APPENDIX B

Technical Memorandum #2:
Project Identification and Prioritization

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MEMORANDUM

TO: Melissa Garcia, City of San Diego

FROM: Sherry Ryan and Sasha Jovanovic, Chen Ryan Associates

DATE: July 21, 2016

RE: Linda Vista CATS Project Area Identification (T4) and Project Prioritization (T6)

1.0 Introduction

This memorandum documents the process used to first identify project areas for the Linda Vista CATS plan, and second, to prioritize these project areas. After this introductory section, the memorandum is organized as follows:

- **Section 2.0 Project Area Identification** explains how project corridors and project improvement areas were chosen and subsequently refined by the consultant team.

- **Section 3.0 Project Prioritization** presents a project prioritization process utilizing needs-based and project-readiness-based criteria. The process was applied to the project corridors and improvement areas to rank them in support of the development of an implementation strategy in Task 6.

2.0 Project Area Identification

Two types of project areas were identified for the Linda Vista CATS plan: *project corridors*, which represent modifications to roadway cross-sections; and *project improvement areas*, which are focused on improvements to intersections or small districts. The quality of the pedestrian and cycling environments was a key factor in identifying project corridor locations. Factors used to identify project improvement areas included proximity to key land uses, freeway transition conflicts, and public preference. Processes used to identify project corridors and project improvement areas are described in the sections that follow.

2.1 Identification of Project Corridors

As a part of the existing conditions analysis, Pedestrian Environmental Quality Analysis (PEQE) evaluations were conducted on a subset of roadways and Bicycle Level of Traffic Stress (LTS) scoring was conducted on all roadways within the Linda Vista community. Roadways with scores considered below adequate conditions for PEQE and LTS were identified as potential project corridors. For PEQE, roadways scoring in the 'low' category were included; and for LTS, roadways receiving an LTS score of 3 or 4 were included.

Figure 1 shows the Linda Vista community pedestrian study area containing the subset of roadways where PEQE analysis was performed. The pedestrian study area is defined as the set of roadways scoring greater than one standard deviation above the community-wide mean of the City of San Diego's Pedestrian Priority Model. Also included in the pedestrian study area are locations with multiple pedestrian collisions and locations within one-quarter mile of a transit stop serving two high frequency transit routes.
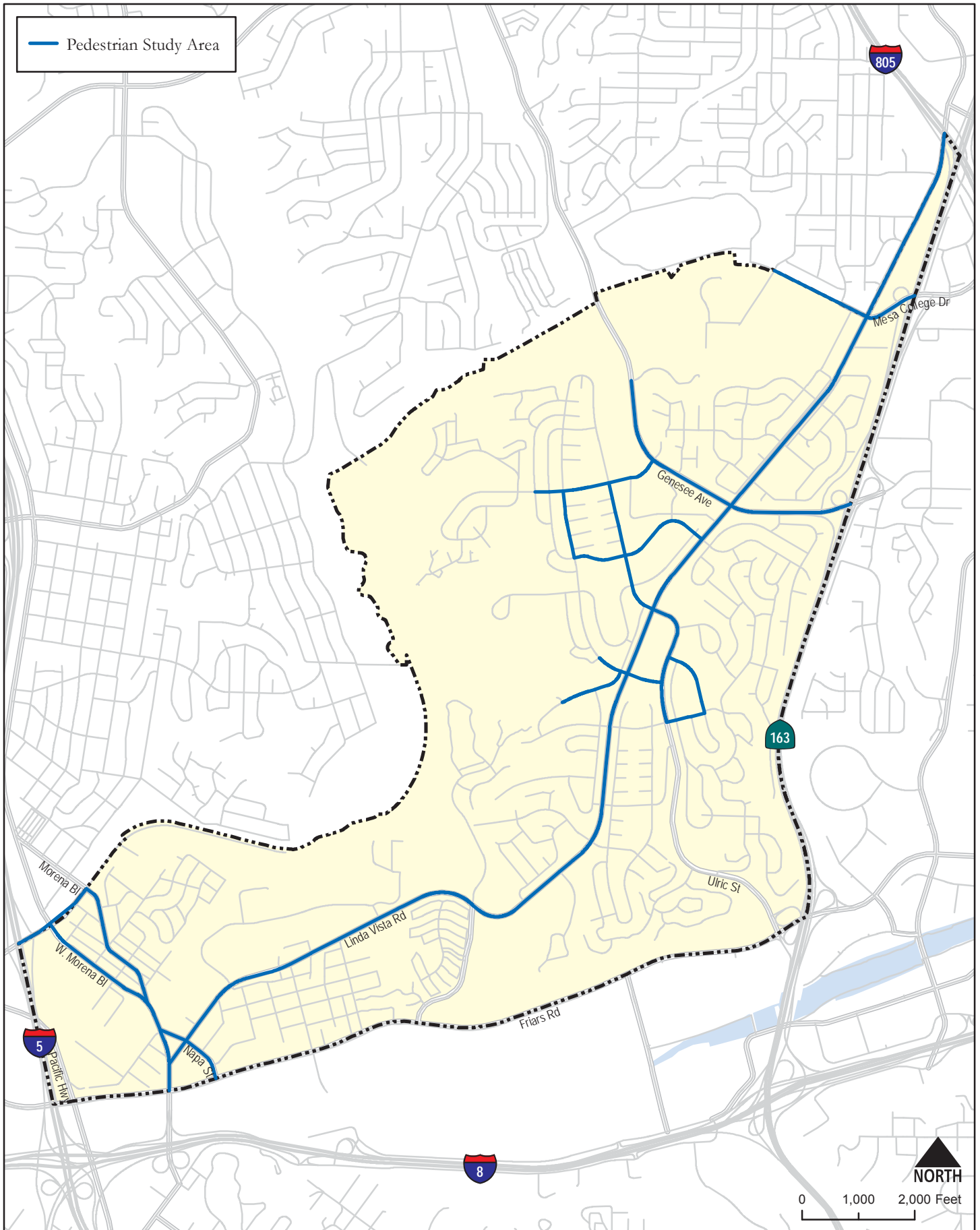
Legend

— Pedestrian Study Area

Labels on map: I-805, Mesa College Dr, Genesee Ave, 163, Ulric St, Morena Bl, W. Morena Bl, Linda Vista Rd, Friars Rd, Napa St, Pacific Hwy, I-5, I-8

Scale: 0 — 1,000 — 2,000 Feet

NORTH

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Figure 1
Pedestrian Study Area

Figure 2 shows the PEQE results for Linda Vista. Corridors with low PEQE, such as Genesee Avenue or portions of Linda Vista Road, were included among the project corridors.

Figure 3 shows the LTS results throughout the community. Locations with LTS scores worse than 2, were included among the project corridors. These corridors include Linda Vista Road, Mesa College Drive, Genesee Avenue, Ulric Street and Via Las Cumbres.

Table 1 shows the original corridor extents identified based on PEQE and LTS scores. Table 2 shows the corridor extents which were refined slightly from the original extents based upon engineering review of these study areas.

Table 1: Linda Vista CATS Corridors Identified using PEQE and LTS

#	Corridor	From	To	PEQE Results	LTS Results
1	Linda Vista Road	Northern Boundary	Napa Street	Low PEQE	LTS 4
2	Mesa College Drive	Armstrong Street	Eastern Boundary	-	LTS 4
3	Genesee Avenue	Northern Boundary	SR-163 Ramps	Low PEQE	LTS 4
4	Ulric Street	Tait Street	Friars Road	-	LTS 4
5	Via Las Cumbres	Linda Vista Road	Friars Road	-	LTS 4

Source: Chen Ryan Associates (July, 2016)

Table 2: Linda Vista CATS Refined Project Corridors

#	Corridor	From	To
1	Linda Vista Road	Mesa College Drive	Alcala Knolls Drive
2	Mesa College Drive	Armstrong Street	Linda Vista Road
3	Genesee Avenue	Linda Vista Road	Whitney Street
4	Ulric Street	Tait Street	Friars Road
5	Via Las Cumbres	Linda Vista Road	Friars Road

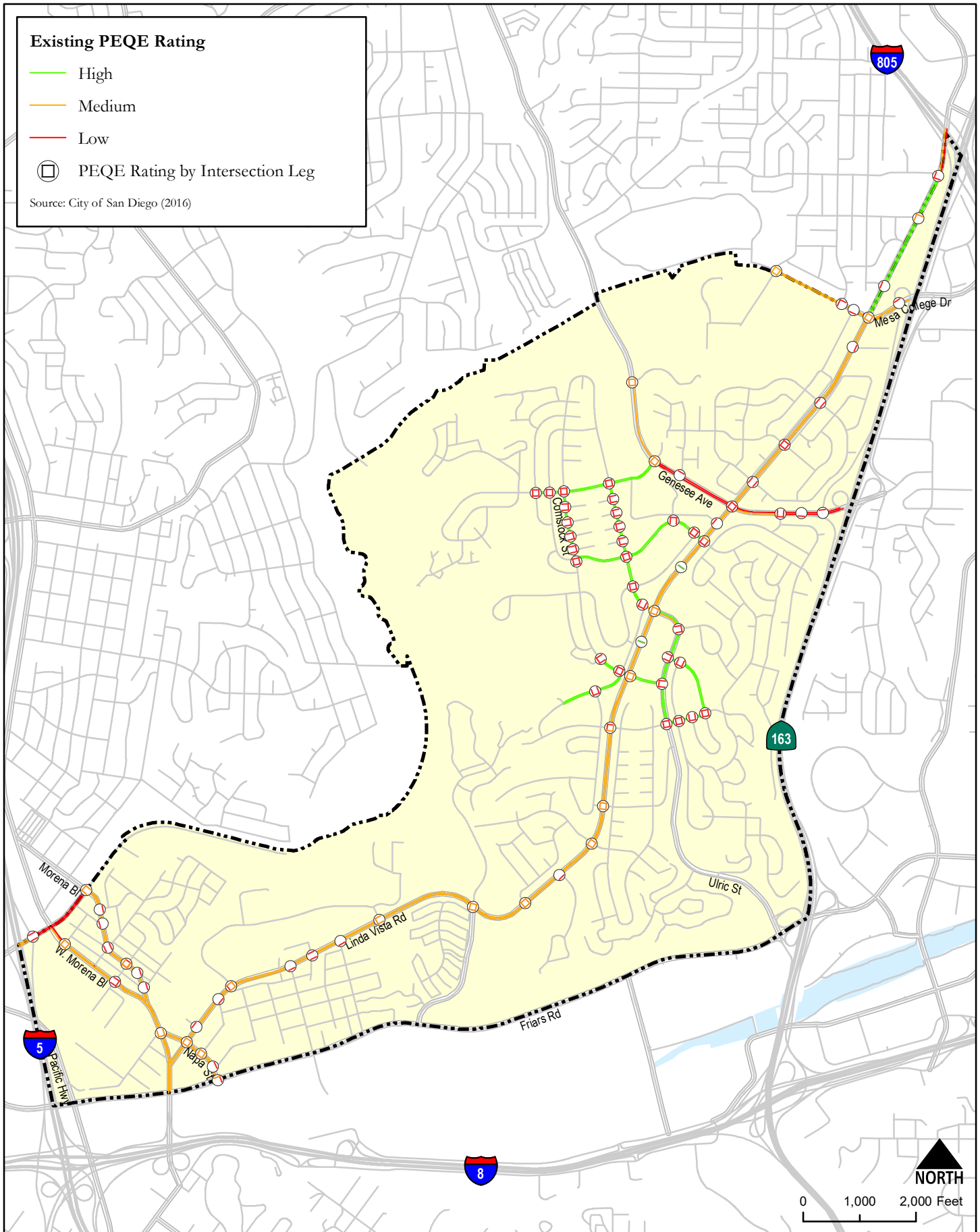Source: Chen Ryan Associates (July, 2016)

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Figure 2
Pedestrian Environmental Quality Evaluation (PEQE)

Level of Traffic Stress

— 1
— 2
— 3
— 4

Source: Chen Ryan Associates (2016)

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Figure 3
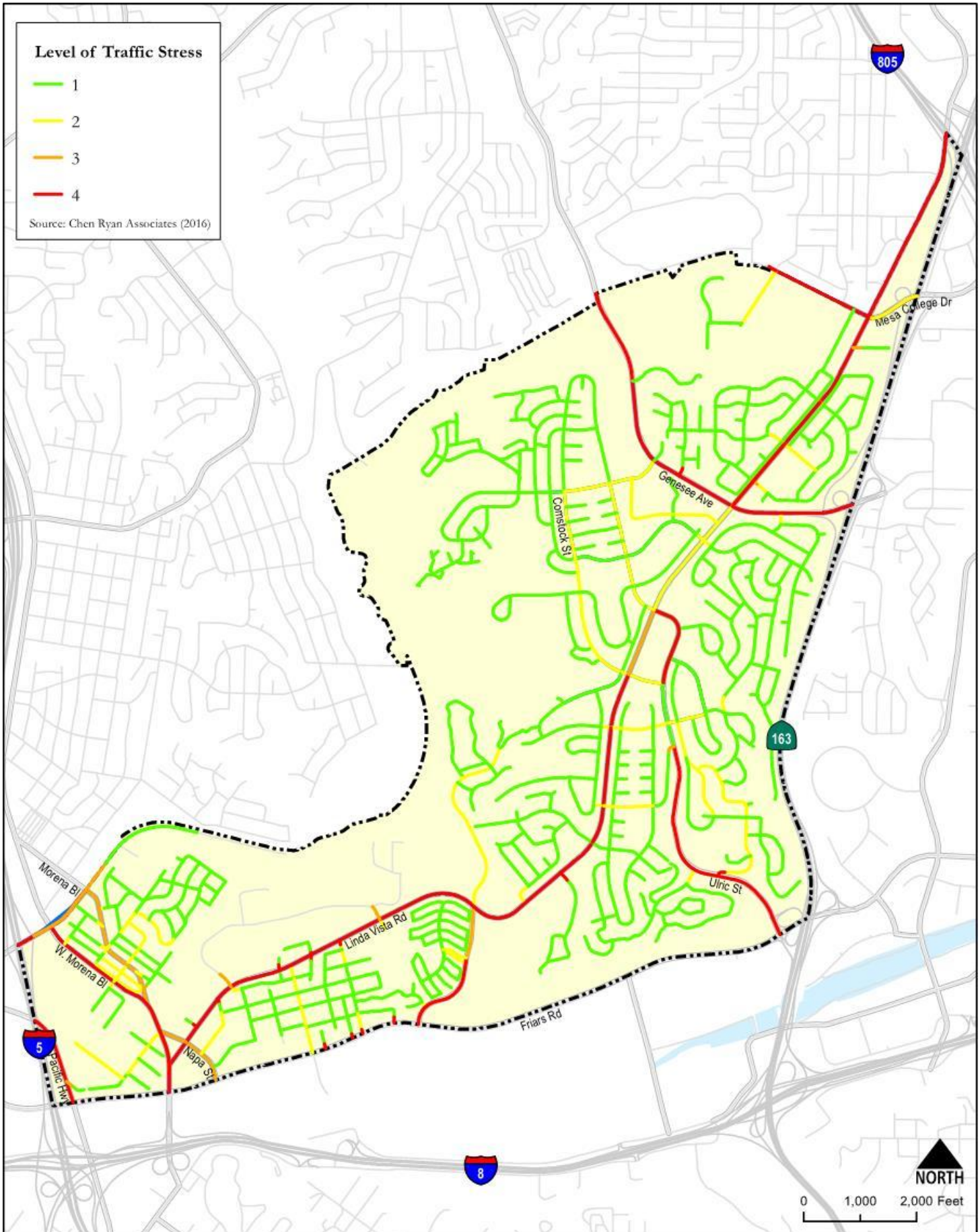**Bicycle Level of Traffic Stress (LTS)**

2.2 Identification of Project Improvement Areas

The selection of project improvement areas was based on the following considerations:

- Locations receiving comments for needing improvement during the public outreach process
- Locations adjacent to schools (also including University of San Diego)
- Locations adjacent to parks
- Locations adjacent to freeways where high speed transitions and other pedestrian and bicycle conflicts occur

Table 3 shows the 10 project improvement areas identified using the criteria listed above.

Table 3: Linda Vista CATS Project Improvement Areas

#	Improvement Area	Reason(s) for Consideration
A	Mesa College Dr from Linda Vista Rd to SR-163 On-Ramps	Received Public Comment, Conflicts with high speed freeway transitions
B	Linda Vista Road and Mesa College Drive	Received Public Comment, Proximity to Schools
C	Linda Vista Road and Korink Avenue	Received Public Comment, Proximity to Schools
D	Ulric St at intersection of Osler St; Eastman St and Fulton St	Received Public Comment, Proximity to Schools and Park
E	Linda Vista Road and Genesee Avenue	Received Public Comment, Proximity to Schools
F	Genesee Avenue and SR-163 SB On-Ramp	Received Pubic Comment, Conflicts with high speed freeway transitions
G & I	Area bound by Morley St, Ulric St and Comstock St	Received Public Comment, Neighborhood Commercial Center
J	Linda Vista Road between Brunner St and Goshen St	Received Public Comment, Proximity to University
K	Via Las Cumbres and Linda Vista Road	Received Public Comment, Proximity to Schools
L	Kramer St and Coolidge St Intersection; Coolidge St south of intersection east of school	Received Public Comment, Proximity to Schools

Source: Chen Ryan Associates (July, 2016)

Figure 4 shows the locations of the five corridors and 10 project improvement areas resulting from the Task 4 efforts described in this section.
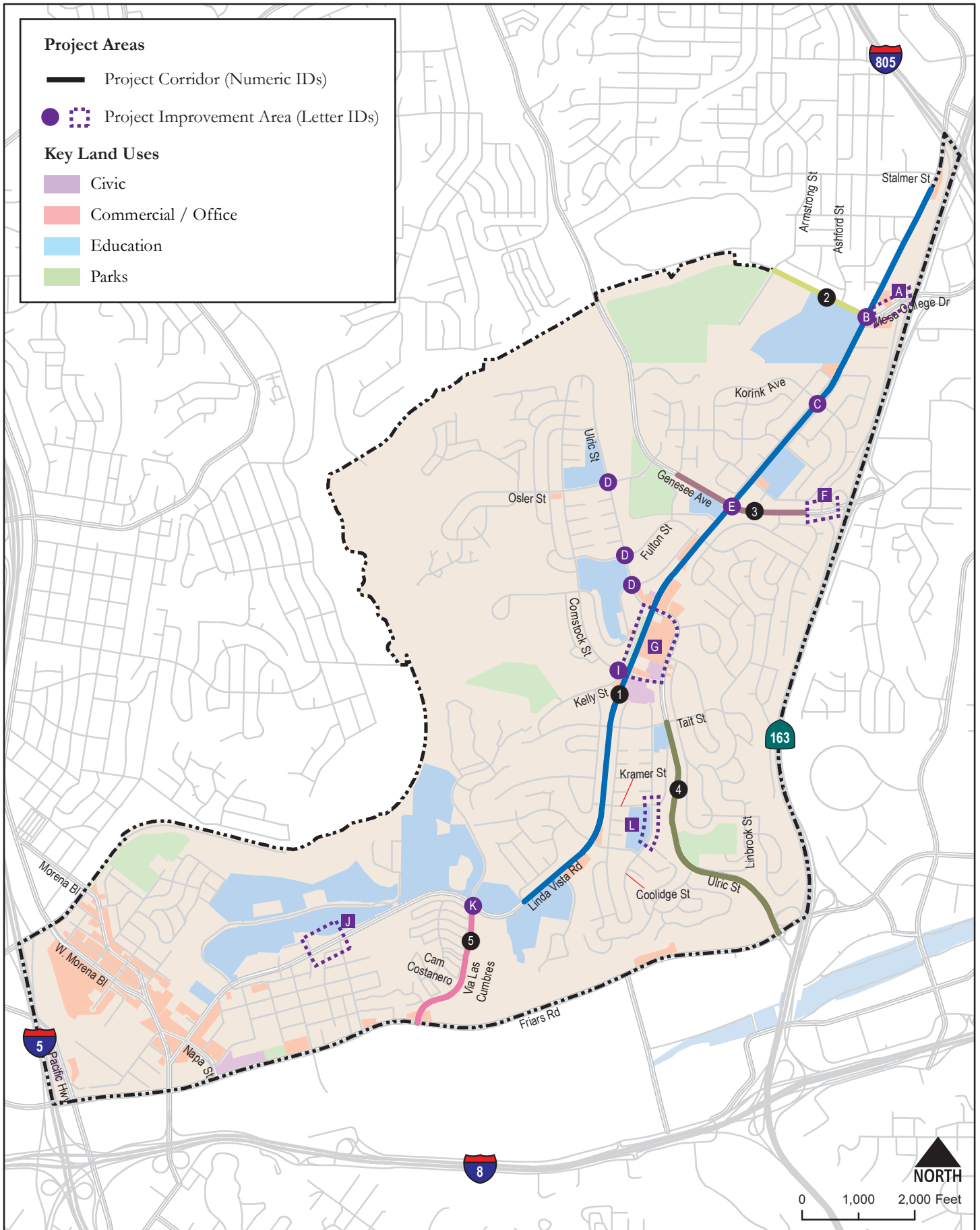
Project Areas

— Project Corridor (Numeric IDs)

● ┈ Project Improvement Area (Letter IDs)

Key Land Uses
- Civic
- Commercial / Office
- Education
- Parks

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Figure 4
Project Improvement Areas and Project Corridors

3.0 Project Prioritization

Prioritization scoring was applied to the five project corridors and 10 project improvements areas. The prioritization process utilized seven key criteria – four are need-based and four criteria are based on project-readiness. The need-based criteria consist of traffic collisions per mile, pedestrian and bicycle demand, average daily vehicular traffic volumes and public workshop preference; while the project-readiness criteria include curb impacts, right-of-way impacts, and potential utility relocation.

3.1 Needs-Based Prioritization Criteria

Table 4 describes the need-based prioritization criteria and associated point assignments. The need-based prioritization criteria are generally indicative of high levels of use and conflict among multiple transportation modes. As shown, the traffic collisions per mile criteria received a maximum of six points, making it the highest weighted of the need-based criteria. These inputs capture demand from automobile, pedestrian and bicyclist use.

Table 5 shows the need-based points earned from each criteria for the project corridors and improvements areas. Project Improvement Areas G&I (area bound by Morley Street, Ulric Street and Comstock Street) and E (Linda Vista Road and Genesee Avenue) scored the highest in the needs-based criteria, each receiving 10 points.

3.2 Project-Readiness-Based Prioritization

Table 6 describes the project-readiness-based prioritization criteria and associated point assignment. Project-readiness-based prioritization considers right-of-way impacts, curb line reconfiguration or construction impacts, and utility conflicts. There are a total possible 12 project-readiness-based prioritization points.

Prioritization points are assigned if the proposed project dimensions do not exceed the right-of-way width of the roadway. Likewise, prioritization points are assigned if projects have no curb reconfiguration impacts, meaning the project does not differ from the existing curb-to-curb width or result in the removal or construction of a median. Project improvements which require additional right-of-way were examined for utility conflicts. **Table 7** shows the project-readiness-based points assigned to each of the project improvement areas and corridors.

3.3 Combined Needs-Based and Project-Readiness-Based Prioritization

Table 8 presents the combined need and project-readiness-based prioritization scoring by project segment. The project improvement areas and project corridors are sorted from highest to lowest priority.

Project Improvement Area G & I (the area bound by Morley Street, Ulric Street and Comstock Street) scored the highest, receiving 18 combined points. Project Improvement Area B (Linda Vista Road and Mesa College Drive) was the next highest scoring location, with 16 points. In terms of project corridors, Linda Vista Road, between Mesa College Drive and Alcala Knolls Road, scored the highest of the five project corridors.

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Table 4: Need-Based Prioritization Criteria and Associated Points

Traffic Collisions per Mile	Highest Traffic Collisions per Mile along Project Segment	Category	Prioritization Points
All traffic collisions in the Community Planning Area, including vehicular-vehicular, vehicular-bicyclist, vehicular-pedestrian collisions, between 2008 and 2013 were summarized by project segment. Project segment length was used to determine collisions per mile. More points were awarded to project corridors with higher collisions per mile. Collision records were obtained from City of San Diego.	300 per mile or greater	Very High	6
	250-299 per mile	High	5
	200-249 per mile	Medium-High	4
	150-199 per mile	Medium	3
	100-149 per mile	Medium-Low	2
	50-99 per mile	Low	1
	Less than 50 per mile	Very Low	0

Pedestrian and Bicycle Demand	Average Weighted Pedestrian and Bicycle Demand Model Score along Project Segment	Category	Prioritization Points
This input is a composite of the Pedestrian Priority Model from the City's Pedestrian Master Plan and the Inter- and Intra-Community Demand Model from the City's Bicycle Master Plan. For each project segment, an average weighted score was calculated along the extent of the project segment. The six ranges were determined by the natural breaks of the average weighted scores of all the projects.	66 points or greater	Very High	5
	61-66 points	High	4
	53-61 points	Medium-High	3
	45-52 points	Medium-Low	2
	41-45 points	Low	1
	Less than 41 points	Very Low	0

Average Daily Vehicular Traffic Volumes	Highest Average Daily Traffic (ADT) Volumes along Project Segment	Category	Prioritization Points
Points were awarded based on the highest average daily vehicular traffic (ADT) volume along a project segment. Higher vehicular traffic volumes are indicative of being more stressful facilities for non-motorized users. ADTs were obtained from SANDAG's regional traffic count database (2010).	50,000 ADT or greater	Very High	3
	25,000-50,000 ADT	High	2
	5,000-24,999 ADT	Medium	1
	Less than 5,000 ADT	Low	0

Public Workshop Preference	Workshop Participants Assigning Weighted Preference Votes to Project Areas	Category	Prioritization Points
Members of the public who attended the Linda Vista CATS workshops were each assigned 5 votes to allocate to voting on which improvement areas were of the highest priority. Voting was weighted, meaning participants could decide to assign as many or as few of their 5 votes to an improvement area as they preferred.	10 or more votes	Very High	3
	6-9 votes	High	2
	2-5 votes	Medium	1
	0-1 votes	Low	0

Source: Chen Ryan Associates (July, 2016)

Table 5: Need-Based Prioritization Points

Project ID	Project Extents	Traffic Collisions per Mile Points	Average Pedestrian and Bicycle Demand Points	Average Daily Traffic Volumes Points	Public Workshop Preference	Need-Based Prioritization Points
Project Improvement Areas						
G & I	Area bound by Morley Street, Ulric Street and Comstock Street	1	5	1	3	**10**
E	Linda Vista Road and Genesee Avenue	3	4	2	1	**10**
B	Linda Vista Road and Mesa College Drive	2	4	1	1	**8**
D	Ulric Street at intersections of Osler Street; Eastman Street; and Fulton Street	0	4	1	2	**7**
J	Linda Vista Road between Brunner Street and Goshen Street	0	4	1	1	**6**
A	Mesa College Drive from Linda Vista Road to SR-163 Ramps	1	2	2	0	**5**
F	SR-163 On-Ramp and Genesee Avenue	2	1	2	0	**5**
C	Linda Vista Road and Korink Avenue	0	2	1	1	**4**
L	Coolidge Street from Kramer Street to Howe Court	0	0	0	2	**2**
Project Corridors						
1	Linda Vista Road from Mesa College Drive to Alcala Knolls Road	0	5	2	n/a	**7**
3	Genesee Avenue from Whitney Street to Linda Vista Road	3	2	1	n/a	**6**
4	Ulric Street from Tait Street to Friars Road	1	4	1	n/a	**6**
2	Mesa College Drive from Armstrong Street to Linda Vista Road	1	2	1	n/a	**4**
5	Via Las Cumbres from Linda Vista Road to Friars Road	1	0	1	n/a	**2**

Source: Chen Ryan Associates (July, 2016)

Table 6: Project-Readiness Prioritization Criteria and Associated Points

Right-of-Way Impact	Category	Prioritization Points
The dimension of the proposed project was compared to the available right-of-way to determine the potential need for right-of-way acquisition.	No Impact – Right-of-way is sufficient to construct proposed project	4
	Impact – Right-of-way will need to be acquired	0

Curb Impact	Category	Prioritization Points
The dimension of the proposed project was compared to the existing curb lines to determine the potential need for curb line reconfiguration or project requires new curb construction.	No Impact – No curb line reconfiguration required	4
	Impact – Curb line reconfiguration is required	0

Utility Conflict	Category	Prioritization Points
The project imposes impacts to any of the following utilities: ▪ Traffic Lights ▪ Street Lights ▪ Transformers ▪ Vaults ▪ Storm Drains ▪ Fire Hydrants ▪ Cable/Phone Risers ▪ Bus Stops ▪ Water Meters ▪ Power Poles	No Impact – No relocation of utility infrastructure is required	4
	Impact – Relocation of utility infrastructure is required	0

Source: Chen Ryan Associates (July, 2016)

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Table 7: Project-Readiness-Based Prioritization Points

Project ID	Project Extents	Right-of-Way Impacts	Curb Impacts	Utility Conflicts	Need-Based Prioritization Points
Project Improvement Areas					
A	Mesa College Drive from Linda Vista Road to SR-163 Ramps	4	0	4	**8**
B	Linda Vista Road and Mesa College Drive	4	0	4	**8**
C	Linda Vista Road and Korink Avenue	4	0	4	**8**
D	Ulric Street at intersections of Osler Street; Eastman Street; and Fulton Street	4	0	4	**8**
F	SR-163 On-Ramp and Genesee Avenue	4	0	4	**8**
G & I	Area bound by Morley Street, Ulric Street and Comstock Street	4	0	4	**8**
J	Linda Vista Road between Brunner Street and Goshen Street	4	0	4	**8**
L	Coolidge Street from Kramer Street to Howe Court	4	0	4	**8**
E	Linda Vista Road and Genesee Avenue	0	0	0	**0**
Project Corridors					
1	Linda Vista Road from Mesa College Drive to Alcala Knolls Road	4	4	4	**12**
2	Mesa College Drive from Armstrong Street to Linda Vista Road	4	4	4	**12**
3	Genesee Avenue from Whitney Street to Linda Vista Road	4	4	4	**12**
4	Ulric Street from Tait Street to Friars Road	4	0	4	**8**
5	Via Las Cumbres from Linda Vista Road to Friars Road	0	0	0	**0**

Source: Chen Ryan Associates (July, 2016)

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Table 8: Final Prioritization Points

Project ID	Project Extents	Need-Based Prioritization Points	Project-Readiness Prioritization Points	Total Prioritization Points
Project Improvement Areas				
G & I	Area bound by Morley Street, Ulric Street and Comstock Street	10	8	18
B	Linda Vista Road and Mesa College Drive	8	8	16
D	Ulric Street at intersections of Osler Street; Eastman Street; and Fulton Street	7	8	15
J	Linda Vista Road between Brunner Street and Goshen Street	6	8	14
A	Mesa College Drive from Linda Vista Road to SR-163 Ramps	5	8	13
F	SR-163 On-Ramp and Genesee Avenue	5	8	13
C	Linda Vista Road and Korink Avenue	4	8	12
E	Linda Vista Road and Genesee Avenue	10	0	10
L	Coolidge Street from Kramer Street to Howe Court	2	8	10
Project Corridors				
1	Linda Vista Road from Mesa College Drive to Alcala Knolls Road	7	12	19
2	Mesa College Drive from Armstrong Street to Linda Vista Road	6	12	18
3	Genesee Avenue from Whitney Street to Linda Vista Road	6	12	18
4	Ulric Street from Tait Street to Friars Road	4	8	12
5	Via Las Cumbres from Linda Vista Road to Friars Road	2	0	2

Source: Chen Ryan Associates (July, 2016)