MASTER PLAN REPORT

for the

City of Saratoga

Prospect Road Median Improvements

June 4, 2008

Prepared for:

City of Saratoga
Department of Public Works
13777 Fruitvale Avenue
Saratoga, CA 95070

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PROJECT BACKGROUND

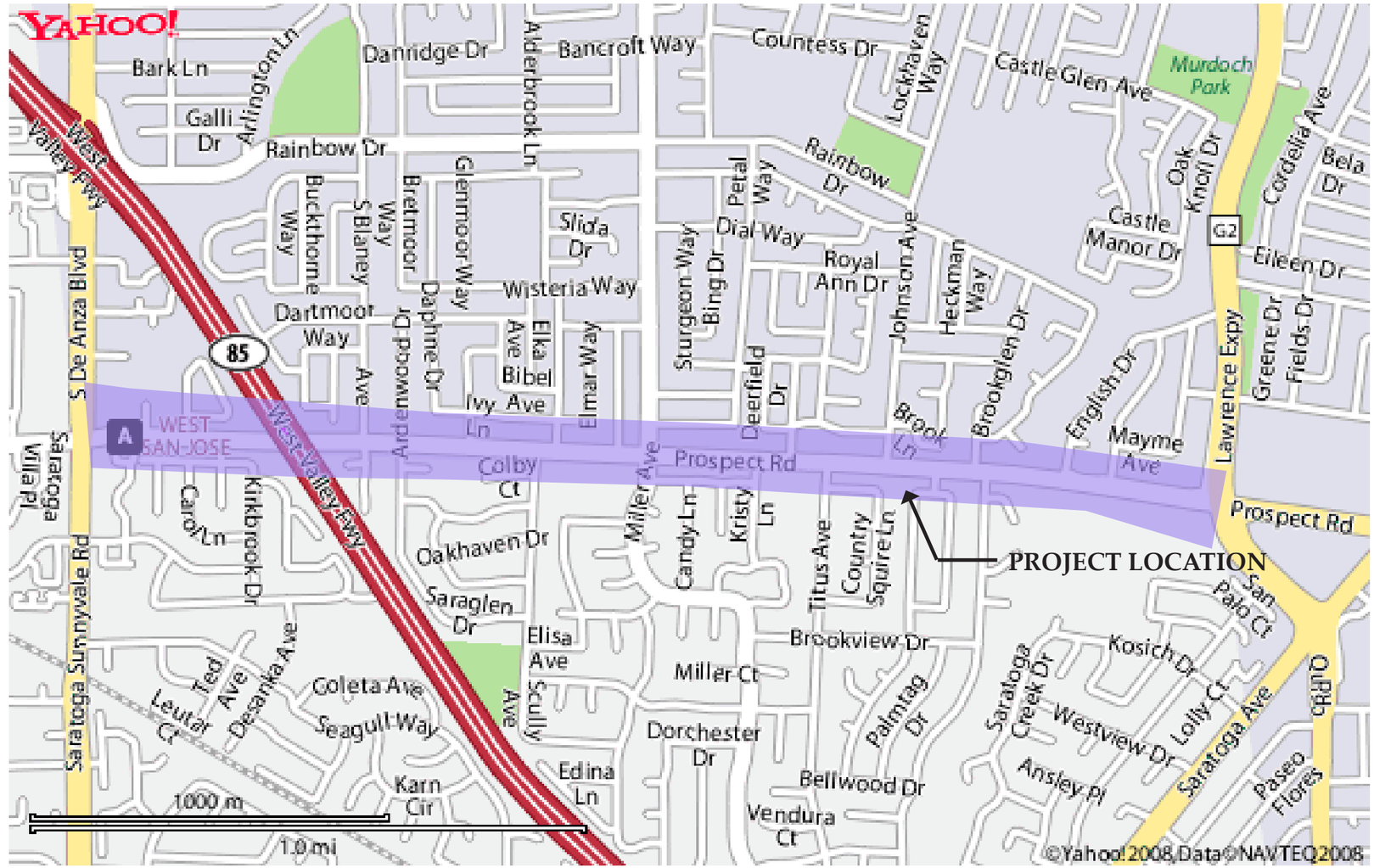
Project Location and Context

Prospect Road is a four lane major arterial road bounded by Saratoga- Sunnyvale Road on the west and Lawrence Expressway on the east. It is nestled at the crossroads between the borders of Cupertino and Campbell, and Saratoga and San Jose, with views to the Santa Cruz Mountains. Project limits span a total of 6,500 lineal feet (1.9 miles) and is comprised of approximately 17 medians. This site is unique due to its location, straddling the City limits between Saratoga and San José.

Project Background

Prospect Road Median Improvements master plan provides a vision for the design and future implementation of raised landscaped medians. Elements of the existing medians are carefully incorporated into the proposed medians to ensure a seamless transition between new and old that enhances the residential character of the neighborhood.

The existing planted medians were built approximately 35 years ago and efforts to increase the number of raised landscaped medians have been attempted on a number of occasions without success. It was not until 2001 when the City of Saratoga adopted a five year Capital Improvement Plan that the median expansion started coming to fruition. Local residents from both Saratoga and San José supported efforts set forth by the City and petitioned for action.



Location Map

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EXISTING CONDITIONS

Currently, most of the length of Prospect Road is void of raised landscaped medians, with the exception of the existing medians located between Saratoga Creek and Titus Avenue. Five raised medians near Highway 85 are paved with concrete and decomposed granite. The road consists of 2 eastbound lanes and 2 westbound lanes, bike lanes in both directions and painted medians along the roadway centerline. The travel lanes are 12 to 17 feet wide, and the bike lanes are 6 feet wide. The remaining medians along Prospect Road are striped in the roadway pavement and vary in widths of 5 feet to 19 feet and lengths of 250 feet to 1,200 feet: they do not currently provide a physical separation between westbound and eastbound traffic. Because of the lack of a physical barrier, left turns onto and off of Prospect Road can be challenging due to the need to time the turn with gaps in traffic typically traveling at speeds above 30 mph. With an elementary school, high school, and churches located in the neighborhood, parts of Prospect Road also receive significant pedestrian and bicycle traffic.

Existing bike lane

Existing landscaped median

Existing median cobble paving

Existing median at highway 85 overpass

Planted median at Titus Avenue

Median pavement striping, typ.

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COMMUNITY OUTREACH

Two community meetings were held to solicit community input on the project. The first community meeting was held on November 13, 2007 to identify initial public concerns. Images of other project medians were presented as an idea stimulus and reference point from which the community could frame their likes and dislikes; this helped to provide the initial desired design direction for the project.

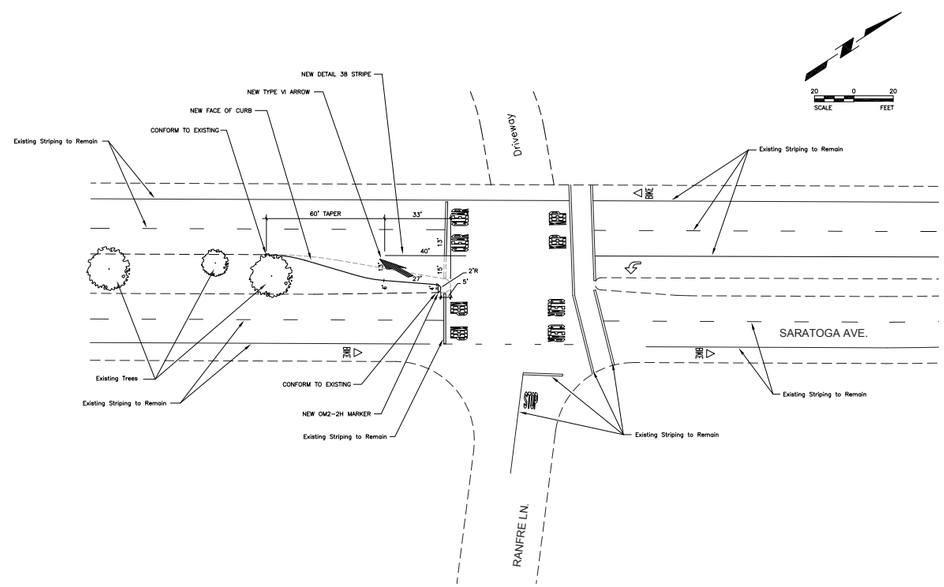
Community members expressed the need for increased pedestrian and vehicular safety because of a perceived high volume of traffic and speeding. Residents also expressed the desire to preserve existing ingress and egress patterns, bike lane widths, right-of-way widths, and the western views of the hills. The desire for a low maintenance and environmentally friendly landscape was strongly encouraged by many residents, who also supported seasonal colors and flowering plant materials. In order to address these traffic concerns, City traffic engineers were consulted to provide traffic recommendations.

A second community meeting was held on March 27, 2008 to solicit community input on the draft Master Plan. General questions about funding and implementation were answered. Proposed median design elements and general improvements were presented, along with suggested plant materials and implementation approach. Water conserving plant materials adapted to and found in the project area were proposed.

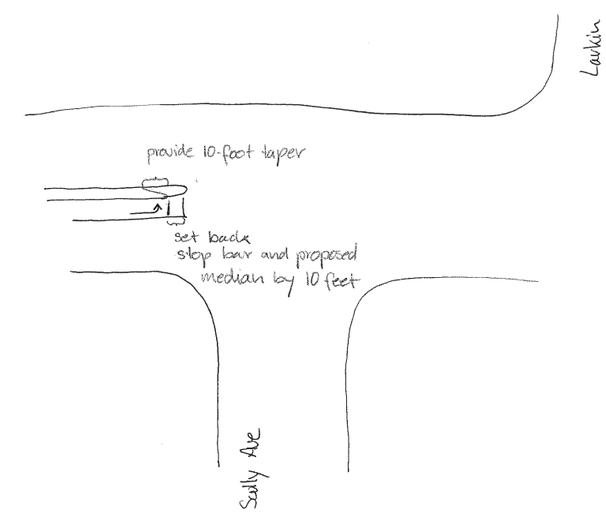
Overall, the community was supportive of the design presented and expressed their approval. Addressing pedestrian safety and traffic calming needs were reiterated by community members. Other residents stressed the need to preserve existing traffic patterns. The proposed phasing approach was supported and some funding opportunities were proposed by residents, including fees generated by local home owner associations and gas taxes. Some residents suggested the use of volunteers to raise funds and help construct the project. Traffic comments received at this second meeting were reviewed by City traffic engineers and the Master Plan design was refined even further to address both public and City comments.

Local landscaped median example

Local landscaped median example



Short merge lane, drawing example



Median nosing setback sketch

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Master Plan

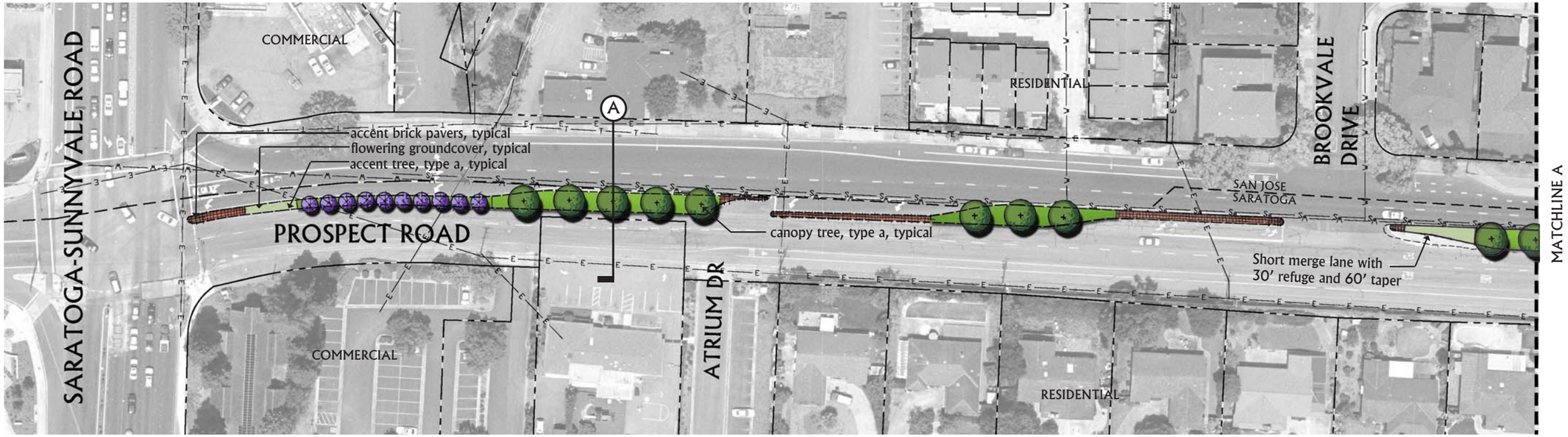
The proposed Master Plan design for Prospect Road Medians will provide continuity along the length of the project and capture the character of the adjacent residential neighborhoods. By utilizing pavers to match existing brick details and plant varieties that repeat those used at the existing medians, the design helps enhance the neighborhood while also seamlessly integrating new elements with old. The proposed design calls for two plant palettes: the first consisting of oaks, purple leaf plums, rhaphiolepis and white carpet rose, the second consisting of Chinese pistashe, flowering Bradford pear trees, flax, fortnight lilies, and gazania. The first palette would be used at the existing landscaped medians on the eastern end of the project to introduce additional color and seasonal interest while retaining most of the existing mature trees and shrubs. This palette would also be used at the western end of the project at the existing paved medians. The second palette would be used at the interior medians. By having two plant palettes, the first serves to flank the medians near Sunnyvale-Saratoga Avenue and Lawrence Expressway and create a gateway approach for the neighborhood.

Pedestrian refuge areas will be provided at median nosings and are highlighted with the use of colorful interlocking concrete pavers. This provides pedestrians crossing the street with an area to wait mid intersection, facilitating crossing by allowing the crossing movement to be completed in two phases. In order to preserve sight distances, median nosing pavements will be a minimum of 10 feet in length and trees will be set back 30′ from the pavement. The pavement also provides a visual foundation for the median plantings. To help preserve sight distances for both vehicles and pedestrians, the plant palette consists of layered plant materials with low growing groundcovers at the edges transitioning to taller shrubs and trees in center, and then back down again.

Design Refinement and Next Steps

The design has been reviewed by both the City of San Jose and City of Saratoga staff and traffic engineers. As part of the final engineering plans, refinements to the Master Plan design to address traffic recommendations will be required including:

- Reduce and restripe traffic lanes
- Limit groundcover to medians over 7′ wide
- Provide median design at English Drive
- Provide high visibility pedestrian crosswalks at Scully and Titus Avenue



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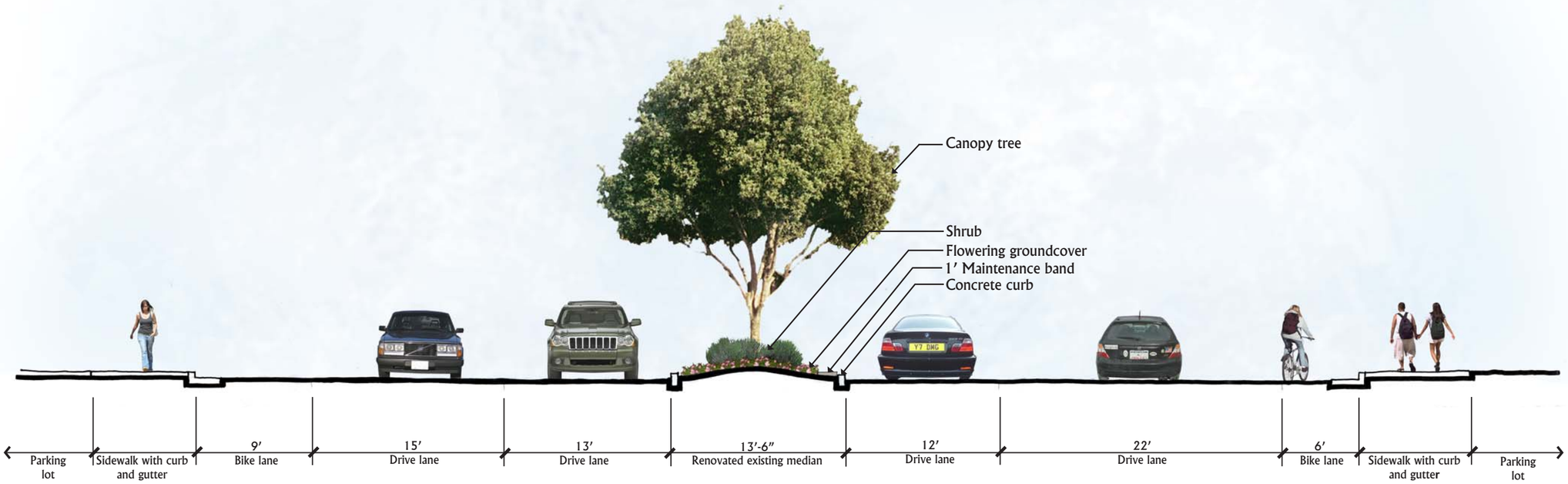

A **Renovation of Existing Median** (typical canopy tree planting, type b)
Section

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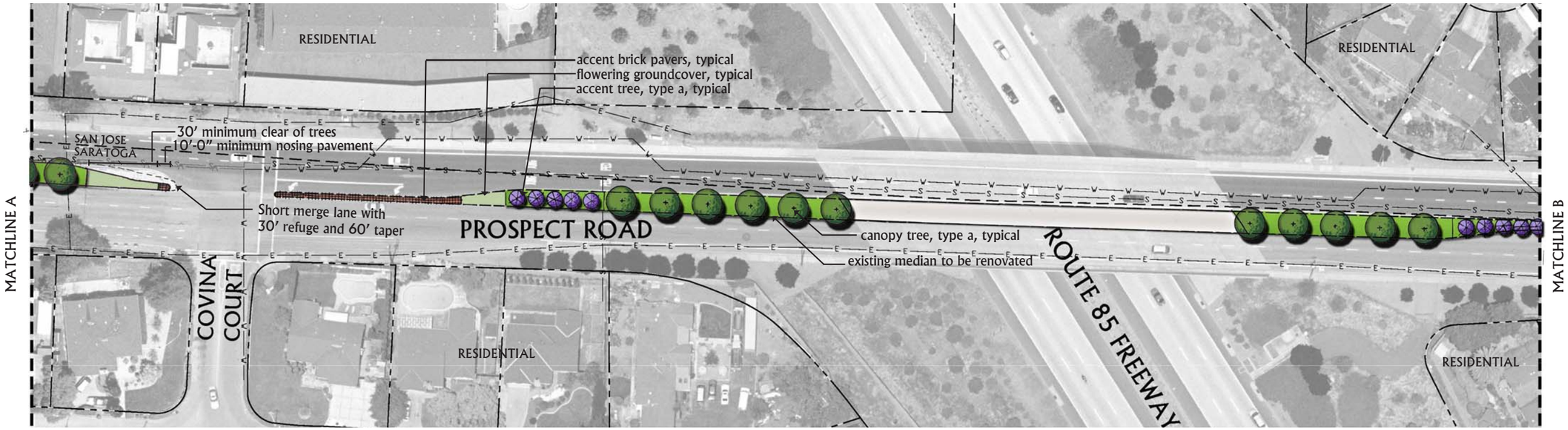

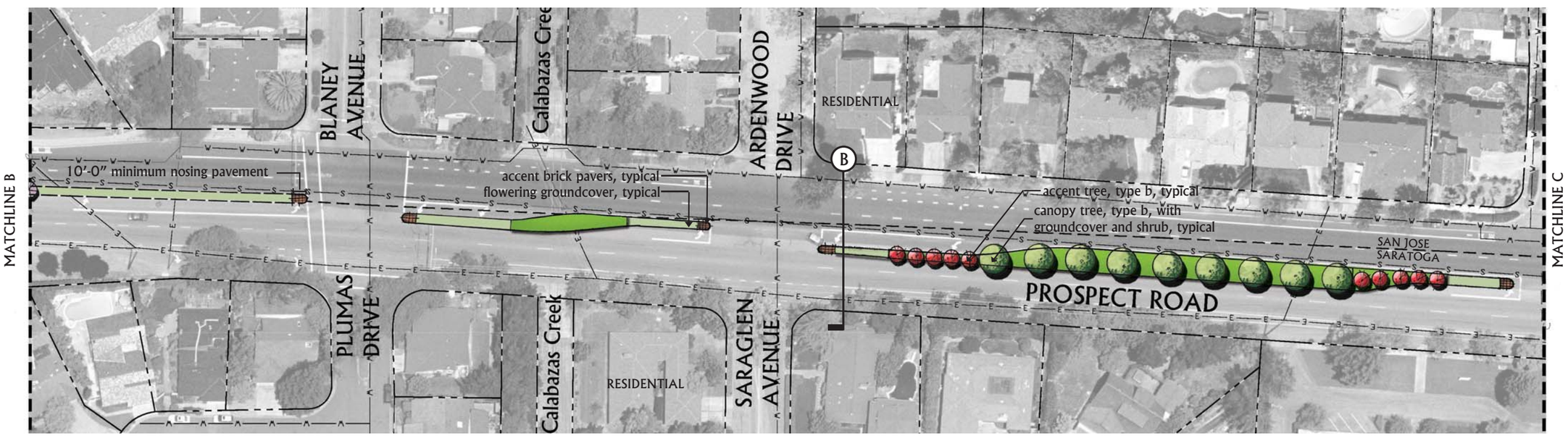

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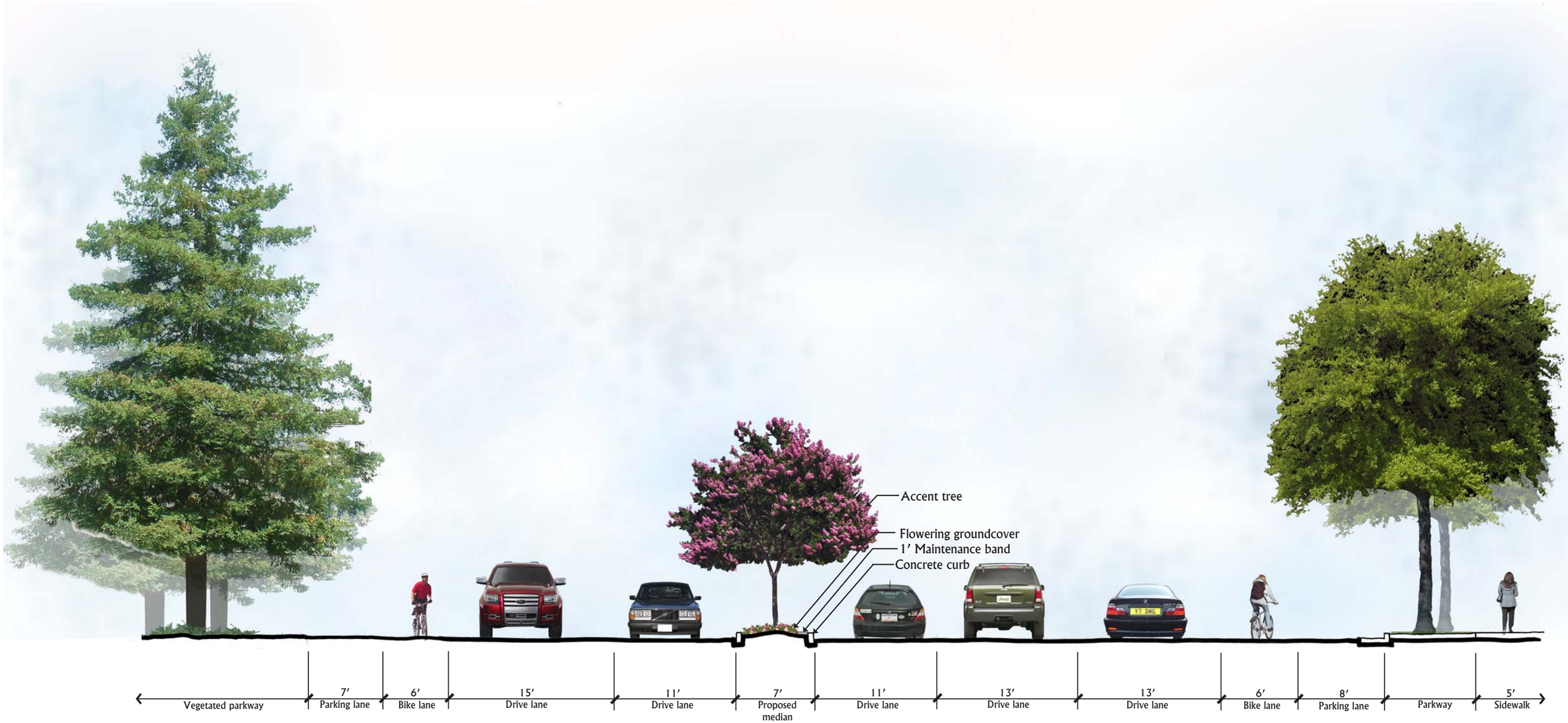

B **New Median Between 5′ and 12′ Wide** (with typical accent tree planting)
Section

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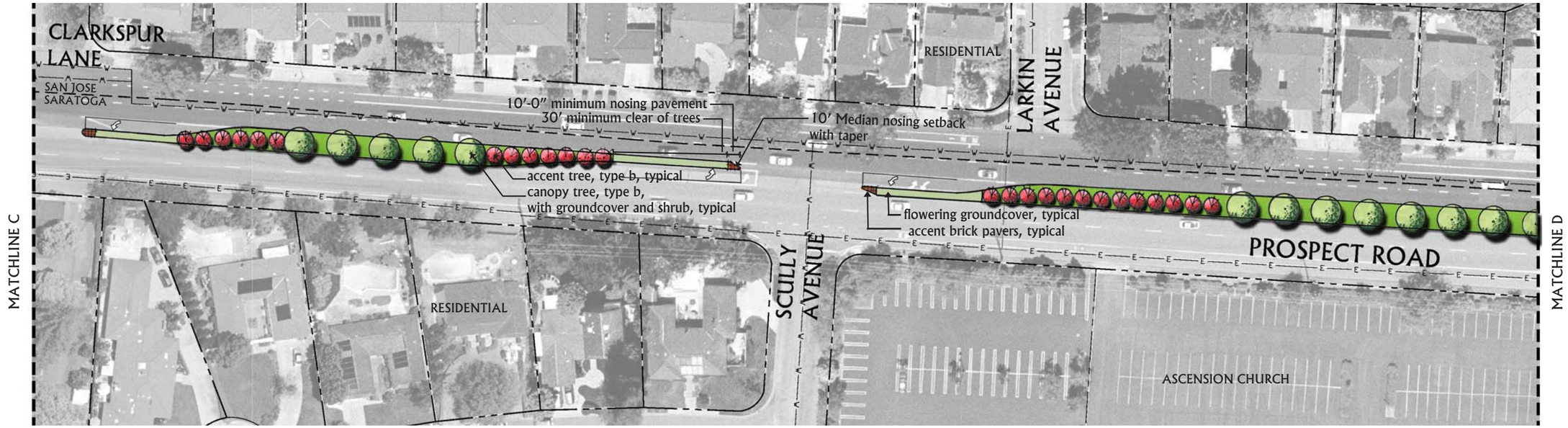

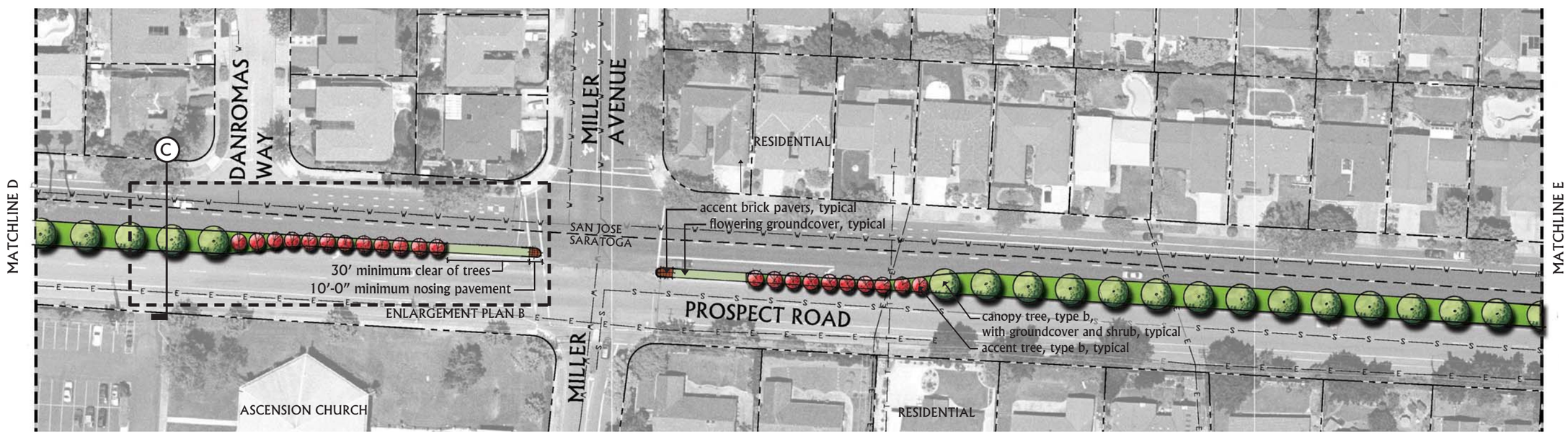

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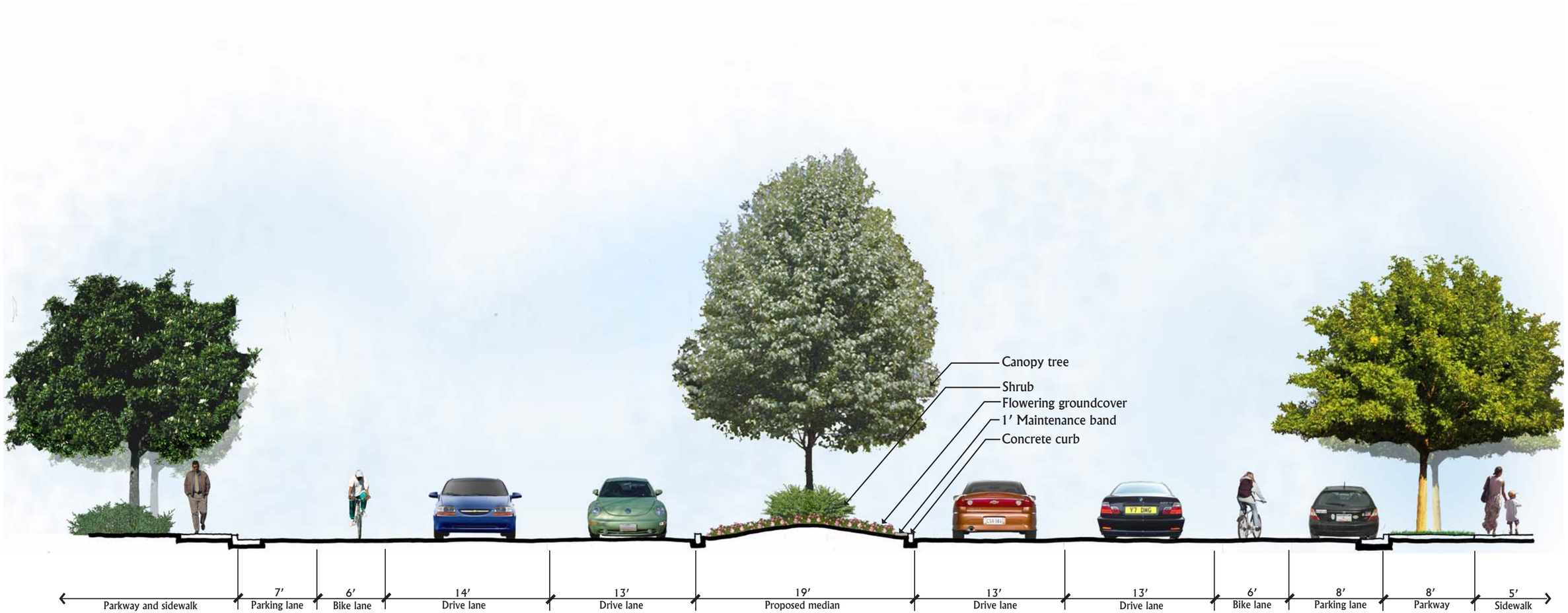

C **New Median Larger Than 12′ Wide** (with accent tree type A, shrubs and flowering groundcover)
Section

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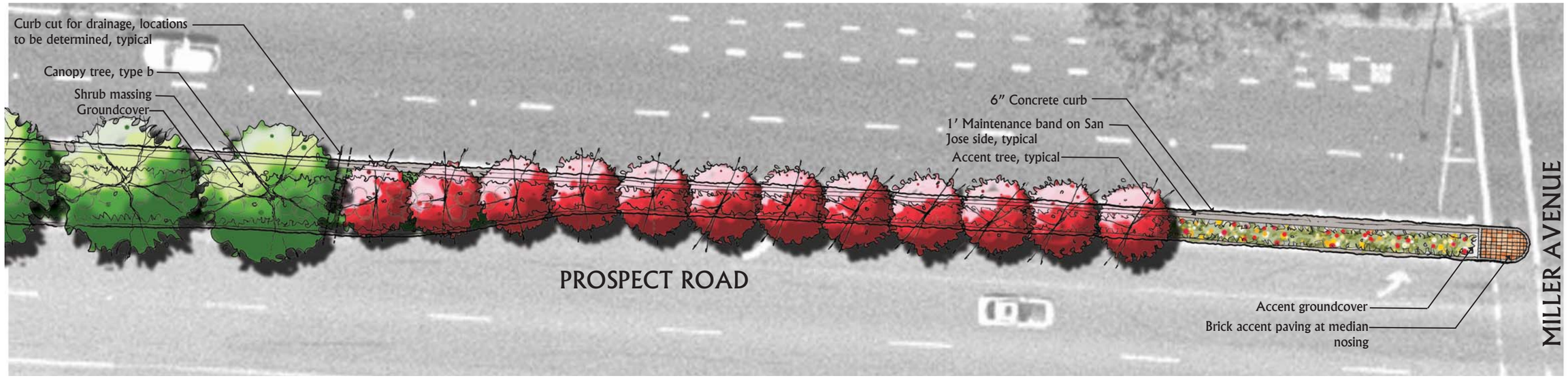
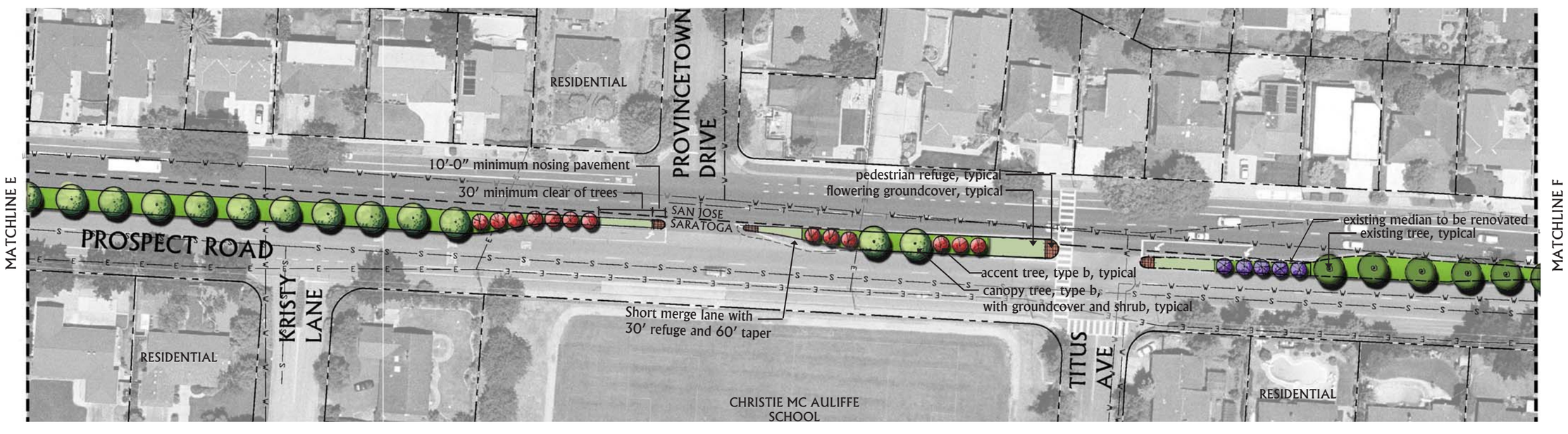


B NEW MEDIAN, TYPE B PLANTING
Enlargement Plan



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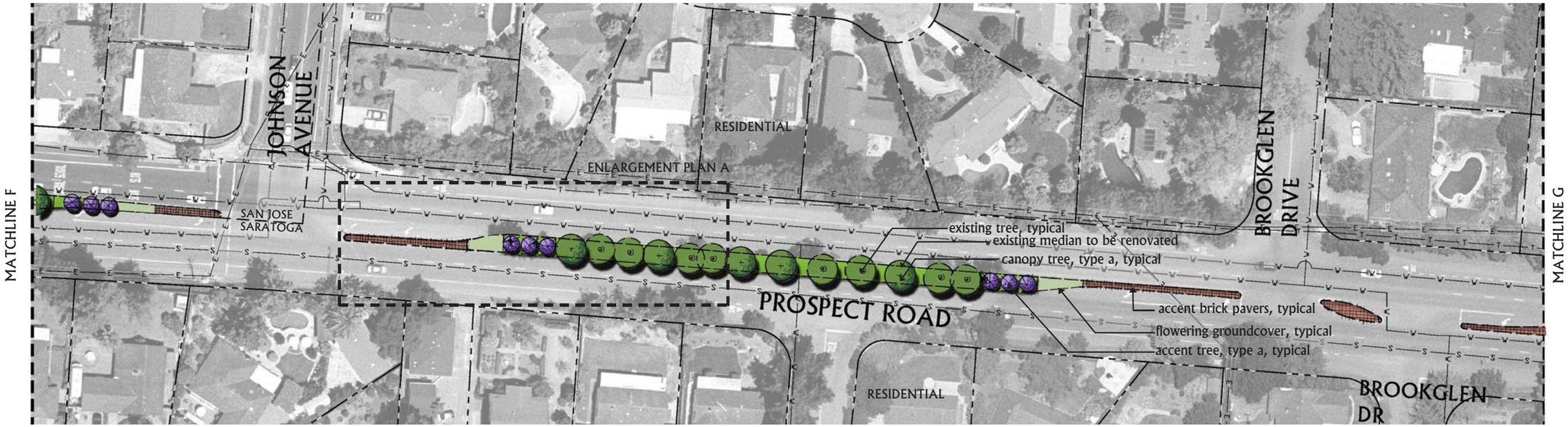

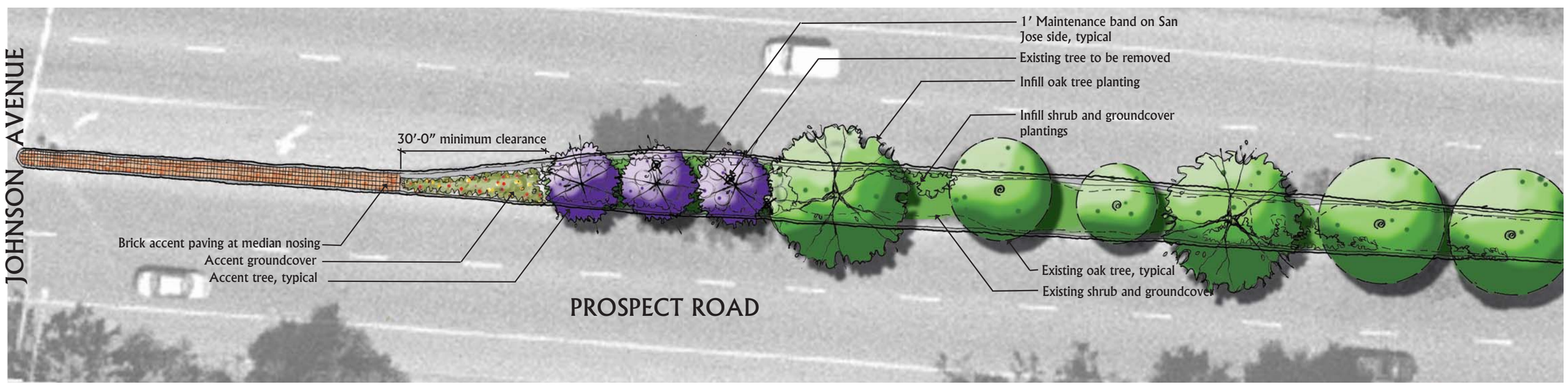

A RENOVATED EXISTING MEDIAN, TYPE A PLANTING
Enlargement Plan

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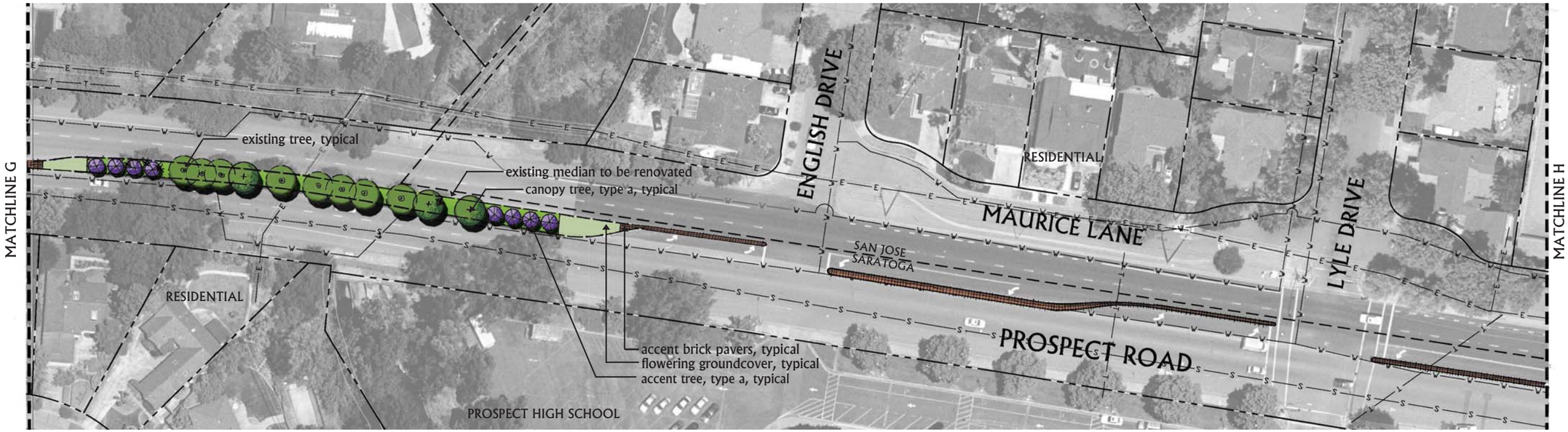

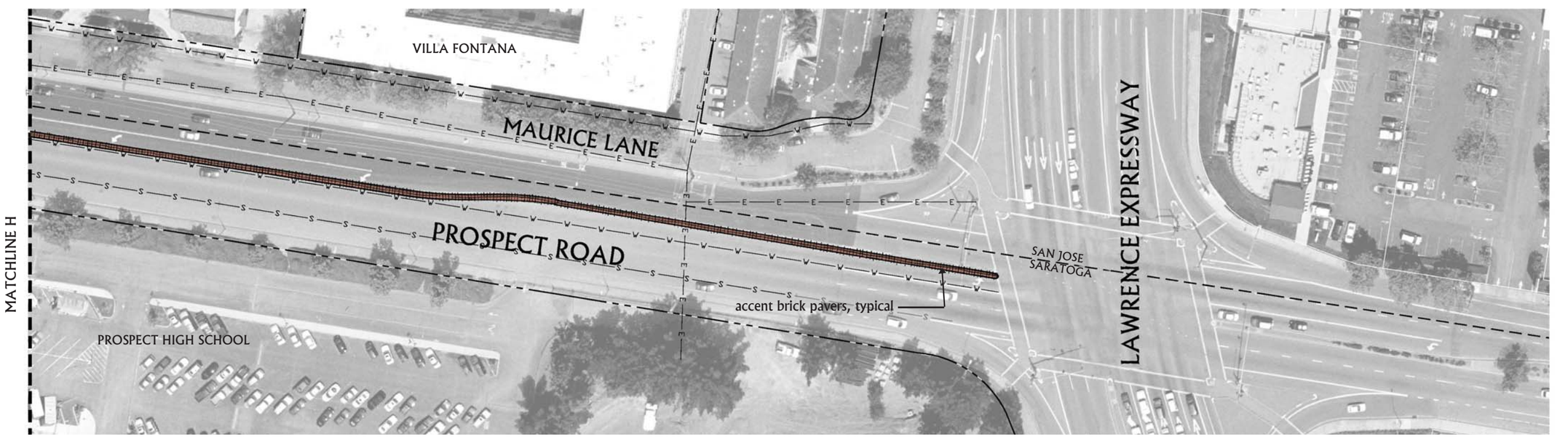

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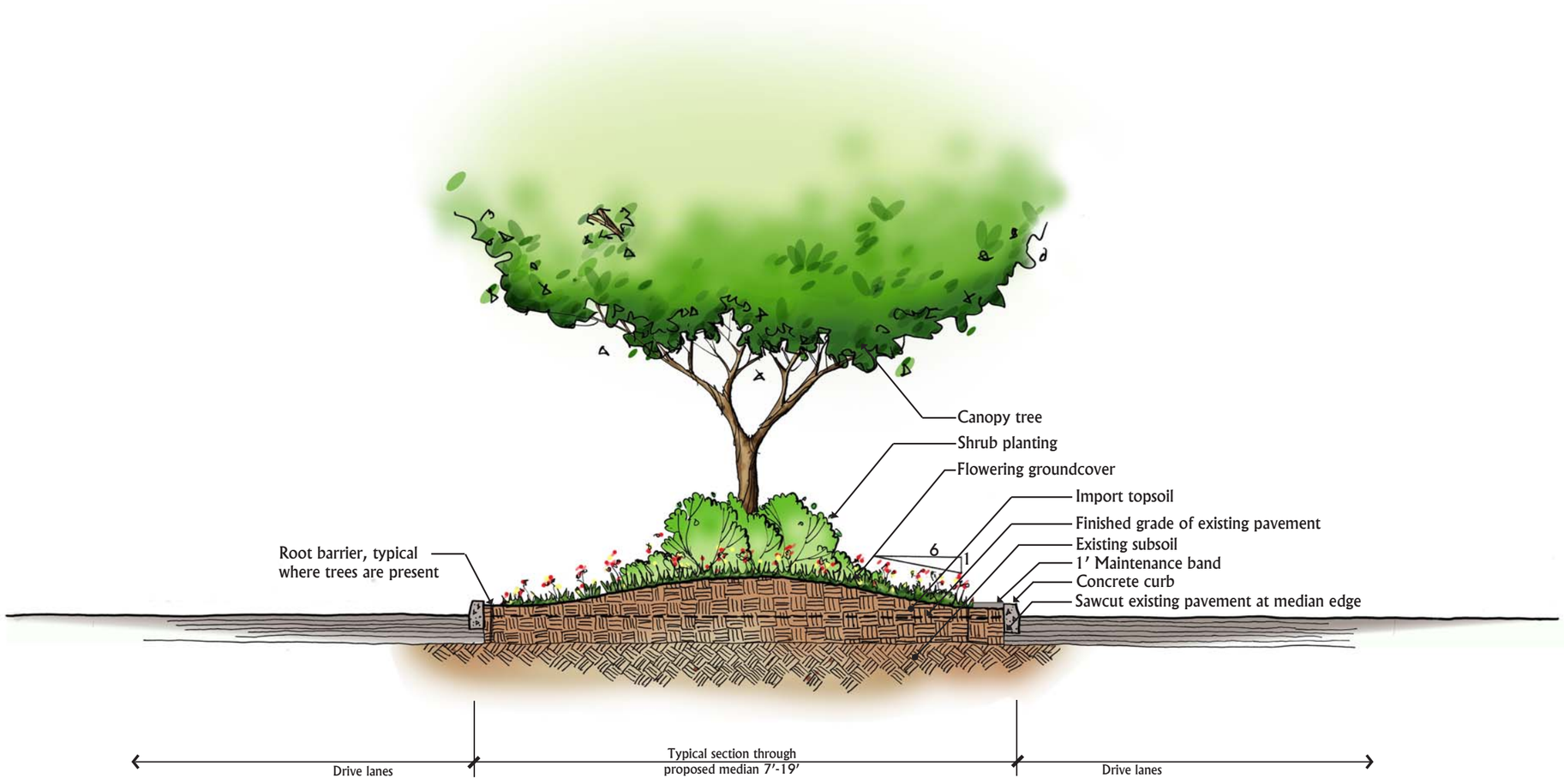

D Typical Median Construction
Section

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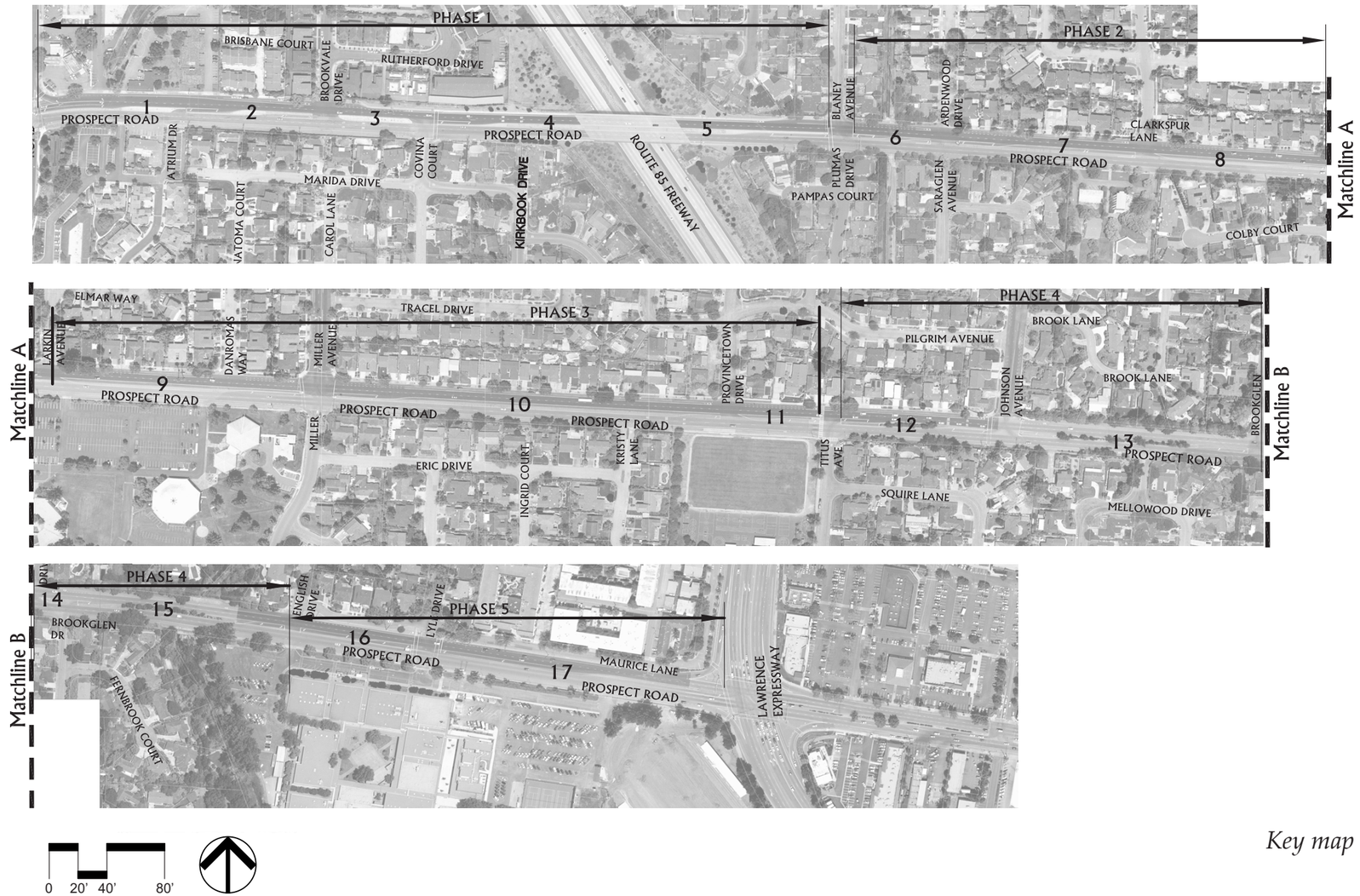
Summary of Probable Construction Costs

Median	Description	Segment Total	Total
1.	Saratoga - Sunnyvale Road to Atrium Drive	$152,510.00	
2.	Atrium Drive to Brookvale Drive	$109,800.00	
3.	Brookvale Drive to Covina Court	$126,380.00	
4.	Covina Court to Route 85	$163,190.00	
5.	Route 85 to Blaney Avenue	$226,940.00	
6.	Plumas Drive to Ardenwood Drive	$101,910.00	
7.	Saraglen Avenue to Clarkspur Lane	$274,970.00	
8.	Clarkspur Lane to Scully Avenue	$241,290.00	
9.	Larkin Avenue to Miller Avenue	$475,840.00	
10.	Miller Avenue to Provincetown Drive	$664,440.00	
11.	Provincetown Drive to Titus Avenue	$140,430.00	
12.	Titus Avenue to Johnson Avenue	$100,550.00	
13.	Johnson Avenue to Brookglen Drive	$163,090.00	
14.	Brookglen Drive	$26,530.00	
15.	Brookglen Drive to English Drive	$149,420.00	
16.	English Drive to Lyle Drive	$100,940.00	
17.	Lyle Drive to Lawrence Expressway	$219,260.00	
	Total Estimated Project Costs		**$3,437,490.00**

Based on drawing entitled "Master Plan", dated 6/4/08.

Note: The above items, amounts, quantities, and related information are based on CA's judgment at this level of document preparation and is offered only as reference data. CA has no control over construction quantities, costs and related factors affecting costs, and advises the client that significant variation may occur between this estimate of probable construction costs and actual construction prices.

Total Assumes that medians are constructed in phases as noted on page 30.



Key map

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COST ESTIMATE

Median # 1

Item #	Description	Unit	Cost	Median #1 Qty	Median #1 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$5,509	
2.	Traffic control	LS	Allow	Allow	$2,500	
3.	Construction staking	LS	Allow	Allow	$500	
4.	Project construction sign	LS	Allow	Allow	$2,800	
						$11,309
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	40	$10,000	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	930	$3,720	
5.	Cobble pavement	CY	$200.00	20	$4,000	
6.	Asphalt pavement	TON	$20.00	180	$3,600	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$21,320
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	250	$10,000	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$11,000
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	250	$6,250	
2.	Concrete curb	LF	$26.00	0	$0	
3.	Headerboard	LF	$6.00	15	$90	
4.	Traffic signage	LS	Allow	Allow	$0	
5.	Maintenance band 12" wide	LF	$18.00	415	$7,470	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$13,810
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	935	$4,675	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$800	
						$5,675
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	3,250	$3,575	
2.	Mulch	SF	$0.50	3,250	$1,625	
3.	Root barriers	LF	$10.00	330	$3,300	
						$8,500
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	Allow	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	

Item #	Description	Unit	Cost	Median #1 Qty	Median #1 Item Total	Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	190	$950	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	3,250	$4,875	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	30	$1,800	
						$10,125
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	5	$2,125	
2.	Accent trees, 15 gallon	EA	$200.00	10	$2,000	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	70	$3,500	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	295	$7,375	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	610	$4,880	
						$19,880
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$1,500	
						$1,500
J	**Sub-total of Construction**					$103,119
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$10,312	
2.	Allowance for probable design period changes	8%	Allow	Allow	$8,249	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$9,281	
						$27,842
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$5,156	
						$5,156
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$2,042	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$8,167	
6.	Traffic engineering	LS	Allow	Allow	$0	
7.	Bidding and construction	3%	Allow	Allow	$4,083	
8.	Testing and special inspection	LS	Allow	Allow	$0	
						$16,392
N	**Total Estimated Costs**					**$152,509**

Based on drawing entitled "Master Plan", dated 6/4/08

** Includes geotechnical, civil, and landscape architectural services*

Note: The above items, amounts, quantities, and related information are based on CA's judgment at this level of document preparation and is offered only as reference data. CA has no control over construction quantities, costs and related factors affecting costs, and advises the client that significant variation may occur between this estimate of probable construction costs and actual construction prices.

Median # 2

Item #	Description	Unit	Cost	Median #2 Qty	Median #2 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$4,010	
2.	Traffic control	LS	Allow	Allow	$2,500	
3.	Construction staking	LS	Allow	Allow	$500	
4.	Project construction sign	LS	Allow	Allow	$0	
						$7,010
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	25	$6,250	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	815	$3,260	
5.	Cobble pavement	CY	$200.00	20	$4,000	
6.	Asphalt pavement	TON	$20.00	115	$2,300	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$15,810
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	115	$4,600	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$5,600
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	745	$18,625	
2.	Concrete curb	LF	$26.00	0	$0	
3.	Headerboard	LF	$6.00	10	$60	
4.	Traffic signage	LS	Allow	Allow	$0	
5.	Maintenance band 12" wide	LF	$18.00	145	$2,610	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$21,295
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	820	$4,100	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$600	
						$4,900
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	1,500	$1,650	
2.	Mulch	SF	$0.50	1,500	$750	
3.	Root barriers	LF	$10.00	0	$0	
						$2,400
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	

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Median # 2

Item #	Description	Unit	Cost	Median #2 Qty	Median #2 Item Total	Median #2 Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	375	$1,875	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	1,500	$2,250	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	6	$360	
						$6,985
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	3	$1,275	
2.	Accent trees, 15 gallon	EA	$200.00	0	$0	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	40	$2,000	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	175	$4,375	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	180	$1,440	
						$9,090
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$750	
						$750
J	**Sub-total of Construction**					$73,840
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$7,384	
2.	Allowance for probable design period changes	8%	Allow	Allow	$5,907	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$6,646	
						$19,937
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$3,692	
						$3,692
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$1,462	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$5,848	
6.	Traffic engineering	LS	Allow	Allow	$0	
7.	Bidding and construction	3%	Allow	Allow	$2,924	
8.	Testing and special inspection	LS	Allow	Allow	$0	
						$12,334
N	**Total Estimated Costs**					**$109,803**

Based on drawing entitled "Master Plan", dated 6/4/08

** Includes geotechnical, civil, and landscape architectural services*

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Median # 3

Item #	Description	Unit	Cost	Median #3 Qty	Median #3 Item Total	Median #3 Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$4,653	
2.	Traffic control	LS	Allow	Allow	$2,500	
3.	Construction staking	LS	Allow	Allow	$500	
4.	Project construction sign	LS	Allow	Allow	$0	
						$7,653
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	30	$7,500	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	615	$2,460	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	210	$4,200	
7.	Painted traffic striping	LS	Allow	Allow	$500	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$14,660
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	185	$7,400	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$8,400
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	110	$2,750	
2.	Concrete curb	LF	$26.00	135	$3,510	
3.	Headerboard	LF	$6.00	35	$210	
4.	Traffic signage	LS	Allow	Allow	$0	
5.	Maintenance band 12" wide	LF	$18.00	215	$3,870	
6.	Thermoplastic striping	LS	Allow	Allow	$500	
7.	A.C. paving, 12" depth	SF	$20.00	600	$12,000	
						$22,840
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	480	$2,400	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$600	
						$3,200
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	2,360	$2,596	
2.	Mulch	SF	$0.50	2,360	$1,180	
3.	Root barriers	LF	$10.00	0	$0	
						$3,776
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	

Item #	Description	Unit	Cost	Median #3 Qty	Median #3 Item Total	Median #3 Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	445	$2,225	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	2,360	$3,540	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	14	$840	
						$9,105
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	3	$1,275	
2.	Accent trees, 15 gallon	EA	$200.00	0	$0	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	70	$3,500	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	315	$7,875	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	215	$1,720	
						$14,370
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$1,200	
						$1,200
J	**Sub-total of Construction**					$85,204
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$8,520	
2.	Allowance for probable design period changes	8%	Allow	Allow	$6,816	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$7,668	
						$23,005
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$4,260	
						$4,260
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$1,687	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$6,748	
6.	Traffic engineering	LS	Allow	Allow	$0	
7.	Bidding and construction	3%	Allow	Allow	$3,374	
8.	Testing and special inspection	LS	Allow	Allow	$0	
						$13,909
N	**Total Estimated Costs**					**$126,379**

Based on drawing entitled "Master Plan", dated 6/4/08

** Includes geotechnical, civil, and landscape architectural services*

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COST ESTIMATE

Median # 4

Item #	Description	Unit	Cost	Median #4 Qty	Median #4 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$6,096	
2.	Traffic control	LS	Allow	Allow	$2,500	
3.	Construction staking	LS	Allow	Allow	$500	
4.	Project construction sign	LS	Allow	Allow	$0	
						$9,096
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	10	$2,500	
3.	Decomposed granite pavement	CY	$200.00	30	$6,000	
4.	Sawcut	LF	$4.00	950	$3,800	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	395	$7,900	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$20,200
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	340	$13,600	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$14,600
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	400	$10,000	
2.	Concrete curb	LF	$26.00	0	$0	
3.	Headerboard	LF	$6.00	30	$180	
4.	Traffic signage	LS	Allow	Allow	$0	
5.	Maintenance band 12" wide	LF	$18.00	310	$5,580	
6.	Thermoplastic striping	LS	Allow	Allow	$500	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$16,260
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	950	$4,750	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$800	
						$5,750
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	3,950	$4,345	
2.	Mulch	SF	$0.50	3,950	$1,975	
3.	Root barriers	LF	$10.00	160	$1,600	
						$7,920
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	0	$0	
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	895	$4,475	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	3,950	$5,925	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	22	$1,320	
						$12,220
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	6	$2,550	
2.	Accent trees, 15 gallon	EA	$200.00	5	$1,000	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	110	$5,500	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	480	$12,000	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	400	$3,200	
						$24,250
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$400	
						$400
J	**Sub-total of Construction**					$110,696
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$11,070	
2.	Allowance for probable design period changes	8%	Allow	Allow	$8,856	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$9,963	
						$29,888
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$5,535	
						$5,535
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$2,192	
3.	Permitting services	LS	Allow	Allow	$1,500	
4.	Horticultural soils testing	LS	Allow	Allow	$250	
5.	Construction documents*	6%	Allow	Allow	$6,642	
6.	Traffic engineering	LS	Allow	Allow	$0	
7.	Bidding and construction	3%	Allow	Allow	$4,384	
8.	Testing and special inspection	LS	Allow	Allow	$0	
						$17,067
N	**Total Estimated Costs**					**$163,186**

Based on drawing entitled "Master Plan", dated 6/4/08

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Median # 5

Item #	Description	Unit	Cost	Median #5 Qty	Median #5 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$8,498	
2.	Traffic control	LS	Allow	Allow	$2,500	
3.	Construction staking	LS	Allow	Allow	$500	
4.	Project construction sign	LS	Allow	Allow	$0	
						$11,498
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	20	$5,000	
3.	Decomposed granite pavement	CY	$200.00	20	$4,076	
4.	Sawcut	LF	$4.00	960	$3,840	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	470	$9,400	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$22,316
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	410	$16,400	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$17,400
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	50	$1,250	
2.	Concrete curb	LF	$26.00	0	$0	
3.	Headerboard	LF	$6.00	20	$120	
4.	Traffic signage	LS	Allow	Allow	$0	
5.	Maintenance band 12" wide	LF	$18.00	465	$8,370	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$9,740
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	965	$4,825	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$1,000	
						$6,025
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	4,440	$4,884	
2.	Mulch	SF	$0.50	4,440	$2,220	
3.	Root barriers	LF	$10.00	120	$1,200	
						$8,304
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	1	$10,000	
2.	Phone service	EA	$3,000.00	1	$1,500	
3.	Irrigation controller, 24 stations	EA	$10,000.00	1	$10,000	
4.	Water meter, 1 -1/2"	EA	$7,000.00	1	$7,000	
5.	Backflow preventer	EA	$4,000.00	1	$4,000	
6.	Master valve	EA	$1,000.00	1	$1,000	
7.	Flow sensor	EA	$2,000.00	1	$2,000	
8.	Jack and bore	HR	$500.00	4	$2,000	

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Median # 5

Item #	Description	Unit	Cost	Median #5 Qty	Median #5 Item Total	Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	315	$1,575	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$2,000	
13.	Spray system	SF	$1.50	4,440	$6,660	
14.	Point -of- connection	EA	$1,500.00	1	$1,500	
15.	Tree bubbler, 2 per tree	EA	$60.00	20	$1,200	
						$50,935
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	5	$2,125	
2.	Accent trees, 15 gallon	EA	$200.00	5	$1,000	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	95	$4,750	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	430	$10,750	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	760	$6,080	
						$24,705
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$2,200	
						$2,200
J	**Sub-total of Construction**					$153,123
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$15,312	
2.	Allowance for probable design period changes	8%	Allow	Allow	$12,250	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$13,781	
						$41,343
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$7,656	
						$7,656
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$3,032	
3.	Permitting services	LS	Allow	Allow	$1,500	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$12,127	
6.	Traffic engineering	LS	Allow	Allow	$0	
7.	Bidding and construction	3%	Allow	Allow	$6,064	
8.	Testing and special inspection	LS	Allow	Allow	$0	
						$24,823
N	**Total Estimated Costs**					**$226,944**

Based on drawing entitled "Master Plan", dated 6/4/08

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Median # 6

Item #	Description	Unit	Cost	Median #6 Qty	Median #6 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$3,363	
2.	Traffic control	LS	Allow	Allow	$4,000	
3.	Construction staking	LS	Allow	Allow	$1,250	
4.	Project construction sign	LS	Allow	Allow	$2,800	
						$11,413
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	0	$0	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	475	$1,900	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	180	$3,600	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$250	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$5,750
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$835	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	145	$5,800	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$7,635
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	90	$2,250	
2.	Concrete curb	LF	$26.00	510	$13,260	
3.	Headerboard	LF	$6.00	25	$150	
4.	Traffic signage	LS	Allow	Allow	$315	
5.	Maintenance band 12" wide	LF	$18.00	230	$4,140	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$20,115
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	510	$2,550	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$600	
						$3,350
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	1,650	$1,815	
2.	Mulch	SF	$0.50	1,650	$825	
3.	Root barriers	LF	$10.00	190	$1,900	
						$4,540
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	

Item #	Description	Unit	Cost	Median #6 Qty	Median #6 Item Total	Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	340	$1,700	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	1,655	$2,483	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	0	$0	
						$6,683
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	0	$0	
2.	Accent trees, 15 gallon	EA	$200.00	0	$0	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	20	$1,000	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	100	$2,500	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	460	$3,680	
						$7,180
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$800	
						$800
J	**Sub-total of Construction**					$67,466
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$6,747	
2.	Allowance for probable design period changes	8%	Allow	Allow	$5,397	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$6,072	
						$18,216
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$3,373	
						$3,373
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$1,336	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$5,343	
6.	Traffic engineering	LS	Allow	Allow	$1,000	
7.	Bidding and construction	3%	Allow	Allow	$2,672	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$12,851
N	**Total Estimated Costs**					**$101,905**

Based on drawing entitled "Master Plan", dated 6/4/08

** Includes geotechnical, civil, and landscape architectural services*

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COST ESTIMATE

Median # 7

Item #	Description	Unit	Cost	Median #7 Qty	Median #7 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$10,238	
2.	Traffic control	LS	Allow	Allow	$4,000	
3.	Construction staking	LS	Allow	Allow	$1,250	
4.	Project construction sign	LS	Allow	Allow	$0	
						$15,488
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	0	$0	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	1,130	$4,520	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	615	$12,300	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$250	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$17,070
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$835	
2.	Curb drain	EA	$1,000.00	1	$1,000	
3.	Import topsoil and grading	CY	$40.00	540	$21,600	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$24,435
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	125	$3,125	
2.	Concrete curb	LF	$26.00	1,160	$30,160	
3.	Headerboard	LF	$6.00	30	$180	
4.	Traffic signage	LS	Allow	Allow	$315	
5.	Maintenance band 12" wide	LF	$18.00	560	$10,080	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$43,860
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	1,170	$5,850	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$1,200	
						$7,250
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	7,020	$7,722	
2.	Mulch	SF	$0.50	7,020	$3,510	
3.	Root barriers	LF	$10.00	300	$3,000	
						$14,232
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	645	$3,225	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	7,020	$10,530	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	38	$2,280	
						$18,535
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	9	$3,825	
2.	Accent trees, 15 gallon	EA	$200.00	10	$2,000	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	170	$8,500	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	780	$19,500	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	990	$7,920	
						$41,745
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$3,500	
						$3,500
J	**Sub-total of Construction**					$186,115
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$18,611	
2.	Allowance for probable design period changes	8%	Allow	Allow	$14,889	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$16,750	
						$50,251
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$9,306	
						$9,306
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$3,685	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$14,740	
6.	Traffic engineering	LS	Allow	Allow	$1,000	
7.	Bidding and construction	3%	Allow	Allow	$7,370	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$29,295
N	**Total Estimated Costs**					**$274,967**

Based on drawing entitled "Master Plan", dated 6/4/08

** Includes geotechnical, civil, and landscape architectural services*

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Median # 8

Item #	Description	Unit	Cost	Median #8 Qty	Median #8 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$8,921	
2.	Traffic control	LS	Allow	Allow	$4,000	
3.	Construction staking	LS	Allow	Allow	$1,250	
4.	Project construction sign	LS	Allow	Allow	$0	
						$14,171
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	0	$0	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	1,040	$4,160	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	440	$8,800	
7.	Painted traffic striping	LS	Allow	Allow	$500	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$13,460
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$835	
2.	Curb drain	EA	$1,000.00	1	$1,000	
3.	Import topsoil and grading	CY	$40.00	390	$15,600	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$18,435
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	100	$2,500	
2.	Concrete curb	LF	$26.00	1,080	$28,080	
3.	Headerboard	LF	$6.00	25	$150	
4.	Traffic signage	LS	Allow	Allow	$315	
5.	Maintenance band 12" wide	LF	$18.00	515	$9,270	
6.	Thermoplastic striping	LS	Allow	Allow	$500	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$40,815
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	1,085	$5,425	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$1,200	
						$6,825
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	6,310	$6,941	
2.	Mulch	SF	$0.50	6,310	$3,155	
3.	Root barriers	LF	$10.00	140	$1,400	
						$11,496
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	

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Median # 8

Item #	Description	Unit	Cost	Median #8 Qty	Median #8 Item Total	Median #8 Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	830	$4,150	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	6,310	$9,465	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	36	$2,160	
						$18,275
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	5	$2,125	
2.	Accent trees, 15 gallon	EA	$200.00	13	$2,600	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	155	$7,750	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	700	$17,500	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	800	$6,400	
						$36,375
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$3,000	
						$3,000
J	**Sub-total of Construction**					$162,852
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$16,285	
2.	Allowance for probable design period changes	8%	Allow	Allow	$13,028	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$14,657	
						$43,970
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$8,143	
						$8,143
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$3,224	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$250	
5.	Construction documents*	6%	Allow	Allow	$12,898	
6.	Traffic engineering	LS	Allow	Allow	$1,000	
7.	Bidding and construction	3%	Allow	Allow	$6,449	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$26,321
N	**Total Estimated Costs**					**$241,286**

Based on drawing entitled "Master Plan", dated 6/4/08

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Median # 9

Item #	Description	Unit	Cost	Median #9 Qty	Median #9 Item Total	Median #9 Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$17,874	
2.	Traffic control	LS	Allow	Allow	$4,000	
3.	Construction staking	LS	Allow	Allow	$1,250	
4.	Project construction sign	LS	Allow	Allow	$2,800	
						$25,924
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	1	$204	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	1,910	$7,640	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	910	$18,200	
7.	Painted traffic striping	LS	Allow	Allow	$500	
8.	Relocate signage	LS	Allow	Allow	$250	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$26,794
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$835	
2.	Curb drain	EA	$1,000.00	1	$1,000	
3.	Import topsoil and grading	CY	$40.00	895	$35,800	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$38,635
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	105	$2,625	
2.	Concrete curb	LF	$26.00	1,950	$50,700	
3.	Headerboard	LF	$6.00	35	$210	
4.	Traffic signage	LS	Allow	Allow	$315	
5.	Maintenance band 12" wide	LF	$18.00	950	$17,100	
6.	Thermoplastic striping	LS	Allow	Allow	$500	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$71,450
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	1,950	$9,750	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$1,600	
						$11,550
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	14,600	$16,060	
2.	Mulch	SF	$0.50	14,600	$7,300	
3.	Root barriers	LF	$10.00	415	$4,150	
						$27,510
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	

Item #	Description	Unit	Cost	Median #9 Qty	Median #9 Item Total	Median #9 Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	860	$4,300	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	14,600	$21,900	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	74	$4,440	
						$33,140
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	12	$5,100	
2.	Accent trees, 15 gallon	EA	$200.00	25	$5,000	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	340	$17,000	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	1,525	$38,125	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	2,075	$16,600	
						$81,825
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$7,000	
						$7,000
J	**Sub-total of Construction**					$323,828
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$32,383	
2.	Allowance for probable design period changes	8%	Allow	Allow	$25,906	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$29,144	
						$87,433
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$16,191	
						$16,191
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$6,412	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$25,647	
6.	Traffic engineering	LS	Allow	Allow	$1,000	
7.	Bidding and construction	3%	Allow	Allow	$12,824	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$48,383
N	**Total Estimated Costs**					**$475,835**

Based on drawing entitled "Master Plan", dated 6/4/08

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COST ESTIMATE

Median # 10

Item #	Description	Unit	Cost	Median #10 Qty	Median #10 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$25,176	
2.	Traffic control	LS	Allow	Allow	$5,000	
3.	Construction staking	LS	Allow	Allow	$2,500	
4.	Project construction sign	LS	Allow	Allow	$0	
						$32,676
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	1	$160	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	2,470	$9,880	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	1,090	$21,800	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$250	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$32,090
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$835	
2.	Curb drain	EA	$1,000.00	2	$2,000	
3.	Import topsoil and grading	CY	$40.00	1,180	$47,200	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$51,035
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	110	$2,750	
2.	Concrete curb	LF	$26.00	2,510	$65,260	
3.	Headerboard	LF	$6.00	20	$120	
4.	Traffic signage	LS	Allow	Allow	$315	
5.	Maintenance band 12" wide	LF	$18.00	1,230	$22,140	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$90,585
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	2,510	$12,550	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$2,000	
						$14,750
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	18,175	$19,993	
2.	Mulch	SF	$0.50	18,175	$9,088	
3.	Root barriers	LF	$10.00	440	$4,400	
						$33,480
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	1	$10,000	
2.	Phone service	EA	$3,000.00	1	$1,500	
3.	Irrigation controller, 24 stations	EA	$10,000.00	1	$10,000	
4.	Water meter, 1 -1/2"	EA	$7,000.00	1	$7,000	
5.	Backflow preventer	EA	$4,000.00	1	$4,000	
6.	Master valve	EA	$1,000.00	1	$1,000	
7.	Flow sensor	EA	$2,000.00	1	$2,000	
8.	Jack and bore	HR	$500.00	4	$2,000	
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	1,320	$6,600	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$2,000	
13.	Spray system	SF	$1.50	18,175	$27,263	
14.	Point -of- connection	EA	$1,500.00	1	$1,500	
15.	Tree bubbler, 2 per tree	EA	$60.00	84	$5,040	
						$80,403
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	25	$10,625	
2.	Accent trees, 15 gallon	EA	$200.00	17	$3,400	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	510	$25,500	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	2,290	$57,250	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	1,810	$14,480	
						$111,255
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$6,000	
						$6,000
J	**Sub-total of Construction**					$452,273
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$45,227	
2.	Allowance for probable design period changes	8%	Allow	Allow	$36,182	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$40,705	
						$122,114
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$22,614	
						$22,614
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$8,955	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$250	
5.	Construction documents*	6%	Allow	Allow	$35,820	
6.	Traffic engineering	LS	Allow	Allow	$2,000	
7.	Bidding and construction	3%	Allow	Allow	$17,910	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$67,435
N	**Total Estimated Costs**					**$664,435**

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Median # 11

Item #	Description	Unit	Cost	Median #11 Qty	Median #11 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$5,017	
2.	Traffic control	LS	Allow	Allow	$4,000	
3.	Construction staking	LS	Allow	Allow	$1,250	
4.	Project construction sign	LS	Allow	Allow	$0	
						$10,267
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	2	$433	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	495	$1,980	
5.	Cobble pavement	CY	$200.00	2	$300	
6.	Asphalt pavement	TON	$20.00	225	$4,500	
7.	Painted traffic striping	LS	Allow	Allow	$500	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$7,713
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$835	
2.	Curb drain	EA	$1,000.00	1	$1,000	
3.	Import topsoil and grading	CY	$40.00	220	$8,800	
4.	Pot-holing for utilities	LS	Allow	Allow	$1,000	
						$11,635
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	215	$5,375	
2.	Concrete curb	LF	$26.00	530	$13,780	
3.	Headerboard	LF	$6.00	50	$300	
4.	Traffic signage	LS	Allow	Allow	$315	
5.	Maintenance band 12" wide	LF	$18.00	235	$4,230	
6.	Thermoplastic striping	LS	Allow	Allow	$500	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$24,500
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	530	$2,650	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$800	
						$3,650
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	3,400	$3,740	
2.	Mulch	SF	$0.50	3,400	$1,700	
3.	Root barriers	LF	$10.00	0	$0	
						$5,440
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	

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Median # 11

Item #	Description	Unit	Cost	Median #11 Qty	Median #11 Item Total	Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	320	$1,600	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	3,400	$5,100	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	16	$960	
						$10,160
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	2	$850	
2.	Accent trees, 15 gallon	EA	$200.00	6	$1,200	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	75	$3,750	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	335	$8,375	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	605	$4,840	
						$19,015
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$1,500	
						$1,500
J	**Sub-total of Construction**					$93,879
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$9,388	
2.	Allowance for probable design period changes	8%	Allow	Allow	$7,510	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$8,449	
						$25,347
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$4,694	
						$4,694
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$1,859	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$7,435	
6.	Traffic engineering	LS	Allow	Allow	$1,000	
7.	Bidding and construction	3%	Allow	Allow	$3,718	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$16,512
N	**Total Estimated Costs**					**$140,432**

Based on drawing entitled "Master Plan", dated 6/4/08

** Includes geotechnical, civil, and landscape architectural services*

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Median # 12

Item #	Description	Unit	Cost	Median #12 Qty	Median #12 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$3,549	
2.	Traffic control	LS	Allow	Allow	$1,500	
3.	Construction staking	LS	Allow	Allow	$500	
4.	Project construction sign	LS	Allow	Allow	$2,800	
						$8,349
B	**Demolition**					
1.	Clear and grub	SF	$0.50	1,600	$800	
2.	Concrete pavement	CY	$250.00	10	$2,500	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	260	$1,040	
5.	Cobble pavement	CY	$200.00	10	$2,000	
6.	Asphalt pavement	TON	$20.00	0	$0	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	85	$85	
						$6,425
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	105	$4,200	
4.	Pot-holing for utilities	LS	Allow	Allow	$0	
						$4,200
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	210	$5,250	
2.	Concrete curb	LF	$26.00	0	$0	
3.	Headerboard	LF	$6.00	25	$150	
4.	Traffic signage	LS	Allow	Allow	$0	
5.	Maintenance band 12" wide	LF	$18.00	0	$0	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$5,400
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	955	$4,775	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$600	
						$5,575
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	3,010	$3,311	
2.	Mulch	SF	$0.50	4,930	$2,465	
3.	Root barriers	LF	$10.00	275	$2,750	
						$8,526
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	

Item #	Description	Unit	Cost	Median #12 Qty	Median #12 Item Total	Subtotal
9.	Adjust existing system	SF	$2.00	2,500	$5,000	
10.	Irrigation mainline	LF	$5.00	565	$2,825	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	0	$0	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	18	$1,080	
						$11,405
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	1	$425	
2.	Accent trees, 15 gallon	EA	$200.00	8	$1,600	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	50	$2,500	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	230	$5,750	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	730	$5,840	
						$16,115
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$1,500	
						$1,500
J	**Sub-total of Construction**					$67,495
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$6,749	
2.	Allowance for probable design period changes	8%	Allow	Allow	$5,400	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$6,075	
						$18,224
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$3,375	
						$3,375
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$1,336	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$5,346	
6.	Traffic engineering	LS	Allow	Allow	$0	
7.	Bidding and construction	3%	Allow	Allow	$2,673	
8.	Testing and special inspection	LS	Allow	Allow	$0	
						$11,455
N	**Total Estimated Costs**					**$100,548**

Based on drawing entitled "Master Plan", dated 6/4/08

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COST ESTIMATE

Median # 13

Item #	Description	Unit	Cost	Median #13 Qty	Median #13 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$6,137	
2.	Traffic control	LS	Allow	Allow	$1,500	
3.	Construction staking	LS	Allow	Allow	$500	
4.	Project construction sign	LS	Allow	Allow	$0	
						$8,137
B	**Demolition**					
1.	Clear and grub	SF	$0.50	1,500	$750	
2.	Concrete pavement	CY	$250.00	7	$1,847	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	300	$1,200	
5.	Cobble pavement	CY	$200.00	30	$6,000	
6.	Asphalt pavement	TON	$20.00	0	$0	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	4	$1,600	
10.	Shrubs	SF	$1.00	735	$735	
						$12,132
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	115	$4,600	
4.	Pot-holing for utilities	LS	Allow	Allow	$0	
						$4,600
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	1,115	$27,875	
2.	Concrete curb	LF	$26.00	325	$8,450	
3.	Headerboard	LF	$6.00	40	$240	
4.	Traffic signage	LS	Allow	Allow	$0	
5.	Maintenance band 12" wide	LF	$18.00	0	$0	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$36,565
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	1,515	$7,575	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$800	
						$8,575
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	3,530	$3,883	
2.	Mulch	SF	$0.50	7,115	$3,558	
3.	Root barriers	LF	$10.00	40	$400	
						$7,841
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	4	$2,000	

Item #	Description	Unit	Cost	Median #13 Qty	Median #13 Item Total	Subtotal
9.	Adjust existing system	SF	$2.00	1,500	$3,000	
10.	Irrigation mainline	LF	$5.00	830	$4,150	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	0	$0	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	22	$1,320	
						$10,970
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	5	$2,125	
2.	Accent trees, 15 gallon	EA	$200.00	6	$1,200	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	70	$3,500	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	315	$7,875	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	650	$5,200	
						$19,900
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$1,700	
						$1,700
J	**Sub-total of Construction**					$110,419
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$11,042	
2.	Allowance for probable design period changes	8%	Allow	Allow	$8,834	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$9,938	
						$29,813
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$5,521	
						$5,521
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$2,186	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$8,676	
6.	Traffic engineering	LS	Allow	Allow	$0	
7.	Bidding and construction	3%	Allow	Allow	$4,373	
8.	Testing and special inspection	LS	Allow	Allow	$0	
						$17,335
N	**Total Estimated Costs**					**$163,088**

Based on drawing entitled "Master Plan", dated 6/4/08

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Median # 14

Item #	Description	Unit	Cost	Median #14 Qty	Median #14 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$862	
2.	Traffic control	LS	Allow	Allow	$1,250	
3.	Construction staking	LS	Allow	Allow	$0	
4.	Project construction sign	LS	Allow	Allow	$0	
						$2,112
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	0	$0	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	110	$440	
5.	Cobble pavement	CY	$200.00	8	$1,550	
6.	Asphalt pavement	TON	$20.00	0	$0	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$500	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$2,490
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	0	$0	
4.	Pot-holing for utilities	LS	Allow	Allow	$0	
						$0
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	420	$10,500	
2.	Concrete curb	LF	$26.00	0	$0	
3.	Headerboard	LF	$6.00	0	$0	
4.	Traffic signage	LS	Allow	Allow	$0	
5.	Maintenance band 12" wide	LF	$18.00	0	$0	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$10,500
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	115	$575	
2.	Storm drain filters	LS	Allow	Allow	$100	
3.	Maintenance	LS	Allow	Allow	$200	
						$875
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	0	$0	
2.	Mulch	SF	$0.50	0	$0	
3.	Root barriers	LF	$10.00	0	$0	
						$0
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	0	$0	

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Median # 14

Item #	Description	Unit	Cost	Median #14 Qty	Median #14 Item Total	Median #14 Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	100	$500	
11.	Quick couplers	LS	Allow	Allow	$0	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	0	$0	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	0	$0	
						$500
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	0	$0	
2.	Accent trees, 15 gallon	EA	$200.00	0	$0	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	0	$0	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	0	$0	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	0	$0	
						$0
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$0	
						$0
J	**Sub-total of Construction**					$16,477
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$1,648	
2.	Allowance for probable design period changes	8%	Allow	Allow	$1,318	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$1,483	
						$4,449
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$824	
						$824
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$326	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$1,305	
6.	Traffic engineering	LS	Allow	Allow	$0	
7.	Bidding and construction	3%	Allow	Allow	$652	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$4,784
N	**Total Estimated Costs**					**$26,533**

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Median # 15

Item #	Description	Unit	Cost	Median #15 Qty	Median #15 Item Total	Median #15 Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$5,540	
2.	Traffic control	LS	Allow	Allow	$1,500	
3.	Construction staking	LS	Allow	Allow	$500	
4.	Project construction sign	LS	Allow	Allow	$0	
						$7,540
B	**Demolition**					
1.	Clear and grub	SF	$0.50	2,500	$1,250	
2.	Concrete pavement	CY	$250.00	13	$3,335	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	200	$800	
5.	Cobble pavement	CY	$200.00	20	$4,000	
6.	Asphalt pavement	TON	$20.00	25	$500	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	3	$1,200	
10.	Shrubs	SF	$1.00	830	$830	
						$11,915
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	190	$7,600	
4.	Pot-holing for utilities	LS	Allow	Allow	$0	
						$7,600
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	630	$15,750	
2.	Concrete curb	LF	$26.00	340	$8,840	
3.	Headerboard	LF	$6.00	50	$300	
4.	Traffic signage	LS	Allow	Allow	$0	
5.	Maintenance band 12" wide	LF	$18.00	0	$0	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$24,890
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	1,400	$7,000	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$800	
						$8,000
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	4,360	$4,796	
2.	Mulch	SF	$0.50	6,380	$3,190	
3.	Root barriers	LF	$10.00	50	$500	
						$8,486
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	0	$0	

Item #	Description	Unit	Cost	Median #15 Qty	Median #15 Item Total	Median #15 Subtotal
9.	Adjust existing system	SF	$2.00	1,600	$3,200	
10.	Irrigation mainline	LF	$5.00	75	$375	
11.	Quick couplers	LS	Allow	Allow	$500	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	0	$0	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	22	$1,320	
						$5,395
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	3	$1,275	
2.	Accent trees, 15 gallon	EA	$200.00	8	$1,600	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	80	$4,000	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	370	$9,250	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	965	$7,720	
						$23,845
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$2,200	
						$2,200
J	**Sub-total of Construction**					$99,871
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$9,987	
2.	Allowance for probable design period changes	8%	Allow	Allow	$7,990	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$8,988	
						$26,965
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$4,994	
						$4,994
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$1,977	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$250	
5.	Construction documents*	6%	Allow	Allow	$7,910	
6.	Traffic engineering	LS	Allow	Allow	$1,000	
7.	Bidding and construction	3%	Allow	Allow	$3,955	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$17,592
N	**Total Estimated Costs**					**$149,422**

Based on drawing entitled "Master Plan", dated 6/4/08

** Includes geotechnical, civil, and landscape architectural services*

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COST ESTIMATE

Median # 16

Item #	Description	Unit	Cost	Median #16 Qty	Median #16 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$3,198	
2.	Traffic control	LS	Allow	Allow	$5,000	
3.	Construction staking	LS	Allow	Allow	$2,500	
4.	Project construction sign	LS	Allow	Allow	$2,800	
						$13,498
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	0	$0	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	0	$0	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	0	$0	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$0
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	0	$0	
3.	Import topsoil and grading	CY	$40.00	0	$0	
4.	Pot-holing for utilities	LS	Allow	Allow	$0	
						$0
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	1,170	$29,250	
2.	Concrete curb	LF	$26.00	740	$19,240	
3.	Headerboard	LF	$6.00	0	$0	
4.	Traffic signage	LS	Allow	Allow	$315	
5.	Maintenance band 12" wide	LF	$18.00	0	$0	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$48,805
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	740	$3,700	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$600	
						$4,500
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	0	$0	
2.	Mulch	SF	$0.50	0	$0	
3.	Root barriers	LF	$10.00	0	$0	
						$0
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	0	$0	
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	0	$0	
11.	Quick couplers	LS	Allow	Allow	$0	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	0	$0	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	0	$0	
						$0
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	0	$0	
2.	Accent trees, 15 gallon	EA	$200.00	0	$0	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	0	$0	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	0	$0	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	0	$0	
						$0
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$0	
						$0
J	**Sub-total of Construction**					$66,803
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$6,680	
2.	Allowance for probable design period changes	8%	Allow	Allow	$5,344	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$6,012	
						$18,037
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$3,340	
						$3,340
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$1,323	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$5,291	
6.	Traffic engineering	LS	Allow	Allow	$1,000	
7.	Bidding and construction	3%	Allow	Allow	$2,645	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$12,759
N	**Total Estimated Costs**					**$100,939**

**Based on drawing entitled "Master Plan", dated 6/4/08*

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Median # 17

Item #	Description	Unit	Cost	Median #17 Qty	Median #17 Item Total	Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$7,665	
2.	Traffic control	LS	Allow	Allow	$10,000	
3.	Construction staking	LS	Allow	Allow	$2,500	
4.	Project construction sign	LS	Allow	Allow	$0	
						$20,165
B	**Demolition**					
1.	Clear and grub	SF	$0.50	0	$0	
2.	Concrete pavement	CY	$250.00	3	$868	
3.	Decomposed granite pavement	CY	$200.00	0	$0	
4.	Sawcut	LF	$4.00	175	$700	
5.	Cobble pavement	CY	$200.00	0	$0	
6.	Asphalt pavement	TON	$20.00	0	$0	
7.	Painted traffic striping	LS	Allow	Allow	$0	
8.	Relocate signage	LS	Allow	Allow	$0	
9.	Trees	EA	$400.00	0	$0	
10.	Shrubs	SF	$1.00	0	$0	
						$1,568
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$0	
2.	Curb drain	EA	$1,000.00	2	$2,000	
3.	Import topsoil and grading	CY	$40.00	0	$0	
4.	Pot-holing for utilities	LS	Allow	Allow	$0	
						$2,000
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	2,770	$69,250	
2.	Concrete curb	LF	$26.00	1,700	$44,200	
3.	Headerboard	LF	$6.00	0	$0	
4.	Traffic signage	LS	Allow	Allow	$315	
5.	Maintenance band 12" wide	LF	$18.00	0	$0	
6.	Thermoplastic striping	LS	Allow	Allow	$0	
7.	A.C. paving, 12" depth	SF	$20.00	0	$0	
						$113,765
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	1,885	$9,425	
2.	Storm drain filters	LS	Allow	Allow	$200	
3.	Maintenance	LS	Allow	Allow	$800	
						$10,425
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	0	$0	
2.	Mulch	SF	$0.50	0	$0	
3.	Root barriers	LF	$10.00	0	$0	
						$0
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	0	$0	
2.	Phone service	EA	$3,000.00	0	$0	
3.	Irrigation controller, 24 stations	EA	$10,000.00	0	$0	
4.	Water meter, 1 -1/2"	EA	$7,000.00	0	$0	
5.	Backflow preventer	EA	$4,000.00	0	$0	
6.	Master valve	EA	$1,000.00	0	$0	
7.	Flow sensor	EA	$2,000.00	0	$0	
8.	Jack and bore	HR	$500.00	0	$0	

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Median # 17

Item #	Description	Unit	Cost	Median #17 Qty	Median #17 Item Total	Median #17 Subtotal
9.	Adjust existing system	SF	$2.00	0	$0	
10.	Irrigation mainline	LF	$5.00	0	$0	
11.	Quick couplers	LS	Allow	Allow	$0	
12.	Strainer	LS	Allow	Allow	$0	
13.	Spray system	SF	$1.50	0	$0	
14.	Point -of- connection	EA	$1,500.00	0	$0	
15.	Tree bubbler, 2 per tree	EA	$60.00	0	$0	
						$0
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	0	$0	
2.	Accent trees, 15 gallon	EA	$200.00	0	$0	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	0	$0	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	0	$0	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	0	$0	
						$0
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$0	
						$0
J	**Sub-total of Construction**					$147,923
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$14,792	
2.	Allowance for probable design period changes	8%	Allow	Allow	$11,834	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$13,313	
						$39,939
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$7,396	
						$7,396
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$2,100	
2.	Design development	2%	Allow	Allow	$2,929	
3.	Permitting services	LS	Allow	Allow	$0	
4.	Horticultural soils testing	LS	Allow	Allow	$0	
5.	Construction documents*	6%	Allow	Allow	$11,715	
6.	Traffic engineering	LS	Allow	Allow	$1,000	
7.	Bidding and construction	3%	Allow	Allow	$5,858	
8.	Testing and special inspection	LS	Allow	Allow	$400	
						$24,002
N	**Total Estimated Costs**					**$219,260**

Based on drawing entitled "Master Plan", dated 6/4/08

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Median Totals

Item #	Description	Unit	Cost	TOTAL Qty	TOTAL Item Total	TOTAL Subtotal
A	**Project Start-up**					
1.	Bonding and mobilization	6.0%	Allow	Allow	$126,305	
2.	Traffic control	LS	Allow	Allow	$58,250	
3.	Construction staking	LS	Allow	Allow	$17,750	
4.	Project construction sign	LS	Allow	Allow	$14,000	
						$216,305
B	**Demolition**					
1.	Clear and grub	SF	$0.50	5,600	$2,800	
2.	Concrete pavement	CY	$250.00	162	$40,595	
3.	Decomposed granite pavement	CY	$200.00	50	$10,076	
4.	Sawcut	LF	$4.00	12,835	$51,340	
5.	Cobble pavement	CY	$200.00	109	$21,850	
6.	Asphalt pavement	TON	$20.00	4,855	$97,100	
7.	Painted traffic striping	LS	Allow	Allow	$2,000	
8.	Relocate signage	LS	Allow	Allow	$1,500	
9.	Trees	EA	$400.00	7	$2,800	
10.	Shrubs	SF	$1.00	1,650	$1,650	
						$231,711
C	**Grading, Drainage, and Utilities**					
1.	Adjust utilities to grade	LS	Allow	Allow	$5,010	
2.	Curb drain	EA	$1,000.00	8	$8,000	
3.	Import topsoil and grading	CY	$40.00	5,080	$203,200	
4.	Pot-holing for utilities	LS	Allow	Allow	$11,000	
						$227,210
D	**Site Construction**					
1.	Unit pavers with base	SF	$25.00	8,615	$215,375	
2.	Concrete curb	LF	$26.00	10,980	$285,480	
3.	Headerboard	LF	$6.00	410	$2,460	
4.	Traffic signage	LS	Allow	Allow	$2,520	
5.	Maintenance band 12" wide	LF	$18.00	5,270	$94,860	
6.	Thermoplastic striping	LS	Allow	Allow	$2,500	
7.	A.C. paving, 12" depth	SF	$20.00	600	$12,000	
						$615,195
E	**Storm Water Pollution Prevention Provisions**					
1.	Silt fence / fiber rolls	LF	$5.00	18,515	$92,575	
2.	Storm drain filters	LS	Allow	Allow	$3,300	
3.	Maintenance	LS	Allow	Allow	$15,000	
						$110,875
F	**Soil Preparation and Fine Grading**					
1.	Soil preparation and fine grading	SF	$1.10	77,555	$85,311	
2.	Mulch	SF	$0.50	85,080	$42,540	
3.	Root barriers	LF	$10.00	2,460	$24,600	
						$152,451
G	**Irrigation**					
1.	Electrical service and panel	EA	$10,000.00	2	$20,000	
2.	Phone service	EA	$3,000.00	Allow	$3,000	
3.	Irrigation controller, 24 stations	EA	$10,000.00	2	$20,000	
4.	Water meter, 1 -1/2"	EA	$7,000.00	2	$14,000	
5.	Backflow preventer	EA	$4,000.00	2	$8,000	
6.	Master valve	EA	$1,000.00	2	$2,000	
7.	Flow sensor	EA	$2,000.00	2	$4,000	
8.	Jack and bore	HR	$500.00	48	$24,000	

Item #	Description	Unit	Cost	TOTAL Qty	TOTAL Item Total	TOTAL Subtotal
9.	Adjust existing system	SF	$2.00	5,600	$11,200	
10.	Irrigation mainline	LF	$5.00	8,105	$40,525	
11.	Quick couplers	LS	Allow	Allow	$7,000	
12.	Strainer	LS	Allow	Allow	$4,000	
13.	Spray system	SF	$1.50	66,660	$99,990	
14.	Point -of- connection	EA	$1,500.00	2	$3,000	
15.	Tree bubbler, 2 per tree	EA	$60.00	402	$24,120	
						$284,835
H	**Planting**					
1.	Trees, 24" box	EA	$425.00	84	$35,700	
2.	Accent trees, 15 gallon	EA	$200.00	113	$22,600	
3.	Shrubs, 5 gallon, 3' o.c.	EA	$50.00	1,855	$92,750	
4.	Shrubs, 1 gallon, 2' o.c.	EA	$25.00	8,340	$208,500	
5.	Groundcover, 1 gallon, 2' o.c.	EA	$8.00	11,250	$90,000	
						$449,550
I	**Landscape Maintenance**					
1.	Plant establishment period	LS	Allow	Allow	$33,250	
						$33,250
J	**Sub-total of Construction**					$2,321,381
K	**Contingency**					
1.	Estimating contingency	10%	Allow	Allow	$232,138	
2.	Allowance for probable design period changes	8%	Allow	Allow	$185,710	
3.	Inflation (3% per year for three years)	9%	Allow	Allow	$208,924	
						$626,773
L	**Allowance for Probable Construction Period Change**	5%	Allow	Allow	$116,069	
						$116,069
M	**Professional Services**					
1.	Topographic survey	LS	Allow	Allow	$35,700	
2.	Design development	2%	Allow	Allow	$45,963	
3.	Permitting services	LS	Allow	Allow	$3,000	
4.	Horticultural soils testing	LS	Allow	Allow	$1,000	
5.	Construction documents*	6%	Allow	Allow	$181,659	
6.	Traffic engineering	LS	Allow	Allow	$10,000	
7.	Bidding and construction	3%	Allow	Allow	$91,927	
8.	Testing and special inspection	LS	Allow	Allow	$4,000	
						$373,249
N	**Total Estimated Costs**					**$3,437,471**

Based on drawing entitled "Master Plan", dated 6/4/08

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PHASING AND IMPLEMENTATION

Because of likely funding constraints and the long length of Prospect Road, the improvements will likely require a phased approach plan. The primary factor in determining the sequence of implementation is the availability of existing utility connections, followed by extent of existing infrastructure (i.e. median curbs). The project requires a minimum of two points of connection for electrical, phone and water service.
These utility points of connection are anticipated to be located at medians five and ten; therefore, those median improvements should be implemented first. Phasing should also take advantage of the existing median infrastructure that is available. Specifically, there are existing median curbs at both the west (medians 1, 2, 3, 4 and 5) and east (medians 12, 13, 14, and 15) ends.

To keep the individual phasing costs below approximately five hundred thousand dollars, five phases are proposed:

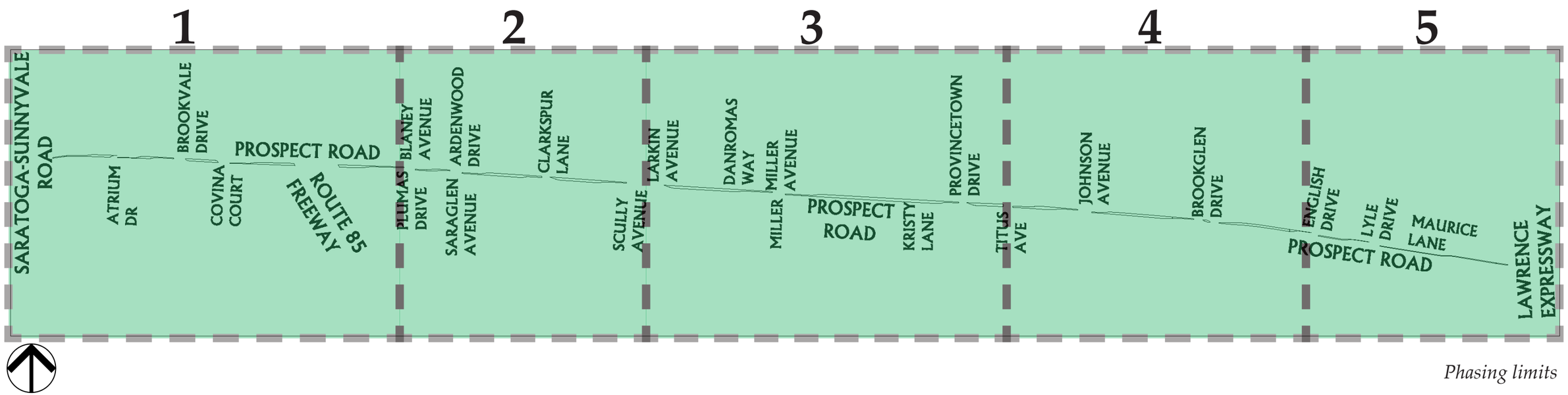
- **Phase 1: Saratoga-Sunnyvale Road to Blaney Avenue (Medians 1-5):** This phase would include installation of utilities at median 5 and takes advantage of the existing curb infrastructure available at medians 1 through 5 to minimize costs.

- **Phase 2: Plumas Drive to Scully Avenue (Medians 6-8):** An extension of utilities from Phase 1 would provide services to the new medians in this phase. New curbing, accent paving at median nosings, pedestrian refuge, and median type b plantings will be provided.

- **Phase 3: Larkin Avenue to Titus Avenue (Medians 9-11):** This phase would include installation of utilities at median 10. Type b plantings will end at the start of phase 4 and provide a plant palette transition.

- **Phase 4: Titus Avenue to English Drive (Medians 12-15):** An extension of utilities from Phase 3 would provide services to those medians. Phase 4 will also primarily focus on updating existing median plantings to reflect overall project plant palette, provide infill plants in sparse areas in medians, and update the median nosings to incorporate project accent paving.

- **Phase 5: English Drive to Lawrence Expressway (Medians 16-17):** No utilities are required for the medians in this phase. Implementation will consist of accent paving and is expected to be the least labor intensive phase of the project.



Phasing limits

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Via E-mail Only

November 19, 2007

Meeting Summary
Kick-Off Meeting
RE: PROSPECT ROAD MEDIAN IMPROVEMENTS
Location: City Hall
Date of Meeting: November 13, 2007, 4:00 p.m.
5 pages

Attendees: *City of Saratoga:*
John M. Cherbone (JC), jcherbone@saratoga.ca.us
Iveta Harvancik (IH), ihavancik@saratoga.ca.us

Consultants:
Marie Mai, Callander Associates (CA), mmai@callanderassociates.com
Julie Russotti, Callander Associates (CA), jrussotti@callanderassociates.com

The purpose of the meeting was to review project background information and initial design thoughts and project goals. Discussion also addressed updates to the current scope of work and project budget.

The following information was discussed and/or decided upon in our meeting:

item	*person and date to follow up*
Project Understanding	
• The existing scope of work was reviewed to determine how additional services for Callander's preparation and attendance at two community meetings could be accommodated.	
• It was determined that services for the first community meeting would replace services for preparation of a maintenance cost estimate and	

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Land Planning
Park and Recreation Planning
Environmental Planning

Peter E. Callander, ASLA, Principal
A. Mark Slichter, ASLA, Principal
Brian G. Fletcher, ASLA, Principal
Erik Smith, ASLA, Principal
Benjamin W. Woodside, ASLA, Principal

item	*person and date to follow-up*
coordination of pavement core sampling for no net increase in compensation. This was documented in the first additional services authorization. The City of Saratoga will coordinate with and obtain the coring samples. CA to forward coring company contact information to City. CA to draft a second additional services authorization to address services for the second community meeting.	CA, 11/20/07 CA, 11/30/07
• Initial City construction cost estimate is approximately $1.5 million. CA to review previous bid results to determine ballpark median costs.	CA, 11/20/07
• Project limits are center medians from Lawrence Expressway to Saratoga Sunnyvale Road. The centerline of the existing right of way defines the city limits between City of Saratoga (City) and City of San Jose (CSJ).	
Available Background Information	
• Though Lawrence Expressway is a County road of Santa Clara, County standards will not apply as the median is likely outside of the County right-of-way. Highway 85 is a Caltrans road. City to provide CA with Caltrans right-of-way information.	IH, 11/21/07
• The City does not currently have median or roadway design guidelines, so CSJ standards should be consulted. City to provide CA with standard construction details.	IH, 11/21/07
• Street improvement plans and other base information were provided to CA on November 13, 2007. CA to make copies of information and return originals to the City.	CA, 12/3/07
• The aerial plan is composed of tiff images. City to	

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item	*person and date to follow-up*
forward images to CA for CA to compile into CAD base plan.	IH, 11/21/07
Initial Design Thoughts	
• Project goals include improving pedestrian and vehicular safety, providing for traffic calming and improving aesthetics along Prospect Road.	IH, 11/16/07
• Traffic calming may be addressed by decreasing lane widths and maximizing median widths. CA to maintain an 11 foot minimum drive lane, 6 foot bike lane, and a roadway edge that allows for future improvements, including a 4 foot sidewalk. Lane width must meet CSJ minimum standards.	
• Pedestrian safety refuges to be located at school crosswalks and other areas with high pedestrian volumes. City to provide CA with North Campus plans and latest collision studies report (provided at meeting). City to also provide CA with Titus Avenue Plans (provided at meeting).	
• Traffic calming measures such as speed bumps are undesirable. Main goal is to improve safety. A lack of vehicular refuges at Kristy Lane and Titus Avenue, as well as left hand suicide turning lanes along Prospect Road, is a concern.	
• Irrigation for new medians to be tied into existing system.	
• Aesthetically, City would like to see lush plantings with color accents, to be consistent with the character of existing City medians. The City of San Jose has far greater quantities of road surfaces and median islands to maintain when compared to smaller cities. Although lush landscape is highly desirable and provides a stronger visual impact to	

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APPENDIX-MEETING SUMMARY

item	*person and date to follow-up*
the community, the Maintenance Division of the CSJ's Department of Transportation does not have the staff or the funding to maintain such landscapes. Therefore, a Type I landscape was developed that consisted of trees and pervious ground plane material in medians of sufficient width, and decorative paving materials in smaller width areas. Due to maintenance concerns, a mix of planting/pavement treatment may be appropriate.	
• City would like preliminary design work to be based on initial community input. Refinements to the design would then be made, based on feedback from the second community meeting.	

Scheduling

• CA to prepare master plan and associated enlargements for next community meeting.	CA, 2/07
• Second community meeting to be held at the end of January or early February. IH to coordinate with Council member schedules and determine their availability for January and February.	IH, 2/07

-END-

The information above is Callander Associates' understanding of items discussed and decisions reached at the meeting. Callander Associates is proceeding with the project based on this understanding. If you have any questions, additions, or corrections to this memo, please contact this office in writing within three days.

Submitted by:

07066meetingsummary111307.doc
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Callander Associates
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Via E-mail Only

November 19, 2007

Meeting Summary
Community Meeting
RE: PROSPECT ROAD MEDIAN IMPROVEMENTS
November 13, 2007, 6:00 p.m.
4 pages

Attendees: *City of Saratoga:*
John M. Cherbone (JC), jcherbone@saratoga.ca.us
Iveta Harvancik (IH), iharvancik@saratoga.ca.us
Ann Waltonsmith (AW), Vice Mayor
Kristen Borel (KB), kborel@saratoga.ca.us

Members of the public:
Refer to sign in sheets, attached

Consultants:
Marie Mai, Callander Associates (CA), mmai@callanderassociates.com
Julie Russotti, Callander Associates (CA), jrussotti@callanderassociates.com

The purpose of this meeting was to receive community input on project components. John Cherbone opened the meeting by welcoming the community, describing the positive impacts of this project to the surrounding neighborhood and reviewing the project background. The rest of the project team then introduced themselves. Next, Marie Mai presented images of other existing medians as an idea stimulus and reference point from which the community could provide their likes and dislikes. The meeting was then opened up for comments and questions from the public.

The following information was discussed and/or decided upon at our meeting:

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T 408 275 0565
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Marie Mai, Associate

San Mateo
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Landscape Architecture — Peter E. Callander, ASLA, Principal
Urban Design — A. Mark Slichter, ASLA, Principal
Land Planning — Brian G. Fletcher, ASLA, Principal
Park and Recreation Planning — Erik Smith, ASLA, Principal
Environmental Planning — Benjamin W. Woodside, ASLA, Principal

Public Comment / Concern

Plant and Paving Materials

- Some members of the community expressed a desire for evergreens, noting that evergreens were low maintenance since they did not have seasonal leaf drop.
- Some raised concerns about the lack of visibility with evergreens such as sequoias, which typically branch to the ground and which could obscure pedestrians from vehicles. Pruning up canopies was discussed as a possible solution.
- Some members liked the new gateways at Saratoga Sunnyvale Road and in Cupertino, because of plant material and design features such as the trellises.
- Some community members were concerned that the use of large trees such as sequoias would obscure views of the hills for residents in the neighborhood.
- Some members liked deciduous trees for their flowers, color, seasonal change, and variety, but noted the maintenance downsides of leaf litter.
- Palm trees are not something that neighbors would like to see in the proposed medians.
- Some members noted that environmental considerations should be addressed, including run off and reducing the carbon footprint. Use of low maintenance and drought tolerant plants were noted as a positive action.
- Proposed design strategies should be consistent with existing plant materials and character of the neighborhoods. Design should provide continuity between communities.
- Some felt that brick work and over use of paving stones may feel too commercial for the neighborhood and seems too expensive. Many community members voiced the desire for a simple naturalistic approach to design.
- Ideas of differentiating medians were discussed to keep line of sight "moving" and aesthetically pleasing. Trees along the Highway 85 overpass were also proposed. Structural engineer will have to assess overpass opportunities.

Traffic Patterns and Safety concerns

- Intersection safety for children crossing at Miller Avenue. and other locations was a concern due to the high traffic volumes along Prospect Road. Some residents would like to see a crosswalk at Miller Avenue and Blaney Avenue. A push button or other user activated signal is desired at Titus Avenue near Christy McAuliffe Elementary School.

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Meeting Summary
Community Meeting
RE: PROSPECT ROAD MEDIAN IMPROVEMENTS
November 14, 2007, 6:00 p.m.
Page 3

Public Comment / Concern

- Some members would like existing right of way and bike lane widths to be preserved.
- Some members were supportive of narrowing drive lane widths as a traffic calming measure to encourage lower traveling speeds. An additional benefit would be the resulting increase in median widths.
- Some residents are concerned with the intersection of Scully Avenue and Prospect Road and other areas with suicide lanes. Left turns from Prospect Road onto Brookglen Drive are another point of concern for neighbors.
- Some community members were concerned that raised medians would block or otherwise change existing traffic patterns, specifically at the intersection of Clarkspur Lane. There is an overall desire to improve traffic patterns and access patterns. Some members were concerned that changing points of ingress and egress would increase traffic volumes. Other residents were supportive of new median openings to allow for a shorter path of travel.
- The intersections of Ardenwood Drive, Kristy Lane, and Saraglen Avenue at Prospect Road have high volumes of traffic and should provide a refuge for vehicles as well as pedestrians.
- Some community members also expressed the need for easier access to the parking lot located between Scully Avenue and Miller Avenue.

Design Implementation

- The majority of neighbors supported phased implementation to accommodate budgetary constraints while still "getting the ball rolling".
- City will hold funds for the project until it comes to fruition. Neighbors discussed the possibility of collecting donations from willing neighbors to help fund project. Including the use of local scout troops to lead efforts.

Schedule

Next steps:

- Plans are to reflect the received community input.
- Conceptual images and master plans will be brought back to the community for review at second community meeting.
- Look at sources for funding.

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Meeting Summary
Community Meeting
RE: PROSPECT ROAD MEDIAN IMPROVEMENTS
November 14, 2007, 6:00 p.m.
Page 4

Public Comment / Concern

Written comments

- Written comments received from community agenda sheets reiterate documented comments above.

-END-

The information above is Callander Associates' understanding of items discussed and decisions reached at the meeting. Callander Associates is proceeding with the project based on this understanding. If you have any questions, additions, or corrections to this memo, please contact this office in writing within three days.
Submitted by:

Julie Russotti

cc: All attendees file

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Callander Associates
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March 31, 2008

Meeting Summary
Prospect Road Median Improvement Plans
RE: Community Meeting # 2
March 27, 2008, 6:00 pm
6 pages

Attendees:

City of Saratoga:
John M. Cherbone (JC), Public Works Director, jcherbone@saratoga.ca.us
Iveta Harvancik (IH), Associate Engineer, iharvancik@saratoga.ca.us
Ann Waltonsmith (AW), Vice Mayor, awaltonsmith@saratoga.ca.us
Kristen Borel (KB) Public Works Analyst, kborel@saratoga.ca.us
Jill Hunter (JH), Council Member, jhunter@saratoga.ca.us

City of San Jose:
Mary Anne Groen (MG), Council Assistant, Maryanne.Groen@sanjoseca.gov

Members of the public:
Refer to sign in sheets

Consultants:
Marie Mai, Callander Associates (CA), mmai@callanderassociates.com
Julie Russotti, Callander Associates (CA), jrussotti@callanderassociates.com

The purpose of this meeting was to solicit community input on the draft Master Plan. Ann Waltonsmith opened the meeting by welcoming the community, and summarizing the project process to date. John Cherbone then answered general questions about funding and implementation. Next, Marie Mai presented the proposed median design and possible phasing approach. The meeting was then opened up for comments and questions from the public.

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Landscape Architecture
Urban Design
Land Planning
Park and Recreation Planning
Environmental Planning

Peter E. Callander, ASLA, Principal
A. Mark Slichter, ASLA, Principal
Brian G. Fletcher, ASLA, Principal
Erik Smith, ASLA, Principal
Benjamin W. Woodside, ASLA, Principal

The following information was discussed and/or decided upon at our meeting:

item	*person and date to follow up*
Plant Materials and Maintenance	
• Most community members expressed their approval of the proposed plant materials.	
• Some residents inquired as to proposed plant heights. It was clarified that low-growing groundcovers, maximum 3' high shrubs and trimmed up tree canopies were proposed to meet landscape design standards.	
• A low maintenance design was supported by community members and will likely be addressed by the installation of a maintenance strip on the City of San Jose (CSJ) side of the medians in order to meet CSJ requirements.	CA by 4/18/08
Traffic Patterns and Safety Concerns	
• Concern was expressed about intersection safety at Titus Avenue because of high traffic volumes and lack of an apparent traffic control near Christie McAuliffe Elementary School. Flashing pedestrian crosswalks, stop signs, and stoplights were proposed by residents to help calm traffic. The flashing lights on Miller Avenue were cited as a successful example.	City Traffic Engineer (TE) by 4/18/08
• Melinda Circle is another street near the school that has similar safety and traffic issues. It was suggested that coordination with the school system could help resolve some of the issues, but is outside of scope of this median master plan.	TE to evaluate by 4/18/08
• The proposed median master plan will improve Titus Avenue by adding a median. Additional proposed improvements include prohibiting eastbound u-turns and adding a bulb-out in order to address school safety issues. The city also noted that school safety is an important concern that will continually be monitored.	CITY

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item	*person and date to follow up*
• Members of the community expressed an interest in reducing speed limits through lane width reductions and lowering currently posted speed limits from 40 mph to 35 mph.	
• The City explained that speed limits cannot be arbitrarily changed and are determined by the speed traveled by the 85th percentile of vehicles. A survey may be performed after the construction of the medians to re-evaluate speed limits.	CITY
• The city is currently working on reducing school speed zones to 15 mph.	CITY
• The proposed median design will be evaluated to determine whether the medians can be widened by reducing the lane widths. Lane width adjustments must be coordinated with and evaluated by city traffic engineers, prior to incorporation into the master plan.	TE by 4/9/08
• Community members suggested that a stop light at North Campus be provided to calm traffic.	TE by 4/9/08
• Ingress and egress patterns were a concern at the intersections of Scully Avenue, Larkin Avenue, Covina Court, Adrenwood Drive and Clarkspur Lane.	
• At Scully Avenue community members would like to see flashing lights to help children in the area and local religious service attendees cross.	TE by 4/9/08
• Proposed left turn from Scully Avenue onto westbound Prospect Road appears to be difficult and abrupt if driving during periods of high traffic volumes. Setting back the median nosing from the intersection was suggested.	TE by 4/9/08

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item	*person and date to follow up*
• At Larkin Avenue, community members felt the west bound right turn onto Prospect Road, leading to the adjacent u-turn, may not provide enough distance to merge safely during rush hour. They requested that the pocket length and design be re-examined.	TE by 4/9/08
• Some residents requested a refuge lane at Covina Court due to limited sight lines and high traffic volumes at this intersection. The current design shows this but will be revised to reflect a short eastbound merge lane.	TE by 4/9/08
• Some community members felt the proposed medians near Clarkspur Lane and Larkin Avenue would block current traffic patterns and would increase traffic volumes by redirecting traffic to these intersections and the adjacent church driveway. A break in the median was suggested in order to improve traffic circulation.	TE by 4/9/08
• It was unclear whether existing striping between Clarkspur Lane and Danromas Way currently allow legal left turns onto and off of Prospect Road.	TE by 4/9/08
• A community member was concerned with people observing the neighborhood from the church parking lot. Traffic engineer will review patterns near the church and Clarkspur Lane to resolve.	TE by 4/9/08
• Lack of sidewalk maintenance was brought up by some neighbors. Sidewalks are not in the scope of project but will be addressed at a later date.	CITY
Design Considerations	
• Some community members expressed a desire for medians to match the ones on Saratoga/Los Gatos Road, given the close proximity.	CA by 4/18/08

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item *person and date to follow up*

Schedule

- Community members supported the proposed phasing approach and the steps required to complete the process.
    - The Project will require use of city funds. The city will likely seek funding through grants and use of the local gas tax.
    - Possible sources of additional funding could be provided by a local home owner association such as Rainbow West Association.
    - Some neighbors expressed an interest in volunteering to help implement the project.
    - Implementation will require an "all or nothing" effort because both Saratoga and San Jose must split the costs evenly.
- The City Council will review the design on the 21st of May. The design will then be forwarded to City of San Jose for their approval.
    - Once reviewed and approved by the City of San Jose, grant funding will be sought for the project.
    - A Walk and Talk with CSJ council member, Pete Constant will be held on April 4th at Westfield Valley Fair. Information shall be provided to community members by CSJ.

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The information above is Callander Associates' understanding of items discussed and decisions reached at the meeting. Callander Associates is proceeding with the project based on this understanding. If you have any questions, additions, or corrections to this memo, please contact this office in writing within three days.

Submitted by:

Julie Russotti

cc: All attendees

-END-

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MEMORANDUM

Date: February 8, 2008

To: Iveta Harvancik/John Cherbone, City of Saratoga

From: Franziska Holtzman/Sohrab Rashid

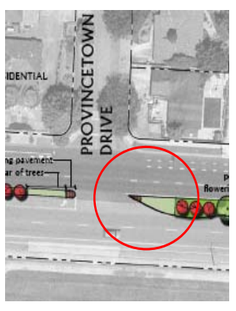
Subject: ***Plan Review of Proposed Prospect Road Median Improvements***

1025-446-1

Fehr & Peers has completed a review of the *Prospect Road Median Improvements Master Plans* (Prospect Road Median Plans) dated January 11, 2008. These plans include the construction and improvement of raised landscaped medians along Prospect Road between Saratoga-Sunnyvale Road and Lawrence Expressway. Currently, raised and/or planted medians exist between Titus Avenue and English Drive, and to the west of South Blaney Avenue. The installation of a center median between South Blaney Avenue and Titus Avenue and east of English Drive would provide continuous raised medians on Prospect Road. This memorandum presents a general review of the proposed plans. Additionally, this memorandum addresses transportation-related comments provided by citizens during a public meeting and other transportation improvement plans that have previously been prepared for the City of Saratoga and that are relevant to the Prospect Road Median project.

PLAN REVIEW

Specific recommendations to the proposed Prospect Road Median Plans are addressed in this section of the memorandum. Below are specific recommendations to improve operations and access as compared to existing conditions.



Where median openings are provided at T-intersections and no left-turn pockets for U-turns are provided, the medians should be tapered at a gradual angel to provide a refuge area for vehicles making a left-turn from the side-street onto Prospect Road. A good example of a gradual taper is included at the Prospect Road/Provincetown Drive intersections and is depicted in Figure 1.

The following two intersections should be modified to include a more gradual taper and refuge area as depicted in Figure 1:

- Prospect Road/Brookvale Drive
- Prospect Road/Covina Court

Figure 1: Tapered Refuge Area

The northern leg and southern legs of Brookglen Drive are off-set from one another at the intersection with Prospect Road, and the plan proposes to provide a small median to physically separate vehicles making northbound and southbound left-turns from Brookglen Drive onto Prospect Road. To clearly differentiate right-of-way and provide direction, custom signage should be provided at the median. The custom signage should clearly indicate to drivers how to maneuver their vehicles around the median at the Brookglen Drive intersection.

Overall, existing access would be maintained at all intersections in the corridor with the proposed plan. The only location without a new median will be the segment between Scully and Larkin Avenues. The distance between these two intersections is too short to provide a median and still maintain reasonable turn pocket lengths.

Where planted medians are proposed, the plan generally provides a minimum 30-foot setback without plantings at openings in the median to increase visibility. Planting heights are graduated in height from lower shrubberies to full grown trees. Where crosswalks are provided across Prospect Road, the Median Plan includes refuge areas for pedestrians. Overall, the proposed Prospect Road Median Plan maintains the outline of the existing raised and painted medians in the study corridor.

The following section addresses comments received from the public and incorporates additional recommendations for the Prospect Road Median Plan.

RESPONSE TO PUBLIC COMMENTS ON PROPOSED PLAN

This section of the memorandum presents responses to comments received from the public during a community meeting conducted November 14, 2007. The comments have been grouped by topic to provide consolidated responses to the issues raised.

Vehicle Lane and Bicycle Lane Width

Comments Received:

- Preserve existing right-of-way and bike lane widths.
- Narrow drive lane width as a traffic calming measure to encourage lower traveling speeds and potentially increase median widths.

Response:

The study segment of Prospect Road currently has raised or painted medians and the proposed Prospect Road Median Improvement Plan will not substantially modify the existing right of way and existing bike lane widths, if at all. As proposed travel lane widths will range between 11 and 13 feet for the inner travel lanes, 13 to 15 feet for the outer travel lanes, and bike lanes will range between six and nine feet. Based on the posted speed limit of 40 miles per hour (mph), average daily traffic volumes (18,000 to 20,000 vehicles) the proposed lane widths are acceptable and do not represent a significant change in the existing right of way. Though narrowing the travel lanes could be implemented as a traffic calming measure, the lanes widths should be a minimum of 11 feet for the median travel lanes and 13 feet for the outside lanes.

Refuge Areas for Vehicles and Pedestrians

Comments Received:

- Provide refuge areas for vehicles and pedestrians at the intersections of Ardenwood Drive, Saraglen Avenue, and Kristy Lane.

Response:

As under existing conditions and proposed in the Median Plans, exclusive left-turn pockets are provided from Prospect Road onto Ardenwood Drive and Saraglen Avenue. A refuge area for vehicles turning left from these side streets onto Prospect Road cannot be provided in conjunction with the left-turn pockets on Prospect Road. We recommend that the left-turn pockets on Prospect Road be maintained in lieu of the refuge areas. The posted speed limit is 40 mph, and left-turn lanes should be provided to provide a storage area for queued vehicles and some length to decelerate prior to turning. To reduce delay, vehicles attempting to turn left from Ardenwood Drive or Saraglen Avenue could alternately make a right-turn and then a U-turn at Pulmas Drive and Clarkspur Lane, respectively. A crosswalk and small pedestrian refuge area are proposed at the signalized intersection of Prospect Road/Plumas Drive-Blaney Avenue, which is approximately 300-feet to the west of the Ardenwood Drive-Saraglen Avenue intersection. We do not recommend the provision of an additional crosswalk at the Ardenwood-Saraglen intersection.

Currently there is a painted median at Kristy Lane that prohibits left-turn access to and from Kristy Lane off of Prospect Road. The Prospect Road Median plan proposes to maintain that access restriction. Alternatively, the median could be modified to either provide a left-turn lane from Prospect Road to Kristy Lane or provide full left-turn access to and from Kristy Lane. If left-turn access at Kristy Lane is provided, we do not recommend the installation of a crosswalk across Prospect Road at this location.

Access to Prospect Road and North Campus

Comments Received:

- Support for new median openings to allow for a shorter path of travel
- Changing points of ingress and egress would increase traffic volumes
- Raised medians would block or otherwise change existing traffic patterns, specifically at the intersection of Clarkspur Lane.
- Consider re-striping Prospect Road immediately in front of North Campus. Currently, to make a left turn into the site from the northbound lane, you need to cross a double yellow line. Could a left turn lane be painted there?
- Improve traffic patterns and access patterns.

Response:

Overall, the proposed Prospect Road Median plan maintains the current access points as under existing conditions. The section of Prospect Road between South Blaney Avenue and Titus Avenue has either painted medians or two-way left-turn lane access. At those locations with painted medians that currently prohibit but do not physically block vehicles from making movements to and from Prospect Road, the installation of raised medians would only minimally change travel patterns as they do not modify the existing right-of-way. The proposed median project would eliminate access at those portions of Prospect Road where dual-left-turn lanes currently exist. Prospect Road between Saraglen Avenue and Clarkspur Lane is the only section where the median project will limit access as compared to existing conditions. This modification would impact the existing access to the North Campus. As proposed, vehicles traveling

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westbound on Prospect Road would need to make a U-turn at Ardenwood Drive to access North Campus. An alternative is to align the North Campus driveway with Clakspur Lane and to provide a left-turn lane from westbound Prospect Road that that intersection.

The purpose of the median project is to physically separate the two directions of travel on Prospect Road. Increasing the number of median openings would simply provide additional vehicle conflict points and is not needed from a traffic volume or congestion perspective. Therefore any additional openings should only be added after careful consideration and study. As proposed, the longest segment of median without any opening is between Miller Avenue and Provincetown Drive and is approximately 0.25 miles long. On average, median openings are approximately 600 feet (0.11 miles) apart. Thus, only a limited number of vehicles are forced to drive less than ½-mile to access their desired direction of travel or side-street from Prospect Road.

Access to Church Parking Lot between Scully and Miller

Comments Received:

- Need for easier access to the parking lot located between Scully Avenue and Miller Avenue.

Response:

The existing access to the parking lot would not be modified under the proposed plan. Currently, access to the parking lot is restricted by a painted median, which will be replaced with a raised median under the proposed project. Two options are available that could improve access to the parking lot. One is to provide an opening at the median for either left-turn in or full access at middle driveway of the parking lot. Another option is to relocate the westernmost driveway opposite Larkin Avenue and provide a westbound left-turn lane into the project site.

Prospect Road and Scully Avenue Access

Comments Received:

- Turning left off Scully on to Prospect it is very hard to judge the traffic moving west on Prospect.
- There is a left hand turn lane on Prospect heading east at the intersection of Scully that goes nowhere.
- When turning left onto Prospect from Scully you have to cross over this left hand turn lane and the double lines. It should not be a left turn lane but an area to turn into when making a left on Scully onto Prospect.
- The turn lane that is west bound on Prospect turning onto Scully is also used by the east bound turning left across Prospect. I have experienced several instances when this turn lane area is used by both directions at the same time.

Response:

The existing access points at Scully Avenue would not be modified under the proposed plan. Providing a median to separate the movements at the two-way left-turn lane between Scully Avenue and Larking Avenue is not feasible as the section is not long enough to provide sufficient taper to allow vehicles to slow down and merge into their respective turn lanes. As with any two-way left-turn lane condition, drivers need to be cautious and share the lane. In regards to the eastbound left-turn lane at Scully, this pocket is provided so that vehicles can make a U-turn to access the homes and residential on the north side of Prospect Road between Scully Avenue and Clarkspur Lane. An option to improve the Scully Avenue intersection is to extend the proposed median from west of Scully to the east to Larkin Avenue. This option would eliminate any left-turn access to and from Scully Avenue; and therefore would force vehicles to make U-turns at either Larkin Avenue or Ardenwood Drive. While extending the median would eliminate conflict points, this option would also require vehicles destined for Saratoga-Sunnyvale Road to the east to travel an additional 0.25 miles to Saraglen Avenue..

An alternative is to extend the median east of Larkin Avenue to Scully Avenue, thus eliminating left-turn access to and from Larkin Avenue. Vehicles would be forced to make a U-turn at Miller Avenue or Scully Avenue when traveling in the eastbound or westbound directions, respectively. These two intersections are approximately 0.15 miles from the Prospect Road/Larkin Avenue intersection. This design would lengthen the distance between the eastbound left-turn lane and the Ascension Church driveway which would result in a more reasonable movement for eastbound U-turns.

Prospect Road and Brookglen Drive

Comments Received:

- Left-turns from Prospect Road onto Brookglen Drive.

Response:

As discussed in the Plan Review section above, we recommend that custom signage be installed at the small median island between the northbound leg and southbound leg of Brookglen Drive to clearly delineate the right-of-way and the appropriate path of travel for vehicles.

Pedestrian Crossings

Comments Received:

- Concern with intersection safety for children crossing Miller Avenue and other locations.
- Request for crosswalks at Miller Avenue and Blaney Avenue
- Request for push button or other user activated signal at Titus Avenue near Christy McAuliffe Elementary School.

Response:

As proposed, the project would enhance pedestrian safety at the signalized intersection at Miller Avenue, since the median project would provide a refuge are for pedestrians crossing Prospect Road at the existing crosswalk on the western leg of the intersections. The provision of an additional crosswalk on the eastern leg of the intersection is not recommended. The same is true for the signalized intersection at Blaney Avenue. A crosswalk is provided at the western leg of the intersection and the median project would provide an additional refuge area for pedestrians.

The City of Saratoga is currently working with City of San Jose staff to provide pedestrian enhancements for crossing Prospect Road at Titus Avenue. The section below addresses this concern and proposed enhancements in more detail.

OTHER TRANSPORTATION IMPROVEMENT PLANS

Fehr & Peers previously prepared transportation improvements plans for the City of Saratoga that are relevant to the proposed project and should be incorporated into the proposed plan. The plans to improve the pedestrian crossing of Prospect Road at Titus Avenue include a refuge area and additional signage to increase driver awareness. The plans are attached as Appendix A and include three levels of improvements ranging from the most extensive (ultimate plan), to a moderate or alternate plan, as well as minor changes in an interim plan. We recommend that the ultimate plan be incorporated to the Prospect Road Median project. The ultimate plan includes the provision of a shorter crossing distance across Prospect Road by providing bulbouts at the intersection plus a center median that serves as pedestrian refuge area.

CONCLUSIONS

Installation of raised medians between Titus Avenue and S. Blaney Avenue and east of English Drive would occur without resulting in any substantial changes to existing access to properties fronting on Prospect Road and intersecting streets. Further, the enhancement of the existing raised medians will reduce potential vehicle conflict points and improve operations on Prospect Road. The fundamental operating characteristics and access configuration of the street would not fundamentally change with implementation of the Prospect Road Median Plans. The medians and associated landscaping would help to reduce travel speeds and possibly result in a reduction in the number of collisions along the study segment.

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FEHR & PEERS
TRANSPORTATION CONSULTANTS

MEMORANDUM

Date: April 9, 2008

To: Iveta Harvancik/John Cherbone, City of Saratoga

From: Franziska Holtzman/Sohrab Rashid

Subject: ***Response to Comments for the Proposed Prospect Road Median Improvements***

1025-446-1

Fehr & Peers has completed a review of the *Prospect Road Median Improvements Master Plans* (Prospect Road Median Plans) dated January 11, 2008. Additionally, we prepared a memorandum dated February 7, 2008, that addressed transportation-related comments provided by citizens during the November 14, 2007, public meeting and other transportation improvement plans that have previously been prepared for the City of Saratoga and that are relevant to the Prospect Road Median project. This memorandum addresses comments received from the public during a community meeting conducted March 27, 2008.

DESCRIPTION OF PROPOSED PROJECT

The Prospect Median Plans include the construction and improvement of raised landscaped medians along Prospect Road between Saratoga-Sunnyvale Road and Lawrence Expressway. Prospect Road shares jurisdiction with the City of Saratoga in the south and City of San Jose in the north. Currently, raised and/or planted medians exist between Titus Avenue and English Drive, and to the west of South Blaney Avenue. The installation of a center median between South Blaney Avenue and Titus Avenue and east of English Drive would provide continuous raised medians on Prospect Road.

RESPONSE TO PUBLIC COMMENTS ON PROPOSED PLAN

The comments have been answered in the order presented in the meeting minutes prepared by Callander Associates.

Comment Received:

Concern about intersection safety at Titus Avenue because high traffic volumes and lack of an apparent traffic control near Christa McAuliffe Elementary School. Flashing pedestrian crosswalks, stop signs, and stoplights were proposed by residents to help calm traffic

Response:

The City of Saratoga is currently working with City of San Jose staff to provide pedestrian enhancements for crossing Prospect Road at Titus Avenue. These enhancements are not part of the Prospect medians project.

Comment Received:

Reduce speed limit from 40 mile per hour (mph) to 35 mph with reduce lane widths and increased median widths.

160 West Santa Clara Street, Suite 675, San Jose CA 95113 (408) 278-1700 Fax (408) 278-1717
www.fehrandpeers.com

Response:

Speed limits are set based on the prevailing speed of traffic, the design of the roadway, and its operational characteristics including the presence of front-on housing and pedestrian and bicycle facilities. Regarding speed, the 85th percentile speed is the speed at which 85 percent of vehicles are traveling at or below, and this is used as a guideline in setting regulatory speed limits on roadway. Use of this speed to generally set the speed limit assumes that the majority of traffic will travel at a speed that is comfortable from a driving perspective and excessively low limits will not be adhered to. Recent speed surveys on Prospect Road indicate that the 85th percentile speeds range between 43 mph and nearly 47 mph and that Prospect Road serves approximately 20,000 daily vehicles, which can easily be accommodated by a four-lane roadway with turn lanes. Based on the speed data collected, the speed limit on Prospect Road could not be reduced to 35 mph even with consideration for the presence of front-on-housing and pedestrian and bicycle activity. The width of Prospect Road ranges up to 100 feet and could accommodate pavement striping changes to narrow the travel lanes and potentially reduce travel speeds while maintaining two travel lanes, a parking lane, and a bicycle lane in each direction. Several different striping options are available, one of which is presented below and assumes a 100-foot roadway width:

- 8-feet parking lanes in each direction
- 6-feet bicycle lanes in each direction
- Two 12-feet travel lanes in each direction
- One 11-foot left-turn lane
- 13-foot median

This example layout for Prospect Road is at an intersection or where a U-turn is provided and would result in a much wider median (i.e., 24 feet at midblock locations). This section could be modified to accommodate a 90-foot roadway width as needed.

Comment Received:

Install stop light at North Campus to calm traffic.

Response:

Traffic signals do not calm traffic, but rather they provide gaps in traffic for opposing or conflicting vehicle movements, designate right-of-way, and provide for controlled pedestrian crossings. Signals are typically installed based on standard warrant criteria using various data including traffic volumes, collision histories, vehicle delay, etc. The use of warrants helps to ensure the proper application of traffic signals and a consistent method prioritizing their installation. A Caltrans peak-hour volume and delay warrant evaluation was conducted for this intersection. Based on this analysis the North Campus/Clarkspur intersection with Prospect Road does not meet the minimum signal warrant threshold.

Comment Received:

Request for flashing lights across Prospect Road at Scully Avenue to help children in the area and local religious service attendees.

Response:

The *California Manual on Uniform Traffic Control Devices (MUTCD)* sets guidelines for the installation of in-pavement lighting. Part of these guidelines requires that 40 pedestrians cross the roadway for each of any two hours (not necessarily consecutive) during a 24-hour period. No data has been collected at this location, though it is unlikely that this criterion would be met. With the installation of raised medians that will provide improved pedestrian refuge areas, the City could consider installing a high visibility crosswalk at Scully Avenue in lieu of in-pavement lighting.

Comment Received:

Turning left off Scully on to Prospect Road appears to be difficult and abrupt in driving during periods of high traffic volumes. Setting back in the median nosing from the intersection was suggested.

Response:

Setting back the nosing of the intersection would help facilitate the left-turn movement from Scully Avenue onto westbound Prospect Road, but would only provide a very limited area for merging. Provision of a defined refuge area for vehicles would eliminate any substantive refuge area for pedestrians at the median nose. We recommend that the median nose be set back as part of the final design as feasbile.

Comment Received:

Making a right-turn from Larkin Avenue onto Prospect Road to the adjacent U-turn at Scully Avenue may not provide enough distance to merge safely during rush hour. Request that the pocket length and design be re-examined.

Response:

The proposed pocket will essentially occupy the 125-foot length of the existing dual left-turn lane between Scully Avenue and Larkin Avenue; therefore, it is not possible to increase this distance and still provide a left-turn movement to Scully Avenue. We agree that the distance is too short to cross to the left-turn pocket and recommend channelizing southbound right-turns from Larkin Avenue with a raised median (i.e., pork chop island). This would force vehicles to make a U-turn at the next median opening at Clarkspur Lane, and would give vehicles sufficient travel distance to safely cross the two travel lanes on Prospect Road.

Comment Received:

Request for westbound refuge area for vehicles turning left from Covina Court.

Response:

There is sufficient median width and length to accommodate the request for a westbound refuge area. This request could be accommodated into the final site plans with a 30-foot refuge area and a 60-foot taper.

Comment Received:

Request for a break in the median at the church between Larkin Avenue and Miller Avenue due to potential increases in traffic at the Clarkspur Lane and Larking Avenue intersections.

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Response:

With the proposed median modifications, traffic volumes may increase slightly for certain turning movements due to U-turns and prohibited movements at other locations. However, the change in traffic volumes are estimated to be nominal and substantial increases in delay are not anticipated. The existing access to the church parking lot would not be modified under the proposed plan. If a break in the median were provided to allow left-turns into the church lot, we recommend that the break be located opposite the main north-south aisle through the church property. This would require a new or relocated driveway onto the church property.

Comment Received:

It is unclear whether existing striping between Clarkspur Lane and Danromas Way currently allow left-turns onto and off of Prospect Road.

Response:

Currently, a painted median is provided between Clarkspur Lane and Danormas Way that legally prohibits left-turns to and from Prospect Road except at designated openings.

PROSPECT ROAD, CITY OF SARATOGA/SAN JOSE
LANDSCAPE ARCHITECT'S RESPONSE TO REVIEW COMMENTS
MASTER PLAN

REVIEWER: Tom McLauchlan, City of San Jose
DATE: 2/19/08 PAGE 1 of

RESPONDER: ~~Marie Mai, Callander Associates~~
DATE: ~~March 10, 2008~~

MASTER PLAN SUBMITTAL:

COMMENT NUMBER	DWG.NO./ SPEC.SECT./ PAGE NO.	COMMENT TYPE	COMMENT	RESPONSE	ACTION CODE
1	Sections P.7-10	M	Maximum height of shrubs shall be <3' for visibility of motorists, pedestrians	Plan complies. Largest shrubs will be dwarf flaxes and compact variety of rhaphiolepis.	
2	Sections P.7-10	M	Choose a shrub with a long life expectancy	Plan complies.	
3	Sections P.7-10		Limit flowering groundcover to areas that are over 7' in median width	Plan will be revised to comply by widening the medians an additional 1' to 2' (with resultant narrower traffic lanes) where necessary to achieve a minimum 7' wide median. This will maximize the limits of landscaping areas along Prospect Road, visually mitigate the wide expanse of pavement, keep the design consistent with comments from the public, and keep the design consistent with other existing City of Saratoga median landscaping. Revisions pending approval of additional services authorization (ASA).	
4	General	D	Recommend removing flowering groundcover in median widths 7' or under. Difficult to maintain, sustain, irrigate. Recommend single row of shrublets with bubblers or provide decorative paving. (typical)	Plan will be revised to comply, pending approval of additional services authorization (ASA).	
5	Sections P.7-10	M	Provide 1' wide concrete maintenance band adjacent to curb for all areas that have groundcover or shrubs	Plan will be revised to reflect 1' wide concrete maintenance band on north side (City of San Jose side) of median, pending approval of additional services authorization (ASA).	
6	Sections P.7-10	M	On inside edge of curb or maintenance band, install 24" deep root barrier, continuous	Plan will be revised to comply; root barrier will be added to section; cost is already reflected in	

COMMENT TYPE: E – Editorial
D – Discretionary
M– Mandatory

ACTION CODES: A – Originator agrees and will comply/take action
B – Originator disagrees for reasons noted; discussion may be required
C – Answer provided; no action needed

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PROSPECT ROAD, CITY OF SARATOGA/SAN JOSE
LANDSCAPE ARCHITECT'S RESPONSE TO REVIEW COMMENTS
MASTER PLAN

REVIEWER: Tom McLauchlan, City of San Jose
DATE: 2/19/08 PAGE 2 of

RESPONDER: ~~Marie Mai, Callander Associates~~
DATE: ~~March 10, 2008~~

MASTER PLAN SUBMITTAL:

COMMENT NUMBER	DWG.NO./ SPEC.SECT./ PAGE NO.	COMMENT TYPE	COMMENT	RESPONSE	ACTION CODE
				estimate; revisions pending approval of additional services authorization (ASA).	
7	Sections P.7-10	M	For median island accent and canopy trees, provide varieties that will provide sufficient clearance for trucks, buses, and large vehicles.	Plan complies. Large canopy trees are located in wide (15'+ wide medians); accent trees are located in wide (10+ wide medians).	
8	Sections P.7-10	M	Install curb with gutter in cross-slope areas where drainage of street is directed inward or across median.	Plan will be revised to comply, pending approval of additional services authorization (ASA). Note will be added to section to indicate need for curb and gutter (in lieu of only curb) as appropriate; cost will include an allowance for curb and gutter; specific locations to be determined during future design phases when topographic survey is available.	
9a	Sheets 4-5	D	In narrow areas where there is entirely paving, choose an interesting decorative paving style – Prospect High school colors?, mascot?, logo, etc	Per City of Saratoga, paving style to be chosen during future design phases.	
9b	Sheets 4-5	M	Explain whether there is sufficient width to install a raised curb on Prospect Rd. just west of English Drive.	Plan will be revised to show wider (3' wide) median (and resultant narrower traffic lanes) pending approval of additional services authorization (ASA).	
9c	Sheets 4-5	D	For Master Plan purposes, provide landscape improvements for median island between Prospect Road and Maurice Lane, between Lyle Drive and English Drive.	Plan will be revised to comply, pending approval of additional services authorization (ASA).	
10	Sheets 6,7	M	Identify type of existing trees to remain and	Existing trees to remain are Quercus agrifolia	

COMMENT TYPE: E – Editorial
D – Discretionary
M– Mandatory

ACTION CODES: A – Originator agrees and will comply/take action
B – Originator disagrees for reasons noted; discussion may be required
C – Answer provided; no action needed

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PROSPECT ROAD, CITY OF SARATOGA/SAN JOSE
LANDSCAPE ARCHITECT'S RESPONSE TO REVIEW COMMENTS
MASTER PLAN

REVIEWER: Tom McLauchlan, City of San Jose
DATE: 2/19/08 PAGE 3 of

RESPONDER: ~~Marie Mai, Callander Associates~~
DATE: ~~March 10, 2008~~

MASTER PLAN SUBMITTAL:

COMMENT NUMBER	DWG.NO./ SPEC.SECT./ PAGE NO.	COMMENT TYPE	COMMENT	RESPONSE	ACTION CODE
			caliper. Also provide quantity of trees to be removed and reason for removal. Mitigate.	(coast live oak) with estimated calipers of 2" to 8". Seven existing trees are proposed to be removed to keep design treatment of existing median landscaping consistent with proposed landscaping. This requires the existing trees to be removed to allow for installation of accent trees at ends of median. Mitigation of trees to be removed will be provided at a greater than the 4:1 maximum replacement ratio due to significant number of new trees proposed for new medians.	
11	Johnson-Titus	M	Explain reason for removal of existing trees.	See response to comment No. 10.	
12	Titus at Prospect	M	Upgrade curb ramps to meet new standards for disability access	Per City of Saratoga, curb ramps will be upgraded when proposed improvements at Titus Avenue intersection are implemented. Plan will be revised to reflect proposed curb ramps, pending approval of additional services authorization (ASA).	
13	Titus at Prospect	M	Eastbound Prospect left turn pocket at Titus has been removed. Explain the change and whether this was coordinated with community, City of Saratoga or San Jose.	Subject to previous City of Saratoga traffic study. Recommended by the traffic engineer.	
14	General	D	Recommend removing flowering groundcover in median widths 7' or under. Difficult to maintain, sustain, irrigate. Recommend single row of shrublets with bubblers or provide decorative	See response to comment No. 4.	

COMMENT TYPE: E – Editorial
D – Discretionary
M– Mandatory

ACTION CODES: A – Originator agrees and will comply/take action
B – Originator disagrees for reasons noted; discussion may be required
C – Answer provided; no action needed

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PROSPECT ROAD, CITY OF SARATOGA/SAN JOSE
LANDSCAPE ARCHITECT'S RESPONSE TO REVIEW COMMENTS
MASTER PLAN

REVIEWER: Tom McLauchlan, City of San Jose
DATE: 2/19/08 PAGE 4 of

RESPONDER: ~~Marie Mai, Callander Associates~~
DATE: ~~March 10, 2008~~

MASTER PLAN SUBMITTAL:

COMMENT NUMBER	DWG.NO./ SPEC.SECT./ PAGE NO.	COMMENT TYPE	COMMENT	RESPONSE	ACTION CODE
			paving. (typical)		
15	DanromasWay at Prospect	M	Danromas Way has been blocked for crossing with installation of median island. Explain whether this change been coordinated with community and City of San Jose, City of Saratoga.	Recommended by the City of Saratoga traffic Engineer. Existing striping consists of double yellow lines and prohibits (legal) turns, so median would not block or change (legal) vehicular circulation.	
16	Calabazas Creek at Prospect	M	Accent trees are shown within zone occupied by Calabazas creek underneath Prospect Road. It is not likely that there is sufficient depth to plant anything in this location - pave with decorative paving.	Plan will be revised to comply, pending approval of additional services authorization (ASA).	
17	General	M	Decorative paving located at noses of median islands shall be installed on a p.c.c. subbase to avoid settling in the pedestrian refuge.	Decorative paving in median nosing to be installed on existing asphalt pavement in lieu of new p.c.c. subbase to minimize costs and construction impacts. No change to plans are required.	
18	Covina - Brookvale	D	Recommend all canopy trees in this island with sufficient width	Plan will be revised to comply, pending approval of additional services authorization (ASA).	
19	Brookvale-Atrium	M	+/- 150' of narrow area west of Brookvale is colored dark green. Explain whether this is in error. Install single row of small shrubs or provide decorative paving.	Plan will be revised to comply, pending approval of additional services authorization (ASA).	

COMMENT TYPE: E – Editorial
D – Discretionary
M– Mandatory

ACTION CODES: A – Originator agrees and will comply/take action
B – Originator disagrees for reasons noted; discussion may be required
C – Answer provided; no action needed

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