

Eastern Dublin

Transportation Impact Fee Update:

Final Report

Prepared for:
City of Dublin

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WC16-3332

FEHR  PEERS



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1. INTRODUCTION

On January 9, 1995, the Dublin City Council adopted (by Resolution #1-95) an Eastern Dublin Traffic Impact Fee program, intended to generate funds to allow the City of Dublin to implement a number of important transportation investments planned in the eastern Dublin area, which generally covers the area from Dougherty Road to the easterly city limits (see **Figure 1** for the boundaries of the Eastern Dublin Traffic Impact Fee program). The program has been updated several times, most recently by Council Resolution #40-10 on March 16, 2010. The funds generated have been used to construct several improvements to transportation infrastructure in the affected area.

The City now wishes to update the program to account for changes pursuant to the City's most recent General Plan, the Eastern Dublin Specific Plan, adoption of the 2014 Bicycle and Pedestrian Master Plan and Complete Streets Policy, and more current information about proposed developments in the eastern Dublin area. The City also determined the fee program should be renamed to better reflect the program's scope and intent; it will now be known as the Eastern Dublin Transportation Impact Fee (EDTIF). This report includes updating the list of capital improvement projects, the growth projections in the geographic area covered by the EDTIF, and the fee calculations. This report describes each of these steps and the approach to establishing the "nexus" or relationship between the impacts of new development in the EDTIF area and the fees that could justifiably be charged to construct transportation improvements to serve new development.

Impact fees are established under a state law known as AB 1600, the Mitigation Fee Act. Fees charged pursuant to this legislation are used to build capital facilities needed to serve the demands generated by new development. Fees are not used to correct existing deficiencies, but rather are intended to address future needs. There must be a demonstrated relationship, or "nexus," between the amount of the fee, the cost of the facilities, and the types of development on which the fee is imposed. This report presents the information needed to demonstrate those relationships and is commonly called a nexus study.

2. CAPITAL IMPROVEMENT PROJECTS

PROJECT IDENTIFICATION

City staff provided an updated list of capital improvement projects in the area covered by the EDTIF program. Most of these projects are continuations of capital improvements that have already been part of the EDTIF program; in some cases, the components of a project have been updated to reflect the most recent information about development patterns in the area as well as the policy direction set in the City's General Plan and other planning documents. Overall, the purpose of the projects remains the same as when the EDTIF was first adopted. These projects are intended to accommodate travelers more efficiently through adding travel lanes and turn lanes, as well as adding or upgrading sidewalks, and adding or modifying traffic signals. For reference, the projects that have historically been included in the current EDTIF program are shown in **Appendix A**, along with the current status of each project and whether it is being carried forward into the updated EDTIF. **Table 1** displays the updated EDTIF project list, and the project locations are shown in **Figure 1**.

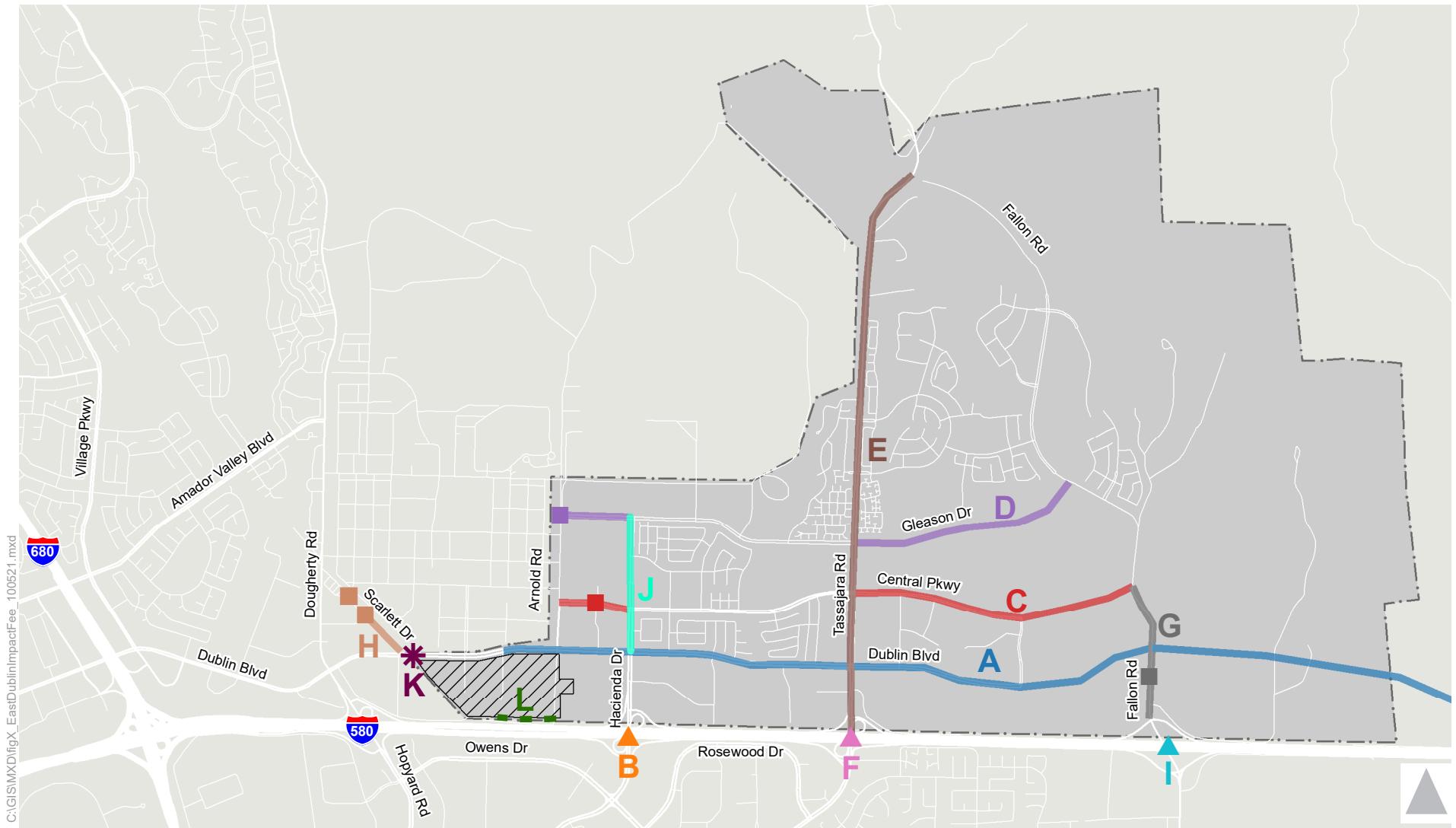
COST ESTIMATES

For the purposes of the EDTIF, it is necessary to have an estimate of the cost to implement each of the capital improvement projects on the EDTIF project list. Cost estimates were developed for the EDTIF projects by the City. For the three interchange projects, the cost estimates were taken from a prior EDTIF analysis in 2010 and were escalated to 2021 dollars using cost escalation factors approved by the City.

Consideration was given to whether right-of-way would need to be acquired as part of each project. Consistent with the practice typically used in the EDTIF, in cases where there is a fronting developer who would be required to dedicate right-of-way, no acquisition cost was included in the cost estimate. The estimated cost of each project is shown on Table 1.

More detailed information about the capital improvement projects is provided in **Appendix B**, including a conceptual layout of each project and documentation of the cost estimates described above. Please note that the conceptual layouts shown in the appendix are for illustrative purposes; details of each project may change as more refined design work is completed.





Project Improvements

- Roadway Improvements
- New Signal
- Interchange Improvements
- New Bike / Ped Bridge
- Class I Trail

Project Locations

- A** Dublin Blvd
- B** Hacienda Dr / I-580 Interchange
- C** Central Pkwy
- D** Gleason Dr
- E** Tassajara Rd
- F** Tassajara Rd / I-580 Interchange
- G** Fallon Rd
- H** Scarlett Dr
- I** Fallon Rd / 580 Interchange
- J** Hacienda Dr
- K** Iron Horse Trail Crossing

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L Altamirano Class I Trail

- Dublin Transit Center Area
- East Dublin TIF Area

Figure 1
East Dublin Transportation Impact Fee Project Locations

TABLE 1: UPDATED EDTIF PROJECTS AND ESTIMATED COST

Number	Project Location	Description	Estimated Cost
A	Dublin Boulevard	Roadway improvements, including frontage improvements, signal modifications, widening and roadway extension, from Sierra Court to Dougherty Road and from Iron Horse Parkway to Airway Boulevard (Segments: 6, 8A, 9, 10, 11)	\$112,433,000
B	Hacienda/I-580 Interchange	Reconstruct overcrossing with additional NB lane; widen EB off-ramp with third left-turn lane; modify WB loop on-ramp; and widen WB off-ramp with third left-turn lane	\$14,445,000
C	Central Parkway	Sidewalks, curb ramps, new signal (at Park Place), turn lanes, from Arnold Road to Hacienda Drive (Segments: 16A, 17, 18)	\$2,820,000
D	Gleason Drive	New signal and turn lanes at Gleason Drive and Arnold Road; new sidewalks and striping from Tassajara Road to Fallon Road (Segments: 19, 20)	\$1,234,000
E	Tassajara Road	Widening, turn lanes, sidewalks, curb ramps, new signals from I-580 to County line (Segments: 22, 22A, 23, 24)	\$32,399,000
F	Tassajara/I-580 Interchange	Widen eastbound off-ramp approach at Tassajara Road to provide fifth lane	\$4,308,000
G	Fallon Road	Widening, turn lanes, sidewalks, new signals between I-580 and Gleason Drive (Segments: 26A, 27)	\$8,166,000
H	Scarlett Drive	New 4 lane roadway with median from Houston Drive to Dublin Boulevard, and raised medians, curb ramps and new traffic signals from Dougherty Road to Houston Place (Segment: 21)	\$9,049,000
I	Fallon/I-580 Interchange	Reconstruct overcrossing with four lanes in each direction; reconstruct SB to EB loop on-ramp; widen EB off-ramp with two exit lanes with two left turn and two right turn lanes; widen EB on-ramp; widen WB off-ramp with two left turn and two right turn lanes; and widen WB on-ramp.	\$4,307,000
J	Hacienda Drive	New turn lanes, restriping between Dublin Boulevard and Gleason Drive (Segment: 14)	\$3,279,000
K	Iron Horse Trail Crossing	New bike/pedestrian bridge for Iron Horse Trail across Dublin Boulevard	\$11,600,000



L	Altamirano Avenue Class I Trail	New Class I trail along Altamirano Avenue, north of I-580 between Iron Horse Trail and Hacienda Drive	\$1,552,000
M	Ongoing Traffic Signal Upgrades	Signal timing modifications and signal systems upgrades associated with accommodating traffic from new development (\$100,000 per year for 5 years)	\$500,000
N	Future Nexus Report Update	Update EDTIF nexus study to reflect updated growth projections, project definitions, and costs	\$150,000
O	Update Eastern Dublin Travel Demand Model	Update City of Dublin travel demand model for changing growth projections and to keep it up-to-date for applications in future East Dublin planning studies	\$300,000
		Total Estimated Cost	\$206,542,000

Notes: See Appendix B for further description of the segments shown for most projects.

3. GROWTH PROJECTIONS

LAND USE GROWTH

An important step in quantifying the nexus relationship is to determine the amount of new development anticipated in the planning horizon of the study, which is the year 2040. The City has recently completed an update of the City's travel demand model, including updates of the current and future land use throughout the City. The base year of the model is now 2020 and the horizon year is 2040, and the model's land use inputs reflect the City's General Plan and the Eastern Dublin Specific Plan. See **Appendix C** for a map showing the Traffic Analysis Zones (TAZs) from the City model that represent the EDTIF area, as well as a table showing the amount of existing and expected future development in the area. As shown in the appendix materials, a substantial amount of new development is anticipated; the number of jobs in this area could increase by about 20,000 (more than double when compared to current conditions), and the number of housing units could increase by approximately 1,700 (a 15% increase from base year to future year).

It is also important to note that, as shown in Figure C-1 in Appendix C, the boundary of the EDTIF area is undergoing a minor change. As had been intended when the Boulevard project (then Dublin Crossing) was approved in 2013, the small parcel in the northwest quadrant of the Dublin Boulevard/Arnold Road intersection is now a part of the Boulevard development and will no longer be part of the EDTIF area.

TRIP GENERATION

Once the land use assumptions were established, the trip generation associated with those land uses was calculated. As a first step, the employment numbers applied in the City of Dublin travel model were converted into building square footages, since the fees for non-residential uses will typically be applied on the basis of building area. Consideration was also given to whether it might be appropriate to apply any trip reduction factors to account for mixed-use development, particularly in areas that are well-served by high-frequency transit. The EDTIF area does contain the Dublin/Pleasanton BART station, which is located at the western edge of the EDTIF area. The Dublin Transit Center development is the only portion of the new development anticipated in the EDTIF area that will be within easy walking distance of the BART station.

To estimate the vehicular trip generation of the new development for all areas except the Dublin Transit Center, the average rates presented in the ITE *Trip Generation* manual (10th Edition) were applied to the relevant land use categories. For the Dublin Transit Center, Fehr and Peers' MXD+ tool was applied to estimate the trip generation. This tool was selected because the traditional ITE *Trip Generation*



methodologies are primarily based on data collected at single-use, freestanding sites located in suburban areas with very little accessibility by transit, bicycling, or walking. These defining characteristics limit the data's applicability to mixed-use or multi-use development projects in more pedestrian-friendly and transit-accessible places, such as the Dublin Transit Center.

The development of the MXD+ technique began in response to the limitations in the ITE *Trip Generation* methodology. With the goal of providing a straightforward and empirically validated method of estimating vehicle trip generation at mixed-use developments, the U.S. Environmental Protection Agency (EPA) sponsored a national study of the trip generation characteristics of mixed-use sites. Travel survey data was gathered from 239 mixed-use developments (called MXDs) in six major metropolitan regions and correlated with the characteristics of the sites and their surroundings. The findings indicated that the amount of traffic generated by each site is affected by a wide variety of factors including the mix of jobs and residents at the site, the overall size and density of the development, the availability of convenient internal connections for walking or driving between nearby uses, the availability of transit service to the site, and the surrounding trip destinations within the immediate area. None of these factors is explicitly accounted for in the traditional application of the ITE *Trip Generation* manual method.

As part of the study, these characteristics were related statistically to trip behavior observed at the development sites using statistical techniques. These statistical relationships produced equations, known as the EPA MXD model, that predict how the trip generation from a particular mixed-use site would be reduced as compared to the traditional ITE methods. Applying these vehicle trip reduction percentages to the "raw trips" predicted by the ITE methods produces an estimate for the number of vehicle trips traveling in or out of a site. **Table 2** shows the results of the trip generation estimation for the new development in the EDTIF area, including the trip reduction estimated for the Dublin Transit Center (DTC) as a result of the application of the MXD+ tool.

TABLE 2: EAST DUBLIN TRIP GENERATION (NEW FUTURE DEVELOPMENT)

ITE Land Use	Quantity	Daily Total	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Single-Family Housing (including Townhomes)	1,452 Dwelling Units	13,707	269	806	1,074	906	531	1,437
Apartments	283 Dwelling Units	2,072	30	100	130	84	74	158
Shopping Center (Adj Streets, 7-9A, 4-6P)	1822.5 KSF leasable area	44,720	690	423	1,114	2,166	2,347	4,513
General Office Building (Pk Hr, AM & PM)	5144.3 KSF gross floor area	50,106	5,132	835	5,967	947	4,969	5,916
Manufacturing (Adj Streets, 7-9A, 4-6P)	897.3 KSF Gross Floor Area	3,527	428	128	556	186	415	601
			114,130	6,549	2,293	8,842	4,289	8,336
Less Trip Reduction for DTC Area			-3,010			-568		
Total Net New Vehicle Trips			111,120			8,274		
								12,136

Notes: KSF = Thousand Square Feet.

Source: Fehr & Peers, 2021.

Note that PM peak hour trips are the focus of this EDTIF study. This is a change from the current application of the fee program, which uses daily trips as the basis for the fee calculations. Most transportation facilities are designed to accommodate usage during peak periods, and the PM peak is the time period during which all of the land uses in the EDTIF area will be active, so it is the time period that will best capture the full range of travel effects caused by the anticipated future development.

For the purposes of the EDTIF program, which focuses on the impacts of new development, the most important piece of information is the estimated growth in trips between existing and future conditions. As shown in Table 2, the total number of net new PM peak hour trips will be used to calculate the EDTIF fee per new peak hour trip.



4. NEXUS ANALYSIS

EXISTING DEFICIENCIES

An important part of a nexus analysis is to establish whether the transportation facilities that will be addressed by the projects in the fee program are currently deficient. If there are existing deficiencies at any of those locations, then an adjustment should be made in the fee calculations to ensure new development pays its fair share and is not being charged to correct an existing problem.

The most recent study that comprehensively addresses the Eastern Dublin area is the transportation impact analysis conducted for the Dublin Kaiser Medical Center. The Dublin Kaiser study collected traffic count data and analyzed 22 intersections throughout the Eastern Dublin area located on or near one of the capital improvement projects proposed as part of the EDTIF. The City of Dublin uses vehicle Level of Service (LOS) as a performance measure, with a standard of LOS D or better at all intersections outside of the downtown area. **Table 3** summarizes the current operations at the 22 intersections analyzed in the Dublin Kaiser study. (For reference, the Level of Service criteria for signalized intersections from the 2000 *Highway Capacity Manual* is included in **Appendix D**.) As shown, all of the intersections are reported as operating at LOS D or better in both the AM and PM peak hours; this level of operation meets the City's standards, thus indicating these locations are not currently deficient. Because there are no existing deficiencies, it is reasonable to carry forward all of the cost of the future improvements into the next stage of the fee calculations.

TABLE 3: EXISTING LEVELS OF SERVICE

Intersection	Traffic Control	Peak Hour	Existing Conditions (sec/veh) ¹	LOS ^{2,3}
1. Dublin Blvd/Scarlett Dr	Signalized	AM	7.0	A
		PM	10.0	A
2. Central Pkwy/Arnold Rd	Signalized	AM	7.3	A
		PM	6.3	A
3. Dublin Blvd/Arnold Rd	Signalized	AM	20.4	C
		PM	28.1	C
4. Dublin Blvd/Hacienda Dr	Signalized	AM	39.6	D
		PM	39.6	D
5. I-580 WB Ramps/Hacienda Dr	Signalized	AM	6.4	A



TABLE 3: EXISTING LEVELS OF SERVICE

Intersection	Traffic Control	Peak Hour	Existing Conditions (sec/veh) ¹	LOS ^{2,3}
		PM	6.4	A
6. I-580 EB Ramps/Hacienda Dr	Signalized	AM	11.2	B
		PM	11.2	B
		AM	20.2	C
7. Fallon Rd/Tassajara Rd	Signalized	PM	20.2	C
		AM	28.4	C
8. Gleason Dr/Tassajara Rd	Signalized	PM	23.2	C
		AM	28.1	C
9. Central Pkwy/Tassajara Rd	Signalized	PM	28.1	C
		AM	39.2	D
10. Dublin Blvd/Tassajara Rd	Signalized	PM	39.2	D
		AM	6.5	A
11. I-580 WB Ramps/Tassajara Rd	Signalized	PM	6.5	A
		AM	29.9	C
12. I-580 EB Ramps/Tassajara Rd	Signalized	PM	29.9	C
		AM	14.4	B
13. Dublin Blvd/Brannigan St	Signalized	PM	14.4	B
		AM	4.3	A
14. Dublin Blvd/Carnmore Pl	Signalized	PM	4.3	A
		AM	10.6	B
15. Dublin Blvd/Keegan St	Signalized	PM	10.6	B
		AM	8.6	A
16. Dublin Blvd/Lockhart St	Signalized	PM	8.6	A
		AM	4.3	A
17. Dublin Blvd/Fallon Gateway	Signalized	PM	4.3	A
		AM	13.0	B
18. Central Pkwy/Fallon Rd	Signalized	PM	13.0	B
		AM	18.5	B
19. Dublin Blvd/Fallon Rd	Signalized	AM		



TABLE 3: EXISTING LEVELS OF SERVICE

Intersection	Traffic Control	Peak Hour	Existing Conditions (sec/veh) ¹	LOS ^{2,3}
20. Fallon Gateway/Fallon Rd	Signalized	PM	18.5	B
		AM	5.3	A
		PM	5.3	A
21. I-580 WB Ramps/Fallon Rd/El Charro Rd	Signalized	AM	8.6	A
		PM	8.6	A
22. I-580 EB Ramps/Fallon Rd/El Charro Rd	Signalized	AM	8.2	A
		PM	8.2	A

Source: Fehr & Peers, 2017

Notes:

1 Whole intersection weighted average stopped delay expressed in seconds per vehicle for signalized intersections.

2 LOS calculations performed using the 2000 Highway Capacity Manual (HCM) method.

3 Unacceptable seconds of delay per vehicle and LOS highlighted in **bold**.

EDTIF PROJECT COST RESPONSIBILITY

As described earlier, the land use projections for the year 2040 were used in the Dublin travel demand model (Model) and the Model was applied to generate estimates of travel patterns and volumes in the future. A common modeling technique called a select zone analysis was applied within the Model to identify the amount of future traffic volume on each roadway link that is generated by land uses in the EDTIF area. On each Model link that represents the location of an EDTIF project, the future traffic volume attributable to the EDTIF area was compared to the overall future traffic volume, thereby calculating the share of the usage of that link that can be attributed to the land uses in the EDTIF area. These usage percentages are shown in **Table 4**.

One project (Project L, the Altamirano Avenue Class I Trail) involves an extension of an off-street trail, which is a type of project that cannot be reflected in the Model so the usage percentage must be calculated differently. This project will serve bicycle and pedestrian travel as an extension of current bicycle/pedestrian facilities and will provide non-vehicular travel options both to existing and new residents and workers. The percentage of the project cost to be included in the EDTIF program has thus been calculated as the proportion of future population and employment added by the new development that will be subject to the fee. As calculated from the data presented in Table C-1 in Appendix C, the sum of the additional households plus employment expected in the EDTIF area (1,735 households plus 20,423 jobs) will constitute

about 47% of the total future households plus employment in the Eastern Dublin area, so the usage percentage for this project has been set at 47%.

The percentages described above were applied to the cost of each EDTIF infrastructure project, and the resulting amount represents the portion of the cost of each project that will be included in the EDTIF program. As shown in Table 4, the EDTIF program would capture about 61% of the total project costs, while other funding sources (such as grants, County Measure BB funds, or other sources) would be needed to cover the remainder. This means that about 61% of the usage of these facilities comes from current and future residents and employees in the EDTIF area, while the remainder comes from travelers who use these facilities, but do not live or work in the EDTIF area.

It should be noted that the previous EDTIF classified the capital improvement projects as Section I or Section II improvements and established a fee for each category. Section I improvements were those located inside the EDTIF area, while Section II improvements were located outside the area. Because of the application of the select zone modeling technique described above and its ability to capture Eastern Dublin's share of usage on any facility regardless of the facility's location, it is no longer necessary to make that distinction. The Model results show the percentage of usage on each facility coming from the land uses in the EDTIF area, thereby allowing for the fee to be calculated based directly on the amount of EDTIF usage of each facility, regardless of the facility's location. The distinction is being eliminated. This change has implications for existing fee credits, which were issued as either Section I or Section II fee credits. Simultaneously with the EDTIF update, the City intends to update its *Consolidated Impact Fee Administrative Guidelines* to eliminate the provision stating that Section I and Section II fee credits can only be used to offset fees in those same categories.

TABLE 4: UPDATED EDTIF PROJECTS AND TOTAL AMOUNT PER PROJECT

Project	Project Location	Description	Estimated Cost	% from EDTIF Area	EDTIF Amount
A	Dublin Boulevard	Roadway improvements, including frontage improvements, signal modifications, widening and roadway extension, from Sierra Court to Dougherty Road and from Iron Horse Parkway to Airway Boulevard (Segments: 6, 8A, 9, 10, 11)	\$112,433,000	61%	\$68,076,800



TABLE 4: UPDATED EDTIF PROJECTS AND TOTAL AMOUNT PER PROJECT

Project	Project Location	Description	Estimated Cost	% from EDTIF Area	EDTIF Amount
B	Hacienda/I-580 Interchange	Reconstruct overcrossing with additional NB lane; widen EB off-ramp with third left-turn lane; modify WB loop on-ramp; and widen WB off-ramp with third left-turn lane	\$14,445,000	56%	\$8,080,100
C	Central Parkway	Sidewalks, curb ramps, new signal (at Sybase Drive), turn lanes, from Arnold Road to Hacienda Drive (Segments: 16A, 17, 18)	\$2,820,000	90%	\$2,543,600
D	Gleason Drive	New signal and turn lanes at Gleason and Arnold; new sidewalks and striping from Tassajara to Fallon (Segments: 19, 20)	\$1,234,000	90%	\$1,113,000
E	Tassajara Road	Widening, turn lanes, sidewalks, curb ramps, new signals from I-580 to County line (Segments: 22, 22A, 23, 24)	\$32,399,000	85%	\$27,569,800
F	Tassajara/I-580 Interchange	Widen eastbound off-ramp approach at Tassajara Road to provide fifth lane	\$4,308,000	70%	\$3,031,500
G	Fallon Road	Widening, turn lanes, sidewalks, new signals between I-580 and Gleason Drive (Segments: 26A, 27)	\$8,166,000	69%	\$5,632,500
H	Scarlett Drive	New 4 lane roadway with median from Houston Dr to Dublin Blvd, and raised medians, curb ramps and new traffic signals from Dougherty to Houston (Segment: 21)	\$9,049,000	39%	\$3,570,300
I	Fallon/I-580 Interchange	Reconstruct overcrossing with four lanes in each direction; reconstruct SB to EB loop on-ramp; widen EB off-ramp with two exit lanes with two left turn and two right turn lanes; widen EB on-ramp; widen WB off-ramp with two left turn and two right turn lanes; and widen WB on-ramp.	\$4,307,000	40%	\$1,730,700
J	Hacienda Drive	New turn lanes, restriping between Dublin Blvd and Gleason Drive (Segment: 14)	\$3,279,000	92%	\$3,001,400

TABLE 4: UPDATED EDTIF PROJECTS AND TOTAL AMOUNT PER PROJECT

Project	Project Location	Description	Estimated Cost	% from EDTIF Area	EDTIF Amount
K	Iron Horse Trail Crossing	New bike/pedestrian bridge for Iron Horse Trail across Dublin Boulevard; (the EDTIF amount is the local match amount likely necessary to obtain outside funding)	\$11,600,000	4%	\$500,000
L	Altamirano Avenue Class I Trail	New Class I trail along Altamirano Avenue, north of I-580 between Iron Horse Trail and Hacienda Drive	\$1,552,000	47%	\$729,400
M	Ongoing Traffic Signal Upgrades	Signal timing modifications and signal systems upgrades associated with accommodating traffic from new development (\$100,000 per year for 5 years)	\$500,000	100%	\$500,000
N	Future Nexus Report Update	Update EDTIF nexus study to reflect updated growth projections, project definitions and costs	\$150,000	100%	\$150,000
O	Update Eastern Dublin Travel Demand Model	Update City of Dublin travel demand model to keep it up-to-date for applications in future East Dublin planning studies	\$300,000	100%	\$300,000
		Totals	\$206,542,000	61%	\$126,529,100

Source: Fehr & Peers, 2021.

FEE CALCULATIONS

There are three different transportation fee components charged within the Eastern Dublin area. The basic EDTIF fee is the primary fee program and is charged to new development of all types located in the Eastern Dublin area to address the wide range of transportation improvements needed to support future development in the area as described above. In addition, there is a Freeway Interchange Fee that is focused on reimbursing the City of Pleasanton for improvements previously constructed at two interchanges along I-580, and there is a BART Garage Fee that is charged only in a portion of the Eastern Dublin area for the purpose of reimbursing Alameda County for previous investments in the parking garage at the East Dublin/Pleasanton BART station. The calculations of each fee component are described below.



EDTIF FEE CALCULATIONS

The calculation of the basic EDTIF fee was completed based on the figures described above. Starting from the approximately \$126 million of project costs eligible to be included in the EDTIF program, we add the outstanding fee credits currently carried by the EDTIF program and subtract the current (as of June 30, 2021) EDTIF fund balance, and the result is divided by the number of net new PM peak hour vehicle trips estimated to be generated by new development in the EDTIF area. **Table 5** shows the results of the calculation.

TABLE 5: EDTIF CALCULATION

Calculation	Value
Total Eligible Project Cost in EDTIF Program	\$126,529,100
Plus Outstanding EDTIF Fee Credits (as of 6/30/21)	\$53,929,941
Less Current EDTIF Fund Balance (as of 6/30/21)	(\$13,577,379)
Total EDTIF Amount	\$166,881,662
Divided by Number of New PM Peak Hour Trips	12,136
Maximum Fee per New PM Peak Hour Trip	\$13,751

Source: Fehr & Peers, 2021.

It is important to note that the fee calculation shown in Table 5 is intended to represent the maximum fee that could be charged to support the list of projects shown above.

The fees would be charged to new development of all types located in the geographic area covered by the EDTIF. In order to allocate the fees equitably among different development types, the fee amounts charged to each land use category should reflect the relative effects of each category on the transportation system. This is consistent with the approach used in the current fee program, which specifies different fee rates for different land use types. Using the maximum fee per new PM peak hour trip calculated in Table 5 above as a basis, the number of PM peak hour trips associated with a representative sample of land use categories has been estimated and the associated fee amount calculated. Error! Reference source not found. shows the results of those calculations for several typical land use categories, along with an informational comparison of the updated fees to the fee rates currently charged through the existing EDTIF program. It should be remembered that the existing EDTIF program assesses a project's fees based on its daily trips whereas the updated EDTIF is going to assess fees based on PM peak hour trips. Updated EDTIF fee calculations for a wider range of land use categories are shown in **Appendix E**.



TABLE 6: FEE AMOUNTS FOR TYPICAL LAND USE CATEGORIES

Category	Unit¹	Updated EDTIF Fees			Current EDTIF Fees
		Adjusted PM Peak Hour Trip Rate²	Fee per New PM Peak Hour Trip	Updated Fee per Unit	Current Fee per Unit
Single-Family/Medium Density Residential (up to 14 units/acre)	DU	0.99	\$13,751	\$13,613	\$11,829
Medium/High Density Residential (14.1 – 25 units per acre)	DU	0.56	\$13,751	\$7,701	\$8,285
High Density Residential (more than 25 units per acre)	DU	0.44	\$13,751	\$6,050	\$7,098
Hotel	Room	0.60	\$13,751	\$8,251	\$11,430
General Office	KSF	1.15	\$13,751	\$15,814	\$22,860
Restaurant (sit-down, high turnover)	KSF	6.35	\$13,751	\$87,325	\$118,872
Community Shopping Center	KSF	2.48	\$13,751	\$34,054	\$52,578

1. DU = Dwelling Unit; KSF = Thousand Square Feet.

2. Adjusted PM peak hour trip rates were taken from the ITE Trip Generation Manual, 10th Edition, and a pass-by percentage of 35% has been applied to the uses that are considered retail (i.e., the restaurant and shopping center).

Note that the EDTIF Fees shown above do not include the Freeway Interchange Fee or Residential BART Garage Fee, which are both described in the following section.

FREEWAY INTERCHANGE FEE CALCULATIONS

The Freeway Interchange Fee is applied to new development within the Eastern Dublin area as a mechanism for reimbursing the City of Pleasanton for the costs of making improvements to the interchanges on Interstate 580 at Hacienda Drive and at Tassajara Road/Santa Rita Road that benefit development in both Pleasanton and Eastern Dublin. Pleasanton already constructed improvements at those two interchanges at the time the Freeway Interchange Fee was created; the fee is a mechanism to allow development in East Dublin to pay a proportional share of those costs.

The Freeway Interchange Fee was set at \$21.46 per daily trip per Resolution No. 11-96, Exhibit C. The agreement between Dublin and Pleasanton regarding transfer of fee revenues provided that the fee would be automatically escalated each year, beginning with a base year of 1998 (the year of the revenue transfer agreement between the two cities). The escalation index selected at that time was the Local Agency Investment Fund (LAIF) interest rate, and that rate has been applied consistently by the City's Finance Department ever since. As of September 1, 2021, the current Freeway Interchange Fee per new daily trip is \$36.15 per daily trip. Note that this fee continues to be assessed per daily trip, whereas the updated EDTIF is going to be assessed per PM peak hour trip for reasons described previously.

As of the end of FY21, the current balance remaining to be collected and transferred to Pleasanton is \$2,711,538. The Freeway Interchange Fee will continue to be collected until the outstanding balance is paid off.

RESIDENTIAL BART GARAGE FEE CALCULATIONS

The Residential BART Garage Fee is a contribution toward additional parking spaces constructed at the East Dublin/Pleasanton BART Station by the Alameda County Surplus Property Authority (ACSPA) and BART. Per the terms of the agreement between Dublin and the ACSPA, the ACSPA is to receive a cumulative total of \$6 million in fees; as of the end of FY21, there was a remaining balance of \$1.127 million yet to be collected. The fees are collected only on residential development located outside the Dublin Transit Center area.

The Residential BART Garage Fee component is calculated as follows:

- Estimate the portion of future residential development in the EDTIF area that is outside the Transit Center and thus would be subject to the fee. This has been calculated as 1,735 total new dwelling units in the overall EDTIF area minus 464 units anticipated within the Transit Center area, for a remainder of 1,271 new dwelling units that will be subject to the Residential BART Garage Fee.
- Divide the remaining \$1.127 million due to the ACSPA by the 1,271 new residential units subject to the fee, for a resulting fee of \$887 per dwelling unit.



A summary of the three fee components is shown in **Table 7**.

TABLE 7: SUMMARY OF UPDATED FEES

Category	Unit ¹	Updated EDTIF Fee	Updated Freeway Interchange Fee	Updated BART Garage Fee ²
Single-Family/Medium Density Residential (up to 14 units/acre)	DU	\$13,613	\$362	\$887
Medium/High Density Residential (14.1 – 25 units per acre)	DU	\$7,701	\$253	\$502
High Density Residential (more than 25 units per acre)	DU	\$6,050	\$217	\$394
Hotel	Room	\$8,251	\$362	\$0
General Office	KSF	\$15,814	\$723	\$0
Restaurant (sit-down, high turnover)	KSF	\$87,325	\$4,808	\$0
Community Shopping Center	KSF	\$34,054	\$1,663	\$0

1. DU = Dwelling Unit; KSF = Thousand Square Feet.

2. BART Garage Fee is charged only on residential development located outside DTC area.

5. SUMMARY OF REQUIRED PROGRAM ELEMENTS

This report has provided a detailed discussion of the elements of the updated Eastern Dublin Transportation Impact Fee program and explained the analytical techniques used to develop this nexus study. The report addresses all of the fee program elements required by AB 1600, as summarized below.

1. Identifying the purpose of the fee

The Eastern Dublin Transportation Impact Fee (EDTIF) program has been in place for more than 20 years. Consistent with the provisions of the City's General Plan and the Eastern Dublin Specific Plan, the purpose of the EDTIF program is to support public improvements and facilities needed to mitigate the traffic-related impacts of new development in eastern Dublin.

2. Identifying how the fee will be used and the facilities to be funded through the fee

The fee will be used to help fund capital improvement projects that will accommodate future transportation needs in eastern Dublin. Table 1 identifies the projects to be funded through the fee.

3. Determining a reasonable relationship between the fee's use and the type of development on which the fee is imposed

As described in this report, different types of development generate traffic with different characteristics. The fee amounts presented in **Error! Reference source not found.** account for these different characteristics by applying different per-unit fee factors to each type of development. These considerations account for the differential impacts on the local transportation system generated by different development types.

4. Determining a reasonable relationship between the need for the public facility and the type of development on which the fee is imposed

The need for the facilities listed in Table 1 has been established through the prior EDTIF nexus studies, as well as through planning studies sponsored by the City over the last several years, as described in Section 2 of this report. Table 4 shows that there are no existing deficiencies on the facilities included in this EDTIF program, indicating that the need for improvements is not caused by existing development.

5. Determining a reasonable relationship between the amount of the fee and the cost of the public facility (or portion of facility) attributable to new development



Section 4 of this report describes the calculations applied to determine the cost of the public facility that is attributable to new development; this process accounts for the effects of existing deficiencies (of which there are none in this program) and the effects of traffic generated from outside the EDTIF area. Thus, a reasonable effort has been made to quantitatively establish the relationship between the fees charged in the EDTIF program and the costs of public improvements attributable to new development within the EDTIF area.

APPENDIX A:
CURRENT EDTIF PROJECTS



TABLE A-1: STATUS OF EAST DUBLIN TRANSPORTATION IMPACT FEE PROJECTS SINCE ADOPTION OF EDTIF

Segment #	Project Description from old EDTIF	Current Status	Include in Updated EDTIF?	Updated EDTIF Project Designation
SECTION I IMPROVEMENTS *				
8	Dublin Boulevard Extension - Southern Pacific R/W to East BART Access	Project is complete	No	
8A	Dublin Boulevard Extension - East BART Access to Hacienda Drive	Planned	Yes	Project A
9	Dublin Boulevard - Hacienda to Tassajara Road	Planned	Yes	Project A
10	Dublin Boulevard - Tassajara Road to Fallon Road	Under construction	Yes	Project A
11	Dublin Boulevard Extension - Fallon Road to Airway	Planned	Yes	Project A
13	Hacienda - I-580 to Dublin Boulevard Extension (not including interchange)	Project is complete	No	
14	Hacienda - Dublin Boulevard Extension to Gleason Drive	Updated to maintain 4 lane segment; some widening needed to provide 4 lanes.	Yes	Project J
15	Hacienda Road - Freeway Interchange improvements	Planned	Yes	Project B
16	Arnold Road - Dublin Boulevard Extension to Gleason	Project is complete	No	
16A	Central Parkway - Arnold to Hacienda	Planned	Yes	Project C
17	Central Parkway - Hacienda to Tassajara	Planned	Yes	Project C
18	Central Parkway - Tassajara Road to Keegan Street	Planned	Yes	Project C
18A	Central Parkway - Keegan Street to Fallon	Project is complete	No	
19	Gleason - Arnold Road to Hacienda: signal and frontage improvements	Planned	Yes	Project D
19A	Gleason - Hacienda to Tassajara	Project is complete	No	
20	Gleason - Tassajara to Fallon	Planned	Yes	Project D
22	Tassajara Road - 5,000 feet north of Gleason to Contra Costa County Line: turn lanes	Planned	Yes	Project E
22A	Tassajara Road - Gleason Road to 5,000 feet north of Gleason Road: 6 lanes	Partially complete	Yes	Project E
23	Tassajara Road - Dublin Boulevard Extension to Gleason Road: 6 lanes	Planned	Yes	Project E
24	Tassajara Road - Dublin Boulevard Extension to I-580: 6 lanes	Planned	Yes	Project E
25	Tassajara Road - Freeway Interchange Improvements	Planned	Yes	Project F
26	Fallon Road - Tassajara to Gleason	Project is complete	No	
26A	Fallon Road - Gleason to Dublin Boulevard: three SB lanes, medians between Dublin and Central	Planned	Yes	Project G
27	Fallon Road - Dublin Boulevard to North of I-580: 8 lanes	Planned	Yes	Project G
SECTION II IMPROVEMENTS *				
1	Dougherty Road - City Limits to Amador Valley Widening	Project is complete	No	
2	Dougherty Road - Amador Valley Boulevard to Houston Place	Project is complete	No	
3	Dougherty Road - Houston Place to Dublin Boulevard	Project is complete	No	
4	Dougherty Road - Dublin Boulevard to North of I-580 Off Ramp	Project is complete	No	
5	Dublin Boulevard - East of Village Parkway to Sierra Court Widening	Project is complete	No	
6	Dublin Boulevard - Sierra Court to Dougherty Road Widening	Partially complete	Yes	Project A
7	Dublin Boulevard - Dougherty to Southern Pacific Right-of-Way	Project is complete	No	
12	Freeway Interchange - Dublin Boulevard Extension with I-580 (Airway Blvd)	Project is complete	No	
21	Scarlett Drive - Extend from Dougherty Road to Dublin Boulevard	Under construction	Yes	Project H
28	Fallon and I-580 Freeway Interchange with Signals	Planned	Yes	Project I
SECTION I RESIDENTIAL IMPROVEMENTS *				
29	Tassajara Creek Bike Path	Section I/II distinction no longer necessary Some segments completed, EBRPD working on remaining section	No	
30	Park and Ride Lots	Project is complete	No	
31	Iron Horse Trail Bridge Crossing at Dublin Blvd	New Project	Yes	Project K
32	Altamirano Class I Trail	New Project	Yes	Project L
OTHER COSTS INCLUDED IN 2010 TIF UPDATE				
	Brighton Drive and Amador Valley Boulevard, install traffic signal	Project is complete	No	
	Village Parkway and Amador Valley Boulevard, lengthen southbound left-turn lane	Based on recent traffic volume review, project is no longer needed	No	
	Other miscellaneous costs, such as traffic signal upgrades, update of nexus study, and travel model update, have been reviewed and updated and are now shown in Table 1 of updated EDTIF Report	Costs have been updated	Yes	

* Section I and Section II are now combined into one single fee schedule. See the EDTIF Nexus Report for more details.

APPENDIX B:
DETAILED INFORMATION ON UPDATED EDTIF PROJECTS



PROJECT A:
DUBLIN BOULEVARD



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**EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 6: DUBLIN BLVD BETWEEN
SIERRA CT AND DOUGHERTY RD**

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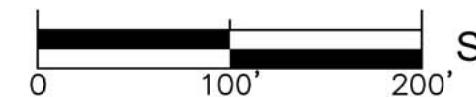
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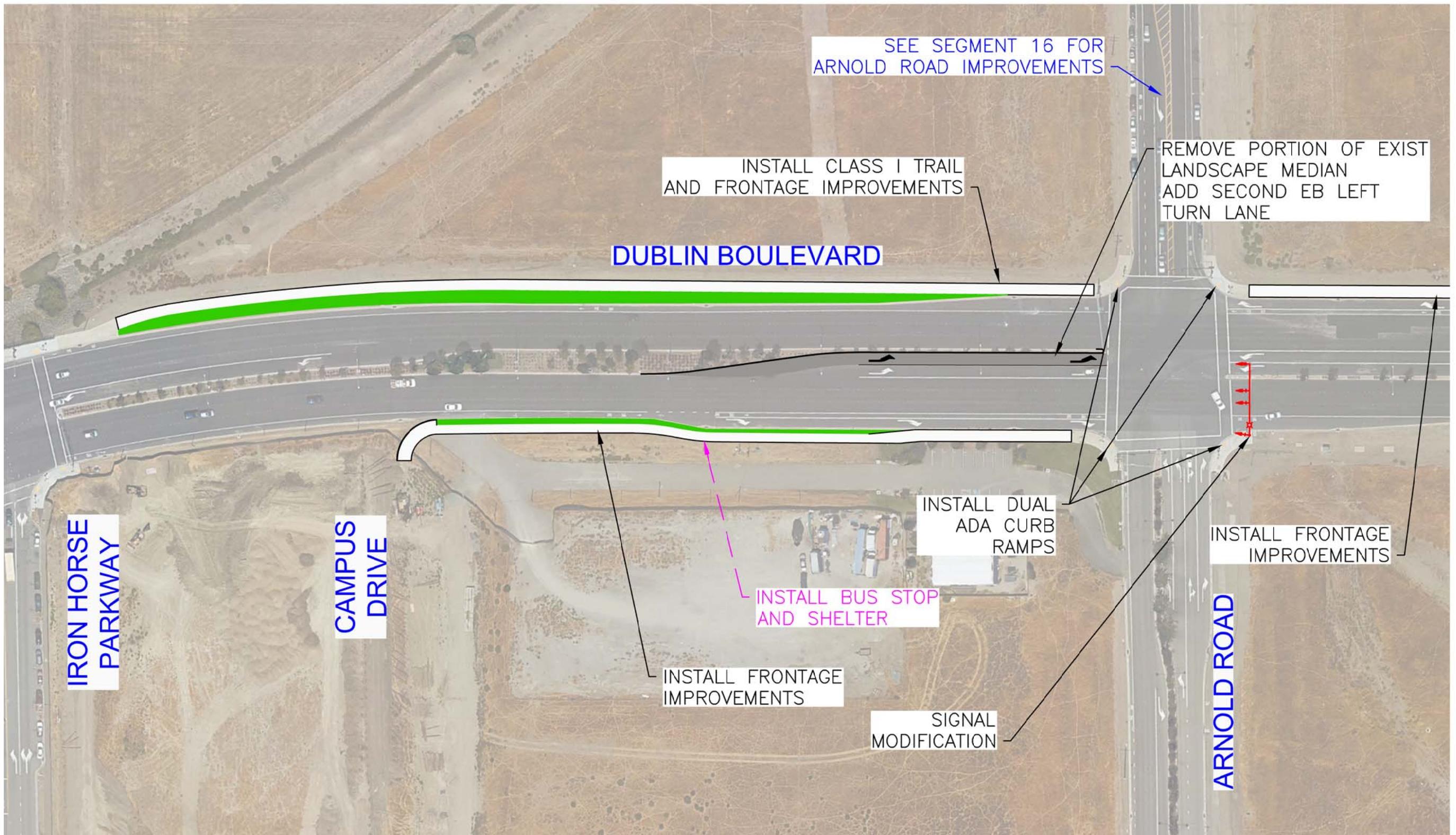
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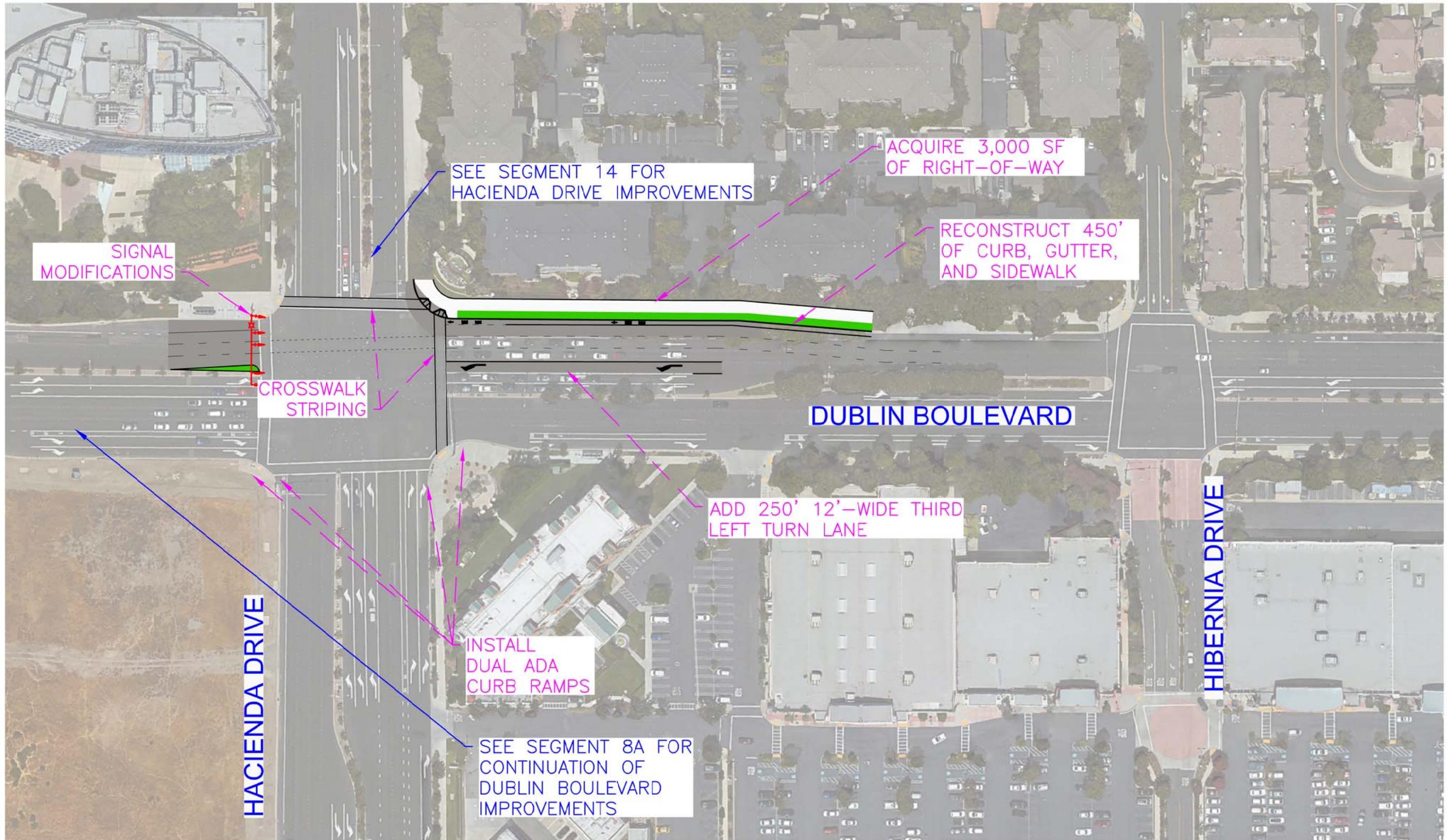
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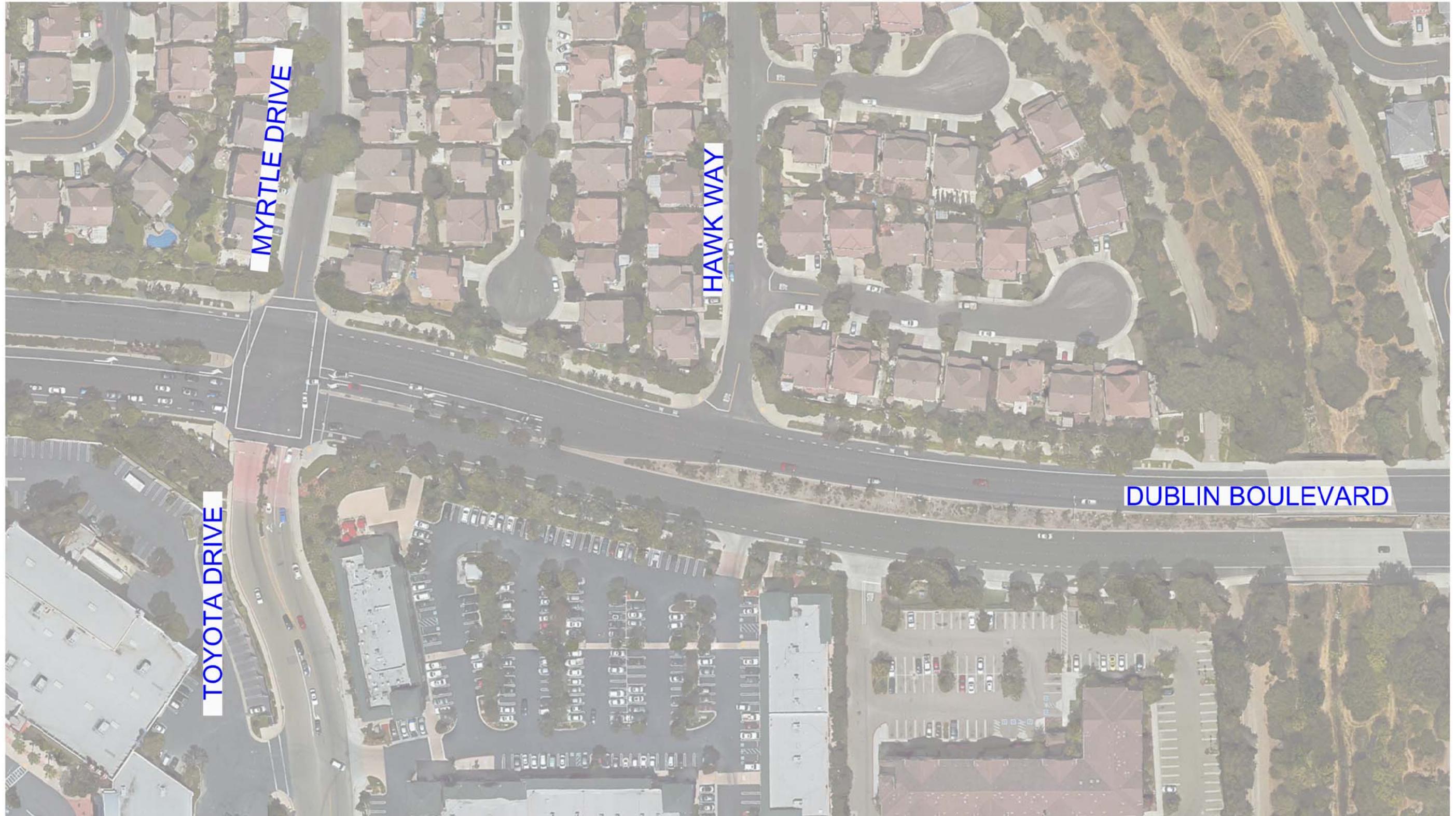
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TASSAJARA ROAD

SEE SEGMENT 23 FOR TASSAJARA ROAD IMPROVEMENTS NORTH OF DUBLIN BOULEVARD

SEE SEGMENT 9 FOR CONTINUATION OF DUBLIN BOULEVARD IMPROVEMENTS WEST OF TASSAJARA ROAD

SIGNAL MODIFICATION

DUBLIN BOULEVARD

INSTALL FRONTAGE IMPROVEMENTS

INSTALL BUS STOP AND SHELTER

INSTALL 4TH TRAFFIC LANE

INSTALL BIKE LANE

INSTALL DUAL ADA CURB RAMPS

INSTALL 3RD TRAFFIC LANE

RESTRIPE PAVEMENT FOR TRAFFIC LANE

INSTALL 3RD TRAFFIC LANE

TRANSITION 4TH LANE TO EB RIGHT TURN LANE INTO BRANNIGAN STREET

INSTALL BIKE LANE

INSTALL BUS STOP AND SHELTER

INSTALL DUAL ADA CURB RAMPS

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INSTALL 4TH TRAFFIC LANE

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INSTALL DUAL ADA CURB RAMPS

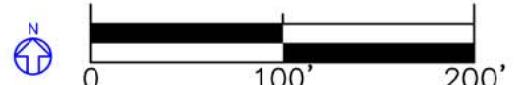
SEE SEGMENT 24 FOR TASSAJARA ROAD IMPROVEMENTS SOUTH OF DUBLIN BOULEVARD

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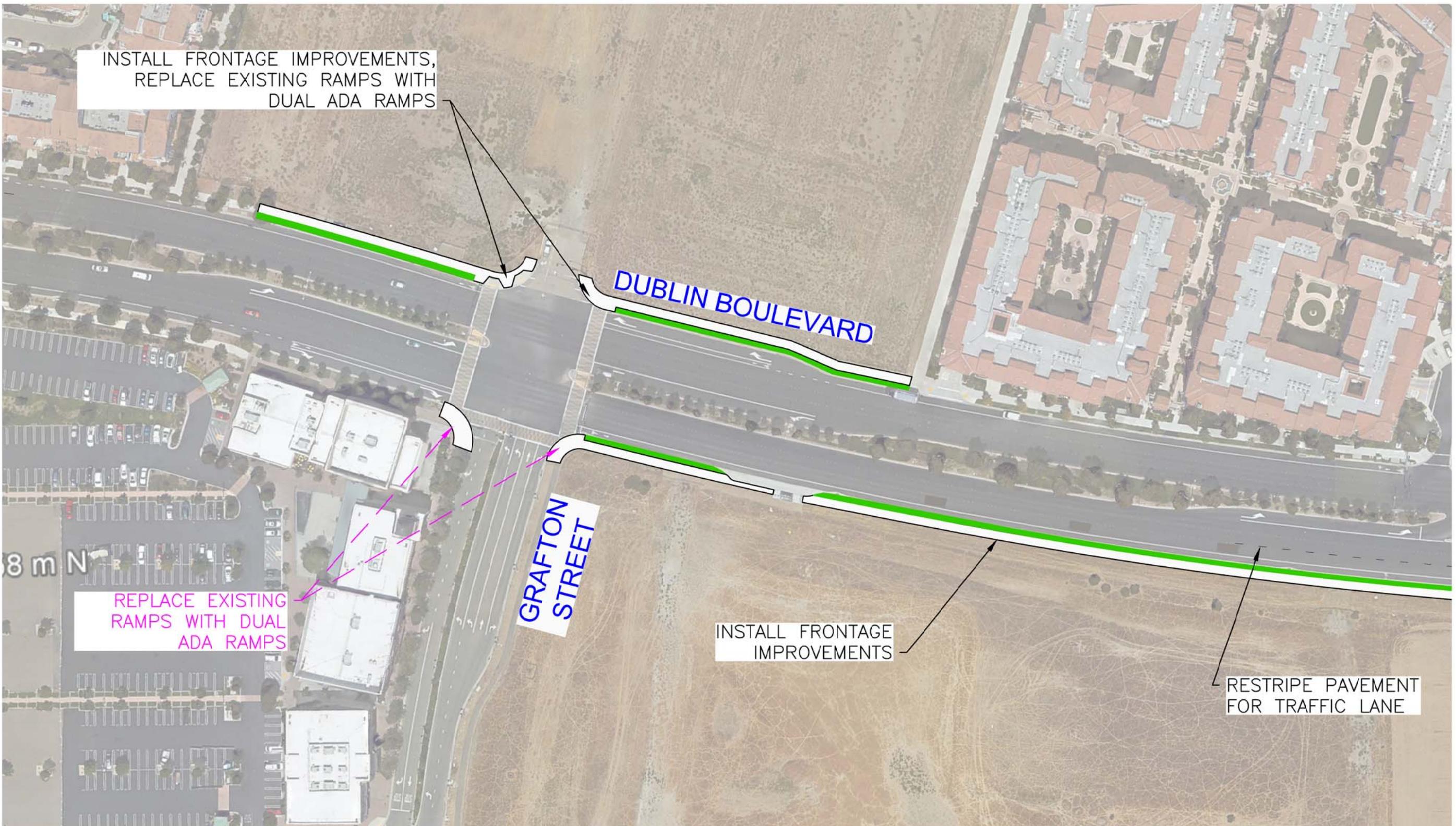
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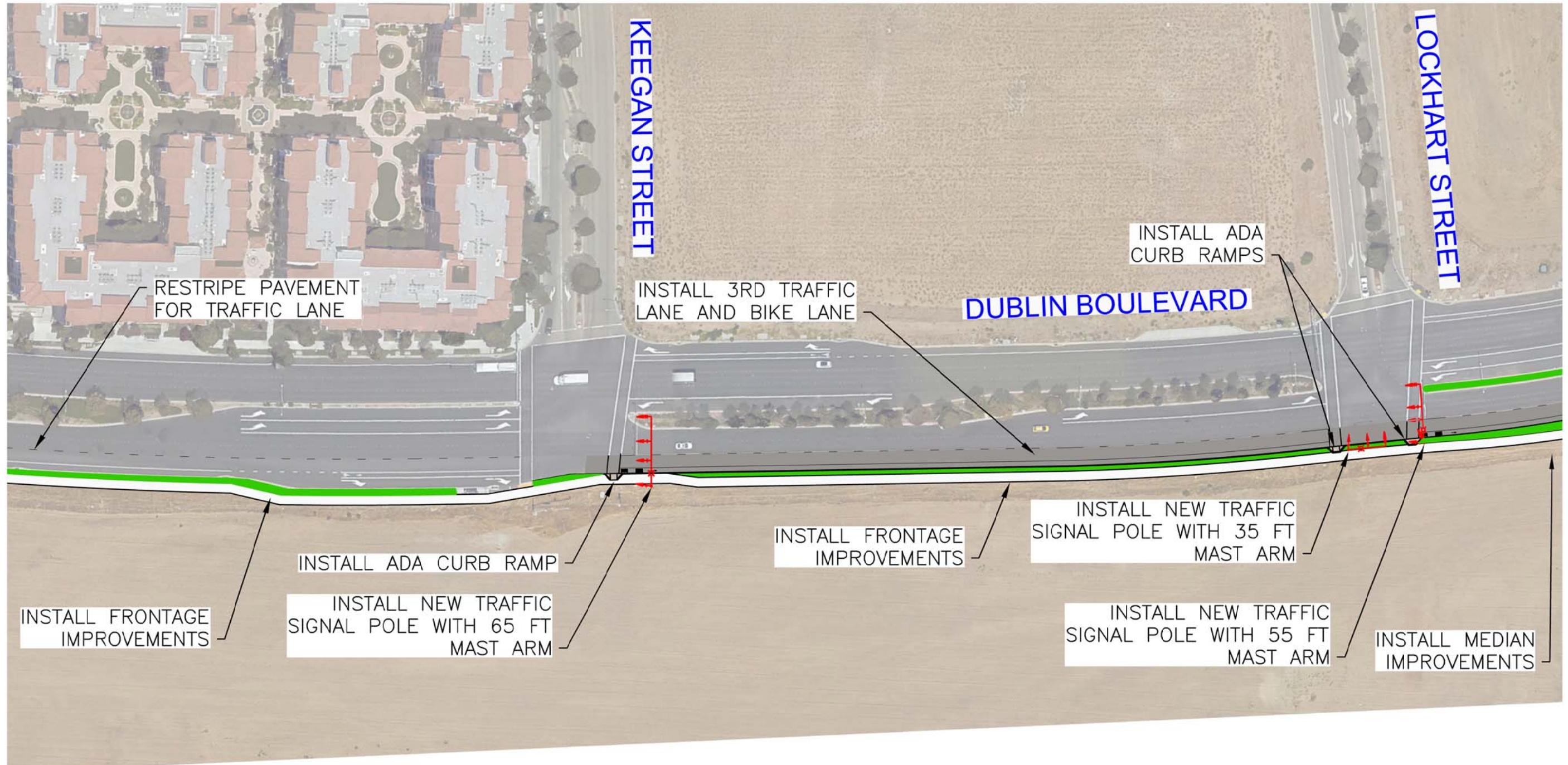
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INSTALL MEDIAN
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INSTALL 3RD
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DUBLIN BOULEVARD

INSTALL FRONTAGE IMPROVEMENT

FALLON

SEE SEGMENT 26A FOR
FALLON ROAD IMPROVEMENTS
NORTH OF DUBLIN BOULEVARD -

INSTALL ADDITIONAL LEFT,
THROUGH AND RIGHT TURN LANES

LANE RE-STRIPIING ASSOCIATED
WITH SEGMENT 11 IMPROVEMENTS
(PROPOSED DUBLIN BOULEVARD
EXTENSION EAST OF FALLON ROAD)

SEE SEGMENT 27 FOR
FALLON ROAD IMPROVEMENTS
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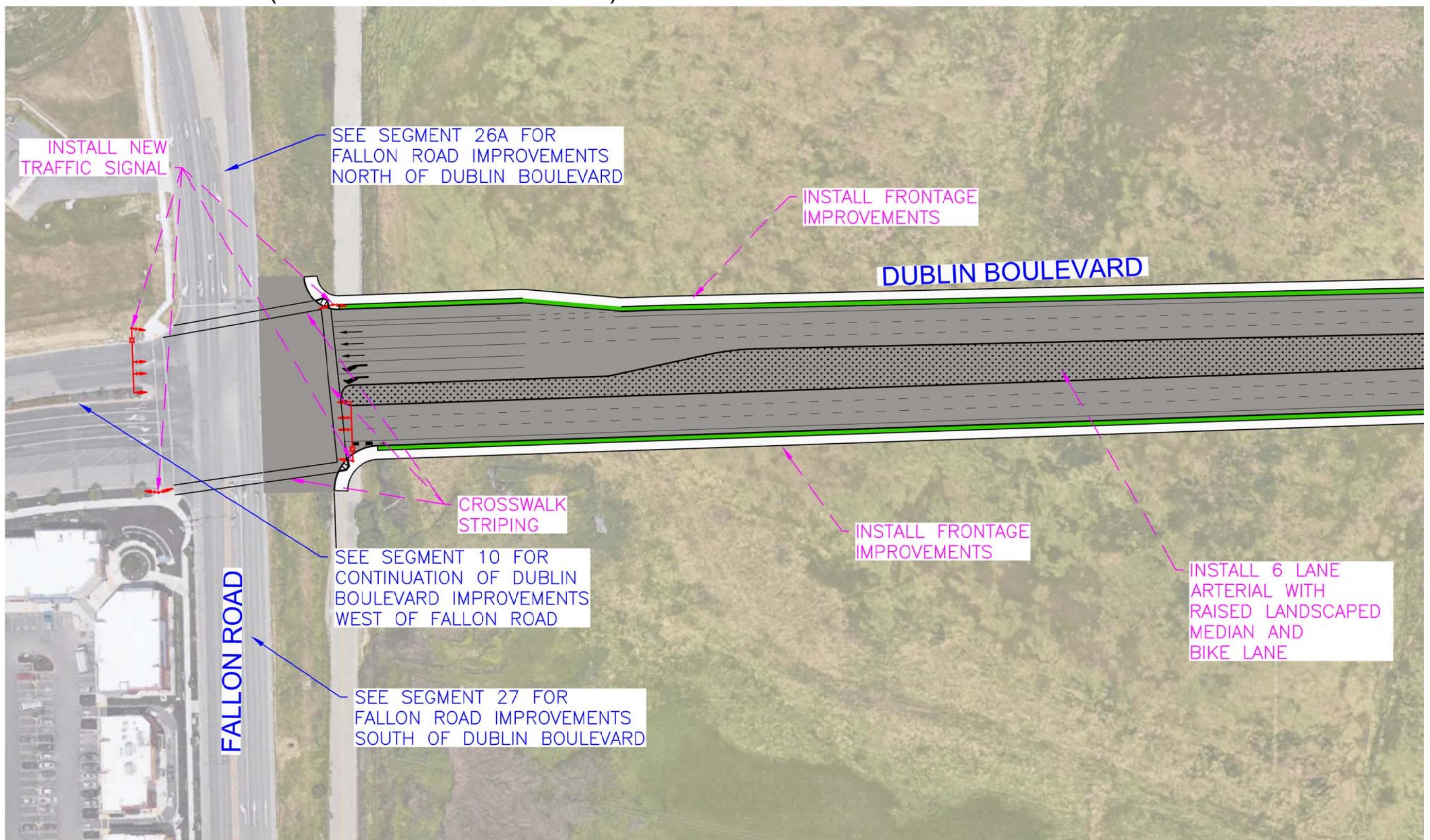
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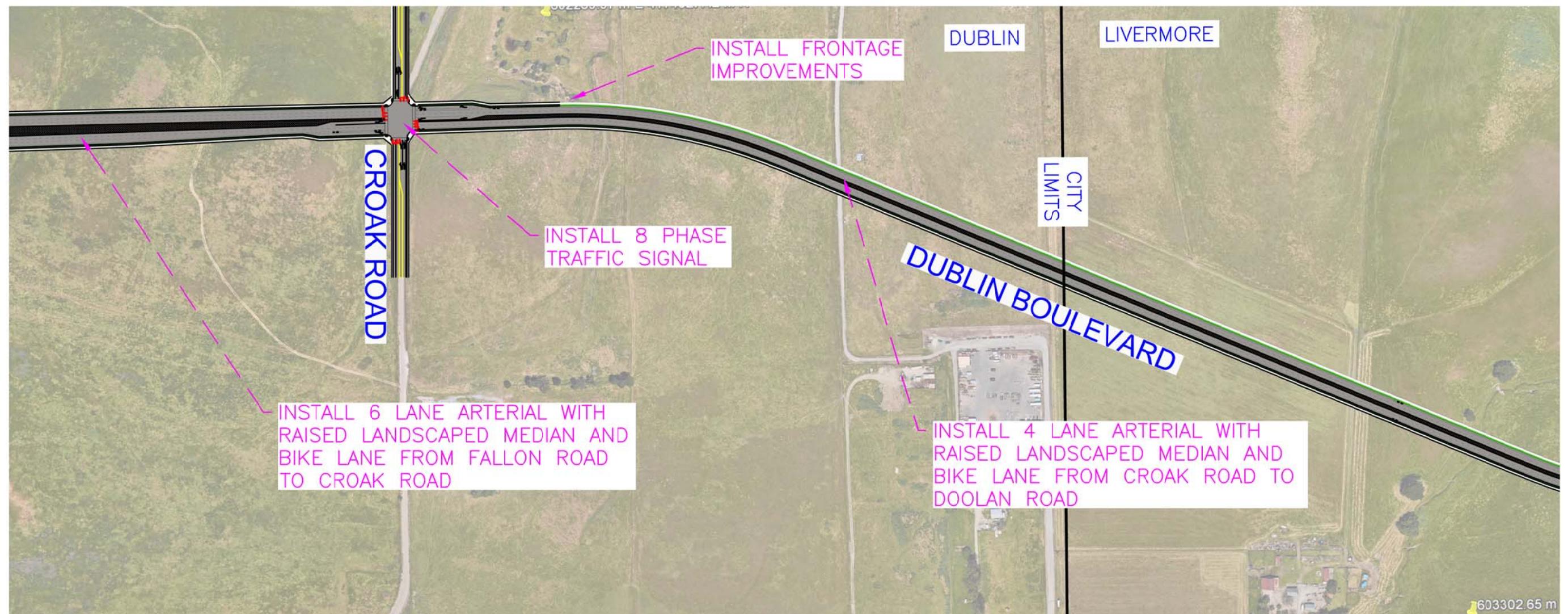
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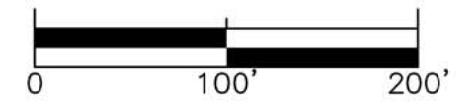
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ENGLISH PLANS

CITY OF DUBLIN

**EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 1: DUBLIN BLVD BETWEEN
FALLON ROAD AND AIRWAY BOULEVARD**

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TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 6

Segment 6 Dublin Blvd from Sierra Court to Dougherty Road

Description:

Date: 8/1/2017

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$226,000.00	\$226,000
2	Traffic Control (8%)	1	LS	\$181,000.00	\$181,000
3	SWPPP/Erosion Control (2%)	1	LS	\$46,000.00	\$46,000
4	Construction Staking (2%)	1	LS	\$46,000.00	\$46,000
					Subtotal - General
					\$499,000
Signing					
5	New Sign and Post	5	EA	\$700.00	\$3,500
6	New Sign on Signal Mast Arm	5	EA	\$900.00	\$4,500
					Subtotal - Signing
					\$8,000
Striping					
7	Detail 9 - 4" Dashed Lane Line	3,600	LF	\$1.00	\$3,600
8	Bicycle Lane (Thermoplastic)	1,750	LF	\$1.50	\$2,625
9	Detail 38 - 8" Channelization Line	100	LF	\$4.80	\$480
10	Pavement Legends (Thermoplastic)	150	SF	\$12.00	\$1,800
11	Remove Traffic Legend	100	SF	\$3.00	\$300
12	Remove Traffic Stripe	3,500	LF	\$3.00	\$10,500
					Subtotal - Striping
					\$19,305
Paving/Curb					
13	Sawcutting	2,100	LF	\$5.00	\$10,500
14	Pavement Section	6,400	SF	\$23.00	\$147,200
15	Roadway Right of Way Acquisition	2,100	SF	\$55.00	\$115,500
16	Concrete Curb & Gutter	1,200	LF	\$90.00	\$108,000
17	Curb Ramp	2	EA	\$9,000.00	\$18,000
					Subtotal - Paving Curb
					\$399,200
Demolition & Removals					
18	Remove AC Pavement	2,100	SF	\$5.00	\$10,500
19	Remove Concrete Curb and Gutter	1,200	LF	\$20.00	\$24,000
20	Remove Concrete Sidewalk/Curb Ramp	15,300	SF	\$16.00	\$244,800
					Subtotal - Demolition & Removals
					\$279,300
Frontage Improvements					
21	Concrete Sidewalk	8,700	SF	\$20.00	\$174,000
22	Frontage Right of Way Acquisition	8,400	SF	\$55.00	\$462,000
					Subtotal - Frontage Improvements
					\$636,000
Electrical					
23	Signal Modifications at Dublin Blvd./Sierra Ct.	1	LS	\$150,000.00	\$150,000
24	Signal Modifications at Dublin Blvd./Dublin Ct.	1	LS	\$271,000.00	\$271,000
					Subtotal - Electrical
					\$421,000
					SUBTOTAL
					\$2,261,805
					Contingency (20%)
					\$452,361
					Soft Costs (15% Design/Environmental)
					\$339,271
					Soft Costs (15% Construction Management, Inspection & Testing)
					\$339,271
					\$1/SF Zone 7 Drainage Fee
					\$20,000
					CIVIL ESTIMATE (2019 DOLLARS)
					\$3,412,708
Escalation factor at 3% annually (2019 to 2021)					
ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)					
\$3,620,541.39					

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 8A

Segment 8A Dublin Blvd from Iron Horse Parkway to Hacienda Drive

Description:

Date: 8/1/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>						
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total	
General						
1	Mobilization (10%)	1	LS	\$44,000.00	\$44,000	
2	Traffic Control (8%)	1	LS	\$36,000.00	\$36,000	
3	SWPPP/Erosion Control (2%)	1	LS	\$9,000.00	\$9,000	
4	Construction Staking (2%)	1	LS	\$9,000.00	\$9,000	
					Subtotal - General	\$98,000
Signing						
5	New Sign and Post	2	EA	\$700.00	\$1,400	
6	New Sign on Signal Mast Arm	1	EA	\$900.00	\$900	
					Subtotal - Signing	\$2,300
Striping						
7	Detail 38 - 8" Channelization Line	0	LF	\$4.80	\$0	
8	Pavement Legends (Thermoplastic)	0	SF	\$12.00	\$0	
					Subtotal - Striping	\$0
Paving/Curb						
9	Sawcutting	450	LF	\$5.00	\$2,250	
10	Pavement Section	5,000	SF	\$23.00	\$115,000	
11	Concrete Curb	450	LF	\$85.00	\$38,250	
12	Bus Pullout	1	EA	\$35,000.00	\$35,000	
13	Bus Shelter	1	EA	\$20,000.00	\$20,000	
					Subtotal - Paving Curb	\$210,500
Demolition & Removals						
14	Clear and Grub	1,000	SF	\$1.00	\$1,000	
					Subtotal - Demolition & Removals	\$1,000
Frontage Improvements						
15	Landscaping	0	SF	\$10.00	\$0	
16	Concrete Sidewalk	0	SF	\$20.00	\$0	
17	Frontage Right of Way Acquisition	0	SF	\$55.00	\$0	
					Subtotal - Frontage Improvements	\$0
Electrical						
18	Signal Modifications at Dublin/Arnold	1	LS	\$100,000.00	\$100,000	
19	Street lighting	5	EA	\$6,000.00	\$30,000	
					Subtotal - Electrical	\$130,000
					SUBTOTAL	\$441,800
					Contingency (20%)	\$88,360
					Soft Costs (15% Design/Environmental)	\$66,270
					Soft Costs (15% Construction Management, Inspection & Testing)	\$66,270
					\$1/SF Zone 7 Drainage Fee	\$30,000
					CIVIL ESTIMATE	\$692,700
						Escalation factor at 3% annually (2019 to 2021)
						\$42,185.43
						ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)
						\$734,885.43

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 9

Segment 9 Dublin Blvd from Hacienda Drive to Tassajara Road

Description:

Date: 8/1/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

CONCEPTUAL COST ESTIMATE					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$149,000.00	\$149,000
2	Traffic Control (8%)	1	LS	\$120,000.00	\$120,000
3	SWPPP/Erosion Control (2%)	1	LS	\$30,000.00	\$30,000
4	Construction Staking (2%)	1	LS	\$30,000.00	\$30,000
				Subtotal - General	\$329,000
Signing					
5	New Sign and Post	4	EA	\$700.00	\$2,800
				Subtotal - Signing	\$2,800
Striping					
6	Detail 9 - 4" Dashed Lane Line	1,000	LF	\$1.00	\$1,000
7	Bicycle Lane (Thermoplastic)	360	LF	\$1.50	\$540
8	12" Limit Line/Crosswalk	560	LF	\$10.00	\$5,600
9	Pavement Legends (Thermoplastic)	105	SF	\$12.00	\$1,260
10	Remove Traffic Stripe	550	LF	\$3.00	\$1,650
11	Detail 38 - 8" Channelization Line	280	LF	\$4.80	\$1,344
				Subtotal - Striping	\$10,050
Paving/Curb					
12	Sawcutting	1,000	LF	\$5.00	\$5,000
13	Pavement Section	5,000	SF	\$23.00	\$115,000
14	Concrete Curb	200	LF	\$85.00	\$17,000
15	Roadway Right of Way Acquisition	3,000	SF	\$55.00	\$165,000
16	Concrete Curb & Gutter	750	LF	\$90.00	\$67,500
17	Bus Pullout	1	EA	\$35,000.00	\$35,000
18	Modify Bus Stop	1	EA	\$10,000.00	\$10,000
19	Slurry Seal	76,000	SF	\$2.00	\$152,000
20	Curb Ramp	6	EA	\$9,000.00	\$54,000
				Subtotal - Paving Curb	\$620,500
Stormwater Improvements					
21	Deepened Curb and Gutter	110	LF	\$150.00	\$16,500
22	4" Underdrain with Cleanout	50	LF	\$30.00	\$1,500
23	Biotreatment Soil	10	CY	\$150.00	\$1,500
24	Permeable Rock	10	CY	\$100.00	\$1,000
				Subtotal - Green Infrastructure	\$20,500
Demolition & Removals					
21	Remove AC Pavement	900	SF	\$5.00	\$4,500
22	Remove Concrete Sidewalk/Curb Ramp	6,700	SF	\$16.00	\$107,200
23	Remove Tree	2	EA	\$2,500.00	\$5,000
				Subtotal - Demolition & Removals	\$116,700
Frontage Improvements					
24	Concrete Sidewalk	6,000	SF	\$20.00	\$120,000
25	Frontage Right of Way Acquisition	3,000	SF	\$55.00	\$165,000
26	Landscaping	4,500	SF	\$10.00	\$45,000
				Subtotal - Frontage Improvements	\$285,000
Electrical					
26	Signal Modifications at Dublin/Hacienda	1	LS	\$100,000.00	\$100,000
				Subtotal - Electrical	\$100,000
				SUBTOTAL	\$1,484,550
				Contingency (20%)	\$296,910
				Soft Costs (15% Design/Environmental)	\$222,683
				Soft Costs (15% Construction Management, Inspection & Testing)	\$222,683
				\$1/SF Zone 7 Drainage Fee	\$15,000
				CIVIL ESTIMATE	\$2,241,825

Escalation factor at 3% annually (2019 to 2021)

\$136,527.14

ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)

\$2,378,352.14

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 10

Segment 10 Dublin Blvd from Tassajara Road to Fallon Road

Description:

Date: 8/1/2017; Updated 6/28/2019 (PCG); Updated 1/6/2020 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$130,000.00	\$130,000
2	Traffic Control (8%)	1	LS	\$104,000.00	\$104,000
3	SWPPP/Erosion Control (2%)	1	LS	\$26,000.00	\$26,000
4	Construction Staking (2%)	1	LS	\$26,000.00	\$26,000
					Subtotal - General
					\$286,000
Signing					
5	New Sign and Post	5	EA	\$700.00	\$3,500
6	New Sign on Signal Mast Arm	2	EA	\$900.00	\$1,800
					Subtotal - Signing
					\$5,300
Striping					
7	Detail 9 - 4" Dashed Lane Line	500	LF	\$1.00	\$500
8	Bicycle Lane (Thermoplastic)	500	LF	\$1.50	\$750
9	Detail 38 - 8" Channelization Line	200	LF	\$4.80	\$960
10	12" Limit Line/Crosswalk	200	LF	\$10.00	\$2,000
11	Pavement Legends (Thermoplastic)	200	SF	\$12.00	\$2,400
12	Remove Traffic Legend	280	SF	\$3.00	\$840
13	Remove Traffic Stripe	500	LF	\$3.00	\$1,500
					Subtotal - Striping
					\$8,950
Paving/Curb					
14	Sawcutting	400	LF	\$5.00	\$2,000
15	Pavement Section	21,000	SF	\$23.00	\$483,000
16	Curb Ramp	12	EA	\$9,000.00	\$108,000
17	Concrete Curb	0	LF	\$85.00	\$0
18	Bus Pullout	2	EA	\$35,000.00	\$70,000
19	Bus Shelter	2	EA	\$20,000.00	\$40,000
					Subtotal - Paving Curb
					\$703,000
Demolition & Removals					
20	Excavation	1,260	CY	\$75.00	\$94,500
21	Clear and Grub	2,000	SF	\$1.00	\$2,000
					Subtotal - Demolition & Removals
					\$96,500
Stormwater Improvements					
22	Deepened Curb and Gutter	450	LF	\$150.00	\$67,500
23	4" Underdrain with Cleanout	210	LF	\$30.00	\$6,300
24	Biotreatment Soil	35	CY	\$150.00	\$5,250
25	Permeable Rock	24	CY	\$100.00	\$2,400
					Subtotal - Green Infrastructure
					\$81,450
Electrical					
26	Signal Modifications at Tassajara/Dublin	1	LS	\$80,000.00	\$80,000
27	Signal Modifications at Dublin/Brannigan	1	LS	\$50,000.00	\$50,000
28	Signal Modifications at Dublin/Keegan	0	LS	\$90,000.00	\$0
29	Signal Modifications at Dublin/Lockhart	0	LS	\$150,000.00	\$0
30	Street lighting	0	EA	\$6,000.00	\$0
					Subtotal - Electrical
					\$130,000
					SUBTOTAL
					\$1,311,200
					Contingency (20%)
					\$262,240
					Soft Costs (15% Design/Environmental)
					\$196,680
					Soft Costs (15% Construction Management, Inspection & Testing)
					\$196,680
					\$1/SF Zone 7 Drainage Fee
					\$65,000
					CIVIL ESTIMATE
					\$2,031,800
Escalation factor at 3% annually (2019 to 2021)					
ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)					
\$123,736.62					
\$2,155,536.62					

Segment 11**PLANNING COST ESTIMATE***Dublin Boulevard Extension***DUBLIN****2/8/2019**

EA:

PID:

District-County-Route: 00-XXX-X-000

PM: 00.0 - 00.0

Type of Estimate : Planning Cost Estimate - EIR

Program Code :

Project Limits : Dublin Boulevard from Fallon Road to Doolan Boulevard (Work within Dublin Only)

Project Description: 6 and 4 -Lane Roadway Extension (Work within Dublin Only)

Scope : Work within City of Dublin Only

Alternative : EIR Alternative

SUMMARY OF PROJECT COST ESTIMATE

	<u>Current Year Cost</u>	<u>Escalated Cost*</u>
TOTAL ROADWAY COST	\$ 50,426,500	\$ 54,046,837
TOTAL STRUCTURES COST	\$ 2,268,000	\$ 2,430,830
SUBTOTAL CONSTRUCTION COST	\$ 52,694,500	\$ 56,477,666
TOTAL RIGHT OF WAY COST	\$ 21,109,504	\$ 21,742,789
TOTAL CAPITAL OUTLAY COSTS	\$ 73,805,000	\$ 78,221,000
PERMITS/FEES/MITIGATION (See Page 11)	\$ 655,000	\$ 655,000
PS&E SUPPORT	\$ 6,850,285	\$ 7,055,794
RIGHT OF WAY SUPPORT	\$ 4,221,901	\$ 4,348,558
CONSTRUCTION SUPPORT	\$ 6,850,285	\$ 7,267,467
TOTAL SUPPORT COST	\$ 18,577,471	\$ 19,326,819
TOTAL PROJECT COST	\$ 92,400,000	\$ 97,600,000

* Escalation is up to the year of mid-point of construction (3/2022), right of way (6/2020), and design (6/2020). For additional information, see Planning Cost Estimates.If Project has been programmed enter Programmed Amount

Escalation factor at 3% annually (2019 to 2021)	\$5,943,840.00
ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)	\$103,543,840.00

PROJECT B:
HACIENDA/I-580 INTERCHANGE



Project B: I-580/Hacienda Drive Interchange

Description: Preliminary Cost Estimate

Date: Updated 6/28/2019 (PCG)

Description	Cost Estimate, 2018 EDTIF Report*	2017-2021 Construction Cost Escalation (3% Annualized)	Updated Cost Estimate
Reconstruct overcrossing with additional NB lane; widen EB off-ramp with third left-turn lane; modify WB loop on-ramp; widen WB off-ramp with third left-turn lane	\$ 12,834,416.00	\$ 1,610,832.28	\$ 14,445,248.28

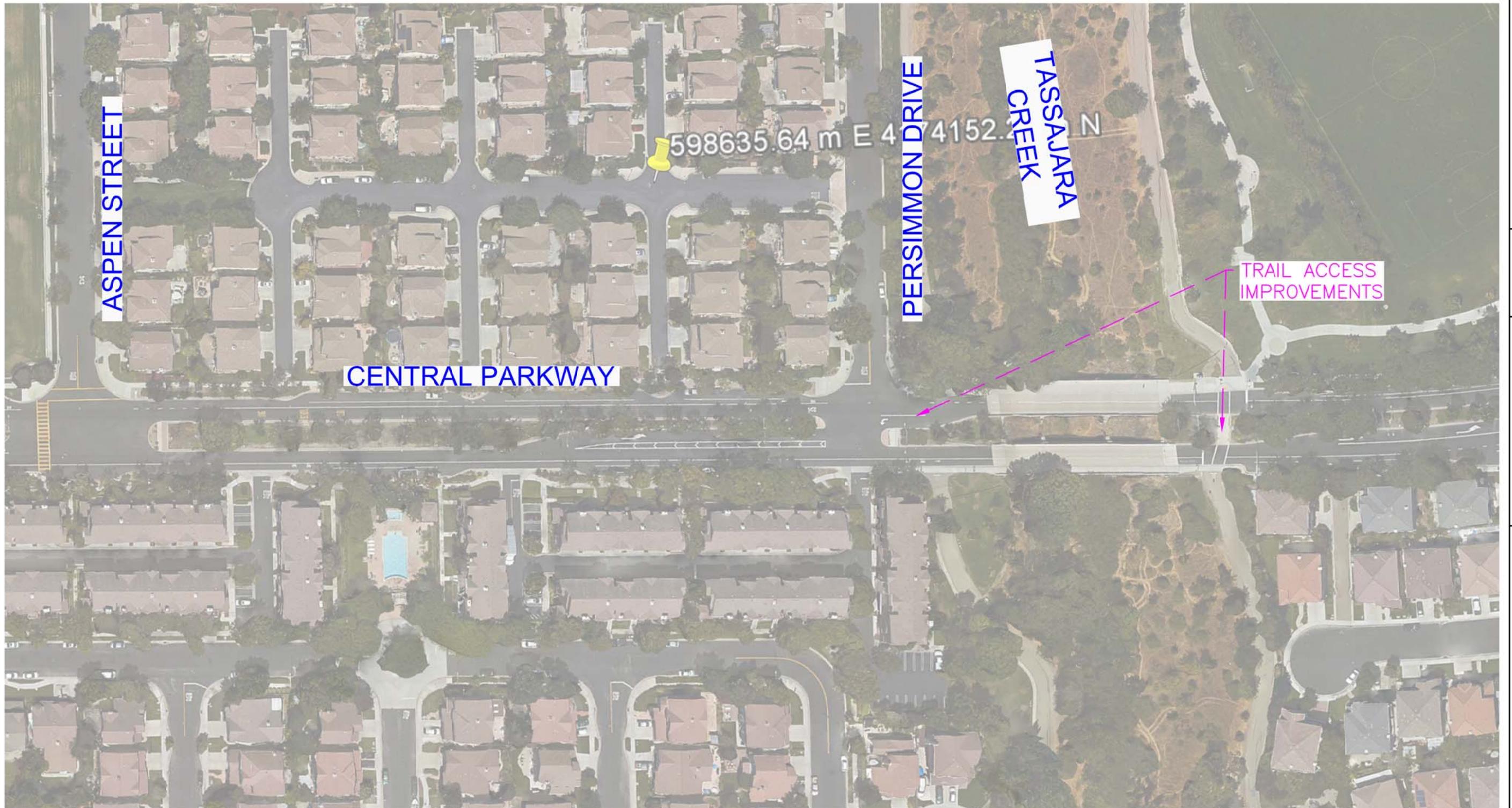
*Cost estimate represented 2017 dollars

PROJECT C:
CENTRAL PARKWAY



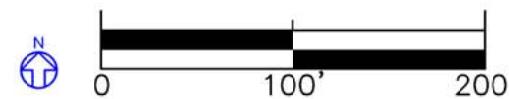
CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REVIEWED BY: _____ DATE: _____



FOR INCREASED ENGLISH PLANS
ORIGINAL SCALE IS IN INCHES

DRAWING NUMBER: PCG0102021-174900-0001.dwg
FILE DATE: 10/20/21 PLACED BY: _____



SHEET 1 OF 1

EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 17: CENTRAL PKWY BETWEEN
HACIENDA DR AND TASSAJARA RD

CITY OF DUBLIN

PCG CONSULTING GROUP, INC.

5776 Stoneridge Mall Road, Ste 120
Pleasanton, CA 94588
P: 925.224.7717 F: 925.224.7726
www.pcengr.com

DRAWN: _____ CHECKED: _____
DESIGNED: _____ APPROVED: _____

PCG

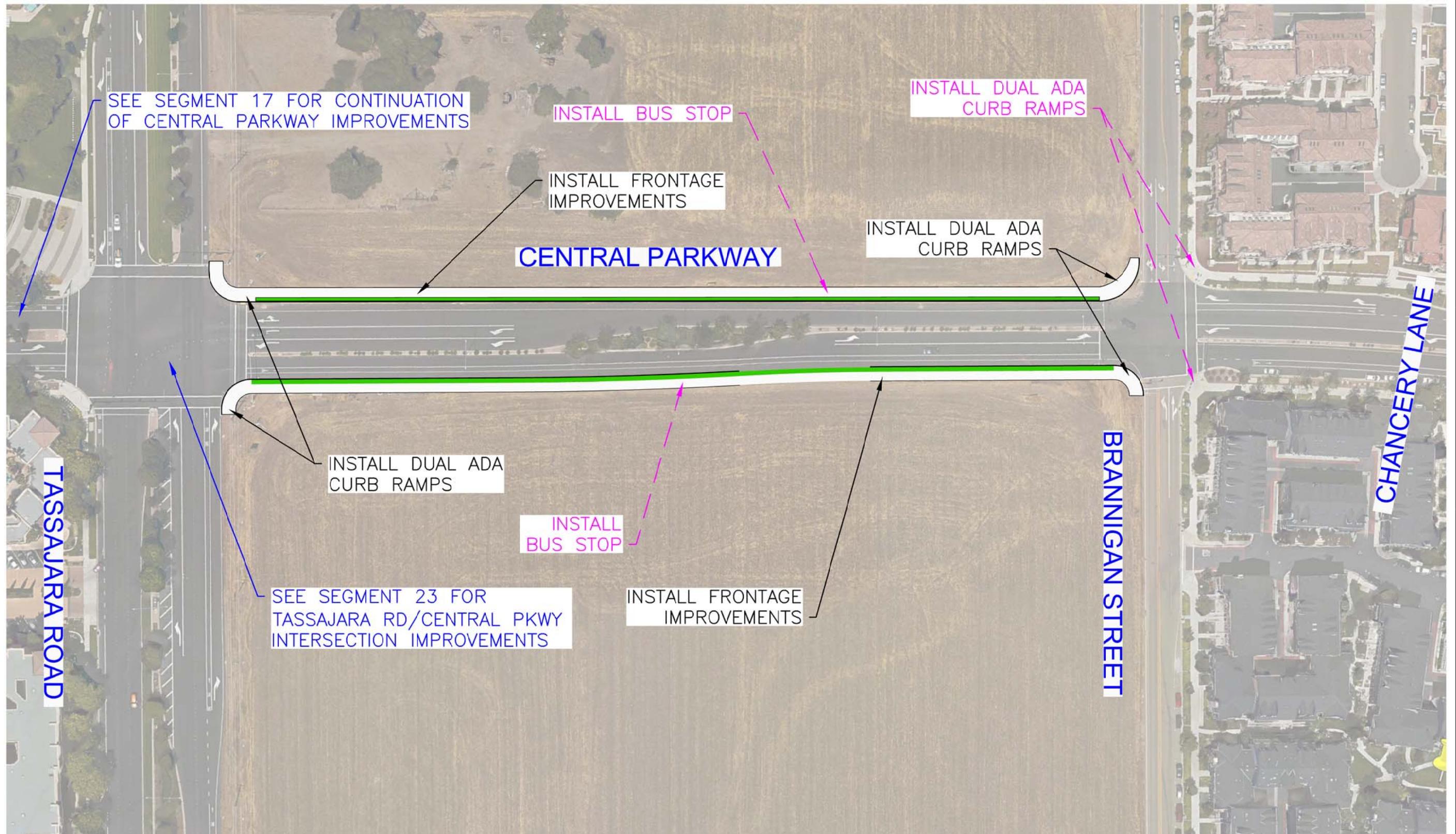
DATE: _____ SCALE: _____
AS NOTED
PCG JOB NO. _____
PLAN: _____ OF _____
SHEET: _____ OF _____

REVISIONS

DATE: _____ BY: _____
APPROVED: _____

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY:	DATE:



LEGEND:

- NOT ELIGIBLE FOR TIF CREDIT
- — — ELIGIBLE FOR TIF CREDIT



0 100' 200'

SHEET 1 OF 3

REVISIONS	
NO.	DESCRIPTION
APPROVED:	DATE BY APPD
CHECKED:	DATE
DRWN:	DATE
DESIGNED:	DATE
PCG	
Pakpour Consulting Group, Inc. 5776 Stoneridge Main Road, Ste 320 Pleasanton, CA 94588 P: 925.224.7717 F: 925.224.7726 www.pcengr.com	
CITY OF DUBLIN	
EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE	
SEGMENT 18: CENTRAL PKWY BETWEEN	
TASSAJARA RD AND KEEGAN ST	
DATE	SCALE AS NOTED
PCG JOB NO.	
PLAN	_____
_____	OF

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REMEDIED BY: _____ DATE: _____

Y-axis

FOR REDUCED ENGLISH PLANS
COMMERCIAL SCALE 1:50 INCHES

600477.18 m E 4174180.98 m N

CENTRAL PARKWAY

LOCKHART STREET

KEEGAN STREET

LEGEND:

NOT ELIGIBLE FOR TIF CREDIT

ELIGIBLE FOR TIF CREDIT



0 100' 200' SHEET 3 OF 3

CITY OF DUBLIN	
EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE	
SEGMENT 18: CENTRAL PKWY BETWEEN	
TASSAJARA RD AND KEEGAN ST	
DATE	SCALE AS NOTED
CG JOB NO. _____	
PLAN _____	
SHEET _____ OF _____	
REVISIONS	
 Pakpour Consulting Group, Inc. 5776 Stoneridge Mall Road, Ste 320 Pleasanton, CA 94568 P: 925.224.7717 F: 925.224.7726 www.pcgeng.com	
DRAWN: <input type="text"/> DESIGNED: <input type="text"/> CHECKED: <input type="text"/> APPROVED: <input type="text"/>	
NO. <input type="text"/> DESCRIPTION <input type="text"/> DATE <input type="text"/> BY <input type="text"/>	

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 16A

Segment 16A Central Parkway between Arnold Road and Hacienda Drive

Description:

Date: 8/1/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

Conceptual Cost Estimate						
Item	Description	Qty.	Unit	Unit Cost	Total	
General						
1	Mobilization (10%)	1	LS	\$120,000.00	\$120,000	
2	Traffic Control (8%)	1	LS	\$96,000.00	\$96,000	
3	SWPPP/Erosion Control (2%)	1	LS	\$24,000.00	\$24,000	
4	Construction Staking (2%)	1	LS	\$24,000.00	\$24,000	
Subtotal - General						\$264,000
Signing						
5	New Sign and Post	4	EA	\$700.00	\$2,800	
6	New Sign on Signal Mast Arm	5	EA	\$900.00	\$4,500	
Subtotal - Signing						\$7,300
Striping						
7	Detail 9 - 4" Dashed Lane Line	1,650	LF	\$1.00	\$1,650	
8	Bicycle Lane (Thermoplastic)	1,900	LF	\$1.50	\$2,850	
9	Detail 38 - 8" Channelization Line	510	LF	\$4.80	\$2,448	
10	12" Limit Line/Crosswalk	100	LF	\$10.00	\$1,000	
11	Pavement Legends (Thermoplastic)	420	SF	\$12.00	\$5,040	
12	Remove Traffic Legend	100	SF	\$3.00	\$300	
13	Remove Traffic Stripe	560	LF	\$3.00	\$1,680	
Subtotal - Striping						\$14,968
Paving/Curb						
14	Sawcutting	2,000	LF	\$5.00	\$10,000	
15	Pavement Section	15,500	SF	\$23.00	\$356,500	
16	Concrete Curb	1,250	LF	\$85.00	\$106,250	
17	Concrete Curb & Gutter	0	LF	\$90.00	\$0	
18	Curb Ramp	2	EA	\$9,000.00	\$18,000	
Subtotal - Paving Curb						\$490,750
Stormwater Improvements						
19	Deepened Curb and Gutter	200	LF	\$150.00	\$30,000	
20	4" Underdrain with Cleanout	100	LF	\$30.00	\$3,000	
21	Biotreatment Soil	20	CY	\$150.00	\$3,000	
22	Permeable Rock	15	CY	\$100.00	\$1,500	
Subtotal - Green Infrastructure						\$37,500
Demolition & Removals						
19	Remove AC Pavement	4,300	SF	\$5.00	\$21,500	
20	Remove Concrete Curb and Gutter	1,250	LF	\$20.00	\$25,000	
21	Clear and Grub	14,000	SF	\$1.00	\$14,000	
Subtotal - Demolition & Removals						\$60,500
Frontage Improvements						
22	Landscaping	0	SF	\$10.00	\$0	
23	Concrete Sidewalk	0	SF	\$20.00	\$0	
24	Frontage Right of Way Acquisition	0	SF	\$55.00	\$0	
Subtotal - Frontage Improvements						\$0
Electrical						
25	New Traffic Sginal at Central/Sybase	1	EA	\$300,000.00	\$300,000	
26	Street lighting	5	EA	\$6,000.00	\$30,000	
Subtotal - Electrical						\$330,000
				SUBTOTAL	\$1,205,018	
				Contingency (20%)	\$241,004	
				Soft Costs (15% Design/Environmental)	\$180,753	
				Soft Costs (15% Construction Management, Inspection & Testing)	\$180,753	
				\$1/SF Zone 7 Drainage Fee	\$25,000	
				CIVIL ESTIMATE	\$1,832,527	

Escalation factor at 3% annually (2019 to 2021)

ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)

\$111,600.89

\$1,944,127.89

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 17

Segment 17 Central Parkway between Hacienda Drive and Tassajara Road

Description:

Date: 8/1/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$5,000.00	\$5,000
2	Traffic Control (8%)	1	LS	\$4,000.00	\$4,000
3	SWPPP/Erosion Control (2%)	1	LS	\$1,000.00	\$1,000
4	Construction Staking (2%)	1	LS	\$1,000.00	\$1,000
Subtotal - General					\$11,000
Striping					
5	12" Limit Line/Crosswalk	30	LF	\$10.00	\$300
6	Remove Traffic Stripe	30	LF	\$3.00	\$90
Subtotal - Striping					\$390
Paving/Curb					
7	Concrete Curb & Gutter	60	LF	\$90.00	\$5,400
8	Curb Ramp	2	EA	\$9,000.00	\$18,000
Subtotal - Paving Curb					\$23,400
Frontage Improvements					
9	Concrete Sidewalk	500	SF	\$20.00	\$10,000
10	Frontage Right of Way Acquisition	500	SF	\$0.00	\$0
Subtotal - Frontage Improvements					\$10,000
				SUBTOTAL	\$44,790
				Contingency (20%)	\$8,958
				Soft Costs (15% Design/Environmental)	\$6,719
				Soft Costs (15% Construction Management, Inspection & Testing)	\$6,719
				\$1/SF Zone 7 Drainage Fee	\$5,000
				CIVIL ESTIMATE	\$76,581.07
Escalation factor at 3% annually (2019 to 2021) ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)					\$4,396.07 \$76,581.07

Segment 18 Central Parkway between Tassajara Road and Keegan Street**Description:**

Date: 8/1/2017; Updated 6/28/2019 (PCG); Updated 1/9/2020 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$51,000.00	\$51,000
2	Traffic Control (8%)	1	LS	\$41,000.00	\$41,000
3	SWPPP/Erosion Control (2%)	1	LS	\$11,000.00	\$11,000
4	Construction Staking (2%)	1	LS	\$11,000.00	\$11,000
Subtotal - General					\$114,000
Paving/Curb					
5	2" AC Overlay	66,000	SF	\$4.00	\$264,000
6	Curb Ramp	6	EA	\$9,000.00	\$54,000
7	Bus Pullout	2	EA	\$35,000.00	\$70,000
Subtotal - Paving Curb					\$388,000
Frontage Improvements					
8	Landscaping	0	SF	\$10.00	\$0
9	Concrete Sidewalk	0	SF	\$20.00	\$0
10	Frontage Right of Way Acquisition	0	SF	\$55.00	\$0
Subtotal - Frontage Improvements					\$0
SUBTOTAL					\$502,000
Contingency (20%)					\$100,400
Soft Costs (15% Design/Environmental)					\$75,300
Soft Costs (15% Construction Management, Inspection & Testing)					\$75,300
\$1/SF Zone 7 Drainage Fee					\$0
CIVIL ESTIMATE					\$753,000
Escalation factor at 3% annually (2019 to 2021)					\$45,857.70
ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)					\$798,857.70

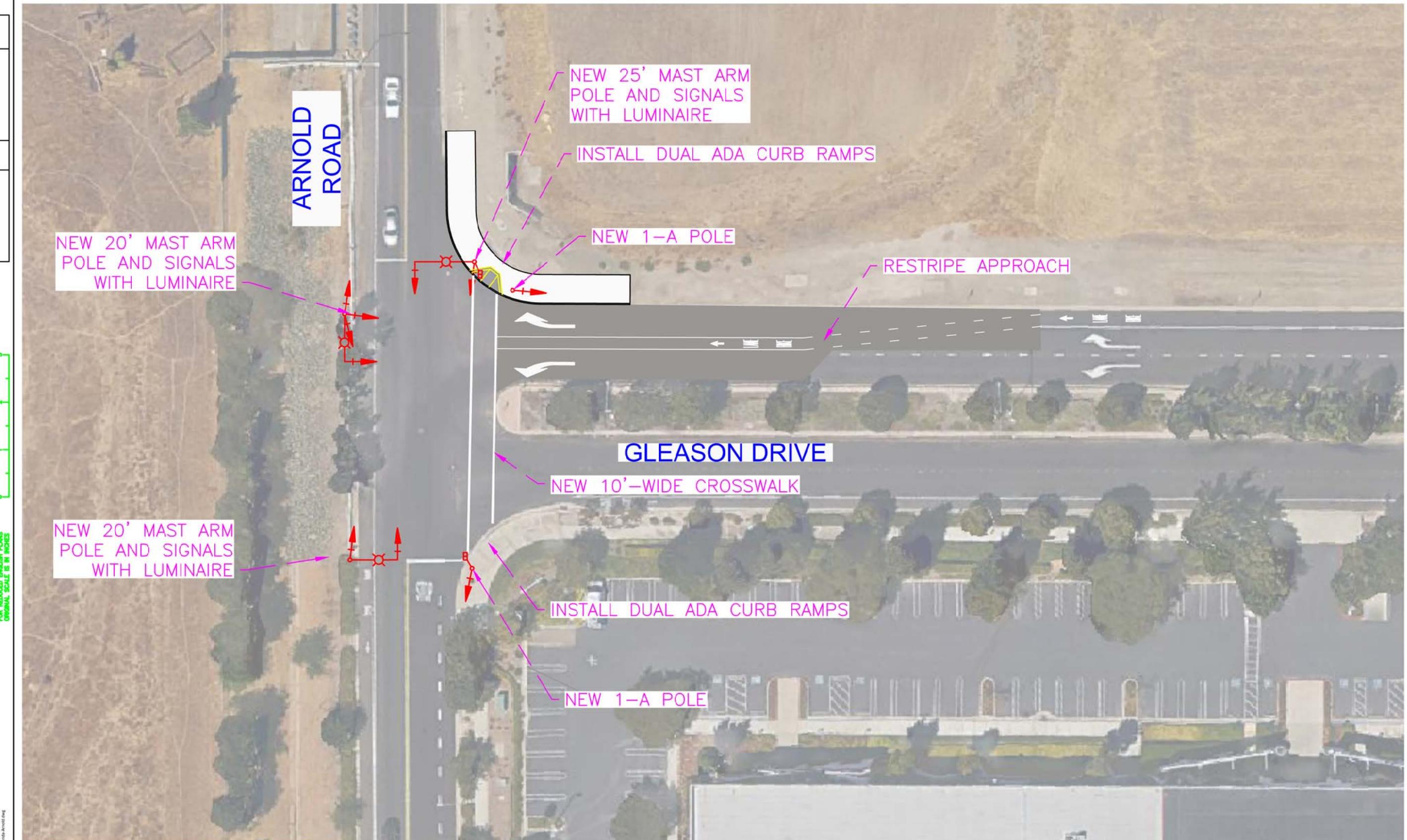
**PROJECT D:
GLEASON DRIVE**



CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY:	DATE:

FOR REFERENCED DRAWINGS, PLANS, OR ORIGINAL SCALE IS IN INCHES



DRAWING NAME: 151AD0100771870eng-00-Arnold and Gleason Drive

DATE: 2021-01-25

SCALE: AS NOTED

PCG JOB NO.:



0 40' 80'

SHEET 1 OF 1

CITY OF DUBLIN
EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 19: GLEASON DRIVE BETWEEN
ARNOLD DR AND HACIENDA DR

REVISIONS	
NO.	DESCRIPTION
	DATE
	BY APPD
	APPROVED:
	CHECKED:
	DRWNN:
	DESIGNED:

NO.	DESCRIPTION	DATE	BY APPD

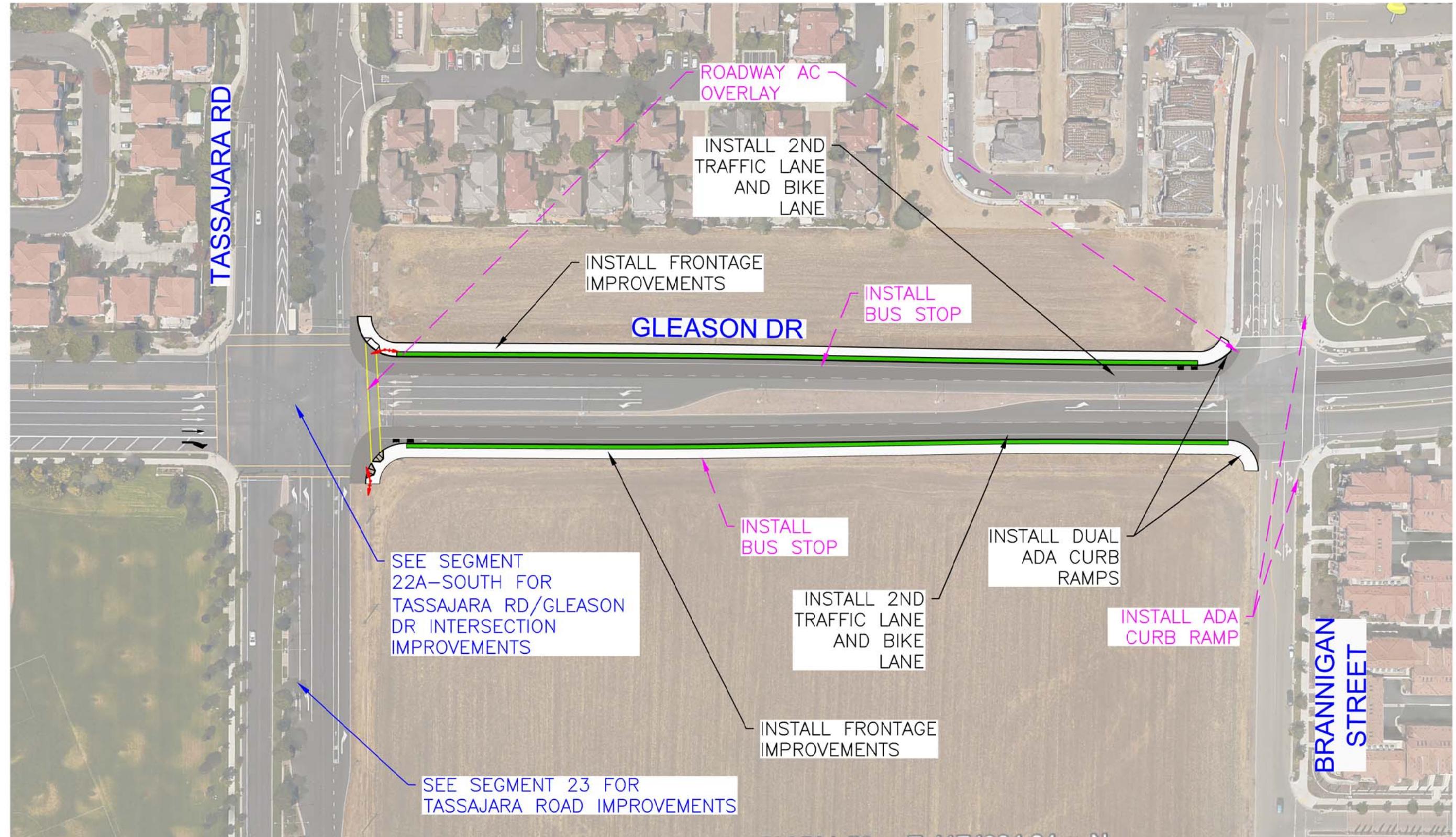
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CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REVISED BY: _____ DATE: _____

FOR REDUCED ENGLISH PLANS
ORIGINAL SCALE IS IN INCHES

DRAWING NAME: 15CA000221.DWG
PLOT DATE: 02-26-20 PLOTTED BY: wba



LEGEND:

- NOT ELIGIBLE FOR TIF CREDIT
- — — — — ELIGIBLE FOR TIF CREDIT

DRAWING NAME: 15CA000221.DWG
PLOT DATE: 02-26-20 PLOTTED BY: wba



0 100' 200'

SHEET 1 OF 4

CITY OF DUBLIN		EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE	
SEGMENT 20: GLEASON DR BETWEEN		TASSAJARA RD AND FALCON RD	
DRAWN:	APPROVED:	DRAWN:	APPROVED:
PCG	PCG	PCG	PCG
DESIGNED:	CHECKED:	DESIGNED:	APPROVED:
DATE:	SCALE AS NOTED	DATE:	SCALE AS NOTED
PCG JOB NO.:	PLAN	PCG JOB NO.:	PLAN
	Sheet _____ of _____		Sheet _____ of _____

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REVISIONS

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REVIEWED BY: _____ DATE: _____

FOR REDUCED DIGITAL
OPTICAL SCALE IN

DRAWING NAME: 11CA00110027181(dwg-out)(Season.dwg)
LOT DATE: 02-26-20 PLOTTED BY: Wall

An aerial photograph of a residential area. A major road runs diagonally from the bottom left towards the top right. A highway with multiple lanes is visible on the right side. The neighborhood consists of numerous single-story houses with various roof colors (brown, grey, blue). The streets are lined with trees and shrubs. A blue line label 'GRAFTON ST' is positioned vertically along a street on the right. Another blue line label 'GLEASON DR' is positioned horizontally across a road. A coordinate label '4174648.20 m N' is located in the upper left quadrant. A small blue circle is visible in the top left corner of the image.

LEGEND:

NOT ELIGIBLE FOR TIF CREDIT

— — — ELIGIBLE FOR TIF CREDIT



A horizontal number line with tick marks at 0, 100, and 200. The segment from 0 to 100 is shaded black, while the segments from 0 to 0 and from 100 to 200 are white.

SHEET 2 OF 4

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY:	DATE:	REVIEWED BY:	DATE:



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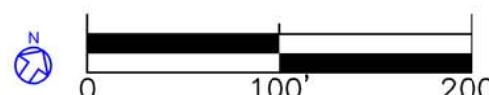
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— ELIGIBLE FOR TIF CREDIT

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SHEET 3 OF 4

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

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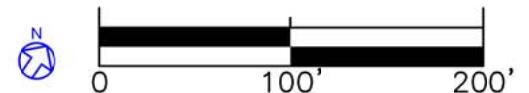
200

FOR REDUCED ENOUGH PLANS
ORIGINAL SCALE IS IN INCHES



LEGEND:

NOT ELIGIBLE FOR TIF CREDIT



SHEET 4 OF 4

DATE	SCALE
PCG JOB NO. _____	
PLAN _____	
SHEET _____ OF _____	

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 19

Segment 19 Gleason Drive between Arnold Road and Hacienda Drive

Description:

Date: 8/1/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$47,000.00	\$47,000
2	Traffic Control (8%)	1	LS	\$38,000.00	\$38,000
3	SWPPP/Erosion Control (2%)	1	LS	\$10,000.00	\$10,000
4	Construction Staking (2%)	1	LS	\$10,000.00	\$10,000
					Subtotal - General
					\$105,000
Signing					
5	New Sign and Post	2	EA	\$700.00	\$1,400
6	New Sign on Signal Mast Arm	3	EA	\$900.00	\$2,700
					Subtotal - Signing
					\$4,100
Striping					
7	Bicycle Lane (Thermoplastic)	500	LF	\$1.50	\$750
8	12" Limit Line/Crosswalk	200	LF	\$10.00	\$2,000
9	Pavement Legends (Thermoplastic)	140	SF	\$12.00	\$1,680
					Subtotal - Striping
					\$4,430
Paving/Curb					
10	Sawcutting	0	LF	\$5.00	\$0
11	Concrete Curb & Gutter	0	LF	\$90.00	\$0
12	Curb Ramp	4	EA	\$9,000.00	\$36,000
					Subtotal - Paving Curb
					\$36,000
Frontage Improvements					
13	Concrete Sidewalk	0	SF	\$20.00	\$0
14	Frontage Right of Way Acquisition	0	SF	\$55.00	\$0
					Subtotal - Frontage Improvements
					\$0
Electrical					
15	Street lighting	3	EA	\$6,000.00	\$18,000
16	New Traffic Signal	1	EA	\$300,000.00	\$300,000
					Subtotal - Electrical
					\$318,000
					SUBTOTAL
					\$467,530
					Contingency (20%)
					\$93,506
					Soft Costs (15% Design/Environmental)
					\$70,130
					Soft Costs (15% Construction Management, Inspection & Testing)
					\$70,130
					\$1/SF Zone 7 Drainage Fee
					\$5,000
					CIVIL ESTIMATE
					\$706,295
Escalation factor at 3% annually (2019 to 2021)					
ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)					
\$43,013.37					
\$749,308.37					

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 20

Segment 20 Gleason Drive between Tassajara Road and Fallon Road

Description:

Date: 8/1/2017; Updated 6/28/2019 (PCG); Updated 1/13/2020 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$31,000.00	\$31,000
2	Traffic Control (8%)	1	LS	\$25,000.00	\$25,000
3	SWPPP/Erosion Control (2%)	1	LS	\$7,000.00	\$7,000
4	Construction Staking (2%)	1	LS	\$7,000.00	\$7,000
					Subtotal - General
					\$70,000
Signing					
5	New Sign and Post	0	EA	\$700.00	\$0
					Subtotal - Signing
					\$0
Striping					
6	2" AC Overlay	35,000	SF	\$4.00	\$140,000
7	Bus Pullout	2	EA	\$35,000.00	\$70,000
8	Detail 38 - 8" Channelization Line	0	LF	\$4.80	\$0
9	12" Limit Line/Crosswalk	250	LF	\$10.00	\$2,500
10	Pavement Legends (Thermoplastic)	230	SF	\$12.00	\$2,760
11	Remove Traffic Legend	150	SF	\$3.00	\$450
12	Remove Traffic Stripe	200	LF	\$3.00	\$600
					Subtotal - Striping
					\$216,310
Paving/Curb					
13	Sawcutting	0	LF	\$5.00	\$0
14	Pavement Section	0	SF	\$23.00	\$0
15	Roadway Right of Way Acquisition	0	SF	\$46.00	\$0
16	Concrete Curb & Gutter	0	LF	\$90.00	\$0
17	Curb Ramp	2	EA	\$9,000.00	\$18,000
					Subtotal - Paving Curb
					\$18,000
Frontage Improvements					
18	Landscaping	0	SF	\$10.00	\$0
19	Concrete Sidewalk	0	SF	\$20.00	\$0
20	Frontage Right of Way Acquisition	0	SF	\$55.00	\$0
					Subtotal - Frontage Improvements
					\$0
Electrical					
21	Signal Modification at Gleason/Tassajara	0	EA	\$80,000.00	\$0
					Subtotal - Electrical
					\$0
					SUBTOTAL
					\$304,310
					Contingency (20%)
					\$60,862
					Soft Costs (15% Design/Environmental)
					\$45,647
					Soft Costs (15% Construction Management, Inspection & Testing)
					\$45,647
					\$1/SF Zone 7 Drainage Fee
					\$0
					CIVIL ESTIMATE
					\$456,465
Escalation factor at 3% annually (2019 to 2021) \$27,798.72					
ADJUSTED CIVIL ESTIMATE (2021 DOLLARS) \$484,263.72					

PROJECT E:
TASSAJARA ROAD



CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY:	DATE:	REMOVED BY:	DATE:

REALIGN AND WIDEN —
ROADWAY TO 4 TRAVEL
LANES, BIKE LANES, AND
CLASS 1 BIKEWAY

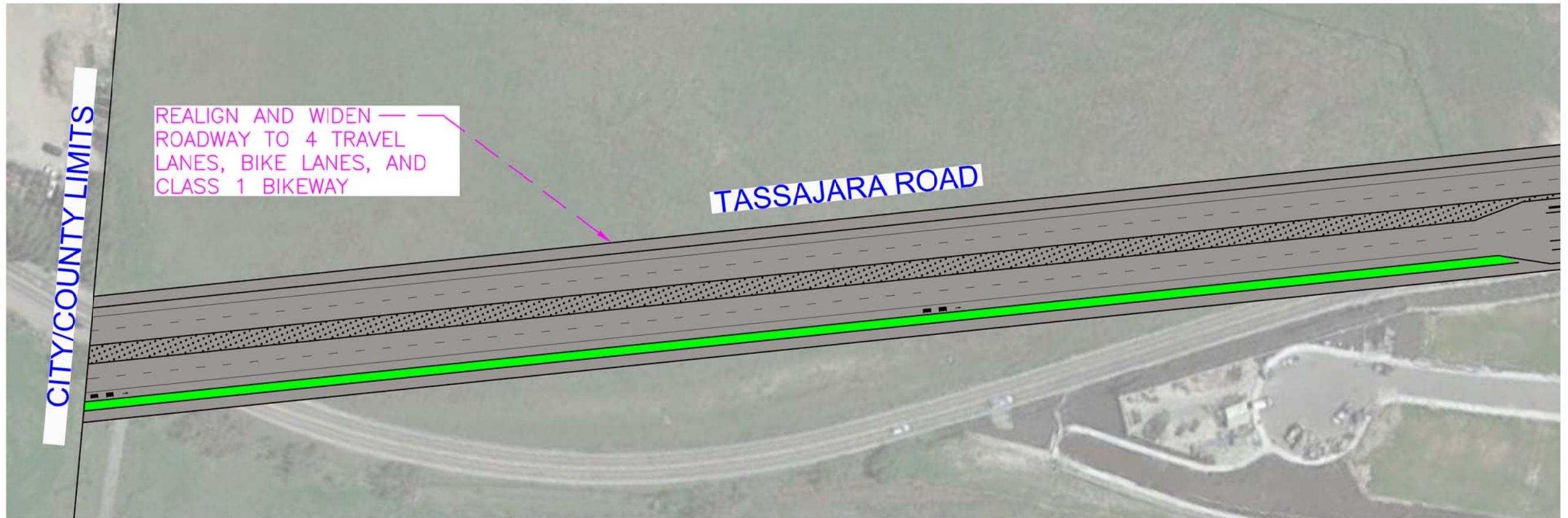
TASSAJARA ROAD

CITY/COUNTY LIMITS

27

FOR REDUCED DUSTY PLANS

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The diagram illustrates a typical cross-section of the Ultimate Tassajara Road. The total width is 110' R/W. The layout is as follows:

- WEST Side:** 3' OVERBUILD, 3:1 MAX slope, 2% grade, CURB AND GUTTER.
- BIKE PARK WAY:** 10' CLASS 1 BIKE WAY, 8' PARK WAY, 8' BIKE, 12' TRAVEL, 12' TRAVEL.
- MEDIAN:** 16' MEDIAN.
- EAST Side:** 12' TRAVEL, 12' TRAVEL, 8' BIKE, 10' PARK WAY, 2' OVERBUILD, 3:1 MAX slope, 2% grade, CURB & GUTTER.
- AC (Asphalt Concrete) and AB (Bituminous Asphalt) layers are shown at the bottom of the cross-section.**

LEGEND:

NOT ELIGIBLE FOR TIF CREDIT

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SHEET 1 OF 2

DATE	SCALE AS NOTED
C.G. JOB NO. _____	
PLAN _____	
SHEET	OF

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY:	DATE:	REVIEWED BY:	DATE:

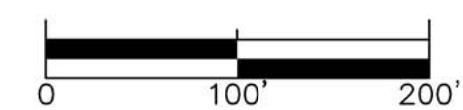
FOR INCREASED ENHANCED PLANS
ORIGINAL SCALE IS IN INCHES



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FILE DATE: 02-26-20 APPROVED BY: _____

LEGEND:

- NOT ELIGIBLE FOR TIF CREDIT
- — — — — ELIGIBLE FOR TIF CREDIT



SHEET 2 OF 2

REVISIONS	DATE BY APP'D
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CITY OF DUBLIN	DESIGNED:
EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE SEGMENT 22: TASSAJARA RD BETWEEN FALLON RD AND CONTRA COSTA COUNTY LINE	DATE SCALE AS NOTED PCG JOB NO. _____
PLAN _____	_____ OF _____

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY:	DATE:	REMOVED BY:	DATE:

This aerial map illustrates a road improvement project on Tassajara Road, showing the proposed infrastructure and construction details. The map includes the following key features and labels:

- QUARRY LANE SCHOOL**: Located on the left side of the map.
- SHADOW HILL DRIVE**: A residential street on the right side of the map.
- TASSAJARA ROAD**: The main road being improved, shown with a green highlighted section.
- INSTALL NEW LEFT TURN LANES**: Located at the intersection of Tassajara Road and Shadow Hill Drive.
- ROADWAY WIDENING (TYPICAL)**: Indicated by arrows along the right side of Tassajara Road.
- INSTALL FRONTAGE IMPROVEMENTS**: Located on the left side of Tassajara Road, near the Quarry Lane School area.
- CONSTRUCT NEW RAISED MEDIAN**: Located on the right side of Tassajara Road, near the Shadow Hill Drive intersection.
- RE-STRIPE ROADWAY FOR TWO (2) THROUGH LANES WITH RAISED MEDIAN AND BIKE LANE IN EACH DIRECTION**: A large text box at the bottom center describing the roadway changes.
- 599383.16 m E 4176114.43 m N**: A coordinate marker with a yellow pin.
- SIGNAL MODIFICATIONS**: Located on the left side of Tassajara Road, near the Quarry Lane School area.
- INSTALL BUS STOP**: Located on the right side of Tassajara Road, near the residential area.

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PLOT DATE: 10-18-21 PLOTTED BY: wali

LEGEND:

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A number line starting at 0 and ending at 200. There are two thick black horizontal bars: one from 0 to 100, and another from 100 to 200.

N

SHEET 1 OF 2

**EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 22A-NORTH: TASSJARA RD
BETWEEN NORTH DUBLIN RANCH RD AND
QUARRY LANE SCHOOL**

111

10

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CITY OF DUBLIN
EASTERN DUBLIN TRAFFIC IMPACT FEE UP
SEGMENT 22A-NORTH: TASSJARA RD /
BETWEEN NORTH DUBLIN RANCH RD /
QUARRY LANE SCHOOL

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ APPROVED BY: _____ DATE: _____

FOR REVISED PLANS
ORIGINAL SCALE IS IN METERS



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0 100' 200'

SHEET 2 OF 2

CITY OF DUBLIN
EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 22A-NORTH: TASSAJARA RD
BETWEEN NORTH DUBLIN RANCH RD AND
QUARRY LANE SCHOOL

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REVISIONS

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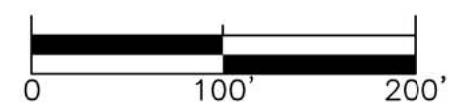
CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____
DATE: _____



SECTION N 5 OF 5, THIS DRAWING IS FOR INFORMATION PURPOSES ONLY AND IS NOT A PLAT.

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PLOT DATE: 02-26-2019



SHEET 1 OF 2

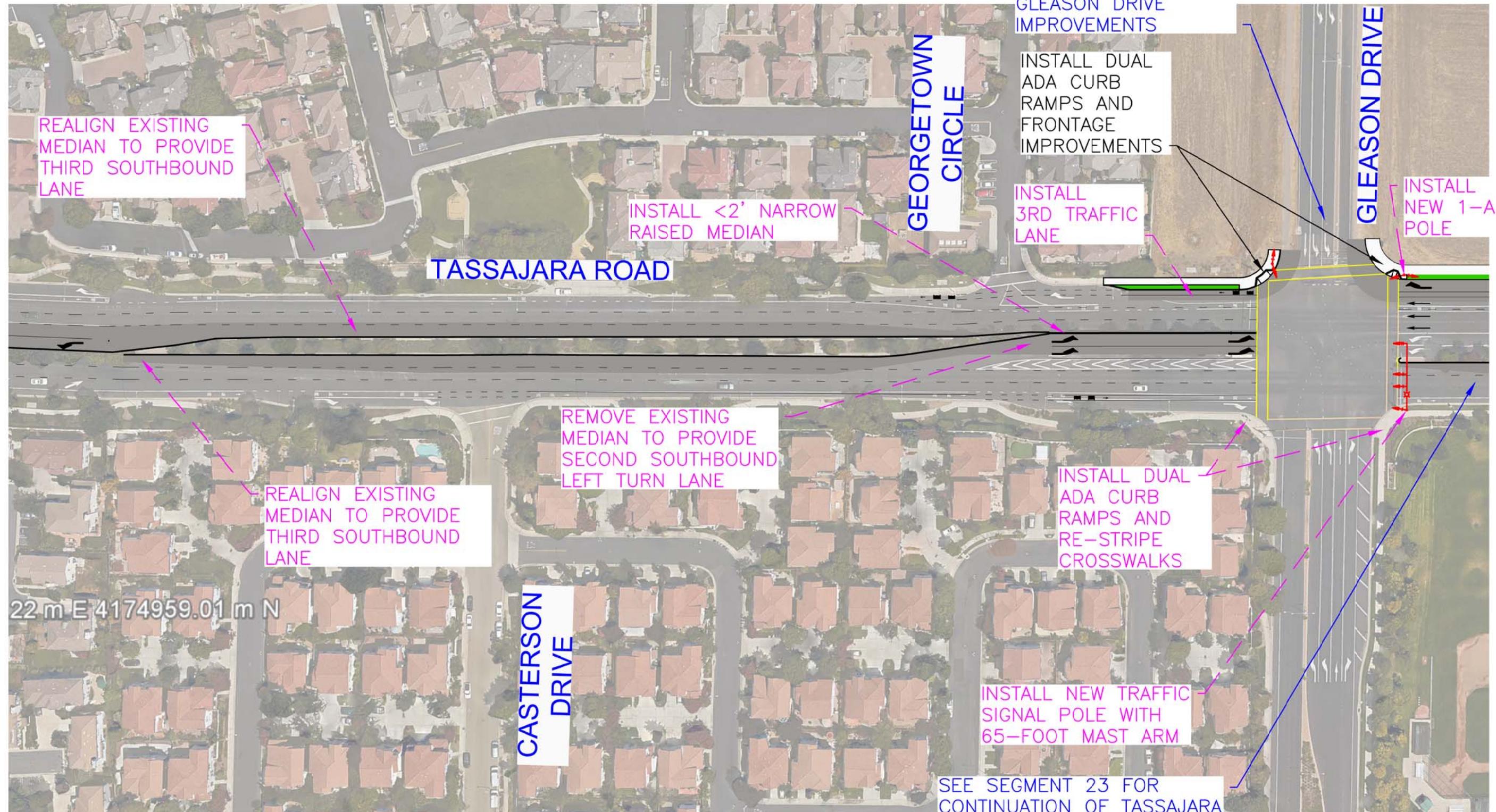
REVISIONS	
PCG	PCG Consulting Group, Inc. 5778 Stoneridge Mall Road, Ste 320 Pleasanton, CA 94568 P: 925.224.7717 F: 925.224.7726 www.pcengr.com
APPROVED:	APPROVED:
DESIGNED:	DESIGNED:
DRIVEN:	DRIVEN:
NO.:	NO.:
DESCRIPTION:	DESCRIPTION:
DATE:	DATE:
BY:	BY:

CITY OF DUBLIN

**EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 22A-SOUTH: TASSAJARA ROAD
BETWEEN GLEASON DR
AND N DUBLIN RANCH RD**

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REVIEWED BY: _____ DATE: _____



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SHEET 2 OF 2

REVISIONS	
△ MOVE PROPOSED 3RD N/A LANE TO MEDIAN	7/3/2019
NO. DESCRIPTION	DATE BY APP'D
PCG CONSULTING GROUP, INC. 5776 Stoneridge Mall Road, Ste 320 Pleasanton, CA 94568 P: 925.224.7717 F: 925.224.7726 www.pcengr.com	PCG
DRAWN: _____	CHECKED: _____
DESIGNED: _____	APPROVED: _____
CITY OF DUBLIN	EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE SEGMENT 22A-SOUTH: TASSAJARA ROAD BETWEEN GLEASON DR AND N DUBLIN RANCH RD

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REVIEWED BY: _____ DATE: _____

GLEASON DRIVE

SEE SEGMENT 20 FOR GLEASON DRIVE IMPROVEMENTS

SEE SEGMENT 22A FOR CONTINUATION OF TASSAJARA ROAD IMPROVEMENTS (NORTH OF GLEASON DRIVE)

INSTALL BUS STOP

INSTALL FRONTAGE IMPROVEMENTS

PARTIALLY REMOVE EXISTING MEDIAN TO PROVIDE THIRD SOUTHBOUND THROUGH LANE

SEE SEGMENT 17 FOR CENTRAL PARKWAY IMPROVEMENTS (WEST OF TASSAJARA ROAD)

SEE SEGMENT 18 FOR CENTRAL PARKWAY IMPROVEMENTS (EAST OF TASSAJARA ROAD)

ROADWAY WIDENING TO PROVIDE THIRD NORTHBOUND THROUGH LANE

INSTALL DUAL ADA CURB RAMPS

CENTRAL PARKWAY

INSTALL FRONTAGE IMPROVEMENTS

INSTALL NEW 1-A POLE

FOR REDUCED ENOUGH PLANS
SCHOOL IN SOUTHERN STATE IS

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SHEET 1 OF 2

CITY OF DUBLIN
EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 23: TASSAJARA ROAD BETWEEN
DUBLIN BLVD AND GLEASON DR

REVISIONS	
 Pakpour Consulting Group, Inc. 5776 Stoneridge Mall Road, Ste 320 Pleasanton, Ca 94588 P: 925.224.7717 F: 925.224.7726 www.pcgengr.com	<input type="checkbox"/> RAWN: <input type="checkbox"/> DESIGNED: <input type="checkbox"/> CHECKED: <input type="checkbox"/> APPROVED:
<input type="checkbox"/> △ <input type="checkbox"/> △	

DATE	SCALE
AS NOTED	
PCG JOB NO. _____	
PLAN _____	
SHEET _____ OF _____	

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY:	DATE:	REVIEWED BY:	DATE:

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SAVING HISTORIC CEMETERIES

LEGEND:

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ROADWAY WIDENING
TO PROVIDE THIRD
NORTHBOUND
THROUGH LANE

✓ INSTALL FRONTAGE IMPROVEMENTS

✓ INSTALL BUS STOP

✓ INSTALL NEW TRAFFIC SIGNAL POLE WITH 55-FOOT MAST ARM

SEE SEGMENT 10
FOR DUBLIN BLVD
IMPROVEMENTS

— INSTALL ADA CURB RAMP

- INSTALL NEW TRAFFIC SIGNAL POLE WITH 30-FOOT MAST ARM

DUBLIN
BOULEVARD

INSTALL NEW
1-A POLE

INSTALL FRONTRAGE IMPROVEMENTS

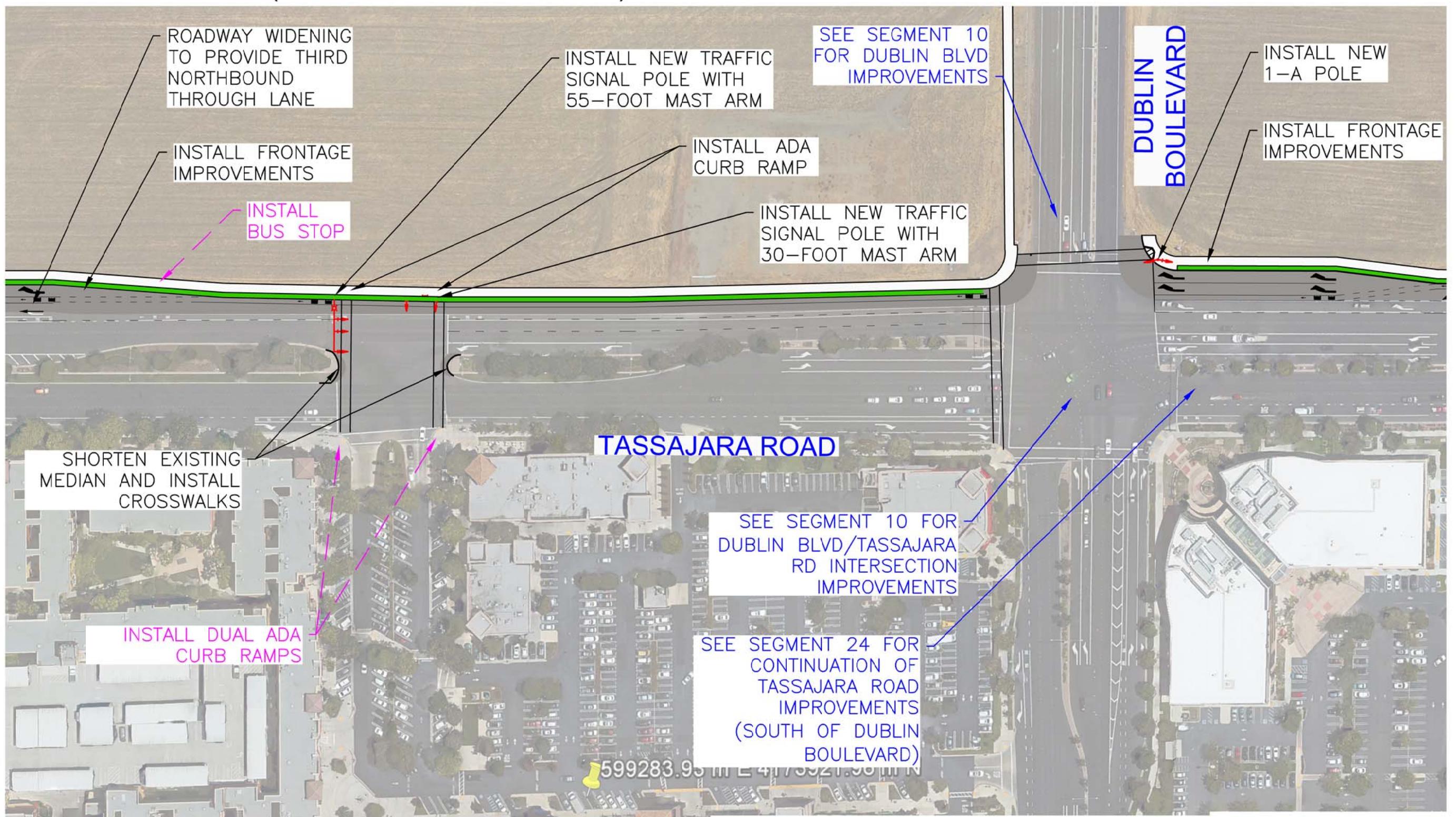
SHORTEN EXISTING
MEDIAN AND INSTALL
CROSSWALKS

INSTALL DUAL ADA CURB RAMPS

TASSAJARA ROAD

SEE SEGMENT 10 FOR
DUBLIN BLVD/TASSAJARA
RD INTERSECTION
IMPROVEMENTS

SEE SEGMENT 24 FOR
CONTINUATION OF
TASSAJARA ROAD
IMPROVEMENTS
(SOUTH OF DUBLIN
BOULEVARD)



CITY OF DUBLIN
EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 23: TASSAJARA ROAD BETWEEN
DUBLIN BLVD AND GLEASON DR

DATE	SCALE AS NOTED
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PLAN _____	
SHEET _____ OF _____	

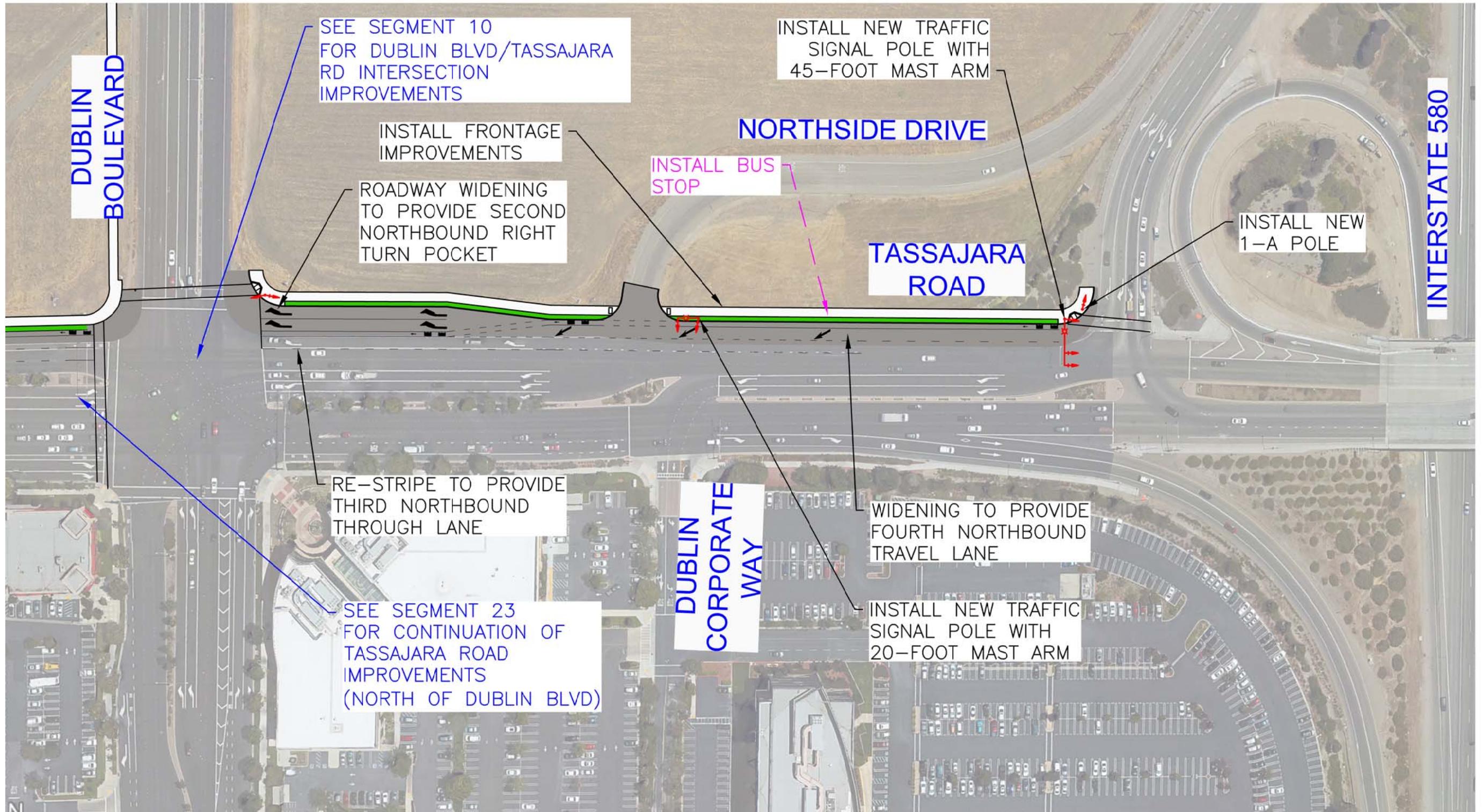
SHEET 2 OF 2

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CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

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— ELIGIBLE FOR TIF CREDIT

DRAWING NAME: PCG0100007389ngnTassajara Update 2019.dwg
FILE DATE: 02-26-2019
PLANTED BY: _____



0 100' 200'

SHEET 1 OF 1

CITY OF DUBLIN
EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 24: TASSAJARA ROAD BETWEEN
INTERSTATE 580 AND DUBLIN BLVD

DATE: _____ SCALE: _____
PCG JOB NO. _____ AS NOTED
PLAN: _____
SHEET: _____ OF _____

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REVISIONS

NO.	DESCRIPTION	DATE	BY APP'D
1	1-A POLE	01/01/2020	PCG

2/13/2019

Tassajara Road Improvements (Segment 22- City Portion)

Fallon Road to City/County Limits

	Description	Budget
Construction		
Engineers Estimate	\$ 6,054,752.50	
Contingency 15%	\$ 908,212.88	
Construction CCO Authority 10%	\$ 696,296.54	
Cost Rise Projected in Mid-2022 (6.7%)*	\$ 513,170.55	
Total Construction	\$ 8,172,432.46	
Right-of-way		
Road R/W 0.65 acre \$540K/acre	\$ 351,000.00	
R/W Engineering & Legal 20%of R/W	\$ 70,200.00	
Mitigation Land bank (Ave. Ratio 2.75 @35,000/ac)	\$ 1,241,346.59	
Creek Setback Mitigation	\$ 100,000.00	
Cost Rise Projected in Mid-2022 (6.7%)*	\$ 118,090.62	
Total Right-of-way	\$ 1,880,637.21	
Project Soft Costs		
Environmental Study/CEQA 3% of Const.	\$ 229,778	
Cost Rise Projected in Mid-2021 (5.1%)*	\$ 11,719	
Environmental Study/CEQA Total	\$ 241,497	
Detail Design 12% of Const.	\$ 919,111	
Cost Rise Projected in Mid-2021 (5.1%)*	\$ 46,875	
Detail Design Total	\$ 965,986	
Total Project Soft Costs	\$ 1,207,483	
CM/Testing/Inspect/Permits		
CM/RE/Inspection 13% of Const.	\$ 995,704	
Design Construction Support 2% of Const.	\$ 153,185	
Cost Rise Projected in Mid-2022 (6.7%)*	\$ 76,976	
Total CM/Testing/Inspect/Permits	\$ 1,225,865	
Fees		
Impervious Area Development Fee	\$ 113,300	
Total Project Estimate	\$ 12,599,717	

10/1/2021



Tassajara Road Improvements (Segment 1)

North Dublin Ranch Road to Quarry Lane School Road

	Description	Budget
Construction		
Engineers Estimate	\$ 7,140,839.72	
Mobilization 15%	\$ 714,083.97	
Contingency 15%	\$ 1,178,238.55	
Cost Rise Projected in Mid-2021 (3%)*	\$ 270,994.87	
Total Construction	\$ 9,304,157.11	
Construction CCO Authority 10%	\$ 930,415.71	
Total Construction Budget	\$ 10,234,572.82	
Total Construction Budget (Round)	\$ 10,235,000	
CM/Testing/Inspect		
CM/RE/Inspection 10% of Const.	\$ 930,416	
Design Construction Support 2% of Const.	\$ 186,083	
Cost Rise Projected in Mid-2022 (3% per year)**	\$ 66,990	
Total CM/Testing/Inspect	\$ 1,183,489	
Total CM/Testing/Inspect (Round)	\$ 1,183,000	
		\$ 11,418,000
Right-of-way		
Road R/W 0.346 acre ***	\$ 1,074,616.49	
Road R/W 0.100 acre ****	\$ 62,116.56	
R/W Engineering & Legal 40%of R/W		
Mitigation Land bank (Ave. Ratio 2.75 @35,000/ac)		
Cost Rise Projected in Mid-2021 (3% per year)		
Total Right-of-way	\$ 1,136,733.05	
Total Right-of-way (Round)	\$ 1,137,000.00	
		\$ 12,555,000
	Design	\$ 970,232
		\$ 13,525,232
Other Costs, Expenses and Contingencies		
PW Staff Time	\$ 87,746	
City Attorney	\$ 10,000	
Total Staff Costs	\$ 97,746	
Env application	\$ 2,500	

Advertising	\$	2,000
Printing	\$	5,000
Total Expenses	\$	9,500
 Fees		
Impervious Area Development Fee	\$	16,566
PG&E Electrical Service	\$	100,000
DSRSD Irrigation Service	\$	50,000
DSRSD SS Limited Construction Permit	\$	5,000
Total Fees		171,566.00
	\$	278,812
	\$	13,804,044
Project Contingency	\$	690,202
	5.00%	
	\$	14,494,246
	\$	14,494,000

* Percentage of cost rise based on Construction Cost Indices and Forecast for 2020 & 2021.

** Assumed CPI increase of 3% per year.

***City valuations determined from the City of Dublin Appraisal Consulting Assignment Report, dated Septer

**** Rural Segment \$540k per acre

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 22A

Segment 22A-South Tassajara Road - From Gleason Drive to North Dublin Ranch Drive

Description:

Date: 1/9/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$240,000.00	\$240,000
2	Traffic Control (8%)	1	LS	\$192,000.00	\$192,000
3	SWPPP/Erosion Control (2%)	1	LS	\$48,000.00	\$48,000
4	Construction Staking (2%)	1	LS	\$48,000.00	\$48,000
Subtotal - General					\$528,000
Striping					
5	Detail 9 - 4" Dashed Lane Line	5,500	LF	\$1.00	\$5,500
6	Bicycle Lane (Thermoplastic)	1,090	LF	\$1.50	\$1,635
7	Detail 38 - 8" Channelization Line	680	LF	\$4.80	\$3,264
8	12" Limit Line/Crosswalk	800	LF	\$10.00	\$8,000
9	Pavement Legends (Thermoplastic)	350	SF	\$12.00	\$4,200
10	Remove Traffic Legend	130	SF	\$3.00	\$390
11	Remove Traffic Stripe	420	LF	\$3.00	\$1,260
Subtotal - Striping					\$24,249
Paving/Curb					
12	Sawcutting	3,700	LF	\$5.00	\$18,500
13	Pavement Section	35,000	SF	\$23.00	\$805,000
14	Concrete Curb	3,500	LF	\$85.00	\$297,500
15	Curb Ramp	4	EA	\$9,000.00	\$36,000
Subtotal - Paving Curb					\$1,157,000
Demolition & Removals					
16	Remove Concrete Curb and Gutter	3,200	LF	\$20.00	\$64,000
17	Remove Tree	11	EA	\$2,500.00	\$27,500
18	Clear and Grub	1	LS	\$35,000.00	\$35,000
19	Excavation	1,500	CY	\$75.00	\$112,500
Subtotal - Demolition & Removals					\$239,000
Stormwater Improvements					
20	Deepened Curb and Gutter	70	LF	\$150.00	\$10,500
21	4" Underdrain with Cleanout	30	LF	\$30.00	\$900
22	Biotreatment Soil	5	CY	\$150.00	\$750
23	Permeable Rock	3	CY	\$100.00	\$300
Subtotal - Green Infrastructure					\$12,450
Electrical					
24	Signal Modifications at Tassajara/Gleason	1	LS	\$150,000.00	\$150,000
25	Signal Modifications at Tassajara/S. Dublin Ranch	1	LS	\$150,000.00	\$150,000
26	Conversion of copper connection to fiber optic connection	2,500	LF	\$50.00	\$125,000
Subtotal - Electrical					\$425,000
			SUBTOTAL		\$2,385,699
			Contingency (20%)		\$477,140
			Soft Costs (15% Design/Environmental)		\$357,855
			Soft Costs (15% Construction Management, Inspection & Testing)		\$357,855
			\$1/SF Zone 7 Drainage Fee		\$20,000
			CIVIL ESTIMATE		\$3,598,549
Escalation factor at 3% annually (2019 to 2021) ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)					\$219,151.60 \$3,817,700.10

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 23

Segment 23 Tassajara Road - Between Dublin Blvd and Gleason Drive

Description:

Date: 8/1/2017; Updated 6/28/2019 (PCG); Updated 1/9/2020 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

Segment 24 Tassajara Road - Between I-580 Interchange and Dublin Blvd**Description:**

Date: 8/1/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$5,000.00	\$5,000
2	Traffic Control (8%)	1	LS	\$4,000.00	\$4,000
3	SWPPP/Erosion Control (2%)	1	LS	\$1,000.00	\$1,000
4	Construction Staking (2%)	1	LS	\$1,000.00	\$1,000
Subtotal - General					\$11,000
Signing					
5	New Sign and Post	1	EA	\$700.00	\$700
6	New Sign on Signal Mast Arm	1	EA	\$900.00	\$900
Subtotal - Signing					\$1,600
Striping					
7	Detail 9 - 4" Dashed Lane Line	0	LF	\$1.00	\$0
8	Bicycle Lane (Thermoplastic)	0	LF	\$1.50	\$0
9	Detail 38 - 8" Channelization Line	0	LF	\$4.80	\$0
10	12" Limit Line/Crosswalk	0	LF	\$10.00	\$0
11	Pavement Legends (Thermoplastic)	0	SF	\$12.00	\$0
12	Remove Traffic Legend	0	SF	\$3.00	\$0
13	Remove Traffic Stripe	0	LF	\$3.00	\$0
Subtotal - Striping					\$0
Paving/Curb					
14	Sawcutting	0	LF	\$5.00	\$0
15	Pavement Section	0	SF	\$23.00	\$0
16	Roadway Right of Way Acquisition	0	SF	\$46.00	\$0
17	Concrete Curb & Gutter	0	LF	\$90.00	\$0
18	Bus Pullout	2	EA	\$35,000.00	\$70,000
Subtotal - Paving Curb					\$70,000
Demolition & Removals					
19	Remove AC Pavement	0	SF	\$5.00	\$0
Subtotal - Demolition & Removals					\$0
Frontage Improvements					
20	Landscaping	0	SF	\$10.00	\$0
21	Concrete Sidewalk	0	SF	\$20.00	\$0
22	Frontage Right of Way Acquisition	0	SF	\$55.00	\$0
Subtotal - Frontage Improvements					\$0
Electrical					
23	Signal Modifications at Tassajara/Dublin	1	LS	\$30,000.00	\$30,000
24	Signal Modifications at Tassajara/Dublin Corporate Way	0	LS	\$75,000.00	\$0
25	Signal Modifications at Tassajara/I-580 Westbound off-ramp	0	LS	\$150,000.00	\$0
26	Street lighting	0	EA	\$6,000.00	\$0
Subtotal - Electrical					\$30,000
			SUBTOTAL		\$112,600
			Contingency (20%)		\$22,520
			Soft Costs (15% Design/Environmental)		\$16,890
			Soft Costs (15% Construction Management, Inspection & Testing)		\$16,890
			\$1/SF Zone 7 Drainage Fee		\$0
			CIVIL ESTIMATE		\$168,900
Escalation factor at 3% annually (2019 to 2021) ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)					\$10,286.01 \$179,186.01

PROJECT F:
TASSAJARA/I-580 INTERCHANGE



Project F: I-580/Tassajara Road Interchange

Description: Preliminary Cost Estimate

Date: Updated 6/28/2019 (PCG)

Description	Cost Estimate, 2018 EDTIF Report*	2017-2021 Construction Cost Escalation (3% Annualized)	Updated Cost Estimate
Widen eastbound off-ramp approach at Tassajara Road to provide fifth lane	\$ 3,827,397.00	\$ 480,372.04	\$ 4,307,769.04

*Cost estimate represented 2017 dollars

**PROJECT G:
FALLON ROAD**



CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY:	DATE:	REMOVED BY:	DATE:

FOR REDUCED ENGLISH PLANS
ORIGINAL SCALE 15 INCHES

GLEASON
DRIVE

FALLON ROAD

600786.93 m E 4174827.94 m N

BENT TREE
DRIVE

LEGEND:

NOT ELIGIBLE FOR TIF CREDIT



A number line starting at 0 and ending at 200. The interval from 100 to 200 is shaded in black.

SHEET 1 OF 3

DRAWING NAME: J:\CADD\10027.18.dwg OUTFILE:dwg
PLOT DATE: 02-26-20 PLOTTED BY: wba

**EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 26A: FALLON RD BETWEEN
GLEASON DR AND DUBLIN BLVD**

REVIEWS

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CITY OF DUBLIN

EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 26A: FALLON RD BETWEEN
GLEASON DR AND DUBLIN BLVD

DATE	SCALE
AS NOTED	
C.G. JOB NO. _____	
PLAN _____	
SHEET _____ OF _____	

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REMEDYED BY: _____ DATE: _____

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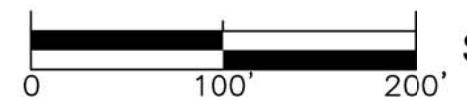
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LEGEND:

NOT ELIGIBLE FOR TIF CREDIT

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SHEET 2 OF 3

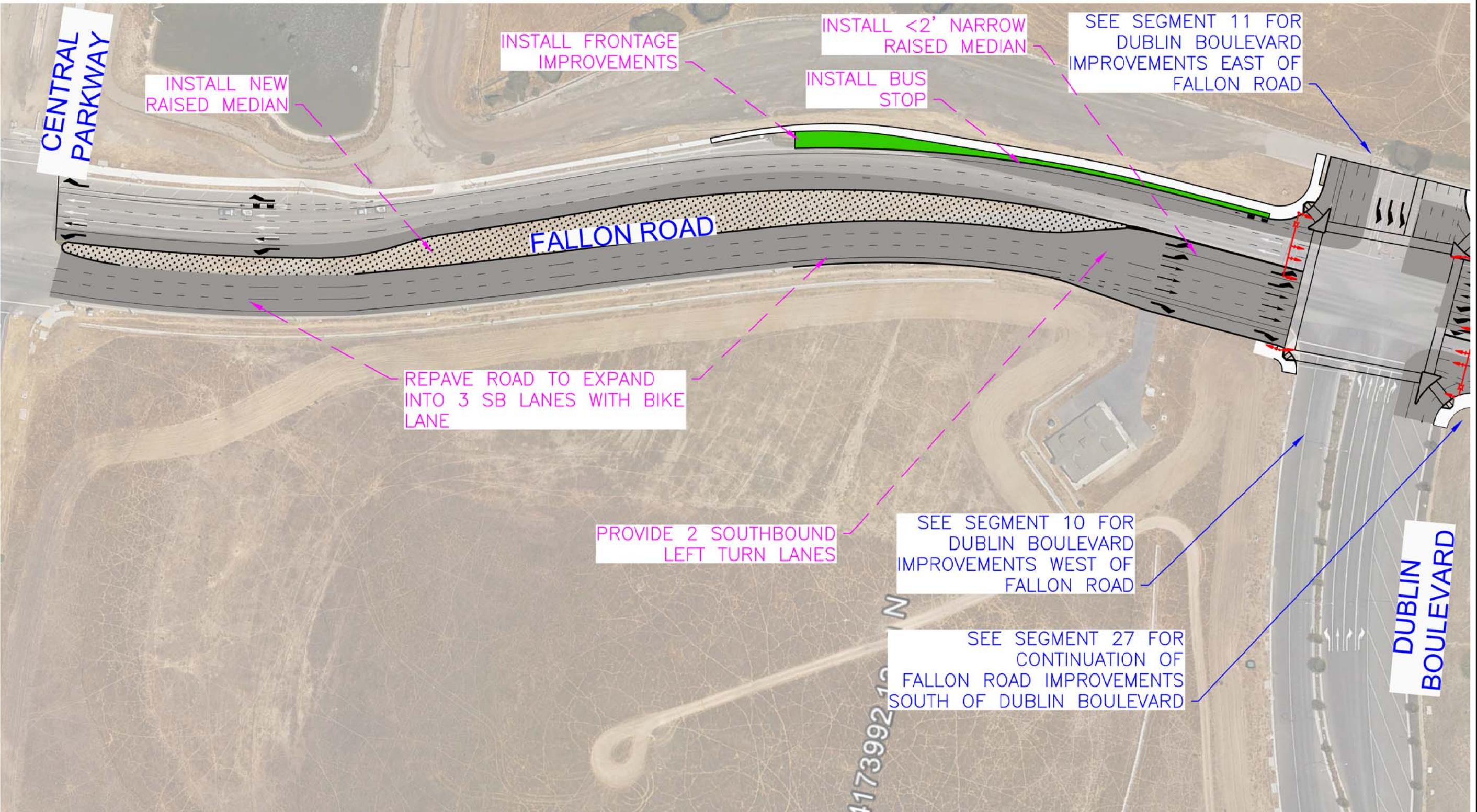
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PLAN _____	
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CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REMARKED BY: _____ DATE: _____

1' 1' 1'

FOR ENHANCED PLANS
ORIGINAL SCALE 1:5000



LEGEND:

- NOT ELIGIBLE FOR TIF CREDIT
- — — ELIGIBLE FOR TIF CREDIT

DRAWING NAME: 1173992.DWG DRAWN BY: _____ DATE: 02-26-2020



0 100' 200'

SHEET 3 OF 3

DATE: _____ SCALE: _____
PCG JOB NO. _____ AS NOTED
PLAN: _____ SHEET: _____ OF _____



CITY OF DUBLIN
EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 26A: FALLOON RD BETWEEN
GLEASON DR AND DUBLIN BLVD

REVISIONS	NO. DESCRIPTION	DATE BY APPROV'D

PCG Consulting Group, Inc.
5776 Stoneridge Mall Road, Ste 320
Pleasanton, CA 94588
P: 925.224.7717 F: 925.224.7726
www.pcengr.com

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REMENED BY: _____ DATE: _____

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FOR FEDERAL HIRE

This aerial map illustrates the proposed improvements for the intersection of Dublin Boulevard and Fallon Road. The map shows the existing road network and the proposed construction areas. Key features include:

- DUBLIN BOULEVARD:** Labeled on the left, showing the existing road and a proposed segment with a green line.
- FALLON ROAD:** Labeled in the center, showing the existing road and a proposed segment with a green line.
- FALLON GATEWAY:** A proposed gateway structure at the intersection.
- I-580 SB EXIT RAMP:** Labeled on the right, showing the ramp from Fallon Road onto the highway.
- EXISTING FEATURES:** Existing travel lanes, shoulders, and a landscaped median are shown in grey.
- PROPOSED FEATURES:** New travel lanes, a bike lane, ADA curb ramps, bus stops, and landscaped medians are shown in green and pink.
- NOTES:**
 - SEE SEGMENT 11 FOR DUBLIN BLVD/FALLON RD INTERSECTION IMPROVEMENTS
 - SEE SEGMENT 26A FOR CONTINUATION OF FALLON ROAD IMPROVEMENTS NORTH OF DUBLIN BOULEVARD
 - INSTALL FRONTAGE IMPROVEMENTS
 - INSTALL BUS STOP
 - INSTALL LANDSCAPED MEDIAN
 - INSTALL ADA CURB RAMPS
 - INSTALL 4TH TRAVEL LANE
 - INSTALL 3RD TRAVEL LANE
 - INSTALL BIKE LANE
 - INSTALL <2' NARROW RAISED MEDIAN
 - INSTALL DUAL ADA CURB RAMPS AND STRIPE CROSSWALKS
 - INSTALL LANDSCAPED MEDIAN

SEE SEGMENT 10 FOR
DUBLIN BOULEVARD IMPROVEMENTS
WEST OF FALLON ROAD

LEGEND

— NOT ELIGIBLE FOR TIF CREDIT



A number line starting at 0 and ending at 200. The segment from 0 to 100 is shaded black, while the segment from 100 to 200 is white (unshaded). There are tick marks at 0, 100, and 200.

SHEET 1 OF 1

Segment 26A Fallon Road between Gleason Drive and Dublin Blvd**Description:**

Date: 8/1/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$330,000.00	\$330,000
2	Traffic Control (8%)	1	LS	\$264,000.00	\$264,000
3	SWPPP/Erosion Control (2%)	1	LS	\$66,000.00	\$66,000
4	Construction Staking (2%)	1	LS	\$66,000.00	\$66,000
				Subtotal - General	\$726,000
Signing					
5	New Sign and Post	4	EA	\$700.00	\$2,800
6	New Sign on Signal Mast Arm	1	EA	\$900.00	\$900
				Subtotal - Signing	\$3,700
Striping					
7	Detail 9 - 4" Dashed Lane Line	5,300	LF	\$1.00	\$5,300
8	Bicycle Lane (Thermoplastic)	3,300	LF	\$1.50	\$4,950
9	Detail 38 - 8" Channelization Line	800	LF	\$4.80	\$3,840
10	12" Limit Line/Crosswalk	1,000	LF	\$10.00	\$10,000
11	Detail 22 - Double Yellow Center Line	400	LF	\$2.00	\$800
12	Pavement Legends (Thermoplastic)	890	SF	\$12.00	\$10,680
13	Remove Traffic Legend	180	SF	\$3.00	\$540
14	Remove Traffic Stripe	5,500	LF	\$3.00	\$16,500
				Subtotal - Striping	\$52,610
Paving/Curb					
15	Sawcutting	4,000	LF	\$5.00	\$20,000
16	Pavement Section	32,600	SF	\$23.00	\$749,800
17	Bus Pullout	1	EA	\$35,000.00	\$35,000
18	Concrete Curb	2,450	LF	\$85.00	\$208,250
19	Concrete Curb & Gutter	1,200	LF	\$90.00	\$108,000
20	Narrow Raised Median (< 2')	200	LF	\$12.00	\$2,400
21	Curb Ramp	2	EA	\$9,000.00	\$18,000
				Subtotal - Paving Curb	\$1,141,450
Demolition & Removals					
22	Excavation	1,250	CY	\$75.00	\$93,750
				Subtotal - Demolition & Removals	\$93,750
Frontage Improvements					
23	Landscaping	32,300	SF	\$10.00	\$323,000
24	Concrete Sidewalk	6,750	SF	\$20.00	\$135,000
25	Frontage Right of Way Acquisition	4,500	SF	\$55.00	\$247,500
				Subtotal - Frontage Improvements	\$705,500
Stormwater Improvements					
26	Deepened Curb and Gutter	800	LF	\$150.00	\$120,000
27	4" Underdrain with Cleanout	400	LF	\$30.00	\$12,000
28	Biotreatment Soil	70	CY	\$150.00	\$10,500
29	Permeable Rock	45	CY	\$100.00	\$4,500
				Subtotal - Green Infrastructure	\$147,000
Electrical					
26	Partial Signal Modifications at North Leg of Dublin/Fallon	1	LS	\$120,000.00	\$120,000
27	Signal Modification at Central/Fallon	1	LS	\$200,000.00	\$200,000
28	Street lighting	17	EA	\$6,000.00	\$102,000
				Subtotal - Electrical	\$422,000
				SUBTOTAL	\$3,292,010
				Contingency (20%)	\$658,402
				Soft Costs (15% Design/Environmental)	\$493,802
				Soft Costs (15% Construction Management, Inspection & Testing)	\$493,802
				\$1/SF Zone 7 Drainage Fee	\$10,000
				CIVIL ESTIMATE	\$4,948,015

Escalation factor at 3% annually (2019 to 2021)	\$301,334.11
ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)	\$5,249,349.11

TRAFFIC IMPACT FEE ESTIMATE

SEGMENT 27

Segment 27 Fallon Road between Dublin Boulevard and North of I-580

Description:

Date: 8/1/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

CONCEPTUAL COST ESTIMATE						
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total	
General						
1	Mobilization (10%)	1	LS	\$175,000.00	\$175,000	
2	Traffic Control (8%)	1	LS	\$140,000.00	\$140,000	
3	SWPPP/Erosion Control (2%)	1	LS	\$35,000.00	\$35,000	
4	Construction Staking (2%)	1	LS	\$35,000.00	\$35,000	
Subtotal - General						\$385,000
Signing						
5	New Sign and Post	8	EA	\$700.00	\$5,600	
6	New Sign on Signal Mast Arm	6	EA	\$900.00	\$5,400	
Subtotal - Signing						\$11,000
Striping						
7	Detail 9 - 4" Dashed Lane Line	7,250	LF	\$1.00	\$7,250	
8	Bicycle Lane (Thermoplastic)	3,000	LF	\$1.50	\$4,500	
9	Detail 38 - 8" Channelization Line	1,500	LF	\$4.80	\$7,200	
10	12" Limit Line/Crosswalk	1,200	LF	\$10.00	\$12,000	
11	Detail 22 - Double Yellow Center Line	600	LF	\$2.00	\$1,200	
12	Pavement Legends (Thermoplastic)	1,360	SF	\$12.00	\$16,320	
13	Remove Traffic Legend	1,500	SF	\$3.00	\$4,500	
14	Remove Traffic Stripe	2,000	LF	\$3.00	\$6,000	
Subtotal - Striping						\$58,970
Paving/Curb						
15	Sawcutting	4,500	LF	\$5.00	\$22,500	
16	Pavement Section	23,000	SF	\$23.00	\$529,000	
17	Roadway Right of Way Acquisition	0	SF	\$46.00	\$0	
18	Concrete Curb	2,300	LF	\$85.00	\$195,500	
19	Bus Pullout	1	EA	\$35,000.00	\$35,000	
20	Narrow Raised Median (< 2')	600	LF	\$7.50	\$4,500	
21	Curb Ramp	5	EA	\$9,000.00	\$45,000	
Subtotal - Paving Curb						\$831,500
Demolition & Removals						
22	Remove AC Pavement	22,250	SF	\$5.00	\$111,250	
Subtotal - Demolition & Removals						\$111,250
Stormwater Improvements						
23	Deepened Curb and Gutter	470	LF	\$150.00	\$70,500	
24	4" Underdrain with Cleanout	230	LF	\$30.00	\$6,900	
25	Biotreatment Soil	40	CY	\$150.00	\$6,000	
26	Permeable Rock	30	CY	\$100.00	\$3,000	
Subtotal - Green Infrastructure						\$86,400
Electrical						
27	Partial Signal Modifications at South Leg of Dublin/Fallon	1	EA	\$100,000.00	\$100,000	
28	New Traffic Signal at Fallon/Fallon Gateway	0	EA	\$300,000.00	\$0	
29	Signal Modification at Fallon/I-580 SB Exit Ramp	1	EA	\$120,000.00	\$120,000	
30	Street lighting	12	EA	\$6,000.00	\$72,000	
Subtotal - Electrical						\$292,000
SUBTOTAL						\$1,776,120
Contingency (20%)						\$355,224
Soft Costs (15% Design/Environmental)						\$266,418
Soft Costs (15% Construction Management, Inspection & Testing)						\$266,418
\$1/SF Zone 7 Drainage Fee						\$85,000
CIVIL ESTIMATE						\$2,749,180

**PROJECT H:
SCARLETT DRIVE**



CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY:	DATE:	REVIEWED BY:	DATE:

HÖRBUCH 100

DRAWING NAME: 11CADD10927718 door and Scenett Update 2015.dwg

DOUGHERTY ROAD

SCARLETT DR

KERRY CT

IRON HORSE TRAIL

INSTALL RAISED LANDSCAPED MEDIAN

RESTRYPE EXIST TRAFFIC LANES

MAINTAIN EXIST SIDEWALK

INSTALL NEW TRAFFIC SIGNAL AND DUAL ADA CURB RAMPS

INSTALL RAISED LANDSCAPED MEDIAN

LEGEND:

NOT ELIGIBLE FOR TIF CREDIT

— — — ELIGIBLE FOR TIF CREDIT



0 100' 200' SHEET 1 OF 2

CITY OF DUBLIN

**EASTERN DUBLIN TRAFFIC IMPACT FEE UPDATE
SEGMENT 21: SCARLETT DR BETWEEN
DOUGHERTY RD AND DUBLIN BLVD**

10

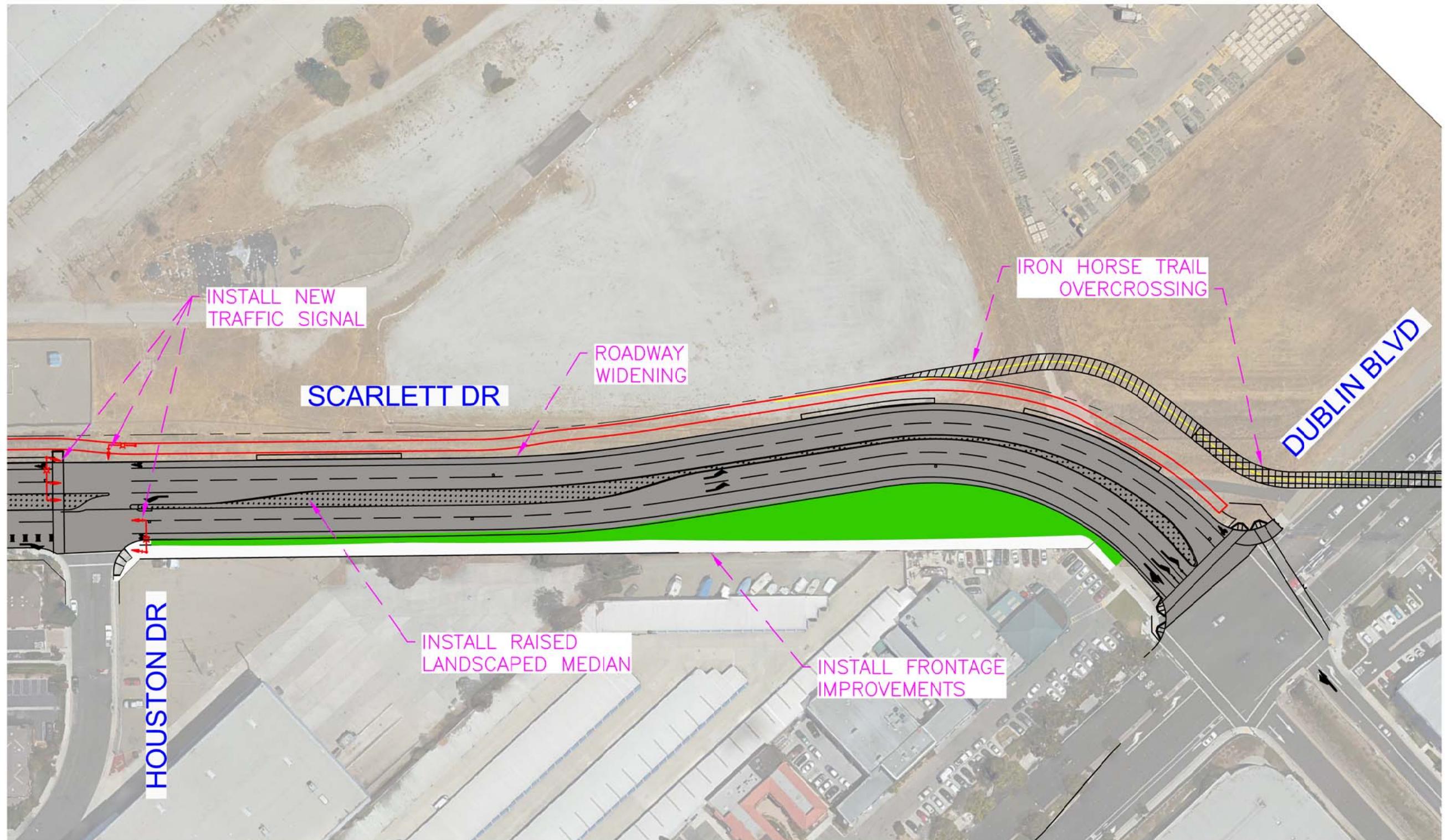
	PGB Consulting Group, Inc. 5776 Stoneridge Mall Road, Ste 320 Pleasanton, Ca 94588 P: 925.224.7117 F: 925.224.7726 www.pgbeng.com	DRAWN:	APPROVED:
		<input checked="" type="checkbox"/>	<input type="checkbox"/>

CONCEPTUAL PLAN (NOT FOR CONSTRUCTION)

REVIEWED BY: _____ DATE: _____ REVIEWED BY: _____ DATE: _____

FOR REDUCED DROUGHT PLANS

DRAWING NAME: F:\CAD05\10007.18\dwg-out\Scarlett Update 2019.dwg



LEGEND:

NOT ELIGIBLE FOR TIF CREDIT

ELIGIBLE FOR THE CREDIT



SHEET 2 OF 2

DATE	SCALE
AS NOTED	
PCG JOB NO.	
PLAN _____	
SHEET	OF

Segment 21

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS
Scarlett Drive
CITY OF DUBLIN, CALIFORNIA
(For Bonding Purposes)

April 3, 2019
 Job No. 081076PH2

ITEM	DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT
A. SITE WORK				
1. Mobilization		1 LS	\$15,000.00	\$15,000
2. Clear and Grub		1 LS	\$15,000.00	\$15,000
3. Remove Existing AC Trail		24,600 SF	\$2.00	\$49,200
4. Remove Existing Bridge		1 LS	\$30,000.00	\$30,000
5. Remove Existing AC Paving Scarlett Drive		4,100 SF	\$1.00	\$4,100
6. Remove Existing Curb and Gutter		1,550 LF	\$8.00	\$12,400
7. Erosion Control & SWPPP Implementation		2 LS	\$25,000.00	\$50,000
8. Rough Grading		10,270 CY	\$4.00	\$41,080
SUBTOTAL =				\$216,780
B. ASPHALT PAVING				
1. Fine Grading (RW to Sawcut)		252,400 SF	\$0.30	\$75,720
2. Scarlett Drive (6"AC)		4,391 TON	\$75.00	\$329,330
3. Scarlett Drive (27" AB)		19,102 TON	\$20.00	\$382,040
4. Saw Cut		1,820 LF	\$1.50	\$2,730
5. Grind & Overlay AC Pavement		21,000 SF	\$2.50	\$52,500
SUBTOTAL =				\$842,320
C. CONCRETE				
1. 6" Curb and Gutter with Subdrain		3,127 LF	\$35.00	\$109,450
2. 6" Curb and Gutter with Deepened Footing with Subdrain		469 LF	\$50.00	\$23,450
3. 8" Median Curb and Gutter with Subdrain		4,528 LF	\$35.00	\$158,480
4. 6" Curb (No Gutter)		203 LF	\$30.00	\$6,090
5. Curb Ramps		11 EA	\$6,000.00	\$66,000
6. 10' Wide Trail (5" Concrete)		33,670 SF	\$6.00	\$202,020
7. Sidewalk (6' Wide)		6,913 SF	\$6.00	\$41,480
8. Maintenance Band Along Median Curb		3,200 SF	\$10.00	\$32,000
SUBTOTAL =				\$638,970
D. STORM DRAIN				
1. 8" SD		235 LF	\$25.00	\$5,875
2. 12" SD		60 LF	\$60.00	\$3,600
3. 18" Class III RCP		900 LF	\$90.00	\$81,000
4. 24" Class III RCP		500 LF	\$120.00	\$60,000
5. 60" Class III RCP		400 LF	\$300.00	\$120,000
6. Connect to Existing SWI		1 EA	\$1,500.00	\$1,500
7. Connect to Existing Box Culvert		2 EA	\$10,000.00	\$20,000
8. Storm Water Inlet		6 EA	\$2,800.00	\$16,800
9. Drop Inlet		11 EA	\$1,500.00	\$16,500
10. Storm Drain Manhole (48")		8 EA	\$4,000.00	\$32,000
11. Storm Drain Control Manhole		1 EA	\$15,000.00	\$15,000
12. Storm Drain Manhole (72")		4 EA	\$5,750.00	\$23,000
13. 2 - 8x8 Box Culvert		228 LF	\$900.00	\$205,200
14. "No Dumping, Drains to Bay" Decal		6 EA	\$80.00	\$480
15. Trench Drain Curb Cut		29 EA	\$1,000.00	\$29,000
SUBTOTAL =				\$629,955

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS
Scarlett Drive
CITY OF DUBLIN, CALIFORNIA
(For Bonding Purposes)

April 3, 2019
Job No. 081076PH2

ITEM	DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT
E. JOINT TRENCH				
1.	Street Lights (including conduits, wires and pull boxes)	14 EA	\$10,000.00	\$140,000
2.	Joint Trench Construction	2,900 LF	\$150.00	\$435,000
3.	Underground Existing Overhead/Power Pole	760 LF	\$800.00	<u>\$608,000</u>
		SUBTOTAL =		\$1,533,000
F. LANDSCAPE				
1.	Bio-retention	5,900 SF	\$20.00	\$118,000
2.	Parkway Landscaping	4,200 SF	\$10.00	\$42,000
3.	Median Landscaping	7,500 SF	\$10.00	\$75,000
4.	Street Trees	34 EA	\$300.00	\$10,200
5.	Drainage Ditch	20,200 SF	\$25.00	<u>\$505,000</u>
		SUBTOTAL =		\$750,200
G. MISCELLANEOUS				
1.	Signing & Striping	1 LS	\$15,000.00	\$15,000
2.	Traffic Control	1 LS	\$50,000.00	\$50,000
3.	Street Monument	4 EA	\$1,000.00	\$4,000
4.	Traffic Signal Modification at Dougherty Road	1 LS	\$200,000.00	\$200,000
5.	Barricade	150 LF	\$25.00	\$3,750
6.	Assumed Allocation for Potential Dry Utilities Adjustments	1 LS	\$75,000.00	\$75,000
7.	Pothole Allowance	1 LS	\$25,000.00	\$25,000
8.	Relocate Existing Kinder Morgan Oil Pipeline (Allowance Only)	1 LS	\$300,000.00	\$300,000
9.	3' Max Retaining Wall	400 SF	\$50.00	\$20,000
10.	Houston Place Traffic Signal	1 LS	\$400,000.00	\$400,000
11.	Horizon Parkway Traffic Signal	1 LS	\$400,000.00	\$400,000
12.	Relocate Existing Fiber Optic (Allowance Only)	1 LS	\$350,000.00	<u>\$350,000</u>
		SUBTOTAL =		\$1,842,750

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS

Scarlett Drive
CITY OF DUBLIN, CALIFORNIA
(For Bonding Purposes)

April 3, 2019
Job No. 081076PH2

SUMMARY

A. SITE WORK	\$216,780
B. ASPHALT PAVING	\$842,320
C. CONCRETE	\$638,970
D. STORM DRAIN	\$629,955
E. JOINT TRENCH	\$1,533,000
F. LANDSCAPE	\$750,200
G. MISCELLANEOUS	\$1,842,750
SUBTOTAL =	\$6,453,975
10% CONSTRUCTION CONTINGENCY =	\$645,400
8% ENGINEERING CONTINGENCY =	\$516,320
TOTAL ESTIMATED CONSTRUCTION COST =	\$7,615,695
BOND AMOUNT=	\$7,616,000

Notes:

1. All cost figures are given as estimates only. Actual cost will be dependent on the cost figures at bidding time; the general market situation, contractor's work load, seasonal factor, labor and cost, etc. This engineering firm cannot be responsible for fluctuations in cost factors.
2. This engineer's opinion is based on the Scarlett Drive Improvement Plans prepared by Ruggeri-Jensen-Azar, dated March 29, 2019.



Escalation factor at 3% annually (2019 to 2021)	\$519,477.00
ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)	\$9,049,477.00

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS*Dublin Boulevard***CITY OF DUBLIN, CALIFORNIA***(For Bonding Purposes)*

April 3, 2019

Job No. 081076PH2

ITEM	DESCRIPTION	QUANTITY	UNIT PRICE	AMOUNT
A. SITE WORK				
1. Mobilization		1 LS	\$15,000.00	\$15,000
2. Clear and Grub		1 LS	\$15,000.00	\$15,000
3. Remove Existing AC Trail		4,500 SF	\$2.00	\$9,000
4. Remove Existing AC Paving Dublin Blvd		3,700 SF	\$0.24	\$890
5. Remove Existing Curb and Gutter		520 LF	\$8.00	\$4,160
6. Erosion Control & SWPPP Implementation		1 LS	\$25,000.00	\$25,000
7. Rough Grading		380 CY	\$4.00	\$1,520
		SUBTOTAL =		\$70,570
B. ASPHALT PAVING				
1. Fine Grading (RW to Sawcut)		31,500 SF	\$0.30	\$9,450
2. Scarlett Drive (6"AC)		450 TON	\$75.00	\$33,750
3. Scarlett Drive (27" AB)		2,000 TON	\$20.00	\$40,000
4. Saw Cut		730 LF	\$1.50	\$1,100
5. Grind & Overlay AC Pavement		1,500 SF	\$2.50	\$3,750
		SUBTOTAL =		\$88,050
C. CONCRETE				
1. 6" Curb and Gutter with Subdrain		570 LF	\$35.00	\$19,950
2. 6" Curb (No Gutter)		350 LF	\$30.00	\$10,500
3. Curb Ramps		6 EA	\$6,000.00	\$36,000
4. Sidewalk (10' Wide)		4,500 SF	\$9.00	\$40,500
		SUBTOTAL =		\$106,950
D. STORM DRAIN				
1. 18" Class III RCP		190 LF	\$90.00	\$17,100
2. Connect to Existing SWI		1 EA	\$1,500.00	\$1,500
3. Storm Water Inlet		1 EA	\$2,800.00	\$2,800
4. Drop Inlet		1 EA	\$1,500.00	\$1,500
5. Storm Drain Manhole (48")		2 EA	\$4,000.00	\$8,000
6. Parkway Drain		4 EA	\$1,000.00	\$4,000
7. "No Dumping, Drains to Bay" Decal		1 EA	\$80.00	\$80
		SUBTOTAL =		\$34,980
E. JOINT TRENCH				
1. Joint Trench Construction		730 LF	\$150.00	\$109,500
		SUBTOTAL =		\$109,500
F. LANDSCAPE				
1. Bio-retention		1,100 SF	\$20.00	\$22,000
2. Parkway Landscaping		2,750 SF	\$10.00	\$27,500
		SUBTOTAL =		\$49,500
G. MISCELLANEOUS				
1. Signing & Striping		1 LS	\$15,000.00	\$15,000
2. Traffic Control		1 LS	\$50,000.00	\$50,000
3. Dublin Blvd Traffic Signal Modification		1 LS	\$250,000.00	\$250,000
		SUBTOTAL =		\$315,000

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS

**Dublin Boulevard
CITY OF DUBLIN, CALIFORNIA
(For Bonding Purposes)**

April 3, 2019
Job No. 081076PH2

SUMMARY

A. SITE WORK	\$70,570
B. ASPHALT PAVING	\$88,050
C. CONCRETE	\$106,950
D. STORM DRAIN	\$34,980
E. JOINT TRENCH	\$109,500
F. LANDSCAPE	\$49,500
G. MISCELLANEOUS	\$315,000
SUBTOTAL =	\$774,550
10% CONSTRUCTION CONTINGENCY =	\$77,460
8% ENGINEERING CONTINGENCY =	\$61,960
TOTAL ESTIMATED CONSTRUCTION COST =	\$913,970
BOND AMOUNT=	\$914,000

Notes:

1. All cost figures are given as estimates only. Actual cost will be dependent on the cost figures at bidding time; the general market situation, contractor's work load, seasonal factor, labor and cost, etc. This engineering firm cannot be responsible for fluctuations in cost factors.
2. This engineer's opinion is based on the Dublin Blvd Improvement Plans prepared by Ruggeri-Jensen-Azar, dated March 29, 2019.



PROJECT I:
FALLON/I-580 INTERCHANGE



Project I: I-580/Fallon Road Interchange

Description: Preliminary Cost Estimate

Date: Updated 6/28/2019 (PCG)

Description	Cost Estimate, 2018 EDTIF Report*	2017-2021 Construction Cost Escalation (3% Annualized)	Updated Cost Estimate
Reconstruct overcrossing with four lanes in each direction; reconstruct SB to EB loop on-ramp; widen EB off-ramp with two exit lanes with two left-turn and two right-turn lanes; widen EB on-ramp; widen WB off-ramp with two left-turn and two right-turn lanes; and widen WB on-ramp (remaining Dublin Phase 2 Contributions)	\$ 3,826,360.00	\$ 480,241.89	\$ 4,306,601.89

*Cost estimate represented 2017 dollars

PROJECT J:
HACIENDA DRIVE



Segment 14 Hacienda Drive between Dublin Boulevard and Gleason Drive**Description:**

Date: 8/1/2017; Updated 6/28/2019 (PCG)

By: CHS Consulting Group and Pakpour Consulting Group

<u>CONCEPTUAL COST ESTIMATE</u>					
ITEM	DESCRIPTION	Qty.	UNIT	Unit Cost	Total
General					
1	Mobilization (10%)	1	LS	\$200,000.00	\$200,000
2	Traffic Control (8%)	1	LS	\$160,000.00	\$160,000
3	SWPPP/Erosion Control (2%)	1	LS	\$40,000.00	\$40,000
4	Construction Staking (2%)	1	LS	\$40,000.00	\$40,000
					Subtotal - General
					\$440,000
Striping					
5	Detail 9 - 4" Dashed Lane Line	2,300	LF	\$1.00	\$2,300
6	Bicycle Lane (Thermoplastic)	1,200	LF	\$1.50	\$1,800
7	Detail 38 - 8" Channelization Line	550	LF	\$4.80	\$2,640
8	12" Limit Line/Crosswalk	350	LF	\$10.00	\$3,500
9	Detail 22 - Double Yellow Center Line	50	LF	\$2.00	\$100
10	Pavement Legends (Thermoplastic)	510	SF	\$12.00	\$6,120
11	Remove Traffic Legend	200	SF	\$3.00	\$600
12	Remove Traffic Stripe	2,900	LF	\$3.00	\$8,700
					Subtotal - Striping
					\$25,760
Paving/Curb					
13	Sawcutting	2,750	LF	\$5.00	\$13,750
14	Pavement Section	28,300	SF	\$23.00	\$650,900
15	Bus Pullout	2	EA	\$35,000.00	\$70,000
16	Concrete Curb	1,600	LF	\$85.00	\$136,000
17	Concrete Curb & Gutter	1,000	LF	\$90.00	\$90,000
18	Curb Ramp	20	EA	\$9,000.00	\$180,000
					Subtotal - Paving Curb
					\$1,140,650
Stormwater Improvements					
19	Deepened Curb and Gutter	350	LF	\$150.00	\$52,500
20	4" Underdrain with Cleanout	170	LF	\$30.00	\$5,100
21	Biotreatment Soil	30	CY	\$150.00	\$4,500
22	Permeable Rock	20	CY	\$100.00	\$2,000
					Subtotal - Green Infrastructure
					\$64,100
Demolition & Removals					
23	Remove AC Pavement	5,700	SF	\$5.00	\$28,500
24	Remove Concrete Curb and Gutter	1,000	LF	\$20.00	\$20,000
25	Remove Concrete Sidewalk/Curb Ramp	8,000	SF	\$16.00	\$128,000
26	Clear and Grub	21,400	SF	\$1.00	\$21,400
					Subtotal - Demolition & Removals
					\$197,900
Frontage Improvements					
27	Concrete Sidewalk	1,000	SF	\$20.00	\$20,000
28	Frontage Right of Way Acquisition	0	SF	\$55.00	\$0
					Subtotal - Frontage Improvements
					\$20,000
Electrical					
29	Signal Modifications at Hacienda/Central	1	EA	\$40,000.00	\$40,000
30	Signal Modifications at Hacienda/Dublin	1	EA	\$40,000.00	\$40,000
31	Street lighting	12	EA	\$6,000.00	\$72,000
					Subtotal - Electrical
					\$152,000
					SUBTOTAL
					\$2,040,410
					Contingency (20%)
					\$408,082
					Soft Costs (15% Design/Environmental)
					\$306,062
					Soft Costs (15% Construction Management, Inspection & Testing)
					\$306,062
					\$1/SF Zone 7 Drainage Fee
					\$30,000
					CIVIL ESTIMATE
					\$3,090,615
Escalation factor at 3% annually (2019 to 2021)					
ADJUSTED CIVIL ESTIMATE (2021 DOLLARS)					
\$188,218.45					
\$3,278,833.45					

PROJECT K:
IRON HORSE TRAIL CROSSING



Project K

Project K: Iron Horse Trail Overcrossing

Description: Preliminary Cost Estimate

Date: Updated 9/29/21 (Per City provided estimate)

Description	Cost Estimate
Pedestrian/Bicycle Overcrossing across Dublin Blvd along the Iron Horse Trail	\$ 11,604,439.00

PROJECT L:
ALTAMIRANO CLASS I TRAIL



Project L: Segment 32 - Altamirano Avenue Class I Trail

Description: Preliminary Cost Estimate

Date: Updated 6/28/2019 (PCG)

Description	Cost Estimate, 2018 EDTIF Report*	2017-2021 Construction Cost Escalation (3% Annualized)	Updated Cost Estimate
Class I Trail; 1,400' Long, 14 feet wide	\$ 1,379,000.00	\$ 173,076.65	\$ 1,552,076.65

*Cost estimate represented 2017 dollars

APPENDIX C:
GROWTH PROJECTIONS



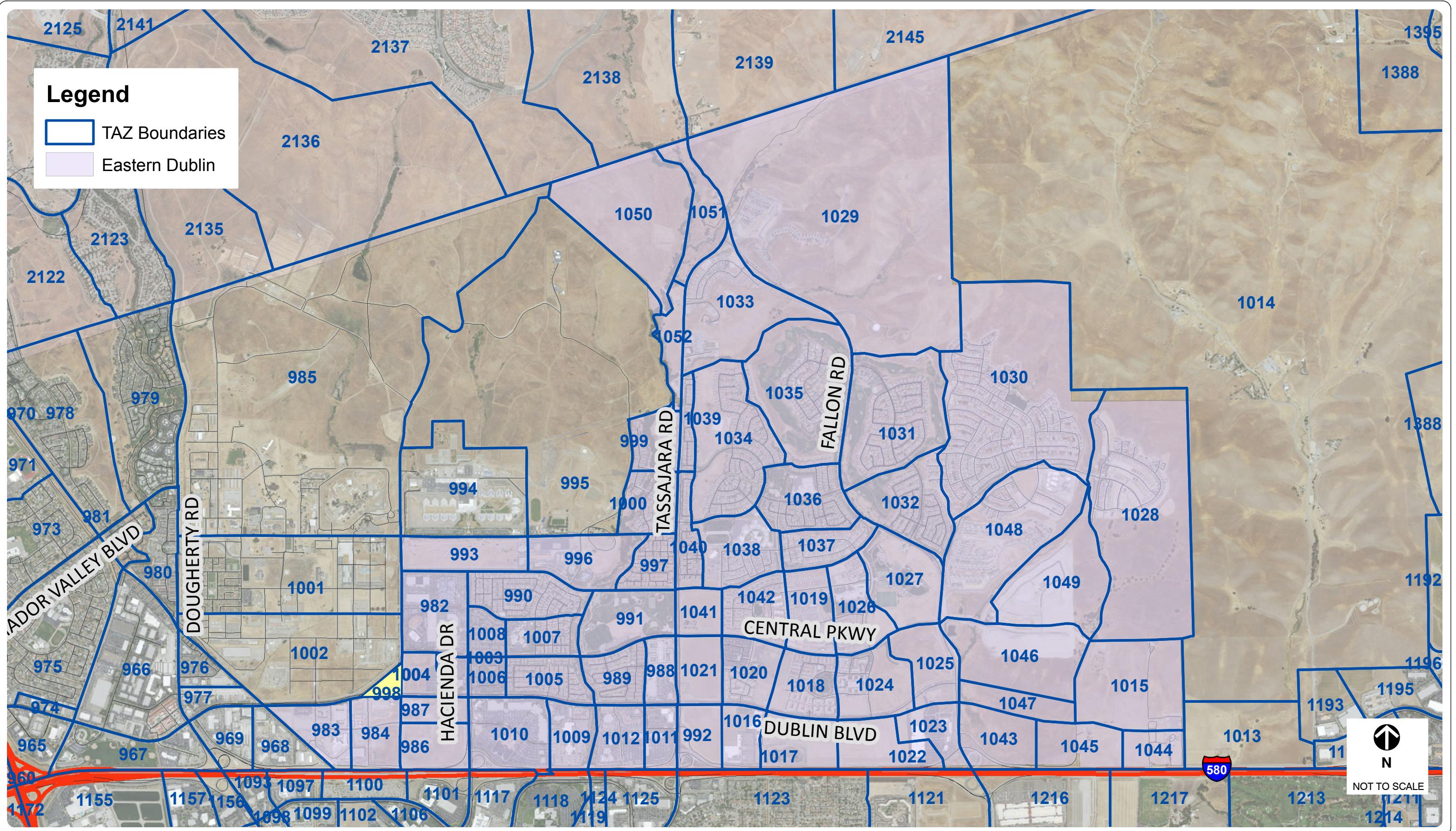


TABLE C-1: EAST DUBLIN GROWTH BY LAND USE CATEGORY

Land Use Category	Base Year (2020)	Future Year (2040)	Growth (Base Year to 2040)
<i>Households</i>			
Single Family Dwelling Units	9,375	10,827	1,452
Multi-Family Dwelling Units	2,531	2,814	283
Total Households	11,906	13,641	1,735
<i>Employment</i>			
Retail Jobs	3,204	6,849	3,645
Office Jobs	9,747	25,179	15,432
Manufacturing Jobs	440	1,786	1,346
Total Employment	13,391	33,814	20,423

APPENDIX D:
LEVEL OF SERVICE CRITERIA



TABLE D-1: SIGNALIZED INTERSECTION LOS CRITERIA

Level of Service	Description	Delay in Seconds
A	Progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	< 10.0
B	Progression is good, cycle lengths are short, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	> 10.0 to 20.0
C	Higher congestion may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, though many still pass through the intersection without stopping.	> 20.0 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	> 35.0 to 55.0
E	This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0
F	This level is considered unacceptable with oversaturation, which is when arrival flow rates exceed the capacity of the intersection. This level may also occur at high V/C ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to such delay levels.	> 80.0

Source: 2010 *Highway Capacity Manual*.

APPENDIX E:
EDTIF FEE AMOUNTS BY LAND USE CATEGORY



EDTIF Fee Calculations by Land Use Category

Category	Unit	Updated EDTIF Calculations				
		PM Pk Hr Trip Rate	Pass-by Adjustment	Adjusted PM Pk Hr Trip Rate	Fee per PM Pk Hr Trip	Fee per Unit
RESIDENTIAL:						
Single-Family Residential (up to 6 units/acre)	DU	0.99	0	0.99	\$13,751	\$13,613
Medium-Density Residential (6-14 units/acre)	DU	0.99	0	0.99	\$13,751	\$13,613
Medium/High Density Residential (14-25 units/acre)	DU	0.56	0	0.56	\$13,751	\$7,701
High Density Residential (greater than 25 units/acre)	DU	0.44	0	0.44	\$13,751	\$6,050
HOTEL:	Room	0.60	0	0.60	\$13,751	\$8,251
OFFICE: General Office	KSF	1.15	0	1.15	\$13,751	\$15,814
RECREATION:						
Recreation Community Center	KSF	2.31	0	2.31	\$13,751	\$31,765
Health Club	KSF	3.45	0	3.45	\$13,751	\$47,441
Bowling Center	KSF	1.16	0	1.16	\$13,751	\$15,951
Golf Course	Acre	0.28	0	0.28	\$13,751	\$3,850
Tennis Courts	Court	4.21	0	4.21	\$13,751	\$57,892
Movie Theater (multi-plex)	Screen	13.64	-35%	8.87	\$13,751	\$121,916
Theater, Live	Seat	0.02	0	0.02	\$13,751	\$275
EDUCATION: Private School (K-8)	Student	0.26	0	0.26	\$13,751	\$3,575
HOSPITAL:						
General Hospital	Bed	1.42	0	1.42	\$13,751	\$19,526
Convalescent/Nursing	Bed	0.22	0	0.22	\$13,751	\$3,025
CHURCH:	KSF	0.49	0	0.49	\$13,751	\$6,738
INDUSTRIAL: Light Industrial	KSF	0.63	0	0.63	\$13,751	\$8,663
RESTAURANT:						
Quality (leisure)	KSF	7.80	-35%	5.07	\$13,751	\$69,717
Sit-down, high-turnover	KSF	9.77	-35%	6.35	\$13,751	\$87,325
Fast food, no drive-through	KSF	28.34	-35%	18.42	\$13,751	\$253,306
Fast food, with drive-through	KSF	32.67	-35%	21.24	\$13,751	\$292,009
Coffee shop, with drive-through	KSF	43.38	-35%	28.20	\$13,751	\$387,736
AUTOMOTIVE:						
Gas station	Pump	13.87	-35%	9.02	\$13,751	\$123,972
Auto sales/parts	KSF	2.26	-35%	1.47	\$13,751	\$20,200
Auto repair center	KSF	3.11	0	3.11	\$13,751	\$42,765
FINANCIAL: Bank/savings and loan	KSF	12.13	0	12.13	\$13,751	\$166,799
RETAIL:						
Community shopping center	KSF	3.81	-35%	2.48	\$13,751	\$34,054
Supermarket	KSF	9.24	-35%	6.01	\$13,751	\$82,588
Convenience market	KSF	49.11	-35%	31.92	\$13,751	\$438,951
Discount store	KSF	4.18	-35%	2.72	\$13,751	\$37,361
Pharmacy with Drive-Through	KSF	10.29	-35%	6.69	\$13,751	\$91,973

Notes: Trip rates are drawn from ITE Trip Generation Manual, 10th Edition. Residential categories are as set forth in the resolution. Fees for all non-residential categories, including those not listed here, shall be categorized based on the definitions set forth in the ITE Trip Generation Manual, 10th Edition.