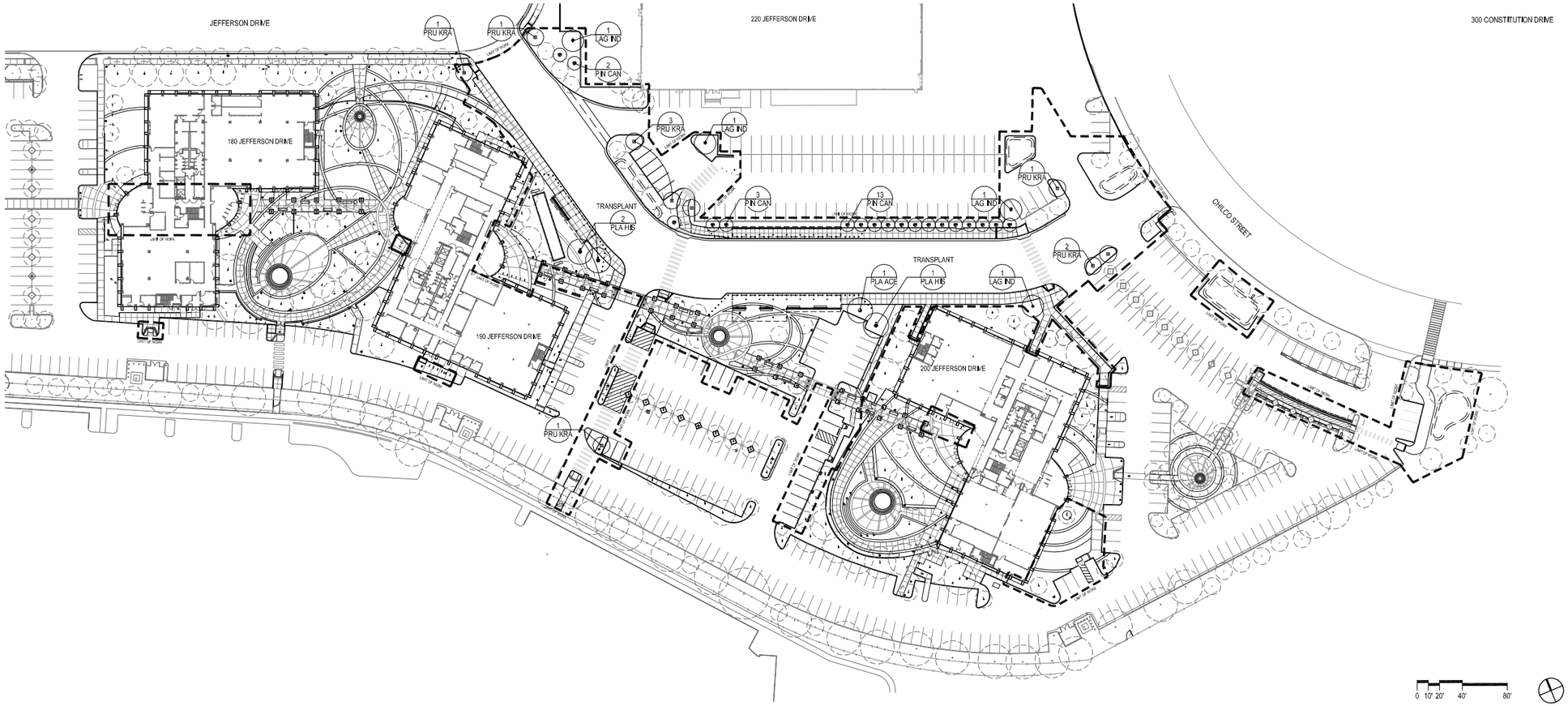
Seal / Signature

△ Date	Description
04/20/2018	FIRE DEPT PLAN CHECK
△ 08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS
Project Number
01.2971.000
Description
LAYOUT AND MATERIALS PLAN
200 JEFFERSON DRIVE
Scale
1" = 20'

LA2.03



1 PLANTING PLAN
SCALE: 1" = 40'

TREE PLANTING LEGEND

SYMBOL	KEY	SIZE	BOTANICAL NAME	COMMON NAME	SPACING	NOTES
TREES						
	LAG IND	48" BOX	LAGERSTROEMIA INDICA 'NATCHEZ'	CRAPE MYRTLE		MULTI-TRUNK
	PIN CAN	36" BOX	PINUS CANARIENSIS	CANARY ISLAND PINE		
	PLA ACE	60" BOX	PLATANUS x ACERIFOLIA	LONDON PLANE	PER PLAN	STANDARD
	PLA HIS	N/A	PLATANUS x HISPANICA	LONDON PLANE	PER PLAN	TRANSPLANT
	PRU KRA	36" BOX	PRUNUS 'KRAUTER 'VESUVIUS'	PURPLE LEAF PLUM		STANDARD
			EXISTING TREE			REFER TO ARBORIST SURVEY & REPORT

HERITAGE TREE REPLACEMENT SUMMARY

HERITAGE TREES FOR REMOVAL	2:1 REPLACEMENT REQUIREMENT	PROPOSED QUANTITY REPLACEMENT TREES
14	28	32

NOTE: TREES TRANSPLANTED ON SITE ARE NOT INCLUDED IN REPLACEMENT TOTALS

NOTE:
SEE SHEET LA5.01 FOR SHRUB AND GRAOUNDCOVER PLANTING PLAN

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08/06/2018	PD COMMENT RESPONSES

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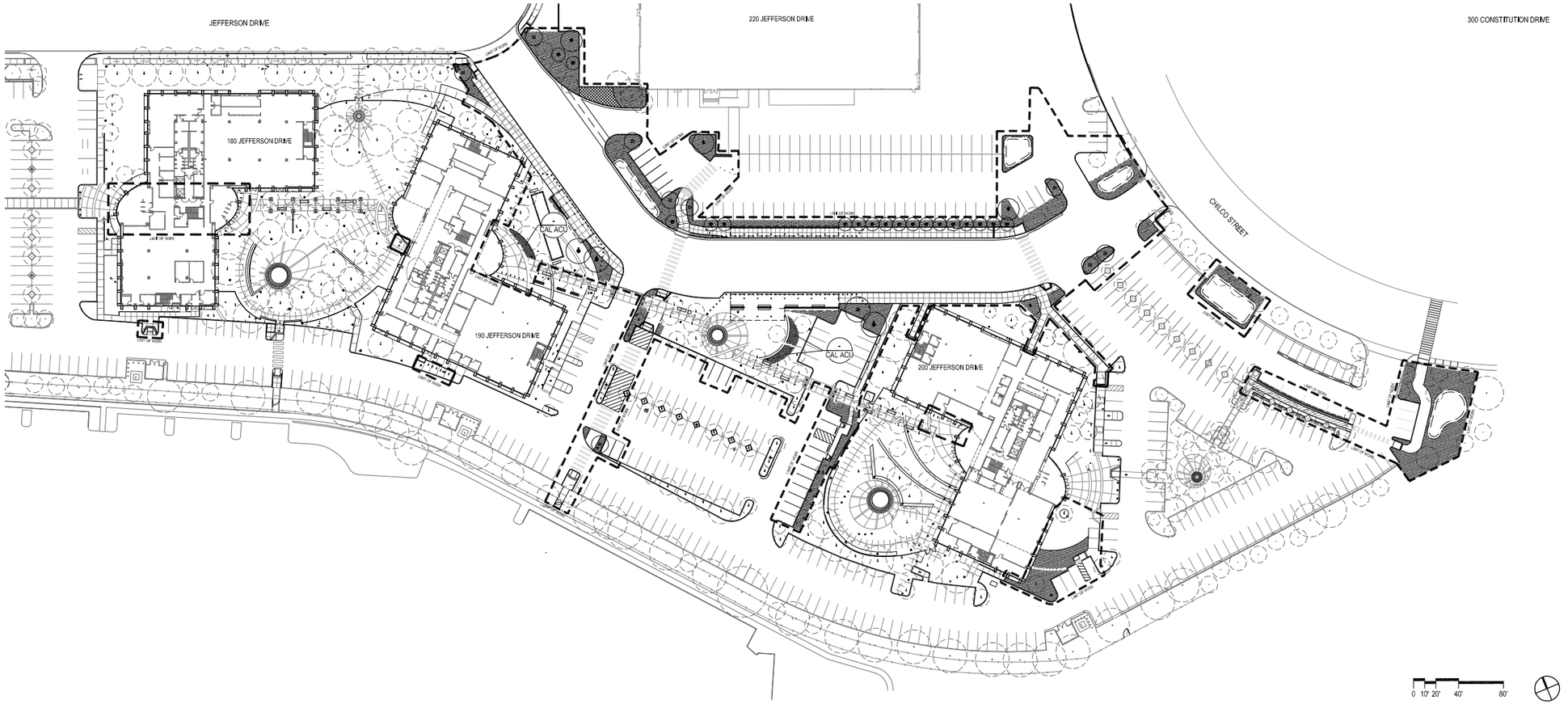
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
HERITAGE TREE
TREE REPLACEMENT PLAN

Scale
1" = 40'

LA5.00



1 PLANTING PLAN
SCALE: 1" = 40'

SHRUB AND GROUNDCOVER PLANTING LEGEND

SYMBOL	KEY	SIZE	BOTANICAL NAME	COMMON NAME	SPACING	NOTES
UNDERSTORY						
	CAL ACU	5 GAL	CALAMAGROSTIS x ACUTIFLORA "KARL FOERSTER"	FEATHER REED GRASS	24" O.C.	SUN-LIGHT SHADE
	CAR DIV	1 GAL	CAREX DIVULSA	BERKELEY SEDGE	12" O.C.	SUN-LIGHT SHADE
	CAR REM	1 GAL	CAREX REMOTA	EUROPEAN MEADOW SEDGE	12" O.C.	SUN OR SHADE
	CHO TEC	1 GAL	CHONDROPETALUM TECTORUM "EL CAMPO"	DWARF CAPE RUSH	30" O.C.	FULL SUN
	FES MAI	1 GAL	FESTUCA MAIREI	ATLAS FESCUE	18" O.C.	SUN-LIGHT SHADE
	PEN FAI	1 GAL	PENNISETUM "FAIRY TAILS"	FAIRY TAILS FOUNTAIN GRASS	30" O.C.	SUN
	PEN SPA	1 GAL	PENNISETUM SPATHIOLATUM	SLENDER VELT GRASS	24" O.C.	SUN-LIGHT SHADE
	PHO BLA	5 GAL	PHORMIUM "BLACK ADDER"	BLACK FLAX	30" O.C.	FULL SUN
	SES AUT	1 GAL	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	8" O.C.	SUN-LIGHT SHADE
	STI GIG	1 GAL	STIPA GIGANTEA	GIANT FEATHER GRASS	36" O.C.	SUN
BIOFILTRATION AREAS						
	BIOFILTRATION PLANTINGS					
		4"/1 GAL	BROMUS CARINATUS	CALIFORNIA BROME	12" O.C.	SUN-LIGHT SHADE
		1 GAL	CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	30" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	ELYMUS GLAUCUS	BLUE WILDRYE	18" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	HORDEUM CALIFORNICUM	CALIFORNIA BARLEY	24" O.C.	SUN OR SHADE
		4"/1 GAL	JUNCUS EFFUSUS	SOFT COMMON RUSH	30" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	LEYMUS TRITICOIDES	CREEPING WILDRYE	18" O.C.	SUN-LIGHT SHADE
REINFORCED TURF						
	REINFORCED TURF AT FIRE LANE					

NOTE:
SEE SHEET LA5.00 FOR TREE PLANTING PLAN

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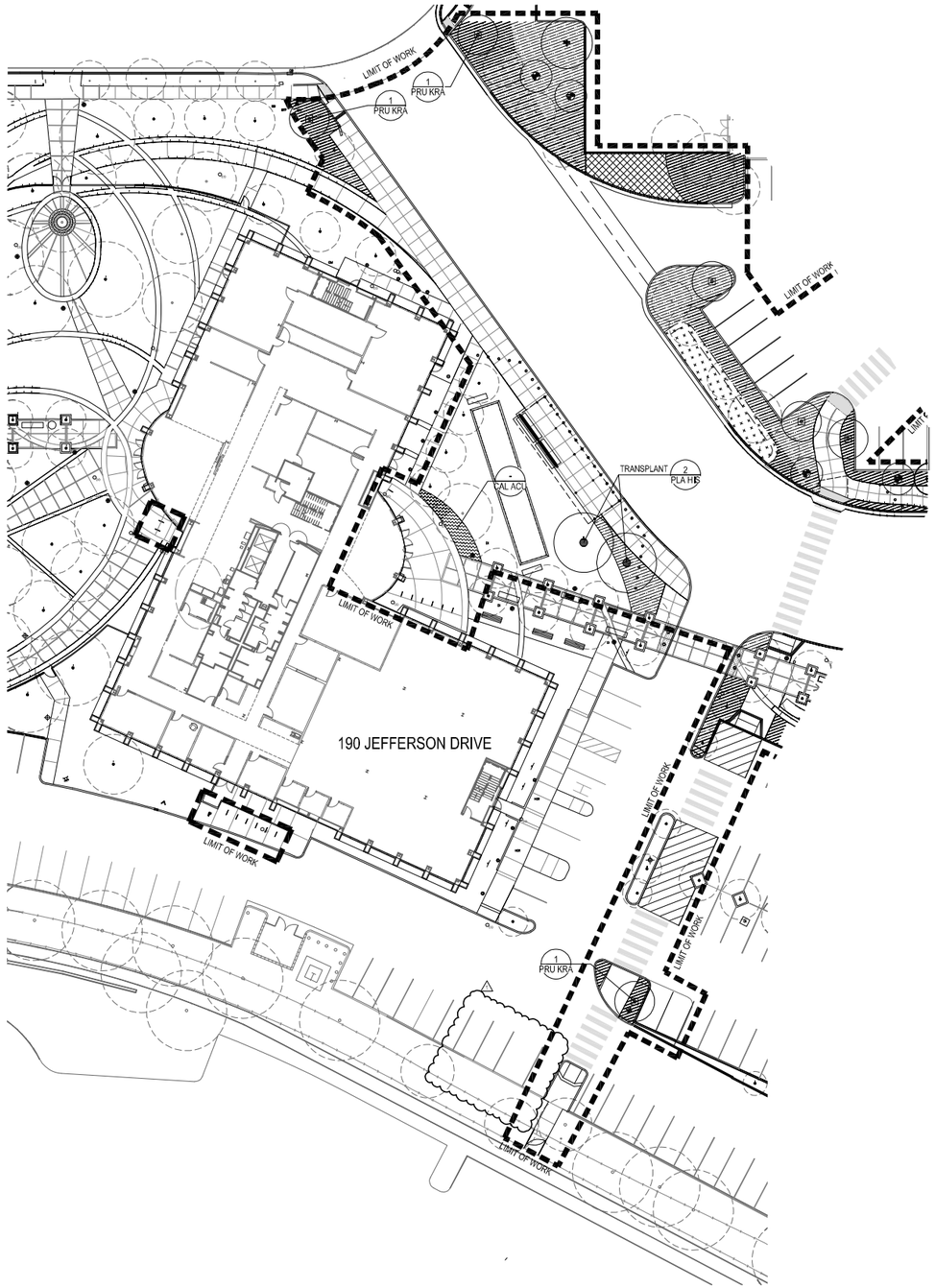
△	Date	Description
	04/20/2018	FIRE DEPT PLAN CHECK
△	08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS
Project Number
01.2971.000
Description
PLANTING PLAN
Scale
1" = 40'

LA5.01 △



1 PLANTING PLAN
SCALE: 1" = 20'

NOTE:
SEE SHEET LA5.10 FOR PLANTING LEGEND, NOTES AND DETAILS

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FOR REFERENCE ONLY

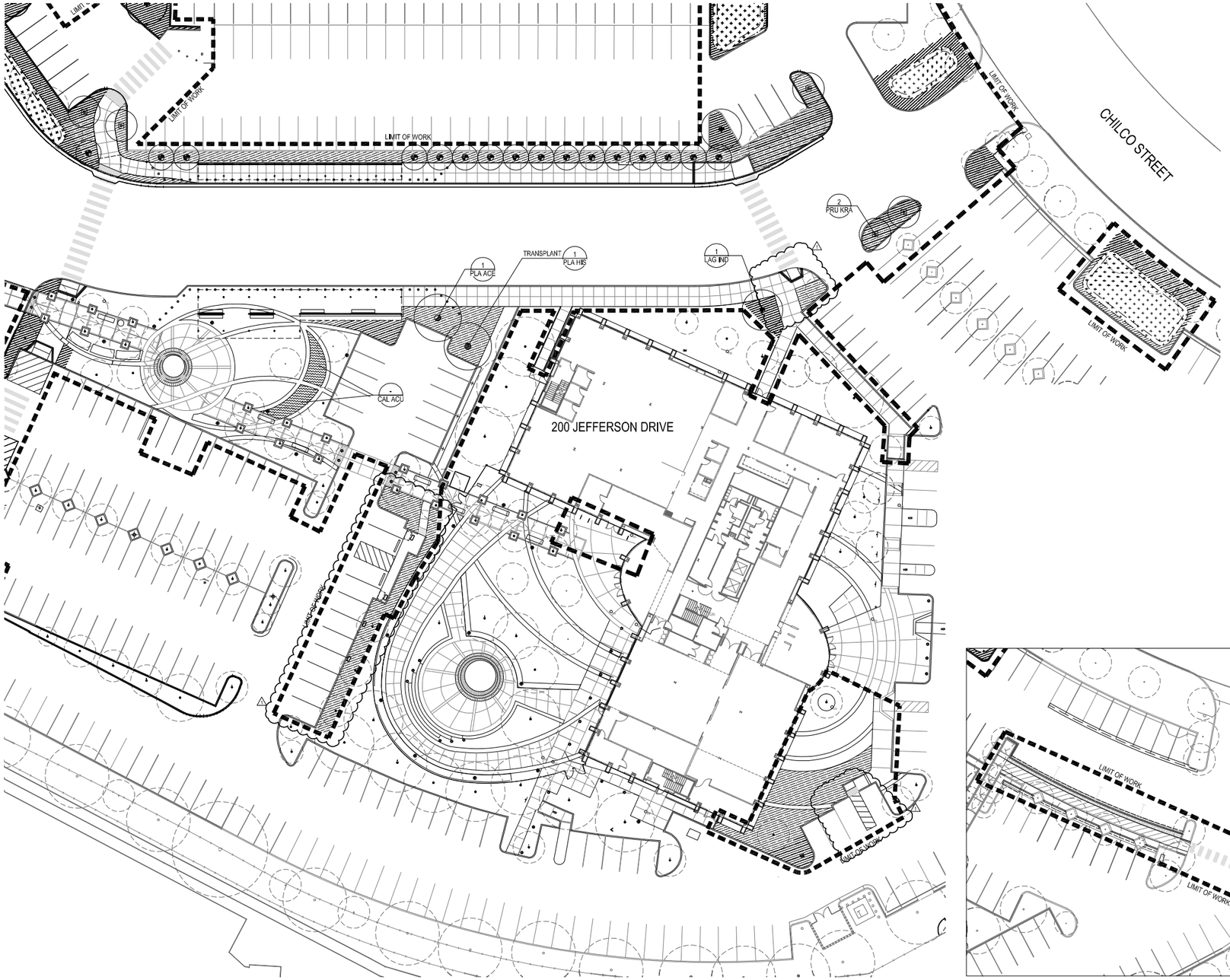
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

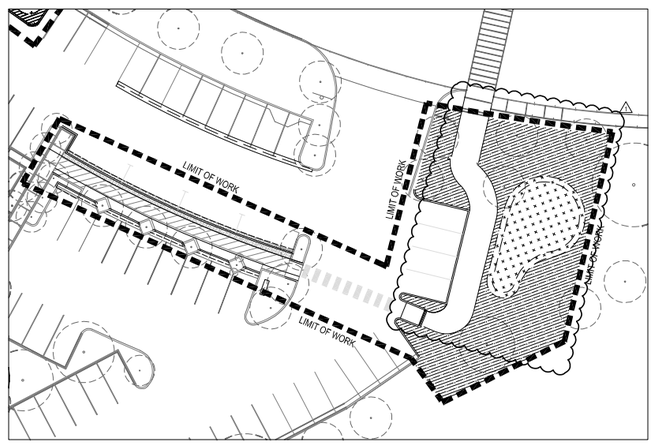
Description
PLANTING PLAN
190 JEFFERSON DRIVE

Scale
1" = 20'

LA5.02



1 PLANTING PLAN
SCALE: 1"=20'



2 PLANTING PLAN - PEDESTRIAN PATH
SCALE: 1"=20'

NOTE:
SEE SHEET LA5.10 FOR PLANTING LEGEND, NOTES AND DETAILS

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Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS
Project Number
01.2971.000
Description
PLANTING PLAN
200 JEFFERSON DRIVE
Scale
1" = 20'

LA5.03

PLANTING LEGEND

SYMBOL	KEY	SIZE	BOTANICAL NAME	COMMON NAME	SPACING	NOTES
TREES						
	LAG IND	48" BOX	LAGERSTROEMIA INDICA 'NATCHEZ'	CRAPE MYRTLE		MULTI-TRUNK
	PIN CAN	36" BOX	PINUS CANARIENSIS	CANARY ISLAND PINE		
	PLA ACE	60" BOX	PLATANUS x ACERIFOLIA	LONDON PLANE	PER PLAN	STANDARD
	PLA HIS	N/A	PLATANUS x HISPANICA	LONDON PLANE	PER PLAN	TRANSPLANT
	PRU KRA	36" BOX	PRUNUS 'KRAUTER 'VESUVIUS'	PURPLE LEAF PLUM		STANDARD
			EXISTING TREE			REFER TO ARBORIST SURVEY & REPORT

SYMBOL	KEY	SIZE	BOTANICAL NAME	COMMON NAME	SPACING	NOTES
UNDERSTORY						
	CAL ACU	5 GAL	CALAMAGROSTIS x ACUTIFLORA "KARL FOERSTER"	FEATHER REED GRASS	24" O.C.	SUN-LIGHT SHADE
	CAR DIV	1 GAL	CAREX DIVULSA	BERKELEY SEDGE	12" O.C.	SUN-LIGHT SHADE
	CAR REM	1 GAL	CAREX REMOTA	EUROPEAN MEADOW SEDGE	12" O.C.	SUN OR SHADE
	CHO TEC	1 GAL	CHONDROPETALUM TECTORUM "EL CAMPO"	DWARF CAPE RUSH	30" O.C.	FULL SUN
	FES MAI	1 GAL	FESTUCA MAIREI	ATLAS FESCUE	18" O.C.	SUN-LIGHT SHADE
	PEN FAI	1 GAL	PENNISETUM "FAIRY TAILS"	FAIRY TAILS FOUNTAIN GRASS	30" O.C.	SUN
	PEN SPA	1 GAL	PENNISETUM SPATHIOLATUM	SLENDER VELT GRASS	24" O.C.	SUN-LIGHT SHADE
	PHO BLA	5 GAL	PHORMIUM "BLACK ADDER"	BLACK FLAX	30" O.C.	FULL SUN
	SES AUT	1 GAL	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	8" O.C.	SUN-LIGHT SHADE
	STI GIG	1 GAL	STIPA GIGANTEA	GIANT FEATHER GRASS	36" O.C.	SUN
BIOFILTRATION AREAS						
	BIOFILTRATION PLANTINGS	4"/1 GAL	BROMUS CARINATUS	CALIFORNIA BROME	12" O.C.	SUN-LIGHT SHADE
		1 GAL	CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	30" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	ELYMUS GLAUCUS	BLUE WILDRYE	18" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	HORDEUM CALIFORNICUM	CALIFORNIA BARLEY	24" O.C.	SUN OR SHADE
		4"/1 GAL	JUNCUS EFFUSUS	SOFT COMMON RUSH	30" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	LEYMUS TRITICOIDES	CREEPING WILDRYE	18" O.C.	SUN-LIGHT SHADE
REINFORCED TURF						
	REINFORCED TURF AT FIRE LANE					

PLANTING NOTES

1. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS, DISTANCES AND DIMENSIONS IN THE FIELD AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR A DECISION PRIOR TO PROCEEDING WITH WORK.
2. NO PLANTING SHALL COMMENCE UNTIL IRRIGATION SYSTEM IS FULLY INSTALLED AND OPERATIONAL.
3. NO PLANTING SHALL OCCUR DURING MUDDY WEATHER.
4. ALL PLANTS TO BE OF THE FINEST QUALITY AND FREE OF DISEASE AND DAMAGE.
5. THE CONTRACTOR SHALL INSTALL PLANTS WITHIN 10 CALENDAR DAYS OF ARRIVAL AT SITE AND AFTER ARRIVAL ON SITE SHALL BE RESPONSIBLE FOR WATERING AND PROTECTING PLANTS FROM ANY CONDITIONS WHICH THREATEN THEIR SURVIVAL OR ABILITY TO THRIVE ONCE INSTALLED.
6. PRIOR TO IRRIGATION INSTALLATION THE LANDSCAPE ARCHITECT SHALL APPROVE ALL FREESTANDING PLANTER LOCATIONS.
7. PLANTING PLAN PROVIDES A GUIDE FOR GENERAL PLANTING LAYOUT ONLY. PRIOR TO INSTALLATION THE LANDSCAPE ARCHITECT SHALL APPROVE FINAL LAYOUT OF PLANTS. FIELD ADJUSTMENTS MAY BE MADE AT THIS TIME. QUANTITIES PROVIDED FOR CONTRACTORS CONVENIENCE ONLY. ANY DISCREPENCIES SHALL BE REVIEWED BY LANDSCAPE ARCHITECT.
8. PLANT SPACING SHALL TAKE PRIORITY OVER IRRIGATION VALVE BOX, PIPE AND OTHER EQUIPMENT LOCATIONS.
9. NO PLANT SUBSTITUTIONS MAY BE MADE WITHOUT WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
10. ALL PLANT MATERIAL TO BE OF HIGHEST GRADE. REFER TO BAMBOO PIPELINE & MONROVIA FOR QUALITY CONTROL.
11. ALL PLANT MATERIAL SHALL BE INSPECTED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION
12. FINISHED GRADES FOR PLANTING AREAS VARIES. THE LANDSCAPE ARCHITECT SHALL REVIEW AND APPROVE ALL FINISH SOIL ELEVATIONS. THE CONTRACTOR SHALL MAKE ADJUSTMENTS AS DIRECTED IN THE FIELD BY LANDSCAPE ARCHITECT. SUCH WORK SHALL BE CONSIDERED INCLUDED IN CONTRACTORS FIXED CONTRACT.
13. ALL PUBLIC LANDSCAPE (STREET TREES) AND MAINTENANCE OF THE SAME SHALL CONFORM TO THE CITY OF MENLO PARK LANDSCAPE AND IRRIGATION GUIDELINES AND ANY OTHER APPLICABLE CODES, ORDINACES AND LAWS.
14. ORGANIC MULCH SHALL BE APPLIED TO ALL EXPOSED PLANTING SURFACES - 3" DEPTH. HOLD TOP OF MULCH 1/2" BELOW TOP OF ADJACENT PAVING.
15. REFER TO LANDSCAPE SPECIFICATION FOR TREE PROTECTION TO EXISTING TREES.
16. CONTRACTOR TO COMPOST AT A MINIMUM RATE OF 4CY PER 1,000 SF OF PERMEABLE AREA, INCORPORATE TO A DEPTH OF 6 INCHES AS REQUIRED BY MPMC §12.44.090(a)(3)(C).
17. IRRIGATION CONTROLLER MUST HAVE WEATHER SENSORS AS REQUIRED BY MPMC §12.44.100(a)(1)(D).
18. MANUAL SHUT-OFF VALVES ARE REQUIRED AS CLOSE AS POSSIBLE TO THE POINT OF CONNECTION AS REQUIRED BY §12.44.100(a)(1)(E).
19. IRRIGATION DELIVERY MUST BE CONVEYED BY DRIP OR MICROSPRAY SYSTEMS ONLY.
20. I HAVE COMPLIED WITH THE CRITERIA OF THE WATER EFFICIENCY LANDSCAPE ORDINANCE AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLAN.

WATER EFFICIENT LANDSCAPE WORKSHEET
Reference Evapotranspiration (Eto) = 43.10 (Annual Total)

Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
Shrubs - Low Water	0.3	Drip	0.81	0.37	4,944	1,831	48,931
Bioretention Areas	0.5	Spray	0.75	0.67	551	367	9,818
Reinforced Turf	0.8	Spray	0.75	1.07	431	460	12,289
						0	0
						0	0
				Totals	LA (A) 5,926	(B) 2,658	
Special Landscape Areas							
				1		0	0
				1		0	0
				1		0	0
				Totals	SLA (C) 0	(D) 0	
						ETWU Total	71,032
						Maximum Allowed Water Allowance (MAWA)	71,260

ETAF for MAWA calculation = 0.45 (.55 for residential, .45 for non-residential)

Irrigation Efficiency:	*Plant Factor:*	*ETWU (Annual gallons Required)*
0.75 for spray heads	*0 .1 for Very Low Water Use*	*Eto x 0.62 x ETAF x Area*
0.81 for drip	*.1 .3 for Low Water Use*	
	.4 .6 for Moderate Water Use	***MAWA (Annual Gallons Required)***
	.7 1.0 for High Water Use	*(Eto) (0.62) ((ETAF x LA) + ((1-ETAF) x SLA*

Regular Landscape Areas		Average ETAF for Regular Landscape Areas must be
Total ETAF x Area	2,658 (B)	0.55 or below for residential areas, and
Total Area	5,926 (A)	0.45 or below for non-residential areas.
Average ETAF	0.45 (B)/(A)	Compliant

All Landscape Areas		
Total ETAF x Area	2,658	(B+D)
Total Area	5,926	(A+C)
Sitewide ETAF	0.45	(B+D)/(A+C)

5 WATER EFFICIENT LANDSCAPE WORKSHEET 220 JEFFERSON DR
SCALE: NONE

WATER EFFICIENT LANDSCAPE WORKSHEET
Reference Evapotranspiration (Eto) = 43.10 (Annual Total)

Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
Shrubs - Low Water	0.3	Drip	0.81	0.37	7,628	2,825	75,495
Bioretention Areas	0.5	Spray	0.75	0.67	2,691	1,794	47,939
						0	0
						0	0
						0	0
				Totals	LA (A) 10,319	(B) 4,619	
Special Landscape Areas							
				1		0	0
				1		0	0
				1		0	0
				Totals	SLA (C) 0	(D) 0	
						ETWU Total	123,434
						Maximum Allowed Water Allowance (MAWA)	124,085

ETAF for MAWA calculation = 0.45 (.55 for residential, .45 for non-residential)

Irrigation Efficiency:	*Plant Factor:*	*ETWU (Annual gallons Required)*
0.75 for spray heads	*0 .1 for Very Low Water Use*	*Eto x 0.62 x ETAF x Area*
0.81 for drip	*.1 .3 for Low Water Use*	
	.4 .6 for Moderate Water Use	***MAWA (Annual Gallons Required)***
	.7 1.0 for High Water Use	*(Eto) (0.62) ((ETAF x LA) + ((1-ETAF) x SLA,*

Regular Landscape Areas		Average ETAF for Regular Landscape Areas must be
Total ETAF x Area	4,619 (B)	0.55 or below for residential areas, and
Total Area	10,319 (A)	0.45 or below for non-residential areas.
Average ETAF	0.45 (B)/(A)	Compliant

All Landscape Areas		
Total ETAF x Area	4,619	(B+D)
Total Area	10,319	(A+C)
Sitewide ETAF	0.45	(B+D)/(A+C)

4 WATER EFFICIENT LANDSCAPE WORKSHEET 200 JEFFERSON DR
SCALE: NONE

WATER EFFICIENT LANDSCAPE WORKSHEET
Reference Evapotranspiration (Eto) = 43.10 (Annual Total)

Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
Shrubs - Low Water	0.3	Drip	0.81	0.37	2,312	856	22,682
Bioretention Areas	0.5	Spray	0.75	0.67	579	386	10,315
						0	0
						0	0
						0	0
				Totals	LA (A) 2,891	(B) 1,242	
Special Landscape Areas							
				1		0	0
				1		0	0
				1		0	0
				Totals	SLA (C) 0	(D) 0	
						ETWU Total	33,197
						Maximum Allowed Water Allowance (MAWA)	34,764

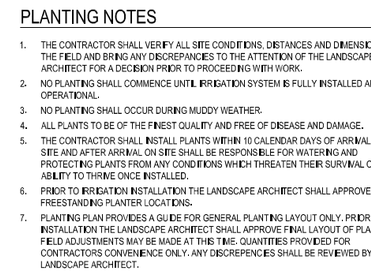
ETAF for MAWA calculation = 0.45 (.55 for residential, .45 for non-residential)

Irrigation Efficiency:	*Plant Factor:*	*ETWU (Annual gallons Required)*
0.75 for spray heads	*0 .1 for Very Low Water Use*	*Eto x 0.62 x ETAF x Area*
0.81 for drip	*.1 .3 for Low Water Use*	
	.4 .6 for Moderate Water Use	***MAWA (Annual Gallons Required)***
	.7 1.0 for High Water Use	*(Eto) (0.62) ((ETAF x LA) + ((1-ETAF) x SLA,*

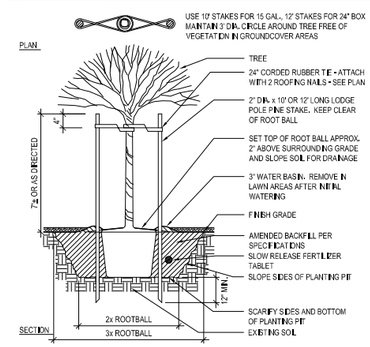
Regular Landscape Areas		Average ETAF for Regular Landscape Areas must be
Total ETAF x Area	1,242 (B)	0.55 or below for residential areas, and
Total Area	2,891 (A)	0.45 or below for non-residential areas.
Average ETAF	0.43 (B)/(A)	Compliant

All Landscape Areas		
Total ETAF x Area	1,242	(B+D)
Total Area	2,891	(A+C)
Sitewide ETAF	0.43	(B+D)/(A+C)

3 WATER EFFICIENT LANDSCAPE WORKSHEET 190 JEFFERSON DR
SCALE: NONE



2 SHRUB PLANTING
SCALE: NONE



1 TREE PLANTING - DOUBLE STAKE
SCALE: NONE

FACEBOOK

180, 190, 200 & 220 Jefferson Drive
Menlo Park CA 94025

Gensler
2 Harrison Street
Suite 400
San Francisco, CA 94105
United States
Tel 415.433.3700
Fax 415.836.4599

HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
260 Sheridan Avenue, Suite 150
Palo Alto, CA 94306
(650) 617-6030, Fax (650) 617-6032

PAE
Portland | San Francisco | Seattle
pae-engineers.com

KIFER & WRIGHT
CIVIL ENGINEERS & SURVEYORS, INC.
2630 Collier Canyon Road, Livermore, California 94551
Phone (925) 243-8788
Fax (925) 243-8790

Seal / Signature

Date	Description
04/20/2018	FIRE DEPT PLAN CHECK
08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
PLANTING LEGEND
NOTES AND DETAILS

Scale
AS NOTED

LA5.10

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facebook

PLANNING DEPARTMENT REVIEW

CHILCO CAMPUS BUS STOP

220 Jefferson Dr

Menlo Park CA 94025

17 August 2018

DATA SHEET - 220 JEFFERSON DRIVE

LOCATION: 220 JEFFERSON DRIVE
MENLO PARK CA 94025

EXISTING USE: OFFICE

PROPOSED USE: OFFICE

ZONING: 0-B

APPLICANT: FACEBOOK

PROPERTY OWNER(S): JEFFERSON PLACE ASSOCIATES

APPLICATION(S): PLANNING REVIEW

SCOPE OF WORK IN RED
WORK FOR 220 JEFFERSON LIMITED TO LANDSCAPING AND PARKING

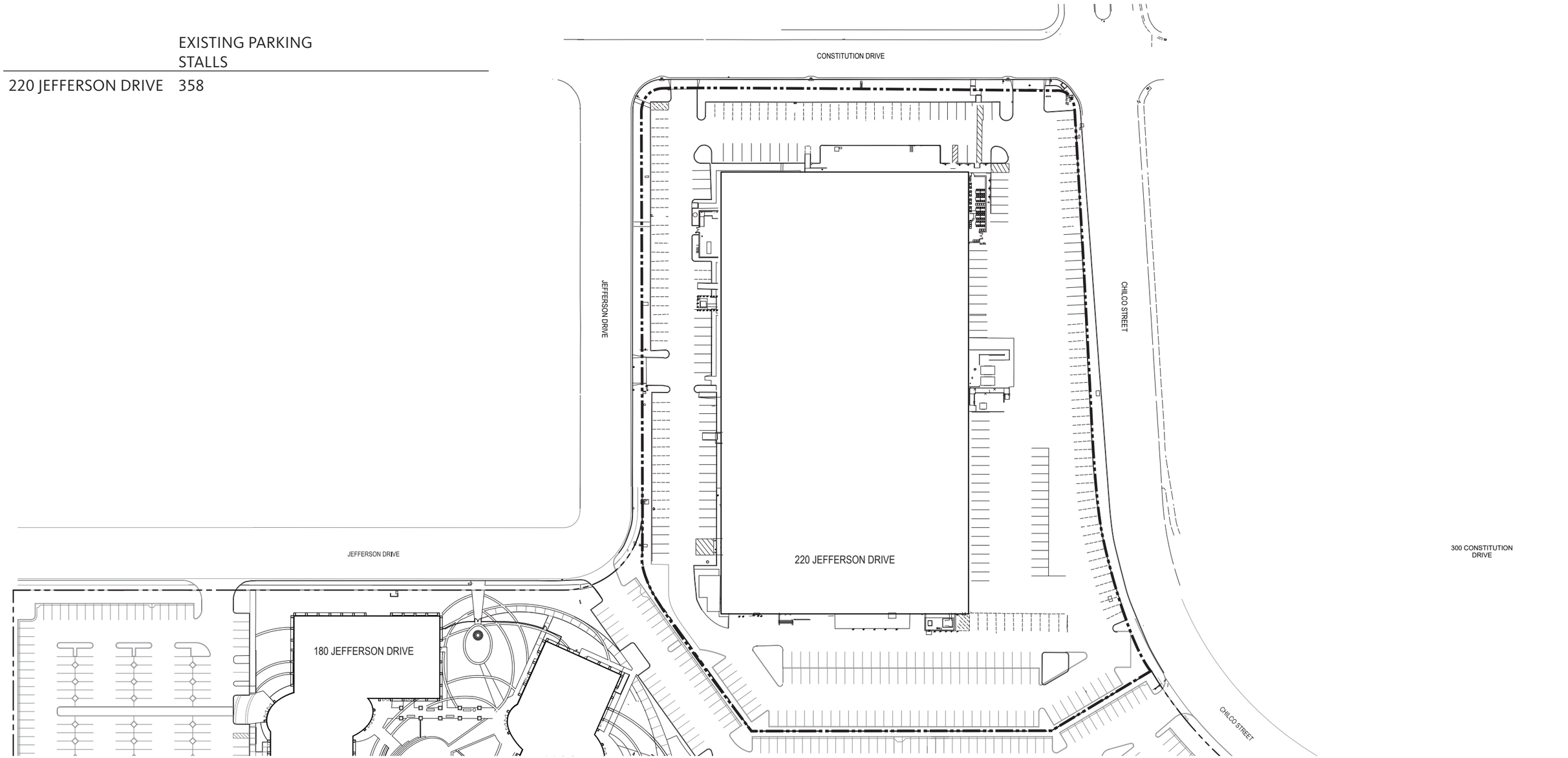
DEVELOPMENT STANDARDS	PROPOSED PROJECT	EXISTING DEVELOPMENT	ZONING ORDINANCE
Lot area	292, 160 sf	292, 160 sf	25,000 sf min.
Lot width	IRREGULAR LOT SHAPE REFER TO SITE PROPERTY + SETBACKS SHEET		100 ft. min.
Lot depth	IRREGULAR LOT SHAPE REFER TO SITE PROPERTY + SETBACKS SHEET		100 ft. min.
Setbacks			
MINIMUM SETBACK AT STREET	REFER TO SITE PROPERTY + SETBACKS SHEET		5 ft. min.
MAXIMUM SETBACK AT STREET			25 ft. min.
MINIMUM SETBACK AT INTERIOR SIDE			10 ft. min.
MINIMUM SETBACK AT REAR			10 ft. min.
Building coverage	130,875 sf 44.7 %	130,875 sf 44.7 %	sf max. % max.
FAR (Floor Area Ratio)*	0.44	0.44	sf max. % max.
FAL (Floor Area Limit)**	sf	sf	sf
Square footage			
220 JEFFERSON DRIVE	130,875 sf	130,875 sf	
	sf	sf	
	sf	sf	
	sf	sf	
	sf	sf	
	sf	sf	
Square footage of buildings	sf	sf	sf max.
Building height	ft.	ft.	ft. max.
Landscaping***	6,666 sf SCOPE OF 2 %	n/a sf %	
Paving***	WORK IN 11,462 sf RED 4 %	n/a sf %	
Parking	340 spaces	358 spaces	
Define Basis for Parking	OFFICE LAND USE / MINIMUM SPACES (PER 1000 SQ FT = 2) / MAXIMUM SPACES (PER 1000 SQ FT = 3)		
Trees	# of existing **Heritage** trees 42	# of existing **non-Heritage** trees 57	# of new trees 25
	# of existing **Heritage** trees to be removed 5	# of **non-Heritage** trees to be removed 3	**Total** # of trees 116

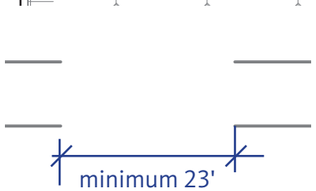
*** Commercial and Multiple-residential properties | ** Single family residential and R-2 zoned properties | *** Commercial, Multiple-residential, and R-2 zoned properties**

* Zoning ordinance development standards are enumerated through the CDP for the property

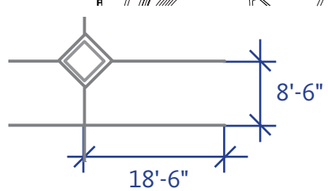
EXISTING CONDITIONS PLAN

	EXISTING PARKING STALLS
220 JEFFERSON DRIVE	358

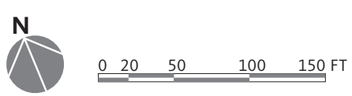




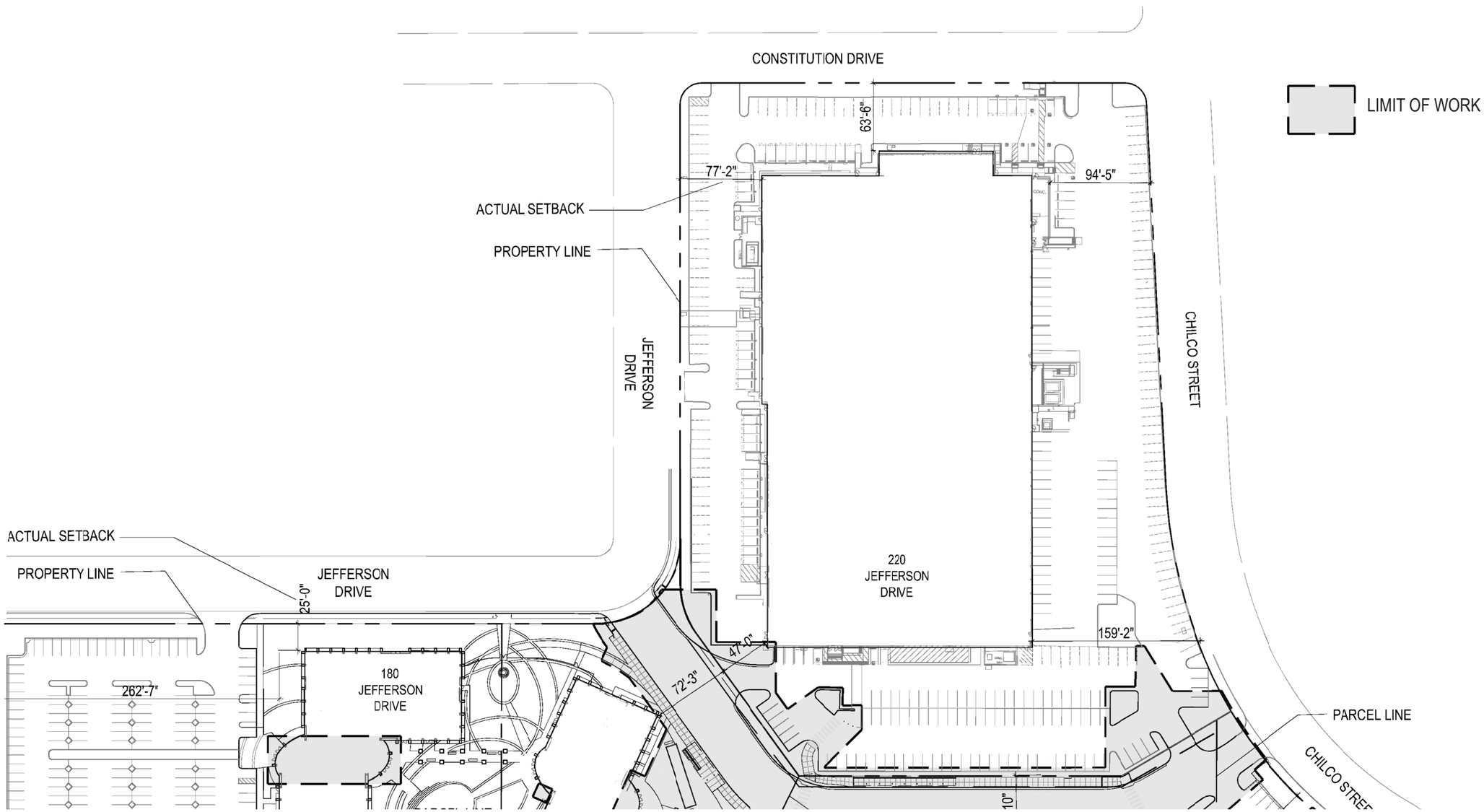
Drive Aisle Dimension



Typical Parking Stall Dimension



SITE PROPERTY + SETBACKS

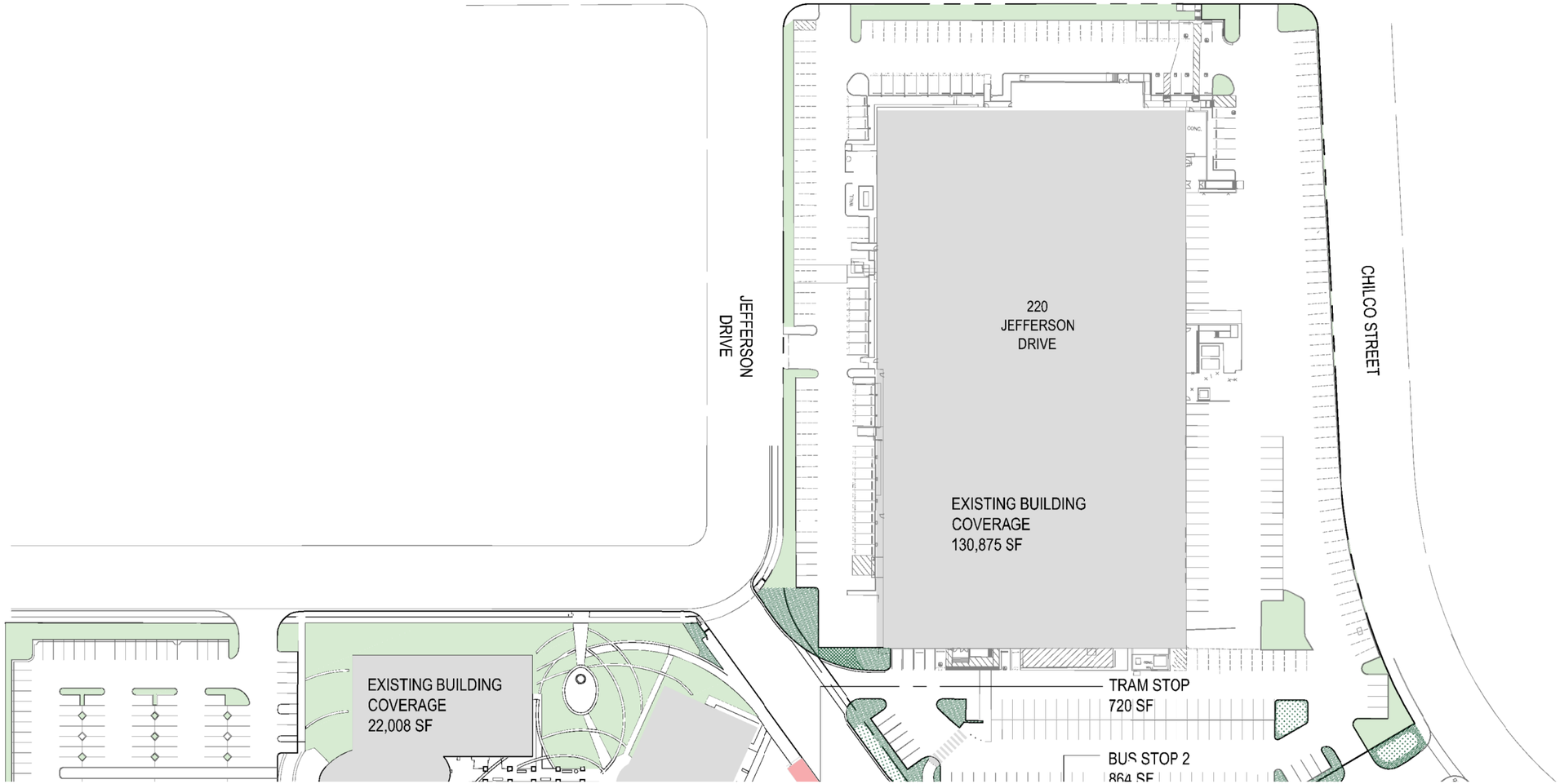


	EXISTING PARKING STALLS	PROPOSED PARKING STALLS
220 JEFFERSON DRIVE	358	340

N

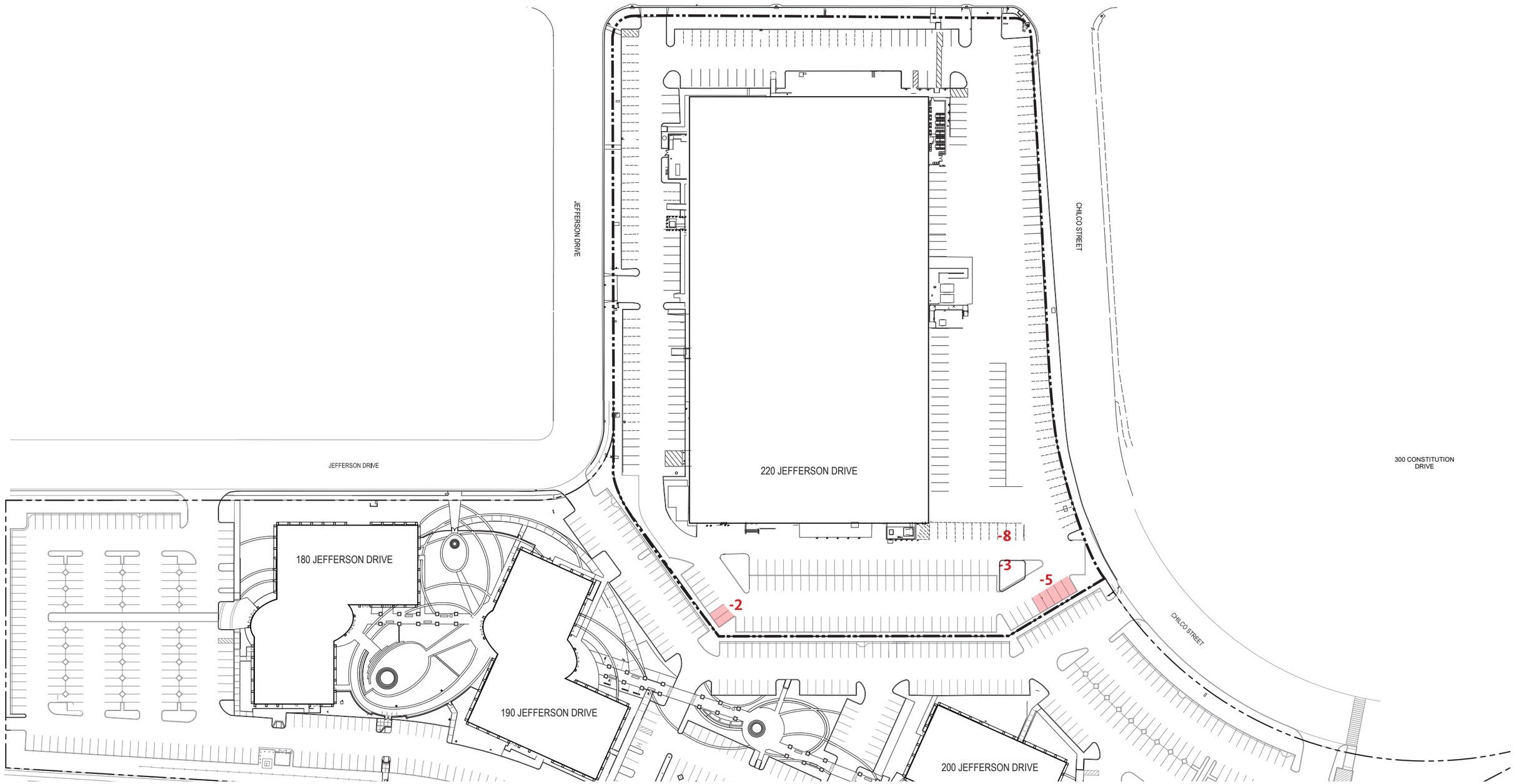
0 20 50 100 150 FT

BUILDING COVERAGE & AREAS DIAGRAM



	TOTAL LOT AREA	100 %	292,160 SF
	TOTAL BUILDING COVERAGE	44.7%	130,875 SF
	LANDSCAPE - PROPOSED	0.02%	6,666 SF
	LANDSCAPE - EXISTING	0.04%	12,548 SF
	PAVED AREAS - PROPOSED	0.03%	11,462 SF
	PAVED AREAS - EXISTING	44.7%	130,609 SF

PARKING COUNT DISPLACEMENT



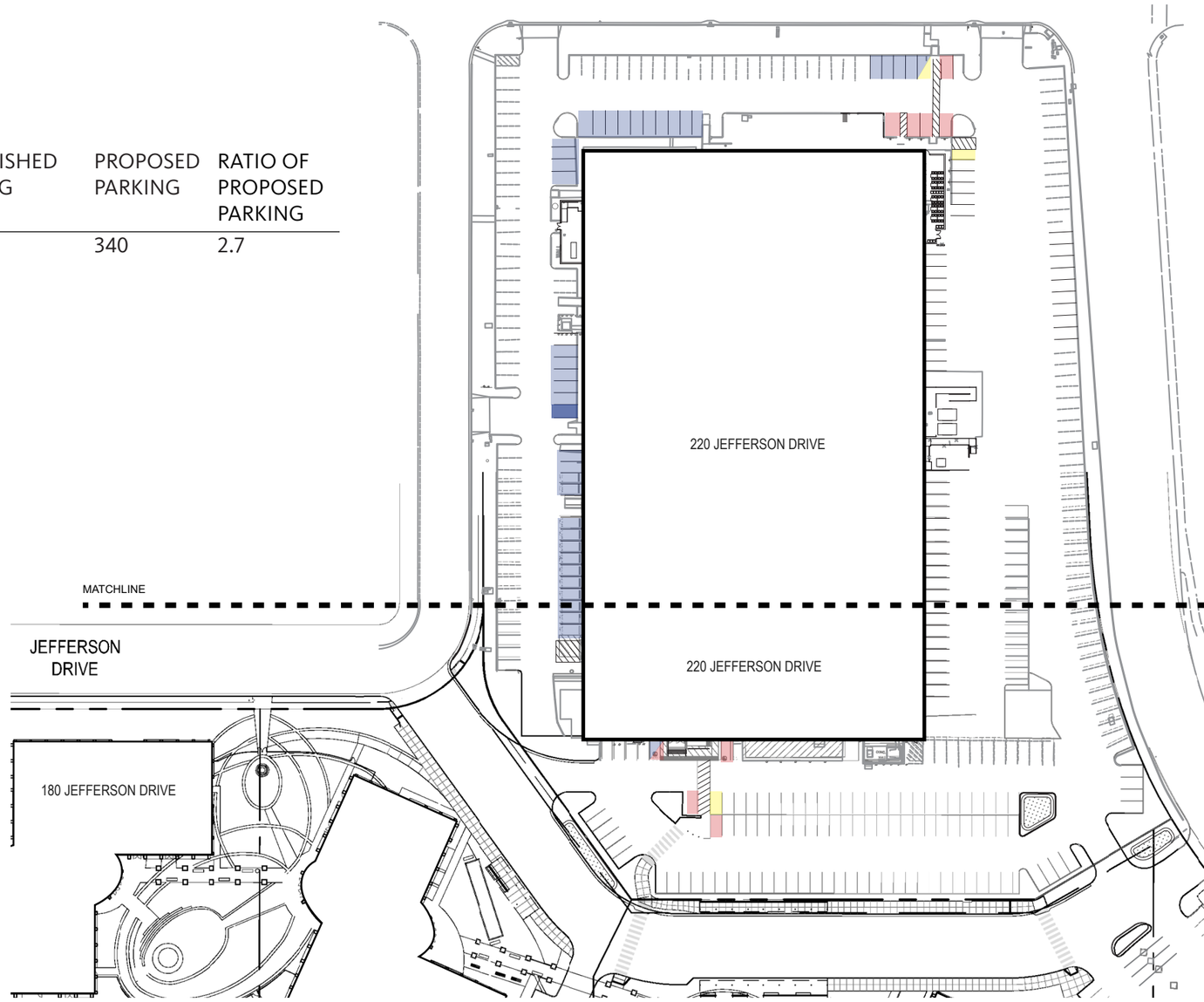
PARKING COUNT DISPLACEMENT

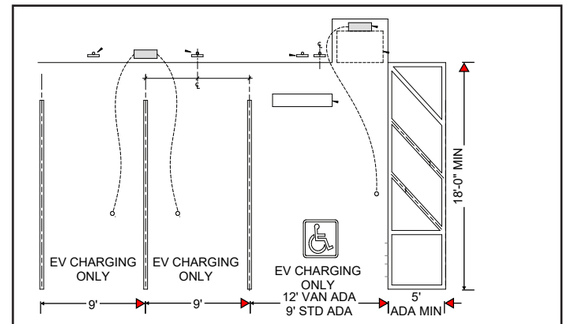
	EXISITNG PARKING	DEMOLISHED PARKING	PROPOSED PARKING	RATIO OF PROPOSED PARKING
220 JEFFERSON DRIVE	358	18	340	2.7

PARKING TOTALS

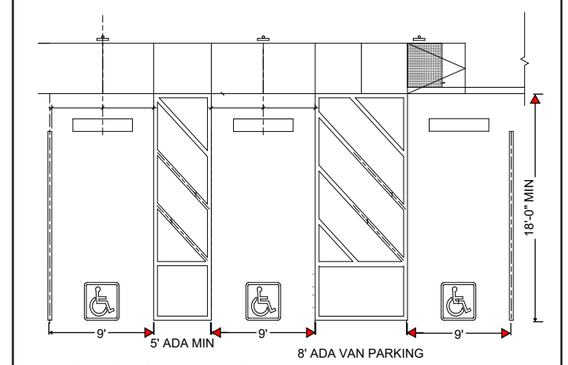
TOTAL	**340 SPACES**
INCLUDING:	
ADA	8 SPACES
VAN ADA	2 SPACES
TOTAL ADA	**10 SPACES**
TOTAL EV	**40 SPACES**

+/- Parking Spaces Delta
Existing
Proposed





EVCS STRIPPING



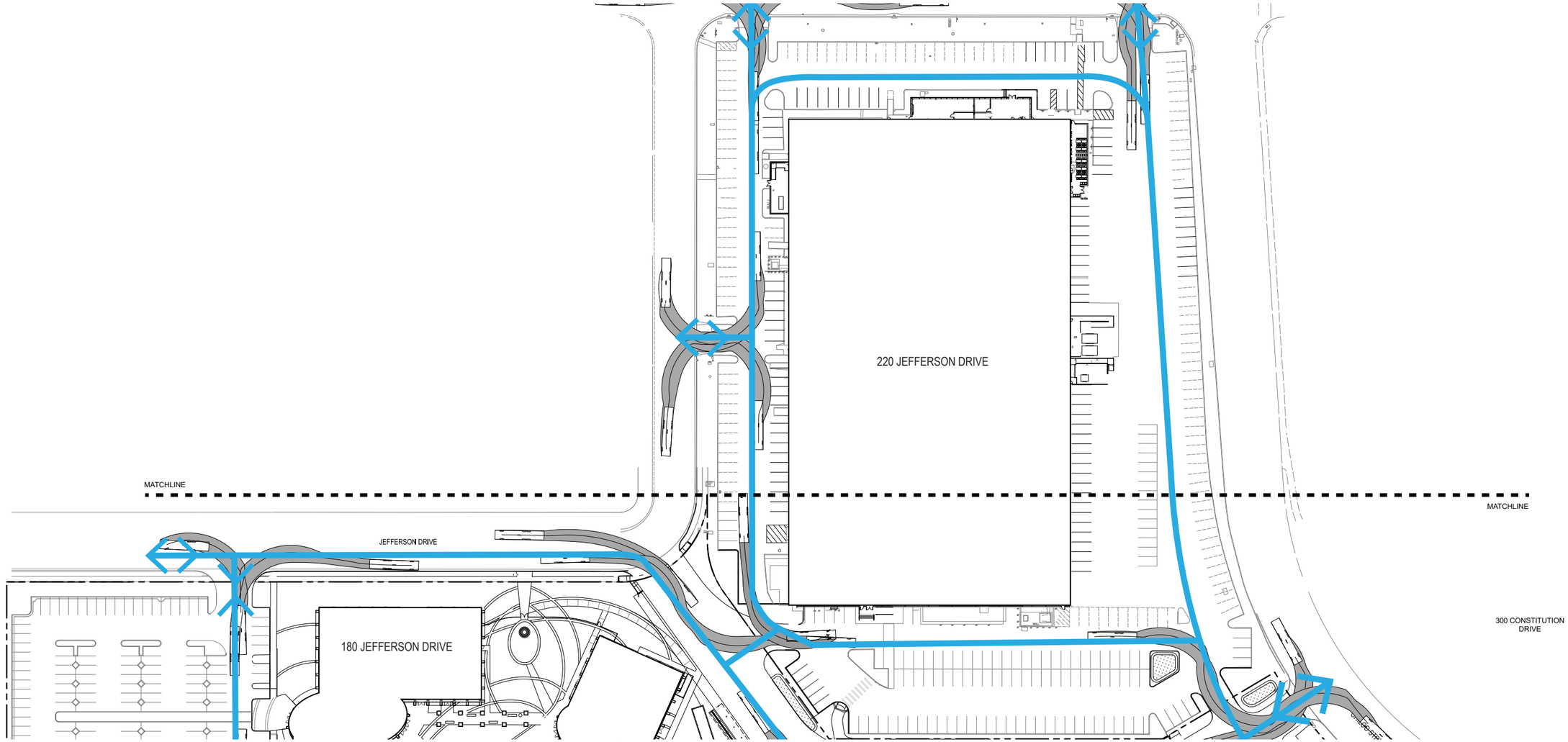
ADA SPACE STRIPPING

*City of Menlo Park Parking Requirement for Office zoning
as per O District Standards DRAFT January 7, 2016 Page 6

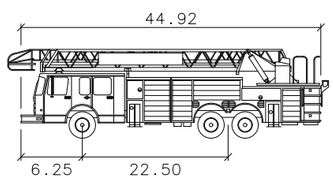
Land Use	Minimum spaces (Per 1,000 Sq.Ft.)	Maximum spaces (Per 1,000 Sq.Ft.)
Office	2	3

N
0 20 50 100 150 FT

FIRE DEPARTMENT ACCESS

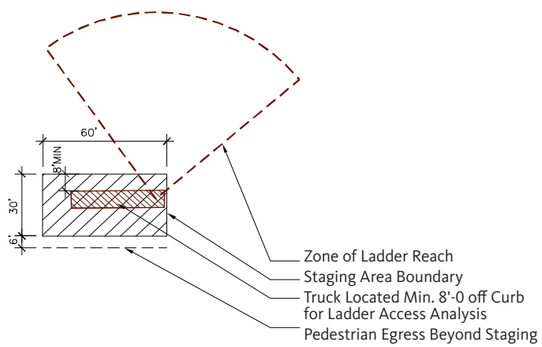


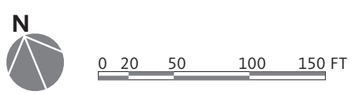
NOTES
1. FIRE HYDRANTS PROVIDED AT A MAXIMUM SPACING OF 300' ON CENTER.
2. FIRE HYDRANTS ARE PRIVATE
3. STAGING AREAS SHOWN ARE SUBJECT TO REVIEW BY THE MENLO PARK FIRE PROTECTION DISTRICT.
4. ROOF ACCESS TO BE CONSISTENT WITH THE FIRE DISTRICT REQUIREMENTS FOR MINIMUM 3'-0" DOORWAYS TO STAIRS FROM FLOOR BELOW.
5. PERMANENT FIXED LADDERS SHALL BE PROVIDED FOR PARAPETS OR ROOF ELEVATION CHANGES GREATER THAN 3'-0".



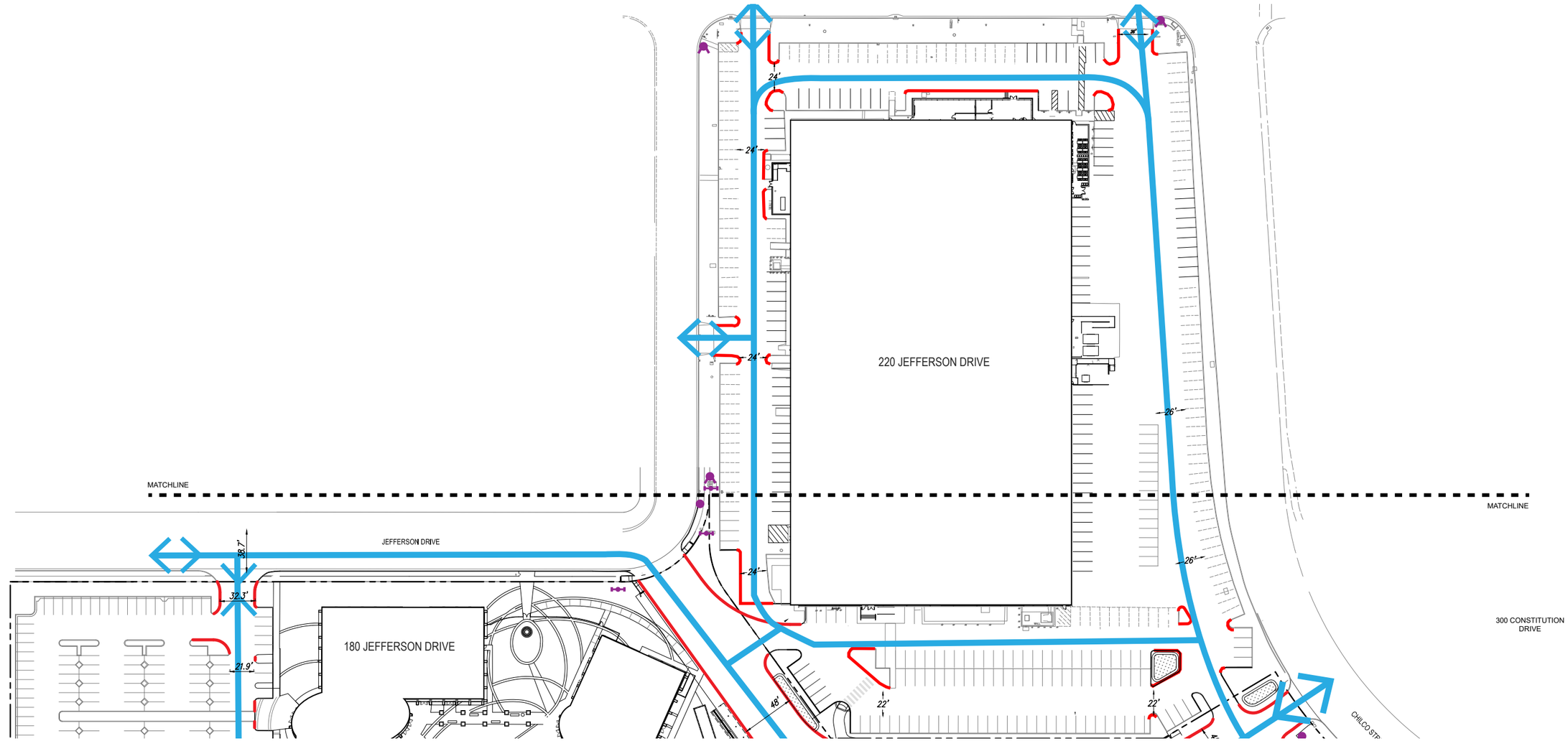
MENLO PARK FIRE TRUCK

	feet
Width	:8.25
Track	:8.25
Lock to Lock Time	:6.0
Steering Angle	:25.4





FIRE DEPARTMENT ACCESS



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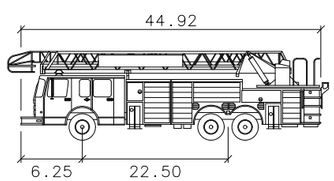
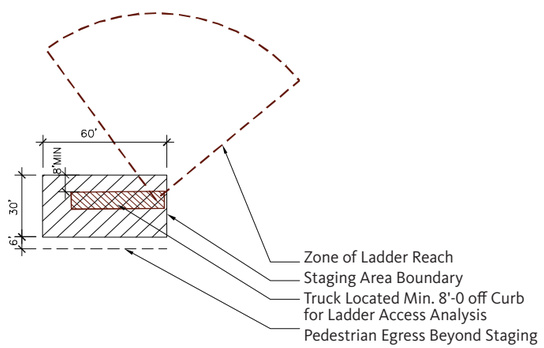


MENLO PARK FIRE TRUCK

	feet
Width	:8.25
Track	:8.25
Lock to Lock Time	:6.0
Steering Angle	:25.4



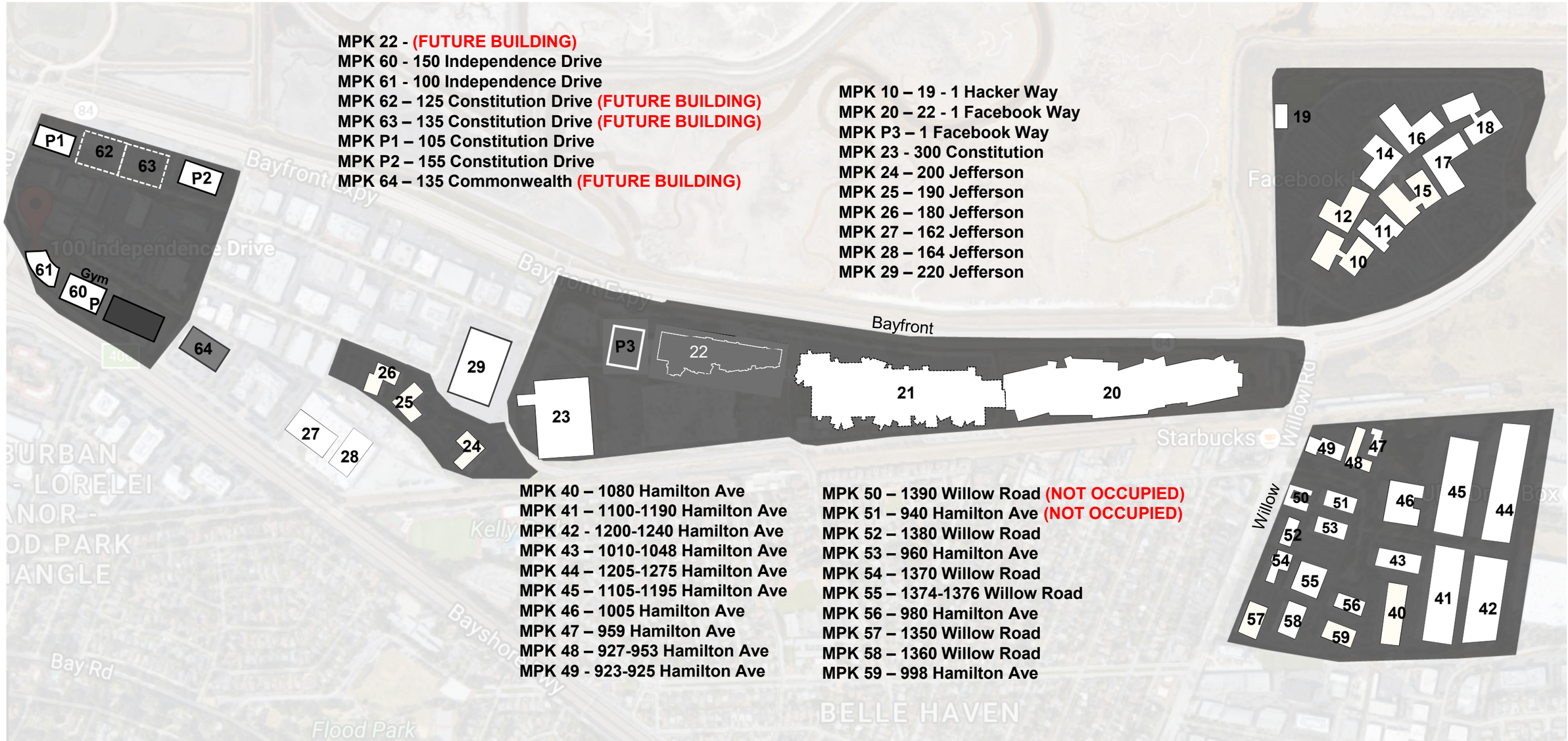
LEGEND

- FIRE ACCESS
- RED CURB
- BACK FLOW PREVENTER (BFP)
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION (FDC)

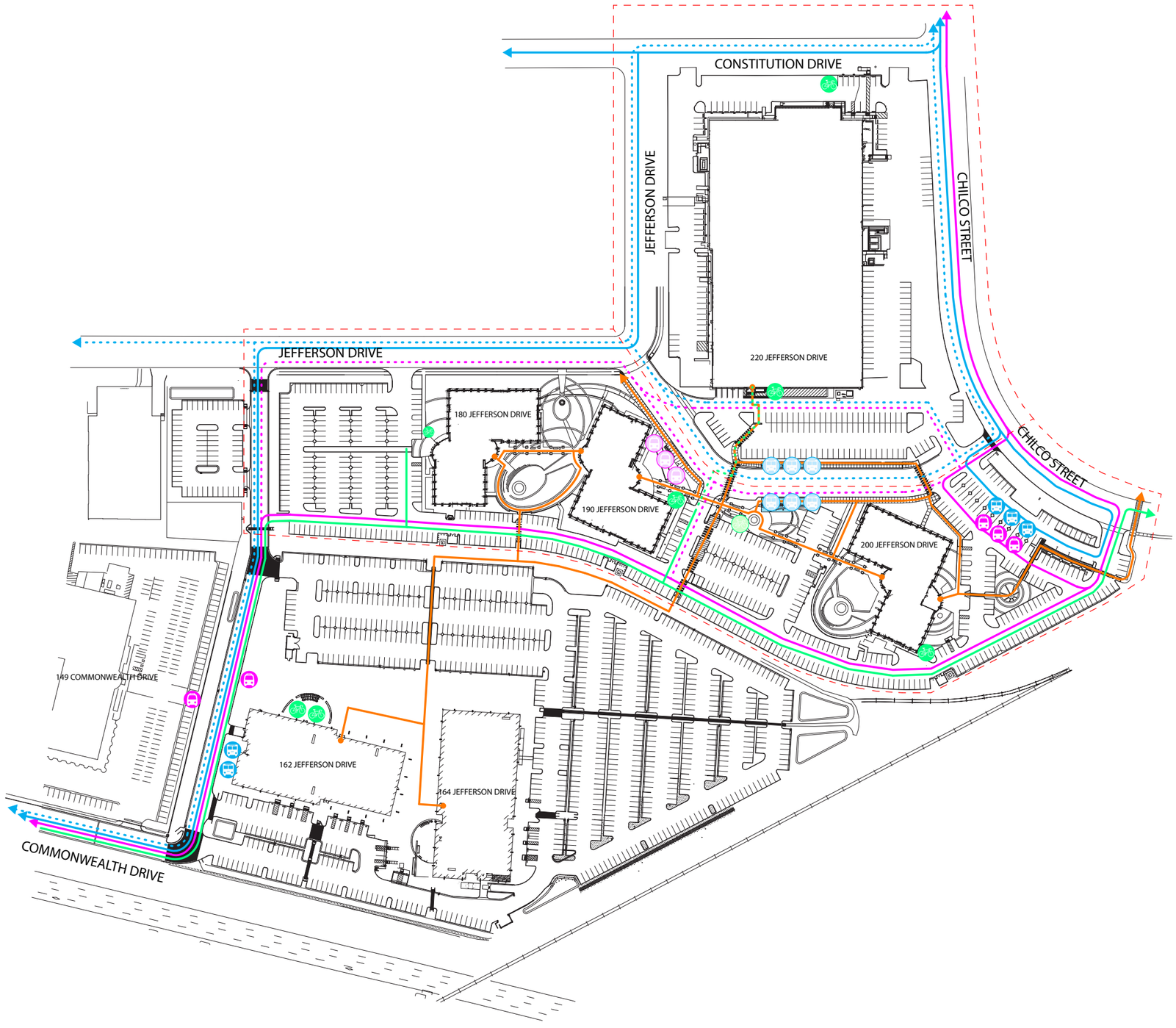
N

0 20 50 100 150 FT

OCCUPANCY PLAN



TRANSIT HUB PATHS OF TRAVEL



LEGEND

Bicycles
- (E) route
- (P) route
- (E) parking
- (P) parking

Shuttle
- (E) route
- (P) route
- (E) stop
- (P) stop

Tram
- (E) route
- (P) route
- (E) stop
- (P) stop

Pedestrian
- route

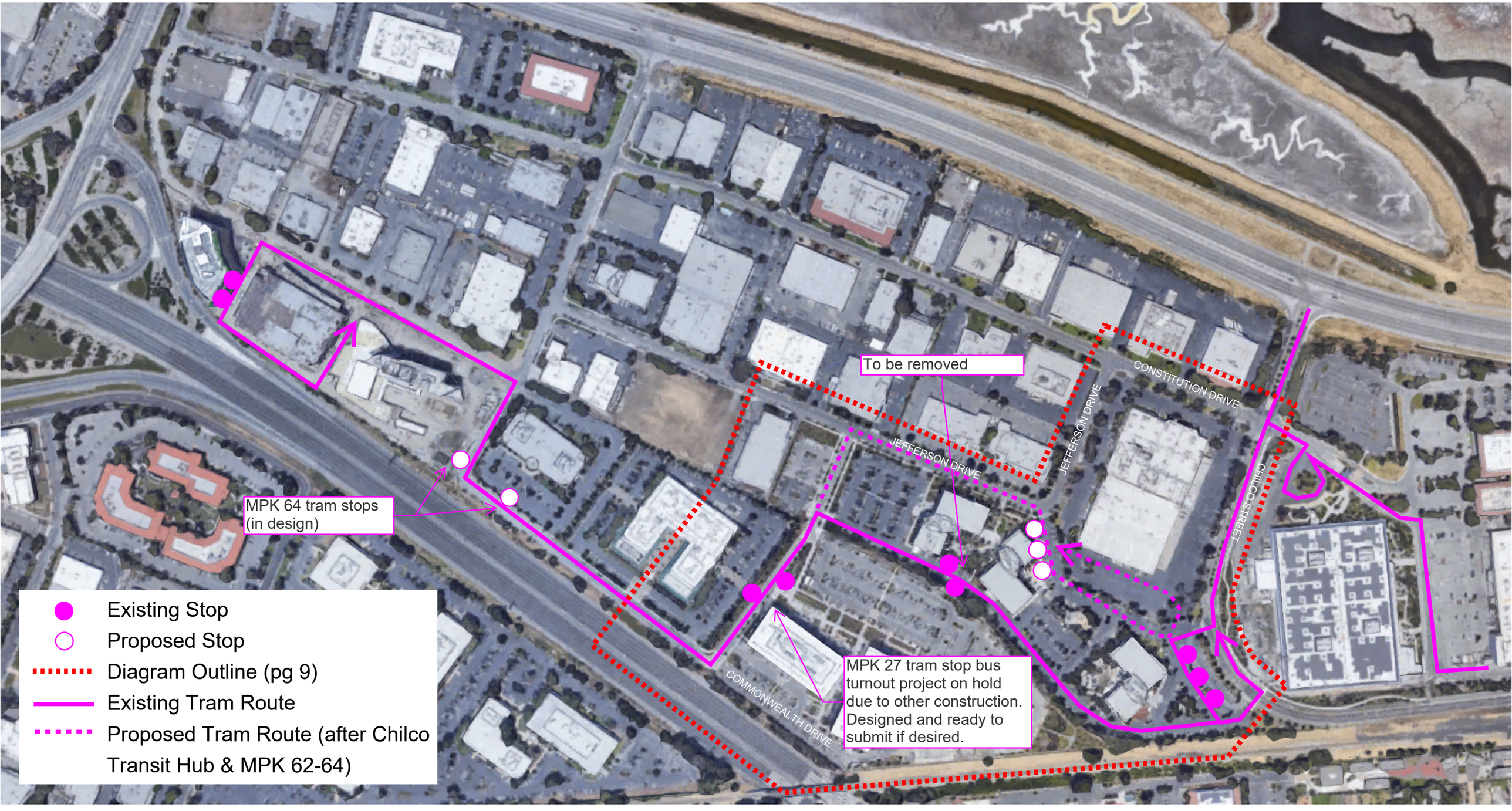
(E) existing
(P) proposed

N

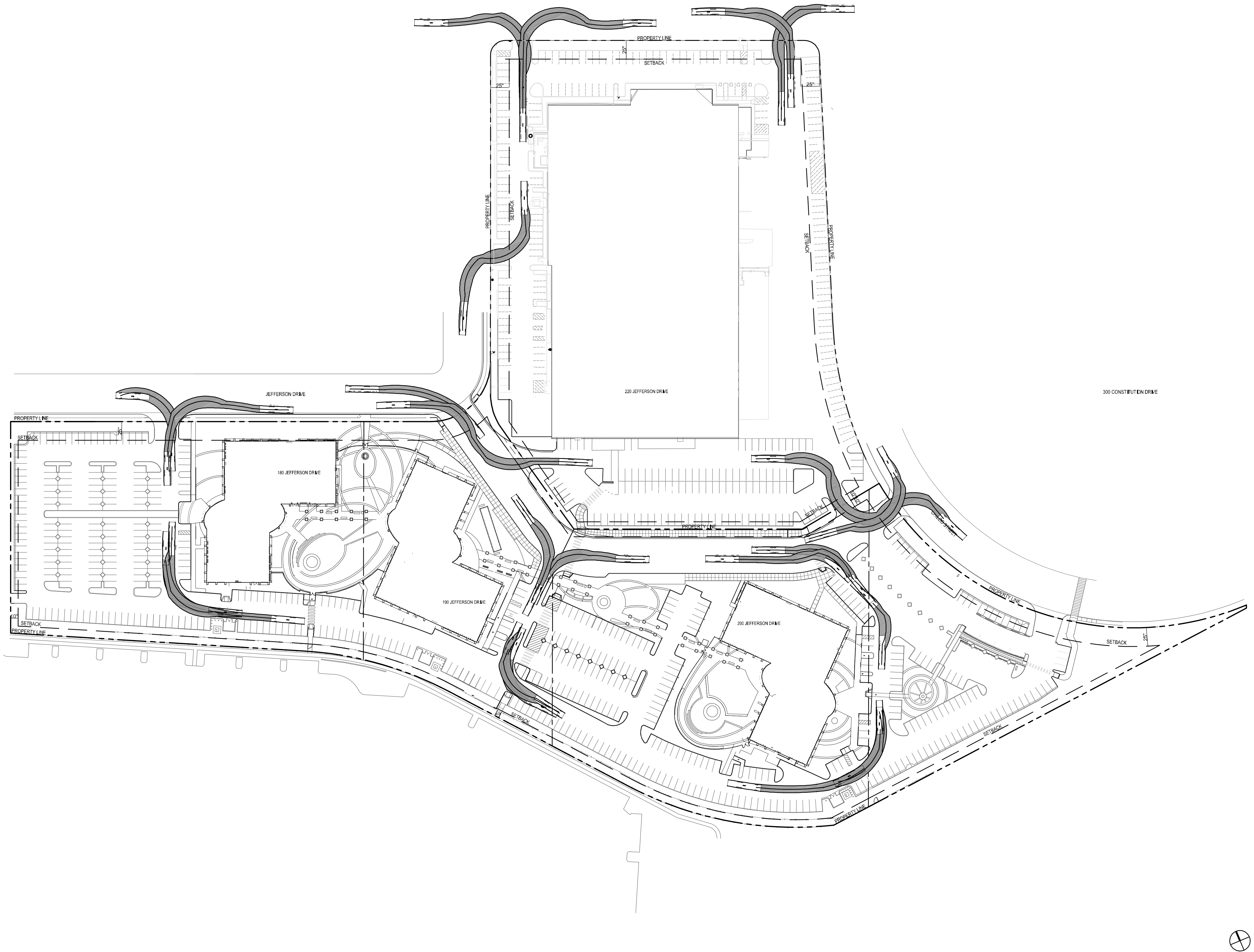
0 20 50 100 150 FT

TRANSIT HUB PATHS OF TRAVEL - SITE CONTEXT

TRANSIT HUB PATHS OF TRAVEL - SITE CONTEXT



TRANSIT HUB PATHS OF TRAVEL - SITE CONTEXT



1 CODE SITE PLAN
SCALE: 1" = 40'

FACEBOOK

220 Jefferson Drive
Menlo Park CA 94025

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Seal / Signature

Date	Description
8/17/18	PLANNING REVIEW RESPONSE 1

Project Name
MPK CHILCO CAMPUS
GUARDSHACK

Project Number
01.2971.000

Description
CODE SITE PLAN

Scale

G2.0

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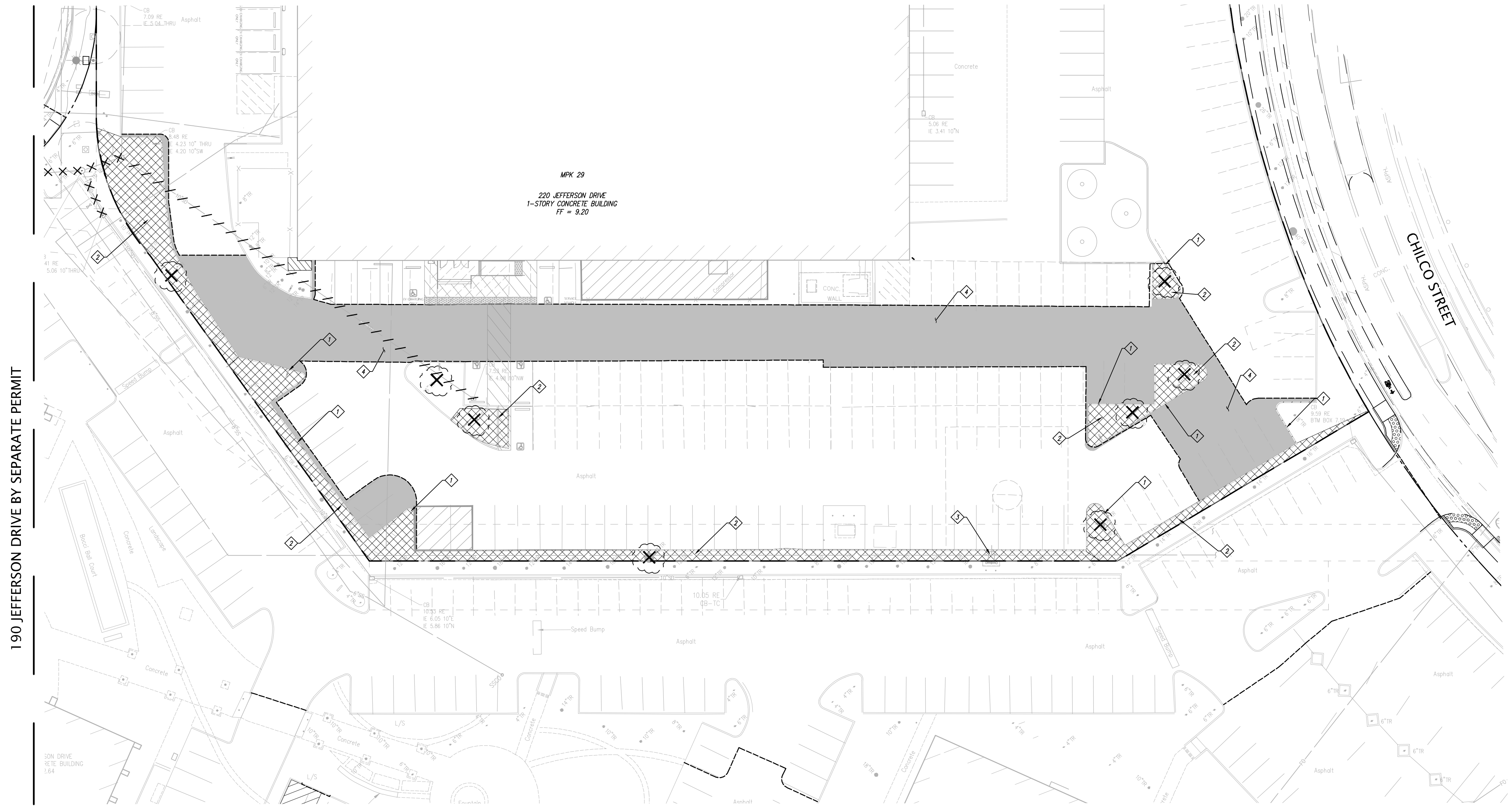


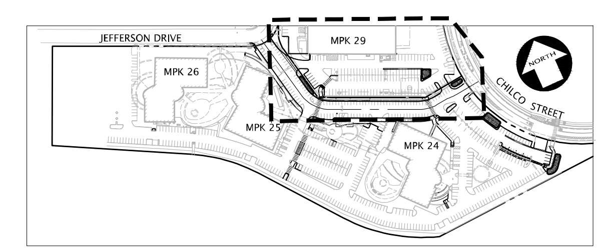
KEYNOTES

1. REMOVE CONCRETE CURB
2. REMOVE EXISTING LANDSCAPING AND IRRIGATION
3. PROTECT EXISTING WATER INFRASTRUCTURE IN PLACE
4. REMOVE EXISTING AC PAVEMENT

LEGEND

- EXISTING CURB & GUTTER TO BE REMOVED
- EXISTING AC PAVEMENT TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED
- EXISTING LANDSCAPE TO BE REMOVED
- SAWCUT LINE
- EXISTING TREE TO BE REMOVED
- UNDERGROUND UTILITIES TO BE REMOVED
- UNDERGROUND UTILITIES TO BE ABANDONED
- [PLUG AND CAP END

0 10 20 40 60
Scale 1" = 20'



KEY MAP
SCALE: 1" = 200'

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REGISTERED PROFESSIONAL ENGINEER No. 65838 CIVIL STATE OF CALIFORNIA

Seal / Signature

Date	Description
3/28/2018	PLAN CHECK SUBMITTAL
6/4/2018	PLAN REVIEW REVISIONS
8/6/2018	PLAN CHECK SECOND SUBMITTAL

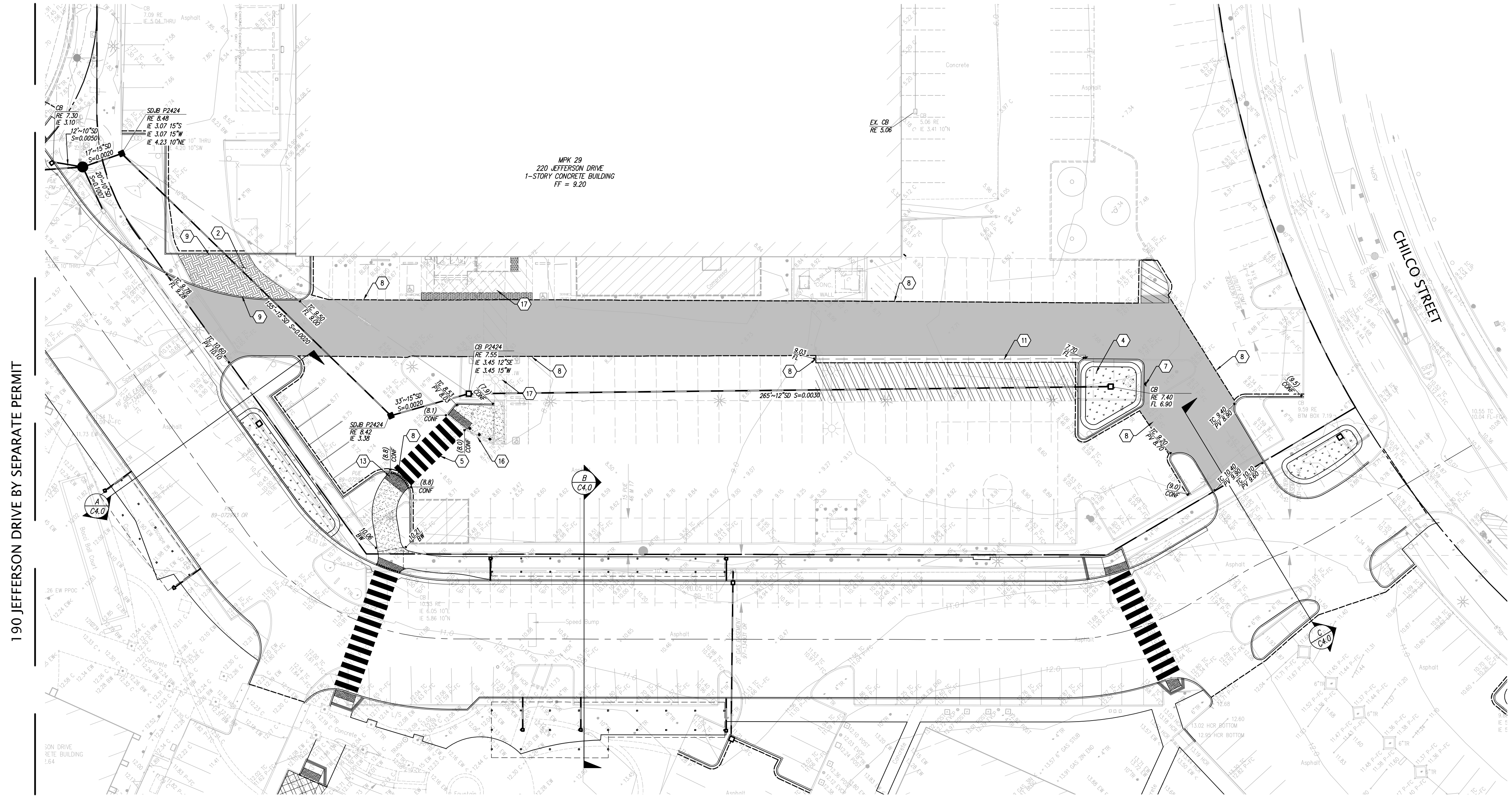
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
A16713-4

Description
DEMOLITION PLAN

Scale

C2.0



200 JEFFERSON DRIVE BY SEPARATE PERMIT

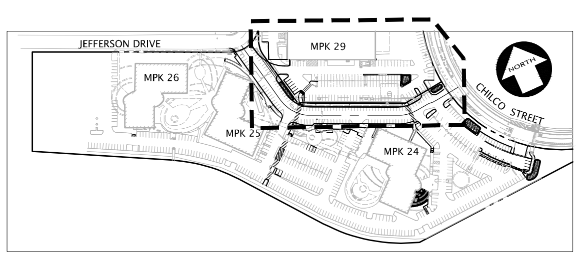
LEGEND

PROPOSED	EXISTING	
		ASPHALT BERM
		BLOCK/RETAINING WALL
		BUILDING LINE
		CENTER LINE
		CONCRETE CURB
		CONCRETE CURB CUT
		CONCRETE CURB & GUTTER
		CONTOUR LINE
		DRIVEWAY
		EDGE OF PAVEMENT
		FLUSH CONCRETE CURB
		FENCE LINE
		GRADE BREAK LINE
		GUARD RAIL
		LOT LINE
		MONUMENT/MONUMENT LINE
		PERFORATED STORM DRAIN PIPE
		PROPERTY LINE
		RAINWATER LEADER
		RIDGE LINE
		SIDEWALK
		STORM DRAIN–MANHOLE & CATCH BASIN
		THRU CURB DRAIN
100.00	+100.00	SPOT ELEVATION
		TRANSFORMER
		TRAFFIC SIGN
		TREE
		UTILITY BOX
AD	AD	AREA DRAIN
BW	BW	BACK OF WALK
		BOLLARD
BLDG	BLDG	BUILDING
BL	BL	BUILDING LINE
CB	CB	CATCH BASIN
COTG	COTG	CLEANOUT TO GRADE
C	C	CONCRETE
DR	DR	DOOR
DS	DS	DOWN SPOUT
DIP	DIP	DUCTILE IRON PIPE
ESMT	ESMT	EASEMENT
EW	EW	EDGE OF WALK
FB	FB	FACE OF BERM
FC	FC	FACE OF CURB
FW	FW	FACE OF WALL

PROPOSED	EXISTING	
FF	FF	FINISHED FLOOR
FL	FL	FLOW LINE
GB	GB	GRADE BREAK
HP	HP	HIGH POINT
IE	IE	INVERT ELEVATION
LP	LP	LOW POINT
LT	LT	LIGHT
OF	OF	OVERFLOW
OD	OD	OVERFLOW DRAIN
PV	P	PAVEMENT
POC	POC	POINT OF CONNECTION
RWL	RWL	RAINWATER LEADER
R	R	RIDGE
RE	RE	RIM ELEVATION
RD	RD	ROOF DRAIN
SL	SL	STREET LIGHT
SDJB	SDJB	STORM DRAIN JUNCTION BOX
SDMH	SDMH	STORM DRAIN MANHOLE
SWL	SWL	SWALE
TB	TB	TOP OF BERM
TC	TC	TOP OF CURB
TW	TW	TOP OF WALL
T	T	TRANSFORMER
TE	TE	TRASH ENCLOSURE
		TRUCK PAVEMENT: 4" AC OVER 12" CLASS II AB BETWEEN 87%-92% R.C. SUBGRADE, AND BE AT LEAST 3% OVER THE OPTIMUM MOISTURE
		AUTO PAVEMENT: 3" AC OVER 10" CLASS II AB BETWEEN 87%-92% R.C. SUBGRADE, AND BE AT LEAST 3% OVER THE OPTIMUM MOISTURE.
		ASPHALT PAVEMENT OVERLAY
		CONCRETE TRUCK PAVEMENT: 6" PCC OVER 12" CLASS II AB BETWEEN 87%-92% R.C. SUBGRADE, AND BE AT LEAST 3% OVER THE OPTIMUM MOISTURE. W/ # 3 BAR 18" O/C. CONTRACTION JOINTS 6' O/C
		CONCRETE SIDEWALK: 4" PCC OVER 15" CLASS II AB
		BIO-FILTRATION SWALE
		PLANTER
		REINFORCED TURF, SEE DETAIL 14/C4.1

KEYNOTES

1. INSTALL 6" CURB. SEE DETAIL 1/C4.1
2. TURF BLOCKS PER LANDSCAPE ARCHITECT PLANS, SEE DETAIL 14/C4.1
3. INSTALL CURB RAMP
4. BIORETENTION TREATMENT AREA
5. NEW CROSSWALK SEE DETAIL 3/C4.1
6. EXISTING CATCH BASIN TO REMAIN. ADJUST RIM ELEVATION PER PLAN.
7. CURB CUT. SEE DETAIL 7/C4.1
8. SAWCUT & CONFORM TO EXISTING PAVEMENT
9. ROLLED CURB FOR FIRE TRUCK ACCESS. SEE DETAIL 4/C4.1
10. NEW SD CONNECTION TO CITY SYSTEM
11. NEW VALLEY GUTTER. SEE DETAIL 11/C4.1
12. PROTECT EXISTING WATER INFRASTRUCTURE IN PLACE
13. INSTALL TRUNCATED DOMES. SEE DETAIL 12/C4.1
14. INSTALL NEW CATCH BASIN. SEE DETAIL 6/C4.1
15. CONVERT CATCH BASIN TO JUNCTION BOX AND ADJUST RIM ELEVATION TO GRADE
16. INSTALL FLUSH CURB PER DETAIL 10/C4.1
17. EXISTING ACCESSIBLE ROUTE TO 220 JEFFERSON DRIVE BUILDING ENTRANCE.



KEY MAP

SCALE: 1" = 200'

Z:\2016\A16713-4\DWG\CIVIL\BUILDING PERMIT\A16713-4_220 JEFF_CDS-GP.dwg 8-16-18 02:43:39 PM srgroger

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6/4/2018	PLAN REVIEW REVISIONS
8/6/2018	PLAN CHECK SECOND SUBMITTAL

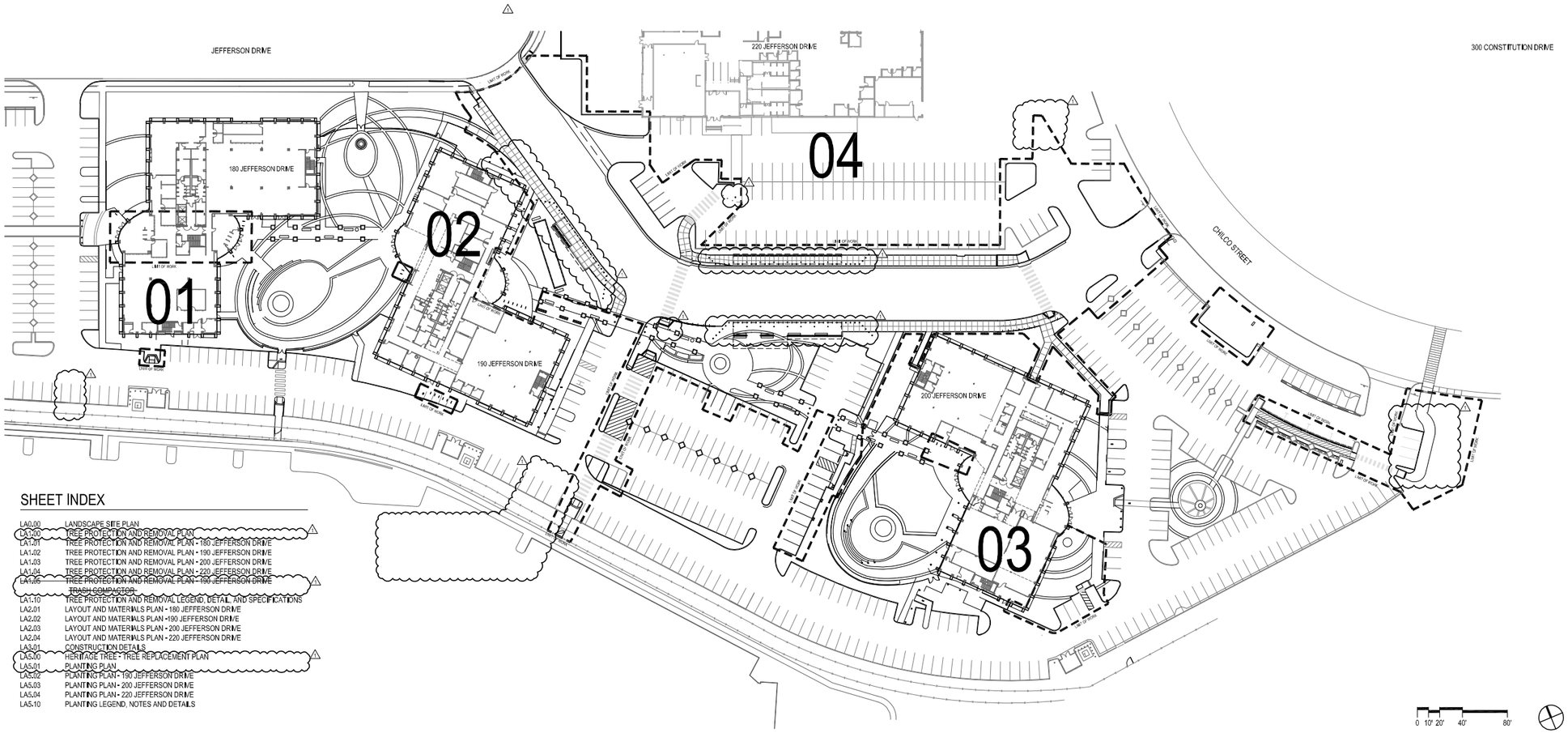
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
A16713-4

Description
GRADING & DRAINAGE PLAN

Scale

C5.0



SHEET INDEX

1 SITE PLAN
SCALE: 1" = 40'

GENERAL NOTES

1. THESE NOTES AND LEGENDS REFER TO THE LANDSCAPE DRAWINGS ONLY.
2. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
3. THE PLANS INDICATE THE GENERAL EXTENT OF NEW CONSTRUCTION NECESSARY FOR THE WORK, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE. ALL NEW WORK NECESSARY FOR A FINISHED JOB IN ACCORDANCE WITH THE INTENTION OF THE DRAWINGS IS INCLUDED REGARDLESS OF WHETHER SHOWN ON THE DRAWINGS OR MENTIONED IN THE NOTES AND SPECIFICATIONS
4. THE WORK INCLUDED UNDER THIS CONTRACT SHALL CONSIST OF ALL LABOR, MATERIALS, TRANSPORTATION, TOOLS AND EQUIPMENT NECESSARY FOR THE CONSTRUCTION OF THE PROJECT AND TO LEAVE ALL FINISHED WORK BROOM CLEAN AND READY FOR USE.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE BUILDING CODE REQUIREMENTS, OTHER LOCAL OR MUNICIPAL REQUIREMENTS AND APPLICABLE REQUIREMENTS OF OTHER REGULATORY AGENCIES.
6. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND PAY FEES FOR PERMITS, LICENSE, INSPECTIONS, FILINGS, AND APPROVALS REQUIRED BY LOCAL LAWS ORDINANCES, AND REGULATIONS NECESSARY FOR COMPLETION OF PROJECT.
7. UNLESS OTHERWISE SPECIFIED, SPECIFIC REFERENCES TO CODES, REGULATIONS, STANDARDS, MANUFACTURERS INSTRUCTIONS, OR REQUIREMENTS OF REGULATORY AGENCIES, WHEN USED TO SPECIFY REQUIREMENTS FOR MATERIALS OR DESIGN ELEMENTS SHALL MEAN THE LATEST EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION, OR THE DATE OF THE CHANGE ORDER OR FIELD ORDERS, AS APPLICABLE.
8. ALL ERRORS, OMISSIONS OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS IDENTIFIED BY THE CONTRACTORS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND THE OWNER FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK. SHOULD THE CONTACTOR PROCEED WITH THE WORK PRIOR TO RECEIVING CLARIFICATIONS, HE DOES SO AT HIS OWN RISK. ANY DEVIATION OR CHANGES FROM THESE DRAWINGS WITHOUT WRITTEN ACCEPTANCE BY THE LANDSCAPE ARCHITECT SHALL ABSOLVE THE LANDSCAPE ARCHITECT OF ANY AND ALL RESPONSIBILITY OF SAID DEVIATION AND CHANGE.
9. THE CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DOCUMENTS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION FOR USE BY ALL TRADES AND SHALL PROVIDE ALL SUBCONTRACTORS WITH CURRENT CONSTRUCTION DOCUMENTS AS REQUIRED. UPON RECEIPT OF DATED AND ISSUED REVISIONS TO THE CONSTRUCTION DOCUMENT BY THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL IMMEDIATELY REVISE THE FIELD SET OF CONSTRUCTION DOCUMENTS AND NOTIFY ALL AFFECTED TRADES OF SUCH REVISION.
10. THE CONTACTOR SHALL VERIFY AND ASSUME RESPONSIBILITY FOR ALL DIMENSIONS AND SITE CONDITIONS. THE CONTRACTOR SHALL INSPECT THE EXISTING PREMISES AND TAKE NOTE OF EXISTING CONDITIONS PRIOR TO SUBMITTING PRICES. NO CLAIM SHALL BE ALLOWED FOR DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE REASONABLY BEEN INFERRED FROM SUCH AN EXAMINATION.
11. THE CONTRACTOR SHALL NOT PROCEED WITH ANY ADDITIONAL WORK OR CHANGES FOR WHICH ADDITIONAL COMPENSATION IS EXPECTED WITHOUT A WRITTEN AUTHORIZATION FROM THE OWNER AND THE LANDSCAPE ARCHITECT.
12. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE WORK AND SCHEDULES OF OTHER TRADES TO PREVENT CONFLICTS BETWEEN TRADES OR DELAYS TO OVERALL CONSTRUCTION SCHEDULE.
13. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY WITH OWNER AND ARCHITECT ANY AND ALL ITEMS TO BE SAVED FOR REUSE AND SHALL REMOVE AND STORE THEM IN A PROTECTED AREA ON THE JOB SITE OR AS DIRECTED BY OWNER AND ARCHITECT.
14. CONTRACTOR SHALL PERFORM ALL PROTECTION, TRANSPORTATION, DEMOLITION, MATERIAL REMOVAL AND SITE PREPARATION NECESSARY FOR THE PROPER EXECUTION OF ALL WORK SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
15. THE CONTRACTOR SHALL REMOVE FROM THE SITE AND DISPOSE OF ACCORDING TO ALL APPLICABLE LOCAL CODES AND ORDINANCES ALL RUBBISH, DEBRIS, UNSUITABLE AND WASTE MATERIALS ON A REGULAR BASIS GENERATED BY CONTRACTOR'S OPERATIONS, INCLUDING SUBCONTRACTORS AND TRADES AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL EXERCISE STRICT CONTROL OVER JOB CLEANING TO PREVENT MATERIALS, DIRT, DEBRIS OR DUST FROM AFFECTING IN ANY WAY FINISHED AREAS OF THE JOB SITE OR AREAS OUTSIDE JOB SITE.
16. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC ON ALL EXISTING STREETS DURING CONSTRUCTION.
17. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES, CONSTRUCTION SCHEDULING AND SEQUENCING OF THE WORK.
18. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES, IMPROVEMENTS, AND STRUCTURES, INCLUDING ARCHITECTURAL WALLS, PAVING AND SURFACES, WHETHER SHOWN ON THE DRAWING OR NOT.
19. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATED LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE TO THE LANDSCAPE ARCHITECT AT THE TIME OF PREPARATION OF THESE SHEETS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY AND COMPLETENESS OF THE INFORMATION SHOWN.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE PRECISE LOCATIONS, DEPTHS AND SIZES OF ALL UNDERGROUND FACILITIES AT LEAST SEVEN (7) DAYS PRIOR TO EXCAVATION. CONTRACT SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA 1-800-227-2600) AT LEAST 48 HOURS PRIOR TO START OF WORK TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES.
21. IF LIVE UTILITIES ARE ENCOUNTERED PROTECT THE SAME FROM DAMAGE AND IN THE EVENT OF DAMAGE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND THE AFFECTED UTILITY PROVIDER. DO NOT PROCEED UNTIL FURTHER INSTRUCTIONS ARE RECEIVED.
22. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING, SUPERVISING AND MAINTAINING SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK.
23. THE CONTRACTOR SHALL SECURE THE PREMISES AND MATERIALS WITHIN THE CONSTRUCTION AREA FOR THE DURATION OF CONSTRUCTION UNTIL THE OWNER'S FINAL ACCEPTANCE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AT THE END OF EACH WORKDAY TO INSURE THAT UNAUTHORIZED PERSONS CANNOT ENTER THE JOB SITE.
24. THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AT LEAST 3 DAYS PRIOR TO ALL REQUIRED FIELD OBSERVATIONS BY LANDSCAPE ARCHITECT.
25. THERE SHALL BE NO SUBSTITUTION OF MATERIALS WHERE A MANUFACTURER IS SPECIFIED. WHERE "OR APPROVED EQUAL" IS USED, THE LANDSCAPE ARCHITECT ALONE SHALL DETERMINE THE SUITABILITY AND ACCEPTABILITY OF A SUBSTITUTION REQUESTED BY THE CONTRACTOR. ALL MATERIALS SHALL BE NEW, UNUSED, AND OF THE HIGHEST QUALITY IN EVERY RESPECT.
26. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL ALL EQUIPMENT AND MATERIALS PER MANUFACTURER'S RECOMMENDATIONS.
27. CONTRACTOR SHALL SUBMIT LEGIBLE SHOP DRAWINGS FOR ALL ITEMS NOT SPECIFICALLY DETAILED.
28. I HAVE COMPLIED WITH THE CRITERIA OF THE WATER CONSERVATION IN LANDSCAPING ORDINANCE AND HAVE APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLAN.
29. IRRIGATION SHALL BE DELIVERED BY DRIP OR MICRO-SPRAY DEVICES ONLY, PER CITY RESOLUTION 6261. MICROSPRAY IS DEFINED AS HAVING A FLOW RATE NOT TO EXCEED 30 GALLONS PER HOUR AT 30 PSI.
30. A MINIMUM 3-INCH LAYER OF MULCH SHALL BE APPLIED ON ALL EXPOSED SOIL SURFACES, WITH THE EXCEPTION OF TURF.

ABBREVIATIONS

ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
&	AND	MISC	MISCELLANEOUS
@	AT	N/A	NOT APPLICABLE
AB	AGGREGATE BASE	NIC	NOT IN CONTRACT
AC	ASPHALT CONCRETE	NO/#	NUMBER
AD	AREA DRAIN	NOM	NOMINAL
ALT	ALTERNATE	NTS	NOT TO SCALE
APPROX	APPROXIMATE	OC	ON CENTER
ARCH	ARCHITECTURAL	PA	PLANTING AREA
ASPH	ASPHALT	PERF	PERFORATED
AVC	ARCHITECTURAL VAULT COVER	PL	PROPERTY LINE
BLDG	BUILDING	PROP	PROPERTY
BSW	BACK OF SIDEWALK	PVMT	PAVEMENT
BW	BOTTOM OF WALL	R	RADIUS
CIP	CAST-IN-PLACE	REF	REFER
CJ	CONTROL JOINT	REINF	REINFORCED
CL	CENTERLINE	REV	REVISION/REVISED
CONC	CONCRETE	S.A.D	SEE ARCHITECTURAL DRAWING
C.U.P	CONCRETE UNIT PAVER	S.C.D	SEE CIVIL DRAWING
DET/DETL	DETAIL	SECT	SECTION
D.G.	DECOMPOSED GRANITE	S.E.D.	SEE SITE ELECTRICAL DRAWING
DIA	DIAMETER	SHT	SHEET
DIM	DIMENSION	S.I.D.	SEE IRRIGATIONS DRAWING
DWG	DRAWING	SIM	SIMILAR
(E)	EXISTING	SPEC	SPECIFICATION
EA	EACH	S.F.	SQUARE FOOT / FEET
EL /ELEV	ELEVATION	S.S.D.	SEE STRUCTURAL DRAWING
EQ	EQUAL	S.S.	STAINLESS STEEL
FFE	FINISH FLOOR ELEVATION	STD	STANDARD
FG	FINISH GRADE	TBD	TO BE DETERMINED
FS	FINISH SURFACE	TC	TOP OF CURB
FT	FOOT OR FEET	TEMP	TEMPORARY
IN	INCH	TOC	TOP OF CONCRETE
IRR	IRRIGATION	TW / TOW	TOP OF WALL
IVC	INTEGRAL VAULT COVER	TYP	TYPICAL
JT	JOINT	VAR	VARIES
MIN	MINIMUM	VIF	VERIFY IN FIELD

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Date	Description
04/20/2018	FIRE DEPT PLAN CHECK
08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

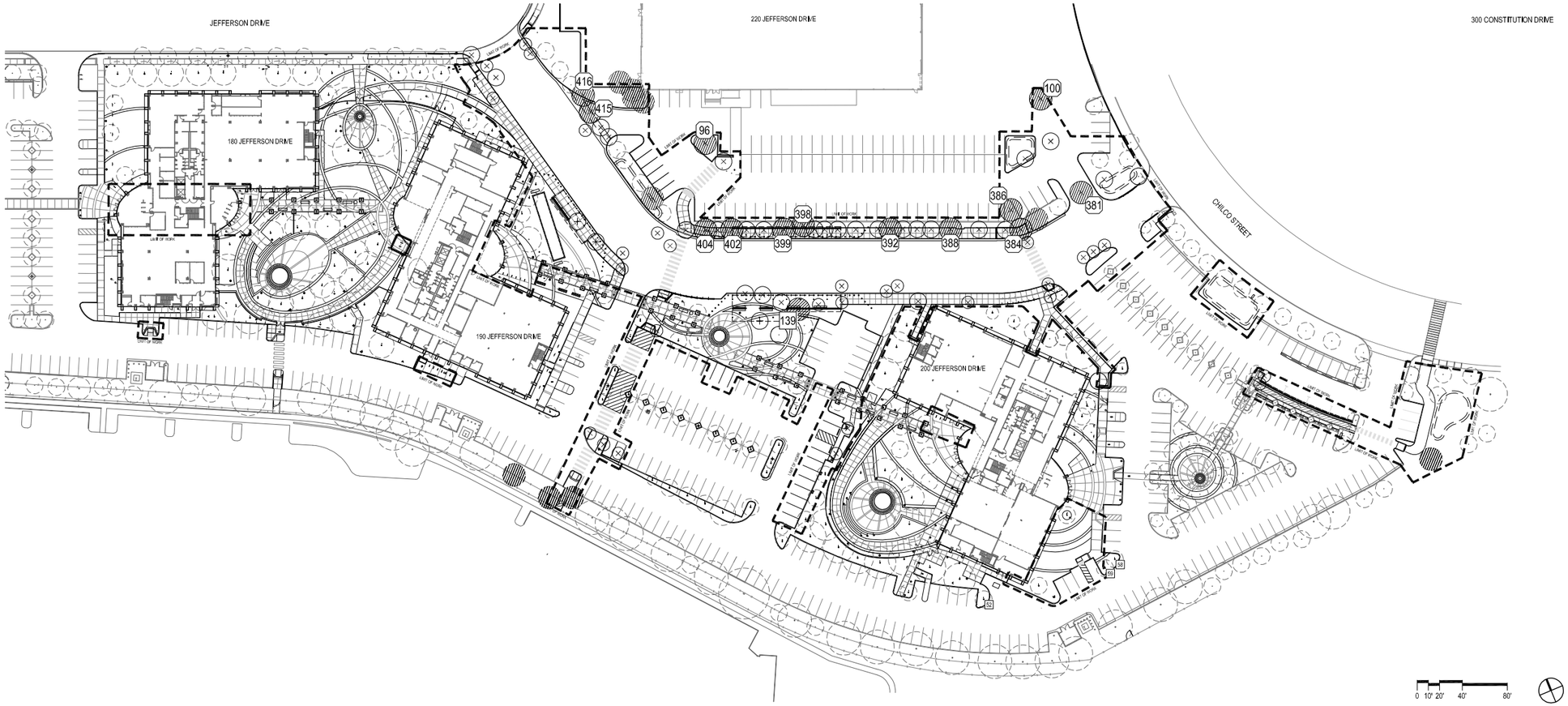
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
LANDSCAPE SITE PLAN

Scale
1" = 40'

LA0.00



1 TREE PROTECTION PLAN

SCALE: 1" = 40'

TREE PROTECTION LEGEND

SYMBOL	DESCRIPTION
+	EXISTING TREES TO BE RETAINED AND PROTECTED
	EXISTING HERITAGE TREE TO BE PROTECTED AND RETAINED
×	EXISTING TREES TO BE REMOVED (INCLUDING ROOTBALL)
	EXISTING HERITAGE TREE TO BE REMOVED (INCLUDING ROOTBALL)
+	EXISTING YOUNG TREE TO BE TRANSPLANTED
##	EXISTING TREE IDENTIFICATION, KEYED TO MPK 24, 25, & 26 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON MAY 20, 2016
#	EXISTING TREE IDENTIFICATION, KEYED TO MPK 29 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON NOVEMBER 15, 2017
	LIMIT OF WORK
	PROPERTY LINE
	PARCEL LINE

TREE REMOVAL IDENTIFICATION SCHEDULE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
139	FRAXINUS OXYCARPA 'RAYWOOD'	381	PINUS CANARIENSIS
		384	PINUS CANARIENSIS
		386	EUCALYPTUS POLYANTHEMOS
		388	PINUS CANARIENSIS
		392	EUCALYPTUS POLYANTHEMOS
		398	EUCALYPTUS POLYANTHEMOS
		399	EUCALYPTUS POLYANTHEMOS
		402	EUCALYPTUS POLYANTHEMOS
		404	PINUS CANARIENSIS
		415	PINUS CANARIENSIS
		416	EUCALYPTUS NICHOLII
		96	EUCALYPTUS POLYANTHEMOS
		100	EUCALYPTUS POLYANTHEMOS

HERITAGE TREE REPLACEMENT SUMMARY

HERITAGE TREES FOR REMOVAL	2:1 REPLACEMENT REQUIREMENT	PROPOSED QUANTITY REPLACEMENT TREES
14	28	32

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Seal / Signature

△	Date	Description
	04/20/2018	FIRE DEPT PLAN CHECK
△	08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

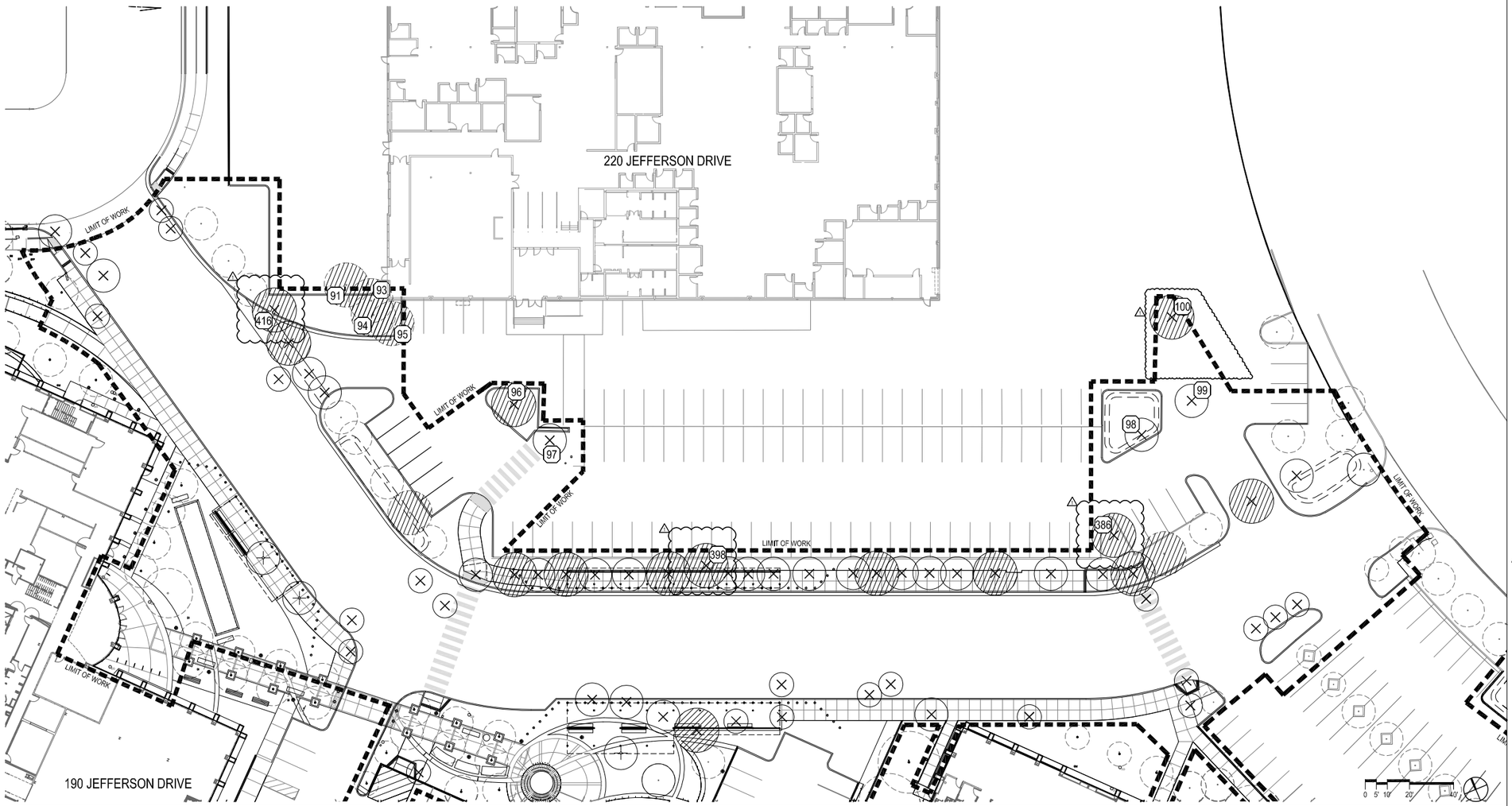
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
TREE PROTECTION AND REMOVAL PLAN

Scale
1" = 40'

LA1.00 △



1 TREE PROTECTION PLAN
SCALE: 1"=20'

HERITAGE TREE REPLACEMENT SUMMARY

	HERITAGE TREES FOR REMOVAL	2:1 REPLACEMENT REQUIREMENT	PROPOSED QUANTITY REPLACEMENT TREES
180 Jefferson	0	0	0
190 Jefferson General Site	1	2	2
190 Jefferson Fresh Campsite	0	0	0
200 Jefferson	8	16	4
220 Jefferson	5	10	26
TOTAL	14	28	32

TREE REMOVAL IDENTIFICATION SCHEDULE

SYMBOL	DESCRIPTION
96	EUCALYPTUS POLYANTHEMOS
97	EUCALYPTUS POLYANTHEMOS
98	EUCALYPTUS POLYANTHEMOS
99	EUCALYPTUS POLYANTHEMOS
100	EUCALYPTUS POLYANTHEMOS
386	EUCALYPTUS POLYANTHEMOS
398	EUCALYPTUS POLYANTHEMOS
416	EUCALYPTUS NICHOLII

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Seal / Signature

Date	Description
04/20/2018	FIRE DEPT PLAN CHECK
08/08/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
TREE PROTECTION AND REMOVAL PLAN
220 JEFFERSON DRIVE

Scale
1" = 20'

LA1.04

TREE PROTECTION SPECIFICATIONS

Purpose

These guidelines provide for the care and maintenance of the tree(s) before, during and after construction activities. Consideration during the design phase is critical to understanding if a tree is worthy of retention and, if so, what will be the costs associated with assuring the long term health.

The goal of tree protection and preservation is to provide for a successful transition to a modified site. To be most effective, health mitigation measures must begin before the time of disturbance. Healthy trees (measured in high starch reserves) are more likely to survive adverse impacts.

Project construction documents must provide clear and concise tree protection requirements. Documents must also provide procedures to be used for all activities occurring within the designated tree protection area.

Definitions

City Heritage Trees – Menlo Park's Tree Ordinance designates tree removal permits for trees having attained Heritage size:

1. Any tree having a trunk with a circumference of 47.1 inches (diameter of 15 inches) or more measured at 54 inches above natural grade.
2. Any oak tree native to California, with a circumference of 31.4 inches (diameter of 10 inches) or more measured at 54 inches above natural grade.
3. Any tree with more than one trunk measured at the point where the trunks divide, with a circumference of 47.1 inches (diameter of 15 inches) or more, with the exception of trees that are under twelve (12) feet in height, which are exempt from the ordinance.[1]

Protected Tree – Any tree that has been designated to be retained and is located within the scope of a construction project.

Project Arborist – A certified arborist appointed to oversee tree protection. Project arborist shall have the authority to halt all construction activities if tree protection guidelines are not being adhered to.

DBH – Diameter at Breast Height: Tree diameter measured at 54 inches above average soil grade.

Root Protection Zone (RPZ) – A radial distance from the base of the tree designated by project arborist. Sometimes equal the crown spread but is generally a distance of one-foot from the base of the tree for every one-inch in tree (DBH).

Soil Compaction – Soil compaction is excessive when planting soil is compacted generally over 80% ASTM from a standard Proctor compaction test. Soil compaction must be avoided and mitigated when identified within the designated RPZ.

Mechanical Damage – Damage to tree trunk, branches or roots that causes loss of bark and cambial damage.

Crown Pruning – Shortening or removal of branches in accordance with guidelines presented in ANSI A300 PRUNING STANDARDS. All such pruning must be approved of and conducted by qualified personnel.

Root Pruning – Pruning of tree roots must be approved of and conducted with project arborist.

Design

Whenever early design contemplates the retention of an existing tree in the modified environment, deference to the needs of the tree must be provided. This entails an understanding of the current conditions and the level of encroachment that will occur. Arborist involvement during the initial design period is important to understanding if the tree is worthy of saving and if the tree can be saved. Trees designated to be retained require both minimization of root loss and an overall improvement in the quality of the soil conditions.

The first logical step in tree preservation is to conduct a process called Site Analysis, which involves investigation of both physical soil properties and laboratory analysis. The purpose is to identify conditions that may limit the ability of the plant material to thrive. Once the site limitations have been identified, mitigation treatments can be prescribed.

Site analysis and early tree health mitigation

Prior tree survey and site analysis will designate trees to be retained and all procedures and treatments to be used to assure the trees survive the site modifications.

Soil Profile Examination – The soil profile examination determines soil texture and moisture levels. Soil compaction is also assessed. This information is vital to the understanding of the level of soil protection and mitigation that will be necessary.

Laboratory Analysis – Analysis of soil and plant tissue samples can help guide the use of soil amendments and fertilization.

Root Investigation – Preliminary excavation to determine the size, depth and amount of roots present in the impacted area. This information may trigger design modifications.

Mitigation of Limitations Identified – Limitations identified during site analysis are best mitigated as soon as possible to improve overall tree health. Possible limitations to be mitigated include soil compaction, nutritional deficiencies and soil moisture. Most basic mitigation entails: irrigation, mulching, water jet and air spade procedures. Soil amendments other than good quality mulch must be based upon laboratory soil analysis.

Pre-construction activities

These activities should be undertaken prior to initiation of construction activity.

Mulching – Use of good quality organic mulch (wood chips are best) on soil surface helps to reduce soil compaction and retain soil moisture. Recommended material is wood chips generated from tree trimming. Fresh redwood, incense cedar and walnut chips are not acceptable, nor is palm generated mulch.

Crown Pruning – Pruning must comply with ANSI A300 Pruning Standards. Pruning prior to construction should include: Necessary Clearance Pruning, Deadwood Removal and Safety Pruning.

Construction Documents to Show Protected Trees and Tree Protection Requirements – Project plans to show tree protection fencing layout, areas of encroachment, and list procedures for working around protected trees.

Designation of Tree Root Protection Zone (RPZ) –The tree Root Protection Zone designates an area surrounding a tree or grouping of trees that is to be fenced off from all access. The RPZ is commonly defined as a distance of one (1) foot radial distance from the base of the tree for every one (1) inch in tree diameter (DBH). A tree with a 10 inch diameter would have a RPZ equal to 10 feet out from the tree. Project arborist can modify the RPZ distance based upon physical evidence of root presence or absence.

Tree Root Protection Zone Fencing – Fencing is to be chain-link type metal fencing with metal posts driven two-feet into the soil. Signs shall be attached to tree protection fencing every 20' which read 'TREE PROTECTION ZONE: DO NOT ENTER'.

Procedures and Treatments for Work Activities that must occur Inside of the Designated RPZ – All such activities and relocation of fencing must be overseen by project arborist. Special trunk, scaffold and soil protection measures are required. When encroachment is anticipated prior to the beginning of construction activities, the protections must be in place prior to beginning work activities.

[1] http://menlopark.org/205/Heritage-Trees

Arborist Review and Approval of Tree Protection Measures – Project arborist to review tree protection guidelines and modify as deemed necessary.

Tree Protections Installation and Inspected – Project arborist must certify that all tree protection measures have been properly installed.

Pre-Construction Meeting – Project arborist shall meet with supervisor and work crew to review requirements of the tree protection. All personnel working on site must be provided an orientation to the tree preservation requirements. There will be no excuses for transgressions.

No construction activities may begin until this meeting has been conducted.

Project arborist can direct that all work activities stop if tree protection guidelines are not being followed. All work activities cease until such time as the problem has been corrected.

Work activities that encroach into the designated RPZ

Arborist Supervision – All activities occurring within the designated RPZ must be under direct supervision of project arborist. Encroachment is not permitted until additional protections are in place and have been approved.

Soil Protection – The effects of foot traffic can be mitigated through the use of six (6) inches of wood chip mulch and ¾ inch plywood placed on top.

Soil protections for equipment operating within the designated RPZ requires 12 inches of mulch with either metal trenching plates or 1 1/8 inch plywood placed on top.

Trunk and Scaffold Protection – Whenever construction activity must occur inside the tree protection zone, the base of the tree and the first eight-feet and exposed scaffold limbs must be armored. Protection is generally provided by wrapping the trunk with straw waddles covered with orange plastic construction fencing. Exposed scaffold limbs are best protected by strapping 2x4 boards to the part exposed to potential injury and wrapping with orange plastic fencing material.

Required Method of Excavation Within Critical Root Zone – Wherever possible, route utilities outside of the designated RPZ. Tunneling is the preferred method for utilities passing through the RPZ. When trenching is required, carefully hand excavation or the use of the Air Spade or Ditch Witch is required.

Project arborist must approve and supervise all such activity.

Root Protection – All exposed roots must be covered with 2 layers of damp burlap secured with jute staples. Burlap shall remain damp at all times and can remain in place when backfilled.

Necessary Root Pruning – Late fall season is the best time for root pruning and spring can be the most harmful. All necessary root pruning and shaving is conducted by project arborist after the roots have been exposed without damage.

Post construction mitigation

Arborist Designation of Health Mitigation Activities – Project arborist will designate tree health mitigation activities based upon the level of root loss and adverse impacts that have occurred.

Monitoring Tree Health – Trees that have been adversely impacted by construction activities are noted for regular visual inspection. Project arborist will direct further mitigation. Insects and fungal pathogens are a sign of poor tree health (low energy reserves) and indicate the need for health mitigation.

Monitoring of Soil Moisture –Moisture should be monitored using a soil probe or through the use of tensiometers placed at key locations and depths. Project arborist will designate supplemental irrigation. When root loss occurs, supplemental irrigation may be required for a number of years

Mitigation of Soil Compaction – The level and depth of soil compaction must be assessed and mitigated as necessary. Tools that are most suitable for mitigation of compacted soil are the water jet or air spade.

Landscaping – All landscaping planning must take precautions when planting within the designated RPZ. All plant materials should be selected for compatibility with the favored moisture regime (hydrazone) of the tree species and soil texture.

Continued Mulching – Mulch is extremely beneficial in creating a healthy root environment. A regular program of mulch application is recommended to help retain soil moisture, provide a source of nutrients, help with control weed control and reduce soil compaction.

Fertilization –Trees should be fertilized only when the nutritional limitations have been identified through laboratory analysis of soil or plant tissue. Excessive nitrogen fertilization is known to draw sucking insects (aphid, scale, etc.) to the plants and provide nutrition to fungal pathogens in the soil.

Pest Management Program – Healthy trees do not generally have serious pest problems. Stressed trees are attractive hosts to pathogens, which can contribute to further decline. Pest management is prescribed when monitoring indicates a need.

Below pavement treatments adjacent to existing trees or newly planted trees

Damage to pavement in close proximity to trees can be reduced and long term health and vigor in the tree can be improved through treatments that promote good soil gas exchange and allow for deeper root development. (Graphics provided)

1. Excavation Techniques – In the situation where tree roots are already present, excavation occurs by hand, air spade or ditchwitch. Crushed rock can be placed around exposed roots.
2. Tunneling under Roots – Utilities that must pass through the designated tree protection area are best installed by tunneling below the tree roots.
3. Use of Clean Crushed Rock Below Pavement – This treatment is easiest to implement during original landscape installation. The treatment excavates the area below pavement to 6" to 12" deeper and place a clean crushed rock. Compaction can occur only from the surface of the rock after it is a minimum 6" deep. The rock is then covered with tensile and or filter fabric. Aggregate base can be placed on the fabric and compaction can occur again prior to installing the pavement.
4. Use of 'Gap Graded' or 'Structural' Soil – Structural soil can be purchased ready for installation or made from site soil and imported clean crushed rock. Supplemental information is provided.
5. Radial Trenching – Soil volume available for root development can be increased when soil conditions in immediate area. Trenches backfilled with amended or structural soil can lead roots to the soil area available for root development without causing hardscape displacement.

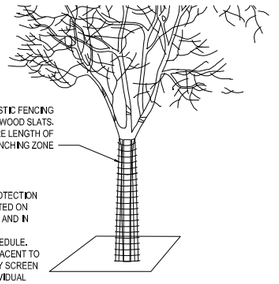
Treatment of contractor transgressions

Enforcement of Tree Protection – Without a method to assure that the tree protection guidelines are properly followed, it is often the situation that the protections are not adhered to. Transgressions occur both large and small as contractors make mistakes or attempt to cut corners to speed up their work. To be effective, the cost for contractor non-compliance must be greater than the savings to the contractor.

Penalties for Non-Compliance of Tree Protection Guidelines – It is recommended that contractors be required to place a bond to the value of the protected vegetation and potential soil mitigation. The bond is released when contractor compliance has been verified by project arborist. Should transgressions occur, the bond remains in place until such time at the situation has been fully mitigated.

TREE PROTECTION LEGEND

SYMBOL	DESCRIPTION
	EXISTING TREES TO BE RETAINED AND PROTECTED
	EXISTING HERITAGE TREE TO BE PROTECTED AND RETAINED
	EXISTING TREES TO BE REMOVED (INCLUDING ROOTBALL)
	EXISTING HERITAGE TREE TO BE REMOVED (INCLUDING ROOTBALL)
	EXISTING YOUNG TREE TO BE TRANSPLANTED
##	EXISTING TREE IDENTIFICATION, KEYED TO MPK 24, 25, & 26 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON MAY 20, 2016
#	EXISTING TREE IDENTIFICATION, KEYED TO MPK 29 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON NOVEMBER 15, 2017
	LIMIT OF WORK
	PROPERTY LINE
	PARCEL LINE



NOTES:
1. INDIVIDUAL TREE PROTECTION SHALL BE IMPLEMENTED ON CASE BY CASE BASIS AND IN COORDINATION WITH CONSTRUCTION SCHEDULE.
2. TREES LOCATED ADJACENT TO PROPOSED SECURITY SCREEN SHALL REQUIRE INDIVIDUAL TREE PROTECTION DURING SCREEN INSTALLATION.

1 TREE TRUNK PROTECTION
SCALE: NTS

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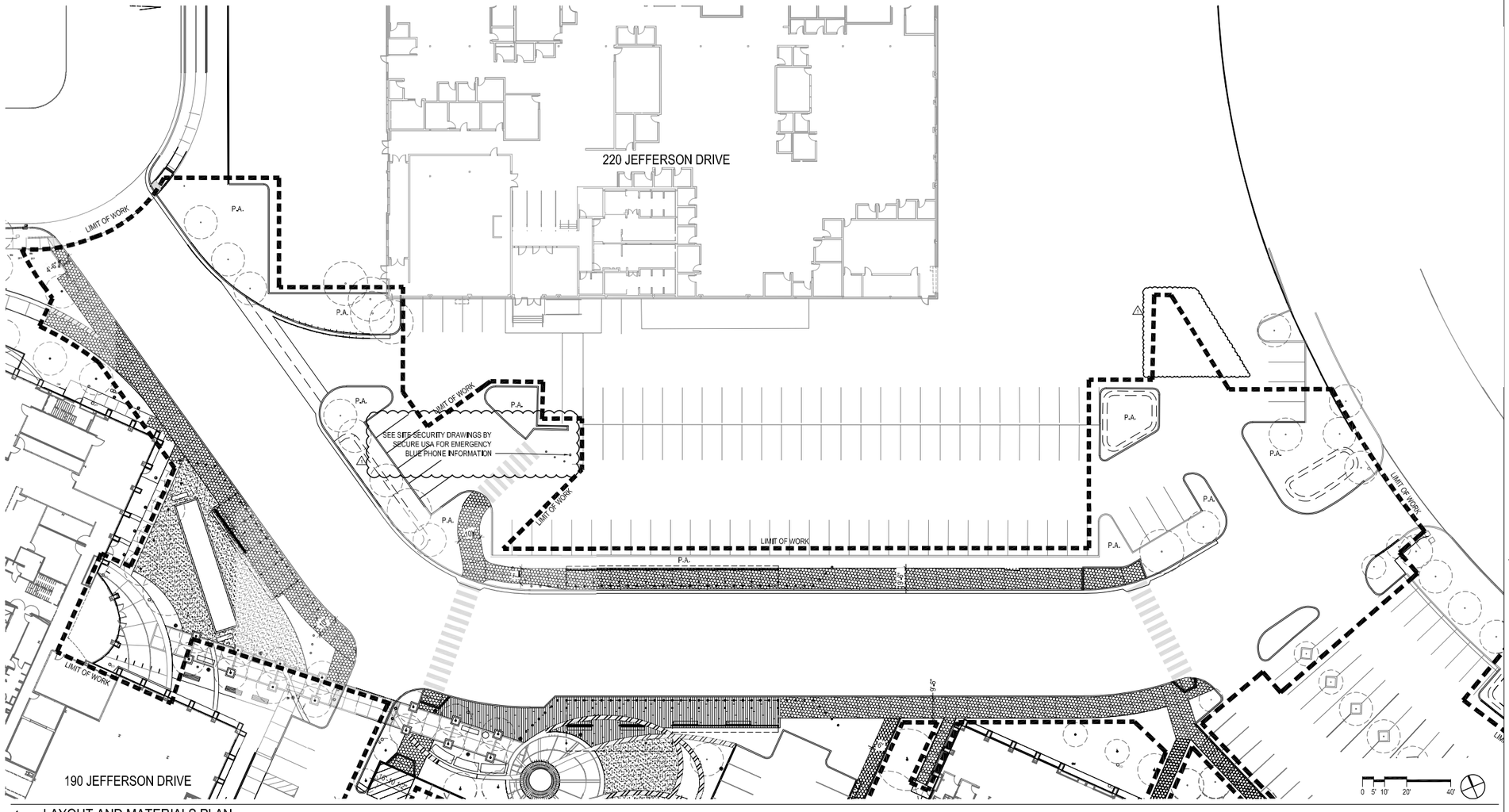
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
TREE PROTECTION AND REMOVAL LEGEND, DETAIL, AND SPECIFICATIONS

Scale
AS NOTED

LA1.10



1 LAYOUT AND MATERIALS PLAN
SCALE: 1"=20'

LAYOUT NOTES

1. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
2. ALL DIMENSIONS SHOWN TO ARCHITECTURAL GRID LINE, FACE OF BUILDING, FACE OF CURB, FACE OF WALL, EDGE OF WALKWAY, OR PROPERTY LINE UNLESS OTHERWISE NOTED.
3. ALL PAVING DIMENSIONS ARE FROM THE CENTERLINE OF JOINT TO THE CENTERLINE OF JOINT UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF LOCATION AND ELEVATION OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO CONSTRUCTION AND SHALL REPORT ALL CONFLICT TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK.
5. THE CONTRACTOR SHALL VERIFY LAYOUT WITH RESPECT TO HORIZONTAL CONTROLS IN THE FIELD AND SHALL IMMEDIATELY BRING ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK. THE CONTRACTOR SHALL ASSUME FULL AND UNDIVIDED RESPONSIBILITY FOR THE ACCURACY, FIT AND STABILITY OF ALL PARTS OF THE WORK.
6. THE CONTRACTOR SHALL USE STAKES, STRINGS, CHALK, PAINT OR OTHER APPROPRIATE MATERIALS TO LAYOUT ALL HARDSCAPE, CAST IN PLACE CONCRETE PLANTERS, SITE FURNISHINGS AS SHOWN ON THE DRAWINGS FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT BEFORE INSTALLATION COMMENCES. THE CONTRACTOR SHALL MAKE ALL CHANGES, DELETIONS, AND ADDITIONS APPROVED DURING THIS INSPECTION AND SUCH WORK WILL BE INCLUDED IN THE CONTRACTOR'S FIXED CONTRACT.
7. WHERE 'VERIFY' OR 'FIELD VERIFY' IS USED IN CONJUNCTION WITH A DIMENSION, THE CONTRACTOR SHALL VERIFY THE MEASUREMENT PRIOR TO BEGINNING THE WORK. IMMEDIATELY BRING DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
8. LOCATIONS OF EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY.
9. ALL PEDESTRIAN PAVING SLOPES SHALL NOT EXCEED 5.0% IN DIRECTION OF TRAVEL AND ALL CROSS SLOPES SHALL NOT BE IN EXCESS OF 2.0%.

MATERIAL KEY

SYMBOL	DESCRIPTION	
	DECOMPOSED AGGREGATE SURFACE	3 LA3.01
	NEW PERMEABLE CONCRETE PAVING	6 LA3.01
	NEW CONCRETE PAVING TO MATCH EXISTING	4 LA3.01
	PRECAST CONCRETE UNIT PAVERS	7 LA3.01
	CONCRETE PAVING BANDS SMITH'S COLOR CF-130 GRAY STAIN	2 LA3.01
P.A.	PLANTED AREA	

NOTE
1. ALL ENHANCED PAVING TO RECEIVE A SANDBLAST AND ACID ETCH COLOR FINISH
2. LANSCAPE ARCHITECT TO COORDINATE SANBLAST AND COLOR FINISH MOCK-UP WITH CONTRACTOR.

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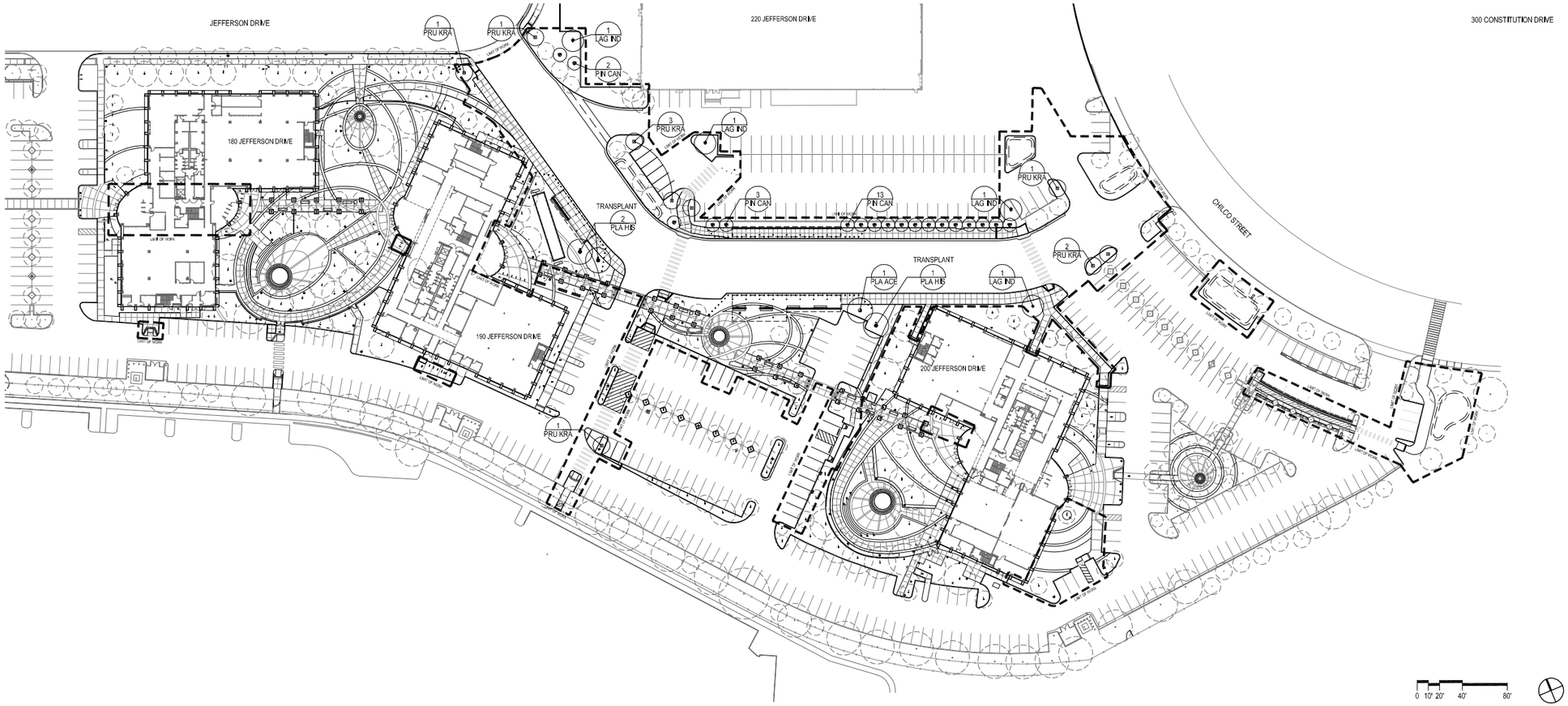
LAYOUT AND MATERIALS PLAN
220 JEFFERSON DRIVE

Scale
1" = 20'

LA2.04



1 PLANTING PLAN
SCALE: 1" = 40'

TREE PLANTING LEGEND

SYMBOL	KEY	SIZE	BOTANICAL NAME	COMMON NAME	SPACING	NOTES
TREES						
	LAG IND	48" BOX	LAGERSTROEMIA INDICA 'NATCHEZ'	CRAPE MYRTLE		MULTI-TRUNK
	PIN CAN	36" BOX	PINUS CANARIENSIS	CANARY ISLAND PINE		
	PLA ACE	60" BOX	PLATANUS x ACERIFOLIA	LONDON PLANE	PER PLAN	STANDARD
	PLA HIS	N/A	PLATANUS x HISPANICA	LONDON PLANE	PER PLAN	TRANSPLANT
	PRU KRA	36" BOX	PRUNUS 'KRAUTER 'VESUVIUS'	PURPLE LEAF PLUM		STANDARD
			EXISTING TREE			REFER TO ARBORIST SURVEY & REPORT

HERITAGE TREE REPLACEMENT SUMMARY

HERITAGE TREES FOR REMOVAL	2:1 REPLACEMENT REQUIREMENT	PROPOSED QUANTITY REPLACEMENT TREES
14	28	32

NOTE: TREES TRANSPLANTED ON SITE ARE NOT INCLUDED IN REPLACEMENT TOTALS

NOTE:
SEE SHEET LA5.01 FOR SHRUB AND GRAOUNDCOVER PLANTING PLAN

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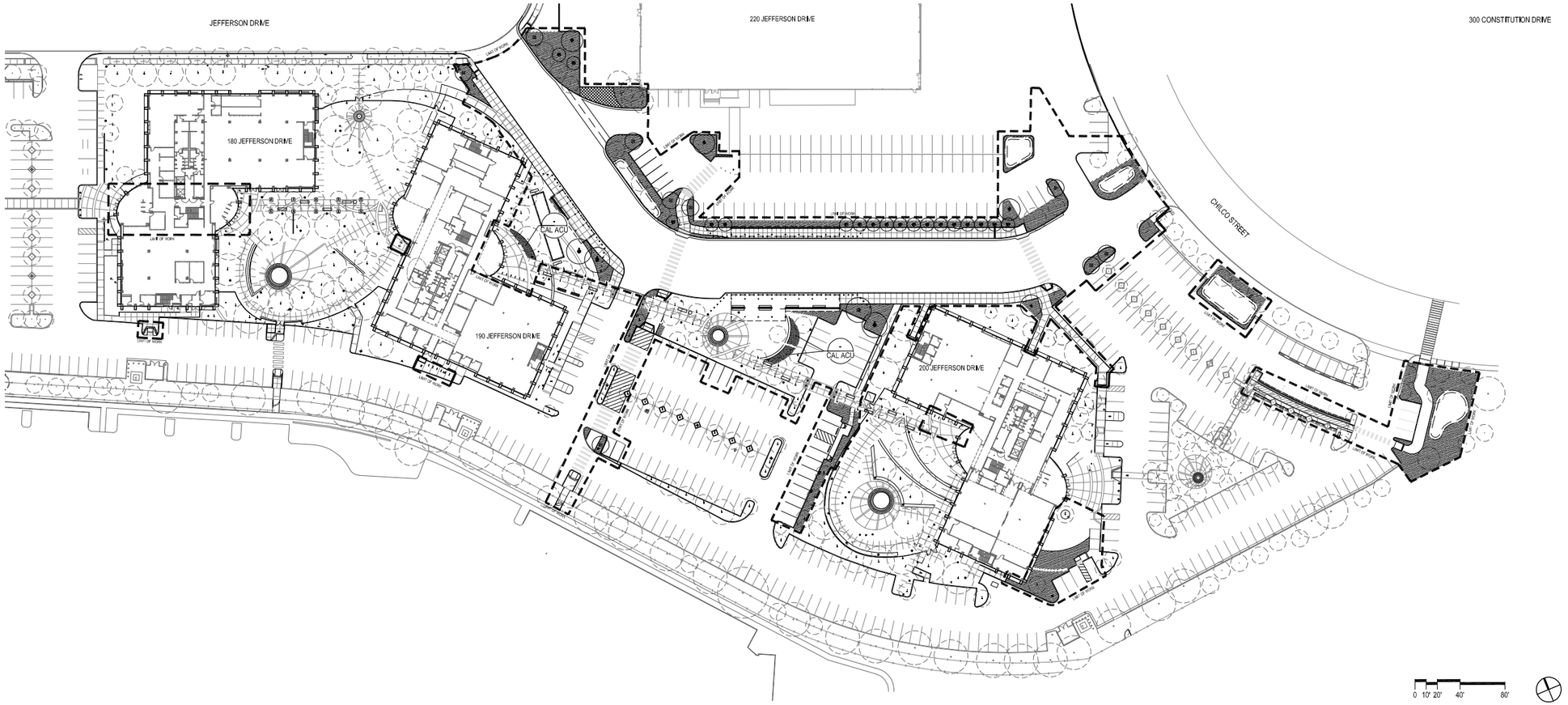
HERITAGE TREE
TREE REPLACEMENT PLAN
Scale
1" = 40'

LA5.00 △



1 PLANTING PLAN

SCALE: 1" = 40'

SHRUB AND GROUNDCOVER PLANTING LEGEND

SYMBOL	KEY	SIZE	BOTANICAL NAME	COMMON NAME	SPACING	NOTES
UNDERSTORY						
▨	CAL ACU	5 GAL	CALAMAGROSTIS x ACUTIFLORA "KARL FOERSTER"	FEATHER REED GRASS	24" O.C.	SUN-LIGHT SHADE
▨	CAR DIV	1 GAL	CAREX DIVULSA	BERKELEY SEDGE	12" O.C.	SUN-LIGHT SHADE
	CAR REM	1 GAL	CAREX REMOTA	EUROPEAN MEADOW SEDGE	12" O.C.	SUN OR SHADE
	CHO TEC	1 GAL	CHONDROPETALUM TECTORUM "EL CAMPO"	DWARF CAPE RUSH	30" O.C.	FULL SUN
	FES MAI	1 GAL	FESTUCA MAIREI	ATLAS FESCUE	18" O.C.	SUN-LIGHT SHADE
	PEN FAI	1 GAL	PENNISETUM "FAIRY TAILS"	FAIRY TAILS FOUNTAIN GRASS	30" O.C.	SUN
	PEN SPA	1 GAL	PENNISETUM SPATHIOLATUM	SLENDER VELT GRASS	24" O.C.	SUN-LIGHT SHADE
	PHO BLA	5 GAL	PHORMIUM "BLACK ADDER"	BLACK FLAX	30" O.C.	FULL SUN
	SES AUT	1 GAL	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	8" O.C.	SUN-LIGHT SHADE
	STI GIG	1 GAL	STIPA GIGANTEA	GIANT FEATHER GRASS	36" O.C.	SUN
BIOFILTRATION AREAS						
+	BIOFILTRATION PLANTINGS					
		4"/1 GAL	BROMUS CARINATUS	CALIFORNIA BROME	12" O.C.	SUN-LIGHT SHADE
		1 GAL	CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	30" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	ELYMUS GLAUCUS	BLUE WILDRYE	18" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	HORDEUM CALIFORNICUM	CALIFORNIA BARLEY	24" O.C.	SUN OR SHADE
		4"/1 GAL	JUNCUS EFFUSUS	SOFT COMMON RUSH	30" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	LEYMUS TRITICOIDES	CREEPING WILDRYE	18" O.C.	SUN-LIGHT SHADE
REINFORCED TURF						
▦	REINFORCED TURF AT FIRE LANE					

NOTE:
SEE SHEET LA5.00 FOR TREE
PLANTING PLAN

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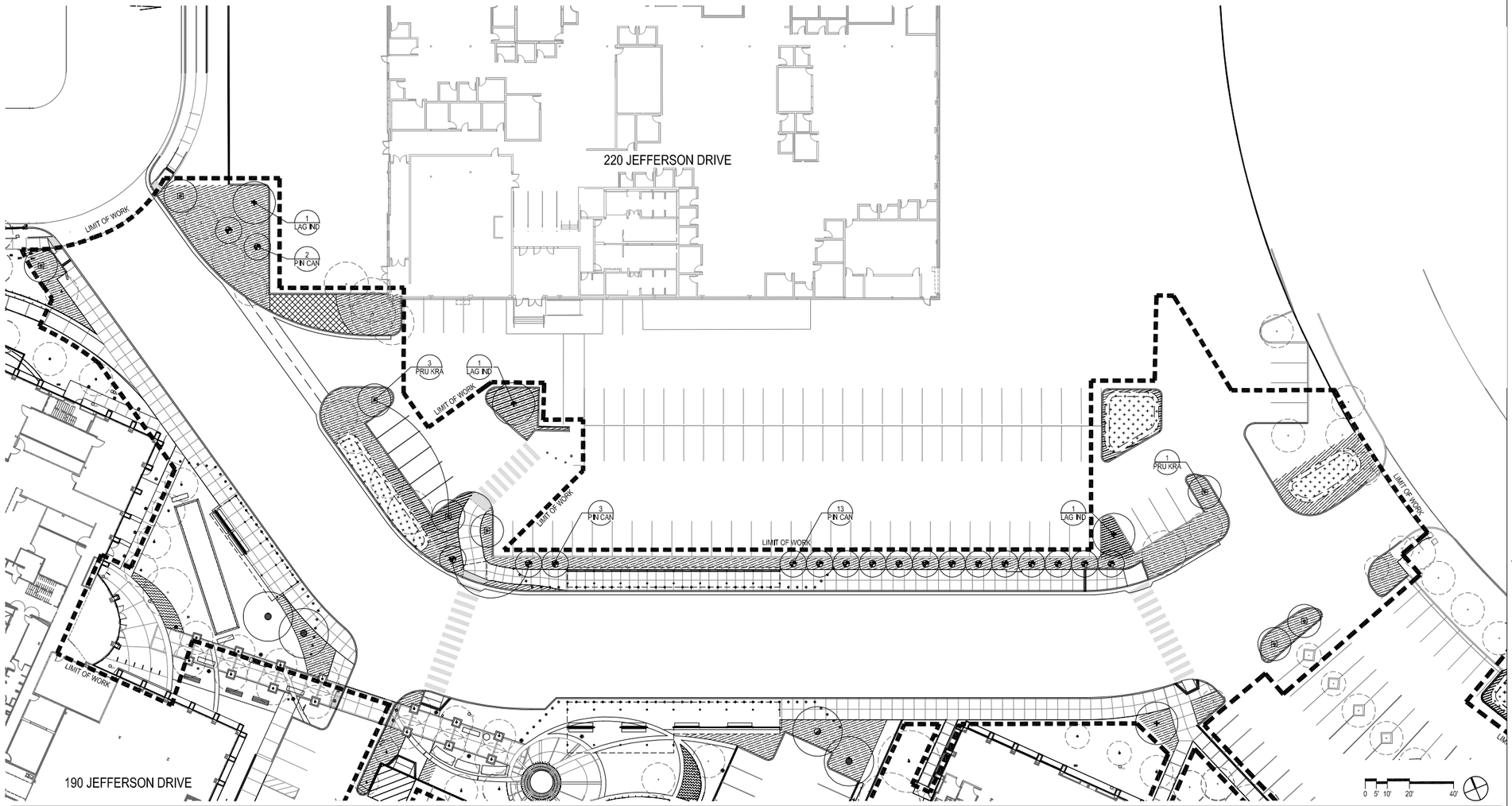
LA5.01 △1



1 PLANTING PLAN
SCALE: 1"=20'

NOTE:
SEE SHEET LA5.10 FOR PLANTING LEGEND, NOTES AND DETAILS

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	CAL ACU	5 GAL	CALAMAGROSTIS x ACUTIFLORA "KARL FOERSTER'	FEATHER REED GRASS	24" O.C.	SUN-LIGHT SHADE
	CAR DIV	1 GAL	CAREX DIVULSA	BERKELEY SEDGE	12" O.C.	SUN-LIGHT SHADE
	CAR REM	1 GAL	CAREX REMOTA	EUROPEAN MEADOW SEDGE	12" O.C.	SUN OR SHADE
	CHO TEC	1 GAL	CHONDROPETALUM TECTORUM "EL CAMPO"	DWARF CAPE RUSH	30" O.C.	FULL SUN
	FES MAI	1 GAL	FESTUCA MAIREI	ATLAS FESCUE	18" O.C.	SUN-LIGHT SHADE
	PEN FAI	1 GAL	PENNISETUM "FAIRY TAILS"	FAIRY TAILS FOUNTAIN GRASS	30" O.C.	SUN
	PEN SPA	1 GAL	PENNISETUM SPATHIOLATUM	SLENDER VELT GRASS	24" O.C.	SUN-LIGHT SHADE
	PHO BLA	5 GAL	PHORMIUM "BLACK ADDER"	BLACK FLAX	30" O.C.	FULL SUN
	SES AUT	1 GAL	SESLERIA AUTUMNALIS	AUTUMN MOOR GRASS	8" O.C.	SUN-LIGHT SHADE
	STI GIG	1 GAL	STIPA GIGANTEA	GIANT FEATHER GRASS	36" O.C.	SUN
BIOFILTRATION AREAS						
BIOFILTRATION PLANTINGS		4"/1 GAL	BROMUS CARINATUS	CALIFORNIA BROME	12" O.C.	SUN-LIGHT SHADE
		1 GAL	CHONDROPETALUM TECTORUM	SMALL CAPE RUSH	30" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	ELYMUS GLAUCUS	BLUE WILDRYE	18" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	HORDEUM CALIFORNICUM	CALIFORNIA BARLEY	24" O.C.	SUN OR SHADE
		4"/1 GAL	JUNCUS EFFUSUS	SOFT COMMON RUSH	30" O.C.	SUN-LIGHT SHADE
		4"/1 GAL	LEYMUS TRITICOIDES	CREEPING WILDRYE	18" O.C.	SUN-LIGHT SHADE
REINFORCED TURF						
	REINFORCED TURF AT FIRE LANE					

PLANTING NOTES

1. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS, DISTANCES AND DIMENSIONS IN THE FIELD AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR A DECISION PRIOR TO PROCEEDING WITH WORK.
2. NO PLANTING SHALL COMMENCE UNTIL IRRIGATION SYSTEM IS FULLY INSTALLED AND OPERATIONAL.
3. NO PLANTING SHALL OCCUR DURING MUDDY WEATHER.
4. ALL PLANTS TO BE OF THE FINEST QUALITY AND FREE OF DISEASE AND DAMAGE.
5. THE CONTRACTOR SHALL INSTALL PLANTS WITHIN 10 CALENDAR DAYS OF ARRIVAL AT SITE AND AFTER ARRIVAL ON SITE SHALL BE RESPONSIBLE FOR WATERING AND PROTECTING PLANTS FROM ANY CONDITIONS WHICH THREATEN THEIR SURVIVAL OR ABILITY TO THRIVE ONCE INSTALLED.
6. PRIOR TO IRRIGATION INSTALLATION THE LANDSCAPE ARCHITECT SHALL APPROVE ALL FREESTANDING PLANTER LOCATIONS.
7. PLANTING PLAN PROVIDES A GUIDE FOR GENERAL PLANTING LAYOUT ONLY. PRIOR TO INSTALLATION THE LANDSCAPE ARCHITECT SHALL APPROVE FINAL LAYOUT OF PLANTS. FIELD ADJUSTMENTS MAY BE MADE AT THIS TIME. QUANTITIES PROVIDED FOR CONTRACTORS CONVENIENCE ONLY. ANY DISCREPENCIES SHALL BE REVIEWED BY LANDSCAPE ARCHITECT.
8. PLANT SPACING SHALL TAKE PRIORITY OVER IRRIGATION VALVE BOX, PIPE AND OTHER EQUIPMENT LOCATIONS.
9. NO PLANT SUBSTITUTIONS MAY BE MADE WITHOUT WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
10. ALL PLANT MATERIAL TO BE OF HIGHEST GRADE. REFER TO BAMBOO PIPELINE & MONROVIA FOR QUALITY CONTROL.
11. ALL PLANT MATERIAL SHALL BE INSPECTED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION
12. FINISHED GRADES FOR PLANTING AREAS VARIES. THE LANDSCAPE ARCHITECT SHALL REVIEW AND APPROVE ALL FINISH SOIL ELEVATIONS. THE CONTRACTOR SHALL MAKE ADJUSTMENTS AS DIRECTED IN THE FIELD BY LANDSCAPE ARCHITECT. SUCH WORK SHALL BE CONSIDERED INCLUDED IN CONTRACTORS FIXED CONTRACT.
13. ALL PUBLIC LANDSCAPE (STREET TREES) AND MAINTENANCE OF THE SAME SHALL CONFORM TO THE CITY OF MENLO PARK LANDSCAPE AND IRRIGATION GUIDELINES AND ANY OTHER APPLICABLE CODES, ORDINACES AND LAWS.
14. ORGANIC MULCH SHALL BE APPLIED TO ALL EXPOSED PLANTING SURFACES - 3" DEPTH. HOLD TOP OF MULCH 1/2" BELOW TOP OF ADJACENT PAVING.
15. REFER TO LANDSCAPE SPECIFICATION FOR TREE PROTECTION TO EXISTING TREES.
16. CONTRACTOR TO COMPOST AT A MINIMUM RATE OF 4CY PER 1,000 SF OF PERMEABLE AREA, INCORPORATE TO A DEPTH OF 6 INCHES AS REQUIRED BY MPMC §12.44.090(a)(3)(C).
17. IRRIGATION CONTROLLER MUST HAVE WEATHER SENSORS AS REQUIRED BY MPMC §12.44.100(a)(1)(D).
18. MANUAL SHUT-OFF VALVES ARE REQUIRED AS CLOSE AS POSSIBLE TO THE POINT OF CONNECTION AS REQUIRED BY §12.44.100(a)(1)(E).
19. IRRIGATION DELIVERY MUST BE CONVEYED BY DRIP OR MICROSPRAY SYSTEMS ONLY.
20. I HAVE COMPLIED WITH THE CRITERIA OF THE WATER EFFICIENCY LANDSCAPE ORDINANCE AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLAN.

WATER EFFICIENT LANDSCAPE WORKSHEET

Reference Evapotranspiration (Eto) = 43.10 (Annual Total)

Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
Shrubs - Low Water	0.3	Drip	0.81	0.37	4,944	1,831	48,931
Bioretention Areas	0.5	Spray	0.75	0.67	551	367	9,819
Reinforced Turf	0.8	Spray	0.75	1.07	431	460	12,285
						0	0
						0	0
				Totals	LA (A) 5,926	ID (B) 2,658	
Special Landscape Areas							
				1		0	0
				1		0	0
				1		0	0
				Totals	SLA (C) 0	ID (D) 0	
						ETWU Total	71,032
					Maximum Allowed Water Allowance (MAWA)		71,260

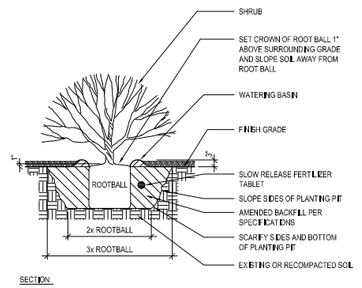
ETAF for MAWA calculation = 0.45 (.55 for residential, .45 for non-residential)

Irrigation Efficiency:	*Plant Factor:*	*ETWU (Annual gallons Required)*
0.75 for spray heads	*0 .1 for Very Low Water Use*	*Eto x 0.62 x ETAF x Area*
0.81 for drip	*.1 .3 for Low Water Use*	
	.4 .6 for Moderate Water Use	***MAWA (Annual Gallons Required)***
	.7 1.0 for High Water Use	*(Eto) (0.62) ((ETAF x LA) + ((1 ETAF) x SLA)*

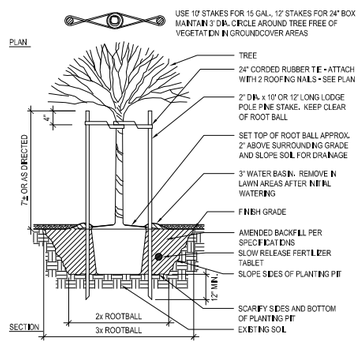
Regular Landscape Areas			Average ETAF for Regular Landscape Areas must be
Total ETAF x Area	2,658	(B)	0.55 or below for residential areas, and
Total Area	5,926	(A)	0.45 or below for non-residential areas.
Average ETAF	0.45	(B)/(A)	Compliant

All Landscape Areas		
Total ETAF x Area	2,658	(D+D)
Total Area	5,926	(A+C)
Sitewide ETAF	0.45	(B+D)/(A+C)

3 WATER EFFICIENT LANDSCAPE WORKSHEET 220 JEFFERSON DR
SCALE: NONE



2 SHRUB PLANTING
SCALE: NONE



1 TREE PLANTING - DOUBLE STAKE
SCALE: NONE

FACEBOOK

180, 190, 200 & 220 Jefferson Drive
Menlo Park CA 94025

Gensler
2 Harrison Street
Suite 400
San Francisco, CA 94105
United States
Tel 415.433.3700
Fax 415.836.4599

HOHBACH-LEWIN, INC.
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KIFER & WRIGHT
CIVIL ENGINEERS & SURVEYORS, INC.
2630 Collier Canyon Road
Livermore, California 94551
Phone (925) 243-8788
Fax (925) 243-8790

Seal / Signature

Date	Description
04/20/2018	FIRE DEPT PLAN CHECK
08/06/2018	PD COMMENT RESPONSES

FOR REFERENCE ONLY

Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS

Project Number
01.2971.000

Description
PLANTING LEGEND
NOTES AND DETAILS

Scale
AS NOTED

LA5.10

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Date: April 3, 2018

Prepared For: **City of Menlo Park**
701 Laurel St.
Menlo Park, CA 94025

Regarding: **180 – 200 Jefferson St – Conditional Development Permit**

To Kyle Perata,

We are proposing to add a bus stop to the properties located at 190 & 200 Jefferson Street to support Facebook's Transportation Demand Management plan.

The site improvements will include the installation of three unenclosed bus stop shelters. This scope will require grading, curb relocation, repaving, tree removal and replacement, new planting, restriping, and electrical connections for site lighting, and new storm water treatment areas.

The architectural style of the shelters will be similar to the style on other Facebook Campuses, with an exposed galvanized steel structure, glass wind screens and wood benches. The new paving and landscaping will be in keeping with the character of the existing campus.

The intent of this application is to amend the CDP to temporarily reduce the parking stall quantity. The parking numbers would be reduced to make room for the shuttle stops required by the TDM. If the property were transferred to another tenant, the terms of the current CDP would revert to the previous parking quantity. The proposed site improvements will adjust the parking quantity while still maintaining the required ratios of parking based on the office zoning requirement and is sufficient for our operations.

Thank you for your consideration.

Sincerely,

Danielle Douthett

Attachments:

facebook

Address: 1 Hacker Way
Menlo Park, CA 94025

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SBCA TREE CONSULTING

1534 Rose Street, Crockett, CA 94525
Phone: (510) 787-3075
Fax: (510) 787-3065
Website: www.sbcatree.com

Steve Batchelder, Consulting Arborist
WC ISA Certified Arborist #228
CUFC Certified Urban Forester #134
CA Contractor License #(C-27) 53367
E-mail: steve@sbcatree.com

Molly Batchelder, Consulting Arborist
WC ISA Certified Arborist #9613A
ISA Tree Risk Assessment Qualified
E-mail: molly@sbcatree.com

Date: February 22, 2018

To: Facebook

Subject: Tree Survey

Location: MPK 23, 24, 25

Appendix items:

1. Tree Survey Data
2. Tree Location Maps (original survey)
3. Tree Location Maps (amended survey)

City of Menlo Park Ordinance

Definitions of Heritage Tree:

1. Any tree having a trunk with a circumference of 47.1 inches (diameter of 15 inches) or more measured at 54 inches above natural grade.
2. Any oak tree native to California, with a circumference of 31.4 inches (diameter of 10 inches) or more measured at 54 inches above natural grade.
3. Any tree or group of trees specifically designated by the City Council for protection because of its historical significance, special character or community benefit.
4. Any tree with more than one trunk measured at the point where the trunks divide, with a circumference of 47.1 inches (diameter of 15 inches) or more, with the exception of trees that are under twelve (12) feet in height, which are exempt from the ordinance.[1]

Introduction

A number of trees were planted after SBCA Tree Consulting submitted original survey data to Facebook on 5-16-16. A follow up survey was conducted on 2-17-18 to tag all newly planted trees as well as trees located along the southern perimeter and street trees on Jefferson specifically identified by Gensler. This report includes all trees located within the designated project areas.

Survey Procedure

Trees Tagged – All trees were tagged with a metal number tag corresponding with the number used on the tree location map and data sheets.

[1] http://www.menlopark.org/205/Heritage-Trees

Data Recorded – Arborists recorded data on tree species, diameter (DBH[2]), tree height, health and structural conditions, Heritage Tree status, and suitability for retention. Notes were recorded to provide commentary on general conditions. The Root Protection Zone (RPZ)[3] was provided for trees selected for preservation.

Summary

- Total Trees – Arborist survey identifies 368 trees. The original survey included 345 trees. Eighteen (18) additional trees were identified in the most recent survey and included in the data.

- Heritage Trees – Twelve (12) trees have diameters measuring 15 inches and above and therefore qualify as 'Heritage' by the City of Menlo Park.

- Species Diversity – Twelve (12) different species were identified in the survey.

Table 1 – The table below provides a breakdown of numbers of each tree species surveyed.

	Species	Common Name	Total Amount	Heritage Tree Amount	Overall Retention Suitability	Comments
1	*Betula pendula*	European Birch	2	0	F-P	
2	*Fraxinus oxycarpa 'Raywood'*	Raywood Ash	44	4	F-P	Problematic species known for poor branching structure and susceptibility to fungal pathogen which causes branch dieback
3	*Gleditsia triacanthos*	Honey Locust	1	0	F	
4	*Lagerstroemia indica x fauriei*	Crepe Myrtle	45	0	G	
5	*Pinus canariensis*	Canary Island Pine	1	1	G	Along perimeter
6	*Pinus halepensis*	Aleppo Pine	5	5	F	Along perimeter

[2] **DBH** is tree diameter measured at 54 inches above soil grade.

[3] **Tree Root Protection Zone (RPZ) -** The tree protection zone designates an area surrounding a tree or grouping of trees that is to be fenced off from all access until designated by a certified arborist. The RPZ is commonly defined as one (1) foot radial distance for every one (1) inch in tree diameter (DBH). Example: A single stem tree measuring 30 inches in diameter, (measured at 54 inches or 4.5 feet above grade) would have a critical root zone with a radius of 30 feet. This is roughly equivalent to the area commonly referred to as the "drip zone."

	Species	Common Name	Total Amount	Heritage Tree Amount	Overall Retention Suitability	Comments
7	*Pistacia chinensis*	Chinese Pistache	11	0	G	
8	*Platanus x acerifolia*	London Plane	73	0	F-G	Some are in poor health condition due to lack of soil volume
9	*Prunus 'Krauter Vesuvius'*	Krauter Vesuvius Purple Plum	96	0	F-P	Many have sunscald, leans, and branch dieback
10	*Pyrus calleryana*	Callery Pear	69	0	F-P	Fireblight, Poor branching structures
11	*Pyrus kawakamii*	Evergreen Pear	2	2	F-P	
12	*Robinia pseudoacacia 'Purple Robe'*	Purple Robe Locust	19	0	G-P	Poor structures
			368	**12**		

End Report

Appendices are as follows:

1. *Tree Survey Data*
2. *Tree Location Map*

Report submitted by:

Molly Batchelder, Consulting Arborist
WC ISA Certified Arborist #9613A
Tree Risk Assessment Qualified (TRAQ)

COLUMN HEADING DESCRIPTIONS

Tag# - Indicates the number tag attached to tree
Species - Scientific name
DBH - Diameter measured in inches at 4.5 feet above soil grade. Multi measured below branching
Height - In feet
Health -Tree Health: E is Excellent, G is Good, F is Fair, P is Poor, D is Dead or Dying
Structure- Tree Structural Safety: E is Excellent, G is Good, F is Fair, P is Poor, H is Hazardous
Heritage? - Attaining City of Menlo Park Heritage Tree Status: 1 indicates Heritage Status
Suitability for Retention - Based on Tree Condition: G is Good, F is Fair, P is Poor
Notes - See below
RPZ - Tree Root Protection Zone: A radial distance (in feet) measured out from the base of a protected tree that is to be fenced off from all construction activities.

ABBREVIATIONS AND DEFINITIONS

Notes

Embedded Bark (EB) - AKA Included Bark, this is a structural defect where bark is included between the branch attachment so that the wood cannot join. Such defects have a higher propensity for failure.

Codominant (CD) - A situation where a tree has two or more stems which are of equal diameter and relative amounts of leaf area. Trees with codominant primary scaffolding stems are inherently weaker than stems, which are of unequal diameter and size.

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
1	*Pyrus calleryana 'Chantacleer'*	8.5	35	F	F		F	Minor fireblight in all pears, EB	9
2	*Pyrus calleryana 'Chantacleer'*	7.5	30	F	F		F	Minor fireblight in all pears, EB	8
3	*Pyrus calleryana 'Chantacleer'*	7.5	35	F	F		F	Minor fireblight in all pears, EB	8
4	*Pyrus calleryana 'Chantacleer'*	9.5	35	F	F		F	Minor fireblight in all pears, EB	10
5	*Prunus 'Krauter vesuvius'*	5.5	20	F	F		F	Lean -- Fruit on many	6
6	*Prunus 'Krauter vesuvius'*	5.5	20	F	G		F	minor tip dieback	6

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
7	*Fraxinus oxycarpa 'Raywood'*	11	40	G	G		F		11
8	*Fraxinus oxycarpa 'Raywood'*	10	35	G	G		F		10
9	*Prunus 'Krauter vesuvius'*	5.5	20	G	F		F	Lean	6
10	*Prunus 'Krauter vesuvius'*	5.5	20	G	F		F	Lean	6
11	*Prunus 'Krauter vesuvius'*	5.5	20	G	F		F	Lean	6
12	*Fraxinus oxycarpa 'Raywood'*	2	15	G	G		F	Staked	2
13	*Fraxinus oxycarpa 'Raywood'*	3	15	G	F		F	Staked	3
14	*Fraxinus oxycarpa 'Raywood'*	2.2	15	G	G		F	Staked	3
15	*Fraxinus oxycarpa 'Raywood'*	9	2.5	G	G		F		9
16	*Prunus 'Krauter vesuvius'*	6	15	F	F		F	Lean	6
17	*Prunus 'Krauter vesuvius'*	5.5	15	G	G		F		6
18	*Fraxinus oxycarpa 'Raywood'*	13	40	G	G		F		13
19	*Fraxinus oxycarpa 'Raywood'*	5	20	F	F		F		5
20	*Fraxinus oxycarpa 'Raywood'*	15	40	G	F	1	F	Lean	15
21	*Pyrus calleryana 'Chantacleer'*	8.5	30	G	G		F		9

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
22	*Pyrus calleryana 'Chantacleer'*	10.5	35	G	G		F		11
23	*Pyrus calleryana 'Chantacleer'*	11	35	G	G		F		11
24	*Pyrus calleryana 'Chantacleer'*	8	30	F	F		F		8
25	*Pyrus calleryana 'Chantacleer'*	9	35	F	F-P		P	Wound at base, EB	9
26	*Pyrus calleryana 'Chantacleer'*	9.5	35	F	F		F		10
27	*Pyrus calleryana 'Chantacleer'*	9.5	35	F-G	F		F		10
28	*Pyrus calleryana 'Chantacleer'*	8.5	35	G	G		F		9
29	*Pyrus calleryana 'Chantacleer'*	9	35	G	G		F		9
30	*Pyrus calleryana 'Chantacleer'*	9	30	F	F		F		9
31	*Platanus x hispanica*	8.5	30	G	G		G		9
32	*Platanus x hispanica*	7.5	25	G	G		G		8
33	*Platanus x hispanica*	6.5	20	F	G		G		7
34	*Platanus x hispanica*	8	30	G	G		G		8
35	*Platanus x hispanica*	9.5	30	G	G		G		10
36	*Fraxinus oxycarpa 'Raywood'*	11.5	25	G	G		F		12

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
37	*Fraxinus oxycarpa 'Raywood'*	12.5	25	G	G		F		13
38	*Fraxinus oxycarpa 'Raywood'*	10.5	20	P	G		P		11
39	*Fraxinus oxycarpa 'Raywood'*	10.5	24	F	G		F	girdling root	11
40	*Fraxinus oxycarpa 'Raywood'*	11	30	G	G		F		11
41	*Fraxinus oxycarpa 'Raywood'*	12	30	G	G		F	girdling root	12
42	*Fraxinus oxycarpa 'Raywood'*	9.5	25	F	G		F		10
43	*Prunus 'Krauter vesuvius'*	7	20	F	F		F	Lean	7
44	*Prunus 'Krauter vesuvius'*	6.5	20	F	F		F	Lean	7
45	*Fraxinus oxycarpa 'Raywood'*	8	20	P	P		P	Lean	8
46	*Fraxinus oxycarpa 'Raywood'*	14	35	G	F		F	girdling root	14
47	*Fraxinus oxycarpa 'Raywood'*	1	10	G	G		F		1
48	*Fraxinus oxycarpa 'Raywood'*	15	40	F	F	1	F		15
49	*Prunus 'Krauter vesuvius'*	5.5	20	G	G		F		6
50	*Fraxinus oxycarpa 'Raywood'*	11	40	G	G		F		11
51	*Fraxinus oxycarpa 'Raywood'*	16	35	F-P	F	1	P		16

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
52	*Prunus 'Krauter vesuvius'*	7	20	G	F		F	lean	7
53	*Prunus 'Krauter vesuvius'*	11	35	F	F		F		11
54	*Prunus 'Krauter vesuvius'*	5.5	20	F	F		F	lean	6
55	*Prunus 'Krauter vesuvius'*	2	10	P	F-P		P		2
56	*Prunus 'Krauter vesuvius'*	6.5	25	P	F-P		P		7
57	*Betula pendula*	7.5	25	P	P		P		8
58	*Prunus 'Krauter vesuvius'*	5	20	G	F		F		5
59	*Prunus 'Krauter vesuvius'*	5	20	F-P	F		P	Lean	5
60	*Prunus 'Krauter vesuvius'*	6.5	15	G	F		F	lean	7
61	*Prunus 'Krauter vesuvius'*	6	20	F-P	G		P		6
62	*Platanus x hispanica*	9.5	35	F	G		F		10
63	*lagerstroemia indica x fauriei*	6	20	G	G		G		6
64	*lagerstroemia indica x fauriei*	6	20	G	G		G		6
65	*lagerstroemia indica x fauriei*	4.5	20	G	G		G		5
66	*lagerstroemia indica x fauriei*	5	20	G	G		G		5

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
67	*lagerstroemia indica x fauriei*	5	20	G	G		G		5
68	*Prunus 'Krauter vesuvius'*	6	15	F	F		F	Lean, sunscald	6
69	*lagerstroemia indica x fauriei*	7	20	G	G		G		7
70	*lagerstroemia indica x fauriei*	6.5	20	G	G		G		7
71	*Platanus x hispanica*	8.5	30	F	G		G		9
72	*Platanus x hispanica*	8.5	30	G	G		G		9
73	*Prunus 'Krauter vesuvius'*	7	20	G	G		F	Lean	7
74	*lagerstroemia indica x fauriei*	7	20	G	G		G	Lean, sunscald	7
75	*lagerstroemia indica x fauriei*	6	20	G	G		G		6
76	*lagerstroemia indica x fauriei*	6.5	20	G	G		G		7
77	*lagerstroemia indica x fauriei*	6.5	20	G	G		G		7
78	*lagerstroemia indica x fauriei*	5.5	20	G	G		G		6
79	*lagerstroemia indica x fauriei*	5.5	20	G	G		G		6
80	*Pyrus kawakamii*	17 @ base	15	P	F-P	1	P	root crown buried	17
81	*Prunus 'Krauter vesuvius'*	7	20	G	G		G		7

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
82	*Platanus x hispanica*	11	35	G	G		G		11
83	*lagerstroemia indica x fauriei*	7	20	G	G		G		7
84	*lagerstroemia indica x fauriei*	6	20	G	G		G		6
85	*lagerstroemia indica x fauriei*	6	25	G	G		G		6
86	*lagerstroemia indica x fauriei*	6.5	20	G	G		G		7
87	*lagerstroemia indica x fauriei*	6	20	G	G		G		6
88	*lagerstroemia indica x fauriei*	6.5	15	G	G		G		7
89	*lagerstroemia indica x fauriei*	5	15	G	G		G		5
90	*Prunus 'Krauter vesuvius'*	5.5	15	G	F		F	Lean	6
91	*Prunus 'Krauter vesuvius'*	6	15	G	G		F	Lean	6
92	*Prunus 'Krauter vesuvius'*	5.5	15	F	P		P	Lean, large wound	6
93	*Platanus x hispanica*	5	20	F-P	F		p	4x4 site, insufficeint soil volume	5
94	*Platanus x hispanica*	3	15	F	F		p	4x4 site, insufficeint soil volume	3
95	*Platanus x hispanica*	4.5	20	F	F		p	4x4 site, insufficeint soil volume	5
96	*lagerstroemia indica x fauriei*	4	15	G	G		G		4

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
97	*lagerstroemia indica x fauriei*	3.5	10	G	G		G		4
98	*lagerstroemia indica x fauriei*	4	10	G	G		G		4
99	*lagerstroemia indica x fauriei*	3	10	G	G		G		3
100	*lagerstroemia indica x fauriei*	3.5	10	G	G		G		4
101	*lagerstroemia indica x fauriei*	3.5	10	G	G		G		4
102	*lagerstroemia indica x fauriei*	3.5	10	G	G		G		4
103	*lagerstroemia indica x fauriei*	4	10	G	G		G		4
104	*lagerstroemia indica x fauriei*	3.5	10	G	G		G		4
105	*lagerstroemia indica x fauriei*	4	10	G	G		G		4
106	*Platanus x hispanica*	4.5	20	F-P	F		p	4x4 site, insufficeint soil volume, sycamore scale	5
107	*Platanus x hispanica*	4.5	15	F-P	F		p	4x4 site, insufficeint soil volume	5
108	*Platanus x hispanica*	3.5	15	F-P	F		p	4x4 site, insufficeint soil volume	4
109	*Platanus x hispanica*	3.5	15	F-P	F		p	4x4 site, insufficeint soil volume	4
110	*Platanus x hispanica*	4	20	P	F		p	4x4 site, insufficeint soil volume	4
111	*Platanus x hispanica*	4	20	P	F-P		p	4x4 site, insufficeint soil volume	4

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
112	*Platanus x hispanica*	5.5	20	F-P	F		p	4x4 site, insufficeint soil volume	6
113	*Prunus 'Krauter vesuvius'*	5.5	15	F	F-P		P	Lean	6
114	*Prunus 'Krauter vesuvius'*	5.5	15	F-P	F		P		6
115	*Prunus 'Krauter vesuvius'*	5	15	P	F-P		P	Sunscald, EB	5
116	*Prunus 'Krauter vesuvius'*	6	20	F	F-P		P	Lean	6
117	*Prunus 'Krauter vesuvius'*	6	20	G	F		F	Lean, sunscald	6
118	*Prunus 'Krauter vesuvius'*	5.5	20	G	G		F		6
119	*Pistacia chinensis*	5	15	G	G		G		5
120	*Pistacia chinensis*	6	15	G	G		G	Lean	6
121	*Pistacia chinensis*	6.5	15	P-D	D		P		7
122	*Pistacia chinensis*	5	15	G	G		G		5
123	*Pistacia chinensis*	6	15	G	G		G	girdling roots	6
124	*Pistacia chinensis*	6.5	15	G	G		G		7
125	*Pistacia chinensis*	6	15	G	G		G	girdling roots	6
126	*Pistacia chinensis*	5.5	15	G	G		G		6

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
127	*Pistacia chinensis*	5.5	15	G	G		G		6
128	*Prunus 'Krauter vesuvius'*	5.5	15	G	F		F	Lean, sunscald	6
129	*Prunus 'Krauter vesuvius'*	5	15	G	F		F	Lean, vehicle clearance pruning	5
130	*Prunus 'Krauter vesuvius'*	6	15	G	F-P		P	Lean, sunscald, clearance pruning	6
131	*Prunus 'Krauter vesuvius'*	5.5	15	G	F-P		P	Lean, EB	6
132	*Prunus 'Krauter vesuvius'*	2	10	G	F-G		F	clearance pruning	2
133	*Pistacia chinensis*	7	15	G	G		G		7
134	*Pistacia chinensis*	2	10	G	G		G		2
135	*Prunus 'Krauter vesuvius'*	2	10	G	G		G		2
136	*Prunus 'Krauter vesuvius'*	5	15	G	G		G		5
137	*Prunus 'Krauter vesuvius'*	5.5	15	G	G		G	Lean, sunscald	6
138	*Fraxinus oxycarpa 'Raywood'*	7	20	P	F		P		7
139	*Fraxinus oxycarpa 'Raywood'*	15.5	35	P	F-P	1	P	girdling root	16
140	*Fraxinus oxycarpa 'Raywood'*	9.5	30	G	F		F		10
141	*Fraxinus oxycarpa 'Raywood'*	9	35	G	F		F	girdling root	9

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
142	*Fraxinus oxycarpa 'Raywood'*	13	35	G	F		F	girdling root	13
143	*Prunus 'Krauter vesuvius'*	5	15	F	F		F		5
144	*Prunus 'Krauter vesuvius'*	5	20	F	F-P		P	Lean	5
145	*Prunus 'Krauter vesuvius'*	5.5	20	G	F		F		6
146	*Pyrus calleryana 'Chantacleer'*	9.5	30	F	F		F	EB	10
147	*Pyrus calleryana 'Chantacleer'*	9.5	30	F	F		F		10
148	*Pyrus calleryana 'Chantacleer'*	9	30	F	F		F	EB	9
149	*Pyrus calleryana 'Chantacleer'*	5.5	15	G	F		F	Lean	6
150	*Pyrus calleryana 'Chantacleer'*	9	30	F	F		F	EB	9
151	*Prunus 'Krauter vesuvius'*	4	15	P	F-P		P		4
152	*Prunus 'Krauter vesuvius'*	4	15	G	G		F	Basal wound	4
153	*Fraxinus oxycarpa 'Raywood'*	5.5	20	P	F		P		6
154	*Fraxinus oxycarpa 'Raywood'*	8.5	35	F-P	F		F-P		9
155	*Prunus 'Krauter vesuvius'*	5.5	15	F	F		F-P	Sunscald	6
156	*Pyrus calleryana 'Chantacleer'*	9	30	F-P	F-P		F-P	EB	9

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
157	*Pyrus calleryana 'Chantacleer'*	6.5	25	P	F-P		P		7
158	*Prunus 'Krauter vesuvius'*	5.5	15	F-P	F		P	Sunscald	6
159	*Prunus 'Krauter vesuvius'*	6	20	G	P		P	EB	6
160	*Pyrus calleryana 'Chantacleer'*	10	30	F	F		F		10
161	*Pyrus calleryana 'Chantacleer'*	10	30	F	F		F	EB	10
162	*Pyrus calleryana 'Chantacleer'*	10	30	F	F-P		P	EB	10
163	*Pyrus calleryana 'Chantacleer'*	8	30	F	F-P		P	EB	8
164	*Fraxinus oxycarpa 'Raywood'*	9.5	25	F	F		F		10
165	*Pyrus calleryana 'Chantacleer'*	10	30	F	F		F		10
166	*Pyrus calleryana 'Chantacleer'*	8.5	25	G	F		F		9
167	*Prunus 'Krauter vesuvius'*	6.5	15	G	F		F	Lean	7
168	*Prunus 'Krauter vesuvius'*	5.5	15	G	F		F	Lean into roadway, prune	6
169	*Prunus 'Krauter vesuvius'*	5	15	G	F		F		5
170	*Prunus 'Krauter vesuvius'*	5	15	P	F-P		P		5
171	*Prunus 'Krauter vesuvius'*	4.5	15	F-P	F		P	Lean	5

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
172	*Platanus x hispanica*	6.5	25	F	F		P	Lack of sufficient soil volume 4' x 4' area.	7
173	*Platanus x hispanica*	6.5	25	P	F		P	Lack of sufficient soil volume 4' x 4' area.	7
174	*Platanus x hispanica*	7	25	P	F		P	Lack of sufficient soil volume 4' x 4' area.	7
175	*Platanus x hispanica*	6.5	30	P	F		P	Lack of sufficient soil volume 4' x 4' area.	7
176	*Platanus x hispanica*	6	30	P	F		P	Lack of sufficient soil volume 4' x 4' area.	6
177	*Platanus x hispanica*	6.5	30	P	F		P	Lack of sufficient soil volume 4' x 4' area.	7
178	*Platanus x hispanica*	6	25	F	F		F		6
179	*Prunus 'Krauter vesuvius'*	4	15	P	F		P		4
180	*Prunus 'Krauter vesuvius'*	4.5	15	P	F		p		5
181	*Prunus 'Krauter vesuvius'*	4.5	15	P	F		p		5
182	*Prunus 'Krauter vesuvius'*	4.5	15	F	F-P		p	Lean, Ganoderma (decay)	5
183	*Prunus 'Krauter vesuvius'*	6	20	P	F-P		F-P	Lean	6
184	*Prunus 'Krauter vesuvius'*	5.5	20	F-P	F		P	Lean, sunburn	6
185	*Platanus x hispanica*	6.5	20	P	F		P	Narrow parkway	7
186	*Platanus x hispanica*	7.5	25	F-P	F		P	"	8

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
187	*Platanus x hispanica*	6	25	P	F		P	"	6
188	*Platanus x hispanica*	7	25	F-P	F		P	"	7
189	*Platanus x hispanica*	7.5	25	F	F		F	Wider at this end.	8
190	*Prunus 'Krauter vesuvius'*	5.5	15	G	F-G		F	Lean	6
191	*Prunus 'Krauter vesuvius'*	6	15	G	F		F	Lean, EB	6
192	*Fraxinus oxycarpa 'Raywood'*	7	20	F-P	F		F-P	Girdling root, top dead	7
193	*Fraxinus oxycarpa 'Raywood'*	6	25	F	F		F		6
194	*Fraxinus oxycarpa 'Raywood'*	8.5	20	F-P	P		P		9
195	*Prunus 'Krauter vesuvius'*	3	10	G	F-P		P	EB	3
196	*Prunus 'Krauter vesuvius'*	3.5	15	G	G		F		4
197	*Pyrus calleryana 'Chantacleer'*	7.5	25	F	F		F		8
198	*Pyrus calleryana 'Chantacleer'*	7	25	F-P	F		P		7
199	*Pyrus calleryana 'Chantacleer'*	4	15	F	P		P	EB	4
200	*Pyrus calleryana 'Chantacleer'*	4	15	F	F		F		4
201	*Pyrus calleryana 'Chantacleer'*	5.5	20	F	F		F	Lean	6

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
202	*Pyrus calleryana 'Chantacleer'*	2.5	10	F	F		F		3
203	*Pyrus calleryana 'Chantacleer'*	5.5	25	F	F		F		6
204	*Pyrus calleryana 'Chantacleer'*	6	25	F	F		F		6
205	*Pyrus calleryana 'Chantacleer'*	9	30	F-G	F		F		9
206	*Pyrus calleryana 'Chantacleer'*	7	25	F	F		F	flush cuts from pruning	7
207	*Pyrus calleryana 'Chantacleer'*	6.5	25	F	F		F		7
208	*Pyrus calleryana 'Chantacleer'*	6.5	25	F	F		F	Lean	7
209	*Pyrus calleryana 'Chantacleer'*	9	30	F	F		F	trunk wound	9
210	*Pyrus calleryana 'Chantacleer'*	11	35	F	F-P		P	EB	11
211	*Pyrus calleryana 'Chantacleer'*	10	35	P	F		P		10
212	*Pyrus calleryana 'Chantacleer'*	10.5	35	G	F		F	EB	11
213	*Pyrus calleryana 'Chantacleer'*	6.5	20	G	G		F		7
214	*Gleditsia triacanthos*	3.5	20	G	G		F		4
215	*Prunus 'Krauter vesuvius'*	7.5	20	G	F		F	EB	8
216	*Prunus 'Krauter vesuvius'*	2	10	G	G		F		2

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
217	*Robinia pseudoacacia 'Purple Robe'*	2.5	15	G	P		P	EB, pruning needed	3
218	*Pyrus calleryana 'Chantacleer'*	12	35	G	G		F		12
219	*Robinia pseudoacacia 'Purple Robe'*	2.5	15	G	G		G		3
220	*Robinia pseudoacacia 'Purple Robe'*	5.5	20	G	G		G	Girdling root	6
221	*Robinia pseudoacacia 'Purple Robe'*	5	20	G	G		G		5
222	*Prunus 'Krauter vesuvius'*	6	20	G	G		G		6
223	*Platanus x hispanica*	7.5	25	G	G		G		8
224	*Prunus 'Krauter vesuvius'*	5.5	15	F	F-P		F-P	Lean	6
225	*Prunus 'Krauter vesuvius'*	5.5	15	G	G		F		6
226	*Prunus 'Krauter vesuvius'*	6	15	P	F		P		6
227	*Prunus 'Krauter vesuvius'*	6.5	20	F	F-P		P	Lean	7
228	*Platanus x hispanica*	3.5	15	F-P	F		F	Lean	4
229	*Fraxinus oxycarpa 'Raywood'*	7	25	G	F		F	Lean	7
230	*Fraxinus oxycarpa 'Raywood'*	9	30	G	F		F		9
231	*Fraxinus oxycarpa 'Raywood'*	6	15	F	F-P		F-P	Lean, no leader	6

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
232	*Fraxinus oxycarpa 'Raywood'*	10	35	F	F		F	Codominant	10
233	*Fraxinus oxycarpa 'Raywood'*	10.5	30	P	F-P		F-P	Lean, no leader	11
234	*Fraxinus oxycarpa 'Raywood'*	9.5	30	P	F		P	Top dead, girdling root	10
235	*Fraxinus oxycarpa 'Raywood'*	9	20	F	F-P		P		9
236	*Fraxinus oxycarpa 'Raywood'*	8.5	30	F-P	P		P	Top dieback	9
237	*Fraxinus oxycarpa 'Raywood'*	10.5	35	F-P	F		P	Top dieback	11
238	*Fraxinus oxycarpa 'Raywood'*	8.5	30	F-P	F		P	Top dieback	9
239	*Fraxinus oxycarpa 'Raywood'*	10	30	F-P	F		P	Top dieback	10
240	*Platanus x hispanica*	9	30	G	G		G		9
241	*Platanus x hispanica*	9	25	F	G		G		9
242	*Platanus x hispanica*	9	25	G	G		G		9
243	*Platanus x hispanica*	7.5	25	G	G		G		8
244	*Platanus x hispanica*	9.5	25	G	G		G		10
245	*Platanus x hispanica*	3	15	G	G		G	Staked	3
246	*Platanus x hispanica*	7	25	G	G		G		7

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
247	*Platanus x hispanica*	7.5	30	G	G		G		8
248	*Platanus x hispanica*	9	30	G	G		G		9
249	*Platanus x hispanica*	8.5	25	G	G		G		9
250	*Platanus x hispanica*	10	30	G	G		G		10
251	*Platanus x hispanica*	3	15	G	F		G	Lean, codominant	3
252	*Pyrus calleryana 'Chantacleer'*	6.5	20	G	G		F		7
253	*Pyrus calleryana 'Chantacleer'*	9	25	F	F		F	EB, Codominant	9
254	*Pyrus calleryana 'Chantacleer'*	5	20	F	G		F	EB	5
255	*Pyrus calleryana 'Chantacleer'*	5.5	25	G	G		F		6
256	*Pyrus calleryana 'Chantacleer'*	5.5	30	G	G		F		6
257	*Pyrus calleryana 'Chantacleer'*	4.5	10	P	F		P		5
258	*Pyrus calleryana 'Chantacleer'*	5	10	P	F		P		5
259	*Pyrus calleryana 'Chantacleer'*	7.5	30	P	F-P		P	Top Dead, prune out dead?	8
260	*Pyrus calleryana 'Chantacleer'*	7	30	G	F-P		P	EB	7
261	*Pyrus calleryana 'Chantacleer'*	7	35	G	F		F	Lean, EB	7

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
262	*Platanus x hispanica*	9.5	30	G	G		G		10
263	*Platanus x hispanica*	5	25	G	F		G	Lean, anthracnose	5
264	*Pyrus kawakamii*	19.5	10	F	F	1	F	3 stems, measured at ground level.	20
265	*Platanus x acerifolia*	9	30	G	G		G		9
266	*Prunus 'Krauter vesuvius'*	7.5	20	G	F-G		F	Lean	8
267	*Prunus 'Krauter vesuvius'*	7	15	P	F-P		P	Lean, sunscald	7
268	*Robinia pseudoacacia 'Purple Robe'*	6	25	F	F-G		F		6
269	*Robinia pseudoacacia 'Purple Robe'*	6.5	25	F-P	F-G		P	Branch dieback	7
270	*Robinia pseudoacacia 'Purple Robe'*	2.5	15	G	F		F	EB, structural prune	3
271	*Robinia pseudoacacia 'Purple Robe'*	6	30	F	F		F		6
272	*Robinia pseudoacacia 'Purple Robe'*	5.5	25	F-P	F-P		F-P	Top Diback	6
273	*Robinia pseudoacacia 'Purple Robe'*	5	25	F	F		F	Basal wound	5
274	*Robinia pseudoacacia 'Purple Robe'*	7.5	30	F	F-P		P	EB, codominant	8
275	*Robinia pseudoacacia 'Purple Robe'*	3	15	G	F-P		F	Structural pruning	3
276	*Prunus 'Krauter vesuvius'*	8	20	G	F		F	EB	8

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
277	*Prunus 'Krauter vesuvius'*	6.5	15	P	P		P	Lean, sunscald	7
278	*Pyrus calleryana 'Chantacleer'*	12	35	G	F		F	More extensive Fireblight	12
279	*Pyrus calleryana 'Chantacleer'*	7.5	20	G	F		F	Lean, EB	8
280	*Pyrus calleryana 'Chantacleer'*	13	35	G	F		F	EB	13
281	*Betula pendula*	10	30	F	F		F		10
282	*Pyrus calleryana 'Chantacleer'*	11.5	35	G	F		F	EB	12
283	*Pyrus calleryana 'Chantacleer'*	10	30	G	F		F	EB	10
284	*Prunus 'Krauter vesuvius'*	6	20	G	F		F	Lean, EB	6
285	*Prunus 'Krauter vesuvius'*	6	20	F-P	F-P		F-P	Lean,top dieback	6
286	*Prunus 'Krauter vesuvius'*	5	10	P	P		P	Lean,top dieback	5
287	*Prunus 'Krauter vesuvius'*	6	15	F	F		F	Lean	6
288	*Prunus 'Krauter vesuvius'*	6.5	20	F	F		F	Lean, EB	7
289	*Platanus x hispanica*	7	20	G	F		G	Lean, 4x4	7
290	*Platanus x hispanica*	6	20	F-P	F		F	top dieback, prune out dead	6
291	*Platanus x hispanica*	5.5	20	F-P	F		F	top dieback, prune out dead	6

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
292	*Platanus x hispanica*	7.5	30	G	G		G		8
293	*lagerstroemia indica x fauriei*	5.5	15	G	G		G		6
294	*lagerstroemia indica x fauriei*	4	15	G	G		G		4
295	*lagerstroemia indica x fauriei*	5	15	G	G		G		5
296	*lagerstroemia indica x fauriei*	4	15	G	G		G		4
297	*lagerstroemia indica x fauriei*	5.5	15	G	G		G		6
298	*Platanus x hispanica*	7	25	F	G		G	4x4	7
299	*Platanus x hispanica*	7.5	25	G	G		G	4x4	8
300	*Prunus 'Krauter vesuvius'*	7.5	15	F	F-P		F-P	Lean into roadway	8
301	*Prunus 'Krauter vesuvius'*	7	15	P	P		P	Lean, EB, top dieback, sunscald	7
302	*Prunus 'Krauter vesuvius'*	7	15	P	F-P		P	EB, top dieback,sunscald	7
303	*Prunus 'Krauter vesuvius'*	6.5	15	P	F-P		P	EB, top dieback	7
304	*Prunus 'Krauter vesuvius'*	6	15	P	F		P	Lean, top dieback	6
305	*Prunus 'Krauter vesuvius'*	6.5	15	F-P	F-P		P	Lean, EB, sucscald, dieback	7
306	*Platanus x hispanica*	5.5	20	F-P	F		P	4x4 dieback	6

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
307	*Platanus x hispanica*	6	20	P	F		P	4x4 dieback	6
308	*Platanus x hispanica*	5.5	25	F-P	F		P	4x4 dieback	6
309	*lagerstroemia indica x fauriei*	6	15	G	G		G		6
310	*lagerstroemia indica x fauriei*	4.5	15	F-D	G		G		5
311	*lagerstroemia indica x fauriei*	4	15	F-G	G		G		4
312	*lagerstroemia indica x fauriei*	5	15	F-G	G		G		5
313	*lagerstroemia indica x fauriei*	6	15	F-G	G		G		6
314	*Platanus x hispanica*	8	25	F-P	G		F	4x4	8
315	*Platanus x hispanica*	5.5	20	F-P	G		F	4x4	6
316	*Platanus x hispanica*	8	30	F-P	G		F	4x4	8
317	*Platanus x hispanica*	7	25	F	G		G	4x4	7
318	*Prunus 'Krauter vesuvius'*	8	15	G	F		F		8
319	*Prunus 'Krauter vesuvius'*	6.5	15	G	F		F		7
320	*Prunus 'Krauter vesuvius'*	7	15	G	F		F	Lean, EB, bubbler at base	7
321	*Prunus 'Krauter vesuvius'*	6	15	G	F		F	Lean, EB	6

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
322	*Prunus 'Krauter vesuvius'*	6	15	G	F		F	EB	6
323	*Prunus 'Krauter vesuvius'*	6	15	G	F		F-P	Lean, EB, trunk wound	6
324	*Platanus x hispanica*	6	25	G	G		G	4x4	6
325	*Platanus x hispanica*	7	25	F	G		G	anthracnose,sycamore scale	7
326	*Platanus x hispanica*	6.5	25	F	G		G		7
327	*Platanus x hispanica*	6	25	F	G		G		6
328	*lagerstroemia indica x fauriei*	5.5	15	F	G		G	4' parkway	6
329	*lagerstroemia indica x fauriei*	4.5	15	F	G		G		5
330	*lagerstroemia indica x fauriei*	4	15	F	G		G		4
331	*lagerstroemia indica x fauriei*	4.5	15	F	G		G		5
332	*lagerstroemia indica x fauriei*	5	20	F	G		G		5
333	*Platanus x hispanica*	8	25	F	G		G	4X4	8
334	*Platanus x hispanica*	8	30	G	G		G		8
335	*Prunus 'Krauter vesuvius'*	6	15	G	F		F	Lean, sunscald	6
336	*Prunus 'Krauter vesuvius'*	6	15	F	F		F	dieback	6

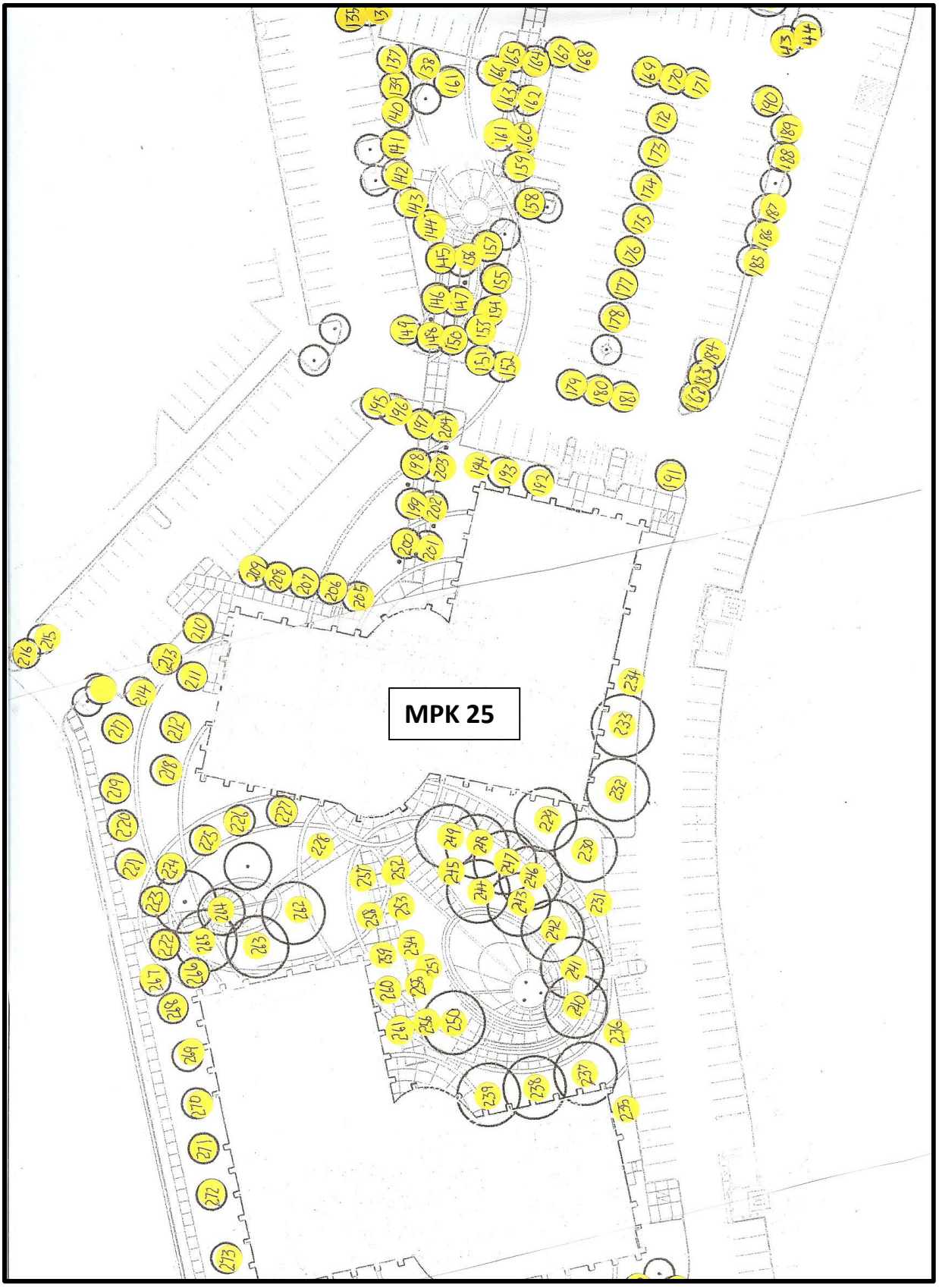
Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
337	*Prunus 'Krauter vesuvius'*	5	10	F-P	F		F-P	Sunscald ,top dieback	5
338	*Prunus 'Krauter vesuvius'*	6.5	15	F	F		F	sunscald	7
339	*Prunus 'Krauter vesuvius'*	7.5	15	F	F		F	Lean, sunscald	8
340	*Robinia pseudoacacia 'Purple Robe'*	6.5	25	F	P		F-P		7
341	*Robinia pseudoacacia 'Purple Robe'*	7	25	G	F		G		7
342	*Robinia pseudoacacia 'Purple Robe'*	2.5	10	G	F-G		G	Staked, needs structural pruning	3
343	*Robinia pseudoacacia 'Purple Robe'*	7	30	F-G	G		G		7
344	*Robinia pseudoacacia 'Purple Robe'*	2.5	15	G	F		G	Staked, needs structural pruning	3
345	*Robinia pseudoacacia 'Purple Robe'*	6	20	G	F		G		6
346	*Pyrus calleryana*	5.5	10	G	G		G	In way of security camera, fire blight	6
347	*Pyrus calleryana*	5.5	10	G	G		G	Fire blight	6
348	*Pyrus calleryana*	5	10	G	G		G	Codominant, Fire blight	5
349	*Pyrus calleryana*	5.5	10	G	G		G	Fire blight	6
350	*Pyrus calleryana*	5.5	10	G	G		G	Fire blight	6
351	*Platanus x hispanica*	4	10	F	G		G		4

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
352	*Platanus x hispanica*	4	10	F-p	G		F	Lots of dead	4
353	*Platanus x hispanica*	2.5	10	G	G		G	Remove stake	3
354	*Platanus x hispanica*	2.5	10	P	F		F-p	Lots of dead	3
355	*Platanus x hispanica*	4	10	P	F		F-p	Settled, lots of dead	4
356	*Platanus x hispanica*	3.5	10	P	F		F-p	Settled, lots of dead	4
357	*Pyrus calleryana*	3	10	F	G		F-p	Fire blight!	3
358	*Pyrus calleryana*	3.5	10	F	G		F-p	Fire blight!	4
359	*Pyrus calleryana*	3.5	10	F	G		F-p	Fire blight!	4
360	*Pyrus calleryana*	3	10	F	G		F-p	Fire blight!	3
361	*Robinia pseudoacacia 'Purple Robe'*	7	15	P	P		P	Internal decay significant, dieback, cankers	7
362	*Pinus canariensis*	15.5	40	40	G	1	G		16
363	*Pinus halepensis*	20.5	35	F	F-P	1	F	Lean, One stem headed	21
364	*Pinus halepensis*	27 @ 2.5'	35	F	F	1	F	Unusual branching structure, pruning wounds	27
365	*Pinus halepensis*	21.5	35	F	F	1	F	One stem dead	22
366	*Pinus halepensis*	20.5	20	F	F	1	F-P	Over pruned	21

Tag #	*Species*	DBH	Height	Health	Structure	Heritage?	Suitability for Retention	Notes	RPZ
367	*Pinus halepensis*	22	35	G	G	1	G	Codominant	22
379	*Prunus 'Krauter vesuvius'*	6	20	F	P		P	Previously surveyed in Chilco St survey Tree # is from the Chilco St survey	6

12

MPK 24


MPK 25

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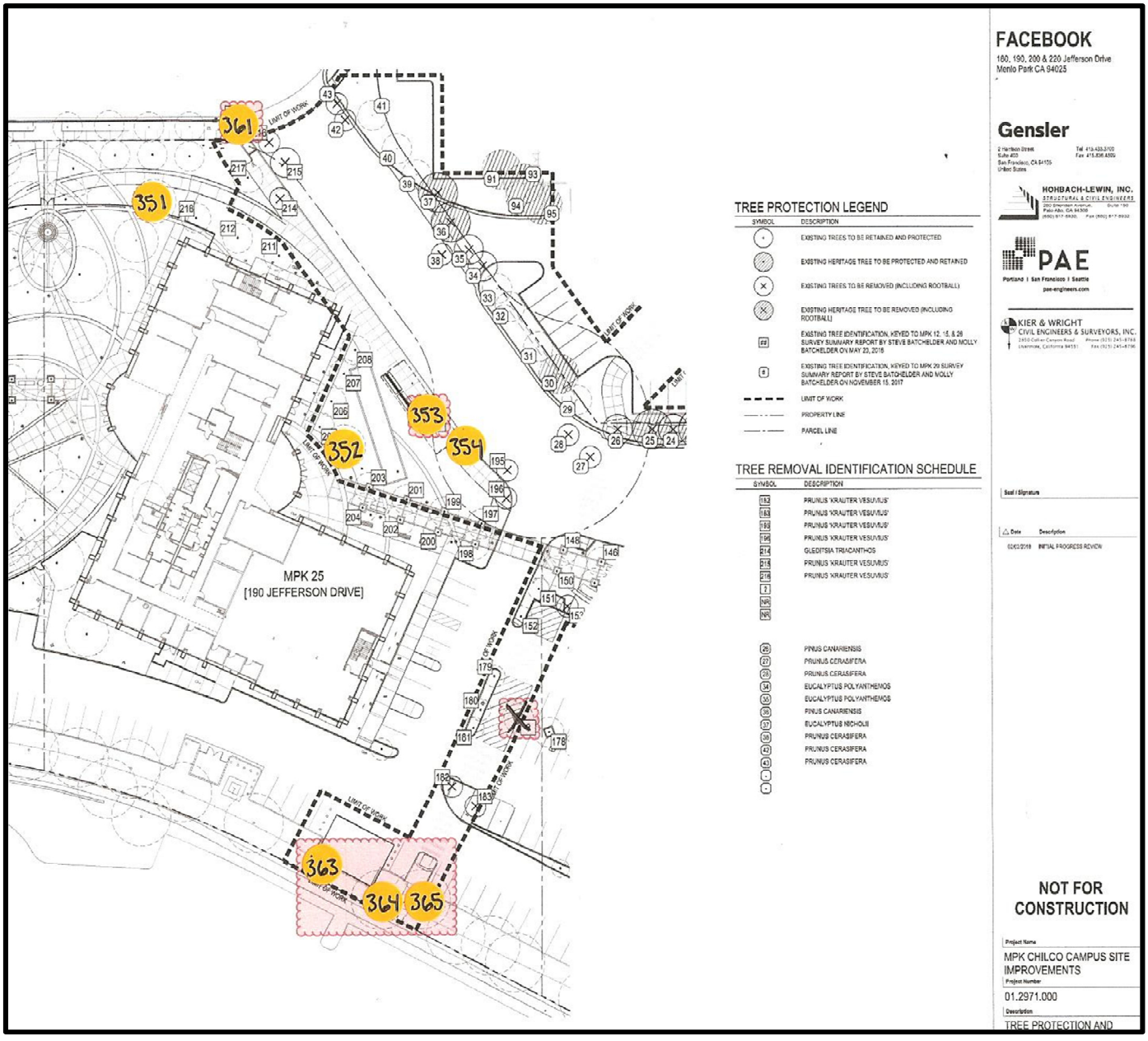
361
351
353
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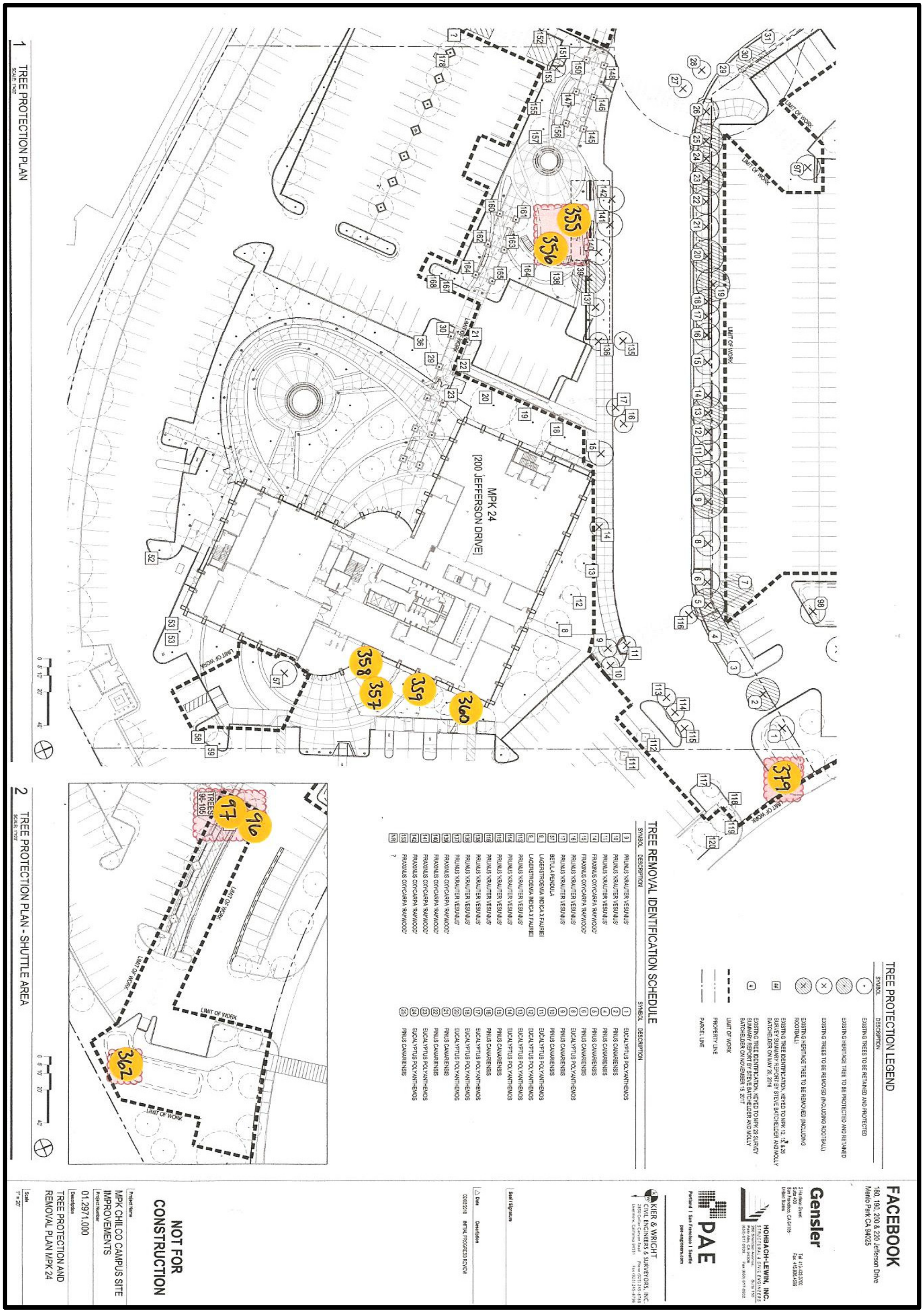
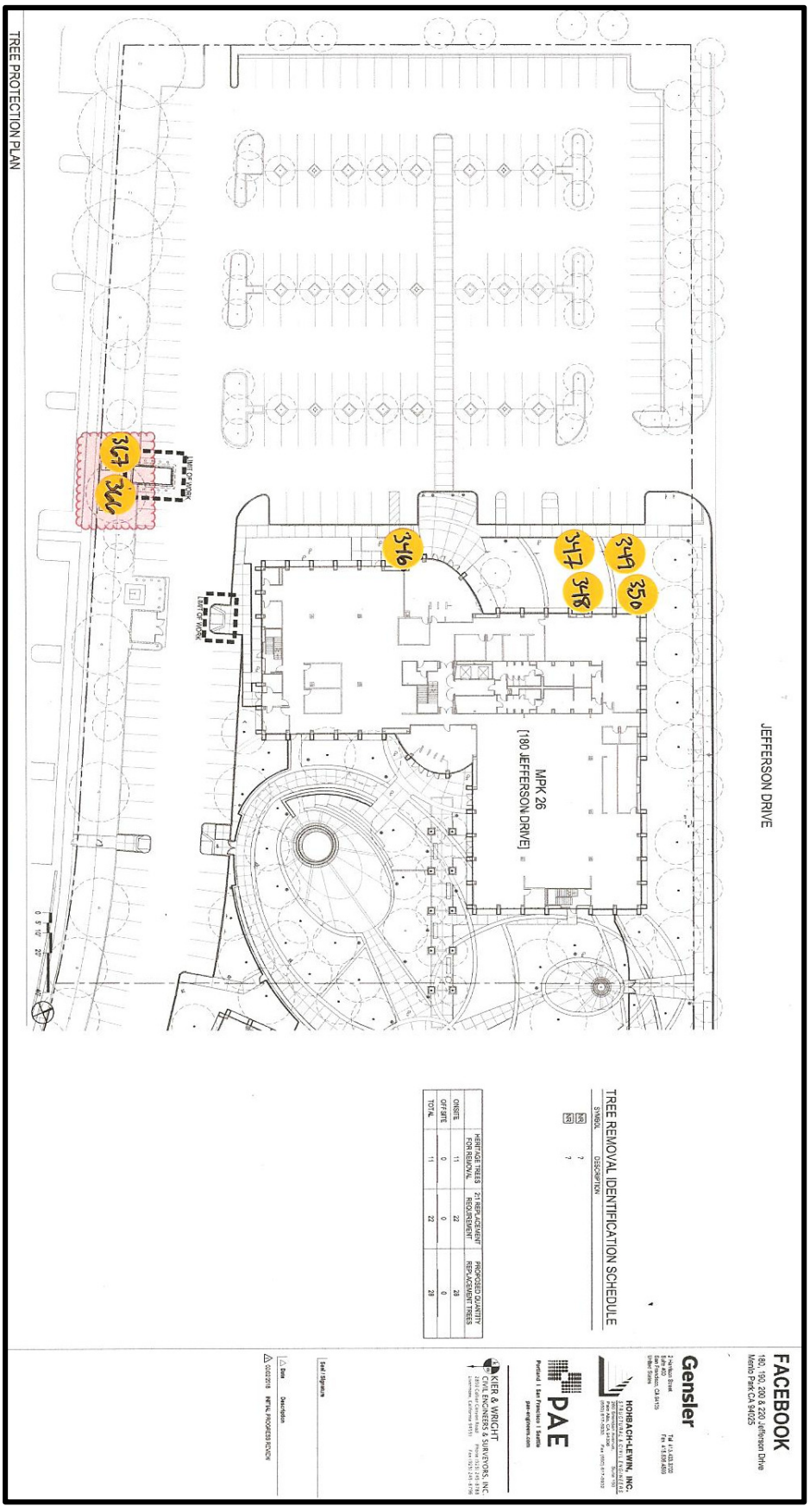
364
365
MPK 25
[190 JEFFERSON DRIVE]
LIMIT OF WORK
TREE PROTECTION LEGEND
SYMBOL
DESCRIPTION
EXISTING TREES TO BE RETAINED AND PROTECTED
EXISTING HERITAGE TREE TO BE PROTECTED AND RETAINED
EXISTING TREES TO BE REMOVED (INCLUDING ROOTBALL)
EXISTING HERITAGE TREE TO BE REMOVED (INCLUDING ROOTBALL)
EXISTING TREE IDENTIFICATION, KEYED TO MPK 12, 15, & 26 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON MAY 23, 2018
EXISTING TREE IDENTIFICATION, KEYED TO MPK 29 SURVEY SUMMARY REPORT BY STEVE BATCHELDER AND MOLLY BATCHELDER ON NOVEMBER 15, 2017
LIMIT OF WORK
PROPERTY LINE
PARCEL LINE
TREE REMOVAL IDENTIFICATION SCHEDULE
SYMBOL
DESCRIPTION
PRUNUS 'KRAUTER VESUVIUS'
PRUNUS 'KRAUTER VESUVIUS'
PRUNUS 'KRAUTER VESUVIUS'
PRUNUS 'KRAUTER VESUVIUS'
GLEDITSIA TRIACANTHOS
PRUNUS 'KRAUTER VESUVIUS'
PRUNUS 'KRAUTER VESUVIUS'
PINUS CANARIENSIS
PRUNUS CERASIFERA
PRUNUS CERASIFERA
EUCALYPTUS POLYANTHEMOS
EUCALYPTUS POLYANTHEMOS
PINUS CANARIENSIS
EUCALYPTUS NICHOLII
PRUNUS CERASIFERA
PRUNUS CERASIFERA
PRUNUS CERASIFERA
FACEBOOK
180, 190, 200 & 220 Jefferson Drive
Menlo Park CA 94025
Gensler
HOHBACH-LEWIN, INC.
STRUCTURAL & CIVIL ENGINEERS
PAE
Portland | San Francisco | Seattle
pae-engineers.com
KIER & WRIGHT
CIVIL ENGINEERS & SURVEYORS, INC.
Seal / Signature
Date
Description
02/01/2018 INITIAL PROGRESS REVIEW
NOT FOR CONSTRUCTION
Project Name
MPK CHILCO CAMPUS SITE IMPROVEMENTS
Project Number
01.2971.000
Description
TREE PROTECTION AND


TREE PROTECTION PLAN
MPK 24
[200 JEFFERSON DRIVE]
TREE PROTECTION PLAN - SHUTTLE AREA
TREE REMOVAL IDENTIFICATION SCHEDULE
TREE PROTECTION LEGEND
FACEBOOK
Gensler
PAE
NOT FOR CONSTRUCTION
MPK CHILCO CAMPUS SITE IMPROVEMENTS
TREE PROTECTION AND REMOVAL PLAN MPK 24
355
356
358
357
359
360
379
97
96
362


TREE PROTECTION PLAN
JEFFERSON DRIVE
MPK 26
[180 JEFFERSON DRIVE]
346
347
348
349
350
FACEBOOK
180, 190, 200 & 220 Jefferson Drive
Menlo Park CA 94025
Gensler
PAE
KIER & WRIGHT
TREE REMOVAL IDENTIFICATION SCHEDULE
SYMBOL
DESCRIPTION
HERITAGE TREES FOR REMOVAL
21 REPLACEMENT REQUIREMENT
PROPOSED QUANTITY REPLACEMENT TREES
ONSITE
OFFSITE
TOTAL
11
0
11
22
0
22
28
0
28
Description
FINAL PROGRESS SETS

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ISA Tree Risk Assessment Qualified
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Date: November 15, 2017

To: Lauren Swezey, Facebook

Project Site: MPK 29

Subject: Tree Survey

Assignment: Arborist was asked to survey all trees located within the MPK 29 project site.

Scope: Previously surveyed trees existing in cutouts on the MPK 24 side were not included. Only trees ≥ 12 feet in height were included in the survey. Multi-stemmed trees were measured below where stems divide.

Summary

Arborist tagged and surveyed 100 trees. *Eucalyptus nicholii* #82 has since been removed. Metal number tags were attached to trees which correspond to the tree survey data located in *Appendix 1.*

Heritage Trees – Forty-two (42) trees qualify as Heritage.

Suitability for Preservation –

- Fourteen (14) trees were given a Good suitability for retention rating and would be appropriate for preservation in a modified site. Most of these are Canary Island Pines *(Pinus canariensis).*
- Thirty-three (33) trees were given a Fair retention suitability rating. Those displaying marginal health can be considered for preservation when health mitigation proves beneficial.
- Fifty-two (52) trees were given Poor retention suitability ratings due to poor health and or structural conditions.

Table 1 – Table below provides a breakdown of species and comments on overall conditions.

	Species	Common Name	Total Amount	Heritage Tree	Overall Retention Suitability	Comments
1	*Betula pendula*	White Bark Birch	2	0	F	
2	*Eucalyptus nicholii*	Willow Leaf Peppermint	21	21	P	#71-80 will be removed as part of sidewalk installation; Removal permit applications have been submitted for #66 and 67. #82 has been removed.

	Species	Common Name	Total Amount	Heritage Tree	Overall Retention Suitability	Comments
3	*Eucalyptus polyanthemos*	Silver Dollar Gum	24	7	P	Few trees are thriving. Most display significant dieback.
4	*Melaleuca quinquenervia*	Broad-leaved Paperbark	8	6	P	Poor structures
5	*Myoporum laetum*	Myoporum	1	1	P	Thrips
6	*Pinus canariensis*	Canary Island Pine	18	7	G	Species doing well; Some mature valuable specimens that are worthy of preservation; A few have been poorly pruned (limbed up significantly)
7	*Prunus cerasifera*	Purple Plum	5	0	P	
8	*Robinia pseudoacacia 'Purple Robe'*	Purple Robe Locust	3	0	P	Species does not perform well in poor soil situations
9	*Tristaniopsis laurina*	Swamp Myrtle	17	0	F-P	Planted along west side of existing building.
		Totals:	**99**	**42**		

Table 2 – Table below provides a breakdown of trees requiring pruning mitigation, aerial inspection, or are recommended for potential early removal.

Tag	Species	Common Name	DBH	Health	Structure	Heritage	Suitability for Retention	Notes
69	*Eucalyptus nicholii*	Willow Peppermint	36.5	F	F	1	F	On Jefferson, EB, **End Weight Reduction**
70	*Eucalyptus nicholii*	Willow Peppermint	34	F-P	F	1	P	On Jefferson, Sparse foliage, Lean, **Conk in upper scaffold branch requires inspection**
73	*Eucalyptus nicholii*	Willow Peppermint	26	F-P	F-P	1	P	On Constitution, Two large dead branches, **Remove dead wood**
74	*Eucalyptus nicholii*	Willow Peppermint	33.5	F-P	P	1	P	On Constitution, 3 CDEB, Dieback on street side, **Remove dead wood**

Tag	Species	Common Name	DBH	Health	Structure	Heritage	Suitability for Retention	Notes
75	*Eucalyptus nicholii*	Willow Peppermint	15.5	P	F	1	P	On Constitution, Lean, **Remove dead wood**
76	*Eucalyptus nicholii*	Willow Peppermint	33	P	P	1	P	On Constitution, Top dead, Fungal conk, **Remove dead wood, Investigate cavity, Potential removal**
78	*Eucalyptus nicholii*	Willow Peppermint	30	P	P	1	P	On Constitution, Sparse foliage, Dead limbs, Hollowness when sounded, **Potential removal**
79	*Eucalyptus nicholii*	Willow Peppermint	35	F	P	1	P	On Constitution, **Included bark limb over parking lot requires End Weight Reduction**
80	*Eucalyptus nicholii*	Willow Peppermint	23	P	P	1	P	On Constitution, Dieback, Large wounds, Lean, **Potential removal**
81	*Eucalyptus nicholii*	Willow Peppermint	27.5	F	F	1	F	In parking lot, **End Weight Reduction on heavy limb**
83	*Eucalyptus nicholii*	Willow Peppermint	24.5	F-P	F	1	P	In parking lot, Top dead, **Remove dead wood**
84	*Eucalyptus nicholii*	Willow Peppermint	34.5	P	P	1	P	On Jefferson, Recent branch failure. In serious decline. **Potential removal**

End

Report submitted by:

Molly Batchelder, Consulting Arborist
WC ISA Certified Arborist #9613A
Tree Risk Assessment Qualified (TRAQ)

Appendix info:

1. *Tree Survey Data*
2. *Tree Location Map*

COLUMN HEADING DESCRIPTIONS

Tag# - Indicates the number tag attached to tree
Species - Scientific name
Common Name - Vernacular name
DBH - Diameter measured in inches at 4.5 feet above soil grade, unless otherwise indicated
Height - In feet
Health -Tree Health: E is Excellent, G is Good, F is Fair, P is Poor, D is Dead or Dying
Structure- Tree Structural Safety: E is Excellent, G is Good, F is Fair, P is Poor, H is Hazardous
Heritage? - Attaining City of Menlo Park Heritage Tree Status: Y is Yes, N is No
RPZ - Tree Root Protection Zone - A radial distance from the tree base that is to be fenced off from all contruction activities. If grading, trenching,or any other contruction related activites are to occur within this protected area, all activities are strictly controlled by Project Arborist.
Suitability for Retention - Based on Tree Condition: G is Good, F is Fair, P is Poor
Notes - See below

Notes

Embedded Bark (EB) - AKA Included Bark, this is a structural defect where bark is included between the branch attachment so that the wood cannot join. Such defects have a higher propensity for failure.

Codominant (CD) - A situation where a tree has two or more stems which are of equal diameter and relative amounts of leaf area. Trees with codominant primary scaffolding stems are inherently weaker than stems, which are of unequal diameter and size.

Codominant w/ Embedded Bark (CDEB) - When bark is embedded between codominant stems, failure potential is very high and pruning to mitigate the defect is recommended.

Multi (Multi) - Multiple trunks/stems emanate from below breast height (4.5' above soil grade).

Tag	Species	Common Name	DBH	Health	Structure	Heritage	RPZ	Suitability for Retention	Notes
1	*Eucalyptus polyanthemos*	Silver Dollar Gum	8.5	P	F		9	P	Dieback, lean
2	*Pinus canariensis*	Canary Island Pine	19	G	G	1	19	G	Bulging kink in trunk from old pruning wound?
3	*Pinus canariensis*	Canary Island Pine	14.5	G	F		15	F	Limbed up excessively, Large pruning wounds
4	*Pinus canariensis*	Canary Island Pine	16	G	G	1	16	G	Lean
5	*Pinus canariensis*	Canary Island Pine	16	G	G	1	16	G	Nice tree

Tag	Species	Common Name	DBH	Health	Structure	Heritage	RPZ	Suitability for Retention	Notes
6	*Pinus canariensis*	Canary Island Pine	14	F-g	G		14	G	Off color
7	*Eucalyptus polyanthemos*	Silver Dollar Gum	20	F-p	F	1	20	P	Sparse, lean
8	*Eucalyptus polyanthemos*	Silver Dollar Gum	7.5	P	P		8	P	Dieback, failure to thrive
9	*Pinus canariensis*	Canary Island Pine	16	G	F	1	16	F	Lean, limbed up excessively
10	*Pinus canariensis*	Canary Island Pine	13.5	G	G		14	G	
11	*Eucalyptus polyanthemos*	Silver Dollar Gum	12.5	P	P		13	P	Too dead
12	*Eucalyptus polyanthemos*	Silver Dollar Gum	12	F	F		12	F	Significant lean
13	*Eucalyptus polyanthemos*	Silver Dollar Gum	18	F	F	1	18	F	Significant lean, Kink in trunk, Sparse foliage
14	*Eucalyptus polyanthemos*	Silver Dollar Gum	8.5	F	P		9	P	Large rip out
15	*Pinus canariensis*	Canary Island Pine	11	G	F		11	F	Excessively limbed up
16	*Pinus canariensis*	Canary Island Pine	13	G	G		13	G	
17	*Eucalyptus polyanthemos*	Silver Dollar Gum	8	F	F		8	F	Sparse
18	*Eucalyptus polyanthemos*	Silver Dollar Gum	11	F	F		11	F	Sparse
19	*Eucalyptus polyanthemos*	Silver Dollar Gum	32.5 @ 6"	G	F	1	33	G	Multi, bark inclusion, nice tree, healthier than the other Eucs
20	*Eucalyptus polyanthemos*	Silver Dollar Gum	15	P	F	1	15	P	Sparse
21	*Pinus canariensis*	Canary Island Pine	14.5	G	F		15	F	Excessively limbed up
22	*Pinus canariensis*	Canary Island Pine	12.5	G	G		13	G	

Tag	Species	Common Name	DBH	Health	Structure	Heritage	RPZ	Suitability for Retention	Notes
23	*Eucalyptus polyanthemos*	Canary Island Pine	19	F-p	F	1	19	P	Large pruning wounds, sparse, lean
24	*Eucalyptus polyanthemos*	Silver Dollar Gum	13.5	F-p	F		14	P	Large pruning wounds, sparse, lean
25	*Pinus canariensis*	Canary Island Pine	16	G	G	1	16	G	Curve in trunk, nice tree
26	*Pinus canariensis*	Canary Island Pine	13.5	G	G		14	G	
27	*Prunus cersifera*	Purple Plum	5	P	P		5	P	Lean
28	*Prunus cersifera*	Purple Plum	5	P-d	P		5	P	Lean, almost dead
29	*Pinus canariensis*	Canary Island Pine	12 @ base	G	F-p		12	F	One stem removed
30	*Pinus canariensis*	Canary Island Pine	18.5	G	G	1	19	G	Nice tree, a little off color
31	*Eucalyptus polyanthemos*	Silver Dollar Gum	7	F	F-p		7	P	Sparse
32	*Eucalyptus polyanthemos*	Silver Dollar Gum	13	P	F		13	P	Dieback, lean
33	*Eucalyptus polyanthemos*	Silver Dollar Gum	11.5	F-p	F		12	P	Dieback, lean
34	*Eucalyptus polyanthemos*	Silver Dollar Gum	4	P	P		4	P	Disfunctional root system
35	*Eucalyptus polyanthemos*	Silver Dollar Gum	13.5	F	F		14	F	Sparse, lean
36	*Pinus canariensis*	Canary Island Pine	15.5	G	F-p	1	16	P	Large pruning wounds, excessively limbed up
37	*Eucalyptus nicholii*	Willow Leaf Peppermint	19	F-p	P	1	19	P	Cdeb
38	*Prunus cersifera*	Purple Plum	4	P-d	P		4	P	Dieback, lean
39	*Pinus canariensis*	Canary Island Pine	12	G	G		12	G	

Tag	Species	Common Name	DBH	Health	Structure	Heritage	RPZ	Suitability for Retention	Notes
40	*Pinus canariensis*	Canary Island Pine	12	G	G		12	G	
41	*Eucalyptus polyanthemos*	Silver Dollar Gum	12.5	F-p	F		13	P	Sparse, lean
42	*Prunus cersifera*	Purple Plum	5	F	P		5	P	Lean, included bark
43	*Prunus cersifera*	Purple Plum	5.5	F	P		6	P	Included bark
44	*Robinia pseudoacacia 'Purple Robe'*	Purple Robe Locust	6	F	F		6	F	
45	*Robinia pseudoacacia 'Purple Robe'*	Purple Robe Locust	6	F	F		6	F	
46	*Robinia pseudoacacia 'Purple Robe'*	Purple Robe Locust	6	F	F		6	F	
47	*Myoporum laetum*	Myoporum	18	F-p	F-p	1	18	P	Breakout, thrips
48	*Betula pendula*	White Bark Birch	4	F	G		4	F	Surface roots, herbicide
49	*Betula pendula*	White Bark Birch	9	F	G		9	F	Surface roots,herbicide
50	*Tristaniopsis laurina*	Swamp Myrtle	6	F	F		6	F	Lean
51	*Tristaniopsis laurina*	Swamp Myrtle	6	F	F		6	F	Lean, Codominant
52	*Tristaniopsis laurina*	Swamp Myrtle	8.5 @ 3'	F	F		9	F	Codominant, large pruning wounds
53	*Tristaniopsis laurina*	Swamp Myrtle	6.5	F	F		7	F	Codominant
54	*Tristaniopsis laurina*	Swamp Myrtle	6.5	F	F		7	F	Codominant
55	*Tristaniopsis laurina*	Swamp Myrtle	4.5	F	F		5	F	Codominant

Tag	Species	Common Name	DBH	Health	Structure	Heritage	RPZ	Suitability for Retention	Notes
56	*Tristaniopsis laurina*	Swamp Myrtle	5.5	F	F		6	F	Codominant
57	*Tristaniopsis laurina*	Swamp Myrtle	5	F	F		5	F	Lean
58	*Tristaniopsis laurina*	Swamp Myrtle	5	F	F		5	F	Lean
59	*Melaleuca quinuinervia*	Broad-leaved Paperbark	48 @ gl	G	F-p	1	48	F	Lean, included bark, one stem removed
60	*Melaleuca quinuinervia*	Broad-leaved Paperbark	13	G	F		13	F	Lean
61	*Melaleuca quinuinervia*	Broad-leaved Paperbark	29 @ 2'	G	P	1	29	P	Cdeb, large stem removed
62	*Tristaniopsis laurina*	Swamp Myrtle	11 @ gl	F	F		11	F	Circling root
63	*Tristaniopsis laurina*	Swamp Myrtle	8.5 @ gl	F	F		9	F	
64	*Tristaniopsis laurina*	Swamp Myrtle	9 @ gl	P	F		9	P	Dieback
65	*Eucalyptus nicholii*	Willow Peppermint	33.5	F	F-P	1	34	P	On Jefferson, Prior included bark breakout, EWR already accomplished on heavy limb
66	*Eucalyptus nicholii*	Willow Peppermint	34	F	P	1	34	P	On Jefferson, Large EB breakout, EB in upper scaffold, **Removal permit**
67	*Eucalyptus nicholii*	Willow Peppermint	20.5	P-D	P-H	1	21	P	On Jefferson, Almost dead, Lean towards structure, Tensile root decay,
68	*Eucalyptus nicholii*	Willow Peppermint	33.5	G	G	1	34	G	On Jefferson, Best tree of them all
69	*Eucalyptus nicholii*	Willow Peppermint	36.5	F	F	1	37	F	On Jefferson, EB, EWR
70	*Eucalyptus nicholii*	Willow Peppermint	34	F-P	F	1	34	P	On Jefferson, Sparse foliage, Lean, Conk in upper scaffold branch requires inspection

Tag	Species	Common Name	DBH	Health	Structure	Heritage	RPZ	Suitability for Retention	Notes
71	*Eucalyptus nicholii*	Willow Peppermint	38.5	F-P	F	1	39	P	On Constitution, Sparse foliage, Codominant
72	*Eucalyptus nicholii*	Willow Peppermint	33	F	F	1	33	F	On Constitution, Codominant
73	*Eucalyptus nicholii*	Willow Peppermint	26	F-P	F-P	1	26	P	On Constitution, Two large dead branches, Remove dead wood
74	*Eucalyptus nicholii*	Willow Peppermint	33.5	F-P	P	1	34	P	On Constitution, 3 CDEB, Dieback on street side, Remove dead wood
75	*Eucalyptus nicholii*	Willow Peppermint	15.5	P	F	1	16	P	On Constitution, Lean, Remove dead wood
76	*Eucalyptus nicholii*	Willow Peppermint	33	P	P	1	33	P	On Constitution, Top dead, Remove dead wood, Fungal conk, Investigate cavity, Potential removal
77	*Eucalyptus nicholii*	Willow Peppermint	28.5	F	F-P	1	29	P	On Constitution, Crossing branches
78	*Eucalyptus nicholii*	Willow Peppermint	30	P	P	1	30	P	On Constitution, Sparse foliage, Dead limbs, Hollowness when sounded, Potential removal
79	*Eucalyptus nicholii*	Willow Peppermint	35	F	P	1	35	P	On Constitution, EB over parking lot requires EWR
80	*Eucalyptus nicholii*	Willow Peppermint	23	P	P	1	23	P	On Constitution, Dieback, Large wounds, Lean, Potential removal
81	*Eucalyptus nicholii*	Willow Peppermint	27.5	F	F	1	28	F	In parking lot, EWR on heavy limb

Tag	Species	Common Name	DBH	Health	Structure	Heritage	RPZ	Suitability for Retention	Notes
82	*Eucalyptus nicholii*	Willow Peppermint	29.5	-	-	-	30	-	Removed
83	*Eucalyptus nicholii*	Willow Peppermint	24.5	F-P	F	1	25	P	In parking lot, Top dead, Remove dead wood
84	*Eucalyptus nicholii*	Willow Peppermint	34.5	P	P	1	35	P	On Jefferson, Recent branch failure. In serious decline.
85	*Eucalyptus nicholii*	Willow Peppermint	21	F	F	1	21	F	
86	*Tristaniopsis laurina*	Swamp Myrtle	10 @ gl	P	F		10	P	Dieback
87	*Tristaniopsis laurina*	Swamp Myrtle	9 @ gl	P	F		9	P	Dieback
88	*Tristaniopsis laurina*	Swamp Myrtle	10.5 @ gl	P	F		11	P	Dieback
89	*Tristaniopsis laurina*	Swamp Myrtle	8 @ gl	P	F		8	P	Dieback
90	*Tristaniopsis laurina*	Swamp Myrtle	6 @ 30"	F-p	F		6	P	Sparse
91	*Melaleuca quinuinervia*	Broad-leaved Paperbark	26 @ gl	G	F-p	1	26	P	Lean, included bark
92	*Melaleuca quinuinervia*	Broad-leaved Paperbark	10	G	F-p		10	P	Lean, included bark
93	*Melaleuca quinuinervia*	Broad-leaved Paperbark	19 @ 12	G	P	1	19	P	Cdeb, eb
94	*Melaleuca quinuinervia*	Broad-leaved Paperbark	24 @ gl	G	F-p	1	24	P	Codominant, large pruning wounds
95	*Melaleuca quinuinervia*	Broad-leaved Paperbark	29 @ 12"	G	P	1	29	P	Cdeb, eb, blackness on bark
96	*Eucalyptus polyanthemos*	Silver Dollar Gum	18	F	P	1	18	P	Lean, tip dieback, horizontal crack in trunk at bend
97	*Eucalyptus polyanthemos*	Silver Dollar Gum	14.5	F-p	P		15	P	Horizons cracks in trunk
98	*Eucalyptus polyanthemos*	Silver Dollar Gum	14.5	F	F-g		15	F	Dieback
99	*Eucalyptus polyanthemos*	Silver Dollar Gum	14.5	F-p	F		15	P	Dieback

Tag	Species	Common Name	DBH	Health	Structure	Heritage	RPZ	Suitability for Retention	Notes
100	*Eucalyptus polyanthemos*	Silver Dollar Gum	16.5	P	P	1	17	P	Dieback, rip out

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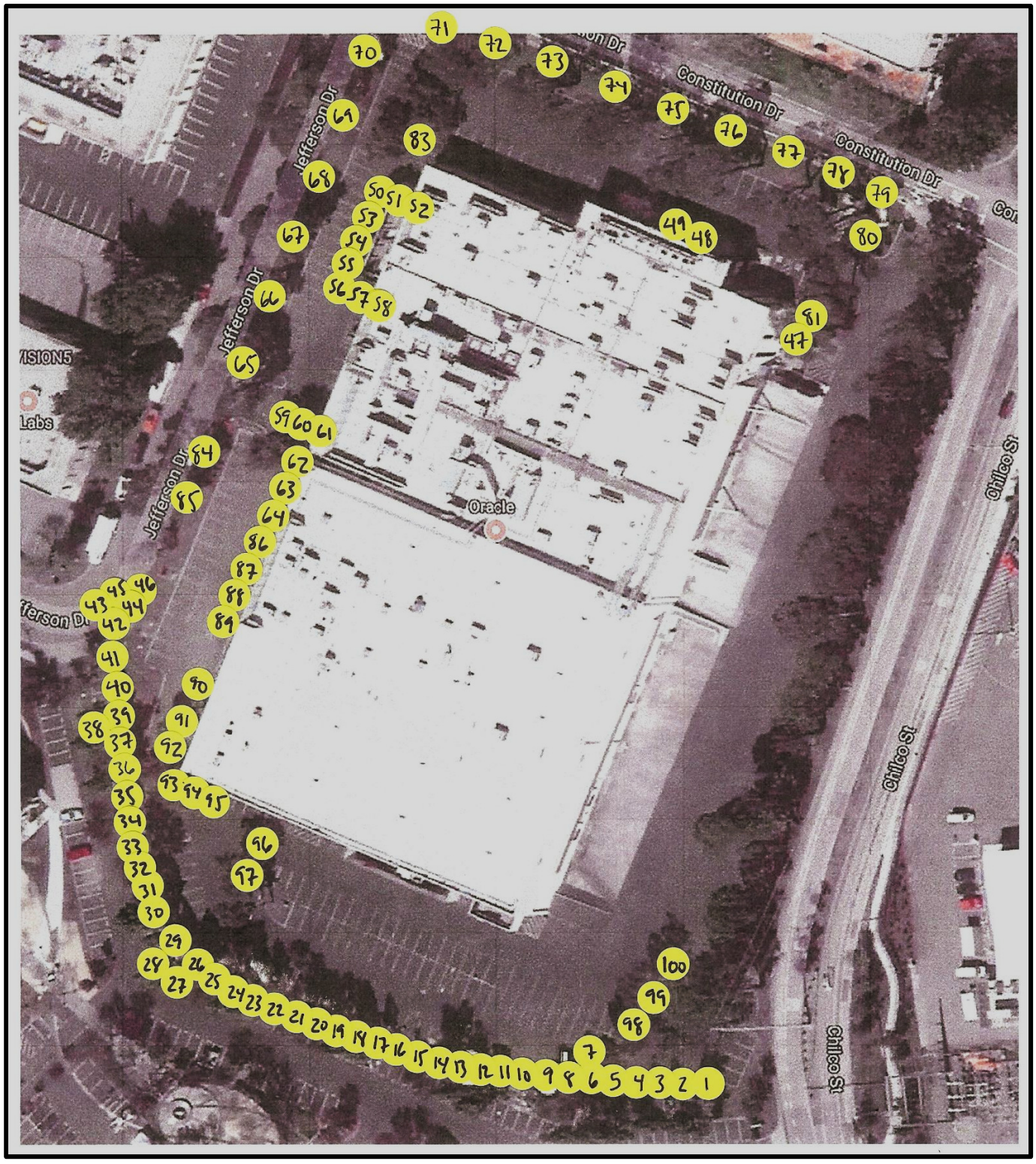
Jefferson Dr
Constitution Dr
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CITY OF MENLO PARK

STAFF REPORT

Environmental Quality Commission
Meeting Date: **9/26/2018**
Staff Report Number: **18-012-EQC**

Regular Business: **Review and discuss a recommendation to City Council to add an electric vehicle charging space exception to Menlo Park's municipal code for qualifying affordable housing developments.**

Recommendation

Staff recommends that the Environmental Quality Commission recommend an exception for affordable housing associated with ordinances amending Title 12 (Buildings and Construction) of the Menlo Park Municipal Code to update the requirements for electric vehicle (EV) charging spaces for projects involving tenant improvements or new construction.

Policy Issues

The adoption of more stringent requirements for EV charging spaces would be considered a local amendment to the 2016 California green building standards code and would require the City Council to adopt an ordinance. The exception for affordable housing would be consistent with other exceptions in the California Standards Building Code where hardships can be demonstrated, and would help remove financial barriers for the development of affordable housing.

Background

On August 28, 2018, the City Council considered ordinance amendments to Title 12 (Building and Construction) and Title 16 (Zoning) related to citywide electric vehicle charging space requirements. The impetus for the citywide electric vehicle charging requirements was the adoption of a comprehensive set of green and sustainable building regulations, including electric vehicle charging space requirements, for the Bayfront Area as part of the adoption of the 2016 ConnectMenlo General Plan. Following the General Plan adoption, several City Council members expressed interest in expanding the regulations citywide and further increasing the requirements. The proposed ordinances were the product of guidance from City Council Subcommittee Members Cline and Carlton, staff research, Planning Commission feedback, and stakeholder and community input. The August 28, 2018 City Council staff report, which provides more background information and details about the proposed ordinance, is included as Attachment A.

At the City Council meeting on August 28, members of the public expressed both validation for the work as well as concerns about the requirements, mostly being too much too soon and the potential increased in cost on projects. The City Council supported the proposed ordinance amendments with several modifications, including the following:

- Specify the requirement for a National Electrical Manufacturers Association 14-50 receptacle wherever a receptacle is referenced;
- Remove the requirement for "universal" chargers; and
- Include a provision where an exception to the regulations can be granted for affordable housing

As part of the City Council's motion and introduction of the ordinances, the City Council also asked staff to review the proposed exception language with the Environmental Quality Commission prior to the second reading of the ordinances.

This staff report focuses on the proposed exception, which would be an amendment to the Building Standards Code. The draft Title 12 ordinance is included as Attachment B for the Environmental Quality Commission's review and recommendation.

Analysis

Access to electric vehicle charging infrastructure is an important part of making electric vehicles a success. Access to charging gives drivers more confidence to utilize electric vehicles and extends the functional daily range. Staff proposed modifications to the electric vehicle charging space ordinance to increase the requirements and to make the regulations applicable citywide to address existing and future demand. The electric vehicle regulations would be applicable to all new residential development of three or more units (CalGreen already requires electric vehicle charging for single family and duplexes), and all new commercial development and tenant improvements adding or affecting 10,000 square feet or more.

The electric vehicle ordinance is intended to be practical and serve a need in the community, and not overburden or discourage improvements to existing buildings. The infrastructure cost associated with the installation of the electric vehicle supply equipment (EVSE) for existing buildings can vary depending on several factors, including the type of equipment, the distance of the electric vehicle space(s) from the electrical supply equipment and the capacity of the electrical supply equipment. Concerns regarding the potential cost impacts on smaller projects and potential technology changes in the future, which could make what works today obsolete in the future, influenced the ordinance. While the City Council was in general support of the numeric requirements and the primary focus on new development, the City Council also shared concern about the potential cost implications the requirement would have on affordable housing developments.

In response to a similar concern by the Planning Commission regarding cost, staff had previously proposed language, consistent with provisions elsewhere in the building standards code, which would allow an applicant to seek an exemption from the electric vehicle requirements if a hardship is demonstrated, such as additional infrastructure as a result of local regulations. The City Council recommended for more specific language with respect to affordable housing. The proposed language, shown in underline, is as follows:

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 and 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicles supply equipment (EVSE) shall be installed in accordance with the *California Electric Code*, Article 625.

> **Exceptions:** On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based on one or more of the following conditions:
>
> 1. Where there is no commercial power supply.
> 2. Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or developer by more than $400.00 per dwelling unit.
> 3. <u>For 100 percent Below Market Rate housing developments, EVSE shall be provided based on 10 percent of the total number of dwelling units.</u>

If the applicant/owner can demonstrate that the proposed development is restricted for 100 percent affordable housing, then the applicant would be required to implement 10 percent electric vehicle supply equipment instead of conduit and wiring for each unit and 15 percent electric vehicle supply equipment installation, which is the requirement for new residential developments of three or more units. Staff believes that the proposed concept provides a balanced approach that addresses the City Council's direction to consider cost implications for affordable housing while still requiring installation of electric vehicle supply equipment. Staff is seeking feedback and a recommendation from the Environmental Quality Commission on the proposed concept.

Next steps

Following the Environmental Quality Commission's recommendation on the proposed electric vehicle supply equipment exception for affordable housing, staff will update the proposed ordinances and present them to the City Council. Depending on the extent of the proposed language, the City Council could proceed with a second reading of the ordinances or reintroduce the ordinances at the October 23, 2018 City Council meeting. Staff will consult with the City Attorney on the appropriate course. Following the second reading, the ordinances would become effective 30 days after adoption, unless otherwise specified. As part of Title 12, the implementation of the electric vehicle supply equipment requirements would be consistent with the application of other building standards code amendments. The requirements would be applicable to any development, meeting the specified criteria, unless a complete building permit application has been received prior to the effective date. The building permit does not need to be issued prior to the effective date.

Following the implementation of the citywide electric vehicle charger ordinance, staff will be working on identifying policies and programs to encourage electric vehicle purchasing and the creation of a Communitywide Electric Vehicle Infrastructure Master Plan, both of which were approved in the Climate Action Plan amendments the City Council made in May.

Impact on City Resources

The ordinances to modify Title 12 and Title 16 are not anticipated to have any impact on City resources. Staff time spent on researching and drafting the ordinance would be absorbed by the General Fund.

Environmental Review

The adoption of the proposed local amendment is not a project that has the potential for causing a significant effect on the environment and therefore is not subject to review under the California Environmental Quality Act (CEQA).

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

Attachments

A. Hyperlink; https://www.menlopark.org/DocumentCenter/View/18445/G2-EV-CHARGER-18-168
B. Draft Ordinance No. 1049 amending Title 12 (Buildings and Construction) to amend the 2016 California

green building standards code, Part 11 of the 2016 California building standards code

Report prepared by:
Ron La France, Assistant Community Development Director/Building Official
Deanna Chow, Assistant Community Development Director - Planning

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MENLO PARK AMENDING CHAPTER 12.18 [CALIFORNIA GREEN BUILDING STANDARDS CODE AMENDMENTS] OF TITLE 12 [BUILDINGS AND CONSTRUCTION] OF THE MENLO PARK MUNICIPAL CODE TO UPDATE THE ELECTRICAL VEHICLE CHARGING REQUIREMENT

WHEREAS, the City of Menlo Park ("City") wishes to adopt a building code in accordance with law and to use the most updated regulations in the processing of development in the City; and

WHEREAS, the City wishes to update the requirement for electric vehicle charging spaces in projects involving tenant improvements or new construction and to make the regulations applicable citywide; and

WHEREAS, because of the City's unique local climatic, geologic and topographic conditions, the City desires to make amendments and additions to the 2016 California Green Building Standards Code in the City's Municipal Code.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MENLO PARK DOES ORDAIN AS FOLLOWS:

SECTION 1: FINDINGS AND DETERMINATIONS. The following local geologic conditions that require compliance with energy efficiency standards for building construction and justify modifications to California Building Standards Code:

A. Geological: The City is located in Seismic Risk Zones D, E, and F, which are the most severe earthquake zones in the United States. The area includes various soils and areas with significant movement potential. Buildings and other structures in Zones D, E and F can experience major seismic damage. Lack of adequate building designs and detailing as well as the lack of flexible materials and/or building systems have been contributing factors to damage that reduces the life-safety of building occupants and increases the cost of the rehabilitation of structures.

B. Climatic: The City is located in a climatic zone with precipitation ranging from 13 to 20 inches per year with an average of approximately 15 inches per year. Ninety-five percent of precipitation falls during the months of November through April, leaving a dry period of approximately six months each year. Relative humidity remains moderate most of the time. Temperatures in the summer average around 80 degrees Fahrenheit and in the winter in the mid 50 degrees Fahrenheit. Prevailing winds in the area come from the west with velocities generally in the 12 miles per hour range, gusting from 25 to 35 miles per hour.

C. Topographic: Areas of highly combustible dry grasses, weeds, brush and trees adjacent to structures are common throughout the City. Above ground electrical power transmission lines are suspended through trees and above large areas of dry vegetation. The arrangement of man-made features around many buildings greatly limit any approach to all but one side of a building.

SECTION 2: AMENDMENT OF CODE. Chapter 12.18 [California Green Building Standards Code Amendments] of Title 12 [Buildings and Construction] of the City's Municipal Code is hereby amended in its entirety to read as follows:

CALIFORNIA GREEN BUILDING STANDARDS CODE AMENDEMENTS

Sections:

12.18.010 Section 4.408.1 of Chapter 4 amended
12.18.020 Section 5.408.1 of Chapter 5 amended
12.18.030 Section 4.106.4.~~1~~ of Chapter 4 amended
12.18.040 Section 4.106.4.~~2~~1 of Chapter 4 amended
12.18.050 Section 4.106.4.2.~~3~~2 of Chapter 4 ~~deleted~~ amended
12.18.060 Section 4.106.4.2.~~4~~3 of Chapter 4 deleted
12.18.070 Section 4.106.4.2.~~6~~4 of Chapter 4 ~~added~~ deleted
12.18.080 Section 5.106.5.3 of Chapter 5 amended
12.18.090 Section 5.106.5.3.1 of Chapter 5 amended
12.18.100 Section 5.106.5.3.2 of Chapter 5 amended
12.18.110 Table 5.106.5.3.3 of Chapter 5 amended

12.18.010 Section 4.408.1 of Chapter 4 amended

Section 4.408.1 of Chapter 4 is amended to read as follows:

4.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of both inert and non-inert nonhazardous demolition waste and 65 percent of both inert and non-inert nonhazardous construction waste in accordance with Section4.408.2, 4.408.3 or 4.408.4 and meet the requirements of Chapter 12.48 Recycling and Salvaging of Construction and Demolition Debris City of Menlo Park Municipal Code.

Exceptions:

1. Excavated soil and land clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the job site.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

12.18.020 Section 5.408.1 of Chapter 5 amended

Section 5.408.1 of Chapter 5 is amended to read as follows:

5.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of both inert and non-inert nonhazardous demolition waste and 65 percent of both inert and non-inert nonhazardous construction waste in accordance with Section 5.408.2, 5.408.3 or 5.408.4 and meet the requirements of Chapter 12.48 Recycling and Salvaging of Construction and Demolition Debris City of Menlo Park Municipal Code.

Exceptions:

1. Excavated soil and land clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the job site.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

12.18.030 Section 4.106.4 of Chapter 4 amended

Section 4.106.4 of Chapter is amended to read as follows:

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 and 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicles supply equipment (EVSE) shall be installed in accordance with the *California Electric Code*, Article 625.

Exceptions: On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based on one or more of the following conditions:

1. Where there is no commercial power supply.
2. Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or developer by more than $400.00 per dwelling unit.
3. For 100 percent Below Market Rate housing developments, EVSE shall be provided based on 10 percent of the total number of dwelling units.

12.18.040 Section 4.106.4.1 of Chapter 4 amended

Section 4.106.4.1 of Chapter 4 is amended to read as follows:

4.106.4.1 New Single-family dwellings. For each dwelling unit install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective devices.

12.18.050 Section 4.106.4.2 of Chapter 4 amended

Section 4.106.4.2 of Chapter 4 is amended to read as follows:

4.106.4.2 New multifamily dwellings. Where more than two (2) multifamily dwelling units including town-houses are constructed on a building site, the following are to be installed at the time of construction:

1. For each dwelling unit, installation of a listed raceway and wiring to accommodate a 208/240-volt dedicated branch circuit. The raceway and wiring shall be installed in accordance with the California Electric Code. Construction plans and specifications shall include, but are not limited to the following:

    - The type and location of the vehicle supply equipment (EVSE).
    - The raceway shall not be less than trade size 1”
    - The raceway and wiring shall originate at a service panel or a subpanel serving the area and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet, box, enclosure or equivalent.
    - The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.
    - Electrical calculations shall substantiate the design of the electrical system to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to charge required EV at its full rated amperage.

2. Install EVSE in 15 percent of the total number of required electric vehicle charging spaces (EV spaces) associated with the building inclusive of landscape reserve parking, for all types of parking facilities, but in no case less than one; and
3. Install a branch circuit, wiring and NEMA 14-50 receptacle sized to carry not less than a 40 amp, 240 volt load for electric vehicle charging at each structural column of residential carports if constructed.

Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

12.18.060 Section 4.106.4.2.3 of Chapter 4 deleted

Section 4.106.4.2.3 of Chapter 4 is deleted:

12.18.070 Section 4.106.4.2.4 of Chapter 4 deleted

Section 4.106.4.2.4 of Chapter 4 is deleted:

~~**12.18.070 Section 4.106.4.2.6 of Chapter 4 added**~~

~~**Section 4.106.4.2.6 of Chapter 4 is added to read as follows:**~~

~~**4.106.4.2.6 Modifications.** Where there are practical difficulties involved in carrying out the provisions of sections 4.106.4.1 and 4.106.4.2, the Building Official shall have the authority to grant modifications to the requirements on a case-by-case basis where it has been determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:~~

1. ~~Where there is insufficient electrical supply.~~
2. ~~Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of sections 4.106.4.1 and 4.106.4.2 may adversely impact the construction cost of the project.~~

12.18.080 Section 5.106.5.3 of Chapter 5 amended

Section 5.106.5.3 of Chapter 5 is amended to read as follows:

5.106.5.3 Electric Vehicle (EV) charging. Section 5.106.5.3 shall apply to newly constructed buildings or additions and/or alterations to existing buildings as established in Table 5.106.5.3.3. Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE is/are installed, it shall be in accordance with the California Building Code, the California Electrical Code and as follows:

12.18.090 Section 5.106.5.3.1 of Chapter 5 amended

Section 5.106.5.3.1 of Chapter 5 is amended to read as follows:

5.106.5.3.1 Single charging space requirements. When only a single charging space is required per Table 5.106.3.3, the following are required to be installed at the time of construction:

- A raceway; and
- Wiring.

The raceway and wiring shall be installed in accordance with the California Electric Code. Construction plans and specifications shall include, but are not limited to the following:

Newly constructed buildings

1. The type and location of the EVSE.
2. Listed raceway and wiring capable of accommodating a 208/240-volt dedicated branch circuit.
3. The raceway shall not be less than trade size 1”
4. The raceway and wiring shall originate at a service panel or a subpanel serving the area and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet, box, enclosure or equivalent.
5. The service panel or subpanel and wiring shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.
6. ~~6.~~ Electrical calculations shall substantiate the design of the electrical system to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to charge required EV at its full rated amperage.

Additions and/or alterations

1. The type and location of the EVSE.
2. A listed raceway capable of accommodating a 208/240-volt dedicated branch circuit.
3. The raceway shall not be less than trade size 1”
4. The raceway shall originate at a service panel or a subpanel serving the area and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet, box, enclosure or equivalent.
5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.
6. Electrical calculations shall substantiate the design of the electrical system to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to charge required EV at its full rated amperage.

12.18.100 Section 5.106.5.3.2 of Chapter 5 amended

Section 5.106.5.3.2 of Chapter 5 is amended to read as follows:

5.106.5.3.2 Multiple charging space requirements. When multiple charging spaces are required to be installed per Table 5.106.5.3.3, raceways(s) and wiring, is/are required to be installed at the time of construction and shall be installed in accordance with the California Electric Code. Construction plans and specifications shall include, but are not limited to, the following:

Newly constructed buildings

1. The type and location of the EVSE.
2. Listed raceway and wiring capable of accommodating a 208/240-volt dedicated branch circuit.
3. The raceway(s) and wiring shall originate at a service panel or a subpanel(s) serving the area and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
4. Plan design shall be based upon 40-ampere minimum branch circuits.
5. Electrical calculations shall substantiate the design of the electrical system to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EV's at its full rated amperage.
6. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for future installation of the EVSE.

Additions and/or alterations

1. The type and location of the EVSE.
2. Listed raceway capable of accommodating a 208/240-volt dedicated branch circuit.
3. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area and shall terminate in close proximity to the proposed location of the charging equipment and into a listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
4. Plan design shall be based upon 40-ampere minimum branch circuits.
5. Electrical calculations shall substantiate the design of the electrical system to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EV's at its full rated amperage.
6. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for future installation of the EVSE.

12.18.110 Table 5.106.5.3.3 of Chapter 5 amended

Table 5.106.5.3.3 of Chapter 5 is amended to read as follows:

Table 5.106.5.3.3[1]

New Construction			Addition and/or Alteration	
Square Footage of Building	Total Number of Parking Stalls	Number of Required EV Charging Spaces[2]	Square Footage of Affected Area	Number of Required EV Charging Spaces[2]
	0-9	0		0

1 sq. ft. – 9,999 sq. ft.	10-25	1	1 sq. ft. – 9,999 sq. ft.	
	26-50	2		
	51-75	4	10,000 sq. ft. – 25,000 sq. ft.[3]	Minimum of 5% of total required number of parking stalls and install EVSE in a minimum of 1 charging space.
Greater than 9,999 sq. ft.	**N/A**	Minimum of 15% of total required number of parking stalls[2] and install EVSE in 10% of the total required number of parking stalls, with a minimum of 1, in charging space(s).	Greater than 25,000 sq. ft.[4]	Minimum of 10% of total required number of parking stalls and install EVSE in 1 plus 1% of the total required number of parking stalls in charging space(s).

1. The EV space requirement is based on the required parking associated with the building where the work is being performed, inclusive of landscape reserve parking.
2. Calculations for spaces shall be rounded up to the nearest whole number.
3. For additions/alterations10, 000 sq. ft. – 25,000 sq. ft. in the first year after the effective date of the ordinance, the requirement would be one percent. In the second year the effective date of the ordinance, the requirement would be three percent. In the third year after the effective date of the ordinance and thereafter, the requirement would be five percent.
4. For larger additions/alterations (25,001 sq. ft. and greater), in the first year after the effective date of the ordinance, the requirement would be two percent. The second year after the effective date of the ordinance, the requirement would be five percent. In the third year after the effective date of the ordinance and thereafter, the requirement would be 10 percent.

SECTION 3: EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Administrative Code, Section 15061(b)(3) that this ordinance is exempt from the requirements of the California Environmental Quality Act ("CEQA") in that it is not a project that has the potential for causing a significant effect on the environment.

SECTION 4: SEVERABILITY. If any part of this Ordinance is held to be invalid or inapplicable to any situation by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or the applicability of this Ordinance to other situations.

SECTION 5: EFFECTIVE DATE. This Ordinance shall become effective on the later of _____ or thirty (30) days from adoption.

SECTION 6: POSTING. Within fifteen (15) days of its adoption, the Ordinance shall be posted in three (3) public places within the City of Menlo Park, and the Ordinance, or a summary of the Ordinance prepared by the City Attorney, shall be published in a local newspaper used to publish official notices for the City of Menlo Park prior to the effective date.

INTRODUCED on the ___ day of ____, 2018.

PASSED AND ADOPTED as an ordinance of the City of Menlo Park at a regular meeting of said Council on the ___ day of____, 2018, by the following vote:

AYES: Councilmembers:

NOES: Councilmembers:

ABSENT: Councilmembers:

ABSTAIN: Councilmembers:

APPROVED:

_____
Peter I. Ohtaki
Mayor

ATTEST:

_____
Judi Herren, City Clerk

CITY OF MENLO PARK

REGULAR MEETING MINUTES - DRAFT

Date: 6/20/2018
Time: 6:30 p.m.
City Council Chambers
701 Laurel St., Menlo Park, CA 94025

A. Vice Chair Martin called the meeting to order at 6:40 p.m.

B. Roll Call

Present: Dickerson, Kabat, Marshall, Vice Chair Martin, Payne, Price
Absent: Chair London
Staff: Sustainability Manager Rebecca Lucky and Project Contractor Hannah Guenther

C. Public Comment

• Courtney Pal spoke in support of integrating sufficient transportation options, affordable housing, and elimination of gas infrastructure into the Downtown Specific Plan amendments.

D. Regular Business

D1. Select new commissioner chair and vice chair for the Environmental Quality Commission.

Vice Chair Deborah Martin introduced the item.

ACTION: Motion and second (Vice Chair Martin/Dickerson) to appoint Scott Marshall as Chair and Ryann Price as Vice Chair to the Environmental Quality Commission (6-0-1; Chair London absent).

D2. Consider updates to the Environmental Quality Commission 2018-2020 work plan (Attachment).

Vice Chair Deborah Martin introduced the item.

Commission came to a consensus to revisit the Environmental Quality Commission Work Plan in draft form for next scheduled meeting.

Commissioner Price excused herself from the duration of the meeting at 8:04 pm.

D3. Review and discuss green building code integration to the Downtown Specific Plan (Attachment).

Vice Chair Deborah Martin introduced the item.

ACTION: Motion and second (Vice Chair Martin/Kabat) to recommend including natural gas-free construction for the Downtown Specific Plan Green Design Standards options analysis as identified in the Climate Action Plan (5-0-2; Chair London and Price absent).

D4. Approve the May 16, 2018, Environmental Quality Commission meeting minutes (Attachment).

Rebecca Lucky introduced the item.

ACTION: Motion and second (Marshall/Payne) to approve the May 16, 2018, with correction to the month. Environmental Quality Commission meeting minutes passed (5-1-2; Dickerson abstained, Chair London and Commissioner Price absent).

D5. Consider requests for future agenda items

The Commission identified the following as future agenda items:
1. Environmental Quality Commission Work Plan draft;
2. Downtown Parking Garage Presentation;
3. Planning Commission to present on the Downtown Specific Plan

E. Reports and Announcements

E1. Subcommittee reports

There were no subcommittee reports.

E2. Individual commissioner reports

Commissioner Tom Kabat provided a verbal report on the June 18, 2018, Planning Commission meeting regarding electric vehicle charging requirements.

E3. Staff update and announcements

Sustainability Manager Rebecca Lucky provided a verbal update on the Heritage Tree Community Taskforce selection process and its scheduled meetings.

F. Adjournment

Vice Chair Martin adjourned the meeting at 8:58 p.m.

Minutes prepared by Hannah Guenther.