



Contract Package 2 (CP2) Specific Construction Transportation Management Plan (CTMP) for West Portal Early Works

Issue Date:
05/30/2023

CSS Number:
GR-013126-1.04.E.1

Revision No.: 04



KIEWIT SHEAR TRAYLOR JV
CP2 TUNNEL AND TRACK

DOCUMENT REVISION RECORD

REVISION NUMBER	PURPOSE	DATE
Revision 00	CTMP1 – West Portal Early Works (Draft Final)	12-09-2022
Revision 01	CTMP1 – West Portal Early Works (Revised Draft Final)	01-16-2023
Revision 02	CTMP1 – West Portal Early Works (Final)	04-10-2023
Revision 03	CTMP1 – West Portal Early Works (Revised Final)	05-01-2023
Revision 04	CTMP1 – West Portal Early Works (Revised Final)	05-30-2023

APPROVALS:

As the KSTJV Design Manager for the BSVII Tunnel and Track Contract, I certify this submittal is in accordance with applicable clauses of the contract.

Eric Halvorson, Design Manager
Kiewit/Shea/Traylor Joint Venture

Date

Jon N. Andresen, Jr.
KST Civil Design Lead

Date

Jon Marshall
KST Engineer of Record

Date

TABLE OF CONTENTS

1.0	Introduction	1
1.1	Project Location	1
1.2	Project Team.....	1
1.3	BSVII FINAL CTMP.....	2
2.0	Construction Sequencing and Staging Plan.....	4
2.1	Construction Sequencing and Staging	4
2.1.1	Stage 1 – Site Grading	6
2.1.2	Stage 2 – Site Development.....	7
2.1.3	Stage 3 – Precast Plant and TBM Segment Storage Area.....	7
2.1.4	Stage 4 – TBM Shaft and Muck Bin Excavation.....	7
2.2	Construction Equipment and Material Layout.....	8
2.2.1	Field Offices and Parking	9
2.2.2	Interior Concrete Build-out Area	9
2.2.3	Precast Plant and TBM Segment Storage	9
2.2.4	Grout Plant.....	9
2.2.5	Shaft Support of Excavation (SOE) and Muck Bin	10
2.3	Detour Routes and Alternate Routes.....	10
2.4	Traffic Control Plans.....	10
2.5	Haul Routes	10
2.5.1	Holiday Work.....	11
2.5.2	Trucker Management Plan	11
2.5.3	Haul Hours	11
2.6	Warning Devices.....	14
2.7	Major Special Events	14
2.8	Inclement Weather	14
2.9	Impact on Local Business and Residents.....	14
2.9.1	Paypal Events Management Plan.....	14
2.10	Noise and Vibration Abatement.....	15
2.11	Concurrent Construction	15
2.12	Time of Construction	16
2.13	Public Information Requirements	17
3.0	Traffic Improvements and Operational Analysis.....	17

3.1	INTRODUCTION	18
3.2	Existing Conditions	18
3.3	Background Conditions	19
3.4	Project Conditions	20
3.5	Conclusions	25
4.0	Public Operation and Bus Operations.....	26
4.1	Bus Operations	26
4.2	Rail Transit Operations	26
5.0	Maintenance of Property Access	28
6.0	School Zone Safety Plan	28
7.0	Emergency Access and Response	30
7.1	Emergency Vehicle Access Plan.....	30
7.1.1	Protocol for Unanticipated Changes	31
7.2	Emergency Vehicle Response Plan	32
8.0	City Permit Requirements.....	33
9.0	List of Appendices	33

TABLES

Table 1 - Summary CTMP Contents.....	2
Table 2 - Construction Sequencing.....	4
Table 3 - Truck Volumes by Month.....	5
Table 4 - Key Site Facilities and Equipment.....	8
Table 5 - Concurrent Constructions.....	15
Table 6 - Proposed Work and Haul Hours.....	17
Table 7 - Project Intersections.....	18
Table 8 - Project Operational Analysis.....	21
Table 9 - Existing Bus Route.....	26
Table 10 - KST Emergency Contact.....	30
Table 11 - List of Emergency Contacts as of December 2022.....	31

FIGURES

Figure 1 - Vicinity Map.....	1
Figure 2 - Haul Routes.....	13
Figure 3 - Existing Transit Operations.....	
Error! Bookmark not defined.	
Figure 4 – Nearby Schools.....	29
Figure 5 - Emergency Service Area.....	32

APPENDICES

Appendix A – Site Layout, Sequencing and Staging Plan

Appendix B – Traffic Control Plans

Appendix C – Access to Businesses and Properties

Appendix D – Traffic Operation Data and Analysis

Appendix E – City Permit Requirements

ACRONYMS AND ABBREVIATIONS

ABBREVIATION	DEFINITION
BART	San Francisco Bay Area Rapid Transit
BMP	Best Management Practice
BSV	BART Silicon Valley
CP	Contract Package
CTMP	Construction Transportation Management Plan
CTMP1	Construction Transportation Management Plan for West Portal Early Works
EAT	External Affairs Team
ESCP	Emergency Services Coordination Plan
KST	Kiewit/Shea/Traylor
LOS	Level of Service
MMRP	Mitigation Monitoring and Reporting Program
SEIS / SEIR	Supplemental Environmental Impact Statement / Subsequent Environmental Impact Report
SOE	Support of Excavation
SWPPP	Storm Water Pollution Prevention Plan
TBM	Tunnel Boring Machine
TCP	Traffic Control Plan
UPRR	Union Pacific Railroad
VTA	Santa Clara Valley Transportation Authority

1.0 INTRODUCTION

Kiewit Shea Traylor Joint Venture (KST) is the design-build contractor for the VTA BART Silicon Valley II Extension Project, Contract Package 2 (BSVII CP2). KST has prepared this CP2 West Portal Early Works specific Construction Transportation Management Plan (CTMP1) for the construction activities described herein.

1.1 PROJECT LOCATION

The project site is referred to as “West Portal” or “Newhall Yard” and is located in the Cities of San José and Santa Clara. The site is bounded by I-880 to the east, Brokaw Road to the west, Union Pacific Railroad (UPRR) tracks to the south, and Champions Way, Newhall Drive and existing developments to the north.

The site will be utilized as the launch site for the tunnel boring machine (TBM) and staging area during construction. Once construction is complete, the site will be utilized as BART storage and maintenance facility.



Figure 1 - Vicinity Map

1.2 PROJECT TEAM

Owner: Valley Transportation Authority (VTA)

Design-Build Contractor: Kiewit Shea Traylor Joint Venture (KST)

Traffic Design Lead: KST and JMA Civil, Inc.

1.3 BSVII FINAL CTMP

This CTMP1 for CP2 West Portal Early Works is based on the program-wide Draft CTMP for BSVII, dated 9/10/2021, and covers all requirements set in the BSVII Draft CTMP. See **Table 1** below for a summary of contents in the BSVII Draft CTMP and corresponding contents in this CTMP1.

This CTMP1 pertains to the Early Works, which consists of establishing construction support facilities and work prior to the launch of the TBM, such as site grading, temporary utility installation, and construction of temporary field office buildings, precast concrete plant and grout plant.

As agreed in prior coordination meetings, KST will handle Early Site Preparation activities outside of CTMP1 due to the low expected construction traffic volumes (less than 50 trucks a day, operating during standard City work hours). These activities include clearing and grubbing, minor demolition, fence installation and portion of lime treatment. KST will closely coordinate all work with the Cities and obtain any necessary permits.

Also agreed in prior coordination meetings, this CTMP1 applies for construction works at West Portal, except for during events at PayPal Park; a separate “Event Management Plan” addressing hauling during PayPal event ingress/egress will be developed in the coming months in coordination with VTA, the Cities of San José and Santa Clara, and PayPal Park.

In addition, subsequent work after the launch of the TBM, such as tunnel boring and hauling of excavated materials (Muck), will be addressed in a subsequent CTMP.

Table 1 - Summary CTMP Contents

No.	BSVII Draft CTMP	CP2 Early Works Specific CTMP
1	Chapter 2 – Construction Sequencing	Chapter 2.0 - Construction Sequencing and Staging Plan
2	Section 3.1.1.1 – Vehicle, Bicycle and Pedestrian Traffic	N/A as no impact is anticipated. See Section 2.3
3	Section 3.1.1.2 – Allowed Road Closures and Lane Closure Requirements	N/A as no impact is anticipated. See Section 2.3
4	Section 3.1.1.3 – Private Property Access Requirements	N/A as no impact is anticipated. See Chapter 5.0 - Maintenance of Property Access and Appendix C - Access to Businesses and Properties
5	Section 3.1.1.4 – Detour Routes	N/A as no impact is anticipated. See Section 2.3
6	Section 3.1.1.5 – Public Transit / Bus Operations Impacts	N/A as no impact is anticipated. See Chapter 4.0 - Public Operation and Bus Operations
7	Section 3.1.2.1 – Construction Staging	Section 2.1 - Construction Sequencing and Staging
8	Section 3.1.2.2 – Concurrent Construction	Section 2.11 - Concurrent Construction
9	Section 3.1.2.3 – City Ordinances / Work Hours	Section 2.12 - Time of Construction

No.	BSVII Draft CTMP	CP2 Early Works Specific CTMP
10	Section 3.1.2.4 – Haul Routes	Section 2.5 - Haul Routes
11	Section 3.1.2.5 – Emergency Response	Chapter 7.0 - Emergency Access and Response
12	Section 3.1.2.6 – School Zone Safety	Chapter 6.0 - School Zone Safety Plan
13	Section 3.1.2.7 – Construction Parking	Section 2.1 - Construction Sequencing and Staging
14	Section 3.1.3 – Operational Requirements	N/A as no public roadway impact is anticipated. See Section 2.3 and 2.4
15	Section 3.1.4 – Contingency Plan	Chapter 7.0 - Emergency Access and Response
16	Section 3.1.5 – City of San José General Requirements	Work Hours – See Section 2.12 Haul Routes – See Section 2.5 Special Events – See Section 2.7 Downtown San José Requirements – N/A Required Permits – See Chapter 8.0
17	Section 3.1.6 – City of Santa Clara General Requirements	Work Hours – See Section 2.12 Haul Routes – See Section 2.5 Special Events – See Section 2.7 Required Permits – See Chapter 8.0
18	Section 3.2.7 – West Tunnel Portal Specific Requirements	Transit Routes – See Chapter 4.0 Haul Routes – See Section 2.5 PayPal Park Coordination – See Section 2.9; Separate “Event Management Plan” Private Property Access – See Chapter 5.0
19	Appendix A – Emergency Services Coordination Plan	Chapter 7.0 - Emergency Access and Response
20	Appendix B – Summary of Access and Service Needs Memorandum	Appendix C - Access to Businesses and Properties
21	Appendix C – San José Better Bike Plan 2025	N/A as no impact is anticipated. See Section 2.3
22	Appendix D – List of Ongoing and Planned Construction Projects	Section 2.11 - Concurrent Construction
23	Appendix E – San José Draft Activity Work Hours	Section 2.12 - Time of Construction
24	Appendix F – List of Events	N/A as no special events are impacted. See Section 2.7
25	Appendix G – Downtown Construction Guidelines	N/A as West Portal is outside of Downtown area
26	Appendix H – San José Permit requirements	Appendix E – City Permit Requirements

No.	BSVII Draft CTMP	CP2 Early Works Specific CTMP
27	Appendix I – Santa Clara Draft Activity Work Hours	Section 2.12 - Time of Construction
28	Appendix J – Santa Clara Permit Requirements	Appendix E – City Permit Requirements
29	Appendix K – San José Arena Transportation & Parking Management Plan	N/A as West Portal is outside of San José Arena area
30	Appendix L – Earthquakes Stadium Transportation & Parking Management Plan	Section 2.9 - Impact on Local Business

2.0 CONSTRUCTION SEQUENCING AND STAGING PLAN

This section summarizes construction sequencing and staging, and transportation impacts anticipated during the West Portal early works activities.

2.1 CONSTRUCTION SEQUENCING AND STAGING

The West Portal Early Works consists of establishing the construction yard for West Portal and is planned to begin in summer 2023 and last until winter 2024 to early 2025. Sequencing and staging for the Early Works is summarized below. An overall site layout plan is included in **Appendix A**.

See **Table 2** below for a summary of construction sequencing. As agreed in prior coordination meetings, KST will handle Early Site Preparation activities outside of CTMP1 due to the low expected construction traffic volumes (less than 50 trucks a day, operating during standard City work hours). These activities include clearing and grubbing, minor demolition, fence installation and portion of lime treatment. KST will closely coordinate all work with the Cities and obtain any necessary permits. In addition, work after Stage 4, such as tunnel mining and muck hauling, will be addressed in a subsequent CTMP.

Table 2 - Construction Sequencing

No.	Construction Activity	Period of Construction
Stage 1	Site Grading	Beginning Summer 2023 ¹ for 5 Months
Stage 2	Site Development	Beginning Summer 2023 ¹ for 9 Months
Stage 3	Precast Plant and TBM Segment Storage Area	Beginning 2023 ¹ for 13 Months
Stage 4	TBM Shaft and Muck Bin Excavation	Beginning Fall 2023 for 17 Months

Notes:

1. Stage 1-3 to begin immediately after the approval of the CTMP and associated permits.

Average and peak truck volumes per day for each month of construction are summarized in **Table 3** below. The estimated number of “Peak Days”, defined as greater than 250 trucks per day, is 5 days per month on average. KST will give the City of San Jose (traffic.signals@sanjoseca.gov) notice two days prior to anticipated peak truck volume days.

Table 3 **Error! Reference source not found.** - Truck Volumes by Month

Date	Average Daily Truck Volume (Trucks/Day)					Peak Truck Volume (Typical 5 days/month) (Trucks/Day)				
	Stage 1	Stage 2	Stage 3	Stage 4	Total	Stage 1	Stage 2	Stage 3	Stage 4	Total
Month 1	73	8	1	0	82	200	20	40	0	260
Month 2	73	8	1	0	82	200	20	40	0	260
Month 3	73	8	37	21	139	200	20	80	40	340
Month 4	73	0	37	21	131	200	0	100	40	340
Month 5	73	2	37	21	133	200	10	90	40	340
Month 6	73	2	37	0	112	200	10	130	0	340
Month 7	0	2	27	0	29	0	50	170	0	220
Month 8	0	2	27	79	108	0	50	170	120	340
Month 9	0	2	27	82	111	0	10	100	230	340
Month 10	0	0	27	113	140	0	0	100	240	340
Month 11	0	0	27	113	140	0	0	100	240	340
Month 12	0	0	27	113	140	0	0	100	240	340
Month 13	0	0	27	113	140	0	0	100	240	340
Month 14	0	0	0	32	32	0	0	0	60	60
Month 15	0	0	0	32	32	0	0	0	65	65
Month 16	0	0	0	32	32	0	0	0	65	65
Month 17	0	0	0	32	32	0	0	0	65	65
Month 18	0	0	0	32	32	0	0	0	65	65
Month 19	0	0	0	32	32	0	0	0	65	65

Notes:

Truck volumes include excavation and off-haul for site grading, imported fill material, deliveries of raw materials such as cement and aggregate, and deliveries of equipment, etc.

2.1.1 Stage 1 – Site Grading

In this stage, KST will establish main site entrance off Newhall Drive, and continue lime treatment and grading, generally from the southeast to the northwest. Key construction activities are summarized below; plans showing the site grading is included in **Appendix A**.

- Relocation of a storm drain inlet, a sanitary sewer manhole and a backflow preventer near Newhall Drive.
- Establishment of construction entrances off Newhall Street, Newhall Drive and Brokaw Road.
- Approximately 34,000 cubic yards of excavation and off-haul.
- Approximately 85,000 cubic yards of imported fill.
- Remainder of lime treatment not performed during Early Site Preparation.
- Compaction of the subgrade.
- Installation of temporary utilities.

The 34,000 cubic yards of off-haul and 85,000 cubic yards of imported fill require approximately 12,000 total truck trips.

Due to the level of site preparation required at the site, KST plans to distribute 75 percent of construction hauling vehicles through the main entrance on Newhall Drive; the rest will enter through the entrance on Brokaw Road. The entrance off Brokaw Road is required to minimize truck queuing at the Newhall Drive entrance. Both the Newhall Drive access and the Brokaw Road access are required access points for construction activities. However, each provides a point of ingress and egress in case one of the entrances is blocked due to unforeseen circumstances.

On Peak days Brokaw handles 85 trucks a day, which is 25 percent of 340 peak day trucks. If unforeseen circumstances do occur on Newhall to render it restricted or unusable, trucks would be queued onsite such that Brokaw would not see more than the typical peak of 85 trucks a day. The distribution between the Newhall Drive and Brokaw Road entrances is estimated based on the site layout and construction activity, but Brokaw will be limited to 85 trucks per day as a peak as a maximum for any stage of Early Works Construction.

Conversely, on peak days Newhall handles 255 trucks a day, which is 75 percent of 340 peak day trucks. If unforeseen circumstances block Brokaw, trucks would be queued or reduced such that Newhall would not see more than the typical peak of 255 trucks per day.

The anticipated maximums for average daily trucks is 73 and for peak daily trucks is 200 for stage 1.

The trucking operations will be managed by the KST Truck Boss and as described in section 2.5.2 for all stages.

Construction entrance/exit, vehicle wash out area and other storm water pollution prevention BMPs will be in place. All queuing and stockpile locations will be contained within the construction site; see **Appendix A** for additional details. Average and peak truck volumes per day for each month of construction are shown in **Table 3** Error! Reference source not found.. The grading activity is estimated to require up to 200 trucks per day during peak days.

2.1.2 Stage 2 – Site Development

In this stage, KST will finish the development of the site, generally from the southeast to the northwest. Key construction activities are summarized below; plans showing the site development is included in **Appendix A**.

- Construction of additional site roads and parking.
- Installation of temporary office trailers.
- Installation of temporary utilities and connecting to offices.

Approximately 75 percent of construction vehicles will enter through the main entrance on Newhall Drive; the rest will enter through the entrance on Brokaw Road. All queuing and stockpile locations will be contained within the construction site; see **Appendix A** for additional details. Average and peak truck volumes per day for each month of construction are shown in **Table 3** Error! Reference source not found..

The anticipated maximum for average daily trucks is 8 and for the peak daily trucks is 50 for stage 2.

2.1.3 Stage 3 – Precast Plant and TBM Segment Storage Area

In this stage, KST will construct the precast plant and storage area for the TBM segments. Key construction activities are summarized below; plans showing the construction of precast plant and TBM segment storage area is included in **Appendix A**.

- Surcharging precast plant and TBM segment storage area.
- Installation of precast plant utilities.
- Construction of plant, gantry crane and storage area foundations and slabs.
- Installation of plant building and equipment.
- Test production of the precast plant.

Approximately 75 percent of construction vehicles will enter through the main entrance on Newhall Drive; the rest will enter through the entrance on Brokaw Road. All queuing and stockpile locations will be contained within the construction site; see **Appendix A** for additional details. Average and peak truck volumes per day for each month of construction are shown in **Table 3** Error! Reference source not found..

The anticipated maximums for average daily trucks is 37 and for the peak daily trucks is 170 for stage 3.

2.1.4 Stage 4 – TBM Shaft and Muck Bin Excavation

In this stage, KST will excavate the tunnel boring machine (TBM) shaft and muck bin and assemble the TBM. Key construction activities are summarized below; plans showing the TBM shaft and muck bin excavation, and TBM assembly are included in **Appendix A**.

- Construction of interior concrete build-out area and grout plant.

- Muck bin excavation (soldier piles, excavation and construction of MSE wall and liner).
- Construction of SOE starter wall.
- Construction of Support of Excavation (SOE) slurry walls (confinement walls, TBM shaft walls, and ramp walls).
- TBM shaft and ramp excavation (Caterpillar beams and excavation).
- Construction of TBM shaft concrete.
- Construction of TBM crane pad.
- Construction of TBM supporting facilities.
- Assemble the TBM.

Approximately 75 percent of construction vehicles will enter through the main entrance on Newhall Drive; the rest will enter through the entrance on Brokaw Road. All queuing and stockpile locations will be contained within the construction site; see **Appendix A** for additional details. Average and peak truck volumes per day for each month of construction are shown in **Table 3** Error! Reference source not found.. The excavation of the TBM shaft and ramp is estimated to require up to 200 trucks per day during peak days.

The anticipated maximums for average daily trucks is 113 and for the peak daily trucks is 240 for stage 4.

The subsequent tunnel excavation and muck hauling is not part of the Early Works and will be discussed in a separate CTMP

2.2 CONSTRUCTION EQUIPMENT AND MATERIAL LAYOUT

This section summarizes the construction equipment and material layout once the West Portal construction yard has been established. See **Table 4** below for a summary of key site facilities and equipment. See **Appendix A** for site layout plan.

Table 4 - Key Site Facilities and Equipment

No.	Site Facility/Equipment	Stage of Construction
1	Field Offices and Parking	Stage 2 – Site Development
2	Interior Concrete Build-out Area	Stage 4 – TBM Shaft and Muck Bin Excavation
3	Precast Plant and TBM Segment Storage	Stage 3 – Precast Plant and TBM Segment Storage Area
4	Grout Plant	Stage 4 – TBM Shaft and Muck Bin Excavation
5	Shaft Support of Excavation (SOE) and Muck Bin	Stage 4 – TBM Shaft and Muck Bin Excavation

2.2.1 Field Offices and Parking

Employee parking will be provided at the southeast end of the site with approximately 300 parking stalls. Vehicles will enter and exit through two entrances on Newhall Street.

Field office trailers will be installed north of the employee parking area. There will be approximately 20,000 square feet of office space and 7 dry houses measuring 12'x40' each. Temporary utility services, including portable water, sanitary sewer, electrical and communications will be provided to the office trailers.

At the peak for Early Works construction, there will be approximately 120 craft employees and approximately 100 staff. Craft workers in the day shift typically arrive at 5:30 – 6:00 AM and leave from 4:00 to 4:30 PM. Craft workers in the night shift typically arrive from 4:00 to 4:30 PM and leave 4:00 to 4:30 AM. Staff workers typically arrive from 5:00 to 7:30 AM and leave from 3:30 to 6:30 PM.

The Early Works construction activities will require approximately 220 parking stalls, compared to the 300 parking stalls provided. The parking stalls will remain for major construction (such as tunnel mining and muck hauling), when approximately 300 parking stalls will be required. Major construction activities are addressed in a separate CTMP.

2.2.2 Interior Concrete Build-out Area

The interior concrete build-out area is located at the northeast edge of the site, measuring approximately 125'x400'. The area is used to store materials for the tunnel construction, such as rails. Small mechanical shop, electrical shop, warehouse and drums are also located adjacent to the concrete build-out area.

When materials are received they will be unloaded and stockpiled at the interior concrete build-out area. The site roads are designed so that truck queuing and loading/unloading along the interior concrete build-out area will not impact traffic circulation within the site. No material stockpiling or truck queuing will take place outside the construction yard.

2.2.3 Precast Plant and TBM Segment Storage

The precast plant is located at the northeast edge of the site, north of the interior concrete build-out area. When in full production the precast plant will have a capacity of 10 tunnel liner rings/day. The precast tunnel segments will then be transferred to the TBM segment storage area, located between the interior build-out area and the precast plant, measuring approximately 120'x1,020'. The TBM segments will be stacked on strip footing and loaded/unloaded by a gantry crane.

All processes relating to the precast plant production will be fully contained within the construction yard.

2.2.4 Grout Plant

The grout plant is located at the southwest edge of the site across the site road from the precast plant. When in full production the grout plant will have a capacity of 50 cubic yards per hour. The grout will be loaded/unloaded at designated areas adjacent to the plant. There are also small storage containers and other equipment in this area.

All processes relating to the grout plant production will be fully contained within the construction yard.

2.2.5 Shaft Support of Excavation (SOE) and Muck Bin

The TBM Shaft is located at the southwest edge of the site, south of the grout plant and across the site road from the interior build-out area. When in operation excavated material (muck) will be carried out by a conveyor system and stored in the muck bin, located between the shaft and the grout plant. Muck will be loaded to truck around the muck bin perimeter and hauled off site. The muck hauling and other construction activities when the construction yard is in full operation will be covered in a separate CTMP as this CTMP is applicable to the Early Works only.

2.3 DETOUR ROUTES AND ALTERNATE ROUTES

Detour routes and alternate routes are not anticipated for West Portal Early Works at this time as no long-term lane closures are anticipated, since all construction activities, queuing and staging will be within the West Portal site. The traffic operational analysis presented in **Section 3.0** shows minimal effects on LOS due to construction traffic at the existing signalized intersections.

All pedestrian, bicycle and vehicular facilities will be maintained throughout the construction; no sidewalk, shoulder or lane closures are currently anticipated.

2.4 TRAFFIC CONTROL PLANS

Long-term traffic control plans are not anticipated for West Portal Early Works at this time as no sidewalk, shoulder or lane closures are currently anticipated. Installation of temporary utilities may require temporary lane closures which lasts a few hours to a couple of days; traffic control plans will be provided accordingly once construction plan for temporary utilities have been established.

2.5 HAUL ROUTES

The Haul routes applicable to West Portal are shown in **Figure 2**, which were established in the Draft CTMP. Approximately 75% of construction vehicles will enter the site via Newhall Drive; the remainder will enter via Brokaw Road. The entrance off Brokaw Road is required to minimize truck queuing at the Newhall Drive entrance.

Both the Newhall Drive access and the Brokaw Road access provide required points of ingress and egress for the construction traffic. In case one of the entrances is blocked due to unforeseen circumstances the other can act as the sole point of entry to the site. On Peak days Brokaw handles 85 trucks a day, which is 25 percent of 340 peak day trucks.

If unforeseen circumstances occur on Newhall to render it restricted or unusable, trucks would be queued onsite or some hauling might be halted, such that Brokaw would not see more than the typical peak of 85 trucks a day. The distribution between the Newhall Drive and Brokaw Road entrances is estimated based on the site layout and construction activity, but Brokaw will be limited to 85 trucks per day as a peak as a maximum.

Similarly should an unforeseen event render Brokaw unusable, trucks will queue onsite and be directed to Newhall while maintaining the peak truck traffic of 255 trucks (which is 75 percent of 340 peak daily trucks).

KST also proposes to develop a “traffic contingency plan” with the City of Santa Clara and the City of San Jose that details the lines of communication and processes that would be followed in case either the intersection at Brokaw or at Newhall Drive are blocked due to unforeseen circumstances. This plan would be coordinated and developed prior to peak traffic operations.

All trucks will originate or leave from I-880 via Coleman Ave.

KST has conducted Pre Construction Surveys in accordance with the VTA Contract.

The proposed hauling hours are discussed in **Section 2.5.3**.

Hauling during PayPal events will be addressed in separate “Event Management Plan”.

2.5.1 Holiday Work

There will be no hauling on major holidays (Day Before Thanksgiving, Thanksgiving Day, Christmas Eve, Christmas Day, New Year’s Eve, New Year’s Day, Memorial Day, Independence Day and Labor Day) as no construction work is anticipated on those days, unless emergency work is required on-site.

2.5.2 Trucker Management Plan

KST will develop and implement a plan to manage the truck drivers using the approved haul routes related to completing the construction of this project. A summary of the plan will include:

- Truck Boss to manage trucking activities
- Trucker Pre Construction Meetings
- Signage at all exits to the site directing the trucks to I-880
- Active Management by KST during construction
- Trucker Flash Cards to be referred to in cab to reinforce haul routes

KST will monitor the truck volumes on days of peak truck traffic, change of construction activities, and major holidays and events to ensure that truck volumes do not exceed the expected volumes. This will ensure desired split between Newhall Drive and Brokaw Road is achieved. KST control processes to validate truck volumes and provide information that trucks are using the proper entrances will be shared with the City upon request.

2.5.3 Haul Hours

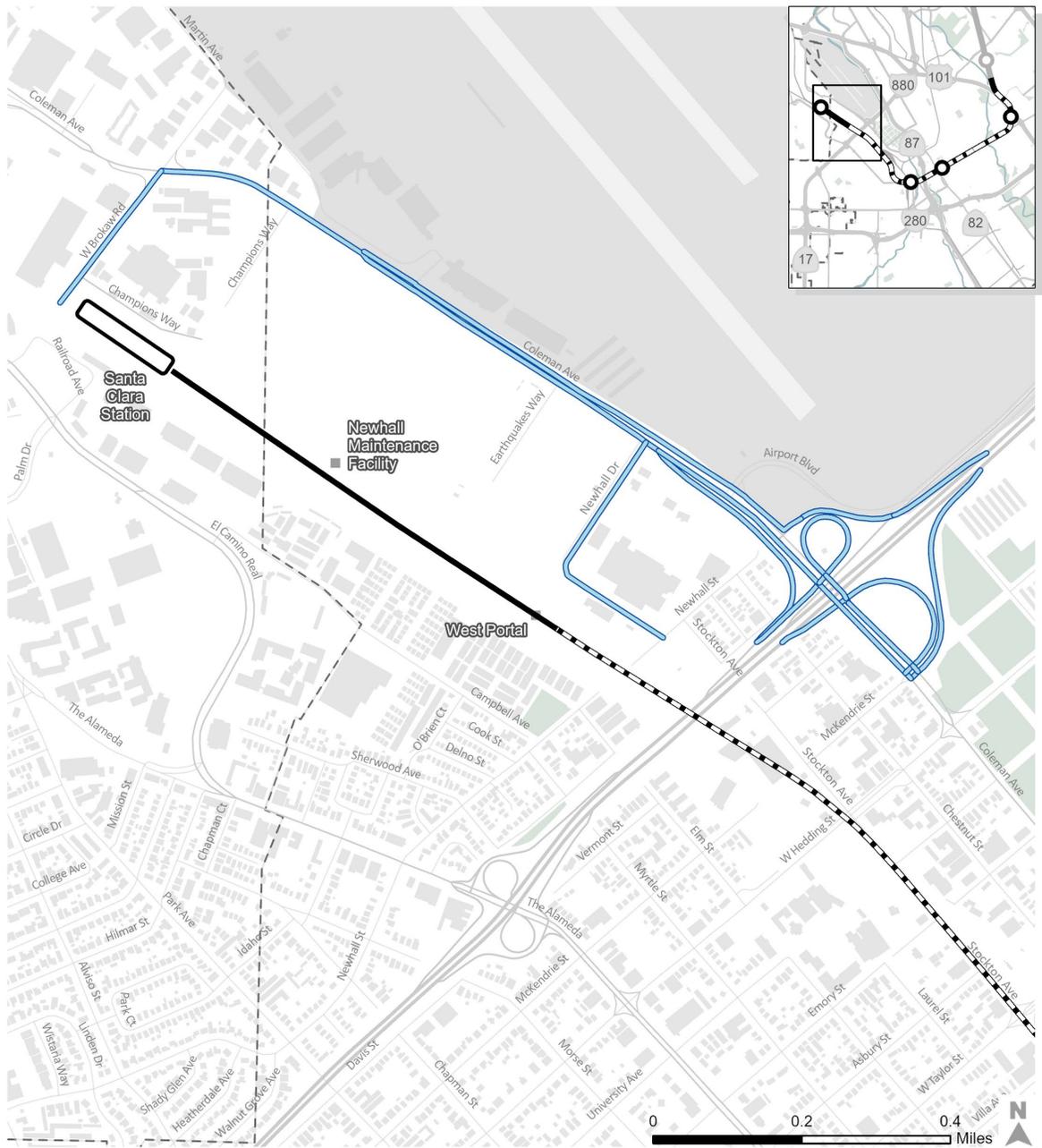
For most of the construction activities the haul hours will match work hours; see **Table 6**. Typical single-shift construction hauling activity lasts from 6AM to 4PM, for 10 hours, and 6 days a week (Monday to Saturday).

Certain construction activities will be double shift to meet the construction schedule. Among these double shift activities, TBM assembly and starting production of the precast plant only require hauling during the day shift, from 6AM to 4PM. Materials will be double-handled, which require that the materials for the night shift be delivered during the day and stockpiled on-site.

KST expects the TBM Shaft and Ramp Excavation to require hauling during both day and night shifts, from 6AM to 4AM. The Support of Excavation – Slurry Walls construction activity will also require hauling during both shifts during times of heightened construction periods.

The Synchro analysis completed as a part of this CTMP does not indicate an impact to morning AM traffic due to hauling, but KST will work closely with trucking companies to determine if there is a potential to reduce hauling between the 7 AM and 9 AM rush hour traffic period.

Approval of this CTMP by the City of San José and the City of Santa Clara and any revisions thereafter shall also constitute approval of the work and haul hours as presented in **Table 6**.



- Phase II Stations
- Other Project Elements
- Truck Route
- Phase II Ground-Level
- Phase II Single-Bore Tunnel Alignment

Original Source: Final SEIS/SEIR,
 Chapter 5 (Hexagon, 2016)

Haul Routes Near Project Elements West Portal

Figure 2 - Haul Routes

2.6 WARNING DEVICES

C44 (CA) “TRUCKS ENTERING EXITING” warning sign will be placed at key locations; see **Appendix B** for plans. Other warning devices or signs are not anticipated at this time due to no traffic control plans (TCP) being currently identified, as detour routes or alternate routes are not anticipated. When additional TCP and warning devices are identified, they will be provided in **Appendix B**.

2.7 MAJOR SPECIAL EVENTS

KST has reviewed major special events listed in the Draft CTMP Appendix F and identified no City events (such as marathons) that will be impacted by the West Portal Early Works construction. KST will continue to coordinate with VTA, City of San José and City of Santa Clara to minimize potential impacts from construction activities.

2.8 INCLEMENT WEATHER

KST will continuously monitor the weather condition and identify potential inclement weather at least one week in advance. KST will identify responses to inclement weather that has the potential to impact construction activities.

A Construction Storm Water Pollution Prevention Plan (SWPPP) is prepared by KST separately from this CTMP, where Best Management Practices (BMPs) will be specified to prevent pollution or erosion due to rain events; it also specifies detailed monitoring requirements and rainfall action plans.

2.9 IMPACT ON LOCAL BUSINESS AND RESIDENTS

KST has reviewed the list of local businesses in the Draft CTMP Appendix B. Impact on local businesses is not anticipated from West Portal Early Works.

A list of local businesses in the vicinity of the West Portal site interviewed by VTA in 2021 is included in **Appendix C**. KST also included an exhibit showing the driveway locations of nearby properties. No driveways are anticipated to be impacted by West Portal Early Works. KST recognizes that Newhall Drive is the only ingress/egress route for the residential area near the south end of the project site. No impacts to the residents are expected as Newhall Drive and Newhall Street will remain open at all times during construction.

2.9.1 Paypal Events Management Plan

In addition, KST will continuously monitor events at PayPal Park through coordination facilitated by VTA and minimize potential impacts from construction activities. KST will generate a Paypal Events Management Plan to determine trucking activity in relation to events to mitigate, as best as possible, the impacts to both the event and the project.

KST has reviewed the Earthquakes Stadium (now PayPal Park) Transportation and Parking Management Plan and does not anticipate any conflicts between the construction traffic and the plan.

2.10 NOISE AND VIBRATION ABATEMENT

KST has completed a pre-construction noise assessment to establish ambient noise conditions around the site. A Noise and Vibration Control Plan is currently being prepared, separate from this CTMP, to specify noise reduction and mitigation measures to ensure that surrounding land uses will not be impacted by construction noise. Noise will be monitored in the community during construction continuously to demonstrate compliance with the project noise thresholds.

KST will coordinate with City of San José and City of Santa Clara for nighttime work variances. Nighttime construction is expected to be within City of San José only and nighttime hauling is expected to be within both cities. See **Table 6** for construction activities requiring nighttime work and hauling.

2.11 CONCURRENT CONSTRUCTION

KST has reviewed the concurrent constructions listed in Draft CTMP Appendix D and identified projects in the vicinity of the West Portal site, and confirmed with the Cities that this is a complete list of concurrent constructions known to date. KST will continue to coordinate with the Cities on any additional future concurrent construction activities.

A list of concurrent constructions is included in **Table 5**.

Table 5 - Concurrent Constructions

No.	Planned Construction Date	Project	Location	Notes
1	-	California High Speed Rail	Southwest of Newhall Yard (Caltrain Tracks)	No impact expected. Per San José to Merced Final EIR/EIS certified by the CA High Speed Rail Authority in April 2022, Alternative 4 - Blended at-grade is selected, which includes no construction near West Portal. The San Francisco - Central Valley segment is expected to be in operation in 2031 Per Authority's 2022 business plan. No construction date has been confirmed but it is likely after West Portal construction activities.
2	-	Caltrain Electrification Project (CalMod)	Southwest of Newhall Yard (Caltrain Tracks)	No impact expected. The Caltrain Electrification project is expected to be limited to within the existing Caltrain corridor.
3	-	Diridon Integrated Station Concept (DISC) Plan	Diridon Station, San José	No impact expected. The DISC is expected to be applicable to Diridon Station only.

No.	Planned Construction Date	Project	Location	Notes
4	2027	Airport Connector	San José Mineta International Airport to Diridon Station	No impact expected.
5	2023	Aviation Ave Repaving	Aviation Ave from Coleman Ave to North End	The repaving may affect the intersection of Aviation Ave and Coleman Ave.
6	2023	Martin Ave Repaving	Martin Ave from Brokaw Rd to Reed St	Trucks for the repaving may enter and exit at the intersection of Coleman Ave and Brokaw Rd.
7	Under Construction	Gateway Crossings	1205 Coleman Avenue, Santa Clara	No impact expected. Bounded by Brokaw Rd, Coleman Ave and Champions Way.
8	2023	Coleman Highline	1125 Coleman Avenue, San José	No impact expected. Bounded by driveway to 1199 Coleman Ave, Coleman Ave and Aviation Ave.

2.12 TIME OF CONSTRUCTION

KST has reviewed the potential work hours listed in Draft CTMP Appendix E and proposes the following work and haul hours as summarized in **Table 6**. The approval of this CTMP by the City of San José and the City of Santa Clara shall also serve as approval of the work and haul hours stated within this document or any accepted revision thereafter.

Typically, work that requires concrete pours are double shifted including hauling hours to match so that concrete can be delivered continuously during the pour. Once a concrete pour begins it must continue until the pour is completed and cannot stop midway into the activity.

Table 6 - Proposed Work and Haul Hours

Early Work Activities	Single Shift	Double Shift	Work Hours	Haul Hours
Stage 1 – Site Grading (Beginning Summer 2023, 6 Months)				
Site grading	X		6AM – 6PM	6AM – 4PM
Stage 2 – Site Development (Beginning Summer 2023, 9 Months)				
Construction of site roads	X		6AM – 6PM	6AM – 4PM
Installation of site offices	X		6AM – 6PM	6AM – 4PM
Stage 3 – Precast Plant and TBM Segment Storage Area (Beginning Summer 2023, 13 Months)				
Construction of precast plant	X		6AM – 6PM	6AM – 4PM
Stage 4 – TBM Shaft and Muck Bin Excavation (Beginning Fall 2023, 17 Months)				
Muck bin excavation	X		6AM – 6PM	6AM – 4PM
Support of excavation – slurry walls		X	6AM – 4AM	6AM – 4AM
TBM shaft and ramp excavation		X	6AM – 4AM	6AM – 4AM
TBM shaft concrete pour		X	6AM – 4AM	6AM – 4AM
TBM supporting facilities	X		6AM – 6PM	6AM – 4PM
TBM assembly		X	6AM – 4AM	6AM – 4PM
Start production of the precast plant		X	6AM – 11PM	6AM – 4PM
Construction of interior concrete build-out area and equipment foundations	X		6AM – 6PM	6AM – 4PM
Construction of grout plant	X		6AM – 6PM	6AM – 4PM

Notes:

1. Construction activities will be 6 days a week.

2.13 PUBLIC INFORMATION REQUIREMENTS

Locations of the signs are presented in **Appendix B**. Additional Project identification will be provided once requirements are developed by VTA.

3.0 TRAFFIC IMPROVEMENTS AND OPERATIONAL ANALYSIS

This section summarizes the general construction transportation management requirements for both the Cities of San José and Santa Clara to ensure the traffic generated by construction does not negatively impact the project area corridors and surrounding communities.

3.1 INTRODUCTION

Traffic data and signal timing databases were collected to develop project Synchro models – year 2023 existing conditions, year 2023 average truck traffic, year 2023 peak truck traffic, year 2024 background, year 2024 average truck traffic, and year 2024 peak truck traffic. These models were developed using assumptions and information as presented in other sections of this document, as well as information from relevant nearby developments scheduled to implement prior to this project (Gateway Crossings and Coleman Highline).

Measures of effectiveness (MOEs) such as intersection level of service (LOS), intersection delay, and queuing were extracted to determine future operations of the project area’s signalized intersections and to develop mitigation measures as needed to ensure minimal impact and disruption to the transportation network in the project area. See **Table 8** for delay and LOS results; see **Appendix D** for overall detailed delay, LOS, and queuing results, a queuing analysis related to PayPal Park events, as well as traffic volumes and supporting documentation. Project staff will make periodic observations at the project area intersections, both signalized and unsignalized, to ensure acceptable operations continue.

3.2 EXISTING CONDITIONS

Traffic turning movement counts were field collected Thursday November 3, 2022 for both the AM and PM peak periods, Tuesday March 7, 2023 for the Mid-day peak period, and Saturday March 4, 2023 for the weekend peak period at the intersections listed in **Table 7** below. Growth rates were used to adjust the volumes in the models accordingly based on the year collected as discussed under Background Conditions. Additional locations were also collected at the same time to better understand traffic patterns in the project area but were not specifically used in the traffic operations analysis. KST has reviewed the peak hour movements in the field to verify them.

Table 7 - Project Intersections

No.	Primary	Secondary
A1	Coleman Ave.	Brokaw Rd.
A2	Coleman Ave.	Champions Way
A3	Coleman Ave.	Aviation Ave.
A4	Coleman Ave.	Earthquakes Way
A5	Coleman Ave.	Newhall Dr.
A6	Coleman Ave.	Airport Blvd.
A7	Coleman Ave.	I-880 SB Ramp
A8	Coleman Ave.	I-880 NB Ramp / McKendrie St.
A9	Coleman Ave.	Hedding St.
A10	Brokaw Rd.	Costco

Current intersection traffic turning movement counts were compared to pre-COVID historical counts provided by the local agencies. The counts were somewhat comparable, with the exception of the morning peak direction along Coleman Ave. This can be attributable to factors such as an increase in work-from-home and changes in travel patterns. Traffic volumes are not anticipated to return to pre-COVID levels within the timeframe of this Early Works operation.

Current traffic signal timing data was downloaded from the controllers by the Cities of San José and Santa Clara and provided to the KST team. At the intersections listed above, the morning peak is running a 140 second cycle length, and the PM peak is running a 130 second cycle length. The project area intersections run a free operation during the Mid-day peak and on Saturday, except that the intersection of Coleman Ave. & Brokaw Rd. runs a 110 second cycle length during the weekday Mid-day. The project area signalized intersections are running a traffic adaptive system, except at the intersections of Coleman Ave. & Champions Way and Coleman Ave. & Brokaw Rd. (Brokaw Rd. & Costco Driveway will be signalized by others no later than mid-2024, which will also not be an adaptive system), so cycle lengths, offsets, and splits may ultimately vary.

Field intersection and corridor information was gathered through various sources such as online aerials, street views (verified to be recent), and project personnel who frequent the area.

The traffic counts, traffic signal timing information, and field characteristics were used to develop an existing conditions traffic model using the software package Synchro/SimTraffic v11. Models were developed for the AM, Mid-day, PM, and Saturday Mid-day peak periods as determined by the traffic count data. Model outputs for existing conditions were calibrated and validated with field observations. Measures of Effectiveness (MOEs) gathered from the model output include the intersection levels of service (LOS), intersection delay (in seconds), individual approach LOS and delay, and 95th-percentile queue lengths. Results from the existing conditions analysis can be found in Section 3.4 Project Conditions, with supporting documentation in **Appendix D**.

3.3 BACKGROUND CONDITIONS

Background models were developed for the AM, Mid-day, PM, and Saturday Mid-day peak periods using the existing conditions models as a base, and then inputting a 1.02 or 1.04 growth factor (2% per year growth rate) to develop future year 2024 volumes and operational MOEs. Projected traffic volumes generated by nearby developments (Gateway Crossings and Coleman Highline) have been included in the year 2024 background and project conditions. Various significant mitigation elements associated with these developments have been included in the modeling, such as the widening of Coleman Ave. just south of Brokaw Rd., the widening of Brokaw Rd. west of Coleman Ave., intersection and traffic signal improvements at Coleman Ave. & Brokaw Rd., and a new traffic signal installation at Brokaw Rd. & Costco driveway. See **Appendix D** for additional information on the traffic generated by these nearby developments that was included in this modeling.

The year 2024 is expected to see the height of the Early Works site work. Signal timing (splits and offsets) was adjusted at the City of San Jose intersections for the year 2024 background and project conditions models to minimize delay and queuing. Signal timing at City of Santa Clara

intersections remained relatively unchanged, with only the Brokaw Rd. splits having been adjusted due to the new split phase setup planned as part of the Gateway Crossings development mitigation efforts. The variability in delay and LOS shown in Table 8 is partially due to these signal timing changes, as well as included external project mitigation.

Results from the background conditions analysis can be found in Section 3.4 Project Conditions, with supporting documentation in **Appendix D**.

3.4 PROJECT CONDITIONS

Project conditions were analyzed using the year 2023 existing and 2024 background models as a base and developing separate year 2023 and 2024 average and peak truck traffic models. Average and Peak project truck volumes as shown in Table 3 (140 trucks and 340 trucks per day, respectively) were distributed through the network (at an hourly scale). Truck volumes were spread uniformly across the hauling hours to determine average and peak truck volumes. These volumes were used to represent a worst-case condition. Brokaw Road was assigned 25% of the truck traffic and Newhall Dr. was assigned 75% of the truck traffic. The 10% non-PayPal 2023 and 2024 Average Trucks operation for the weekend mid-day was also checked. Intersections in between and along the haul route were assigned increases in truck traffic to their respective through and left turn movements. **Appendix D** contains additional information regarding the truck traffic distribution and assignment.

A queuing analysis was completed for the Coleman Ave. & Newhall Dr. intersection to show what impacts, if any, may happen if truck hauling occurs during a weekday evening (Wednesday) or weekend evening (Saturday) PayPal Park event. The intersection was modeled in Trafficware's Synchro software using current intersection geometrics, event signal timing patterns, and typical event volumes as collected by the City of San José. This analysis looked at potential effects to queuing at the intersection, particularly the northbound left and eastbound right turns, during the ingress and egress conditions. Based on the queue analysis, it is concluded that the addition of project trucks does not lead to a significant increase in queuing over normal PayPal Park operations during the weekday or weekend ingress or egress events. The detailed analysis, including assumptions and results, are included in **Appendix D**.

Traffic volumes due to staff and craft workers arriving and leaving the site are also included in the analysis with the following assumptions:

1. Staff and Craft volumes were added to the four PM Peak Synchro project models (2023 Average and Peak Trucks, 2024 Average and Peak Trucks).
2. The Staff and Craft volumes used were the CTMP1 Early Works 120 Craft and 100 Staff (reduced to 33% or 33 vehicles due to dispersed staff release) for a total of 153 vehicles.
3. Since the PM peak period includes a shift change, the revised models include the Staff and Craft leaving as well as the Craft arriving utilizing Newhall Dr.
4. The volume distribution used was the same as the Coleman Highline development report, with 33% going to the north and 67% going to the south (the same as in Figure D-12 in the CTMP1 Appendix).
5. The signal timing for the CSC intersections remained unchanged.

6. Both CSC intersections' LOS and delay are reported in HCM 2000 format.

Table 8 below shows a summary of the year 2023 existing conditions, year 2023 average and peak trucks conditions, year 2024 background conditions, year 2024 average truck traffic conditions, and year 2024 peak truck traffic conditions. Brief discussions for each intersection follow the table, which highlight potential project impacts based on the operational LOS and delay results and possible mitigation measures. Supporting documentation, including results on queuing, can be found in **Appendix D**.

Table 8 - Project Operational Analysis

Intersection and Scenario	AM Peak		Weekday Mid-day		PM Peak		Weekend Mid-day	
	Int. Delay (Sec)	HCM Int. LOS						
A1 – Coleman Ave. & Brokaw Rd.¹								
Existing 2023	26.1	C	60.2	E	116.7	F	39.2	D
Avg Trucks 2023 (10%)	-	-	-	-	-	-	39.5	D
Avg Trucks 2023 (25%)	26.3	C	60.0	E	126.0	F	39.4	D
Peak Trucks 2023	26.5	C	60.3	E	128.1	F	40.3	D
Background 2024	27.3	C	27.5	C	52.8	D	40.7	D
Avg Trucks 2024 (10%)	-	-	-	-	-	-	41.8	D
Avg Trucks 2024 (25%)	25.6	C	27.4	C	56.5	E	42.2	D
Avg Trucks 2024 (Opt.)	-	-	-	-	50.8	D	-	-
Peak Trucks 2024	27.8	C	28.0	C	55.2	E	45.0	D
Peak Trucks 2024 (Opt.)	-	-	-	-	55.0	D	-	-
A2 – Coleman Ave. & Champions Way¹								
Existing 2023	0.7	A	-	-	0.6	A	3.4	A
Average Trucks 2023	0.7	A	-	-	0.6	A	3.4	A
Peak Trucks 2023	0.7	A	-	-	0.6	A	3.4	A
Background 2024	11.2	B	-	-	8.1	A	2.9	A
Average Trucks 2024	12.9	B	-	-	8.4	A	2.9	A
Peak Trucks 2024	7.2	A	-	-	8.4	A	2.9	A
A3 – Coleman Ave. & Aviation Ave.								
Existing 2023	16.0	B	-	-	10.6	B	7.1	A
Average Trucks 2023	16.1	B	-	-	10.4	B	7.2	A
Peak Trucks 2023	16.2	B	-	-	10.3	B	7.2	A
Background 2024	23.8	C	-	-	20.6	C	17.1	B
Average Trucks 2024	22.4	C	-	-	19.2	B	17.1	B
Peak Trucks 2024	15.7	B	-	-	21.9	C	17.1	B

Intersection and Scenario	AM Peak		Weekday Mid-day		PM Peak		Weekend Mid-day	
	Int. Delay (Sec)	HCM Int. LOS						
A4 – Coleman Ave. & Earthquakes Way								
Existing 2023	4.7	A	-	-	8.4	A	4.2	A
Average Trucks 2023	4.7	A	-	-	8.3	A	4.3	A
Peak Trucks 2023	4.7	A	-	-	8.3	A	4.3	A
Background 2024	4.3	A	-	-	3.7	A	5.3	A
Average Trucks 2024	3.1	A	-	-	5.0	A	5.3	A
Peak Trucks 2024	4.9	A	-	-	10.6	B	5.3	A
A5 – Coleman Ave. & Newhall Dr.								
Existing 2023	15.5	B	26.5	C	19.5	B	28.3	C
Average Trucks 2023	15.8	B	28.0	C	24.3	C	26.0	C
Peak Trucks 2023	16.2	B	27.1	C	29.6	C	25.0	C
Background 2024	13.7	B	22.7	C	17.2	B	21.2	C
Average Trucks 2024	13.0	B	23.6	C	57.5	E	23.0	C
Peak Trucks 2024	16.6	B	23.4	C	80.5	F	22.2	C
A6 – Coleman Ave. & Airport Blvd.								
Existing 2023	18.3	B	-	-	14.7	B	8.1	A
Average Trucks 2023	18.2	B	-	-	15.3	B	8.1	A
Peak Trucks 2023	18.2	B	-	-	15.4	B	8.1	A
Background 2024	8.0	A	-	-	7.6	A	8.9	A
Average Trucks 2024	6.4	A	-	-	7.7	A	9.0	A
Peak Trucks 2024	7.1	A	-	-	7.6	A	9.0	A
A7 – Coleman Ave. & I-880 SB Ramp								
Existing 2023	12.2	B	-	-	19.8	B	8.6	A
Average Trucks 2023	12.5	B	-	-	27.3	C	9.0	A
Peak Trucks 2023	13.1	B	-	-	21.8	C	9.6	A
Background 2024	19.9	B	-	-	11.1	B	16.3	B
Average Trucks 2024	10.7	B	-	-	11.8	B	17.4	B
Peak Trucks 2024	10.9	B	-	-	9.7	A	19.2	B
A8 – Coleman Ave. & I-880 NB Ramp / McKendrie St.								
Existing 2023	25.7	C	-	-	21.1	C	14.2	B
Average Trucks 2023	26.0	C	-	-	21.8	C	14.5	B
Peak Trucks 2023	26.5	C	-	-	22.0	C	15.1	B

Intersection and Scenario	AM Peak		Weekday Mid-day		PM Peak		Weekend Mid-day	
	Int. Delay (Sec)	HCM Int. LOS						
Background 2024	25.9	C	-	-	24.8	C	16.3	B
Average Trucks 2024	25.1	C	-	-	26.0	C	17.2	B
Peak Trucks 2024	26.5	C	-	-	24.0	C	18.4	B
A9 – Coleman Ave. & Hedding St.								
Existing 2023	37.0	D	-	-	28.5	C	22.2	C
Average Trucks 2023	37.0	D	-	-	29.0	C	22.2	C
Peak Trucks 2023	37.0	D	-	-	28.4	C	22.2	C
Background 2024	45.2	D	-	-	44.7	D	23.1	C
Average Trucks 2024	36.6	D	-	-	45.0	D	23.1	C
Peak Trucks 2024	41.2	D	-	-	29.0	C	23.1	C
A10 (New) – Costco Driveway & Brokaw Rd.¹								
Existing 2023 (Unsig)	4.6	A	9.7	A	9.8	A	11.1	A
Avg Trucks 2023 (10%)	-	-	-	-	-	-	11.2	A
Avg Trucks 2023 (25%)	4.6	A	9.8	A	9.9	A	11.3	A
Peak Trucks 2023	4.5	A	10.0	A	10.1	A	11.7	A
Background 2024 (Sig)	19.5	B	22.0	C	28.0	C	30.2	C
Avg Trucks 2024 (10%)	-	-	-	-	-	-	30.5	C
Avg Trucks 2024 (25%)	27.8	C	22.1	C	28.7	C	30.9	C
Peak Trucks 2024	21.5	C	22.3	C	28.7	C	32.2	C

Notes:

1. No adaptive system at this intersection.

See **Appendix D** for detailed delay, LOS, and queuing results, as well as traffic volumes and supporting documentation.

A1 - Brokaw Rd. – For both the average and peak truck traffic conditions, the northbound left and eastbound right movements will see increased truck traffic. The project plans to assign 25 percent of the truck traffic to this intersection. The existing LOS varies and is expected to remain or slightly improve to C/D/E once the Gateway Crossings mitigation improvements are implemented by mid-2024.

An operational check was made to see if any short-term year 2023 improvements could help ease congestion at the intersection prior to the Gateway Crossings mitigation. Various elements were adjusted in a representative model to attempt to mitigate intersection delay. The cycle length,

timing splits, split phasing, and even restriping eastbound Brokaw Rd. was looked at to see if the delay could be improved. Even with these changes, the LOS and delay was not projected to significantly improve. One other possibility may be for the City of Santa Clara to implement their traffic responsive system at this intersection to further fine-tune the signal timing until the Gateway Crossings developer mitigation is in place. Also, the results shown in the table generally reflect the 25% truck traffic scenario.

A check of the 10% non-PayPal 2023 and 2024 Average Trucks operation for the weekend mid-day shows a slightly better LOS and delay than the 25% condition. The 10% Peak Trucks analysis was similar to the 25% Average Trucks condition.

A2 – Champions Way – This intersection will only see a slight increase in truck traffic for the north/south movements. The LOS is currently at a level A and is projected to remain at LOS A/B.

A3 – Aviation Ave. – This intersection will only see a slight increase in truck traffic for the north/south movements. The LOS is currently at a level A/B and is projected to remain at LOS B/C.

A4 – Earthquakes Way – This intersection will only see a slight increase in truck traffic for the north/south movements. The LOS is currently at a level A and is projected to remain at LOS A/B.

A5 – Newhall Dr. – For both the average and peak truck traffic conditions, the northbound through and left and the southbound through and eastbound right movements will see increased truck traffic. The project plans to assign 75 percent of the truck traffic to this intersection. The LOS is currently at a level B/C and is projected to remain at those levels with the exception of the PM peak with LOS B/E/F. This analysis assumed that a pedestrian call would be activated across Coleman Ave. every cycle, but actual operations should be better since that's usually not the case. The side street splits will be best applied as determined by the adaptive system.

A6 – Airport Blvd. – This intersection will only see a slight increase in truck traffic for the north/south movements. The LOS is currently at a level A/B and is projected to remain acceptable.

A7 – I-880 SB Ramp – This intersection will see a slight increase in truck traffic for the southbound through and westbound right movements. The westbound right is projected to see a slight increase in delay and queuing, which should be manageable by either making slight signal timing split adjustments, or by ensuring the traffic adaptive system makes appropriate automatic adjustments. The City of San José can make signal timing split adjustments upon request. The Gateway Crossings traffic report also recommended striping changes at this intersection, which may further help mitigate the increase in delay and queuing. The LOS is currently at a level A/B/C and is projected to remain at an acceptable LOS A/B.

A8 – I-880 NB Ramp / McKendrie St. – This intersection will only see a slight increase in truck traffic for the southbound left movement. The LOS is currently at a level B/C and is projected to remain at LOS B/C.

A9 – Hedding St. – This intersection is outside of the proposed haul route, but was included due to its proximity and the effects that upstream operations may have on this intersection. The intersection LOS currently operates at level C/D and is projected to continue at those levels. The

modeled signal timing was slightly adjusted for the 2024 conditions at this and other project intersections, and due to the increase in truck traffic in the southbound direction along Coleman Ave. there was a slight improvement in delay realized due to an increase in provided green time to accommodate the trucks. No impact is expected due to project hauling operations.

A10 – Costco & Brokaw – This intersection is currently stop controlled and operates at a LOS A. As part of the Gateway Crossings project mitigation, a traffic signal is planned to be installed and activated no later than mid- 2024. This intersection will only see a slight increase in truck traffic for the east and westbound movements. Although the modeling results show a degradation in operations with the traffic signal, future unknown signal timing settings were assumed and could be different resulting in improved operations based on field observations.

The results shown in the table generally reflect the 25% truck traffic scenario. A check of the 10% non-PayPal 2023 and 2024 Average Trucks operation for the weekend mid-day shows a slightly better LOS and delay than the 25% condition. The 10% Peak Trucks was similar to the 25% Average Trucks condition. KST will monitor the intersection due to project truck traffic and will work with the City of Santa Clara to maintain satisfactory operations. One other possibility may be for the City of Santa Clara to implement their traffic responsive system at this intersection to further fine-tune the signal timing.

All of the detailed analysis information can be found in **Appendix D** – Traffic Operation Data and Analysis.

3.5 CONCLUSIONS

Based on traffic operational analysis of the year 2023 and 2024 average and peak Early Works truck traffic, it is projected that there will be minimal impacts to the project area’s signalized intersections. Project signalized and unsignalized intersections may need to be observed on occasion, particularly during peak truck traffic times to ensure the existing signal timing can handle the added truck volume.

The intersections within City of San José should be able to accommodate the added truck volume since an adaptive traffic signal system is in operation. For intersections within City of Santa Clara (Coleman Ave & Brokaw Road and future signalized Brokaw Road & Costco Driveway), no adaptive system is in operation and the signal timing can be adjusted, if needed, to accommodate the truck volumes as demonstrated in this report.

Project staff will make periodic observations at the project area intersections, both signalized and unsignalized, to ensure acceptable operations continue. KST will schedule the observations before construction begins and will continue the observations approximately once every month and/or during peak truck volumes. KST will reach out to the cities’ staff a week before each observation so that the cities can participate in the observation, if desired.

4.0 PUBLIC OPERATION AND BUS OPERATIONS

The existing transit services are shown in **Figure 3***Error! Reference source not found.*

4.1 BUS OPERATIONS

The existing bus route along the haul route is summarized in **Table 9**.

Table 9 - Existing Bus Route

Bus Route	Route Description	Nearest Stop	Headway ¹
Local Route 60	Milpitas BART to Winchester Station via SJC Airport	Coleman/Brokaw; Coleman/Earthquakes; Coleman/Newhall	10 – 15 min

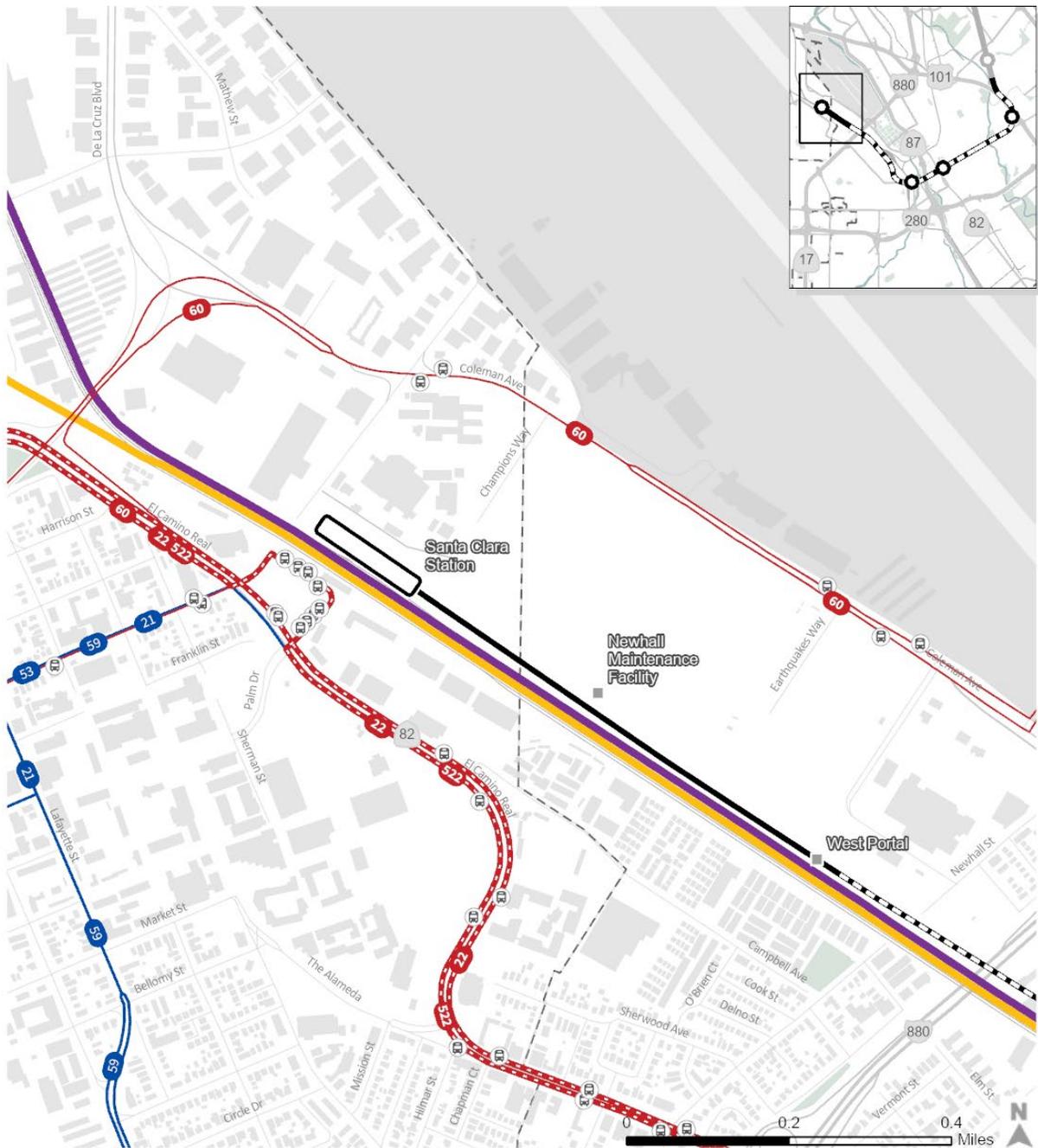
Notes:

1. Approximate headways during peak commute hours.

The existing bus operation is provided by VTA. The proposed construction activities are not expected to impact the existing bus operation. No rerouting is anticipated for the operation. No lane closures are anticipated on the bus route and a 12' minimum lane width will be maintained at all times. There is no rapid bus service or Transit Signal Priority (TSP) on Coleman Ave. Services on El Camino Real or any other street in vicinity of the site will not be impacted.

4.2 RAIL TRANSIT OPERATIONS

Caltrain, Capitol Corridor and Altamont Corridor Express (ACE) operate rail transit services at existing Santa Clara Station. The existing transit operations will not be impacted by the construction. There is an existing pedestrian underpass connecting Santa Clara Station and Brokaw Road. The underpass and sidewalk will remain open during construction.



- Phase II Stations
- Phase II Ground-Level
- Phase II Single-Bore Tunnel Alignment
- Frequent Bus
- Rapid Bus
- Local Bus
- Caltrain
- ACE Rail Line
- Other Project Elements
- Bus Stop

Original Source: VTA Draft 2021
 Transit Service Plan - The 90% Plan

Transit Routes near Project Elements West Portal

Figure 3 - Existing Transit Operations

5.0 MAINTENANCE OF PROPERTY ACCESS

No property access is anticipated to be impacted at this time. There will be no lane closures or driveway closures and no truck queuing or staging outside of the West Portal site that impedes property access. The traffic operational analysis presented in **Chapter 3.0** shows minimal impacts to the existing traffic. Special events and routine operations will be coordinated as described in **Section 2.7 and 2.9**.

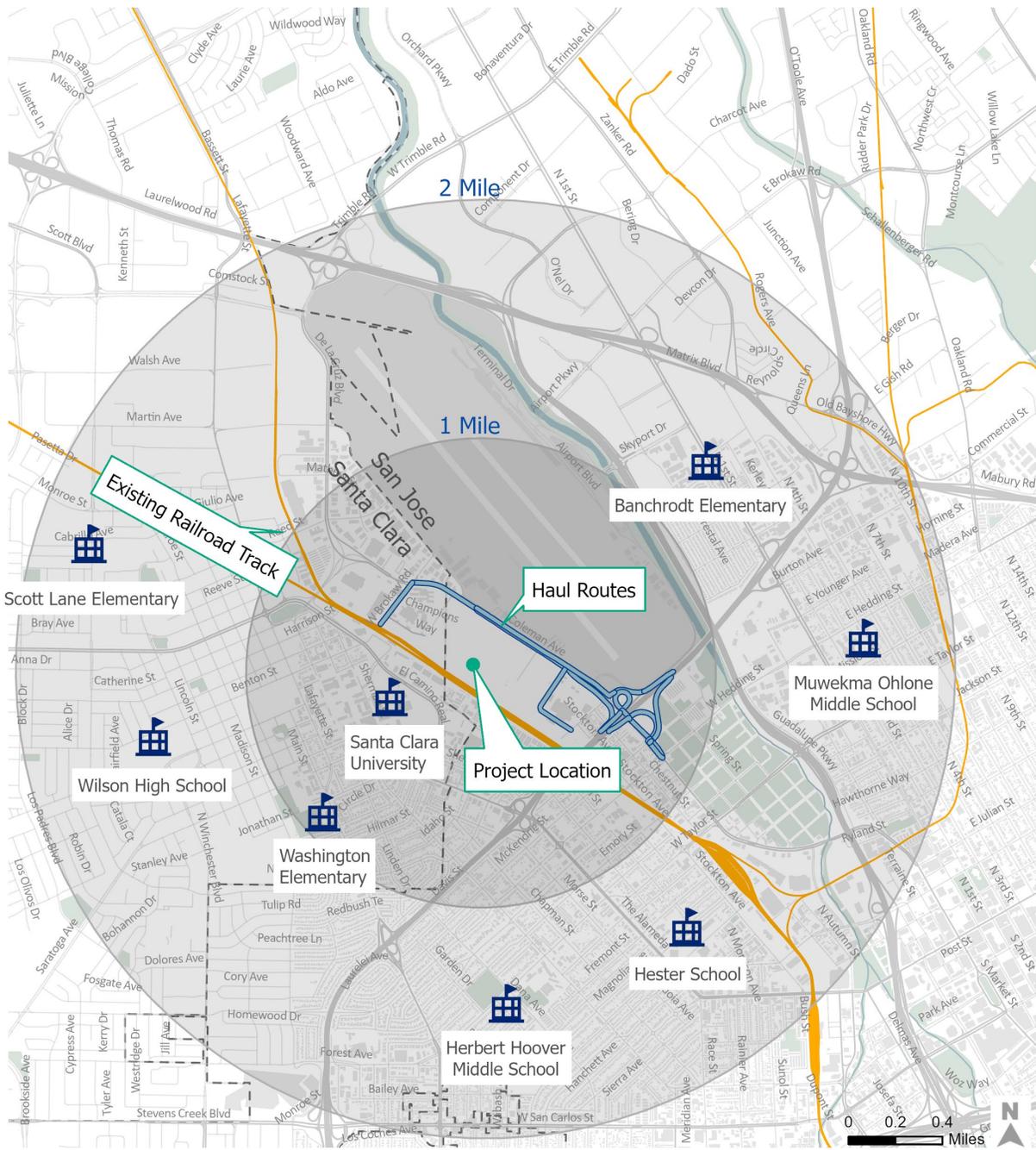
Exhibit showing access to adjacent properties and their business hours, access for employees and customers, delivery and city services, and additional information, for those that were interviewed by VTA in 2021, is included in **Appendix C**. Also included is an exhibit showing driveway locations to all nearby properties; none of which will be impacted by the West Portal construction.

6.0 SCHOOL ZONE SAFETY PLAN

There are no existing school zones near the West Portal site and no impact is anticipated at this time. Adjacent schools include:

- Santa Clara University: 0.6 mi
- Scott Lane Elementary School: 1.7 mi
- Washington Elementary School: 0.9 mi
- Wilson High School: 1.5 mi
- Herbert Hoover Middle School: 1.3 mi
- Hester School: 1.4 mi
- Muwekma Ohlone Middle School: 1.6 mi
- Banchrodt Elementary School: 1.2 mi

All distances are measured from approximate center of the schools to the approximate center of the West Portal Site, and are straight line distances. None of the schools or school zones are located on the haul routes. See **Figure 4** for the location of nearby schools.



School Zone Near Project Elements
 West Portal

Figure 4 - Nearby Schools

7.0 EMERGENCY ACCESS AND RESPONSE

KST will comply with the Emergency Services Coordination Plan (ESCP), included as Appendix A of the Draft CTMP. Based on the ESCP, KST prepared the Emergency Vehicle Access Plan (EVAP) and Emergency Vehicle Response Plan (EVRP).

7.1 EMERGENCY VEHICLE ACCESS PLAN

Emergency vehicle access to all businesses and residences adjacent to the construction site will be maintained. Emergency service vehicles include:

- Emergency medical vehicles
- Utility maintenance vehicles for emergency purposes
- Fire protection vehicles
- Police vehicles

Table 10 below is KST’s emergency contact available 24 hours a day along with the 24-hour emergency hotline. The 24-hour hotline will be managed at all times. Once construction begins a safety representative will be on-site during construction hours.

Table 10 - KST Emergency Contact

Name	Title	Phone No.	Email
Dennis Leonard	Project Safety Manager	(925) 809-4804	Dennis.leonard@kstjv.com
Staffed	24-hr Emergency Hotline	(408) 321-2345	-

No traffic lane reductions or detours are necessary for West Portal Early Works; if they become necessary, KST will update this plan and submit to VTA for approval at least 30 days prior to the lane reduction or detour.

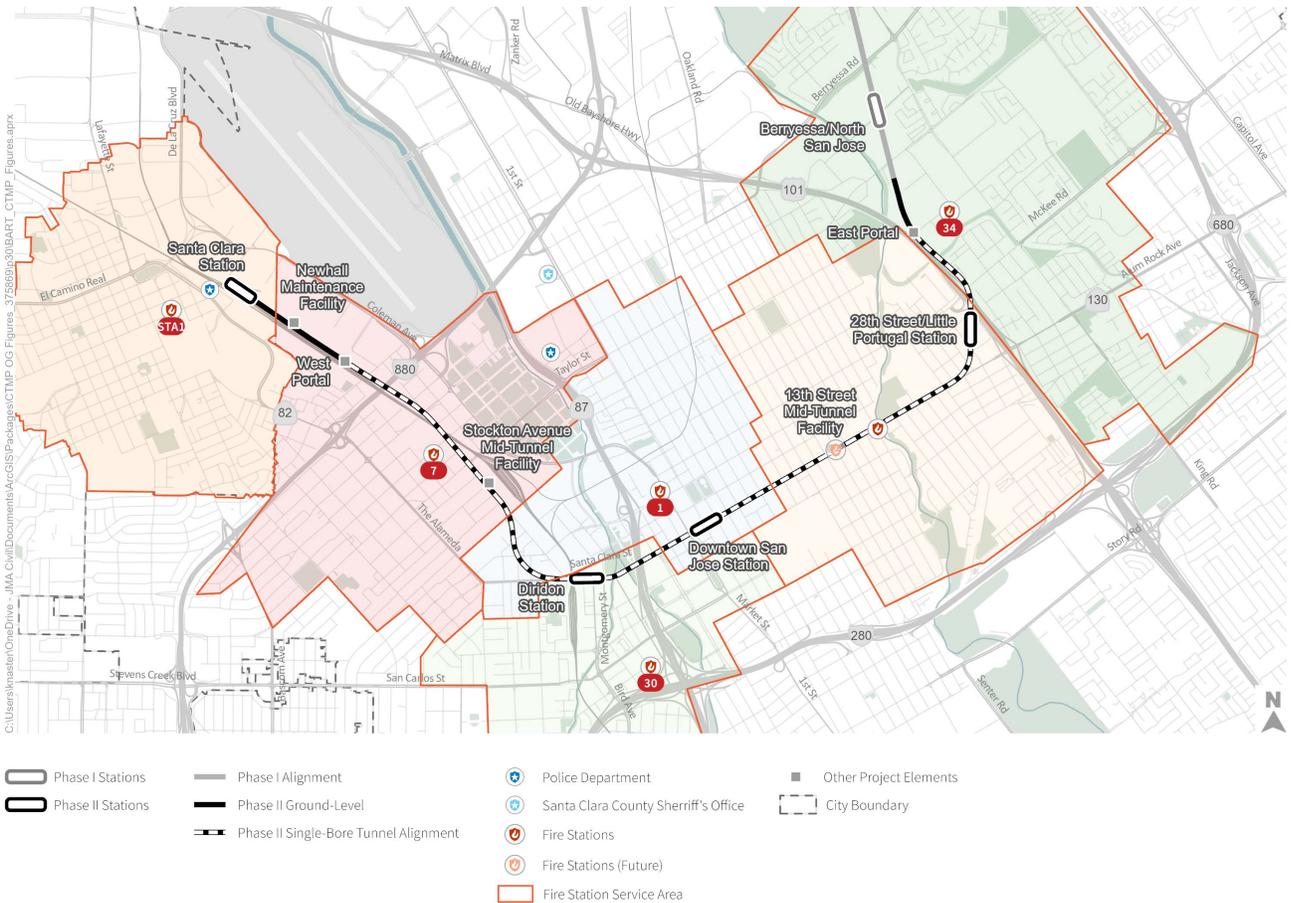
Once construction begins, weekly updates will be provided to local emergency service providers in writing by Friday noon regarding emergency vehicle access through, around, and into the construction site for the following week; a copy of this weekly written information will also be provided to VTA prior to Friday noon every week. A kick-off meeting will be held with the emergency service providers, KST and VTA, and as necessary, monthly meetings will be held to ensure emergency service providers are made aware of any changes. A list of emergency service providers covering the West Portal site is included in **Table 11**; KST will request the emergency service providers to verify this information every week in the Friday update to ensure that they are up to date. See **Figure 5** for emergency service areas.

Table 11 - List of Emergency Contacts as of December 2022

No.	Department	Contact Name	Phone	Email
1	San José Police	Captain Jaime Jimenez	(408) 472-7747	jaime.jimenez@sanjoseca.gov
2	San José Fire	Chief James Dobson (Main Contact)	(408) 535-7794	james.dobson@sanjoseca.gov
3	San José Fire	Captain Greg Tuyor	(408) 535-7670	gregory.tuyor@sanjoseca.gov
4	San José Fire Station 7 (West Portal Coverage)	Station Captain	(408) 794-6907	N/A
5	Santa Clara Police	Lieutenant Cuong Phan	(408) 615-4767	cphan@santaclaraca.gov
6	Santa Clara Fire	Fire Marshal Jake Tomlin (Main Contact)	(408) 615-4970	jtomlin@santaclaraca.gov
7	Santa Clara Fire	Deputy Fire Chief Jeremy Ray	(408) 615-4953	jray@santaclaraca.gov
8	Santa Clara Fire Station 1 (West Portal Coverage)	Fire Chief Ruben Torres	(408) 615-4900	-
9	Santa Clara County Sheriff	Captain David Lera	(408) 321-7153	david.lera@vta.org
10	Regional Medical Center	-	(408) 259-5000	-
11	Santa Clara County Emergency Medical Services (EMS)	Michael Cabano	(408) 316-6682	michael.cabano@ems.sccgov.org
12	American Medical Response (AMR)	Mario Vargas	(209) 420-4206	mario.vargas@gmr.net
13	Royal Ambulance	-	(877) 995-6161	-
14	O'Connor Hospital	-	(408) 947-2500	-

7.1.1 Protocol for Unanticipated Changes

During unanticipated changes, such as detours due to emergency utility work, the change shall be immediately communicated to KST’s safety manager, who will communicate the change to local emergency providers. If required, flaggers will be positioned at the begin and end points of the detour route to communicate the change to emergency responders.



Fire/Police Stations Near Project Elements

Figure 5 - Emergency Service Area

7.2 EMERGENCY VEHICLE RESPONSE PLAN

Emergency access to the construction site will be maintained at all times. KST's designated point of contact listed in **Table 10** will be available 24 hours a day and responsible for communicating the location and type of incident to emergency responders and the Construction Safety and Security Manager.

Possible incidents include:

- Inadvertent traffic stoppages or delays
- Traffic accidents
- On-site emergencies
- Emergencies requiring police or emergency vehicles

For on-site emergencies, KST's designated point of contact will notify local emergency provider depending on the type of incident. Individual KST employee or contractor is allowed to dial 9-1-1 in an emergency. They will be instructed to also notify KST's designated point of contact after the 9-1-

1 call. KST's designated point of contact will then follow up with local emergency providers and coordinate with other KST employee or contractor, such as guard posts at gates, to ensure emergency access.

All site roads are fire roads and will be suitable for emergency vehicle access. KST's designated point of contact will coordinate with other KST parties to ensure that emergency access is not impeded during an emergency. Emergency vehicles will have the right-of-way on all site roads during an emergency.

8.0 CITY PERMIT REQUIREMENTS

BSVII Draft CTMP Appendix H and J contains permit requirements for City of San José and City of Santa Clara, respectively. KST has identified permits that pertains to the West Portal Early Works construction, which are highlighted in yellow and included in **Appendix E** of this CTMP.

9.0 LIST OF APPENDICES

Appendix A – Site Layout, Sequencing and Staging Plan

Appendix B – Traffic Control Plans

Appendix C – Access to Businesses and Properties

Appendix D – Traffic Operation Data and Analysis

Appendix E – City Permit Requirements

Appendix A
Site Layout, Sequencing and Staging Plan

Appendix B
Traffic Control Plans

Appendix C
Access to Businesses and Properties

Appendix D
Traffic Operation Data and Analysis

Appendix E
City Permit Requirements