

PC Exhibit D

SHADE CALCULATIONS-BUILDING 4

Tree Variety	Full Value	Full	Half	1/4	Total Sq.'
35' Trees	962 sq.'				
Pistacia chinensis		2	3		3367
Quercus shumardii		1	2		1924
Existing Pistacia chinensis				2	962
Total Shade Area Provided					6253
Parking Area					11371
Shade required	50%				5686
Shade Provided	55%				6253

SHADE CALCULATIONS-BUILDING 5

Tree Variety	Full Value	Full	Half	1/4	Total Sq.'
35' Trees	962 sq.'				
Celtis sinensis		9	6		2886
Pistacia chinensis			14	1	1491
Platanus Bloodgood			6		4086
Quercus shumardii		5	2		5772
Total Shade Area Provided					27657
Parking Area					48074
Shade required	50%				24037
Shade Provided	59%				27657

Foothills Blvd Building 4
Reference Evapotranspiration (Eto) 52.2

Hydrozone#	Plant	Irrigation Method	Irrigation Efficiency (PF/E)	ETAF	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (GPY)
1	0.2	Drip	0.81	0.25	2502	625.5	20244
2	0.2	Drip	0.81	0.25	5890	1472.5	47656
3	0.2	Bubbler	0.81	0.25	575	143.75	4652
Total					8967		72552

Maximum Allowed Water Allowance (MAWA) 130594
Estimated Total Water Use (ETWU) 72552
Average ETAF 0.25
Allowed ETAF 0.45

Foothills Blvd Building 5-4A
Reference Evapotranspiration (Eto) 52.2

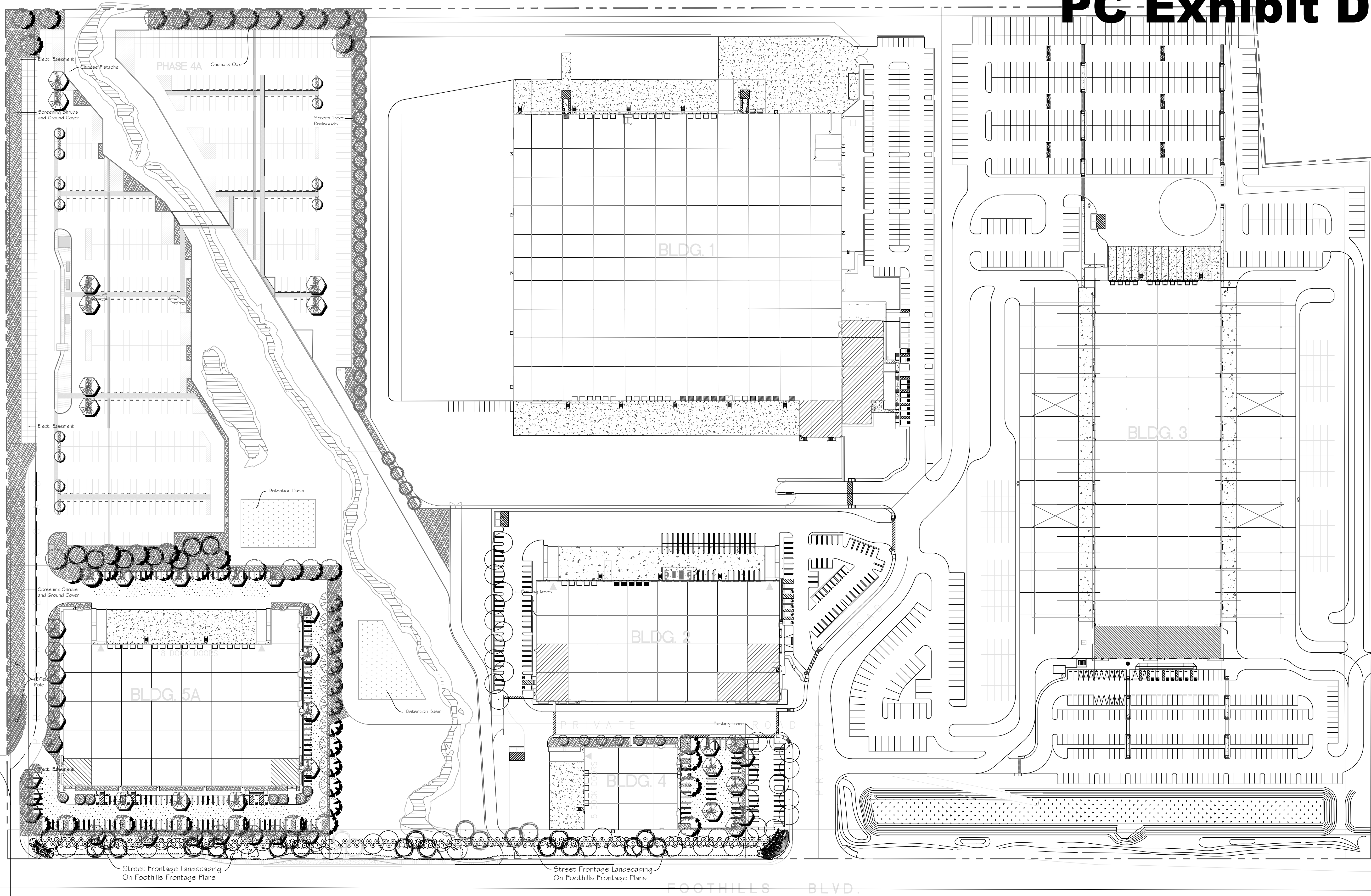
Hydrozone#	Plant	Irrigation Method	Irrigation Efficiency (PF/E)	ETAF	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (GPY)
1	0.2	Drip	0.81	0.25	9075	2268.75	73426
2	0.2	Drip	0.81	0.25	5609	1402.25	45382
3	0.2	Drip	0.81	0.25	7756	1939	62754
4	0.2	Drip	0.81	0.25	7156	1789	57899
5	0.2	Drip	0.81	0.25	6139	1534.75	49671
6	0.2	Drip	0.81	0.25	9706	2426.5	78531
7	0.2	Bubbler	0.81	0.25	800	200	6473
8	0.2	Bubbler	0.81	0.25	800	200	6473
Total					46241		374136

Maximum Allowed Water Allowance (MAWA) 567464
Estimated Total Water Use (ETWU) 315258
Average ETAF 0.25
Allowed ETAF 0.45

Foothills Blvd Van Lot
Reference Evapotranspiration (Eto) 52.2

Hydrozone#	Plant	Irrigation Method	Irrigation Efficiency (PF/E)	ETAF	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (GPY)
1	0.2	Drip	0.81	0.25	8125	2031.25	65739
2	0.2	Drip	0.81	0.25	15531	3882.75	125661
3	0.2	Drip	0.81	0.25	15060	3765	121850
4	0.2	Drip	0.81	0.25	13549	3387.25	109625
5	0.2	Drip	0.81	0.25	9282	2320.5	75101
6	0.2	Drip	0.81	0.25	10842	2710.5	87723
7	0.5	Rotor	0.75	0.66	5506	3633.96	117609
8	0.5	Rotor	0.75	0.66	5506	3633.96	117609
9	0.5	Rotor	0.75	0.66	5459	3602.94	116606
10	0.5	Rotor	0.75	0.66	5459	3602.94	116606
11	0.2	Bubbler	0.81	0.25	725	181.25	5866
12	0.2	Bubbler	0.81	0.25	1175	293.75	9507
Total					96219		1069502

Maximum Allowed Water Allowance (MAWA) 1401314
Estimated Total Water Use (ETWU) 1069502
Average ETAF 0.32
Allowed ETAF 0.45



TREES	BOTANICAL NAME	COMMON NAME	WUCOLS	SIZE	QTY
	Lagerstroemia 'Dynamite'	Crape Myrtle	Low	24" Box	25
	Cedrus deodara	Deodar Cedar	Low	15 Gallon	7
	Pistacia chinensis	Chinese Pistache	Low	24" Box	47
	Celtis sinensis	Chinese Hackberry	Low	15 Gallon	11
	Quercus shumardii	Shumard Oak	Low	15 Gallon	27
	Sequoia 'Santa Cruz'	Redwood	Med	15 Gallon	28
	Platanus 'Bloodgood'	London Plane	Med	15 Gallon	11
	Existing Tree				

SHRUBS	BOTANICAL NAME	COMMON NAME	WUCOLS	SIZE	QTY
	Cistus purpureus	Purple Rockrose	Low	5 Gallon	
	Grevillea noeli	Noel Grevillea	Low	5 Gallon	
	Grevillea canberra gem	Canberra Grevillea	Low	5 Gallon	
	Loropetalum 'Purple Majesty'	Fringe Flower	Low	5 Gallon	
	Mahonia a. 'Compacta'	Dwf Oregon Grape	Low	5 Gallon	
	Nandina domestica	Heavenly Bamboo	Low	5 Gallon	
	Prunus caroliniana compacta	Dwf Cherry Laurel	Low	5 Gallon	
	Rosmarinus 'Tuscan Blue'	Tuscan Rosemary	Low	5 Gallon	
	Rhamnus c. 'Eve Case'	Coffeeferry	Low	5 Gallon	
	Tulbaghia violacea	Society Garlic	Low	1 Gallon	
	Xylosma congestum	Xylosma	Low	5 Gallon	

GR COVER	BOTANICAL NAME	COMMON NAME	WUCOLS	SIZE	QTY
	Cistus 'Sunset'	Sunset Rockrose	Low	1 Gallon	48' OC
	Coprosma 'Verde Vista'	Creeping Coprosma	Low	1 Gallon	36' OC
	Cotoneaster 'Coral Beauty'	Bearberry	Low	1 Gallon	48' OC
	Calamagrostis 'Karl Foerster'	Feather Reed Grass	Low	1 Gallon	48' OC
	Pennisetum s. rubrum	Fountain Grass	Low	1 Gallon	48' OC

DETENTION BASIN	BOTANICAL NAME	COMMON NAME	WUCOLS	SIZE	QTY
	Erosion Control Hydroseed				

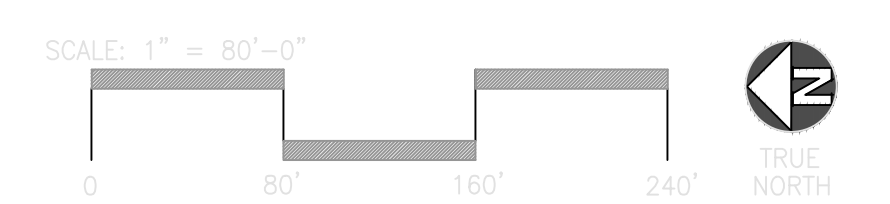
PRELIMINARY LANDSCAPE NOTES

- PLANT PALETTE CONTAINS NATIVE AND ADAPTIVE, LOW WATER USE VARIETIES THAT ARE CONDUCTIVE TO THE ENVIRONMENTAL CONDITIONS OF THIS SITE.
- PLANTS WILL BE GROUPED INTO ZONES WITH SIMILAR WATER/ET REQUIREMENTS.
- ALL PLANTER AREAS SHALL BE TREATED WITH A 3" LAYER OF RECYCLED MULCH EXCEPT IN VEHICLEHIGH FOOT TRAFFIC AREAS WHICH WILL CONTAIN DECOMPOSED GRANITE AT 3" DEPTH.
- 45% OF ALL TREES ARE 24" BOX SIZE.

PRELIMINARY IRRIGATION NOTES

- THE IRRIGATION SYSTEM SHALL BE DESIGNED FOR FUTURE RECYCLED WATER AND FOLLOW THE CITY OF ROSEVILLE RECYCLED WATER ORDINANCE.
- A FULLY AUTOMATIC IRRIGATION SYSTEM MEETING CURRENT WATER EFFICIENT LANDSCAPE ORDINANCE REQUIREMENTS SHALL BE INSTALLED INCLUDING THE FOLLOWING:
 - AN ET (SMART) CONTROLLER AND ET SENSOR SHALL BE USED FOR WEATHER BASED IRRIGATION CONTROL.
 - SHRUBS AND GROUND COVER SHALL BE IRRIGATED WITH A PRESSURE COMPENSATING DRIP SYSTEM.
 - TREES SHALL RECEIVE DEEP WATER/FERTILIZATION TUBES AND BUBBLERS ON SEPARATE CONTROL VALVES.
- WLO DOCUMENTATION SHALL BE SUBMITTED WITH LANDSCAPE IMPROVEMENT PLANS (CONSTRUCTION DOCUMENTS). SOIL SAMPLES FOR SOIL REPORT SHALL BE TAKEN AFTER MASS GRADING OPERATIONS HAVE BEEN COMPLETED AND SUBMITTED WITH COMPLETION PACKAGE.

Frontage Landscaping to be installed concurrently with the Van Lot



hpa, inc.
600 Grand Avenue, suite 302
Oakland, CA 94610
tel: 949-863-1770
fax: 949-863-0851
email: hpa@hparchs.com

Owner:
Roseville 80
Land North
8775 Folsom Blvd, #200
Sacramento, CA 95826
ph: (916) 379-1202

Project:
Roseville 80
Roseville, CA

VISTA PARKS
design/build/construction
8264 Barryman Court Sacramento, CA 95829
Ph: (916) 681-2227 Fax: (916) 681-2228



Consultants:
Civil: Kimley Horn
Structural:
Mechanical:
Plumbing:
Electrical:
Landscape: Vista Parks
Fire Protection:
Soils Engineer:

Title:
Preliminary
Landscape Plan

Project Number: 16245.15
Drawn by: EJD
Date: 06-30-2020
Revision:

Sheet:

4A-LP

PC Exhibit D



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Oakland, CA 94610
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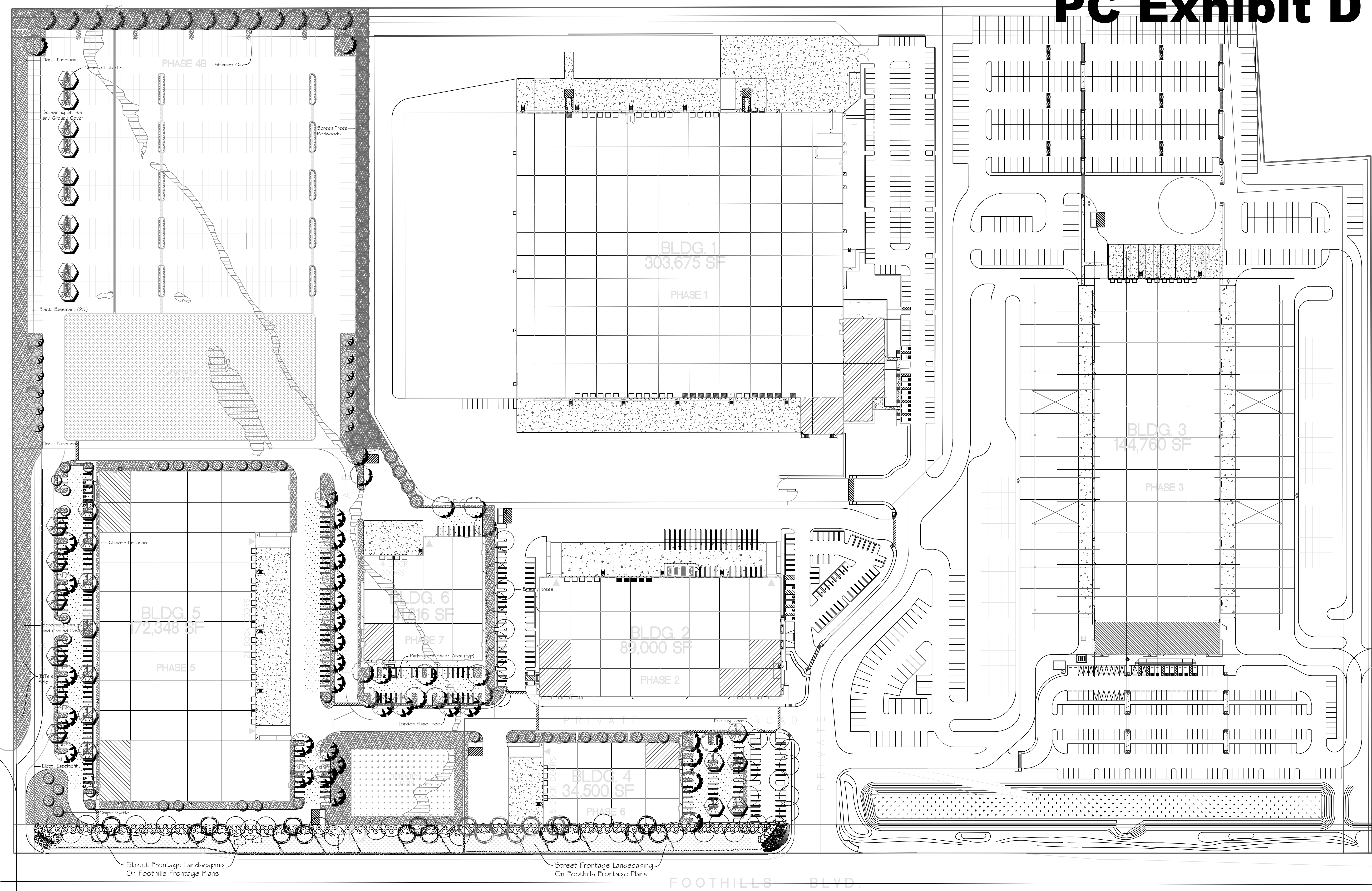


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Title:
Preliminary
Landscape Plan

Project Number: 16245.15
Drawn by: EJD
Date: 05-20-2020
Revision:

Sheet:
4B-LP



SHADE CALCULATIONS-BUILDING 4

Tree Variety	Full Value	Full	Half	1/4	Total Sq.'
35' Trees	962 sq.'				
Pistacia chinensis		2	3		3367
Quercus shumardi		1	2		1924
Existing Pistacia chinensis			2		962
Total Shade Area Provided					6253
Parking Area					11371
Shade required	50%				5686
Shade Provided	55%				6253

SHADE CALCULATIONS-BUILDING 5

Tree Variety	Full Value	Full	Half	1/4	Total Sq.'
35' Trees	962 sq.'				
Pistacia chinensis		6	6		8658
Platanus Bloodgood		6	19		14911
Total Shade Area Provided					23569
Parking Area					46795
Shade required	50%				23398
Shade Provided	50%				23569

SHADE CALCULATIONS-BUILDING 6

Tree Variety	Full Value	Full	Half	1/4	Total Sq.'
35' Trees	962 sq.'				
Celtis sinensis		1	10		5772
Platanus Bloodgood			4		1924
Total Shade Area Provided					7696
Parking Area					13298
Shade required	50%				6649
Shade Provided	58%				7696

Foothills Blvd Building 4
Reference Evapotranspiration (Eto) 52.2

Regular Landscape Areas There are no special landscape areas. Trees count as 25 sq'

Hydrozone#	Plant	Irrigation Method	Irrigation Efficiency (PF/IE)	ETAF	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (GPY)
1	0.2	Drip	0.81	0.25	2502	625.5	20244
2	0.2	Drip	0.81	0.25	5890	1472.5	47656
3	0.2	Bubbler	0.81	0.25	575	143.75	4652
Total					8967		72552

Maximum Allowed Water Allowance (MAWA) 130594
Estimated Total Water Use (ETWU) 72552
Average ETAF 0.25
Allowed ETAF 0.45

Foothills Blvd Building 5
Reference Evapotranspiration (Eto) 52.2

Regular Landscape Areas There are no special landscape areas. Trees count as 25 sq'

Hydrozone#	Plant	Irrigation Method	Irrigation Efficiency (PF/IE)	ETAF	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (GPY)
1	0.2	Drip	0.81	0.25	8085	2021.25	65416
2	0.2	Drip	0.81	0.25	5670	1417.5	45876
3	0.2	Drip	0.81	0.25	11072	2768	89584
4	0.2	Drip	0.81	0.25	10782	2695.5	87237
5	0.2	Drip	0.81	0.25	2230	557.5	18043
6	0.2	Bubbler	0.81	0.25	750	187.5	6068
7	0.2	Bubbler	0.81	0.25	375	93.75	3034
Total					38964		315258

Maximum Allowed Water Allowance (MAWA) 567464
Estimated Total Water Use (ETWU) 315258
Average ETAF 0.25
Allowed ETAF 0.45

Foothills Blvd Building 6
Reference Evapotranspiration (Eto) 52.2

Regular Landscape Areas There are no special landscape areas. Trees count as 25 sq'

Hydrozone#	Plant	Irrigation Method	Irrigation Efficiency (PF/IE)	ETAF	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (GPY)
1	0.2	Drip	0.81	0.25	3359	839.75	27178
2	0.2	Drip	0.81	0.25	4906	1226.5	39694
3	0.2	Drip	0.81	0.25	2544	636	20584
4	0.2	Bubbler	0.81	0.25	375	93.75	3034
Total					11184		90490

Maximum Allowed Water Allowance (MAWA) 162882
Estimated Total Water Use (ETWU) 90490
Average ETAF 0.25
Allowed ETAF 0.45

Foothills Blvd Van Lot
Reference Evapotranspiration (Eto) 52.2

Regular Landscape Areas There are no special landscape areas. Trees count as 25 sq'

Hydrozone#	Plant	Irrigation Method	Irrigation Efficiency (PF/IE)	ETAF	Landscape Area (sq. ft.)	ETAF X Area	Estimated Total Water Use (GPY)
1	0.2	Drip	0.81	0.25	5186	1296.5	41960
2	0.2	Drip	0.81	0.25	11189	2797.25	90530
3	0.2	Drip	0.81	0.25	11935	2983.75	96566
4	0.2	Drip	0.81	0.25	12728	3182	102982
5	0.2	Drip	0.81	0.25	11570	2892.5	93613
6	0.2	Drip	0.81	0.25	11081	2770.25	89656
7	0.2	Drip	0.81	0.25	11719	2929.75	94818
8	0.5	Bubbler	0.81	0.62	925	573.5	18561
9	0.2	Bubbler	0.81	0.25	800	200	6473
Total					77133		635160

Maximum Allowed Water Allowance (MAWA) 923199
Estimated Total Water Use (ETWU) 512888
Average ETAF 0.25
Allowed ETAF 0.45

TREES

BOTANICAL NAME	COMMON NAME	WUCOLS	SIZE	QTY
Lagerstroemia 'Dynamite'	Crape Myrtle	Low	24" Box	33
Ginkgo b. 'Princeton Sentry'	Maidenhair Tree	Low	15 Gallon	12
Pistacia chinensis	Chinese Pistache	Low	24" Box	28
Celtis sinensis	Chinese Hackberry	Low	15 Gallon	28
Quercus shumardi	Shumard Oak	Low	15 Gallon	21
Sequoia 'Santa Cruz'	Redwood	Med	15 Gallon	31
Platanus 'Bloodgood'	London Plane	Med	15 Gallon	37
Existing Tree				

SHRUBS

BOTANICAL NAME	COMMON NAME	WUCOLS	SIZE	QTY
Cistus purpureus	Purple Rockrose	Low	5 Gallon	
Grevillea noeli	Noel Grevillea	Low	5 Gallon	
Grevillea canberra gem	Canberra Grevillea	Low	5 Gallon	
Loropetalum 'Purple Majesty'	Fringe Flower	Low	5 Gallon	
Mahonia a. 'Compacta'	Dwf Oregon Grape	Low	5 Gallon	
Nandina domestica	Heavenly Bamboo	Low	5 Gallon	
Prunus caroliniana compacta	Dwf Cherry Laurel	Low	5 Gallon	
Rosemannus 'Tuscan Blue'	Tuscan Rosemary	Low	5 Gallon	
Rhamnus c. 'Eve Case'	Coffeeberry	Low	5 Gallon	
Tulbaghia violacea	Society Garlic	Low	1 Gallon	
Xylosma congestum	Xylosma	Low	5 Gallon	

GR COVER

BOTANICAL NAME	COMMON NAME	WUCOLS	SIZE	QTY
Cistus 'Sunset'	Sunset Rockrose	Low	1 Gallon	48' OC
Coprosma 'Verde Vista'	Creeping Coprosma	Low	1 Gallon	36' OC
Cotoneaster 'Coral Beauty'	Bearberry	Low	1 Gallon	48' OC
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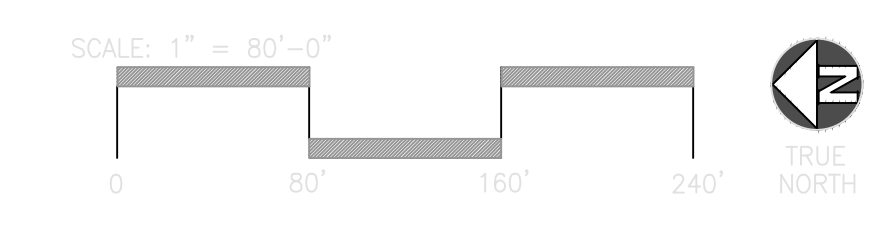
DETENTION BASIN

BOTANICAL NAME	COMMON NAME	WUCOLS	SIZE	QTY
Erosion Control Hydroseed				

- PRELIMINARY LANDSCAPE NOTES**
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Frontage Landscaping to be installed concurrently with the Van Lot



THESE DRAWINGS ARE NOT INTENDED FOR BIDDING, SHOP DRAWINGS, OR CONSTRUCTION PURPOSES. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL BIDS MADE FROM THESE DRAWINGS.