

**RESPONSES TO COMMENTS ON THE
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT**

MILPITAS METRO SPECIFIC PLAN

**CITY OF MILPITAS, CALIFORNIA
STATE CLEARINGHOUSE No. 2006032091**

**DRAFT EIR PUBLICATION DATE: APRIL 15, 2022
DRAFT EIR PUBLIC HEARING DATE: APRIL 19, 2022
DRAFT EIR PUBLIC COMMENT PERIOD: APRIL 15 – MAY 31, 2022**

November 2022



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Attachments

- **Attachment 1**, Draft Milpitas Metro Specific Plan Traffic Operations Report
- **Attachment 2**, Updated Draft Specific Plan.

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The purpose of this responses-to-comments (RTC) document is to present comments submitted on the draft subsequent environmental impact report (draft SEIR) for the Milpitas Metro Specific Plan (Metro Plan or Project), to respond in writing to comments on environmental issues, and to revise the draft SEIR as necessary to provide additional clarity. Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code Section 21091(d)(2)(A) and (B), the City of Milpitas considered the comments received, evaluated the environmental issues raised, and provided written responses that fully address the comments on significant environmental issues raised by the commenters. This RTC document also provides limited responses, for informational purposes, to general comments on the draft SEIR received during the public review period that were not related to environmental issues. Where appropriate, this RTC document also includes EIR text changes made in response to the comments or at the initiation of the City of Milpitas (City).

The draft SEIR and this RTC document constitute the final subsequent environmental impact report (final SEIR) for the proposed project, in fulfillment of CEQA requirements and consistent with CEQA Guidelines Section 15132.

1.1 Environmental Review Process

This SEIR has been prepared by the City of Milpitas Planning Department for the City of Milpitas, the Lead Agency for the proposed project, in compliance with the provisions of CEQA and the CEQA Guidelines (California Public Resources Code Section 21000 et seq. and California Code of Regulations Title 14, Section 15000 et seq. [CEQA Guidelines]). The draft SEIR was published and posted on the City's website on April 15, 2022. A Notice of Availability was distributed to state and local agencies and other interested parties to solicit public comment. It was also published in the Milpitas Post on April 15, 2022. The draft SEIR was available for public comment from April 15, 2022, to May 31, 2022. The notice solicited comments on the adequacy and accuracy of information presented in the draft EIR. Comments were made in written form during the public comment period and as oral testimony at the public hearing on the draft specific plan and draft SEIR at a special meeting of the City Council on April 19, 2022. The comments received during the public review period are the subject of this RTC document, which addresses all substantive written and oral comments on the draft SEIR. Written comments are included in their entirety in this document.

As discussed above, the final SEIR will consist of the draft SEIR and this RTC document, which includes comments received during the public review period, responses to the comments on environmental issues, and any revisions to the draft SEIR that resulted from staff-initiated text changes or text changes in the responses.

The information provided in the responses and the revisions to the draft SEIR clarifies and amplifies the analysis presented in the draft SEIR. No significant new information, as defined by CEQA Guidelines Section 15088.5, was added that would trigger recirculation of the draft SEIR. Specifically, there are no new significant environmental impacts. No substantial increase in the severity of any significant impact has been identified, and no new alternatives or mitigation

measures were identified in the comments or responses that were not already identified in the draft SEIR.

The City has distributed this RTC document to the Planning Commission and City Council. The Planning Commission anticipates holding a hearing on November 9, 2022, to consider the adequacy of the final SEIR. If the Planning Commission finds that the SEIR has been completed in compliance with CEQA and that it reflects the City's independent judgment, pursuant to the requirements of CEQA Guidelines Section 15090, it will recommend certification of the document as a final EIR to the City Council. The City anticipates that certification of the final SEIR will be considered by the City Council in February 2023. The City decision-makers will consider the certified final SEIR, along with other information received during the public review process, to determine whether to approve, modify, or disapprove the proposed project and specify the mitigation measures that will be required as conditions of project approval in a Mitigation Monitoring and Reporting Program.

If City decision-makers decide to approve the proposed project, even though significant environmental impacts identified in the final SEIR have not been avoided or reduced to less-than-significant levels, they must indicate that such unavoidable significant impacts are acceptable because of overriding economic, legal, social, technological, or other considerations, as described in CEQA Guidelines Section 15093. This is known as a Statement of Overriding Considerations, in which the City balances the benefits of a proposed project against its unavoidable environmental risks. If the benefits of a project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable (CEQA Guidelines Section 15093). If an agency adopts a Statement of Overriding Considerations, the statement must be included in the record of project approval.

1.2 Document Organization

This RTC document consists of the following chapters:

- **Chapter 1, Introduction**, discusses the purpose of the RTC document, the environmental review process for the SEIR, and the organization of the RTC document.
- **Chapter 2, Comments and Responses**, presents comments from the public hearing and written comments. The responses to comments are also included in this chapter.
- **Chapter 3, Revisions to the Draft EIR**, presents changes to the draft SEIR made as a result of the responses to the comments as well as staff-initiated changes identified by City staff.
- **Chapter 4, References**, includes references cited in the response to comments document.
- **Attachment 1**, presents the Draft Milpitas Metro Specific Plan Traffic Operations Report cited in the response to comments document.
- **Attachment 2**, presents the updated Draft Specific Plan.

2.1 Introduction

This chapter contains responses to the public comments from the April 19, 2022 Special Meeting of the Milpitas City Council and to written comments received on the draft SEIR. The City of Milpitas received three written comment letters on the draft SEIR during the comment period. Two verbal comments were made at the Special Meeting of the Milpitas City Council on April 19, 2022. The written comments (Comments 1 through 3) are numbered chronologically, and the public hearing comments (Comments 4 and 5) are identified by commenter.

Where revisions to the draft SEIR are appropriate to respond to comments, such changes are noted in the responses and shown in full in Chapter 3, *Revisions to the Draft SEIR*. These include changes in response to comments and staff-initiated changes.

2.2 Responses to Comments

This section includes comments on the draft SEIR and responses to those comments. Written comments (Comments 1 through 3) are bracketed and numbered; each comment is followed by responses to the comments. Verbal comments (Comments 4 and 5) are summarized from the recording of the April 19, 2022, Special Meeting of the Milpitas City Council; each verbal comment summary is followed by responses to the comment.



LoopWorks

MEDIA RELEASE

For Immediate Release: Dec. 10, 2021

Contact: Rob Means, Rob@MilpitasPRT.com

Personal Rapid Transit (PRT) complements Milpitas Metro Specific Plan

The Milpitas Metro Specific Plan (MMSP) lays out a vision of what people want in the Metro Area, and then lists the actual policies that will nurture the vision of balance between housing, jobs, services/retail, and transportation.

One part of the Plan Vision seems to invite the Personal Rapid Transit (PRT) project being proposed: The Milpitas Metro identity as an urban, future-forward, inclusive, and world-class competitive district will distinguish itself from other areas in the City and South Bay Region.

Clearly, the Milpitas PRT system will empower such an identity. For example, the Vision seeks to “enhance the sense of place and identity of the Metro Area with visually memorable structures”. Once the hardware is installed, a Metro Area visitor can stand in most public right-of-ways, look around themselves, and see a PRT guideway somewhere. Not only does that provide a “sense of place and identity” and connection, it provides visitors with a calming visual link to safe transit.

Likewise, PRT will “provide safer and more attractive multimodal connections for walking and biking”. By providing easy-to-use mobility, PRT will connect the “greater variety of shared public spaces” together, so that people in all subdistricts can enjoy all that variety. PRT will promote transportation equity, mobility for handicapped, and safety for elders – simply put, it will improve the lives of people.

Transforming a vision into reality requires policies and practices. The policies proposed in the MMSP outline how we achieve the vision. LoopWorks finds that many of the policies of the MMSP are supported by the proposed dual-loop PRT system – and many of the policies will increase demand for services that PRT provides.

Examples of MMSP policies supported by PRT’s convenient, high-profile transit:

- A) PPS 1. Access. Ensure safe, broad, and equitable access to urban public spaces, such as parks, trails, and rooftop gardens.
- B) PPS 4.1. Complete a pedestrian and bicycle network that connects trails and pathways with pedestrian bridges, enhanced pedestrian-friendly environments, and bicycling enhancements to create a loop that connects the entire Milpitas Metro Area.
- C) PPS 6.2. Encourage pop-up markets, food trucks, and other temporary events that activate the open space and encourage community gatherings.
- D) PPS 10. Recreation and Cultural Centers. Enhance Milpitas Metro as a recreational and cultural destination.
- E) PPS 10.1. Promote the establishment of a community and regionally-focused performing and visual arts center.

- F) SD 16.2. Location. Public art should be provided at all publicly accessible places, especially along pathways to the Transit Center. Public art should be displayed in areas with high levels of pedestrian traffic and be easily visible and accessible to the public.
- G) SD 17. District Branding, Signage, and Wayfinding. Develop and install attractive, consistent District Branding, Signage, and Wayfinding that builds off the City of Milpitas’s branding and wayfinding.
- H) SD 17.1. Wayfinding Signage Design. Design signage that enhances and highlights opportunities for public transit, walking, and cycling by providing a cohesive and legible physical and virtual navigation system.
- I) SD 17.3. District Signage. Provide streetlight banners and entry signs at major intersections and corridor access points, near transit, and on Great Mall Parkway and Montague Expressway.

Examples of MMSP policies that will create demand for PRT transit:

- 1. PPS 7. Community Gardens. Include Community Gardens for community wellness and benefit.
- 2. PPS 7.6. Require community gardens to be consistent with Community Rules and Regulations, which emphasizes: • No parking in or outside of the garden is allowed.
- 3. PPS 8. Plazas. Plazas should serve as destinations for community members of all ages, income levels, and abilities, and should be safe, inclusive, and welcoming.
- 4. SD 2.9. Trail Improvements. Trail improvements and new trails shall be provided along both sides of Berryessa Creek and South Penitencia Creek East Channel to improve connectivity to the Milpitas Transit Center and between subdistricts.
- 5. SD 15. Publicly Accessible Open Spaces. Publicly accessible open spaces allow opportunities for recreation, socialization, reflection, and other activities.
- 6. SD 15.3. Types of Open Space. Open spaces may include plazas, squares, gathering places, paseos, passageways, trails, and parklets. The types of open space desired provide amenities for socializing in big and small groups, performance, recreation, events, and pets.
- 7. SD 15.4. Accessibility. Spaces should be designed to be accessible to the highest possible number of users.

While this MMSP is a long-term vision, we must not ignore the Climate Crisis we find ourselves in. “The Metro Plan implements the Climate Action Plan and contains policies that will increase the sustainability of the area through ... transportation strategies that manage automobile usage and promote low- and zero-carbon transportation options” This is the reason PRT is integral to the future of the Metro Area – it reduces carbon emissions.

The Milpitas Metro Specific Plan is a planning document that embodies the vision for the neighborhoods around the Milpitas Transit Center **for the next 20 years**. Let’s do it right!

LoopWorks is a taxable non-profit mutual benefit corporation that is creating a smart transit system to serve the Metro Area around the Milpitas BART Transit Center using convenient and quick Personal Rapid Transit (PRT) technology.

For more information, visit MilpitasPRT.com or email info@MilpitasPRT.com.

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Comment 1: Rob Means, LoopWorks (April 18, 2022).

Response to Comment 1-1

The comment suggests the inclusion of a Milpitas Personal Rapid Transit system (PRT) in the Metro Plan Area. At this time, the City does not intend to implement the PRT as part of the Metro Plan and, to clarify, PRT is not a project the City is proposing as part of the Metro Plan. This comment suggests an additional component to the Metro Plan and does not raise significant environmental issues or provide input about the environmental analysis or conclusions in the draft SEIR. Although this comment does not address the analysis in the draft SEIR, it is included in the record for consideration by decision makers before they take action on the proposed project.



May 11, 2022

Norman E. Matteoni
Peggy M. O'Laughlin
Bradley M. Matteoni
Barton G. Hechtman
Gerry Houlihan

City of Milpitas Planning Department
Attn: Kevin Riley, Metro Plan Project Manager
455 East Calaveras Boulevard
Milpitas, CA 95035

Re: Comment on Draft SEIR for Milpitas Metro Specific Plan concerning Custom Drywall Parcel at 1670 S. Milpitas Blvd. (1550 Gladding Ct.); APN 92-08-105,

Dear Mr. Riley:

I represent Custom Drywall that owns a *uniquely positioned property* within the proposed Metro Specific Plan, as I will explain below with reference to the enclosed map.

The proposed Specific Plan shows this property within a designation of "Business Park Research & Development, Limited Residential" and adjacent to "Permanent Open Space" (flood channel and pathway, referred to as "Linear Park and Trails"). The property is designated in the adopted Milpitas Transit Area Specific Plan (TASP) as 1.66 acres *Parks/Plazas/Community Facilities* (Fig. 3-D). Then later in the document there is a note: "Trailhead parks with benches, parking, and picnic tables. Gathering space." (Fig. 3-6). But the zoning for the property is TOD with a density of R-5.

A portion of the property was taken by eminent domain in 2015 by the VTA to implement a plan that was coordinated with the City of Milpitas to extend Milpitas Boulevard from its intersection at Montague Expressway to Capitol Avenue, in order to provide efficient access to the Milpitas BART Station and related parking. These three components were part of the overall BART project and were anticipated in the City's 2008 TASP, as amended in 2011. Figure 2-4 of the Draft EIR and several other illustrations to the Metro Specific Plan place a "P" and "*" designation on the property, indicating Park and Police Substation.

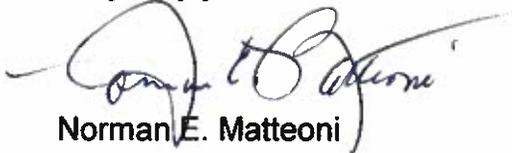
However, on the ground there is a long-standing industrial use on the property. Custom Drywall was established in 1960 with access from Gladding Court (in fact, the owners were responsible for the establishment

of that city street). In 2015, VTA filed a condemnation action taking 44,404 sq. ft. from the then existing parcel, that included a large industrial building, for the extension of Milpitas Boulevard. As a result: 1) access to Gladding Court was eliminated; 2) a narrow strip of land on the south side of the new Milpitas Boulevard was left; and 3) the industrial building serving Custom Drywall and other industrial tenants remained in place on a constricted site. Moreover, there is a major PG&E aerial electric transmission line supported by a tower running through the parcel skewing it on a diagonal. See map provided by VTA at the time of acquisition. Other neighboring industrial users north of this parcel were also condemned.

The property is not adaptable to its zoned residential use because of the configuration left by the VTA acquisition and the burden of the PG&E transmission line. Even more restrictive is the designation of Park on the TASP for this property. Measure K as adopted by the voters in 2016 prohibits any construction of any residential, commercial or industrial buildings or structures on any land designated on the General Plan Land Use Map as "Parks and Open Space," unless first approved by a vote of 2/3ds in a general or special election. The property is locked into an industrial use as legally nonconforming.

The business has thrived in Milpitas and seeks to continue, but tenants in a portion of the building may change from time to time. If the City has no immediate plans to acquire this parcel for parks or a police substation, it must make specific provision to allow flexibility in continued nonconforming uses to adapt to market changes. There remains a need for such industrial services as these businesses provide.

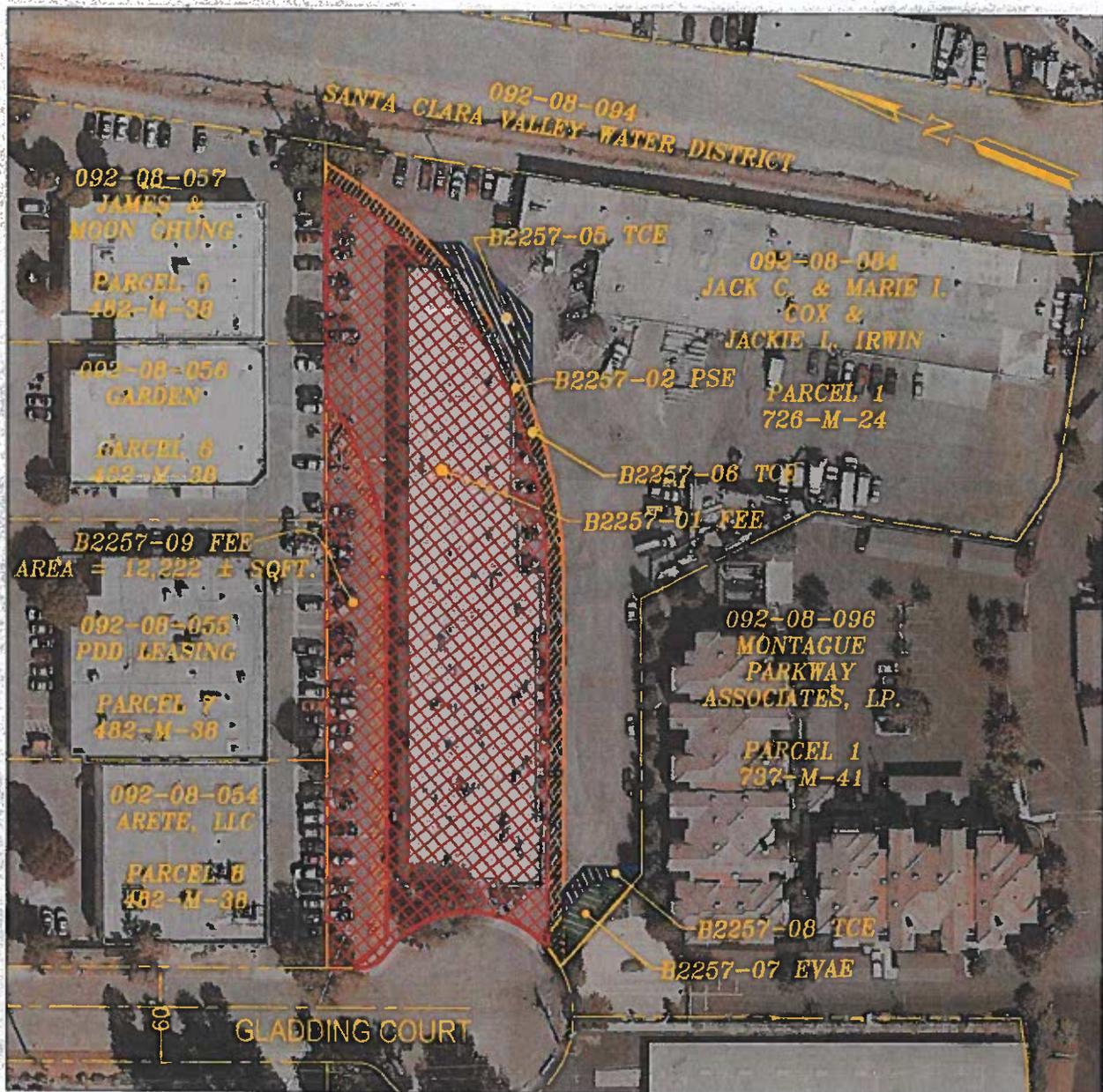
Very truly yours,



Norman E. Matteoni

NEM/jlc
Cc: Gene Cox
Encl.

\\victoria\1\onst\SURVEY-MAPPING\VTA PROJECTS\BART\SVBX\EXHIBITS\PHOTO\CAD\B2257\B2257_ExhibitPE.dwg, v.257_PE Oct 31, 2014 - 9:29am



LEGEND

- FEE - FEE TAKE AREA 01= 44,494± SQ FT. , AREA 09= 12,222± SQFT.
- PSE - PUBLIC SERVICE EASEMENT AREA 02= 5,509± SQ FT.
- TCE - TEMPORARY CONSTRUCTION EASEMENT AREA 05= 1,845± SQ FT., AREA 06= 5,509± SQ FT., AREA 08= 559± SQ FT.
- EVAE - EMERGENCY VEHICLE ACCESS EASEMENT AREA 07= 1,169± SQ FT.

PHOTO EXHIBIT
 SVBX C700
 B2257
 APN 092-08-084
 CITY OF MILPITAS,
 COUNTY OF SANTA CLARA, STATE OF CALIFORNIA



SANTA CLARA
Valley Transportation Authority

3331 NORTH FIRST STREET, BLDG. A
 SAN JOSE, CA 95134-1906
 PH. 408-321-5886 FAX 408-321-5880

SCALE: 1"=100'
 DATE: 10-30-14

Drawn By:
 L. Boroumand

Checked By:
 J. MacRORY

SHEET:
 1 OF 1

Comment 2: Norman E. Matteoni, Matteoni, O’Laughlin & Hechtman, representing Custom Drywall (May 11, 2022).

Response to Comment 2-1

The commenter details concerns regarding the project’s proposed land use designation for their client’s 1.66-acre property within the Metro Plan area. This comment does not raise significant environmental issues or provide input about the environmental analysis or conclusions in the draft SEIR. Although this comment does not address the analysis in the draft SEIR, it is included in the record for consideration by decision makers before their action on the proposed project.



May 31, 2022

City of Milpitas
455 East Calaveras Boulevard
Milpitas, CA 95035

Attn: Kevin Riley
By Email: kriley@ci.milpitas.ca.gov

Dear Kevin,

VTA appreciates the opportunity to comment on the Milpitas Metro Specific Plan Subsequent Environmental Impact Report (SEIR). VTA has reviewed the document and has the following comments:

Congestion Management Program (CMP) Analysis

VTA's Congestion Management Program (CMP) requires a Transportation Impact Analysis (TIA). While the project has been screened for transportation related mitigations under CEQA, the project is still required to conform to the requirements of the VTA CMP, which is a separate statute from CEQA. CMP requirements currently refer to an LOS standard. VTA requests a TIA analysis.

Per the *TIA Guidelines* (Section 9.2 – Transit), the DEIR/TIA should address the Project's potential congestion impacts to transit travel times and operations within the vicinity of the Metro plan area, as well as evaluate transit access and facilities. If transit delay is found, transit priority measures, such as improving transit travel times and improvements to transit stops and passenger amenities, would constitute appropriate offsetting measures. Once the transit delay analysis results are available, VTA and the City should meet regarding the appropriate offsetting measures.

Land Use

The Draft Milpitas Metro Plan acknowledges VTA's interest in pursuing future redevelopment of the VTA Bus Station site for transit-oriented development, per Section 2.2.3 VTA Bus Station. Figure 2-4 Land Uses of the SEIR shows the VTA Bus Station property as 'Public Facilities.' Once transit facilities are no longer needed as public facilities, VTA would like 'Boulevard Very High-Density Mixed Use' as the "underlayer" not 'Public Facilities.'

Transportation Demand Management

VTA acknowledges that the Plan establishes a TDM program with a variety of TDM measures. VTA recommends further Transportation Demand Management (TDM) measures including

setting a trip target, third-party monitoring, and an enforcement framework. Chapter 8 of VTA's TIA Guidelines includes recommendations for such Target-Based Trip Reduction programs. VTA supports trip caps and aggressive parking management strategies to help reach these TDM goals.

Safety, Security, and Access

VTA engages with its partners at BART, the Federal Transit Administration (FTA), the Department of Homeland Security (DHS), and the California Public Utilities Commission (CPUC) concerning existing and future access underneath VTA Light Rail guideway. New access points or modification near the guideway may trigger regulatory requirements or review of the FTA, DHS, and the CPUC. If any proposals, including art, access for autos, bicycles, or pedestrians are shown in the Metro Plan, VTA strongly recommends documenting proposal as "Conceptual" to set public expectations. Any proposed modifications would require close VTA collaboration and coordination.

Thank you again for the opportunity to review this project. If you have any questions, please do not hesitate to contact me at 408-321-7572 or Melissa.Cerezo@vta.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Melissa R. Cerezo", with a long horizontal flourish extending to the right.

Melissa R. Cerezo, AICP
Land Use Transportation Integration Program Manager

Comment 3: Melissa R. Cerezo, AICP, Santa Clara Valley Transportation Authority, (May 31, 2022).

Response to Comment 3-1

The comment requests that a Transportation Impact Analysis (TIA) be prepared according to the requirements of their Congestion Management Program (CMP), while acknowledging that CMP requirements are separate from CEQA. Regarding concerns about traffic congestion, traffic delay as measured by level of service (LOS) is not a metric used to evaluate transportation impacts under CEQA; instead, the draft SEIR evaluates vehicle miles traveled (VMT) (see Public Resources Code section 21099(b)(2), CEQA Guidelines Section 15064.3). Therefore, no analysis of congestion is required in the SEIR.

However, W-Trans also prepared a Traffic Operations Report, which presents results of the analysis of the effects on traffic operation associated with the changes in the Metro Plan relative to the TASP. As stated on page 2 of the Traffic Operations Report, it is not part of the CEQA determination. Draft SEIR page 3.7-10 explains:

While changes to traffic operations as a result of the Project Change were not considered in assessing environmental impacts under CEQA, per City of Milpitas policy and for purposes of CMP compliance, LOS was assessed as part of the planning effort for the Metro Plan and compiled in the Draft Milpitas Metro Specific Plan Traffic Operations Report (W-Trans 2022).

Therefore, the analysis requested by the commenter for the CMP has been completed. The Traffic Operations Report is included in the SEIR administrative record, which is available to the general public at the City of Milpitas Planning Department, 455 East Calaveras Boulevard, Milpitas, CA 95035. It is also included as Attachment 1 to this RTC document.

Response to Comment 3-2

The comment requests that the impacts of increased congestion on transit travel times be indicated. In the case that delay is found, the comment requests implementation of measures that improve transit travel times or provide transit stop improvements. The comment also requests an evaluation of transit access and facilities.

As described in Response to Comment 3-1, traffic delay measured by LOS is not considered a significant impact under CEQA. While a significance criterion in Appendix G to the CEQA Guidelines is whether the project would “[c]onflict with a program plan, ordinance or policy addressing the circulation system, including transit . . . facilities,” VTA has not established significance criteria related to transit vehicle delay. However, VTA’s most recent Transit Service Guidelines establishes a goal of at least 15 miles per hour for non-express routes (VTA 2019).

As described in Response to Comment 3-1, a Traffic Operations Report was prepared per City of Milpitas policy and for CMP compliance. The Traffic Operations Report is included in the SEIR administrative record, which is available to the general public at the City of Milpitas Planning Department, 455 East Calaveras Boulevard, Milpitas, CA 95035. It is also included as Attachment 1 to the final SEIR. As indicated on pages 21 and 24 of the Traffic Operations Report, five of the 12 study intersections and three of the six study segments are expected to operate deficiently assuming

buildout of the Metro Plan and 2040 traffic volumes in the VTA model. As shown on page 23 of the Traffic Operations Report, some other intersections and segments would also experience increased delay but would not experience deficient operation. Any transit lines operating on these roadways and through these intersections would therefore experience some additional delay. Because BART is grade-separated, it would not experience increased delay. VTA Light Rail is also grade-separated at all study intersections and would therefore not experience increased delay at those locations. A more detailed analysis of on-road transit delay, to the point of calculating the average speed of on-road transit routes against the VTA goal of 15 miles per hour or faster, would be premature. Projects within the Metro Plan area have not yet been sited or designed, project-specific access routes have not been determined, and other key project components that would influence potential impacts have not yet been determined. Additionally, with the Metro Plan's 20-year planning horizon, on-road transit routes and timing may change over time. As a result, additional analysis of on-road transit delay would be speculative, and no additional analysis can be provided at this time.

Regarding transit access and facilities, the Metro Plan is policy oriented rather than focused on specific development proposals or transit improvements. Nonetheless, the Metro Plan is supportive of transit and transit access. The long-term focus of planning is creating a transit-oriented community, and General Plan Policy CIR-3 is to "Support the development and maintenance of the public transit system to provide integrated, accessible, convenient, safe, equitable, health-promoting, comfortable, and effective mobility options." The draft SEIR addresses transit impacts under Impact TR-1. Regarding geographic expansion of the Metro Plan area compared to the size of the TASP area, pages 3.7-12 through 3.7-13 of the draft SEIR state that

A portion of the eastern expansion area in the Innovation District lies over one-half mile from the Milpitas BART station, but the addition of a pedestrian-bicycle bridge over Berryessa Creek will provide enhanced connectivity to BART, light rail, and bus service at the transit center. Bus service is typically modified to serve the characteristics of surrounding development, and it is expected that VTA would implement such modifications in conjunction with the completion of development associated with the Metro Plan. Per General Plan Goal CIR-3, the City would coordinate with transit providers to ensure convenient transit service to support this development.

Regarding Metro Plan buildout, page 3.7-13 of the draft SEIR states

Increased transit demand resulting from the Project Change would be distributed among the various transit providers and routes serving the Metro Plan Area, including BART, VTA light rail, nine VTA bus routes, two Altamont Commuter Express (ACE) shuttles, and an AC Transit line providing service to and from Fremont. Local bus service currently operates with headways ranging from 15 to 30 minutes, light rail headways of approximately 20 to 30 minutes, and two BART lines operating on 15-minute headways to both Daly City and Richmond. Transit agencies will also adjust services as demand changes over time. Therefore, based on the range of transit service providers and routes available in the Metro Plan Area, it can reasonably be assumed that project-generated transit trips would be accommodated.

The draft SEIR also lists on pages 3.7-13 through 3.7-14 various Metro Plan policies that would minimize potential impacts to transit, such as:

- **Policy M 2.1. Great Mall Parkway.** Transform Great Mall Parkway/Capitol Avenue into multimodal complete streets that provides for the mobility needs and safety of transit users,

bicyclists, pedestrians, and drivers as indicated in Figure 4-7 [of the Metro Plan] and by providing bike lanes and sidewalks on both sides of the road.

- **Policy M 2.2. Great Mall Parkway and Main Street Intersection.** Accommodate bicycle and pedestrian improvements and improve the connection between the Great Mall VTA Light Rail Station to the Great Mall (Figure 4-8 [of the Metro Plan]).
- **Policy M 2.2.1.** Remove fencing and redesign the bus drive to become a multi-use path that directly connects the VTA Light Rail Station with the Great Mall.
- **Policy M 2.2.2.** Redesign the plaza by the Light Rail Station Elevator on the north side of Great Mall Parkway to be more landscaped, more usable as a public plaza, with commercial uses oriented to it and features that activate the plaza. Coordinate with VTA and developers to improve the pedestrian and transit user experience at the LRT Station.
- **Policy M 2.2.5.** Build a new pedestrian overcrossing from the elevated level at the Great Mall Light Rail Station to the corner plaza at Main and Great Mall Parkway.
- **Policy M 5.1.** Create a complete pedestrian and bicycle network that connects trails and pathways and includes continuous sidewalks and safe bike travel routes throughout the entire Milpitas Metro Area.

Regarding changes in land use classification and policies, the draft SEIR states on page 3.7-15 that

The Metro Plan would continue implementing similar goals as the TASP regarding community connectivity, including . . . implementing street, trail, and bridge improvements to connect existing residents and employees with jobs, services, parks, and transit.

The draft SEIR evaluates the specific plan in program level detail and explains what is currently known in terms of the project and what will be determined later as part of specific projects. As discussed in sections 1.5 and 1.6.1 of the draft SEIR, the programmatic analysis provided in the draft SEIR may be used during consideration and evaluation of project-level analysis of specific projects. If, and when, individual projects are proposed for development, additional project-level studies and CEQA review will be conducted, as necessary. Therefore, the draft SEIR evaluates transit access to the appropriate level of detail for the Metro Plan.

Response to Comment 3-3

Figure 2-4 has been revised, as shown in Chapter 3 of this Responses to Comments document. The western portion of the transit center overlay, where the bus station is currently located, has been re-designated as Boulevard Very High Density Mixed Use and also retains the transit center overlay. No revisions to the analysis in the draft SEIR are necessary because this revision merely clarifies an existing figure of the Plan.

Response to Comment 3-4

The comment requests that additional TDM measures be included in the TDM program, such as a trip target, third-party monitoring, an enforcement framework, trip caps, and parking management strategies. The SEIR indicates that the Metro Plan would not result in a significant impact to VMT as the VMT per service population, VMT per capita, and VMT per employee would all be substantially below the VMT significance thresholds established per City of Milpitas policy. While no VMT

mitigations are required, the Metro Plan requires implementation of a suite of measures to further reduce VMT impacts. As such, a TDM program that must be established for the Metro Plan area per Metro Plan IM 29 already has many of the requested measures (City of Milpitas 2022):

- **M 8. Parking and Transportation Demand Management:** The TDM program has a goal of reducing VMT by 15 percent or more below the regional baseline, which is comparable to a target-based trip reduction and a trip target.
- **M 8.1 Transportation Management Association (TMA):** The TMA is responsible for monitoring trip reduction, VMT targets, and services within the planning area. While a TMA is typically member-controlled and member-funded, reduction of vehicle trips would be reported to both participants and the City. Compliance with plan policies generally becomes a condition of approval that is enforceable by the respective city, such that the City would be able to enforce TDM goals.
- **M 8.4.2, M 8.6, M 8.7 Parking Requirements and Reductions:** While the MMSP sets a minimum parking requirement, it also sets a maximum parking requirement for all land uses. The MMSP also provides the authority to reduce minimum parking requirements by up to 100 percent based on the location of the development in proximity to transit and on-side parking demand reduction measures. Minimum parking requirements may also be reduced through the payment of an in-lieu fee to the TMA. Therefore, the MMSP contains parking management strategies.

As stated in the Metro Plan, the measures outlined in it are minimum requirements for projects. Policy M 8.3 encourages implementation of additional TDM measures, referring also to the Santa Clara Countywide VMT Evaluation Tool. Therefore, individual projects can include measures such as trip caps and additional parking management strategies. No revisions have been made to the draft SEIR or the Metro Plan in response to this comment because the TDM contemplated in the Metro Plan already provides for these kinds of measures.

Response to Comment 3-5

The commenter describes their coordination with other agencies for access under the VTA Light Rail guideway and notes that other agencies may require approvals or there may be other requirements associated with those agencies. The commenter notes that access should be labeled “conceptual” at this stage of the plan and that they must be involved in proposed modifications. It is correct that it is premature to consider any specific access plans on a project-specific level at this time, as these projects have not yet been sited or designed, project-specific access routes have not been determined, and other key project components that would influence potential environmental impacts have not yet been determined. The draft SEIR evaluates the specific plan in program level detail and explains what is currently known in terms of the project and what will be determined later as part of specific projects. As discussed in sections 1.5 and 1.6.1 of the draft SEIR, the programmatic analysis provided in the draft SEIR may be used during consideration and evaluation of project-level analysis of specific projects. If, and when, individual projects are proposed for development, additional project-level studies and CEQA review will be conducted, as necessary. Additionally, coordination with other agencies would be conducted as needed or required as individual projects are considered. Because the draft SEIR explains the proposed project, the programmatic nature of the draft SEIR, and how future projects will be considered, the City believes it is unnecessary to label any Metro Plan components as conceptual.

Comment 4 (Special City Council Meeting): Voltaire Montemayor (April 19, 2022).

Summary of Comment 4-1

The commenter states their support for a number of development criteria. The specific criteria to which the commenters refers are unclear, though they may be referring in part to the project objectives (of which there are six, as listed on pages 2-3 and 2-4 of the draft SEIR) or the project changes (which are listed in four bullets on page 2-5 of the draft SEIR). Nonetheless, the commenter is supportive of the work produced.

Response to Comment 4-1

The commenter's support of the project is noted. Comments on the project's merits do not raise significant environmental issues or provide input about the environmental analysis or conclusions in the draft SEIR. Although these comments do not address the analysis in the draft SEIR, they are included in the record for consideration by the decision makers before their action on the proposed project.

Comment 5 (Special City Council Meeting): Rob Means, LoopWorks (April 19, 2022).

Summary of Comment 5-1

The commenter states that the information they provided in December is still relevant and that their project compliments the City's vision for the area. The PRT system they intend on building will provide a sense of space, sense of place, and identity and will also improve transportation equity, mobility for people with disabilities, and safety for elders. The PRT system will improve peoples' lives in the area and lives of any visitors in the area. PRT is supported by the program and supports the program.

Response to Comment 5-1

Regarding the material the commenter references as being provided in December, Comment 1 is dated December 10, 2021 (though it was emailed to the City on April 18, 2022). Therefore, the City presumes the commenter is referring to that information. See Response to Comment 1.

Chapter 3 Revisions to the Draft EIR

This section lists revisions that have been made to the draft SEIR following the 45-day public comment period. Revisions were made either in response to comments received on the draft EIR or as staff-initiated changes to correct typographical errors. Staff-initiated text changes are indicated by an asterisk (*).

These changes and minor errata do not result in significant new information with respect to the proposed project, including the level of significance of project impacts or any new significant impacts. Therefore, recirculation of the draft EIR pursuant to CEQA Guidelines Section 15088.5 is not required.

Page ES-15*

The following row was added to Table ES-2. The analysis of Impact C-HYD-1 can be found on pages 4-13 through 4-14 of the draft SEIR, and it had merely been unintentionally omitted from the summary table.

Impact C-HAZ-1: Implementation of the Metro Plan would not result in new or substantially more severe impacts than what was identified in the Certified EIR related to cumulative hazards and hazardous materials impacts.	Less than significant cumulative impact	None required	-
<u>Impact C-HYD-1: Implementation of the Metro Plan would not result in new or substantially more severe impacts than what was identified in the Certified EIR related to hydrology and water quality impacts.</u>	<u>Less than significant cumulative impact</u>	<u>None required</u>	<u>-</u>
Impact C-LU-1: Implementation of the Metro Plan would not result in new or substantially more severe impacts than what was identified in the Certified EIR related to cumulative land use impacts.	Less than significant cumulative impact	None required	-

Page ES-16*

The following row was added to Table ES-2. The analysis of Impact C-PS-1 can be found on pages 4-20 through 4-22 of the draft SEIR, and it had merely been unintentionally omitted from the summary table.

Impact C-POP-1: Implementation of the Metro Plan would not result in new or substantially more severe impacts than what was identified in the Certified EIR related to cumulative population and housing impacts.	Less than cumulatively considerable contribution	None required	- -
<u>Impact C-PS-1: Implementation of the Metro Plan would not result in new or substantially more severe impacts than what was identified in the Certified EIR related to cumulative public services and recreation impacts.</u>	<u>Less than significant cumulative impact</u>	<u>None required</u>	-
Impact C-TR-1: Implementation of the Metro Plan would not result in new or substantially more severe impacts than what was identified in the Certified EIR related to cumulative transportation impacts.	Less than cumulatively considerable contribution	None required	- -

Page 2-15

The following updated figure replaces Figure 2-4 in the Draft EIR to reflect minor updates to the land use map in the Metro Plan. This figure shows a revision in Response to Comment 3-3. It also shows staff-initiated changes to Permanent Open Space and Multi-Family Very High Density Residential Designations in the vicinity of Tarob Court and to Permanent Open Space and Business Park Research & Development in the vicinity of Watson Court. These revisions do not change the overall maximum development within the Metro Plan area. Therefore, no revisions to the analysis in the draft SEIR are necessary.

Page 3.1-23*

The following revision was made to Mitigation Measure AQ-7 to add an unintentionally omitted word.

Mitigation Measure AQ-7: Restrict Use of Natural Gas in New Development

Future development within the Metro Plan Area shall utilize electric space and water heating to the maximum extent feasible or to the extent required by existing or future local building regulations. Natural gas infrastructure and appliances shall not be installed to the extent feasible as determined by the availability and capacity of electrical power distribution infrastructure.

The revision is consistent with the title of Mitigation Measure AQ-7 as well as the content of Mitigation Measure GHG-2, which also states:

Natural gas infrastructure and appliances shall not be installed to the extent feasible as determined by the availability and capacity of electrical power distribution infrastructure.

Page 3.2-13

The following revision was made to the discussion of methodology for operational emissions of GHGs:

Given that the Metro Plan ~~requires~~ may result in General Plan Amendments and rezoning of land throughout the City, the operational emissions analysis accounts for the net change in emissions due to the Metro Plan. The land use changes, and proposed land use assumptions are outlined in Table 2-3~~Error! Reference source not found.~~ CalEEMod version 2020.4.0 quantifies operational GHG emissions for area sources (such as landscaping equipment), energy sources (such as lighting electricity), and water and waste emissions based on the size and type of a project's land use.

No new information has been added as a result of correcting this word processing error.

Page 5-28*

The following revisions were made to correct a reference to the Public Resources Code.

Section 21002 of the ~~State CEQA Guidelines~~Public Resources Code requires lead agencies to adopt feasible mitigation measures or feasible environmentally superior alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible. CEQA also requires that an environmentally superior alternative be identified among the alternatives analyzed. In general, the environmentally superior alternative is the project that avoids or substantially lessens some or all of the significant and unavoidable impacts of the proposed project (State CEQA Guidelines Section 15126.6).

Chapter 4 References

City of Milpitas. 2022 (April) City of Milpitas Metro Specific Plan, Public Draft.

VTA (Santa Clara Valley Transportation Authority). 2019 (September). Transit Service Guidelines, Adopted April 2018, Revised September 2019.

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Milpitas Metro Specific Plan Traffic Operations Report



Prepared for the City of Milpitas

Submitted by
W-Trans

November 3, 2022



**TRAFFIC ENGINEERING
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Executive Summary

The *Milpitas Metro Specific Plan* was developed as an update to the 2008 *Milpitas Transit Area Specific Plan*, or TASP. The purpose of this study is to analyze the traffic impacts of the changes in the proposed project relative to the TASP and to supplement the analysis performed for the *Milpitas Metro Specific Plan Subsequent Environmental Impact Report (SEIR)*.

Compared to the TASP, the *Milpitas Metro Specific Plan* includes the addition of 73 acres to the plan area, an intensification of land uses, and changes to the land use classifications and policies. In addition to what was approved in the TASP and included in the City's most recent *General Plan* update, Milpitas Metro allows for up to 7,000 additional housing units, 2.5 million square feet of office uses, 300,000 square feet of retail uses, 500,000 square feet of industrial uses, and 700 hotel rooms.

The study area includes 12 intersections, all of which are operating acceptably under Existing Conditions during the a.m. and p.m. peak periods. Of the 12 study intersections, nine are expected to operate acceptably under projected future volumes based on the current General Plan. With the addition of project trips associated with the proposed *Milpitas Metro Specific Plan*, seven intersections would continue to operate acceptably. Recommendations were developed to improve operations at two of the five intersections with deficient operations; improvements at the remaining three intersections were deemed infeasible.

The *Milpitas Metro Specific Plan* includes policies and infrastructure improvements to enhance access and safety for pedestrians, bicyclists, transit riders, and users of micro-mobility modes. The City is in the process of developing its *Trail, Pedestrian, and Bicycle Master Plan*.

The Vehicles Miles Traveled (VMT) generated by the *Milpitas Metro Specific Plan* would result in a less-than-significant impact, based on a comparison to countywide figures for VMT per service population, per capita, and per employee. There are numerous policies in the *General Plan* and *Milpitas Metro Specific Plan* that would support reductions in VMT compared to otherwise expected levels. This includes mandatory transportation demand management (TDM) requirements for all new incoming development associated with the plan, for which there would be a goal of 15 percent reduction in VMT.

Introduction

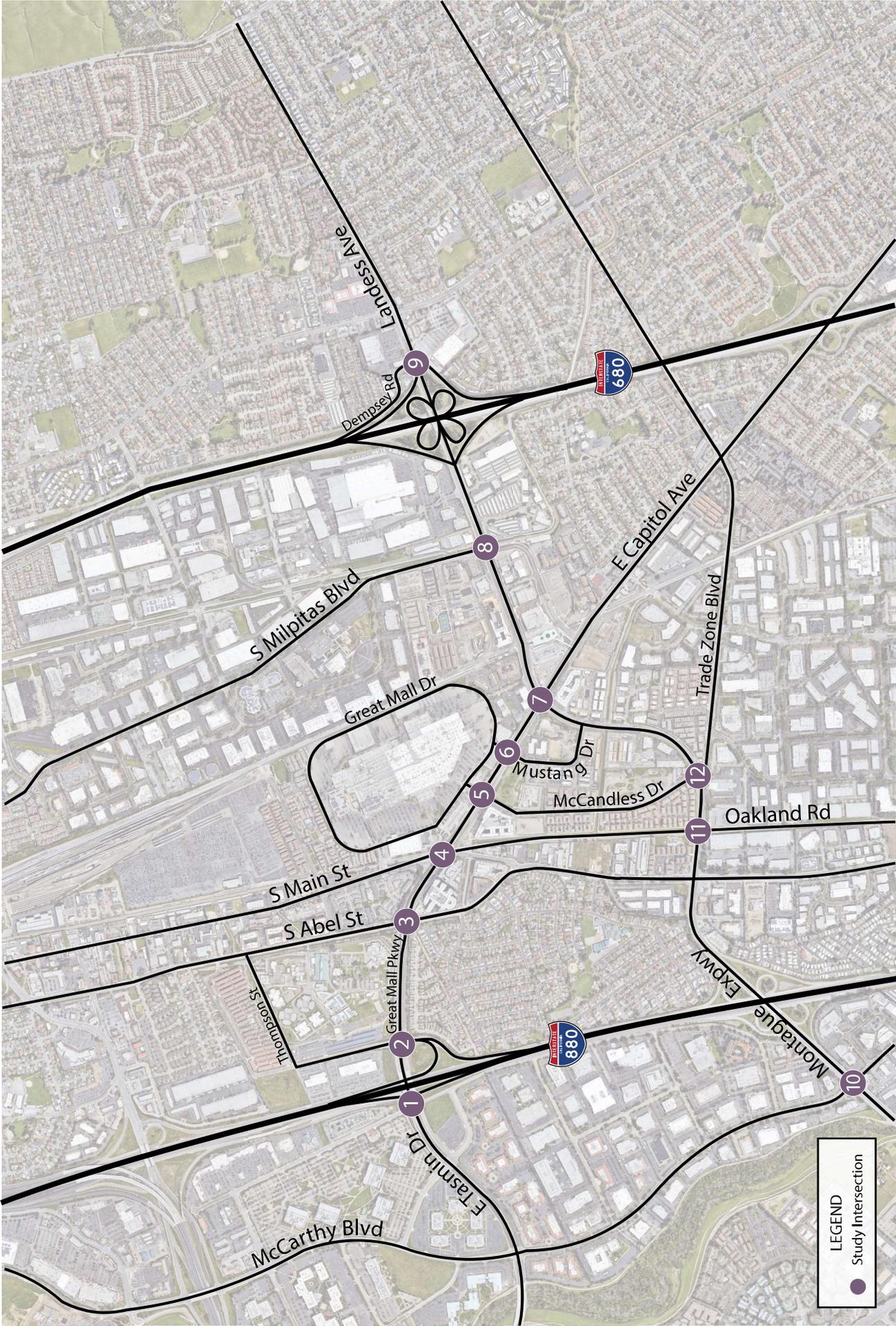
This report presents an analysis of the potential traffic impacts that would be associated with buildout of the proposed *Milpitas Metro Specific Plan*, which is an update to the *Transit Area Specific Plan* completed in 2008. This traffic study was completed in accordance with the criteria established by the State of California, Santa Clara County, the City of Milpitas, and is consistent with standard traffic engineering techniques. With the implementation of SB 743, the delay-based metric of Level of Service (LOS) is no longer used to determine transportation impacts under the California Environmental Quality Act (CEQA). This report was prepared to analyze the traffic operations impacts of the *Milpitas Metro Specific Plan*; while it is provided as an appendix to the Environmental Impact Report (EIR), it is not part of the CEQA determination.

Prelude

The purpose of a traffic impact study is to provide City staff and policymakers with data they can use to make an informed decision regarding the potential traffic impacts and adverse effects of a proposed project, and any associated improvements that would be required to mitigate these impacts to a level of insignificance as defined by the City's *General Plan* and other policies and address adverse effects. Vehicular traffic operation is evaluated by determining the number of new trips that the proposed use would be expected to generate, distributing these trips to the surrounding street system based on existing travel patterns or anticipated travel patterns specific to the proposed project, then analyzing if the new traffic would be expected to have an adverse effect on operation of critical intersections or roadway segments.

Project Profile

The *Milpitas Metro Specific Plan* represents an update of the previously approved *Transit Area Station Plan (TASP)*, for which an EIR was certified in 2008 and which was incorporated into the *City of Milpitas General Plan*. The *Milpitas Metro Specific Plan* includes an expanded geographic area relative to the TASP, changes to the proposed land uses, and an intensification of the proposed development for the area. Buildout of the *Milpitas Metro Specific Plan* could yield a total of up to 7,000 housing units, 12,284 jobs, and a conservative estimate of 21,644 residents over development previously approved by the TASP. The *Milpitas Metro Specific Plan* area is shown in Figure 1.



Transportation Setting

Operational Analysis

Study Intersections and Periods

The study area included several key intersections and roadways in Milpitas, including the following:

1. East Tasman Drive/I-880 South Ramp
2. I-880 North Ramps-Thompson Street/Great Mall Parkway
3. South Abel Street/Great Mall Parkway
4. South Main Street/Great Mall Parkway
5. Great Mall Drive-McCandless Drive/Great Mall Parkway
6. Great Mall Parkway/Centre Pointe Drive-Mustang Drive
7. Montague Expressway/Great Mall Parkway-East Capitol Avenue
8. South Milpitas Boulevard/Montague Expressway
9. I-680 North Ramps/Dempsey Road-Landess Avenue
10. McCarthy Boulevard-O'Toole Avenue/Montague Expressway
11. South Main Street-Oakland Road/Montague Expressway
12. Montague Expressway/Trade Zone Boulevard-McCandless Drive

Traffic volumes at all study intersections were obtained in September and October 2016. These counts were used for the analysis conducted for the City's *General Plan* update that was adopted in 2021 and they represent the most recent counts available that predated the COVID-19 pandemic. The counts were conducted on typical days while schools were in session. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

Study Intersections

East Tasman Drive/I-880 South Ramps is a four-legged signalized intersection with protected left-turn phasing on the westbound Tasman Drive approach. VTA's Alum Rock-Santa Teresa light rail line runs along the median of Tasman Drive and crosses the I-880 southbound ramps at the intersection. Marked crosswalks with curb ramps and pedestrian signals are provided for crossing both I-880 ramp legs.

I-880 North Ramps-Thompson Street/Great Mall Parkway is a four-legged signalized intersection with protected left-turn phasing on both Great Mall Parkway approaches in addition to split phasing on the I-880 ramp and Thompson Street approaches. Right-turn channelization is provided on eastbound Great Mall Parkway onto the I-880 northbound onramp. VTA's Alum Rock-Santa Teresa light rail line runs along the median of the Great Mall Parkway and crosses Thompson Street and the I-880 northbound ramps at the intersection. Thompson Street on the north leg turns into the I-880 northbound ramps on the south leg. Marked crosswalks with curb ramps and pedestrian signals are provided for crossing all legs except the east Great Mall Parkway leg.

South Abel Street/Great Mall Parkway is a four-legged signalized intersection with protected left-turn phasing on all approaches. Right-turn channelization is provided from northbound South Abel Street to eastbound Great Mall Parkway. VTA's Alum Rock-Santa Teresa light rail line runs along the median of Great Mall Parkway and is grade separated above the intersection. All four legs have marked crosswalks, curb ramps and pedestrian signals.

South Main Street/Great Mall Parkway is a four-legged signalized intersection with protected left-turn phasing on all approaches. South Main Street has channelized right turns onto Great Mall Parkway in both directions. Additionally, westbound Great Mall Parkway has a channelized left turn onto southbound South Main Street.

Union Pacific Railroad tracks run parallel to and along the east side of South Main Street and pass through the eastern leg of the intersection. Railroad signal infrastructure and crossing arms are activated across the intersection's eastern leg during railroad pre-emption. The Santa Clara Valley Transportation Authority's (VTA's) Alum Rock-Santa Teresa light rail line runs on elevated tracks above the median of Great Mall Parkway, including a grade-separated station above the intersection. Marked crosswalks with curb ramps and pedestrian signals are provided for crossing all four legs.

Great Mall Drive-McCandless Drive/Great Mall Parkway is a four-legged signalized intersection with protected left-turn phasing on all approaches. VTA's Alum Rock-Santa Teresa light rail line runs along the median of Great Mall Parkway and is grade separated above the intersection. Great Mall Drive on the north leg turns into McCandless Drive on the south leg. All four legs have marked crosswalks, curb ramps and pedestrian signals.

Great Mall Parkway/Centre Pointe Drive-Mustang Drive is a four-legged signalized intersection with protected left-turn phasing on all approaches. VTA's Alum Rock-Santa Teresa light rail line runs along the median of the Great Mall Parkway and is grade-separated above the intersection. Mustang Drive on the north leg turns into Centre Pointe Drive on the south leg. There are marked crosswalks, curb ramps and pedestrian signals on all four legs.

Montague Expressway/Great Mall Parkway-East Capitol Avenue is a four-legged signalized intersection with protected left-turn phasing on all approaches, and right-turn channelization on all approaches except for southbound Montague Expressway. Southbound Montague Expressway has a channelized left turn as well as a future HOV designation on the outermost through lane. Great Mall Parkway on the west leg turns into East Capitol Avenue on the east leg. Marked crosswalks and pedestrian signals are provided across all legs, and there are pedestrian curb ramps on all corners except for on the southwest side of the intersection where there is no sidewalk.

South Milpitas Boulevard/Montague Expressway is a four-legged signalized intersection with right-turn channelization on westbound Montague Expressway and southbound South Milpitas Boulevard. The right-most westbound Montague Expressway through lane is be designated as an HOV lane.

I-680 North Ramps/Dempsey Road-Landess Avenue is a four-legged signalized intersection with protected left-turn phasing on the eastbound Landess Road approach and a right-turn overlap on the I-680 northbound off-ramp approach. The I-680 northbound off-ramp on the south leg turns into Dempsey Road on the north leg. Marked crosswalks with curb ramps and pedestrian signals are provided for crossing all legs except the east Landess Road leg.

McCarthy Boulevard-O'Toole Avenue/Montague Expressway is a four-legged signalized intersection with protected left-turn phasing on all approaches, and right-turn channelization on all approaches except for eastbound Montague Expressway. McCarthy Boulevard on the north leg turns into O'Toole Avenue on the south leg. Marked crosswalks and pedestrian signals are provided across all legs except the east Montague Expressway leg, and there are pedestrian curb ramps on all corners except for on the northeast side of the intersection where there is no sidewalk.

South Main Street-Oakland Road/Montague Expressway is a four-legged signalized intersection with protected left-turn phasing and right-turn channelization on all approaches. South Main Street on the north leg turns into Oakland Road on the south leg. All four legs have marked crosswalks, curb ramps and pedestrian signals.

Montague Expressway/Trade Zone Boulevard-McCandless Drive is a four-legged signalized intersection with protected left-turn phasing on both Montague Expressway approaches, split phasing on the McCandless Drive and Trade Zone Boulevard approaches, and a right-turn overlap on the eastbound Montague Expressway approach. Right-turn channelization is provided on all approaches. McCandless Drive on the north leg turns into Trade Zone Boulevard on the south leg. Marked crosswalks with curb ramps and pedestrian signals are provided for crossing the east Montague Expressway and McCandless Drive legs.

The locations of the study intersections and the existing lane configurations and controls are shown in Figure 2.

Study Roadway Segments

The following six study roadway segments were identified as those most likely to potentially be affected by the project in terms of both effects on the circulation system and connectivity to the regional transportation network in the *Milpitas Metro Specific Plan* area.

1. Great Mall Parkway, westbound west of Montague Expressway
2. Great Mall Parkway, eastbound west of Montague Expressway
3. Montague Expressway, westbound west of Great Mall Parkway
4. Montague Expressway, eastbound west of Great Mall Parkway
5. South Milpitas Boulevard, northbound north of Montague Expressway
6. South Milpitas Boulevard, southbound north of Montague Expressway

Roadway Network

The roadway system in the *Milpitas Metro Specific Plan* area consists of federal highways, state highways, county expressways, and local arterial roadways. This section describes the physical characteristics of the plan area roadway network.

Federal Highways

I-680 is a primary route connecting the City of San Jose to I-80 through Milpitas, Dublin, Walnut Creek, and Fairfield. I-680 is fully grade separated with at least three lanes per direction through Milpitas. A high-occupancy toll lane is present in the southbound direction for most of I-680 through Milpitas.

I-880 is a primary route connecting the City of San Jose to I-80 through Milpitas, Fremont, Hayward, and Oakland. I-880 is fully grade separated with at least four lanes (one high-occupancy vehicle and three general purpose) per direction through Milpitas.

County Expressways

One expressway operated and maintained by Santa Clara County passes through the *Milpitas Metro Specific Plan* area.

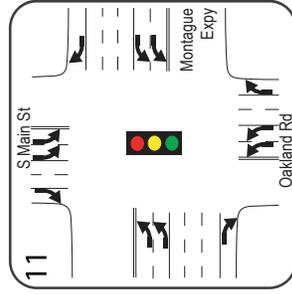
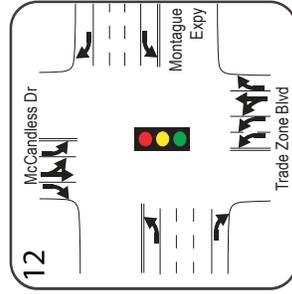
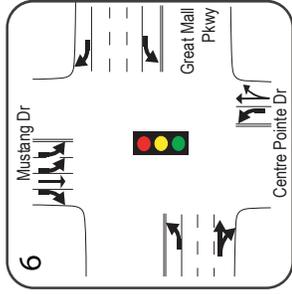
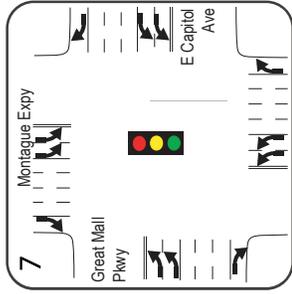
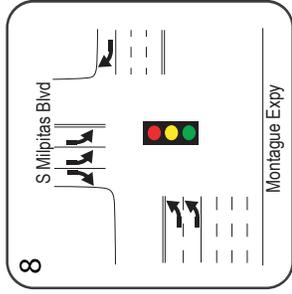
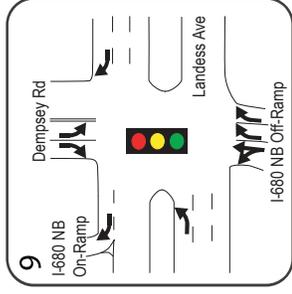
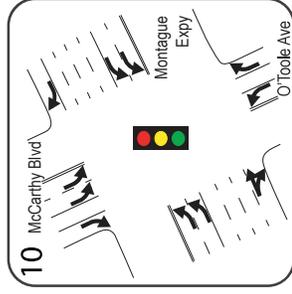
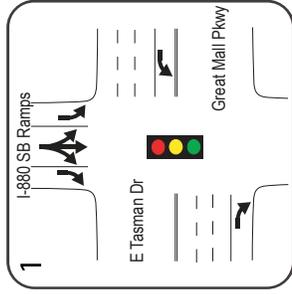
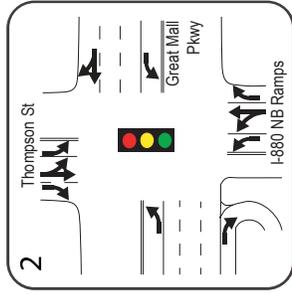
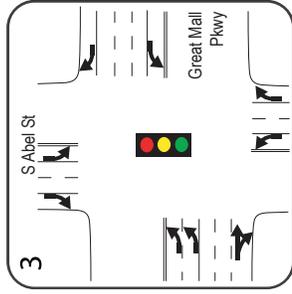
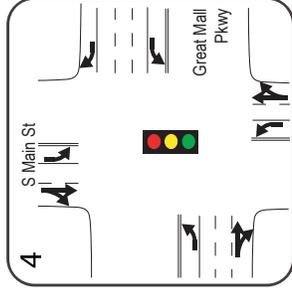
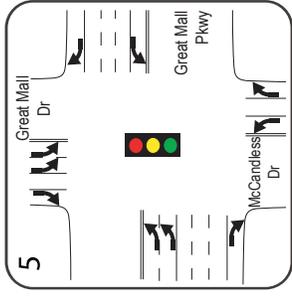
Montague Expressway is a major east-west route in Santa Clara County that connects US 101 and the San Tomas Expressway in San Jose to McCarthy Boulevard, I-880, Great Mall Parkway/East Capitol Avenue, and I-680 in Milpitas. Montague Expressway turns into Landess Road east of I-680. Existing daily traffic on the expressway averages 40,000 vehicles per day based on 2016 daily traffic counts. The speed limit is 45 mph and it includes three to four travel lanes in each direction.

Local Arterial Streets

Abel Street is an arterial that connects North Milpitas Avenue, West Calaveras Boulevard/SR 237, the Great Mall Parkway, and South Main Street. It turns into Jacklin Road east of North Milpitas Avenue. Existing daily traffic on the street averages 22,000 vehicles based on 2016 counts. In the study area there is a median, with two travel lanes in each direction, and a speed limit of 35 mph.

East Tasman Drive is an arterial that extends west from I-880 and connects with McCarthy Road before entering San Jose and continuing through Santa Clara and Sunnyvale. It becomes the Great Mall Parkway east of I-880.

There are three travel lanes in each direction and a 45-mph speed limit. Existing daily traffic on the arterial averages 38,000 vehicles based on 2016 counts.



Great Mall Parkway-East Capitol Avenue is a major east-west arterial that connects I-880 to South Abel Street, South Main Street, the Montague Expressway, the Great Mall, and the Milpitas-San Jose city limit. The street is known as Great Mall Parkway between I-880 and Montague Expressway, and as East Capitol Avenue between Montague Expressway and the city limit. There are three travel lanes in each direction and a speed limit of 40 mph. Counts from 2016 indicate an existing average daily traffic of 32,000 vehicles.

McCarthy Boulevard is an arterial on the west side of the city that roughly parallels I-880. It connects Montague Expressway to East Tasman Avenue/Great Mall Parkway, West Calaveras/SR-237, and Dixon Landing Road. There are two travel lanes in each direction and a speed limit of 40 mph. Based on 2016 data, existing daily traffic on the boulevard averages 35,000 vehicles.

Milpitas Boulevard is a north-south arterial bisecting the city parallel to both I-880 and I-680. It connects Great Mall Parkway to the Montague Expressway, Yosemite Drive, East Calaveras Street/SR-237, Escuela Parkway, Jacklin Road, and Dixon Landing. There are two travel lanes in each direction and the speed limit is 40 mph. Existing daily traffic on the boulevard averages 20,000 vehicles based on 2016 data.

Park Victoria Drive parallels I-680 and is a north-south arterial between Landess Road and Jacklin Road, and a collector north of Jacklin Road. There are two travel lanes in each direction and a speed limit of 35 mph. Data from 2016 indicates an average volume of 10,000 vehicles per day.

Local Collector Streets

South Main Street is a collector roadway from Serra Road, in the historic commercial area, to South Abel Road just past the Great Mall Parkway. At South Abel Street, it turns into an arterial roadway and connects to Montague Expressway. South of Curtis Avenue there are two travel lanes in each direction, while north of Curtis Avenue there is one lane in each direction; speed limits range from 25 mph to 35 mph. Existing traffic on the street averages 20,000 vehicles per day based on 2016 traffic counts.

Trade Zone Boulevard is a collector roadway on the southern border of Milpitas that connects Montague Expressway to North Capitol Avenue in San Jose. There are two travel lanes in each direction and a speed limit of 40 mph.

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal infrastructure, curb ramps, and streetscape amenities. These facilities are provided at most intersections, with only a few exceptions (detailed in the Study Intersections section). Despite the presence of these facilities, the Milpitas Metro area is notable for features that limit connectivity for pedestrians, including the BART tracks, I-880, I-680, the Union Pacific Railroad tracks, and the Penitencia Creek. While marked crosswalks and pedestrian crossing signal phasing is provided at most signalized intersections, in some situations a pedestrian may need to cross six or more travel lanes, effectively resulting in a barrier to many users. There are three grade-separated overcrossings providing access to transit: on Montague Expressway connecting to the BART station parking garage; across westbound Great Mall Parkway between the South Milpitas Boulevard light rail station and the BART station, and across Great Mall Parkway between the Great Mall/Main Street light rail station adjacent to the Great Mall site. Long-term high priority projects proposed as part of the draft *Trail, Pedestrian, and Bicycle Master Plan* include improved pedestrian crossings at the intersections of Great Mall Parkway/Main Street and Great Mall Parkway/Montague Expressway as well as sidewalk improvements along Montague Expressway and Landess Avenue between Milpitas Boulevard and South Park Victoria Drive.

Bicycle Facilities

The *Highway Design Manual*, 7th Edition, Caltrans, 2020 classifies bikeways into four categories:

- **Class I Multi-Use Path** – A completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – A striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – Signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – Also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

Bicycle circulation in the *Milpitas Metro Specific Plan* area is supported by an existing network of multi-use paths, on-street bike lanes, and bicycle routes. Bike lanes are present along Great Mall Parkway, Main Street, South Milpitas Boulevard, Montague Expressway, and a section of Abel Street. There is a multi-use path along a segment of Penitencia Creek and several street segments are designated as Class III bike routes to provide network connectivity.

Bicycle parking facilities are available at strategic locations throughout the City. Bicycle racks for short-term parking are provided at various locations in the Milpitas Metro area, including the Great Mall, and all schools in Milpitas. Bicycle lockers are available at the I-880/Milpitas and Great Mall/Main VTA light rail stations. The Milpitas BART station includes 221 bike parking spaces. There are 185 self-service indoor bicycle storage spaces, 24 eLockers, and 12 spaces at bike racks. The indoor storage spaces and eLockers are part of the regional BikeLink system, enabling users with an account to use facilities throughout the Bay Area.

Transit Facilities

Bus Transit Operations

Bus service in Milpitas is provided by VTA for travel within Santa Clara County and by Alameda-Contra Costa (AC) Transit District for travel to and from Alameda County.

VTA Express Bus Routes

VTA operates Express bus routes that link residential centers of Santa Clara County to Silicon Valley industrial centers. The following regularly scheduled fixed-route Express route serves the City of Milpitas.

Route 104 is an express route that connects Milpitas to Palo Alto, Mountain View, San Jose, and the Milpitas Valley Health Center from the Milpitas Transit Center. Route 104 operates Monday through Friday with two runs in each direction daily. The westbound runs are 37 minutes apart during the morning peak period, and the eastbound runs are approximately 30 minutes apart during the evening peak period.

VTA Local Bus Routes

VTA operates a network of local bus routes that serve the urbanized portions of Santa Clara County. These routes serve arterial streets, neighborhoods, schools, shopping areas, and employment centers. The following local routes serve the City of Milpitas.

Route 20 is a local route that connects the Milpitas BART Station to the Sunnyvale Transit Center. Route 20 operates Monday through Friday with service between 6:30 a.m. and 7:00 p.m. with approximately 30-minute headways.

Route 44 is a local route that connects the McCarthy Ranch Shopping Center, the Alder Light Rail Station, the Great Mall, and the Milpitas BART Station. Route 44 operates service between 6:30 a.m. and 7:00 p.m. with approximately 60-minute headways.

Route 47 is a local route that connects the Great Mall to the Milpitas Valley Health Center and McCarthy Ranch Shopping Center, primarily along the Montague Expressway, Park Victoria Road, Calaveras Boulevard, and McCarthy Boulevard. Route 47 operates service from the mornings through early evenings daily, with 30-minute headways on Monday to Saturday mornings and afternoons, 40- to 65-minute headways on Monday to Saturday evenings, and 45- to 60-minute headways on Sundays.

Route 60 is a local route which connects the Milpitas BART Station and Winchester Light Rail Station via the San Jose Airport. Monday through Friday, the route operates between 5:00 a.m. and 11:30 p.m. including headways of approximately 15 to 30 minutes. On weekends, the route operates between the approximate hours of 6:00 a.m. and 11:30 p.m. with headways of roughly 30 minutes.

Route 66 is a local route that connects Milpitas to Santa Teresa in San Jose. Route 66 operates daily with approximately 15-minute headways Monday through Friday during the day and 30- to 60-minute headways in the evenings; on weekends, there are generally 20-minute headways during the day and 30- to 60-minute headways in the evenings.

Route 70 is a local route that connects the Milpitas BART Station to the Eastridge Transit Center in San Jose via Jackson Avenue. Route 70 operates daily, with 15- to 20-minute headways Monday to Saturdays during the day, 30- to 60-minute headways Monday to Saturday late evenings, 20-minute headways Sunday during the day, and 40- to 60-minute headways Sunday mornings and evenings.

Route 71 is a local route that connects the Milpitas BART Station and Milpitas to the Eastridge Transit Center and the VTA Capitol Light Rail Station, primarily along Piedmont Road-White Road and Capitol Expressway. Route 71 operates daily, with 20- to 30-minute headways Monday to Saturday during the day, 60-minute headways Monday to Saturday evenings, and 45- to 60-minute headways on Sundays.

Route 77 is a local route that connects the Great Mall and Milpitas to the Eastridge Transit Center, primarily along McCandless and Lundy Avenue-King Road. Route 77 operates from the mornings through evenings every day of the week, with 15- to 20-minute headways on weekday mornings through early evenings, 45- to 60-minute headways on weekday evenings, and 30- to 45-minute headways on weekends.

Route 104 provides weekday peak-hour express service from the Milpitas Transit Center to Palo Alto, with two buses departing from Milpitas in the mornings and three departing from Palo Alto in the afternoon.

AC Transit Bus Routes

AC Transit provides regularly scheduled fixed-route service throughout Alameda and Contra Costa Counties. One AC Transit route provides service to the City of Milpitas.

Route 217 is a local route that connects the Great Mall and Milpitas to Fremont and the Fremont BART station, primarily along Mission Boulevard, Warm Springs Boulevard, and North Milpitas Boulevard. Route 217 operates daily, with 20- to 30-minute headways on weekdays and 30-minute headways on weekends.

ACE Shuttle Bus Routes

The Altamont Commuter Express (ACE) provides regularly scheduled fixed-route bus service from rail stations in Santa Clara County. These shuttle buses are coordinated to connect with ACE train departures. Eight shuttle routes serve the Great America ACE Station in the City of Santa Clara, two of which connect to the City of Milpitas:

The Purple Shuttle provides service along Tasman Drive and McCarthy Boulevard, connecting to the ACE Great America Station in the City of Santa Clara. This route operates on weekdays, with two trips in each direction. The eastbound trips operate on approximately 60-minute headways during the morning peak period and the westbound trips operate on a 60-minute headway during the evening peak period.

The Violet Shuttle operates along McCarthy Boulevard and Montague Expressway, connecting to the ACE Great America Station in the City of Santa Clara. This route operates on weekdays, with two runs in each direction. The two eastbound trips are 60 minutes apart and occur during the morning peak period and the two westbound trips, also about 60 minutes apart, run during the evening peak period.

Paratransit

Paratransit, also known as dial-a-ride or door-to-door service, is available for those that are unable to independently use the transit system due to a physical or mental disability. Individuals must be registered and certified as ADA eligible before using the service. Paratransit operators are required by the ADA to service areas within three-quarters of a mile of their respective, public fixed-route service and VTA also offers service for trips within a premium zone extending an additional mile beyond the three-quarter-mile standard zone. VTA Access Paratransit is operated by Outreach & Escort, Inc. and is available only during the regularly scheduled operating hours of the corresponding bus or light rail route. Ride reservations can be scheduled in advance.

VTA Light Rail Transit Operations

VTA operates light rail routes that link various Santa Clara Valley residential and employment centers to downtown San Jose. One light rail route directly serves the City of Milpitas.

The Orange Line connects Milpitas to Mountain View in the west and San Jose to the south, with stops in the Milpitas Metro area at the Great Mall Transit Station and the Milpitas BART Station. Service is provided daily with 15-minute headways during the day, and 20- to 30-minute headways during the early morning and late evening.

Bay Area Rapid Transit (BART) Operations

BART operates five heavy rail intercity transit lines in Contra Costa, Alameda, San Francisco, San Mateo, and Santa Clara counties. These lines typically operate at high speeds and frequencies of 15 to 20 minutes per line. In 2020, the Milpitas BART station, located on the south side of the Montague Expressway across from the Great Mall, opened for service, along with an extension to east San Jose. BART connects Milpitas to regional locations, including downtown San Francisco and Oakland as well as San Francisco and Oakland international airports. BART service operates on 15- to 20-minute headways from 4 a.m. to 12 midnight weekdays, 6 a.m. to 12 midnight Saturdays, and 8 a.m. to 12 midnight Sundays.

Milpitas Transit Center

The Milpitas Transit Center is located adjacent to the Milpitas BART station. In addition to BART, it serves eight bus lines and a light rail line.

Park and Ride Lots

A 'park and ride' lot is located in the *Milpitas Metro Specific Plan* area at the Great Mall/Main Street light rail station on Great Mall Parkway. Bus and light rail service are available at this site.

On-Demand Transportation Services

Taxi service in Milpitas is provided by private operators that serve the greater Santa Clara County area and beyond. Taxi service is available 24 hours a day, seven days a week by calling in a service request. Other ride-hailing applications are also available in Milpitas and provide transportation throughout the Bay Area.

Capacity Analysis

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, LOS A represents free flow conditions and LOS F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual (HCM)*, Transportation Research Board, 2000, in accordance with VTA's *Traffic Service Analysis Guidelines*, 2003. The HCM contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The study intersections, all of which are currently controlled by traffic signals, were evaluated using the signalized methodology from the HCM. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether the signals are coordinated or not, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. For purposes of this study, assumptions regarding signal timing were consistent with the General Plan analysis and CMP requirements.

The ranges of delay associated with the various levels of service are indicated in Table 1.

Table 1 – Santa Clara County (VTA) Level of Service Criteria for Signalized Intersections	
Level of Service (LOS)	Average Control Delay (seconds/vehicle)
A	delay ≤ 10.0
B+	10.0 < delay ≤ 12.0
B	12.0 < delay ≤ 18.0
B-	18.0 < delay ≤ 20.0
C+	20.0 < delay ≤ 23.0
C	23.0 < delay ≤ 32.0
C-	32.0 < delay ≤ 35.0
D+	35.0 < delay ≤ 39.0
D	39.0 < delay ≤ 51.0
D-	51.0 < delay ≤ 55.0
E+	55.0 < delay ≤ 60.0
E	60.0 < delay ≤ 75.0
E-	75.0 < delay ≤ 80.0
F-	delay > 80.0

Source: *Traffic Level of Service Analysis Guidelines*, Santa Clara Valley Transportation Authority, 2003

Traffic Operation Standards

Intersection Operational Thresholds

The City of Milpitas has adopted the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program (CMP) standards for acceptable operations. While the CMP goal is to maintain LOS D or better operations, LOS E is considered to be acceptable. CMP intersections that operated at LOS F when monitoring began in 1991 are exempt from the LOS standard, and LOS F is considered acceptable at these locations. This exemption applies to the following intersections in the Milpitas Metro Plan area: Montague Expressway/Great Mall Parkway-East Capitol Avenue, South Milpitas Boulevard/Montague Expressway, McCarthy Boulevard-O'Toole Avenue/Montague Expressway, South Main Street-Oakland Road/Montague Expressway and Montague Expressway/Trade Zone Boulevard-McCandless Drive.

For intersections on the CMP network, a traffic impact is considered significant if:

- The addition of project-generated traffic causes operation of an intersection to deteriorate from an acceptable level of service (LOS E or better) to LOS F, or
- For intersections operating at LOS F under background or cumulative conditions, the project condition increases the average control delay for critical movements by four seconds or more and project traffic increases the critical volume-to-capacity (v/c) ratio by 0.01 or more.

For local intersections not on the CMP network, a traffic impact is considered significant if:

- The addition of project-generated traffic causes operation of an intersection to deteriorate from an acceptable level of service (LOS D or better) to LOS E or LOS F, or
- For intersections where LOS E operation has been established as acceptable, the project condition causes operation to deteriorate from LOS E to LOS F and causes the critical-movement delay at the intersection to increase by four or more seconds and the demand-to-capacity ratios (V/C) to increase by 0.01 or more.

Roadway Segment Operational Thresholds

The City of Milpitas applies roadway LOS criteria based on a methodology developed by the Milpitas Planning and Neighborhood Preservation Division in 2000. The methodology assigns an LOS based on the facility type, lane capacity and traffic volume. The LOS thresholds for each type of facility are shown in Table 2.

Facility Type	Lane Capacity (veh/hr/ln)	A	B	C	D	E	F
Freeway	2000	1200	1600	1600	1800	2000	2000+
Expressway	1100	660	7700	880	990	1100	1100+
Arterial	1000	600	700	800	900	1000	1000+
Collector	900	540	630	720	810	900	900+

Note: veh/hr/ln = vehicles per hour per lane

Source: City of Milpitas Planning and Neighborhood Preservation Division, 2000

Vehicle Miles Traveled

Senate Bill 743 (SB 743) marked a notable change in the identification of environmental impacts under the California Environmental Quality Act (CEQA), requiring CEQA lead agencies to shift from using traditional LOS standards and automobile delay to determine significant traffic impacts. Pursuant to Public Resources Code

Section 21099(b)(2), “automobile delay, as described solely by level of service of similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment.” The Governor’s Office of Planning and Research (OPR) published “Technical Advisory on Evaluating Transportation Impacts in CEQA”, in December 2018 to provide details on VMT assessment, methodologies, and suggested metrics; lead agencies for CEQA analyses may apply the state guidance, but they have the authority to select their own significance thresholds based on substantial evidence. The requirement to use VMT to evaluate transportation impacts went into effect on July 1, 2020.

The City of Milpitas adopted its Transportation Analysis Policy in May 2021, identifying the countywide average VMT as the City’s baseline for use in CEQA analysis and including thresholds of significance for determining transportation impacts under CEQA; for most project types, the City’s policy incorporated the OPR-recommended thresholds. For residential development, the City policy established a threshold of 15 percent below the countywide per capita VMT, which considers only home-based trips. For employment-based uses, the City’s significance threshold is 15 percent below the countywide VMT per employee, which is calculated based on employee commute trips. Since the *Milpitas Metro Specific Plan* includes a range of land uses, including retail, the metric identified as most appropriate for this analysis was VMT per service population, which is calculated by dividing the project’s total VMT by the sum of population and employment. The significance threshold used for this analysis was 15 percent below the countywide average. While neither the OPR or City policies identify VMT per service population as a metric, it is commonly used in plans and mixed-use projects; the use of total VMT includes trips associated with the proposed retail uses as well as other trips not included in the VMT per capita or per employee calculations. The thresholds identified in the City VMT policy were also applied to analyze the VMT for the residential and employment-based components of the project.

Consistent with City policy and OPR guidance, the Santa Clara Valley Transportation Authority (VTA) Travel Demand Model was utilized to estimate the following metrics for comparison purposes:

- Average VMT per service population (Total VMT per the sum of the residents and employees in the *Milpitas Metro Specific Plan* area)
- Average VMT per resident (Home-based trip VMT per resident in the *Milpitas Metro Specific Plan* area)
- Average VMT per employee (Work-based trip VMT per employee in the *Milpitas Metro Specific Plan* area)

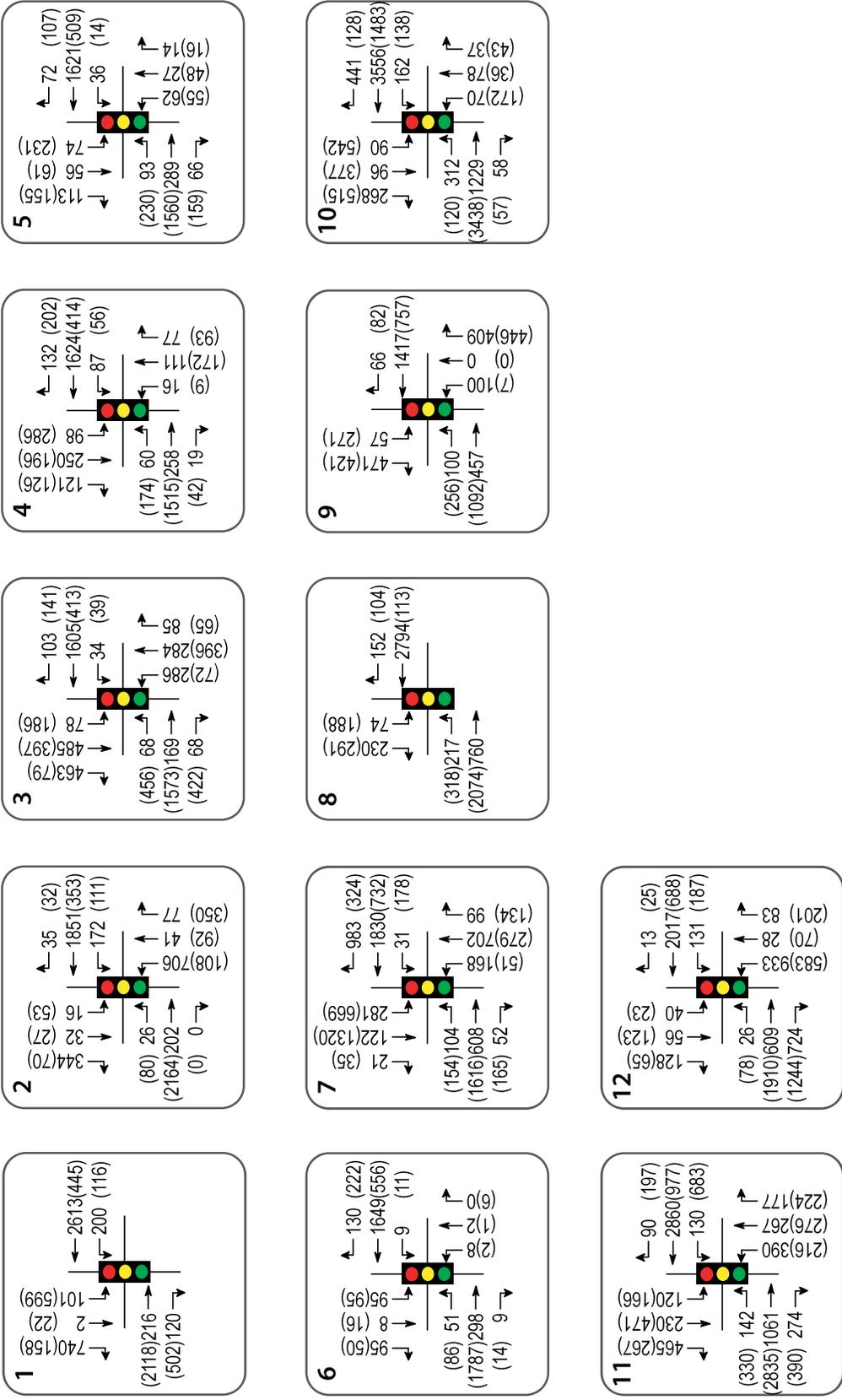
Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the both the a.m. and p.m. peak periods as well as the vehicle miles traveled on a typical weekday. This condition does not include project-generated traffic volumes. Volume data was collected when while local schools were in session.

Intersection Levels of Service

Under Existing conditions, all 12 study intersections are operating acceptably according to the City of Milpitas LOS standards. Since the intersections of Montague Expressway/Great Mall Parkway-East Capitol Avenue, McCarthy Boulevard-O’Toole Avenue/Montague Expressway, South Main Street-Oakland Road/Montague Expressway and Montague Expressway/Trade Zone Boulevard-McCandless Drive have been identified under VTA’s 1991 baseline as exempt from CMP LOS standards, operations at these locations are considered acceptable despite being below LOS D. Existing traffic volumes are shown in Figure 3. A summary of the level of service results is contained in Table 3, and detailed calculations are provided in Appendix A.

Milpitas Metro Specific Plan Traffic Operations Report
Figure 3 – Existing Traffic Volumes



LEGEND
 xx AM Peak Hour Volume
 (xx) PM Peak Hour Volume

Table 3 – Existing Peak Hour Intersection Levels of Service

Study Intersection	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. E Tasman Dr/I-880 South Ramp	C+	22.5	C	23.2
2. I-880 North Ramps-Thompson St/Great Mall Pkwy	D+	37.2	D	39.9
3. S Abel St/Great Mall Pkwy	D	44.7	D+	36.7
4. S Main St/Great Mall Pkwy	C	31.3	D	42.2
5. Great Mall Dr-McCandless Dr/Great Mall Pkwy	C+	22.1	C	25.6
6. Great Mall Pkwy/Centre Pointe Dr-Mustang Dr	B	15.4	B	14.2
7. Montague Exp/Great Mall Pkwy-E Capitol Ave	E+	57.6	E	64.7
8. S Milpitas Blvd/Montague Exp	D+	35.6	C	28.5
9. I-680 North Ramps/Dempsey Rd-Landess Ave	D	49.0	D	42.5
10. McCarthy Blvd-O'Toole Ave/Montague Exp	D	46.5	D-	54.9
11. S Main St-Oakland Rd/Montague Exp	E	65.2	F	**
12. Montague Exp/Trade Zone Blvd-McCandless Dr	F	**	E	72.4

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; ** = delay greater than 120 seconds

Local Roadway Segment Level of Service

Six roadway segments were evaluated for this study. Under existing conditions, four of the segments operate at LOS A or B. The South Milpitas Boulevard roadway segments were undergoing construction when the traffic counts were collected so they could not be analyzed under this scenario. It is noted that to maintain consistency with the General Plan traffic analysis, this study used the traffic counts collected for the *General Plan* analysis. A summary of existing roadway segment operations during both the a.m. and p.m. peak hours is shown in Table 4.

Table 4 – Summary of Existing Peak Hour Roadway Segment Operations

Roadway Segment	Dir.	Class	Capacity (veh/hr)	AM Peak Hour		PM Peak Hour	
				Volume	LOS	Volume	LOS
1. Great Mall Pkwy west of Montague Exp	WB	Arterial	2805	1,839	B	828	A
2. Great Mall Pkwy west of Montague Exp	EB	Arterial	2805	792	A	1,955	B
3. Montague Exp west of Great Mall Pkwy	WB	Expressway	3045	2,212	B	1,133	A
4. Montague Exp west of Great Mall Pkwy	EB	Expressway	3045	1,149	A	2,096	B
5. S Milpitas Blvd north of Montague Exp	NB	Collector	1660	N/A (under construction when counts collected)			
6. S Milpitas Blvd north of Montague Exp	SB	Collector	1660	N/A (under construction when counts collected)			

Notes: Dir. = Direction; WB = westbound; EB = eastbound; NB = northbound; SB = southbound

Future Conditions

Roadway segment volumes for the horizon year of 2040 were obtained from the VTA Travel Demand Model. Intersection turning movement volumes at the study intersections were derived using a combination of the “Furness” method and factoring, depending on how the model was configured at each intersection. The Furness method is an iterative process that employs existing turn movement data, existing link volumes and future link volumes to project likely turning future movement volumes at intersections. These future volumes reflect conditions based on buildout of the City’s General Plan.

Several geometric and programmatic improvements in the vicinity of the Milpitas Metro area are anticipated to be completed by the year 2040, including the following.

- I-680 Express Lanes: Construction of an express lane from Calaveras Boulevard to Montague Expressway including the conversion of one general purpose lane to express lanes in each direction on I-680 between Calaveras Boulevard and Montague Expressway.
- I-880 Express Lanes: Construction of express lanes in both the northbound and southbound directions between the Alameda County line and US 101. The project would convert the existing HOV lanes to express lanes on I-880 between the Alameda County line and US 101.
- I-880/Montague Expressway: Interchange improvements including the construction of a partial interchange at the intersection of I-880 and Montague Expressway and improvements on Montague Expressway.
- I-680/Montague Expressway Interchange: Improvements include constructing a partial interchange at I-680 and Montague Expressway and enhancements on Montague Expressway.
- Montague Expressway: Widening consisting of eight lanes from Lick Mill Boulevard to Trade Zone Boulevard including the widening of Guadalupe River Bridge. New lanes are expected to operate as HOV lanes.
- Widening of the northbound off-ramp from I-680 at the intersection of Dempsey Road/Landess Avenue to include one left-turn lane, one through lane and two right-turn lanes.

Intersection Levels of Service

Under the anticipated Future volumes, and with the addition of planned improvements, three of the 12 intersections are expected to operate below the established LOS standards. Future volumes are shown in Figure 4 and operating conditions are summarized in Table 5. Detailed calculations are provided in Appendix B.

Table 5 – Future Peak Hour Intersection Levels of Service

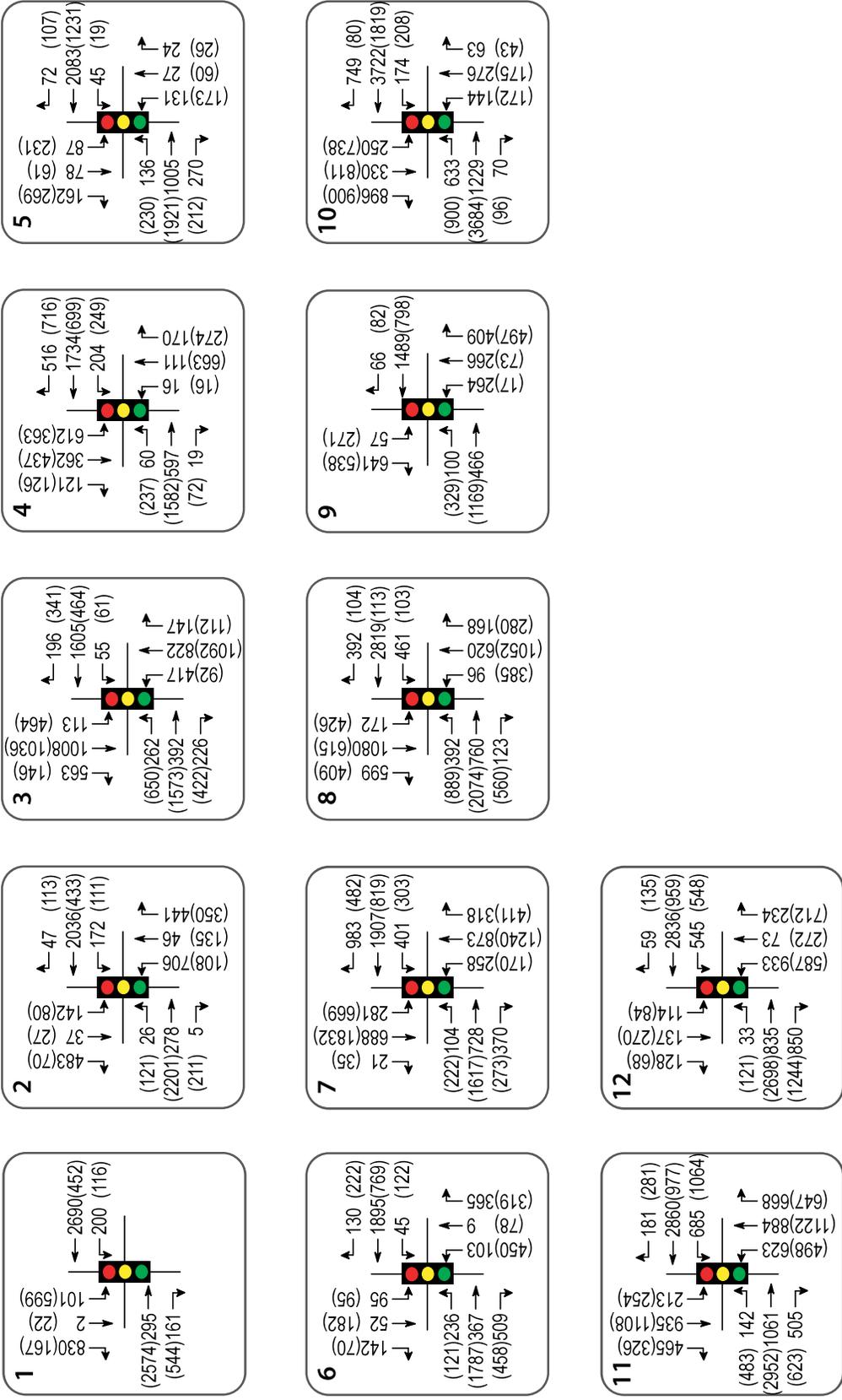
Study Intersection	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. E Tasman Dr/I-880 South Ramp	C	25.2	C	23.6
2. I-880 North Ramps-Thompson St/Great Mall Pkwy	D	47.3	D	41.0
3. S Abel St/Great Mall Pkwy	E+	57.8	E	68.9
4. S Main St/Great Mall Pkwy	D	47.9	E	60.0
5. Great Mall Dr-McCandless Dr/Great Mall Pkwy	C	24.1	C	30.9
6. Great Mall Pkwy/Centre Pointe Dr-Mustang Dr	D+	36.5	D	45.0
7. Montague Exp/Great Mall Pkwy-E Capitol Ave	E	62.3	E	73.1
8. S Milpitas Blvd/Montague Exp	F	91.8	E	68.7
9. I-680 North Ramps/Dempsey Rd-Landess Ave	E	66.1	D+	38.0
10. McCarthy Blvd-O'Toole Ave/Montague Exp	F	106.6	F	**
11. S Main St-Oakland Rd/Montague Exp	F	**	F	**
12. Montague Exp/Trade Zone Blvd-McCandless Dr	F	**	F	**

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; ** = delay greater than 120 seconds;
Bold text = deficient operation

Local Roadway Segment Level of Service

Under future conditions, four of the six roadway segments evaluated within the study area are expected to carry traffic volumes translating to operation that is indicative of LOS D or better. South Milpitas Boulevard would operate at LOS F in the southbound direction during the morning peak hour and in the northbound direction during the evening peak hour. A summary of existing roadway segment operations during both the a.m. and p.m. peak hours is shown in Table 6.

Milpitas Metro Specific Plan Traffic Operations Report
Figure 4 – 2040 No Project Traffic Volumes



LEGEND
 xx AM Peak Hour Volume
 (xx) PM Peak Hour Volume

Table 6 – Summary of Future Peak Hour Roadway Segment Operations

Roadway Segment	Dir.	Class	Capacity (veh/hr)	AM Peak Hour		PM Peak Hour	
				Volume	LOS	Volume	LOS
1. Great Mall Pkwy west of Montague Exp	WB	Arterial	2805	1,960	B	1,944	B
2. Great Mall Pkwy west of Montague Exp	EB	Arterial	2805	990	A	2,536	D
3. Montague Exp west of Great Mall Pkwy	WB	Expressway	3045	2,186	A	1,024	A
4. Montague Exp west of Great Mall Pkwy	EB	Expressway	3045	1,202	A	2,112	A
5. S Milpitas Blvd north of Montague Exp	NB	Collector	1660	1,404	C	2,045	F
6. S Milpitas Blvd north of Montague Exp	SB	Collector	1660	1,851	F	1,450	D

Notes: Dir. = Direction; WB = westbound; EB = eastbound; NB = northbound; SB = southbound; **Bold** indicates volumes greater than existing capacities

Project Description

The *Milpitas Metro Specific Plan* represents a geographic expansion and intensification of the development as well as a modification of the land uses included in the previously adopted TASP. Compared with the TASP, the 2040 buildout scenario for the *Milpitas Metro Specific Plan* would result in an increase of up to 7,000 residential units, 2.5 million square feet of office space, 300,000 square feet of retail space, 500,000 square feet of light industrial space, and 700 hotel rooms. The geographic boundaries of the plan area have also been expanded. The *Milpitas Metro Specific Plan* area is 510 acres, which includes the 437-acre TASP area plus an additional 60 acres on the east side near I-680 and 13 acres on the west side along South Main Street. A comparison overview of population, the number of housing units, and the number of employees under existing conditions, TASP-approved development, and proposed development for the *Milpitas Metro Specific Plan* is provided Table 7.

Table 7 – Comparison of Development Scenarios

Alternative	Population	Housing Units	Jobs
Existing Conditions*	20,005	5,580	9,608
Approved*			
TASP	42,564	12,559	20,213
Proposed			
Milpitas Metro Specific Plan**	64,208	19,559	32,496
Milpitas Metro Increases Compared to TASP	21,644	7,000	12,284

Note: * Data for Existing and Approved were derived from the VTA model. ** Milpitas Metro Specific Plan area is 73 acres larger than the TASP area. Population estimates are conservative, as it was assumed that the number of persons per household would be equal to what currently exists in the Milpitas Metro Specific Plan TAZs. Actual population is expected to be approximately 2.0 persons per household, or 14,000.

Sources: *Milpitas General Plan*, Kittelson & Associates, 2021

Future plus Project Conditions

Vehicle Miles Traveled (VMT)

VMT associated with the *Milpitas Metro Specific Plan* was evaluated based on VMT per service population using the VTA travel demand model. The additional development associated with the *Milpitas Metro Specific Plan* as compared to the TASP was found to generate 15.9 VMT per service population in 2040, compared to the countywide average of 25.0 VMT. The significance threshold that was applied was 15 percent less than the countywide VMT per service population, or 21.3; therefore, based on VMT per service population, the *Milpitas Metro Specific Plan* was found to have a less-than-significant impact. While VMT per service population was determined to be the most appropriate metric to evaluate VMT for the *Milpitas Metro Specific Plan*, VMT per capita and VMT per employee were also assessed as City policy also identified these as VMT analysis metrics. Based on comparison with countywide averages, the VMT impact was found to be less than significant for both metrics. The VMT analysis is summarized in Table 8, and a more detailed discussion of the VMT assessment is presented in the *Milpitas Metro Specific Plan* SEIR.

Table 8 – VMT for Santa Clara County, City of Milpitas General Plan, and Milpitas Metro Specific Plan

VMT Metric	Trips Measured	2040 Santa Clara County VMT	2040 General Plan VMT*	2040 Milpitas Metro Specific Plan VMT
VMT per Service Population	All Project-related Trips (Total VMT)	25.0	30.5	15.9
VMT per Capita	Home-based Trips	14.1	11.9	5.5
VMT per Employee	Employee Commute Trips	19.3	20.7	14.3

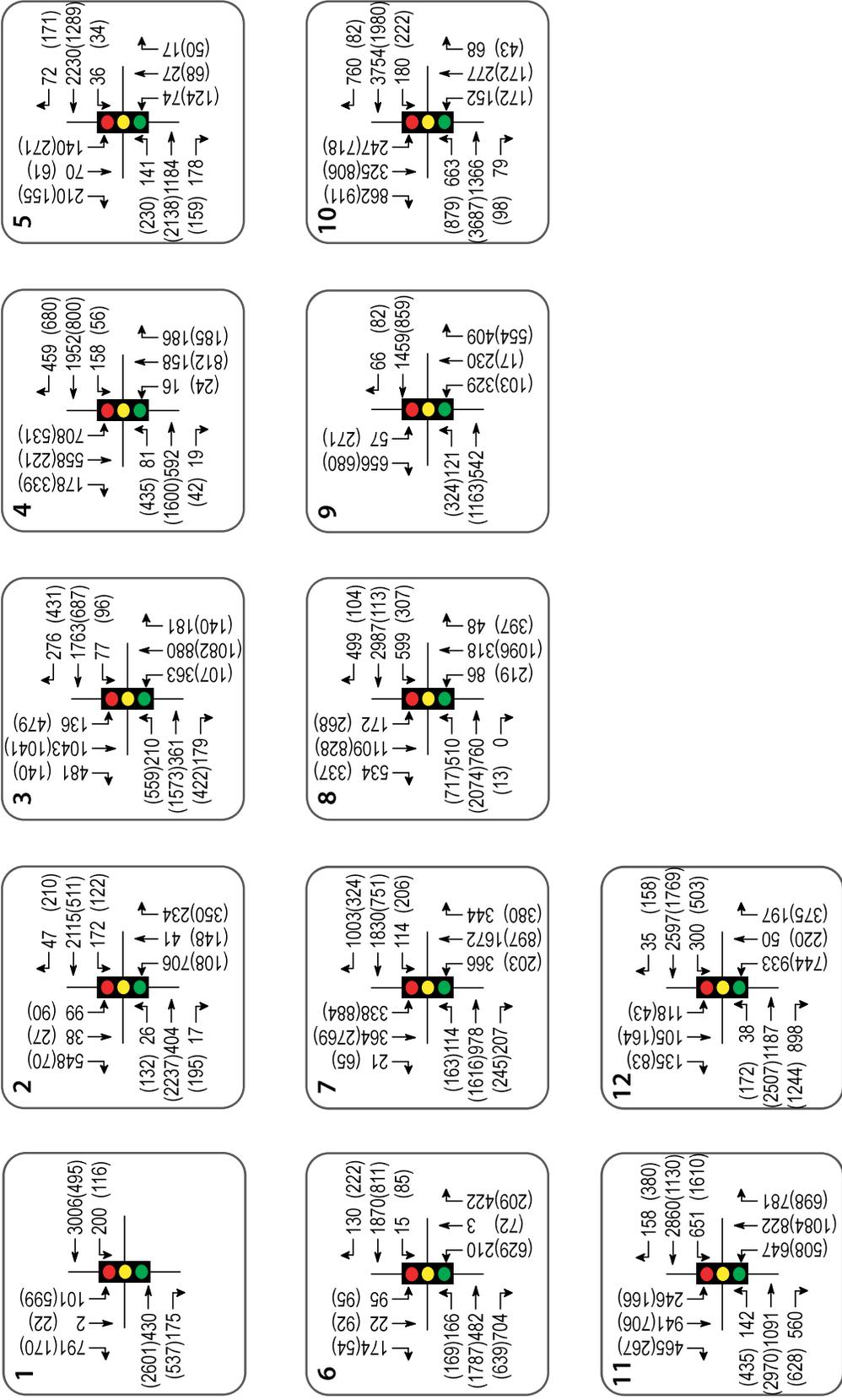
Source: Kittelson & Associates 2021; City of Milpitas 2022

Note: *This includes full buildout of the TASP

Intersection Operation

Upon the addition of project-generated traffic to the anticipated Future volumes, and with the planned improvements, five of the 12 study intersections are expected to operate deficiently. The Future plus Project volumes are shown in Figure 5. The Future plus Project operating conditions are summarized in Table 9 and provided in detail in Appendix C.

Milpitas Metro Specific Plan Traffic Operations Report
Figure 5 – 2040 MMSP Traffic Volumes



LEGEND

xx AM Peak Hour Volume

(xx) PM Peak Hour Volume

Table 9 – Future and Future plus Project Peak Hour Intersection Levels of Service

Study Intersection	Future Conditions				Future plus Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. E Tasman Dr/I-880 South Ramp	C	25.2	C	23.6	C	24.7	C	23.5
2. I-880 North Ramps-Thompson St/Great Mall Pkwy	D	47.3	D	41.0	E+	59.6	D	42.1
3. S Abel St/Great Mall Pkwy	E+	57.8	E	68.9	D-	54.5	E	72.4
4. S Main St/Great Mall Pkwy	D	47.9	E	60.0	D-	53.6	E	71.9
5. Great Mall Dr-McCandless Dr/Great Mall Pkwy	C	24.1	C	30.9	C	23.7	C	25.7
6. Great Mall Pkwy/Centre Pointe Dr-Mustang Dr	D+	36.5	D	45.0	D+	35.6	E+	57.7
	-	-	-	-	D+	35.6	D	35.8
7. Montague Exp/Great Mall Pkwy-E Capitol Ave	E	62.3	E	73.1	E+	71.2	F	**
8. S Milpitas Blvd/Montague Exp	F	91.8	E	68.7	F	114.4	E-	75.1
9. I-680 North Ramps/Dempsey Rd-Landess Ave	E	66.1	D+	38.0	E	71.4	D	43.8
	-	-	-	-	E	61.1	D	43.7
10. McCarthy Blvd-O'Toole Ave/Montague Exp	F	106.6	F	**	F	99.2	F	**
11. S Main St-Oakland Rd/Montague Exp	F	**	F	**	F	**	F	**
12. Montague Exp/Trade Zone Blvd-McCandless Dr	F	**	F	**	F	**	F	**

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; ** = delay greater than 120 seconds; **Bold** text = deficient operation; **Shaded cells** = conditions with recommended improvements detailed below

Finding – The study intersections are generally expected to continue operating acceptably with the *Milpitas Metro Specific Plan* project traffic added, at the same Levels of Service as without it. Five intersections are expected to operate below local standards; there are five additional intersections expected to operate at LOS F, but since they have a baseline of LOS F, this is considered acceptable based on VTA operational standards. Recommendations expected to improve operations were developed for two intersections. Recommendations which would be expected to improve operations at the intersections of I-880 North Ramps-Thompson Street/Great Mall Parkway, South Abel Street/Great Mall Parkway, and South Main Street/Great Mall Parkway were determined infeasible due to the presence of light rail infrastructure. A detailed summary of the LOS, delay, volume to capacity ratios, and critical delay pertaining to the recommendations is provided in Appendix D.

Recommendations – To achieve acceptable operation under Future plus Project volumes at the intersections expected to operate below local thresholds, the following improvements are recommended.

- Great Mall Parkway/Centre Pointe Drive-Mustang Drive: Widen the northbound Centrepoint Drive approach to include two left-turn lanes and one shared through/right-turn lane.
- I-680 NB Off-Ramp-Dempsey Road/Landess Avenue: Widen the northbound I-680 off-ramp to include two left-turn lanes, one through lane, and two right-turn lanes. It is noted that this proposed widening is in addition to the widening that was assumed at this location to accommodate traffic associated with buildout of the General Plan.

Freeway Off-Ramp Queuing Analysis

The following select freeway off-ramps were evaluated to determine whether there is adequate storage for the anticipated queues for conditions under the Existing, Future and Future plus project volumes:

- Southbound I-880 Off-ramp to Great Mall Parkway
- Northbound I-880 Off-ramp to Great Mall Parkway
- Northbound I-680 Off-ramp to Landess Avenue

At these intersections the 95th percentile queue length on the off-ramp was estimated using a Poisson Probability Distribution to determine if the anticipated queue length would be expected to exceed the storage length of the off-ramp.

An evaluation of the freeway ramp queues is not a requirement contained in the VTA traffic impact analysis guidelines and is provided for informational purposes only. A summary of queue lengths at select freeway ramps is provided in Table 10 for all study scenarios considered and queue estimating worksheets are included in Appendix E.

Location Scenarios	Storage	95 th Percentile Queue Length	
		AM Peak	PM Peak
I-880 Southbound off-ramp to Great Mall Pkwy			
Existing Condition	2,600	850	800
Future Condition		950	800
Future plus Project Condition		900	825
I-880 Northbound off-ramp to Great Mall Pkwy			
Existing Condition	1,500	850	600
Future Condition		1,175	625
Future plus Project Condition		975	650
I-680 Northbound off-ramp to Landess Ave			
Existing Condition	1,300	700	550
Future Condition		1,025	675
Future plus Project Condition		1,050	775

Note: All values are in feet

Finding – Vehicle storage at the selected ramp facilities is anticipated to be sufficient to accommodate the 95th percentile queues under all three scenarios considered.

Local Roadway Segment Level of Service

With project-generated traffic added to the anticipated Future volumes, and with the planned improvements, three of the six study segments are expected to operate acceptably. Great Mall Parkway is expected to operate at LOS F during the evening peak hour in the westbound direction. South Milpitas Boulevard would operate at LOS F in the southbound direction during the morning peak hour and LOS F in the northbound direction during the evening peak hour. The Future plus Project operating conditions are provided in Table 11.

Table 11 – Summary of Future plus Project Peak Hour Roadway Segment Operations

Roadway Segment	Dir.	Class	Capacity (veh/hr)	AM Peak Hour		PM Peak Hour	
				Volume	LOS	Volume	LOS
1. Great Mall Pkwy west of Montague Exp	WB	Arterial	2805	822	A	3,312	F
2. Great Mall Pkwy west of Montague Exp	EB	Arterial	2805	2,947	E	12,81	A
3. Montague Exp west of Great Mall Pkwy	WB	Expressway	3045	1,113	A	1,887	A
4. Montague Exp west of Great Mall Pkwy	EB	Expressway	3045	2,382	A	1,480	A
5. S Milpitas Blvd north of Montague Exp	NB	Collector	1660	1,667	E	1,942	F
6. S Milpitas Blvd north of Montague Exp	SB	Collector	1660	4,085	F	524	A

Notes: Dir. = Direction; WB = westbound; EB = eastbound; NB = northbound; SB = southbound **Bold** indicates volumes greater than existing capacities

Alternative Modes

The *Milpitas Metro Specific Plan* emphasizes the development of a multimodal transportation system, offering a range of transportation options for residents, workers, and visitors. This supports the policy direction established in the City's *2021 General Plan* update. As such, many of the policies included in both plans support the enhancement of facilities to improve walking, bicycling and transit use.

Pedestrian Facilities

The majority of City streets in the *Milpitas Metro Specific Plan* area have sidewalks on one, if not both, sides of the street. To be consistent with *General Plan* and *Milpitas Metro Specific Plan* policies, additional pedestrian facilities would be expected to be added as part of conditions of approval, and the City's *Trail, Pedestrian, and Bicycle Master Plan* includes additional facility recommendations, such as enhanced crossings. The net effect of these policies, plans, and actions would be an enhanced pedestrian network. The following policies from the *General Plan* support the development of a pedestrian-friendly *Milpitas Metro Specific Plan* area. Relevant policies from the *Milpitas Metro Specific Plan* are provided in the *Milpitas Metro Specific Plan SEIR*.

Milpitas General Plan Policies

Policy CIR 1-5: Encourage reduced block size in new developments to develop a grid or modified grid network to enhance walkability.

Policy CIR 1-8: Prioritize multi-modal infrastructure improvements that improve pedestrian, bicyclist and transit user safety and equity for inclusion in the CIP.

Policy CIR 2-4: To enhance the City's multimodal network in a cost-effective and forward-thinking manner, view all public capital improvement projects as opportunities to enhance mobility, access, health and safety for all modes of transportation, especially for those who are more vulnerable.

Policy CIR 4-3: Encourage walking, biking and transit use by prioritizing and implementing "first-mile/last mile" improvements, wayfinding and educational efforts in the vicinity of the Great Mall transit center, light rail stations, the BART station, and heavily used bus stops.

Finding – Pedestrian facilities in the *Milpitas Metro Specific Plan* area are generally adequate and are expected to be improved through implementation of projects identified in the *Milpitas General Plan*, *Milpitas Metro Specific Plan*, and the *Trail, Pedestrian, and Bicycle Master Plan*.

Bicycle Facilities

The existing network of Class II on-street bike lanes and Class III bicycle routes along major arterials provides connections to key destinations throughout the *Milpitas Metro Specific Plan* area. The draft *Trail, Pedestrian, and Bicycle Master Plan* proposes bicycle facility improvements including the development of Class IV separated bikeways along Great Mall Parkway, South Main Street, and along a segment of Montague Expressway to provide bicyclists with greater protection from traffic compared to the existing bike lanes. The *General Plan* and *Milpitas Metro Specific Plan* also include policies and actions to support the development of additional bicycle facilities to enhance connectivity and safety throughout the plan area. Relevant *General Plan* policies are presented below, while those from the *Milpitas Metro Specific Plan* are provided in the *Milpitas Metro Specific Plan SEIR*.

Milpitas General Plan Actions

Action CIR 4a: Prioritize, fund, and implement a comprehensive system of sidewalks, bikeways, and off-street trails that connects all parts of the City as identified in the Bikeway and Pedestrian Master Plan and Trails Master Plan and in accordance with the City of Milpitas Municipal Code.

Action CIR 4b: Invest in and support Safe Routes to School efforts – including infrastructure improvements, education and encouragement programs, and enforcement activities – to encourage walking and bicycling to school and to support the reduction of greenhouse gas emissions and vehicle miles traveled, with an emphasis on areas near schools where higher health disparities are present and traffic conflicts are common.

Action CIR 4c: Support bicycle education programs for people of all ages and abilities.

Action CIR 4d: Distribute the Milpitas Bicycle Map, Trail Map, bicycle safety information and other related materials on the City's web site, at City buildings and schools, and special events.

Action CIR 4e: Update the Streetscape Master Plan goals, policies, and actions to improve the appearance and enjoyment of public streets and sidewalks in Milpitas, particularly with regards to landscaping, street furniture and the identification of significant entryways and corridors.

Action CIR 4f: In conjunction with neighboring jurisdictions, establish a safe and viable bike share program that will serve communities throughout Milpitas.

Action CIR 4g: Adopt policies to ensure that bikeshare and other micromobility modes are safe for the user, do not create significant life-cycle environmental impact, and do not create a public nuisance on sidewalks or other public and private outdoor amenities.

Action CIR 4h: Adopt policies to ensure that bikeshare and other micromobility modes are available in neighborhoods throughout Milpitas, including disadvantaged neighborhoods, but do not create additional access barriers for vulnerable populations.

Action CIR 4i: Develop guidelines and priority locations for implementing enhanced pedestrian crossings and safe, adequate infrastructure for pedestrians and bicyclists.

Finding – Bicycle facilities would be enhanced with the completion of facilities identified in the *Milpitas Metro Specific Plan* and the *Trail, Pedestrian, and Bicycle Master Plan*. Additional bicycle facilities would be included in the draft update to the City's *Bicycle & Pedestrian Master Plan*, combined with the proposed policies and actions items in the General Plan Update.

Transit

BART, light rail, and numerous bus routes provide local and regional transit service that is accessible throughout the *Milpitas Metro Plan* area and would be adequate to accommodate project-generated transit trips. There are several *General Plan* policies and actions which are focused on both maintaining and enhancing transit facilities within the Milpitas Metro area, as described below. Relevant policies from the *Milpitas Metro Specific Plan* are provided in the *Milpitas Metro Specific Plan SEIR*.

Milpitas General Plan Policies and Actions

CIR 3-1: Coordinate with VTA and BART to design and implement capital improvements that support safety and access to rail stations and bus stops.

CIR 3-2: Coordinate transit planning and provision of transit-supportive infrastructure with Caltrans, VTA, BART, and other service providers to provide seamless service for users across transit modes and to facilitate transfers.

CIR 3-3: Work with local stakeholders and VTA to ensure that paratransit services adequately meet the needs of people with disabilities in Milpitas.

CIR 3-4: Ensure that all transit-supportive infrastructure, sidewalks, and bike lanes are adequately maintained to provide high-quality facilities for users.

Action CIR 3a: Prioritize, install, and maintain bus stop amenities to enhance the transit user experience, especially for vulnerable populations, including shelters, benches, and lighting.

Action CIR 3b: Support regional planning efforts for the development of mass transit facilities such as transit priority for designated bus rapid transit, transit signal priority, bus queue jump lanes, exclusive bus queue jump lanes, exclusive transit lanes, and other transit preferential treatments, where appropriate.

Action CIR 3: Coordinate with transit agencies and local stakeholders to pursue development of feeder services and/or a local circulator to carry commuters to transit stations, such as shuttle connections from businesses, residences, attractions, and schools to bus and rail services.

Finding – The provision of transit services as well as the transit facilities serving the project would continue to serve the *Milpitas Metro Specific Plan* area. Also, the policies and actions items in the *General Plan* and *Milpitas Metro Specific Plan* would support enhancement of services and facilities as needed to support incoming development.

Micro-mobility

The availability and use of micro-mobility options, such as such as electric bicycles, electric scooters, electric skateboards, and shared bicycles, within the City of Milpitas is expected to be a growing part of the multimodal transportation system in the *Milpitas Metro Specific Plan* area. The *General Plan* and *Milpitas Metro Specific Plan* both include policies and measures that reference the enhancement of these modes. *General Plan* policies which specifically speak to micro-mobility are included below. Relevant policies from the *Milpitas Metro Specific Plan* are provided in the *Milpitas Metro Specific Plan SEIR*.

Milpitas General Plan Policies

Policy CIR 4-1: Encourage a shift to active transportation modes by expanding and enhancing current pedestrian and bicycle facilities to accommodate pedestrians and bicyclists of all ages and abilities and encourage all users to reduce vehicle trips and utilize active transportation options with an increase in density of pedestrian and bicycle-supportive infrastructure.

Policy CIR 4-3: Encourage walking, biking and transit use by prioritizing and implementing “first-mile/last mile” improvements, wayfinding and educational efforts in the vicinity of the Great Mall transit center, light rail stations, the BART station, and heavily used bus stops.

Policy CIR 4-4: Provide secure bicycle parking and end-of-trip support facilities (publicly accessible lockers, changing rooms and showers) at centers of civic, retail, recreation, education, and work activity.

Policy CIR 7-3: Seek opportunities to develop public/private partnerships to provide transportation infrastructure and services.

Policy CIR 7-4: Ensure that construction detour routes provide safe and convenient access for users of all modes of transportation, including people with disabilities.

Policy CIR 7-5: Monitor the development of new and emerging transportation technologies-such as autonomous vehicles-to enable the City to prepare for their incorporation into the transportation system if safe and appropriate.

Finding – Micro-mobility facilities within the *Milpitas Metro Specific Plan* area will expand through the implementation of the relevant proposed policies and actions items in the *General Plan* and *Milpitas Metro Specific Plan*.

Conclusions and Recommendations

Conclusions

- Under existing conditions, all 12 study intersections operate acceptably.
- Of the six roadway segments evaluated in the *Milpitas Metro Specific Plan* area, four were determined to operate at an acceptable LOS D or better under existing conditions; at the time the counts were collected, the two segments of South Milpitas Boulevard were under construction so could not be counted.
- Under Future volumes, and with the addition of programmed improvements, three of the 12 study intersections are expected to operate below LOS standards.
- Of the six roadway segments evaluated under future conditions, four would continue to operate acceptably at LOS D or better.
- Buildout of the proposed *Milpitas Metro Specific Plan* would yield up to 7,000 housing units, 12,284 jobs, and a conservative estimate of 21,644 additional residents compared to what was approved under the TASP.
- Under Future Plus Project conditions (buildout of the *Milpitas Metro Specific Plan*), five of the 12 intersections would experience an increase in delay, vehicle/capacity ratio, or critical delay above local jurisdictional thresholds. Of these five intersections, recommendations to improve operations were developed for two intersections; operation at the remaining three intersections would remain below the applied operational standard due to constraints that make improvements infeasible.
- Under Future plus Project conditions, three of the six roadway segments are expected to carry traffic volumes indicative of LOS D or better operation.
- The vehicle miles traveled (VMT) generated by the *Milpitas Metro Specific Plan* would constitute a less-than-significant impact. When compared to significance thresholds of 15 percent below countywide averages, VMT per service population, VMT per capita, and VMT per employee are all expected to be below these levels under the *Milpitas Metro Specific Plan* for the horizon year of 2040. Requirements for new development to include TDM measures would further reduce project-related VMT.

Recommendations

- To maintain LOS at or above the thresholds provided by local jurisdictions, including Caltrans District 4, VTA, and the City of Milpitas, geometric and signal timing updates are proposed at two intersections, in addition to what was recommended in the *General Plan* traffic operations report. These recommendations include the following.
 - a. I-680 North Off-Ramp-Dempsey Road/Landess Avenue: Widen the northbound I-680 off-ramp from one left-turn lane and two right-turn lanes to include two left-turn lanes, one through lane, and two right-turn lanes. Additionally, it is recommended that the signal timing/phasing be updated to include overlap operation for the southbound right turn. It is noted that the *General Plan* previously recommended the addition of a lane at this location; as a result of the traffic associated with the *Milpitas Metro Specific Plan*, an additional lane is recommended to maintain acceptable operations.
 - b. Centrepoint Drive/Great Mall Parkway: Widen the northbound Centrepoint Drive approach to include two left-turn lanes and one shared through/right-turn lane.

Study Participants and References

Study Participants

Principal in Charge	Mark E. Spencer, PE
Senior Planner	Barry Bergman, AICP
Traffic Engineer	Kenny Jeong, PE
Graphics	Cameron Wong, Hannah Yung-Boxdell
Editing/Formatting	Alex Scrobonia, Hannah Yung-Boxdell
Quality Control	Dalene J. Whitlock, PE, PTOE

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MIL005





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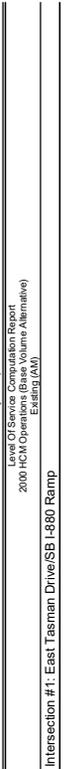
Appendix A

Existing Intersection Level of Service Calculations





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Street Name: NB I-880 Ramp - Thompson Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 22 Sep 2016 << 8:00-9:00

Base Vol: 706 41 77 16 32 344 26 202 0 172 1851 35
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 706 41 77 16 32 344 26 202 0 172 1851 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 706 41 77 16 32 344 26 202 0 172 1851 35
Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 706 41 77 16 32 344 26 202 0 172 1851 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 706 41 77 16 32 344 26 202 0 172 1851 35

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.82 1.00 0.82 0.92 1.00 0.92 1.00 0.92 1.00
Lanes: 1.90 0.10 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.94 0.06
Final Sat: 3322 193 1750 1750 1900 1750 1750 3800 1750 1750 5585 106

Capacity Analysis Module:
Vol/Sat: 0.21 0.21 0.04 0.01 0.02 0.20 0.01 0.05 0.00 0.10 0.33 0.33
Crit Moves: ****
Green Time: 28.6 28.6 55.4 17.9 17.9 24.9 7.0 24.8 0.0 26.8 44.6 44.6
Volume/Cap: 0.82 0.82 0.09 0.06 0.10 0.87 0.23 0.24 0.00 0.40 0.82 0.82
Delay/Veh: 44.1 44.1 14.2 39.0 39.3 59.3 50.0 35.0 0.0 35.5 31.5 31.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 44.1 44.1 14.2 39.0 39.3 59.3 50.0 35.0 0.0 35.5 31.5 31.5
LOS by Move: A A A A C D+ D+ D+ A D+ C C
HCM2kVgQ: 15 15 1 1 1 15 1 3 0 5 19 19

Note: Queue reported is the number of cars per lane.

Street Name: SB I-880 Ramp
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 0 0 0 10 10 10 0 10 10 7 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 22 Sep 2016 << 8:00-9:00

Base Vol: 0 0 0 101 2 740 0 216 120 200 2613 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 101 2 740 0 216 120 200 2613 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 101 2 740 0 216 120 200 2613 0
Reduce Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 101 2 740 0 216 120 200 2613 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 0 0 101 2 740 0 216 120 200 2613 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00 0.92 1.00
Lanes: 0.00 0.00 0.00 1.12 0.01 1.87 0.00 3.00 1.00 1.00 3.00 0.00
Final Sat: 0 0 0 1959 8 3283 0 5700 1750 1750 5700 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.05 0.24 0.23 0.00 0.04 0.07 0.11 0.46 0.00
Crit Moves: ****
Green Time: 0.0 0.0 0.0 34.8 34.8 34.8 0.0 29.3 36.9 66.2 0.0
Volume/Cap: 0.00 0.00 0.00 0.16 0.76 0.71 0.00 0.14 0.26 0.34 0.76 0.00
Delay/Veh: 0.0 0.0 0.0 27.1 37.0 35.2 0.0 30.8 32.1 27.8 17.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 27.1 37.0 35.2 0.0 30.8 32.1 27.8 17.2 0.0
LOS by Move: A A A A C D+ D+ D+ A C C B A
HCM2kVgQ: 0 0 0 2 15 14 0 2 3 5 21 0

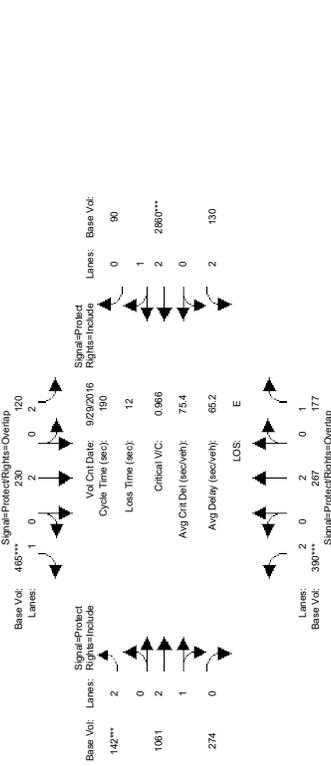
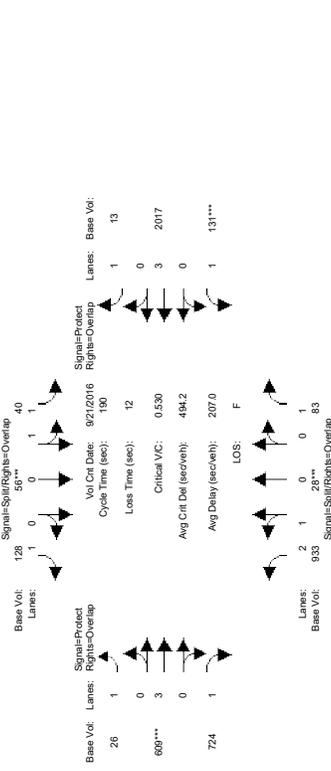
Note: Queue reported is the number of cars per lane.

AM Peak - Existing Conditions
 Milpitas Metro Specific Plan
 City of Milpitas
 Level of Service (LOS) Analysis Report
 2000 HCM Operations (Base Volume Alternative)
 Existing (AM)

AM Peak - Existing Conditions
 Milpitas Metro Specific Plan
 City of Milpitas
 Level of Service (LOS) Analysis Report
 2000 HCM Operations (Base Volume Alternative)
 Existing (AM)

Intersection #11: South Main Street - Oakland Road/Montague Expressway

Intersection #12: Trade Zone Boulevard - McCandless Drive/Montague Expressway



Street Name: South Main Street - Oakland Road Montague Expressway

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	25	40	10	18	33	10	17	97	10	26	115	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 29 Sep 2016 << 7:30-8-30

Base Vol:	390	267	177	120	230	465	142	1061	274	130	2860	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	390	267	177	120	230	465	142	1061	274	130	2860	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	390	267	177	120	230	465	142	1061	274	130	2860	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	390	267	177	120	230	465	142	1061	274	130	2860	90
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	390	267	177	120	230	465	142	1061	274	130	2860	90

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.00	2.00	1.00	2.00	2.00	1.00	2.00	2.34	0.66	2.00	2.90	0.10
Final Sat:	3150	3800	1750	3150	3800	1750	3150	4452	1150	3150	5512	173

Capacity Analysis Module:

Vol/Sat:	0.12	0.07	0.10	0.04	0.06	0.27	0.05	0.24	0.04	0.52	0.04	0.52
Crit Moves:	23.5	37.6	63.9	16.9	31.0	47.0	16.0	97.9	97.9	26.2	108	108.2
Green Time:	1.00	0.35	0.30	0.43	0.37	1.07	0.54	0.46	0.46	0.30	0.91	0.91
Volume/Cap:	134.2	70.2	49.8	88.2	75.6	140.3	90.9	31.3	31.3	78.6	56.6	56.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	134.2	70.2	49.8	88.2	75.6	140.3	90.9	31.3	31.3	78.6	56.6	56.6
LOS by Move:	F	E	D	F	E	F	F	F	F	C	E	E+
HCM2kavq:	17	8	10	4	7	37	6	17	17	4	58	58

Note: Queue reported is the number of cars per lane.

Street Name: Trade Zone Boulevard - McCandless Drive Montague Expressway

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	19	19	19	39	39	39	17	102	10	30	115	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 21 Sep 2016 << 7:30-8-30

Base Vol:	933	28	83	40	56	128	26	609	724	131	2017	13
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	933	28	83	40	56	128	26	609	724	131	2017	13
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	933	28	83	40	56	128	26	609	724	131	2017	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	933	28	83	40	56	128	26	609	724	131	2017	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	933	28	83	40	56	128	26	609	724	131	2017	13

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.65	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	2.94	0.06	1.00	1.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00	1.00
Final Sat:	3615	108	1750	2625	950	1750	1750	5700	1750	1750	5700	1750

Capacity Analysis Module:

Vol/Sat:	0.26	0.26	0.05	0.02	0.06	0.07	0.01	0.11	0.41	0.07	0.35	0.01
Crit Moves:	17.9	17.9	46.1	36.7	36.7	52.7	16.0	95.9	113.8	28.2	108	144.9
Green Time:	2.74	2.74	0.20	0.08	0.31	0.26	0.18	0.21	0.69	0.50	0.62	0.01
Volume/Cap:	884.1	884.1	66.8	70.4	57.2	86.6	34.6	40.6	80.7	29.4	5.7	5.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	884.1	884.1	66.8	70.4	57.2	86.6	34.6	40.6	80.7	29.4	5.7	5.7
LOS by Move:	F	E	D	F	E	F	F	F	F	C	E	A
HCM2kavq:	53	68	5	2	3	8	2	8	39	8	27	0

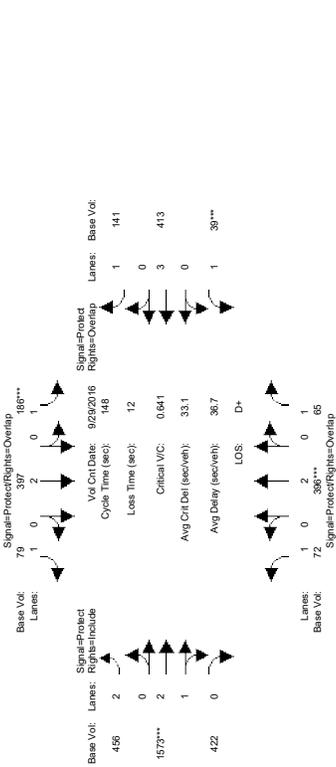
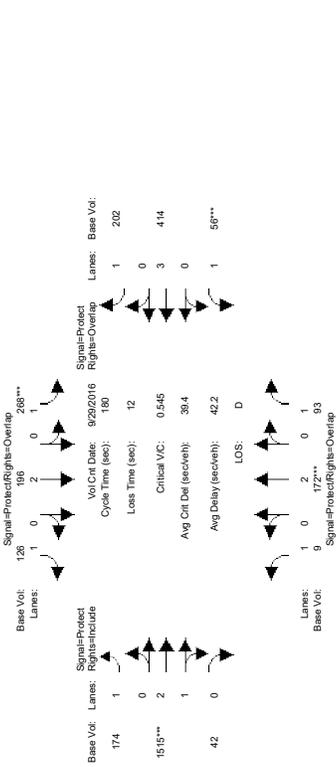
Note: Queue reported is the number of cars per lane.

PM Peak - Existing Conditions
 Milpitas Metro Specific Plan
 City of Milpitas
 Level of Service (LOS) Analysis Report
 2000 HCM Operations (Base Volume Alternative)
 Existing (PM)

PM Peak - Existing Conditions
 Milpitas Metro Specific Plan
 City of Milpitas
 Level of Service (LOS) Analysis Report
 2000 HCM Operations (Base Volume Alternative)
 Existing (PM)

Intersection #4: South Main Street/Great Mall Parkway

Intersection #3: South Abel Street/Great Mall Parkway



Street Name: South Main Street South Bound East Bound West Bound
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 29 Sep 2016 << 4:45-5:45
 Base Vol: 9 172 93 268 196 126 174 1515 42 56 414 202
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 9 172 93 268 196 126 174 1515 42 56 414 202
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 9 172 93 268 196 126 174 1515 42 56 414 202
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 9 172 93 268 196 126 174 1515 42 56 414 202

Street Name: South Able Street South Bound East Bound West Bound
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 29 Sep 2016 << 5:00-6:00
 Base Vol: 72 396 65 186 397 79 456 1573 422 39 413 141
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 72 396 65 186 397 79 456 1573 422 39 413 141
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 72 396 65 186 397 79 456 1573 422 39 413 141
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 72 396 65 186 397 79 456 1573 422 39 413 141

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.82 1.00 0.82 0.92 0.98 0.95 0.92 1.00 0.92
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.92 0.08 1.00 3.00 1.00
 Final Sat: 1750 3800 1750 1750 3800 1750 1750 5449 151 1750 5700 1750

Capacity Analysis Module:
 Vol/Sat: 0.01 0.05 0.05 0.15 0.05 0.07 0.10 0.28 0.28 0.03 0.07 0.12
 Crit Moves: *****
 Green Time: 27.0 15.0 25.5 50.6 38.6 97.8 59.2 91.9 10.6 43.2 93.8
 Volume/Cap: 0.03 0.54 0.37 0.54 0.24 0.13 0.30 0.54 0.54 0.30 0.22
 Delay/Veh: 65.4 81.2 71.0 56.2 58.7 20.3 45.3 30.1 30.1 88.3 56.1 23.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 65.4 81.2 71.0 56.2 58.7 20.3 45.3 30.1 30.1 88.3 56.1 23.4
 LOS by Move: E F E E+ C+ C-
 HCM2kavq: 0 5 5 14 4 7 19 19 3 6 6

Note: Queue reported is the number of cars per lane.

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.82 1.00 0.82 0.92 0.99 0.95 0.92 1.00 0.92
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.94 0.66 1.00 3.00 1.00
 Final Sat: 1750 3800 1750 1750 3800 1750 1750 4414 1184 1750 5700 1750

Capacity Analysis Module:
 Vol/Sat: 0.04 0.10 0.04 0.11 0.10 0.05 0.14 0.36 0.36 0.02 0.07 0.08
 Crit Moves: *****
 Green Time: 14.9 23.7 30.7 24.2 33.0 91.7 58.7 81.1 7.0 29.4 53.6
 Volume/Cap: 0.41 0.65 0.18 0.65 0.47 0.07 0.36 0.65 0.65 0.47 0.36 0.22
 Delay/Veh: 63.9 60.7 48.5 63.2 50.3 11.2 31.7 24.0 24.0 72.9 51.4 32.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 63.9 60.7 48.5 63.2 50.3 11.2 31.7 24.0 24.0 72.9 51.4 32.9
 LOS by Move: E 3 E D B+ C C C E D- C-
 HCM2kavq: 3 8 3 9 8 1 8 20 20 2 5 5

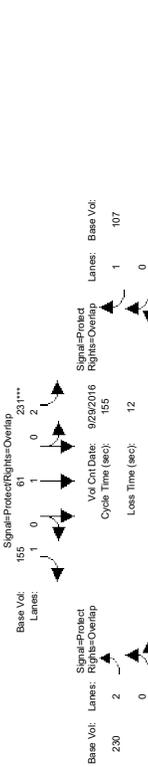
Note: Queue reported is the number of cars per lane.

PM Peak - Existing Conditions
Milpitas Metro Specific Plan
City of Milpitas
Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
Existing (PM)

Intersection #5: Great Mall Drive/Great Mall Parkway

Base Vol: 165
Lanes: 1 0 1 0 2
Signal=Protect
Rights=Overlap
Vol Cnt Date: 9/29/2016
Cycle Time (sec): 155
Loss Time (sec): 12
Critical V/C: 0.412
Avg Cnt Del (sec/veh): 21.3
Avg Del (sec/veh): 25.6
LOS: C

Base Vol: 107
Lanes: 1 0 2
Signal=Protect
Rights=Overlap
Vol Cnt Date: 9/29/2016
Cycle Time (sec): 130
Loss Time (sec): 12
Critical V/C: 0.399
Avg Cnt Del (sec/veh): 11.2
Avg Del (sec/veh): 14.2
LOS: B



Street Name: Great Mall Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 29 Sep 2016 << 5:00-6:00
Base Vol: 55 48 16 231 61 155 230 1560 159 14 509 107
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 55 48 16 231 61 155 230 1560 159 14 509 107
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 55 48 16 231 61 155 230 1560 159 14 509 107
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 55 48 16 231 61 155 230 1560 159 14 509 107

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.92 1.00 0.92
Lanes: 1.00 1.00 1.00 2.00 1.00 1.00 2.00 3.00 1.00 1.00 3.00 1.00
Final Sat: 1750 1900 1750 3150 1900 1750 3150 5700 1750 1750 5700 1750

Capacity Analysis Module:
Vol/Sat: 0.03 0.03 0.01 0.07 0.03 0.09 0.07 0.27 0.09 0.01 0.09 0.06
Crit Moves: 15.1 10.0 17.0 26.6 21.5 69.4 47.9 99.4 114.5 7.0 58.5 85.1
Green Time: 0.32 0.39 0.08 0.43 0.23 0.20 0.24 0.43 0.12 0.18 0.24 0.11
Volume/Cap: 66.3 71.6 62.2 57.9 59.8 26.1 40.1 13.8 5.9 72.3 33.0 16.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 66.3 71.6 62.2 57.9 59.8 26.1 40.1 13.8 5.9 72.3 33.0 16.8
LOS by Move: E E E E+ E+ C D B A E C- B
HCM2kAvq: 2 2 1 6 3 5 5 12 2 1 5 3

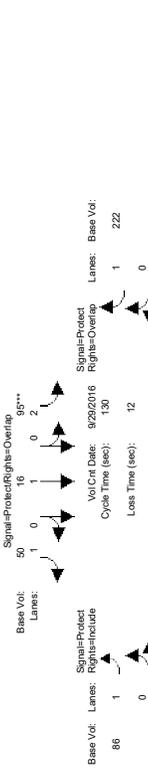
Note: Queue reported is the number of cars per lane.

PM Peak - Existing Conditions
Milpitas Metro Specific Plan
City of Milpitas
Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
Existing (PM)

Intersection #6: Centerpointe Drive/Great Mall Parkway

Base Vol: 86
Lanes: 1 0 2
Signal=Protect
Rights=Overlap
Vol Cnt Date: 9/29/2016
Cycle Time (sec): 130
Loss Time (sec): 12
Critical V/C: 0.399
Avg Cnt Del (sec/veh): 11.2
Avg Del (sec/veh): 14.2
LOS: B

Base Vol: 222
Lanes: 1 0 2
Signal=Protect
Rights=Overlap
Vol Cnt Date: 9/29/2016
Cycle Time (sec): 130
Loss Time (sec): 12
Critical V/C: 0.399
Avg Cnt Del (sec/veh): 11.2
Avg Del (sec/veh): 14.2
LOS: B



Street Name: Centerpointe Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 29 Sep 2016 << 5:00-6:00
Base Vol: 2 1 6 95 16 50 86 1787 14 11 556 222
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 2 1 6 95 16 50 86 1787 14 11 556 222
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 6 95 16 50 86 1787 14 11 556 222
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 2 1 6 95 16 50 86 1787 14 11 556 222

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.95 0.83 1.00 0.92 0.83 1.00 0.92 0.98 0.95 0.92 1.00 0.92
Lanes: 1.00 0.14 0.86 2.00 1.00 1.00 2.00 2.98 0.02 1.00 3.00 1.00
Final Sat: 1750 257 1543 3150 1900 1750 1750 5536 44 1750 5700 1750

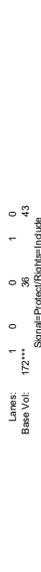
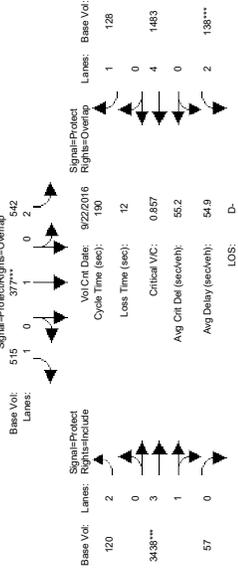
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.01 0.03 0.05 0.32 0.32 0.01 0.10 0.13
Crit Moves: 7.7 10.0 10.0 8.7 11.0 46.3 35.3 92.3 92.3 7.0 64.0 72.7
Green Time: 0.02 0.05 0.05 0.45 0.10 0.08 0.18 0.45 0.45 0.12 0.20 0.23
Volume/Cap: 57.7 55.8 55.8 59.9 55.2 27.8 36.4 8.1 8.1 59.1 18.6 14.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 57.7 55.8 55.8 59.9 55.2 27.8 36.4 8.1 8.1 59.1 18.6 14.6
LOS by Move: E+ E+ E+ E+ C D+ A A E+ B- B
HCM2kAvq: 2 2 1 6 3 5 1 1 3 10 10 4 5

Note: Queue reported is the number of cars per lane.

PM Peak - Existing Conditions
Milpitas Metro Specific Plan
City of Milpitas

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
Existing (PM)

Intersection #9: NB I-680 Ramp - Dempsey Road/Landess Avenue



Street Name: NB I-680 Ramp - Dempsey Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume Module	>> Count Date: 21 Sep 2016 << 5:00-6:00	Base Vol	7	0	446	271	0	421	256	1092	0	0	757	82
10	10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
Initial Base: 7 0 446 271 0 421 256 1092 0 0 757 82																
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
PHF Volume: 7 0 446 271 0 421 256 1092 0 0 757 82																
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
Final Volume: 7 0 446 271 0 421 256 1092 0 0 757 82																

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.83 0.82 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00
Lanes: 1.00 0.00 2.00 1.00 0.00 1.00 1.00 2.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00 1.00 1.00
Final Sat: 1800 0 3150 1750 0 1750 1750 3800 0 0 3800 1750

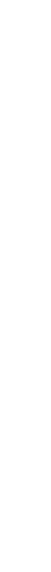
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.14 0.15 0.00 0.24 0.15 0.29 0.00 0.00 0.20 0.05
Crit Moves: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Green Time: 21.0 0.0 21.0 35.7 0.0 35.7 21.7 51.3 0.0 0.0 29.6 29.6
Volume/Cap: 0.02 0.00 0.81 0.52 0.00 0.81 0.81 0.67 0.00 0.00 0.81 0.19
Delay/Veh: 41.0 0.0 56.2 36.0 0.0 48.1 61.4 28.7 0.0 0.0 47.9 36.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 41.0 0.0 56.2 36.0 0.0 48.1 61.4 28.7 0.0 0.0 47.9 36.0
LOS by Move: D A E+ D+ A D E C A A D D+
HCM2kVq: 0 0 12 9 0 17 12 17 0 0 15 3

Note: Queue reported is the number of cars per lane.

PM Peak - Existing Conditions
Milpitas Metro Specific Plan
City of Milpitas

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
Existing (PM)

Intersection #10: McCarthy Boulevard - O'Toole Avenue/Montague Expressway



Street Name: McCarthy Boulevard - O'Toole Avenue
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume Module	>> Count Date: 22 Sep 2016 << 4:45-5:45	Base Vol	172	36	43	542	377	515	120	3438	57	138	1483	128
18	21	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
Initial Base: 172 36 43 542 377 515 120 3438 57 138 1483 128																
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
PHF Volume: 172 36 43 542 377 515 120 3438 57 138 1483 128																
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
Final Volume: 172 36 43 542 377 515 120 3438 57 138 1483 128																

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.95 0.83 1.00 0.82 0.83 1.00 0.82 0.83 0.99 0.95 0.83 1.00 0.82 0.83 1.00
Lanes: 1.00 0.46 0.54 2.00 1.00 1.00 2.00 3.93 0.07 2.00 4.00 1.00
Final Sat: 1750 820 980 3150 1900 1750 3150 7377 122 3150 7600 1750

Capacity Analysis Module:
Vol/Sat: 0.10 0.04 0.04 0.17 0.20 0.29 0.04 0.47 0.04 0.20 0.07
Crit Moves: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Green Time: 16.9 19.8 19.8 35.7 38.6 62.1 23.5 104 104.4 18.8 99.7 135.4
Volume/Cap: 1.10 0.42 0.42 0.91 0.98 0.90 0.31 0.85 0.85 0.44 0.37 0.10
Delay/Veh: 194.3 86.4 86.4 99.3 120 82.2 81.1 40.2 40.2 86.8 28.4 9.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 194.3 86.4 86.4 99.3 120 82.2 81.1 40.2 40.2 86.8 28.4 9.0
LOS by Move: F 5 5 21 25 35 4 45 5 13 3
HCM2kVq: 17 5 5 21 25 35 4 45 5 13 3

Note: Queue reported is the number of cars per lane.

PM Peak - Existing Conditions
Milpitas Metro Specific Plan
City of Milpitas

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
Existing (PM)

Intersection #9: NB I-680 Ramp - Dempsey Road/Landess Avenue



Street Name: NB I-680 Ramp - Dempsey Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume Module	>> Count Date: 21 Sep 2016 << 5:00-6:00	Base Vol	7	0	446	271	0	421	256	1092	0	0	757	82
10	10	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
Initial Base: 7 0 446 271 0 421 256 1092 0 0 757 82																
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
PHF Volume: 7 0 446 271 0 421 256 1092 0 0 757 82																
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
Final Volume: 7 0 446 271 0 421 256 1092 0 0 757 82																

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.83 0.82 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00
Lanes: 1.00 0.00 2.00 1.00 0.00 1.00 1.00 2.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00 1.00 1.00
Final Sat: 1800 0 3150 1750 0 1750 1750 3800 0 0 3800 1750

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.14 0.15 0.00 0.24 0.15 0.29 0.00 0.00 0.20 0.05
Crit Moves: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Green Time: 21.0 0.0 21.0 35.7 0.0 35.7 21.7 51.3 0.0 0.0 29.6 29.6
Volume/Cap: 0.02 0.00 0.81 0.52 0.00 0.81 0.81 0.67 0.00 0.00 0.81 0.19
Delay/Veh: 41.0 0.0 56.2 36.0 0.0 48.1 61.4 28.7 0.0 0.0 47.9 36.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 41.0 0.0 56.2 36.0 0.0 48.1 61.4 28.7 0.0 0.0 47.9 36.0
LOS by Move: D A E+ D+ A D E C A A D D+
HCM2kVq: 0 0 12 9 0 17 12 17 0 0 15 3

Note: Queue reported is the number of cars per lane.

PM Peak - Existing Conditions
Milpitas Metro Specific Plan
City of Milpitas

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
Existing (PM)

Intersection #10: McCarthy Boulevard - O'Toole Avenue/Montague Expressway



Street Name: McCarthy Boulevard - O'Toole Avenue
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y+R	Volume Module	>> Count Date: 22 Sep 2016 << 4:45-5:45	Base Vol	172	36	43	542	377	515	120	3438	57	138	1483	128
18	21	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
Initial Base: 172 36 43 542 377 515 120 3438 57 138 1483 128																
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
PHF Volume: 172 36 43 542 377 515 120 3438 57 138 1483 128																
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00																
Final Volume: 172 36 43 542 377 515 120 3438 57 138 1483 128																

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.95 0.83 1.00 0.82 0.83 1.00 0.82 0.83 0.99 0.95 0.83 1.00 0.82 0.83 1.00
Lanes: 1.00 0.46 0.54 2.00 1.00 1.00 2.00 3.93 0.07 2.00 4.00 1.00
Final Sat: 1750 820 980 3150 1900 1750 3150 7377 122 3150 7600 1750

Capacity Analysis Module:
Vol/Sat: 0.10 0.04 0.04 0.17 0.20 0.29 0.04 0.47 0.04 0.20 0.07
Crit Moves: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Green Time: 16.9 19.8 19.8 35.7 38.6 62.1 23.5 104 104.4 18.8 99.7 135.4
Volume/Cap: 1.10 0.42 0.42 0.91 0.98 0.90 0.31 0.85 0.85 0.44 0.37 0.10
Delay/Veh: 194.3 86.4 86.4 99.3 120 82.2 81.1 40.2 40.2 86.8 28.4 9.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 194.3 86.4 86.4 99.3 120 82.2 81.1 40.2 40.2 86.8 28.4 9.0
LOS by Move: F 5 5 21 25 35 4 45 5 13 3
HCM2kVq: 17 5 5 21 25 35 4 45 5 13 3

Note: Queue reported is the number of cars per lane.

PM Peak - Existing Conditions
Milpitas Metro Specific Plan
City of Milpitas
Level of Service (LOS) - Right-of-Way
2000 HCM Operations (Base Volume Alternative)
Existing (PM)

Intersection #11: South Main Street - Oakland Road/Montague Expressway

Base Vol: 287
Lanes: 1 0 2 2 0 2

Signal=Protect
Lanes: Rights=Include
530 2

Signal=Protect
Lanes: Rights=Include
2835** 2

Signal=Protect
Lanes: Rights=Include
390 0

Vol Cnt Date: 9/23/2016
Cycle Time (sec): 190
Loss Time (sec): 12
Critical V/C: 1.048
Avg Cnt Del (sec/veh): 157.6
Avg Del Delay (sec/veh): 422.5

LOS: F

Base Vol: 470
Lanes: 1 0 2 2 0 2

Signal=Protect
Lanes: Rights=Include
0 197

Signal=Protect
Lanes: Rights=Include
0 977

Signal=Protect
Lanes: Rights=Include
2 683***

Vol Cnt Date: 9/23/2016
Cycle Time (sec): 190
Loss Time (sec): 12
Critical V/C: 1.048
Avg Cnt Del (sec/veh): 157.6
Avg Del Delay (sec/veh): 422.5

LOS: F

Street Name: South Main Street - Oakland Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 18 33 10 18 33 10 45 121 10 18 94 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 29 Sep 2016 << 4:45-5:45
Base Vol: 216 276 224 166 471 267 330 2835 390 683 977 197
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 216 276 224 166 471 267 330 2835 390 683 977 197
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 216 276 224 166 471 267 330 2835 390 683 977 197
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 216 276 224 166 471 267 330 2835 390 683 977 197

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 0.99 0.95 0.83 0.99 0.95
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 2.62 0.58 2.00 2.48 0.52
Final Sat: 3150 3800 1750 3150 3800 1750 3150 4922 677 3150 4659 939

Capacity Analysis Module:
Vol/Sat: 0.07 0.07 0.13 0.05 0.12 0.15 0.10 0.58 0.22 0.21 0.21
Crit Moves: ****
Green Time: 16.9 31.0 48.0 16.9 31.0 73.4 42.3 114 113.8 16.9 88.4 88.4
Volume/Cap: 0.77 0.44 0.51 0.59 0.76 0.40 0.47 0.96 0.96 2.43 0.45 0.45
Delay/Veh: 102.2 76.7 65.7 91.8 86.1 45.3 68.7 46.8 46.8 747.7 44.0 44.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 102.2 76.7 65.7 91.8 86.1 45.3 68.7 46.8 46.8 747.7 44.0 44.0
LOS by Move: F E- E F D E D F D D
HCM2kVq: 8 8 14 6 15 16 11 67 67 54 19 19

Note: Queue reported is the number of cars per lane.

PM Peak - Existing Conditions
Milpitas Metro Specific Plan
City of Milpitas
Level of Service (LOS) - Right-of-Way
2000 HCM Operations (Base Volume Alternative)
Existing (PM)

Intersection #12: Trade Zone Boulevard - McCandless Drive/Montague Expressway

Base Vol: 65
Lanes: 1 0 1 1 1 1

Signal=Protect
Lanes: Rights=Overlap
78 1

Signal=Protect
Lanes: Rights=Overlap
1910 3

Signal=Protect
Lanes: Rights=Overlap
1244*** 1

Vol Cnt Date: 9/21/2016
Cycle Time (sec): 190
Loss Time (sec): 12
Critical V/C: 1.007
Avg Cnt Del (sec/veh): 113.4
Avg Del Delay (sec/veh): 72.4

LOS: E

Base Vol: 120
Lanes: 1 0 1 1 1 1

Signal=Protect
Lanes: Rights=Overlap
1 25

Signal=Protect
Lanes: Rights=Overlap
0 688

Signal=Protect
Lanes: Rights=Overlap
1 187***

Vol Cnt Date: 9/21/2016
Cycle Time (sec): 190
Loss Time (sec): 12
Critical V/C: 1.007
Avg Cnt Del (sec/veh): 113.4
Avg Del Delay (sec/veh): 72.4

LOS: E

Street Name: Trade Zone Boulevard - McCandless Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 21 21 21 36 36 36 20 107 10 26 113 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 21 Sep 2016 << 5:00-6:00
Base Vol: 583 70 201 23 123 65 78 1910 1244 187 688 25
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 583 70 201 23 123 65 78 1910 1244 187 688 25
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 583 70 201 23 123 65 78 1910 1244 187 688 25
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 583 70 201 23 123 65 78 1910 1244 187 688 25

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.67 0.95 0.92 1.38 0.50 0.82 0.92 1.00 0.92 1.00 1.00 1.00
Lanes: 2.77 0.23 1.00 1.00 1.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat: 3520 423 1750 2625 950 1750 1750 5700 1750 1750 5700 1750

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.11 0.01 0.13 0.04 0.04 0.34 0.71 0.11 0.12 0.01
Crit Moves: ****
Green Time: 28.1 28.1 52.5 33.9 33.9 51.4 17.6 101 128.7 24.5 99.2 133.1
Volume/Cap: 1.12 1.12 0.42 0.05 0.73 0.14 0.48 0.63 1.05 0.83 0.23 0.02
Delay/Veh: 161.6 162 60.3 68.8 90.8 55.9 89.3 43.4 91.6 107.9 26.3 9.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 161.6 162 60.3 68.8 90.8 55.9 89.3 43.4 91.6 107.9 26.3 9.2
LOS by Move: F E E F E F E+ F D F C A
HCM2kVq: 21 26 12 1 8 4 5 30 87 14 7 0

Note: Queue reported is the number of cars per lane.

Appendix B

Future Intersection Level of Service Calculations



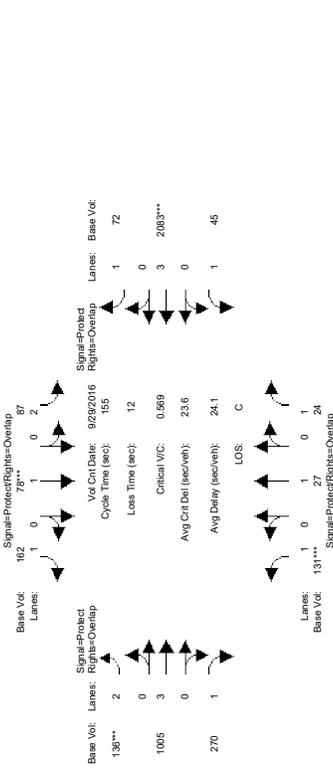


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AM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan
City of Milpitas

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.U.M. (AM)

Intersection #5: Great Mall Drive/Great Mall Parkway



Street Name: Great Mall Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 29 Sep 2016 << 8:00-9:00

Base Vol:	131	27	24	87	78	162	136	1005	270	45	2083	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	131	27	24	87	78	162	136	1005	270	45	2083	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	131	27	24	87	78	162	136	1005	270	45	2083	72
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	27	24	87	78	162	136	1005	270	45	2083	72
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	131	27	24	87	78	162	136	1005	270	45	2083	72

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83
Lanes: 1.00 1.00 1.00 2.00 1.00 1.00 2.00 3.00 1.00 1.00 3.00 1.00 1.00
Final Sat: 1750 1900 1750 3150 1900 1750 3150 5700 1750 1750 5700 1750 1750

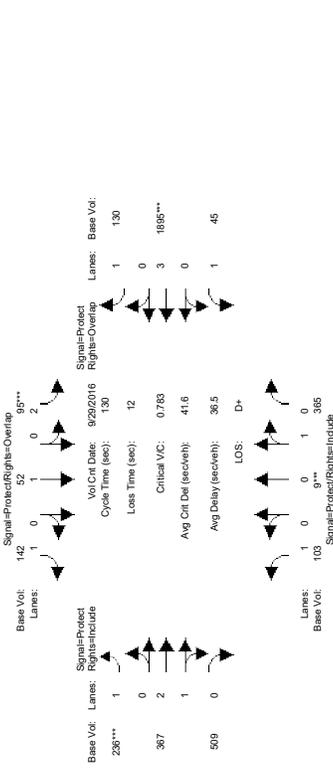
Capacity Analysis Module:
Vol/Sat: 0.07 0.01 0.01 0.03 0.04 0.09 0.04 0.18 0.15 0.03 0.37 0.04
Crit Moves: ****
Green Time: 20.4 18.6 41.3 13.0 11.2 23.0 11.8 88.7 109.1 22.7 99.6 112.6
Volume/Cap: 0.57 0.12 0.05 0.33 0.57 0.62 0.57 0.31 0.22 0.18 0.57 0.06
Delay/Veh: 66.5 61.1 42.3 67.6 75.1 66.7 72.4 17.3 8.1 58.3 15.8 6.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 66.5 61.1 42.3 67.6 75.1 66.7 72.4 17.3 8.1 58.3 15.8 6.1
LOS by Move: E E D E E E E E B A
HCM2kVq: 6 1 1 3 4 9 4 8 5 2 18 1

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan
City of Milpitas

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.U.M. (AM)

Intersection #6: Centerpointe Drive/Great Mall Parkway



Street Name: Centerpointe Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 29 Sep 2016 << 7:45-8:45

Base Vol:	103	9	365	95	52	142	236	367	509	45	1895	130
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	103	9	365	95	52	142	236	367	509	45	1895	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	103	9	365	95	52	142	236	367	509	45	1895	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	9	365	95	52	142	236	367	509	45	1895	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	103	9	365	95	52	142	236	367	509	45	1895	130

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83
Lanes: 1.00 0.02 0.98 2.00 1.00 1.00 2.00 2.00 1.00 1.00 3.00 1.00 1.00
Final Sat: 1750 42 1711 3150 1900 1750 1750 3800 1750 1750 5700 1750 1750

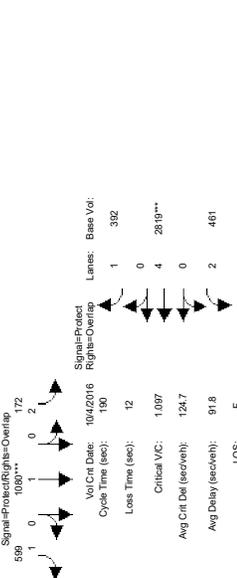
Capacity Analysis Module:
Vol/Sat: 0.06 0.21 0.21 0.03 0.03 0.08 0.13 0.10 0.29 0.03 0.33 0.07
Crit Moves: ****
Green Time: 18.1 34.8 34.8 7.0 23.7 45.7 22.0 64.3 64.3 11.9 54.2 61.2
Volume/Cap: 0.42 0.80 0.80 0.56 0.15 0.23 0.80 0.20 0.59 0.28 0.80 0.16
Delay/Veh: 52.3 53.6 53.6 64.2 44.9 30.0 65.9 18.4 24.0 56.0 35.1 19.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 52.3 53.6 53.6 64.2 44.9 30.0 65.9 18.4 24.0 56.0 35.1 19.7
LOS by Move: D D D E D C E B-
HCM2kVq: 4 17 17 3 2 4 10 4 15 2 22 3

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.U.M. (AM)

Intersection #7: Montague Expressway/Great Mall Parkway - East Capitol Avenue



Street Name: Great Mall Parkway - East Capitol
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y:R:	Volume	PHF	PHF Adj	PHF Volume	Reduced Vol	PCE Adj	M/F Adj	Final Volume	Saturation	Sat/Lane	Adjustment	Lanes	Final Sat
32	57	10	24	49	10	21	84	10	25	88	10	4.0	4.0	4.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 21 Sep 2016 << 7:45-8:45
Base Vol: 258 873 318 281 688 21 104 728 370 401 1907 983
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 258 873 318 281 688 21 104 728 370 401 1907 983
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 258 873 318 281 688 21 104 728 370 401 1564 983
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 258 873 318 281 688 21 104 728 370 401 1564 983
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 258 873 318 281 688 21 104 728 370 401 1564 983

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
Lanes: 2.00 3.00 1.00 2.00 2.90 1.00 2.00 4.00 1.00 2.00 4.00 1.00
Final Sat: 3150 5700 1750 3150 5517 168 3150 7600 1750 3150 7600 1750

Capacity Analysis Module:
Vol/Sat: 0.08 0.15 0.18 0.09 0.12 0.12 0.03 0.10 0.21 0.13 0.21 0.56
Crit Moves: ****
Green Time: 30.1 53.6 53.6 22.6 46.1 46.1 19.8 79.0 109.1 23.5 82.8 105.3
Volume/Cap: 0.52 0.54 0.64 0.75 0.51 0.51 0.32 0.23 0.37 1.03 0.47 1.01
Delay/Veh: 78.9 61.8 66.5 94.4 66.5 66.5 84.4 38.2 23.4 141.6 40.6 77.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 78.9 61.8 66.5 94.4 66.5 66.5 84.4 38.2 23.4 141.6 40.6 77.2
LOS by Move: E- E E F E F D+ C F D E-
HCM2kVq: 10 17 20 11 13 13 4 7 13 20 16 72

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.U.M. (AM)

Intersection #8: South Milpitas Boulevard/Montague Expressway



Street Name: South Milpitas Boulevard
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y:R:	Volume	PHF	PHF Adj	PHF Volume	Reduced Vol	PCE Adj	M/F Adj	Final Volume	Saturation	Sat/Lane	Adjustment	Lanes	Final Sat
7	10	10	7	10	10	7	10	10	7	10	10	4.0	4.0	4.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 4 Oct 2016 << 7:45-8:45
Base Vol: 96 620 168 172 1080 599 392 760 123 461 2819 392
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 96 620 168 172 1080 599 392 760 123 461 2819 392
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 96 620 168 172 1080 599 392 760 123 461 2312 392
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 96 620 168 172 1080 599 392 760 123 461 2312 392
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 96 620 168 172 1080 599 392 760 123 461 2312 392

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
Lanes: 2.00 1.55 0.45 2.00 1.00 1.00 2.00 3.40 0.60 2.00 4.00 1.00
Final Sat: 3150 2936 796 3150 1900 1750 3150 6464 1046 3150 7600 1750

Capacity Analysis Module:
Vol/Sat: 0.03 0.21 0.21 0.05 0.57 0.34 0.12 0.12 0.12 0.15 0.30 0.22
Crit Moves: ****
Green Time: 7.0 83.0 83.0 21.5 97.5 118.8 21.3 32.7 40.8 52.2 73.6
Volume/Cap: 0.83 0.48 0.48 0.48 1.11 0.55 1.11 0.68 0.68 1.11 0.58
Delay/Veh: 127.4 38.4 38.4 80.1 109 20.8 164.5 75.3 71.5 125 47.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 127.4 38.4 38.4 80.1 109 20.8 164.5 75.3 71.5 125 47.2
LOS by Move: F D+ F D+ F C+ F E-
HCM2kVq: 5 20 20 11 13 13 4 7 13 20 13 43

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.U.M. (AM)

Intersection #7: Montague Expressway/Great Mall Parkway - East Capitol Avenue



Street Name: Great Mall Parkway - East Capitol
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y:R:	Volume	PHF	PHF Adj	PHF Volume	Reduced Vol	PCE Adj	M/F Adj	Final Volume	Saturation	Sat/Lane	Adjustment	Lanes	Final Sat
32	57	10	24	49	10	21	84	10	25	88	10	4.0	4.0	4.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 21 Sep 2016 << 7:45-8:45
Base Vol: 258 873 318 281 688 21 104 728 370 401 1907 983
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 258 873 318 281 688 21 104 728 370 401 1907 983
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 258 873 318 281 688 21 104 728 370 401 1564 983
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 258 873 318 281 688 21 104 728 370 401 1564 983
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 258 873 318 281 688 21 104 728 370 401 1564 983

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
Lanes: 2.00 3.00 1.00 2.00 2.90 1.00 2.00 4.00 1.00 2.00 4.00 1.00
Final Sat: 3150 5700 1750 3150 5517 168 3150 7600 1750 3150 7600 1750

Capacity Analysis Module:
Vol/Sat: 0.08 0.15 0.18 0.09 0.12 0.12 0.03 0.10 0.21 0.13 0.21 0.56
Crit Moves: ****
Green Time: 30.1 53.6 53.6 22.6 46.1 46.1 19.8 79.0 109.1 23.5 82.8 105.3
Volume/Cap: 0.52 0.54 0.64 0.75 0.51 0.51 0.32 0.23 0.37 1.03 0.47 1.01
Delay/Veh: 78.9 61.8 66.5 94.4 66.5 66.5 84.4 38.2 23.4 141.6 40.6 77.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 78.9 61.8 66.5 94.4 66.5 66.5 84.4 38.2 23.4 141.6 40.6 77.2
LOS by Move: E- E E F E F D+ C F D E-
HCM2kVq: 10 17 20 11 13 13 4 7 13 20 16 72

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.U.M. (AM)

Intersection #8: South Milpitas Boulevard/Montague Expressway



Street Name: South Milpitas Boulevard
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green	Y:R:	Volume	PHF	PHF Adj	PHF Volume	Reduced Vol	PCE Adj	M/F Adj	Final Volume	Saturation	Sat/Lane	Adjustment	Lanes	Final Sat
7	10	10	7	10	10	7	10	10	7	10	10	4.0	4.0	4.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

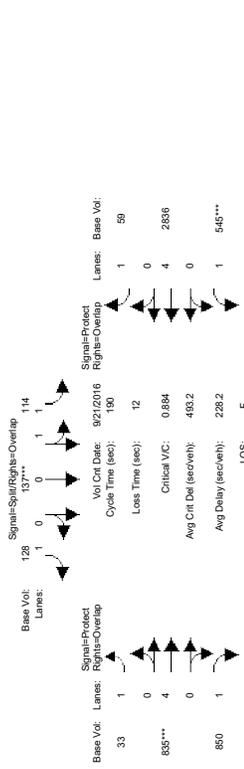
Volume Module: >> Count Date: 4 Oct 2016 << 7:45-8:45
Base Vol: 96 620 168 172 1080 599 392 760 123 461 2819 392
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 96 620 168 172 1080 599 392 760 123 461 2819 392
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 96 620 168 172 1080 599 392 760 123 461 2312 392
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 96 620 168 172 1080 599 392 760 123 461 2312 392
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 96 620 168 172 1080 599 392 760 123 461 2312 392

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
Lanes: 2.00 1.55 0.45 2.00 1.00 1.00 2.00 3.40 0.60 2.00 4.00 1.00
Final Sat: 3150 2936 796 3150 1900 1750 3150 6464 1046 3150 7600 1750

AM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan
City of Milpitas

Level of Service (LOS) - Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 PLUM (AM)

Intersection #11: South Main Street - Oakland Road/Montague Expressway



Street Name: South Main Street - Oakland Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	25	40	10	18	33	10	17	97	10	26	115	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 29 Sep 2016 << 7:30-8-30
Base Vol: 623 884 668 213 935 465 142 1061 505 685 2345 181
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 623 884 668 213 935 465 142 1061 505 685 2345 181
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 623 884 668 213 935 465 142 1061 505 685 2345 181
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 623 884 668 213 935 465 142 1061 505 685 2345 181

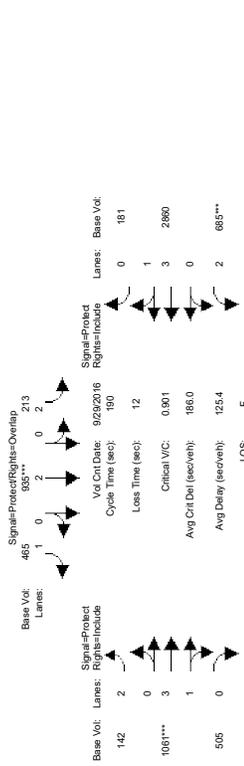
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 3.00 1.00 2.00 3.69 0.31
Final Sat: 3150 3800 1750 3150 3800 1750 3150 5700 1750 3150 7012 541

Capacity Analysis Module:
Vol/Sat: 0.20 0.23 0.38 0.07 0.25 0.27 0.05 0.19 0.29 0.22 0.33 0.33
Crit Moves: ****
Green Time: 26.2 41.8 70.5 16.9 32.5 48.0 15.5 91.2 28.8 105 104.5
Volume/Cap: 1.44 1.06 1.03 0.76 1.44 1.05 0.55 0.39 0.60 1.44 0.61 0.61
Delay/Veh: 296.3 126 106.2 101.2 289 132.5 91.9 33.6 38.8 293.8 40.5 40.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 296.3 126 106.2 101.2 289 132.5 91.9 33.6 38.8 293.8 40.5 40.5
LOS by Move: F F F F F F F F F D+ D
HCM2kVq: 37 33 51 8 46 37 6 13 24 40 30 30
Note: Queue reported is the number of cars per lane.

AM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan
City of Milpitas

Level of Service (LOS) - Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 PLUM (AM)

Intersection #12: Trade Zone Boulevard - McCandless Drive/Montague Expressway



Street Name: Trade Zone Boulevard - McCandless Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	19	19	39	39	39	17	102	10	30	115	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 21 Sep 2016 << 7:30-8-30
Base Vol: 933 73 234 114 137 128 33 835 850 545 2836 59
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 933 73 234 114 137 128 33 835 850 545 2836 59
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 933 73 234 114 137 128 33 835 850 545 2326 59
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 933 73 234 114 137 128 33 835 850 545 2326 59

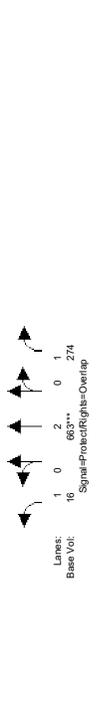
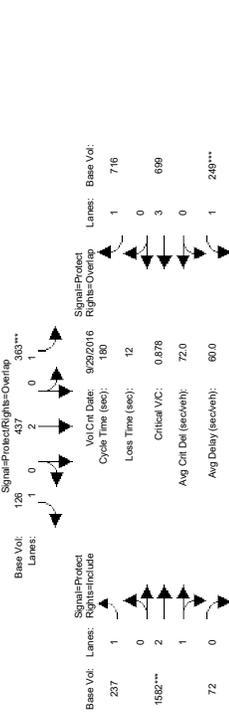
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.65 1.00 0.92 1.38 0.50 0.82 0.92 1.00 0.92 1.00 0.92 1.00
Lanes: 2.86 0.14 1.00 1.00 1.00 1.00 4.00 1.00 1.00 4.00 1.00 4.00
Final Sat: 3508 274 1750 2625 950 1750 1750 7600 1750 1750 7600 1750

Capacity Analysis Module:
Vol/Sat: 0.27 0.27 0.13 0.04 0.14 0.07 0.02 0.11 0.49 0.31 0.31 0.03
Crit Moves: ****
Green Time: 17.9 17.9 46.1 36.7 36.7 52.7 16.0 95.9 113.8 28.2 108 144.9
Volume/Cap: 2.83 2.83 0.55 0.22 0.75 0.26 0.22 0.22 0.81 2.10 0.54 0.04
Delay/Veh: 921.7 922 68.4 68.9 85.7 57.2 87.1 34.7 48.8 592.5 27.1 5.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 921.7 922 68.4 68.9 85.7 57.2 87.1 34.7 48.8 592.5 27.1 5.9
LOS by Move: F F E E E E E+ F C- D F C A
HCM2kVq: 55 71 15 7 8 7 2 9 50 74 21 1
Note: Queue reported is the number of cars per lane.

PM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right of Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.M. (PM)

Intersection #3: South Abel Street/Great Mall Parkway



Street Name: South Able Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 29 Sep 2016 << 5:00-6:00

Base Vol: 92 1092 112 464 1036 146 650 1573 422 61 464 341

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 92 1092 112 464 1036 146 650 1573 422 61 464 341

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 92 1092 112 464 1036 146 650 1573 422 61 464 341

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 92 1092 112 464 1036 146 650 1573 422 61 464 341

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.83 0.99 0.95 0.92 1.00 0.92

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.34 0.66 1.00 3.00 1.00

Final Sat: 1750 3800 1750 1750 3800 1750 3150 4414 1184 1750 5700 1750

Capacity Analysis Module:

Vol/Sat: 0.05 0.29 0.06 0.27 0.27 0.08 0.21 0.36 0.36 0.03 0.08 0.19

Crit Moves: 12.7 40.8 47.8 37.6 65.7 107.0 41.3 50.6 50.6 7.0 16.3 53.9

Green Time: 0.61 1.04 0.20 1.04 0.61 0.12 0.74 1.04 1.04 0.74 0.74 0.53

Volume/Cap: 72.7 93.2 36.4 109.4 32.1 6.2 51.8 81.4 81.4 98.6 68.5 38.0

Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 72.7 93.2 36.4 109.4 32.1 6.2 51.8 81.4 81.4 98.6 68.5 38.0

LOS by Move: E F D+ F C- A D- F F E D+

HCM2kVgQ: 4 30 4 30 18 2 15 33 33 7 13

Note: Queue reported is the number of cars per lane.

PM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right of Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.M. (PM)

Intersection #4: South Main Street/Great Mall Parkway



Street Name: South Main Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 29 Sep 2016 << 4:45-5:45

Base Vol: 16 663 274 363 437 126 237 1582 72 249 699 716

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 16 663 274 363 437 126 237 1582 72 249 699 716

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 16 663 274 363 437 126 237 1582 72 249 699 716

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 16 663 274 363 437 126 237 1582 72 249 699 716

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.82 1.00 0.82 0.92 0.98 0.95

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.86 0.14 1.00 3.00 1.00

Final Sat: 1750 3800 1750 1750 3800 1750 1750 5356 244 1750 5700 1750

Capacity Analysis Module:

Vol/Sat: 0.01 0.17 0.16 0.21 0.12 0.07 0.14 0.30 0.30 0.14 0.12 0.41

Crit Moves: 19.8 35.8 64.9 42.5 58.5 94.5 36.0 60.5 60.5 29.2 53.7 96.2

Green Time: 0.08 0.88 0.43 0.88 0.35 0.14 0.68 0.88 0.88 0.88 0.41 0.77

Volume/Cap: 72.1 81.4 44.1 85.0 46.5 21.9 71.8 61.3 61.3 98.9 50.7 36.8

Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 72.1 81.4 44.1 85.0 46.5 21.9 71.8 61.3 61.3 98.9 50.7 36.8

LOS by Move: E F D F D C+ E E E F D+

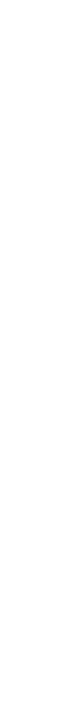
HCM2kVgQ: 1 19 12 23 9 4 12 27 27 15 10 33

Note: Queue reported is the number of cars per lane.

PM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right of Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.M. (PM)

Intersection #3: South Abel Street/Great Mall Parkway



Street Name: South Able Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 29 Sep 2016 << 5:00-6:00

Base Vol: 92 1092 112 464 1036 146 650 1573 422 61 464 341

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 92 1092 112 464 1036 146 650 1573 422 61 464 341

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 92 1092 112 464 1036 146 650 1573 422 61 464 341

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 92 1092 112 464 1036 146 650 1573 422 61 464 341

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.83 0.99 0.95 0.92 1.00 0.92

Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 2.00 2.34 0.66 1.00 3.00 1.00

Final Sat: 1750 3800 1750 1750 3800 1750 3150 4414 1184 1750 5700 1750

Capacity Analysis Module:

Vol/Sat: 0.05 0.29 0.06 0.27 0.27 0.08 0.21 0.36 0.36 0.03 0.08 0.19

Crit Moves: 12.7 40.8 47.8 37.6 65.7 107.0 41.3 50.6 50.6 7.0 16.3 53.9

Green Time: 0.61 1.04 0.20 1.04 0.61 0.12 0.74 1.04 1.04 0.74 0.74 0.53

Volume/Cap: 72.7 93.2 36.4 109.4 32.1 6.2 51.8 81.4 81.4 98.6 68.5 38.0

Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 72.7 93.2 36.4 109.4 32.1 6.2 51.8 81.4 81.4 98.6 68.5 38.0

LOS by Move: E F D+ F C- A D- F F E D+

HCM2kVgQ: 4 30 4 30 18 2 15 33 33 7 13

Note: Queue reported is the number of cars per lane.

PM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right of Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.M. (PM)

Intersection #4: South Main Street/Great Mall Parkway



Street Name: South Main Street

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 29 Sep 2016 << 4:45-5:45

Base Vol: 16 663 274 363 437 126 237 1582 72 249 699 716

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 16 663 274 363 437 126 237 1582 72 249 699 716

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 16 663 274 363 437 126 237 1582 72 249 699 716

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

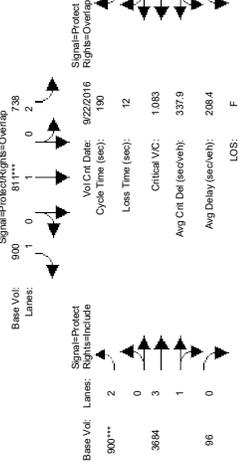
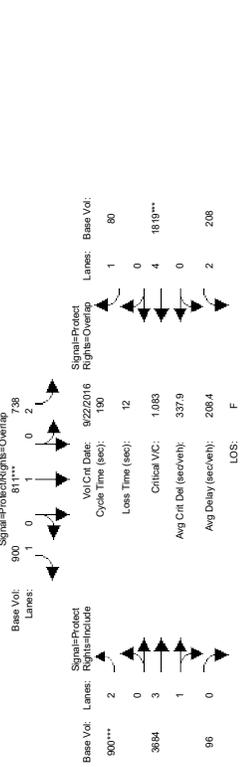
PM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.U.M. (PM)

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.U.M. (PM)

Intersection #9: NB I-680 Ramp - Dempsey Road/Landess Avenue

Intersection #10: McCarthy Boulevard - O'Toole Avenue/Montague Expressway



Street Name: NB I-680 Ramp - Dempsey Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Street Name: McCarthy Boulevard - O'Toole Avenue
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 0 10 7 10 0 0 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Min. Green: 18 21 10 38 41 10 25 111 10 20 106 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 21 Sep 2016 << 5:00-6:00

Base Vol: 17 73 497 271 0 538 329 1169 0 0 798 82
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 17 73 497 271 0 538 329 1169 0 0 798 82
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 17 73 497 271 0 538 329 1169 0 0 798 82
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 17 73 497 271 0 538 329 1169 0 0 798 82

Volume Module: >> Count Date: 22 Sep 2016 << 4:45-5:45

Base Vol: 172 175 43 738 811 900 900 3684 96 208 1819 80
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 172 175 43 738 811 900 900 3684 96 208 1819 80
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 172 175 43 738 811 900 900 2874 96 208 1583 80
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 172 175 43 738 811 900 900 2874 96 208 1583 80

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.83 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes: 1.00 1.00 2.00 1.00 0.00 2.00 2.00 0.00 0.00 2.00 1.00 1.00
Final Sat: 1750 1900 3150 1750 0 1750 1750 3800 0 0 3800 1750

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.95 0.83 1.00 0.82 0.83 0.99 0.95 0.83 1.00 0.82
Lanes: 1.00 0.80 0.20 2.00 1.00 1.00 2.00 3.67 0.13 2.00 4.00 1.00
Final Sat: 1750 1445 355 3150 1900 1750 3150 7257 242 3150 7600 1750

Capacity Analysis Module:

Vol/Sat: 0.01 0.04 0.16 0.15 0.00 0.31 0.19 0.31 0.00 0.00 0.21 0.05
Crit Moves: ****

Green Time: 24.0 24.0 24.0 23.5 0.0 52.1 28.6 60.5 0.0 0.0 31.9 31.9
Volume/Cap: 0.05 0.19 0.79 0.79 0.00 0.71 0.79 0.61 0.00 0.00 0.79 0.18
Delay/Veh: 38.9 40.2 52.3 57.5 0.0 30.8 52.7 21.9 0.0 0.0 45.2 34.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 38.9 40.2 52.3 57.5 0.0 30.8 52.7 21.9 0.0 0.0 45.2 34.1
LOS by Move: D+ D- E+ A C D- C+ A A D C-
HCM2kVq: 1 2 12 12 0 18 14 15 0 0 15 2

Capacity Analysis Module:

Vol/Sat: 0.10 0.12 0.12 0.23 0.43 0.51 0.29 0.40 0.40 0.07 0.21 0.05
Crit Moves: ****

Green Time: 16.9 18.9 18.9 36.6 38.6 62.1 23.5 104 104.4 18.9 99.7 136.3
Volume/Cap: 1.10 1.22 1.22 1.22 1.10 1.57 2.31 0.72 0.72 0.67 0.40 0.06
Delay/Veh: 194.3 228 228.5 193.6 586 334.7 685.4 34.6 34.6 93.2 28.9 8.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 194.3 228 228.5 193.6 586 334.7 685.4 34.6 34.6 93.2 28.9 8.5
LOS by Move: F F F F F F F C- C- F C A
HCM2kVq: 17 21 21 35 99 100 69 33 33 8 14 2

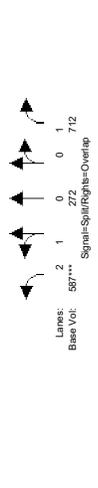
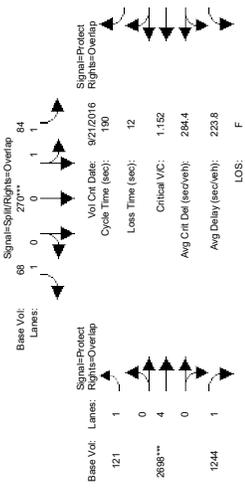
Note: Queue reported is the number of cars per lane.

Note: Queue reported is the number of cars per lane.

PM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.M. (PM)

Intersection #11: South Main Street - Oakland Road/Montague Expressway



Street Name: South Main Street - Oakland Road
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	18	33	10	18	33	10	45	121	10	18	94	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 29 Sep 2016 << 4:45-5:45												
Base Vol:	498	1122	647	254	1108	326	483	2952	623	1064	977	281
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	498	1122	647	254	1108	326	483	2952	623	1064	977	281
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.78	1.00	1.00	0.87	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	498	1122	647	254	1108	326	483	2303	623	1064	850	281
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	498	1122	647	254	1108	326	483	2303	623	1064	850	281

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.95 0.83 1.00 0.95 0.83 1.00 0.95
 Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 3.11 0.89 2.00 3.00 1.00
 Final Sat.: 3150 3800 1750 3150 3800 1750 3150 5900 1596 3150 5699 1800

Capacity Analysis Module:
 Vol/Sat: 0.16 0.30 0.37 0.08 0.29 0.19 0.15 0.39 0.39 0.34 0.15 0.16
 Crit Moves: ****
 Green Time: 16.9 31.0 48.0 16.9 31.0 48.0 42.3 114 113.8 16.9 88.4 88.4
 Volume/Cap: 1.77 1.81 1.46 0.90 1.78 0.48 0.69 0.65 0.65 3.79 0.32 0.34
 Delay/Veh: 454.5 454 296.6 121.4 444 47.3 75.0 27.0 27.0 1356 40.8 41.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 454.5 454 296.6 121.4 444 47.3 75.0 27.0 27.0 1356 40.8 41.1
 LOS by Move: F F F F F D E C C F D D
 HCM2kVqQ: 34 64 69 10 63 19 17 29 29 96 13 13

Note: Queue reported is the number of cars per lane.

PM Peak - 2040 General Plan Conditions
Milpitas Metro Specific Plan

Level of Service (LOS) by Right-of-Way
2000 HCM Operations (Base Volume Alternative)
2040 P.L.M. (PM)

Intersection #12: Trade Zone Boulevard - McCandless Drive/Montague Expressway



Street Name: Trade Zone Boulevard - McCandless Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	21	21	21	36	36	36	20	107	10	26	113	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 21 Sep 2016 << 5:00-6:00												
Base Vol:	587	272	712	84	270	68	121	2698	1244	548	959	135
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Base:	587	272	712	84	270	68	121	2698	1244	548	959	135
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.78	1.00	1.00	0.87	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	587	272	712	84	270	68	121	2104	1244	548	834	135
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
M/F Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	587	272	712	84	270	68	121	2104	1244	548	834	135

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.65 0.95 0.92 1.38 0.50 0.82 0.92 1.00 0.92 1.00 0.92 1.00 0.92
 Lanes: 2.28 0.72 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Sat.: 2807 1301 1750 2625 950 1750 1750 7600 1750 1750 7600 1750

Capacity Analysis Module:
 Vol/Sat: 0.21 0.21 0.41 0.03 0.28 0.04 0.07 0.28 0.71 0.31 0.11 0.08
 Crit Moves: ****
 Green Time: 19.8 19.8 44.2 33.9 33.9 52.7 18.8 101 120.4 24.5 106 140.1
 Volume/Cap: 2.01 2.01 1.75 0.18 1.59 0.14 0.70 0.52 1.12 2.43 0.20 0.10
 Delay/Veh: 553.8 554 424.4 70.5 371 55.0 100.0 39.6 121.3 746.1 22.0 7.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 553.8 554 424.4 70.5 371 55.0 100.0 39.6 121.3 746.1 22.0 7.6
 LOS by Move: F F F E F E F D F C+ A
 HCM2kVqQ: 39 49 87 5 29 4 8 24 100 79 6 2

Note: Queue reported is the number of cars per lane.

Appendix C

Future plus Project Intersection Level of Service Calculations



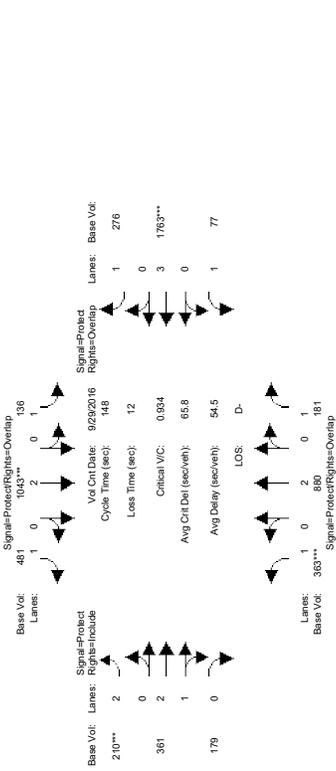
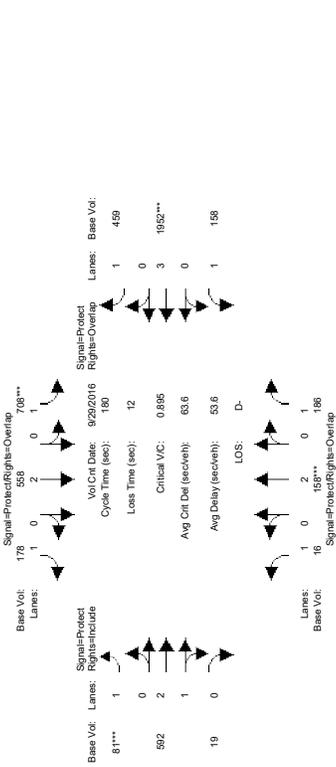
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AM Peak - 2040 MMSP Conditions
 Milpitas Metro Specific Plan (MMSP)
 City of Milpitas
 Level of Service (LOS) Report
 2000 HCM Operations (Base Volume Alternative)
 2040 MMSP (AM)

AM Peak - 2040 MMSP Conditions
 Milpitas Metro Specific Plan (MMSP)
 City of Milpitas
 Level of Service (LOS) Report
 2000 HCM Operations (Base Volume Alternative)
 2040 MMSP (AM)

Intersection #4: South Main Street/Great Mall Parkway

Intersection #3: South Abel Street/Great Mall Parkway



Street Name: South Main Street South Bound East Bound West Bound
 Approach: L - T - R L - T - R L - T - R L - T - R
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module: >> Count Date: 29 Sep 2016 << 7:45-8:45

Base Vol:	16 158 186	708 558 178	81 592	19 158 1952	459
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
Initial Base:	16 158 186	708 558 178	81 592	19 158 1952	459
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
PHF Volume:	16 158 186	708 558 178	81 592	19 158 1952	459
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
M/F Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
Final Volume:	16 158 186	708 558 178	81 592	19 158 1952	459

Street Name: South Able Street South Bound East Bound West Bound
 Approach: L - T - R L - T - R L - T - R L - T - R
 Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module: >> Count Date: 29 Sep 2016 << 8:00-9:00

Base Vol:	363 880 181	136 1043 481	210 361 179	77 1763 276
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Base:	363 880 181	136 1043 481	210 361 179	77 1763 276
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	363 880 181	136 1043 481	210 361 179	77 1763 276
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
M/F Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Final Volume:	363 880 181	136 1043 481	210 361 179	77 1763 276

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.82 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1750 3800 1750 1750 3800 1750 1750 3800 1750 1750 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.01 0.04 0.11 0.40 0.15 0.10 0.05 0.11 0.11 0.09 0.34 0.26
 Crit Moves: 0.01 0.04 0.11 0.40 0.15 0.10 0.05 0.11 0.11 0.09 0.34 0.26
 Green Time: 19.0 10.0 45.3 80.6 71.6 80.8 9.2 42.1 42.1 35.3 68.2 148.8
 Volume/Cap: 0.09 0.75 0.42 0.90 0.37 0.23 0.90 0.46 0.46 0.46 0.90 0.32
 Delay/Veh: 72.9 97.5 57.0 60.0 38.4 30.6 149.2 59.5 59.5 64.9 58.6 3.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 72.9 97.5 57.0 60.0 38.4 30.6 149.2 59.5 59.5 64.9 58.6 3.8
 LOS by Move: E F E+ E D C F E+ E+ A
 HCM2kVgQ: 1 5 9 42 10 6 9 9 8 35

Note: Queue reported is the number of cars per lane.

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.82 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
 Lanes: 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1750 3800 1750 1750 3800 1750 1750 3800 1750 1750 3800 1750

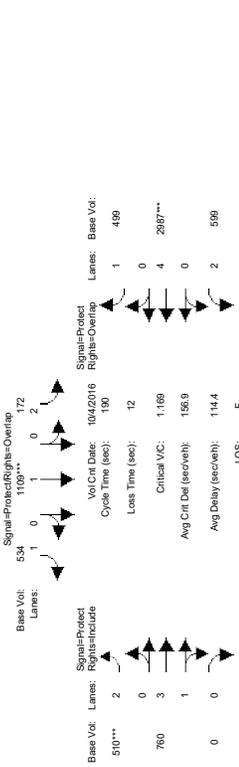
Capacity Analysis Module:
 Vol/Sat: 0.21 0.23 0.10 0.08 0.27 0.27 0.07 0.10 0.10 0.04 0.31 0.16
 Crit Moves: 0.21 0.23 0.10 0.08 0.27 0.27 0.07 0.10 0.10 0.04 0.31 0.16
 Green Time: 32.9 57.2 76.0 19.2 43.5 54.1 10.6 40.8 40.8 18.8 49.0 68.2
 Volume/Cap: 0.93 0.60 0.20 0.60 0.93 0.75 0.93 0.34 0.37 0.35 0.93 0.34
 Delay/Veh: 85.8 36.9 19.6 65.2 64.7 46.1 110.2 43.1 43.4 59.9 57.1 25.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 85.8 36.9 19.6 65.2 64.7 46.1 110.2 43.1 43.4 59.9 57.1 25.8
 LOS by Move: F D+ B- E E D F D E+ E+ C
 HCM2kVgQ: 20 16 5 7 27 21 7 6 7 3 26 8

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 MMSP Conditions
Milpas Metro Specific Plan (MMSP)

City of Milpitas
Level of Service (LOS) Report
2000 HCM Operations (Base Volume Alternative)
2040 MMSP (AM)

Intersection #7: Montague Expressway/Great Mall Parkway - East Capitol Avenue

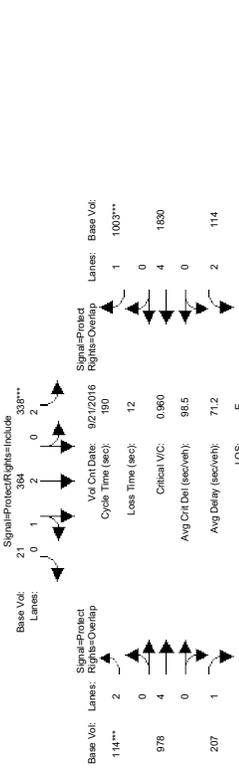


Street Name: Great Mall Parkway - East Capitol
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 32 57 10 24 49 10 21 84 10 25 88 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module: >> Count Date: 21 Sep 2016 << 7:45-8:45
 Base Vol: 366 1672 344 338 364 21 114 978 207 114 1830 1003
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 366 1672 344 338 364 21 114 978 207 114 1830 1003
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 366 1672 344 338 364 21 114 978 207 114 1501 1003
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 366 1672 344 338 364 21 114 978 207 114 1501 1003
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 2.00 3.00 1.00 2.00 2.82 0.18 2.00 4.00 1.00 2.00 4.00 1.00
 Final Sat: 3150 5700 1750 3150 5364 309 3150 7600 1750 3150 7600 1750
 Capacity Analysis Module:
 Vol/Sat: 0.12 0.29 0.20 0.11 0.07 0.07 0.04 0.13 0.12 0.04 0.20 0.57
 Crit Moves: ****
 Green Time: 30.1 53.6 53.6 22.6 46.1 46.1 19.8 79.0 109.1 23.5 82.8 105.3
 Volume/Cap: 0.73 1.04 0.70 0.90 0.28 0.28 0.35 0.31 0.21 0.29 0.45 1.03
 Delay/Veh: 86.5 106 69.1 112.2 62.3 62.3 84.8 39.6 20.9 80.9 40.2 82.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 86.5 106 69.1 112.2 62.3 62.3 84.8 39.6 20.9 80.9 40.2 82.9
 LOS by Move: F F E E F E E F D C+
 HCM2kavq: 14 41 22 14 7 4 10 6 4 10 6 4 16 75
 Note: Queue reported is the number of cars per lane.

AM Peak - 2040 MMSP Conditions
Milpas Metro Specific Plan (MMSP)

City of Milpitas
Level of Service (LOS) Report
2000 HCM Operations (Base Volume Alternative)
2040 MMSP (AM)

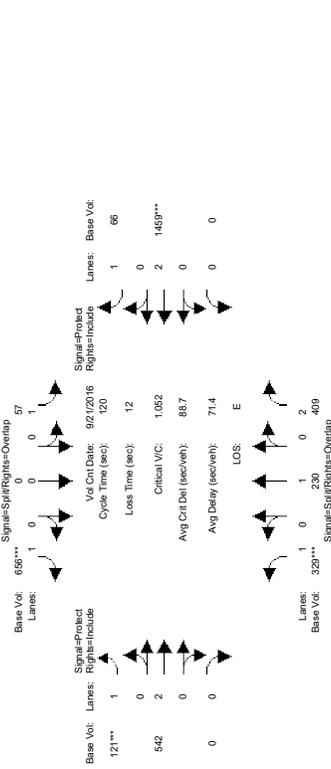
Intersection #8: South Milpitas Boulevard/Montague Expressway



Street Name: South Milpitas Boulevard
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Volume Module: >> Count Date: 4 Oct 2016 << 7:45-8:45
 Base Vol: 86 318 48 172 1109 534 510 760 0 599 2987 499
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 86 318 48 172 1109 534 510 760 0 599 2987 499
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 86 318 48 172 1109 534 510 760 0 599 2449 499
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 86 318 48 172 1109 534 510 760 0 599 2449 499
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 2.00 1.72 0.28 4.93 3150 1900 1750 3150 7600 0 3150 7600 1750
 Capacity Analysis Module:
 Vol/Sat: 0.03 0.10 0.10 0.05 0.58 0.31 0.16 0.10 0.00 0.19 0.32 0.29
 Crit Moves: ****
 Green Time: 7.0 64.4 64.4 36.1 93.5 119.4 25.9 26.7 0.0 50.8 51.6 87.7
 Volume/Cap: 0.74 0.29 0.29 1.19 0.49 1.19 0.71 0.00 0.71 1.19 0.62
 Delay/Veh: 112.9 46.1 46.1 66.2 143 19.2 187.2 80.2 0.0 65.8 158 40.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 112.9 46.1 46.1 66.2 143 19.2 187.2 80.2 0.0 65.8 158 40.0
 LOS by Move: F D E F E F B- F A E F D
 HCM2kavq: 4 9 9 5 82 27 26 12 0 19 49 23
 Note: Queue reported is the number of cars per lane.

AM Peak - 2040 MMSP Conditions
Milpitas Metro Specific Plan (MMSP)
City of Milpitas
Level of Service (LOS) Report
2040 MMSP (AM)
2000 HCM Operations (Base Volume Alternative)

Intersection #9: NB I-680 Ramp - Dempsey Road/Landess Avenue



Street Name: NB I-680 Ramp - Dempsey Road Landess Avenue
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 10 10 10 10 10 7 10 0 0 10 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 21 Sep 2016 << 7:45-8:45
 Base Vol: 329 230 409 57 0 656 121 542 0 0 1459 66
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 329 230 409 57 0 656 121 542 0 0 1459 66
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 329 230 409 57 0 656 121 542 0 0 1459 66
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 329 230 409 57 0 656 121 542 0 0 1459 66
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 329 230 409 57 0 656 121 542 0 0 1459 66

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.83 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
 Lanes: 1.00 1.00 2.00 1.00 0.00 2.00 1.00 2.00 0.00 0.00 2.00 1.00
 Final Sat.: 1750 1900 3150 1750 0 1750 1750 3800 0 0 3800 1750

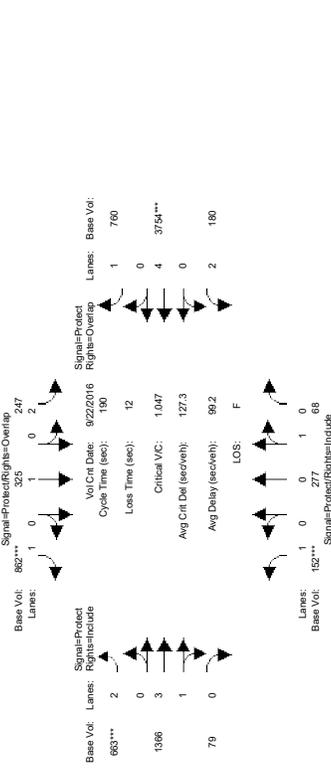
Capacity Analysis Module:
 Vol/Sat: 0.19 0.12 0.13 0.03 0.00 0.37 0.07 0.14 0.00 0.00 0.38 0.04
 Crit Moves: ****

Green Time: 21.4 21.4 21.4 34.9 0.0 42.8 7.9 51.7 0.0 0.0 43.8 43.8
 Volume/Cap: 1.05 0.68 0.73 0.11 0.00 1.05 1.05 0.33 0.00 0.00 1.05 0.10
 Delay/Veh: 114.5 51.5 51.2 31.3 0.0 89.1 154.6 22.8 0.0 0.0 77.2 25.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 114.5 51.5 51.2 31.3 0.0 89.1 154.6 22.8 0.0 0.0 77.2 25.2
 LOS by Move: F D- D- C A F F F C+ A A E- C
 HCM2kVq: 20 9 10 2 0 36 9 6 0 0 36 2

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 MMSP Conditions
Milpitas Metro Specific Plan (MMSP)
City of Milpitas
Level of Service (LOS) Report
2040 MMSP (AM)
2000 HCM Operations (Base Volume Alternative)

Intersection #10: McCarthy Boulevard - O'Toole Avenue/Montague Expressway



Street Name: McCarthy Boulevard - O'Toole Avenue Montague Expressway
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 17 40 10 17 40 10 26 93 10 40 107 10
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 22 Sep 2016 << 8:00-9:00
 Base Vol: 152 277 68 247 325 862 663 1366 79 180 3754 760
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 152 277 68 247 325 862 663 1366 79 180 3754 760
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 152 277 68 247 325 862 663 1366 79 180 3078 760
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 152 277 68 247 325 862 663 1366 79 180 3078 760
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 152 277 68 247 325 862 663 1366 79 180 3078 760

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 1.00 0.79 0.21 2.00 1.00 1.00 2.00 3.76 0.24 2.00 4.00 1.00
 Final Sat.: 1750 1500 368 3150 1900 1750 3150 7151 414 3150 7600 1750

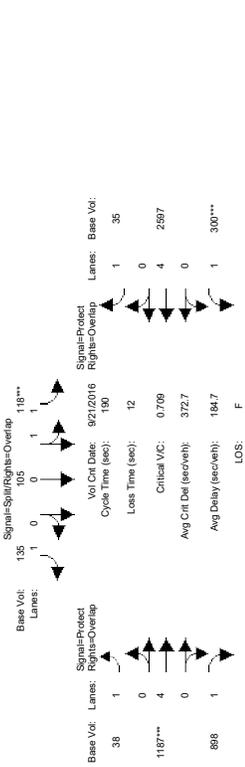
Capacity Analysis Module:
 Vol/Sat: 0.09 0.18 0.18 0.08 0.17 0.49 0.21 0.19 0.19 0.06 0.41 0.43
 Crit Moves: ****

Green Time: 16.0 36.2 36.2 15.4 37.6 64.2 26.5 88.9 88.9 38.2 101 116.0
 Volume/Cap: 1.03 0.97 0.97 0.97 0.86 1.46 1.51 0.41 0.41 0.28 0.76 0.71
 Delay/Veh: 175.4 121 120.8 140.2 96.6 282.7 326.9 35.4 35.4 68.6 38.5 29.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 175.4 121 120.8 140.2 96.6 282.7 326.9 35.4 35.4 68.6 38.5 29.3
 LOS by Move: F F F F F F F F F F F F
 HCM2kVq: 14 26 26 9 18 90 41 14 14 6 37 34

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 MMSP Conditions
 Milpitas Metro Specific Plan (MMSP)
 City of Milpitas
 Level of Service (LOS) Report
 2040 MMSP (AM)
 2000 HCM Operations (Base Volume Alternative)

Intersection #11: South Main Street - Oakland Road/Montague Expressway



Base Vol: 465
 Lanes: 1 0 2 0 2
 Signal=Protect
 Base Vol: 142
 Lanes: Rights=Include
 Cycle Time (sec): 190
 Loss Time (sec): 12
 Critical VC: 0.905
 Avg Del (sec/veh): 181.8
 Avg Del (sec/veh): 127.5
 LOS: F

Base Vol: 817
 Lanes: 2 0 2 0 1
 Signal=Protect/Right-Overlap

Street Name: South Main Street - Oakland Road

Approach: North Bound South Bound East Bound West Bound

	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	25	40	10	18	33	10	17	97	10	26	115	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 29 Sep 2016 << 7:30-8-30

Base Vol: 647 822 781 246 941 465 142 1091 560 651 2345 158
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 647 822 781 246 941 465 142 1091 560 651 2345 158
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 647 822 781 246 941 465 142 1091 560 651 2345 158
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 647 822 781 246 941 465 142 1091 560 651 2345 158
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 647 822 781 246 941 465 142 1091 560 651 2345 158

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 3.00 1.00 2.00 3.73 0.27
 Final Sat: 3150 3800 1750 3150 3800 1750 3150 5700 1750 3150 7082 477

Capacity Analysis Module:

Vol/Sat: 0.21 0.22 0.45 0.08 0.25 0.27 0.05 0.19 0.32 0.21 0.33 0.33
 Crit Moves: ****
 Green Time: 27.2 43.1 70.5 16.9 32.8 48.1 15.3 91.2 91.2 27.4 103 103.4
 Volume/Cap: 1.43 0.95 1.20 0.88 1.43 1.05 0.56 0.40 0.67 1.43 0.61 0.61
 Delay/Veh: 293.7 97.0 168.6 116.0 287 131.7 92.3 33.8 40.8 293.6 41.1 41.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 293.7 97.0 168.6 116.0 287 131.7 92.3 33.8 40.8 293.6 41.1 41.1
 LOS by Move: F F F F F F F F F F D F D
 HCM2kavq: 38 28 70 10 46 36 6 14 28 38 30 30

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 MMSP Conditions
 Milpitas Metro Specific Plan (MMSP)
 City of Milpitas
 Level of Service (LOS) Report
 2040 MMSP (AM)
 2000 HCM Operations (Base Volume Alternative)

Intersection #12: Trade Zone Boulevard - McCandless Drive/Montague Expressway



Base Vol: 135
 Lanes: 1 0 1 1 110**
 Signal=Protect
 Base Vol: 38
 Lanes: Rights=Overlap
 Cycle Time (sec): 190
 Loss Time (sec): 12
 Critical VC: 0.709
 Avg Del (sec/veh): 372.7
 Avg Del (sec/veh): 184.7
 LOS: F

Base Vol: 833
 Lanes: 2 1 0 0 1
 Signal=Protect/Right-Overlap

Street Name: Trade Zone Boulevard - McCandless Drive

Approach: North Bound South Bound East Bound West Bound

	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	19	19	19	39	39	39	17	102	10	30	115	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 21 Sep 2016 << 7:30-8-30

Base Vol: 933 50 197 118 105 135 38 1187 898 300 2130 35
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 933 50 197 118 105 135 38 1187 898 300 2130 35
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 933 50 197 118 105 135 38 1187 898 300 2130 35
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 933 50 197 118 105 135 38 1187 898 300 2130 35
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 933 50 197 118 105 135 38 1187 898 300 2130 35

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.65 1.00 0.92 1.38 0.50 0.82 0.92 1.00 0.92 1.00 0.92 1.00
 Lanes: 2.90 0.10 1.00 1.00 1.42 1.00 1.00 4.00 1.00 1.00 4.00 1.00
 Final Sat: 3562 191 1750 1518 1351 1750 1750 7600 1750 1750 7600 1750

Capacity Analysis Module:

Vol/Sat: 0.26 0.26 0.11 0.08 0.08 0.08 0.02 0.16 0.51 0.17 0.28 0.02
 Crit Moves: ****
 Green Time: 17.9 17.9 46.1 36.7 36.7 52.7 16.0 95.9 113.8 28.2 108 144.9
 Volume/Cap: 2.78 2.78 0.46 0.40 0.40 0.28 0.26 0.31 0.86 1.15 0.49 0.03
 Delay/Veh: 902.5 902.5 66.1 71.8 71.8 57.5 87.5 36.6 53.6 190.0 26.1 5.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 902.5 902.5 66.1 71.8 71.8 57.5 87.5 36.6 53.6 190.0 26.1 5.8
 LOS by Move: F F E E E E F D
 HCM2kavq: 54 69 12 12 4 8 2 13 55 28 19 1

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 MMSP Conditions
 Milpitas Metro Specific Plan (MMSP)
 City of Milpitas
 Level of Service (LOS) Report
 2040 MMSP (AM)
 2000 HCM Operations (Base Volume Alternative)

Intersection #11: South Main Street - Oakland Road/Montague Expressway



Base Vol: 465
 Lanes: 1 0 2 0 2
 Signal=Protect
 Base Vol: 142
 Lanes: Rights=Include
 Cycle Time (sec): 190
 Loss Time (sec): 12
 Critical VC: 0.905
 Avg Del (sec/veh): 181.8
 Avg Del (sec/veh): 127.5
 LOS: F

Base Vol: 817
 Lanes: 2 0 2 0 1
 Signal=Protect/Right-Overlap

Street Name: South Main Street - Oakland Road

Approach: North Bound South Bound East Bound West Bound

	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	25	40	10	18	33	10	17	97	10	26	115	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 29 Sep 2016 << 7:30-8-30

Base Vol: 647 822 781 246 941 465 142 1091 560 651 2345 158
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 647 822 781 246 941 465 142 1091 560 651 2345 158
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 647 822 781 246 941 465 142 1091 560 651 2345 158
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 647 822 781 246 941 465 142 1091 560 651 2345 158
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 647 822 781 246 941 465 142 1091 560 651 2345 158

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92
 Lanes: 2.00 2.00 1.00 2.00 2.00 1.00 2.00 3.00 1.00 2.00 3.73 0.27
 Final Sat: 3150 3800 1750 3150 3800 1750 3150 5700 1750 3150 7082 477

Capacity Analysis Module:

Vol/Sat: 0.21 0.22 0.45 0.08 0.25 0.27 0.05 0.19 0.32 0.21 0.33 0.33
 Crit Moves: ****
 Green Time: 27.2 43.1 70.5 16.9 32.8 48.1 15.3 91.2 91.2 27.4 103 103.4
 Volume/Cap: 1.43 0.95 1.20 0.88 1.43 1.05 0.56 0.40 0.67 1.43 0.61 0.61
 Delay/Veh: 293.7 97.0 168.6 116.0 287 131.7 92.3 33.8 40.8 293.6 41.1 41.1
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 293.7 97.0 168.6 116.0 287 131.7 92.3 33.8 40.8 293.6 41.1 41.1
 LOS by Move: F F F F F F F F F F D F D
 HCM2kavq: 38 28 70 10 46 36 6 14 28 38 30 30

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 MMSP Conditions
 Milpitas Metro Specific Plan (MMSP)
 City of Milpitas
 Level of Service (LOS) Report
 2040 MMSP (AM)
 2000 HCM Operations (Base Volume Alternative)

Intersection #12: Trade Zone Boulevard - McCandless Drive/Montague Expressway



Base Vol: 135
 Lanes: 1 0 1 1 110**
 Signal=Protect
 Base Vol: 38
 Lanes: Rights=Overlap
 Cycle Time (sec): 190
 Loss Time (sec): 12
 Critical VC: 0.709
 Avg Del (sec/veh): 372.7
 Avg Del (sec/veh): 184.7
 LOS: F

Base Vol: 833
 Lanes: 2 1 0 0 1
 Signal=Protect/Right-Overlap

Street Name: Trade Zone Boulevard - McCandless Drive

Approach: North Bound South Bound East Bound West Bound

	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	19	19	19	39	39	39	17	102	10	30	115	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 21 Sep 2016 << 7:30-8-30

Base Vol: 933 50 197 118 105 135 38 1187 898 300 2130 35
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 933 50 197 118 105 135 38 1187 898 300 2130 35
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 933 50 197 118 105 135 38 1187 898 300 2130 35
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 933 50 197 118 105 135 38 1187 898 300 2130 35
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 933 50 197 118 105 135 38 1187 898 300 2130 35

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 0.65 1.00 0.92 1.38 0.50 0.82 0.92 1.00 0.92 1.00 0.92 1.00
 Lanes: 2.90 0.10 1.00 1.00 1.42 1.00 1.00 4.00 1.00 1.00 4.00 1.00
 Final Sat: 3562 191 1750 1518 1351 1750 1750 7600 1750 1750 7600 1750

Capacity Analysis Module:

Vol/Sat: 0.26 0.26 0.11 0.08 0.08 0.08 0.02 0.16 0.51 0.17 0.28 0.02
 Crit Moves: ****
 Green Time: 17.9 17.9 46.1 36.7 36.7 52.7 16.0 95.9 113.8 28.2 108 144.9
 Volume/Cap: 2.78 2.78 0.46 0.40 0.40 0.28 0.26 0.31 0.86 1.15 0.49 0.03
 Delay/Veh: 902.5 902.5 66.1 71.8 71.8 57.5 87.5 36.6 53.6 190.0 26.1 5.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 902.5 902.5 66.1 71.8 71.8 57.5 87.5 36.6 53.6 190.0 26.1 5.8
 LOS by Move: F F E E E E F D
 HCM2kavq: 54 69 12 12 4 8 2 13 55 28 19 1

Note: Queue reported is the number of cars per lane.

AM Peak - 2040 MMSP Conditions
 Milpitas Metro Specific Plan (MMSP)
 City of Milpitas
 Level of Service (LOS) Report
 2040 MMSP (AM)
 2000 HCM Operations (Base Volume Alternative)

Intersection #11: South Main Street - Oakland Road/Montague Expressway

Base Vol: 465
 Lanes: 1 0 2 0 2
 Signal=Protect
 Base Vol: 142
 Lanes: Rights=Include
 Cycle Time (sec): 190
 Loss Time (sec): 12
 Critical VC: 0.905
 Avg Del (sec/veh): 181.8
 Avg Del (sec/veh): 127.5
 LOS: F

Base Vol: 817
 Lanes: 2 0 2 0 1
 Signal=Protect/Right-Overlap

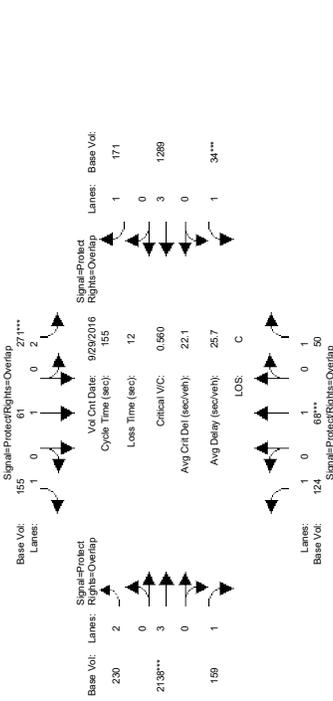
Street Name: South Main Street - Oakland Road

Approach: North Bound South Bound East Bound West Bound

	L	T	R	L	T	R	L	T	R	L	T	R
--	---	---	---	---	---	---	---	---	---	---	---	---

PM Peak - 2040 MMSP Condition
Milpas Metro Specific Plan (MMSP)
City of Milpitas
Level of Service (LOS) Report
2000 HCM Operations (Base Volume Alternative)
2040 MMSP (PM)

Intersection #5: Great Mall Drive/Great Mall Parkway



Street Name: Great Mall Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 29 Sep 2016 << 5:00-6:00
Base Vol: 124 68 50 271 61 155 230 2138 159 34 1289 171
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 124 68 50 271 61 155 230 2138 159 34 1289 171
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 124 68 50 271 61 155 230 2138 159 34 1289 171
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 124 68 50 271 61 155 230 2138 159 34 1289 171

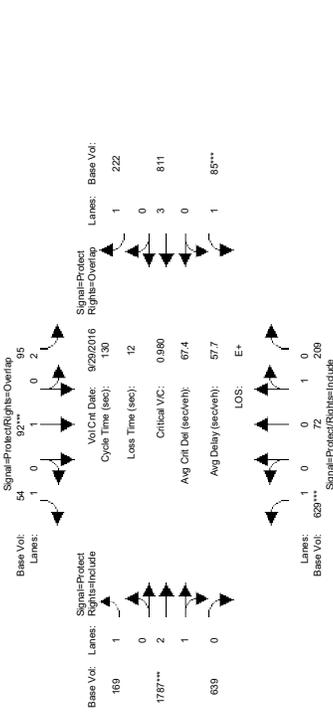
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 1.00 0.92 0.83 1.00 0.92 0.83 1.00 0.92 0.92 1.00 0.92
Lanes: 1.00 1.00 1.00 2.00 1.00 1.00 2.00 3.00 1.00 1.00 3.00 1.00
Final Sat: 1750 1900 1750 3150 1900 1750 3150 5700 1750 1750 5700 1750

Capacity Analysis Module:
Vol/Sat: 0.07 0.04 0.03 0.09 0.03 0.09 0.07 0.38 0.09 0.02 0.23 0.10
Crit Moves: ****
Green Time: 17.5 10.0 17.0 23.5 16.0 42.7 26.7 102 120.0 7.0 82.8 106.3
Volume/Cap: 0.63 0.55 0.26 0.57 0.31 0.32 0.42 0.57 0.12 0.43 0.42 0.14
Delay/Veh: 71.8 75.8 64.0 62.6 65.3 45.0 57.8 14.4 4.4 75.8 21.8 8.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 71.8 75.8 64.0 62.6 65.3 45.0 57.8 14.4 4.4 75.8 21.8 8.5
LOS by Move: E- E- E- D E+ B A E- C+ A
HCM2kVq: 6 3 2 8 3 6 5 17 2 2 12 3

Note: Queue reported is the number of cars per lane.

PM Peak - 2040 MMSP Condition
Milpas Metro Specific Plan (MMSP)
City of Milpitas
Level of Service (LOS) Report
2000 HCM Operations (Base Volume Alternative)
2040 MMSP (PM)

Intersection #6: Centerpointe Drive/Great Mall Parkway



Street Name: Centerpointe Drive
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Volume Module: >> Count Date: 29 Sep 2016 << 5:00-6:00
Base Vol: 629 72 209 95 92 54 169 1787 639 85 811 222
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 629 72 209 95 92 54 169 1787 639 85 811 222
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 629 72 209 95 92 54 169 1787 639 85 811 222
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 629 72 209 95 92 54 169 1787 639 85 811 222

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.95 0.95 0.83 1.00 0.82 0.92 1.00 0.95 0.92 1.00 0.92
Lanes: 1.00 0.26 0.74 2.00 1.00 1.00 2.00 2.18 0.82 1.00 3.00 1.00
Final Sat: 1750 461 1339 3150 1900 1750 1750 4123 1474 1750 5700 1750

Capacity Analysis Module:
Vol/Sat: 0.36 0.16 0.16 0.03 0.05 0.03 0.10 0.43 0.43 0.05 0.14 0.13
Crit Moves: ****
Green Time: 45.8 41.5 41.5 14.3 10.0 35.2 25.2 55.2 55.2 7.0 37.1 51.4
Volume/Cap: 1.02 0.49 0.49 0.27 0.63 0.11 0.50 1.02 1.02 0.90 0.50 0.32
Delay/Veh: 83.6 36.4 36.4 53.5 66.7 35.8 48.0 61.2 61.2 122.9 39.0 27.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 83.6 36.4 36.4 53.5 66.7 35.8 48.0 61.2 61.2 122.9 39.0 27.5
LOS by Move: F D+
HCM2kVq: 35 10 10 2 5 2 6 39 39 4 9 6

Note: Queue reported is the number of cars per lane.

Appendix D

Future plus Project Intersection Level of Service Calculations with Recommendations



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PM Peak - 2040 MMSP Mitigated Condition

City of Milpitas

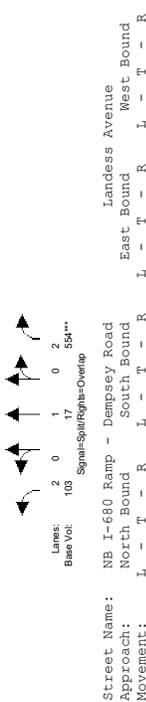
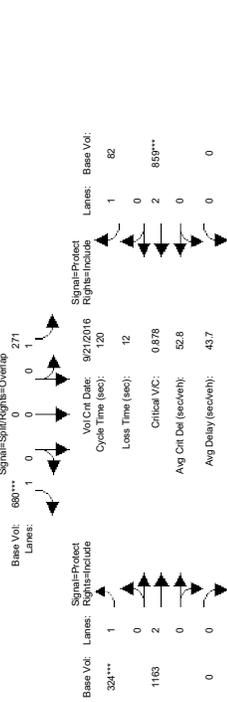
2040 MMSP (PM) Mitigated

Level of Service (LOS) Report

2000 HCM Operations (Base Volume Alternative)

2040 MMSP (PM) Mitigated

Intersection #9: NB I-680 Ramp - Dempsey Road/Landless Avenue



Street Name: NB I-680 Ramp - Dempsey Road Landless Avenue
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	10	10	10	10	10	7	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 21 Sep 2016 << 5:00-6:00
 Base Vol: 103 17 554 271 0 680 324 1163 0 0 859 82
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 103 17 554 271 0 680 324 1163 0 0 859 82
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 103 17 554 271 0 680 324 1163 0 0 859 82
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 103 17 554 271 0 680 324 1163 0 0 859 82
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 103 17 554 271 0 680 324 1163 0 0 859 82

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 1.00 0.83 0.82 1.00 0.82 0.92 1.00 0.92 1.00 0.92
 Lanes: 2.00 1.00 2.00 1.00 0.00 1.00 2.00 2.00 0.00 2.00 1.00
 Final Sat: 3150 1900 3150 1750 0 1750 1750 3800 0 0 3800 1750

Capacity Analysis Module:
 Vol/Sat: 0.03 0.01 0.18 0.15 0.00 0.39 0.19 0.31 0.00 0.00 0.23 0.05
 Crit Moves: ****
 Green Time: 24.0 24.0 24.0 27.8 0.0 53.1 25.3 56.2 0.0 0.0 30.9 30.9
 Volume/Cap: 0.16 0.04 0.88 0.67 0.00 0.88 0.88 0.65 0.00 0.00 0.88 0.18
 Delay/Veh: 39.8 38.8 59.9 46.2 0.0 41.7 66.5 25.3 0.0 0.0 51.9 34.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 39.8 38.8 59.9 46.2 0.0 41.7 66.5 25.3 0.0 0.0 51.9 34.9
 LOS by Move: D D+ D E+ D A D E C A A D- C-
 HCM2kVq: 2 1 15 11 0 28 16 17 0 0 18 3
 Note: Queue reported is the number of cars per lane.

PM Peak - 2040 MMSP Mitigated Condition

City of Milpitas

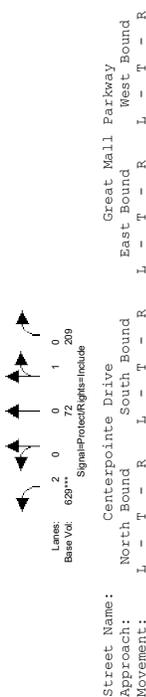
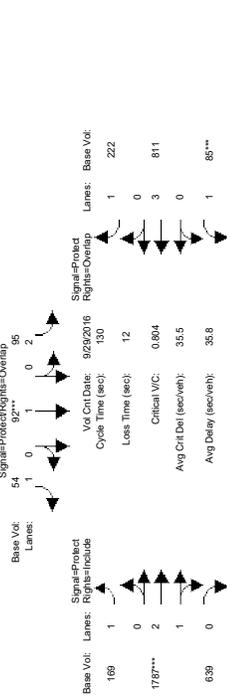
2040 MMSP (PM) Mitigated

Level of Service (LOS) Report

2000 HCM Operations (Base Volume Alternative)

2040 MMSP (PM) Mitigated

Intersection #6: Centerpointe Drive/Great Mall Parkway



Street Name: Centerpointe Drive Great Mall Parkway
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Min. Green:	7	10	10	10	10	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 29 Sep 2016 << 5:00-6:00
 Base Vol: 629 72 209 95 92 54 169 1787 639 85 811 222
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 629 72 209 95 92 54 169 1787 639 85 811 222
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 629 72 209 95 92 54 169 1787 639 85 811 222
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 629 72 209 95 92 54 169 1787 639 85 811 222
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 629 72 209 95 92 54 169 1787 639 85 811 222

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.83 0.95 0.95 0.83 1.00 0.82 0.92 1.00 0.95 0.92 1.00 0.92
 Lanes: 2.00 0.26 0.74 2.00 1.00 1.00 2.18 0.82 1.00 3.00 1.00
 Final Sat: 3150 461 1339 3150 1900 1750 1750 4123 1474 1750 5700 1750

Capacity Analysis Module:
 Vol/Sat: 0.20 0.16 0.16 0.03 0.05 0.03 0.10 0.43 0.43 0.05 0.14 0.13
 Crit Moves: ****
 Green Time: 31.6 31.0 31.0 10.7 10.0 40.9 30.9 68.7 68.7 7.7 45.5 56.2
 Volume/Cap: 0.82 0.66 0.66 0.37 0.63 0.10 0.41 0.82 0.82 0.82 0.41 0.29
 Delay/Veh: 53.5 48.4 48.4 57.3 66.7 31.6 42.5 27.5 27.5 98.9 32.2 24.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 53.5 48.4 48.4 57.3 66.7 31.6 42.5 27.5 27.5 98.9 32.2 24.2
 LOS by Move: D- D D E+ E C D C F C- C
 HCM2kVq: 16 11 11 5 2 6 28 28 4 8 6
 Note: Queue reported is the number of cars per lane.

Appendix E

Queue Worksheets





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Poisson Probability Distribution for Queue Lengths

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
1
Southbound
AM Peak Hour
Existing

Street Name: Major Street
Great Mall Pkwy
Approach: EB WB

Minor Street
I880 SB Off-Ramp
Southbound

Input Data

Cycle Length	110	sec
Volume	843	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.2341667	veh/ln/sec
$\lambda * T$	25.758333	veh/ln/cycle
Vehicles at DPL	34	vehicles
Distance @25 feet/car	850	feet
Distance @20 feet/car	680	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
1
Southbound
PM Peak Hour
Existing

	Major Street	
Street Name:	Great Mall Pkwy	
Approach:	EB	WB

	Minor Street
	I880 SB Off-Ramp
	Southbound

Input Data

Cycle Length	110	sec
Volume	779	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.2163889	veh/ln/sec
$\lambda * T$	23.802778	veh/ln/cycle
Vehicles at DPL	32	vehicles
Distance @25 feet/car	800	feet
Distance @20 feet/car	640	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
2
Northbound
AM Peak Hour
Existing

	Major Street	
Street Name:	Great Mall Pkwy	
Approach:	EB	WB

	Minor Street
	1880 NB Off-Ramp
	NB

Input Data

Cycle Length	110	sec
Volume	824	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.2288889	veh/ln/sec
$\lambda * T$	25.177778	veh/ln/cycle
Vehicles at DPL	34	vehicles
Distance @25 feet/car	850	feet
Distance @20 feet/car	680	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
2
Northbound
PM Peak Hour
Existing

	Major Street	
Street Name:	Great Mall Pkwy	
Approach:	EB	WB

	Minor Street
	1880 NB Off-Ramp
	NB

Input Data		
Cycle Length	110	sec
Volume	550	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output		
λ	0.1527778	veh/ln/sec
$\lambda * T$	16.805556	veh/ln/cycle
Vehicles at DPL	24	vehicles
Distance @25 feet/car	600	feet
Distance @20 feet/car	480	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
9
Northbound
AM Peak Hour
Existing

	Major Street	
Street Name:	Landess Ave	
Approach:	EB	WB

	Minor Street
	1680 NB Off-Ramp
	NB

Input Data

Cycle Length	120	sec
Volume	599	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.1663889	veh/ln/sec
$\lambda * T$	19.966667	veh/ln/cycle
Vehicles at DPL	28	vehicles
Distance @25 feet/car	700	feet
Distance @20 feet/car	560	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
9
Northbound
PM Peak Hour
Existing

	Major Street	
Street Name:	Landess Ave	
Approach:	EB	WB

	Minor Street
	1680 NB Off-Ramp
	NB

Input Data

Cycle Length	120	sec
Volume	453	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.1258333	veh/ln/sec
$\lambda * T$	15.1	veh/ln/cycle
Vehicles at DPL	22	vehicles
Distance @25 feet/car	550	feet
Distance @20 feet/car	440	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
1
Southbound
AM Peak Hour No Project
2040

Major Street
Street Name: **Great Mall Pkwy**
Approach: **EB** | **WB**

Minor Street
1880 SB Off-Ramp
Southbound

Input Data

Cycle Length	110	sec
Volume	933	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.2591667	veh/ln/sec
$\lambda * T$	28.508333	veh/ln/cycle
Vehicles at DPL	38	vehicles
Distance @25 feet/car	950	feet
Distance @20 feet/car	760	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
1
Southbound
PM Peak Hour No Project
2040

	Major Street	
Street Name:	Great Mall Pkwy	
Approach:	EB	WB

	Minor Street
	I880 SB Off-Ramp
	Southbound

Input Data

Cycle Length	110	sec
Volume	788	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.2188889	veh/ln/sec
$\lambda * T$	24.077778	veh/ln/cycle
Vehicles at DPL	32	vehicles
Distance @25 feet/car	800	feet
Distance @20 feet/car	640	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
2
Northbound
AM Peak Hour No Project
2040

	Major Street	
Street Name:	Great Mall Pkwy	
Approach:	EB	WB

	Minor Street
	1880 NB Off-Ramp
	NB

Input Data

Cycle Length	110	sec
Volume	1193	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.3313889	veh/ln/sec
$\lambda * T$	36.452778	veh/ln/cycle
Vehicles at DPL	47	vehicles
Distance @25 feet/car	1175	feet
Distance @20 feet/car	940	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
2
Northbound
PM Peak Hour No Project
2040

	Major Street	
Street Name:	Great Mall Pkwy	
Approach:	EB	WB

	Minor Street
	1880 NB Off-Ramp
	NB

Input Data		
Cycle Length	110	sec
Volume	593	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output		
λ	0.1647222	veh/ln/sec
$\lambda * T$	18.119444	veh/ln/cycle
Vehicles at DPL	25	vehicles
Distance @25 feet/car	625	feet
Distance @20 feet/car	500	feet

Vehicles at DPL' Calculation Formula

$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$
--

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
9
Northbound
AM Peak Hour No Project
2040

	Major Street	
Street Name:	Landess Ave	
Approach:	EB	WB

	Minor Street
	1680 NB Off-Ramp
	NB

Input Data

Cycle Length	120	sec
Volume	939	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.2608333	veh/ln/sec
$\lambda * T$	31.3	veh/ln/cycle
Vehicles at DPL	41	vehicles
Distance @25 feet/car	1025	feet
Distance @20 feet/car	820	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
9
Northbound
PM Peak Hour No Project
2040

	Major Street	
Street Name:	Landess Ave	
Approach:	EB	WB

	Minor Street
	1680 NB Off-Ramp
	NB

Input Data

Cycle Length	120	sec
Volume	587	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.1630556	veh/ln/sec
$\lambda * T$	19.566667	veh/ln/cycle
Vehicles at DPL	27	vehicles
Distance @25 feet/car	675	feet
Distance @20 feet/car	540	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
1
Southbound
AM Peak Hour w/ Project
2040

	Major Street	
Street Name:	Great Mall Pkwy	
Approach:	EB	WB

	Minor Street
	I880 SB Off-Ramp
	Southbound

Input Data

Cycle Length	110	sec
Volume	894	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.2483333	veh/ln/sec
$\lambda * T$	27.316667	veh/ln/cycle
Vehicles at DPL	36	vehicles
Distance @25 feet/car	900	feet
Distance @20 feet/car	720	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
1
Southbound
PM Peak Hour w/ Project
2040

	Major Street	
Street Name:	Great Mall Pkwy	
Approach:	EB	WB

	Minor Street
	I880 SB Off-Ramp
	Southbound

Input Data

Cycle Length	110	sec
Volume	791	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.2197222	veh/ln/sec
$\lambda * T$	24.169444	veh/ln/cycle
Vehicles at DPL	33	vehicles
Distance @25 feet/car	825	feet
Distance @20 feet/car	660	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
2
Northbound
AM Peak Hour w/ Project
2040

	Major Street	
Street Name:	Great Mall Pkwy	
Approach:	EB	WB

	Minor Street
	1880 NB Off-Ramp
	NB

Input Data		
Cycle Length	110	sec
Volume	981	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output		
λ	0.2725	veh/ln/sec
$\lambda * T$	29.975	veh/ln/cycle
Vehicles at DPL	39	vehicles
Distance @25 feet/car	975	feet
Distance @20 feet/car	780	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
2
Northbound
PM Peak Hour w/ Project
2040

Major Street
Street Name: **Great Mall Pkwy**
Approach: **EB** | **WB**

Minor Street
1880 NB Off-Ramp
NB

Input Data

Cycle Length	110	sec
Volume	606	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.1683333	veh/ln/sec
$\lambda * T$	18.516667	veh/ln/cycle
Vehicles at DPL	26	vehicles
Distance @25 feet/car	650	feet
Distance @20 feet/car	520	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
9
Northbound
AM Peak Hour w/ Project
2040

	Major Street	
Street Name:	Landess Ave	
Approach:	EB	WB

	Minor Street
	I680 NB Off-Ramp
	NB

Input Data

Cycle Length	120	sec
Volume	968	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.2688889	veh/ln/sec
$\lambda * T$	32.266667	veh/ln/cycle
Vehicles at DPL	42	vehicles
Distance @25 feet/car	1050	feet
Distance @20 feet/car	840	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$

**Poisson Probability Distribution
for Queue Lengths**

Project Name:
Intersection No.:
Approach:
Scenario:
Analysis Year:

Milpitas Metro Specific Plan
9
Northbound
PM Peak Hour w/ Project
2040

	Major Street	
Street Name:	Landess Ave	
Approach:	EB	WB

	Minor Street
	I680 NB Off-Ramp
	NB

Input Data

Cycle Length	120	sec
Volume	674	veh/ln/hr
Desired Probability Level (DPL)	0.95	decimal
# feet	25	per car
# feet	20	per car

Output

λ	0.1872222	veh/ln/sec
$\lambda * T$	22.466667	veh/ln/cycle
Vehicles at DPL	31	vehicles
Distance @25 feet/car	775	feet
Distance @20 feet/car	620	feet

Vehicles at DPL' Calculation Formula

$$P(x) = \frac{(\lambda * T)^x * e^{-\lambda}}{x!}$$



CITY OF MILPITAS

MILPITAS METRO SPECIFIC PLAN

Public Draft October 31 2022



URBAN FIELD





The Milpitas VTA Light Rail Station is an elevated station above Great Mall Parkway in the Milpitas Metro Area. There are two stations in the area, one connecting to Milpitas BART and the other to the Great Mall.

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Evelyn Chua, City Councilmember
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BART
ba

MILPITAS

BART
ba



This photo taken in 2020 shows housing construction next to the VTA Light Rail Station at the Milpitas Transit Center, which is connected to BART with a pedestrian bridge. The Metro Plan supports the completion of the neighborhood transformation in to a transit oriented community.

1. INTRODUCTION

- 1.1. Transit Area Specific Plan to Milpitas Metro
- 1.2. Plan Context
- 1.3. Plan Boundary
- 1.4. Area Background
- 1.5. Impacts of the Transit Area Specific Plan
- 1.6. Relationship to Other Plans/ Programs
- 1.7. Regulatory Compliance
- 1.8. Community Engagement
- 1.9. Plan Vision
- 1.10. Plan Build Out
- 1.11. Basic Improvement Program (BIP) and Transit Area Development Impact Fee (TADIF)
- 1.12. Subsequent Environmental Impact Report (SEIR)
- 1.13. Milpitas Metro Plan Framework

The Milpitas Metro Specific Plan provides the vision for a critical area in the South Bay of the San Francisco Bay Area. Served by transit lines and Highway 680 which provide local and regional connections, the Plan Area is a high opportunity area in Milpitas. Milpitas Metro will be an urban, future-forward center that supports a balanced mix of housing, retail, and employment uses; provides safe

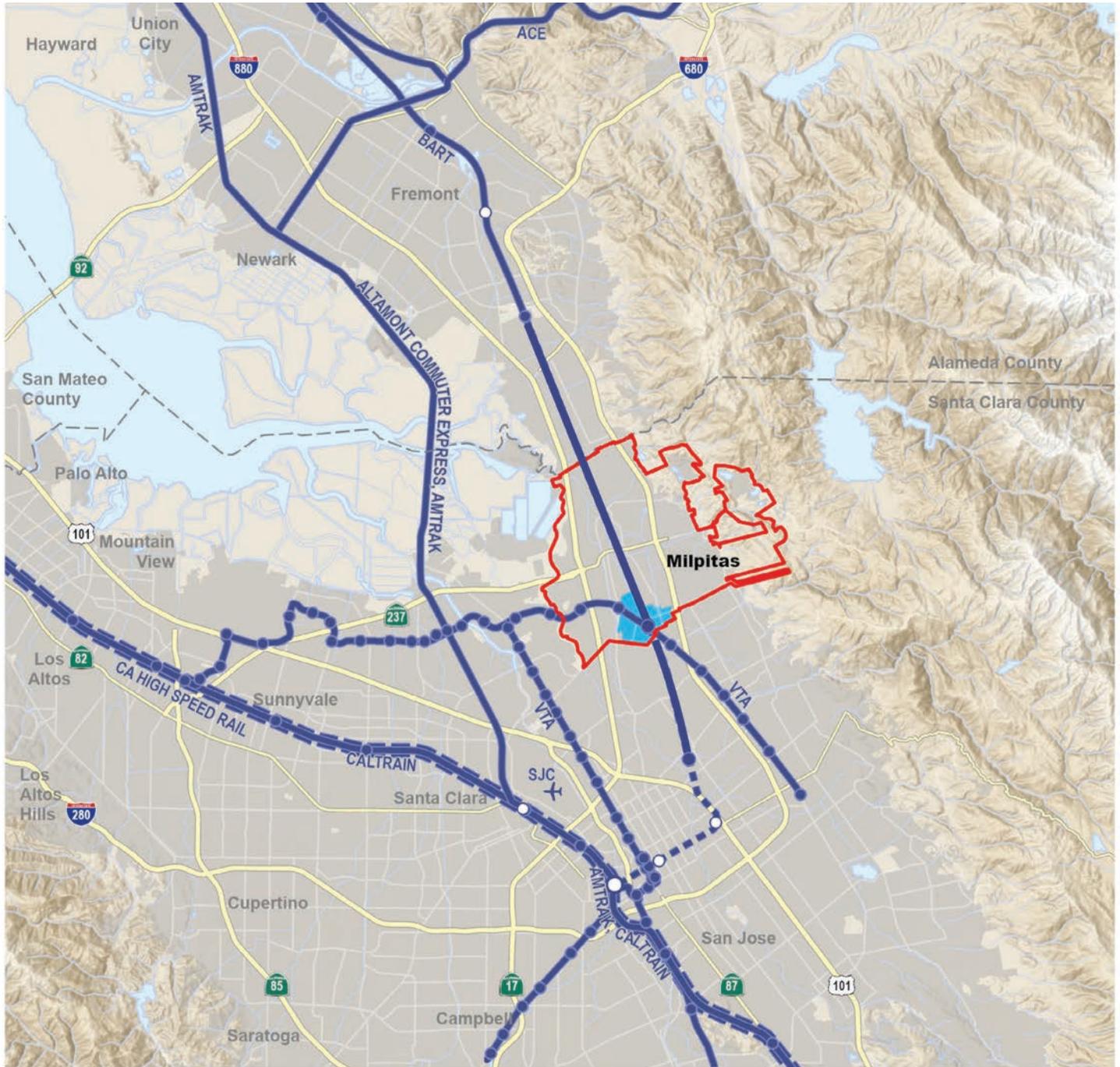
multimodal connections and public spaces; and is distinguished by urban design standards that create a visually memorable environment.

The Milpitas Metro Specific Plan (Metro Plan, MMSP, or the Plan) is an update to the Milpitas Transit Area Specific Plan (TASP), adopted in 2008. The Metro Plan increases the Plan Area from approximately 437 acres to approximately 510 gross acres and includes annexations on the east and west sides of the original Plan Area. The long-term focus of this work is to continue and accelerate the transformation of this area from industrial and auto-oriented to a vibrant, connected, and fully developed transit-oriented neighborhood.

This chapter covers the history and planning context of the Metro Plan Area, the community engagement process, and the anticipated development buildout. This chapter also includes a high-level overview of funding sources for infrastructure and service improvements and the environmental impact of the Metro Plan.

This Plan was prepared in 2020-21 and adopted in 2022, prior to the completion of related supportive plans and documents, including the 2023 Housing Element of the General Plan and updated Climate Action Plan (CAP). These plans and other documents are referenced in the Metro Plan and are presumed to be in effect.

Figure 1-1. Regional Context



Milpitas Metro


Milpitas City Limits


Existing Rail Transit
 Existing Rail Transit Station


Planned High Speed Rail
 Planned High Speed Rail Station


GIS data provided by: City Boundaries - City of Milpitas / Roads - US Census Bureau 2019 TIGER / Transportation Network - Metropolitan Planning Group / Basemap - ESRI



1.1 TRANSIT AREA SPECIFIC PLAN TO MILPITAS METRO

In the late 2000's, the Milpitas Metro Plan Area (Metro Area) was a largely industrial area characterized by wide, fast-moving arterial streets, rail crossings, culverted streams, and the presence of Great Mall, a regional shopping center located in a former Ford Motor Company manufacturing plant.

The City of Milpitas and the Milpitas community saw the opportunity for change in this area, catalyzed by major transit connections along the Santa Clara Valley Transportation Authority (VTA) light rail, the planned Bay Area Rapid Transit (BART) station, and the ongoing growth of Silicon Valley as well as the broader San Francisco Bay Area.

Seizing this opportunity, the City developed a transformative vision for the wider transit area, captured in the **Transit Area Specific Plan (TASP)**, which was adopted in 2008. At the time of adoption, the TASP had 468 existing housing units and anticipated 7,109 new units. The TASP buildout planned for a total of 7,577 residential units, 2,240,000 square feet of retail space, and 1,050,000 square feet of office space to be built by 2020.

Change occurred. Much of the TASP vision became a reality, including the development of the newly opened Milpitas Transit Center, new housing, parks, a grocery store, and other shops. By 2019, 92 percent of the planned residential units were under development. Unfortunately, economic conditions did not support the planned commercial development of the TASP, due to a lack of strong transit access that could support the higher intensity employment development contemplated by the TASP prior to

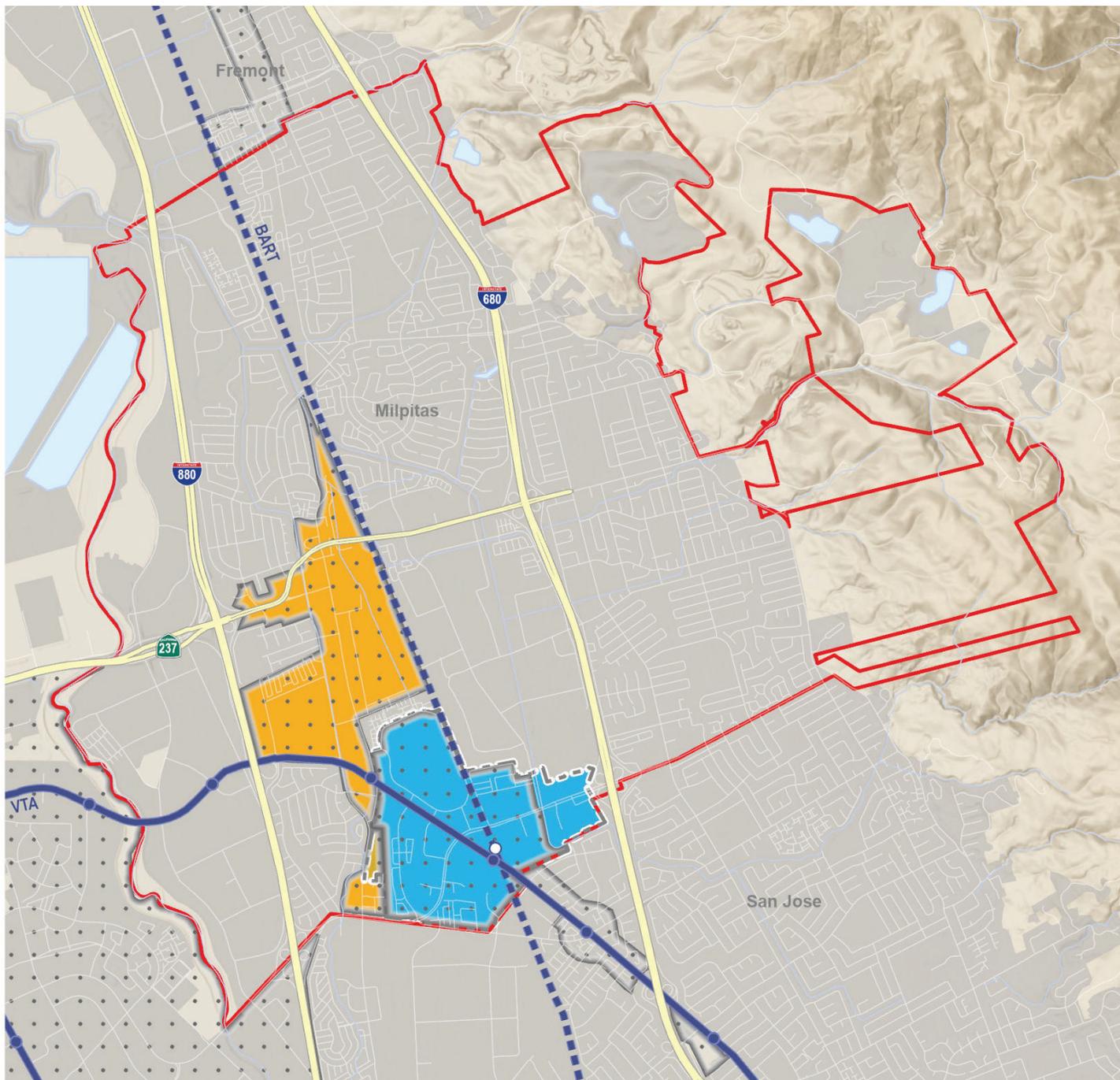
the opening of the BART station. As the district neared its planned residential capacity, the City began a process to update the TASP, now named the Milpitas Metro Specific Plan (Metro Plan or MMSP). The renaming highlights the area's focal point at the Milpitas Transit Center, a regional destination that is also an emerging metropolitan center for the City of Milpitas and the South Bay Area Region.



Postcard of the Ford assembly plant (now the Great Mall) in 1955.

With roughly half of the Plan Area acreage redeveloped under the TASP guidance, the 20-year horizon of the Metro Plan promotes the development of a complete and unique urban neighborhood with a balance of high residential densities, commercial uses, and neighborhood retail. The long-term focus of both the TASP and Metro Plan is to transform this area from an industrial and auto-oriented neighborhood to a vibrant transit-oriented community. The TASP has already facilitated the transformation of the previously industrial neighborhood in a relatively low density city to a more urban environment with higher densities and larger mixed-use buildings. This plan update sets forth a vision, policies, and implementing framework to further the evolution of the area surrounding the Milpitas Transit Center to make it a complete neighborhood.

Figure 1-2. City Context



Milpitas Metro


— Milpitas City Limits

 Milpitas Gateway

 Priority Development Areas

GIS data provided by: Zoning and City Boundaries - City of Milpitas / Roads - US Census Bureau 2019 TIGER / Transportation Network - Metropolitan Planning Group / Priority Development Areas - Bay Area Metropolitan Planning Commission / Basemap - ESRI



The Metro Plan focuses on the Great Mall, the Innovation District, and the remaining connections and sites that will transform this emerging area into an attractive, vibrant and convenient neighborhood over the next 20 years.

1.2 PLAN CONTEXT

The City of Milpitas is located in northern Santa Clara County with the City of Fremont to the north, the City of San Jose to the west and south, and unincorporated Santa Clara County to the east, as seen in Figure 1-1. The Metro Plan Area encompasses properties within the southern end of the city. Located south of the City’s Midtown Plan, the Metro Plan is centered around the Milpitas Transit Center and marks the entrance into the city from the south (Figure 1-2).

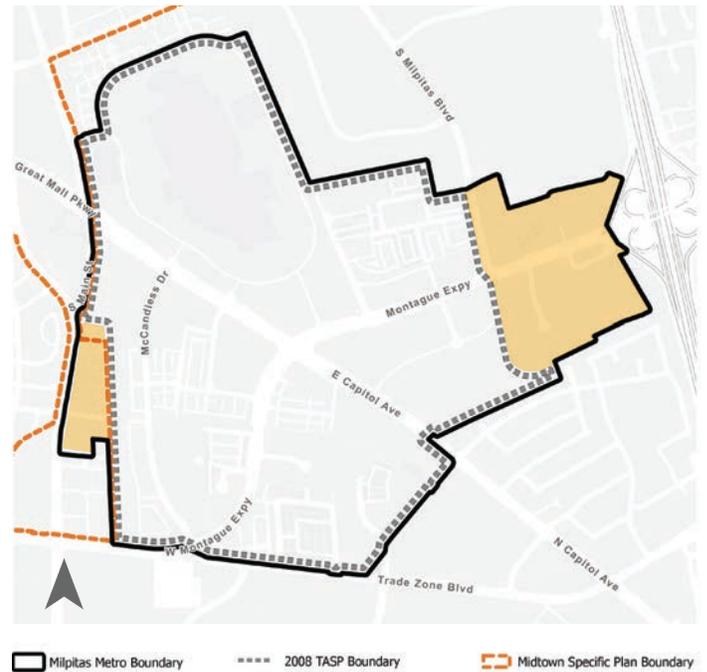
1.3 PLAN BOUNDARY

The Metro Plan Area expands beyond the TASP boundaries to include additional parcels on Main Street and between the Berryessa Creek and Highway 680, which the General Plan establishes as an Innovation District. Refer to Figure 1-3 for a map of the Plan’s boundary changes.

The 510-acre Metro Plan Area has been reorganized into five districts, which are generally separated by major street corridors (Figure 1-4). The location and characteristics of the districts are described in further detail in Chapter 2: Land Use and Public Space.

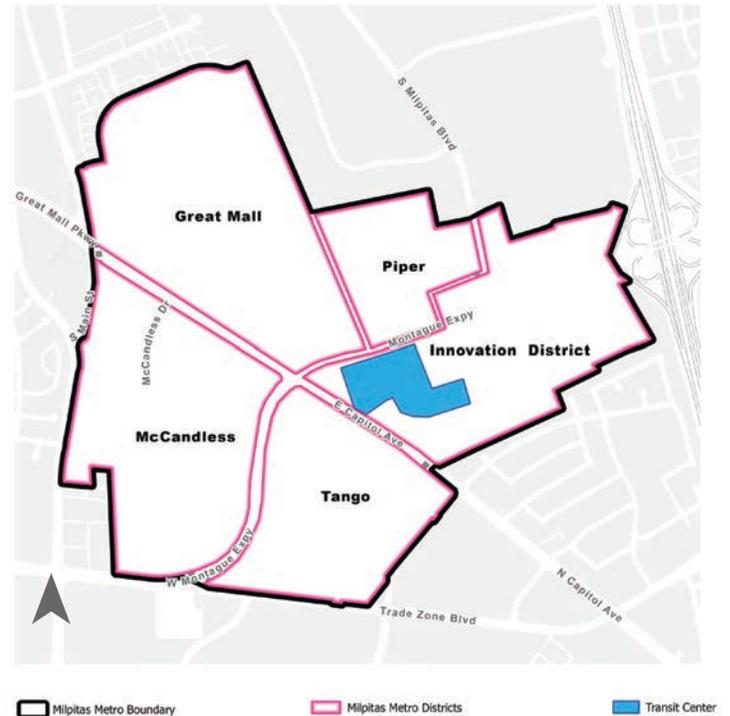
The Milpitas Metro districts redefine the Districts in the TASP.

Figure 1-3. Plan Area Boundary



The Milpitas Metro Boundary expands on the TASP Boundary (with areas shaded in orange) and incorporates some areas currently part of the Midtown Specific Plan, which is in the process of being updated.

Figure 1-4. Districts



The Great Mall was once the Ford San Jose plant. This photo from 1955 is from the Ford Motor Company archives.



1.4 AREA BACKGROUND

For many years, Milpitas has been a major rail hub. This infrastructure is what originally established the community as a key regional shipping point.

1.4.1 Industry and Integration

Incorporated as a city in 1954, Milpitas experienced rapid expansion and has grown to become an industrial hub and residential community in Silicon Valley. In 1955, the Ford Motor Company moved its operations from Richmond to Milpitas. In the 1950s, suburban single family homes were built to house the Ford factory workers. The homes in the Sunnyhills neighborhood were the first racially-integrated community in the United States. Milpitas continues to be home for a racially diverse and growing population.

1.4.2 Regional Retail

Milpitas' retail core was historically located along Main Street, north of the Metro Plan Area. As the city developed, local and regional shopping centers emerged throughout the city. One of the biggest of these shopping centers is the Great Mall, located in the former Ford assembly plant. After nearly three decades of operation, the Ford plant closed in 1983. The site, including the old assembly buildings, was transformed into the Great Mall of the Bay Area, which opened in 1994. The Great Mall, owned by national retailer and developer Simon Property Group, is a 1.2 million square foot indoor outlet shopping mall, the second largest in northern California. It is a regional shopping destination that includes a variety of factory and outlet retailers from a range of national and international brands, as well as Home Depot, Century Theaters Multiplex, Dave

and Busters, and Legoland Discovery Center. It is anticipated that many of these providers will remain in the Great Mall District, even if their locations and physical format formats change.

The Great Mall site will continue to evolve as shopping and lifestyle preferences change and development opportunities arise. While there was little retail in the Plan Area outside the Great Mall for many years, recent development, including at the Milpitas Transit Center and along major arterials, has included more locally-serving retail and dining spaces, including a grocery store on Great Mall Parkway.

Surrounding the Great Mall site are separately-owned parcels that support various commercial uses. Of significance are the two Marriott hotels, Stratford School, the former VTA bus terminal, an office building, and a gas station. These parcels present major development opportunities close to the Transit Center and are discussed in further detail in Chapter 2: Land Use and Public Space.

1.4.3 Commercial Development at the Crossroads of Silicon Valley

The City of Milpitas is located north of San Jose and east of Santa Clara, Sunnyvale, and Mountain View along Highway 237, and is part of Silicon Valley. Tech companies and related high-skilled manufacturing businesses have been locating in Milpitas since the mid-1980s. Milpitas is often referred to as the “Crossroads of Silicon Valley”, with most of its 13.63 square miles of land situated between two major freeways (I-880 and I-680), State Route 237, and County-managed Montague Expressway.

Single story, light industrial business parks were the predominant land use in the Plan Area prior



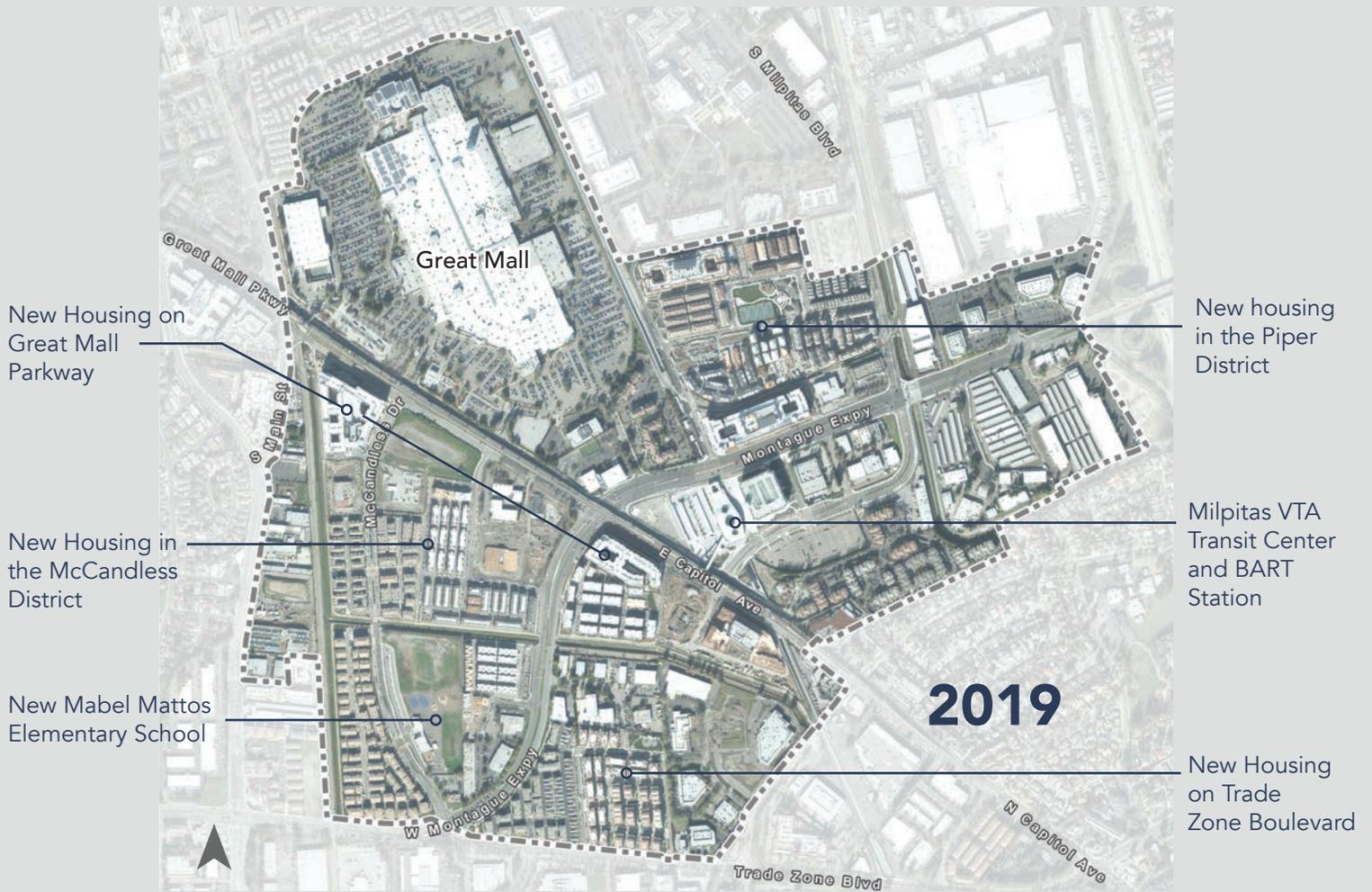
The Great Mall in the 1990s. (Photo by Dave Cowl)



Photographs from “The Great Mall holds a great Ford secret”. (Source: <https://www.hemmings.com/stories/2016/11/16/the-great-mall-holds-a-great-ford-secret>)



The Plan Area was predominantly single-story office and industrial development prior to its transformation into a Transit Oriented Neighborhood. (Source: MLS)

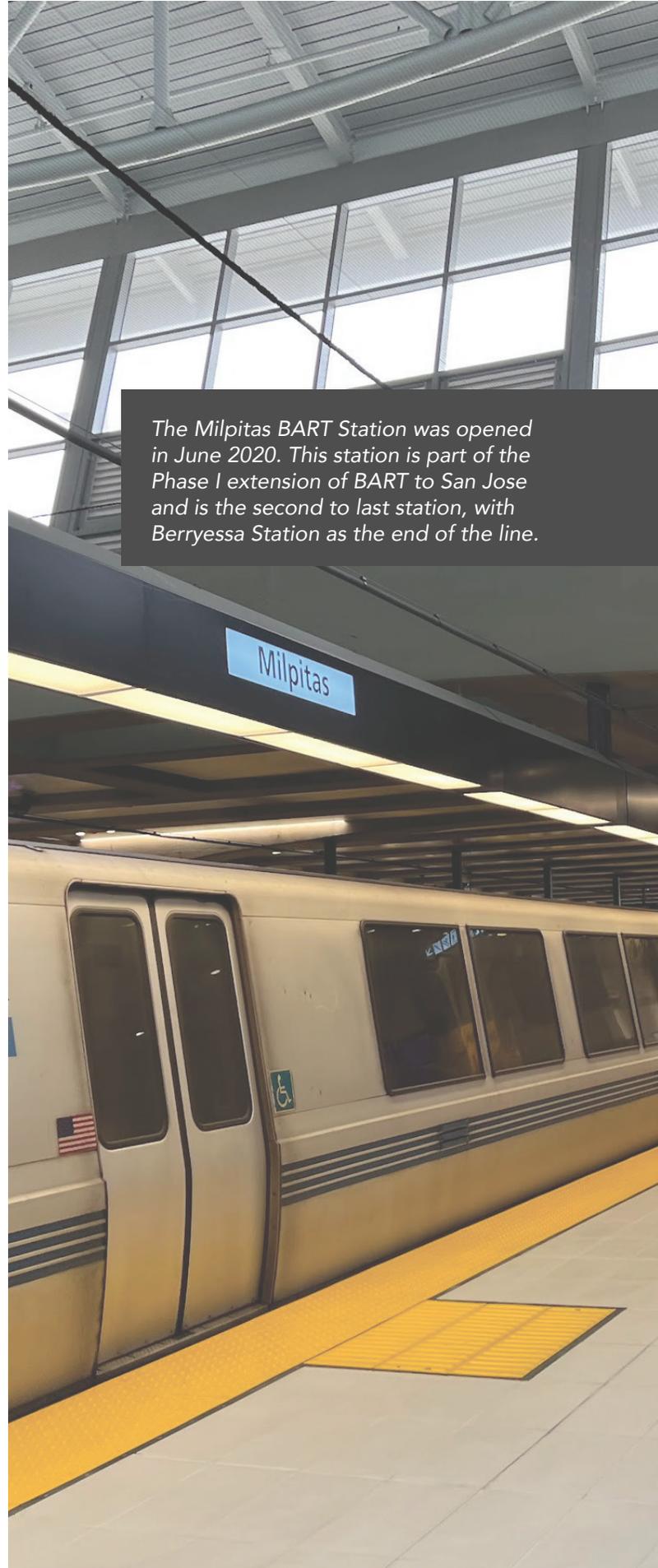


Aerial images of the Metro Area in 2006 and 2019. (Google Earth)

to the transformation planned with the TASP. To preserve land for future employment uses, the Metro Plan establishes a framework for significant office and research & development (R&D) development in the Innovation District.

1.4.4 Regional Transit

While Milpitas has been a major vehicle and freight railroad transportation hub for decades, regional transit planning in the 2000's increased the importance of the Milpitas Metro Area to the City of Milpitas. Cities near Milpitas had the advantages of both Caltrain and BART transit to attract economic development, as well as higher density residential development to support higher intensity employment opportunities. The extension of VTA and BART lines into the Milpitas and East San Jose areas generally, and specifically into the Metro Area, meant that the Plan Area would be more regionally connected than any other part of the City of Milpitas. VTA completed construction of the Tasman East Extension in 2004, extending the regional light rail transit system and adding Great Mall/Main Street and Montague Expressway stations in Milpitas. A new Milpitas BART station, which opened in June 2020, was proposed at the intersection of Montague Expressway and Capitol Avenue. The TASP was originally developed to anticipate new development around the Milpitas Transit Center and respond to the continued growth of Silicon Valley by transforming a low-density industrial area into a mixed-use, transit-friendly area.



The Milpitas BART Station was opened in June 2020. This station is part of the Phase I extension of BART to San Jose and is the second to last station, with Berryessa Station as the end of the line.

Figure 1-5. Development Since the Transit Area Specific Plan (2008)



Approved and Pending Projects

Gross Density

Milpitas Metro



≤25

≤50

≤80

≤120

≤191

GIS data provided by: 'METRO Development pipeline' from 4.30.2020 - City of Milpitas / Roads - US Census Bureau 2019 TIGER / Basemap - ESRI

0 200 400 600 800 1,000 Feet



1.5 IMPACTS OF THE TRANSIT AREA SPECIFIC PLAN

The Transit Area Specific Plan (TASP) was adopted in 2008, shortly before the Great Recession. Redevelopment in the area was slow to arrive, but as market conditions improved, residential projects of increasing intensity were proposed and constructed throughout the Plan Area, resulting in a striking urban transformation. Table 1-1 summarizes the housing, office, retail, and hotel development envisioned under the TASP and the amount of entitled development as of 2019.

1.5.1 Residential Development

By 2019, new development on significant tracts of land within the TASP area had reached much of the planned residential capacity (Figure 1-5). Early projects in the TASP Area featured townhouses in the Piper/Montague, McCandless/

Centre Pointe, and Trade Zone/Montague Districts (now the Piper, McCandless, and Tango Districts respectively).

The majority of early townhome projects were located away from the major vehicular corridors, such as Great Mall Parkway and Montague Expressway.

Subsequently, dense mid-rise residential and mixed-use projects were built and entitled in the Innovation, McCandless, and Tango Districts along Capitol Avenue, Montague Expressway, and Main Street. New development where significant mixed use was realized includes “The District” (later called “The Fields”) across from the Great Mall on McCandless Drive, which includes neighborhood retail, urban scaled residential, and a hotel around a public gathering space. A few 100 percent affordable housing projects have also been approved within the Tango District and along South Main Street.

Table 1-1. Development Following the Transit Area Specific Plan

Land Use	Existing Development in 2008	TASP Planned New Development	Total TASP Planned Development (columns 1+2, Projected for 2020)	Entitled by 2019
Dwelling Units	468	7,109	7,577	6,955
Office (sf)	52,780	993,843	1,050,000	10,630
Retail (sf)	1,970,000	287,075	2,240,000	186,500
Hotel (rooms)	292	350	642	175



The Edge Apartments: New high-density mixed-use development directly across Montague Expressway from the Milpitas Transit Center.



Capitol 650: New high density residential development at Montague and Great Mall Parkway.



A Trader Joes is part of the Turing development by Lyon Living where four blocks will form “The District” across from the Great Mall on McCandless Drive.

1.5.2 Commercial Development

Commercial development envisioned under the TASP has not been fully realized. Examples of commercial development include retail, office, and hotel land uses. As of 2019, approximately two-thirds of the commercial development planned had been built, as described in Table 1-1. Several notable new commercial developments in the Plan Area include a completed grocery store and ground floor retail on Montague Expressway directly across from the Transit Center; ground floor retail in a mixed use development along Great Mall Parkway and Capitol Avenue; and an entitled hotel at The District.

Commercial retail in the area is well represented at the Great Mall, which is a significant traditional regional retail, dining, and entertainment destination. Neighborhood serving retail spaces are being built at the ground floor level of new mixed-use projects to serve the local population’s daily needs.

Although market conditions have favored residential development, proximity to freeways and public transit makes this area ideal for commercial office and other employment uses as part of the Milpitas Innovation District.



1.5.3 Public Investment

Since the TASP's adoption in 2008, the most significant public investment in the Plan Area is the Milpitas Transit Center, which includes a BART station, bus station, and light rail station. The VTA Transit Center was a project that was paid for by Measure A, the State of California Traffic Congestion Relief Program, and the Federal Transit Administration New Starts Program. The BART extension represents a public investment of \$2.3 billion including both Milpitas and Berryessa BART Stations.

Recent public investment in the Metro Area also includes new infrastructure and maintenance of existing facilities, such as publicly-owned roads, parks, utility lines, and public services, including fire, police, and school funding. Streetscape improvements were also made as part of new development. These projects are typically funded through impact fees collected from new private development under the TADIF (Transit Area Development Impact Fee) or built on-site.

The TADIF paid by developers of new housing projects also helped to fund three new parks in the Piper, Tango, and McCandless Districts;

a pedestrian overcrossing across Montague Expressway; and a new extension of S. Milpitas Boulevard. Additional public investments include improvements to Montague Expressway coordinated by Santa Clara County's Roads and Airports Department and the expansion of Milpitas Unified School District's facilities. In anticipation of the new population planned under the TASP, the School District built Mabel Mattos Elementary School adjacent to the new park in the McCandless District. Phase 1 has been completed, and Phase 2 is being redesigned to allow increased student capacity.

Several additional infrastructure projects are programmed into the original TASP and will be built as resources are available. To facilitate the budgeting process for the Basic Infrastructure Program (BIP) through the Capital Improvement Projects (CIP) Program, the BIP could prioritize key projects that are needed by or benefit the built, under-construction, or near-term development projects within the Metro or other projects in the City that might utilize TADIF funds.

1.6 RELATIONSHIP TO OTHER PLANS/PROGRAMS

The Milpitas Metro Specific Plan was developed in the context of other citywide plans, Specific Plans, and topic area plans. These plans include the following:

1.6.1 General Plan 2040

The General Plan 2040, adopted in 2021, is the City's guiding land use and policy document that provides a framework for future development in the city through 2040. The Milpitas Metro Specific Plan is recognized in the General Plan as an urban transit-oriented development area that provides critical opportunities for regional job growth. The General Plan 2040 provides high-level goals and policies for the Metro Plan Area, which envision the Plan Area as an attractive, walkable, urban area with a mix of land uses that minimizes vehicle trips and facilitates increases in employment densities.

The Milpitas Metro Specific Plan provides more focused visioning for the transit area including a detailed land use and design framework, a zoning framework, and public infrastructure financing tools to guide private development and public investment.

1.6.2 Transit Area Specific Plan

The 2008 Transit Area Specific Plan (TASP) was adopted to create attractive high-density urban neighborhoods with a mix of land uses around the light rail stations and future Milpitas Transit Center. The 2008 TASP also aimed to create pedestrian connections and design streets and public spaces that supported a lively and attractive street character and a distinctive identity for each District.

While the TASP's flexible zoning along with market conditions has supported development focused on housing and placemaking, some placemaking work has not yet been implemented and TASP has not yet attracted significant workspace development.

The City now seeks to:

- Complement housing with workspace development;
- Create additional capacity for housing development, particularly dense, affordable, and affordable-by-design housing;
- Attract modern office/ research & development (R&D)/ creative/ co-working and other workspaces to the TASP;
- Develop the General Plan 2040's "Manufacturing South Area" as well as a larger area along Montague Expressway as a focused "Innovation District" for a broad range of new workspaces;
- Encourage landowners/ developers of remaining large sites to consider workspace development; and
- Integrate workspaces into mixed-use residential developments.

The Milpitas Metro Specific Plan updates and replaces the original 2008 TASP and vision for the area. This plan will shape the continued transformation of this area from industrial and auto-oriented to a vibrant transit-oriented community that includes housing, retail, entertainment, commercial and park spaces, and a safe and attractive pedestrian and bicycle network.

In particular, the Milpitas Metro Specific Plan aims to:

- Strengthen connective infrastructure between all uses within the Metro Area;
- Build a sense of place and cohesion for all

who live, work, and visit in the Metro Area;

- Incorporate feasible commercial development that provides good job opportunities for residents of Milpitas and the greater region;
- Foster jobs/housing balance with a strong connection between employment and housing developments; and
- Establish a strong policy and land use framework to support future Housing Elements and future housing development.

1.6.3 Economic Development Strategy and Implementation Actions

The Milpitas Economic Development Strategy and Implementation Actions (EDS) report guides the City's economic development activities from 2020 to 2025. This report identifies strategies and implementation actions to grow and diversify the City's economy, support businesses and workers, and improve the quality of life in the community.

One of the seven priority areas identified in the EDS is the creation of a new Innovation District that supports the growth of innovation-focused technology businesses. Consistent with the EDS, the Milpitas Metro Plan includes zoning changes to support the growth of office and research & development uses close to the Transit Center.

1.6.4 Citywide Objective Design Standards

Citywide Objective Design Standards provide design standards and guidelines for all multifamily development in the City of Milpitas, as well as other development as relevant. Existing standards include setbacks and height limits. These design standards ensure high-quality development that is visually compatible with the surrounding area. The City of Milpitas

has developed additional Objective Design Standards for residential development, including residential-only and mixed-use development. When complete, these standards will apply in the Metro Area as they do elsewhere in the City.

In addition to the citywide Objective Standards, the Milpitas Metro Specific Plan sets forth additional Plan Area specific design guidelines and standards that ensure building and site designs enhance the pedestrian realm. Plan-specific standards have been developed to supplement other municipal design documents.

1.6.5 Midtown Specific Plan/ Milpitas Gateway-Main Street Specific Plan

The Midtown Specific Plan was adopted in 2002 to guide redevelopment in the Main Street/ Calaveras Boulevard area of Milpitas, which is generally north of the Milpitas Metro Plan Area. A comprehensive update of this plan was initiated in 2021, and the plan was renamed the Milpitas Gateway-Main Street Specific Plan. Similar to the Metro Plan, the Gateway Plan provides revised strategies and policies to enhance and accelerate the redevelopment of the City's historic Main Street and the Calaveras Boulevard commercial corridor adjacent to Interstate 880 into an interconnected series of vibrant, higher-intensity, mixed-use neighborhoods. Several parcels located at the southern end of the plan area along Main Street have been incorporated into the Milpitas Metro Specific Plan Area and will be developed as higher-density housing with some local-serving commercial uses.

1.6.6 Parks and Recreation Master Plan

The Parks and Recreation Master Plan adopted in December 2021 is a strategic planning document that provides a long-term vision for citywide parks and recreational facilities. The Park and Recreation Master Plan inventories existing park facilities and establishes a framework for expanding and maintaining the city's park and recreational network and programming to meet future needs. The Milpitas Metro Specific Plan's open space policies were developed in conjunction with the Parks and Recreation Master Plan's development process to ensure that open space and recreational facilities in the Plan Area meet the needs of residents, workers, and visitors in a manner that is consistent with the City's overarching vision for the park system.

1.6.7 Bicycle/ Pedestrian and Trails Plan

The Bicycle, Pedestrian, and Trails Plan provides a vision and action plan for improving the city's bicycle and pedestrian network. The plan seeks to improve bicycle and pedestrian connectivity to destinations, integrate active transportation networks with transit, and improve the safety and accessibility of the network. The Bicycle, Pedestrian, and Trails Plan also identifies priority areas for infrastructure improvements within the Milpitas Metro Specific Plan Area, which are reflected in the Metro Plan's policies and programs. This plan provides conceptual and technical guidance that informs the Milpitas Metro Specific Plan's active transportation network.

1.6.8 Urban Water Management Plan

The Urban Water Management Plan is a water supply planning tool that guides long-term water supply decisions to ensure that the City has adequate capacity to meet future water supply needs. Given population growth in Milpitas and heightened drought risks as the result of climate change, sustainable water management planning is critical to ensuring adequate water supply. The Urban Water Management Plan provides water supply and demand projections and establishes a per capita water use goal. The Milpitas Metro Specific Plan has been developed in coordination with the Urban Water Management Plan to ensure that the City's water supply and distribution system has the capacity to support the projected growth in the Plan Area.

1.6.9 Climate Action Plan

The Climate Action Plan is periodically updated and was updated in 2022. The Climate Action Plan is the City's strategy for achieving carbon neutrality by 2045. This plan includes greenhouse gas reduction strategies and climate adaptation goals and actions that will build citywide resiliency. The Milpitas Metro Specific Plan implements the Climate Action Plan by ensuring that new development is not only aligned with citywide energy efficiency and emission reduction goals, but also serves as an early example of the implementation of critical policies. Development in the Milpitas Metro Specific Plan will lead the charge on addressing sustainability goals and will set a precedent for development elsewhere in the city.

1.6.10 Housing Element

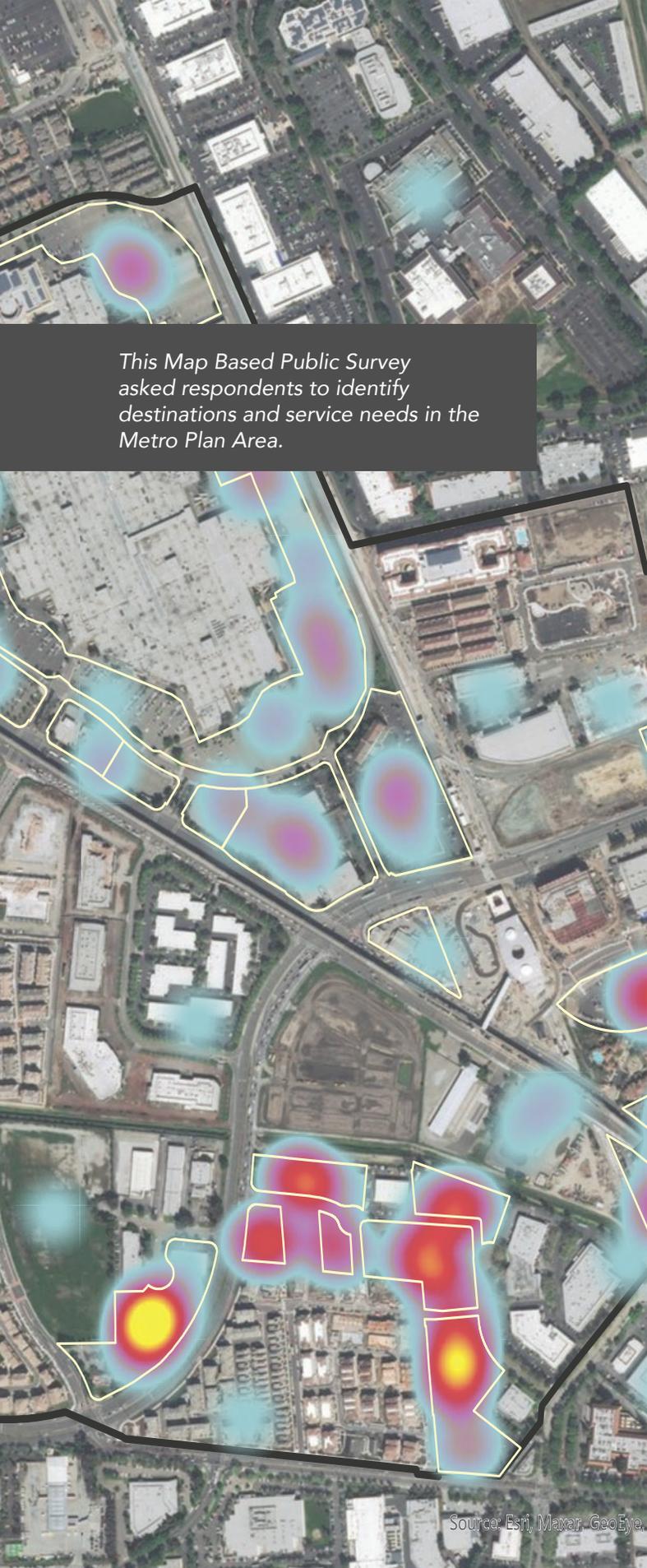
The City is in the process of developing the Housing Element for the 6th Regional Housing Needs Allocation (RHNA) cycle. The Housing Element establishes the framework for accommodating current and future housing needs in the city. Policies and actions in this document will ensure a diverse supply of housing that is affordable to households of all income levels. The Housing Element is slated to be completed and adopted by the City Council in January 2023. The Housing Element may include a Housing Opportunities Zone program that might include target sites within the Metro Area.

1.6.11 Urban Forest Management Plan

The Urban Forest Management Plan presents an inventory of the City's trees and provides guidelines for tree management, including priorities for maintenance and recommendations for new tree plantings to increase the City's urban forest. New park and street tree plantings in the Plan Area will be guided by strategies discussed in the Urban Forest Management Plan.

1.7 REGULATORY COMPLIANCE

The Milpitas Metro Specific Plan has been prepared in compliance with California Government Code Section 65450 through 65457 and the requirements of the California Environmental Quality Act (CEQA). The Milpitas Metro Specific Plan guides all development within the Plan Area and will require amendments to the Zoning Ordinance to ensure consistency and to implement the development regulations and land uses established in this Specific Plan. The Milpitas Metro Specific Plan is adopted under the authority of the City's Zoning Ordinance, which designates specific plans as a tool to guide land use and development consistent with the General Plan.



This Map Based Public Survey asked respondents to identify destinations and service needs in the Metro Plan Area.

Source: Esri, Maxar, GeoEye.

1.8 COMMUNITY ENGAGEMENT

The development of the Milpitas Metro Specific Plan has been guided by robust community engagement with regional public stakeholders, private developers, residents in the Plan Area and City as a whole, as well as City decision makers. Stakeholders have been engaged throughout the process to ensure that the Plan’s development reflects the community’s priorities. Community engagement opportunities included:

- **Website.** The Milpitas Metro Specific Plan website was created at the start of the planning process. The website provided updates on the status of the Plan and opportunities for community engagement. Community members were able to join the Milpitas Metro Specific Plan mailing list and leave comments about the Plan.
- **City Council Meetings.** The Milpitas City Council was actively engaged in directing work on the Metro Specific Plan beginning with the early visioning process. In addition to regular check-ins, a series of in-depth study sessions were held with the Council to develop the framework for land use, mobility and circulation, the public realm, and the Innovation District. City Council members responded to policy recommendations and provided detailed feedback on key concepts and strategies to be incorporated into the Metro Specific Plan. The City Council also reviewed the Draft Plan and approved the Final Plan and environmental review documents in accordance with CEQA.
- **City Commission Meetings.** Various City Commissions, including the Planning Commission and the Economic Development and Trade Commission were engaged throughout the process. City Commissions provided feedback on the Innovation District and the wider land use strategy in the Plan.

Figure 1-6. Community Engagement Timeline Graphic

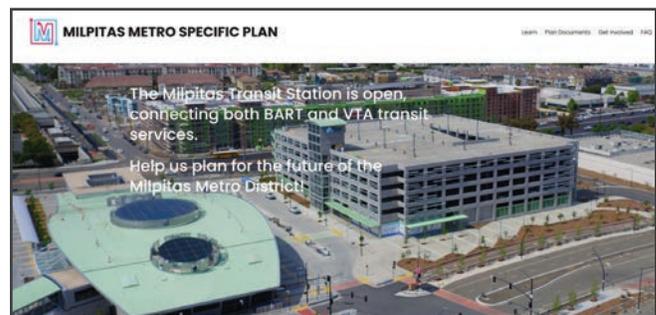


- Community Outreach.** Decision makers and members of the public were invited to participate in outreach events to shape the contents of the plan at each phase of plan development. The community outreach is described in more details below.

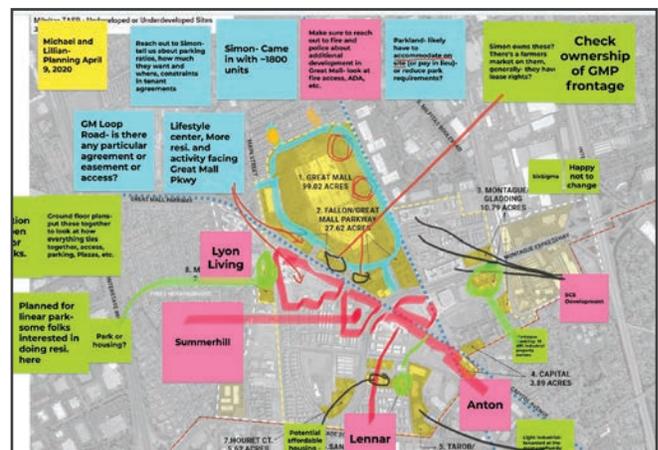
1.8.1 Existing Conditions Phase

In the existing conditions phase, the planning team solicited community concerns and priorities that were used to guide the preliminary approach to the Plan update.

- Map-Based Public Survey.** This map-based online survey was released at the beginning of the planning process and collected 316 responses. Respondents were asked to identify destination and service needs in the Plan Area, such as open space and retail, as well as where they would like to see future commercial, office, and housing development. The results from the survey informed conceptual ideas for the Milpitas Metro Specific Plan, which were presented to the City Council.
- Stakeholder Interviews.** Interviews were conducted with 24 different stakeholder groups, including the Chamber of Commerce, Milpitas Unified School District (MUSD), Santa Clara Valley Transportation

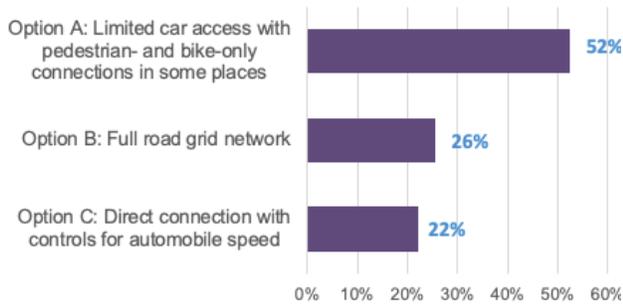


milpitasmetro.org: The project website contained a library of the information, FAQ, and links to project materials and engagement events.

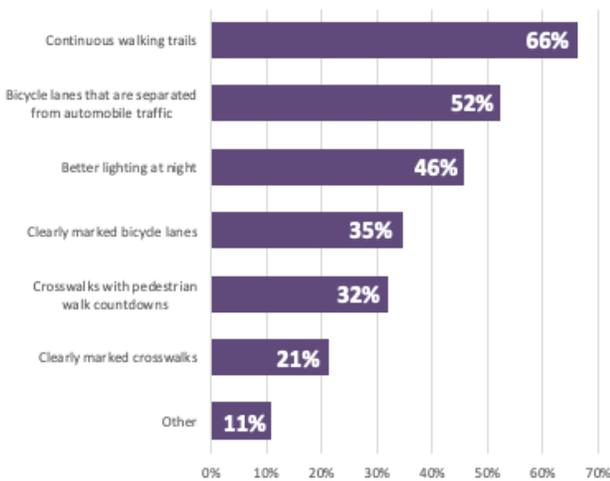


Map-based surveys and digital whiteboards were tools used to document and record feedback about the Plan.

Participants were asked to identify the type of road design they would like to see to increase access to Tarob and Sango Court.



What would make you feel more comfortable walking/biking in the Milpitas Metro Area? (Select up to 3)



Online Open House results for questions about road design, walking, and biking, and a word cloud of important considerations for the Metro Area.

Authority (VTA), private commercial and housing developers, and City departments, to identify priorities and concerns for development in the Metro Area.

1.8.2 Plan Framework Phase

In the Plan Framework phase, the community provided feedback on conceptual land use and transportation connection ideas.

- Community Meeting.** An interactive community meeting was held online on September 30, 2020 to assess the community's attitudes towards conceptual ideas on land use and pedestrian and bicycle connections in the Plan Area. Attendees answered polling questions throughout the presentation and were able to give additional comments and have questions answered during the Q&A and open comment period.
- Online Open House.** An online Open House was available on the project website for 3.5 weeks in October 2020 following the community meeting. This was an opportunity for community members who were unable to attend the community meeting to learn about the Metro Plan and provide input. Materials presented were the same as at the community meeting. A survey that mirrored the polling questions asked during the community meeting gathered a combined total from the meeting and open house of 101 participants.

1.8.3 Draft Plan Phase

In this last phase, community members were invited to review and provide comments on the Public Draft of the Metro Plan and corresponding Environmental Impact Review (EIR) before the Plan was presented to City Council for adoption.

- **Community Meeting: Draft Plan.** A community meeting and an asynchronous online open house were conducted following the completion of the Public Draft of the Milpitas Metro Specific Plan. Community members were given the opportunity to respond to the draft Milpitas Metro Specific Plan and voice any feedback they would like to see incorporated into the Plan.
- **CEQA Review.** The City prepared a Notice of Preparation (NOP), which provided an overview of the Metro Plan. The City held a scoping meeting to inform public agencies and members of the public about the Project and the CEQA process in September 2021. Public comments on the scope of the EIR, per the California Environmental Quality Act (CEQA), were accepted through mid-October. Following the completion of the Draft EIR, public agencies and members of the public were given an additional opportunity to provide comments on the document.

1.8.4 Feedback Highlights

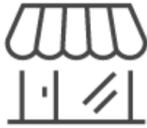
Key takeaways from the community engagement efforts included the following:

- Top priorities for the Metro Plan should be providing open space, fun destinations, and safer streets.
- Pedestrian and bicycle connectivity are generally higher priorities than addressing vehicular traffic.
- More retail activity is highly desirable.
- There are concerns about safety/crime issues, too much housing, and increases in traffic congestion.



The Milpitas Metro Plan started with a City staff and consultant team workshop in March 2020, prior to the COVID-19 pandemic. All subsequent meetings and community outreach were conducted online.

The community provided input to address connectivity challenges in the Plan Area. 72 percent of participants at the Community Meeting and Open House expressed that pedestrian and bicycle connections are a higher priority than vehicular traffic speed. There was also an interest in limiting car access by building new pedestrian- and bicycle-only connections in the Tango District. The top three types of open spaces identified by the community included plazas/ courtyards, farmers' markets/ community fairs/ event spaces, and trails.



To foster neighborhood services and the variety of retail



To create and expand available space for jobs near transit



To provide both affordable and market rate housing



To create a complete and unique urban neighborhood



To enhance the sense of place in the Metro Area with visually memorable structures and buildings



To provide safe and more attractive multimodal connections for walking and biking



To provide a variety of shared public spaces

MILPITAS METRO PLAN VISION

The core of the Milpitas Metro Plan Vision is “to create a complete and unique urban neighborhood.”

A complete neighborhood includes neighborhood services, a variety of retail, a balance of jobs and housing, with jobs near transit, affordable and market rate housing, safe and attractive multimodal connections, a variety of shared public spaces, and a strong sense of place with memorable architecture and landmarks.

1.9 PLAN VISION

The Milpitas Metro Specific Plan envisions vibrant, connected districts with active public spaces, employment centers, and affordable housing surrounding the Milpitas Transit Center. The Milpitas Metro identity as an urban, future-forward, inclusive, and world-class competitive district will distinguish itself from other areas in the city and South Bay Region.

The Metro Plan considers what transit riders and visitors see when they visit the Milpitas Transit Center for the first time, as well as everyday experiences of people commuting and living in the area. The Plan expands neighborhood services and the variety of retail in the area, and creates commercial space for jobs near transit.

The sense of uniqueness in the Metro Area will be strengthened by urban design standards that ensure high quality building design and public places to create visually memorable spaces. The sense of place and identity will also be enhanced by public art and landmark features. Public investment in the public realm will help to strengthen the spatial understanding of the Metro Area and the social and cultural image of the area.

The Metro Area Plan features urban housing and a thriving Innovation District in addition to a range of retail and entertainment options in and around the Great Mall.

Milpitas Metro will be competitive with other major transit nodes in the region when it becomes a place that celebrates a walkable lifestyle with convenient places to live and work with a wide range of neighborhood services and transit options just steps away. Milpitas Metro neighborhoods will be multimodal-friendly with safe routes for bicycles and pedestrians

that connect housing to activity centers, such as retail services, office uses, and the Milpitas Transit Center.

Pedestrian-friendly streets will support mixed-use development that will house local community-serving retail and restaurants and high-density housing that is affordable for a range of income levels. Commercial buildings (i.e. office, R&D, and light industrial) near the Milpitas Transit Center will create a nexus of activity in the core of the Metro Area.

The Metro Plan calls for shared public spaces to provide a variety of recreational and contemplative environments for residents, workers, and visitors. Large plazas, creek trails, and small parklets will provide a balance of open space opportunities for community members to enjoy outdoor space in this vibrant urban area.

1.9.1 Great Mall Parkway

The Great Mall Parkway is a central corridor of the Metro Area and a gateway to Milpitas. Transit riders will be arriving near or on Great Mall Parkway below grade on BART, at grade on bus, and above grade on VTA Light Rail. Great Mall Parkway is a well-traveled and wide road that has the capacity for more transportation modes and a transformation of character.

It is possible to transform this important roadway to provide a more welcoming environment for pedestrians and cyclists without reducing the number of vehicle travel lanes on Great Mall Parkway by narrowing the central median, which is up to 40 feet wide in some areas. Adding protected bike lanes, a generous street side pathway in a linear park, and activity at the base of street-facing buildings will make the Great Mall Parkway look and feel more like a “Great Parkway” and serve the area better. The above

grade light-rail tracks are a significant landmark for the area but not yet celebrated as a defining feature. Enhancing the light rail structure with public art would help create an identity for the area. There are options for transforming the street to maximize its multimodal benefits in areas where the City controls the at-grade right-of-way.

1.9.2 The Great Mall District

Economic and social forces are evolving the demand for brick-and-mortar retail. In response, the Milpitas Metro Specific Plan envisions that the Great Mall District, which includes Great Mall itself, will transform itself over time from an indoor mall surrounded by parking lots and isolated buildings into a vibrant mixed-use neighborhood with lifestyle retail and entertainment on a walkable street grid. The opening of the Milpitas Transit Center across Montague Expressway from the Great Mall brings new regional access within walking distance of the Great Mall District, which includes multiple ownerships. The Great Mall is an important asset in the area, with regional-serving entertainment, outlet shopping, and a large format retail environment. The Metro Plan provides a variety of options for the future evolution of the district, including reimagining the buildings and parking areas on this property, by allowing more land uses and more density.

The Metro Plan envisions new jobs and housing, especially in portions of the district nearest transit, a central gathering space, walkable street grid, and development along Great Mall Parkway that reflects the scale of development on the other side of the parkway.

Transformation of the Great Mall to a more urban format could occur quickly or over a multi-phase period, depending on economic and market

forces and the objectives of property owners. This Plan establishes broad revitalization goals for the entire district, with implementation taking shape via zoning and/or a Development Agreement process.

1.9.3 The Innovation District

The Innovation District is a neighborhood in the Metro Plan that is envisioned as a thriving employment destination featuring modern office, creative flex space, and R&D buildings. Zoning also allows for limited residential uses south of the Transit Center on the south side of South Milpitas Boulevard Extension.

Overlapping with this geographic district is the Milpitas Innovation District which is established in the City's Economic Development Strategy. The Milpitas Innovation District is a 57-acre area that includes land adjacent to the Great Mall in the Great Mall District and parcels on both sides of Montague Expressway in Milpitas Metro's Innovation District. The opening of the Milpitas Transit Center and the extension of regional BART service into the South Bay changes the outlook for the Milpitas Innovation District by giving it valuable direct transit access to other parts of the Bay Area.

The Metro Plan envisions the construction of new South Milpitas Boulevard extension that creates new access over Berryessa Creek, likely a pedestrian/bicycle bridge, to provide direct connections for workers, residents and visitors between the eastern part of the Milpitas Metro's Innovation District and the Transit Center. A new street grid will maintain connections to the expressway, and retail services will provide a vibrant street environment for people working and visiting there.

1.9.4 Public Realm and Streetscape

The public realm includes the spaces shared by everyone in the community, which include open spaces, parks, streets, and public amenities. The successful development of the public realm is the result of public investment and contributions from private developers. Milpitas' public infrastructure program, funded by the Transit Area Development Impact Fee (TADIF) and Citywide funds, will provide many of the public amenities planned for in the Metro Plan.

Private development, both commercial and residential, further contributes to the public realm with the construction of streetscape and amenities that serve the public. Newly developed mixed-use and multifamily projects have enhanced and will continue to improve the public realm with parks, pathways, and generous streetscape improvements that support the pedestrian experience.

The design of the public realm is important because it is integral to a sense of place. The public realm is a place where social interaction can take place and where the neighborhood's vibrancy is on display. New neighborhood parks throughout the Metro Area in the Piper, McCandless, and Tango Districts were built as a result of the TASP. The park proposed in the Tango District will be expanded beyond the original TASP concept. New publicly accessible parks in the Innovation and Great Mall Districts, as well as a signature linear park along Great Mall Parkway, are also planned, offering opportunities to gather, relax, and play throughout the Plan Area. The City has been purchasing land to establish the parks in the Metro Area with funds collected from new development in the area. New development has also been providing publicly accessible amenities and on-site improvements that make the area more livable.



Public realm improvements near the Milpitas Transit Center include open spaces, streetscape improvements, and new pedestrian overhead bridges.

The public realm, through a network of pathways and pedestrian and bicycle bridges, helps to connect the area and provide access between districts and to transit. The public investment from the TASP has brought significant improvements to the Metro Area, including a pedestrian overcrossing over Montague Expressway. Additionally, South Milpitas Boulevard Extension, McCandless Boulevard, Main Street, and internal roads are all streets that the City of Milpitas improved as Complete



The Edge Apartments: New high-density residential development on Montague Expressway near the Milpitas Transit Center.



Anton Aspire Apartments: New high-density residential development in the Tango District.



Townhouses: New townhouse development in the McCandless District.



New apartments in the Piper District. A residential tower has been entitled to be developed in the area, following the existing guidelines of the Transit Area Specific Plan (TASP).

Streets in the Metro Area. Santa Clara County was responsible for improvements to Montague Expressway in conjunction with its widening, which included landscaping, new street lighting, and sidewalks. These improvements are critical to the connectivity of the neighborhood.

Some transportation connections in the Metro Area are not yet complete. TASP provided the funding for new connections and street extensions in the Tango District, but they have not yet been completed. Additional improvements outlined in this plan will complete the connections that surround the Transit Center. The Metro Plan continues to require development standards and streetscape improvements that have made the TASP so successful.

1.9.5 Urban Form

The urban character of buildings in the Milpitas Metro Area make it stand out from the rest of Milpitas. Well-designed, tall buildings can help establish a sense of place for the City of Milpitas. Taller buildings signify the City's importance, and their physical form become landmarks to help people orient themselves. More intense development in larger buildings reflects the growing economic value of the lands near the mass transit hub and within the focused Metro Area generally.

The Metro Plan landmarks that define its character will include taller new development, the linear park along Great Mall Parkway, public art on the light rail structure and bridges, and inviting trails and recreation pathways along and over creeks.

A bicycle- and pedestrian-focused urban form will complete the transit connectedness for the Metro Area and to make it easier to travel without a private vehicle.

1.9.6 Wayfinding

Wayfinding is the experience of an individual making their way through an unfamiliar environment. The identity of the neighborhood and how to navigate it is most explicitly expressed through wayfinding signage. Clues in the structure of the city itself also implicitly help orient people in the environment.

Consistent signage will help people understand where they are in the Metro Area. The use of consistent terminology and graphics across a range of mediums will build a distinctive sense of place and project a consistent image for the area while encouraging increased rates of active transportation by helping people identify more interesting or alternative routes. The Specific Plan envisions Metro branded signage that is integrated with citywide branding to establish a welcoming, energetic tone for the community. Signage can also help express Milpitas Metro's diverse districts and unique character. The design for signage will be easy to identify and tailored to the needs of pedestrians, bicyclists, transit riders, and low speed electric vehicles as well as automobiles and trucks. Signage in the Milpitas Metro Area will be integrated into the City's branding, signage, and wayfinding program.

1.9.7 Urban Destinations and Retail Mix

The attractions in the Metro Plan Area currently include the Great Mall's regional-serving shopping and entertainment, neighborhood parks, and emerging neighborhood retail in the McCandless District. The Metro Plan envisions the Great Mall as a regional destination but with a greater variety of uses; the McCandless District as an emerging destination for residents and visitors, with neighborhood services and



gathering places; the Innovation District as a regional employment destination; and the local parks as destinations connected by a trail network for the residents, workers, and visitors in the area, which will include a linear park on Great Mall Parkway. These attractions will strengthen the area and make it more livable.

The Metro Plan further envisions retail concentrated into nodes along Activity Streets within districts, where ground floor retail will be highly visible and economically viable.

1.9.8 Leading-Edge Sustainability

Milpitas has a citywide goal of reducing greenhouse gas emissions by nearly 50 percent from 2005 levels by 2030 and reaching carbon neutrality by 2045. To reach these targets, the City has taken a holistic approach to reduce emissions, particularly in the transportation sector and emissions related to energy usage in buildings.

Over the next few decades, the City's General Plan envisions that the majority of new development will continue to occur within the Milpitas Metro Area. Sustainability strategies implemented in the Metro Plan will have a significant impact on the City of Milpitas and greater environment for years to come. The Milpitas Metro Plan is an early adopter of policies in the Climate Action Plan and contains policies that will increase the sustainability of the area through building standards that reduce emissions and increase reliance on renewable energy sources; transportation strategies that manage automobile usage and promote low- and zero-carbon transportation options; targeted strategies to reduce waste; and landscaping requirements to ensure reductions in water use.

1.10 PLAN BUILD OUT

Since 2008, the Plan Area has experienced significant change and development. The TASP resulted in approximately 92 percent of all planned-for residential being built or entitled by 2019; however, commercial, office, retail, and hotel development were slower to develop, particularly in the case of office space. Table 1-2 summarizes the build out of the TASP and the anticipated build out generated by the Milpitas Metro Specific Plan.

Many of the early projects in the Plan Area included townhouses in the Piper District, the McCandless District, and along Trade Zone Boulevard. More recent projects have included higher-density residential and mixed-use projects along Great Mall Parkway, Main Street, and Montague Expressway.

While significant development has occurred in the Plan Area, several large sites have not been redeveloped or intensified and were not identified for development in the TASP, including the Great Mall, three VTA-owned sites, and properties in the Innovation District. Some smaller sites that were identified for redevelopment have not yet changed uses either. FigureTable 1-27 identifies the properties that have not been developed or redeveloped since the TASP was adopted, and Plan Area expansion areas.

The Metro Plan's anticipated build out is determined by considering a reasonable and supportable portion of the capacity of the remaining undeveloped parcels for more commercial and residential development, typically at higher residential densities and

commercial intensities than permitted in the 2008 TASP, as well as necessary open space and amenities. The Innovation District is a largely low-intensity industrial area that will support office, R&D, and industrial growth in the next 20 years. Of the 3,000,000 square feet of new office space projected in the Plan Area, 2,500,000 square feet will be accommodated in the Innovation District.

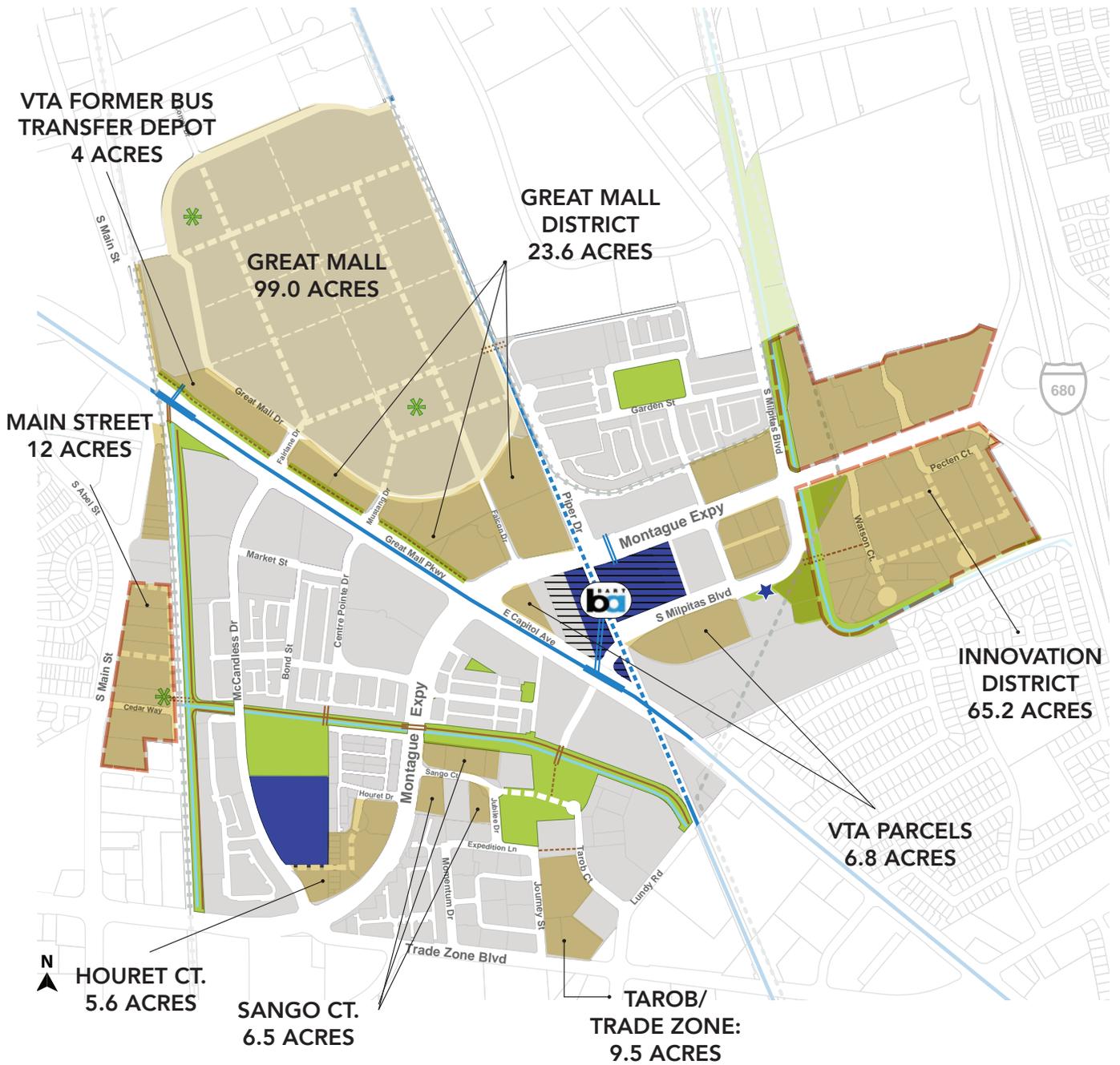
In collaboration with the property owner, Simon Property Group, the City of Milpitas envisions the Great Mall as another site that is critical to future development. This site is expected to support a significant amount of anticipated office space, a substantial amount of multifamily housing, and the bulk of new commercial retail.

1.10.1 Jobs/Housing

Milpitas Metro continues to be a major opportunity site for housing development in Milpitas. Development of the City's next Housing Element is currently underway and will be completed by January 2023. City staff from the Department of Building Safety and Housing have been involved in the preparation of the Milpitas Metro Specific Plan to ensure close alignment with the city's overall housing strategies.

As currently calculated, total capacity for additional residential units in Milpitas Metro is approximately 5,000-7,000 total, with 2,000-4,000 units on the Great Mall site, and 3,000 units scattered on other sites throughout the Metro Area. As the Housing Element is developed, the City will determine which sites to identify in the Housing Element.

Figure 1-7. Properties Yet to be Developed from the Transit Area Specific Plan (2008).



The remaining parcels include additions to the Plan Area, infill sites throughout the area, and the Great Mall.

- Metro Plan Extension Areas
- TASP Planned (but not developed)
- Existing and Future Public Parks

Table 1-2. Development Capacity Comparison to the Transit Area Specific Plan

Land Use	Existing Development in 2008	TASP Planned New Development	Total TASP Planned Development (columns 1+2, Projected for 2020)	Entitled by 2019*	Additional Projected for Milpitas Metro Specific Plan by 2040
Dwelling Units	468	7,109	7,577	6,955	7,000
Office (sf)	52,780	993,843	1,050,000	10,630	3,000,000 (includes 500,000 sf of industrial)
Retail (sf)	1,970,000	287,075	2,240,000	186,500	300,000
Hotel (rooms)	292	350	642	175**	700

*Entitled, under construction, or constructed/occupied

**2021 amendments to Lot 3 in Lyon Living's The Fields development will reduce the hotel room count from 175 to 162 and reduce the entitled housing unit count from 1,955 to 1,889 units.

Table 1-3. Employment Generation

Land Use	Employment Density Assumptions	MMSP Development Potential	New Jobs Generated
Retail	350 square feet per job	300,000 square feet	857
Office (sf)	260 square feet per job	2,500,000 square feet	9,615
Hotel	1 room per job	700 rooms	700
Industrial/R&D	450 square feet per job	500,000 square feet	1,111

The Milpitas Metro Plan envisions the development of not only transit-oriented housing, but also commercial office, creative flex space, and R&D uses that will serve as employment hubs and balance Milpitas' housing provision with local employment. The Metro Plan preserves and expands employment

space through zoning changes, primarily in the Industrial District. New commercial office, R&D, retail, and hotel space is anticipated to create over 12,000 new jobs in the Metro Area. Projected job generation by land use is summarized in Table 1-3.



1.11 BASIC IMPROVEMENT PROGRAM (BIP) AND TRANSIT AREA DEVELOPMENT IMPACT FEE (TADIF)

The 2008 TASP envisioned a broad range of public infrastructure and improvements to serve and support the new TASP development. The City identified and estimated costs for the required improvements in its Basic Improvement Program (BIP). The BIP included investments in road improvements and traffic mitigation improvements (33 percent of total net costs), sewer and water facility improvements (20 percent), and parks and community facilities (47 percent).

The City established the Transit Area Development Impact Fee (TADIF) to ensure new TASP development contributed proportionately and appropriately to the BIP costs. Fees were established for residential development on a per-unit basis and for non-residential development on a per building square foot or hotel room basis. As is typical for development impact fee programs, the fee levels have been adjusted through time based both on automatic cost-indexed increases as well as more comprehensive updates. The most recent fee adjustment, which occurred in 2019, was progressively phased in for residential developments with the full updated fee levels in place as of November 2020 and provided below:

- Residential - \$40,487 per unit
- Retail - \$26.49 per square foot
- Office - \$42.52 per square foot

Fees were originally established for hotel development in the 2008 TASP, at \$9,000 per room and were adjusted in 2012 to \$10,754 per room but following a fee study in 2014 when less development was expected, hotel fees were eliminated. Following adoption of the Metro Plan, a new nexus fee study will be prepared, and the City will decide if hotel developments would again be required to pay fees.

The TASP has facilitated substantial residential development. Between the Plan's adoption and 2019, over 90 percent of the planned 7,577 dwelling units had been entitled, permitted, or built by 2019. Approximately 30 percent of the new units are townhouses and 70 percent are multi-family developments, though townhouse development consist of nearly 62 percent of the residentially developed land area. At the point of pulling building permits, all but the original 468 units existing at the time of the TASP adoption have or will pay the TADIF residential fee, providing substantial funding towards the transportation, parks, and utility projects included in the BIP. Only new development pays impact fees under the specific plan requirements.

As of 2019, residential fees have generated most of the development fee revenue and have resulted in the funding of three parks: Bob McGuire Park was completed in the Piper District, McCandless Park is beginning construction in the McCandless District, and a portion of Augustus Rathbone Park has been completed in the Tango District. Other improvements that have been completed include district connections, a public plaza by the Milpitas Transit Center, multiple privately-owned public spaces, and trail improvements along Penitencia Creek. TADIF revenues for TASP infrastructure/ improvements funding has also been augmented by grants and other funding sources.

The Milpitas Metro Specific Plan builds upon the original vision of the 2008 TASP by focusing on making a complete neighborhood. The Milpitas Metro Specific Plan aims to build a stronger identity for the area, encourage complementary land uses, develop connections between the different districts in the Plan Area, and expand open space opportunities. The Milpitas Metro Specific Plan is expected to result in some refinements to the BIP, and the TADIF is expected to remain as the primary source of public infrastructure/ improvement funding from new development. The Milpitas Metro Specific Plan recommends that the TADIF be updated to account for the new infrastructure and development planned for and described herein.

The TASP also created a Community Facilities District (CFD) that levies a special property tax on a per-unit basis for all new residential development and utilizes those additional property tax revenues to supply a fund for services and maintenance of certain public improvements, such as certain police and fire protection services, public lighting, storm protection, and hazardous cleanup. In this way, the General Fund is not negatively affected by residential development in the Metro Area, while still benefiting from the new revenues generated by non-residential development.

1.12 SUBSEQUENT ENVIRONMENTAL IMPACT REPORT (SEIR)

The Milpitas Metro Specific Plan is accompanied by a Subsequent Environmental Impact Report (SEIR) to assess and mitigate, as feasible, the impacts of the Milpitas Metro Specific Plan project. As noted above, the Milpitas Metro Specific Plan will replace the Milpitas TASP, for which a prior Environmental Impact Report (EIR) was prepared. The 2007 Draft EIR (2007 EIR) was prepared to analyze, at a program level, the environmental impacts of implementation of the TASP. Given the expanded scope of the Milpitas Metro Specific Plan project and changes in circumstances in the project area since certification of the 2007 EIR, the SEIR fully evaluates certain topics, including transportation, air quality/ greenhouse gas emissions, noise, population and housing, land use, public services, and utilities. Other topics included in the CEQA Checklist, such as biological and cultural resources, have been scoped out of the full SEIR analysis, as the Milpitas Metro Specific Plan (i.e., the revised project) would not result in new or more significant impacts related to these resource topics. The SEIR is a self-mitigating evaluation and appropriate policies to mitigate any potential impacts have been identified and incorporated into the Metro Plan.

As supported by recent CEQA case law, the SEIR analysis focuses on the potential impacts of the changes to the project and does not reassess the project as a whole. Accordingly, the SEIR examines the revised project in the context of the 2007 EIR focusing on the changes to environmental impacts and mitigation that would result from the revisions to the project.

1.13 MILPITAS METRO PLAN FRAMEWORK

1.13.1 Plan Organization

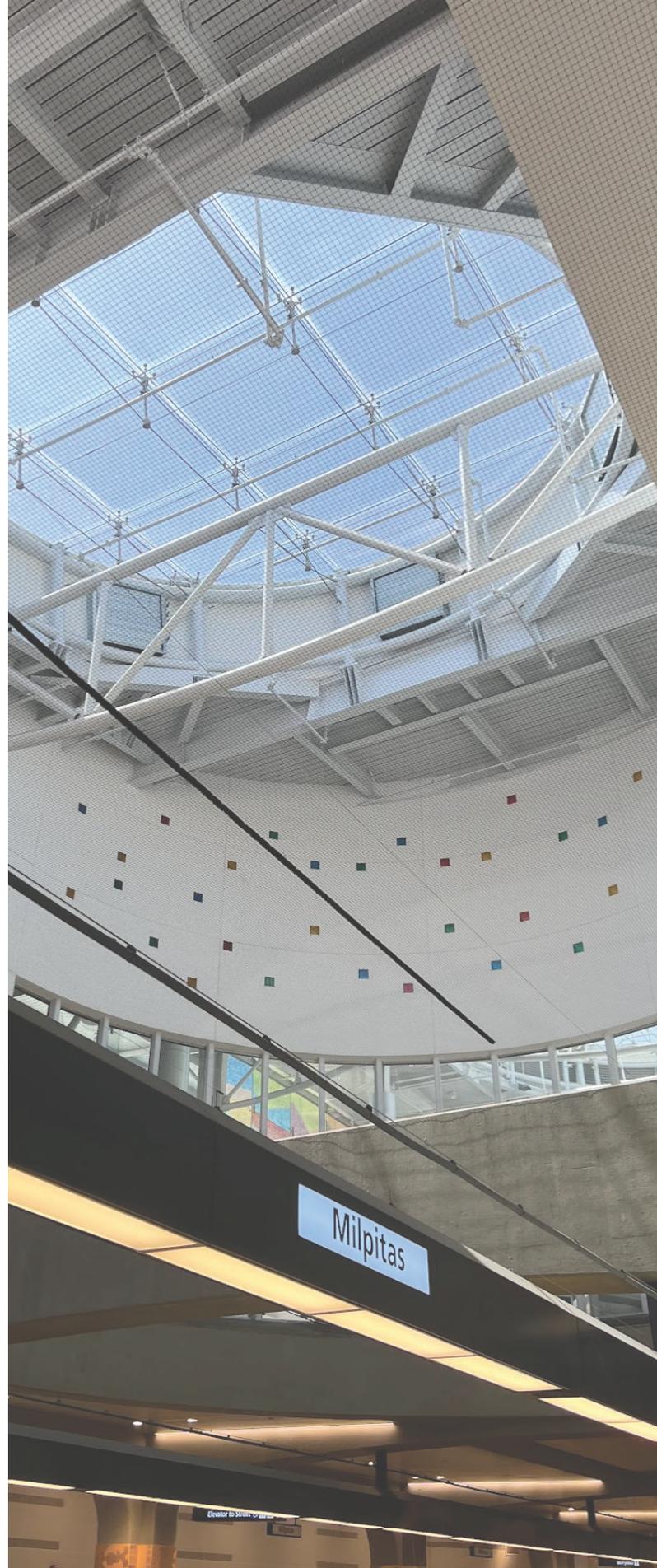
Chapter 1 provides background context on the Metro Plan and includes an overview of the Plan's vision. Chapters 2 through 5 of the Plan contain goals and policies that respond to the Milpitas Metro Specific Plan's overarching vision and direct future development in the Plan Area. Goals in each chapter will be achieved by the subsequent policies which provide concrete actions that guide implementation. Chapter 6 contains the implementation and funding plan to make the plan vision a reality. The Milpitas Metro Specific Plan consists of the following chapters:

- **Chapter 1: Introduction** establishes the Plan Vision and provides background information on the Milpitas Metro Specific Plan, explains the Plan's relationship with other municipal regulatory documents, and projects expected plan build out.
- **Chapter 2: Land Use and Public Space** establishes the land use and open space strategy for the Plan Area.
- **Chapter 3: Site and Building Design Standards and Guidelines** includes the Milpitas Metro Specific Plan's strategy for activating the public realm, including sidewalks and pathways, and provides guidance on building design in the Plan Area.
- **Chapter 4: Mobility and Circulation** describes strategies to create a multimodal network, reduce vehicle miles traveled through transportation demand management policies, and decrease automobile dependency.
- **Chapter 5: Infrastructure** describes the public infrastructure and services needed to support growth in the Plan Area.

- **Chapter 6: Implementation** details the implementation of the Milpitas Metro Specific Plan by the City of Milpitas, including funding sources and time frames for public infrastructure projects.

1.13.2 Plan Horizon

The Milpitas Metro Specific Plan is a planning document that embodies the vision for the neighborhoods around the Milpitas Transit Center for the next 20 years. It shall be prepared, adopted, and amended in the same manner as a General Plan. The Metro Plan may be adopted by resolution or by ordinance and may be amended or repealed as often as deemed necessary by the legislative body.





Residential development completed in 2020 in the McCandless District (top) and the Tango District (bottom).



2. LAND USE AND PUBLIC SPACE

- 2.1. Land Use Development Framework
- 2.2. Great Mall District
- 2.3. Innovation District
- 2.4. Piper District
- 2.5. McCandless District
- 2.6. Tango District
- 2.7. Land Use Policies
- 2.8. Parks and Public Spaces Framework
- 2.9. Existing and Proposed Parks Open Space Strategy
- 2.10. Public Open Space Policies
- 2.11. Private And Common Spaces

This chapter establishes the land use framework and public space strategy for the Milpitas Metro Plan Area (MMSP) to support a complete and connected neighborhood. This chapter identifies the goals and policies, land use designations, and zoning regulations for the Plan Area.

This chapter also provides a vision for the Districts. The Plan provides universally-applicable policies, and where necessary Districts are referenced to identify specific policies and improvements in those areas.

Most of the housing envisioned by the TASP has been developed. However, other aspects of the original TASP vision, including non-residential and affordable housing development, have not yet

come to fruition. The land use policies encourage development of the land uses that are needed to complete the neighborhood.

Finally, this chapter addresses the need for parks and shared open spaces in Milpitas Metro. The initial residential development in the TASP was generally moderate density townhomes which, while only about 30 percent of the approved TASP housing, covered more than 60 percent of the approved housing acreage. That significant consumption of available land along with the limited impact fees available from that development constrained the City's ability to acquire significant parkland acreage. Parks and Public Spaces policies address more than acreage alone and promote and establish a framework for a network of high-quality spaces that will serve the area's population as it grows.

The Milpitas Metro Area is a dense urban environment that supports transit use and balances a mix of uses at higher densities and intensities of development to sustain residential and commercial activity and a vibrant streetscape. The MMSP seeks to enhance the evolution of the area from what was allowed under the TASP by planning for higher densities to establish the Plan Area as a full and complete urban center. The MMSP aligns incentives to expand neighborhood retail and services, generate jobs and attract quality employment uses, support the development and implementation of the City's Housing Element, expand housing affordability, and increase the quantity and quality of shared public spaces.



2.1 LAND USE DEVELOPMENT FRAMEWORK

2.1.1 Land Use Strategy

The Milpitas Metro Plan revises land use densities originally established by the TASP to respond to current market conditions and community vision for the area, to better sustain commercial activity and to foster a vibrant streetscape environment. The Milpitas Metro Specific Plan builds on the TASP by refining land use designations, and adding new land uses to better address the Great Mall District, Innovation District, and remaining infill parcels. Land uses support the concentration of higher density residential and higher intensity commercial development near the Milpitas Transit Center and larger street arterials, and opportunities for denser development throughout the district.

Encouraging a mix of uses is critical to creating a more complete neighborhood and ensuring the vibrancy of the area. Mixed-use buildings create destinations that organically facilitate community interaction and reduce traffic during the workday by providing jobs and essential services within walking and biking distance of homes. A vibrant pedestrian-friendly street environment will be achieved by continuing to focus retail uses along designated Activity Streets .

The land use strategy acknowledges the dynamic character of this rapidly changing area and market conditions by preserving land for employment uses. Building from the direction in the General Plan, the Milpitas Metro Specific Plan establishes the Innovation District as a future employment hub of office campuses and research and development buildings with exceptional access to regional transit and highways. Vibrant daily street front commercial services will support

employment center activity and will offer restaurant and other services to the broader community at all times. Limited residential uses will be allowed in this District, primarily west of Berryessa Creek.

2.1.2 Land Use Densities

Milpitas Metro is a unique area in Milpitas, intentionally planned for more intense development that takes advantage of transit opportunities and the proximity of housing, jobs, services, and amenities close to each other. While other areas of the city are characterized largely by low-rise development, the Metro District is a dense, transit-oriented hub and provides a limited area of the City where taller buildings may be geographically concentrated and might comprise much of the urban skyline. In order to foster the evolution of the district into a complete neighborhood, the Metro land use framework offers density incentives to residential mixed-use development. The highest permitted commercial intensities are located along major corridors and in the Innovation District. Densities and intensities are reduced on parcels farther from the corridors or closer to existing residential neighborhoods.

Table 2-1 specifies density and floor area ratio (FAR) ranges for each land use classification:

Residential Development: Intensities are determined on a dwelling unit per acre basis when a project consists of residential uses only.

Commercial Development: Intensities are calculated based on FAR.

- **Mixed-use with Residential Development:** FAR is used for all portions for mixed-use projects, including residential and non-residential portions.

Development densities and intensities are

calculated per parcel, as opposed to gross acreage that often includes street right-of-way. This is intended to ensure the type of development built more accurately reflects the vision expressed in the Plan.

For mixed-use projects, Floor Area Ratio (FAR) is used and a range is stated to indicate the anticipated density of the project. In the case of mixed-use projects any stated density is advisory only, and indicates provisional City expectations. For certain land use classifications in and adjacent to the Innovation District that allow mixed-use development, a minimum commercial FAR is required to ensure that parcels do not develop as residential-only. These land uses include Boulevard Very High Density Mixed Use and Business Park Research & Development, Limited Residential.

Maximum heights are defined for each District using potential number of stories and/or maximum feet. Where both stories and feet are provided, the maximum height in feet may not be exceeded.

2.1.3 Land Use Classifications

To fulfill the land use vision, the Milpitas Metro Specific Plan establishes eight land use classifications that are specific to the Plan Area, as shown in Table 2-4. Moderate density townhomes are not contemplated in the Metro Plan; higher density housing will better meet the City's housing obligations and better balance new jobs and new housing.

These classifications are illustrated in the Land

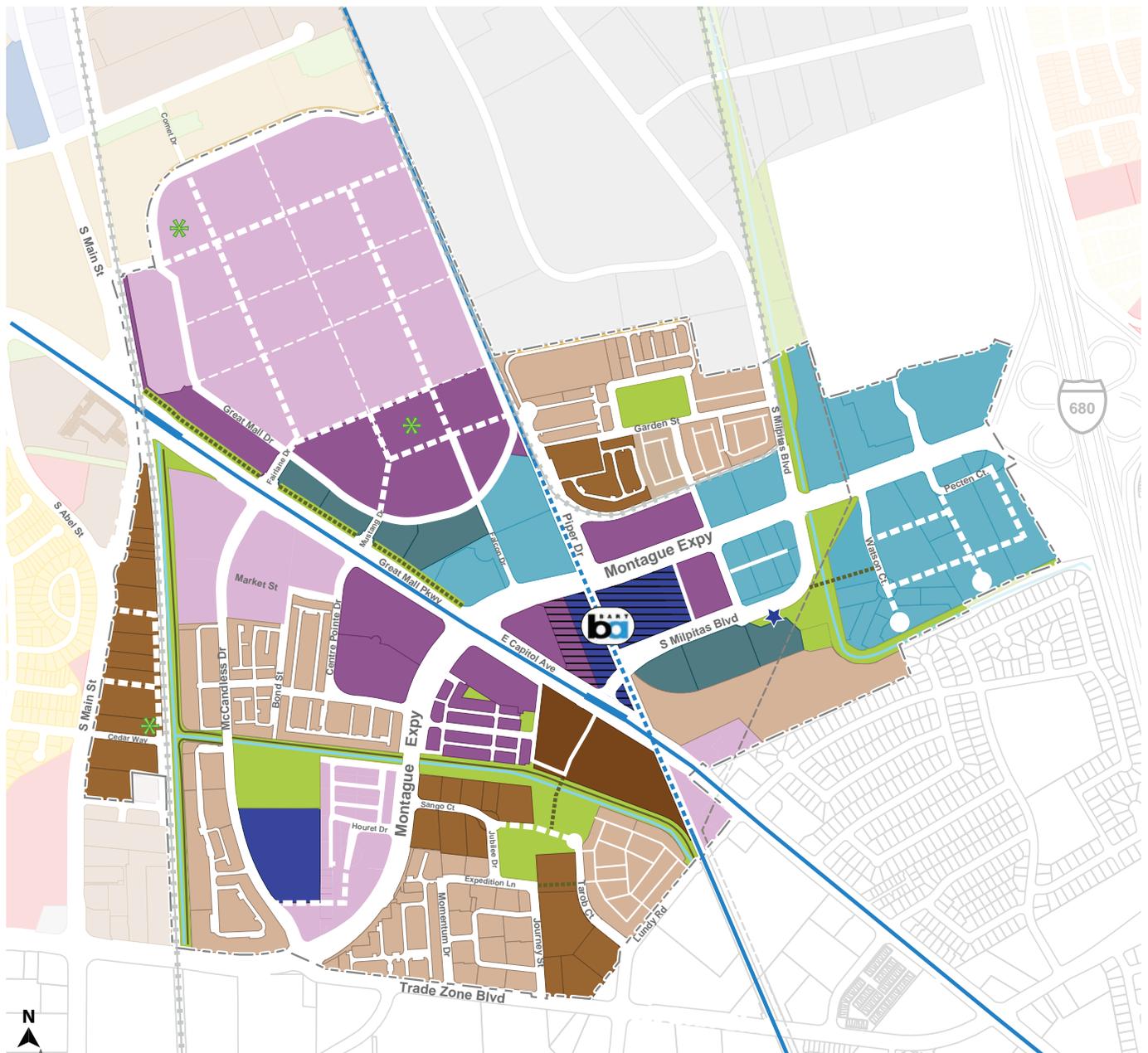
Table 2-4. Land Use Classification with description, allowed density, maximum height, and allowed zoning districts

Land Use Classification	Allowed Density	Maximum Height	Active Use Requirements	Allowed Zoning Districts
Residential Retail High Density Mixed Use (RRMU)	Mixed Use ¹ : 1-2.5 FAR Residential Only: 40-85 units/ac	85 feet Within 60 feet of adjacent existing residential zoned parcels, building height shall be stepped down to be the same max height plus 10 feet of the adjacent parcel.	Ground floor retail and active uses are required on 80 percent of the ground floor facade along any Activity Street.	Metro High Density Mixed Use (MXD2-Metro)
Boulevard Very High Density Mixed Use (BVMU)	Mixed Use ¹ : 2.5-5.0 FAR Residential Only: 85-250 units/ac	275 feet 50 percent of base footprint above 85 feet and 25 percent of base footprint to a maximum height of 275 feet tall	Ground floor retail and active uses are required on 80 percent of the ground floor facade along any Activity Street.	Metro Very High Density Mixed Use (MXD3-Metro)
Multi-Family High Density Residential (MFH)	Residential: 30-40 units/ac	75 feet	N/A	Metro Multi-Family High Density Residential (R3-Metro)
Multi-Family Very High Density Residential (VHD)	Residential: 40-75 units/ac	35-75 feet	N/A	Metro Multi-Family Very High Density Residential (R4-Metro)
Urban Residential (URR)	Residential: 70-120 units/ac	6 stories and 75 feet	N/A	Metro Urban Residential (R5-Metro)

¹ On Housing Element opportunity sites, upper story non-residential uses are prohibited.

Land Use Classification	Allowed Density	Maximum Height	Active Use Requirements	Allowed Zoning Districts
Business Park Research & Development, Lower Intensity (BPRD-L)	Non-residential: 1.0-2.5 FAR	8 stories	Ground floor retail and active uses are required on 80 percent of the ground floor facade along any Activity Street.	Business Park Research & Development, Lower Intensity (BPRD-L)
Business Park Research & Development, Higher Intensity (BPRD-H)	Non-residential: 1.0-2.5 FAR	8 stories	Ground floor retail and active uses are required on 80 percent of the ground floor facade along any Activity Street.	Business Park Research & Development, Higher Intensity (BPRD-H)
Business Park Research & Development, Limited Residential (BPRD-R)	Mixed-use: 1.0-5.0 FAR; minimum of 1.0 FAR of office or R&D	275 feet or 18 stories	Ground floor retail and active uses are required on 80 percent of the ground floor facade along any Activity Street.	Business Park Research & Development, Limited Residential (BPRD-R)

Figure 2-8. Land Use



10.26.2022

- | | | | | | |
|-----|------------------------------|--|--|---|----------------------|
| --- | Milpitas Metro Plan Boundary | MFH - Multi-Family High Density Residential | BPRD - Business Park Research & Development | — | Creeks |
| — | Existing Public Streets | VHD - Multi-Family Very High Density Residential | BPRD-R - Business Park Research & Development, Limited Residential | ■ | Permanent Open Space |
| ▭▭ | Proposed Public Streets | URR - Urban Residential | PF - Public Facilities | ✱ | Park* |
| ▭▭▭ | Proposed Private Streets | RRMU - Residential Retail High Density Mixed Use | — | ★ | Police Station* |
| — | Public Trail | BVMU - Boulevard Very High Density Mixed Use | — | — | Railways |
| --- | Proposed Public Trail | | — | — | PG&E Overhead Line |
| | | | — | — | |
| | | | — | — | |
| | | | — | — | |
| | | | — | — | |

*Location is approximate and shall be determined through the implementation of the MMSP.

Use Map in Figure 2-8 and include:

- **Residential Retail High Density Mixed Use (RRMU).** Supports vertically mixed-use development that have ground floor retail and active uses with residential or office uses on upper floors.
- **Boulevard Very High Density Mixed Use (BVMU).** Supports high-density housing, retail, and small-format employment.
- **Multi-Family High Density Residential (MFH).** Supports medium-density residential development such as stacked flats and apartments.
- **Multi-Family Very High Density Residential (VHD).** Allows high-density residential development, such as multi-story apartments and condos.
- **Urban Residential (URR).** Allows very high-density, residential-only development, such as multi-story.
- **Business Park Research & Development, Lower Intensity (BPRD-L).** Allows for lower intensity office, R&D, and hotels. Office-supportive commercial retail uses are allowed.
- **Business Park Research & Development, Higher Intensity (BPRD-H).** Allows for higher intensity office, R&D, office-supportive commercial retail, and hotels.
- **Business Park Research & Development, Limited Residential (BPRD-R).** Supports office, R&D, office-supportive commercial retail, hotels, and limited residential uses.

This framework locates residential mixed-use development with commercial at the ground floor along the major corridors. This is intended to cluster pedestrian-oriented retail and personal services in proximity to high-density residential populations, as well as making them convenient to employment sites. These parcels are permitted to develop with higher densities and taller building heights as incentives to provide commercial uses. Designated “Activity Streets” identify locations where ground-floor commercial uses will be required, as shown in the Circulation Network Map (Figure 4-6). Building frontages on Activity Streets must include retail and active ground-floor uses. Active uses are uses that encourage pedestrian activity, including storefront retail and personal services, ground-floor office, or residential shared amenities, such as a lobby, gym, or conference room.

Medium- to high-density residential land use classifications provide opportunities for residential-only buildings within the interior of Districts. With a range of height and density standards, these residential classifications allow for transitions to lower density areas outside the plan boundaries.

The City is developing Housing Opportunity Zones (HOZ), which will designate opportunity areas for increased housing densities. Proposed development projects in the HOZ will be eligible for additional densities provided that they comply with City requirements including design standards and affordable housing requirements.

Three new land uses have been developed to support the evolution of the Innovation District: Business Park Research & Development, Lower Intensity (BPRD-L); Business Park Research & Development, Higher Intensity (BPRD-H); and Business Park Research & Development, Limited Residential (BPRD-R). These land use

classifications support research and development activities, offices, high tech, hotels, retail services, and education uses. The classification addresses the eastern portion of the Innovation District and the southern portion of the Great Mall District. BPRD-L occurs further from the Transit Center near the freeway and BPRD-H occurs near the intersection of Montague Expressway and South Milpitas Boulevard and parcels near the Milpitas Transit Center. BPRD-L and BPRD-H allow only commercial uses to encourage clustering of shopping and employment uses, provide opportunities for large-footprint buildings and adequate parking, and to prevent encroachment by residential uses. Mixed-use developments can include limited residential uses in BPRD-R if minimum commercial intensity requirements are met. Within these designations, residential densities of any level are anticipated and would be expected to comprise the upper levels of a building or development.

The Metro Plan maintains two General Plan land use designations: Public Facilities (PF) and Permanent Open Space (POS). The Public Facilities designation applies to parcels owned by public agencies and are intended to be accessed by the public, including schools, City services, and transit centers. Areas that are intended for parks, waterways, creek corridors, and trails are designated as Permanent Open Space. Development in these areas is limited to structures that support open space uses, such as park facilities, restrooms, and signage.

While the MMSP updates all land uses in the Plan Area, most development changes are anticipated in areas that were not redeveloped under the TASP but are expected to redevelop over the next 20 years (Figure 2-8).

2.1.4 Zoning

The Milpitas Metro Specific Plan establishes eight new zoning districts that implement the Metro Area's land uses. The two mixed use zoning districts and three residential-only zoning districts are similar to the existing MXD2, MXD3, R-3, R-4, and R-5 zones contained in the City's zoning code. Density and height regulations for the new zoning designations shall be consistent with the corresponding land use standards established in Table 2-4. Table 2-5 contains additional setback requirements for each zone.

Parking minimums and maximums are also associated with the land uses and are generally lower in the Metro Area compared to other areas of the city due to closer proximity with transit and future jobs. Many of the trips in the Metro Area are anticipated to be made by foot, bike, or transit due to the dense mixed-use, transit-rich environment. Additional parking discussion and transportation demand management strategies to support reduced parking are discussed in Chapter 4: Mobility and Circulation.

2.1.5 Affordable Housing Approach

The Milpitas Metro Specific Plan aims to increase the amount of affordable housing in the Plan Area through the implementation of both citywide policies and the Milpitas Metro Specific Plan vision and policies, and through support of the Housing Element.

The TASP was successful in generating new market rate housing, including smaller transit-oriented units that were affordable by design. However, with significant land area dedicated to for-sale townhome development, it did not

Table 2-5. Zoning District Setbacks

Zoning District	Front Setback Minimum	Rear Setback Minimum	Side Setback (interior) Minimum	Side Setback (street side), Minimum
Metro High Density Mixed Use (MXD2-Metro)	0 feet min, 20 feet max	10 feet; 15 feet when abutting residential; 20 feet for portions of buildings over 60 feet or 4 stories tall	0 feet; 10 feet when abutting residential use and for portions of buildings over 60 feet or four stories tall	0 feet
Metro Very High Density Mixed Use (MXD3-Metro)	12 feet min, 20 feet max	15 feet; 20 feet when abutting residential; 30 feet for portions of buildings over 60 feet or 4 stories tall	10 feet; 15 feet when abutting residential; 20 feet for portions of buildings over 60 feet or 4 stories tall	12 feet min, 20 feet max
Metro Multi-Family High Density Residential (R3-Metro)	20 feet	Single story: 30 feet 2-2.5 story: 35 feet 3-3.5 story: 40 feet	Single story: One side 5 feet min, total of 12 feet 2-2.5 story: One side 10 feet min, total 25 feet 3-3.5 story: One side 12 feet min, total 30 feet	10 feet
Metro Multi-Family Very High Density Residential (R4-Metro)	8 feet min, 20 feet max from the back of the sidewalk	10 feet	10 feet	8 feet min, 15 feet max from the back of the sidewalk
Metro Urban Residential (R5-Metro)	12 feet min, 20 feet max from the back of the sidewalk	15 feet; 20 feet for building over 3 stories which abut residential uses	15 feet 20 feet for building over 3 stories which abut residential uses	12 feet min, 20 feet max from the back of the sidewalk

Table 2-5 Zoning District Setbacks (continued)

Zoning District	Front Setback Minimum	Rear Setback Minimum	Side Setback (interior) Minimum	Side Setback (street side), Minimum
Business Park Research & Development, Lower Intensity (BPRD-L)	0 feet	10 feet min	10 feet min	0 feet
Business Park Research & Development, Higher Intensity (BPRD-H)	0 feet	10 feet min	10 feet min	0 feet
Business Park Research & Dvelopment, Limited Residential (BPRD-R)	10 feet min, 20 feet max	10 feet min	10 feet min	10 feet min, 15 feet max

generate the anticipated amount of housing that is typically subsidized for households earning below the area median income (AMI).

In 2018, the City of Milpitas adopted an inclusionary housing ordinance that requires 15 percent of new housing to be affordable at below-market rates. In general, these units must be built within individual development projects, though a developer can request that the City Council approve off-site development or an in-lieu impact fee payment. Recent developments on Main Street and Tarob Court have both met the 15 percent inclusionary requirement. Additionally, the City has approved two 100 percent affordable projects on Sango Court, which provided a combined total of 216 units of affordable housing. The citywide policies in the existing General Plan Housing Element and future Housing Elements that aim to expand affordable

housing will be the major policy drivers on affordable housing and will apply to the Milpitas Metro Specific Plan Area.

In accordance with Milpitas’ inclusionary housing goals and policies, the Milpitas Metro Specific Plan will also require at least 15 percent of new housing to be affordable at below-market rates. Additionally, the Plan envisions a series of neighborhoods that will be “affordable by design” due to their excellent access to high-quality transit and multimodal access, higher density design, small to moderate unit sizes, and low parking ratios. These units will still need to meet income-level affordability standards to meet RHNA requirements. Additionally, through future Housing Elements, the City will define affordable housing sites and establish Housing Opportunity Zones that support the development of affordable housing, which is likely to include sites within the Metro Plan Area.

2.1.6 Districts

The Metro Plan is organized into five districts which have unique characteristics and support different land uses (Figure 2-8).

These districts are reoriented and reorganized from the original TASP Districts to better define them as cohesive neighborhoods, typically bounded by major streets and centered around a common open space area or business district. This section qualitatively describes each neighborhood; identifies recent changes as a result of development and implementation of the TASP; anticipates where new development is expected; and describes circulation, park, and infrastructure improvements that are documented in other chapters of the Milpitas Metro Specific Plan.

2.1.7 Annexation

In order to support the development of the Innovation District, the City of Milpitas is discussing a potential annexation of a parcel located between the Innovation District and Highway 680 with the City of San Jose (Figure 2-9). The character of the parcel is more similar to the surrounding uses in Milpitas. If incorporated, this parcel will become part of the Innovation District and support office park and light industrial development.

Figure 2-10. Districts (repeated for reference)

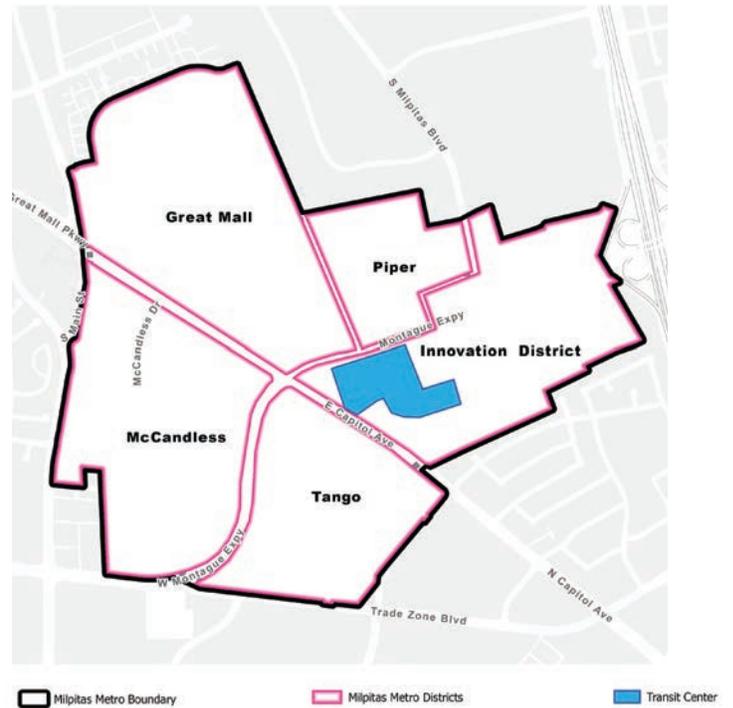
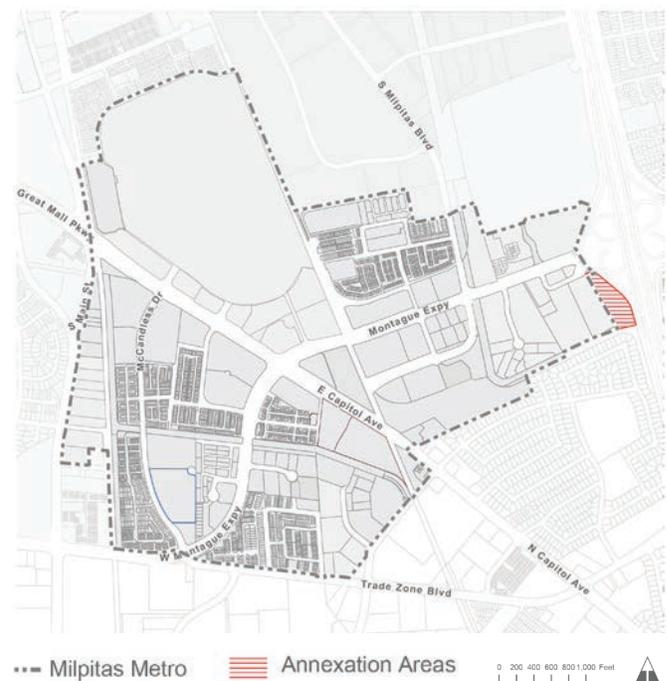


Figure 2-9. Annexation Areas



GIS data provided by: General Plan - City of Milpitas / Roads - US Census Bureau 2019 TIGER / Basemap - ESRI



The vision for the Great Mall District as a transit-oriented high density, mixed-use neighborhood. This view is at Great Mall Parkway and McCandless Drive, looking through new development at the edges of the District to the Great Mall itself.



Illustration of the transformation of the Great Mall Parkway.

2.2 GREAT MALL DISTRICT

The Milpitas Metro Specific Plan envisions repositioning the Great Mall District, which includes the Great Mall itself, from a brick-and-mortar shopping center to a new transit-oriented, high-density, mixed-use neighborhood with a finer-grain street grid and signature public open spaces. Given the site's proximity and pedestrian access to the Milpitas Transit Center and the potential of Great Mall site evolution, this district has a high opportunity for growth and the potential to transform into a transit oriented district that is committed to advancing sustainability and equity goals through high performance targets in areas such as access and mobility, community health, and energy usage. The Great Mall District also has the potential to support a performing arts center, which could draw both local and regional visitors, given its location and accessibility from transit.

The district was largely unaddressed in the 2008 TASP as it reflected the strength of the traditional retail center economic conditions of that time and is currently zoned for general commercial use, which prohibits residential uses. The suburban character of the District has low building form and looks underdeveloped in comparison to the transit-oriented neighborhoods that have grown up around it. To provide flexibility and capacity for change, this District now includes land uses that support high-density mixed use throughout the majority of the District while maintaining parcels close to the Milpitas Transit Center as commercial and retail only. The planning concept for the Great Mall District will establish a flexible vision for the area that will be able to respond to market and economic conditions both in the near-term and long-terms.

This district is bound by Great Mall Parkway and Main Street to the west, the BART rail tracks



to the east, and Montague Expressway to the south. The District includes the Great Mall, owned by Simon Property Group and the parcels at the edge of the Great Mall site along Great Mall Parkway and Montague Expressway that are owned by a variety of owners. For planning purposes, the Great Mall District is divided into distinct development pads, and each has been assigned development capacity. These pads may be individually identified as opportunity sites in the Housing Element.

2.2.1 Great Mall District Priorities

The priorities for the vision of this area are:

- A walkable public street grid that is built with the phases of development that occur within the District. Streets would divide the existing large parking lots and any redeveloped building areas into walkable blocks and streets that can be activated by the uses around them.
- A central outdoor gathering space, and supporting publicly accessible open spaces that build a sense of place. These spaces will be the new amenities that anchor the entire district and would provide social gathering spaces for residents, workers, and visitors.
- Higher density mixed use development located close to the Great Mall Parkway and across from the Milpitas Transit Center where the urban scape is the most appropriate.
- A mix of ground floor commercial space and housing for a variety of opportunities to live, work, and play near transit. Dedicated Activity Streets with ground floor retail, services, and open space amenities, located parallel to Great Mall Parkway and extending into the Great Mall site that provide a lively and active sidewalk experience.
- New pedestrian and bicycling connections along Great Mall Parkway between both VTA Light Rail Stations. Other new connections include new streets to adjacent neighboring areas to the north with, bridges across barriers to the east, a dedicated cycletrack and linear park to the south, and improved Great Mall Parkway pedestrian safety to the west.



Walkable street grid.



Open space network with central plaza.



Mixed-Use development with higher densities near the Transit Center.



Concentration of new development near transit.

Illustrative graphics show the possibilities for the Great Mall District and not what is proposed.

Figure 2-11. Great Mall District Illustrative Plan

This illustrative Plan of the Great Mall District demonstrates the vision for this District with a concept that includes part of the original mall remaining, residential infill at the north of the site, urban scaled buildings along Great Mall Parkway, commercial buildings that tie into the Milpitas Innovation District located closest to the Milpitas Transit Station, a central public gathering place and linear park, and a walkable street grid.





The Great Mall, owned by Simon Properties, is rezoned in the Metro Plan to be mixed-use. (Credit: Loopnet)

2.2.2 Great Mall

The Great Mall stretches from parking lots located near Falcon Drive and close to the Transit Center to neighborhoods north of the site that are associated with Main Street. The structure of the Great Mall, which was originally developed in the 1960s as a major Ford Motor Company auto factory and substantially remodeled to accommodate the Mall in 1994, is 1.4 million square feet and one to two stories tall with one multi-level parking garage on the north side of the mall.

The Great Mall structure's footprint, including the plaza area at the theater entrance, occupies approximately 1.65 million square feet (37.8 acres), or 38 percent of the 99-acre site. That leaves over 61 acres of land devoted to surface parking, including the footprint of the multi-level 2.3-acre parking structure.

Access to the Great Mall is available through private roadways from Main Street, Great Mall Parkway and Montague Expressway, as well as from the townhome development on the north side of the Mall site. Future redevelopment of the site contemplates retaining these access points and could include dedication of public streets or private streets with public access easements to ensure entry to publicly accessible open space features that would be provided. Preservation of access and parking for the Home Depot, as long as it remains, will have to be considered in any site redevelopment plans.

Pedestrian access into and through the site will likely become even more important than it is today as Activity Streets and new development will facilitate increased pedestrian activity. Improved access to and through the site for residents, workers, and visitors around Main Street, including those headed to the Transit Center,

will enhance the viability and vibrancy of retail and service uses on the site. A master scheme of roads, sidewalks and pathways on the site, as well as the open space areas, should be developed with the initial proposals for site development. Considerations for providing an overhead pedestrian connection to the Piper District from the Great Mall site should be evaluated.

The Great Mall continues to be a major regional attraction and a successful location for brick-and-mortar retail. However, retail is evolving, and there is currently high potential for “lifestyle” retail, fitness, and entertainment uses or a central gathering space to be the anchor for this regional destination. In addition, there is an excellent opportunity to provide housing and establish a strong employment base with direct access to transit within this District.

The evolution of retail will mean that there are complementary and additive changes to the site over time, and that the City might anticipate redevelopment in phases. The City of Milpitas will partner with the owner of this site to establish a development plan for the property that generally aligns with this vision document when appropriate and likely at the outset of any significant site development. This partnership will be able to establish development expectations for both the City and the owner/developer. Tools such as a Development Agreement (DA) may be useful in expressing these needs and expectations for both parties. Refer to Figure 6-1 in Chapter 6: Implementation for development pads (or grid blocks) on the Great Mall site that will support the phased evolution on the parcel. A phasing scheme is suggested below, but development on any part of the site could go forward so long as it is in keeping with the goals, policies, and standards of the Metro Plan generally and

the Great Mall District specifically (land use densities and intensities, design standards, public infrastructure needs, etc.).

- In the first phase, redevelopment at the Mall may include development of the surface parking lots around the site. It may start at the northern end of the site where new development could blend with the existing residential neighborhood that borders the District. Access at the northern end would improve access from Main Street to the Great Mall and Milpitas Transit Center. A master development scheme, with suitable flexibility for later phases, should be laid out with the initial development phase.
- A mid-term phase could involve redeveloping the southern end of the site, closest to the Milpitas Transit Center, the Innovation District and hotels along Montague Expressway. This could involve replacement of any portion of the existing Great Mall structure to continue to transform the site into a more urban walkable block structure.
- In the long-term the Mall could be replaced with a variety of new uses, including retaining and reformatting substantial and profitable retail commercial uses.

This site anticipates a substantial amount of housing over time, and with this, parkland and open space to provide the suitable amenities for new residents. Implementation of development projects will necessitate planning, siting and reserving areas for this open space. Enhancing the existing small open space on the southwestern side of the Great Mall building would provide an enjoyable pedestrian link between the Main Street light rail station and the internal areas of the Great Mall site.

The former VTA Bus Station is now an opportunity site. (Credit: Jeremiah Cox, 2017)



2.2.3 VTA Bus Station

The former VTA Bus Station site located at the edge of the Great Mall District is a key opportunity site for near-term redevelopment. This site is located on Great Mall Parkway, and VTA has indicated that they will likely pursue redevelopment of this site for affordable housing to support their goal of 35 percent affordable housing across their property portfolio. This site is at a critical location in the District and could serve as a figurative bridge between recent mixed-use development at Great Mall Parkway and McCandless Drive and anticipated redevelopment on the Great Mall site. This site can be an important model for demonstrating the importance of interfacing with both the Great Mall Parkway multi-use corridor and the interior grid concept of pedestrian streets within the District. Redevelopment of the VTA site could improve mobility at the intersection of Great Mall Parkway and Main Street and incorporate existing and planned pedestrian overcrossings from the Light Rail Transit (LRT) station. This addition could be key to the success of the Main Street and Great Mall Parkway intersection, which is fraught with long, complicated, and uncomfortable walking and cycling conditions. A concept for improving this intersection and a plaza at the Great Mall District is further illustrated in Chapter 4.



VTA owns another opportunity site next to the new VTA Bus Transfer Station at the Milpitas Transit Center.

2.2.4 Commercial Properties at Montague Expressway and Great Mall Parkway

The southern portion of the Great Mall District includes several commercial priority parcels that are ideal for higher intensity office, R&D, office-supportive retail, and hotel uses between the Great Mall site and Montague Expressway than exist there today. These parcels extend the Milpitas Innovation District by preserving and encouraging employment land uses close to the Milpitas Transit Center while also providing a gateway experience to the arriving commuters and visitors.

Falcon Drive is a key access from the District to/from Montague Expressway. Mustang Drive at Great Mall Parkway is signalized and is another of the important access points into the interior area of the District and should be maintained and enhanced.



The properties at the southern end of the Great Mall District define the intersection of Montague Expressway and Great Mall Parkway. (Credit: Anton Ascend)



A view from one of the upper levels of commercial office buildings looking upon the street extending over Berryessa Creek into the Innovation District.



2.3 INNOVATION DISTRICT

The Innovation District includes the Milpitas Transit Center and the crossroads of Montague Expressway and S. Milpitas Boulevard. It is bound by I-680 to the east and Capitol Avenue to the west. The area currently has two roadway connections to Montague Expressway, including one that is signalized at Pecten Court.

The vision for the Innovation District is a new center for innovation and applied technology in Silicon Valley. The highest-density employment uses will be ideally located closest to transit, services and housing, and the construction of a pedestrian bridge over Berryessa Creek will provide a direct connection to the rest of the Metro Area.

Figure 2-12. Innovation District Illustrative Plan

Illustrative Plan of Innovation District and potential development around the Milpitas Transit Center.



Partially contained within the Innovation District, is the Milpitas Innovation District. Silicon Valley's economic driver is technology. Innovation Districts are geographic areas where innovation drivers such as small/medium size businesses, startups, incubators/accelerators, and academic institutions are located in physically compact, transit-accessible, and technically-wired areas that offer a mix of commercial and residential uses.



The Innovation District focuses around the VTA Transit Center and the intersection of Montague and S. Milpitas Blvd. (Credit: Google Earth)

The Milpitas Innovation District is guided by the following principles:

- Protect and preserve employment lands for greater long-term opportunities.
- Promote densification and intensification.
- Explore mixed-use opportunities with commercial development as primary and residential as secondary.
- Provide incentives to encourage development and creative alternatives to parking challenges.
- Encourage parcel assembly for highest and best use.
- Promote pedestrian-oriented streets and activate public spaces through connecting elements.
- Explore information technology infrastructure such as broadband and utilities.

The Milpitas Innovation District, allows for the evolution of traditional manufacturing, warehousing and mini-storage uses to a place designed for emerging technologies in artificial intelligence, machine learning, automotive technology, virtual and augmented reality, robotics, 3-D printing, etc. The Innovation District is different from the Innovation District, which is a geographical area defined in the Milpitas Metro Plan. The Milpitas Innovation District is largely contained in the Innovation District but also extends into the Great Mall District.

The Milpitas Innovation District will be a vibrant mixed-use, office, R&D, and light industrial area that measures approximately 74 acres. It includes approximately roughly 17 acres of land that are located between the Great Mall site and the Transit Center and an additional 57 acres of contiguous land. The 57-acre contiguous area includes about 10 acres at the intersection of S. Milpitas Boulevard and Montague Expressway as well as an additional 47 acres of additional land east of Berryessa Creek.

The Innovation District helps to fulfill one of the City Council’s priorities and City’s commitment to economic development and job growth for City and regional residents, as well as affordable housing opportunities as outlined in the City Council adopted Economic Development Strategy (i.e., Innovation District/Real Estate Development Opportunities and Workforce Development). New streets and sidewalks located south of Montague Expressway will connect employment centers to Milpitas Boulevard and the Milpitas Transit Center and to housing nearby. The Plan also envisions a new park and landscaped creek trails along Berryessa Creek to provide workers with outdoor passive and recreational space.

The strategy for the Innovation District is focused primarily on the employment uses and supportive services that will make the Metro Area a complete neighborhood. In addition to the implementing the Economic Development Strategy, the City’s General Plan 2040 also calls for Action ED-3i, which states to “Explore the creation of an Innovation District in the Milpitas Metro Specific Plan area to facilitate increases in employment densities while leveraging the area’s proximity to mass transit.”

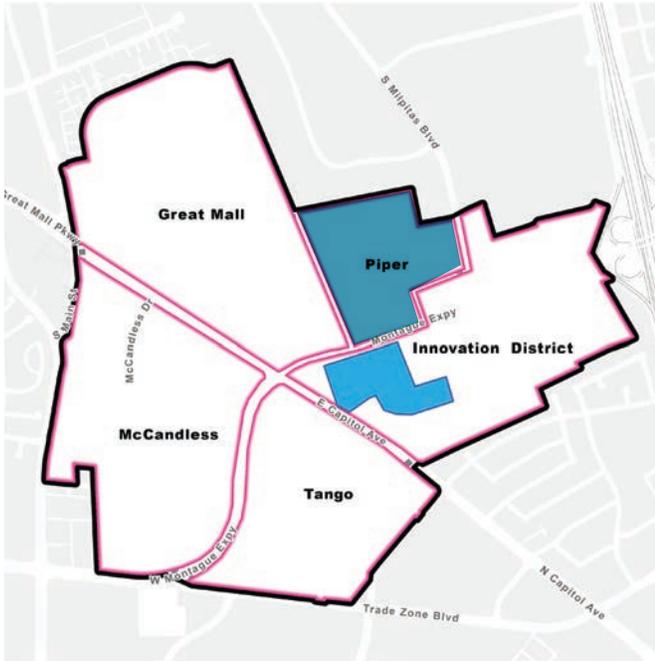
There are three primary areas in the Innovation District:

- **The Milpitas Transit Center**, which includes the Milpitas BART station and VTA bus stops, is in the western part of the Innovation Subdistrict. The sites closest to the Milpitas Transit Center are owned by VTA. VTA has confirmed that these parcels may be used for commercial uses in the future, and could potentially include mixed-use housing. Mixed-use development in this area will provide housing opportunities that complement the employment uses in this District.

- **ID Focal Point.** Sites near the intersection of Montague Expressway and S. Milpitas Boulevard are a central part of the Innovation District, an area that extends from the Great Mall past Berryessa Creek towards I-680. These sites are zoned Business Park Research & Development, Higher Intensity (BPRD-H) and intended to preserve employment lands by prohibiting residential uses and supporting primarily office, R&D, and industrial uses.
- **Off I-680.** Along the easternmost portion, at the edge of I-680 are sites that are both freeway and transit accessible. These areas are anticipated to be R&D or industrial uses that are not as dense as envisioned for the center of the District and are zoned Business Park Research & Development, Lower Intensity (BPRD-L).

These land uses will accommodate business parks, high-density office buildings, research and development facilities, advanced manufacturing clusters, and light industrial areas that provide for a variety of employment opportunities and services for Milpitas and the region. Uses that support businesses including health and fitness centers, restaurants and cafés, limited convenience retail, and day care facilities will also be encouraged, typically at ground floor level and oriented to the street, to complement the campus-like ecosystem.

Given the high development potential for the Innovation District and its anticipated intensity, the feasibility of integrating high performance sustainability measures through the potential creation of an EcoDistrict, described in policy LU 1.4 below, will be explored. The Innovation District is conveniently located within walking distance of the Milpitas Transit Center and will support new higher density development which could provide an opportunity for advancing sustainability measures related to accessibility, energy use, and resource management.



2.4 PIPER DISTRICT

The Piper District is the most built-out District in the Plan Area at the time of the this Plan’s preparation. The Metro Plan modifies the District by changing the land use of properties at the busiest edge of the District near the intersection of S. Milpitas Boulevard and Montague Expressway to BPRD-H, which does not allow residential uses, and reassigning these properties to the Innovation District. Design sensitivity to the existing residential in the District will be important.

The Piper District is bound by industrial properties to the north, the BART tracks to the west, S. Milpitas Boulevard to the east, and Montague Expressway to the south. The District includes Bob McGuire Park at the center of the District, surrounded by Multi-Family Residential High Density and Multi-Family Residential Very High Density. A pedestrian overcrossing connects the Piper District to the Milpitas Transit Center. The direct pedestrian bridge connectivity to the Milpitas Transit Center which was planned for and implemented under the TASP made the Piper District attractive for developers to propose and develop high density residential projects and mixed-use developments.

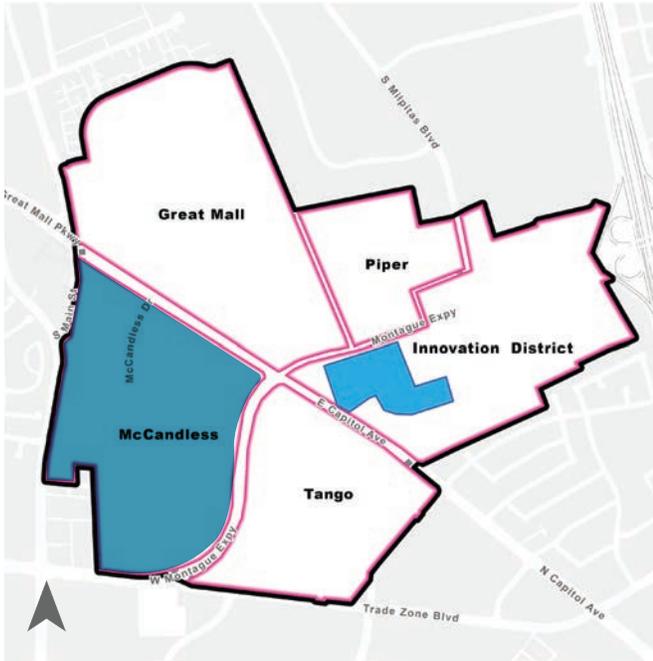


Aerial view of the Piper District.

Figure 2-13. McCandless and Tango Districts Illustrative Plan

Illustrative Plan of the McCandless and Tango Districts.





2.5 MCCANDLESS DISTRICT

The McCandless District is mostly built out and is a visible result of planning from the TASP. This original District included the residential neighborhood south of Great Mall Parkway and west of Montague Expressway and has been expanded to include several additional residential parcels on Main Street. The expansion of the District to Main Street will increase the development potential for high-density residential parcels to the Plan Area. These areas are closely connected on Great Mall Parkway and close to the Great Mall VTA Light Rail Station.

The District is characterized by high-density mixed-use development along larger, busier streets in the northern area and lower density townhouse development in the central area. A signature part of the District is a neighborhood serving commercial district at The Fields, which includes a Trader Joe’s grocery store, retail,

and a public gathering place, a block from the intersection of Great Mall Parkway and McCandless Drive. Construction of a hotel is contemplated as a part of this more intense development at Great Mall Parkway, to serve business visitors and others with easy access to services and amenities.

Farther down McCandless Drive, Mabel Mattos Elementary School has been constructed following the identification of the site for school use in the TASP. The second phase of school construction is expanding to accommodate projected new development in the area. McCandless Park, a centerpiece of the McCandless District is near completion as the largest park in the Metro Area and will serve the school and public through a joint-use agreement. McCandless Park is bordered on the north by Penitencia Creek East Channel where a trail and pedestrian bridges are planned to connect across the creek and beyond.

Another part of this District yet to redevelop is a stretch along Montague Expressway between McCandless Drive and Houret Court. This Plan establishes the framework for a new street pattern in the southern portion of the District that could ultimately provide access between McCandless Drive and Montague Expressway via Houret Court. Houret Court will be redesigned as a part of that connection to make the adjacent parcels more feasible for mid-rise residential development and to facilitate access for mixed-use retail commercial development at McCandless Drive.



2.6 TANGO DISTRICT

The Milpitas Metro Plan’s focus in the Tango District is to complete the street network within the district and connect this area to the Milpitas Transit Center via a new bridge over Penitencia Creek that will serve as an extension of South Milpitas Boulevard. The new bridge will provide direct access to the Transit Center for pedestrians and bicyclists and will also serve as an access route for emergency vehicles. On the south side of the Creek the bridge will lead directly to the park and a pedestrian/bicycle path may be constructed in lieu of street improvements until such time as a roadway may be needed. The proposed five to seven acres of parkland would be an aggregation of several parcels of land.

The name of the District is a combination of the names of two cul-de-sacs in the District, Tarob Court and Sango Court, that do not currently connect within the District. Barriers, such as

South Penitencia Creek - East Channel divide the District. Large arterial streets - Montague Expressway, Capitol Avenue, and Trade Zone Boulevard that surround the District are also barriers to connectivity and circulation within the Metro Area.

Several residential and mixed-use buildings have been developed following the TASP, including the higher density apartments on Capitol Avenue and townhouses in the southern part of the District along Trade Zone Boulevard. While there has been some development, the Tango District is still transitioning from business park and industrial uses to “transit-oriented” as envisioned in the TASP. The remaining parcels in the District are located south of the creek and are envisioned to be higher density housing with some neighborhood-serving commercial services within walking distance to the Milpitas Transit Center.

Development impact fees will help fund new bridges, parks, and streets to connect to the heart of the Tango District. By 2020, the City of Milpitas had acquired key parcels in the District that will be developed as roadways, pathways, and parks to complete the Tango District with a connection to the Milpitas Transit Center. A planned pedestrian bridge across Montague Expressway will connect the McCandless District with the Tango District along the Penitencia Creek Trail. When completed, this pedestrian and bicycle network will provide safe connections to the Milpitas Transit Center, employment centers with in the Innovation District, and services and other amenities within the Metro Area. The circulation strategy in this area is described in more detail in the Mobility and Circulation Chapter (Chapter 4).

2.7 LAND USE POLICIES

LU 1. Mix of Uses. Provide a mix of land uses, including residential; neighborhood-serving, local, and regional retail and entertainment destinations; commercial; office; research and development facilities; parks; and public facilities, to create a complete neighborhood.

- LU 1.1. Establish the Land Use Classifications outlined (Table 2-1) and the Land Use Map (Figure 2-8) to identify areas appropriate for residential, commercial, mixed use, office, R&D, and industrial development. Retail commercial uses shall be concentrated in a pedestrian-oriented pattern, further described with development standards (Chapter 3).
- LU 1.2. Update the General Plan as necessary to establish the Metro Plan's boundaries to include parcels on Main Street and parcels east of Berryessa Creek as identified in the Plan Area Boundary map (Figure 1-3).
- LU 1.3. Convert suitable portions of any transit facility sites into high density mixed use where they are not needed for transit.
- LU 1.4. Explore the feasibility of creating an EcoDistrict in the Innovation District and/or the Great Mall District: a vibrant, mixed-use neighborhood committed to advancing sustainability, resilience, and equity through targeting a variety of performance areas, such as access and mobility, appropriate development, community health and well-being, energy, water, and materials management.
- LU 1.5. Consider establishing or supporting the establishment of a performing arts center in the Great Mall District.
- LU 1.6. Ensure day care facilities, schools, nursing homes, and other similar sensitive receptors are located away from sites that store or use hazardous materials, in

accordance with State and City standards. Adequate buffers to protect occupants of these sensitive uses shall be provided, including but not limited to walls, fences, landscaping, large building setbacks, and additional exit routes over and above minimum code requirements.

- LU 1.7. In all rental and sale agreements, provide disclosures to future residents about all surrounding industrial uses, including UPRR train tracks and operations, and the permanent rights of such industrial uses to remain. Describe potential impacts including but not limited to: noise, groundborne and airborne vibration, odors, and use of hazardous materials.

LU 2. Transit Orientation. Capitalize on the transit orientation of the Plan Area to support transit ridership, reduce traffic congestion and greenhouse gas emissions, and support livability.

- LU 2.1. Arrange the highest density areas supported by strong pedestrian and bicycle access ways and along the major corridors and transit-adjacent areas.
- LU 2.2. Accommodate hotels in designated locations along major arterials that maximize access and visibility; are close to higher intensity businesses, shopping, entertainment, and dining; and enjoy good access to BART and light rail.
- LU 2.3. Establish a strong pedestrian and transit orientation throughout the Plan Area and limit development design that prioritizes automobile access to the detriment of pedestrian and bicycle access. Policies defining development design are found in Chapter 3: Site and Building Design Standards and Guidelines.
 - LU 2.3.1. Drive-through retail and service

formats or other activities that induce vehicle idling are prohibited.

LU 2.4. Concentrate neighborhood retail uses along Activity Streets, as designated in Figure 4-11, to support nearby uses, reduce automobile dependence and support alternative modes of transportation. Refer to LU 6: Retail and Active Ground Floor Uses for guidance on desirable retail uses and design of street frontages.

LU 3. Housing Diversity and Affordability.

Provide transit-oriented housing that is accessible and affordable for a range of household types and income levels.

LU 3.1. At least 15 percent of the planned 5,000 to 7,000 new housing units in Milpitas Metro should be affordable, as regulated by the City of Milpitas' Inclusionary Housing Ordinance.

LU 3.2. Accommodate housing for a range of housing types, income levels, and rental and ownership models, including the following:

- Live/work units
- Group housing
- Co-living
- Senior housing
- Student housing

LU 3.3. Establish development intensities in Table 2-4 that support transit ridership, home-to-work convenience, neighborhood retail and active open spaces. Set and promote minimum densities to prevent the underutilization of sites.

LU 3.4. Refer to Section 2.11 Private And Common Spaces for requirements regarding the provision of publicly accessible open space.

LU 3.5. Encourage the development of affordable housing using frameworks

established by the City, such as a Housing Opportunity Zone designation.

LU 3.6. When determining the density or unit count of non-traditional housing configurations, such as dormitories, co-living, or Single-Room Occupancy buildings, three bedrooms may be counted as the equivalent of one unit.

LU 3.7. Coordinate with the Housing Element Update to ensure that the Metro Area can adequately support housing to meet the City's RHNA goals.

LU 4. Hotel. Allow hotels in mixed-use, commercial or research and development areas to encourage vitality and support local businesses.

PPS 4.1. Hotels are an allowed use in the Business Park Research Intensity; and Business Park Research & Development, Limited Residential zoning districts.

LU 4.2. Hotels may be designed to be converted into residential rental properties

LU 5. Office. Preserve employment lands that accommodate a range of office and light industrial uses, including small businesses, larger offices, and R&D and technology uses.

LU 5.1. Create a well-connected, dynamic office and R&D employment destination by concentrating office and light industrial uses and limiting housing in the Innovation District.

LU 5.2. Promote the development and appeal of flexible office and research and development uses in the Innovation District by ensuring strong connections to transit and the rest of the Metro Area. For street connection standards and guidelines, refer to Chapter 4: Mobility and Circulation.

LU 5.3. Office and R&D buildings in the Innovation District should be highly adaptable to accommodate the needs of research-oriented sectors such as applied sciences and creative industries with specialized manufacturing.

LU 5.4. Encourage supporting food and beverage and neighborhood convenience retail in the Innovation District and in proximity to other employment facilities. Office-supportive services should be located on the ground floor and in social hubs of the development where they can be directly accessed by the public.

LU 5.5. Office spaces throughout the Metro Area, and particularly in the Innovation District, are encouraged to be designed as incubators, accelerators, maker spaces, shared working spaces, and labs associated with innovation-driven economies. Large format high employee based offices are permitted.

LU 5.6. Support small-format offices (generally less than 5,000 square feet) within residential mixed-use buildings outside of the Innovation District, where retail is not required, and through co-working configurations.

LU 5.7. Commercial office uses and commercial infill development are encouraged in the Innovation District at locations near Great Mall Parkway, Montague Expressway, and the Milpitas Transit Center to create a more mixed and complete neighborhood with the opportunity for employment. Office and R&D uses should be located close to transit and major streets.

LU 5.8. All office buildings and the supporting public spaces around them should be designed to stimulate connectivity, collaboration, and innovation.

LU 6. Retail and Active Ground Floors. Support a mix of neighborhood and regional serving retail and active ground floors that are compatible with surrounding land uses and are economically viable, as seen in the Land Use Map, Figure 2-8.

LU 6.1. Refer to 3.3 Commercial and Mixed-Use Buildings Design Guidelines for additional guidance.

LU 6.2. Retail and active ground floors are required on frontages along Activity Streets. Refer to Chapter 4: Mobility and Circulation for additional standards regarding Activity Streets.

LU 6.3. Ground floor retail uses shall encourage activities and foot traffic at the street frontage and may include uses such as restaurants, retail shopping, service-oriented uses, small offices, medical clinics, gyms, and other similar uses.

LU 6.4. Prohibit drive-through establishments and other new automobile prioritized uses such as gas stations or car-oriented convenience stores.

LU 7. Public Services. Expand infrastructure and public services in parallel with new development.

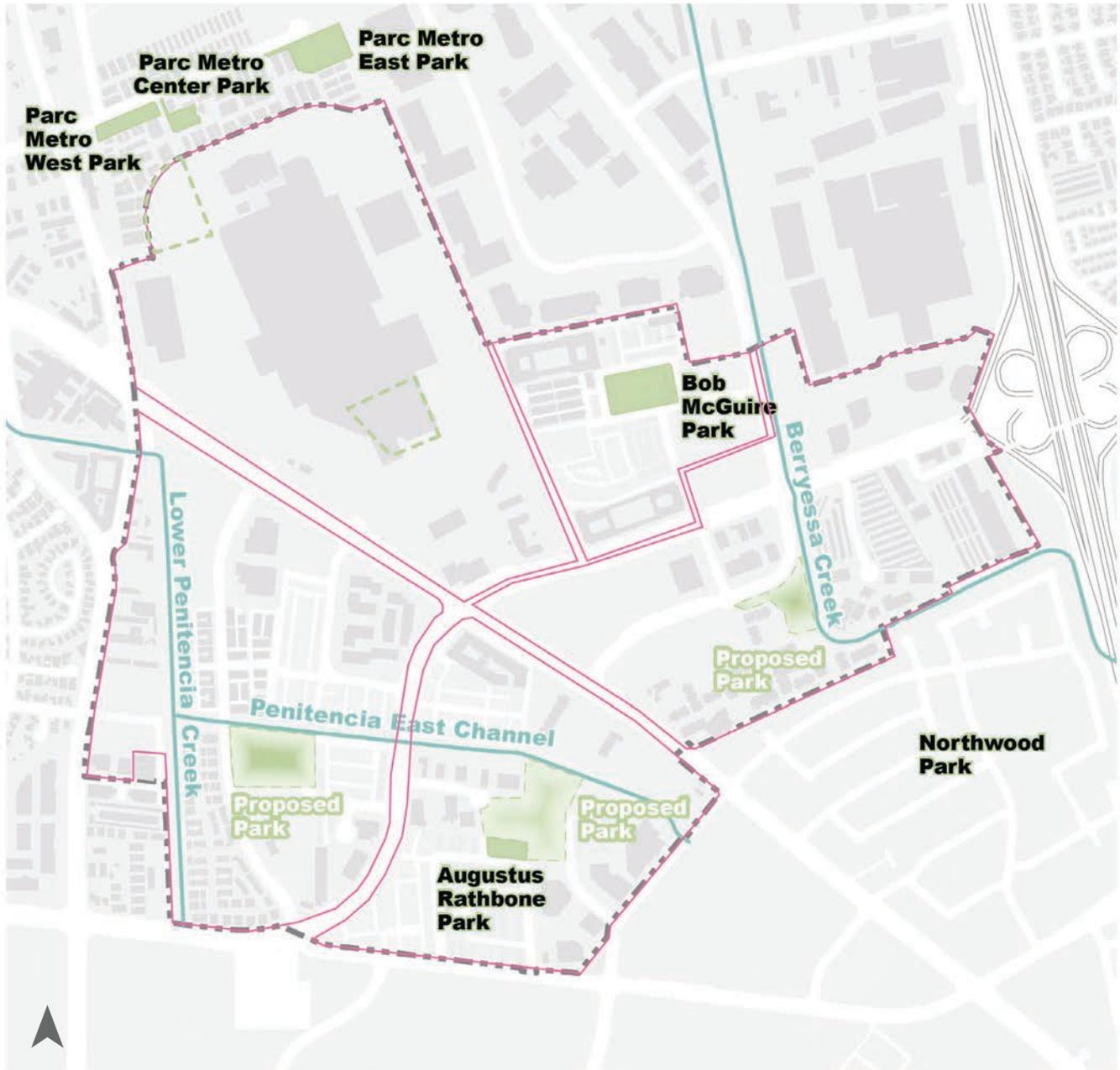
LU 7.1. Consider locating a Police Substation in the Innovation District in proximity to the Milpitas Transit Center. Refer to Land Use Map, Figure 2-8 for approximate location.

LU 7.2. Consider developing a reuse facility in the Innovation District, in the nearby industrial district or elsewhere in the City that makes building materials available to customers, and acts as an outlet for reusable items otherwise destined for landfill.

LU 8. Community Spaces. Locate shared public spaces within each District to be easily accessible for residents, employees, and visitors.

LU 8.1. Refer to Section 2.10 Public Open Space Policies for public space policies and guidelines.

Figure 2-14. Existing and Proposed Parks



Milpitas Metro



Park Areas



Proposed Parks



Potential Location for Required Parks



Streams



Buildings



Subdistrict Boundary



GIS data provided by: Protected Park Area - California Protected Areas Database / City Park Areas - City of Milpitas / Roads - US Census Bureau 2019 TIGER / Basemap - ESRI

0 200 400 600 800 1,000 Feet





2.8 PARKS AND PUBLIC SPACES FRAMEWORK

Open space is a critical component in dense urban communities where residents have limited to no private outdoor space and public open spaces become an extension of their homes. These spaces support social gatherings and recreational opportunities as well as places for quiet contemplation. Well-designed public spaces can also contribute to placemaking and be used to define the character and aesthetics of a neighborhood. In addition to social and health benefits, open spaces also have environmental benefits. Landscaping, parks, and gardens can help with stormwater management, reduce the heat island effect in urban areas by providing shade, and provide additional habitats for pollinators and other wildlife.

Open space is both a highly desired amenity and a limited resource in the Metro Area. Parks and other shared public spaces provide residents, workers, and visitors with recreation and can improve overall community health. Given the scarcity of undeveloped land that can be used for parkland, the Metro Plan uses a combination of standards — acreage of open space and quality of open space — to meet park demands. A variety of park typologies will be used to create a varied open space experience that will meet the different needs of the diversity of the people who live, work, and play in the Metro Area.

Some of the policies below in this section provide guidance for the City and developers and the public in general. Others identify the specific considerations that developers must take into account when preparing their development plans.

Figure 2-15. Recreational Value System

RECREATIONAL VALUE SYSTEM - REQUIRED POINTS					
PARK TYPE	ACTIVE	CONTEMPLATIVE	SOCIAL	SUPPORT FACILITIES	TOTAL
Community Park					
Neighborhood Park - Level 1					
Neighborhood Park - Level 2					
Special Use Park					
Urban Park					
Linear Park					

The Parks & Recreation Master Plan assigned each amenity a maximum point value. As the next step in the Master Plan’s implementation, the City will assign each park type with a target range of required points in each amenity category. (Source: City of Milpitas Parks & Recreation Master Plan, 2021: Appendix C.)”

2.8.1 Relevance to Other City Plans

Providing open space that is safe, convenient, and is equitably accessible is a key tenet of the General Plan. General Plan Goal PROS-1 sets a citywide goal to “Provide a diversified and high quality public park and trail system that provides recreational opportunities for all residents.” The goals and subsequent strategies and actions contained in this chapter are intended to enhance and expand the citywide park and trail systems to maximize the recreational value of public amenities.

The City’s Parks and Recreation Master Plan (2021) establishes a long-term vision and strategy for the provision and programming of parkland and other public spaces across

the City. The Master Plan evaluates existing park and recreational facilities and provides a policy framework for the City to respond to new opportunities and meet the changing needs of residents, workers, and visitors.

The Milpitas Metro Specific Plan’s vision of providing a greater variety of shared public spaces is consistent with the Parks and Recreation Master Plan’s overall vision, goals, and policies. The intent of this chapter is to implement the Parks and Recreation Master Plan and provide additional detail and discussion for parks planning within the Milpitas Metro Area. Developers should refer to the Parks and Recreation Master Plan for additional park guidelines not contained in the Milpitas Metro Specific Plan.

2.8.2 Determining Park Demand: Acres Ratio vs. Recreation Value System

Cities have traditionally calculated open space demand based on an acre to population ratio due to high cost of land against return in recreational value. Thus, areas with higher populations require more parks to be built. Requiring a particular number of acres of parkland creates a challenge to also provide sufficient funding for constructing and maintaining park amenities and might result in open spaces with limited amenities and deferred maintenance. The Milpitas Metro Specific Plan establishes two sets of standards to both generate more open spaces and to maximize recreation value.

The General Plan establishes an overall goal of 2 acres of open space per 1,000 residents in the Milpitas Metro Area. The Milpitas Metro Specific Plan maintains this ratio as a standard but provides additional nuance by using the Recreational Value System to quantify a public space's level of service.

Relying solely on a ratio of open space acres to population can create challenges for cities to adequately evaluate the quality of existing park spaces and to identify recreational needs. Additionally, dense urban areas where the need for public open space is higher due to the lack of private open spaces tend to have a shortage of space due to the competition for land.

The City's Parks and Recreation Master Plan establishes a Recreational Value System to maximize recreational opportunities, capacity, and amenities. The Recreational Value System provides a points-based system for evaluating existing and proposed public parks on their capacity to provide the following amenities:

- Active Uses (e.g., sport court, pool, playground, skate parks)
- Contemplative Uses (e.g., nature area, community garden, public art)
- Social Uses (e.g., amphitheater, picnic area, concession, plaza)
- Support Facilities (e.g., restroom, parking lot, power, wifi)
- Required Amenities (e.g., bike racks, drinking fountain, lighting, seating)

This system will ensure that parks are meeting their maximum potential in providing residents and workers with flexible and usable space. This type of value system prioritizes the variety of experiences, access and proximity to experiences, and a comprehensive range of spaces. The Recreational Value System strives to provide a more holistic picture of the City's park systems and illuminate future park opportunities.

2.8.3 Existing Park System Park Acreage and Location

The Milpitas Metro Area is home to the following publicly accessible park amenities:

- **Bob McGuire Park.** Located in the housing development east of the Great Mall, this popular three-acre park includes four tennis courts, an amphitheater, playgrounds, and a field.
- **McCandless Park.** Conveniently located next to Mabel Mattos Elementary School and adjacent to the creek walking trails, this four-acre park is under construction and will be completed in 2022.
- **Augustus Rathbone Park.** This small 0.7-acre neighborhood park is located in the Tango District. It contains playgrounds and grassy open space. Park space will be enhanced and enlarged in the future.
- **Creek Trails.** The trails that run adjacent to Penitencia Creek are popular outdoor recreational destinations for residents.

Figure 2-16. Existing and Proposed Parks



10.25.2022

- Future Open Space
- Permanent Open Space
- PF - Public Facilities
- Transit Center
- ★ Police Station*
- ✱ Park*
- PG&E Overhead Line

*Location is approximate and shall be determined through the implementation of the MMSP.

2.8.4 Park System Needs

The planning process for the Milpitas Metro Specific Plan included multiple outreach efforts which engaged over 400 people. The need for additional public outdoor spaces in the Milpitas Metro Area was identified as a top priority by community participants. The community's top three preferences for types of public space included places to gather, contemplative spaces, and recreational spaces. More specifically, the top three preferences were for plazas and courtyards, farmer's markets and community event spaces, and trails.

The TASP contemplated approximately 35 acres of parks and open space. But, due to the moderate density of residential development that occurred in the early years of TASP development, and those units occupying substantial land area that contributed modest impact fees allocated to parkland acquisition, the development of parkland was severely limited.

There are several opportunities for additional open space in the Milpitas Metro Area, including the following.

- **Tango District Park.** The City has secured land several parcels for additional park space in the Tango District north of the existing August Rathbone Park, including the parcel adjacent to and abutting the southern edge of East Penitencia Creek. Once all designated parcels are utilized for parkland, this park will may encompass nearly from five to seven acres, spanning north of Rathbone Park to the end of Sango Court, then due east to the parcel line continuing north from Expedition Lane until Willow Avenue, then along the parcel line parallel to Willow Avenue until the

parcel line continuing generally south to Tarob Court, and then west to the northeast edge of Rathbone Park, encompassing three parcels. This park and will be accessible from several different neighborhoods. This proposed park will be designed to be flexible to meet a diversity of users and will add recreational open space to this growing area.

- **Creek Trails.** Improvements to the Penitencia Creek Trail are being guided by the Bicycle, Pedestrian, and Trails Plan. The existing creek trails will be expanded to connect to a larger citywide trail network to provide residents, workers, and visitors with more recreational access.
- **Great Mall.** As the City responds to changing economic markets, Great Mall and the area around it are anticipated to evolve into vibrant mixed-use areas that are centered around the pedestrian experience and landmark open spaces. The evolution of the Great Mall presents an opportunity for public plazas and flexible spaces that can support community events. With substantial new development, particularly residential projects, the City anticipates parkland development in close proximity. This also includes a linear park along Great Mall Parkway.
- **Innovation District.** A publicly accessible park is planned in the Innovation District adjacent to Berryessa Creek and the new roadway connection to S. Milpitas Boulevard Extension. The proposed park is designed to provide recreational opportunities for workers and provide open space in a District that currently lacks park space. This park is anticipated to replace the parkland previously designated on the west side of Berryessa Creek at South Milpitas Boulevard.



“Public Space”

“Open Space”

“Parks”



Some examples of Open Space Typologies that are envisioned for the Milpitas Metro Area.



An illustration of a creek trail along South Penitencia Creek - East Channel in the Tango District. The pedestrian bridge and Tango District Park can be seen in the background.



2.9 EXISTING AND PROPOSED PARKS OPEN SPACE STRATEGY

2.9.1 Open Space Typologies

The Milpitas Metro Specific Plan relies on several different open space typologies to achieve parks and open space goals. In the urban setting that is envisioned for Milpitas Metro, open spaces will look different than much of what exists now in Milpitas. Parkland could include pocket parks, plazas, playgrounds, paseos, squares, performance venues, dog parks, and urban recreational spaces. With people living in smaller units without private yards, these shared open spaces will serve as the backyard for the community.

Given the limited acreage of land still available in the Milpitas Metro Area, public parks alone may be inadequate for meeting the open space needs of residents, visitors, and workers. This Plan maintains the 2 acres of publicly accessible parkland per 1,000 residents standard established in the TASP but also aims to improve the quality of open spaces. Adequate open space in this more urban setting will be ensured by evaluating public parks and privately-owned public spaces based on the Recreational Value System. This evaluation may result in modifications to amenities within existing parks. Private communal space will be enforced through required minimums per unit.

- **Public Parks:** Public parks and spaces are owned and managed by the City and are freely accessible to the general public. Examples of public parks in the Milpitas Metro Area include Bob McGuire Park and Augustus Rathbone Park, both of which are accessed by dedicated public streets.

- **Privately-Owned Public Spaces:** Privately-owned public spaces are recreational or outdoor spaces that can be accessed by the general public and are owned and managed by a private developer. Privately-owned public spaces must be designed to be easily accessed by the public from sidewalks or pathways. They should be governed by public access easements and be clearly marked as public spaces. These spaces have the same function and access as publicly-owned parks and plazas but are owned and maintained by a private party. These spaces shall be viewed by this Plan as community, neighborhood or urban parks.
- **Private Communal Spaces:** Private communal spaces are recreational or outdoor spaces that are accessible to residents living within a residential community but are not open to the general public. These spaces may include balconies, porches, rooftop gardens, gyms, and other communal spaces that can only be accessed by residents in a particular building complex or community.

2.9.2 Open Space Network

Public open space in the Milpitas Metro Area is a critical component to making the neighborhood more complete. The Milpitas Metro Specific Plan will create a connected network of public spaces by integrating new public spaces into the area and enhancing the quality of existing open space. Bike and pedestrian connections, including trails and sidewalks, are part of the open space network and will also increase accessibility to parks and other public space destinations.

Public space can come in a variety of different forms and sizes, including sports fields, plazas, parklets, courtyards, walking trails, and rooftop gardens. The Milpitas Metro Specific Plan utilizes different scaled public spaces and emphasizes partnership with private developers to meet the

outdoor needs of residents and workers. The Milpitas Metro Specific Plan will provide high-quality public space that maximizes recreational experiences within the space constraints of this urban environment.

2.9.3 Guiding Principles

The policies for public space are guided by the following principles:

- **Large Projects.** “Phased projects” (i.e., Great Mall and Innovation District District) will develop large parks to serve new populations. Policies define acreage and timing requirements.
- **Small to Medium Projects.** Residential and mixed-use infill projects will pay into the TADIF funds dedicated to parkland acquisition and construction and/or provide public open space on site, depending on the size and location of the project. At minimum, standards require that at least 5 percent of the public open space requirement is provided as publicly-accessible open space. As a submittal requirement for entitlement applications, projects must identify how these requirements are being met and demonstrate a commitment to develop and maintain or contribute to public spaces or privately-owned publicly accessible spaces.
- **Quantity & Quality Standards.** Use a hybrid model of an acres per resident ratio and the Recreational Value System to assess public space facilities and identify opportunities for growth.
- **Variety & Distribution.** Ensure that each District will ultimately include open space with amenities suitable to serve the uses and activity within or planned for the area.

2.10 PUBLIC OPEN SPACE POLICIES

PPS 1. Access. Ensure safe, broad, and equitable access to urban public spaces, such as parks, trails, and rooftop gardens.

PPS 1.1. Establish community connections to parks and open spaces from the street and trail network that are easy to access.

PPS 1.2. Ensure that at least three sides of a park be accessible by pedestrians and bicyclists via a sidewalk, pathway, or trail.

PPS 1.3. Design the parks adjacent to Penitencia Creek and Berryessa Creek to provide trailheads for accessing the citywide creek trail system.

PPS 1.4. Distribute public spaces to maximize accessibility from residential neighborhoods, workplaces, and commercial areas.

PPS 1.5. Generally create multiple smaller public urban spaces throughout the plan area rather than a single large park, locating at least one park in each District within walking distance from housing.

PPS 1.6. Locate small neighborhood-serving parks away from major thoroughfares, such as Montague Expressway.

PPS 1.7. Locate parks and outdoor gathering spaces adjacent to higher density residential development to provide a visual and activity amenity for housing, as well as to ensure safety through casual surveillance.

PPS 1.8. Activate parks to the extent feasible, by orienting development entrances to face onto parks and trails to enhance access and safety.

PPS 1.9. Consider including publicly

accessible open space as part of the development of City-owned parcels along Main Street.

PPS 1.10. Ensure that parking at parks and community centers are monitored and parking time limits are enforced to ensure the availability of parking for facility users. Refer to M 8.5 for parking requirements for publicly accessible parks.

PPS 2. Public Space Typologies. Provide a variety of different sized public spaces, including urban parks, neighborhood parks, community parks, plazas, and pathways that are appropriately scaled for their surroundings and support different activities.

PPS 2.1. Support a range of activities within parks that meet the active and passive recreation needs of Milpitas Metro Area residents, workers, and visitors.

PPS 2.2. Provide for a range of activities within the parks, including walking, jogging, picnicking, bicycling, arts and exercise classes for both children and adults, sports playing fields and courts, and flexible pop-up spaces. Provide:

- Passive recreation parks near housing that provide a visual amenity as well as places to walk dogs, take children to play, etc.;
- Parks with sports fields;
- Urban plazas and courtyards with landscaping, paving, benches and trees;
- A community center where City recreation programs and classes can be offered;
- Staging areas along the trail network where people can access the trail system; and
- Parks along creeks where people can enjoy passive recreation in a creek setting.

PPS 2.3. If a public utility easement (such

as the one existing between Capitol Avenue and Penitencia Creek East Channel) is developed as a publicly-accessible pathway or linear park that connects two public streets, it can be counted toward a development's park dedication requirement.

PPS 3. Recreational Value System. Enhance and expand public open space facilities based on the Recreation Value System provided by the Parks and Recreation Master Plan. (See Section 2.8.2).

PPS 3.1. Use the Recreational Value System to guide existing and future park improvements to ensure all parks provide a diversity of active, contemplative, and social gathering experiences.

PPS 3.2. Generate publicly-accessible private open space to supplement public open space in meeting the outdoor and recreational needs of residents.

PPS 3.3. Design the citywide trail system (as described in M 5) as an asset of the Plan Area's open space network in addition to the system's circulation role to connect Districts and residential neighborhoods with transit, shopping, and employment.

PPS 3.4. Complete a pedestrian and bicycle network that connects trails and pathways with pedestrian bridges, enhanced pedestrian-friendly environments, and bicycling enhancements to create a loop that connects the entire Milpitas Metro Area.

PPS 3.5. Refer to trail policies in Chapter 3: Site and Building Design Standards and Guidelines for guidance on the design of the trail network.

PPS 3.6. Develop and locate signage along

the creek trails to educate trail users on the importance of preserving native vegetation, habitats, and resources. Signage shall be compliant with wayfinding and signage guidelines and standards contained in Chapter 3: Site and Building Design Standards and Guidelines.

PPS 4. Public/Private Partnership and Requirements for New Development. Work with property owners to develop public parks and open spaces as a part of the entitlement and/or Development Agreement process for development projects.

PPS 4.1. As a requirement of project submittal during entitlement, project sponsors shall identify how they are meeting parks and open space requirement and demonstrate commitment to the following principles:

- Indicate equitable access as described in PPS 1.
- Describe amenities provided, by category, as described in the Recreation Value System in Section 2.8.2 and PPS 3.
- Identify connection to trails and path network in M 5.
- Identify on-site publicly-accessible park location consistent with PPS 4 requirements below.

PPS 4.2. Activate the Great Mall District with flexible urban public open spaces that support a range of purposes, including social gatherings. Minimum requirements are as follows:

- Development of one large public park, measuring at least two acres.
- Development of one smaller public park, measuring at least one acre.
- Require developer to fund and construct a new public plaza at the Great Mall. Ownership

and maintenance of the plaza will be negotiated between the developer and the City.

- Prior to the granting of entitlements for the 1,000th unit, a parkland space of at least 2 acres must be secured for design and construction prior to or concurrent with those entitled units.

PPS 4.3. A large park of at least one acre shall be developed by the City as an amenity in the Innovation District. Smaller paseos, plazas, outdoor dining areas, and/or recreation areas shall be created by project sponsors of commercial projects with at least 10,000 square feet of floor area (excluding retail/restaurant/service area). Commercial project sponsors shall provide at least 25 square feet of contiguous publicly-accessible open space per 10,000 square feet of floor area. Since the Innovation District spans multiple properties with different property owners, park development shall be coordinated and contiguous, to the extent feasible. Individual property owners may collaborate to fulfill the publicly-accessible open space requirements.

PPS 4.4. Consider a range of ownership and maintenance options when developing open spaces within larger developments. Ownership and maintenance of publicly accessible open spaces will be negotiated between the developer and the City on project-by-project basis.

PPS 4.5. Developments that maintain public access to privately owned parks are prohibited from installing private single access gates from a single homeowner's property into the public space.

PPS 4.6. Permit applications for public

improvements must identify location of, funding for, and ownership of identified public or publicly-accessible improvements on or adjacent to each site, including roadways, parks, trails, sidewalks, and other similar improvements, as agreed upon with the City.

PPS 4.7. Require developers to submit a soils report for all publicly accessible improvements. The developer shall be responsible for remediating contaminated soils to acceptable standards as defined by the California Department of Toxic Substances Control.

PPS 4.8. Require privately-owned public spaces to be clearly visible and directly connected to the street or pedestrian pathways.

PPS 4.9. Require all existing and planned privately-owned public spaces to include a sign that is adjacent to a major public sidewalk and trail and is easily visible from the street and adjacent trails that states the space is open to the public.

PPS 5. Programming. Program parks and public open spaces to provide a variety of both temporal and ongoing experiences and opportunities for community events and education.

PPS 5.1. Coordinate with the Recreation and Community Services Department to activate parks and plazas with community events and allow residents and non-residents to rent out public spaces for events in compliance with citywide policies.

PPS 5.2. Encourage pop-up markets, food trucks, and other temporary events that activate the open space and encourage community gatherings.

PPS 5.3. Renew and develop park facilities to foster education about and engagement in the natural world.

PPS 5.4. Where there is strong public support to manage and maintain them, establish community gardens and edible landscapes within the neighborhood parks that will provide education, access to healthy foods, and economic support for the local food system.

PPS 5.5. The design and programming of new parks must be approved by the City's Parks and Recreation Department.

PPS 6. Community Gardens. Include Community Gardens for community wellness and benefit.

PPS 6.1. Make food services available on/at community-level parklands to benefit residents, park visitors, and the environment.

PPS 6.2. Encourage naturally occurring biological pest control.

PPS 6.3. Adopt cultural practices that include cultivating, pruning, fertilizing, maintenance and irrigation practices that reduce pest problems.

PPS 6.4. Encourage use of alternate plant species or varieties that resist pests.

PPS 6.5. Limit monoculture plantings where possible.

PPS 6.6. Require community gardens to be consistent with [Community Rules and Regulations](#), which emphasizes:

- Pedestrian and bicycle access.
- Only flowers, fruits, vegetables, and herbs may be grown in the plots. Animal husbandry is not allowed. Only plant species that do not present a

danger to others and that produce edible food may be grown. No illegal plants are allowed.

PPS 7. Plazas. Plazas should serve as destinations for community members of all ages, income levels, and abilities, and should be safe, inclusive, and welcoming.

PPS 7.1. Refer to PA 5 in Chapter 3: Site and Building Design Standards and Guidelines for guidance on the design of plazas.

PPS 8. Landscaping. Provide drought-tolerant landscaping and shade trees that contribute to a comfortable pedestrian experience and maximize environmental benefits.

PPS 8.1. Landscape and maintain all waterway riparian areas where creek trails provide a public presence. All plants and trees located adjacent to public rights of way or in publicly-accessible areas shall be locally-sourced native, drought-tolerant, or water conserving species.

PPS 8.2. Require development projects to include on-site vegetated stormwater treatment and landscaping and shade trees at a rate of one tree per 5,000 square feet of the residential building footprint and one tree for every 10,000 square feet of developed lot area for non-residential or mixed use development to reduce heat island effect.

PPS 8.3. Require native species to be planted within project sponsors' property along creek corridors. In coordination with the Water District, private property owners shall replace invasive and non-native species with native plants and trees when significant re-landscaping or remodeling occurs.

PPS 8.4. Require development projects to rehabilitate areas where vegetation is displaced or disturbed by the development.

PPS 8.5. Daylight existing creeks and waterways, supporting permeable creek beds where practical in collaboration with regional water management agencies.

PPS 8.6. Identify opportunities to expand the use of plants to slow and manage stormwater runoff, including those listed by the Santa Clara Valley Urban Runoff Pollution Prevention Program, in the planning area.

PPS 8.7. Expand shade tree coverage in the Plan Area, particularly in areas underserved by street trees.

PPS 9. Recreation and Cultural Centers.

Enhance Milpitas Metro as a recreational and cultural destination.

PPS 9.1. Promote the establishment of a community and regionally-focused performing and visual arts center.

2.11 PRIVATE AND COMMON SPACES

Private and common open spaces are essential elements of residential development. All developments with residential units are required to provide a mix of common and private space on-site. Table 2-4 summarizes the minimum on-site open space that shall be provided. Examples of open space types that can be used to fulfill these requirements are described below.

2.11.1 Common Open Space

Description. Common open spaces are areas that are intended for common use by residents of the building. Plazas and courtyard areas should have clearly defined visual and physical connections to interior space that promote a comfortable transition from the public to the private realm.

Requirements. The provision and design of common open spaces must comply with the following standards.

Private development must provide on-site open space at a rate of 100 square feet of private or common space per unit. If developments are unable to provide the required private open space, they may pay an in-lieu fee as described in Chapter 1 Section 9 of the Municipal Zoning Code on a project-by-project basis, as determined at the time of project entitlements.

CSS-10. At least 30 percent of the total on-site open space provided must be common shared spaces.

CSS-11. At least 5 percent of the total open

space provided should be publicly accessible. Developers may provide at least one of the following types of public open spaces as part of their development project:

- Park
- Plaza
- Garden
- Public sitting area

CSS–12. Developments within mixed-use zones that provide at least 50 percent of their units at or below 80 percent AMI are not required to provide public-serving open space.

CSS–13. Common open space shall have a minimum dimension of 10 feet.

CSS–14. Types of shared spaces that can be used to fulfill this requirement include but are not limited to:

- Courtyards
- Gardens
- Play areas
- Outdoor dining
- Recreation amenities
- Rooftop amenities
- Landscaping

CSS–15. Common open space construction, irrigation and planting must be completed before the occupation of a building.

2.11.2 Private Open Spaces

Description. Private open spaces, such as patios and balconies, are outdoor spaces that are only accessible to the residents of an individual unit. Private open spaces are required not only because they provide access to the outdoor environment but also because they provide visual interest to the design of buildings. Boundaries between private open spaces and shared walkways and communal spaces should be clearly delineated and private open spaces should be designed to ensure privacy and provide a sense of enclosure.

Requirements. The design of private open spaces must comply with the following standards.

POS–16. Private open space must be at least 4 feet by 6 feet to ensure that the space is large enough to be usable.

POS–17. Examples of private open space that can be built include, but are not limited to balconies, private yards, terraces, decks, and porches.

POS–18. Private open space construction, irrigation and planting must be completed before the occupation of a building.

Table 2-6. Private On-Site Common Space Requirements for Residential Development

	Minimum Requirement	Common Shared Space	Accessible to the Public
Required On-Site Open Space	100 square feet per unit	Minimum of 30% of total open space	Minimum of 5% of total open space

Residential development on Capitol Avenue
near the Milpitas Transit Center.



3. SITE AND BUILDING DESIGN STANDARDS AND GUIDELINES

- 3.1. Metro Plan Area Guidelines
- 3.2. District Guidelines
- 3.3. Commercial and Mixed-Use Buildings Design Guidelines
- 3.4. Special Conditions

This chapter implements the Milpitas Metro Specific Plan’s vision by establishing policies that relate to the urban design of the area. The design intent of the Specific Plan is to create an exceptional and interesting sense of place, which can be achieved through the streetscape, landscaping, building design, signage, public art, and other design features.

The Metro Plan builds upon the citywide residential objective design standards for the Plan Area. The Milpitas Objective Design Standards address residential development. The residential objective design standards address both smaller and larger sites and multi-family and mixed-use residential building design. This chapter provides design guidelines for the Metro Plan area districts, public projects, and commercial uses.

Guidelines are organized by district. The guidelines focus primarily on the public realm, the majority of which falls within City-owned or publicly held areas. Public investment is addressed first, then private development. These guidelines are intended to provide private development with information about design consistency. Private development will be responsible for some of the design and construction of the amenities within the public realm.

3.1 METRO PLAN AREA GUIDELINES

Policies that require public investment are highlighted with color. Policies that are addressed by private investment and apply to private development are highlighted in black.

PA 1. Connections. Add streets, trails, and pathways to support multimodal connections to the Milpitas Transit Center and between districts.

PA 1.1. Complete Connections. Complete the network of pathways that connect the area by bridging over S. Penitencia Creek East Channel and Berryessa Creek, Montague Expressway, and Great Mall Parkway/Capitol Avenue.

PA 1.1.1. Improve Trails. Work with Valley Water to design and improve trails on both sides of Berryessa Creek and South Penitencia Creek East Channel. Trails are envisioned to provide a minimum 8-foot wide multi-weather, permeable pathway that can also accommodate maintenance vehicles. The use of fine gravel materials is discouraged. Further improvements envisioned include more landscaping at the edges of the trails and pedestrian-scaled lighting.

PA 1.1.2. Multimodal Access. Prioritize walkability and pedestrian safety as well as vehicular access. Allow bicycles to use pathways.

PA 1.1.3. Walkable Street Grid. Enhance the street grid with new streets and mid-block passages to improve walkability within the Metro District.

PA 1.1.4. Pedestrian-Friendly Ground Floor Experience. Prioritize and support the pedestrian experience by designing

the ground level of buildings to address the pedestrian scale and locating active uses near pathways whenever feasible.

PA 1.1.5. Direct Routes. Private development is encouraged to provide direct walking and biking routes to schools and major destinations, such as parks and shopping, through their property.

PA 2. Complete the Neighborhood. Complete the Transit-Oriented Neighborhood by encouraging a variety of uses to support a vibrant and varied life within the Metro District. Include neighborhood retail, a balance of jobs and housing, community services, and places to gather, recreate, and relax.

PA 2.1. Variety of Land Uses and Services. Provide a variety of land uses and services in the Milpitas Metro District to complement and diversify the mix of uses already present in the neighborhood.

PA 3. Sense of Place. Strengthen the identity and sense of place of the Metro Plan Area with new distinguishing features.

PA 3.1. Gateway Elements. Develop a gateway experience for transit users and street users to welcome to the Metro Plan Area in concert with signage guidelines. Gateway elements could include public art, landmark buildings, and unique treatment of public spaces.

PA 3.2. Public Art and VTA. The City of Milpitas should work with VTA to promote public art on the VTA light-rail infrastructure to make it a landmark for the area. Local artists should be hired to install art that evokes aspirational, geographic, cultural, or striking visual themes.

PA 3.3. Public Art. Private development should provide on-site artwork per the City’s public art requirements (Chapter 20 of the Municipal Code). Display public art in areas with high levels of pedestrian traffic and ensure that it is easily visible and accessible to the public. Design public art to be interactive and serve all ages. Art should be used to create landmarks and establish a unique local sense of place, and may also be used as a wayfinding element or integrated into functional street furniture, such as benches, planters, and tables.

PA 3.4. Landmark Building Design. Design and build new signature, landmark buildings to reflect Milpitas Metro’s regional connectivity within Silicon Valley as a place for innovation, and to create a memorable skyline. Buildings are encouraged to have their own identity and use contemporary methods to define the character of the district.

PA 3.5. Frame Open Spaces with Active Uses. Surround publicly accessible open spaces with active uses that provide visibility of indoor activity and entrances onto open spaces. Shared building entrances should be oriented to adjacent open spaces, where possible. Community gathering places shall be framed by placing an active building frontage on at least two sides. Where open spaces cannot be framed by buildings, an active use, architectural elements, or significant landscaping can be used to create a sense of enclosure, identity, and place.

PA 3.6. Event Programming and “Pop-Up” Uses. Event programming and temporary “pop-up” uses in the Plan Area are highly encouraged to enliven public spaces and vacant retail spaces. Design of open spaces should anticipate and support a variety of temporary events.



Public Art on the underside of the Kellogg Light Rail Bridge, (Credit: Andre Caradec and Thom Faulders, titled “Flowzone.”)



Mural on the side of 455 Hyde, San Francisco, (Credit: InkDwell)



This street in downtown Redwood City is active and vibrant with unifying elements and treatment to make it a pedestrian environment. (Credit: Allison Fujimoto).

PA 3.7. Streetscape. Design the streetscape in the district to support active uses and social gathering. Provide streetscape amenities that support walkability and socializing by providing benches and seating areas.

PA 3.7.1. Unified Design Identity through Streetscape. Provide a continuity of streetscape features along the length of a street. At a district scale, coordinated design, type, color and material of street furniture contribute to a sense of community identity, and reflect and strengthen the local character.

PA 3.7.2. Street Trees. Street trees shall be planted in the Amenity Zone at a maximum of 30 feet apart. Street trees shall be selected from Milpitas's Approved Street Trees list. No more than one species shall be planted per block in planters between the street and the sidewalk. Trees should be the same species on both sides of the street on each block. Specimens may be more varied adjacent to buildings.

PA 3.8. Trail Improvements. Recreational trails are part of a connective network that includes the Milpitas VTA Transit Center. Trail improvements and new trails shall be provided along both sides of South Penitencia Creek East Channel to improve connectivity to the Milpitas Transit Center and between districts. All trail improvements must be designed in partnership with Valley Water.

PA 3.9. Trail Relationship to Private Development. When appropriate, trails should relate to adjacent development with access points, complimentary landscape palettes, or shared public space.

PA 3.10. Trail Design. Trails are envisioned as providing minimum 8-foot-wide multi-weather pathways that can also accommodate maintenance vehicles. Locate landscaping minimally on the outside edge of trails away from water channels. The trail network includes multi-use paths and should be designed to support non motorized recreational activities such as walking, running, or biking.

PA 3.11. Coordination with Valley Water. All creek-side trail construction shall be coordinated with Valley Water and include considerations for flood control.

PA 3.11.1. Trail Shade Trees. Shade trees along trails should be placed an average of 30 feet on-center at the edges of parcels along the multi-use path.

PA 3.11.2. Trail Lighting. Trails should be lit with pedestrian-scale, fully downward-shielded lighting. Lighting should be integrated with development adjacent to the trail. Adequate lighting shall be provided along trails for safety at night.



Paved trails next to creeks, designed for walking and biking will help to connect the Metro Area.



An example of district wayfinding signage. in Uptown Oakland where a wayfinding and signage strategy helped to build a district identity.

PA 3.12. Milpitas Metro Wayfinding Signage.

Provide universally accessible public wayfinding signage through a Milpitas Metro Signage Program. Milpitas Metro Wayfinding Signage should be accessible by a wide range of users, including people of all ages and ability levels.

PA 3.12.1. Create Guidelines for Wayfinding Branding.

Provide Guidelines for Milpitas Metro Branding that includes a map of the features in the Plan Area that enhance and highlight opportunities for public transit, walking, and cycling. Design and install attractive, consistent Milpitas Metro Wayfinding Signage that builds off the City of Milpitas’s branding and wayfinding.

PA 3.12.2. Create a Milpitas Metro Signage Program.

Create a Milpitas Metro Signage Program that includes a Streetlight Banner program to provide streetlight banners throughout the Plan Area at major intersections and along corridor access points where pedestrians, bikers, and drivers will be making route decisions. Use the banners to highlight local events in the district.

PA 3.12.3. Private Wayfinding Signage.

Provide additional district signage and navigational information for pedestrians with privately funded signage that follow the Guidelines for Milpitas Metro Branding. Wayfinding Signage should be coordinated with nearby public art to create a cohesive look and sense of place for the Milpitas Metro Area.

PA 3.12.4. Wayfinding Information.

Information on wayfinding signage may include regional maps, directional signage, walk and bike distance and mileage to destinations, local maps, community guides, mile markers, and interpretive signage.

PA 3.12.5. Promote Milpitas Metro

Amenities. Provide district signage at major intersections and corridor access points, near transit, and on Great Mall Parkway and Montague Expressway to highlight the Milpitas Metro Area and list the area’s amenities. Promote pathway usage by providing navigational and safety signage for the connections throughout the Metro Area.

PA 4. Milpitas Metro Specific Building Design.

PA 4.1. Citywide Objective Design

Standards. Follow Citywide Objective Design Standards for multi-family and mixed-use buildings, when applicable.

PA 4.2. Commercial and Mixed-Use Building Guidelines.

Guidelines for Commercial land uses can be found in Section 3.3 of this chapter.

PA 4.3. Material Guidelines. Building materials must be selected to contribute to a high quality urban realm and low carbon footprint.

PA 4.3.1. Finishes. High-quality, durable exterior finishes should be utilized.

PA 4.3.2. Mitigate Glare. Façade materials should serve to mitigate visual glare from both diffused interior lighting and reflected exterior sources.

PA 4.3.3. Exterior Materials. Preferred exterior wall materials include: glass, concrete, precast concrete, aluminum and high quality metal panels, composite panels, stone, and stucco.

PA 4.3.4. Glass Materials. Preferred glass types include: clear glass, frit glass, sandblasted glass, spandrel glass, and



channel glass. Glazing should provide a high degree of light transmittance and be non-reflective.

PA 4.3.5. Roofing Materials. Preferred roofing materials include: vegetated roofs, high-albedo built-up roofs, high albedo single-ply roofing, metal, terracotta tile, concrete tile, composite concrete tile, skylights, solar collectors, and photovoltaics.

PA 4.3.6. Carbon Storage. Require building materials that store carbon (e.g. wood, calcium carbonate-based cementitious substances, synthetic limestone) in all nonresidential construction.

PA 4.3.7. Concrete. Concrete materials must be low-carbon in all viable applications.

PA 4.3.8. Window Materials. Vinyl-frame windows and doors are prohibited. Woodframe windows must have metal or fiberglass cladding on the exterior. Metal-frame windows must be thermally broken.

PA 4.3.9. Functional Architectural Features. Extraneous building elements that cannot be functionally justified, such as non-functional balconies and false facades are discouraged.

PA 5. Publicly Accessible Open Spaces

Refer to the City's Parks and Recreation Master Plan and Chapter 2: Land Use and Public Space for additional descriptions on different types of open spaces and amenities.

PA 5.1. Location. A publicly accessible open space is required in every district.

PA 5.2. Open Space Types. Open spaces may include plazas, squares, gathering places, paseos, pathways, trails, and parklets. The types of open space desired provide amenities for socializing in big and small groups, performance, recreation, events, and pets.

PA 5.3. Privately Owned Spaces. Privately owned public spaces may be provided in addition to public spaces.

PA 5.4. Accessibility. Publicly accessible open spaces must be accessible at all times and entry may not be controlled through fencing or gates. Open spaces should be accessible from a public sidewalk and be inviting to the public.

PA 5.5. Universal Design. Spaces should be designed to be accessible to all users. Public plazas shall be constructed with ADA-compliant ramps and tactile warning strips at the crosswalks. Extra attention should be paid to how mobility-impaired and sight-impaired individuals will navigate these spaces. Equipment and facilities such as tables, trash cans, restrooms, and drinking fountains should allow for universal access, including people of all ages and ability levels.

PA 5.6. Open Space Materials. The design of open spaces should combine durable hardscape (paving) and softscape (planted area) materials. Landscaping should be designed using a unique landscape palette that incorporates plants at a variety of heights and with a range of visual textures, colors, and blooming habits.



PA 5.7. Native Plants. Open spaces should include native, drought-tolerant plantings that are inviting to local wildlife. Plantings should support the habitat for local birds, bees, and butterflies.

PA 5.8. Special Features. Unique features such as fountains, sculptures, landscaping, and/ or artwork should be provided as an integral part of the landscape design. Lighting should be thoughtfully placed around special features to provide ambiance and promote safety.



PA 5.9. Multifunctional Use. Open spaces should be designed to be multi-functional and utilize as much of the horizontal area provided as possible to accommodate flexible programming and activities. Design elements that extend a community space's hours and months of use should be selected, such as lighting and weather protection.



PA 5.10. Seating. A variety of seating in open spaces should be provided including both moveable and fixed seating as well as seat walls, steps, boulders, and other multi-use objects. Seating should allow for both social interaction and private relaxation; be placed along pathways and within or near gathering spaces; and be comfortable yet durable.

Examples of publicly accessible open spaces at a scale appropriate for the Metro Area. The design of publicly accessible open spaces should be accessible to all and designed for flexible use. (Top to bottom: Beekman Street Plaza, OMCA, and a linear park in Bay Meadows)



3.2 DISTRICT GUIDELINES

SD 1. Great Mall District

SD 1.1. Provide a New Street Grid. New public streets shall be carefully planned and constructed in the Great Mall District to provide a walkable and bicycle friendly street grid. These new streets include three types: pedestrian retail street, neighborhood street, and trails.

SD 1.2. Street Development and Ownership. Developers of parcels with edges that abut a new street shall install complete street improvements to the centerline of the street as part of the development. The street right-of-way will then be transferred to City ownership and maintenance unless developed as a private street. Developers of parcels through which a proposed street runs are responsible for the development and ongoing maintenance of the public right-of-way and shall provide an access easement to the right-of-way

SD 1.3. Activity Streets. Ground floor retail is required along Activity Streets. The sidewalk on Activity Streets has a frontage zone, a pedestrian throughway, and an amenity zone. Activity Streets also include a multiuse street zone for on-street parking, loading, parklets, landscaping, or other pedestrian amenities. Activity Streets are described in further detail in Chapter 4: Mobility and Circulation.

SD 1.3.1. Ground Floor Entrance Orientation. Ground floor retail storefronts and entrances must be oriented toward Activity Streets.

SD 1.3.2. Loading Areas. Loading and service entrances for ground floor retail

must not be located on Activity Streets.

SD 1.3.3. Preferred Commercial Uses on Activity Streets. Preferred uses on Activity Streets include retail and service establishments; food and beverage, such as restaurants; cafes; bars and brew pubs; co-working spaces; art and craft studios; gyms; and other similar uses. Office uses are permitted if operations provide products or services to the public in a manner similar to retail sales (e.g. travel and real estate businesses).

SD 1.3.4. Ground Floor Treatment on Activity Streets. On streets with commercial frontages, the design of the exterior of the ground floor along Activity Streets are encouraged to prioritize the highest level of finishes and decorative elements (e.g. landscaping, potted plants, patios, architectural elements, etc.) to visually enhance the building frontage, identify building entrances, add to the streetscape, and generally engage the public realm without constricting the flow of pedestrian traffic.

SD 1.3.5. Signage. Signage along Activity Streets should be provided at both a pedestrian and vehicular scales and orientations. All signage shall be consistent with City and local wayfinding and branding systems.

SD 1.3.6. Sidewalk Cafes. Sidewalk cafes are encouraged within the frontage zone of Activity Streets. Such uses must comply with all applicable local, state, and federal regulations for permitting, accessibility, and health.

SD 1.3.7. Private Furnishings. Private

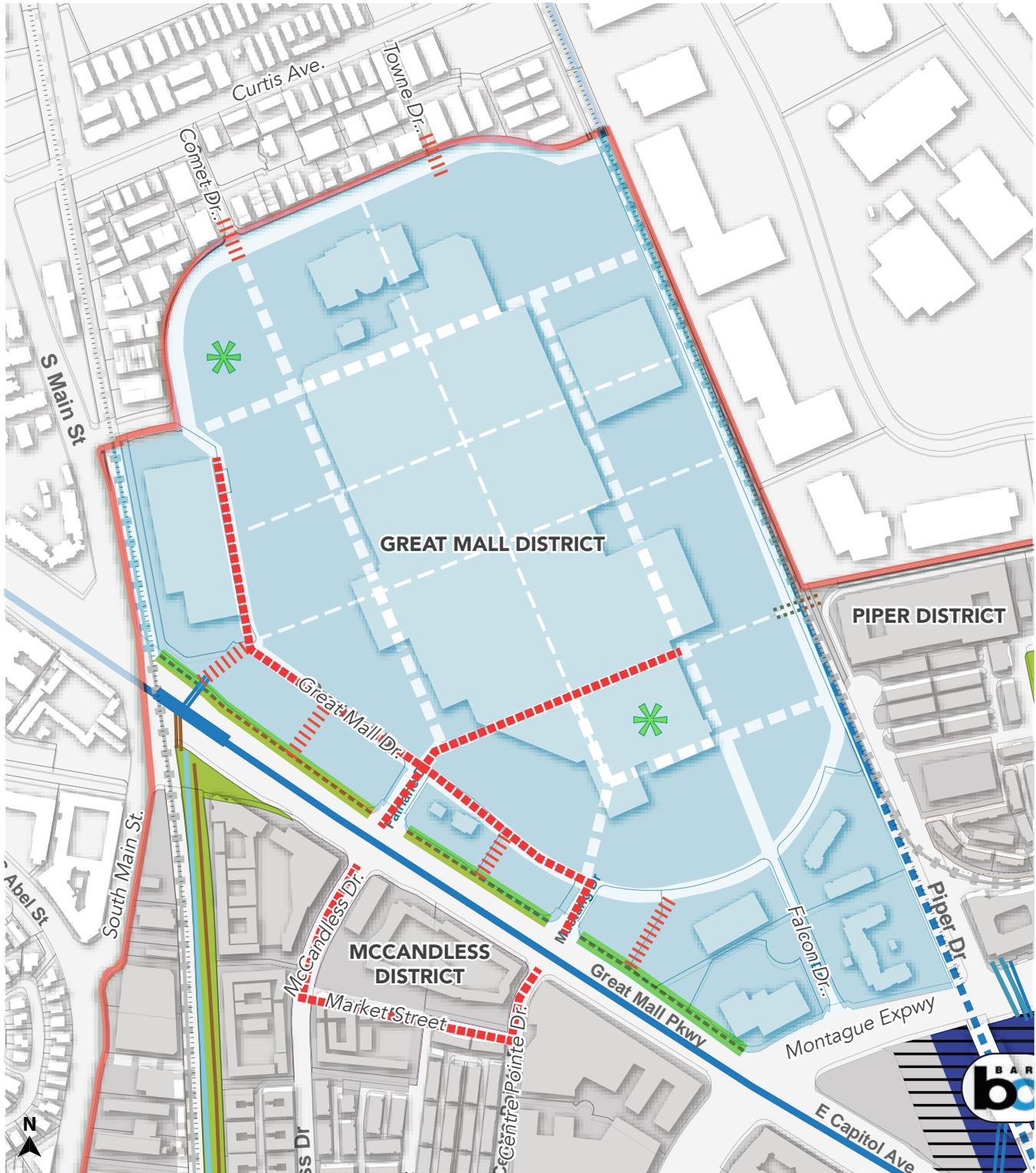


Example of the ground floor treatment on an Activity Street (in San Leandro) with visibility of active uses, and pedestrian oriented details.



Ground floor retail is required along Activity Streets (SD6.2). Preferred uses on Activity Streets include retail and service establishments, food and beverage, co-working spaces, art and craft studios, gyms and other similar uses. (SD 6.2.3)

Figure 3-1. Great Mall District



- Activity Street
- ||||| Mid-block Pathway

furnishings are permitted in the frontage zone of Activity Streets. Furnishings may include seating, tables, planters, and art.

SD 1.3.8. Vertical Clearance. Awnings, canopies, and umbrellas used within the frontage zone should provide a minimum vertical clearance of 8 feet and should not project into the vehicular right of way.

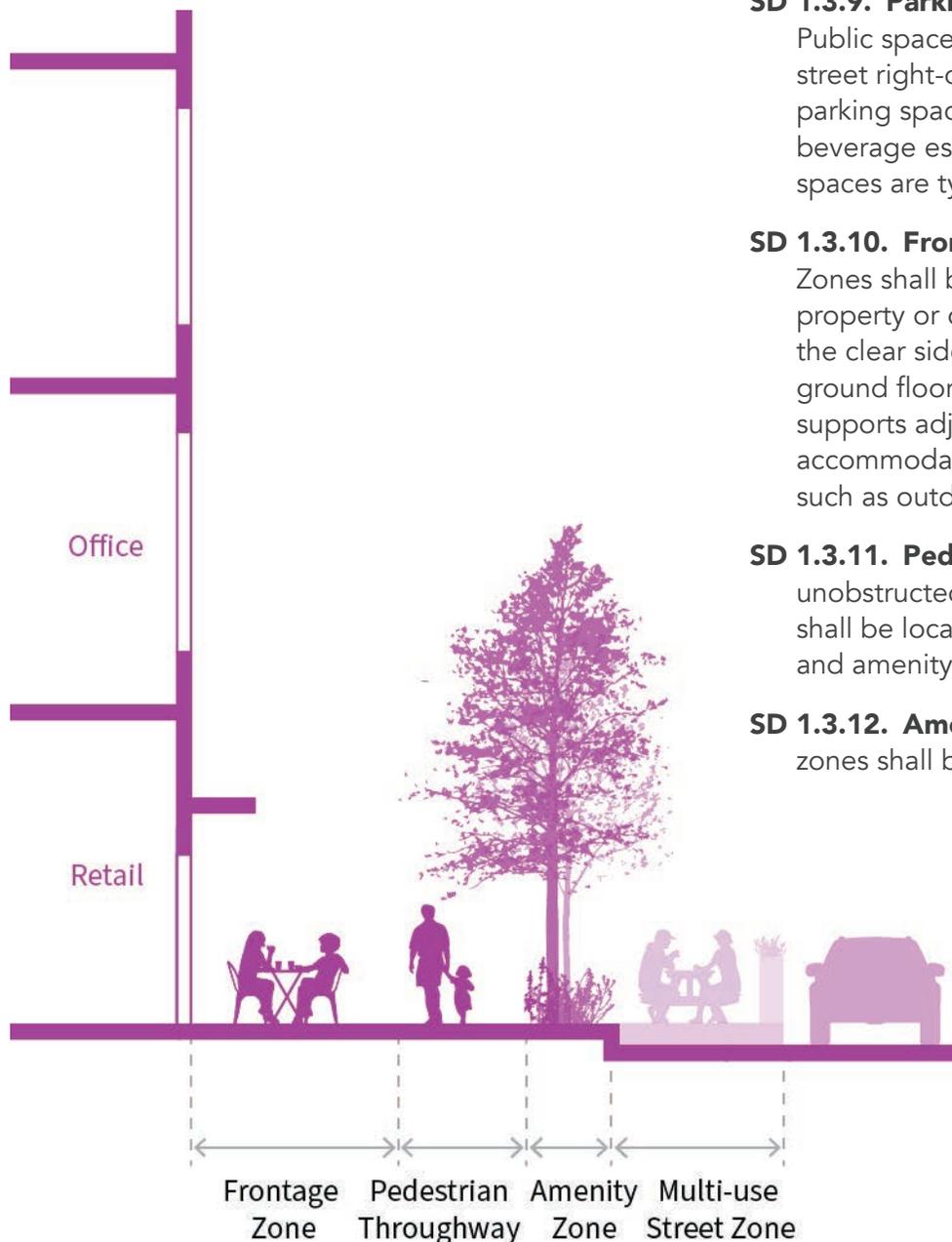
SD 1.3.9. Parklets on Activity Streets. Public spaces can be provided in the street right-of-way in place of existing parking spaces near any food and beverage establishment. These types of spaces are typically called “parklets.”

SD 1.3.10. Frontage Zones. Frontage Zones shall be located on private property or on the outside edge of the clear sidewalk area adjacent to the ground floor building frontage that supports adjoining commercial uses by accommodating features and activities, such as outdoor dining.

SD 1.3.11. Pedestrian Throughway. An unobstructed pedestrian throughway shall be located between the frontage and amenity zones.

SD 1.3.12. Amenity Zones. Amenity zones shall be located between the

Figure 3-1. Sidewalk Zones on Activity Streets



street and the Pedestrian Zone and provide amenities contributing to pedestrian comfort, convenience, safety and interest, and support positive social interaction.

SD 1.4. Neighborhood Streets.

Neighborhood streets include a planting strip, sidewalk, and landscaped setback.

SD 1.4.1. Active Frontages. Active frontages are required on Neighborhood Streets. Active uses can be storefront commercial, live/ work, ground floor office, or ground floor residential shared amenities, such as a lobby, gym, or conference room.

SD 1.4.2. Landscaping. Landscaping in the planting strip may include low bushes and street trees and must be clear of the sidewalk.

SD 1.5. Mid-block Pathway Design.

Opportunities for new mid-block connections, such as pedestrian paseos, pedestrian paths, or other pedestrian routes should be considered to break up long block length and enhance pedestrian connectivity. Public accesses extending to the rear of a development should be configured with active uses and building entries. Mid-block pathways are narrow lanes that can accommodate light service traffic and pedestrian circulation but have the characteristics of a pedestrian walkway with regard to pavement, furnishings, lighting, and signage. All mid-block pathways shall encourage public use for all members of the community.

SD 1.5.1. Mid-Block Pathway Uses. Mid-block pathways can be used for outdoor dining, gathering spaces and children's play areas. Landscaping, seating, tables, potted plants, artworks, bicycle racks,

kiosks and textured or decorative paving should be considered to promote passageway activity and create visual interest. A clear pathway of 5 feet should be maintained next to additional uses in the pathway for accessibility and egress.

SD 1.5.2. Pathway Design between Residential Buildings. Refer to Citywide Objective Design Standards for Passageway design between residential buildings.

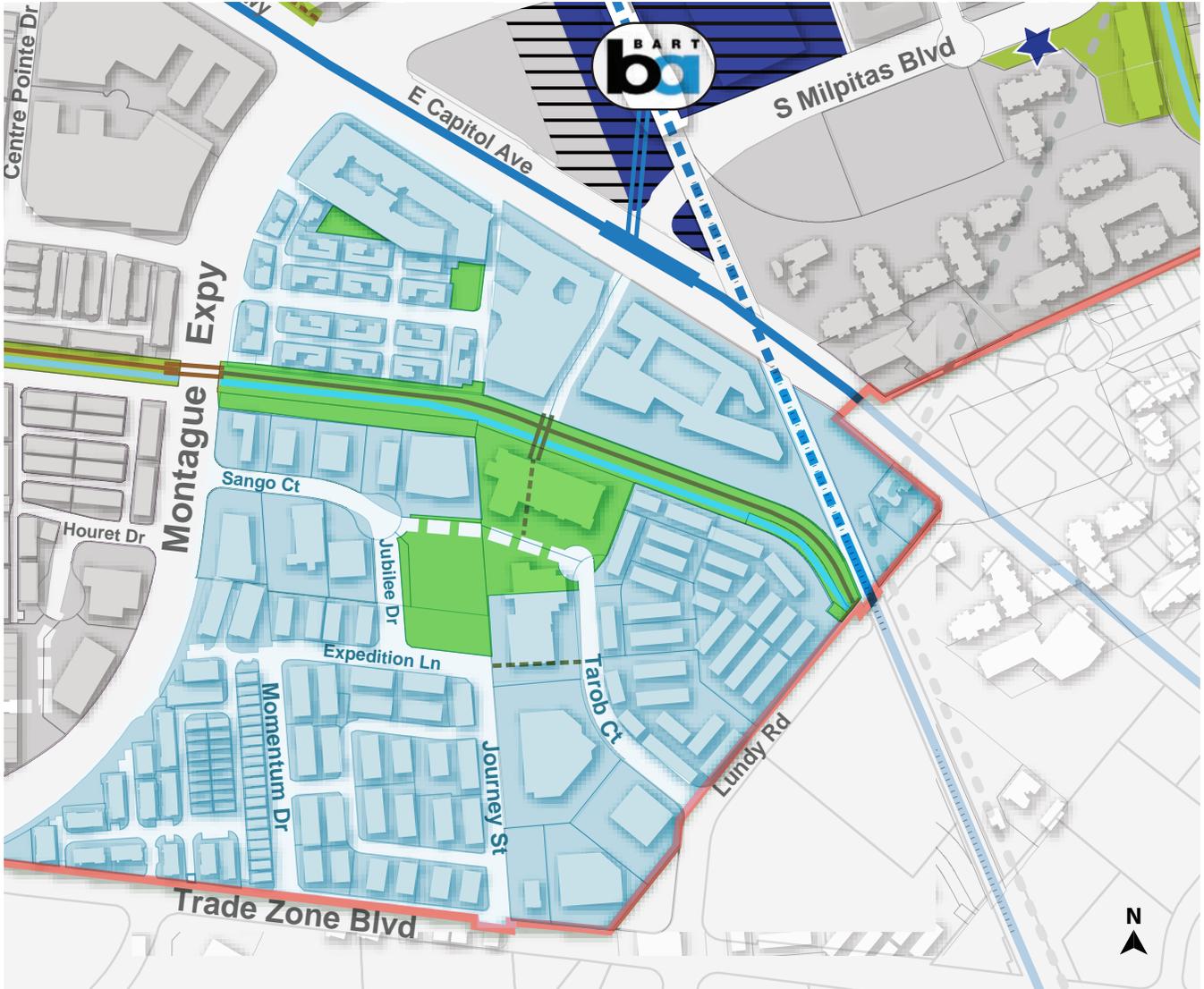
SD 1.5.3. Utility and Trash Enclosures in Pathways. All utilities located in mid-block pathways should be screened and keep a clear pathway of 5 feet.



Mid-block pathways are critical to getting around the Metro Area by walking or biking. The design of pathways and landscaping between buildings shapes the experience of connecting throughout the area. (Credit: Leslie Gould)



Figure 3-2. Tango District



SD 2. Tango District

SD 2.1. Tango District Connections.

New public pathways and streets shall be carefully planned and constructed in the Tango District to provide clear and efficient pedestrian and bicycle connectivity to the Milpitas Transit Center and adjacent neighborhoods.

SD 2.1.1. Pedestrian Bridge to the VTA Transit Center. The publicly funded pathway and pedestrian bridge that connects to VTA Transit Center on S. Milpitas Boulevard Extension to the Tango District shall be designed for Emergency Vehicle Access but restricted from through traffic.

SD 2.1.2. Trail Improvements in the Tango District. Trail improvements shall be provided along both sides of South Penitencia Creek East Channel to improve connectivity to the Milpitas Transit Center and between districts. The trail should extend from Montague Expressway to the City boundary. All trail improvements must be designed in partnership with Valley Water.

SD 2.2. Private Development along Creek Trail Improvements. New development next to South Penitencia Creek East Channel should orient to the creek trail and provide landscaping, lighting, and edge treatment through low walls, landscaped edges, or using the design of the ground floor of the building to activate the trail. Individual entries for units fronting the trail are encouraged.

SD 2.2.1. Connection between Tarob Court and Sango Court. A pedestrian pathway shall connect northward from the end of Tarob Court with the creek trail and at midblock on Tarob Court with Journey Way. Portions of the connection shall be provided as an easement on

private property.

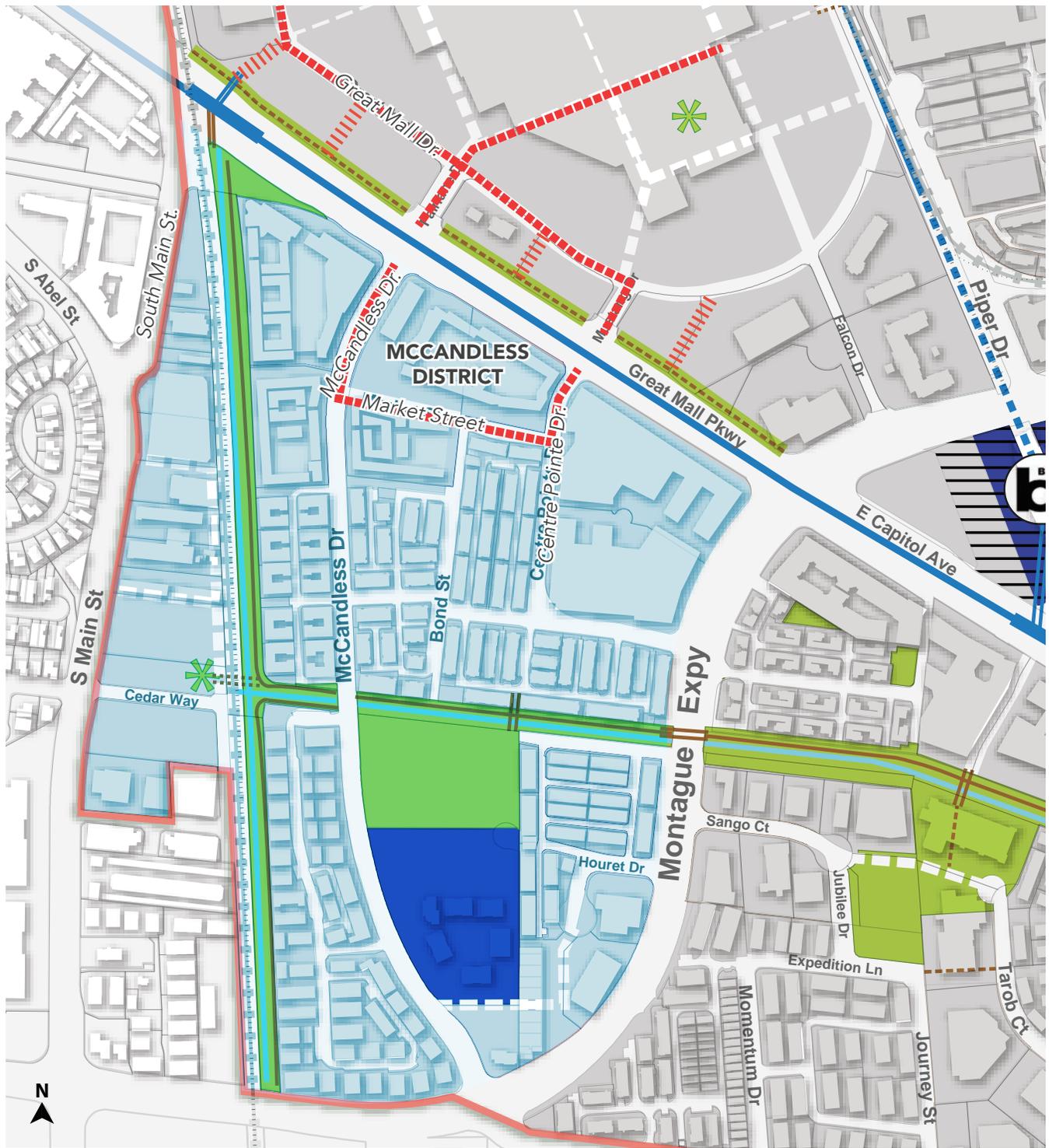
SD 2.2.2. Connection between Sango Court and Jubilee Street. New street and sidewalk extensions are required at Jubilee Street to meet Sango Court and from Sango Court to meet Tarob Court to complete connectivity in this District. Portions of the connection shall be provided as an easement on private property.

SD 2.3. Publicly Accessible Connection between Jubilee Street to Tango Court. A publicly accessible connection between Jubilee Street and Tango Court is needed to complete the street grid in the Tango District. This easement on private property must be maintained as a publicly accessible mid-block pathway to complete the pedestrian and bicycle network.

SD 2.4. Pedestrian Overcrossing Connection to McCandless District. The connection of the creek trail next to South Penitencia Creek East Channel on both sides of Montague Expressway shall be bridged with a Pedestrian Overcrossing. This overcrossing has been planned since the original Transit Area Specific Plan.

SD 2.5. Tango Park. The expansion of the park in the Tango District adds to Rathbone Park and connects both Tango Court and Sango Court. Tango Park extends to the edge of South Penitencia Creek East Channel and the creek trail. Tango Park will be designed for passive recreational uses and spontaneous sports with ample space for gathering and socializing including areas for a children's play area, picnic areas, pet area, and native planting that attracts birds, bees, and pollinators. An area for a community

Figure 3-3. McCandless District



- - - - Activity Street
- | | | | Mid-block Pathway

garden is encouraged within the park for local volunteers to operate.

SD 3. McCandless District

SD 3.1. Trail Improvements in McCandless District. Trail improvements and new trails shall be provided along both sides of South Penitencia Creek East Channel to improve connectivity to the Milpitas Transit Center and between districts. This includes the segment between Montague Expressway and the north-south channel parallel to South Main Street that extends from Montague Expressway to Great Mall Parkway. All trail improvements must be designed in partnership with Valley Water.

SD 3.2. Redesign of Houret Court. Vehicle circulation and pedestrian pathways off of Houret Court shall be redesigned to provide access to McCandless Drive and McCandless Park.

SD 3.2.1. Vacate a portion of the existing cul-de-sac to permit through traffic while continuing to accommodate existing driveways and access points.

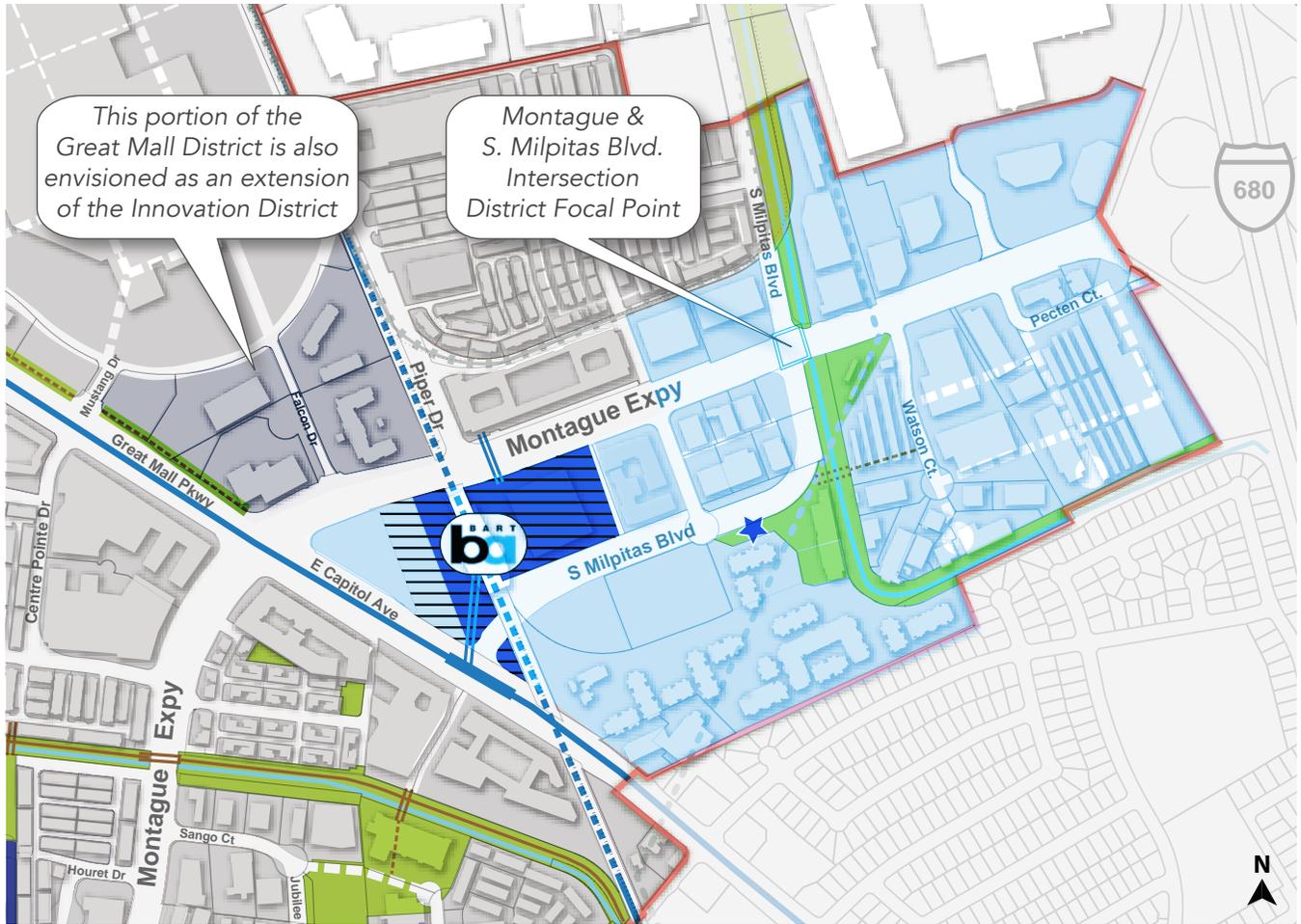
SD 3.2.2. Extend a public street between McCandless Drive and Montague Expressway.

SD 3.3. South Main Street Connection. A new street connection shall be provided on South Main Street adjacent to the railway that extends from Cedar Way to the northern boundary of the property at 1416 South Main Street. This street connection shall include at least one street connection to South Main Street.

SD 3.4. South Main Street Park. A small park is required along South Main Street. It is encouraged that the park provides a visual connection between the creek and South Main Street. Future development around the park shall activate it as much as possible by orienting to it and bordering it with active uses. A future connection across the creek should be considered to extend the trail network from South Main Street to the VTA Transit Center.

SD 3.5. Public Space at South Main Street and Great Mall Parkway. The southeastern corner of the intersection of South Main Street and Great Mall Parkway includes a separated right turn lane and railroad tracks. The infill of the right turn lane extends the public space at that corner. The public space is envisioned to be an urban plaza. New development next to the public space should be designed to activate it as much as possible by orienting to it and bordering it with active uses.

Figure 3-4. Innovation District



SD 4. Innovation District

SD 4.1. Promote Office and Research & Development Land Uses in the Innovation District. Work with future developers to build office and research and development in alignment with the Milpitas Economic Development Strategy.

SD 4.1.1. Work with VTA to build office and R&D near the Milpitas Transit Center on VTA-owned sites in the Plan Area.

SD 4.1.2. Business incubators and co-working spaces in the Innovation District are encouraged and may be included as an interim use.

SD 4.1.3. Future development programming that provides shared meeting rooms and conference spaces is encouraged.

SD 4.2. Deploy 5G Wireless Service. Target deployment of 5G Wireless service for growth of the office/ R&D uses as part of a new Innovation District and to all related districts in the Plan Area.

SD 4.3. Trail Improvements in the Innovation District. Trail improvements and new trails shall be provided across Berryessa Creek to improve connectivity to the Milpitas Transit Center. The connection should be an at-grade pedestrian crossing that provides direct access from the eastern portion of the Innovation District to the VTA Transit Center. All trail improvements must be designed in partnership with Valley Water.

SD 4.4. New Street Connections. New public streets shall be carefully planned and constructed in the Innovation District to provide a walkable and bicycle friendly street grid. At a minimum, the connection between the two existing cul-de-sacs west

of Berryessa Creek should be made with two new streets.

SD 4.5. Police Substation. Provide a police substation in the Innovation District preferably near public open space.

SD 4.6. Rooftop Open Space. Rooftop parks, gardens, and open space are encouraged on top of Innovation District buildings.



Commercial and Mixed-Use Building Design Guidelines address the siting, massing, ground floor, rooftop, parking, and sustainable design that define the innovative character of the Milpitas Metro Area.

3.3 COMMERCIAL AND MIXED-USE BUILDINGS DESIGN GUIDELINES

Commercial and mixed-use building design guidelines are applicable throughout the Plan Area, particularly to the Innovation District, Great Mall District, and part of Piper District.

CB 1. Site Design and Access

CB 1.1. Site Specific Design. Site specific building design is encouraged. There should be differences between buildings depending on their location. Buildings are encouraged to demonstrate identity within each phase.

CB 1.2. Outdoor Amenities. Site development for places of employment should include generous gathering spaces, comfortable and attractive outdoor environments, and amenities that support multi-modal transportation. Whenever possible, make outdoor amenities available to the public.

CB 1.2.1. Open Space and Pedestrian Access. Ground floor interest can be achieved by introducing plazas, courtyards, walkways, and alleys that allow access through development and create visual breaks in the facade.

CB 1.2.2. Landscaping. Landscape design shall be used to activate building facades, soften building contours, highlight important architectural features, screen less attractive elements, provide shade, and add color, texture, and visual interest.

CB 1.2.3. Climate Appropriate Planting and Materials. Landscape materials should be of high quality and suitable for

the Bay Area climate. In order to reduce water consumption, naturalized and low-water use plant species are preferred.

CB 1.3. Pedestrian Entry. An at grade pedestrian entry, including a walking path to the public pedestrian circulation network, shall be provided on each street frontage.

CB 1.4. Parking Access. Parking entry points are preferably accessed from nearby lanes or side streets rather along the primary frontage where conditions apply.

CB 1.4.1. Curb Cuts. Curb cuts should be located to minimize transit, bicycle, and pedestrian conflicts. Parking access shall use the minimum feasible curb cuts and may be a minimum of 12 feet wide and accommodate ingress and egress.

CB 1.4.2. Street Access. Vehicular access to parking structures should be provided primarily from side (i.e. secondary) streets to reduce conflicts with pedestrians and minimize interruptions

to the continuity of the primary street facade.

CB 1.5. Service and Loading Areas. Service and loading areas must be designed to efficiently allow access to delivery points while screening public areas from the noise and visual impacts of these facilities.

CB 1.5.1. Loading Zones. Loading zones should be located away from major pedestrian routes and intersections and shared with parking entrances, where possible.

CB 1.5.2. Access to Loading. Access to loading spaces should include adequate space to maneuver trucks and service vehicles into and out of all provided spaces, and be designed so as to facilitate access to the building while minimizing interference with street and sidewalk circulation. Entrances to loading facilities should be minimized in size and designed with visual buffers from pedestrian areas.



Pedestrian, vehicular, service, and loading access are all integrated on site with landscaping in this example from the Millpitas Metro area.



Examples of innovative building design that is articulated, modulated, frames open spaces and activates the ground floor experience. (Credits: Top photo by Sam Fentress. Bottom Photo by Nick Merrick)

CB 2. Innovative Building Design. Commercial buildings should be designed as signature, distinctive, and innovative reflecting the research and development that is occurring within them and the prestige of companies that occupy them.

CB 2.1. Commercial Mix. Vertical mixed-use in mid-rise and high-rise buildings is encouraged. Mixed-use buildings throughout the district may include ground floor neighborhood retail.

CB 2.2. Flexibility of Use and Building Design. Office/ R&D buildings should be designed to be flexible and adaptable through use of modularity. The module will influence the structural system design.

CB 2.3. Articulated Facades. Facade design should include high quality materials, windows, solar control devices, and other design elements to provide a well articulated building.

CB 3. Building Massing. Massing should vary and remain flexible until specific projects are identified and their program requirements are understood. Applicants should consider segmenting the building into smaller masses that correspond to the internal function of the building and employing variations in the building facades that provide more visual relief, such as streetwall indents and recessed building planes, deep entry and window openings, balconies, window bays, varied horizontal treatment (i.e. a roof, cornice or parapet), and piers at corners and structural bays.

CB 3.1. Solar Orientation. Consider orienting buildings to be south-facing to maximize passive solar heating and cooling for sites greater than five acres in the Innovation District and Great Mall District.

CB 3.2. Framing Open Space. The base of towers must be designed to form and enhance open spaces and sidewalks at the ground level.

CB 3.3. Minimizing the Perception of Mass. The building base should provide a change in color, massing, recess or projection to differentiate the base, which can be at minimum the ground floor level to reduce the perception of mass along the street frontage. Buildings must step back after the first 3-5 floors.

CB 3.4. Modulate Long Facades. Long building façades shall use modulation and articulation to create break up long street walls. Provide visual interest and variation on major facades by utilizing the following architectural elements: recesses; awnings; colonnades; pronounced entrances; projections; step-backs; changes in height, floor level, and roof form; window reveals; cornice treatments; parapets; and changes in color or material.



Examples of research and development building design in Northern California with examples of building massing modulation. (Credit: CBRE)

CB 3.5. Building Base and Orientation. The design of the lower floors of mid-rise and high-rise buildings affects the public realm and pedestrian environment. The role of the base building is to frame the public realm and adjacent open spaces, articulate entrances, and assist in the creation of an attractive and animated public realm which provides a safe, interesting, and comfortable pedestrian experience. The ground floor should be designed to be an attractive and animated public realm which provides a safe, interesting, and comfortable pedestrian experience.

CB 3.6. Varying Rooflines. Office/ R&D Buildings should include variable roof lines using different heights, differentiated treatment, projections and recesses and special features to make the skyline memorable.

CB 4. Ground Floor Design. The ground floor of a commercial building delivers an important sense of design to the adjacent streets and other uses, as serves as a transition area between public spaces and the interior of the building. These ground floor guidelines aim to help maximize the function of the ground floor.

CB 4.1. Active Uses. Locate active ground floor uses along the primary facade. Active ground floor uses include retail, office, live/ work, and residential common spaces such as mail rooms, bike rooms, communal kitchens, community rooms, conference rooms, social gathering areas (porches/patios), and lobbies. Active uses in commercial buildings include: gathering areas such as auditoriums, meeting rooms, cafeterias, reception areas, and shared work spaces should be located on the first floor to encourage interaction with sidewalks, public areas, and plazas.

CB 4.2. Ground Floor Treatment. The base of buildings shall place active ground floor uses and primary building entrances along their primary facades oriented to adjacent streets, parks, and open space.

CB 4.3. Entrances. Primary entrances should be enhanced with extra detailing, framing, awnings and signage to provide visual interest, wayfinding, and weather protection.

CB 4.3.1. Orientation to All Adjacent Streets. Multiple entrances for buildings are encouraged from the side and/ or rear streets.

CB 4.3.2. Entries Activating Streets. The main entrance may not face a parking lot and must be placed to support activity on streets.

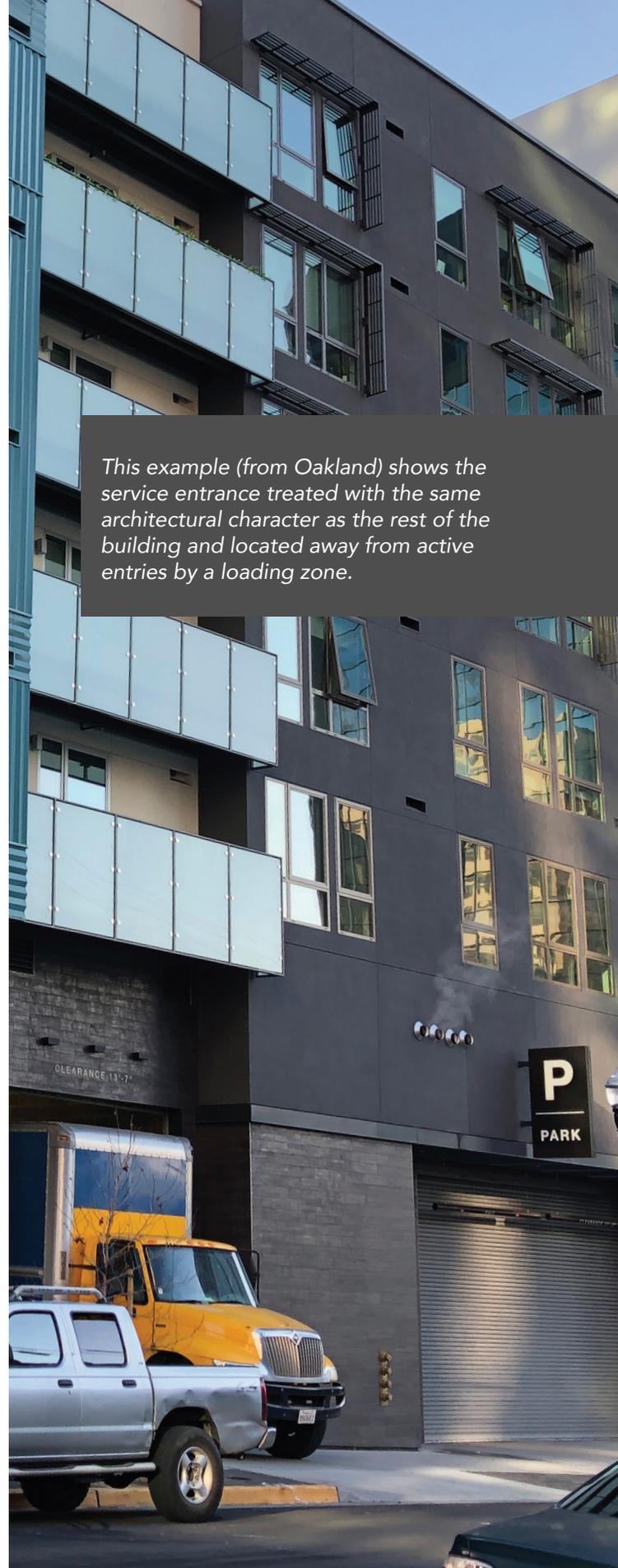
CB 4.3.3. Welcoming Lobbies. Primary entry lobbies should be designed to provide visual interest, orientation, and a sense of welcome from streets, public rights of way and plazas.

CB 4.3.4. Universal Access. Universal access best practices should be integrated into all building designs.

CB 4.3.5. Consolidate and Activate All Entries. Exit door alcoves on the building exterior are encouraged to share space with primary entries and active pedestrian circulation where possible. Minor entry and exit door alcoves on the building exterior are discouraged when they do not share space with active visual surveillance such as primary entries or active pedestrian circulation.

CB 4.4. Service Entrances. Service entrances should include either opaque or translucent garage door panels or treat that portion of the service yard visible from the public realm with the architectural character employed throughout the rest of the building.

CB 4.4.1. Mitigate Noise from Service Areas. Noise from loading areas, emergency supply areas, and equipment should be mitigated so as not to disturb users of nearby public open spaces.



This example (from Oakland) shows the service entrance treated with the same architectural character as the rest of the building and located away from active entries by a loading zone.

CB 4.5. Maximize Leasability. Design ground floor retail spaces to accommodate leasable features.

CB 4.5.1. City of Milpitas Design Standards for Commercial Frontages apply. Standards addresses transparency, weather protection, provisions for setback design, depth of use, floor-to-floor heights and more.

CB 4.5.2. Efficiency of Space. Locate demising walls around columns in larger retail spaces to maximize the efficiency of the space and minimize small gaps between columns and walls. Provide a minimum of 5 feet between walls and columns.

CB 4.5.3. Retail Depth. Provide a space with a minimum of 60 feet in depth for a minimum of 50 percent of the space, and a minimum of 40 feet in depth any remaining space.

CB 4.5.4. Ground Floor Height. Ground floor retail must have a minimum of 18 feet floor to floor height with a minimum of 14 feet clear inside the leasable space, 16 feet clear is preferred.

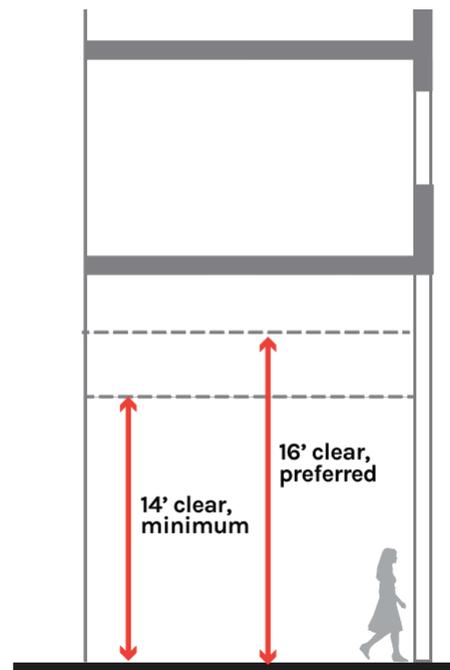
CB 4.5.5. Interchangeable Storefront. Provide interchangeable storefront systems to accommodate changes in tenants.

CB 4.5.6. Restaurant Considerations. Where food and beverage retail is anticipated, grease traps are required.

CB 4.5.7. Placement of Upper-Level Lobbies. Lobbies for commercial office or residential uses above the ground floor shall be oriented to ensure continuous and uninterrupted retail and other active uses along the ground floor.

CB 4.5.8. Flood Elevation for Non-Residential Buildings. The lowest floor of non-residential construction in the floodplain can be built at the Base Flood Elevation.

Figure 3-5. Commercial Ground Retail Floor Height



CB 5. Rooftop Design. Roofs of buildings may be used as shared spaces. Rooftops may also include green roof systems, alternative forms of energy production, and rainwater catchment systems.

CB 5.1. Multifunction Roofs: Roof designs should consider systems such as vegetated roof covers (green roofs), alternative forms of energy production, and rainwater catchment systems.

CB 5.2. Screening Rooftop Equipment. Screening shall be incorporated into the overall architectural character of the building. Rooftop mechanical equipment must not be visible from the street and shall be visually screened from public view and next to shared spaces like rooftop gardens and patios.

CB 5.3. Natural Lighting. Roofs are encouraged to utilize skylights to maximize natural lighting within buildings.

CB 5.4. Universal Access to Rooftop Common Spaces. Provide universal access to rooftop amenities. Provide an accessible path to a publicly accessible restroom on an adjacent floor or at the rooftop level for any common outdoor open space on the rooftop.

CB 5.5. Rooftop Landscaping. A minimum of 10 percent of the open space shall be landscaped using green roofs or planters. Drought tolerant vegetation and landscape variety are encouraged on rooftop gardens.



This rooftop serves multiple functions with landscaping and amenities. (CB 5)



Examples of ground floor design that promote active uses, orient to adjacent streets, and treats service entries with similar architectural character. (CB 6)

CB 6. Parking Garage Design. These design standards and guidelines are additional to citywide design standards.

CB 6.1. Parking Layout. On-site parking shall be provided at the rear of the site and above the ground floor, wherever possible. Structured parking is preferred and should be screened from the primary street; no parking shall be allowed along the main frontage of buildings.

CB 6.2. Separated Pedestrian Entrances. Pedestrian entries to parking garages should be separate from vehicular entrances and located along major pedestrian connections where they are easily seen and conveniently accessed as a pedestrian or cyclist. They should be designed to be as open and visible as possible, incorporating adequate lighting to promote a feeling of security and comfort.

CB 6.3. Bicycle Parking. Bicycle parking is required in all parking garages or other approved alternative on-site locations that serve commercial and residential uses. Bicycle parking shall be located at the ground floor in a conveniently accessible location near a shared pedestrian entrances and exits and secured and weather protected.

CB 6.4. Conceal Parking Garages. All parking garages should be concealed as much as possible from public view, especially at the ground level. Whenever feasible, parking should be either located below ground, wrapped behind buildings, located on the interior of blocks where it is screened from public view.

CB 6.5. Parking Garage Facade Design.

Where structured parking is visible to the public realm, the design of the facade shall be treated in a similar manner as the adjacent buildings. The facade shall not repeat the sloping floor lines of interior parking ramps on the facade.

CB 6.6. Parking Garage Rooftop Materials and Amenities.

The standard roofing materials must have a low albedo, cool roof system or finish. Rooftop amenities that provide vegetation, generate energy, or are designed as shared amenities are an exception to the standard design.

CB 6.7. Design for Conversion. The design of parking structures shall be designed for future conversion to other uses. Parking floors shall not be sloped and parking circulation should be designed in a way that anticipates its removal. Ramps from the ground floor to upper parking levels should be designed in a way that can be adaptable for future conversion of parking spaces to usable space.

CB 6.8. Parking Signage. Signage for public parking shall be clearly marked and visible from the street. Vehicular Entry. At grade entries facing the street shall be no more than 20 feet wide and recessed a minimum of three feet from the facade

CB 6.9. Lighting. Structured parking shall be designed such that interior lighting shall be fully shielded and automobile headlamps shall not be visible from adjacent buildings, parcels, streets, public parks, publicly accessible outdoor space or designated open space area.

CB 6.10. Tandem Parking. Parking configurations may utilize tandem parking for more efficient use of space, provided that both parking spaces are used by the same tenant or otherwise conform to a site parking plan approved by the City.

CB 6.11. Parking Lifts. Parking lifts may be used for more than one unit. Parking lifts may not require backing one car out to get to another car.



Above: The rooftop parking uses low-albedo finishes, and is minimized to allow for a larger amenity deck, not shown. (CB 6.6)

Below: The entrance fro Trader Joe’s parking is clearly signed and integrated with the retail entrance.

CB 7. Sustainability

CB 7.1. Citywide Sustainability Policies.

The Milpitas Metro Plan Area is a center of development and change in Milpitas, and will serve as an example for the implementation of sustainable building practices in the city. Additional sustainability policies are located in the City of Milpitas Climate Action Plan.

CB 7.2. Energy. New buildings shall include features that include the most impactful methods for reducing energy uses and greenhouse gas emissions.

CB 7.2.1. Solar Design Management Plan.

All new developments shall develop a management plan for solar exposure, including optimizing natural lighting and managing passive heating and cooling.

CB 7.2.2. Residential Electrification.

All new residential buildings shall be all-electric.

CB 7.2.3. Nonresidential Electrification.

All new nonresidential buildings shall be all-electric, unless uses essential to the key functions of the internal business, such as manufacturing or laboratory work, require natural gas. Kitchens and cooking do not require natural gas. All new nonresidential buildings shall install electric cooking appliances, water heaters, and space heaters.

CB 7.3. On-Site Energy Generation.

Encourage on-site renewable energy generation, including the use of solar panels on rooftops and over parking lots.

CB 7.3.1. Solar Energy. All new nonresidential buildings shall install solar photovoltaic systems or purchase electricity from a community energy provider (e.g. Silicon Valley

Clean Energy).

CB 7.3.2. Generators. All new residential and nonresidential buildings shall use zero-emission generator engines for generators with a supply of 25 kW or less.

CB 7.4. Construction Equipment. All off-road heavy-duty construction equipment shall use high-performance renewable diesel.

CB 7.5. Water Conservation and Recycling. New buildings shall include features that reduce water usage and incorporate water recycling systems.

CB 7.5.1. Low Flow Plumbing

Fixtures. Ultra low-flow fixtures in residential and nonresidential development are required.

CB 7.5.2. Recycled Water for Industrial Uses. Incorporate the use of recycled water for industrial uses and landscape irrigation where feasible, within the parameters of State and County Health Codes and standards and in compliance with regional agency requirements.

CB 7.5.3. Recycled Water for Residential and Nonresidential Uses. All new residential and nonresidential development shall include a separate piping system for recycled water (i.e. purple pipes) to be used for irrigation and other outdoor water uses, as feasible.

CB 7.5.4. On-site Recycled Water. All new development projects shall install on-site recycled water systems (i.e. greywater systems) and rainwater harvesting systems, consistent with all State and

County Health Codes and standards and in compliance with regional water agency requirements.

CB 7.6. Low Impact Development and Stormwater Runoff. All projects shall comply with State, regional local regulations related to Low Impact Development and Stormwater capture and treatment, and be designed and constructed in accordance with Low Impact Development principals to mimic the site's predevelopment hydrology.

CB 7.6.1. Stormwater Retention.

Encourage incorporation of water collection and retention devices, such as rain barrels and cisterns, into building design to allow for water reuse.

CB 7.6.2. Integration of Stormwater Runoff Features.

Encourage incorporation of water runoff strategies such as rain gardens, bioretention swales, and permeable pathways into development roadways, and parks.

CB 7.7. Solid Waste. Building construction and operations shall incorporate measures to screen waste areas from view, reduce waste generation and maximize waste diversion from landfills and reuse.

CB 7.7.1. Waste Facility Location. Waste and recycling facilities and other services are to be provided for all buildings in a location that balances access, convenient pickup, and maintenance, and is screened from pedestrian zones.

CB 7.7.2. Waste Diversion. All construction and demolition projects shall achieve a 75 percent diversion waste rate.

CB 7.7.3. Organic Waste Collection for Residential. All multifamily residential

buildings shall provide organic waste collection services for tenants and employees.

CB 7.7.4. Organic Waste Collection for Nonresidential. All nonresidential buildings shall provide collection containers for organic waste and recyclables in all areas where disposal containers are provided, except in restrooms.

CB 7.8. Electric Outlets. All new development shall install sufficient exterior



Examples of recycled water for landscaping, and stormwater capture and treatment that follow some of the Citywide Sustainability Policies (CB 7).



Special conditions for new development apply near railway tracks in the Metro Area. (SC 4)

electrical outlets to power electric-powered landscaping equipment.

3.4 SPECIAL CONDITIONS

SC 1. Historic Resource. For any future development project occurring within the Metro Plan area that proposes to alter or demolish a building that is more than 50 years old, the City will require the project sponsor to engage a professionally qualified historian or architectural historian to prepare a historical evaluation of the building unless a previously prepared historical evaluation is available. This requirement can be met through the preparation of California Department of Parks and Recreation 523 Forms. The historical evaluation will analyze whether the building meets the eligibility requirements of the California Register of Historical Resources. If the building is determined to be eligible, the project sponsor's professionally qualified historian or architectural historian must also assess the project's compliance with the Secretary of the Interior's Standards for Rehabilitation. If the building is determined not to be eligible, or if the project is found to adhere to the Secretary's Standards relative to eligible resources, no further action is required.

SC 2. Central Corridors. Enhance arterial streets - Montague Expressway, Great Mall Parkway/ Capitol Avenue, South Main Street, and Trade Zone Boulevard - to include facilities for active transportation.

SC 2.1. Features. Central Corridors should include the following features:

- Bike lanes and sidewalks on both sides of the road
- Street furnishings, including ample seating, bike racks, waste and recycling bins, bollards, and human scale

street lights.

- Ground-level activity that invites Central Corridor users on to Activity Streets.
- Landscaped setbacks along Great Mall Parkway, Capitol Avenue, South Main Street, and South Milpitas Boulevard to buffer uses from heavy traffic.
- Pedestrian crossing enhancements for traffic awareness and speed reduction.

SC 3. Great Mall Parkway

SC 3.1. Multimodal Streetscape on Great Mall Parkway. A protected bike lane and linear park shall be provided on Great Mall Parkway to improve the walking and bicycling experience and transform the corridor into a multi-modal streetscape.

SC 3.2. Complete Streets Improvements. Great Mall Parkway between Montague Expressway and Main Street shall be transformed into a complete street by narrowing travel lanes and the central median and adding protected bicycle lanes and a linear park with a minimum width of 20 feet, next to a sidewalk with a minimum width of 20 feet. This corridor requires building entrances and active ground floor uses to orient towards Great Mall Parkway.

SC 3.3. District Identity on Great Mall Parkway. Great Mall Parkway is a gateway to the Milpitas Metro Area that should be enhanced with public art in the form of murals, district identifying signage and wayfinding, and consistent streetscape. Future development along Great Mall Parkway in the Great Mall District shall orient to and activate Great Mall Parkway with signature building design, an activated ground floor, and landscaping to

support the vibrancy and walkability of the linear parkway.

SC 4. Separation from Rail Lines. Any development projects, parks, or pedestrian trails built directly adjacent to a rail line (i.e. sharing a property boundary, not separated from the rail line by a roadway) shall build continuous fencing or solid walls between the development and the rail line to ensure that there will be no pedestrian access to the line. Fencing shall be designed to deter graffiti and trespassing.

SC 4.1. Residential Units next to Rail Lines. Housing units next to rail lines must be constructed to mitigate negative impacts of train noise.

SC 4.2. Acoustics for Bedrooms Adjacent to Rail lines. The acoustical exterior of bedrooms in areas within 200 feet of rail right of ways shall be enhanced to address the sound of the trains.

SC 5. Waterways

SC 5.1. Santa Clara Valley Water District. For properties adjacent to any waterway in the study area, the following requirements shall apply:

- Any plans for construction over the Santa Clara Valley Water District (SCVWD) fee or easement lands require review and issuance of a permit.
- The SCVWD's Milpitas Pipeline, located at the north end of the study area [of the TASP] and adjacent and parallel to the rail line continuing south onto Capital Avenue at the southern end of the study area, shall be shown on all future plans.



Development adjacent to creeks, such as the E. Penitencia Creek pictured here in the Tango District, shall also work with Santa Clara Valley Water District (SCVWD) for project approval. (SC 5)

- Projects should generally be consistent with the recommendations developed by the Water Resources Protection Collaborative in the “Guidelines and Standards for Land Use Near Streams.”

SC 5.2. Penitencia and Berryessa Creek.

Consistent with current City practice, all new development located on or adjacent to Penitencia and Berryessa Creek will be required to comply with the standards and guidelines for land uses near streams, as adopted by the City of Milpitas. Any development or construction activity to be conducted on or adjacent to SCVWD property or easements, such as creek crossings, shall be required to obtain applicable permits from the SCVWD prior to such construction activity.

SC 5.3. Setbacks Adjacent to Creeks and Drainage Channels.

A minimum setback of 25 feet from top of bank, or from a maintenance road if one exists (in addition to required rear or side yard setbacks) shall be maintained.

SC 6. Temporary Buffers. Require the installation of temporary buffers—fences, walls, or vegetation— when residential uses are developed adjacent to existing industrial uses. The type of buffer must be reviewed and approved by the City Planning Department. The temporary buffers may be removed if and when an adjacent site is redeveloped as a non-industrial use.

SC 7. Archaeological Resources. Any future ground-disturbing activities, including grading, in the Metro Plan Area shall be monitored by a qualified archaeologist to ensure that the accidental discovery of significant archaeological materials and/or human remains is handled according to State CEQA Guidelines Section 15064.5 regarding discovery of archaeological sites

and burial sites, and State CEQA Guidelines Section 15126.4(b) identifying mitigation measures for impacts on historic and cultural resources (reference CEQA Sections 21083.2 and 21084.1). A Native American monitor will also be present during future ground-disturbing activities due to the high potential for inadvertent discoveries of archaeological materials and/or human remains. Prior to commencement of ground-disturbing activities, the City shall ensure that the general contractor and those conducting ground-disturbing activities receive cultural sensitivity training from a tribal representative. Cultural sensitivity training will ensure that any cultural material encountered during ground-disturbing activities is protected and treated with culturally appropriate dignity. This training will be administered by a Native American monitor and a qualified archaeologist. In the event that buried cultural materials are encountered, construction will be temporarily halted until a mitigation plan can be developed. In the event that human remains are encountered, the developer shall halt work in the immediate area and contact the Santa Clara County coroner and the City of Milpitas. The coroner will then contact the Native American Heritage Commission (NAHC), which will in turn contact the appropriate Most Likely Descendant (MLD). The MLD will then have the opportunity to make a recommendation for the respectful treatment of the Native American remains and related burial goods.

SC 8. Air Quality.

SC 8.1. CEQA. For new residential development that is proposed within 500 feet of active rail lines where vehicles emit diesel exhaust, or roadways where total daily traffic volumes from all roadways within 500 feet of such location exceed 100,000 vehicles per day, will, as part of

its CEQA review, include an analysis of toxic air contaminants (which includes primarily diesel particulate matter (DPM)). If the results show that the carcinogenic human health risk exceeds the 10 people in a million standard for carcinogenic human health impacts established by the BAAQMD, the City may require upgraded ventilation systems with high efficiency filters, or other equivalent mechanisms, to minimize exposure of future residents. This standard shall also apply to other sensitive uses such as schools, daycare facilities, and medical facilities with inpatient services.

SC 8.2. Communication with Sensitive Receptors. Require project sponsors to inform future and/or existing sensitive receptors (such as hospitals, schools, residential uses, and nursing homes) of any potential health impacts resulting from nearby sources of dust, odors, or toxic air contaminants, and where mitigation cannot reduce these impacts.

SC 9. Birds and Roosting Bats

SC 9.1. Bird Habitat. To the extent feasible, future developers in the Metro Plan Area will conduct initial construction activities outside the nesting season between September 16 and January 14 including, but not limited to, tree trimming or tree removal, ground disturbance, demolition, site grading, and other activities that may compromise breeding birds or the success of their nests occurring within or outside the development site.

If construction must occur during the migratory bird nesting season between February 1 and to August 31, for small bird species, January 15 to September 15 for owls, and February 15 to September 15 for other raptors, a qualified wildlife biologist

will conduct two preconstruction nesting surveys within 140 days and 48 hours prior to the start of construction or demolition. Additional surveys will be conducted 48 hours prior to the start of construction or demolition in areas that have not been previously disturbed by construction activities or after any construction breaks of 10 days or more. Typical experience requirements for a “qualified biologist” include a minimum of 4 years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of 2 years of experience in biological monitoring or surveying for nesting birds. Surveys of suitable habitat will be performed in publicly accessible areas within 250 feet, 500 feet, and 1,000 feet of the construction site to locate any active passerine, small raptor (e.g., accipiters), and large raptor (e.g., buteos) nests, respectively of common bird species and within 250 feet of the construction site to locate any active nests of raptors (i.e., birds of prey). Surveys will be conducted at the appropriate times of day and during appropriate nesting times.

If active nests are located during the preconstruction nesting bird surveys, a qualified biologist will evaluate the construction schedule and location to determine if construction activities could affect an active nest. If so, the following measures will apply, as determined by the qualified biologist:

- If construction would not affect an active nest, construction may proceed without restriction; however, a qualified biologist will regularly monitor the nest at a frequency determined appropriate for the surrounding construction activity, to confirm that there would be no

adverse effect. The frequency of spot check monitoring would be determined on a case-by-case basis, considering the scope of the particular construction activity, duration, proximity to the nest, and any physical barriers that may screen the nest. The qualified biologist may revise the determination at any time during the nesting season.

- If it is determined that construction could affect an active nest, the qualified biologist will establish a no disturbance buffer around the nest. All construction will halt within the buffer until the qualified biologist determines that the nest is no longer active. Buffer distances will be equal to the survey distances (i.e., 50 feet for passerines and 250 feet for raptors); however, the buffer may be adjusted if an obstruction, such as a building, is within the line of sight between the nest and construction.
- Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests will be done at the discretion of the qualified biologist.
- Any construction that must occur within established no disturbance buffers will be monitored by a qualified biologist. If adverse effects in response to construction within the buffer are observed that could compromise the nest, construction within the no disturbance buffer will halt until the nest occupants have fledged.
- Any birds that begin nesting within the construction area and survey buffers amid construction activities

are assumed to be habituated to construction related or similar noise and disturbance levels. Therefore, exclusion zones around nests may be reduced or eliminated in these cases, as determined by the qualified biologist. Construction may proceed around active nests as long as the nests and their occupants would not be directly affected.

- If inactive nests are observed within or adjacent to the construction site, removal or relocation of the inactive nests will be at the discretion of the qualified biologist. Construction may proceed around inactive nests.

SC 9.2. Bird Strike. Future developers shall ensure that a qualified biologist experienced with bird strikes and building lighting design issues identifies recommended measures related to the external appearance of the building to minimize the risk of bird strikes. Future developers shall incorporate such measures into the building's design, subject to design review and approval by the City, which may include the following and/or other measures:

- Use strobe or flashing lights in place of continuously burning lights for obstruction lighting. Use flashing white lights rather than continuous light, red light, or rotating beams.
- Install shields onto light sources not necessary for air traffic to direct light towards the ground.
- Extinguish all exterior lighting (i.e., rooftop floods, perimeter spots) not required for public safety as determined by the City.
- When interior or exterior lights must

be left on at night, the operator of the buildings shall examine and adopt feasible alternatives to bright, all-night, floor-wide lighting, which may include installing motion-sensitive lighting, using desk lamps and task lighting, reprogramming timers, or using lower-intensity lighting.

- Use window films, mullions, blinds, or other internal or external features to "break up" reflective surfaces rather than having large, uninterrupted areas of surfaces that reflect, and thus to a bird may not appear noticeably different from, vegetation or the sky.
- Minimize the extent of glazing.
- Use low-reflective glass and/or patterned or fritted glass.

SC 9.3. Roosting Bat. In order to avoid impacts on roosting bats, a pre-construction habitat assessment and survey(s) for bat roosts shall be conducted in any large trees (>24 inches diameter at breast height) within 100 feet of any planned construction and in any buildings planned for demolition. This effort shall occur prior to the start of work to evaluate whether potential roost habitat occurs and to determine the type (i.e., maternity or non-maternity) and status (i.e., active or inactive) of the roost. If an active maternity or special-status bat roost is found, removal of maternity roost trees or buildings shall be avoided during the maternity roosting season or until a qualified biologist determines the roost has been vacated. Felled trees without maternity or special-status roosts shall be allowed to lay on the ground for one night to allow any undetected roosting bats to leave the tree before it is chipped or taken offsite.

The overhead VTA light rail at the Milpitas Station, located near the Transit Center.



4. MOBILITY AND CIRCULATION

- 4.1. Planning Context
- 4.2. Approach
- 4.3. Mobility and Circulation Policies

This chapter describes mobility and circulation conditions in the Metro Area and sets standards for street and roadway design to create a balanced multimodal transportation environment. New development will bring more residents, workers, and visitors to the area. Standards and guidelines in this chapter detail roadway improvements to ensure efficient and safe circulation for pedestrians, bicyclists, transit, and automobiles throughout the Plan Area. Additional transportation demand management (TDM) policies strategically address curb space and parking demand.

4.1 PLANNING CONTEXT

Because the Metro Plan Area is flanked by the I-680 and I-880 freeways on the east and west, respectively, and the Montague Expressway serves as a connector between the two for regional traffic circulation, there will be substantial traffic that passes through the area that cannot be diminished. Similarly, Great Mall Parkway/ Capitol Avenue is a significant east-west corridor that carries high traffic volumes. Both of these regional roadways pass through the area and cannot be reduced in capacity by design, but improvements are planned to overcome the incompatibility of the roadway with the goals of the Metro Plan. Particularly high traffic volumes occur during AM and PM commute hours, but these roadways are generally well traveled most hours of the day. The planned infrastructure improvements are intended to enhance safety and convenience for those living in, working in, and visiting the Metro Area.

Figure 4-1. Existing Roadways

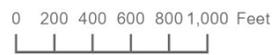


Milpitas Metro

Blocks



GIS data provided by:
 Blocks - City of Milpitas / Roads - US Census Bureau 2019 TIGER



4.1.1 General Plan Direction

The City of Milpitas' General Plan Circulation Element directs the City to maintain and improve multimodal transportation opportunities by providing safe and efficient transportation options that are equitably located and accessible to all people. Through strategic transportation solutions, the City will support a network of transportation facilities that improves safety and promotes an active lifestyle by increasing opportunities for physical activity for all people. The Metro Plan is consistent with and implements the following six circulation goals from the General Plan:

- **CIR-1 Circulation and Transportation Network:** Provide a transportation system that efficiently, equitably, and effectively supports the City's land use vision, minimizes vehicle miles traveled (VMT), enhances connectivity of the existing network, and supports the use of all modes of transportation.
- **CIR-2 Complete Streets:** Provide safe, healthy, comfortable, equitable, and efficient transportation choices for all modes of transportation that enable people of all races, cultures, ethnicities, religions, sexual orientation, genders, income levels, ages and abilities, especially people of color and those disproportionately affected by access to a personal vehicle, systemic transportation inequities, racism, oppression, and poverty to increase safe physical activity, reduce usage of personal vehicles, access goods and services, employment opportunities, and for personal travel; to provide for efficient goods movement.
- **CIR-3 Transit:** Support the development and maintenance of the public transit system to provide integrated, accessible, convenient, safe, equitable, health-promoting, comfortable, and effective mobility options.
- **CIR-4 Bicycle/Pedestrian/Trails:** Promote, provide, and maintain an expanded, safe, convenient and comprehensive network of facilities for pedestrians and bicyclists of all ages and abilities to support walking and bicycling as viable modes of transportation, for recreational use, and to promote public health.
- **CIR-5 Transportation Demand Management:** Implement measures that increase transit use and other non-motorized travel modes that lead to improved utilization of the existing transportation system, such as accessibility improvements to public transit stops and stations by walking and biking, and provide transit stops near employment centers and higher density residential developments and in areas where infrastructure is lacking and access without a car is unsafe.
- **CIR-6 Sustainability:** Support and expand the City's efforts to promote economic, environmental and social sustainability through initiatives to reduce greenhouse gas emissions and other air pollutants, reduce runoff, promote public health, equity and engage the community in an inclusive planning process.

As part of the community outreach process for the Milpitas Metro Plan, the community also expressed that improving pedestrian and bicycle connections within and beyond the Metro Area to form a continuous network that emphasizes safety

Figure 4-2. Existing Pedestrian Barriers

Wide streets, railroad tracks, water ways, and lack of connectivity are all pedestrian barriers to getting around the Metro area. The barriers separate neighborhoods. Source: Urban Field Studio (2019)



Table 4-1. Traffic Volumes

Segment	Northbound/ Eastbound (average vehicles per day)	Southbound/ Westbound (average vehicles per day)	Total (vehicles per day)
Great Mall Parkway west of Montague Expressway	16,179	15,188	31,367
Montague Expressway west of Great Mall Parkway	17,659	19,910	37,569
S. Main Street north of Montague Expressway	9,199	10,651	19,850

Source: W-Trans, 2016

is a higher priority than vehicular ease of access in the Metro Area.

4.1.2 Mobility and Circulation Conditions in the Milpitas Metro Plan Area

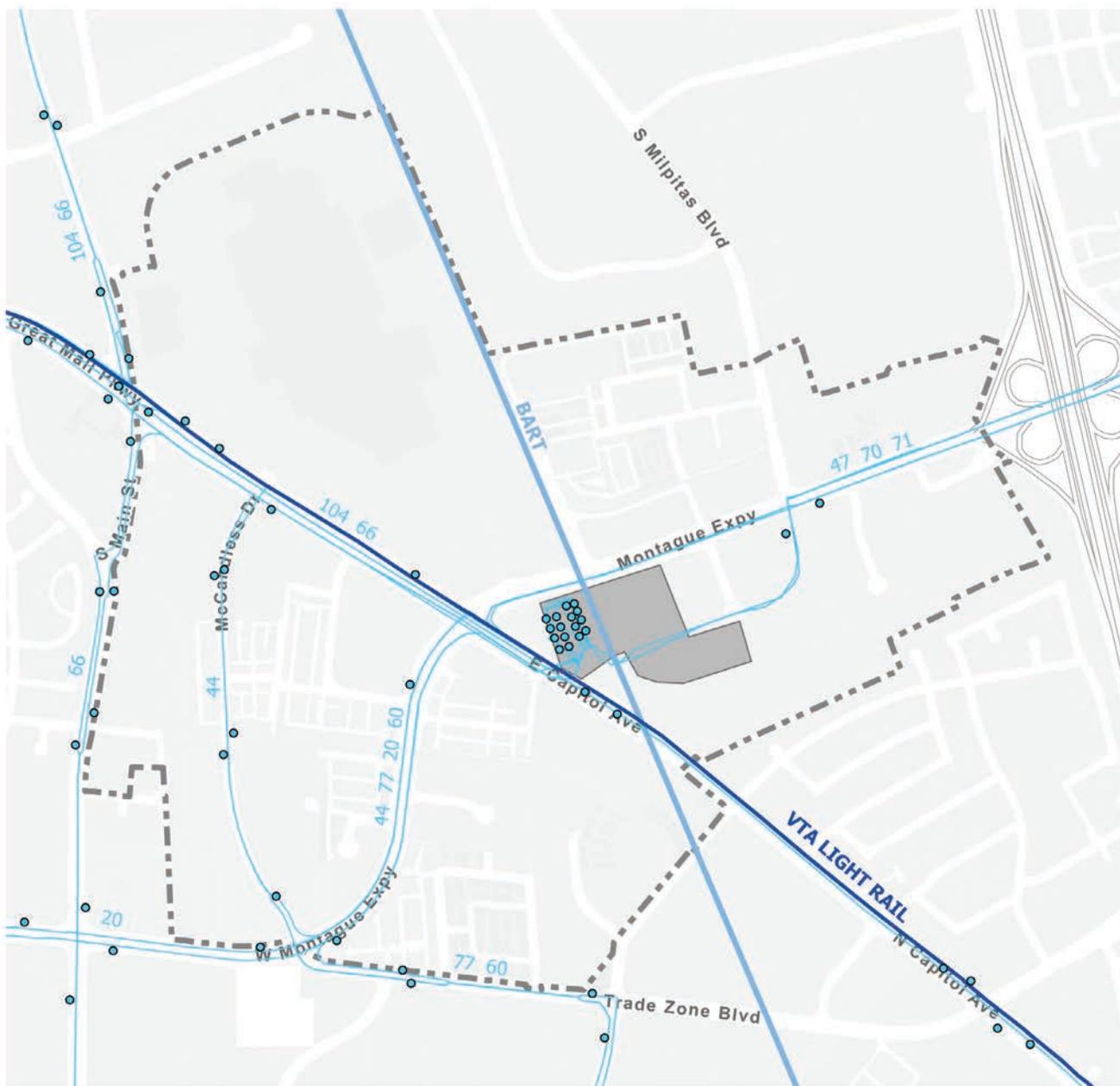
The Milpitas Metro Specific Plan Area is centrally located within the Bay Area, bounded on the west by I-880 and on the east by I-680. Within the Plan Area, the circulation system features multi-lane arterial streets including Great Mall Parkway-Tasman Drive, Montague Expressway, South Milpitas Boulevard, and Trade Zone Boulevard. These streets provide access to and from the regional highway system as well as circulate local traffic. Connectivity and access to residential neighborhoods, industrial sites, and other land uses within the Metro Plan Area are provided by lower volume, local streets.

The circulation pattern in the Plan Area also has several barriers, including the Union Pacific Railroad tracks, BART tracks, elevated light rail structures, and Penitencia and Berryessa Creeks. Just north of the Plan Area, the Great Mall and the rail yard also limit east-west connectivity. The Tango District in the southern part of the Plan Area has several cul-de-sacs that were designed to serve local businesses. With plans to change land uses in this district, this current lack of connectivity is problematic as it would limit access for future residents, impede access for emergency vehicles, and create circuitous travel routes if left unchanged. The City has purchased two properties that allow for street connections between Sango Court and Tarob Court, which will help mitigate the existing connectivity issues.

The first developments in the Plan Area following the adoption of the TASP were townhome projects. These projects are characterized by separated vehicular and pedestrian access to each unit. This is made up of vehicular access to each unit off of driveway/alleyways that lead to two-car garages typically, and primary pedestrian access off of shared walkways that lead to front doors. The alleyways and walkways typically flank either side of a row of townhome units with landscaping along the walkway/entry side of the unit. No significant landscaped yard areas are generally provided in this arrangement other than what is available near the front entry. Access to the development as a whole and between blocks of buildings is usually provided via local streets with sidewalks that serve front entries. These developments generate vehicle trips consistent with townhomes throughout the Bay Area and were primarily automobile oriented insofar as they predated the construction and opening of BART, but nearly all are within the half-mile walkshed of a transit station (VTA or BART).

With 78 percent of Milpitas residents driving alone to work and an additional 12 percent carpooling, motor vehicles are the dominant transportation mode in the city as well as in the Metro Area. While driving is expected to remain the dominant transportation mode, traffic congestion will become increasingly challenging as a result of local and regional growth. Great Mall Parkway-Tasman Drive and Montague Expressway are the two major corridors through the area and are among the most congested roadways in Milpitas. The City's General Plan estimates that several study area intersections will be further impacted by incoming growth by the year 2040, increasing delay for drivers.

Figure 4-3. Transit Network



Milpitas Metro
 - - - - -

■ BART Station

— BART Rail

— VTA Light Rail

— Bus Route

● Bus Stop

GIS data provided by: Bus Routes and Stops 2018 - Valley Transportation Authority / Rail Transportation Network - Metropolitan Planning Group / Roads - US Census Bureau 2019 TIGER

0 200 400 600 800 1,000 Feet



As the local development pattern has shifted to include more multifamily housing surrounding the recently opened Milpitas Transit Center, and the need for multimodal transportation options has increased, there have been substantial changes to mobility options for traveling to, from, and within the Milpitas Metro Specific Plan Area. The initiation of BART service to the Milpitas Transit Center in mid-2020, the relocation of the VTA bus transfer hub to the Transit Center, and the nearby multi-station access to light rail service, all have helped to establish Milpitas Metro as a major transit hub, offering vastly improved connections through the city generally, the Metro Area specifically, and locations throughout the Bay Area.

Transit connections include:

- **BART:** Service runs through Milpitas every 30 minutes between the Berryessa/North San Jose and Richmond stations. Service to Alameda County is available via AC Transit Route 217, which connects to Fremont BART.
- **Bus:** VTA provides bus service at the Milpitas Transit Center that serves local and regional routes, including lines 20, 44, 60, 66, 70, 71, 77, and 104.
- **Light rail:** The Milpitas Transit Center is connected by a pedestrian bridge to the Milpitas light rail station on VTA's Orange Line.
- **Shuttle:** The Altamont Commuter Express (ACE) offers its Violet Shuttle service from Montague Expressway/Main Street to the Great America Station in Santa Clara.
- **Milpitas OnDemand:** This pilot program provides micro-transit connection services

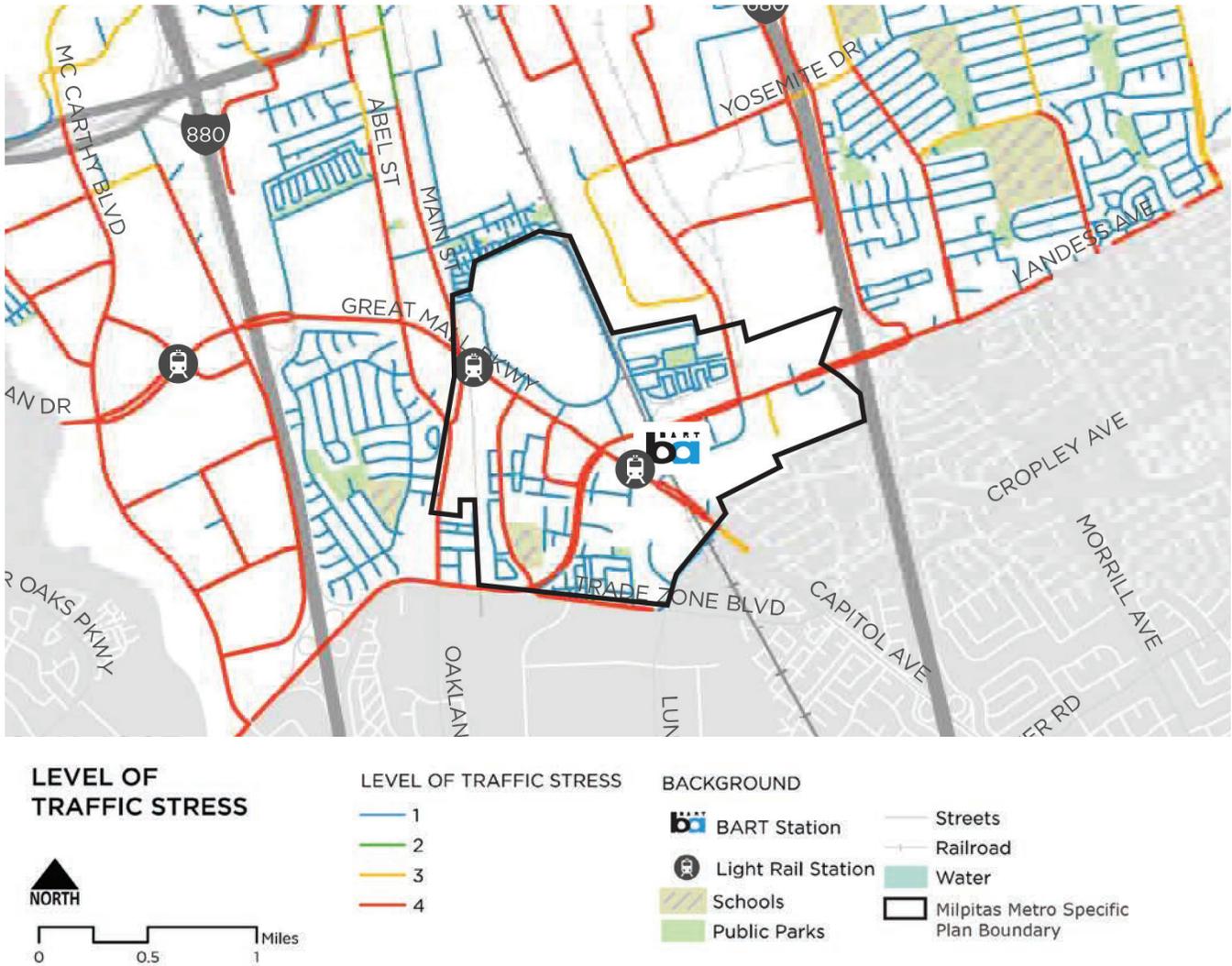
throughout the city and functions as a hybrid between first-last mile and point-to-point service. Riders will be able to book trips from nearly 100 virtual stops in the city to one of four hub locations, including the Milpitas Transit Center.

With a limited ability to accommodate additional vehicle traffic, completing networks of safe and comfortable facilities for walking and bicycling will become increasingly important for local trips within the Plan Area, including access to work, to shopping, and to the regional transit system.

Generally, sidewalks are present throughout the Plan Area and bike lanes are included along several major streets, but the environment can still be intimidating to pedestrians and bicyclists, as they are often in close proximity to high volume, high speed traffic. Users are frequently required to cross multi-lane roadways and may need to travel circuitous routes to reach their destinations. Great Mall Parkway is particularly challenging for pedestrians. Grade-separated overpasses have been constructed across Montague Expressway and Great Mall Parkway to provide protected pedestrian crossings near the BART station and VTA light rail stations. Such facilities improve pedestrian safety and provide an opportunity for public art but can only be funded in a few strategic locations due to their high cost. A broader approach that includes at-grade crossing improvements will be needed.

Figure 4-4. Level of Traffic Stress

Source: Milpitas Bicycle / Pedestrian and Trails Plan



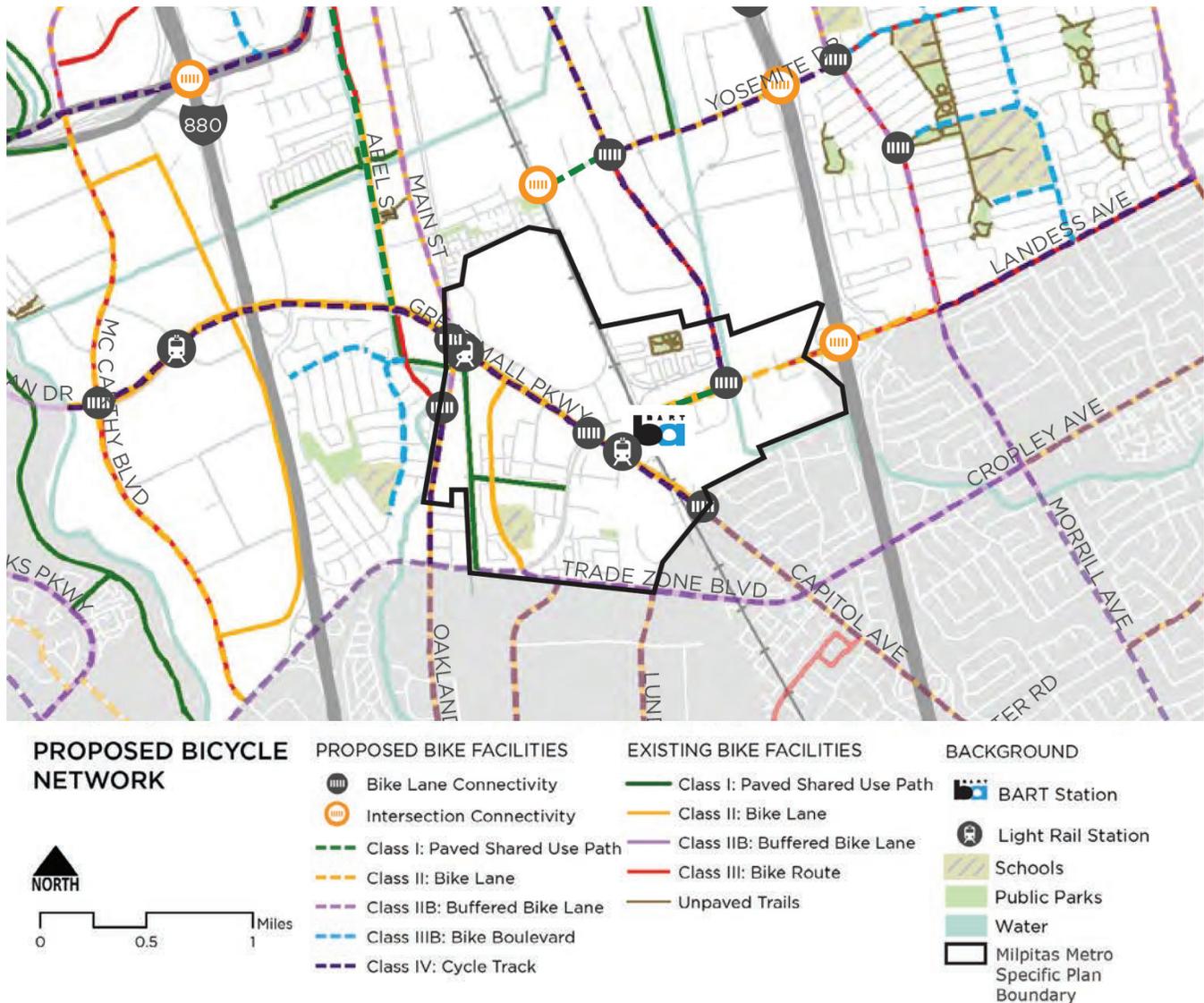
The City’s Bicycle/ Pedestrian and Trails Plan evaluated conditions for bicyclists using a Bicycle Level of Traffic Stress (LTS) analysis, which illustrates how high stress conditions limit connectivity and access for bicyclists (Figure 4-4). While Great Mall Parkway and other heavily traveled roadway have striped bike lanes, the traffic conditions still result in their ranking as high LTS streets, which are not suitable for casual bicyclists. Without a buffer or barrier between

bicyclists and vehicle traffic, bicyclists do not typically feel comfortable in such conditions.

In addition to sidewalks and bike lanes, off-street paths have the potential to provide an “all ages and all abilities” facility to improve bicycling and walking access, both for transportation and recreational uses. The existing paths along East Penitencia Creek - South Channel and Berryessa Creek have begun to make these connections but need to be extended and enhanced with street crossing improvements to provide more

Figure 4-5. Existing and Proposed Bicycle Facilities

Source: Milpitas Bicycle / Pedestrian and Trails Plan



direct and convenient routing. As these trails are improved, the City and Valley Water should consider landscaping adjacent to trails on the outside edges away from the creek, trail surfaces, and lighting.

Visible changes in infrastructure for other modes have also begun to emerge as development following the adoption of the TASP is completed, such as improved sidewalks with landscaping that have been constructed as part of new residential development. As incoming development

continues to build out these facilities and the City pursues implementation of priority projects identified in the Bicycle/ Pedestrian and Trails Plan, multimodal mobility options will continue to be strengthened throughout the Metro Area. Additional bicycle and pedestrian infrastructure will not decrease roadway capacity for vehicle travel. Refer to Figure 4-5 for existing and proposed bike infrastructure identified in the Bicycle/ Pedestrian and Trails Plan.



4.2 APPROACH

The Metro Plan establishes a street hierarchy with three street typologies. Each street typology has its own design standards that are sensitive to surrounding land contexts to ensure that the safety of all transportation modes are addressed. The three street typologies are described below:

- **Central Corridors** are wide arterials that support multiple lanes of traffic and include facilities for active transportation.
- **Activity Streets** are 2-lane roads that are pedestrian-oriented and support high levels of retail and active uses. There are two configurations for Activity Streets: one with a parking lane and another with accommodations for bike lanes and transit.
- **Neighborhood Streets** are local streets within residential neighborhoods that support slower speeds and have a pedestrian character.

For many people in Milpitas, the automobile is the primary mode of travel, and well-managed parking is important for both the economic vitality of commercial uses and the prioritization of resident needs in nearby neighborhoods. Because of the wealth of transit options as well as the dense mixed-use land use pattern, the Plan promotes lifestyles that are less car dependent and targets residents and workers who are seeking this more urban environment. Consequently, many of the trips in the Metro Area are expected to be taken by transit, foot, or bike. However, as the area continues to develop and more housing is built at higher densities with improved access to daily destinations, demand

for parking may still continue to increase, though at a slower rate than it would in areas with less access to transit and less convenience to jobs, housing, and services.

Due to the passage of California Assembly Bill 2097 (2021), which prohibits a public agency from imposing any minimum automobile parking requirement on any residential, commercial, or other development project that is located within 1/2 mile of public transit, and the fact that an overwhelming majority of the plan area is within 1/2 mile of transit, there are no minimum parking requirements in the Milpitas Metro Plan Area.

While there are no parking minimums, the plan does establish parking maximums and recommends Transportation Demand Management strategies to reduce demand for parking, which implements the General Plan's charge to create strategic transportation solutions that improve and maintain an efficient multimodal transportation network. The efficient use of parking resources combined with the high level of transit service and multimodal access options amid a diverse mix of uses can result in a much more balanced, multi-modal environment.

An important focus of the Metro Plan is moving beyond the more car-centric townhomes and other low-intensity development. The remaining housing sites not developed under the TASP are targeted for higher densities and are generally closer to jobs, services, and transit. The job centers will also be closer to transit, services, and higher density planned housing. This will allow those who live and work in the area to be able to move about without driving and parking a car.

One of the goals of the Plan is to create a high-quality environment for visitors and residents that provides parking where needed in the most efficient and convenient way possible and avoids unused spaces that are too inconvenient or excessive. This is accomplished through strategic siting and management of off- and on-street parking resources.

For off-street parking, this plan proposes a "park-once" approach. This approach emphasizes shared parking opportunities between compatible land uses and convenient discovery. In this scenario, in addition to TDM measures noted below, there might be agreement(s) between two or more property owners to share the costs of parking development and usage in the interest of efficiency and cost savings, and as an alternative to the costs of public parking garages. The City may consider contributing to the costs of shared parking for mixed-use developments. This approach also provides quality pedestrian connections to enable easy access to destinations or for exploration and incentivizes publicly-accessible parking.

Meanwhile, on-street parking should be actively managed to help ensure the availability of spaces, prioritize certain spaces for particular users, and limit parking impacts both upon and from Milpitas Metro properties located in adjacent neighborhoods. In practice, this means that in commercial areas, on-street parking should be managed appropriately through mechanisms such as time limits and pricing to achieve a peak occupancy of 85 percent on each block face. In residential areas near commercial areas, parking permits should be made available to residents and

could potentially be paid for through some fee mechanism related to development or activity within the Metro Plan. All of these activities are well worth the effort but will require some level of management and oversight from the City, and fees for development or management of these systems should be calibrated accordingly.

In addition to active management, effective parking requirements are key to limiting excessive auto congestion while allowing development to provide enough parking to serve anticipated market demand of each type of use. To this end, maximum parking requirements are intended to limit excessive parking supply while allowing for development flexibility.

To encourage less driving, options are provided for developers to reduce parking demand through more robust Transportation Demand Management (TDM) measures. Reduced parking generally means savings in construction and maintenance costs for developers, which can offset investments in VTA transit passes, Clipper Cards, and the like. These requirements combined with the required TDM measures below allow for development to meet resident, employee, and visitor mobility needs in the most cost-effective fashion.

4.2.1 Transportation Demand Management

Transportation Demand Management (TDM) is typically categorized as a set of strategies aimed at encouraging transit use, walking, biking, and carpooling while reducing single occupant vehicle trips, vehicle miles traveled, and parking demand. TDM primarily focuses on programmatic elements as opposed to physical infrastructure to cost-effectively reduce congestion and address broader community concerns such as sustainability and equity goals. Examples of TDM measures include, but are not limited to, telecommuting, ridesharing, subsidized commuter benefits, and parking management. TDM measures are required for all new development projects within the Metro Area but is also encouraged for existing uses. The broad implementation of TDM measures is an integral element to the overall success of the area's mobility.

A comprehensive TDM program is best implemented when a particular organization can serve as a mobility champion. Often, this takes the form of a Transportation Management Association (TMA) whose mission is to collectively represent all uses, existing or new, within the Milpitas Metro Specific Plan; oversee TDM measures; and ensure their ongoing success. General Plan Action ED-2c directs the City to “[e]valuate the feasibility of creating business improvement districts (BIDs), maintenance assessment districts, and/or a transportation management association to fund improvements and maintenance that support economic development.” The Metro Plan will work to

implement a TMA at the specific plan level. Over time, the City may choose to expand the TMA to cover other specific plan areas, neighborhoods, or the city as a whole.

A TMA is typically a non-profit, member-controlled organization that is established to promote commute alternatives to driving alone. TMAs are controlled and funded through membership with the goal of reducing vehicle congestion. Typically, TMAs allow for businesses of all different sizes to collectively provide commute reduction services to a broader range of professionals. TMAs allow multiple companies within a geographic area to collectively provide TDM services and measures to employees, rather than each company providing services individually. Residential projects would also be included in the TMA, enabling local residents to take advantage of these services and the incentives to walk, bike, or use transit to reach their destinations. As the formation of a TMA is Action CIR-5b from the City's General Plan, the Metro Plan recommends establishing a TMA for the Metro Area at a minimum. The TMA will be responsible for monitoring trip reduction, VMT targets, and services within the Plan Area. Participation in the TMA is required of all new development and optional for existing uses.

In addition to implementing TDM measures, the reduction of vehicle trips resulting from those strategies should be monitored and reported by the TMA to participants and the City. The monitoring and reporting of vehicle trips will allow participants of the TMA to more efficiently mitigate vehicle trips, vehicle miles traveled, and parking demand within the Milpitas Metro Specific Plan.





4.3 MOBILITY AND CIRCULATION POLICIES

M 1. Multi-Modal Circulation. Develop a highly-connected street grid that prioritizes multimodal transportation including walking, bicycling, and transit.

M 1.1. New streets shall be located as generally shown on the Circulation Network Map (Figure 4-6).

M 1.2. Provide an intuitive hierarchy of streets that includes a continuum from bustling activity on boulevards and retail concentrated streets to contemplative and neighborhood-oriented in character. These streets shall meet all Milpitas Fire Department fire apparatus design requirements for access and firefighting operations, and should follow the hierarchy and actions provided in M 2 – M 5:

- Central Corridors
- Activity Streets
- Neighborhood Streets
- Trails

M 1.3. New streets on the Great Mall parcel shall be aligned in a grid pattern as shown in Figure 4-6. Exact alignment shall be determined by the developer and City. Refer to the citywide objective design standards on appropriate block lengths.

M 1.4. Street ownership and maintenance will be negotiated between the developer and the City on a project-by-project basis.

M 1.5. Maintain pedestrian and biking facilities.

Figure 4-6. Circulation Network



- | | | | |
|------------------------------------|----------------------------------|-------------------------|--------------------------|
| ----- Milpitas Metro Plan Boundary | — Public Trail | ==== Central Corridor | ■ PF - Public Facilities |
| ■ VTA Light Rail Stations | ----- Proposed Public Trail | --- Activity Street | ■ Permanent Open Space |
| Underground BART Tracks | ==== Existing Pedestrian Bridge | --- Neighborhood Street | ▨ Transit Center |
| — Existing Public Streets | ==== Planned Pedestrian Bridge | — Bike Path | ★ Police Station* |
| --- Proposed Public Streets | ----- Proposed Pedestrian Bridge | | ★ Park* |
| ----- Proposed Private Streets | --- Railway | | --- PG&E Overhead Line |
- 10.25.20
*Location is approximate and shall be

Figure 4-7. Great Mall Parkway Street Section



M 1.6. Review individual development applications to ensure that adequate street right-of-way, bicycle facilities, pedestrian facilities and landscaping are provided and are consistent with the policies and standards in Chapter 3: Site and Building Design Standards and Guidelines.

M 2. Central Corridor. Enhance arterial streets - Montague Expressway, Great Mall Parkway/ Capitol Avenue, South Main Street, and Trade Zone Boulevard - to include facilities for active transportation: pedestrians, bicyclists, and more. Where the City does not control an arterial street, as in the case of Montague Expressway, work with the relevant agency to increase multimodal safety and accessibility over time.

M 2.1. Great Mall Parkway. Transform Great Mall Parkway/ Capitol Avenue into multimodal complete streets that provides for the mobility needs and safety of transit users, bicyclists, pedestrians, and drivers as indicated in Figure 4-7 and by providing bike lanes and sidewalks on both sides of the road.

M 2.1.1. Maintain the number of vehicle lanes and reduce lane widths on Great Mall Parkway to calm traffic, create a more comfortable environment for non-vehicular modes, and to decrease Vehicle Miles Traveled.

M 2.1.2. Provide protected bike lanes in both directions on Great Mall Parkway.

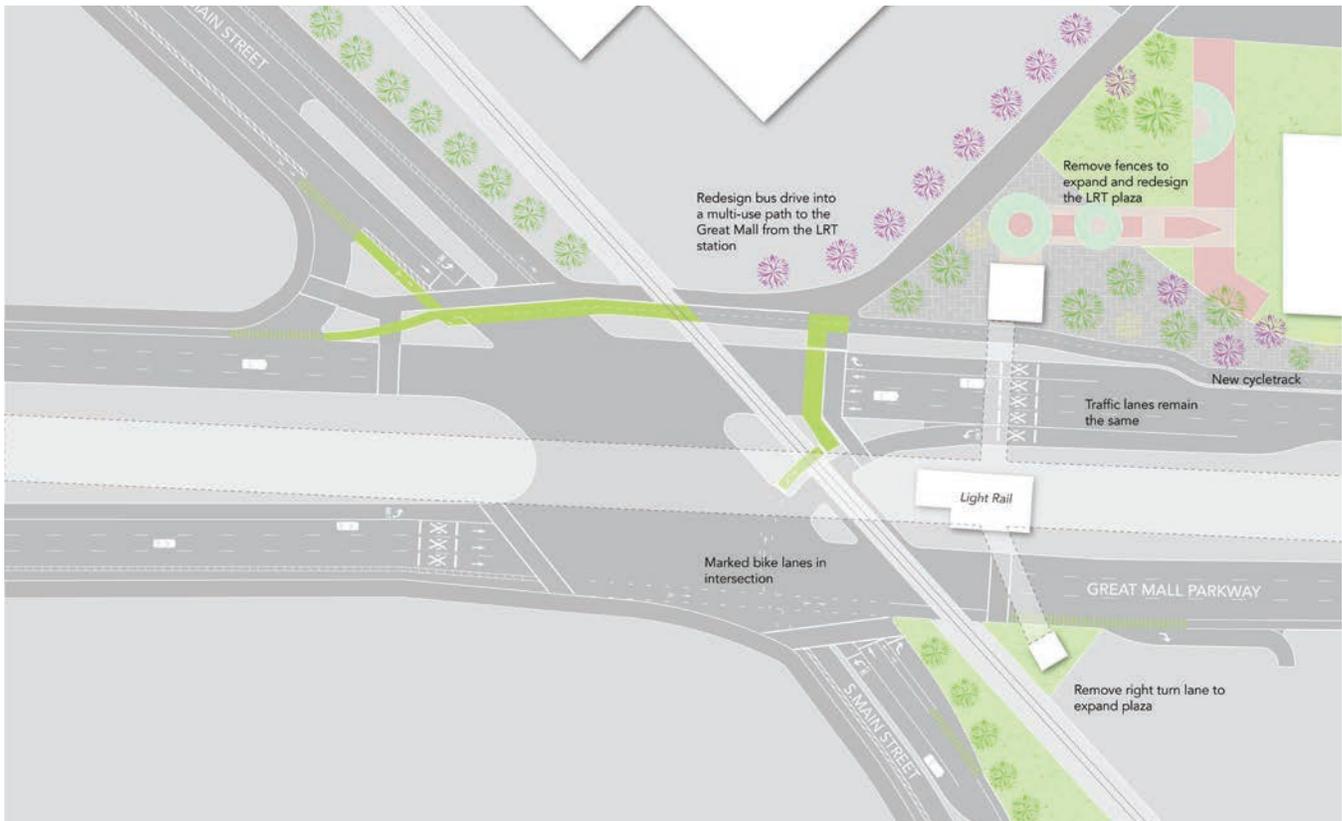
M 2.1.3. Develop a multi-use path between Montague Expressway and Main Street on the Great Mall District side of the street.

M 2.1.4. Provide a linear park and pedestrian path along Great Mall Parkway from Montague Expressway to Main Street.

M 2.1.5. Provide enhancements to pedestrian crossings along Great Mall Parkway and other major roadways through measures including curb extensions, traffic signal modifications, and/or other amenities.

M 2.1.6. Refer to SC 2 in Chapter 3 for additional Central Corridor guidelines.

Figure 4-8. Great Mall Parkway and Main Street Intersection



M 2.2. Great Mall Parkway and Main Street

Intersection. Accommodate bicycle and pedestrian improvements and improve the connection between the Great Mall VTA Light Rail Station to the Great Mall (Figure 4-8).

M 2.2.1. Remove fencing and redesign the bus drive to become a multi-use path that directly connects the VTA Light Rail Station with the Great Mall.

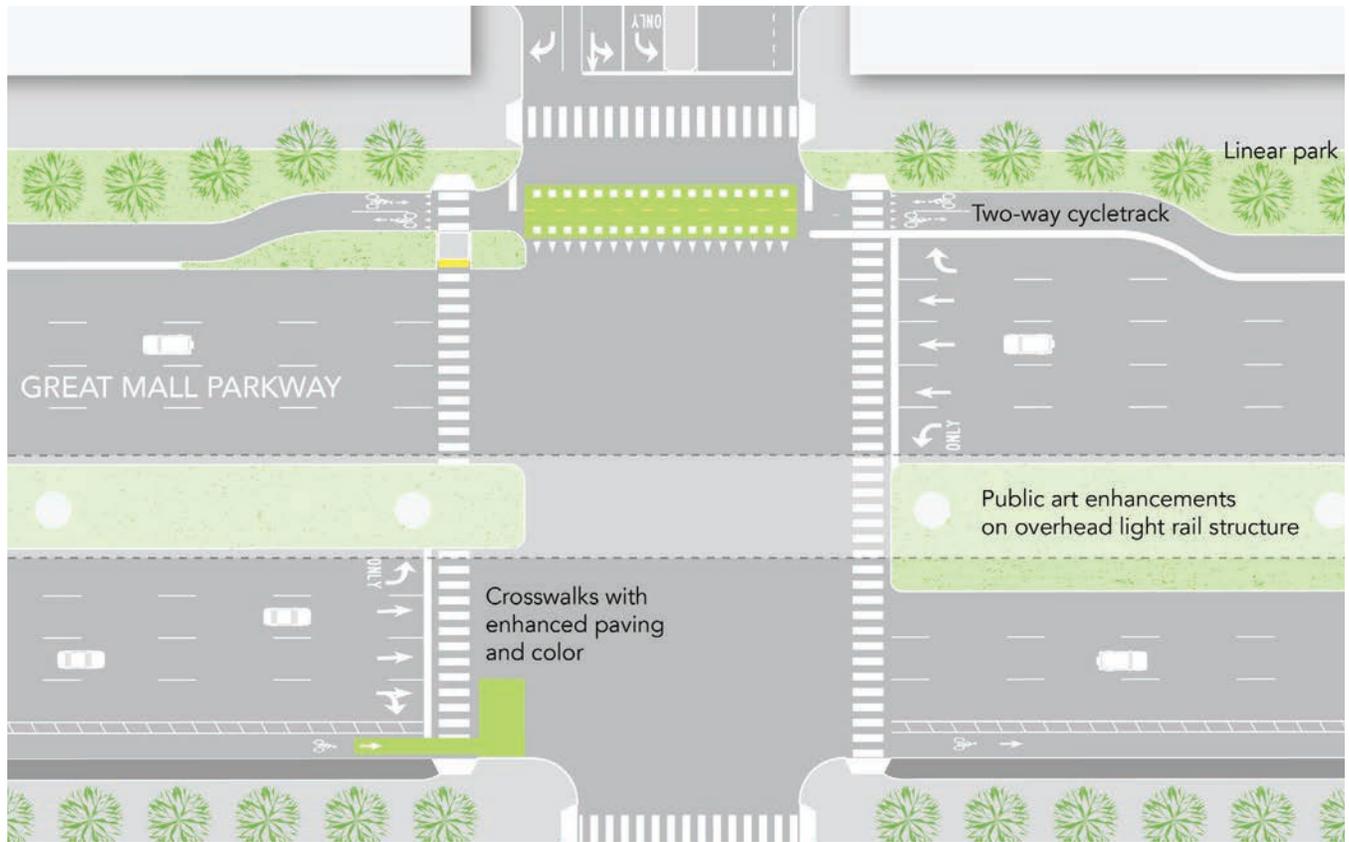
M 2.2.2. Redesign the plaza by the Light Rail Station Elevator on the north side of Great Mall Parkway to be more landscaped, more usable as a public plaza, with commercial uses oriented to it and features that activate the plaza. Coordinate with VTA and developers to improve the pedestrian and transit user experience at the LRT Station.

M 2.2.3. Use colored paving to define bike lanes, particularly in areas with potential conflict with vehicular traffic.

M 2.2.4. Remove the existing separated right turn lane at Great Mall Parkway and Main Street to expand the plaza on the south side of Great Mall Parkway at the train tracks. Replace the through lane with an optional right turn lane. Redesign the plaza to include hardscape and softscape treatment to make the plaza as activated and usable as possible.

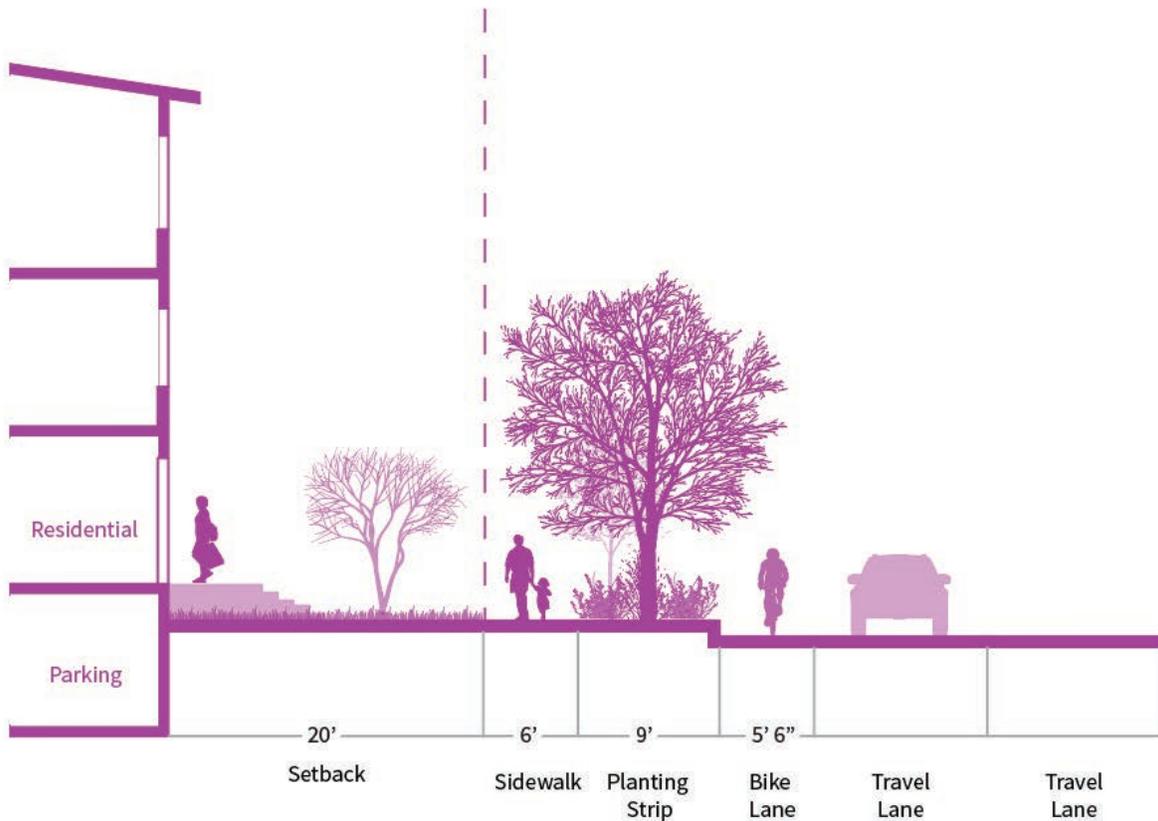
M 2.2.5. Build a new pedestrian overcrossing from the elevated level at the Great Mall Light Rail Station to the corner plaza at Main and Great Mall Parkway.

Figure 4-9. Great Mall Parkway and McCandless Intersection



M 2.3. Great Mall Parkway and McCandless Drive Intersection. Accommodate bicycle and pedestrian improvements as indicated in Figure 4-9.

Figure 4-10. Montague Expressway and Trade Zone Boulevard



M 2.4. Montague Expressway. Work with County Roads to complete improvements on Montague Expressway as described in Figure 4-10 and with the following features:

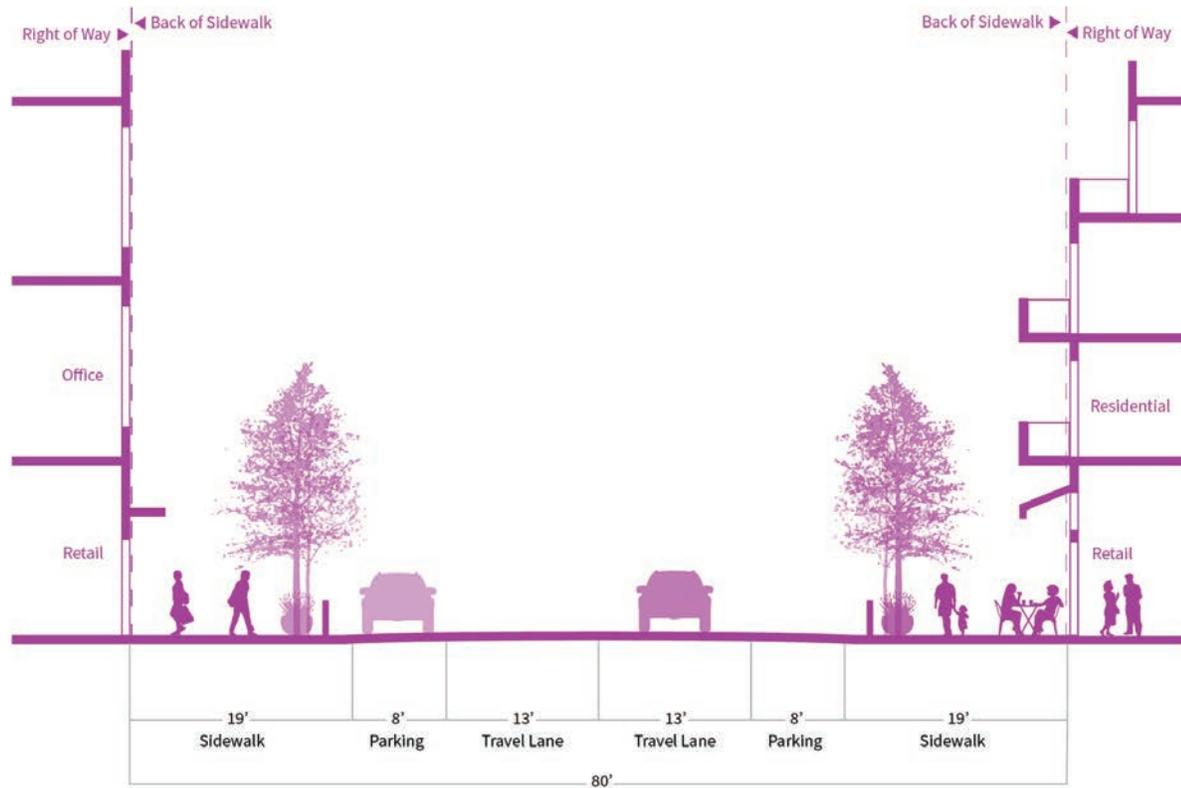
- Deciduous trees shall be planted in the median and in planting strips on both sides of Montague Expressway.
- Pedestrian-scale street lights, avenue-scaled street lights, benches, and trash receptacles shall be located on the sidewalk.

M 2.5. Trade Zone Boulevard. Complete multimodal street improvements on Trade Zone Boulevard as described in Figure 4-10 and with the following features:

- Provide a staggered row of deciduous trees, avenue-scaled street lights, and pedestrian-scaled street lights in the planting strip.
- Provide a bicycle lane on both sides of the road.
- Provide or require new development to provide ornamental trees at the back of the sidewalk along private frontages.

Figure 4-11. Activity Street.

Envisioned as a retail lined street with an 80-foot building-face to building-face dimension. Activity Streets can be designed as a curbless pedestrian environment, with the central lanes for vehicles occasionally vacated for festivals and markets.



M 3. Activity Streets. Provide Activity Streets that support and promote high levels of pedestrian and retail activity.

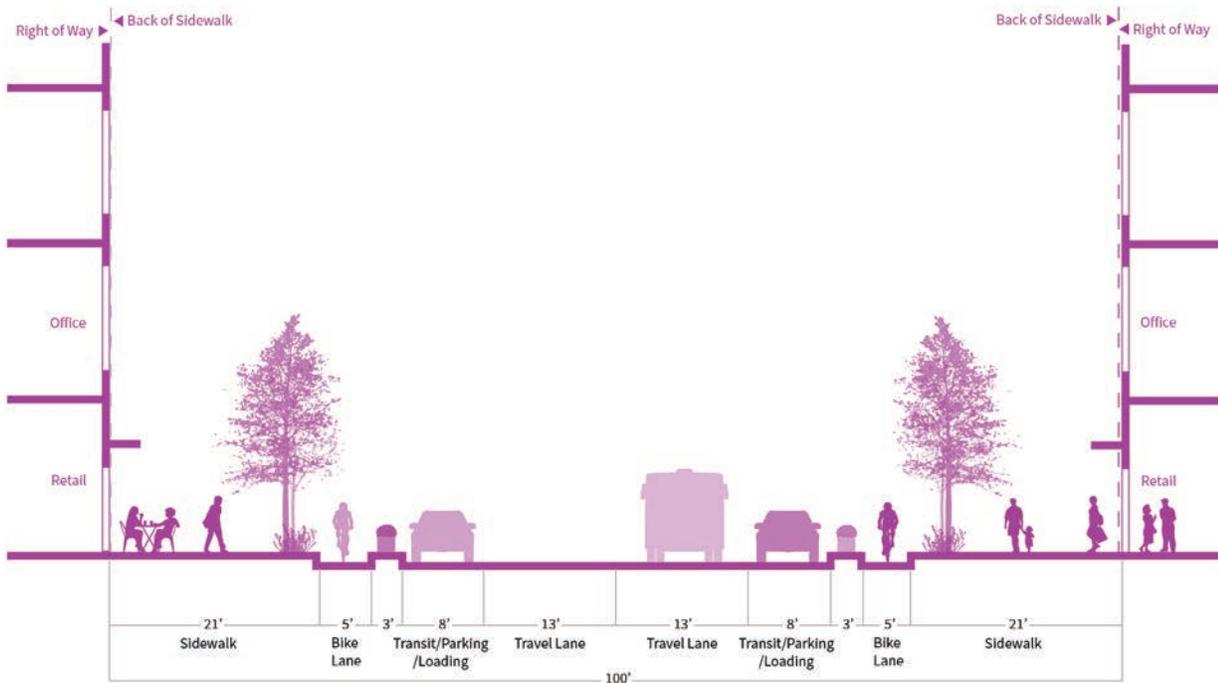
M 3.1. Sidewalks. Provide wide sidewalks that are a minimum of 18 feet in width that have attributes described in SD 1.4 in Chapter 3: Site and Building Design Standards and Guidelines.

M 3.2. Loading Zones. Loading zones are required to be located away from building frontages and encouraged to be placed on side streets or minimized visually.

M 3.3. Dynamic Curb Management. On-street curb spaces should be evaluated in the context of both the surrounding land uses and transportation needs and designed for their highest and best use (vehicle or bicycle parking, loading, micromobility, parklets, transit access, etc.)

Figure 4-12. Activity Street with Transit.

This Activity Street is designed for transit, service, and cycling with a 100-foot building-face to building-face dimension. Curb and planters divide and protect pedestrians and cyclists from vehicular traffic. The outside vehicular lanes can be used as bus pull-outs, loading zones, or on-street parking.



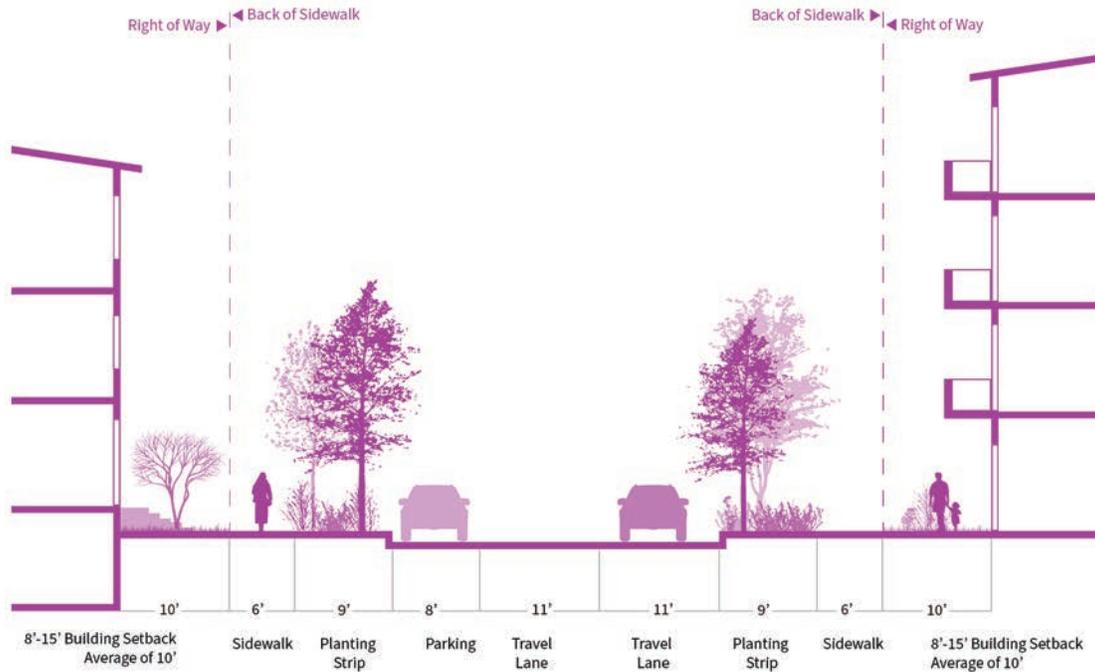
M 3.4. On-Street Parking. On-street parking along Activity Streets shall be managed through a combination of pricing, time limits, or other mechanisms to maintain a peak occupancy of 85 percent. Provide parking for disabled, loading, transit, temporary customer parking on Activity Streets.

M 3.4.1. On-street parking can also be used as a multi-use zone and an extension of the pedestrian realm as described in Chapter 3: Site and Building Design Standards and Guidelines. Uses can include outdoor dining or seating, use as a transit stop, or loading zone.

M 3.4.2. On-street parking configurations are preferred to be parallel parking and allowed to be back-in angled parking.

Figure 4-13. Local Neighborhood Street.

The parallel parking is located on alternating sides of the street. This street condition occurs in the Tango District, and wherever new housing development occurs.



M 4. Neighborhood Streets. Create local streets within residential neighborhoods with a slower, pedestrian character.

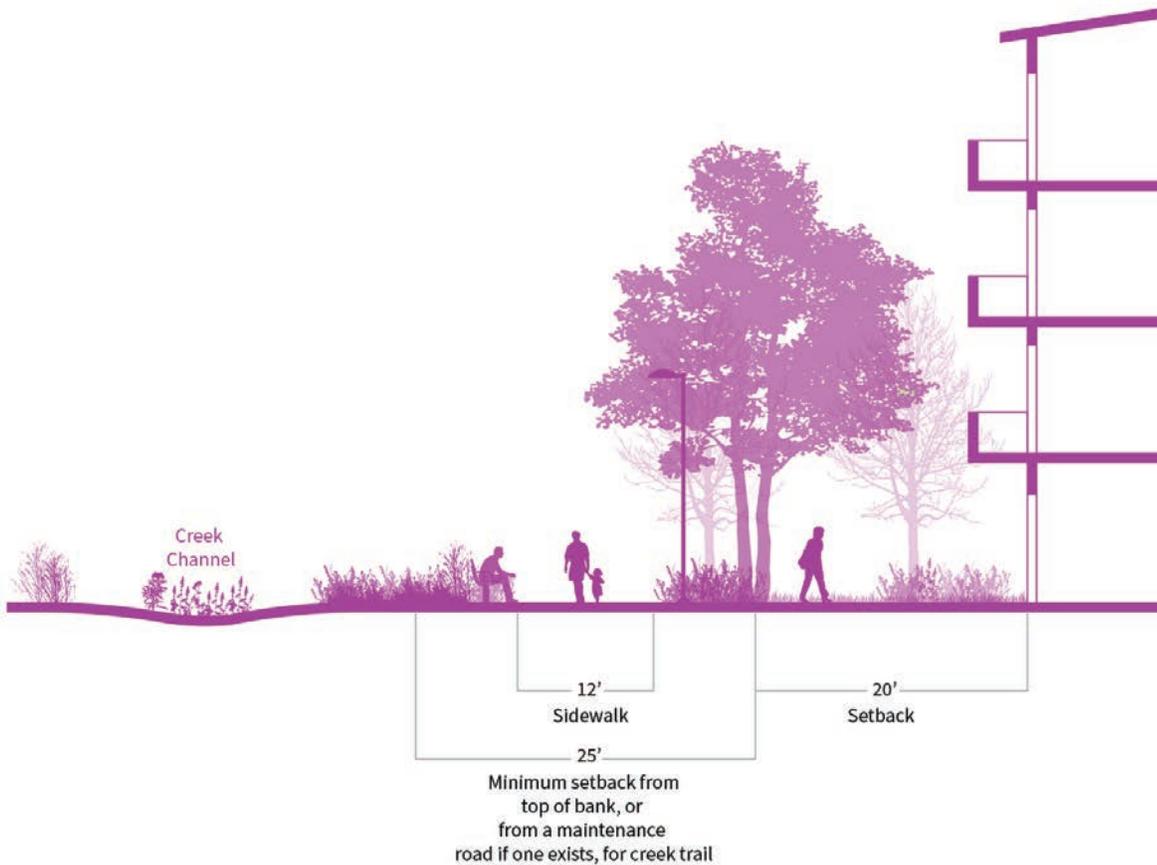
M 4.1. Provide on-street parking in coordination with the Engineering Department on at least one side of all neighborhood streets to provide parking for guests and residents, slow traffic, and buffer pedestrians on the sidewalk. Where parking only occurs on one side of the street, parking locations should be provided on alternating sides of the street for different blocks and shall utilize permeable pavers and/ or decorative pavers in parking aisles.

Figure 4-14. Larger Local Neighborhood Streets.

Larger Local Neighborhood Streets such as the extension of McCandless Drive into the Great Mall District provide traffic in two directions and many areas for landscaping to make it a more walkable environment.



Figure 4-15. Typical Trail Section



M 5. Trails. Develop trails that link into the citywide trail system in order to aid connectivity and provide recreational and leisure spaces.

M 5.1. Create a complete pedestrian and bicycle network that connects trails and pathways and includes continuous sidewalks and safe bike travel routes throughout the entire Milpitas Metro Area.

M 5.2. Create a network of trails along Penitencia Creek, Berryessa Creek, and railroad right of ways.

M 5.3. Require all properties that the proposed trail network runs through or adjacent to set aside land for the trails. This land will count towards the public

park land dedication requirement. If trail easements already exist or are acquired within the rail line or flood control right of ways, these easements may be used in lieu of land on development sites.

M 5.4. Refer to PA 3.8 in Chapter 3: Site and Building Development Standards and Guidelines for trail design guidelines and standards.

M 5.5. Ensure adequate lighting on and visual observation of trails to ensure user safety at all times of day.

M 6. Vision Zero. Adopt the “Vision Zero” framework to minimize traffic fatalities and severe injuries as described in General Plan Action CIR-1a with particular attention to the following:

- Separate truck and van deliveries from local trips as much as feasible via street signage and design.
- Adopt and continuously update curb management for safe transportation network companies (TNCs, also known as ride hailing companies) and local delivery use.
- Where feasible, separate pedestrian and bicycle/ micromobility modes (including parking/ gathering) from automobile/ truck modes.

M 6.1. Provide continuous pedestrian and bicycle facilities that prioritize safety and are accessible to users of all ages and abilities.

M 6.2. Work with Safe Routes to School programs to encourage children to walk or bike to school.

M 6.3. Provide new roads that enable safe and comfortable access to all modes of transportation. Refer to Figure 4-7 for additional guidance on the design of new streets.

M 6.4. Provide mid-block public access routes through the block to reduce the length of the block, particularly for blocks longer than 400 feet, where feasible. The access route can be a paseo, alleyway, service road, or interior passageway as long as it is always publicly accessible and well-lit.

M 6.5. Maintain and enhance public safety by requiring uniform safety standards for all at-grade rail crossings.

M 7. Reduce Climate Impacts. Manage automobile demand and promote low-carbon transportation to minimize emissions in the planning area.

M 7.1. Zero and Low Emission Vehicles. Promote use of zero and low-emission vehicles through the following measures:

- Require all new multifamily residential and all new nonresidential buildings to provide at least 45 percent of parking spaces as EV capable (including the raceway and panel capacity) to support future installation of Level 2 chargers on a dedicated 40-amp, 208/240-volt branch circuit.
- Require all new multifamily residential and new nonresidential buildings to install at least 33 percent of EV capable parking spaces with EVSE Level 2. Where six Level 2 EVSE are installed, one DC Fast Charger can be installed to substitute for five Level 2 EVSEs. The DCFC shall be rated at 80 kW minimum.
- Require all new warehouses, grocery stores, and retail stores with planned loading docks to install at least one EV capable loading dock with a raceway(s) and service panel(s) or subpanel(s) for each 25,000 square feet of floor space planned.
- Provide preferentially-located charging stations for electric vehicles (EVs) and plug-in hybrid electric vehicles (PHEVs).

M 7.2. Work to implement the Climate Action Plan as it becomes available and updated.

M 8. Parking and Transportation Demand

Management. Establish and implement a travel demand management (TDM) program with the non-compulsory goal of reducing VMT by 15 percent or more below the regional baseline per employee or resident and efficiently provides parking that meet the needs of residents, employees, and visitors. TDM measures should be incorporated into all new development and may be implemented by individual uses or through TMA oversight.

M 8.1. Establish a Transportation Management Association (TMA) that is responsible for monitoring trip reduction, VMT targets, and services within the planning area. Participation in the TMA is required of all new development and optional for existing uses.

M 8.2. All projects should provide the following TDM measures at a minimum individually or as participants of the TMA:

- Annual monitoring reports
- Annual employee commuter survey
- Participation within the Milpitas Metro Specific Plan TMA
- Provision of bicycle parking spaces
- Fully subsidized transit passes (e.g. VTA, BART, etc.). At a minimum, the transit subsidy should be equivalent to the cost of a monthly VTA pass

Table 4-2. Bicycle Parking Requirements

Land Use	Long-Term Parking Requirement	Short-Term Parking Requirement
Multifamily Residential	0.5 spaces per bedroom	0.1 spaces per bedroom
Retail	1 space per 10,000 square feet	1 space per 5,000 square feet
Office	1.5 spaces per 10,000 square feet	1 space per 20,000 square feet

Table 4-3. Maximum Vehicular Parking Requirements

Land Use	Maximum Requirement
Residential/Lodging	1.5 spaces per unit
Non-Residential (industrial)	2 spaces per 1,000 square feet
Non-Residential (non-industrial)	1 space per 1,000 square feet

- Commute shuttle funding
- Unbundled parking
- 511.org participation
- Production of marketing and education materials

M 8.3. Development projects are encouraged to implement additional optional TDM measures to achieve VMT and trip reduction goals. Section 7.6 details some potential strategies. The Santa Clara Countywide VMT Evaluation Tool is another resource for selecting TDM measures.

M 8.4. Require provision of bicycle and pedestrian facilities at workplaces, commercial centers, and residential complexes.

M 8.4.1. This includes long-term bicycle parking that is weather-protected (either indoor or in an enclosed outdoor locker) at residential complexes and workplaces and short-term parking for bicycles that is visible from the entrance of the building at commercial developments. Required bicycle parking ratios are listed in Table 4-2. (NOTE: the Association of Pedestrian and Bicycle Professionals provides specific design guidance and the following requirements).

M 8.4.2. Maximum vehicular parking ratios are listed in Table 4-3. Valet and/or mechanical lift stalls are counted as individual spaces for purposes of required ratios.

M 8.5. Require separate designated parking for publicly accessible parks.

M 8.6. On-Site Parking Demand Reduction and Site Design Measures. Any combination of the following optional measures may be incorporated into the site plan and operational plan to support a reduction in the perceived need for on-site parking:

- Shared parking agreement with owners of other property or properties in the vicinity of the development. This can also include distinct uses that are part of one development. The shared parking spaces must be located within 0.25 mile of the proposed use.
- Direct free 24-hour airport-to-lodging shuttle service
- Providing dedicated, permanent on-site parking spaces for shared cars in a residential or lodging use.
- Providing on-site, free micro-mobility devices for a residential or lodging use. The operator of the proposed use shall obtain approval from the Planning Director or designee for the proposed placement and use of micro-mobility devices prior to commencing operations. The operator shall maintain micro-mobility devices in good working order at all times.



- f. Paying employees a daily parking cash-out fee equivalent for the daily cost of a structured parking space.
- g. Offering an actively managed ride-matching service to residents or employees to assist in car or van-pooling.

M 9. Pedestrian Circulation. Promote pedestrian circulation for daily trips under a half mile and to transit by implementing the proposed street improvements and safety features, including pedestrian infrastructure enhancements on Great Mall Parkway (M 2.1) and intersection improvements (M 2.2). For a full list of street and circulation improvements to increase pedestrian safety, refer to Chapter 6: Implementation.

M 10. Bicycle and Micromobility Circulation. Promote bicycle and micromobility modes (e.g. e-bikes, motorized scooters, and skateboards) for trips to local destinations (e.g. Milpitas Transit Center, neighborhood retail, parks). Determine if the Metro Area is a suitable place for implementing the one-year shared micromobility pilot program detailed in the City's Bicycle/ Pedestrian and Trails Plan.

M 10.1. Provide direct and convenient bicycle circulation through the project site and to adjacent areas by closing existing gaps in bicycle lanes and bicycle routes, per Milpitas' Bicycle/ Pedestrian and Trails Plan and as shown on the Circulation Network Map (Figure 4-6) as well as routes suggested above for individual roadways such as Great Mall Parkway.

M 10.2. Signage alerting pedestrians of potentially fast-moving traffic should be considered where this connectivity network intersects or runs alongside pedestrian-focused routes, particularly at intersections with the trail network described in M 5.

M 11. Transit. Connect the Milpitas Metro Plan Area to local and regional transit.

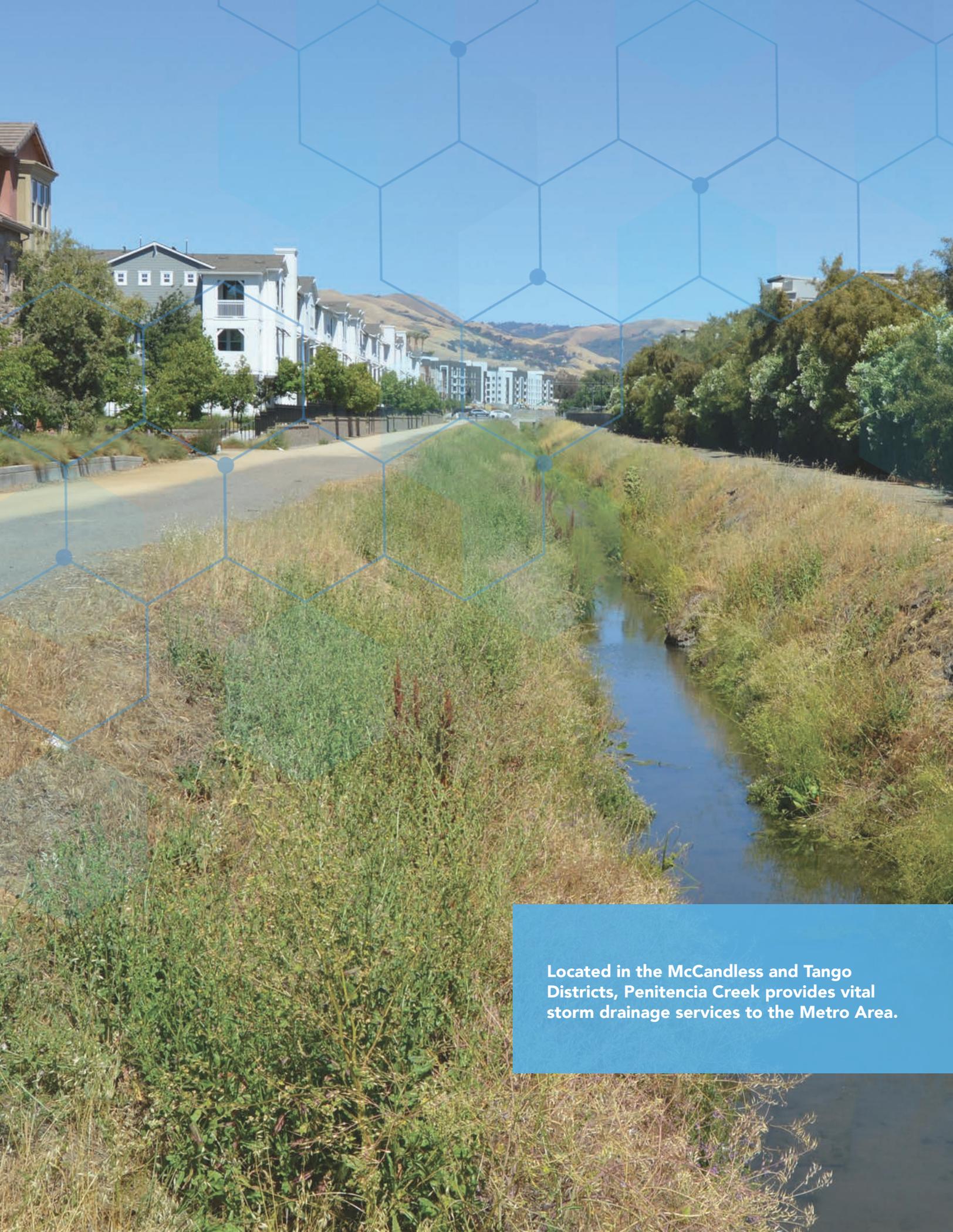
M 11.1. Encourage the development of local circulators (by the City or property owners) as shown on the Circulation Network Map (Figure 4-6).

M 11.2. Integrate the Metro Plan into the City's first/ last mile programs, such as Milpitas OnDemand by ensuring the program's on-demand shuttle services the area, providing quality facilities for on-demand users, and connecting the shuttle to first mile-last mile amenities such as micromobility options.

M 11.3. Encourage multimodal infrastructure improvements near transit to improve local connectivity to transit stops, with particular focus on the Milpitas Transit Center, as per Milpitas' Bicycle/ Pedestrian and Trails Plan (2021).



First Last Mile Programs like the SMART shuttle help connectivity to and around the Milpitas Metro area. (Source: City of Milpitas)



Located in the McCandless and Tango Districts, Penitencia Creek provides vital storm drainage services to the Metro Area.

5. INFRASTRUCTURE

- 5.1. Storm Drainage
- 5.2. Flooding
- 5.3. Water Supply and Distribution System
- 5.4. Sewer
- 5.5. Solid Waste
- 5.6. Energy and Technology
- 5.7. Fire Protection and Emergency Response
- 5.8. Police Services
- 5.9. Schools
- 5.10. Libraries
- 5.11. Child Care

The City and private developers constructed a substantial amount of new infrastructure, including new streets, streetscapes, and utilities with the implementation of the TASP. As a result, the planning area already has much of the infrastructure needed to provide public utilities and services to the development projected in this plan.

This chapter describes the infrastructure needed to provide public infrastructure and services for the planning area. It establishes policies and describes improvement projects necessary for the upgrading and expansion of public facilities, including:

1. Public utilities such as storm drainage, sewer, water, and waste disposal
2. Community services provided by public agencies (e.g., schools, public safety, child care)

Policies and development standards for parks and trail infrastructure; and streets and mobility infrastructure are covered in Chapters 2 and 4, respectively.



5.1 STORM DRAINAGE

The City of Milpitas 2013 Storm Drain Master Plan (Master Plan) is in the process of being updated and is expected to be adopted in 2021. The Master Plan provides both background and analysis pertinent to the Milpitas Metro Specific Plan. The 2021 Master Plan includes the following statement on page ES-4:

This updated master plan and corresponding CIP differs from previous master plans due to the ICM (Integrated Catchment Modeling) model, which integrates updated rainfall and a different hydrologic methodology as described herein. Additionally, the model accounts for surface storage within streets and other open spaces and the precise timing of coincident creek discharges, which was not directly accounted for in previous master plans. These updates generally result in less flooding at the desired level of service and fewer CIP projects to meet the city's storm drainage criteria.

Storm runoff in Milpitas is collected in a system of gutters, underground pipes, and open channels. The open channels flow to Coyote Creek which ultimately discharges to San Francisco Bay. Drainage in Milpitas generally is from the southeast to the northwest. Many storm drains in the lower areas of the City, near the bay, rely on pumping to convey major flows. In addition, the Santa Clara Valley Water District is also responsible for storm drainage in the City of Milpitas.

The Santa Clara Valley Water District (Valley Water) is Milpitas' primary partner in the management of local storm water issues. The District's stated mission is to "[provide Silicon Valley safe, clean water for a healthy life, environment, and economy]". More

specifically, the District manages most of the major drainage-ways in Milpitas including Arroyo de los Coches, Berryessa Creek, Calera Creek, Coyote Creek, Lower Penitencia Creek, East Penitencia Creek, Piedmont Creek, and Tularcitos Creek. Coordination with the District is integral to the success of the storm drain master plan, since all of the City's storm drainage systems eventually discharge into a Valley Water-managed facility. Valley Water is keenly interested in any City storm drain project that might potentially impact one of their receiving creeks. In turn, the City has a vested interest in how Valley Water manages its legislated flood protection responsibility. (City of Milpitas Storm Drain Master Plan 2021, Page ES-1)

The City of Milpitas and the Metro Specific Plan area lie wholly within the lower reaches of the Coyote Creek watershed as shown in Figure 5-1.

The 2021 Master Plan has included proposed land uses within the Metro Specific Plan Area and identified one low priority improvement at Comet Dr. The following statements from the Master Plan pages 1-7 and 3-51 summarize the impact of development for the Plan Area.

Generally, impervious surface does not increase with infill development, so the impacts of the specific plan areas would be based on realigned roads or identifying currently underserved areas where parcels drain by gravity to the street frontage

The Milpitas Metro Specific Plan area is now almost entirely built out, and there are no longer areas identified that do not have adequate storm water runoff collection.

5.1.1 Stormwater Policies

ICS 1. Support stormwater infrastructure that is appropriate for planned development in the Metro Area.

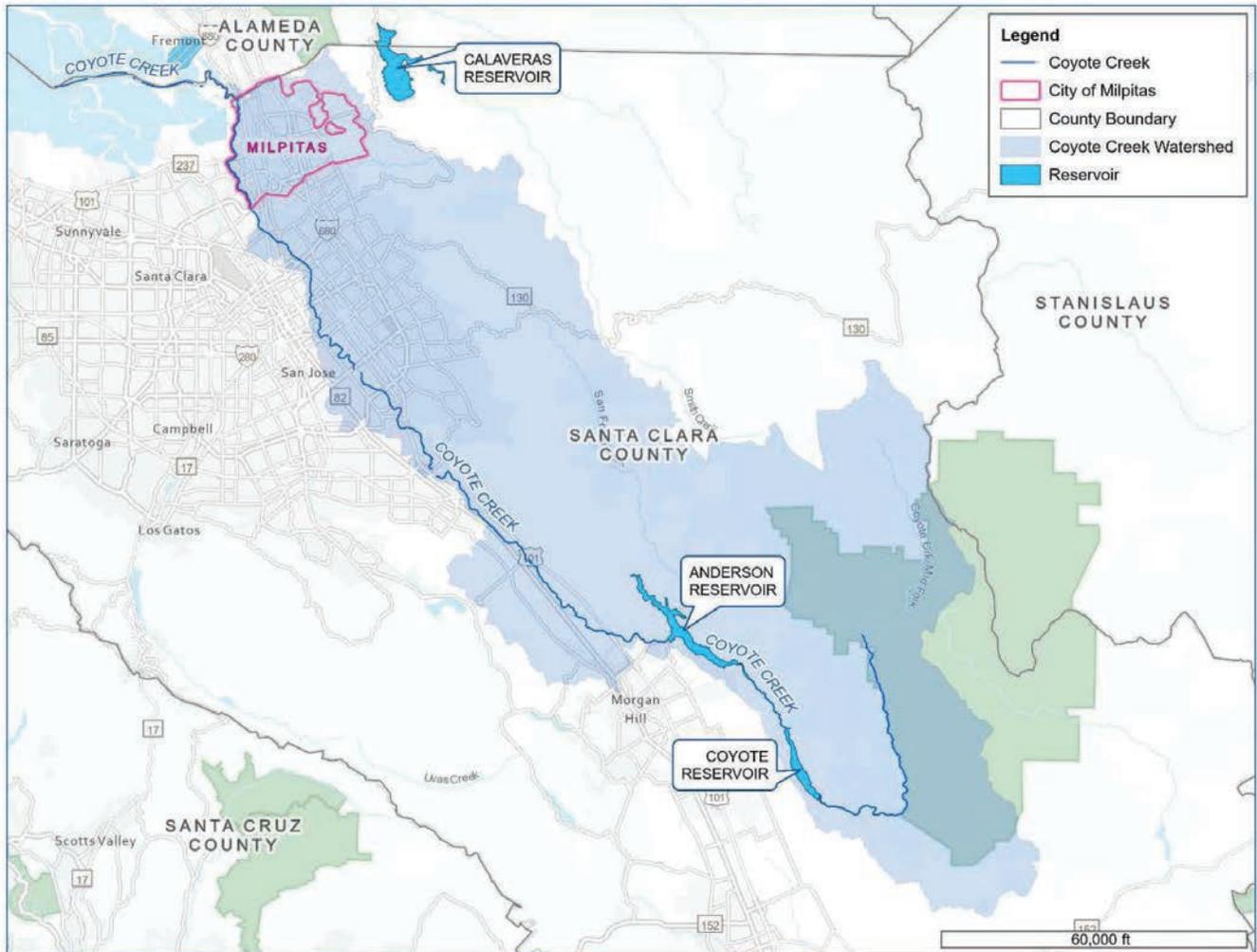
ICS 1.1. Provide storm drain infrastructure to adequately serve new development and meet City standards.

ICS 1.2. Ensure that runoff in storm drains does not lower water quality within or outside of the Plan Area by implementing Best Management Practices (BMPs) in new developments within the Metro Area.

ICS 1.3. Construct the improvements within the Metro Area that were identified in the 2013 Storm Drainage Master Plan, and any other improvements identified in updates to the Master Plan including:

- South Main St. SD Improvements at Cedar Way (P2)
- Montague Expressway SD Improvements (P1)
- Montague Expressway SD Improvements at Lower Penitencia Creek (P1)
- Tarob Court Outfall Relocation (P1)
- Lundy Place Relief Line (P1)
- Watson Ct. Relief Drain (PDB1)

Figure 5-1. Milpitas Regional Drainage Location



Source: Storm Drain Master Plan

5.2 FLOODING

The MMSP has adequate storm drainage capacity for the 10-year storm event upon completion of the improvements identified within the 2021 Storm Drain Master Plan. Within the MMSP, removal of paved areas for new parks, open space, and landscape areas will decrease impervious surfaces and therefore decrease stormwater runoff. However, the area will still be subject to flooding during 100-year storm events due to its location in the flatter portion of the city and flows from upstream areas which cannot be mitigated within the MMSP without major channel improvements.

Most of the Metro Area is within a federally-designated floodplain, which triggers compliance with federal and local regulations. As a result, the MMSP is subject to the provisions specified in Section XI-15 'Floodplain Management Regulations' of the Milpitas Municipal Code.

All new residential construction must have the lowest floor built to at least one foot above the Base Flood Elevation, or in the case of areas within Zone AO, at least one foot above the depth number listed on the Flood Insurance Rate Map (FIRM), or three feet above the highest adjacent grade if no depth number is shown. For non-residential construction, the lowest floor elevation can be at Base Flood Elevation. The FEMA-Designated Special Flood Hazard Areas are shown in Figure 5-2.

5.2.1 Flooding Policies

ICS 2. Ensure development is protected from flooding hazards.

ICS 2.1. Minimize damage associated with flooding events and comply with regulations stipulated by FEMA and the National Flood Insurance Program.

ICS 2.2. New development within a FEMA-designated flood hazard zone must follow the City's construction standards for such areas, as currently laid out in Section XI-15 'Floodplain Management Regulations' of the Milpitas Municipal Code.

Figure 5-2. FEMA - Designated Special Flood Hazard Areas



5.3 WATER SUPPLY AND DISTRIBUTION SYSTEM

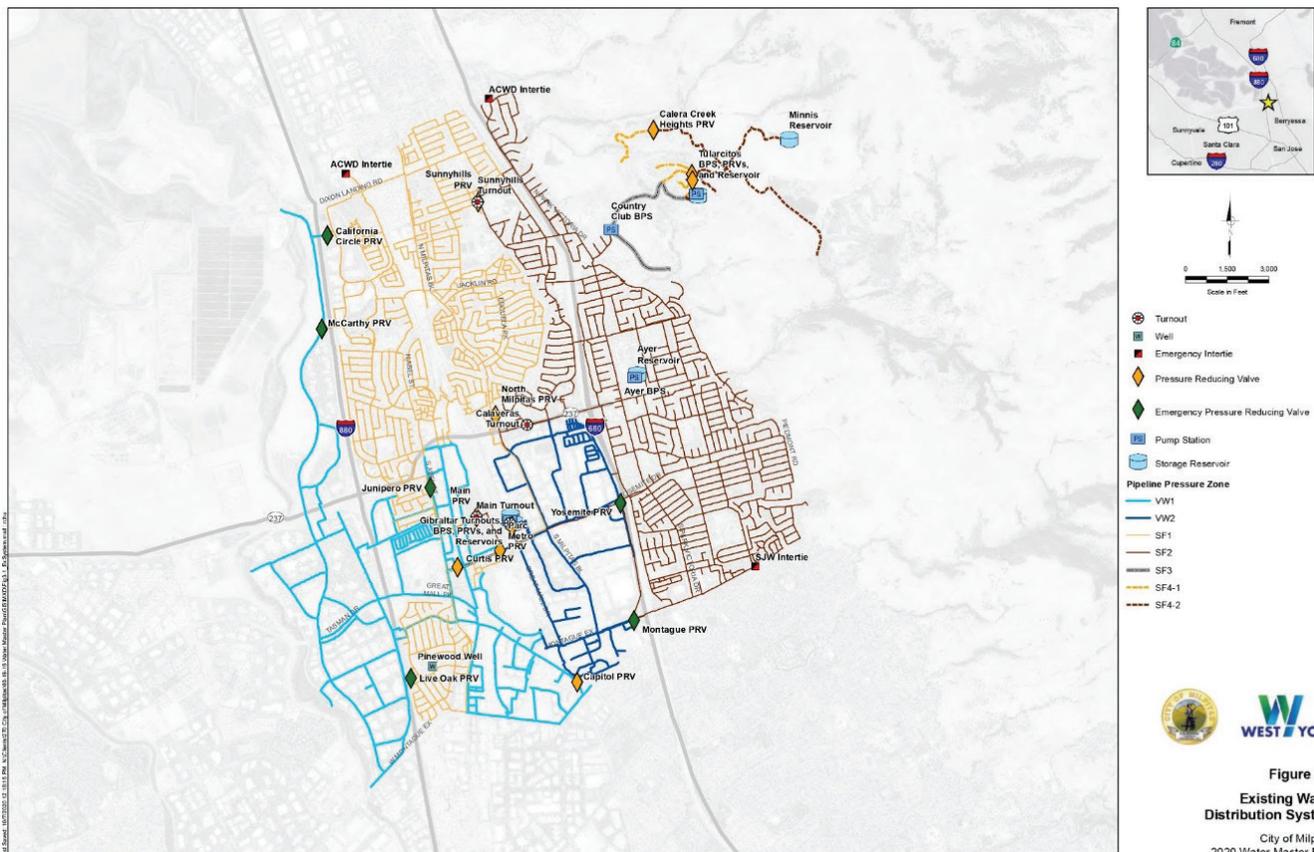
The City of Milpitas Water Master Plan (WMP) was prepared in 2021 and provides both background and analysis pertinent to the Milpitas Metro Specific Plan.

The City's water system is divided into two service areas that operate separately under normal conditions. The San Francisco Public Utilities Commission (SFPUC) serves one area, while Valley Water (VW, formerly known as the Santa Clara Valley Water District) serves the other (which includes the Milpitas Metro Specific Plan Area).

There are two pressure zones in the VW service area, and the Milpitas Metro Specific Plan Area spans both. A turnout from a VW transmission main supplies the higher pressure zone (referred to in the WMP as Zone VW2), which supplies the lower pressure zone (Zone VW1) via pressure-reducing valves (PRVs).

Among other analyses, the WMP evaluated the ability of the City's distribution system to meet hydraulic performance criteria under different demand and outage conditions. Both the existing (2019) and buildout (2040) systems were evaluated, with the latter incorporating new water demands from planned future growth and development (including the Milpitas Metro

Figure 5-3. Existing Water Distribution System



Source: 2021 Water Master Plan

Figure 3-1
Existing Water Distribution System
City of Milpitas
2020 Water Master Plan

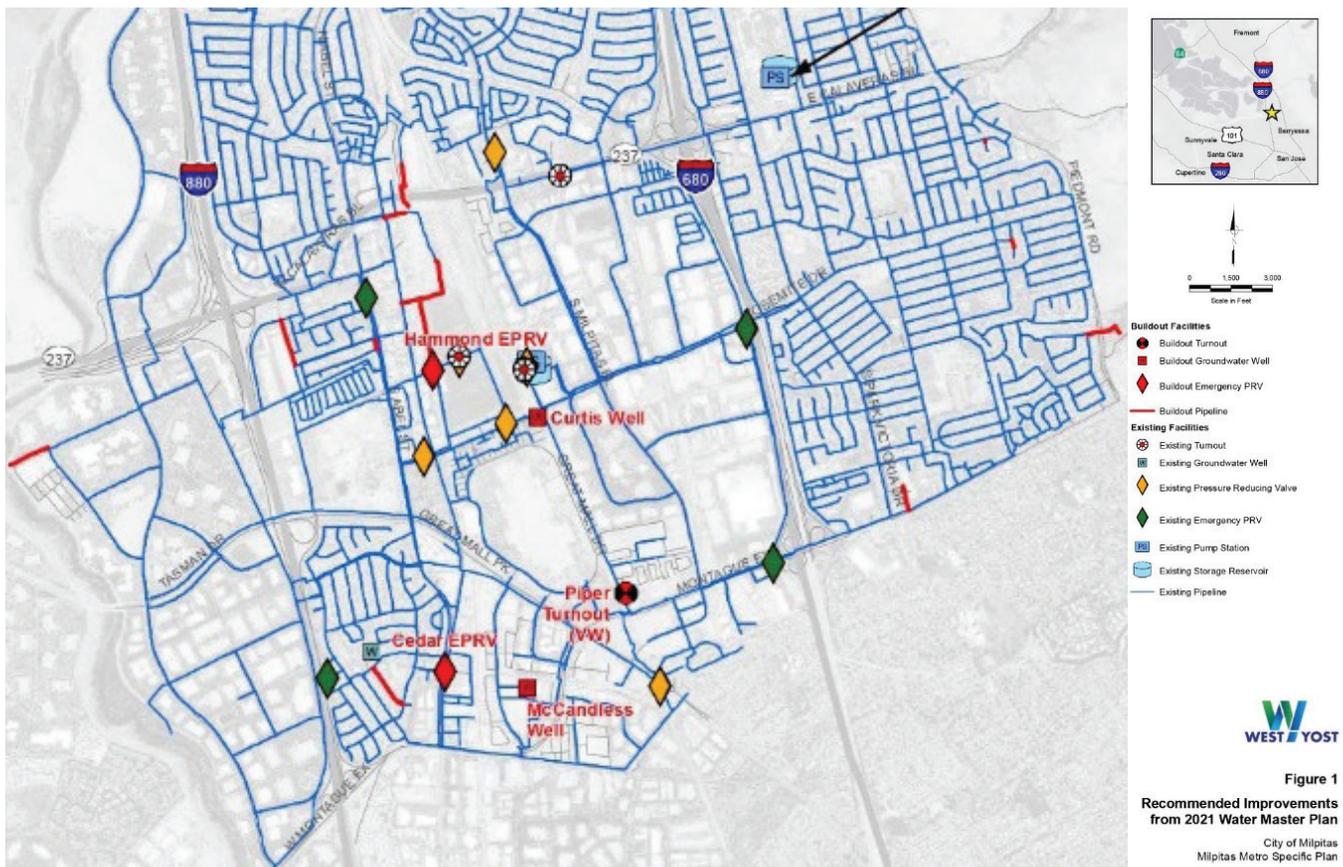
Specific Plan). Hydraulic evaluation of the City's buildout water distribution system included scenarios for peak hour demand, maximum day demand plus fire flow, and water supply and power outages.

The Milpitas Metro Specific Plan Area met hydraulic performance criteria under all scenarios evaluated. At buildout, pressures and flows in the Milpitas Metro Specific Plan Area were adequate to serve peak hour demands and maximum day demand plus fire flow conditions. Outside the Milpitas Metro Specific Plan Area but adjacent to its southwest corner, one area did not meet the recommended fire flow criterion. To improve fire flows in that area, the WMP

(Cedar EPRV) near the intersection of Cedar Way and South Main Street that would allow flow from the SFPUC service area to the VW service area during fires.

In addition to the hydraulic evaluation, the WMP evaluated the supply, storage, and pumping capacities for the City's buildout water system. While pumping capacity is sufficient to handle increased water demands in the VW service area (resulting from the Milpitas Metro Specific Plan and other developments), water supply and storage improvements are recommended to meet associated performance criteria. Because the timing of future development was not available for the WMP, it is not clear

Figure 5-4. Water Infrastructure Improvements



Source: 2021 Water Master Plan recommends installing a new Emergency PRV

which specific development(s) will “trigger” these improvements, but they are nevertheless recommended prior to buildout. Based on the buildout system analysis in the WMP, recommended water supply and storage improvements for the VW service area include:

- A new turnout from VW with a capacity of 10,000 gallons per minute (gpm).
- Two new groundwater wells (Curtis Well and McCandless Well), each with a capacity of at least 400 gpm. The McCandless well will be located in McCandless Park.
- A new, 2-million-gallon potable water storage tank.
- A new pump station (drawing from the new storage tank) with a firm capacity of 4,000 gpm.

These recommended improvements are one potential portfolio of projects the City could implement to address the water supply and storage challenges identified in the WMP. Other improvements or combinations of improvements may also address these challenges.

5.3.1 Water Supply and Distribution Policies

ICS 3. Provide a reliable and sustainable water supply that supports future growth projections.

ICS 3.1. Provide water supply for the Milpitas Metro Area from the City’s portfolio of water supplies, including potable water from Valley Water District and San Francisco Public Utilities Commission and groundwater and recycled water from South Bay Water Recycling, per the Water Master Plan. No development is entitled to municipal water until a building permit is issued by the City.

ICS 3.2. Continue to provide potable water on a “first-come-first-served basis.” If development in Milpitas exceeds growth projections in adopted plans, municipal potable water may not be immediately available to all developments.

ICS 3.3. Update the Water Supply Assessment if development in the Plan Area exceeds the water demand estimated in the Water Supply Assessment.

ICS 3.4. Reduce overall water consumption and particularly potable water consumption through water conservation measures, including but not limited to the following:

- use of recycled water
- water-saving features
- drought-tolerant landscaping

ICS 3.5. Require installation of water-saving devices, as required by the California Building Code, in all residential, commercial, industrial, and institutional facilities within the Plan Area. Such devices are capable of reducing the amount of water used indoors, resulting in substantial wastewater flow reductions.

ICS 3.6. Require that recycled water be used for all irrigation, including parks, plazas, community facilities, linear parks, landscaped front yards, buffer zones, vegetated setbacks, and private common areas.

ICS 3.7. Require, where reasonable and feasible, that commercial uses, schools, and non-residential mixed-use developments include dual plumbing to enable indoor recycled water use for non-potable uses to the extent feasible.

ICS 3.8. Upgrade and expand the water distribution system in accordance with the Water Master Plan such that it will be adequate to serve new development in the Plan Area.

ICS 3.9. Expand recycled water infrastructure in the Innovation District, along Main Street, and in the Tango District to support future development.

ICS 3.10. Recycled water mains shall be installed up to and across the frontage of parcels that do not have access to recycled water. The cost of extending recycled water mains, excluding the length across the frontage, shall be funded through the TADIF.



5.4 SEWER

The City of Milpitas Sewer Master Plan (Master Plan) was prepared in 2021 and provides both background and analysis pertinent to the Milpitas Metro Specific Plan. Relevant passages are quoted below.

The wastewater collection system consists of approximately 160 miles of gravity sewers, with pipe diameters ranging from 4- to 66-inches. The collection system generally flows from east to west and south to north towards the San Francisco Bay. Most of the collection system flows by gravity to the Milpitas Main Lift Station (Main LS) then is pumped to the San Jose-Santa Clara Regional Wastewater Facility (RWF) through dual force mains. (City of Milpitas Sewer Master Plan, Page ES-1)

The City of Milpitas pays a share of the capital cost of the RWF, based on the City's capacity rights in proportion to the 167 MGD total capacity of the RWF. The City also pays a share of the operating cost, based on the volume of wastewater discharged to RWF. The City has rights to discharge 14.25 MGD to the RWF under its current allotment. (Sewer Master Plan, Page 2-4)

The Milpitas Metro Specific Plan Area is located on the southern border of the City at the upper end of the sewer shed for the City.

The Master Plan identified system risk exposure and developed a 5-point scoring ranking that includes all segments of the existing system. Neither #4 (High) or #5 (Extreme) risks were identified in the Milpitas Metro Specific Plan Area.

As part of the City's Master Plan project, a Sewer Utility Asset Renewal and Replacement Study (R&R Study) was conducted. The study documents the City's Business Risk Exposure

(BRE) based on the physical condition and desktop assessment of the City's collection system applying a set of factors developed to determine the relative risk of failure for each pipeline segment. (City of Milpitas Sewer Master Plan, Page ES-1)

A capacity analysis of the citywide system is included in the 2021 Sewer Master Plan which anticipated land uses within the Milpitas Metro Specific Plan Area (Figure 5-2 in the Sewer Master Plan). The capacity analysis did not identify any deficiencies in the Milpitas Metro Specific Plan Area; however, some downstream segments are under capacity and have been identified as CIP projects.

There were no major capacity deficiencies identified as part of this analysis. There were no additional capacity deficiencies identified under future conditions that were not seen under existing conditions. (City of Milpitas Sewer Master Plan, Page ES-1)

5.4.1 Sewer Policies

ICS 4. Ensure sewer infrastructure can support future growth in the Metro Area.

ICS 4.1. Require development to obtain a building permit issued by the City prior to being entitled to wastewater treatment capacity.

ICS 4.2. Consider additional review of available wastewater treatment capacity if development in the Metro Area exceeds 7,000 housing units.

ICS 4.3. Construct improvements within the Plan Area as required to serve new projects. Participate in fair share contributions to downstream improvements that were identified as deficient in the 2021 Sewer Master Plan, and any other improvements identified in updates to the Master Plan.

5.5 SOLID WASTE

The City of Milpitas disposes of solid waste at different facilities depending on the material waste stream (e.g. garbage, recyclables, food waste, yard trimmings, and C&D) in accordance with the Franchise Hauler Agreement that the City has with Milpitas Sanitation, Inc. (MSI). The Franchise Hauler Agreement was entered on December 8, 2016; the term of the contract is from September 6, 2017 to August 31, 2032.

While collection is performed by MSI, the facilities where all of the waste streams are transported to are varied. Waste facilities by waste stream are listed below:

- **Solid waste.** Solid waste is processed at GreenWaste Recovery MRF with the end destination of the material at Kirby Canyon Landfill.
- **Recyclables.** The primary approved facility for recyclables is GreenWaste Recovery MRF. Alternate approved facilities include Alameda County Industries Material Recovery Facility and the Sunnyvale Materials Recovery and Transport Station (SMaRT Station).
- **Yard trimmings.** Yard trimmings are processed at GreenWaste Recovery MRF.
- **Food scraps.** The primary approved facility for food scraps is Sustainable Organic Solutions (SOS). Food waste is used to make animal feed. Alternate approved facilities include East Bay Municipal Utility District Treatment Plant and the Sunnyvale Materials Recovery and Transport Station (SMaRT Station)
- **Construction and demolition (C&D).** The

primary approved facility for C&D is Mission Trails Waste Systems (MTWS). Alternate approved facilities include Zanker Road Resource Management Facilities, Guadalupe C&D Recovery Facility, and the Sunnyvale Materials Recovery and Transport Station (SMaRT Station).

The NISL does not accept hazardous waste, but the City of Milpitas currently participates in Santa Clara County's Hazardous Waste Program, which provides a drop-off site for residents and small generators.

Hazardous waste is being managed through Santa Clara County's household hazardous waste (HHW) program, which provides a drop-off site for residents and small generators through an appointment-based system. Milpitas continues to participate in this program. Santa Clara County and the City of Milpitas hold an annual HHW collection event within the city to encourage proper disposal of hazardous waste. Recent HHW collection events were canceled due to Covid-19, but will resume in the future.

5.5.1 Solid Waste Policies

ICS 5. Ensure solid waste facilities can support growth in the Metro Area and that waste continues to be collected and disposed of safely.

ICS 5.1. Require all new development to participate to the maximum extent practical in solid waste source reduction and diversion programs.

ICS 5.2. Negotiate new agreements to handle the long-term disposal of its solid waste before the expiration of the current waste disposal contract.

5.6 ENERGY AND TECHNOLOGY

The Metro Plan Area is a highly urbanized area that already includes electrical, gas and telecommunication facilities that future projects would be able to connect to. Moreover, the Metro Plan supports energy and greenhouse gas (GHG) reduction measures by encouraging and requiring more efficient building systems.

Electricity & Gas

Pacific Gas & Electric (PG&E) provides electric and gas services to the planning area. The Metro Plan encourages building design features that reduce energy consumption and increase renewable energy generation. In addition, development associated with the Metro Plan would be required to comply with the California Green Building Standards Code, which includes green and sustainable building requirements to achieve energy efficiency. New development will be served through the extension of existing electrical lines, with existing and new utilities (e.g., transformers) located underground, whenever possible.

The Metro Plan identifies policies to limit the use of natural gas, stating that all new residential or non-residential buildings must be all-electric, unless gas is essential to the key functions of the internal business, such as manufacturing or laboratory work. See CB 7. Sustainability for energy policies.

Technology

Located in Silicon Valley, Milpitas is embedded in the region's culture of innovation. The City is exploring opportunities for providing an efficient and reliable citywide broadband network, which could create new opportunities for businesses, public safety, healthcare, and other services. Citywide technological innovations can also elevate the City's reputation as a 21st century city and will be a key asset to the development of the Innovation District. A public broadband network would provide high-speed connectivity in public spaces within the city and could require collaboration with the private sector to implement.

5.6.1 Energy and Technology Policies

ICS 6. Provide a public broadband network in the Metro Area to establish the City as an innovative technological center.

ICS 6.1. Require new development to provide fiber connections.

ICS 6.2. Encourage the development of new fiber connections to existing development when utility construction is underway.

ICS 7. Consistent with the City's Economic Development Strategy (EDS) #29, facilitate deployment of 5G wireless service in the Metro Area, especially in underserved areas and in locations targeted for growth of office/R&D uses as part of a new Innovation District.

5.7 FIRE PROTECTION AND EMERGENCY RESPONSE

The Milpitas Fire Department (MFD) is responsible for fire suppression, emergency medical services, rescue services, hazardous and toxic materials emergency response, coordination of City-wide disaster response efforts, enforcement of fire and life safety codes, enforcement of State and Federal hazardous materials regulations, and investigation of fire cause, arson and other emergency events for cause and origin.

Three fire stations near the project area are: Fire Station #1, just northwest of the Great Mall at Curtis and South Main streets; Station #2, located northeast of the project on Yosemite Drive and South Park Victoria Drive; and Station #4 on Barber Lane just west of I-880. The City has automatic aid and mutual aid agreements with the cities of San Jose and Fremont.

More firefighting personnel and equipment will be needed to provide the level of service described in the General Plan, roughly at the ratio of one firefighter per 1,000 residents.

Ultimately, MFD will need to conduct a “standards of cover” analysis to determine the Metro Plan’s precise impact on the department’s staffing and equipment, and any required facility enhancements.

The MFD will also need to write an addendum to the City’s emergency management plan to address the development of the project area. Adjustments to communication systems, evacuation plans, and community warning systems may also be necessary.

The City currently has building regulations that ensure adequate emergency access to buildings. However, the building and streetscape standards established in Chapter 3 were developed in coordination with MFD in order to balance dense development with safety.

The Fire Department will evaluate individual development plans to assess whether emergency access is adequate.

5.7.1 Fire Protection and Emergency Response Policies

ICS 8. Provide fire and emergency services and facilities that can support growth in the Metro Area, while maintaining an adequate level of service

ICS 8.1. Conduct a “standards of cover” analysis to determine the Metro Plan’s precise impact on the Fire Department’s staffing and equipment, and any required facility needs. Identify and evaluate potential sites for an expanded or new fire station near the Plan Area if the standards of cover analysis determines it is warranted.

ICS 8.2. Provide an adequate level of service—as determined by City Council—for the residents, workers, and visitors of the Plan Area by hiring additional fire department staff, purchasing equipment, and building facilities. New equipment and facilities shall be funded by the Community Facilities District fee and new staff paid from the City’s General Fund.

ICS 8.3. These facilities are not expected to be sited within the Plan Area.

ICS 8.4. If a new fire station is built to meet the service needs of the Plan Area, it must be sited and developed in such a way as to not create substantial adverse physical impacts or significant environmental impacts.

ICS 8.5. Any new facilities should minimize noise and traffic impacts on existing land uses.

ICS 8.6. Update the City’s emergency and disaster response plans to take the location and type of new development, and future traffic levels, into account.

5.8 POLICE SERVICES

Law enforcement services in Milpitas are provided by the City of Milpitas Police Department (MPD). Additionally, BART Police provides law enforcement services to the BART station and the Transit Patrol Division of the Santa Clara County Sheriff provides contract security and law enforcement services for the Valley Transportation Authority (VTA), which includes the parking structure and parking lot of the BART station.

Most of the crime that occurs in the Metro Area is specific to the Great Mall—thefts, forgery/fraud, and stolen vehicles—and there is little violent crime. In the rest of the Metro Area, more than half of the police-related calls are vehicle violations, traffic accidents, and theft from autos.

The increase in population, business traffic, and vehicular traffic resulting from the buildout of the Metro Area will increase the workload of MPD. To maintain current levels of service, an increase in staffing and equipment will be necessary. The City has also determined that an additional police station is necessary.

Milpitas has one existing police station located in the north part of the city that is approximately three miles from the Metro Plan Area’s northern boundary. To reduce response times in the southern part of Milpitas, a new police substation is planned to be located in the Metro Area. The substation will be located near the Milpitas Transit Center though the exact location has not yet been determined. One potential location is the vacant parcel near the Milpitas Transit Center as indicated on the Land Use Map in Figure 2-1. This area was previously identified as a potential park location but was determined to be unsuitable due to the visibility challenges of police patrolling on the parcel.

Given the estimated addition of 17,500 residents to the city—a population increase of 22 percent—maintaining the ratio of police officers to residents used in the TASP would require an additional 25 officers. However, the metrics that MPD would use to determine the precise number of additional staff required are the projected call volume and impact in service levels, such as an increase in dispatch and response times; ring times for 9-1-1 calls; and calls that are pending for an officer. The City should also anticipate investing in additional MPD communications staff and equipment, professional staff needed to support the additional officers, technology related to crime prevention, deterrence, and enforcement, and increasing the vehicle fleet of MPD.

5.8.1 Police Services Policies

ICS 9. Provide adequate police services and facilities that ensure the safety of the community.

ICS 9.1. Hire additional police staff and purchase equipment to provide an adequate level of service—as determined by City Council—for the residents, workers, and visitors of the Metro Area as well as surrounding areas. New equipment shall be funded by the Community Facilities District fee and new staff paid from the City’s General Fund.

ICS 9.2. Construct an additional Police Substation in the Metro Area on the Milpitas Boulevard Extension adjacent to Berryessa Creek, or in another location determined by the City.

5.9 SCHOOLS

The planning area falls within three different school districts: Milpitas Unified School District (MUSD), which handles students in grades K-12, and two overlapping districts: Berryessa Union School District (grades K-8) and East Side Union High School District (grades 9-12). The student generation assumptions in Table 5-1 resulting from the residential component of the project are based on the TASP's attendance data from these districts, with variations by grade group and housing type.

Total student generation by school district is summarized in Table 5-2. The Metro Plan will generate approximately 1,407 new students at buildout assuming that 20 percent of housing units are below market rate. Most of these new students (60 percent) will be located in the MUSD.

The Milpitas Unified School District plans to expand student capacity in the Phase II construction of Mabel Mattos Elementary School, which is located adjacent to McCandless Park, in the McCandless District, to accommodate the anticipated growth in enrollment in this district.

Both school districts south of Montague Expressway—Berryessa Union and East Side Union High—have existing capacity for more students and will likely not need to add new school sites to accommodate increased demand. It is anticipated that the Berryessa Union School District will receive an increase of 224 students in K-5 and 103 students in grades 6-8, while East Side Union High School District will experience an increase of 231 students in grades 9-12.

5.9.1 State Criteria

The State of California has standards for acceptable locations and sizes for new public schools. While exceptions can be granted, the location of schools shall generally comply with the following. For the full list of standards, refer to Section 14010 of the California Code of Regulations, Title 5.

- At least 100 feet from 50-133 kV power lines, 150 feet from 220-230 kV power lines, and 350 feet from 500-550 kV power lines;
- Sites within 1,500 feet of a railroad easement require a safety study;
- Not adjacent to a road or freeway that will create safety problems or noise that will adversely affect the educational program;
- Not on an active earthquake fault of fault trace;
- Not on major arterial streets with a heavy traffic pattern, unless mitigation of traffic hazards and a plan for the safe arrival and departure of students appropriate to the grade level is provided;
- Cannot be within an area of flood inundation, unless the cost of mitigating the flood is reasonable;
- Not located near an above-ground water or fuel storage tank, nor within 1,500 feet of an above ground or underground pipeline easement that can pose a safety hazard;
- Not subject to moderate to high liquefaction or landslides;
- The shape of the site can accommodate the building layout, parking, and playfields and does not exceed the allowed passing time to classes for the district;
- Is easily accessible from arterial roads and has minimum peripheral visibility from the planned driveways;

- Zoning of the surrounding properties shall not pose a potential health or safety risk to students or staff; and
- The site shall be conveniently located for public services, including fire protection, police protection, public transit, and trash disposal whenever feasible.

5.9.2 School Policies

ICS 10. Ensure that affected school districts have the funding needed to support the student population in the Metro Area.

ICS 10.1. Coordinate with the affected school districts on facilities needed to accommodate new students and define actions the City can take to assist or support them in their efforts.

ICS 10.2. Ensure that all school impact fees are paid from individual projects prior to the issuance of any building permits.

5.10 LIBRARIES

The Milpitas Library, located at 160 North Main Street, is a member of the Santa Clara County Library District. The Santa Clara County Library District is governed by a Joint Powers Authority (JPA) and overseen by the Santa Clara Board of Supervisors. The JPA membership consists of a City Council representative from participating jurisdictions including the cities of Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Milpitas, Monte Sereno, Morgan Hill, and Saratoga and two County Supervisors from the County of Santa Clara.

The Library District prepares and annually reviews a Capital Plan and Budget that account for population changes in the County.

5.10.1 Library Policies

ICS 11. Ensure that the Milpitas community continues to have access to adequate library resources as development occurs in the Milpitas Metro Plan Area as part of the Santa Clara County Library District Joint Powers Authority.

5.11 CHILD CARE

Childcare plays an important role in economic development and household wealth, by permitting parents to work either part- or full-time. It plays an especially important role in single-parent households, where the sole adult must work. Childcare can also provide informal income for home-based caregivers. Demand for childcare can be all-day or just after-school in nature and can come from local residents as well as workers within the area.

The City adopted a Childcare Master Plan in 2002 and updated it in 2004. It calls for the following:

- Support the development of childcare within transit overlay districts,
- Require incoming projects to be evaluated for their potential impact on childcare demand within the city, and
- Require incoming projects to be evaluated for their potential to provide childcare facilities within the project.

The City has an incentive program for developers should they incorporate childcare into their developments. The City now offers fee reductions for large family childcare homes and has a practice of prioritizing the processing of childcare centers. The Childcare Master Plan suggests that additional incentives, such as density bonuses, could be developed to further bolster the incentive program.

The Midtown Specific Plan has a policy to encourage the provision of childcare services to support demand generated by employees and residents in the Midtown area, with new childcare centers especially encouraged near large housing developments, near transit stations, and within new office developments.

5.11.1 Child Care Policies

ICS 12. Support the expansion of childcare services to support demand in the Metro Area.

ICS 12.1. Encourage childcare services near the BART and light rail stations.

ICS 12.2. Encourage childcare services to be integrated into affordable housing projects.

ICS 12.3. Encourage new commercial space to provide childcare services for its employees. Floor area devoted exclusively to childcare shall be exempted from FAR limits on a parcel.

Table 5-1. Student Generation Rates

	Market-Rate Housing Generation	Below Market-Rate Generation
Milpitas Unified School District		
K-6	0.087	0.246
7-8	0.017	0.047
9-12	0.03	0.076
Berryessa Union School District		
K-5 (Northwood Elementary)	0.046	0.300
6-8 (Morrill Middle School)	0.016	0.159
East Side Union High School District		
9-12 (Independence High School)	0.1	0.1

Student generation rates from the TASP EIR.

Table 5-2. Projected Student Enrollment

	New Students
Milpitas Unified School District (Housing Units = 4,690)	
K-6	557
7-8	108
9-12	184
Total	849
Berryessa Union School District (Housing Units = 2,310)	
K-5 (Northwood Elementary)	224
6-8 (Morrill Middle School)	103
East Side Union High School District	
9-12 (Independence High School)	231
Total	1,407 students

Student enrollment was calculated by applying the student generation assumptions from the TASP EIR to the MMSP's population projections.



908B

ORANGE LINE



EMERGENCY
INFO

No standing, leaning or sitting permitted on platform.



The recently built pedestrian bridge provides a direct connection over Capitol Avenue from the BART station and bus depot to the elevated VTA light rail line.

6. IMPLEMENTATION

- 6.1. Updates to the General Plan and Zoning
- 6.2. Coordination with the Midtown Specific Plan
- 6.3. Entitlement Process
- 6.4. Great Mall
- 6.5. Innovation District
- 6.6. Phasing
- 6.7. Environmental Review (CEQA)
- 6.8. Public Infrastructure and Investments
- 6.9. Funding Strategy
- 6.10. Implementation Actions

The implementation of the Milpitas Metro Specific Plan will require action by the public, City departments, regional agencies, and private property owners. The City will take the lead in coordinating areawide actions and establishing funding mechanisms for public investment in programs and capital projects. However, private investment through the architecture, landscaping, and maintenance of individual development projects will be a significant determinant of the look and feel of the Plan Area.

Table 6-2, at the end of this chapter, lays out actions, responsible parties, and timeframes needed to ensure the Plan's implementation. Following the Metro Plan's adoption, a nexus fee study will be conducted to determine suitable fees needed to support the Basic Improvement Program (BIP) and ensure the completion of public improvements identified in the Plan.

6.1 UPDATES TO THE GENERAL PLAN AND ZONING

As part of adopting the Milpitas Metro Specific Plan, the City will adopt amendments to the Zoning Ordinance to ensure consistency between planning documents. The General Plan was updated just prior to the completion of the Specific Plan and has been coordinated with the Milpitas Metro Specific Plan, but will need to be amended to reflect annexations of parcels into the Metro Plan, including properties on S. Main Street and east of the Innovation District. The General Plan Land Use Map will also need to be amended to reflect the new land use designations in the Milpitas Metro Specific Plan, including along Main Street and in the Innovation District.

The Zoning Ordinance amendment adds new zoning districts, revises the Zoning Map, and amends other sections, including but not limited to zoning designations and development standards.

6.2 COORDINATION WITH THE MIDTOWN SPECIFIC PLAN

The boundaries of the Milpitas Metro Specific Plan will expand the original TASP boundaries to include additional parcels along Main Street, which were formerly part of the Midtown Specific Plan. At the adoption of the Metro Plan, the City will be in the process of updating the Midtown Specific Plan and renaming it the Milpitas Gateway-Main Street Specific Plan. City Council will adopt the changes to the Midtown Plan boundaries when the Metro Plan is approved, and these changes will be noted in the Midtown Plan.

6.3 ENTITLEMENT PROCESS

Development projects in Milpitas Metro typically require two phases of review and approval: the planning/ zoning entitlement phase and the building permit phase.

During the entitlement phase, developers of proposed projects submit applications for review by Planning staff and relevant City departments to determine whether the proposed project is consistent with the General Plan, this Specific Plan, and other associated regulatory requirements, including the Zoning Ordinance. Uses that are permitted by-right in a zoning district may only require administrative review by Planning staff. More complex development projects or uses that require a Conditional Use Permit are reviewed by the Planning Commission and/or City Council. Specifics are further outlined in the Zoning Ordinance.

However, the recent changes in State Law related to affordable housing may alter the City's processing and approval procedures. Applicants are advised to consult with the Planning Department staff prior to project submittal. Planning fees are required at formal project submittal to the Planning Department.

Following the approval of all required planning entitlements, developers submit detailed building permit applications, which are reviewed by several departments including Building, Planning, Engineering-Land Development, and Fire Safety prior to approval and permit issuance. Detailed permit applications must include information that has been approved by the City on the location of, funding for, and ownership of identified public improvements on or adjacent to each site, including roadways, parks, trails, sidewalks, and similar. The payment of building permit fees, TADIF fees, and other development impact fees

is required prior to issuance of a building permit. Examples of the expected public improvements are provided in the Infrastructure chapter of this Plan and include those listed below. These features are intended to improve the livability, quality, and experience of Milpitas Metro:

- New publicly-accessible streets, bicycle and pedestrian connections, plaza, and open spaces in the Great Mall District
- New publicly-accessible streets, Penitencia Creek trail and bridge, and redesign of the Hourset Court in the McCandless District
- New publicly-accessible streets, plazas, and open spaces in the Innovation District
- A new pedestrian bridge, the Penitencia Creek trail, bike routes, parks, streets, and a through-connection between Tarob Court and Sango Court in the Tango District
- A linear park, with a minimum width of 20 feet, to support the redesign of Great Mall Parkway into a complete street; public access easements will be established, as necessary
- Widen sidewalks to approximately 18 feet on Activity Streets in accordance with approved plans; public access easements may be established, as necessary
- New linear park/ landscape feature with public art under the overhead VTA Light Rail line
- Trail improvements and new trails shall be provided along Berryessa Creek and South Penitencia Creek East Channel to improve connectivity to the Milpitas Transit Center and between districts
- Sidewalk, street trees, and street furnishings (e.g., lighting, benches) along each development project frontage

Project applicants must account for the locations and design of adjacent or onsite improvements in their project plans.

Upon completing the final stages of project entitlement, such as with the Final Map process but in any case before project occupancy, a project that is wholly or partially residential shall be annexed to the Community Facilities District (CFD) in order to contribute property tax revenues that support ongoing services and maintenance of public facilities that serve the Metro Area.

6.4 GREAT MALL

The Great Mall District is conveniently located near the Milpitas Transit Center and is poised for redevelopment depending upon economic conditions. In light of the current challenges to typical retail formats, the district has an opportunity to transform into a transit-oriented, high-density neighborhood with a walkable street grid and public gathering spaces. The district's comprehensive vision is detailed in Chapter 2: Land Use and Public Space.

The Great Mall parcel occupies most of the land in the Great Mall District at approximately 99 acres. Located north of the Milpitas Transit Center and stretching north towards Main Street, the Great Mall is a large indoor mall that is a historic property that was formerly a Ford plant. It is located on an expansive commercial parcel owned by Simon Property Group and is currently a significant attraction, drawing regional visitors.

Property owners in the Great Mall District have expressed interest in developing a mix of land uses that may occur over time rather than immediately. The Plan aims to be responsive to developer needs while ensuring that the development of the parcel results in a high-quality, well-integrated, pedestrian-accessible urban node. As a result, the MMSP rezones the district to allow mixed-use land uses that support flexibility and capacity for change.

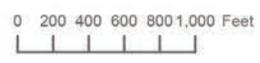
Figure 6-1. Great Mall Conceptual Planning Area



- Milpitas Metro
-
- Permanent Open Space (POS)
- Residential Retail High Density Mixed Use (RRMU) 40-85 units/acre; max 2.5 FAR

Note that diagram is for illustrative purposes only, and location of parks is subject to change.

GIS data provided by:
 Parcels - City of Milpitas / Roads - US Census Bureau 2019 TIGER



Future development of the Great Mall and the surrounding parcels is guided by policies in previous chapters of the Metro Plan.

To fulfill the Great Mall District's vision, the Metro Plan establishes a framework for developing the Great Mall parcel, including mixed-use opportunities, housing capacity, roadways, and open space. Due to the size of the Great Mall parcel, redevelopment will likely occur in phases. The Great Mall is broken into conceptual subareas in Figure 6-1 with maximum residential and nonresidential capacity by subarea summarized in Table 6-1. These subarea boundaries are conceptual and subject to change through future negotiations with the property owner over their needs and goals for future development.

Environmental documentation will likely establish a development threshold for the Plan that is less than the full capacities shown in the table below. Housing capacity shown in the table below represents the maximum housing according to the land use density designation, which density could be averaged across the site. Actual housing yield on the Great Mall parcel is restricted in this Plan by the number of units identified in the Housing Element as assigned to the site, unless a Development Agreement (DA) is negotiated and approved by City Council to provide other allowances. Alternatively, this Specific Plan could be amended in the future to provide for more total housing development than allowed by either the Housing Element or the total number of units on the site as is indicated here.

The design, ownership of, and access to infrastructure, roadways, and parks in the Great Mall District must be agreed upon by the City before project development can begin. Agreements for the use of the publicly-accessible facilities will be developed alongside development review and approvals and will be included as conditions of project approval and/

or through a Development Agreement. The Circulation Network map (Figure 4-6) provides a proposed street grid. Exact alignments for the new street network are flexible but must maintain a maximum block size as prescribed in the citywide objective design standards. The new street network on the Great Mall parcel could include key entries from Great Mall Drive, Mustang Drive, and Falcon Drive, which will provide connections onto Main Street, Great Mall Parkway, and Montague Expressway. Approximate locations and size for public open space are also identified in Figure 6-1. Open space development on the Great Mall site must comply with minimum common space requirements contained in Chapter 2: Land Use and Public Space.

To facilitate redevelopment of the Great Mall site, the City has graphically subdivided the Great Mall parcel into subareas for the purpose of planning efforts only. These subareas do not reflect legal parcel subdivisions and do not constrain development within individual subarea boundaries but allow the City to refer to specific areas of the parcel when identifying sites for the Housing Element or identifying proposed open space locations. Table 6-1 identifies the land use, acreage and maximum capacity of each subarea. The capacity calculations assume development of only residential uses or only non-residential uses, and do not represent the combined capacity for residential and non-residential development. As noted above, achieving these capacities in full will be restrained by the governing CEQA analysis.

6.5 INNOVATION DISTRICT

The Innovation District is another district in the Milpitas Metro Specific Plan Area that is poised for redevelopment focused on increasing the

Table 6-1. Great Mall Conceptual Development Capacity

Subarea	Land Use	Acreage	Residential Development Capacity (units)	Non-Residential/ Mixed-Use Development Capacity (square feet)
GM-01	POS	4.07	--	--
GM-02	RRMU	6.20	527	675,455
GM-03	RRMU	10.01	851	1,090,029
GM-04	RRMU	3.06	260	333,067
GM-05	RRMU	4.65	395	505,999
GM-06	RRMU	4.08	346	443,877
GM-07	RRMU	3.95	336	429,848
GM-08	RRMU	4.02	341	437,259
GM-09	RRMU	5.34	454	581,819
GM-10	RRMU	4.48	381	487,857
GM-11	RRMU	4.05	344	441,194
GM-12	RRMU	2.73	232	297,502
GM-13	RRMU	7.27	618	792,105
GM-14	RRMU	6.34	539	690,952
GM-15	RRMU	5.73	487	623,943
GM-16	RRMU	4.30	365	468,011
GM-17	POS	3.73	--	--
GM-18	RRMU	3.22	273	350,269
GM-19	RRMU	8.81	749	959,460
Total			7,500	9,608,643

availability of employment lands. In contrast to the Great Mall District, the Innovation District has multiple property owners with varying parcel sizes. To facilitate the district's redevelopment, the MMSP establishes mixed-use land uses that support office, research and development, and light industrial uses with the goal of creating a hub of innovation and commerce.

As part of the Milpitas Innovation District, there are additional commercial-focused land uses outside of the Metro Plan's Innovation District that provide additional employment land near transit. The Innovation District is primarily reserved for employment uses with limited capacity for new residential development closer to the Milpitas Transit Center. The MMSP proposes new land uses and street connections for the district, but the City's Economic Development Department will develop the strategic plan to guide development in this area. The assemblage of multiple parcels by a single entity would also make this district a good candidate for phased development and proportional obligations for public infrastructure improvements. For a map of the programmatic Milpitas Innovation District, refer to Figure 2-4.

Public realm improvements, including streetscape connections and improvements, signage, and public art, will be needed to complete the Innovation District and connect it with nearby areas. Roadways and open spaces in this district will be funded and developed in conjunction with building development and will be publicly owned and maintained. A new bicycle and pedestrian bridge across Berryessa Creek south of Montague Expressway will provide direct access to the Milpitas Transit Center and thereby enhance the district's accessibility, sense of place, and development value. Several additional new roadways are described and mapped in the Circulation Map (Figure 4-6). Property owners will need to provide roadway dedications or agree

to an alternative with the City. The City will also need to purchase and improve proposed park parcels identified on the Land Use Map (Figure 2-1). The TADIF is an expected funding source for some of this public infrastructure as well.

The Milpitas Police Department has indicated an interest in building a new police substation on the parcel west of Berryessa Creek on South Milpitas Boulevard. The City will need to purchase and develop this parcel. The parcel was originally designated for parkland, but this designation could be relocated to adjacent parcels to accommodate Police Department security concerns about access and visibility at the original site.

While the City of Milpitas does not typically act as a real estate developer, the City Council, as a legislative body, has the authority to enact legislation, establish policies, and provide direction for actions which affect development and land use. In order to develop a successful Innovation District, the following types of policies and actions will need to be explored in the future by the City Council to ensure that development projects are feasible:

- Protect and preserve employment lands through land use designations;
- Offer flexibility in density and height to support development economics;
- Consider reduced parking requirements for employment uses near the Milpitas Transit Center;
- Consider reduced development impact fees on future anchor Class A/B Office and Research and Development (R&D) projects; and
- Expedite entitlement and permit processes.

6.6 PHASING

Following the adoption of the TASP, property redevelopment was modest for several years during the Great Recession recovery, then accelerated and intensified relatively quickly. The next phase of development in the Metro Area is anticipated to occur gradually, with some market-related variability. The number of developable residential sites available outside the Great Mall District has been reduced through recent development, and market conditions are not yet favorable for office development. However, the recent opening of the Transit Center with regional connections via BART could spur office development following Covid-19 conditions recovery, assuming a favorable economy. Residential demand will likely continue to be high in the near term, but retail trends will likely continue to shift over this planning period. In order to manifest the vision for the Milpitas Metro Specific Plan Area, it is important for the City to stimulate investment through catalyst projects, infrastructure financing, and communication with property owners.

Working with local brokers and property owners to understand options and opportunities for specific sites will be critical to establishing a foundation for future project proposals. Infrastructure improvements that will be funded by the TADIF are to be constructed in tandem with development to assure that they are adequate to serve an individual project and the neighborhood as it is built out. Additionally, the City's leadership in securing grant funding and designating local funds for key projects can catalyze private investment and attract the greater Milpitas community, transit riders, and other visitors.

Some development sites, such as the Great Mall area and portions of the Innovation District, are large or may become large sites with potential lot combinations or development partnerships, such that phasing and unique considerations of development may be suitable. This Metro Plan recognizes and supports the use of special tools, such as but not limited to a Development Agreement, which a property owner/developer may propose to address a complex development project. A project for which a DA is proposed must be consistent with the goals and objectives of the Metro Plan, as well as with the overall development plan and land use limitations provided in the adopted Plan. Issues such as, but not limited to, project phasing, transfer of density or intensity within the boundaries of the DA area, and unique approaches to the provision of public facilities or fee payments may be negotiated through the development agreement process, subject to findings that the project would be consistent with the Plan.

6.7 ENVIRONMENTAL REVIEW (CEQA)

This Specific Plan is accompanied by the Milpitas Metro Specific Plan Draft Subsequent Environmental Impact Report. The Milpitas Metro Specific Plan (Metro Plan) Draft Subsequent Environmental Impact Report (SEIR) includes an Initial Study that concluded that impacts to the following resources would be less than significant: aesthetics, agricultural and forestry resources, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, tribal cultural resources, and wildfire. The Draft SEIR also concluded that impacts to the following resources would be less than significant: land use and planning, population and housing, public services and recreation, transportation, and utilities and services systems. Finally, the Draft SEIR identified significant and unavoidable impacts even after mitigation for air quality, greenhouse gas emissions, noise, as well as cumulative impacts for these resources.

As a result, individual projects consistent with this Specific Plan may qualify for a statutory exemption under CEQA. From the project sponsor's standpoint, once consistency is determined, no additional CEQA review is required though projects will still need to be reviewed by the City's Engineering Department for non-CEQA related site-specific measures.

The City, as lead agency, must determine whether any of the circumstances in Public Resources Code Section 21166 are present and require further environmental review. Specifically, if there have been substantial changes proposed in an individual project or implementation program resulting from this Specific Plan or to the circumstances under which the project or program is being undertaken, major revisions to the EIR will be required. Or, if new information that was not known and could not have been known when the EIR was certified becomes available, then the exemption may not apply unless a supplemental EIR or Addendum is certified.



6.8 PUBLIC INFRASTRUCTURE AND INVESTMENTS

The Milpitas Metro Specific Plan envisions continued investments in essential infrastructure to serve new development and to build complete neighborhoods. A revised Basic Improvement Program (BIP) will be prepared to identify an initial list of future public infrastructure, improvements, and facilities. This will include current BIP projects not completed or not yet fully funded and new projects that are required to support the continued evolution of this area of the City. The BIP list can be adjusted over time as needs and the types of new development evolve over time.

Investments in mobility/ transportation, public spaces/ parks, community amenities, and required utilities are expected to represent the primary public infrastructure/ public improvements required. These investments will include:

1. Existing BIP. Investments in improvement projects in the current BIP list that are still required and are yet to be completed.
2. New Infrastructure Investments. New utility and other base infrastructure investments required to accommodate the new types of development expected under the Milpitas Metro Specific Plan.
3. New Improvement Investments. New public space and mobility investments required to support the vision for the Milpitas Metro Specific Plan.

6.9 FUNDING STRATEGY

6.9.1 BIP Primary Financing Tools and Strategies

The core Milpitas Metro Specific Plan public infrastructure and improvement financing strategy is expected to remain similar to the TASP's financing strategy. More specifically, investments in new infrastructure and improvements expected to serve the Milpitas Metro Specific Plan are expected to be primarily funded through:

- **TADIF.** The Transit Area Development Impact Fee will continue to be levied on new development within the Milpitas Metro Specific Plan Area to ensure that new development pays its appropriate and proportionate share of new infrastructure and other improvements. It is expected that the TADIF will be formally updated directly after the completion of the Milpitas Metro Specific Plan to reflect the changes in the expected public investments and new development and updated Plan boundaries. A nexus study will be undertaken to determine a unit-cost basis for new development and its responsibilities to proportionally fund the needed public improvements. This schedule of per-unit fees will be updated annually and evaluated periodically in accordance with the requirements of the resolution establishing the TADIF fees.
- **Citywide Fees/ Exactions.** In some cases, new and existing infrastructure/ improvement investments will serve new development in both the Milpitas Metro Specific Plan and other areas of the city. This could include new public safety facilities. In these cases, a portion of the new funding for these improvements will likely come from other city funding sources, including fees/exactions on new development outside of the Milpitas Metro Specific Plan

- **Grants.** The City has successfully pursued grant funding for a range of BIP improvements since TASP adoption. Grant funding helps cover portions of new public infrastructure and improvements' costs that cannot be allocated to new development. This can allow the City to potentially charge fees below the maximum level on certain types of new development that provide particular policy benefits and help make the planning area a desirable location for development. Grant funding is often a particularly important source of funding for transportation and mobility projects.

It is important to note that beyond the TADIF, new development is also required to pay other types of fees adopted by the City and other special districts (e.g. the school district) and will need to meet other pertinent development conditions.

6.9.2 Additional Infrastructure/ Improvement Financing Opportunities.

Beyond the core financing strategy described above, the City may utilize additional funding opportunities. A subset of potential funding strategies are described below:

Development Agreements. In some cases, Development Agreements result in the provision by developers of investments above and beyond those required through development impact fees. Where developers see a benefit in securing entitlements through a formal contract (a Development Agreement), negotiations with developers can establish different or additional investments in exchange for the associated entitlement security and development arrangement. The actual use of Development Agreements and the potential for additional investments will depend on the scale and nature of future developments and associated

negotiations with the landowners/ developers. It is likely that a Development Agreement could accompany new development on large multi-phase sites, such as at the Great Mall or in the Innovation District.

Incentive Zoning/Value Capture. The land use designations and zoning associated with the Milpitas Metro Specific Plan will generally define the uses, heights, and densities available to developers of different sites. The City may also consider creating an Incentive Zoning system to provide additional funding for specific City priority investments. Under these programs, the City could grant developers additional entitlement (where they are interested in it) in exchange for these additional investments in specified areas.

Enhanced Infrastructure Financing District (EIFD)/ Tax Increment Financing. New development in the Milpitas Metro Specific Plan Area will generate new property tax revenues and other revenues to the City's General Fund. The EIFD is one of the newer tools established since the dissolution of Redevelopment Agencies that shifts property tax revenues towards infrastructure improvements. While the City might consider this tool in the future, in the short to medium term it will be important for the City's General Fund to retain its full allocation of property taxes to help shore up the City's budget in the wake of the impact of the Covid-19 pandemic. A tax increment tool could be a useful complement to the TADIF for certain large-scale developments that anticipate significant public infrastructure, such as at the Great Mall site or in the Innovation District.

Affordable Housing Support. Beyond infrastructure and improvements, the City is also interested in exploring supporting affordable housing development in the Milpitas Metro Specific Plan Area (as well as elsewhere in the City).

The City has adopted inclusionary housing policies that require new residential developments to offer a proportion of their units at below-market rates. In limited circumstances, the City may allow developers are to pay affordable housing fees in lieu of providing inclusionary housing. There are benefits and drawbacks to each method of implementation. Inclusionary housing requirements allow for more fine-grained integration of low-income households in any particular project. On-site affordable housing units can contribute to more incremental economic equity and diversity in smaller increments within a specific project or block. However, the residents of inclusionary below-market rate units are not provided the services provided in non-profit mission-driven projects.

At this time, the City has limited public land and resources accrued through affordable housing fees to help support these types of housing development. The City supports affordable housing development projects on City-owned land on Main Street properties that will be annexed to the Metro Area, and the City is monitoring opportunities to obtain support for affordable housing through State programs as well as potential countywide funding initiatives. As fees accrue in the Affordable Housing Fund, the City should consider opportunities for site acquisition, landlord assistance to maintain older housing stock, and financing support for affordable housing developers. An affordable housing provider can leverage the City's local contribution to access Low Income Housing Tax Credits (LIHTC) and other sources of financing. This can amount to actual housing production that is two to four times greater than inclusionary unit production and with on-site services.

Funding Public Services. The primary source of funding for the City's public services, including police and fire services as well as road and parks

maintenance, are the general tax revenues that accrue to the City's General Fund. These include property taxes, sales, use taxes, and transient occupancy taxes among others. In the TASP, there was a recognition that additional funding would be required to support public safety and other services to new residential development within the TASP. As a result, a Community Facilities District (CFD) was established that requires new residential development to pay an annual special tax to cover the cost of additional public service provision. For market-rate housing, the base rate established in 2009/2010 was \$510 per annum, though these rates can be escalated using the Consumer Price Index up to a maximum of 2 percent each year. It should also be noted that Community Facilities District special taxes can also be established to help fund and potentially issue bonds for infrastructure.

6.10 IMPLEMENTATION ACTIONS

Plan policies in the preceding chapters will be implemented by developers, property owners, and the City over the course of the Plan horizon, many as a result of development applications. However, certain policies require implementation that must be initiated by City staff and/or coordinated with other public agencies. Table 6-1 summarizes proactive steps needed to implement the Milpitas Metro Specific Plan, agencies responsible for implementation, and the expected timeframe for each action. Related policies and goals from preceding chapters for each implementation action are also referenced.

"Following Plan Adoption" actions are anticipated to be completed directly following the adoption of the Metro Plan.

Ongoing actions are expected to be implemented throughout the planning period.

Short-term actions are actions that are expected to be completed within 0 to 4 years from the Milpitas Metro Specific Plan's adoption.

Mid-term actions are anticipated to be implemented within 5 to 9 years from the Plan's adoption,

Long-term actions are expected to be completed between 10 to 20 years from adoption.

Table 6-2. Implementation Plan

#	Action	City Department or Public Agency Responsible	Timeframe	District or Areawide
Land Use and Zoning				
IM 1	Establish a methodology to internally track and evaluate on at least an annual basis the implementing of the Milpitas Metro Specific Plan and its success in promoting desired development, infrastructure and other changes in the Plan Area, and to facilitate plan updates where necessary.	Planning/ City Manager's Office/ Economic Development	Following Plan Adoption	Areawide
IM 2	Revise zoning code to establish new zoning districts specific to Milpitas Metro. The revisions increase residential and commercial density closest to the transit stations and major corridors to take advantage of transit and circulation infrastructure. ()	Planning	Following Plan Adoption	Areawide
IM 3	Revise zoning code to establish design guidelines and standards for new development that support human-scaled vibrant development. (LU 1.1, LU 6)	Planning	Following Plan Adoption	Areawide
IM 4	Update the General Plan to reflect the newly adopted MMSP boundaries. (LU 1.2)	Planning	Following Plan Adoption	Innovation District, Main Street
IM 5	Revise the plan boundaries of the Midtown/ Milpitas Gateway-Main Street Plan to reflect the Metro Plan's boundaries. (LU 1.2)	Planning	Following Plan Adoption	Areawide
IM 6	Field questions, facilitate desired project design, and proactively reach out to property owners and local brokers to identify opportunities for investment and lot consolidation and to promote the transit-orientation vision of the Plan. (LU 2)	Economic Development, Planning	Ongoing	Areawide
IM 7	Assign Housing Element sites to the Great Mall property upon adoption of the Housing Element. (LU 3)	Housing	Short-term	Great Mall

IM 8	Consider designating parcels in the Plan Area as Housing Opportunity Zones to facilitate affordable housing development. (LU 3.5)	Housing	Short-term	Areawide
IM 9	Amend Below Market Rate (BMR) Housing Program in the Housing Element and related policies to include the promotion of affordable housing development in the Metro Plan Area. (LU 3.1)	Planning	Short-term	Areawide
IM 10	Consider annexation of the 3.5-acre parcel between the Innovation District and I-680. (LU 1)	Planning	Mid-Term	Innovation District
IM 11	Work with private property owners to explore the feasibility of creating an EcoDistrict in the Innovation District and/or Great Mall District. (LU 1.4)	Planning	Mid-Term	Innovation District
IM 12	Explore feasibility of establishing an incentive zone using planning regulations, such as density or streamlining bonuses, or adjustments to the TADIF, in the Innovation District. (LU 5)	Economic Development	Mid-Term	Innovation District
Open Space and Public Realm				
IM 13	During the planning review process, assess and determine the siting of public open spaces throughout the Plan Area for their ability to provide social, contemplative, and active recreational opportunities based on the Recreation Value System. (PPS 3)	Planning, Parks and Recreation	Ongoing	Areawide
IM 14	Develop a methodology for permitting and managing privately owned, publicly-accessible open spaces, including credit for providing that space in lieu of a parks fee, access, easements, operating hours, programming and maintenance policies. (PPS 4)	Planning	Short-term	Areawide
IM 15	Partner with developers to develop privately owned, publicly accessible open spaces maintained by property owners when desired by the City. (PPS 1, PPS 4)	Planning	Short-term	Areawide

IM 16	Establish a Business Improvement District (BID) or similar entity to develop and maintain public amenities in the Plan Area. (PPS 6, PPS 7)	Economic Development	Short-term	Areawide
IM 17	Construct a park on city-owned property in the Tango District. (LU 8)	Public Works	Mid-term	Tango District
IM 18	Purchase parkland and construct a public park in the Innovation District adjacent to Berryessa Creek. (, PPS 4.3)	Public Works	Mid-term	Innovation District
IM 19	Work with Great Mall developer to ensure the construction of publicly accessible open spaces that are at least 1-acre in size each. (PPS 4.2)	Planning	Mid-term	Great Mall District
IM 20	Acquire parkland and construct a public park in the McCandless District along South Main Street. (SD 3.4)	Public Works		
IM 21	Identify priority areas for tree maintenance and new tree plantings based on the City's Urban Forest Management Plan, particularly in areas underserved by street trees. (PPS 8.7)	Public Works	Mid-term	Areawide
IM 22	Develop and install a Branding, Signage and Wayfinding Program for Milpitas Metro, including the trail network, which integrates with the citywide branding program. (PPS 3.6)	Planning, City Manager's Office	Mid-Term	Areawide
IM 23	Collaborate with public and/or private partners to develop public broadband infrastructure allowing for continuous connectivity in public areas. (ICS 6)	Public Works	Mid-term	Areawide
IM 24	Identify a location, funding and management strategy for a performing and visual art center in the plan area when feasible. (PPS 9)	Planning, City Manager's Office	Long-term	Areawide

Street and Trail Improvements				
IM 25	Review individual development applications to ensure that design enhances multimodal street design including bicycle facilities, pedestrian facilities, and landscaping are provided and consistent with Milpitas Metro Specific Plan circulation policies and street design standards. (M 1.6)	Planning	On-going	Areawide
IM 26	Work with the Valley Transportation Authority, Bay Area Rapid Transit, and AC Transit to increase ridership for residents and workers in the planning area. Potential tools to increase ridership such include first/last-mile solutions (e.g., explore Milpitas OnDemand beyond a pilot program), improved operations (i.e., quicker travel), and infrastructure improvements where appropriate (i.e., better bus shelters and station amenities, bus boarding islands, BRT, etc.). (M 11.2)	Planning	Ongoing	Areawide
IM 27	Coordinate with VTA to provide sufficient amenities (such as transit shelters) at all transit stops within the Metro Area. (M 11.3)			
IM 28	Establish a Transportation Management Association (TMA) for the Metro Area. Establish a funding mechanism to pay for the costs of the TMA, including the cost of a transportation coordinator to administer the program. (M 8.1)	Planning	Short-term	Areawide
IM 29	Establish a transportation demand management program (TDM). (M 8)	Public Works	Short-term	Areawide
IM 30	Improve Great Mall Parkway as a Complete Street with the addition of protected bike lanes, a multi-use trail, and linear park. (M 2.1)	Engineering, Public Works	Mid-term	Areawide
IM 31	Remove the cul-de-sac bulb at the end of Houret Court, and connect to private roads. Accommodate the turn around as a loop on connecting private roads. (M 1.1)	Engineering	Mid-term	McCandless District

IM 32	Connect private roads across parcels from McCandless Drive to Houret Court to provide pedestrian and Emergency Vehicle Access and allow for access to all parcels that are connected. (M 1.1)	Engineering	Mid-term	McCandless District
IM 33	Construct a pathway for pedestrians and bicyclists off of Houret Court that provides access to McCandless Park. (M 1.1)	Engineering	Mid-term	McCandless District
IM 34	Construct roads to connect Sango Court to Jubilee Drive and Tarob Court. (M 1.1)	Engineering	Mid-term	Tango District
IM 35	Extend the existing trails along Penitencia Creek and the railroad tracks in the McCandless and Tango Districts to the Milpitas Transit Center, and provide connections from the neighborhood to the trail system as indicated. (M 1.1, M 5.1, M 5.2)	Public Works	Mid-term	McCandless District, Tango District
IM 36	Construct trails adjacent to Berryessa Creek in the Innovation District. (M 1.1, M 5.2)	Public Works	Mid-term	Innovation District
IM 37	Pave city-owned trails with multi-weather, permeable surfacing. (PA 1.1.1)	Public Works	Mid-term	Areawide
IM 38	Coordinate with Santa Clara Valley Water District to develop a creek trail system that connects with the citywide pedestrian and bicycle network. (M 5)	Planning, Engineering	Long-term	Areawide
IM 39	Work with private developers to construct new roads as identified in the Circulation Map (Figure 4-6) that comply with the Plan's design standards for different street types. (M 1, M 2, M 3, M 4)	Planning, Engineering	Long-term	Areawide
IM 40	Improve the Great Mall Parkway and Main Street intersection (M 2.2)	Engineering, Public Works	Long-term	Main Street
IM 41	Work with Santa Clara County Roads to complete improvements on Montague Expressway (M 2.4)	Engineering, Public Works	Long-term	Areawide
IM 42	Complete multimodal street improvements on Trade Zone Boulevard (M 2.5)	Engineering, Public Works	Long-term	Tango District

IM 43	Consult with the Union Pacific Railroad and the Public Utilities Commission prior to any improvements to segments of Milpitas Boulevard, Capitol Avenue, and Montague Expressway that include at-grade rail crossings, to determine if improvements to existing at-grade highway-rail crossings are warranted. (M 6.5)	Engineering, Public Works	Long-term	Areawide
IM 44	<p>Provide pedestrian connections between the following districts using the TADIF:</p> <p>Tango District: Provide an at-grade bridge across East Penitencia Creek to connect Mattos Mabel Elementary and expand existing safe walking and bicycling routes to schools into the Milpitas Metro Area. (SD 2)</p> <p>Tango to McCandless District: Provide a pedestrian overcrossing bridge across Montague Expressway at Penitencia Creek East. (SD 2.4)</p> <p>Innovation District: Connect the Milpitas Transit Center to the Innovation District with an at grade bridge over Berryessa Creek. (SD 4.3)</p> <p>Enhance at-grade pedestrian crossings at S. Milpitas Blvd Extension and Capitol Avenue, McCandless and Great Mall Parkway, and at Great Mall Parkway and Main Street. (M 9)</p> <p>Provide an overhead pedestrian connection between the Great Mall LRT Station and the corner of Main and Great Mall Parkway. (M 2.2.5)</p> <p>(Desired) Provide a safe and attractive overhead or underground pedestrian route from the Piper District to the Great Mall across the BART tracks. (M 9, SD 1)</p> <p>(Desired) Provide an at-grade connection between Great Mall District and the neighborhood adjacent to the north. (M 9, SD 1)</p> <p>(Desired) Provide an at-grade connection between Innovation District and neighborhoods to the south. (SD 4)</p>	Engineering	Long-term	Areawide

	(Desired) Provide a pedestrian connection across Lower Penitencia Creek from McCandless District to Main Street. (SD 3.1)			
	(Desired) Provide a new overhead bridge over Capitol Avenue connecting the Transit Center Light Rail Station to the south side of Capitol Avenue at South Milpitas Boulevard. (M 9, SD 2.1)			
Infrastructure and Public Service Improvements				
IM 45	For infrastructure and public services implementation, refer to policies in Chapter 5: Infrastructure.			
IM 46	Identify potential partners that are local, regional, and/or private to coordinate regional improvements and share costs. (M 2.4, ICS 3.8, ICS 3.9, ICS 4.3)	Planning, Engineering	Ongoing	Areawide
Development and Permitting				
IM 47	Update the TADIF to reflect changes in expected development, public investments and improvements, and transportation projects, including the Montague Expressway and Calaveras Boulevard Widening Project. (M 2)	Planning	Following Plan Adoption	Areawide
IM 48	Expand the TADIF boundaries to reflect the boundaries of the Metro Plan Area. (LU 1.2)	Planning	Following Plan Adoption	Areawide
IM 49	Work with property owners and developers to provide for unique and detailed consideration of development of significant large sites, such as the use of a Development Agreement to secure development rights and obligations that are consistent with the Plan generally and within the allowances of the governing environmental document. (PPS 4)	Planning	Ongoing	Great Mall District
IM 50	Work with large commercial energy customers, such as industrial uses, to promote use of clean energy. This could include focused collaboration on implementing the General Plan's solar promotion policies, rebates for on-site energy generation, or other innovative methods to reduce reliance on non-renewable energy. (CB 7)	Public Works	Ongoing	Areawide