



CITY *of* CLOVIS

AGENDA • CITY COUNCIL MEETING

Council Chamber, 1033 Fifth Street, Clovis, CA 93612 (559) 324-2060
www.cityofclovis.com

March 17, 2025

6:00 PM

Council Chamber

In compliance with the Americans with Disabilities Act, if you need special assistance to access the City Council Chamber to participate at this meeting, please contact the City Clerk or General Services Director at (559) 324-2060 (TTY – 711). Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to the Council Chamber.

The Clovis City Council meetings are open to the public at the physical address listed above. There are numerous ways to participate in the City Council meetings: you are able to attend in person; you may submit written comments as described below; and you may view the meeting which is webcast and accessed at www.cityofclovis.com/agendas.

Written Comments

- Members of the public are encouraged to submit written comments at: www.cityofclovis.com/agendas at least two (2) hours before the meeting (4:00 p.m.). You will be prompted to provide:

- Council Meeting Date
- Item Number
- Name
- Email
- Comment



- Please submit a separate form for each item you are commenting on.
- A copy of your written comment will be provided to the City Council noting the item number. If you wish to make a verbal comment, please see instructions below.
- Please be aware that any written comments received that do not specify a particular agenda item will be marked for the general public comment portion of the agenda.
- If a written comment is received after 4:00 p.m. on the day of the meeting, efforts will be made to provide the comment to the City Council during the meeting. However, staff cannot guarantee that written comments received after 4:00 p.m. will be provided to City Council during the meeting. All written comments received prior to the end of the meeting will be made part of the record of proceedings.

CAMPAIGN CONTRIBUTION PROHIBITIONS AND MANDATORY DISCLOSURE – Pursuant to Government Code section 84308, a Councilmember shall not accept, solicit, or direct a campaign contribution of more than \$500 from any party or their agent, or from any participant or their agent, while a proceeding involving a license, permit, contract, or other entitlement for use is pending before the City or for 12 months after a final decision is rendered in that proceeding. Any Councilmember who has received a campaign contribution of more than \$500 within the preceding 12 months from a party or their agent, or from a participant or their agent, must disclose that fact on the record of the proceeding and shall not make, participate in making, or in any way attempt to use their official position to influence the decision.

Pursuant to Government Code section 84308, subdivision (e), any party to a covered proceeding before the City Council is required to disclose on the record of the proceeding any campaign contribution, including aggregated contributions, of more than \$500 made within the preceding 12 months by the party or their agent to any Councilmember. The disclosure shall be made as required by Government Code Section 84308, subdivision (e)(1) and California Code of Regulations, Title 2, section 18438.8. No party or their agent, and no participant or their agent, shall make a campaign contribution of more than \$500 to any Councilmember during the covered proceeding or for 12 months after a final decision is made in that proceeding. The foregoing statements do not constitute legal advice, and parties and participants are urged to consult with their own legal counsel regarding the applicable requirements of the law.

CALL TO ORDER

FLAG SALUTE - Councilmember Ashbeck

ROLL CALL

PUBLIC COMMENTS - This is an opportunity for the members of the public to address the City Council on any matter within the City Council's jurisdiction that is not listed on the Agenda. In order for everyone to be heard, please limit your comments to 3 minutes or less, or 10 minutes per topic. Anyone wishing to be placed on the Agenda for a specific topic should contact the City Manager's office and submit correspondence at least 10 days before the desired date of appearance.

CONSENT CALENDAR - Items considered routine in nature are to be placed upon the Consent Calendar. They will all be considered and voted upon in one vote as one item unless a Councilmember requests individual consideration. A Councilmember's vote in favor of the Consent Calendar is considered and recorded as a separate affirmative vote in favor of each action listed. Motions in favor of adoption of the Consent Calendar are deemed to include a motion to waive the reading of any ordinance or resolution on the Consent Calendar. For adoption of ordinances, only those that have received a unanimous vote upon introduction are considered Consent items.

1. Administration - Approval - Minutes from the March 5, 2025, Special Meeting and the March 10, 2025, Regular Council Meeting.
2. Administration - Adopt - **Ord. 25-03**, Amending Section 3.1.126 and adding Sections 3.1.126.1 and 3.1.126.2 of Chapter 3.1 of Title 3 of the Clovis Municipal Code Relating to Business Registration and Licensing Exemptions for Honorably Discharged or Honorably Relieved Veterans and Active Duty or Reservist Military Personnel. (Vote: 5-0)
3. Administration – Adopt – **Ord. 25-04**, An Ordinance of the City Council of the City of Clovis Amending Section 5.6.09 of Chapter 5.6 of Title 5 of the Clovis Municipal Code Relating to Authorized Additional Card Tables at Licensed Card Rooms. (Vote: 5-0)
4. General Services – Approval – Authorize the City Manager to Execute the First Amendment to Passio Technologies, LLC for an Intelligent Transportation System (ITS). This Amendment includes Additional Licenses and Hardware, Implementation of Active Route Management (ARM) Software, Full Content Management Support for Infotainment, and the Addition of an Interactive Bus Kiosk for a Total of \$455,509.40.
5. General Services – Approval – Res. 25-____, Amending the City’s FY 2024-2025 Position Allocation Plan by adding two (2) Senior Management Analyst Positions and removing two (2) Management Analyst Positions within the General Services Department.
6. Planning and Development Services – Approval – Final Acceptance for CIP 23-03, Willow Avenue Street Improvements.
7. Planning and Development Services – Approval – Final Acceptance for CIP 24-24, Santa Ana Sidewalk Improvements.

PUBLIC HEARINGS - A public hearing is an open consideration within a regular or special meeting of the City Council, for which special notice has been given and may be required. When a public hearing is continued, noticing of the adjourned item is required as per Government Code 54955.1.

8. Consider Approval - Res. 25-____, CUP1995-009A4 Appeal. A request to consider an appeal of the Planning Commission's approval of CUP1995-009A4 for the addition of a new, two-story, classroom building and relocation of a basketball court, with a change in operational hours and an increase of student capacity to 414 students for the Valley Crescent School located at 547 W. Nees Avenue. Muslim Society of Central California, owner; Michael Eastman, Applicant, and representative.

Staff: Marissa Parker, Assistant Planner

Recommendation: Deny the request for appeal, uphold the Planning Commission’s approval of the Project and deny the Appellant’s request to waive the appeal fee.

ADMINISTRATIVE ITEMS - Administrative Items are matters on the regular City Council Agenda other than Public Hearings.

9. Consider Approval - Res. 25-____, A resolution authorizing staff to initiate an application process for soliciting members for the General Plan Advisory Committee as part of the General Plan Update.

Staff: Lily Cha, Senior Planner

Recommendation: Approve

10. Consider Approval - Res. 25-____, A resolution accepting and authorizing the submission of the 2024 General Plan Annual Progress Report, including the 2024 Housing Element Annual Progress Report to the Governor's Office of Land Use and Climate Innovation and the California Department of Housing and Community Development.

Staff: Lily Cha, Senior Planner

Recommendation: Approve

11. Provide Direction – 2025/26 Budget Priorities – Measure Y

Staff: Andrew Haussler, City Manager

Recommendation: Provide Direction

CITY MANAGER COMMENTS

COUNCIL COMMENTS

CLOSED SESSION - A “closed door” (not public) City Council meeting, allowed by State law, for consideration of pending legal matters and certain matters related to personnel and real estate transactions.

12. Government Code Section 54957.6
CONFERENCE WITH LABOR NEGOTIATORS
Agency designated representatives: Andy Haussler, Paul Armendariz, Amy Hance, Scott Cross
Employee organization: All bargaining units
13. Government Code Section 54957
PUBLIC EMPLOYEE PERFORMANCE EVALUATION
Title: City Manager

RECONVENE INTO OPEN SESSION AND REPORT FROM CLOSED SESSION

ADJOURNMENT

FUTURE MEETINGS

Regular City Council Meetings are held at 6:00 P.M. in the Council Chamber. The following are future meeting dates:

April 7, 2025 (Mon.)
April 14, 2025 (Mon.)
April 21, 2025 (Mon.)

CLOVIS CITY COUNCIL SPECIAL MEETING

March 5, 2025

12:00 P.M.

Council Chamber

Meeting called to order by Mayor Mouanoutoua at **12:18**

Flag Salute led by Councilmember Bessinger

Present: Councilmembers Ashbeck, Bessinger, Mayor Pro Tem Pearce, and Mayor Mouanoutoua

PUBLIC COMMENTS – 12:19

Brian Wilson, resident, expressed his interest in gaining a better understanding of the topics discussed with the former Council members.

Mayors' Legacy Lunch

12:20 ITEM A. Discuss contributions to our community, reflect on the City's past successes, and what the future entails.

Present: Former Councilmembers Jose Flores, Nathan Magsig, Dennis Prindiville, Robert Waterston, Robert Whalen, Garry Woodward, and Patricia Wynne. City of Clovis Staff: City Manager Andrew Haussler, Interim Assistant City Manager Paul Armendariz, City Clerk Briana Parra, and Executive Assistant Rebecca Simonian.

The discussion focused on past successes and contributions to the City of Clovis.

ADJOURNMENT

Mayor Mouanoutoua adjourned the Special Mayor's Legacy Lunch meeting of the Council to March 10, 2025, Regular City Council meeting.

Meeting adjourned: 1:35 p.m.

Mayor

City Clerk

CLOVIS CITY COUNCIL MEETING

March 10, 2025

6:00 P.M.

Council Chamber

Meeting called to order by Mayor Mouanoutoua at **6:01**

Flag Salute led by Councilmember Pearce

Roll Call: Present: Councilmembers Ashbeck, Basgall, Bessinger, Mayor Pro Tem Pearce, and Mayor Mouanoutoua

PRESENTATION – 6:03

6:03 – ITEM 1 - Presentation of Proclamation declaring March as American Red Cross Month.

PUBLIC COMMENTS – 6:07

Upon call, there was no public comment.

CONSENT CALENDAR – 6:07

Upon call, there was no public comment.

Motion by Councilmember Ashbeck, seconded by Councilmember Bessinger, that the items on the Consent Calendar be approved, including the waiver of the reading of the ordinance. Motion carried by unanimous vote.

2. Administration - Approval - Minutes from the March 4, 2025, Council Meeting,
3. Administration - Adopt - **Ord. 25-02**, An Ordinance of the City Council of the City of Clovis Adding Chapter 1.10 to Title 1 of the Clovis Municipal Code to Establish By-District Elections for Five Council Members, Define District Boundaries, and Schedule the Order of Elections for Each District.
4. General Services - Approval - **Res. 25-20**, Congestion Mitigation and Air Quality (CMAQ) Supporting and Implementing the “Timely Use of Funding” as Required by AB1012 for Candidate Transportation Projects Under the Infrastructure Investment and Jobs Act.
5. Public Utilities – Approval – **Res. 25-21**, A Resolution Initiating Proceedings for the Annual Levy of Assessments for Landscape Maintenance District No. 1.

PUBLIC HEARINGS – 6:08

6:08 ITEM 6 - Consider Introduction – **Ord. 25-03**, Amending Section 3.1.126 and adding Sections 3.1.126.1 and 3.1.126.2 Of Chapter 3.1 of Title 3 of the Clovis Municipal Code Relating to Business Registration and Licensing Exemptions for Honorably Discharged or Honorably Relieved Veterans and Active Duty or Reservist Military Personnel.

Upon call, there was no public comment.

The Council directed staff to explore the possibility of extending business registration and licensing exemptions to former police and fire personnel and to bring back proposals for consideration.

Motion for approval by Councilmember Ashbeck, seconded by Councilmember Bessinger. Motion carried by unanimous vote.

6:14 ITEM 7 - Consider Introduction – **Ord. 25-04**, An Ordinance of the City Council of the City of Clovis Amending Section 5.6.09 of Chapter 5.6 of Title 5 of the Clovis Municipal Code Relating to Authorized Additional Card Tables at Licensed Card Rooms.

Jarhett Blonien with the 500 club, expressed support for the Council's approval of a measured increase in gaming tables.

Motion for approval by Mayor Pro Tem Pearce, seconded by Councilmember Basgall. Motion carried by unanimous vote.

6:22 ITEM 8 - Consider Approval – **Res. 25-22**, A resolution approving the annual review and update to the Regional Housing Needs (RHN) Overlay District map of parcels and associated list reflecting those parcels that qualify for development as an RHN Overlay project.

Upon call, there was no public comment.

Motion for approval by Councilmember Ashbeck, seconded by Councilmember Besinger. Motion carried by unanimous vote.

ADMINISTRATIVE ITEMS – 6:27

6:27 ITEM 9 - Receive and File - 2025 Five-Year Financial Forecast for the City of Clovis through 2029/30 and discuss options for budget preparation for 2025/26.

Brian Wilson, resident, expressed concern that Measure Y funding might be used for purposes other than fire and police, and suggested prioritizing Station 7 in the first year.

Dr. Jeni-Ann Kren, resident, emphasized that Measure Y was presented as a general tax, not a special tax, and argued that funds should not be exclusively directed to police and fire, as other city services also need support.

During the discussion, the Council emphasized the priority of using Measure Y funds in the first year for public safety, particularly to fill police and fire positions before addressing other city needs. Councilmembers suggested a more detailed breakdown of the spending, particularly within the police and fire departments, to be represented clearly in the pie chart to ensure transparency. There was discussion to accelerate the development of Fire Station 7 to address long response times on the northwest side of Clovis, potentially building it sooner than the planned five-year timeline. The Council also briefly discussed Measure C and how Measure Y funds could support infrastructure needs if Measure C did not pass.

CITY MANAGER COMMENTS – 7:40

City Manager Haussler highlighted a few upcoming events, including the "Meet the Mayor" event on Thursday, March 13, 2025, at 6:00 PM at Bud Rank Elementary. He also mentioned a ribbon-

cutting celebration for the Letterman Dog Park on Saturday, March 22, 2025, and a "Kitten Shower" event on Saturday, March 29, 2025.

COUNCIL COMMENTS – 7:41

The Council directed staff to release the names of residents who submitted draft district maps and to provide an update on the crosswalk near Pollasky, specifically regarding the potential installation of flashing lights or another traffic signal. Additionally, staff was asked to follow up on a traffic safety concern raised by Nancy Meyers regarding accidents occurring near a curve behind her house.

ADJOURNMENT

Mayor Mouanoutoua adjourned the meeting of the Council to March 17, 2025.

Meeting adjourned: 7:49 p.m.

Mayor

City Clerk



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Administration

DATE: March 17, 2025

SUBJECT: Administration - Adopt - **Ord. 25-03**, Amending Section 3.1.126 and adding Sections 3.1.126.1 and 3.1.126.2 of Chapter 3.1 of Title 3 of the Clovis Municipal Code Relating to Business Registration and Licensing Exemptions for Honorably Discharged or Honorably Relieved Veterans and Active Duty or Reservist Military Personnel. (Vote: 5-0)

ATTACHMENTS: None.

This item was approved for introduction on March 10, 2025, with a unanimous vote.

Please direct questions to the City Manager's office at 559-324-2060.



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Administration

DATE: March 17, 2025

SUBJECT: Administration – Adopt – **Ord. 25-04**, An Ordinance of the City Council of the City of Clovis Amending Section 5.6.09 of Chapter 5.6 of Title 5 of the Clovis Municipal Code Relating to Authorized Additional Card Tables at Licensed Card Rooms. (Vote: 5-0)

ATTACHMENTS: None.

This item was approved for introduction on March 10, 2025, with a unanimous vote.

Please direct any questions to the City Manager's office at 559-324-2060.



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: General Services

DATE: March 17, 2025

SUBJECT: General Services – Approval – Authorize the City Manager to Execute the First Amendment to Passio Technologies, LLC for an Intelligent Transportation System (ITS). This Amendment includes Additional Licenses and Hardware, Implementation of Active Route Management (ARM) Software, Full Content Management Support for Infotainment, and the Addition of an Interactive Bus Kiosk for a Total of \$455,509.40.

ATTACHMENTS: 1. First Amendment to Contract
2. Original Contract Agreement

RECOMMENDATION

For the City Council to approve and authorize the City Manager to execute the first contract amendment to the Passio Technologies, LLC. (Passio) agreement to include additional licenses for the Intelligent Transportation System (ITS) consisting of the Computer-Aided Dispatch/Automatic Vehicle Location/Automatic Voice Annunciation (CAD/AVL/AVA) components, Passenger Infotainment, Historical and Real-Time Application Programming Interfaces (API's), an infotainment content management package, implementation of the Active Route Management (ARM) software, and an interactive bus kiosk for the Clovis Transit hub at Landmark Commons.

EXECUTIVE SUMMARY

Staff recommends approval and execution of the first contract amendment for additional ITS hardware and software licenses with Passio for new vehicles, implement Active Route Management software, and install an outdoor interactive bus kiosk with content package at the Clovis Transit hub at Landmark Square. Contract amendment 1 (one) will facilitate the integration of the same system into newly purchased vehicles and future purchases. In addition, Clovis Transit would like to improve the functionality of the technology by adding Active Route Management (ARM).

In FY 2022/23, Fresno County Transportation Authority (FCTA) and Fresno Council of Governments (FCOG) invited eligible public agencies to apply for the Measure C New Technology Reserve Subprogram Grant. The grant required advanced transit projects that have the potential to benefit Fresno County residents and assist the region in meeting its air quality goals. The City of Clovis was an eligible applicant and awarded funding for an Intelligent Transportation System (ITS) for fixed route operations.

In March 2023, the City Council approved the original contract with Passio to purchase an Intelligent Transportation System (ITS) for the City's fixed route fleet. The ITS includes Computer-Aided Dispatch, Automatic Vehicle Location, Automatic Voice Annunciation (CAD/AVL/AVA), Passenger Infotainment, and Real-time and Historical APIs components. The ITS components that are currently in use have enhanced the services Clovis Transit provides to passengers and ensures compliance with ADA regulations. The ITS provides fixed route service data required for local, state, and federal reporting and has provides crucial data for operational and service planning.

BACKGROUND

Clovis Transit installed the ITS equipment and software from Passio Technologies in all fixed route vehicles but now needs to integrate the same system into recently purchased vehicles. Currently, 13 fixed route buses are outfitted with the CAD/AVL/AVA systems and passenger infotainment displays. These additional license and hardware will ensure that onboard technology is consistent amongst the Transit fleet. The CAD/AVL component will give the City the ability to view vehicle locations in real-time and gather data to determine: on-time performance, schedule adherence, and event management on all routes. The AVA system will ensure compliance with ADA regulations, by announcing the location and bus stops to passengers on board the buses.

The Passenger Infotainment system will enhance the passenger experience by displaying route information, service alerts, promotional information, public service information, transfer points, and more.

The infotainment full content management support will provide a monthly budget for professional content production for images, animations, or videos to be displayed in our buses. The content that is created can also be utilized for website or social media use as well. All programming, scheduling, and content management will be handled by MessagePoint Media to ensure all content displayed adheres to ADA display standards, runs smoothly and looks professional.

The Real-time and Historical APIs will provide trip planning information to passengers through third-party applications like Google Maps and other applications the City utilizes. Passengers will have the ability to plan their trips through Google Maps, track the arrival of the next bus, and view the current capacity of the buses in service. In addition, Transit staff will be able to utilize the data for route planning and service changes.

The ARM software will be crucial for managing the headways of the new fixed routes. Currently, our fixed route service, Stageline, operates on timepoints. By transitioning to a headway model, vehicle idle time will be reduced allowing passengers to get to the destinations quicker and more efficiently. The software tracks real-time vehicle locations, helps improve on-time performance, and ensures proper spacing of the vehicles on a route.

The interactive kiosk will provide real-time trip information and trip planning capabilities to allow our passengers to easily and efficiently plan their bus trips and become familiar with our new routes. This kiosk can also display informational content for City news and events.

The ITS components that are currently in use have enhanced the services Clovis Transit provides to passengers and ensures compliance with ADA regulations. The ITS provides fixed route service data required for local, state, and federal reporting and has provides crucial data for operational and service planning.

The costs for the additional licenses, ARM software, and interactive kiosk will be \$455,509.40. Expenses will be paid through an existing Measure C New Technology Grant, along with Measure C Transportation Oriented Development (TOD) and STA funds.

FISCAL IMPACT

The costs of Passio's contract amendment one (1) in the amount of \$455,509.40 will be paid for by existing Measure C New Technology Grant funds along with Measure C Transportation Oriented Development (TOD) and STA funds.

REASON FOR RECOMMENDATION

Council approval is required for contract execution and expenditure of funds.

ACTIONS FOLLOWING APPROVAL

The City Manager will execute a contract amendment to provide additional licenses and hardware to equip new vehicles.

CONFLICT OF INTEREST

None.

Prepared by: Nick Chin, Transit Manager

Reviewed by: City Manager AK

**CITY OF CLOVIS
FIRST AMENDMENT TO
CONTRACT SERVICES AGREEMENT**

This First Amendment to Contract Services Agreement ("First Amendment") is entered into between the City of Clovis, a California general law city ("City") and Passio Technologies, LLC ("Contractor ") with respect to the following recitals, which are a substantive part of this First Amendment. This First Amendment shall be effective on April 1, 2025.

RECITALS

WHEREAS, City and Contractor entered into that certain Contract Service Agreement dated April 1, 2023 ("Agreement") to provide a computer aided mobile intelligent transportation system (ITS), the terms of which are incorporated herein by this reference; and

WHEREAS, Contractor has been diligently undertaking its responsibilities as identified in the Agreement since that time; and

WHEREAS, City has determined that a change in the Scope of Services ("Scope of Services") is necessary and requested a proposal from Contractor for the desired revised Scope of Services, which is attached hereto as Exhibit A and incorporated herein by this reference; and

WHEREAS, Contractor proposes to perform the revised Scope of Services for an amount not to exceed Four Hundred Fifty-Five Thousand Five Hundred Nine Dollars and Forty Cents (\$455,509.40), which additional amount is acceptable to City but will result in the total payments to Contractor exceeding the previously authorized amount in the Agreement; and

WHEREAS, City and Contractor desire to amend the Agreement to reflect the changes in the Scope of Services and the authorized amount payable to Contractor, as provided herein.

NOW THEREFORE, in consideration of the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, City and Contractor agree as follows:

AGREEMENT:

1. **Recitals.** The Recitals stated above are true and correct and are a substantive part of this First Amendment.

2. **Change in Scope of Services.** The Services to be performed by Contractor shall be those services described in the Exhibits A & B attached to the Agreement and Exhibit A attached to this First Amendment and incorporated herein by reference. Such changes include the addition of the City's right to purchase additional licenses for use of Contractor's Intelligent Transportation System ("ITS") as required by City's public transit system for the term of this Agreement. Contractor further grants to the City the right to implement and utilize its Active Route Management software to assist the City's transit dispatchers and drivers as required to facilitate City operations for the term of this Agreement. Contractor further acknowledges and agrees to the City's purchase of a bus kiosk equipped with

Contractor's content package for its Landmark Transit hub, which shall assist passengers with real-time bus information and trip capabilities. Contractor hereby acknowledges and agrees to the addition of such terms and Services and the revised compensation rates included in Exhibit A.

3. Payment for Services. The payment for Services referenced in Section 4 of the Agreement is hereby increased under this First Amendment by Four Hundred Fifty-Five Thousand Five Hundred Nine Dollars and Forty Cents (\$455,509.40), to account for the change in the Scope of Services. The total compensation payable to Contractor for all Services performed under the Agreement and this First Amendment shall not exceed the sum of Eight Hundred Twenty-Six Thousand Nine Hundred One Dollars and Thirty-Seven Cents (\$826,901.37).

4. All Other Terms Remain in Effect. Except as expressly set forth herein, all other terms of the Agreement shall remain unchanged and in full force and effect, including all capitalized terms defined in the Agreement unless otherwise defined in this First Amendment, and the Agreement shall be interpreted so as to give full force and effect to this First Amendment.

Now, therefore, the City and Contractor have executed this First Amendment to be effective on the Effective Date provided above.

CONTRACTOR

CITY OF CLOVIS

By: Scott Reiser
Scott Reiser, Managing Director

By: _____
Andy Haussler, City Manager

Date: 03/04/2025

Date: _____

Party Identification and Contact Information:

Contractor
Passio Technologies, LLC
Attn: Scott Reiser
Managing Director
6100 Lake Forest Dr., Ste 410
Atlanta, GA 30328
sales@passiotech.com
(404) 272-9536

City of Clovis
General Services - Transit
Attn: Nick Chin
Transit Manager
785 Third St.
Clovis, CA 93612
nickc@clovisca.gov
(559) 324-2762

ATTEST

Briana Parra, City Clerk

APPROVED AS TO FORM

Scott G. Cross, City Attorney

EXHIBIT A

DESCRIPTION OF SERVICES

SCOPE OF SERVICES

CAD/AVL/AVA HARDWARE AND SYSTEM

The Contractor will install the CAD/AVL/AVA hardware and system on up to 20 additional vehicles.

The Computer-Aided Dispatch (“CAD”) component of the system shall be seamlessly and fully integrated with the Automatic Vehicle Location (“AVL”) component and shall have the ability for the City to view in real-time and gather data for determining On-Time Performance (i.e., by Route, Operator, Block, Trip, Day Vehicle, etc.), schedule adherence and event management for all Routes.

The combined data from the CAD/AVL system shall also be sufficient to allow the City to utilize the data to improve schedules, frequency (headways), time points, bus-stops, and other service-related functions in a comprehensive manner.

Initially, the Contractor will enter directly into their System the City’s schedules, routes, trips, blocks and stops information for the Stageline Routes, which are the bases for on-time performance tracking and reporting.

The CAD/AVL system should also integrate and control the Automated Vehicle Annunciation System (“AVA”) component and installed head signs to provide stop information to City passengers.

CAD/AVL/AVA Requirements:

- Cloud-hosted with an intuitive web-based user interface.
- Utilize a Mobile Data Terminal (“MDT”)/Tablet as the single point for operators logging onto all integrated components/systems.
- MDT/Tablet should run on the Contractor-recommended Android operating system as a best practice, but be capable of running on future Android versions.
- Track trip schedule adherence.
- Ingestion of automatic vehicle location every five (5) seconds or faster.
- Publishing of vehicle location and run or block assignment information through an Application Programming Interface (“API”) accessible by the City and updating that API every five (5) seconds or faster.
- System shall begin gathering AVL location data when the ignition is turned on and continue reporting until the ignition is turned off (based on a programmable time period, i.e., thirty (30) minutes, etc.).
- Mobile Data Computer (“MDC”)/Vehicle Logic Unit (“VLU”) shall integrate with the onboard equipment on each vehicle that provides head-sign control, destination signs, next stop announcements (audible and textual), covert alarm, etc.
- MDC/VLU shall store the most recent location received from the Automatic Passenger Counting system (“APC”) so that if the Global Positioning System (“GPS”) receiver is not

able to report the location, the “last known good” boardings and alightings will remain available.

- Annunciation of stop names with necessary configurations:
 - Which stops.
 - What text.
 - Where exactly to announce.
- Web portal through which annunciation configuration can be easily customized after General Transit Feed Specification (“GTFS”) import or update.
- Head sign control that automatically rotates pre-defined information in text:
 - Integrates with CAD/AVL system or able to accept data through GTFS/other specified data upload.
 - The City prefers integration with the currently installed head signs (Luminator/Twinvision and Hanover). The awarded Contractor will notify the City if they are unable to integrate with existing head signs and the City will purchase new head signs if necessary.

REAL-TIME AND HISTORICAL SERVICE APIs

The Contractor will maintain the GTFS-RT data on up to 20 additional vehicles.

The purpose of the real-time and historical APIs is both to provide customer information to riders through third party applications, such as Google Maps, and to provide any other application that the City may utilize, to access real-time and historical information about Stageline service. These APIs may be provided as a standalone component incorporating information in the CAD/AVL or API.

Real-time and Historical Service APIs Requirements:

- GTFS Real-time 2.0-conforming Trip-updates and Vehicle Positions feeds provided on license terms that allow the City to download, own, and store all data.
- GTFS Real-time and any other API endpoints should reference GTFS feed IDs in the GTFS data set provided by the City and update any time IDs in that data set change.
- API endpoints should update at least every five (5) seconds or faster, incorporating real-time information from the CAD/AVL system.
- Well documented GeoJSON or REST API that provides useful and efficient queries regarding transit network real-time and historical status.

Desired:

- All data provided on license terms that allow the City to download, store, and own all data elements, and utilize the data schema for any purpose.
- Graphical User Interface available to dispatchers for understanding real-time and historical status of the system (also may be provided through CAD/AVL system component).

- Historical data available for all API endpoints for ninety (90) days after the service date, and the archiving or deleting of data on a clear operational process transparent to the City.
- Firm capacity and intention to update GTFS real-time endpoints as the specification evolves to provide better information to customers and better reporting data to the City.

Provide service alerts to inform passengers of service disruptions.

GTFS (STATIC AND REAL-TIME) REQUIREMENTS

- Ensure compliance with the California Minimum GTFS Guidelines on an agreed upon schedule with the City.
- Ensure compliance with Mobility Data Interoperability Principles on an agreed upon schedule with the City.
- Integrate with Urban Transportation Associates onboard APC system via API. Import Real-Time Passenger Load data with GTFS feed and make the same data available in Dispatch software tools.
- Export the GTFS (Both static and real-time) feed and make it available for consuming applications, such as Google Maps, within two (2) business days.

PASSENGER INFOTAINMENT

The Contractor will install the passenger infotainment hardware and system on up to 20 additional vehicles.

The current infotainment system will be installed on the new vehicles. This solution is utilized to compliment the audio announcements by displaying public information for such things as: Next Stop, Rider Alerts, promotional information, public service information, transfer points, etc.

City would like to install one monitor in the front of each vehicle. Contractor should recommend monitor size(s), mounting locations, and brackets

Infotainment Requirements:

- Integrate and synchronize with the AVAS.
- Able to accept configuration data through GTFS and location/assignment API provided by a CAD/AVL system or integrated with the CAD/AVL system.
- Display various types of content including audio, video, images, and accept multiple media types such as MP4, WAV, JPEG, etc.
- Integrate with on-board Public Address (“PA”) system.
- Ability to send/push ad-hoc “real-time” information to the solution.
- Ability to create route-based announcements/displays.

- Display next stop information after departure from previous stop and/or next stop information prior to reaching the next stop giving the rider sufficient time to prepare for alighting.
- Web portal through which display configuration can be easily customized after GTFS import or update.

OUTDOOR KIOSK WITH CONTENT PACKAGE

The EX43KV Intelligent Outdoor Kiosk 43” 1080p HD is a floor standing, sun-lit readable display to be installed at the Landmark Transit Hub and will include the same infotainment content displayed on board fixed-route vehicles. The kiosk will display real-time vehicle and route information to allow passengers to conveniently and efficiently plan their bus trips.

- 43” 1080p HD intelligent kiosk
- Floorstanding
- Fan cooled
- Outdoor sunlight readable with 2600 NIT brightness
- Embedded MP185 controller with 1.8Ghz
- 64 Bit Quad ARM A55 Core CPU
- G52 dedicated GPU
- 0.8 TOPS dedicated NPU (AI/IoT)
- 2GB RAM
- 8 GB Content Cache
- 802.11 b/g/n/ac WiFi
- Gigabit Ethernet
- USB 3.0
- GPIO
- LVDS & HDMI Output UP to 4K UHD
- Supports MP-TV OS 11

INFOTAINMENT FULL CONTENT MANAGEMENT

Fully Managed Support is a concierge digital signage service. All support is handled by MessagePoint Media and includes:

- Managed customer service
- Proactive update support and monitoring
- Content management
- Content creation

Support includes a monthly budget for content production that can be used to create images, animations, or video to run on the network. Such content can also be used on our website and social media.

ACTIVE ROUTE MANAGEMENT (ARM)

Active Route Management (ARM) will be set up as a solution to help avoid bus-bunching by keeping buses

evenly spaced out on routes for headway management. Both dispatchers and the drivers will be made aware of any issues with buses that are too close and will advise on the appropriate action to take (i.e. wait extra time at a bus stop). The system set up is based on the number of routes set up with ARM, and additional route setup may be added as options if needed. This solution will be installed on up to 34 vehicles.

COMPENSATION AND RATES

Contractor shall be compensated according to the following rates/fees:

<u>CAD/AVL/AVA</u>	<u>Category</u>	<u>Per Vehicle Cost</u>	<u>Total Cost (20 Vehicles)</u>
CAD/AVL Hardware	Hardware	\$1,324.70	\$26,494.00
CAD/AVL License	License	\$87.75	\$1,755.00
CAD/AVL Annual Fee	Reoccurring	\$799.00	\$15,980.00
Headsign Hardware	Hardware	\$174.25	\$3,485.00
Headsign License	License	\$357.00	\$7,140.00
Headsign Annual Fee	Reoccurring	\$107.00	\$2,140.00
AVA Audio Interrupt	Hardware	\$346.50	\$6,930.00
AVA License	License	\$580.80	\$11,616.00
AVA Annual Fee	Reoccurring	\$468.00	\$9,360.00
CAD/AVL/AVA Installation	Installation	\$1,110.00	\$22,200.00
	Total	\$5,355.00	\$107,100.00

<u>GTFS-RT</u>	<u>Category</u>	<u>Per Item Cost</u>	<u>Total Cost (20 Vehicles)</u>
GTFS Annual	Reoccurring	\$0.00	\$0.00
	Total	\$0.00	\$0.00

<u>Infotainment</u>	<u>Category</u>	<u>Per Item Cost</u>	<u>Total Cost (20 Vehicles)</u>
Infotainment Hardware	Hardware	\$4,164.00	\$83,280.00
Infotainment Installation	Install	\$2,477.00	\$49,540.00
Infotainment Annual Fee	Reoccurring	\$374.25	\$7,485.00
MPM Infotainment Warranty (5 Year)	Warranty	\$517.50	\$10,350.00
	Total	\$7,015.25	\$140,305.00

<u>Full Content Management</u>	<u>Category</u>	<u>Per Item Cost</u>	<u>Total Cost (20 Vehicles)</u>
Full Content Management	Reoccurring	\$650.00	\$22,100.00
	Total	\$650.00	\$22,100.00

<u>Outdoor Kiosk</u>	<u>Category</u>	<u>Per Item Cost</u>	<u>Total Cost</u>
Kiosk Hardware	Hardware	\$8,995.00	\$8,995.00
Installation	Installation	\$13,024.00	\$13,024.00
Kiosk Warranty	Warranty	\$2,000.00	\$2,000.00
Kiosk Annual Fee	Reoccurring	\$499.00	\$499.00
	Total:	\$24,518.00	\$24,518.00

<u>Active Route Management (ARM)</u>	<u>Category</u>	<u>Per Item Cost</u>	<u>Total (34 Vehicles)</u>
ARM Setup	Installation	\$11,192.40	\$11,192.40
ARM License	License	\$188	\$6,204.00
ARM Annual Fee	Reoccurring	\$188	\$6,204.00
	Total:	\$23,600.40	\$23,600.40

<u>Reoccurring Fees</u>	<u>Category</u>	<u>Annual Cost</u>
CAD/AVL Annual Fee	Reoccurring	\$799.00
Headsign Annual Fee	Reoccurring	\$107.00
AVA Annual Fee	Reoccurring	\$468.00
Infotainment Annual Fee	Reoccurring	\$374.25
Kiosk Annual Fee	Reoccurring	\$499.00
ARM Annual Fee	Reoccurring	\$188.00
GTFS-RT Annual Fee	Reoccurring	\$0.00
	Total	\$2,247.25

These rates/fees represent the total cost for all Services provided under this Amendment to the original contract, including labor, equipment, materials, costs and expense, taxes, and overhead to be paid for Services satisfactorily performed.

Total compensation, including expense reimbursement for the initial term, shall not exceed:

AMENDMENT TO ORIGINAL CONTRACT TOTAL: \$826,901.37

EXHIBIT B
CONTRACTOR'S PROPOSAL

PASSIO TECHNOLOGIES

YOUR CUSTOM SOLUTION QUOTE

City of Clovis - CA

Nick Chin

NICKC@CITYOFCLOVIS.COM

Clovis

Quote #: 2289 v5

PLEASE REACH OUT TO
PASSIO SALES WITH ANY
QUESTIONS
SALES@PASSIOTECH.COM

PASSIO
TECHNOLOGIES

Passio Technologies
 6100 Lake Forrest Dr
 Atlanta, GA 30328
 United States

T: 678-825-3456
 F: 866-633-9504

Prepared for City of Clovis - CA
 Nick Chin
 Clovis, CA
 United States

 T: 559-324-2762
 E: NICKC@CITYOFCLOVIS.COM

Quote #	2289 v5
Date	Feb 6, 2025
Expires	Mar 31, 2025
Contact	Chris Breyfogle

ACCEPT QUOTE

Passio Technologies Quote - City of Clovis - 20 Veh Add on

Passio GO with MDT

One-Time Fees

Category	Item	Qty	Price	Total
License	Passio GO GPS CAD/AVL Software License	20	\$135.00	\$2,700.00
	Per unit one time software license. Includes lifetime updates. For Installed, Portable, and API Configuration.			\$1,755.00
	35% Item Discount (\$945.00)			
	Code: GOgpsavl			
	Base Price		\$135.00	\$2,700.00
Hardware	VLU	20	\$422.00	\$8,440.00
	Vehicle Logic Unit for GPS Tracking.			\$7,174.00
	15% Item Discount (\$1,266.00)			
	Code: VLU			
Hardware	MDT Portable	20	\$966.00	\$19,320.00
	Rugged Android MDT with Cradle Mount			
	Code: MDTport			
One-Time Subtotal				\$30,460.00
Discount				(\$2,211.00)

Annual Fees

Category	Item	Qty	Price	Total
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Category	Item	Qty	Price	Total
Recurring	Passio GO GPS/AVL Recurring Annual Per unit annual recurring fee. Configuration updates, reporting, and data storage. Code: 40RX21PGO	20	\$799.00	\$15,980.00[†]
				<i>* Recurring fees billed annually with 0 upfront payment(s).</i>
			Annual Subtotal	\$15,980.00

Headsign Integration - LEDx - J1708 Connection

One-Time Fees

Category	Item	Qty	Price	Total
License	LED Connect (LEDx) Destination Sign Software License Integration with J1708/J1939 exterior destination sign. Includes connection hardware. 15% Item Discount (\$1,260.00) Code: 1212020LEDX	20	\$420.00	\$8,400.00 \$7,140.00[†]
Hardware	LED Hardware Wiring harness, mounts, hardware 15% Item Discount (\$615.00) Code: LEDhard2	20	\$205.00	\$4,100.00 \$3,485.00
			One-Time Subtotal	\$12,500.00
			Discount	(\$1,875.00)

Annual Fees

Category	Item	Qty	Price	Total
Recurring	LED Connect (LEDx) Software Recurring Annual Per unit annual recurring fee for J1708/J1939 Destination LED sign integration and software management. Code: 2210029LEDX	20	\$107.00	\$2,140.00[†]
				<i>* Recurring fees billed annually with 0 upfront payment(s).</i>
			Annual Subtotal	\$2,140.00

GTFS-RT (Real Time)

Annual Fees

Category	Item	Qty	Price	Total
Recurring	Real Time GTFS Feed Recurring Annually	20	\$22.00	\$440.00
	Per unit annual recurring fee. Configuration updates, reporting, and data storage.			\$0.00[†]
	100% Item Discount (\$440.00)			
	Code: GTFSa			

* Recurring fees billed annually with 0 upfront payment(s).

Annual Subtotal	\$440.00
Discount	(\$440.00)

Automated Voice Announcement - AVA

One-Time Fees

Category	Item	Qty	Price	Total
Hardware	AVA: Audio Interrupt System	20	\$385.00	\$7,700.00
	Includes audio interrupt hardware, ancillary equipment, and wiring for connection to existing PA or Head Unit system with installed speakers. If additional audio equipment is required, Passio can provide this option as an upgrade to the customer.			\$6,930.00
	10% Item Discount (\$770.00)			
	Code: 1219045AVA			
Setup	AVA: Automated Voice Announcement Software License	20	\$726.00	\$14,520.00
	Per unit one time software license. Includes lifetime updates.			\$11,616.00[†]
	20% Item Discount (\$2,904.00)			
	Code: AVAlicense			

One-Time Subtotal	\$22,220.00
Discount	(\$3,674.00)

Annual Fees

Category	Item	Qty	Price	Total
Recurring	AVA: Automated Voice Announcement Recurring Annually	20	\$468.00	\$9,360.00[†]
	Per unit annual recurring fee. Configuration updates, reporting, and data storage.			
	Code: AVAannual			

* Recurring fees billed annually with 0 upfront payment(s).

Annual Subtotal	\$9,360.00
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Infotainment - Advertising Capabilities on Screens

One-Time Fees

Category	Item	Qty	Price	Total
Hardware	M27V - Ruggedized, Intelligent Bus Display (Direct) Included in the Hardware: M27V - Ruggedized, Intelligent Bus Display (Direct) 27" Vehicle Rated FHD (1920x1080) Vertical Display LCD Panel with 500 NIT High Brightness LED Backlight, Automatic Brightness Control Sensor, Integrated 3mm Anti-Reflective Laminated Safety Glass for IK7 Rated Impact Protection. Embedded MP190 Controller with 1.8Ghz 64 Bit Quad ARM A55 Core CPU, G-52 Dedicated GPU, 0.8 TOPS Dedicated NPU (AI / IoT), 2 GB RAM, 8 GB Content Cache (Expandable to 128 GB via SD Card), 802.11 b/g/n/ac WiFi, Gigabit Ethernet, USB 3.0, GPIO, LVDS & HDMI Output Up to 4K UHD, Supports MP-TV OS 11 Code: PM-SETUP	20	\$3,495.00	\$69,900.00[†]
Hardware / Hardware	[KIT-OEM-M27V-G2-FRS-NOV] Mounting - Mobile Retrofit Mounting Kit (Novabus, Front Stanchion, M27v)	20	\$500.00	\$10,000.00
Hardware / Hardware	[CBL-DC-4M-Ring] M-Series DC Low-Voltage Power Cable (Ring, 4M)	20	\$89.00	\$1,780.00
Hardware / Hardware	Infotainment E Cable (10FT, Black)	20	\$80.00	\$1,600.00
Installation / Services	Professional Services: Project Management (Tier 2)	40	\$189.00	\$7,560.00
Installation / Services	[DBE-Inst-M-Single] DBE Installation (Mobile - Single)	20	\$1,250.00	\$25,000.00
Installation / Services	Initial Display Provisioning and Configuration Service (Standard)	20	\$249.00	\$4,980.00
Installation / Services	DBE Dispatch Fee	3	\$4,000.00	\$12,000.00
HDW&INST / Warranty	5 Year MPM Warranty	1	\$10,350.00	\$10,350.00
One-Time Subtotal				\$143,170.00

Annual Fees

Category	Item	Qty	Price	Total
License	[LIC-MPTV-Pro-Base]MPTV Professional License and SelfManaged Support MPTV Professional Base License	20	\$374.25	\$7,485.00
* Recurring fees billed annually with 0 upfront payment(s).				
Annual Subtotal				\$7,485.00

Outdoor Transit Kiosk

One-Time Fees

Category	Item	Qty	Price	Total
Hardware / Hardware	DSP-EX43KV-G1 EX43KV Intelligent Outdoor Kiosk 43" 1080p HD Intelligent Kiosk, Floorstanding, IP-54, Fan Cooled, Outdoor Sunlight Readable with 2500 NIT Brightness, -20C to 50C Temperature Envelope. Embedded MP185 Controller with 1.8Ghz 64 Bit Quad ARM A55 Core CPU, G52 Dedicated GPU, 0.8 TOPS Dedicated NPU (AI / IoT), 2 GB RAM, 8 GB Content Cache (Expandable to 128 GB via SD Card), 802.11 b/g/n/ac WiFi, Gigabit Ethernet, USB 3.0, GPIO, LVDS & HDMI Output Up to 4K UHD, Supports MP-TV OS 11	1	\$8,995.00	\$8,995.00
Hardware / Warranty	3 year Warranty	1	\$2,000.00	\$2,000.00
Installation / Services	PS-PM-T2 Professional Services: Project Management	1	\$3,024.00	\$3,024.00
Installation / Services	PS-OS-T2 Onsite Professional Services Labor	1	\$3,600.00	\$3,600.00
Installation / Services	PS-Travel Travel and Per-Diem for On-Site Services Budget for Travel and Per-Diem for up to 3 Days On-Site for Two Team Members on a Single Visit. Additional Days, Staff, or Travel with Less than 2 Weeks Notice May Result in Increased Costs	1	\$1,600.00	\$1,600.00
Installation	DBE-Inst-K DBE Installation (Kiosk)	1	\$2,800.00	\$2,800.00
Installation	DBE-Dispatch DBE Dispatch Fee	1	\$2,000.00	\$2,000.00
One-Time Subtotal				\$24,019.00

Annual Fees

Category	Item	Qty	Price	Total
License	LIC-MPTV-Pro-Base MPTV Professional License and Self-Managed Support	1	\$499.00	\$499.00

* Recurring fees billed annually with 0 upfront payment(s).

Annual Subtotal **\$499.00**

Infotainment Full Content Management

Annual Fees

Category	Item	Qty	Price	Total
Recurring	Full Content Management for Infotainment of existing fleet with 20 new vehicles	34	\$650.00	\$22,100.00

* Recurring fees billed annually with 0 upfront payment(s).

Annual Subtotal \$22,100.00

Installation

One-Time Fees

Category	Item	Qty	Price	Total
Hardware	Installation	20	\$1,110.00	\$22,200.00
	Hardware installation and connectivity testing. On site charges, travel, and initial costs.			
	Passio (Code: Install)			
	Component Install:			
	MDT (Mobile Data Terminal) (MDTINST)			
	VLU (Vehicle Logic Unit) (VLUINST)			
	AVA Interrupt (AVAINST)			
	LEDX Installation (LEDXINST)			
	Cellular Router (ROUTRINST)			

One-Time Subtotal \$22,200.00

Summary

[†] Non-taxable item

Please contact us if you have any questions.

One-Time Subtotal \$254,569.00

Discount (\$7,760.00)

Total One-Time \$246,809.00 USD

Annual Subtotal \$58,004.00

Discount (\$440.00)

Total Annually \$57,564.00 USD

ACCEPT QUOTE

Cost Breakdown

Category	One-Time Fees	Annual Fees
License	\$11,100.00	\$7,984.00
Hardware	\$131,660.00	—
Recurring	—	\$50,020.00
Setup	\$14,520.00	—
Hardware / Hardware	\$22,375.00	—
Installation / Services	\$57,764.00	—
HDW&INST / Warranty	\$10,350.00	—
Hardware / Warranty	\$2,000.00	—
Installation	\$4,800.00	—
Discount	(\$7,760.00)	(\$440.00)
Total	\$246,809.00 USD	\$57,564.00 USD

Standard Terms and Conditions

- Installation
 - All installation quotes are estimates based on customer provided vehicle information. Limited vehicle availability or undocumented vehicle configuration information may result in increased installation costs and/or trip charges.
- Sales & Use Tax
 - Customer to provide tax exempt certificate if applicable. Customers are required to calculate calculate and pay all applicable USE taxes unless alternate arrangements made at time of order.
- Term of Agreement
 - Standard term is 36 months for optimal pricing. Customers have the option to select 60 month term to lock in pricing for an extended period. Lesser term periods are subject to higher recurring fees.
- Deposit
 - New customers are required to pay a deposit equal to 50% of the one time costs prior to shipment of any equipment or account setup.

PASSIO TECHNOLOGIES

YOUR CUSTOM SOLUTION QUOTE

City of Clovis - CA

Nick Chin

NICKC@CITYOFCLOVIS.COM

Quote #: 3324 v2

One-Time Cost - \$17,396.40 USD

Annual Recurring - \$6,204.00 USD

Quote Expires - May 18, 2025

PLEASE REACH OUT TO
PASSIO SALES WITH ANY
QUESTIONS
SALES@PASSIOTECH.COM

PASSIO
TECHNOLOGIES

Passio Technologies

6100 Lake Forrest Dr
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United States

T: 678-825-3456
F: 866-633-9504

Prepared for City of Clovis - CA
Nick Chin
Clovis, CA
United States

T: 559-324-2762
E: NICKC@CITYOFCLOVIS.COM

Quote #	3324 v2
Date	Feb 25, 2025
Expires	May 18, 2025
Contact	Chris Breyfogle

ACCEPT QUOTE

Passio Technologies Quote with The City of Clovis - ARM 33 Veh

Passio Active Route Management

One-Time Fees

Category	Item	Qty	Price	Total
Setup/License	Active Route Management Setup Fee (1-3 Routes)	1	\$12,436.00	\$12,436.00 \$11,192.40†
	System setup is based on the number of routes that are set up for Active Route Management. Base fee is for 1-3 routes. Additional route setup may be added as options if needed.			
	10% Item Discount (\$1,243.60)			
	Passio (Code: 10SX921ARMSET)			
	Base Price		\$9,846.00	\$9,846.00
	ARM Route Setups (Additional): Route 8 Setup (ARM-R5)		\$2,590.00	\$2,590.00
License	Active Route Management License Fee	33	\$188.00	\$6,204.00†
	Per Vehicle License Fee for Active Route Management			
	Passio (Code: 10LX921ARMLIC)			
One-Time Subtotal				\$18,640.00
Discount				(\$1,243.60)
Total One-Time				\$17,396.40 USD

Annual Fees

Category	Item	Qty	Price	Total
Recurring	Active Route Management Annual Recurring Fee	33	\$188.00	\$6,204.00†
	Annual recurring fee per vehicle for active route management.			
	Passio (Code: 10SX221ARMRECUR)			

† Non-taxable item

Total Annually **\$6,204.00 USD**

Please contact us if you have any questions.

ACCEPT QUOTE

Cost Breakdown

Category	One-Time Fees	Annual Fees
Setup/License	\$12,436.00	—
License	\$6,204.00	—
Recurring	—	\$6,204.00
Discount	(\$1,243.60)	—
Total	\$17,396.40 USD	\$6,204.00 USD

Standard Terms and Conditions

- Installation
 - All installation quotes are estimates based on customer provided vehicle information. Limited vehicle availability or undocumented vehicle configuration information may result in increased installation costs and/or trip charges. Passio installations are planned to occur during standard business hours. Additional fees may apply if overnight or weekend hardware installation is required by the client
- Sales & Use Tax
 - Customers are responsible for all applicable sales tax. If you are sales tax exempt or use taxes are accrued, please provide that documentation at the time of order acceptance.
- Term of Agreement
 - Standard term is 36 months for optimal pricing. Customers have the option to select 60 month term to lock in pricing for an extended period. Lesser term periods are subject to higher recurring fees. After term agreement is completed customer has the option to transition to a new term agreement or month to month arrangement, any price adjustments will be communicated, in writing, at that time. Month to month customers may cancel at any time by providing a minimum of 30 days' written notification.
 - Recurring Fees automatically increase annually by 3% or the prevailing Consumer Price Index Rate, whichever is greater, up to a maximum of 5% per year unless otherwise determined by mutual agreement and documented, in writing, by all parties.
- Financial Terms
 - Recurring costs begin at 'go live' which is determined when solutions are fully available and after installation (if required) of available fleet is completed.
 - New customers are required to pay a deposit equal to 50% of the one-time costs prior to shipment of any equipment or account setup.

CITY OF CLOVIS CONTRACT SERVICES AGREEMENT

This Contract Services Agreement ("Agreement") is entered into between the City of Clovis, a California general law city ("City") and Passio Technologies, LLC, a Georgia corporation ("Contractor") with respect to the following recitals, which are a substantive part of this Agreement. This Agreement shall be effective on April 1, 2023 ("Effective Date").

RECITALS

City desires to obtain and implement a computer aided mobile intelligent transportation system and related services to aid in providing public transit services") as more fully described in **Exhibit A** and incorporated herein by reference.

Contractor has developed an Intelligent Transportation System and is experienced in implementing the system for public transit systems ("Project") and has submitted a proposal to provide Project implementation and the related services (Project implementation and related services are hereinafter collectively referred to as "Services") to City as more fully described in the **Exhibit B** attached hereto and incorporated herein by reference.

City desires to retain Contractor, and Contractor desires to provide City with the Services, on the terms and conditions as set forth in this Agreement.

NOW, THEREFORE, in consideration of the promises and mutual agreements herein, City and Contractor agree as follows:

AGREEMENT

1. Scope of Services. Contractor shall perform the Services described in the Recitals and detailed in **Exhibits A & B**. Changes in the scope of Services, including the work performed and/or deliverables produced, shall be made in writing and particularly describe the changes in Services, including payment/costs and schedule/term, as applicable.
2. Priority and Conflicts; Exclusions. If the terms and requirements of this Agreement and/or **Exhibit A** conflict with **Exhibit B**, this Agreement and **Exhibit A** shall control. No contractual terms and/or conditions found in **Exhibit B** shall purport to waive, disclaim, or limit Contractor's liability, indemnification obligations, warranties, damages for breach or delay, or any security, bonding, or insurance requirements, and any such provisions shall have no force or effect with respect to this Agreement and the Services performed by Contractor.
3. Term of Agreement; Commencement of Services; Schedule. The term of this Agreement shall be three (3) years commencing on April 1, 2023, and Contractor shall begin performing the Services on that date unless otherwise notified in writing by City. This Agreement shall terminate on March 31, 2026, unless City extends the term for up to an additional two (2) years by sending written notice of extension (extended term) to Contractor at least sixty (60) days prior to the end of the initial term. This Agreement may be terminated prior to the end of the initial term or extended term pursuant to Sections 26 and 27 herein.

Contractor shall perform the Services according to the schedule set forth in **Exhibit A**. The schedule shall be subject to modification based on the City's operational needs. City will notify Contractor in advance of any modification to the schedule.

4. Payment for Services. During the initial term and any extended term of this Agreement, City shall pay Contractor for the Services performed pursuant to this Agreement according to the rate(s) schedule stated in **Exhibit A**. Contractor shall submit periodic invoices corresponding to the Milestone Schedule included in **Exhibit A** as the Services are delivered. The total amount paid by City to Contractor for Services performed during the initial term shall not exceed the compensation described in **Exhibit A** during the initial term (Three Hundred and Twenty-Two Thousand Nine Hundred and Forty-Nine Dollars and Fifty-Four Cents (\$322,949.54)), plus a contingency of fifteen percent (15%). If City extends the term in accordance with Section 3, the total amount paid by City to Contractor for Services performed during the extended term shall not exceed the compensation described in **Exhibit A** during the applicable extended term, plus a contingency of fifteen percent (15%).

The foregoing is inclusive of all labor, equipment, materials, costs and expenses, taxes, and overhead. City shall pay Contractor for Services satisfactorily performed pursuant to this Agreement. Contractor shall submit periodic invoices to City containing detailed billing information and milestone deliverables regarding the Services provided and unless otherwise specified in **Exhibit A**, City shall tender payment to Contractor within thirty (30) days after receipt of invoice.

5. Independent Contractor Status. Contractor and its subcontractors shall perform the Services as independent contractors and not as officers, employees, agents, or volunteers of City. Contractor is engaged in an independently established trade, occupation, or business to perform the Services required by this Agreement and is hereby retained to perform work that is outside the usual course of City's business. Contractor is free from the control and direction of City in connection with the manner of performance of the Services. Nothing contained in this Agreement shall be deemed to create any contractual relationship between City and Contractor's employees or subcontractors, nor shall anything contained in this Agreement be deemed to give any third party, including but not limited to Contractor's employees or subcontractors, any claim or right of action against City.

6. Acknowledgement. Contractor acknowledges, warrants, and represents that it and its principals have thoroughly investigated the scope of Services to be provided by the Contractor and has examined all of the Exhibits attached hereto, and any referenced reports, and has examined the Project installation site for equipment and/or materials which Contractor has agreed to supply herein and is familiar with the local conditions which may affect the manufacture and delivery of said equipment, and that except as provided for herein, Contractor will make no claims for additional compensation over and above that set forth in Section 4 herein and Exhibit A hereto.

7. Qualifications. Contractor represents that Contractor has the qualifications and skills necessary to perform the Services under this Agreement in a competent, professional manner, without the advice or direction of City. This means Contractor is able to fulfill the requirements of this Agreement. Failure to perform all the Services required under this Agreement constitutes a material breach of the Agreement. Contractor has complete and sole discretion for the matter in which the Services under this Agreement will be performed.

8. Key Personnel. Contractor agrees and designates the following individuals as "Key Personnel" for providing the Services:

- President: Mitch Skyer
- Chief Technology Officer: Scott Reiser
- Director of Operations: Jessica Song
- Sales Director: Scott McLaren
- Account Manager: Keven Izen
- Project Manager: Michael Civitelli
- Client Care Specialist: Courtney Hall
- Lead Customers Success Representative: Lucy Lee
- Installation Technician: Wayne Manis
- Data Analyst: Carly Valcheff

Contractor agrees that said Key Personnel will be able to dedicate up to one hundred percent (100%) of their time to the Services, as needed, for the successful and timely completion of the Project and Services. Contractor reserves the right to substitute Key Personnel, provided that Contractor notifies City in writing at least ten (10) days in advance of such change.

9. Contractor Representations; Standard of Care; Compliance with Law. Contractor represents that Contractor and any subcontractors utilized by Contractor are and will be qualified in the field for which Services are being provided under this Agreement and Contractor and any subcontractors are now, and will be throughout their performance of the Services under this Agreement, properly licensed, certified, secured/bonded, trained, and/or otherwise qualified and authorized to perform the Services required and contemplated by this Agreement, as may be required by law. Contractor and its subcontractors shall utilize the standard of care and skill customarily exercised by members of their profession, shall use reasonable diligence and best judgment while performing the Services, and shall comply with all applicable laws, regulations, and industry standards. Contractor shall comply with all Labor Code requirements for public works projects if applicable to Contractor's work under this Agreement.

10. Identity of Subcontractors. Contractor shall, before commencing any Services under this Agreement, provide to City in writing: (a) the identity of all subcontractors, if any, Contractor intends to utilize in Contractor's performance of this Agreement; and (b) a detailed description of the full scope of work to be provided by such subcontractors. Contractor shall only employ subcontractors pre-approved by City and in no event shall Contractor replace an approved subcontractor without the advance written permission of City, with the understanding that City's permission will not be unreasonably withheld. Notwithstanding any other provisions in this Agreement, Contractor shall be liable to City for the performance of Contractor's subcontractors.

11. Subcontractor Provisions. Contractor shall include in its written agreements with its subcontractors, if any, provisions which: (a) impose upon the subcontractors the obligation to provide to City the same insurance and indemnity obligations that Contractor owes to City; (b) make clear that City intends to rely upon the reports, opinions, conclusions and other work product prepared and performed by subcontractors for Contractor; and (c) entitle City to impose upon subcontractors the assignment rights found elsewhere in this Agreement.

12. Drug Free Workplace. Contractor acknowledges that City has adopted a policy of maintaining a drug free workplace and Contractor agrees to abide by the provisions of City's substance abuse policy provide to Contractor under separate cover. Violation of this provision may result in immediate termination of this Agreement.

13. Power to Act on Behalf of City. Contractor is not acting as an agent of City and shall not have any right, power, or authority to create any obligation, express or implied, or make representations on behalf of City except as may be expressly authorized in advance in writing from time to time by City and then only to

the extent of such authorization.

14. Record Keeping; Reports. Contractor shall keep complete records showing the type of Services performed. Contractor shall be responsible and shall require its subcontractors to keep similar records. City shall be given reasonable access to the records of Contractor and its subcontractors for inspection and audit purposes. Contractor shall provide City with a working draft of all reports upon reasonable request by City and of all final reports prepared by Contractor under this Agreement.

15. Ownership and Inspection of Documents. All data (routes, latitudes/longitudes, stop locations, bus schedules, operator bids, etc.), tests, reports, analyses, documents, records, conclusions, opinions, recommendations, and other work product generated by or produced for Contractor or its subcontractors in connection with the Services, regardless of the medium, including physical drawings and materials recorded on computer discs or other electronic devices ("Work Product"), shall be and remain the property of City. City shall have the right to use, copy, modify, and reuse the Work Product as it sees fit. Upon City's request, Contractor shall make available for inspection and copying all such Work Product and all Work Product shall be turned over to City promptly at City's request or upon termination of this Agreement, whichever occurs first. Contractor shall not release any Work Product to third parties without prior written approval of City. This obligation shall survive termination of this Agreement and shall survive for four (4) years from the date of expiration or termination of this Agreement.

16. Confidentiality. All Work Product prepared and performed by and on behalf of Contractor in connection with the Services performed pursuant to this Agreement shall be kept confidential and shall be disclosed only to City, unless otherwise provided by law or expressly authorized by City. Contractor shall not disclose or permit the disclosure of any confidential information acquired during performance of the Services, except to its agents, employees and subcontractors who need such confidential information in order to properly perform their duties relative to this Agreement. Contractor shall also require its subcontractors to be bound to these confidentiality provisions.

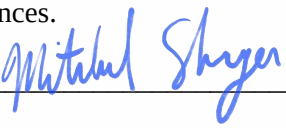
17. Professional Responsibility. Notwithstanding any other provision in this Agreement, the review and/or approval by City, or any of its directors, officers, employees, or agents, of any technical specifications, design documents, and all other work products or project communications prepared by the Contractor or any of its subcontractors, or of any acts or failures to act by Contractor or any of its subcontractors, shall not relieve the Contractor or any of its subcontractors of any professional responsibility for the services performed.

18. Implementation and Integration Services. Contractor will coordinate all activities, including but not limited to implantation and integration services, inspection, field testing of equipment, monitoring, and reporting Contractor's progress with and to City. Contractor will cooperate with and advise City of Contractor's progress and timing schedules for the Project and shall provide City access to Contractor's equipment and facilities for City's inspections of this Project. City shall have the authority to cause Contractor's work to be stopped if such work is not in accordance with **Exhibits A and B**. City shall designate a representative ("City Representative") who shall have the authority to take all actions on behalf of City. Contractor shall direct all notices and other correspondence to the City Representative. Any notices or approvals from City that are not sent by the City Representative shall be subsequently confirmed by the City Representative.

19. Labor and Materials. Contractor shall provide and furnish all the labor, materials, necessary tools, expendable equipment, and all utility related to construction, implementation, and integration services, and transportation services required to complete the Project.

20. Extra Work. In the event Contractor requests a Change Order for extra work required as a result of conditions which are significantly different from those reasonably anticipated when this Agreement was executed, such request shall be submitted to City in writing and shall be accompanied by the following declaration, signed by the Contractor:

I, Mitchel Skyer (name of Contractor's authorized representative) being the President (title of Contractor's authorized representative) of Passio Technologies, LLC (Contractor's name) ("Contractor") declare under penalty of perjury under the laws of the State of California, and do personally certify and attest that: I have thoroughly reviewed the attached claim for additional compensation and/or extension of time, know its contents, and know said claim is made in good faith; the supporting data is truthful and accurate; and the amount requested accurately reflects the Agreement adjustment for which Contractor believes the City is liable. I am familiar with California Penal Code Section 72 and California Government Code Sections 12560 et seq., pertaining to false claims, and I know and understand that submission or certification of a false claim may lead to fines, imprisonment, and/or other severe legal consequences.


Signature

President 11-21-2022
Title Date

Submission of a claim, properly certified, with all required supporting documentation, and written rejection or denial of all or part of the claim by the City, is a condition precedent to any action, proceeding, litigation, suit, or demand for arbitration by Contractor.

Contractor's disagreement over the amount to be paid for extra work shall not relieve Contractor of the obligation to continue to perform all the Services as required in **Exhibits A and B**.

21. System Acceptance. On-site system acceptance testing shall include Contractor and City staff, and will occur per the testing plan timetable as specified by the Contractor in its System Acceptance Testing. System acceptance tests will exercise all system components according to an acceptance test plan developed by the Contractor and approved by City.

Tests conducted by the Contractor may not prevent the ongoing operation of City unless previously approved by City. The Contractor shall maintain and submit complete records of all test results.

22. Final Acceptance of Full System Deployment. Final Acceptance for the Full System Deployment ("Final Acceptance") will be granted after thirty (30) calendar days of continuous achievement of the acceptance metrics and error-free production operation of the System from the System Go-Live date.

23. City Name and Logo. Contractor shall not use City's name or insignia, photographs relating to the City projects or work for which Contractor's services are rendered, or any publicity pertaining to the Contractor's Services under this Agreement in any magazine, trade paper, newspaper, television or radio production, internet website, social media, or other similar medium without the prior written consent of City.

24. Conflicts of Interest. Contractor warrants that neither Contractor nor any of its employees have an improper interest, present or contemplated, in the Services which would affect Contractor's or its employees' performance of the Services and the Work Product produced. Contractor further warrants that neither Contractor nor any of its employees have real property, business interests or income that will be affected by the Services. Contractor covenants that no person having any such interest, whether an employee or

subcontractor shall perform the Services under this Agreement. During the performance of the Services, Contractor shall not employ or retain the services of any person who is employed by the City or a member of any City board or commission.

25. Non-liability of Officers and Employees. No officer or employee of City shall be personally liable to Contractor, or any successors in interest, in the event of a default or breach by City for any amount which may become due Contractor or its successor, or for any breach of any obligation under the terms of this Agreement.

26. Termination of Agreement. This Agreement shall terminate as provided in Section 3, unless terminated earlier pursuant to the following:

- a. Termination by City: For Convenience. City may at its discretion terminate this Agreement for convenience and without cause upon thirty (30) days prior written notice to Contractor. Upon receipt of a termination notice pursuant to this subsection, Contractor shall promptly discontinue all Services affected, unless the notice directs otherwise.
- b. Termination by City or Contractor: For Cause. Either party may terminate this Agreement upon thirty (30) days prior written notice to the other party of a material breach, and a failure within that time period to cure or commence reasonable steps to cure the breach.
- c. Compensation to Contractor Upon Termination. Contractor shall be paid compensation for Services satisfactorily performed up to and including the date of termination. As to any phase partially performed but for which the applicable portion of Contractor's compensation has not become due, Contractor shall be paid the reasonable value of its Services provided. However, in no event shall such payment when added to any other payment due under the applicable part of the work exceed the total compensation of such part as specified Section 4. In the event of termination due to Contractor's failure to perform in accordance with the terms of this Agreement through no fault of City, City may withhold an amount that would otherwise be payable as an offset to City's damages caused by such failure.
- d. Effect of Termination. Upon notice of termination of this Agreement, Contractor shall: (i) promptly discontinue all Services affected, unless the notice of termination directs otherwise; and (ii) deliver or otherwise make available to the City, without additional compensation, all Work Product and/or deliverables accumulated by the Contractor in performing this Agreement, whether completed or in process. Contractor may not refuse to provide such Work Product for any reason whatsoever.

27. Default/Material Breach. If either party defaults in the performance of this Agreement or materially breaches any of its provisions, the non-breaching party may terminate this Agreement by giving written notification to the breaching party. Termination will take effect immediately on receipt of notice by the breaching party or five (5) days after mailing of notice, whichever occurs first. For purposes of this paragraph, material breach of this Agreement includes, but is not limited to, the following:

- a. City's failure to pay Contractor any undisputed compensation due within thirty (30) days after written demand for payment;
- b. Contractor's failure to complete the Project;
- c. Contractor's material breach of any representation or agreement contained herein, and failure to commence actions to correct such breach within thirty (30) days of written notice by City;

or

- d. City's material breach of any representation or agreement contained in this Agreement, and failure to commence actions to correct such breach within thirty (30) days of written notice by the Contractor.

28. Insurance. Contractor shall satisfy the insurance requirements set forth in **Exhibit C**.

29. Indemnity and Defense. Contractor hereby agrees to indemnify, defend, and hold the City, its officials, officers, employees, agents, and volunteers harmless from and against all claims, demands, causes of action, actions, damages, losses, expenses, and other liabilities, (including without limitation reasonable attorney fees and costs of litigation) of every nature arising out of or in connection with the alleged or actual acts, errors, omissions or negligence of Contractor or its subcontractors relating to the performance of Services described herein to the fullest extent permitted by law, except to the extent any injuries or damages are the result of City's negligence or willful misconduct, subject to any limitations imposed by law. Contractor and City agree that said indemnity and defense obligations shall survive the expiration or termination of this Agreement for any items specified herein that arose or occurred during the term of this Agreement.

30. Risk of Loss. Contractor shall bear the risk of loss or injury or damage to their work until such time as City has, by written formal acceptance, accepted said work. For the purposes of this section, the work does not include any existing property of City, unless said existing property is modified by the Project or Services. City's acceptance shall occur when the Project has successfully tested and complies with the requirements contained in **Exhibits A and B**. During the time period which Contractor must bear the risk of loss, Contractor shall rebuild, repair, restore, and replace and make good all injuries or damage to such work, and shall bear the expenses thereof, except for such injuries or damages as are occasioned by acts of federal government or public entity, and only to the extent of five percent (5%) of the Agreement amount where such injuries or damages are proximately caused by an act of God within the meaning of California Public Contract Code Section 7105.

31. Taxes. Contractor agrees to pay all taxes, licenses, and fees levied or assessed by any governmental agency on Contractor incident to the performance of Services under this Agreement, and unemployment and workers' compensation insurance, social security, or any other taxes upon the wages of Contractor, its employees, agents, and representatives. Contractor agrees to obtain and renew an annual business tax certificate from City and pay the applicable annual business registration tax to City during the term of this Agreement.

32. Assignment. Neither this Agreement nor any duties or obligations hereunder shall be assignable by Contractor without the prior written consent of City. In the event of an assignment to which City has consented, the assignee shall agree in writing to personally assume and perform the covenants, obligations, and agreements herein contained. In addition, Contractor shall not assign the payment of any monies due Contractor from City under the terms of this Agreement to any other individual, corporation, or entity. City retains the right to pay any and all monies due Contractor directly to Contractor.

33. Form and Service of Notices. Any and all notices or other communications required or permitted by this Agreement or by law to be delivered to, served upon, or given to either party to this Agreement by the other party shall be in writing and shall be deemed properly delivered, served or given by one of the following methods:

- a. Personally delivered to the party to whom it is directed. Service shall be deemed the date of delivery.

- b. Delivered by email to a known address of the party to whom it is directed provided the email is accompanied by an acknowledgment of receipt by the other party. Service shall be deemed the date of acknowledgement.
- c. Delivery by a reliable overnight delivery service (ex.: Federal Express), receipted, and addressed to the addressees set forth below the signatories to this Agreement. Service shall be deemed the date of delivery.
- d. Delivery by deposit in the United States mail, first class, and postage prepaid. Service shall be deemed delivered ninety-six (96) hours after deposit.

34. Entire Agreement. This Agreement, including the Exhibits and any other attachments, represents the entire Agreement between City and Contractor, and supersedes all prior negotiations, representations or agreements, either written or oral with respect to the subject matter herein. This Agreement may be amended only by written instrument signed by both City and Contractor.

35. Successors and Assigns. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

36. Authority. The signatories to this Agreement warrant and represent that they have the legal right, power, and authority to execute this Agreement and bind their respective entities. Evidence of Contractor's authority is attached as **Exhibit D**.

37. Severability. In the event any term or provision of this Agreement is declared to be invalid or illegal for any reason, this Agreement will remain in full force and effect and will be interpreted as though such invalid or illegal provision were not a part of this Agreement. The remaining provisions will be construed to preserve the intent and purpose of this Agreement and the parties will negotiate in good faith to modify any invalidated provisions to preserve each party's anticipated benefits.

38. Applicable Law and Interpretation and Venue. This Agreement shall be interpreted in accordance with the laws of the State of California. The language of all parts of this Agreement shall, in all cases, be construed as a whole, according to its fair meaning, and not strictly for or against either party. This Agreement is entered into by City and Contractor in the County of Fresno, California. Contractor shall perform the Services required under this Agreement in the County of Fresno, California. Thus, in the event of litigation, venue shall only lie with the appropriate state or federal court in Fresno County.

39. Amendments and Waiver. This Agreement shall not be modified or amended in any way, and no provision shall be waived, except in writing signed by the parties hereto. No waiver of any provision of this Agreement shall be deemed, or shall constitute, a waiver of any other provision, whether or not similar, nor shall any such waiver constitute a continuing or subsequent waiver of the same provision. Failure of either party to enforce any provision of this Agreement shall not constitute a waiver of the right to compel enforcement of the remaining provisions of this Agreement.

40. Third Party Beneficiaries. Nothing in this Agreement shall be construed to confer any rights upon any party not a signatory to this Agreement.

41. Execution in Counterparts. This Agreement may be executed in counterparts such that the signatures may appear on separate signature pages. A copy or an original, with all signatures appended together, shall be deemed a fully executed Agreement.

42. Alternative Dispute Resolution. If a dispute arises out of, or relating to, this Agreement, or the alleged breach thereof, and if said dispute cannot be settled through negotiation, the parties agree first to try in good faith to settle the dispute by non-binding mediation before resorting to litigation. The mediator shall be mutually selected by the parties, but in case of disagreement, the mediator shall be selected by lot from among two (2) nominations provided by each party. All costs and fees required by the mediator shall be split equally by the parties, otherwise each party shall bear its own costs of mediation. If mediation fails to resolve the dispute within thirty (30) days, either party may pursue litigation to resolve the dispute.

Demand for mediation shall be in writing and delivered to the other party to this Agreement.

A demand for mediation shall be made within reasonable time after the claim, dispute, or other matter in question has arisen. In no event shall the demand for mediation be made after the date when institution of legal or equitable proceedings based on such a claim, dispute, or other matter in question would be barred by California statutes of limitations.

43. Non-Discrimination. Contractor shall not discriminate on the basis of any protected class under federal or State law in the provision of the Services or with respect to any Contractor employees or applicants for employment. Contractor shall ensure that any subcontractors are bound to this provision. A protected class, includes, but is not necessarily limited to, race, color, national origin, ancestry, religion, age, sex, sexual orientation, marital status, and disability.

44. Performance Requirements. Notwithstanding, and in addition to the provisions of Sections 26 and 27 of this Agreement, if the Services performed hereunder are not in conformity with the requirements of this Agreement and other pertinent documents, City shall have the right to require Contractor to correct the work in conformity with the requirements of this Agreement at no additional increase in the payment to Contractor. Contractor shall promptly correct the work rejected by City for failing to conform to the requirements of the Agreement. Remedy for non-compliance or non-performance shall commence within twenty-four (24) hours of notice. City shall also have the right to require Contractor to take all necessary steps to ensure future performance of the Services in conformity with the requirements of this Agreement. In the event Contractor fails to correct the work or fails to take necessary steps to ensure future performance of the Services in conformity with the requirements of this Agreement, City shall have the right to immediately terminate this Agreement for default.

Now, therefore, the City and Contractor have executed this Agreement on the date(s) set forth below.

CONTRACTOR

By: Mitchell Skyer

Date: 21 NOV 2022

CITY OF CLOVIS

By: John Holt
John Holt, City Manager

Date: 3/13/23

Party Identification and Contact Information:

Contractor

Passio Technologies, LLC
Attn: Mitch Skyer
President
6100 Lake Forest Dr., Ste 410
Atlanta, GA 30328
sales@passiotech.com
(404) 272-9536

City of Clovis

General Services - Transit
Attn: Bethany Berube
Transit Supervisor
1033 Fifth Street
Clovis, CA 93612
bethanyb@cityofclovis.com
(559) 324-2771

ATTEST

Karey Cha
Karey Cha, City Clerk

APPROVED AS TO FORM

Scott G. Cross
Scott G. Cross, City Attorney

EXHIBIT A

DESCRIPTION OF SERVICES

SCOPE OF SERVICES

CAD/AVL/AVA HARDWARE AND SYSTEM

The Computer-Aided Dispatch (“CAD”) component of the system shall be seamlessly and fully integrated with the Automatic Vehicle Location (“AVL”) component and shall have the ability for the City to view in real-time and gather data for determining On-Time Performance (i.e., by Route, Operator, Block, Trip, Day Vehicle, etc.), schedule adherence and event management for all Routes.

The combined data from the CAD/AVL system shall also be sufficient to allow the City to utilize the data to improve schedules, frequency (headways), time points, bus-stops, and other service-related functions in a comprehensive manner.

Initially, the Contractor will enter directly into their System the City’s schedules, routes, trips, blocks and stops information for the Stageline Routes, which are the bases for on-time performance tracking and reporting.

The CAD/AVL system should also integrate and control the Automated Vehicle Annunciation System (“AVA”) component and installed head signs to provide stop information to City passengers.

CAD/AVL/AVA Requirements:

- Cloud-hosted with an intuitive web-based user interface.
- Utilize a Mobile Data Terminal (“MDT”)/Tablet as the single point for operators logging onto all integrated components/systems.
- MDT/Tablet should run on the Contractor-recommended Android operating system as a best practice, but be capable of running on future Android versions.
- Track trip schedule adherence.
- Ingestion of automatic vehicle location every five (5) seconds or faster.
- Publishing of vehicle location and run or block assignment information through an Application Programming Interface (“API”) accessible by the City and updating that API every five (5) seconds or faster.
- System shall begin gathering AVL location data when the ignition is turned on and continue reporting until the ignition is turned off (based on a programmable time period, i.e., thirty (30) minutes, etc.).
- Mobile Data Computer (“MDC”)/Vehicle Logic Unit (“VLU”) shall integrate with the onboard equipment on each vehicle that provides head-sign control, destination signs, next stop announcements (audible and textual), covert alarm, etc.
- MDC/VLU shall store the most recent location received from the Automatic Passenger

Counting system (“APC”) so that if the Global Positioning System (“GPS”) receiver is not able to report the location, the “last known good” boardings and alightings will remain available.

- Annunciation of stop names with necessary configurations:
 - Which stops.
 - What text.
 - Where exactly to announce.
- Web portal through which annunciation configuration can be easily customized after General Transit Feed Specification (“GTFS”) import or update.
- Head sign control that automatically rotates pre-defined information in text:
 - Integrates with CAD/AVL system or able to accept data through GTFS/other specified data upload.
 - The City prefers integration with the currently installed head signs (Luminator/Twinvision and Hanover). The awarded Contractor will notify the City if they are unable to integrate with existing head signs and the City will purchase new head signs if necessary.

PASSENGER INFOTAINMENT

To enhance the customer experience, the City would like an infotainment solution for its Stageline vehicles. The solution would be utilized to compliment the audio announcements by displaying public information for such things as: Next Stop, Rider Alerts, promotional information, public service information, transfer points, etc.

City would like to install one monitor in the front of each vehicle. Contractor should recommend monitor size(s), mounting locations, and brackets

Infotainment Requirements:

- Integrate and synchronize with the AVAS.
- Able to accept configuration data through GTFS and location/assignment API provided by a CAD/AVL system, or integrated with the CAD/AVL system.
- Display various types of content including audio, video, images, and accept multiple media types such as MP4, WAV, JPEG, etc.
- Integrate with on-board Public Address (“PA”) system.
- Ability to send/push ad-hoc “real-time” information to the solution.
- Ability to create route-based announcements/displays.

- Display next stop information after departure from previous stop and/or next stop information prior to reaching the next stop giving the rider sufficient time to prepare for alighting.
- Web portal through which display configuration can be easily customized after GTFS import or update.

REAL-TIME AND HISTORICAL SERVICE APIs

The purpose of the real-time and historical APIs is both to provide customer information to riders through third party applications, such as Google Maps, and to provide any other application that the City may utilize, to access real-time and historical information about Stageline service. These APIs may be provided as a standalone component incorporating information in the CAD/AVL or API.

Real-time and Historical Service APIs Requirements:

- GTFS Real-time 2.0-conforming Trip-updates and Vehicle Positions feeds provided on license terms that allow the City to download, own, and store all data.
- GTFS Real-time and any other API endpoints should reference GTFS feed IDs in the GTFS data set provided by the City and update any time IDs in that data set change.
- API endpoints should update at least every five (5) seconds or faster, incorporating real-time information from the CAD/AVL system.
- Well documented GeoJSON or REST API that provides useful and efficient queries regarding transit network real-time and historical status.

Desired:

- All data provided on license terms that allow the City to download, store, and own all data elements, and utilize the data schema for any purpose.
- Graphical User Interface available to dispatchers for understanding real-time and historical status of the system (also may be provided through CAD/AVL system component).
- Historical data available for all API endpoints for ninety (90) days after the service date, and the archiving or deleting of data on a clear operational process transparent to the City.
- Firm capacity and intention to update GTFS real-time endpoints as the specification evolves to provide better information to customers and better reporting data to the City.

Provide service alerts to inform passengers of service disruptions.

30-DAY ROLLING OPERATIONAL TEST

Upon completion of all vehicle and System installations, and to further demonstrate stability, integrity, and reliability prior to Project Signoff, the City and the Contractor will conduct a 30-Day Rolling Operational Test. This test is intended to ensure that the System, as installed in the field, works properly as a fully integrated System. Prior to the start of the 30-day Test, all outstanding

variances must be corrected, and all training completed. During testing, no adjustments, modifications, or substitutions shall be made to the System by the Contractor, except with the approval of the City.

Functionality tests shall verify that the Contractors' features and functions of the System have been professionally designed and implemented. The following items, as a minimum, shall be included in the Function Tests:

- Testing of the proper functioning of all hardware, both individually and collectively.
- Testing of the proper functioning of all software and firmware features and functions.
- Testing of all on-board functions.
- Testing of all user interface functions.
- Verification that System response time requirements have been met.
- Verification that System stability and availability is free of problems.

The City expects no "down time" to be experienced during the 30-day Rolling Operational Test period, either on any vehicles or as a System. If there is a failure of the System during this time, or if 10% of the vehicles experience the same issue, the Contractors will identify and correct the problem. The City, at its sole discretion, will determine if the problem necessitates a resetting of the 30-Day Rolling Operational Test.

GTFS (STATIC AND REAL-TIME) REQUIREMENTS

- Ensure compliance with the California Minimum GTFS Guidelines on an agreed upon schedule with the City.
- Ensure compliance with Mobility Data Interoperability Principles on an agreed upon schedule with the City.
- Integrate with Urban Transportation Associates onboard APC system via API. Import Real-Time Passenger Load data with GTFS feed and make the same data available in Dispatch software tools.
- Export the GTFS (Both static and real-time) feed and make it available for consuming applications, such as Google Maps, within two (2) business days.

SCHEDULE

1.0 Initiation (Prep – Week 1)
1.01 Notice of Intent to Award
1.02 Project Setup and Review
1.03 Review Contract Documents
1.04 Update Acceptance & Warranty Documentation
1.05 Execute Contract
1.06 Notice to Proceed and PO Issued
1.07 Schedule Kickoff Call
2.0 Planning (Week 1 – Week 5)
2.01 Kickoff Call
2.02 Coordinate Equipment Lead Time and Notify Suppliers
2.03 Passio to Send Customer Configuration Forms and Instructions
2.04 Update & Customize Project Schedule
2.05 Customer to Provide Account Setup and Solution Information
2.06 Vehicle & Solution Specific Installation Discussions
2.07 Send Equipment List and Specifications to Customer
2.08 Passio to Send Wiring Diagrams to Customer
2.09 Customer to Send Installation Instructions to Passio
2.10 Develop Installation Plan
2.11 Configuration Corrections Provided by Customer
3.0 Execution (Week 2 – Week 12)
3.01 Order Equipment and Schedule Anticipated Delivery Timeline
3.02 Passio Navigator Account Setup
3.03 Configure and Test Equipment
3.04 Schedule Installation
3.05 Ship Equipment
3.06 Installation Window (Anticipated)
3.07 Configuration per Vehicle
3.08 Installation Confirmation by Vehicle
3.09 Installation Complete
3.10 Execution Phase Configuration, Verification, and Training
4.0 Monitoring and Controlling (Week 11 – Week 15)
4.01 Initial Passio Navigator Training
4.02 Initial Driver Training – Passio Transit App
4.03 Customer Installation Acknowledgement
4.04 Customer Installation Inspection
4.05 Solutions Acknowledgement Period
4.06 Passio Proactive Focused Monitoring Period
4.07 Marketing, Communications, and Social Media Information Shared
4.08 Additional Training Scheduled as Needed
4.09 Customer to Complete AVA Check Sheets on All Buses/Routes
4.10 Test APC Count Accuracy (If Required)
5.0 Launch (Week 15 – Week 17)
5.01 Pre-Launch Full Deployment
5.02 Official Go Live Date
5.03 Two-Day Deep Monitor
5.04 Reports Review

6.0 Closing (Week 18 – Week 22)
6.01 Customer Configuration Training – Customer Request
6.02 Customer Success Tram Interaction – Post Launch

Passio Technologies User Acceptance Testing

Passio will also follow our user acceptance testing protocol. Initial equipment and deployment tests for power, connectivity, and reporting connection. Once the system is operational, Passio will actively monitor all reporting activity for a 60-90 window and implement accuracy testing and configuration adjustments during that period as required.

Your dedicated Passio Project Manager will keep you updated on each step of planning, installation, implementation, and training using our collaborative online project management website. Each Passio customer will have a dedicated project board where they can see progress, make comments, and participate in the plan with our project team

COMPENSATION AND RATES

Contractor shall be compensated according to the following rates/fees:

<u>CAD/AVL/AVA</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
CAD/AVL Hardware	\$19,432.00					\$19,432.00
CAD/AVL Setup	\$1,496.25					\$1,496.25
CAD/AVL License	\$1,408.05					\$1,408.05
CAD/AVL Annual	\$11,186.00	\$11,186.00	\$11,186.00	\$11,186.00	\$11,186.00	\$55,930.00
AVA Hardware	\$5,880.00					\$5,880.00
AVA Setup	\$3,746.25					\$3,746.25
AVA License	\$12,572.00					\$12,572.00
AVA Annual	\$6,552.00	\$6,552.00	\$6,552.00	\$6,552.00	\$6,552.00	\$32,760.00
Headsign Hardware	\$2,870.00					\$2,870.00
Headsign License	\$6,287.40					\$6,287.40
Headsign Annual	\$1,498.00	\$1,498.00	\$1,498.00	\$1,498.00	\$1,498.00	\$7,490.00
Text Service Setup	\$1,594.77					\$1,594.77
Text Service Annual	\$4,455.00	\$4,455.00	\$4,455.00	\$4,455.00	\$4,455.00	\$22,275.00
Training	\$0					\$0.00
Spare Parts	\$2,776					\$2,776.00
Total CAD/AVL/AVA:	\$81,753.72	\$23,691.00	\$23,691.00	\$23,691.00	\$23,691.00	\$176,517.72

<u>Passenger Infotainment</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
Infotainment Hardware	\$77,545.58					\$77,545.58
Setup	\$30,539.74					\$30,539.74
Infotainment Annual	\$11,872.00	\$11,872.00	\$11,872.00	\$11,872.00	\$11,872.00	\$59,360.00
Training	\$0					\$0
Infotainment Total:	\$119,957.32	\$11,872.00	\$11,872.00	\$11,872.00	\$11,872.00	\$167,445.32

<u>APC Integration</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
Setup	\$7,800.00					\$7,800.00
Annual	\$3,600.00	\$3,600.00	\$3,600.00	\$3,600.00	\$3,600.00	\$18,00.00
Training	\$0					\$0
APC Integration Total:	\$11,400.00	\$3,600.00	\$3,600.00	\$3,600.00	\$3,600.00	\$25,800.00

<u>Real-Time & Historical API's</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
GTFS Setup	\$1,795.00					\$1,795.00
GTFS Annual	\$0					\$0.00
APIs Total:	\$1,795.00	\$0	\$0	\$0	\$0	\$1,795.00

<u>Installation</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
Component Install	\$19,320.00					\$19,320.00
Install Total:	\$19,320.00	\$0	\$0	\$0	\$0	\$19,320.00

<u>Extended Warranty</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
MDT Warranty	\$6,825.00					\$6,825.00
VLU Warranty	\$2,362.50					\$2,362.50
AVA Warranty	\$1,750.00					\$1,750.00
Extended Warranty Total:	\$10,397.50	\$0	\$0	\$0	\$0	\$10,397.50

These rates/fees represent the total cost for all Services provided under this Agreement, including labor, equipment, materials, costs and expenses, taxes, and overhead, to be paid for Services satisfactorily performed.

Total compensation, including expense reimbursement for the initial term, shall not exceed:

INITIAL CONTRACT TERM TOTAL: \$371,391.97

Passio Technologies -- Service Levels Agreement

1. Support: Passio will provide remote support for connectivity, configuration, and hardware troubleshooting. Passio will provide or arrange for on-site support services following installation of the Equipment for additional fees, which may include trip charges and/or travel expenses, hourly fees, and minimum charges as incurred. Passio's support personnel will, under most circumstances, log and confirm support items within one working day. Passio shall use commercially reasonable efforts to resolve critical support items are within two working days or less.

2. Schedule Maintenance. Passio shall use commercially reasonable efforts to provide City with prior notice of maintenance times, which Passio typically conducts during off-peak periods.

3. Availability. Subject to the terms and conditions of this Agreement, Passio will use commercially reasonable efforts to make the Hosted Services Available (as defined below) at least ninety-nine point five percent (99.5%) of the time as measured over the course of each calendar month during the Term (each such calendar month, a "Service Period"), excluding unavailability as a result of any of the Exceptions described below in this Section 1 (the "Availability Requirement"). "Service Level Failure"

means a material failure of the Hosted Services to meet the Availability Requirement. "Available" and "**Availability**" mean the Hosted Services are available for access and use by City. For purposes of calculating the Availability Requirement, the following are "Exceptions" to the Availability Requirement, and neither will the Hosted Services be considered un-Available nor any Service Level Failure be deemed to occur in connection with any failure to meet the Availability Requirement or impaired ability of City to access or use the Hosted Services that is due, in whole or in part, to any: (a) access to or use of the Hosted Services by City or any of its users, or using City's or an users' access credentials, that does not strictly comply with this Agreement or the Documentation; (b) City's delay in performing, or failure to perform, any of its obligations under this Agreement; (c) City's or its users' Internet connectivity; (d) force majeure event; (e) failure, interruption, outage or other problem with any software, hardware, system, network, facility or other matter not supplied by Passio pursuant to this Agreement; (f) scheduled downtime for routine maintenance of which Passio has provided City at least 24 hours' prior notice via email or through the Hosted Services; or (g) disabling, suspending, or terminating the Services pursuant to the Agreement.

4. Service Level Failures and Remedies. In the event of a Service Level Failure, Passio will issue a credit to City in the amount set forth in the table below, measured as a percentage of the monthly fees (or pro rata equivalent thereof) for the applicable Hosted Services paid or payable for the Service Period the Service Level Failure occurred (each a "Service Credit").

Availability	Service Credit (as a percentage of monthly fees (or pro rata equivalent thereof))
99.5% - 100%	0.0 %
95.0% - 99.49%	2.5 %
90.0% - 94.9%	5.0 %
< 90.0%	20.0 %

Notwithstanding the foregoing, Passio has no obligation to issue any Service Credit unless City: (i) reports the Service Failure to Passio immediately upon becoming aware of it, and (ii) requests such Service Credit in writing within 10 days of the Service Level Failure. Additionally, in no event will a Service Credit for any Service Period exceed [twenty percent (20%)] of the total monthly fees (or pro rata equivalent thereof) that would be payable for that Service Period if no Service Level Failure had occurred. For the avoidance of doubt, if a flat fee is agreed upon in the applicable Order, and as a result there is not a monthly fee, the Service Credit for any Service Period will not exceed twenty percent (20%) of the total flat fee divided by the total number of months that constitute the Term. Subject to the foregoing, any Service Credit payable to City under this Agreement will be issued to City in the calendar month following the Service Period in which the Service Level Failure occurred. This Section 4 sets forth Passio's sole obligation and liability and City's sole remedy for any Service Level Failure, and Passio and City agree that such credits are a reasonable estimation of the damages and are not a penalty.

5. Hardware Replacement Passio will typically order and/or ship replacement hardware within two working days of receiving completed Return Merchandise Authorization from City. Replacement items not in stock will be processed using the available supplier with the fastest replacement schedule available at the time. Equipment replaced under Passio Warranty Program (either standard one year manufacturer's warranty or if extended warranty is purchased) covers equipment only and does not include labor or installation. City is responsible for shipping costs and warranty processing fees.

6. Equipment Installation. If equipment and installation services are contracted, City shall provide direction, in writing, to Passio Technologies, a minimum of 10 days prior to installation date. Information to be provided shall include power source for all equipment, location of equipment installation, and any other installation parameters. Vehicle installation shall be deemed complete and accepted by City after successful communications test by installer. City has two working days to alert Passio Technologies, in writing to any installation exception. Installations are warrantied for 30 days.

7. System Deployment and Testing. Initial system deployment testing to start a minimum of fourteen (14) working days prior to live deployment and typically continues for 30-90 days post live start. All equipment shall be fully installed to initiate deployment testing, any equipment not installed will extend testing period. Items to be reviewed and adjusted (but not limited to) will include equipment installation and communications, system configuration, schedule activity, and reporting and analytics. City will work directly with the deployment team to review, update and provide feedback for edits and adjustments. Accuracy of reports and system data is directly related to the thoroughness of the deployment testing, and any limitations placed on the testing process may impact the amount of time needed to address reporting or configuration issues.

8. Customer Agreement. City agrees to the above terms and conditions upon acceptance of equipment and/or software licenses.

EXHIBIT B

CONTRACTOR'S PROPOSAL



October 8, 2021
RFP ISSUED 9/1/2021

TECHNICAL PROPOSAL

INTELLIGENT TRANSPORTATION SYSTEM

PREPARED FOR

City of Clovis
Nick Chin
Transit Director
155 N. Sunnyside Ave., 2nd Floor
Clovis, CA 93611
(559) 324-2762
nickc@cityofclovis.com

PREPARED BY

Passio Technologies
Mitch Skyer
President & Co-Founder
6100 Lake Forrest Dr. Ste. 410
Atlanta, GA 30328
(404) 272-9536
sales@passiotech.com





October 8, 2021
RFP ISSUED 9/1/2021

Nick Chin
Transit Director
155 N. Sunnyside Ave.,
2nd Floor
Clovis, CA 93611
(559) 324-2762
nickc@cityofclovis.com

Hello Nick,

Passio Technologies, Inc. is pleased to present our response to the City of Clovis' request for Intelligent Transportation Technology. Passio Technologies has indicated our understanding and willingness to work with each requirement as stated in the scope of work and proposed contract. That compliance and understanding are included in this proposal response. We want your riders to see how seamless public transportation can be, and our Passio ITS technology will help do just that.

Whether a family from Sierra Ridge Apartments is catching Route 50 for a day down at No Surrender Adventure Park, students headed to Fresno State on Route 10, or folks are headed to work at Wawona on Route 10, Passio will help you make their journey easier and more enjoyable. We want your riders to see how seamless public transportation can be, and our ITS solutions connect your riders with the people they want to see and places they need to go. We are excited about the upcoming transit improvements in service coming to Clovis Transit. Impactful decisions require accurate data and we want to help reshape your experience with transit technology. We have outlined an integrated solution designed specifically for the City of Clovis.

As President of Passio Technologies, Inc., I am fully authorized to represent the company in negotiations and will sign any contracts as required. Passio Technologies, LLC is a wholly-owned subsidiary of Transit Technologies, LLC, a Tennessee Limited Liability Company. We look forward to your review and are available to answer any questions or provide further clarification if needed. This proposal and associated pricing will be valid and binding for 180 days from the date October 8, 2021.

Mitch Skyer, President
Passio Technologies, Inc.

(678) 825-3456 ext. 106
sales@passiotech.com

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CONFLICT OF INTEREST AND CONFIDENTIALITY STATEMENT

I certify that I/We (Passio organization) have no personal or financial interests and no present employment or activity which would be incompatible with this organization's participation in any activity related to the RFP or execution of the awarded contract. For the duration of this organization's involvement in the contract, this organization agrees not to accept any gift, benefit, gratuity or consideration, or begin a personal or financial interest in a party who is bidding and/or proposing, or associated with a bidder and/or proposer on this project.

I certify that this organization will keep all contract information confidential and secure. This organization will not copy, give, or otherwise disclose such information or data to any other person unless authorized by the City of Clovis. I understand that all contract information to be kept confidential. I understand that if this organization leaves this contract before it ends, this organization must still keep all contract information confidential. We shall comply with all federal, state and local conflict of interest laws, statutes, and regulations.

I fully understand that any unauthorized disclosure made by this organization may be a basis for civil or criminal penalties and/or disciplinary action. I agree to advise the City of Clovis immediately in the event that I or another person within this organization either learn or have reason to believe that any person who has access to the contract confidential information has or intends to disclose that information in violation of this agreement.

Mitch Skyer, President
Passio Technologies

A handwritten signature in black ink that reads "Mitchel Skyer".

CITY OF CLOVIS



REQUEST FOR PROPOSAL

INTELLIGENT TRANSPORTATION SYSTEM

Issue Date: September 1, 2021

Closing Date: October 1, 2021 AT 12 PM Pacific

All Questions and Responses must be electronically submitted on the Bid Page on Planet Bids:

<https://pbsystem.planetbids.com/portal/14742/portal-home>

For assistance, contact Nick Chin at Phone (559) 324-2762 or nickc@cityofclovis.com.

CONTRACTOR TO COMPLETE

Undersigned agrees to furnish the commodity or service stipulated in the attached at the prices and terms stated in this RFP.
Proposal must be signed and dated by an authorized officer or employee.

Passio Technologies

COMPANY

Mitchel Skyer

CONTACT PERSON

6100 Lake Forrest Dr Suite 410

ADDRESS

Atlanta

CITY

678 825 3456 ext 106

TELEPHONE NUMBER

GA

STATE

30328

ZIP CODE

mitch.skyer@passiotech.com

E-MAIL ADDRESS

AUTHORIZED SIGNATURE

Mitchel Skyer

PRINT NAME

President

TITLE

CITY OF CLOVIS



ADDENDUM NUMBER: ONE (1)

INTELLIGENT TRANSPORTATION SYSTEM

Issue Date: September 7, 2021

Closing Date: October 1, 2021 at 12 PM Pacific

All Questions and Proposals must be electronically submitted to the Bid Page on Planet Bids:

<https://pbsystem.planetbids.com/portal/14742/portal-home>

For assistance, contact Nick Chin at (559) 324-2762 or nickc@cityofclovis.com.

NOTE THE FOLLOWING AND ATTACHED ADDITIONS, DELETIONS AND/OR CHANGES TO THE REQUIREMENTS OF REQUEST FOR PROPOSAL AND INCLUDE THEM IN YOUR RESPONSE. PLEASE SIGN AND RETURN THIS ADDENDUM WITH YOUR PROPOSAL.

- Contractors have the option to attend the Mandatory Contractors' Conference in-person or by video conference. Contractors must email nickc@cityofclovis.com by September 14, 2021 to receive a link to the conference. Proposals submitted from Contractors that did not attend the mandatory Contractors' Conference will be rejected as non-responsive.
- Page 4 of RFP (attached) was updated for clarification.

ACKNOWLEDGMENT OF ADDENDUM NUMBER ONE (1) TO RFP.

COMPANY NAME: Passio Technologies (PRINT)

SIGNATURE: *Mitchel L. Skyer*

NAME & TITLE: Mitchel Skyer - President (PRINT)

CITY OF CLOVIS



ADDENDUM NUMBER: TWO (2)

INTELLIGENT TRANSPORTATION SYSTEM

Issue Date: September 22, 2021

Closing Date: October 8, 2021 at 12 PM Pacific

All Questions and Proposals must be electronically submitted to the Bid Page on Planet Bids:

<https://pbsystem.planetbids.com/portal/14742/portal-home>

For assistance, contact Nick Chin at (559) 324-2762 or nickc@cityofclovis.com.

NOTE THE FOLLOWING AND ATTACHED ADDITIONS, DELETIONS AND/OR CHANGES TO THE REQUIREMENTS OF REQUEST FOR PROPOSAL AND INCLUDE THEM IN YOUR RESPONSE. PLEASE SIGN AND RETURN THIS ADDENDUM WITH YOUR PROPOSAL.

- Closing Date extended to October 8, 2021 at 12 PM Pacific.
- Questions and Answers

ACKNOWLEDGMENT OF ADDENDUM NUMBER TWO (2) TO RFP.

COMPANY NAME: Passio Technologies (PRINT)

SIGNATURE: *Mitchel L. Skyer*

NAME & TITLE: Mitchel Skyer - President (PRINT)

TRADE SECRET ACKNOWLEDGEMENT

Each proposal submitted is a public record under the California Public Records Act (Cal. Gov. Code, secs. 6250 and following) and is therefore open to inspection by the public as required by Section 6253 of the California Government Code. This section generally states that "every person has a right to inspect any public record". The City will not exclude any proposal or portion of a proposal from treatment as a public record except information that it is properly submitted as a "trade secret" (defined below), and determined by the City to be a "trade secret" (if not otherwise subject to disclosure, as stated below). Information submitted as "proprietary", "confidential" or under any other terms that might state or suggest restricted public access will not be excluded from treatment as public record.

"Trade secrets" as defined by Section 6254.7 of the California Government Code are not treated as a public record under that section. This section defines trade secrets as:

"...Trade secrets," as used in this section, may include, but are not limited to, any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data or compilation of information that is not patented, which is known only to certain individuals within a commercial concern who are using it to fabricate, produce, or compound an article of trade or a service having commercial value and which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it."

Such information must be submitted in a separate PDF file named "Trade Secret" and marked as "Confidential" in the Planet Bids system. Contractors must include a clear and concise statement that sets out the reasons for confidentiality in accordance with the foregoing definition of "trade secret." Examples of information not considered trade secrets are pricing, cover letter, promotional materials, references, and the like.

Information submitted by a Contractor as "trade secret" will be reviewed by the City, with the assistance of the City's legal counsel, to determine conformance or non-conformance to the foregoing definition.

Information that is properly identified as "trade secret" and which the City determines to conform to the definition will not become public record (if not otherwise subject to disclosure, as stated below). The City will safeguard this information in an appropriate manner, provided however, in the event of a request, demand, or legal action by any person or entity seeking access to the "trade secret" information, the City will inform the Contractor of such request, demand, or legal action, and the Contractor shall defend, indemnify, and hold harmless the City, including its officers and employees, against any and all claims, liabilities, damages, or costs or expenses, including attorney's fees and costs, relating to such request, demand or legal action, seeking access to the "trade secret" information.

Information submitted by Contractor as trade secret and determined by the City not to be in conformance with the foregoing California Government Code definition shall be excluded from the proposal and deleted by the City.

The City shall not in any way be liable or responsible for the disclosure of any proposals or portions thereof, if (1) they are not electronically submitted in a separate PDF that is marked "Trade Secret" and marked as Confidential in the Planet Bids system; or (2) disclosure thereof is required or allowed under the law or by order of court.

Contractors are advised that the City does not wish to receive trade secrets and that Contractors are not to supply trade secrets unless they are absolutely necessary.

I have read and understand, and agree to the above "Trade Secret Acknowledgement."

CONTRACTOR MUST CHECK ONE OF THE FOLLOWING:

Has Contractor submitted certain bid information that is a "trade secret," as defined by Section 6254.7 of the California Government Code, and in compliance with the requirements of this Trade Secrets Acknowledgement?

By marking "**NO**", Contractor does not claim any confidentiality of any bid information submitted to the City.

☐ YES ☒ NO

ACKNOWLEDGED AND AGREED BY CONTRACTOR:

	10/05/2021
Signature	Date
Mitchel Skyer	President
Print Name	Title

DISCLOSURE – CRIMINAL HISTORY & CIVIL ACTIONS

In their proposal, the Contractor is required to disclose if any of the following conditions apply to them, their owners, officers, corporate managers and partners (hereinafter collectively referred to as “Contractor”):

1. Within the three-year period preceding the proposal, they have been convicted of, or had a civil judgment rendered against them for:
 - a. fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction;
 - b. violation of a federal or state antitrust statute;
 - c. embezzlement, theft, forgery, bribery, falsification, or destruction of records; or
 - d. false statements or receipt of stolen property
2. Within a three-year period preceding their proposal, they have had a public transaction or contract with any federal, state, or local government agency terminated for cause or default.

Disclosure of the above information will not automatically eliminate a Contractor from consideration. The information will be considered as part of the determination of whether to award the contract and any additional information or explanation that a Contractor elects to submit with the disclosed information will be considered. If it is later determined that the Contractor failed to disclose required information, any contract awarded to such Contractor may be immediately voided and terminated for material failure to comply with the terms and conditions of the award.

Any Contractor who is awarded a contract must sign an appropriate Certification Regarding Debarment, Suspension, and Other Responsibility Matters. Additionally, the Contractor awarded the contract must immediately advise the City in writing if, during the term of the agreement: (1) Contractor becomes suspended, debarred, excluded or ineligible for participation in federal or state funded programs or from receiving federal funds as listed in the excluded parties list system (<http://www.epls.gov>); or (2) any of the above listed conditions become applicable to Contractor. The Contractor must indemnify, defend and hold the City harmless for any loss or damage resulting from a conviction, debarment, exclusion, ineligibility or other matter listed in the signed Certification Regarding Debarment, Suspension, and Other Responsibility Matters.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS - PRIMARY COVERED TRANSACTIONS

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms covered transaction, debarred, suspended, ineligible, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

CERTIFICATION

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it, its owners, officers, corporate managers and partners:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Have not within a three-year period preceding this application/proposal had one or more public transactions or contracts with any Federal, State or local government agency terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Signature: 

Date: 10/05/2021

Mitchel Skyer
(Printed Name & Title)

Passio Technologies
(Name of Agency or Company)

REFERENCE LIST

VENDOR MUST COMPLETE AND RETURN WITH REQUEST FOR PROPOSAL

Firm: Passio Technologies

Provide a list of at least five (5) customers for whom you have recently provided similar services. If you have held a contract for similar services with the City of Clovis within the past seven (7) years, list the City as one of your customers. Please list the person most familiar with your contract. Be sure to include all requested information.

Reference Name: EPTA Eastern Panhandle Transit Authority Contact: Elaine Bartoldson
 Address: 446 Novak Dr
 City: Martinsburg State: WV Zip: 25405
 Phone No.: (304) 263-0876 ext. 8455 Project Date: 04/01/2018 - present
 Service Provided: NTD Reporting, Electronic passenger counting, 2 way dispatch, automated voice announcements
ParaPlan Enterprise

Reference Name: Citylink-Kootenai County Contact: Chad Ingle
 Address: 2400 W Riverstone Dr
 City: Coeur d'Alene State: ID Zip: 83814
 Phone No.: (208) 446-2102 Project Date: 10/15/2020 - present
 Service Provided: ParaPlan Pro & Notify, GPS tracking, Automated Voice Announcements, LED, Automated passenger counting

Reference Name: Ozark Regional Transit Contact: Joel Gardner
 Address: 2423 E Robinson Ave
 City: Springdale State: AR Zip: 72764
 Phone No.: (479) 361-8742 Project Date: 09/18/2019 - present
 Service Provided: Automated voice announcements, automated passenger counting, GPS tracking, ParaPlan Pro

Reference Name: Citrus Connection Contact: Debra Asbacher
 Address: 45 W. Smith St
 City: Lakeland State: FL Zip: 34787
 Phone No.: (800) 865-6302 Project Date: 09/18/2019 - Present
 Service Provided: Automated passenger counting, GPS tracking, NTD reporting, Opsview real time updates

Reference Name: Tulane University Contact: Brian Lowe
 Address: 6823 St. Charles Ave
 City: New Orleans State: LA Zip: 70118
 Phone No.: (504) 975-9019 Project Date: 01/03/2013 - present
 Service Provided: Electronic passenger counting, GPS tracking, Opsview real time updates

PARTICIPATION

The successful Vendor agrees to allow the City of Clovis and with the City's consent, other public agencies to purchase additional items at the same terms and conditions as in their submitted proposal for a period not to exceed one year from the date of award. Participating agencies may enter into a contract with the successful vendor for the purchase the services and/or equipment noted herein based on the terms, conditions, prices, and percentages offered by the successful vendor to the City. Purchase Orders issued by other public agencies referencing this agreement, shall be the sole responsibility of the agency placing the order. The City reserves the right to extend the one-year time period with mutual consent of the successful vendor.

Any agency choosing to avail itself of this opportunity, will make purchases in their own name, make payment directly to the contractor, be liable to the contractor and vice versa, per the terms of the original contract, all the while holding the City of Clovis harmless. If awarded this contract, please indicate whether you would extend the same terms and conditions to all tax supported agencies within this group as you are proposing to extend to the City of Clovis.

*** Note: This form/information is not used for evaluation purposes.**

☒

Yes, we will extend contract terms and conditions to all qualified public agencies.

☐

No, we will not extend contract terms to any agency other than the City of Clovis.

Matthew A. Styer

(Authorized Signature)

President

Title



EXCEPTIONS

As outlined in our response, Passio Technologies proposed suite of integrated solutions and associated partners will meet the requirements and options listed in the RFP.

INTELLIGENT TRANSPORTATION SYSTEM

Issue Date: September 1, 2021

Closing Date: October 8, 2021

Passio Technologies understands and accepts the following:

- A. General Conditions.
- B. General Requirements.
- C. Specific Terms and Conditions.
- D. Scope of Work and/or Scope of Work Proposal Requirements.
- E. Proposal Content Requirements.
- F. Any other part of this RFP.





CONTRACTOR COMPANY DATA

PASSIO

COMPANY OVERVIEW

The transit industry has consistently demanded reliable and actionable data to efficiently allocate resources and provide passengers with real-time information. This technology is critical to manage costs, operate within budget, and most importantly, deliver superior service.



HISTORY

In the summer of 2010, Co-Founders Mitch Skyer and Scott Reiser started Passio Technologies to fill this sizable gap within the industry. As the company developed, we identified that the passenger experience was just as important to the successful operation of the system as was understanding the resources and utilization.

ORGANIZATION

Our organizational structure is flat and customer-focused. We assign multiple project and account managers to each customer for redundancy and cross-training.

Our mission is to provide information to both the operations staff and the passengers so that everyone's experience is comfortable, informative, and effective. We move beyond simply answering support questions to find out the reason behind each question.

These answers help drive the direction of our development and innovation to ensure that the needs of our customers are being met. Passio has been in business for 10 years and has 24 full-time employees.

The majority of Passio's support and management employees are located in Atlanta, GA. Members of our senior technical support and sales teams are located in Kansas City, KS and Greenville, SC. Passio does not discriminate in any way, shape, or form for hiring, raises, and promotions. All Passio employees and clients are treated equally. Passio is growing, we've increased our staff by 40% over the past 3 years.

- Passio Technologies, LLC is registered in the State of Georgia.
- Founded on August 13, 2010.
- Federal Tax ID Number: 27-3307668
- Dun and Bradstreet ID (DUNS #): 068972279
- E-Verify Company ID: 713911. Passio actively verifies all employees to ensure they are authorized to work in the United States.
- SAM Registration CAGE Code: 7NTZ6
- SIC Codes: 7373 COMPUTER INTEGRATED SYSTEMS DESIGN
- NIGP Codes:
 - 208 Computer Software For Microcomputers, Systems, Including Cloud-based (Preprogrammed)
 - 209 Computer Software For Mainframes And Servers, Preprogrammed
 - 918 Consulting Services
 - 920 Data Processing, Computer, Programming, And Software Services
- NAICS Codes:
 - 5415 Computer Systems Design and Related Services
 - 5416 Management, Scientific, and Technical Consulting Services

FINANCIAL STANDING

Passio Technologies, LLC is a wholly-owned subsidiary of Transit Technologies, LLC, a Tennessee Limited Liability Company effective November 10, 2020. Mitch Skyer, President and Scott Reiser, CTO, are both officers of Passio. Passio currently has no debt and has been profitable since inception. All commercial banking is done through Bank of America and our accounting firm is Birnbrey, Minsk, Minsk & Perling LLC, and our senior CPA is Joseph R. Spradlin. Passio will confirm that we have the financial resources to fulfill all contractual requirements. Passio Technologies has never been subject to litigation associated with project performance and/or professional liability. If further information is needed, Passio commits to meeting those requests.

Passio Technologies maintains the following standard insurance coverage:

- Public Liability - \$1,000,000 each occurrence
- Product Liability - \$3,000,000 aggregate to include all vehicles and equipment owned or used on this contract
- Property Damage - \$1,000,000 each occurrence, \$3,000,000 aggregate
- Bodily Injury Liability - \$1,000,000 each accident, \$3,000,000 aggregate

If awarded this contract, Passio Technologies will secure all required coverages and provide a COI. Our current Certificate of Insurance (COI) will be provided.



Passio has followed a smart and steady growth path, allowing us to expand our team from 3 to 24, while maintaining the focus on our customers. We continue to offer new and innovative solutions through an aggressive research and development program, coupled with an unparalleled commitment to customer satisfaction and service support. By growing steadily and efficiently, we have not just kept pace with the transit industry's ever-changing needs, but have focused on advancing our integrations and capabilities to ensure we're always one step ahead of the curve.

We continually develop our technology, integrating with hardware and internal/external software packages while improving every step of the way. Our core methodology was built to address the needs of both the passenger and the operator, born from our decades of experience in the transit industry.

Our integrated solution provides our customers with a single platform for support, hardware integration, on-board connectivity, and reporting.

ParaPlan Software became part of the Passio family in May 2019. We joined forces to provide agencies with technology solutions for demand-response and on-demand services. ParaPlan is a great complement to our existing platform that focuses on supporting fixed route transit services. We have the entire ParaPlan team working in tandem with Passio, sharing the core belief that mobility is a universal right. We are proud to now offer the most comprehensive transit solution in the industry.



MITCH SKYER
PRESIDENT & CO-FOUNDER

mitch@passiotech.com
(678) 825-3456 ext. 106

Mitch has been President and Co-Founder of Atlanta-based Passio Technologies since 2010. He's actively been a part of the transit and parking industry since 2002. Prior to founding Passio, he was the President and Founder of Solstice Transportation Group, a transportation consulting operation.

He also worked as the National Director of Business Development for Cognisa for 7 years. He is an active member of many transportation groups and also serves on the board of several. He received his undergraduate degree from Binghamton and an MBA from University at Buffalo.



SCOTT REISER
CTO & CO-FOUNDER

scott@passiotech.com
(678) 825-3456 ext. 105

Scott has been Chief Technology Officer and Co-Founder of Atlanta-based Passio Technologies since 2010. He's actively been a part of the technology industry since 1994.

Prior to founding Passio, he was the President and Founder of Adapting Technologies, a full service IT solutions provider.

He has been involved in the Atlanta Business Alliance and the Buckhead Business Association for over nine years and he received his B.S. in International Affairs from University of Colorado-Boulder.





QUALIFICATIONS AND EXPERIENCE

PASSIO QUALIFICATIONS & EXPERIENCE





Passio is proud to share our recent successes. Passio Technologies has been named to Inc. Magazine's top 5,000 fastest growing companies for both 2018 and 2019, and was named one of Georgia's 40 fastest growing technology companies in 2018. Passio's Executive Team serves on the boards of the Georgia Parking and Transit Association, the Mid South Transportation and Parking Association, the Technology Association of Georgia Transit Technology Society, GRAC Mobility, Bike Walk Greenville, Non Emergency Medical Transportation Accreditation Commission (NEMTAC), and as a committee member of the International Parking and Mobility Institute. The company's memberships also include the American Public Transit Association (APTA), National Association of College and University Auxiliary Services (NACAS), the Community Transit Association of America (CTAA), and numerous state transit associations.

Passio develops much of their technology in-house and uses their customers' needs and input to guide future innovation. We operate on an open integrator model that allows them to seamlessly connect with other strong industry suppliers such as TranSign, Twilio, Hella, Zonar, and of course Amazon. We are adding to this list consistently by integrating, partnering, or building when the solution identified best meets our customer's needs. Passio is committed to keeping our programmable API fully documented for consumption and integration with any other system providing an API. After our acquisition of ParaPlan Software (scheduling & dispatching products for transit since 1999), we have grown our customer list to over 250 agencies utilizing our transit technology solutions!



CUSTOMER MAP



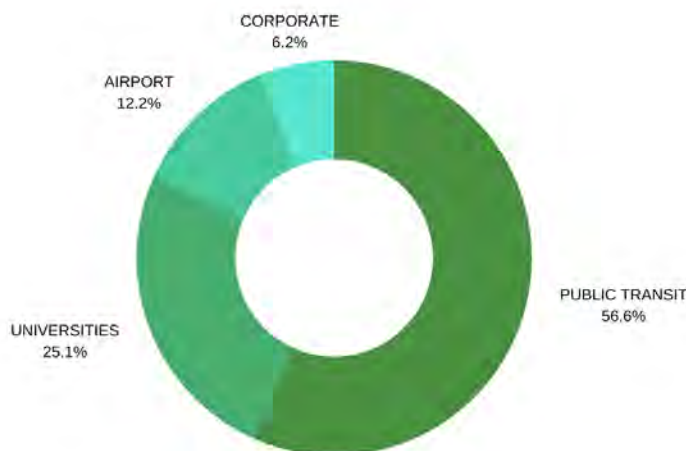
As stated, the origins of Passio Technologies came from a demonstrated need within the world of transit consulting for accurate and actionable data. The problem we identified, and then solved, was that there was no good way to capture data simply and inexpensively and put that data into an easily reviewable format. As the company developed, we identified that the passenger experience was just as important to the successful operation of the system as understanding the resources and utilization. Our top distinctions as a technology company are:

Network Simplicity

We use uncomplicated software and hardware configurations that are easy for the operators to manage, simple for maintenance to exchange and service, and quick to replace and upgrade. The system is designed to install quickly and for an operator to up and running within minutes of seeing the program for the first time

Data Usability

All complicated hardware and software is useless if the end user cannot point to the report they need, click run, and see the results. Everything presented within Passio is designed to 'make sense'. Our reporting is intuitive and user friendly, and the data is presented in the same format as it is collected. Counting is done at the stop, by a driver, on a bus, and that is how you see it in the reports.



PASSIO ITS CUSTOMER MIX





Customer Relationships

"Making every passenger count" is Passio's motto. Every customer at Passio is a reference, that is our working model, and how we conduct all of our business. Each customer has a unique approach to how they manage their passenger's experience, and how they want to provide value to their riders.

Our mission is to provide the information to both the operations staff and the passenger so that their experience is comfortable, informative, and effective. We don't begin and end with simply providing the answer to a question, but we look at the reason for the question. We always look to identify opportunities to develop newer and better reports and more effective interfaces to provide our customers with the experience they desire. By using this end user-centric approach we learn more from our customers every day, and our products and services are more valuable to our entire customer base.

Passio builds modular and scalable technology solutions for transit customers in the municipal, government, university, healthcare, aviation, corporate, residential and hospitality industries. We harness real time Passenger & Dispatch Information Systems through GPS tracking using Passio GO, Automated Voice Announcements, and on-board LED Smart Signs. These solutions are coupled with our Automated Passenger Counting and CAD/AVL systems to provide detailed visibility and comprehensive insight into any transit system.

Operations management, reporting and analytics are provided by Passio Navigator and Passio OpsView. Providing instant alerts such as speeding, off route, out of boundary, and idling, where dispatch and management can address transit issues in real time, correcting issues before they escalate. Our latest technology addition is Passio Connect, which powers our on-demand transportation software solution. This powerful new platform was built mobile first, integrating our core CAD/AVL features with our real-time routing algorithms to give agencies a new offering for their riders.





KEY PERSONNEL

Jessica has been the Senior Project Manager and Director of Operations of Atlanta-based Passio Technologies since 2010. She has a Master's degree in Urban Transportation from University of Illinois at Chicago and worked for Solstice Transportation Group as well. She manages all project implementation and customer support and she evaluates, develops, and manages transit solutions.

JESSICA SONG
DIRECTOR OF OPERATIONS

jessica@passiotech.com
(678) 825-3456 ext. 104



Keven started as an Account Manager at Passio in 2012, and now currently serves as Customer Experience Manager. He has worked with staff at over 100 transit agencies using Passio solutions. Prior to working at Passio, he was the Area Development Manager for Concentra Healthcare. Keven majored in Public Relations with a Minor in Business from the University of Florida.

KEVEN IZEN
ACCOUNT MANAGER

keven@passiotech.com
(678) 825-3456 ext. 108

Jessica will be your designated Project Manager for the implementation and Keven will be your assigned Account Manager.



For over 20 years, Michael has worked in the transit industry managing new projects and clients. His specialty is client communications and training. Michael is a member of the Project Management Institute, has a B.A. from the State University of New York College and attended the Executive Leadership Program at Seattle University.

MICHAEL CIVITELLI
PROJECT MANAGER

michael@passiotech.com
(678) 825-3456 x124



Courtney functions as our Client Care Specialist, with almost 20 years of experience working directly with clients to create the best experience possible. She makes it a daily goal to ensure they are taken care of in a quick and positive way, making it her priority that they have the best Passio experience possible.

COURTNEY HALL
CLIENT CARE SPECIALIST

courtney@passiotech.com
678.825.3456 x 116

Other members of our proposed project team include:

- Ty Martin, Lead Customer Success Representative
- Wayne Manis, Installation Technician
- Carly Valcheff, Data Analyst





TECHNICAL APPROACH

BRINGING COMMUNITIES CLOSER TOGETHER

Our experience and passion described above will bring a unique value to your agency. Passio works hard to exceed the expectations of our customers. We achieve this through a combination of personal attention and reliability.



Running complex transit systems is challenging, especially when you're required to be efficient with limited resources while managing so many working parts. Passio simplifies every piece of this puzzle. Passio creates innovative ways to meet your goals in the areas of safety, mobility, efficiency, economic growth, environmental stewardship, security, and accessibility. We believe that everyone deserves the independence and accessibility that public transportation provides. Our solutions are specifically designed to improve the efficiency of public transportation services, improve the customer experience, scale to the size and needs of any system, and are agile to integrate and adapt to the changing landscape and advancements in technology over time. We believe that public transit is an integral part of a healthy, thriving community, and we innovate to help transit agencies operate more efficiently to bring people together. We exist to help our clients become more successful. This has always been our cornerstone.

PASSIO'S TECHNICAL APPROACH HELPS BRING COMMUNITIES CLOSER TOGETHER THROUGH SMARTER TRANSIT.

In choosing Passio, your team is hiring true partners in transit. In addition to our suite of over 20 integrated transit solutions, the Passio leadership team has over 125 years of combined experience in transit. Your knowledge in conjunction with ours yields countless possibilities. We have implemented transportation solutions with over 250 agencies with multiple modes of transit operations and varying service models, allowing us to compliment your local knowledge with new industry trends. We can help formulate best practices, targeted operational plans, and processes to improve operations. Successful reporting and management focuses on evaluating trends that can be analyzed using Passio software.

Our experience and passion described above will bring a unique value to your agency. Passio works hard to exceed the expectations of our customers. We achieve this through a combination of personal attention and reliability. As a smaller company, Passio also brings new innovations to the market faster. We build modular and customizable technology solutions for transit customers in over 40 states. Our commitment to industry standards makes interoperability easy with other platforms. Passio develops much of their technology in-house and uses their customers' needs and input to guide future innovation. We operate on an open integrator model that allows them to seamlessly connect with other strong industry suppliers such as TranSign, Twilio, Hella, Zonar, ATTI, Instamapper, Firebase, and of course Amazon. We are adding to this list consistently by integrating, partnering, or building when the solution identified best meets our customer's needs. Passio is committed to keeping our programmable API fully documented for consumption and integration with any other system providing an API. Passio develops much of their technology in-house and uses their customers' needs and input to guide future innovation. Passio supports integration with third party apps via GTFS-RT and our API. We currently integrate with The Transit App and Customer Specific Apps at approximately 20 agencies and universities.



We truly want transportation to be easily accessible to all, so we have focused on supporting blind and low vision riders through our integration with FAR. Foresight Augmented Reality (FAR) GPS tools and beacons make bus stops and common locations accessible to the blind and visually impaired. Adding the integrated FAR application with GPS for direct wayfinding is optional and may be added at any time. Foresight Augmented Reality (FAR) gives a voice, description and orientation to the sighted world for blind and low-vision users. FAR also uses Passio bus tracking information to allow riders to easily track their bus with audio cues. Passio stop announcements are also played within the FAR app to make getting around a bit easier for blind and low vision riders.

PASSIO ADDS PERSONAL ATTENTION IN EVERYTHING WE DO.

This attention begins with our onboarding process throughout the life of the contract. When onboarding a new ITS customer, Passio has a proven methodology in place to transfer project information and goals from sales to our customer success team. We use 2 project management tools (Insightly.com & Monday.com) to help facilitate this. We also use a series of online forms (Formsite.com) in collaboration with the new customer to ensure all required information is complete.

All project tasks will be implemented by a Senior Project Manager, Systems Engineer, Customer Success Supervisor, Account Manager, and a Passio Installation Technician. During the project implementation and ongoing operations, Passio leaders and project managers will coordinate on-site evaluations and strategic meetings to ensure maximum utilization of all technology solutions. These meetings will include maintenance, operations, and the agency's corporate management as required.

Passio typically provides a combination of remote and on-site training for new customers. On-site training is performed by expert Passio implementation staff. All customers are provided access to Passio's training documents, FAQs, knowledge base articles, Powerpoint presentations, and training videos for their appropriate solutions. Passio hosts webinars to provide documentation and training to our customers. Passio also provides searchable electronic media to provide documentation and training to our customers. You will be given access to our online knowledge base and multi-media training tool. This is a dynamic tool that is consistently updated as new features and functionality are added to the Passio platform. More details on our complete training program and modules can be found in our attached Training section. Yes, recorded video training is available permanently. Remote training is free and available anytime during the life of the contract.





Level one support is provided from our support phone hotline, which is 24x7x365, or via our support@passiotech.com email. Issues are evaluated when received and escalated to the senior technical support team if needed, and then to the development team if systemic issues are determined. We provide unlimited remote support. Passio will have dedicated resources available to work on “critical issues” during your contractual hours until resolved.

Another value Passio brings is our custom Agency Marketing Guide at no extra cost, which includes step-by-step guidelines to inform, engage, and excite your riders. In order to help you get the word out about your new rider tools and ensure a successful launch, we've put together a comprehensive marketing plan. This plan is modular, just like our transit solutions. Feel free to pick and choose what works best for your transit operation.

We have included generic materials that are ready to be used as is. Wording and images may be adjusted as needed, with the exception of the Passio Technologies logo. Our services and collateral offered include App Handout Cards, Flyers, and targeted Social Media Ads. We will work with your agency to craft a comprehensive launch of new services. Along with our agency marketing guide, we can provide various marketing materials designed to stand out and meet your riders where they are.

Detailed information on our proposed technical solutions are presented in our Solutions section.





QUALITY ASSURANCE

QUALITY ASSURANCE FROM THE PASSIO TEAM

Passio is dedicated to the quality of our services and solutions.



Quality Assurance & Continuous Improvement

Passio is proud to present our commitment to quality in this section. We have invested heavily in Quality Assurance (QA) with the most current releases of core products Passio Navigator, Passio Transit, Passio ParaPlan, and Passio Connect. Our dedication to high standards was based on the desire to utilize the latest managed development environments. These technologies have allowed us to enhance our code unit testing, experience testing, and implementation procedures.

Unit Testing

We are continually working to make our test cycles fast and partially automated. By breaking releases into much smaller components and testing as early in the iteration as possible, we bring updates to the market faster. Short cycles allow enhancements to reach customers much sooner, so our QA team is constantly pushed to enhance their processes to stay on-cycle with development. Unit testing, the simulation of incomplete components with service visualization, allows Passio to run simultaneous tests, rather than wait until the end of a cycle.

Functional testing

Functional testing verifies that our applications work how they are intended. It's implemented in a target environment by conducting manual user tests according to specific plans, considering the needs and requirements of our end users. Functional testing includes the following tests:

- Browser compatibility test to check app performance in various browsers.
- Regression test for every release, minor update, integration, or data migration.
- Automated functional and regression tests.
- Outcome-based user testing on all new feature sets.
- Reliability test to find app weaknesses and reduce the number of failures during deployment.
- Passio eventually uses actual user data to improve testing and user experience.

Performance Testing

By performing load tests, the Passio QA team can determine our ability to handle unsteady loads and find the maximum supported levels. From there, the team can move on to endurance testing which tests the system under continuously high load. Endurance testing is a method for detecting memory leaks and identifying at what point performance degradation occurs. It can also show how the system copes under high demand for long periods of time. We test our solutions with various loads, including ones that exceed normal operating conditions. These techniques are primarily done manually, but we are working to improve Passio Performance Testing with new automated testing tools.

Furthermore, our failure and recovery tests check the system for functional disaster recovery after simulation of various crashes both internal (software) and external (internet connection, power cuts, etc.).



Compatibility Testing

- The Passio QA team tests against the following:
- Browsers (Chrome, Firefox, Safari, Edge)
- Desktop Operating systems (Windows, macOS)
- Mobile devices (iOS, iPadOS, Android)
- Hardware versions

While these configurations are numerous, we always consult with each client to ensure our solutions work as expected on their hardware.

Maintenance Testing

Maintenance testing is performed by both our QA and Tech Support teams. They are responsible for ensuring the correct performance of applications and customer service workflows. Passio uses Freshdesk.com and Monday.com to help this team track and analyze potential problems.

Continuous Improvement

Besides these new development testing KPI's, we have implemented new Process Controls and Workflow Tools for onboarding new customers and ongoing technical support. This attention begins with our onboarding process throughout the life of the contract. When onboarding a new ITS customer, Passio has a proven methodology in place to transfer project information and goals from sales to our customer success team. We now use 2 project management tools (Insightly.com & Monday.com) to help facilitate this. We also use a series of online forms (Formsite.com) in collaboration with the new customer to ensure all required information is complete.

We are continuously adding content to our online user community/KB/FAQ on Freshdesk and updating training videos for our solutions. We are committed to comprehensive training done both remotely and on-site. Passio uses electronic media and also hosts quarterly webinars to provide documentation and training to our customers. Passio tracks support tickets internally via Freshdesk (<https://passiotech.freshdesk.com>).

All project tasks will be implemented by a Senior Project Manager, Systems Engineer, Customer Success Supervisor, Account Manager, and a Passio Installation Technician. During the project implementation and ongoing operations, Passio leaders and project managers will coordinate on site evaluations and strategic meetings to ensure maximum utilization of all technology solutions.





WORKFORCE SAFETY

INCLUDING SPECIAL RESTRICTIONS FOR COVID-19



Passio is committed to continue serving our customers despite the uncertainty of the changing environment related to COVID-19. We understand the importance of the products and services we provide and the responsibility that entails. Passio also provides healthcare and wellness for all employees who choose to opt into these benefits.

In response to the current pandemic we have implemented a business continuity plan in alignment with the recommendations from the CDC and various local health departments which includes, but is not limited to:

- We have made the decision to allow employees who can perform their jobs remotely, to work from home.
- We are providing employee time off for any need related to the pandemic.
- We are monitoring our logistics supply chains closely. While some delays are already reported, at this time we are still expecting materials to come in and devices to be shipped out.
- We have suspended all non-essential business travel.

These precautionary measures have been taken to limit the potential spread of the virus, to support our employees, and ensure we maintain our ability to serve our customers effectively, for the long term. Our senior leadership team remains vigilant and is monitoring the situation in real-time and responding rapidly as conditions evolve.

Passio Technologies will work in cooperation with your staff to achieve a safe work environment during this project. We know that providing transportation during the current situation has introduced many new challenges. Ridership patterns may have shifted significantly and available resources may be limited.

While on-site, our top priority has always been to safely implement our customer's projects, adhering to all recommended guidelines/regulations, and staying on schedule. In order for our installers to safely travel to our customers and perform work, we created the Passio COVID-19 Installation Protocol listed below.

COVID-19 Installation Protocol

Protocols and precautions utilized prior to travel...

- Passio Installer has been instructed to follow all CDC and local health regulations.
- We have provided him/her with masks, gloves, and cleaning supplies.
- If installer exhibits COVID-19 symptoms, if they test positive, or suspect they are positive they will follow CDC guidelines to remain home and isolate until:
 - 1) 3 days with no fever and
 - 2) Respiratory symptoms have improved (e.g. cough, shortness of breath) and
 - 3) 10 days since symptoms first appeared
- Depending on the healthcare provider's advice and availability of testing, the installer may get tested to see if they still have COVID-19.
- If they are tested, they will be cleared to be around others when they have no fever, respiratory symptoms have improved, and they receive two negative test results in a row, at least 24 hours apart.
<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>
- If Installer comes into contact with a person known or suspected to be positive for COVID-19 they will
 - 1) Stay home until 14 days after your last exposure.
 - 2) Check their temperature twice a day and watch for symptoms of COVID-19.
 - 3) If possible, stay away from people who are at higher risk for getting very sick from COVID-19.



Protocols and precautions utilized during travel...

- Wear a face mask whenever you are in public (l.e. gas stations, lodging, restaurants for pick up, etc.) and cannot maintain a minimum of 6' physical distance from others.
- Minimize the number of stops where possible.
- Wash hands frequently and use hand sanitizer with a minimum of 70% alcohol
- Avoid eating inside restaurants when possible. If not possible or practical, physically distance yourself from other patrons (6' minimum).

Protocols and precautions utilized at client sites...

- Physical distance (6' minimum) from others when possible
- Wear face covering when others are near the installer, or if there is a need to be onboard a vehicle at the same time.
- Wipe down high touch areas and exposed areas contacted during the installation process. Use of customer provided and approved cleaning materials is preferred when possible.
- Limit number of entrances to facilities (l.e. restrooms or need to find customer employees to answer questions)
- Exchange cell phone contact for better communication.





SCOPE OF WORK

City of Clovis Clovis, CA			
INTELLIGENT TRANSPORTATION SYSTEM			
SCOPE OF WORK - PROPOSAL REQUIREMENTS by Passio Technologies			
#	Specification	Y/N/P	Comment
CORE COMPONENTS			
A. CAD/AVL/AVA HARDWARE AND SYSTEM			
A.1	The CAD component of the system shall be seamlessly and fully integrated with the AVL component and shall have the ability for the City to view in real-time and gather data for determining On-Time Performance (i.e., by Route, Operator, Block, Trip, Day Vehicle, etc.), schedule adherence and event management for all Routes.	Y	Our proposed Passio GO™ solution complies with this requirement. Movement, change in heading/direction and speed is reported in real-time and immediately uploaded via data connection to network servers for representation on public views, website maps, and smartphone applications. Our bus motion display algorithm shows your buses 'driving' their routes. Passio provides a GPS accuracy of up to 2-5 meters in optimal environmental conditions. Vehicle direction is also prominently displayed. System managers and operators are given real time schedule adherence data by Driver Route, Route Block, and/or Stop. Drivers are also given bright visual indicators of their stop schedule and current schedule adherence. Our MDT interface within the Passio Transit app helps drivers keep up with their own schedule to see if they are behind, ahead, or perfectly on time. If the time is shown as white, the driver is on time, blue means behind schedule, and yellow would mean ahead of schedule. Furthermore, using Passio OPS View, the leadership team and operators can work quickly to improve performance in real time.
A.2	The combined data from the CAD/AVL system shall also be sufficient to allow the City to utilize the data to improve schedules, frequency (headways), time points, bus-stops, and other service-related functions in a comprehensive manner.	Y	Passio Navigator provides analytics to improve schedules using ridership data along with location data. The Passio Business Intelligence Platform includes business analytics with customizable dashboards and reports for any relative time period. Automated report scheduling and email distribution is also provided. Passio Navigator serves as your reporting dashboard with access to our library of ridership, performance, and analytics reports. Agencies use Passio Navigator to measure multiple KPIs for each route in service for any requested time period. Passio provides your dispatchers with real-time bus tracking, traffic, arrival predictions, and departure times for each stop. We provide several reports yielding crucial operational data regarding the services provided by your agency.
A.3	Initially, the Contractor will enter directly into their System the City's schedules, routes, trips, blocks and stops information for the Stageline Routes, which are the bases for on-time performance tracking and reporting.	Y	Passio Navigator™ provides customers with full access to manually configure routes, route blocks, schedules, time points, stop locations, geofences, and fleet information on a digital map. System information can be imported via GTFS data, setup manually from GPS coordinates, or performed by Passio staff. All customers have access to update any system entities, such as adding and editing Stops, Routes, and Drivers. Route blocks, scheduled time points, automated voice announcements, and LED sign controls (if available) are also configured within Passio Navigator. Customers are trained and given full access to all route, stop, vehicle, and driver management tools. There is no waiting requirement for updates, edits, or deletions to your base system structure. Dispatchers can also create detour routes on the fly, deploy test routes, and pre-set new routes for immediate cut over. All customers have access to update stops, routes, and route groups at any time. These changes can be put into effect immediately or scheduled for implementation at a later date using Passio Versioning.
A.4	The CAD/AVL system should also integrate and control the AVA component and installed head signs to provide stop information to City passengers.	Y	Passio provides innovative, modular, and customizable technology solutions for transit customers. Our proposed VLU has exceptional wireless connectivity, GPS tracking, acquisition, and accuracy sensitivity, as well as integrated fleet features to enable integration with on board systems and external transit technology applications. Our core transit technology solutions (MDT, AVA, APC, etc.) and associated equipment connect to our VLU. Operators are simultaneously logged into each system/component on their vehicle. Our AVA solution will trigger preloaded messages to announce and display when any preset geofence is entered along a specific route. This geofence trigger zone does not have to be at a predefined bus stop and can occur anywhere along the route. Headsign integration will be supported by Passio Technologies provided that each headsign has the most current updated firmware version and must be J1708/J1939 compatible.

CAD/AVL/AVA Requirements:			
A.5	Cloud-hosted with an intuitive web-based user interface	Y	Our proposed Passio ITS solution complies with this requirement. Our management tool (Passio Navigator) is 100% web-based and supports all common browsers (Chrome, Edge, Safari, and Firefox). Passio Navigator™ controls access to system features for each individual user and user group with multi-layered security features. Dispatch and Messaging for CAD/AVL is managed from a single live map screen (powered by Google Maps) located within Passio Navigator™. All communications are saved within the dispatch and messaging interface. Passio Navigator also serves as your reporting dashboard with access to our library of ridership, performance, and analytics reports.
A.6	Utilize a mobile data terminal (MDT)/tablet as the single point for operators logging onto all integrated components/systems.	Y	Our proposed VLU has exceptional wireless connectivity, GPS tracking, acquisition, and accuracy sensitivity, as well as integrated fleet features to enable integration with on board systems and external transit technology applications. Our core transit technology solutions (MDT, AVA, APC, etc.) and associated equipment connect to our VLU. Operators are simultaneously logged into each system/component on their vehicle.
A.7	MDT/Tablet should run on the Android operating system and be capable of running on future Android versions.	Y	The Passio Transit MDT provides an Android-based, rugged, touch-screen driver interface. This single-connection, modular and swappable device natively connects to other onboard devices for the control and collection of data.
A.8	Track trip schedule adherence	Y	Our proposed Passio GO™ solution complies with this requirement.
A.9	Ingestion of automatic vehicle location every 5 seconds or faster	Y	Our proposed Passio GO™ solution complies with this requirement. GPS data on board is updated in real-time, typically every second. Movement, change in heading/direction and speed is reported in real-time (2-5 seconds) and uploaded via data connection to network servers for representation on public views, website maps, and smartphone applications.
A.10	Publishing of vehicle location and run or block assignment information through an API accessible by the City and updating that API every 5 seconds or faster	Y	Passio provides an Open API to allow 3rd party software to attach to our API to pull real time transit data into their system. Passio is committed to keeping our programmable API fully documented for consumption and integration with any other system providing an API. Passio provides a real-time transit application programming interface (API), documentation, and JSON output for customers. GTFS static file imports and exports are supported and Passio can also provide a GTFS Realtime (GTFS-RT) feed to application developers. The API includes real-time location data (every 2-5 seconds) and the estimated time of arrival, as well as other system information such as real-time passenger load as an option.
A.11	System shall begin gathering AVL location data when the ignition is turned on and continue reporting until the ignition is turned off (based on a programmable time period, i.e., 30 minutes, etc.)	Y	Passio transit hardware devices are typically wired to the ignition as well as the battery of the vehicle. This means the position of the vehicle is able to be reported even if the ignition is turned off, or if the vehicle is idling. The device goes into a type of hibernation mode where draws very little power from the battery. Special configurations are available.
A.12	Mobile Data Computer (MDC)/ Vehicle Logic Unit (VLU) shall integrate with the onboard equipment on each vehicle that provides head-sign control, destination signs, next stop announcements (audible and textual), covert alarm, etc.	Y	Our proposed Passio Technologies AVA solution complies with this requirement. Our ADA compliant package can include new interior, passenger facing LED signs (if desired). Our on-board AVA systems are integrated with Passio Navigator and MDT are updated 100% over the air without any on board actions required. Announcements can include route, destination, next stop, driver names and other announcements. Our solution will trigger preloaded messages to display when a stop geofence is entered along a specific route. The Passio Transit AVA solution meets this requirement by using pre-configured GPS based geofence trigger stop locations. Passio AVA can also integrate with existing LED/LCD signs (where feasible). Our proposed in-vehicle solution supports a covert alarm to alert dispatch during emergencies. These emergency alerts can be managed by dispatch using Passio Navigator.

A.13	MDC/VLU shall store the most recent location received from the APC so that if the GPS receiver is not able to report the location, the "last known good" boardings and alightings will remain available	Y	This requirement is accepted and understood. Passio provides an IoT dashboard within the Passio Navigator interface. This dashboard includes vehicle sensor logic showing sensor status for all active vehicles, tracking of sensor failures, and a comparison of scheduled activity and actual activity. The system includes data normalization to address key outlying operational situations. Connected devices are continually monitored for an 'electronic heartbeat'. That status is available within Passio Navigator to visually represent when a vehicle is running and equipment is connected. This information is logged and tracked in real time within our Passio Navigator Reporting Module. Both the Passio APC & GPS systems have associated timestamps. If one not available then closest timestamp is appended to the record.
A.14	Annunciation of stop names with necessary configurations	Y	Operators can activate a generic canned announcement from a preset list, such as "Stop Requested". Operators can trigger preset special announcements from the MDT and repeat a stop location for ADA compliance. Agencies can even use songs, pre-recorded messages, and a number of different triggers. Quickly configure complex geofence triggers, timed announcements, doors opening sensors, and more.
A.14a	Which stops	Y	Our proposed Passio Technologies AVA solution complies with this requirement. Announcements can include route, destination, next stop, driver names and other announcements.
A.14b	What text	Y	Our proposed Passio Technologies AVA solution complies with this requirement. New stops are typically entered into Passio AVA by simply typing the text directly in Passio Navigator by selecting the route+stop combination (text-to-speech). All customers have access to add/update stops, routes, and announcements at any time. These changes can be put into effect immediately or scheduled for implementation at a later date using Passio Versioning. Announcements can be changed and updated remotely from your desk, with granular control at the route stop level. Our AVA system includes other features such as: .mp3 file uploads, and the ability to sell announcement air time on your vehicles to local business around your routes, creating an additional revenue stream for your transit.
A.14c	Where exactly to announce	Y	Our AVA solution will trigger preloaded messages to display when a stop geofence is entered along a specific route. The Passio Transit AVA solution meets this requirement by using pre-configured GPS based geofence trigger stop locations. Passio AVA can also integrate with existing LED/LCD signs (where feasible).
A.15	Web portal through which annunciation configuration can be easily customized after GTFS import or update	Y	Our proposed Passio Technologies AVA solution complies with this requirement.
A.16	Head sign control that automatically rotates pre-defined information in text	Y	Our proposed Passio solution complies with this requirement using the destination sign on-board controller.
A.16a	Integrates with CAD/AVL system or able to accept data through GTFS/other specified data upload	Y	Our proposed Passio Technologies AVA solution complies with this requirement.
A.16b	The City prefers integration with the currently installed head signs (Luminator/Twinvision and Hanover). The awarded Contractor will notify the City if they are unable to integrate with existing head signs and the City will purchase new head signs if necessary.	Y	Our AVA solution will trigger preloaded messages to announce and display when any preset geofence is entered along a specific route. This geofence trigger zone does not have to be at a predefined bus stop and can occur anywhere along the route. Headsign integration will be supported by Passio Technologies provided that each headsign has the most current updated firmware version and must be J1708/J1939 compatible.
B. PASSENGER INFOTAINMENT			
B.1	To enhance the customer experience, the City would like an infotainment solution for its Stageline vehicles. The solution would be utilized to compliment the audio announcements by displaying public information for such things as: Next Stop, Rider Alerts, promotional information, public service information, transfer points, etc.	Y	Our preferred infotainment partner, Message Point Media (http://mpmedia.tv/) will provide the equipment, content management interface, and installation services. Passio will provide project management services that include real time transit data integration with Message Point Media. Our AVA system includes other features such as: .mp3 file uploads, and the ability to sell announcement air time on your vehicles to local business around your routes, creating an additional revenue stream for your transit. For more information, please refer to our Intelligent Displays solution section.
B.2	The City would like to install one monitor in the front of each vehicle. The Contractor should recommend monitor size(s), mounting locations, and brackets.	Y	This requirement is supported and understood. For more information, please refer to our Intelligent Displays solution section outlining various configurations.

Infotainment Requirements:			
B.3	Integrate and synchronize with the AVA system	Y	Passio provides project management services that include real time transit data integration with Message Point Media.
B.4	Able to accept configuration data through GTFS and location/assignment API provided by a CAD/AVL system, or integrated with the CAD/AVL system	Y	This specification is supported by the Passio AVA solution.
B.5	Display various types of content including audio, video, images, and accept multiple media types such as MP4, WAV, JPEG, etc.	Y	Passio will provide project management services that include real time transit data integration with Message Point Media. Our AVA system includes other features such as: .mp3 file uploads, and the ability to sell announcement air time on your vehicles to local business around your routes, creating an additional revenue stream for your transit. For more information, please refer to our Intelligent Displays solution section.
B.6	Integrate with on-board public address (PA) system	Y	This specification is supported by the Passio AVA solution.
B.7	Ability to send/push ad-hoc "real-time" information to the solution	Y	This specification is supported by the Passio AVA solution.
B.8	Ability to create location-based announcements/displays	Y	This specification is supported by the Message Point Media 'Transit Point SmartStop' solution. For more information, please refer to our Intelligent Displays solution section.
B.9	Display next stop information after departure from previous stop and/or next stop information prior to reaching the next stop giving the rider sufficient time to prepare for alighting	Y	This specification is supported by the Passio AVA solution with Message Point Media 'Transit Point SmartStop' technology. For more information, please refer to our Intelligent Displays solution section.
B.10	Web portal through which display configuration can be easily customized after GTFS import or update	Y	The Passio Transit AVA solution feeds stop/announcement information to signs and other media. Announcement configuration is done in Passio Navigator. The Message Point Media CMS then brings this data to life in conjunction with other media files on LCD monitors and displays. For more information, please refer to our AVA and Intelligent Displays solution sections.
C. AUTOMATED PASSENGER COUNTERS (APCS)			
APC Hardware/Collection:			
C.1	The City seeks to fully understand its ridership, not only where riders board and alight, but also wheelchair lift usage. The City expects an Automatic Passenger Counting (APC) system that will be highly accurate and provide an exceedingly high level of data quality.	Y	This specification is supported by our proposed Passio APC solution. The Hella Advanced People Sensor APS-B is designed to count boarding and alighting passengers with the highest accuracy available in the market, typically better than 98%. Passio technicians work to configure and test each vehicle type to ensure optimal configuration. Passio will interface with lift sensors and designated bicycle rack sensors (if available). In addition to automatic sensor counting, the Passio MDT also supports customizable preset passenger types such as wheelchair, senior, disabled, bicycle, etc. Operators simply press to count as special riders board and exit the vehicle, if required.
C.2	Currently, the City does not receive FTA funding or report NTD data. However, the City may pursue FTA funding and NTD Certification in the future. Contractor should provide a list of transit agencies currently using the proposed APC system that have obtained FTA approval for use of APC data and NTD reporting. The City will not accept an APC system that is not accurate enough to obtain the FTA's NTD Certification approval.	Y	Passio offers customized NTD reporting that will calculate and extract the metrics required for compliance. The Passio APC solution will provide all 'Actual' data (passenger miles and stop counts) required for NTD reporting. Your account manager will work with you to set up your personalized NTD sampling schedule and Passio will support your certification process. Our integrated Hella 3D APC has been granted NTD Certification Approval. Furthermore, our NTD Certification process and maintenance plan includes procedures to calibrate APCs every year after the initial benchmark year using a modified validation plan to ensure the upkeep of the agency's certification. More information can be found in our NTD Certification section of our proposal.
APC Hardware/Collection Requirements:			
C.3	Stand-alone system that integrates with the CAD/AVL system	Y	This specification is supported by our integrated Passio APC solution. Every count will be stamped with the geolocation, stop, date, time and route information, which can be filtered in our reports. Reports include a graphical interface for display and presentation. All reports can be filtered by operational detail/grouping levels such as routes, stops, trips, drivers, and buses. Route reporting is available at three levels (block, route name, combined route). Passio also provides metrics on stop groups (inbound/outbound, north/south, etc.) which also fulfill these requirements.

C.4	Highly accurate data collection that meets or exceeds FTA requirements (95%)	Y	This specification is supported by our proposed Passio APC solution. The Hella Advanced People Sensor APS-B is designed to count boarding and alighting passengers with the highest accuracy available in the market, typically better than 98%.
C.5	Demonstrates the ability to discriminate between passengers and non- passengers, detect double backs, etc.	Y	This specification is supported by our proposed Passio APC solution. The 3 dimensional stereographic digital imaging counting system uses software analysis to actively monitor each 'gate'. The counting gate is set for each vehicle type and design and the passenger image must cross through the entire gate to be counted, thus avoiding double backs or re-crossings. The Hella system provides configurable settings to monitor and report passenger lingering within the sensor area (30 seconds is our default).
C.6	Able to separately count successive passengers that are walking close together, either one behind the other or side by side	Y	This specification is met by our proposed Passio APC solution. The Hella APC utilizes two high-definition video cameras to observe the monitoring area or AOI Area of Interest. Innovative Image-processing methods calculate a 3D position for every pixel visual object within the field of view. The AOI covers the entire door entry area including the area outside the vehicle once door is open and a set area in the vehicle's interior. Passengers are tracked while inside this AOI. Passengers are identified as three dimensional objects and continuously tracked while remaining within the AOI. The applied 3D principle ensures reliable separation of passengers versus near-to-ground objects and other environmental impacts. Objects with a third dimension are recognized and tracked. Multiple people within the AOI are continuously tracked.
C.7	Accurately differentiate between boarding and alighting and eliminate false positive counts.	Y	This requirement is accepted and understood. Passio provides an IoT dashboard within the Passio Navigator interface. This dashboard includes vehicle sensor logic showing sensor status for all active vehicles, tracking of sensor failures, and a comparison of scheduled activity and actual activity. The system includes data normalization to address key outlying operational situations. That status is available within Passio Navigator to visually represent when a vehicle is running and equipment is connected.
C.8	Automatically compile data by the APC and integrate to the MDC/VLU in real- time	Y	This specification is supported by our integrated Passio ITS solution.
C.9	Ability to store and forward data if the MDC/VLU loses communications connectivity	Y	This requirement is understood and accepted. The proposed Hella APS-B sensors come with 8GB internal memory by default for storing and forwarding when needed. Hella sensor (APS-B) data is transmitted directly to our AWS database using the pepwave router and M2M (Machine to Machine) data transmission. Passio APC record-level detail is stored within AWS for a minimum of 36 (thirty-six) months and provides count information at the base level which allows for time and individual bus and driver reporting at the stop level. After 36 (thirty-six) months data will be summarized at the route, day, and passenger type level. This data will be available in the dynamic reporting system for a minimum of 5 (five) years. All data archived after 5 (five) years will be made available electronically prior to removal from the dynamic reporting system.
C.10	Data will consist of date and time stamp, geo-coordinates, and bus stop locations	Y	The proposed Passio APC solution meets this requirement. Every count (boarding/alighting) will be stamped with the stop ID, stop name, location, date, time, route, vehicle, and door(front/rear) information; which can be filtered in our comprehensive reporting module. All data is reported in real time (for any desired time period) and may be accessed by the customer at any time. Passio also provides an IoT dashboard within the Passio Navigator interface. This dashboard includes vehicle sensor logic showing sensor status for all active vehicles, tracking of sensor failures, and a comparison of scheduled activity and actual activity. Our reporting is intuitive and user friendly, and the data is presented in the same format as it is collected. Counting is done at the stop, by a driver, on a bus, and that is how you see it in the reports.
C.11	Capability of real-time counts of passengers on board in the event of emergencies for authorities	Y	Passenger load is reported in real-time and immediately uploaded via data connection to network servers for representation in Navigator for viewing and reporting emergencies.
C.12	Count wheelchair ramp deployment	Y	Passio will interface with lift/ramp sensors and designated bicycle rack sensors (if available). In addition to automatic sensor counting, the Passio MDT also supports customizable preset passenger types such as wheelchair, senior, disabled, bicycle, etc. Operators simply press to count as special riders board and exit the vehicle, if required.

C.13	Ability to eliminate counting of Operators as passengers	Y	This specification is supported by our integrated Passio ITS solution. The AOI covers the entire door entry area including the area outside the vehicle once door is open and a set area in the vehicle's interior. Passengers are tracked while inside this AOI. Drivers will not be counted if they stay within the AOI assisting passengers etc. However, the driver can manually update counts on the MDT with one-click if required.
C.14	Approved for NTD reporting	Y	Our integrated Hella 3D APC has been granted NTD Certification Approval. Furthermore, our NTD Certification process and maintenance plan includes procedures to calibrate APCs every year after the initial benchmark year using a modified validation plan to ensure the upkeep of the agency's certification. More information can be found in our NTD Certification section of our proposal.
C.15	System will not interfere electronically with the operation of the transit vehicle or its onboard electronic equipment such as security equipment, engine controls, transmission, etc.	Y	Our proposed APC solution is cloud-based using minimal hardware. Hella sensor data is transmitted directly to our AWS database using the pepwave router and M2M (Machine to Machine) data transmission. On board cabling is done efficiently, using high quality materials and connectors designed to limit the chance to interfere with any other vehicle systems.
C.16	System equipment provided will be transferable to other transit vehicles	Y	The proposed Passio APC hardware by Hella can be transferred (or repurposed) if required. The APC system is installed and hard wired to each individual vehicle. Passio can facilitate or conduct the uninstall and reinstall between vehicles if needed. There are no requirements that would stop the system from being transferred from one vehicle to another. Typically the only new equipment required when transferring is the wiring and mounts.
APC Data Analysis, Reporting, and Support Agreement			
C.17	The APC provider will maintain a web-based reporting solution for the City that accurately imports and processes ridership data from their APC system. The reporting solution must generate accurate and user-friendly reports for two primary purposes: 1) service and operations planning, and 2) National Transit Database (NTD) reporting.	Y	This specification is supported by our Passio APC and Navigator Reporting solutions. The Passio Business Intelligence Dashboard Reports and Ridership Metrics provide this data. Please refer to our Passio Business Analytics section provided in our proposal.
C.18	The system must also provide the City with ridership reporting for service and operations planning purposes. Ridership reporting for this purpose will include, but not be limited to, ridership (totals and average) by month, by day, by route, by trip, etc.	Y	This specification is supported by our Passio APC and Navigator Reporting solutions. The Passio Business Intelligence Dashboard Reports and Ridership Metrics provide this data. Please refer to our Passio Business Analytics section provided in our proposal.
C.19	The APC System will also include a Support Agreement for APC Data Analytics, Reporting, and NTD Certification support for a minimum period of five (5) years. The objective of the Support Agreement is to maintain the APC system at a very-high level of performance.	Y	Our integrated Hella 3D APC has been granted NTD Certification Approval. Furthermore, our NTD Certification process and maintenance plan includes procedures to calibrate APCs every year after the initial benchmark year using a modified validation plan to ensure the upkeep of the agency's certification. More information can be found in our NTD Certification section of our proposal.
C.20	The Support Agreement must provide consulting, training, support, and maintenance of ridership data reported to NTD and the City.	Y	This requirement is understood and accepted. Passio record-level detail is stored for a minimum of 36 (thirty-six) months and provides count information at the base level which allows for time and individual bus and driver reporting at the stop level. After 36 (thirty-six) months data will be summarized at the route, day, and passenger type level. This data will be available in the dynamic reporting system for a minimum of 5 (five) years. All data archived after 5 (five) years will be made available electronically prior to removal from the dynamic reporting system. Your account manager will work with you to set up your personalized NTD sampling schedule and Passio will support your certification process. Our integrated Hella 3D APC has been granted NTD Certification Approval. Furthermore, our NTD Certification process and maintenance plan includes procedures to calibrate APCs every year after the initial benchmark year using a modified validation plan to ensure the upkeep of the agency's certification. More information can be found in our NTD Certification section of our proposal.
APC Analytics Requirements:			
C.21	Conducting data cleansing (data cleaning is intended to remove questionable data)	Y	This requirement is accepted and understood. The Passio system includes data normalization to address key outlying operational situations and the ability to adjust counts accordingly.

C.22	Allowing for the adjustment of data (make minor, logical alterations to raw APC data)	Y	This specification is supported by our Passio APC and Navigator Reporting solutions.
C.23	Including a means for geographic analysis of valid APC data (geographic presentation of boardings and alightings by stop)	Y	This specification is supported by our Passio APC and Navigator Reporting solutions. The Passio Business Intelligence Dashboard Reports and Ridership Metrics provide this data. Passio Business Analytics users can create a variety of ad-hoc reports (bar graph, line graph, summary table, heat map, pivot table, pie chart, etc.) for viewing, printing, and exporting. Please refer to our Passio Business Analytics section provided in our proposal.
C.24	Providing the ability to assign unknown boardings and alightings to the stop before or after	Y	This specification is supported by our Passio APC solution.
C.25	Retaining data rejected for data cleaning for a minimum of 90 days	Y	This specification is supported by our Passio APC solution.
APC Reporting Requirements:			
C.26	Web-based APC reports with an intuitive user interface	Y	This specification is supported by our Passio APC solution. For more samples and information on reporting, please refer to our Passio Business Analytics section provided in our proposal.
C.27	Secure, password-protected web access	Y	This requirement is understood and accepted. Passio Navigator™ controls access to system features for each individual user with multi-layered security features. We use a permission-based user management system that can assign Read, Write, none permissions per user based on their role. Example roles include Dispatcher, Manager, Supervisor, and Administrator, but we can be very granular with page level access. New users are easily added with permission-based security along with bank-grade encryption, SSL-256, which restricts access to authorized personnel as well as secures the data while in transit. Your users will receive comprehensive training on all Passio software products. We will provide training to all dispatchers, supervisors, administrators and maintenance technicians.
C.28	Accurate reports that have been scrubbed of all errant data	Y	This requirement is accepted and understood. The Passio system includes data normalization to address key outlying operational situations and the ability to adjust counts accordingly.
C.29	Wheelchair lift use reports	Y	This specification is supported by our Passio APC solution. For more samples and information on reporting, please refer to our Passio Business Analytics section provided in our proposal.
C.30	Customizable ridership reports for specific time periods (annually, monthly, weekly, daily, hourly) and ability to filter data	Y	This specification is supported by our Passio APC Reporting solution. Reports include a graphical interface for display and presentation. All reports can be filtered by custom or pre-set time periods. Users can group reporting data for presentation by quarter, month, week, day or by time (hour or ¼ hour) and select operational detail levels such as routes, stops, trips, drivers, and buses. Passio Navigator offers a unique dashboard view where the client can create a variety of reports (bar graph, line graph, summary table, heat map, pivot table, pie chart, etc.), or have Passio create a custom report for the agency. These customized reports can be provided if users can't create filters or "Dashboards" meeting agency specifications. Passio also provides metrics on stop groups (inbound/outbound, north/south, etc.) which also fulfill these requirements. For more samples and information on reporting, please refer to our Passio Business Analytics section provided in our proposal.
C.31	Provide up to 25 additional customized reports requested by the City at no additional cost.	Y	The Passio Business Analytics platform allows unlimited report creation with customizable dashboards for any relative time period. Automated report scheduling and email distribution is also provided. Passio Navigator serves as your reporting dashboard with access to our library of ridership, performance, and analytics reports. Agencies use Passio Navigator to measure multiple KPIs for each route in service for any requested time period. Passio provides your dispatchers with real-time bus tracking, traffic, arrival predictions, and departure times for each stop. We provide several reports yielding crucial operational data regarding the services provided by your agency. For more samples and information on reporting, please refer to our Passio Business Analytics section provided in our proposal.
C.32	Ridership reports that can be aggregated by stop, route, or trip	Y	This specification is supported by our Passio APC Reporting solution. Reports include a graphical interface for display and presentation. Users can group reporting data for presentation by quarter, month, week, day or by time (hour or ¼ hour) and select operational detail levels such as routes, stops, trips, drivers, and buses. For more samples and information on reporting, please refer to our Passio Business Analytics section provided in our proposal.

C.33	Runtime reports to compare scheduled versus actual runtimes between segments, trips, or routes as an aid to tuning schedules	Y	The Passio Business Analytics platform allows unlimited report creation with customizable dashboards for any relative time period. These dashboards can be used to directly compare datasets in line to aid schedule optimization. We provide several reports yielding crucial operational data regarding the services provided by your agency. For more samples and information on reporting, please refer to our Passio Business Analytics section provided in our proposal.
C.34	Ability to export/download reports in Excel, PDF, etc.	Y	The Passio Business Intelligence Platform data is available for export into common formats such as CSV (to XLS) and PDF. For more samples and information on reporting, please refer to our Passio Business Analytics section provided in our proposal.
C.35	Report capabilities for measures, such as: boardings, alightings, boardings per revenue mile, boardings per revenue hour, boardings per trip, revenue miles, revenue hours, passenger miles, runtime between timepoints, trip runtimes, leaving load from a stop, max trip load point, etc.	Y	These specifications are supported by our proposed Passio ITS solution. For more samples and information on reporting, please refer to our Passio Business Analytics section provided in our proposal.
C.36	Specific reports for the National Transit Database reporting of unlinked passenger trips (i.e., boardings) and passenger miles travelled for by month and fiscal year using some or all the APC data	Y	Passio works with several agencies to prepare and submit NTD data. These include Corpus Christi Regional Transportation Authority (CCRTA) in Texas; Rider Transit of Concord and Kannapolis, NC; and Eastern Panhandle Transit Authority (EPTA) in Martinsburg, WV. Idaho Citylink Transit of Kootenai County and Ozark Regional Transit are also listed as APC references. Our robust Passio NTD reporting module provides VRM (Vehicle Revenue Miles), Deadhead miles, AVM (Actual Vehicle Miles), VRH (Vehicle Revenue Hours), Deadhead hours, AVH (Actual Vehicle Hours), UPT (Unlinked Passenger Trips), PMT (Passenger Miles Travelled) by time period and by weekday/weekend etc. Passio offers customized NTD reporting that will calculate and extract the metrics required for compliance. The Passio APC solution will provide all 'Actual' data (passenger miles and stop counts) required for NTD reporting. Your account manager will work with you to set up your personalized NTD sampling schedule and Passio will support your certification process. Our integrated Hella 3D APC has been granted NTD Certification Approval. Sample reports and a complete listing of available reports is provided in our Passio Navigator & NTD Certification sections found in this proposal.
OPTIONAL COMPONENTS			
D. REAL-TIME AND HISTORICAL SERVICE APIS			
D.1	The purpose of the real-time and historical APIs is both to provide customer information to riders through third party applications like Google Maps and to provide any other application that the City may utilize, to access real-time and historical information about Stageline service. These APIs may be provided as a standalone component incorporating information in the CAD/AVL API.	Y	Passio provides an Open API to allow 3rd party software to attach to our API to pull real time transit data into their system. Passio is committed to keeping our programmable API fully documented for consumption and integration with any other system providing an API. Passio provides a real-time transit application programming interface (API), documentation, and JSON output for customers. GTFS static file imports and exports are supported and Passio can also provide a GTFS Realtime (GTFS-RT) feed to application developers. The API includes real-time location data (every 2-5 seconds) and the estimated time of arrival, as well as other system information such as real-time passenger load as an option.
Real-time and Historical Service APIs Requirements:			
D.2	GTFS Real-time 2.0-conforming Trip-updates and Vehicle Positions feeds provided on license terms that allow the City to download, own, and store all data	Y	Passio will work with Clovis staff to recommend/determine the best options and integrations during the project planning phase. Passio provides a real-time transit application programming interface (API), documentation, and JSON output for customers. GTFS static file imports and exports are supported and Passio can also provide a GTFS Realtime (GTFS-RT) feed to application developers. Passio automatically generates GTFS-realtime (GTFS-RT) feeds for consumption. Passio fully supports all GTFS-RT feeds for Trip Updates, Service Alerts, and Vehicle Positions.
D.3	GTFS Real-time and any other API endpoints should reference GTFS feed IDs in the GTFS data set provided by the City and update any time IDs in that data set change	Y	Passio supports all GTFS-RT feeds for Trip Updates, Service Alerts, and Vehicle Positions. Passio also provides a real-time transit application programming interface (API), documentation, and JSON output for customers. The API includes real-time location data and the estimated time of arrival, as well as other system information such as real-time passenger load.

D.4	API endpoints should update at least every 5 seconds or faster, incorporating real-time information from the CAD/AVL system	Y	The Passio API includes real-time location data (every 2-5 seconds) and the estimated time of arrival, as well as other system information such as real-time passenger load.
D.5	Well documented GeoJSON or REST API that provides useful and efficient queries regarding transit network real-time and historical status	Y	Passio provides a real-time transit application programming interface (API), documentation, and JSON output for customers.
Desired:			
D.6	All data provided on license terms that allow the City to download, store, and own all data elements, and utilize the data schema for any purpose	Y	Passio Technologies understands and accepts this requirement.
D.7	Graphical User Interface available to dispatchers for understanding real-time and historical status of the system (also may be provided through CAD/AVL system component)	Y	The specification is met by our proposed Passio Navigator solution. Passio Navigator Live Map displays the color coded routes and vehicle bus icons. Our Passio Navigator 'Replay' feature also complies with this requirement. View breadcrumbs (historical locations and speeds) of each vehicle in your fleet. Date/time range options and multiple playback speeds are available. Our new "Snapshot" mode allows dispatchers to capture a detailed historical view of their fleet locations, speed, direction, and load at any time.
D.8	Historical data available for all API endpoints for 90 days after the service date, and the archiving or deleting of data on a clear operational process transparent to the City	Y	Passio Technologies understands and accepts this requirement.
D.9	Firm capacity and intention to update GTFS Real-time endpoints as the specification evolves to provide better information to customers and better reporting data to the City	Y	Passio Technologies understands and accepts this requirement.
D.10	Provide service alerts to inform passengers of service disruptions.	Y	Passio supports all GTFS-RT feeds for Trip Updates, Service Alerts, and Vehicle Positions. Furthermore, our Passio GO system has two levels of communication within the application, Alerts and Announcements. Alerts are designed for immediate notification and highlighted viewing, whereas Announcements are displayed for general passenger information.
E. COURTESY PASSENGER WI-FI			
E.1	Today's transit riders and leisure travelers want Internet access almost as much as they want a seat and on-time arrival information. As part of its enhanced rider experience, the City wishes to add courtesy Wi-Fi services on its' Stageline vehicles. As such, the Contractor will provide an industry-proven system that works on all Stageline vehicles currently in use by the City.	Y	Passio's Mobile Wi-Fi™ solution is certified for rugged environments and transit deployments. Provide your passengers with reliable and configurable high-speed Wi-Fi. The routers are managed and configured remotely by Passio's support team. This system provides web-based management tools to monitor service and update firmware on all devices. Passio Mobile Wi-Fi™ provides web-based management tools to monitor service and update firmware on all devices. Additionally, using the Customizable Captive Portal bandwidth allowance, terms & conditions and access duration per user can be set for all devices.
Courtesy Passenger Wi-Fi Requirements:			
E.2	Interface with single sign on requirements or power on via ignition activation	Y	Passio's Mobile Wi-Fi™ solution meets this requirement.
E.3	Work through a diverse geographical area used by the City	Y	Passio's Mobile Wi-Fi™ solution meets this requirement.
E.4	Provide a consistent, high-quality connection for all users	Y	Passio's Mobile Wi-Fi™ solution meets this requirement. Passio's Mobile Wi-Fi™ solution uses the 802.11ac wireless networking standard on Verizon.
E.5	Contain components that fit on all vehicles used by the City	Y	Passio's Mobile Wi-Fi™ solution meets this requirement.
E.6	Not penetrate the outer shell of the vehicle	Y	Passio's Mobile Wi-Fi™ solution meets this requirement.
E.7	Not interfere with the operation of the transit vehicle or its onboard electronic equipment	Y	Passio's Mobile Wi-Fi™ solution meets this requirement.
E.8	Provide a Wi-Fi disclaimer and terms of use for passengers	Y	Passio's Mobile Wi-Fi™ solution meets this requirement.
E.9	Provide the ability to easily control internet content seen by the passengers	Y	Passio's Mobile Wi-Fi™ solution provides multiple security protocols. Security components of the Passio Wi-Fi solution are: stateful firewall, DoS prevention, & web blocking. A more detailed description of our Passio Wi-Fi solution may be found within our attached Solutions section.

E.10	Provide the ability to optimize bandwidth to exclude excessive bandwidth use	Y	Passio Mobile Wi-Fi™ provides web-based management tools to monitor service and update firmware on all devices. Additionally, using the Customizable Captive Portal bandwidth allowance, terms & conditions and access duration per user can be set for all devices.
E.11	Track down and fix performance issues in a timely manner	Y	Passio's Mobile Wi-Fi™ solution meets this requirement.
E.12	Be secure and separate from the Wi-Fi/Cellular connections used for the City data communications.	Y	Passio's Mobile Wi-Fi™ solution meets this requirement.
F. ELECTRONIC DRIVER VEHICLE INSPECTION REPORTING (eDVIR)			
F.1	The eDVIR component is a software system utilized by drivers and maintenance staff to automate and streamline reporting of maintenance issues. It can be part of the CAD/AVL system or separate.	Y	Passio Inspector is our Electronic Driver Vehicle Inspection Reporting (E-DVIR) module and is available as part of our Passio Manager App on our MDT. This solution will provide digital pre-trip inspection forms, post-trip inspection forms, and hot swap/mini inspections. Drivers can clearly communicate vehicle damage location using touch point graphics and digital photos. Inspection reports and alerts are available within Passio Navigator.
eDVIR Requirements:			
F.2	Inspection components/requirements must be fully customizable	Y	This specification is supported by our Inspector solution. Please refer to our Inspector Solution documentation provided in our proposal.
F.3	Automation of driver pre- and post-trip inspections (including compliance with Federal Motor Carrier Safety Administration regulations 392.7 and 396.11)	Y	This specification is supported by our Inspector solution. Please refer to our Inspector Solution documentation provided in our proposal.
F.4	Utilize the same MDT/tablet as the CAD/AVL system	Y	This specification is supported by our Inspector solution. Please refer to our Inspector Solution documentation provided in our proposal.
Desired:			
F.5	Automation of tracking and reporting engine diagnostics	Y	Passio Inspector is our Electronic Driver Vehicle Inspection Reporting (E-DVIR) module and is available as part of our Passio Manager App on our MDT. This solution will provide digital pre-trip inspection forms, post-trip inspection forms, and hot swap/mini inspections. Inspection reports and alerts are available within Passio Navigator.
F.6	Ability to take and attach pictures with MDT/tablet	Y	Drivers can clearly communicate vehicle damage location using touch point graphics and digital photos.
F.7	Integration with CAD/AVL and reporting components	Y	Inspection reports and alerts are available within Passio Navigator.
F.8	Integration with FASTER fleet maintenance software	Y	We already provided an integrated system with FASTER as part of our Mobility Alliance. FASTER provides complete lifecycle asset management, equipment warranty tracking, preventive maintenance reporting and alerts, asset inventory modules, comprehensive fuel management, business intelligence reporting, fleet analytics, parts inventory/processing, work order management, and labor resource management.
ADDITIONAL REQUIREMENTS			
G.1	DESIGN/IMPLEMENTATION	Y	Passio Technologies understands and accepts these requirements. More information can be found in the following sections of our proposal: Technical Approach, Implementation Plan, and Workforce Safety.
G.2	PROJECT MANAGEMENT	Y	Passio Technologies understands and accepts these requirements. More information can be found in the following sections of our proposal: Technical Approach, Implementation Plan, and Project Schedule.
G.3	TRAINING	Y	Passio Technologies understands and accepts these requirements. More information can be found in the Training section of our proposal.
G.4	TESTING	Y	Passio Technologies understands and accepts these requirements. Passio also agrees to the 30-Day Rolling Operational Testing requirements. More information can be found in the following sections of our proposal: Agency Involvement, Implementation, and Quality Assurance.
G.5	MAINTENANCE AND SUPPORT	Y	Passio Technologies understands and accepts these requirements. More information can be found in the following sections of our proposal: Warranty and Maintenance, Technical Support, and our enclosed SLA.

SOLUTIONS OVERVIEW

Passio builds modular and scalable technology solutions for transit customers in the municipal, government, university, healthcare, aviation, corporate, residential and hospitality industries. We harness real time Passenger & Dispatch Information Systems through GPS tracking using Passio GO, Automated Voice Announcements, and on-board LED Smart Signs. These solutions are coupled with our Automated Passenger Counting (APC) and CAD/AVL systems to provide detailed visibility and comprehensive insight into any transit system

BusBuzz is our unique text and mobile web application for Passenger Feedback. Passio Gateway validates passengers and limits boarding access to authorized users using Tap, Swipe, or Scan Technology. Our Active Route Management (ARM) solution solves the issue of bus-bunching and headway management, keeping buses evenly spaced out on your routes. We also provide Wi-Fi on board, vehicle inspection apps, driver time clock tools, pre-trip yard activity monitoring, and transit tools for the visually impaired.

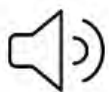
Operations management, reporting and analytics are provided by Passio Navigator and Passio OpsView. Providing instant alerts such as speeding, off route, out of boundary, and idling, where dispatch and management can address transit issues in real time, correcting issues before they escalate. Passio Inspector is our comprehensive Pre/Post trip inspection module. All of these systems are complemented by Passio ParaPlan, our comprehensive booking, scheduling, dispatching, and demand response management software for Paratransit/NEMT service. Our latest technology addition is Passio Connect, which powers our on-demand transportation software solution. This powerful new platform was built mobile first, integrating our core CAD/AVL features with our real-time routing algorithms to give agencies a new offering for their riders.

Passio's solutions are 100% ADA compliant, even going a step further to integrate with technologies that allow for not only compliance, but empowerment. For example, we integrate with FAR, a wayfinding app for the visually impaired. Our LED signage and Automatic Voice Announcements are also compliant.

We also continue to develop our COVID-equipped transportation support by facilitating food delivery to homebound vulnerable populations, passenger load alerts for social distancing, enhanced rider communication and feedback, as well as tech-enabled contact tracing using Passio Gateway among passengers and drivers across the nation.

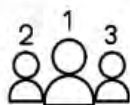
Furthermore, our Passio API allows us to interface with just about anything.

Passio Technologies Available Solutions



AVA

GPS (or other) triggered automated stop announcements



APC

Automatic passenger counting and reporting



PASSIO GO + REQUEST & GO

Real-time rider-focused app for vehicle tracking and information + optional app add-on for ride requests



GATEWAY & CONTACT TRACING

Tap and swipe passenger validation and demographics reporting – optional contact tracing add on



PARAPLAN

Paratransit/NEMT scheduling software for dispatchers and drivers – our on-demand software



WI-FI

On-board Wi-Fi for riders



EPC

Electronic passenger counting & rider categorization



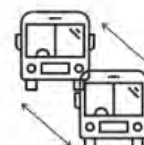
PASSIO TRANSIT

CAD/AVL Mobile Data Terminal operator assigns routes for onboard dispatch, 2-way messaging, and operator input

NEXT STOP

SMARTSENSE LED

Integrated LED Signage displaying GPS triggered route and stop information



ACTIVE ROUTE MANAGEMENT

Bus UN-bunching solution for headway management



SCHEDULE ADHERENCE

The visual indicator on MDT of Stop schedule for operator



BUSBUZZ

Allows for instant customer feedback and direct management response



FORESIGHT AUGMENTED REALITY

Integration with the FAR wayfinding app for blind or visually impaired



INSPECTOR

Pre/Post-trip inspection module



DRIVER TIME CLOCK

Tracks drivers time operating the vehicle for payroll



YARD MANAGER

Driver based activity prior to beginning route service



PASSIO CONNECT

Mobile and web-friendly source to quickly deploy on-demand and flexible route service for your riders



PASSIO VISION

On-Board cameras and live video feeds.



NAVIGATOR REPORTS

GPS, fleet, passenger counting, & dashboard data



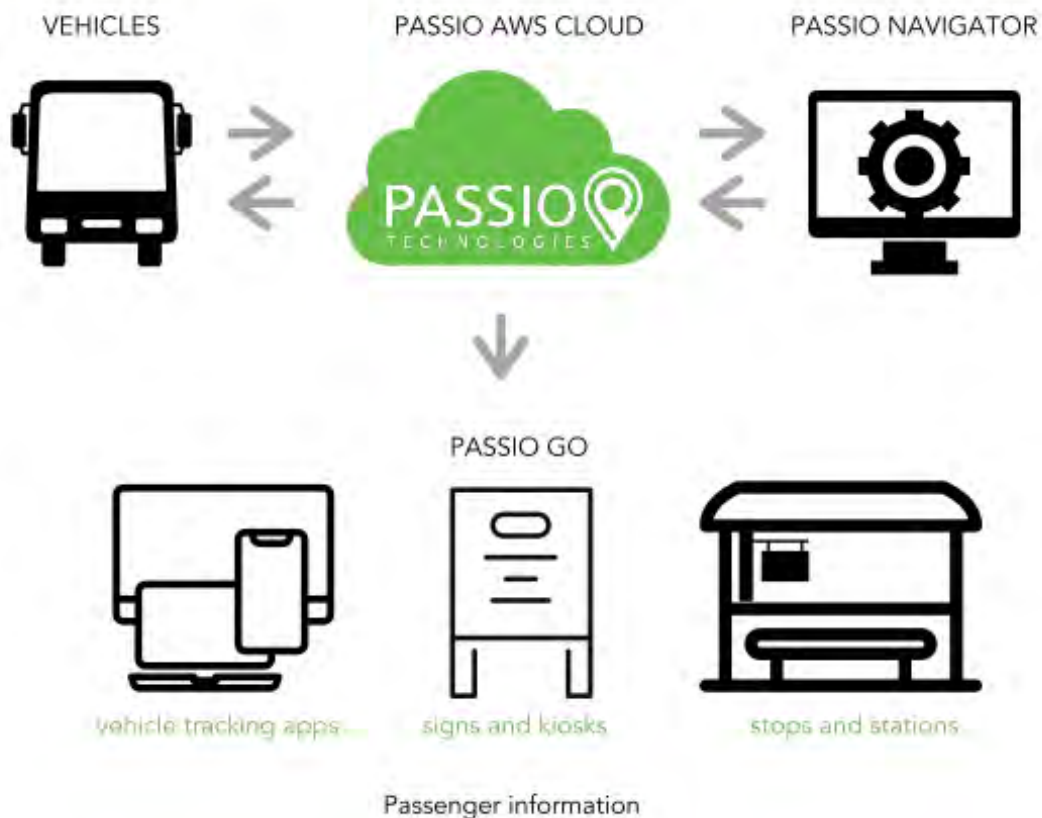
CUSTOMER SERVICE

Unlimited remote support & commitment to excellence



SYSTEM DIAGRAM

AGENDA ITEM NO. 4.



Several of our ITS solutions are discussed later in more detail, but here is our complete list of Passio products and technologies for transit systems:

AGENDA ITEM NO. 4.

Automated Voice Announcements (AVA)

AVA can provide high quality announcements in multiple languages from a single system profile. Triggered by custom geofences.

Automated Passenger Counting (APC)

APC is used to track boardings and alightings by using Hella 3D stereoscopic imaging sensors mounted above your passenger doors.

Passio GO

GO is our comprehensive passenger information system with real-time GPS tracking on any device to provide maps, ETAs, alerts, favorites, and notifications to riders.

Passio Gateway

Gateway is our tap and swipe passenger identification solution to capture and validate passengers by type as they board the bus.

ParaPlan Desktop

Desktop is our comprehensive booking, scheduling, dispatching, and IVR system for demand response transportation management.

ParaPlan Mobile

Mobile gives your demand response drivers an interactive digital manifest with navigation, payments tracking, and integrated signature capture.

On Board Wi-Fi

Wifi gives your riders reliable access to high-speed internet making their journey more enjoyable.

Electronic Passenger Counting (EPC)

EPC is used to manually track boardings, alightings, and passenger types using our touchscreen MDT.

Passio Transit

Transit is our touchscreen MDT application for fixed route drivers that displays route(s), stops, alerts, and announcements.

Passio Navigator

Navigator manages and controls CAD/AVL, route and stop configuration, 2-way communication and reporting access.

SmartSense LED Signs

Signage displays automated announcements triggered by GPS location.

Passio Vision

Mobile video surveillance hardware and monitoring solution. Capture clear video events and images of the interior & exterior of your buses.



Passio Active Route Management (ARM)

ARM is our solution to the issue of bus-bunching, keeping buses evenly spaced out on for headway management.

AGENDA ITEM NO. 4.

Schedule Adherence

Schedule Adherence provides simple visual indicators for drivers of current stop schedule status.

Passio BusBuzz

BusBuzz allows passengers to provide instant feedback on driver performance, vehicles, scheduling, and service.

Passio Inspector

Inspector is our Pre/Post trip inspection module.

Driver Time Clock

Time Clock tracks driver time for payroll management.

Yard Manager

This solution monitors all driver based activity prior to and after service.

OpsView Reporting

OpsView provides full spectrum dynamic mapping, reporting, and dashboard views of your operation

FAR Integration

FAR uses beacons to make bus stops and other points of interest accessible to the blind and visually impaired.

Passio Connect

Connect is our on-demand and flexible route service for your riders, optimizes driver assignments, vehicle travel pathways, and passenger load balancing. Connect includes our Dispatch dashboard for real-time on-demand CAD/AVL. Create multiple geographic areas of service and available times. Deploy your own microtransit service or use Connect to integrate with your existing service operations..

Passio Request & GO

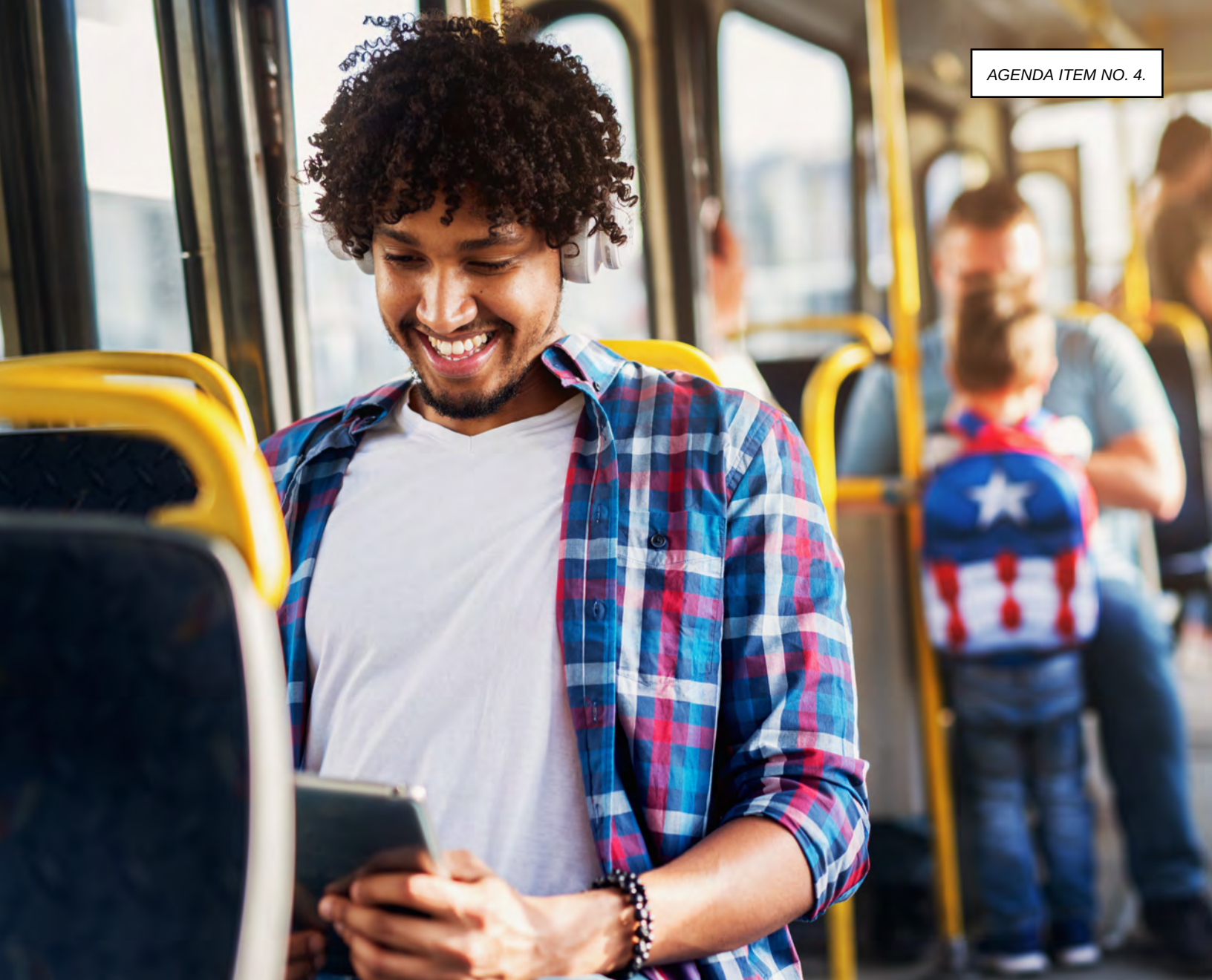
This add-on is our new fixed route ride hailing service. Passengers with the Passio GO app who are located at any bus stop or authorized location can request a pickup. Riders receive driver confirmations, ETAs, notifications, and mapping of the vehicle's progress.

Dynamic Trip Planning

Our newest development initiative is our Regional Mobility Platform for dynamic trip planning. Our Regional Mobility Platform will be built using the Passio MobilityPlatform suite: Navigator™ for fixed route management, ParaPlan™ for demand response, Connect™ for on demand and Passio GO™ with MobilityPlanner for rider-facing apps on major mobile platforms. Riders will be able to make mobility choices that will incorporate public and private transportation providers, opening access to mixed modes such as walking and bike-shares.



Detailed information on our proposed solutions are presented next.



PASSIO GO

OUR RIDER APP & PASSENGER INFORMATION SYSTEM

Passio GO is our public facing application providing real-time bus locations, stops, routes, arrival predictions, schedules, and current passenger load. The application can be downloaded for free on Google Play and the App Store.

For operators, Passio OpsView functions as its backend management tool, with robust mapping, analytics, and public communication tools



Solution: Passio GO™

Main Features

Mobile App

Our mobile app is free to use and easy to understand. Riders get a tutorial before using the intuitive app. Riders quickly plan their transit day on a map!

Rider Facing Information

Riders can view routes, stops, driver information, # of passengers on board, and more within the app. Riders can 'favorite' their most used routes and stops.

Alerts/Messages

Operators can push out emergency alerts to run across the top of the screen, or send messages to app users. Riders get bus ETAs for any stop they have favorited.

Management

Passio GO information such as stops and route maps can be edited by management through Passio Navigator, our cloud based reporting system.

Other Viewing Options

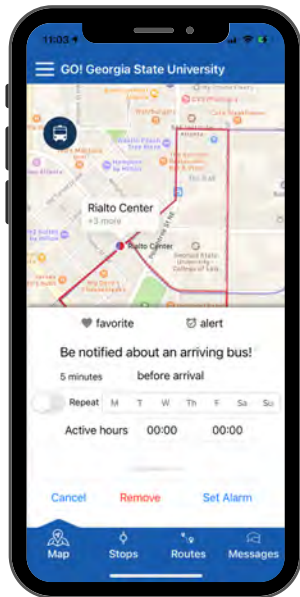
Passio GO is available as a native app, Public Viewer (live website), or LiveDisplay.TV to be displayed in public places like a library or dispatch office.



Real-Time Data on Arrival and Departure of Transit Vehicles

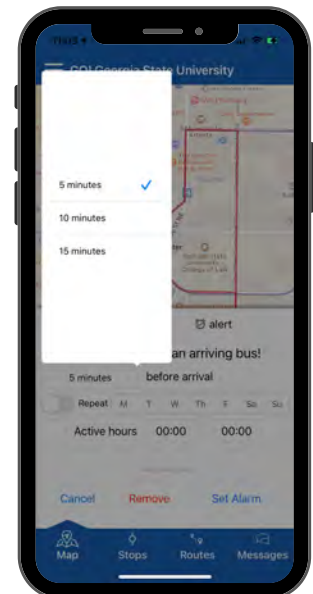
Our app, Passio GO, can provide real-time data app alerts when vehicles arrive or depart a stop.

App users must set up their alerts within the Passio GO App.



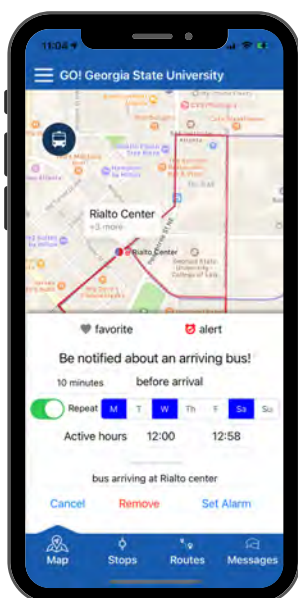
Start in the Live Map

App users start in the Passio GO live map. They can choose a stop then press the "Alert" setting to begin configuring the alert. They can also "Favorite" the stop.



Set Time Based Alerts

Riders are able to choose if they want an alert 5, 10, or 15 minutes before the vehicle arrives at their stop.



Turning Your Alert On

Next, riders choose dates they need alerts, and a time frame they would like alerts. They can even nick-name the alert or add comments.

Optional: Passio can also provide a direct SMS service to your passengers to get bus ETAs. This is useful for passengers who wouldn't like to download the app, or who do not have a smartphone.



Our App represents the next generation of real time vehicle location tools for passengers and CAD/AVL management and reporting tools for system operators. Fully integrating the best visual tools, public viewers, and smartphone applications into the Passio Transit platform provides our customers with unparalleled access to real time updates for routes and stops, while instantaneously evaluating the system's performance from any computer, tablet, or cellphone. Hundreds of hours of testing and consistent customer feedback have produced a tool that is intuitive for passengers, invaluable for daily operators, and indispensable for management and leadership teams.

Passio GO™ Mobile App

The Passio GO mobile application is designed to be intuitive and user friendly. No specific training is required for the end users. Once the application is downloaded to their smartphone, the application leads them to naturally understand how to use the key features such as viewing specific routes, tracking buses in real time, and identifying where they need to go simply by tapping on the home screen.

For users wishing to take advantage of enhanced features such as 'follow my bus' or destination planning, the application has straightforward embedded hints and guidance tools that make the app easy for everyone to use. GPS data is updated in real time, typically every second or less, on board the vehicle. Movement, change in heading/direction and speed is reported in real time and immediately uploaded via data connection to network servers for representation on public views, website maps, and smartphone applications.

Smartphone applications are available, at no cost, for both Apple (iOS) and Android (Google Play) users. In addition to smartphone applications, an interactive mobile web view is available for use on personal computers, tablets, and is optimized for mobile viewing on any cell phone or mobile device.



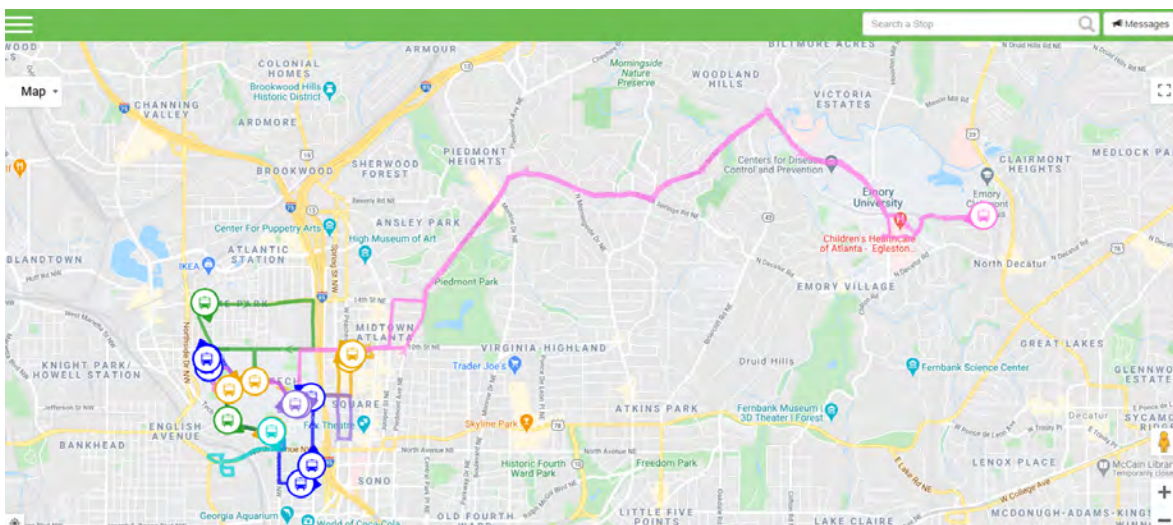
Real Time Passenger Load

Passio Transit customers using either Automated Passenger Counting or Electronic Passenger Counting (touch screen counting on the MDT) have the option to view real time passenger load data on both the Passio Navigator Operational Live Map for management as well as the publicly available web viewer, kiosk, and smartphone apps.

Maps and Customized Layers

All public views utilize externally validated map applications for accurate representation of locations, buildings, and streets. Additional layers may be added for tailored information such as alternate building names, key points of interest, and external information.





Passio GO Smartphone Applications™

Free downloads for iPhone (iOS App Store) and Android (Google Play) users are always available for Passio GO. All updates are provided free of charge to both the institutional customer and the end user.



Mobile App Features:

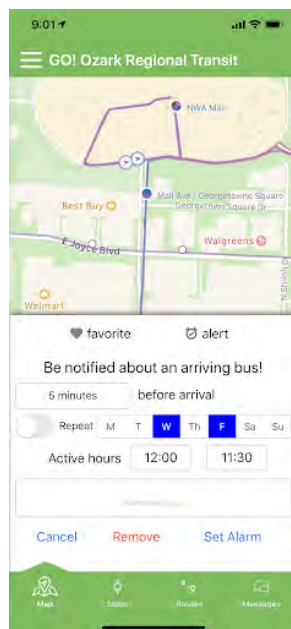
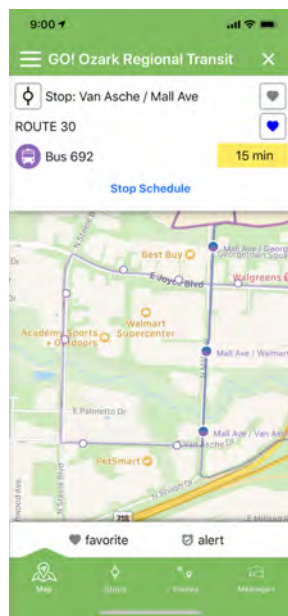
- Geo-location button on the home screen allows GPS enabled smartphones to orient the user's location to map view.
- Users have the option to select all, some, or one route. Only active routes are enabled within the application.
- Select individual stops directly from the home screen.
- Application algorithm processes real time vehicle location information for smooth and steady graphical representation.
- Customizable bus icons and easy access to view saved routes and stops.



Passenger Notifications:

(Alerts and Announcements)

The system has two levels of communication within the application: "Alerts" for immediate notification and highlighted viewing and "Announcements" for general information. Alerts scroll above the map and do not require any action by the user to view them. Announcements are indicated by the red message button on the bottom right of the home screen. Users tap on the indicator to view the more detailed announcement information.



Automatic Scheduled Stop Alerts

Smartphone app users have the ability to set an Arrival alert or 'Favorite' for any stop within the system.

The user taps on the desired stop to view the Bus and Estimated Time of Arrival (ETA) information. Users can set the stop as a favorite and set alerts for when the bus is 5 minutes away etc.

The Passio GO Interactive Public Viewer

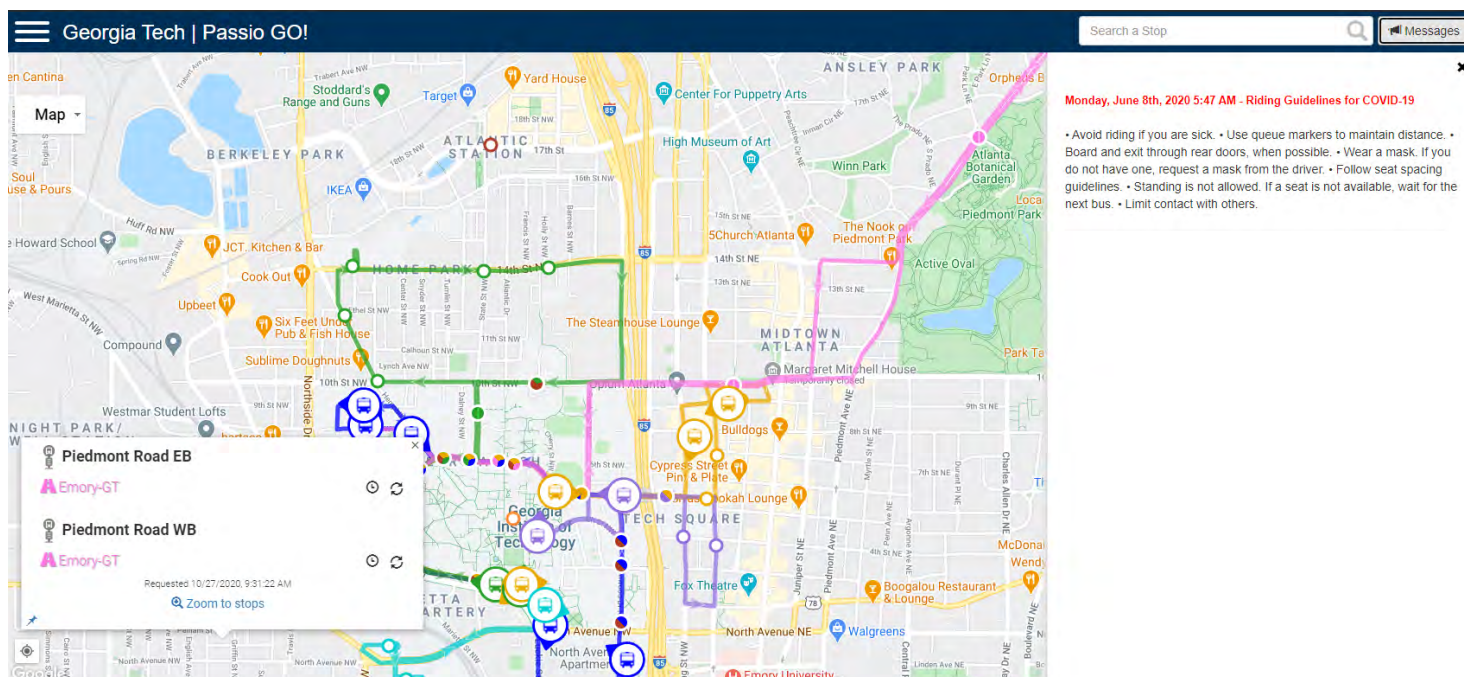
This is our rider-facing application providing real-time location of vehicles, stops, and routes on a public website.

Many customers require the functionality of the smartphone application accessible from any internet-connected PC, tablet, or mobile device. The Interactive Public Viewer includes Optimized Mobile Web View (Public Website) for using the tool on smaller mobile devices such as tablets and smartphones. This ensures that all display features are proportioned correctly for display on smaller screens.



The Passio GO Interactive Public Viewer

This is our rider-facing application providing the real-time location of vehicles, stops, and routes on a public website. Many customers require the functionality of the smartphone application accessible from any internet-connected PC, tablet, or mobile device.



The Interactive Public Viewer includes Optimized Mobile Web View (Public Website) for using the tool on smaller mobile devices such as tablets and smartphones. This ensures that all display features are proportioned correctly for display on smaller screens.

Interactive Public Viewer is accessible via a customer-specific web link.

- There is no additional software to download and the solution is a pure HTML implementation that displays vehicles on a 2-dimensional map.
- The Public Viewer can be customized and branded with colors and logos, as well as advertising and marketing information.
- Vehicle location, passenger load information, and estimated time of arrival (ETA) information is updated automatically without any interaction required from the user.

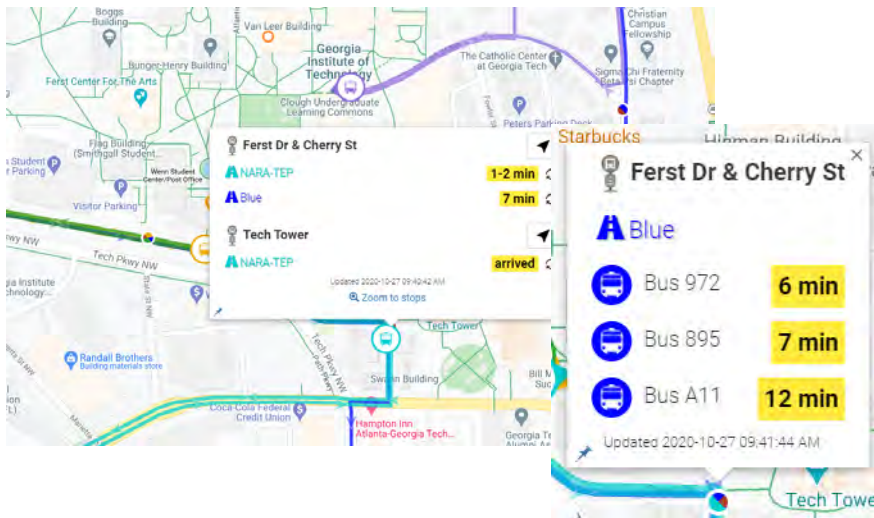


Vehicle direction is indicated on each bus icon and routes are all drawn in different colors. Bus stops that are shared by multiple routes are clearly indicated through stop design features.

Clicking on the bus icon will show the current location, route, and next stop information for the vehicle.

Users have access to settings from the primary viewing screen. Tapping on the Select Routes option shows all active routes available.

Users can select one or more of the routes, view the distance from their current location and tag the routes as favorites. On-screen help is available for assisting users with key system components.

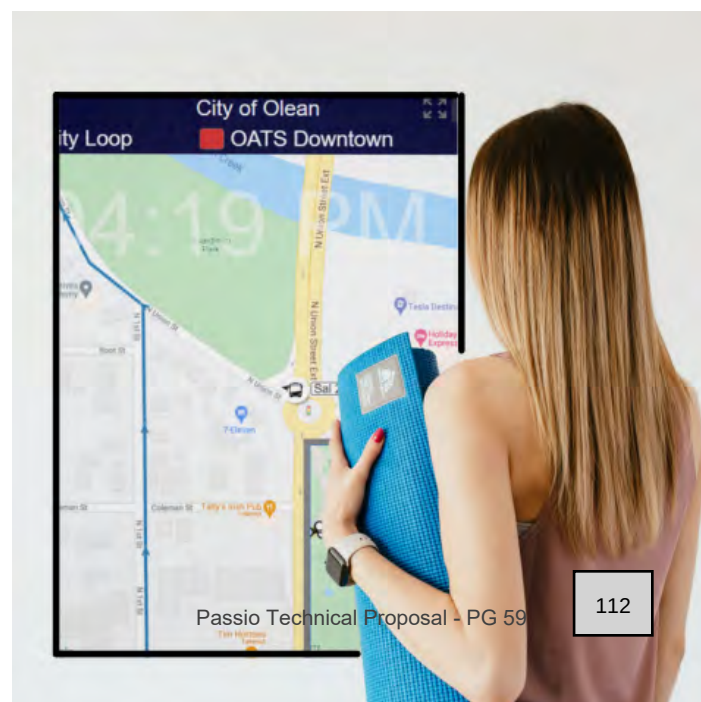


Choosing any stop on any route will provide the user with the ETA (Estimated Time of Arrival) information about the next buses scheduled to service that stop.

Passio GO Kiosk Mode – LiveDisplay.TV

With the introduction of Passio GO Kiosk Mode™ using LiveDisplay.TV™, Passio GO customers have access to configure and customize public views of their vehicle route activity at an unprecedented level. Any internet-connected screen from a tablet embedded in a kiosk to a large display monitor at a key transit center or public location can be used to show vehicle and route locations.

The unique configuration design provides options for granular access to the display features. A simple web link is created for each combination of views and options. Once the link is set it can be displayed using standard internet browsers. All vehicle and route information automatically updates and refreshes – no user interaction is required to view data in real time.



Passio GO Text ETA Service (optional)

No smartphone? No problem! Get the word out anyway and offer your riders Passio's Text-ETA Service where they can simply text the stop code to (555) 555-5555 to get real-time ETA information for any stop. Once the rider submits the stop number via text, they will immediately receive an automated text reply containing the ETA of the next bus (or buses) in your system and the routes they are on.



Bus stops in your transit system are each identified by a unique stop code. It is configured by the agency and will be printed on a physical bus stop sign for your riders to see and use. Set up your stop codes easily using Passio Navigator.

Passio Text-ETA response format options include:

ETA for Washington & 5th (Stop 212)
 Blue: 5 (10:15 AM) & 65 (11:15 AM) min
 Red: 22 (10:32 AM) & 47 (10:57 AM) min

ETA for Washington & 5th (Stop 212)
 5 min (10:15 AM) short route: long name...
 Red: 22 min (10:32 AM) [SN] Long Name...
 Red: 47 min (10:57 AM)
 Blue: 65 min (11:15 AM)

ETA for Washington & 5th (Stop 212)
 Blue: 5 min (10:15 AM)
 Red: 22 min (10:32 AM)
 Red: 47 min (10:57 AM)
 Blue: 65 min (11:15 AM)

Name	Belmont St and Cottage Bl
Reporting name	
Stop Code	172
Description	
Latitude	42.080195000
Longitude	-71.022033000





PASSIO TRANSIT MDT

OUR MOBILE DATA TERMINAL TECHNOLOGY

Passio Transit includes software for our Edge MDT (Mobile Data Terminal) which supports route assignments, electronic passenger counting, upcoming stops, navigation, alerts, and driver clock. Transit connects to automatic voice announcements and LED signage if desired. The MDT also sends data to Passio Navigator, our cloud-based reporting and AVL system.



Solution: Passio Transit MDT

Main Features

Integrations

Our MDT can integrate with APC & AVA systems, LED signage, and Passio GO, building a full customer journey with minimal operator involvement.

Driver Login

Drivers log in to the MDT when beginning their routes, making it easy for managers to see what vehicles and drivers are currently on route.

Training

Vehicle operators are provided with a simple 20 minute training session on the MDT, which uses an intuitive design making it easy to operate while on the road.

Navigator

The MDT works with Passio Navigator to report information back to our cloud-based reporting system. Customers can monitor data in real-time and build custom reports using dashboards and filters.

Connectivity

Passio MDTs use 4G LTE connections and are directly connected to vehicle power. The MDT can function in extreme weather conditions while providing vehicle location, system status, and reporting metrics to Navigator.





Rugged Design

- Power Management
- Handles Extreme Heat, Cold, and Vibration
- SingleWiring Connection -
- Just Minutes to Swap Devices
- Responsive Touch Screen



Connectivity

- Direct Hardware to Power & Ignition
- Extremely Accurate SIRV IV GPS
- Signal Acquisition in Seconds
- Dead Reckoning
- Multi Hardware Connections



Driver Interface

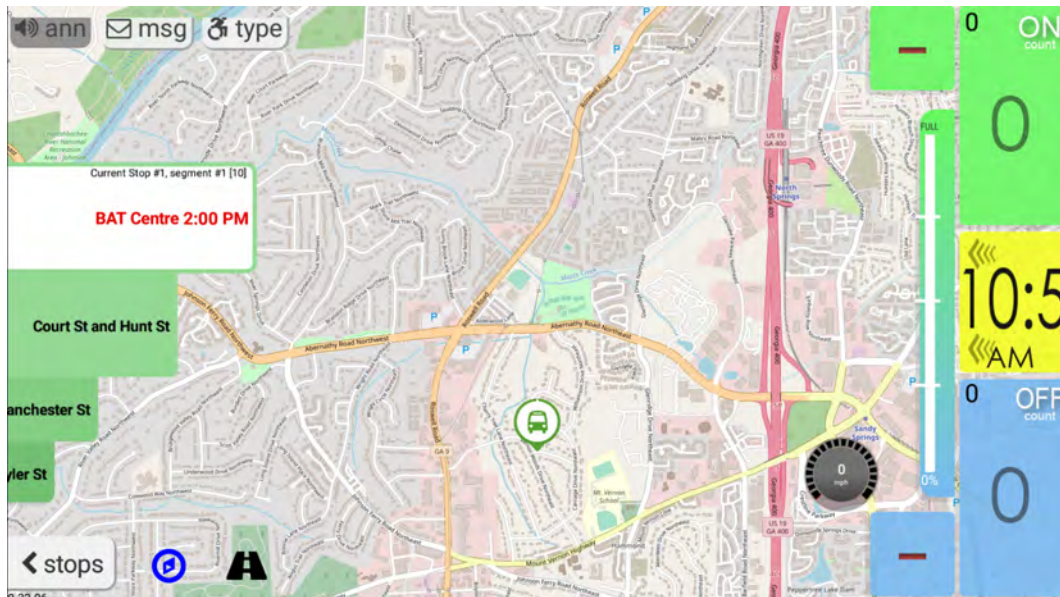
- Intuitive Design
- 10 Minute Full Operator Training
- In-App Training Mode
- Clearly Viewable Status Indicators
- All Routes, Stops, Announcements, Available on Any Bus at Any Time

Passio Transit MDT

At the heart of the on-vehicle CAD/AVL system is the Passio Transit software and our Edge MDT, an android-based, rugged, touch-screen driver interface. This single-connection, modular and swappable device natively connects to other onboard devices for the control and collection of data. All configuration information, collected data, and communication is handled through our secured web portal with individual logins at central dispatch.

When we think about the edge of something, we often conjure images of cliffs and mountains with endless possibilities and opportunities. In much the same way, the “Edge” in transit technology represents the most current advancements - and even introduces new innovations that may have been previously unheard of. It represents the “Edge” of your technology platform. Transit tech is unique – it does not simply operate with an app and a smartphone. It requires creating serious hardware connections in a very challenging environment. Next to heavy construction and manufacturing and mining, moving vehicles with a variety of power, instruments, and wiring diagrams is one of the toughest environments for hardware and electronics. It is crucial that the ITS solution you choose for your system provides the on-board hardware components that are rugged enough to withstand this environment. The Passio Edge MDT™ showcases the design, connectivity, and interface to elevate your transit system to new heights.

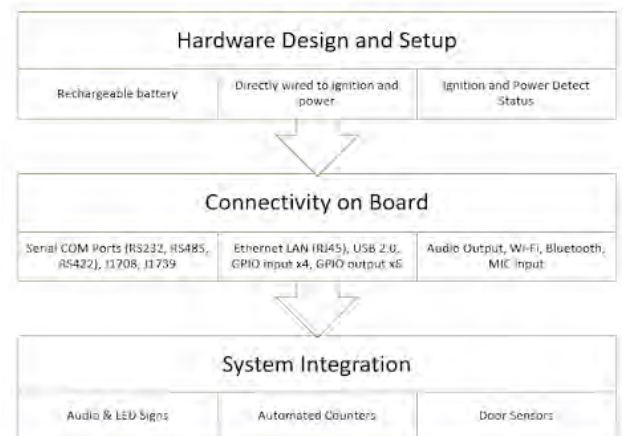




Passio Transit App - MDT Live Maps

Hardware Specifications

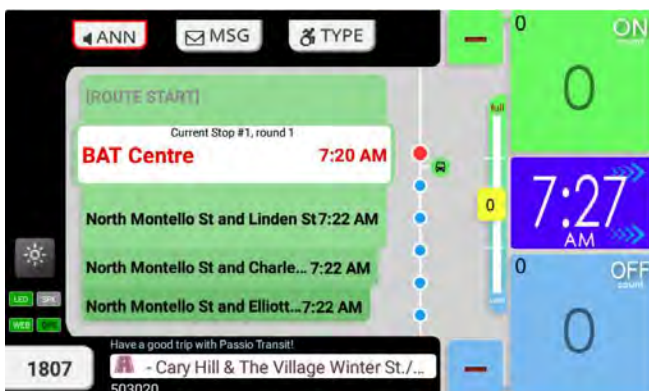
The Passio Edge™ Mobile Data Terminal is constructed to meet the requirements unique to transit operations of different sizes and configurations. It is installed to be managed safely and used effectively by operators and is referred to as the intelligent “brain” of the Passio ITS system. It provides location, announcements, and real-time information to passengers, direct and immediate performance metrics to operators, and enables management and agency leaders to gather the data necessary to plan for the future needs of the system.



- Working Temperature: -10° to 65° C
- Storage Temperature: -25° to 80° C
- Comply with IP64 Standard: Protected against splashing water and dust
- 7" LED Backlit embedded Android industrial panel pc
- High Brightness: 450CD/m2
- 800 x 480 resolution
- Capacitive touchscreen panel
- Strong vibration resistance
- External SiRF IV GPS
- Power input: DC 9-36V, 9W power consumption
- Power consumption: 8W
- Size (LWD): 220 x 152 x 36.5 mm
- Weight: 740g

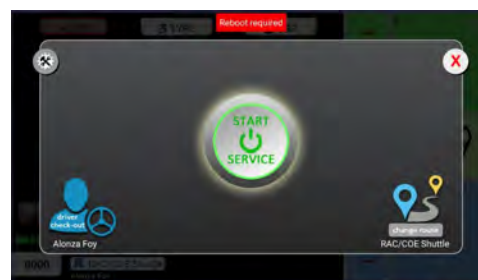
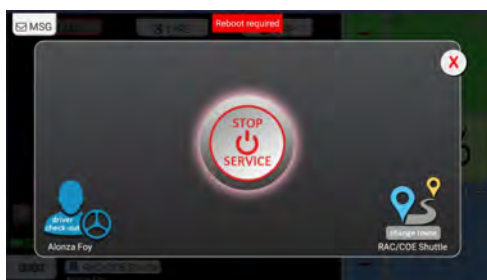
Passio Transit Software

Drivers simply login to Passio Transit and choose their assigned route. The software displays their stops in sequence and they are ready to go.



Schedule Adherence - While in service, drivers can keep up with their own schedule to determine if they are behind, ahead, or perfectly on schedule. A clock time in blue indicates the driver is behind schedule, and a yellow clock denotes ahead of schedule. Additionally, passenger counts from the APC unit are displayed to the driver instantly. The top buttons allow the driver to make custom announcements, edit passenger types, and create boarding groups if needed.

In/Out of Service Status - This feature measures revenue hours for billing, route schedule validation, and NTD reporting. Drivers have the following options when going out of service: training, fueling, maintenance, charter, and others.

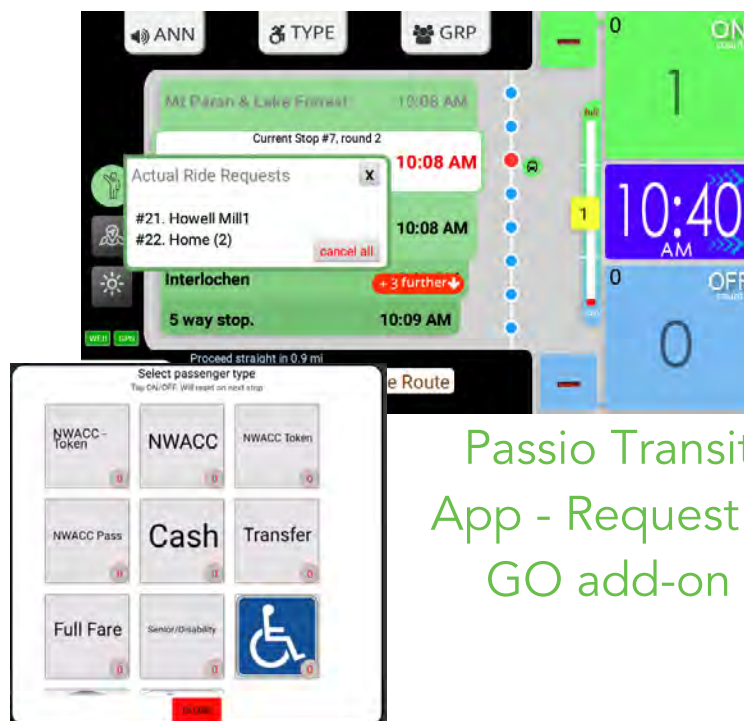


Going back into service is easy, simply tap the service screen, and choose "Start Service".

Driver Check In/Out - This optional add on enables driver status reporting, operations management, and time tracking for data that can be matched to payroll. From the shuttle icon on the bottom left of the MDT screen, operators have the option to start service, check in/out, or change route. Several route status updates can be made by the operator within the MDT.

2-way Dispatch Messaging - 2-way dispatch messaging makes it easy to communicate directly with on board operators through custom messages and receipt confirmation.

EPC Interface - Our electronic passenger counting interface allows operators to manually count as riders board and exit the vehicle, if required. The "ON" green button at the top right adds a boarding to the vehicle. Pressing the blue "OFF" denotes a passenger alighting. The yellow counter shows the running total of passengers currently on board. Multiple boardings and alightings are easily created by pressing the GRP button. Passenger and fare types can also be entered from a list of customizable pre-set options.



Passio Transit
App - Request &
GO add-on

Passio Transit App -
Passenger & Fare Types





PASSIO NAVIGATOR

Passio Navigator is our cloud based reporting system. Managers can set up user accounts with permissions, protecting sensitive information. Navigator is easy to use and requires almost no training. Generate reports based on set filters, or create your own dashboard reporting.



Solution: Passio Navigator

Main Features

CAD/AVL Management

Utilize reporting, live maps, driver schedules, geo-fence locations, and playback histories. Managers can add/edit/remove routes, stops, and drivers. Users can also pull passenger boarding/alighting reports to monitor route daily use.

Reporting Filters

Filter all reports by bus, driver, route, stop, passenger types, and more to create custom dashboard reports.

OpsView

View the live map of all routes in real time. Customers can locate their entire fleet, see if drivers are off route, view schedules, and see current passenger load.

Control and Changes

Management has the ability to control and change all service information via Passio Navigator without assistance. Changes are updated in real time and reflected across Navigator and on the Passio GO app.

On-Time Performance

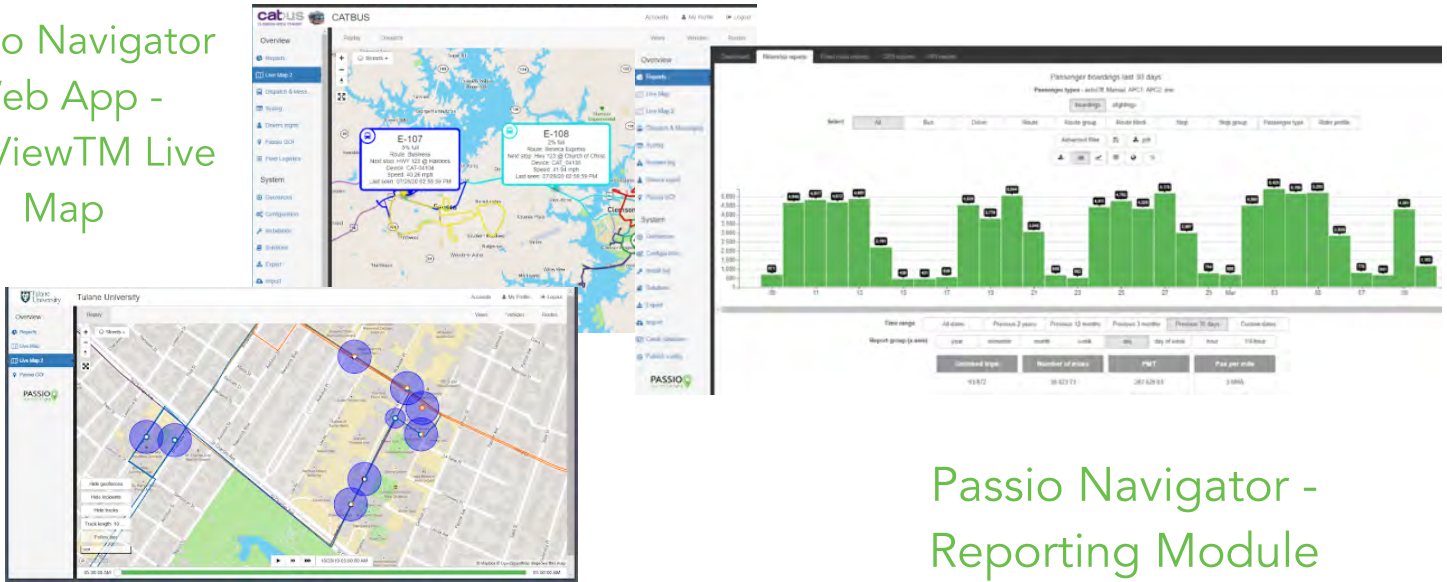
Use our preset on-time performance report to see which routes are performing well, and which may need to be changed. Reports can be pulled by hour or day to see if vehicles were early, on time, or late to specific stops.



Cloud-Based CAD/AVL Management Solution

Passio Navigator™ is the man behind the curtain, our web application controlling access to system features for each individual user with multi-layered security features. Navigator™ provides customers with full access to configure their system and fleet information. All Passio customers are connected to Passio Navigator™. Each user's view is limited to their products and services. This ensures that the system is easy to learn, training requirements are minimized, and interactions are efficient for all of our users.

Passio Navigator Web App - OpsView™ Live Map



Passio Navigator - Reporting Module

Passio Navigator - Stop/AVA Geofence Map

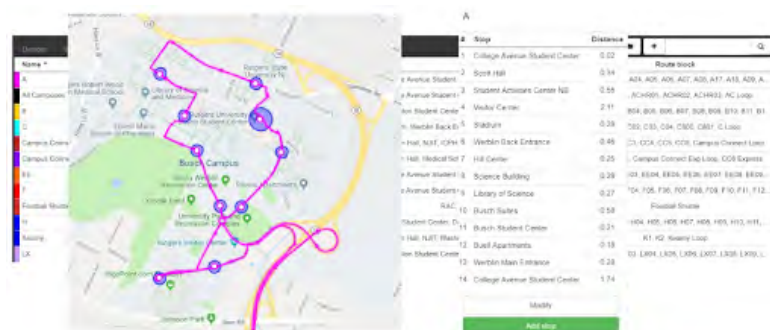
Access

Visibility to all settings and the ability to make updates in real-time is incredibly valuable for customers. Passio's outstanding account management team is always available to answer questions or make the updates at our customer's requests. This industry leading tool for management and reporting provides customers with unparalleled access to information, while ensuring simple and straightforward access to reports and analytics. Passio has developed an integrated, web-based, user guide for training and system use. It is available to all active customers and is consistently updated by our support team. Users are granted access based on their need to review, update, or evaluate aspects of their system.

Control

Update configuration details through Passio Navigator™. Add and edit stops, edit drivers, request route edits, and more. If you are unable to make an edit, contact our outstanding account management team for assistance on making changes or to answer any questions you may have.

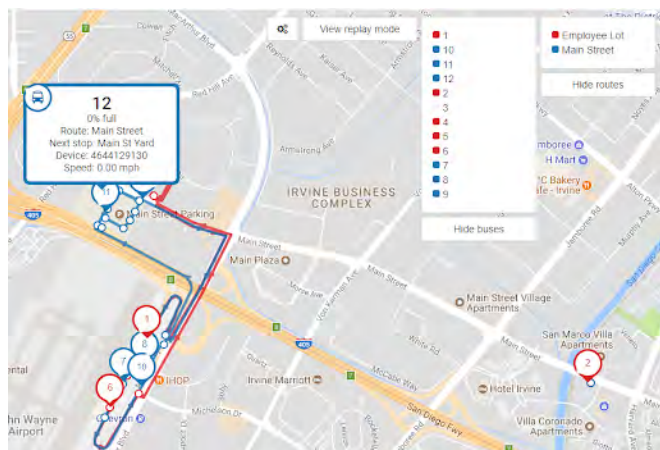




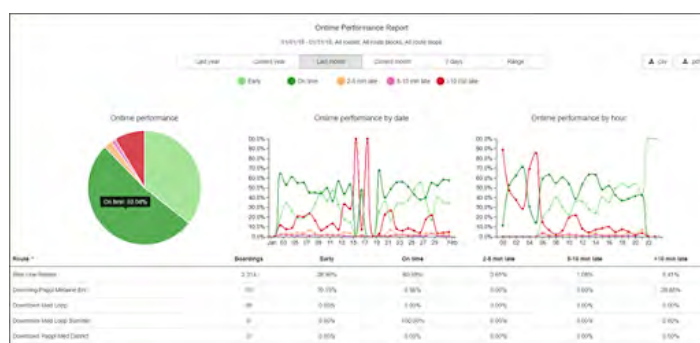
Passio Navigator - Route/Stop Configuration

Operational Live Map

View real time vehicle locations, determine whether vehicles are on or off route, and filter the view by route, or vehicle number.



Passio Navigator - Operational Live Map



Passio Navigator - Dynamic Reporting Module

Passio Navigator™ Reporting Tools

The Passio reporting system is managed through Passio Navigator™. This enables our customers to have a single login with access to all reporting, configuration, and management functions within the Passio Transit Platform. The reporting system is divided between dynamic reporting and dashboard reports. The dynamic reporting tools are designed to allow the end user to build reports using combinations of filters for both specific and general areas of analysis. The full spectrum of components and fields within the database are available for the user to build the view they need with a few simple mouse clicks...

Primary Report Views

- Filter by custom or pre-set time periods
- Group reporting data for by quarter, month, week, day or by time (hour or ¼ hour)
- Select operational detail levels such as routes, stops, drivers, and buses.
- Custom passenger types can be filtered, segmented, and reported
- Switch between passenger boarding and alighting counts for all filter views

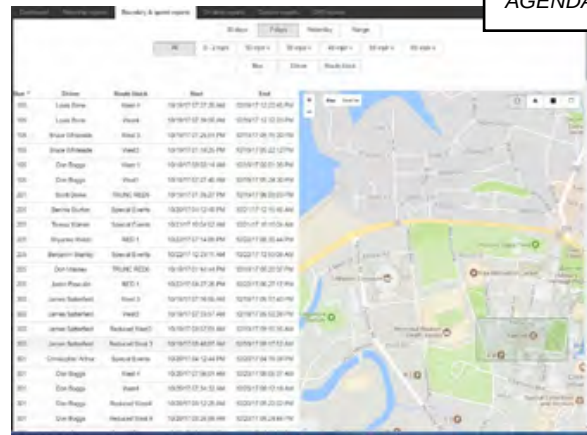
Trend Analysis

- Switch between passenger boarding and alighting counts for all filter views
- Compare ridership trends by month, week, day, quarter/semester, weekday, hour, ¼ hour
- Capture NTD related data such as Passenger Miles Traveled
- Route reporting at three levels (block, route name, combined route)
- Capable of grouping stops in alternate combinations outside of route groupings



Speed Fence Activity

Users have the capability to highlight a specific area on the system map to select all speeding incidents that exceed the threshold set in the report configuration.



Ad-Hoc Reporting

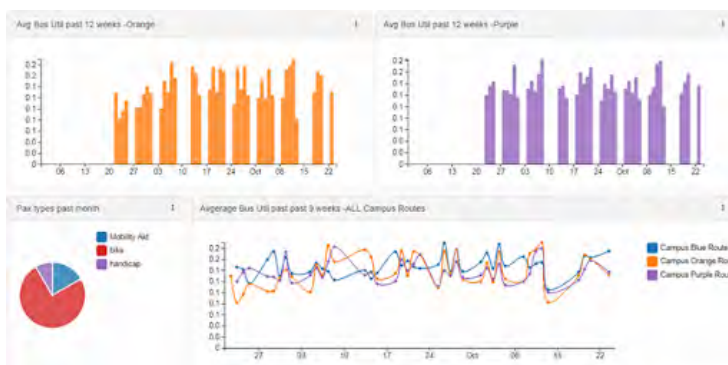
- Data filtered using the dynamic reporting system can be downloaded to CSV/Excel format at summarized level
- Detailed core level data can be downloaded into CSV/Excel format at any time for user analytics using data tools
- As an additional upgradeable feature, the system has the capability to transfer data via programmed API to 3rd party data visualization tool. This system allows for unlimited reports, pivot tables, graphs, charts to be created, saved, and automatically emailed. Additionally, the system has the capability to allow users to write custom SQL queries and create custom reference tables for customer specific reporting needs.

Dashboard Reports

Dashboard reports enable users to design and save reports to their unique specifications. Users tailor reports based on presentation type, data analyzed, filters used, and comparison analytics.

- Fixed Date or Relative Date – set a report period that is fixed from a specific date to a specific date, or create relative date reports (i.e. the last 3 months or previous 14 days)
- Scheduled Auto Email – email individual reports or an entire dashboard to a single email recipient or a group of recipients. Emails can be scheduled at any interval desired.
- Multiple Dashboards – users have the option to create multiple dashboards to group report types by category or target audience.

Reports include a graphical interface for display and presentation. The interface allows users to dynamically create bar, line, pivot tables, and pie charts without downloading to third party software. The data is available for export into common formats such as CSV (to XLS) and PDF. The user may create multiple dashboard pages specific to the KPIs that they want to see as well as the ability to email or print individual reports or entire dashboards ad-hoc or create scheduled group emails.



Passio Navigator - Bus Utilization Reporting



Report Time Period Settings

The Passio Navigator module has the capability to group data for reports at both the 'system day' and 'calendar day' level. For example, routes may end after midnight, but should be reported with the previous day's activity. System should allow users to configure reports to begin a day at a particular time and end at a particular time the next day. The 'Start of Day' field is configurable within Passio Navigator to set the start of the 24 hour reporting period.

Read/Write Access

Access is controlled at the individual action level, and is customizable for each user. Passio does not limit the number of users who may have access to either Read or Write actions within Passio Navigator™.

Incident and Alerts Reporting

The Passio Transit platform logs and provides reporting on all tracked incidents. These incidents include In and Out of Service status, system alerts such as speeding, off route, and idling, and customer defined alerts. The defined alerts can be tailored for each system and may include customer specific incidents, emergencies, accidents, and/or passenger incidents. Each incident is tagged with the time, date, latitude, longitude, latitude, route, driver, vehicle number, device number, passenger load, and incident type. If enabled, both audio and photo recordings can be attached to any operator-initiated incident.

Passio
Navigator -
Alert
Geofence



Alerts

Passio Navigator users may configure alerts to be sent to as many as twenty-five email or text recipients at one time. Alerts are configured so that the times and days of the week can be set to make an alert 'active' which will enable the alert to be sent to a specific group.

Alerts are scheduled using the calendar function found in Passio Navigator. Multiple calendar options are set using pre-defined business rules and then can be selected for application to each alert individually. Available alerts include speed infraction, vehicle idling, off route, and location.

Alerts		
Name	Bus	Incident
Speeding over 60mph		Speeding over 60
Employee Shuttle Yard - Exit		Employee Yard - Outbound
Employee Shuttle Yard - Enter		Employee Yard - Inbound
Main St Yard - Enter		Main St Yard - Inbound
Main St Yard - Exit		Main St Yard - Outbound
GTC - Enter		GTC - Inbound
GTC - Exit		GTC - Outbound
Fueling		Fueling
JWA - Enter		JWA - Inbound
JWA - Exit		JWA - Outbound
Main St Lot - Enter		Main St Lot - Inbound
Main St Lot - Exit		Main St Lot - Outbound
Terminal Zone - Enter		Terminal Zone - Inbound
Terminal Zone - Exit		Terminal Zone - Outbound
Employee Lot - Enter		Employee Lot - Inbound
Employee Lot - Exit		Employee Lot - Outbound
JWA Employee - Exit		JWA Employee - Outbound



Setting up new alerts can easily be done by entering a few basic points of information.

Passio Navigator - Alert Configuration

Buses	Drivers	Stops	Routes	Stop groups	Route groups
Name ^	Name ^	Name ^			
6th @ Goddard	C-1/R-5 East	Central PO / U.V.			
6th @ Oak	C-1/R-5 West	Central Rd Apt.			
7-11	C-2 Parking	Cherry @ Ft Rutledge			
Amtrak @ Sonic	C-2/Nu Street	Cherry Rd @ Bryan Cir			
Ann Hope UMC	C.C.C.	Cherry Rd @ Edgewood			
Asa of Chamblin	C.F.M. @ Hwy 92	Cherry Rd @ Bryan Cir			

Passio Navigator - Route & Stops Configuration

Access to stop, route, and driver information is a single click from the topline configuration menu bar. Updates are straightforward and intuitive, but also provide a significant amount of control and flexibility for managing the system.



Stop: Railroad Park Edit stop

Position: 1

Estimated distance: 0 miles

Travel time: 0 seconds

Dwell time: seconds

Passio AVA System

Stop name ann. ☒

Additional ann. (en) ▶

Next stop ann. ☒

Route ann. ☐

Next on exit ann. ☒

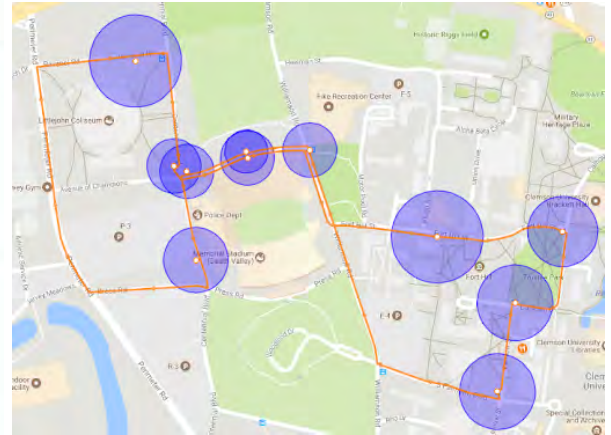
Ann. on door open (en) ▶

Ann. on door open int. speaker ☒

Ann. on door open ext. speaker ☒

Preceding ann. radius:

Route blocks, scheduled time points, automated voice announcements, and LED sign controls are all configured within Passio Navigator.



Route

Seneca Business Loop

#	Stop	Distance	Seneca_2 :20				Seneca_1 :50			
1	Railroad Park	0.00	06:20 AM	07:20 AM	08:20 AM	09:20 AM	06:50 AM	07:50 AM	08:50 AM	09:50 AM
2	Thrift Store/Ram Shop	0.96	06:21 AM	07:21 AM	08:21 AM	09:21 AM	06:51 AM	07:51 AM	08:51 AM	09:51 AM
3	CMC	1.63	06:26 AM	07:26 AM	08:26 AM	09:26 AM	06:56 AM	07:56 AM	08:56 AM	09:56 AM
4	Magnolia Plaza	0.56	06:27 AM	07:27 AM	08:27 AM	09:27 AM	06:57 AM	07:57 AM	08:57 AM	09:57 AM
5	Wal-Mart - Hwy. 123	0.46	06:30 AM	07:30 AM	08:30 AM	09:30 AM	07:00 AM	08:00 AM	09:00 AM	10:00 AM
6	Dogwood Plaza	0.32	06:32 AM	07:32 AM	08:32 AM	09:32 AM	07:02 AM	08:02 AM	09:02 AM	10:02 AM
7	Morningside	0.45	06:32 AM	07:32 AM	08:32 AM	09:32 AM	07:02 AM	08:02 AM	09:02 AM	10:02 AM
8	Radio Station Rd-CMV	0.22	06:33 AM	07:33 AM	08:33 AM	09:33 AM	07:03 AM	08:03 AM	09:03 AM	10:03 AM

Passio Navigator - Route Timepoint Configuration

Stop

Name: Clatsop HS

Reporting name: Clatsop Area Transit Headquarters

Stop Code:

Description:

Latitude: 46.15000000000000

Longitude: -124.00000000000000

Radius: 50 meters

Unit:

Route:

Passio AVA System

Ann. audio: Record Upload Remove

Ann. name (en): ▶

Ann. only stop: ☐

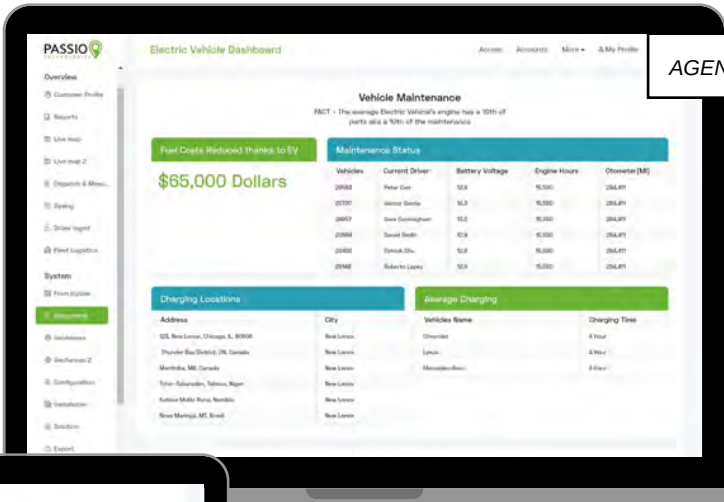
LED ann: ☐

LED only: ☐

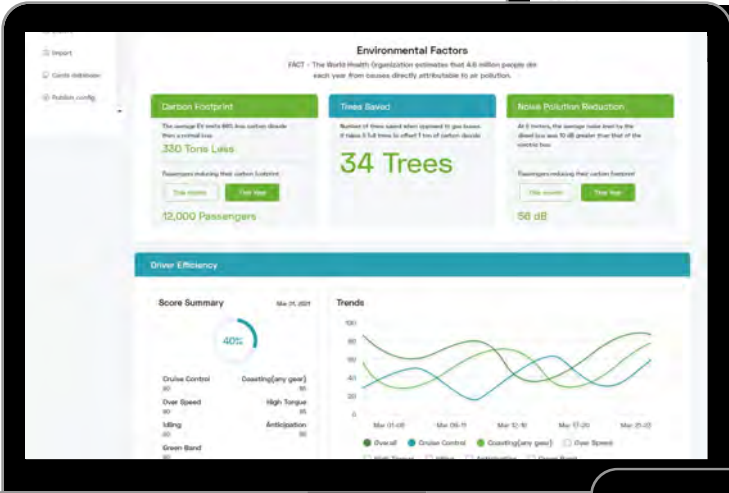
Passio Navigator - Stop Configuration



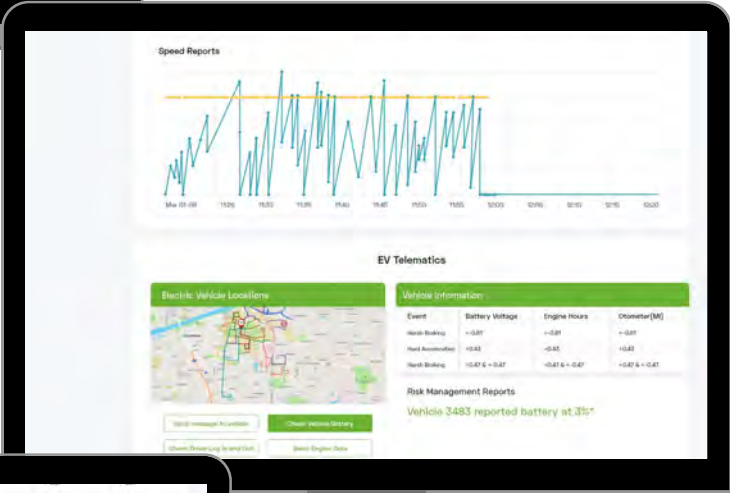
Vehicle (EV) Maintenance:
Includes EV maintenance
status, money saved,
charging locations, charging
times, and more.



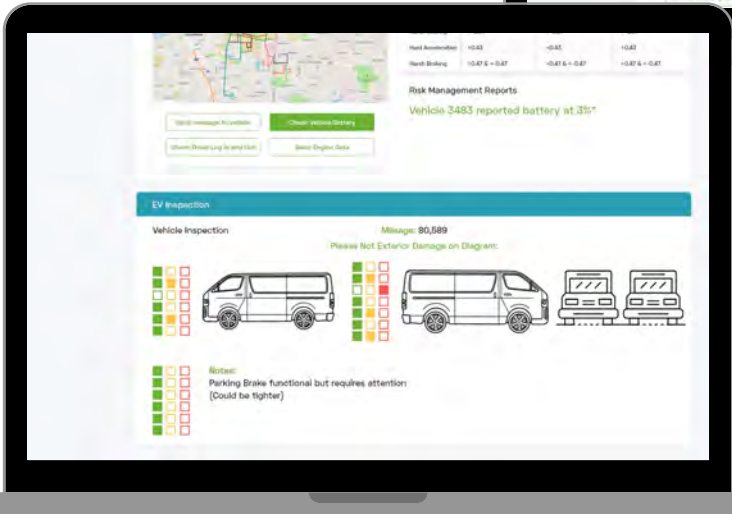
Environmental Factors:
Dashboard information
including carbon footprint,
trees saved, noise pollution,
and driver efficiency.



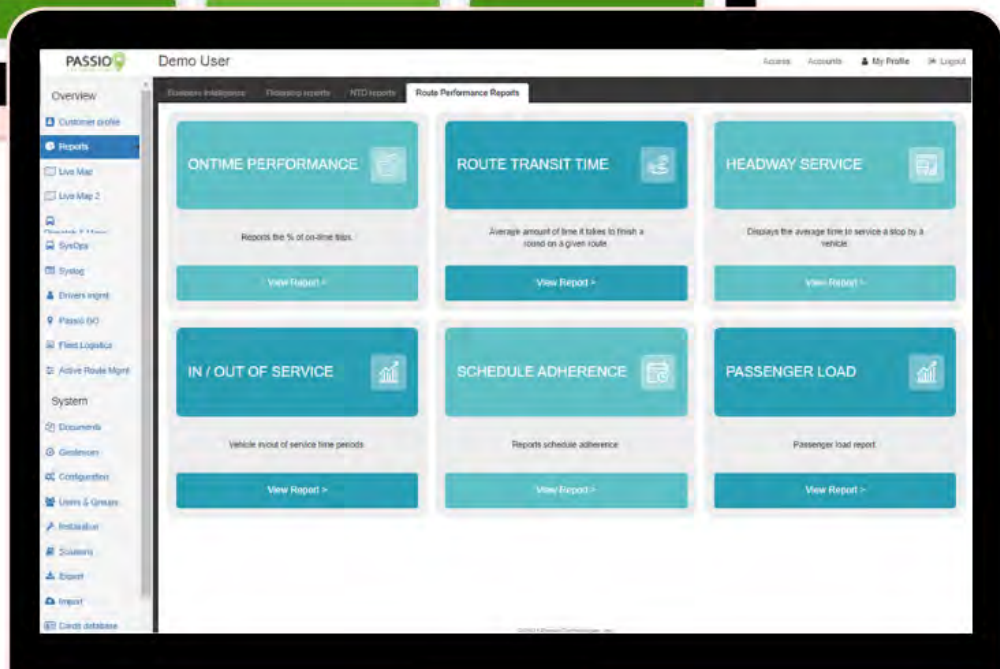
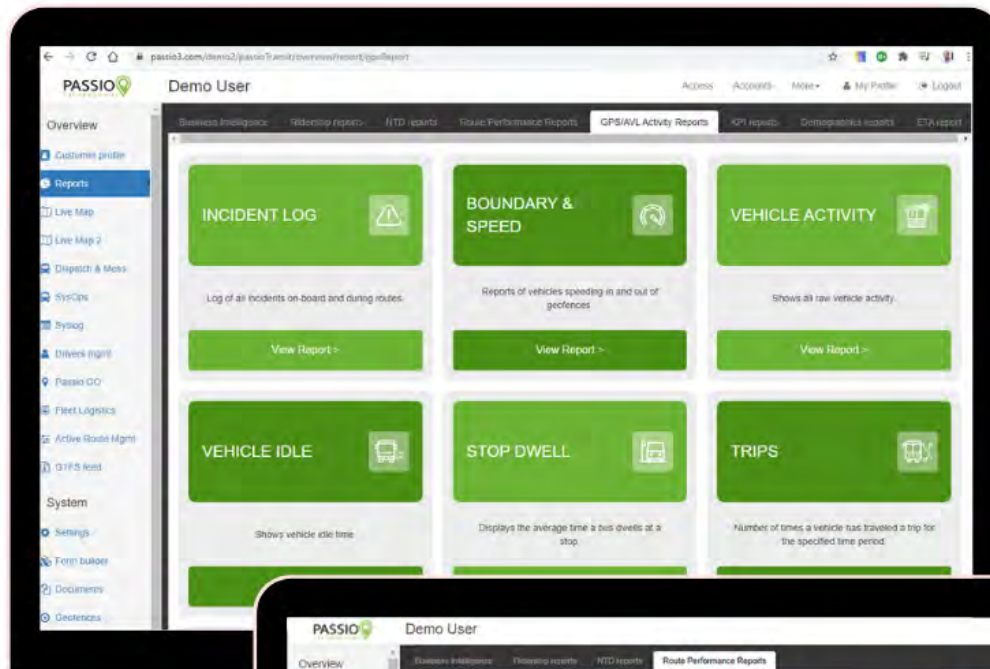
Driver Behavior & Telematics:
Monitor speeding, hard
braking, idling, acceleration,
impact detection, etc.



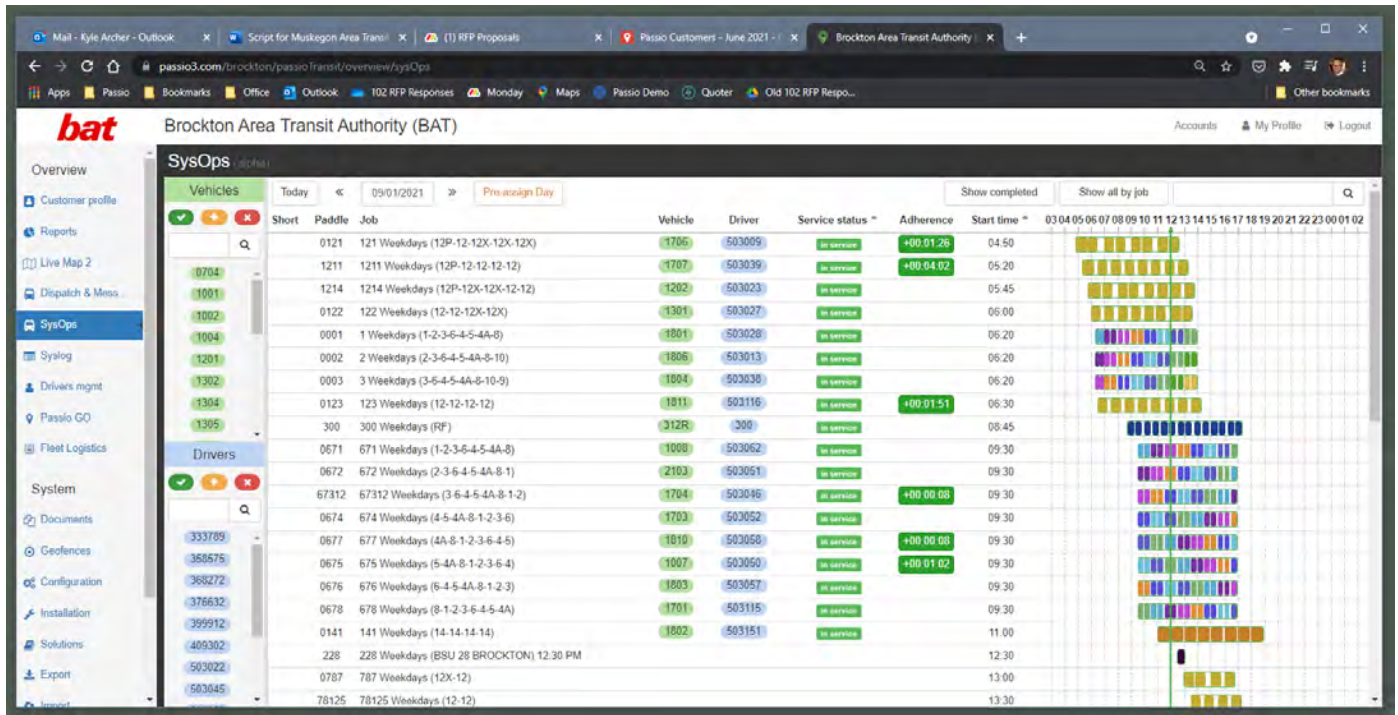
Electronic Driver Vehicle
Inspections (eDVIR): Create
custom inspection reports of
your EVs to monitor their
incidents, battery
performance, and
maintenance.



Passio Navigator - Reports Pages



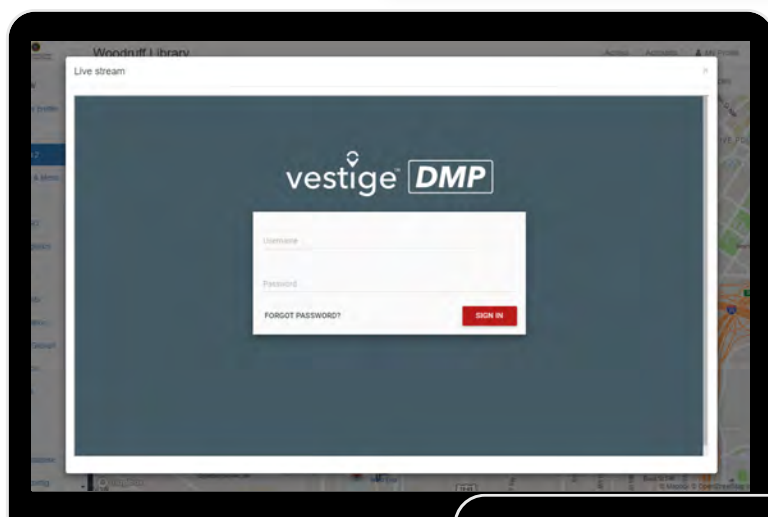
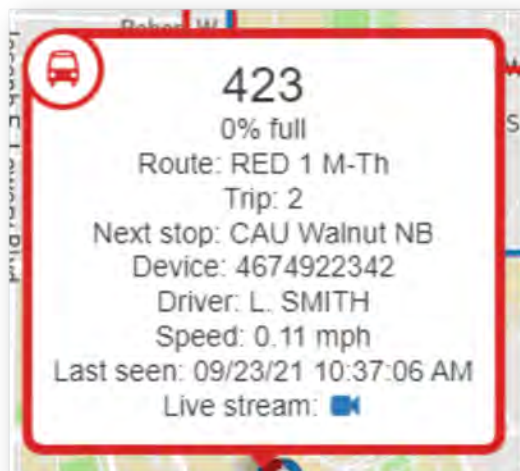
Passio Navigator - SysOps



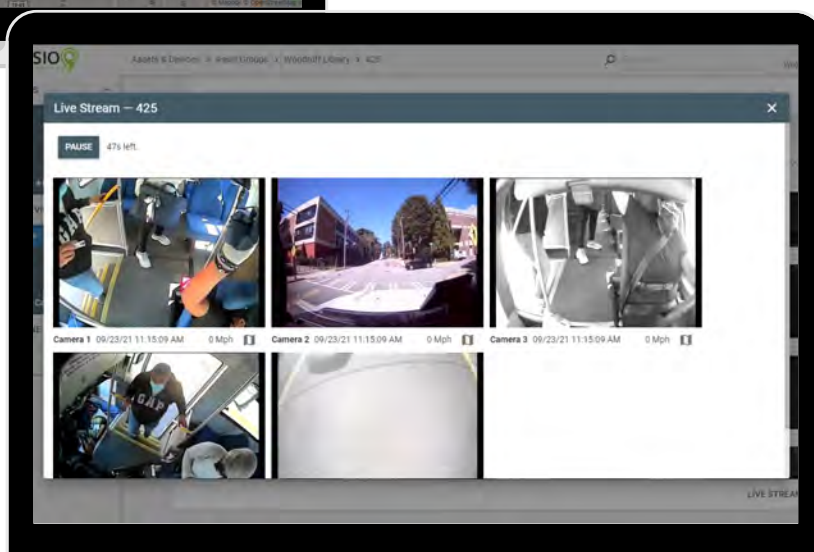
Mobile Video Integration (as an option)

Passio Vision Live Stream

From Passio Navigator Live Map, simply click on a vehicle to view additional information. Then at the bottom of the vehicle info bubble, click on the video/camera icon to begin streaming live. Check in on your drivers and riders any time!



Passio Vision is restricted to those with access. Limit this option to specific agency employees.



Passio Vision Live Stream displays each camera view in real time. Multiple camera layouts and configurations are available to best meet your requirements.





AUTOMATIC VOICE ANNOUNCEMENTS

EASY AUTOMATIC VOICE ANNOUNCEMENTS

Automatic Voice Announcements inform riders of the current route, stop, and other programmable information. No action from the operator is required, as AVA can be set up to begin when entering any custom geofence. Specific announcements can be made on exact dates, or scheduled times, like every game day.



Solution: Automatic Voice Announcements

Main Features

Announcement Abilities

Announcements can be in up to 3 languages at each stop, chosen from 130 different options. Customers can use songs, pre-recorded messages, and a number of different triggers. Use geofence triggers, timed announcements, doors opening sensors, and more.

Geo-Fences

Setting up geofences is easy. Simply edit the geofences using Passio Navigator on the live digital map.

Navigator

Our cloud based solution, Passio Navigator, can be used to manage all AVA announcements. Upload pre-recorded information, or reprogram announcements completely with text-to-speech.

Audio Interrupt

We can also allow for audio to be interrupted on vehicles if there is already existing sound playing, such as a radio.

Hardware Setup

Hardware setup is simple and handled by the Passio Install team. Customers also have the option to add external announcement speakers.



We experience the world through our five senses and the two that we most heavily rely upon are vision and hearing. Passio's AVA solution provides passengers with all necessary information to make their ride as smooth as possible. It is simple to set-up, robust in functionality, and easy for operators to use in the field. AVA announcements are set, maintained, and changed by using the stop profile within Passio Navigator™. There are several customizable options including: announcing current stop, next stop, and next stop on exit of a geo-fence. Our system will also allow customers to include both a route announcement and an additional custom announcement. A good example would be if there is a football game, the system could announce the stop name as well as a shout-out to their team.

Our system meets two specifications for all transit systems: complying with ADA (American's with Disabilities Act) requirements, and providing passengers with an amazing "journey experience." We recognize that passengers need different information depending on purpose and ridership. Therefore, our AVA system has eleven (11) settings which can be customized at each stop on each route. Our standard solution contains this level of custom configuration:

- Ability to announce in over 130 languages
- Announcements in up to three different languages at each stop
- Announcing stop and route name
- Announcing next stop upon entering geofence
- Announcing next stop on existing geofence
- Announcing upon door open on interior speaker
- Announcing upon door open on exterior speaker
- Announcing upon door open in three different languages
- Announcing at a specified radius point
- Playing pre-recorded messages or music at any stop

Customers have full access to make all updates and adjustments to routes, stops, and announcements, but if it's preferred, Passio will manage all edits, updates and adds for our customers at no additional charge. There is no limit to how many stops, routes, or messages can be added, stored, or played using the Passio AVA system and each device has 4GB of data storage on board the bus.



AVA Configuration & Set-up

The entire AVA system is fully managed within Passio Navigator™. Customers have access to stops, trigger points, routes, and vehicles. The interface is flexible and straightforward, and is designed to grow with system needs. Training is simple and support for updates and remote assistance is unlimited and can be requested well in advance for testing and confirmation. The number of stops and announcements that the system can support is unlimited. All stop announcements are triggered by GPS location, route, and time criteria. Trigger points (not at specific stops) may be added to include key connection points and business centers, as well as public service announcements. They can be triggered by route, direction, and GPS location.

Features and Functionality

Variable Stop Radius – each stop radius can be set by the map or simply typing in the radius field. This feature allows the user to control entrance and exit triggers for each stop.

Exact Pronunciation – the on-board voice synthesizer provides the highest level of sound quality and volume control. The system allows for phonetic spelling of any word to ensure correct pronunciation.

Announcement Event Control – announcement behavior can be controlled for each route stop and/or each trigger stop on each route independently of all others. This allows the user to control the information announced to ensure that enough information is provided, while avoiding passenger annoyance and confusion by creating noise overload. Any authorized user can change the stop announcement simply by entering it in Passio Navigator.™

- Announce Current Stop Name (Yes/No)
- Announce Next Stop Name (Yes/No)
- Announce Route Name (Yes/No)
- Announce Next Stop Name on Route Exit (Yes/No)
- Delay Voice Announcement (# Seconds)
- Trigger Stop Only (Yes/No)



Announcement Scheduling

Each announcement can be scheduled to play on a specific date, day of the week, or during a date and/or time interval. Scheduling control can be applied to a specific stop on a specific route.

Audio Hardware Integration Options

The Passio AVA solution has the capability to integrate and provide audio hardware that enhances the capabilities of your system. For customers requiring these enhanced deliverables, our solution has the following integrated features:

External Speaker Announcements – the system has the capability to detect if a stop is noted as an external announcement stop. It will electronically detect the door open status and send an electronic relay signal to the correct speakers to make an announcement as internal only, external only, or both internal and external.

Name

Bel Sales Demo

Reporting name

Bel Stop Multilingual

Stop Code

TP008

Description

Latitude

34.090170000

Longitude

-84.175744000

Radius

75

meters

Yard

☐

GTP stop_id

URL

Location type

Stop or Platform

Timezone

Wheelchair boarding

No accessibility information for the stop

Platform code

001245

Highlight

☒

Hide on QOI map

☐

IMO ID

ParaPlan ID

Routes

JC2808
West JC

Passio AVA System

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

모든운행경로환승지점

Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

모든운행경로환승지점

Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

모든운행경로환승지점

Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

모든운행경로환승지점

Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

모든운행경로환승지점

Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

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Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

모든운행경로환승지점

Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

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Transfer point for all routes

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Ann. audio

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Upload

Remove

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Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

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Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

모든운행경로환승지점

Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

모든운행경로환승지점

Ann. only stop

☐

LED ann.

Transfer point for all routes

LED only

☐

Stop

Ann. audio

Record

Upload

Remove

Ann. name (en)

Transfer point for all routes

Ann. name (es)

Punto de cambio para todos los

Ann. name (ko)

모든운행경로환승지점

Ann. only stop

☐

Audio Interrupt

The Passio AVA system is typically configured to be the primary audio source on the vehicle. The system can be configured to enable an additional audio source such as a radio head unit (AM/FM/CD/DVD player) to be the primary audio source and for the automated voice announcement system to interrupt when making an announcement. This option often requires a replacement of both the existing on-board head unit and the addition of audio control equipment.

Multi-Language Support

Announcements may be made in any available second language using the on-device voice synthesizer.

Sound Files

The Passio AVA system supports the ability for users to upload a sound file to play at a particular route stop or trigger stop. The sound file can be played independently or in addition to the generated stop announcement. Authorized users have the option to record files directly within Passio Navigator™ or to upload independently created files.

Stop Level Settings - are configurable for each route

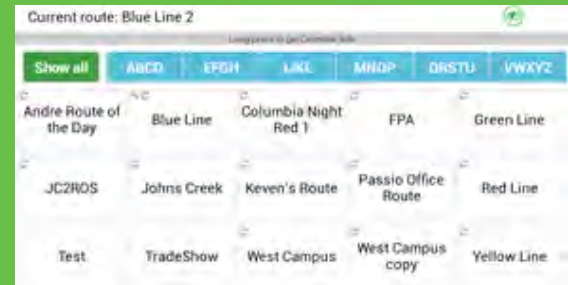
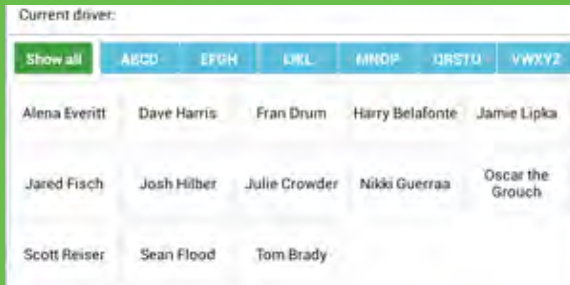


On-Board Operation

All announcements are automatically triggered by the GPS location of the bus and require no interaction from the operator. Logic is built into the configuration profile to prevent overlapping stop announcements by using stop order/directional algorithms.

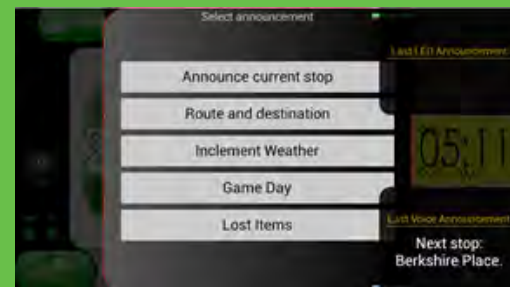
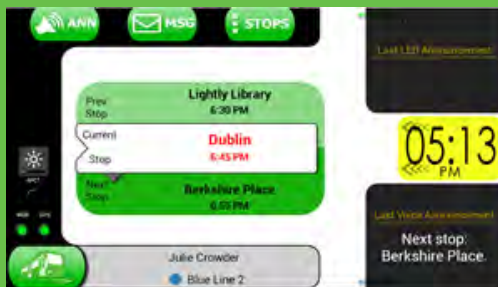
Getting Started: Operator selects their name, no complicated codes or mysterious procedures.

Routes are preset and automatically updated on the device. A simple tap on the screen starts the AVA.



Standard operations screen provides the operator with all of the information required to fully use the AVA system.

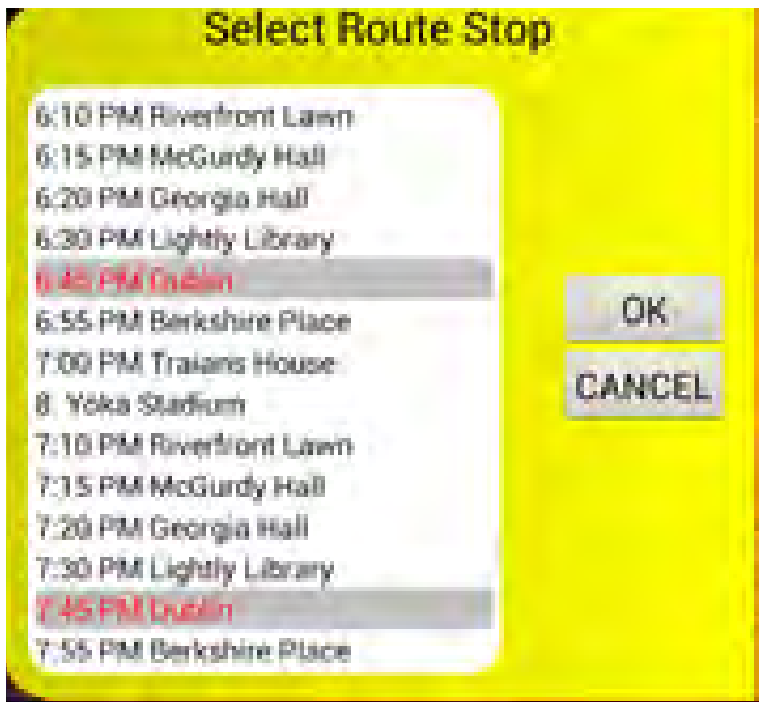
Operators can trigger preset special announcements from the MDT and repeat a stop location for ADA compliance.



Driver Managed Stop Jumps

Situations occur where a driver must skip a stop for reasons such as construction, congestion, or blocked routes while on route. Dispatch can adjust routes using the Detour function within Passio Navigator when this information is known. If the driver must make the correction on route, Passio's AVA system offers operators a simple and intuitive method to move around the skipped stops without confusing announcements when driving past skipped stops.





The Passio system provides the mobile data terminal, software, logic, and connectivity to on-board existing audio equipment. Each Mobile Data Terminal (MDT) is outfitted with a cellular data connection that automatically checks for configuration profile updates (or they can be manually downloaded by the operator). These profile updates provide all of the information to trigger automated voice announcement messages.

Out of Service

When the vehicle operator or dispatch places a vehicle out of service, all voice announcement functionality immediately ceases. The action is recorded in the Passio Navigatore Incident log, where time, date, latitude, longitude, driver, route, and vehicle number are tagged to the log. For integrated systems, LED signs will change messages to 'Not In Service' and the vehicle will no longer be viewable on Smartphone applications and public viewers.





LED SIGNAGE

Passio can integrate LED signage with Automatic Voice Announcements, using the Mobile Data Terminals. The combination of signage and announcements enhances the journey and overall experience for all riders. LED signage is triggered by the MDT, which uses geofences, thus eliminating any operator involvement.

Solution: LED Signage

Main Features

Message Triggers

LED sign integrations can be set up to constantly rotate, or be set off when entering and exiting a geofence. Both settings can also overlap one another.

Field Capabilities

Use fixed and/or dynamic field options to populate information about routes, stops, and points of interest, etc.

Calendar/Schedule

LED Messages can be set according to a calendar schedule. For example, weekend and weekday routes can be completely different.

Programing and Set Up

Customers have full access to edit and customize LED messaging through Passio Navigator.



LED DESTINATOR

As important as audio is, visual cues are just as crucial to riders. LED signage may be integrated with Passio AVA via serial connection protocols, sending unique command line instructions to each sign within the vehicle's network when using TranSign signs. Other manufacturer signage that accepts J1708/J1939 commands may be triggered by the Passio MDT as well. All commands are generated by the Mobile Data Terminal. The instructions are entered in the customer configuration profile using web-based Passio Navigator™. The information is published and then automatically downloaded via wireless data connection to each MDT on-board the vehicle.



The GPS-based message progression helps to eliminate driver distraction and to encourage safer driving habits.

Communication with your riders is integral to your rider experience and when your destination information is clear, accurate, and timely, you are fulfilling your promise to deliver excellence to your passengers. Our system is easy to use and simple to set-up, so even those who are not tech-savvy can schedule announcements in a few clicks.



Led sign	Stop arm	Address	Now approaching text	Text
- Advertising				
- Front				
- Passenger				
- Route number				
+				

Multiple LED signs may be configured and controlled within the configuration profile. The screen shot above illustrates how physical signs are added and accessed by the Passio platform and the Mobile Data Terminal.

The sign messaging details are programmed within the 'Text' field in the profile. Data from the Mobile Data Terminal can be passed to the LED sign, as can custom messaging. The message can be fixed or scrolled, and the time the message displays can be set as well. The calendar function allows the system user to schedule specific dates and times for the message to display.

	Left column text	Text	Scrolling	Time	Calendar
-		[time]			sec No calendar
-		Your Driver Today			sec No calendar
-		[driverName]			sec No calendar
-		Welcome to CTAA EXPO 20		9	sec No calendar
-		Lot open 6AM			sec No calendar
-		Driver of the Year		6	sec No calendar
-		Otis Reed Jr		5	sec No calendar
-		Experience Innovation in Act		9	sec No calendar
-		Wade Hancock CARTS			sec No calendar
-		Innovate Disrupt Lead Keyne		9	sec No calendar



The customer has full access to enter public service announcements and advertisements into the configuration profile for both the LED signs and the AVA system. These messages can be programmed in advance or in near real-time. The LED announcements can also be scheduled using the calendar function within the LED announcement screen.

The screenshot shows a web-based configuration interface titled "Route led sign texts". It contains several input fields and controls:

- Left column text:** An empty text input field.
- Text:** A text input field containing the message "Football Game this Friday!".
- Scrolling:** A checkbox that is currently unchecked.
- Time:** A numeric input field set to "8" followed by a "sec" unit selector.
- Calendar:** A dropdown menu currently set to "No calendar".

Trigger 1

Trigger 2

Interruption Setting

Fixed Field Capabilities

Dynamic Field Capabilities

Rotating Messages

A visual message is triggered in Passio's integrated solution in one of two ways:

Vehicle enters the geo-fence. The stop name is displayed, along with a fully customizable preceding message, i.e. "Now Approaching" or "Next Stop Is".

Constantly rotating messages. These messages are set at the route level and rotate as long as the vehicle is assigned to the route via the MDT.

Rotating messages can be configured to either interrupt or not to interrupt geo-fence triggered stop announcements.

Any fixed message can be displayed and the amount of time it will be displayed can be set by the message. Whether or not the message scrolls can be independently set.

Have all of the same capabilities as fixed fields, but can dynamically populate the following information: driver name, time, date, next stop, current stop, route, bus number, and the last stop on the route.

Can be calendar controlled as well, meaning they can be scheduled by day, date, or time as to when they will display.





Rear LED Destination Signs (optional)





AUTOMATIC PASSENGER COUNTING

Automated Passenger Counting allows customers to easily record all boardings, without any involvement from the vehicle operator. We partnered with Hella to allow for fully automated counting connected to our MDT which can also be used to track passenger types.



Solution: Automatic Passenger Counting (APC)

Main Features

MDT Involvement

The APC system directly links to our Mobile Data Terminal (if required) to allow operators to view the number of passengers on board, record passenger type, and view route and stop information.

Hella Sensors

Using Hella devices, we are able to take advantage of 3D sensors with 98% accuracy to count passengers as they board and alight vehicles, even in low light or extreme transit conditions.

Alternatives & Integrations

We also provide mixing and matching passenger counting options. While customers may want APC on some vehicles, Electronic Passenger Counting (EPC) is readily available for others. Passio can also use card readers to count and identify individual passengers and passenger type.

Navigator

Our cloud based solution, Passio Navigator, automatically uploads APC information for data analysis. Navigator also has the ability to create advanced ridership reports and dashboards.

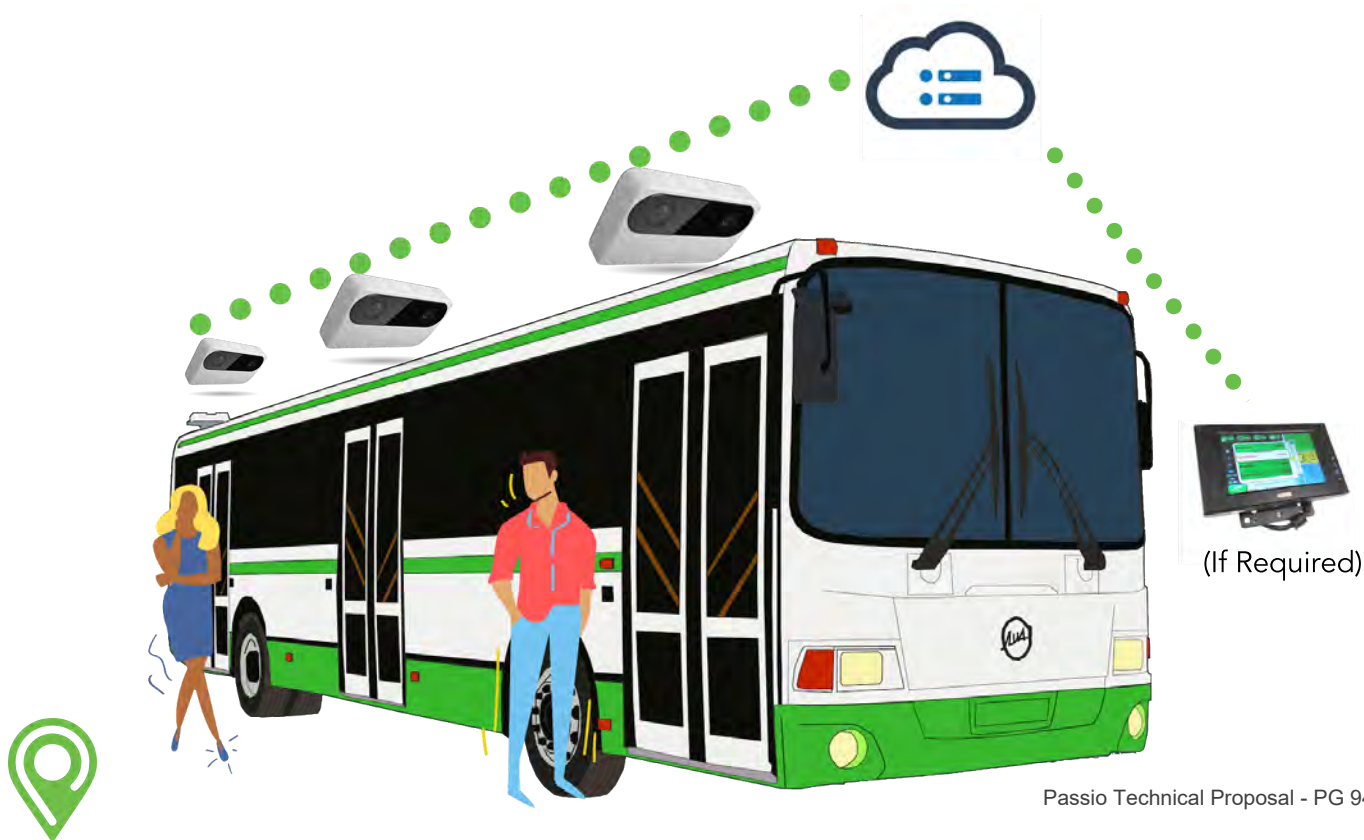


Customers have the option to integrate APC (Automated Passenger Counting) into their solution. Passio Technologies has adopted the innovative approach of modular technology solutions for our customers. Passio offers three options for entering passenger count data, automatically using APC sensors, Electronically using the Mobile Data Terminal touch screen, or through the Gateway Tap & Swipe system. For example, if you wanted APC's on 30 transit buses, driver managed electronic passenger counting units on 15 buses, and card swipe validation on four special-use vehicles, we can provide the solution. All the data will be reported centrally, and then we are able to deliver high quality passenger data and analytics for the entire system.

APC counting is fully automated, conducted without any operator interaction. Additional features and capabilities include an interactive, touch screen program that enables operators to track special passenger types, track field incidents, and receive communications from supervisors and dispatch. The tracking tools record in-service start and end times, deadhead time and miles, and, if added, the ability to track driver hours.

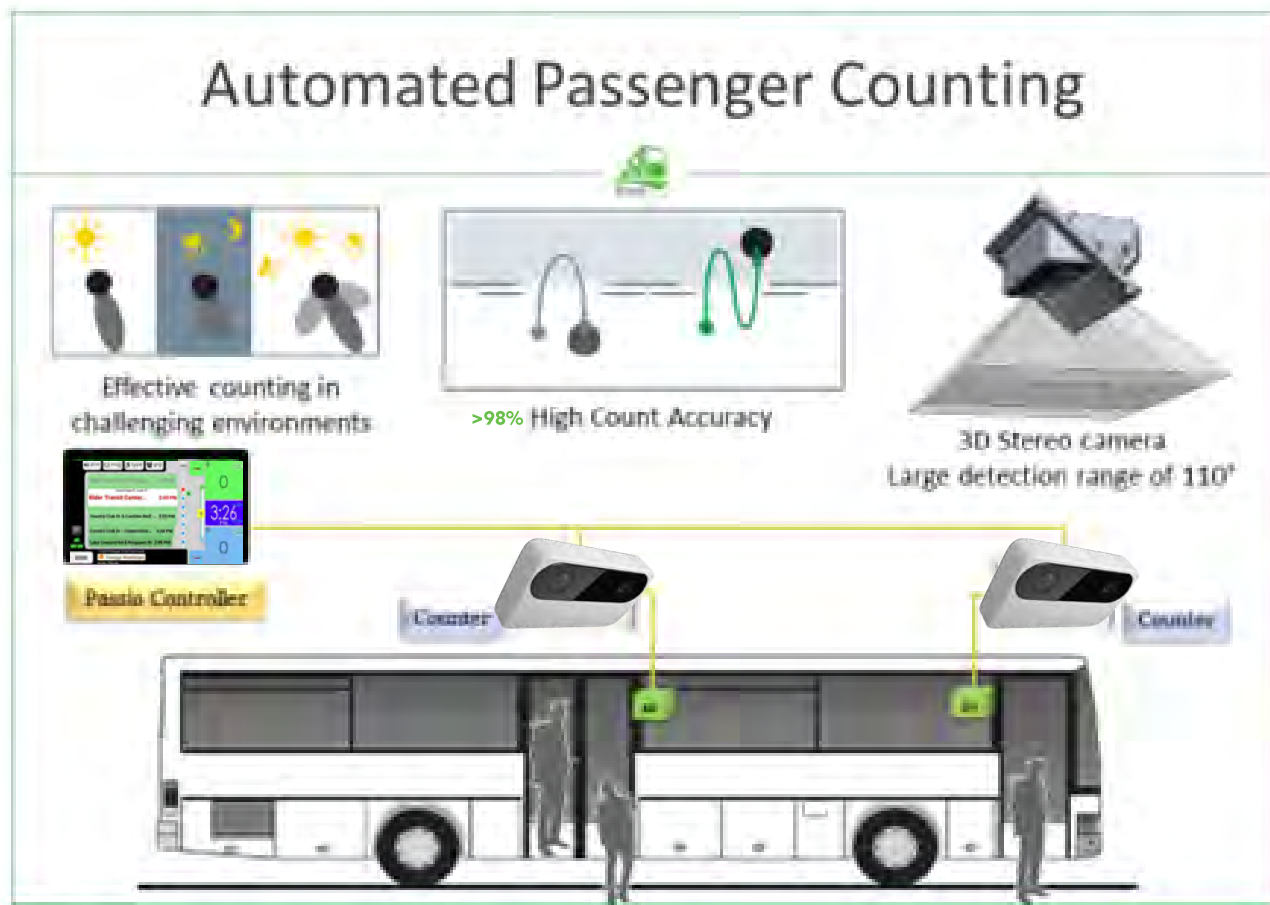
Passio has partnered with Hella to integrate their three-dimensional bi-directional electronic imaging people counting system. With more than 25,000 employees in 30 countries, Hella has been developing and manufacturing automobile technology, chiefly in the areas of lighting and electronics, for more than 100 years. The unit has been designed to work in challenging environments such as variable or low light, multi-level counting fields of vision, and where a large detection range (up to 110°) is needed. The unit is designed to operate from -25° C (-13° F) to +70°C (+158° F) and only draws about 4W of power. The software is specially designed to compensate for passenger movement up and down stairways or on ramps in low floor buses.

The Passio Transit hardware senses passengers from an overhead sensor.



Additional sensors are available to trigger passenger counts when door status (open/closed) is transmitted. The system proposed will cover all entry and exit points of the vehicle. The APC system will create passenger counts without administrator or driver input. The startup will happen with vehicle ignition and does not require any manual input to begin. The system will accurately count passengers as they board and alight and register stops, routes, and runs. The APC system has the capability to distinguish passengers and non-passenger objects and can detect double backs and re-crossings.

The system utilizes 3D camera technology manufactured in Germany by HELLA, which will reliably distinguish passengers and non-passenger objects and can detect double backs and re-crossings.



It will detect how many people enter or leave a vehicle, typically achieving a system counting accuracy of >98%, even under unfavorable conditions such as variable lighting or shadows.

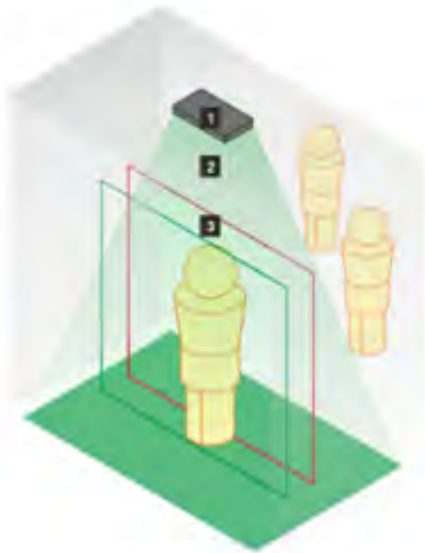


Fig. 4: People counting (schematic illustration)

- 1 Automatic People Counter (APC)
- 2 Calibrated visual range
- 3 Counting gate

The APC continually acquires stereoscopic video images in its visual range.

The integrated software evaluates the stereoscopic images. Persons within the monitored area are recognized automatically and their movements are tracked across the subsequent images.

The APC, therefore, can count the number of persons that enter or leave a vehicle.

The software provides the following functions:

- Bidirectional counting on a defined line
- Tracking persons within a given area
- Video streaming and video recording (optional)

The counting data are transferred via interfaces to the external processing system.

The counting gates represent the thresholds in the visual range which must be crossed by a person in order to trigger an entry or exit count event.

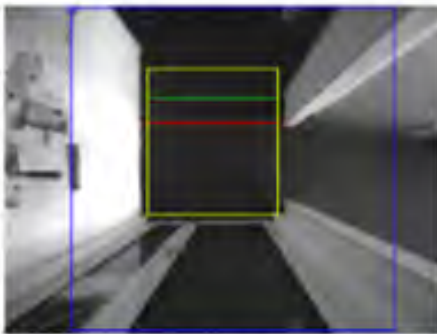


Fig. 5: Straight counting lines/counting gates (example)

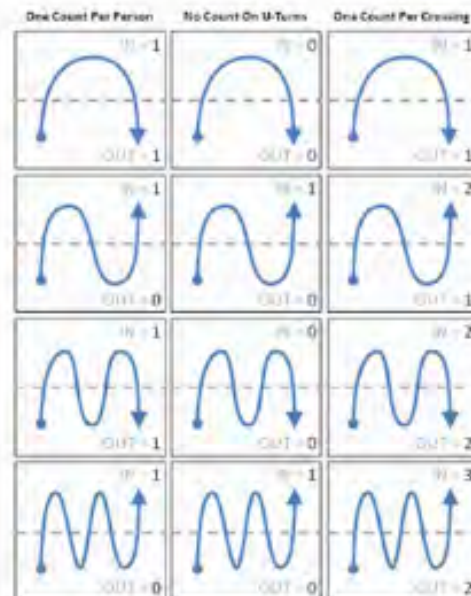
Simple, straight counting lines/counting gates, (Fig. 5) are provided for the simple and fast installation at doors and passage-ways.

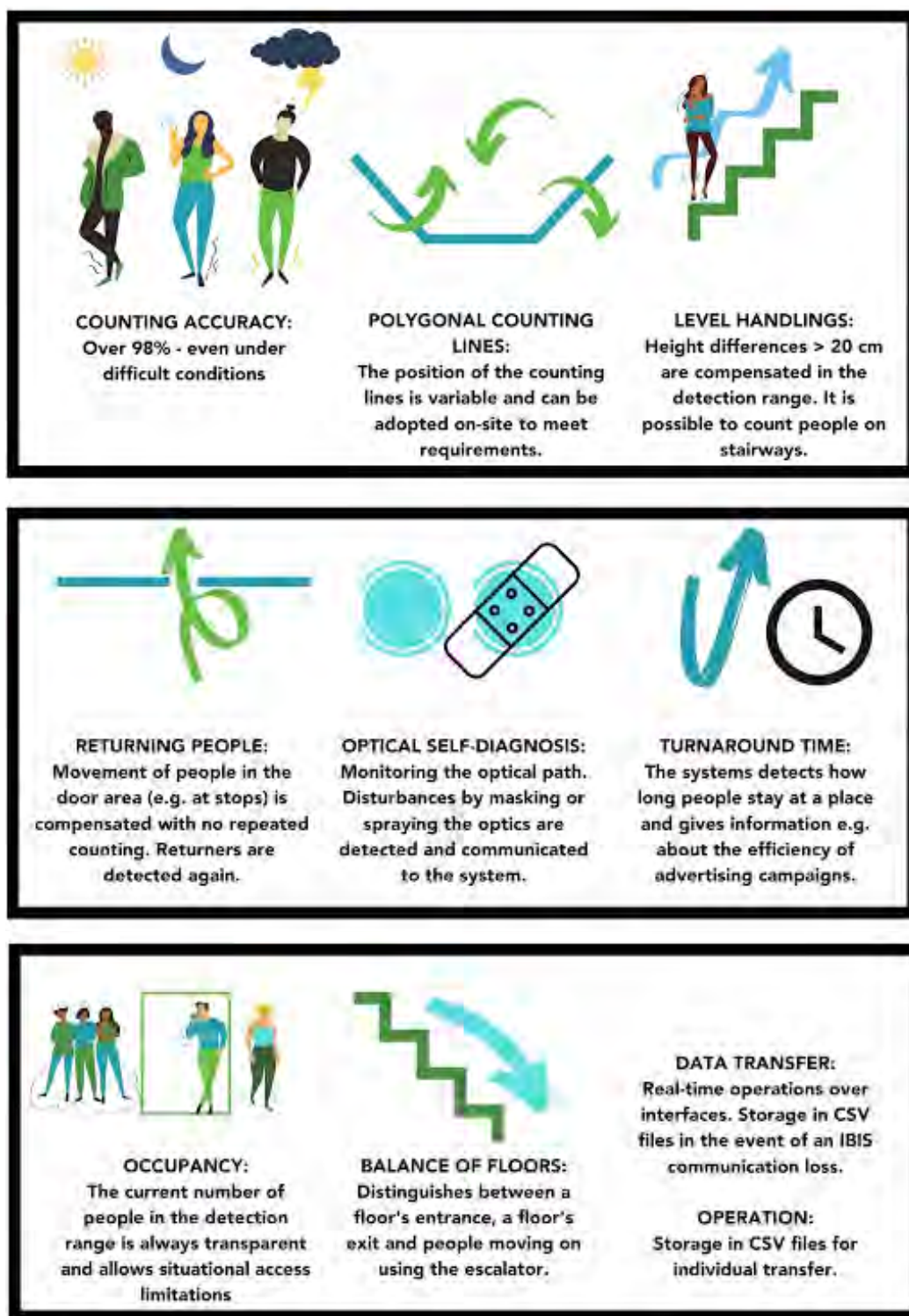
Fig. 10: Three modes for counting those who turn around

There are three modes (Fig. 10) for counting people who turn around in the monitored area:

- one count for persons who turn around ('one count per person')
- no count for persons who turn around ('no count on U-turns')
- counting every time counting lines are crossed ('one count per crossing')

Only the counting mode 'one count per crossing' counts immediately by crossing counting lines. Other modes provide the counting data at the time of leaving of the detection area.





APC record-level detail is stored for a minimum of 36 (thirty-six) months and provides count information at the base level which allows for time and individual bus and driver reporting at the stop level. After 36 (thirty-six) months data will be summarized at the route, day, and passenger type level. This data will be available in the dynamic reporting system for a minimum of 5 (five) years. All data archived after 5 (five) years will be made available electronically prior to removal from the dynamic reporting system.





PASSIO BUSINESS ANALYTICS



Passio Navigator™ Reporting Tools

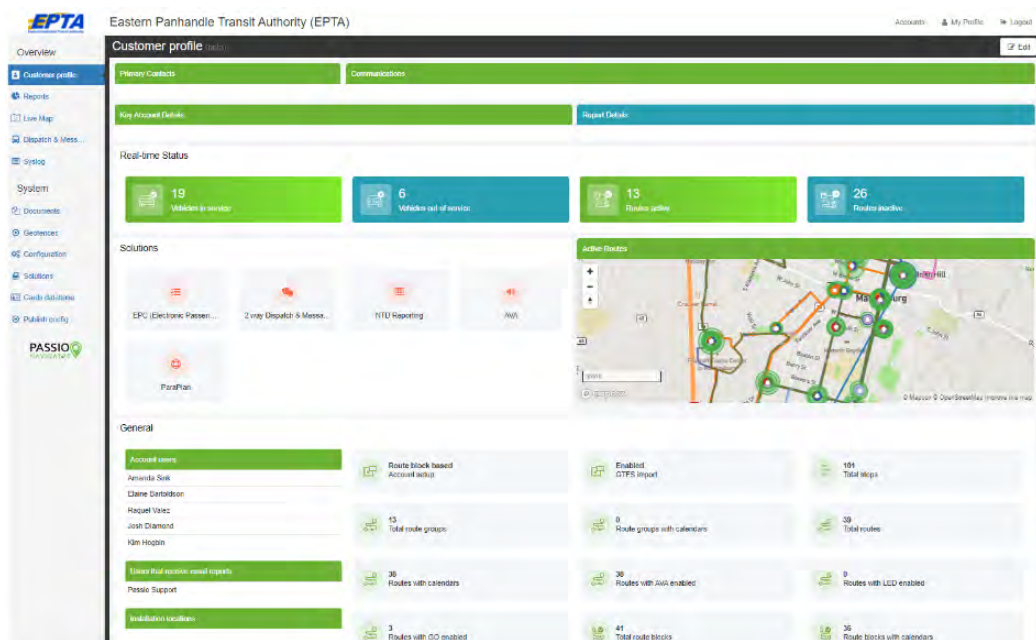
The Passio Business Analytics system is managed through Passio Navigator™. This enables our customers to have a single login with access to all reporting, configuration, and management functions within the Passio Transit Platform. The reporting system is divided between dynamic reporting and dashboard reports. The dynamic reporting tools are designed to allow the end user to build reports using combinations of filters for both specific and general areas of analysis. The full spectrum of components and fields within the database are available for the user to build the view they need with a few simple mouse clicks...

Primary Report Views

- Filter by custom or pre-set time periods
- Group reporting data for by quarter, month, week, day or by time (hour or ¼ hour)
- Select operational detail levels such as routes, stops, drivers, and buses.
- Custom passenger types can be filtered, segmented, and reported
- Switch between passenger boarding and alighting counts for all filter views

Trend Analysis

- Switch between passenger boarding and alighting counts for all filter views
- Compare ridership trends by month, week, day, quarter/semester, weekday, hour, ¼ hour
- Capture NTD related data such as Passenger Miles Traveled
- Route reporting at three levels (block, route name, combined route)
- Capable of grouping stops in alternate combinations outside of route groupings

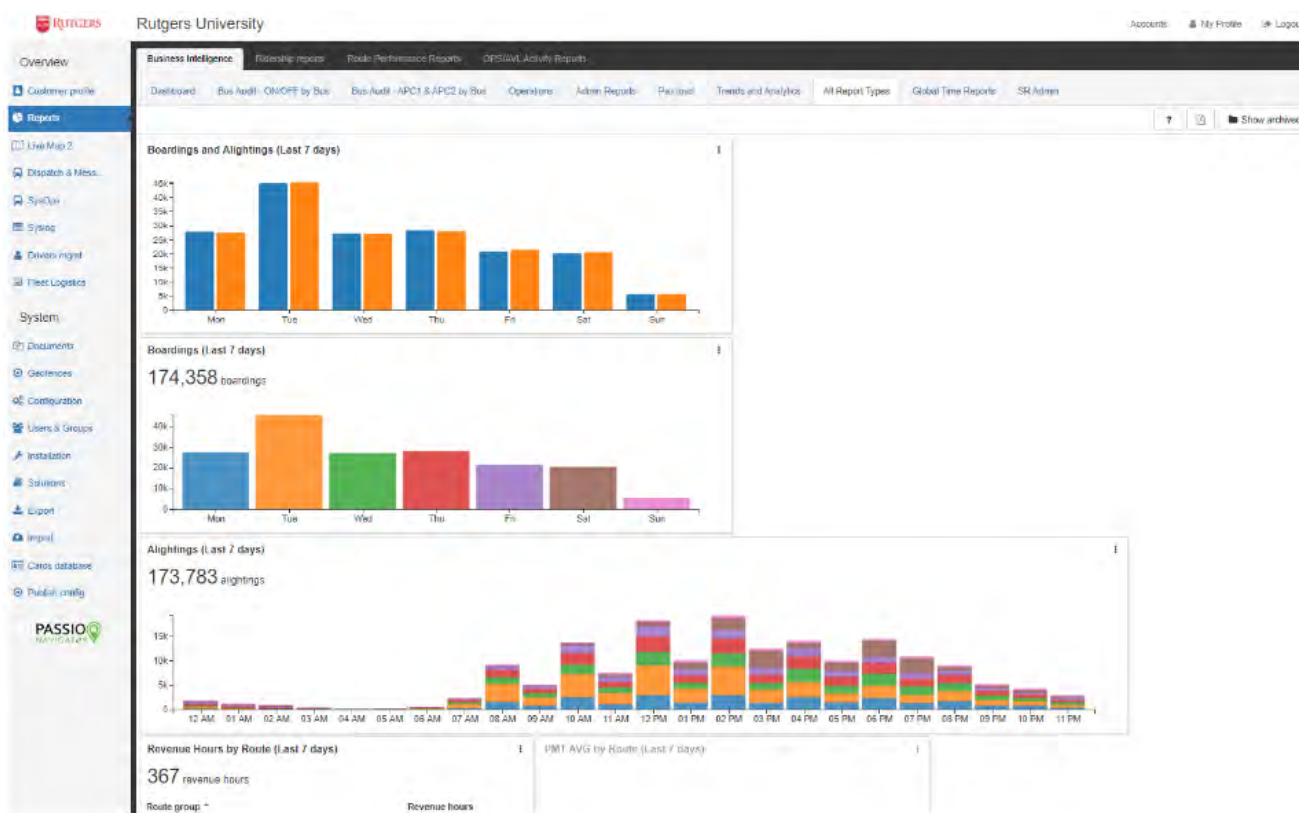


Passio Agency Profile Dashboard



Passio Analytics is segmented into 5 groups:

- Business Intelligence – Provides customizable charts and graphs to provide insight and to help better understand your service trends.
- Ridership Metrics – This collection provides a comprehensive ridership analysis.
- Route Performance – This quite of tool allows users to analyze on-time performance trends and schedule adherence details.
- GPS/AVL Activity – This collection provides custom boundary incident reporting, speed reports, and other vehicle activities.
- NTD Reporting – One-click NTD S-10 reporting with sampling, benchmarking, and certification support from Passio



Passio Dashboard Reporting – Boardings & Alightings



Business Intelligence

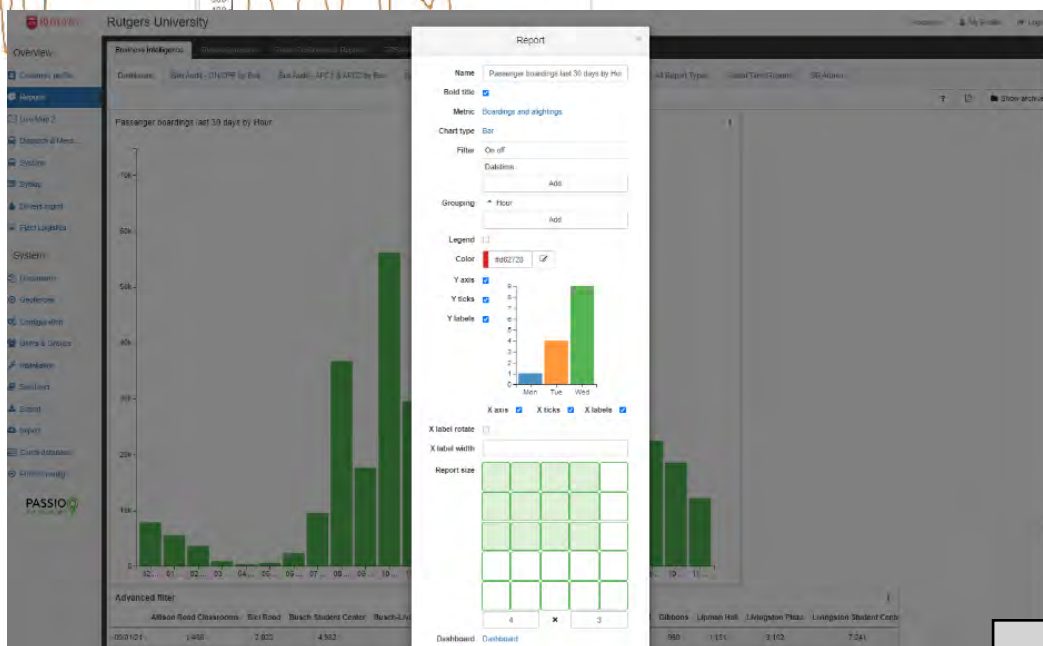
Provides customizable charts and graphs to provide insight and to help better understand your service trends.

- Bus Audit (ON/OFF)
- Bus Audit (APC)
- Operations
- Passenger Load
- Trends and Analytics
- Global Time Reports
- Admin Reports



Passio
Dashboard
Reporting –
Audit

Passio
Dashboard
Customization
– Ad Hoc
Reporting



Dashboard reports enable users to design and save reports to their unique specifications. Users tailor reports based on presentation type, data analyzed, filters used, and comparison analytics.

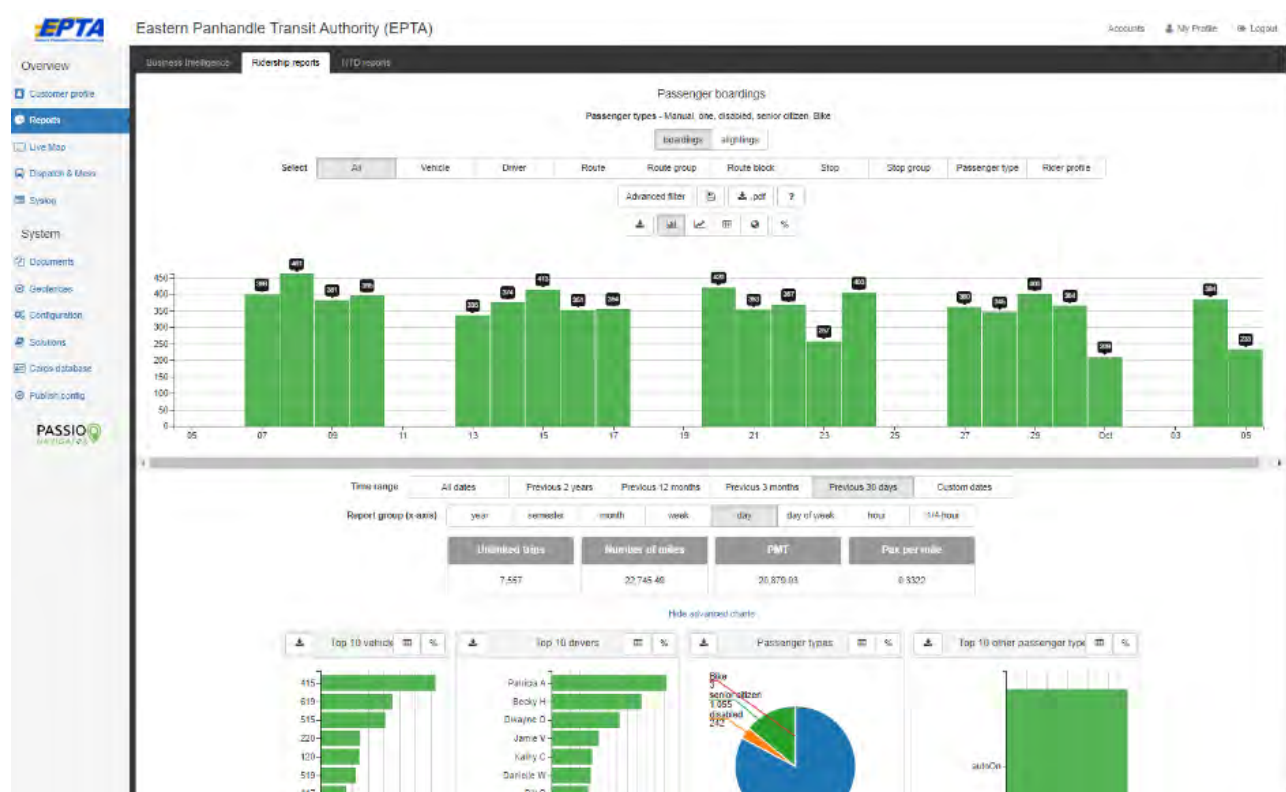
- Fixed Date or Relative Date – set a reporting period that is fixed from a specific date to a specific date, or create relative date reports (i.e. the last 3 months or previous 14 days)
- Scheduled Auto Email – email individual reports or an entire dashboard to a single email recipient or a group of recipients. Emails can be scheduled at any interval desired.
- Multiple Dashboards – users have the option to create multiple dashboards to group report types by category or target audience.

Reports include a graphical interface for display and presentation. The interface allows users to dynamically create bar, line, pivot tables, and pie charts without downloading to third party software. The data is available for export into common formats such as CSV (to XLS) and PDF. The user may create multiple dashboard pages specific to the KPIs that they want to see as well as the ability to email or print individual reports or entire dashboards ad-hoc or create scheduled group emails.

Ridership Metrics

This collection provides a comprehensive ridership analysis.

- Boardings & Alightings by Date/Time/Span for...
 - Vehicle, Driver, Route, Route Group, and Route Block
 - Stop, Stop Group, Passenger Type, and Rider Profile



Passio Ridership Metrics

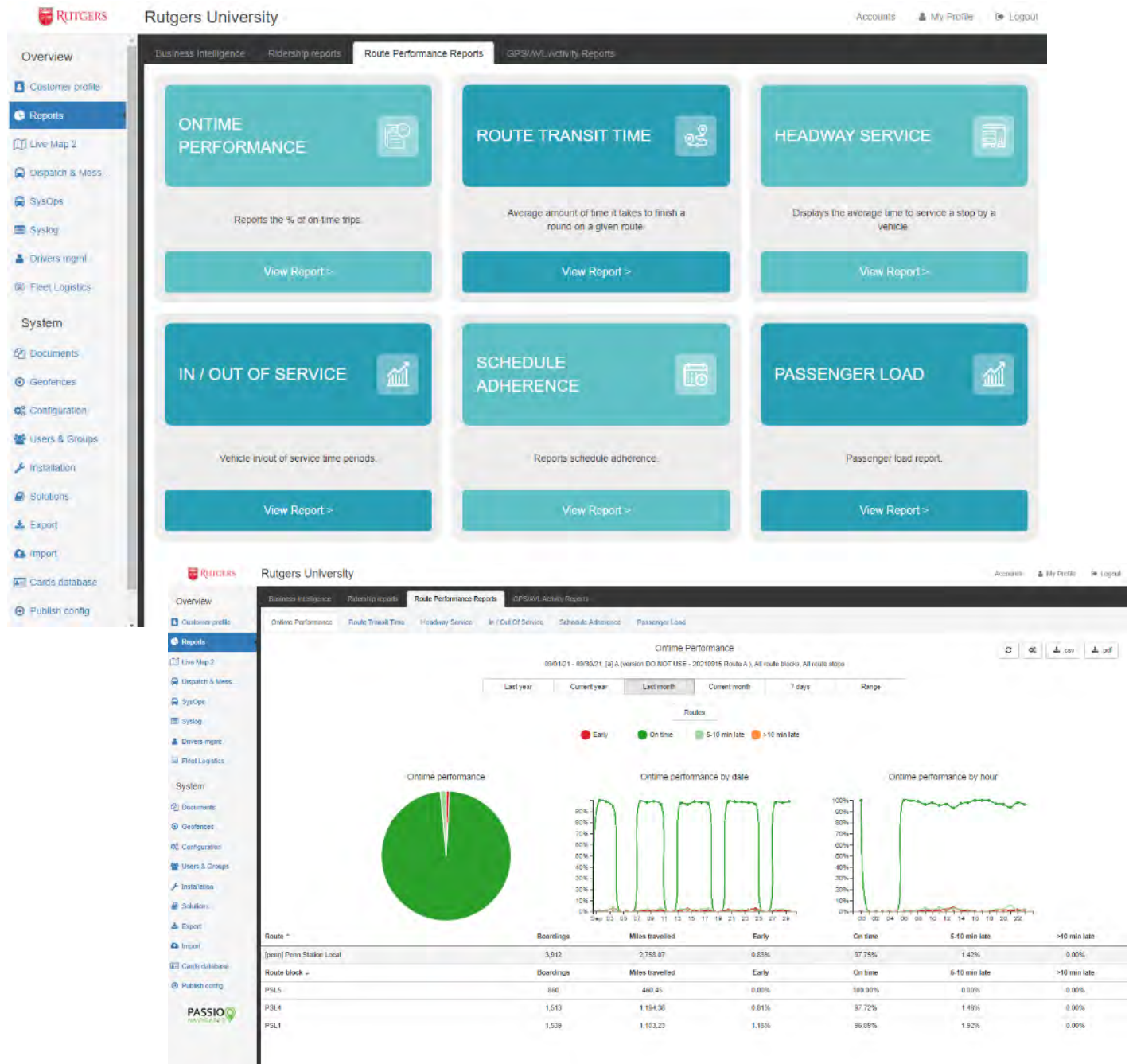


Route Performance

This collection of tools/reports allows users to analyze on-time performance trends and schedule adherence details.

- On-time Performance (OTP)
- Route Transit
- Headway
- In/Out of Service
- Schedule Adherence

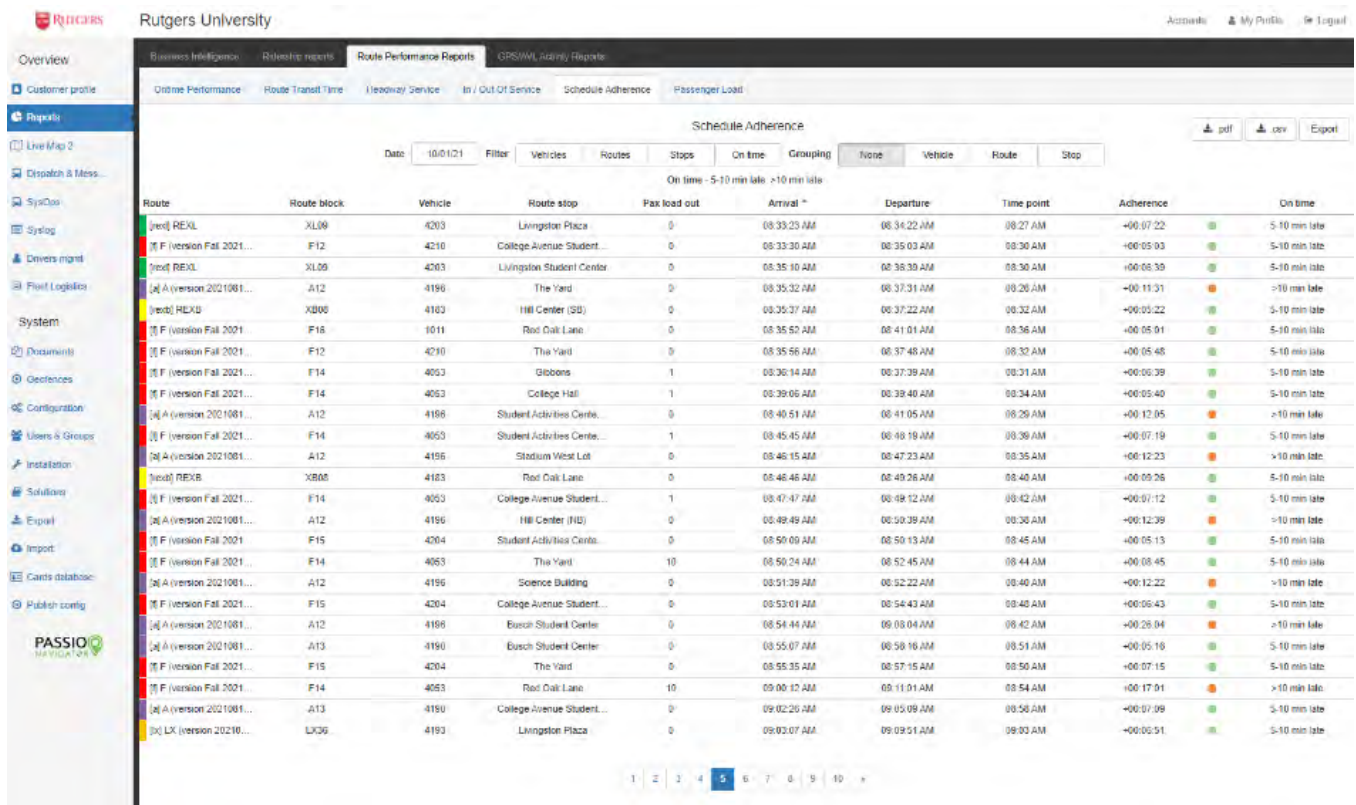
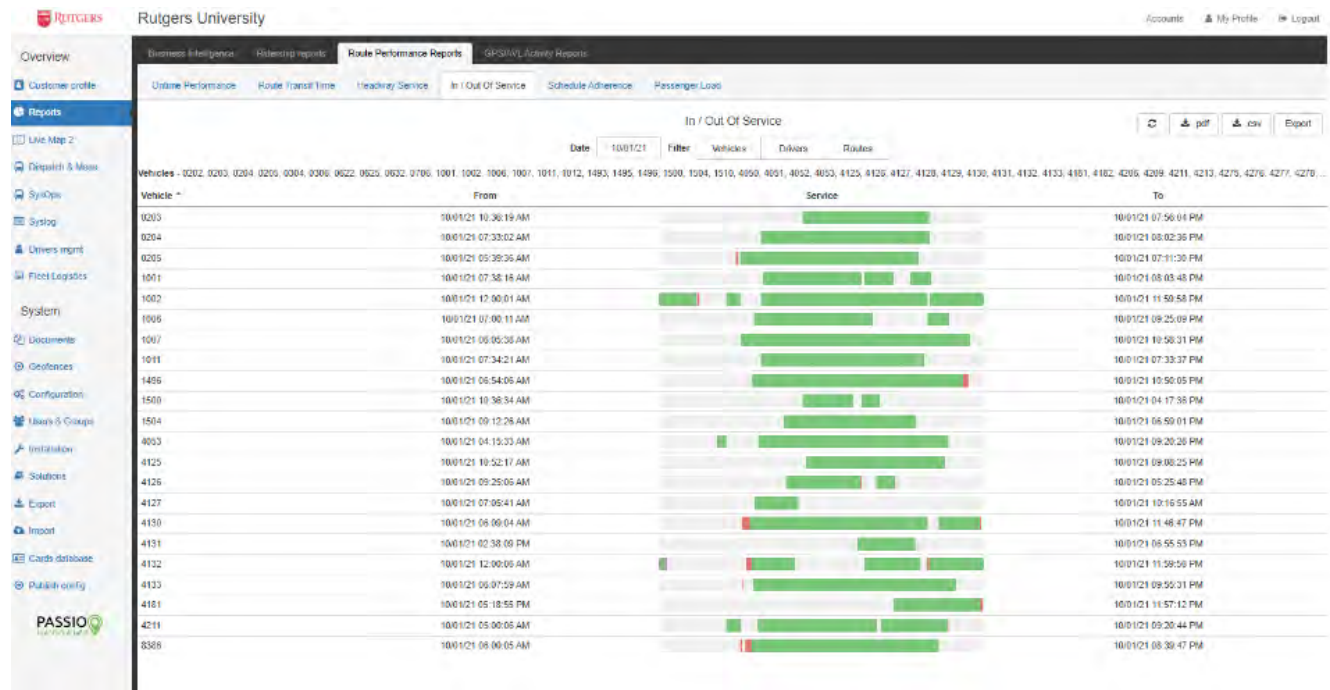
Passio Route Performance Module



Passio Route Performance Module – On Time Performance



Passio Route Performance Module - Service



Passio Route Performance Module – Schedule Adherence

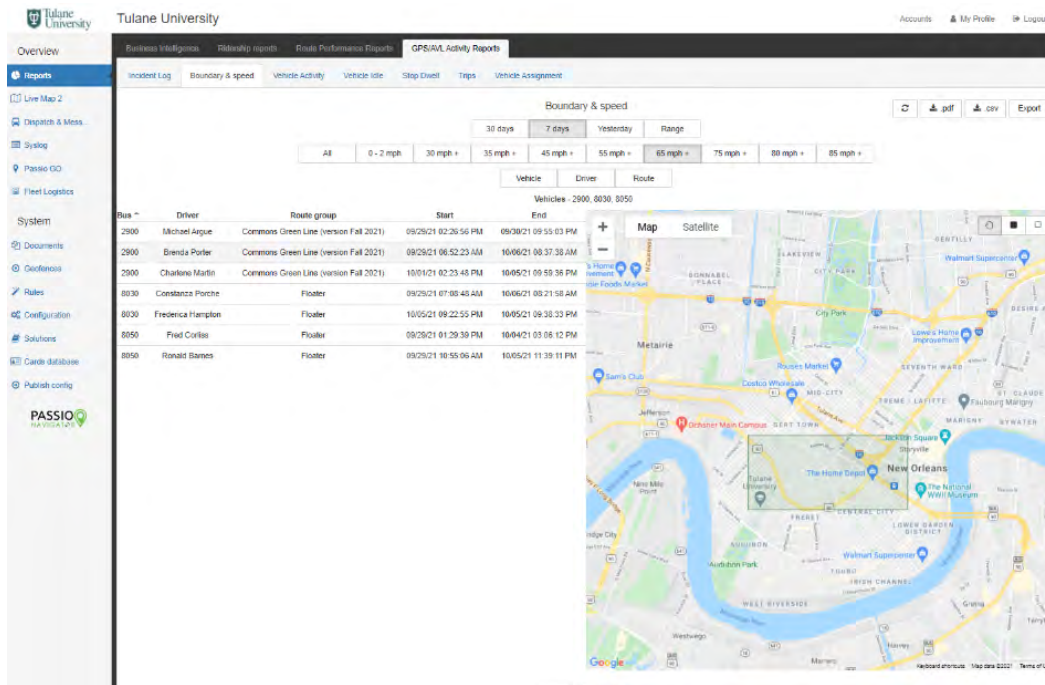


GPS/AVL Activity

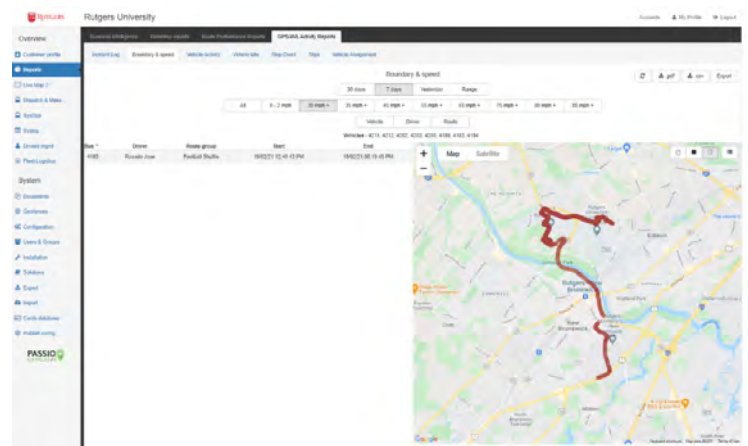
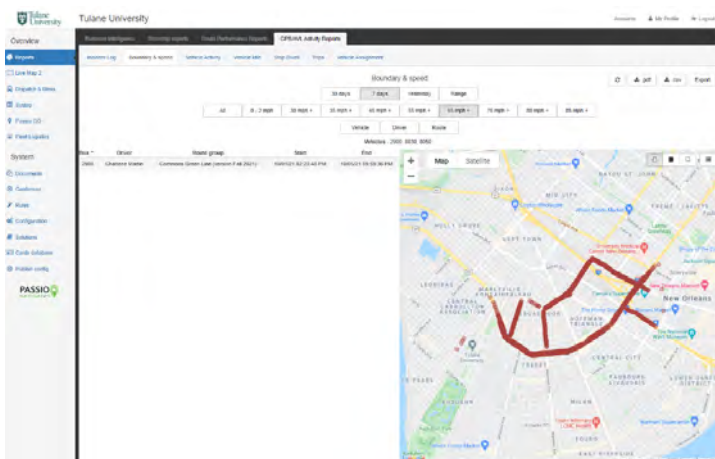
This collection provides custom boundary incident reporting, speed reports, and other vehicle activities.

- Incident Logs, Trips, Vehicle Assignment
- Vehicle Activity, Vehicle Idle, Stop Dwell, Boundary & Speed

Passio GPS/AVL Reporting – Boundary Reporting



Speed Fence Activity - Users have the capability to highlight a specific area on the system map to select all speeding incidents that exceed the threshold set in the report configuration.



Passio GPS/AVL Reporting – Speed Reporting & Tracking

Passio GPS/AVL Reporting – Incident Logs

Date	Time	Vehicle	Route	Stop	Incident	Status
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓
10/05/21	07:20:00 AM	4417	Livingston Plaza	Stop	Incident	✓

Passio GPS/AVL Reporting – Vehicle Activity

Vehicle	Start time	Activity type	Name	Route	Duration	Idle time	Max. time	Max speed	Geo miles	Trip miles	Trip time
1495	06:03:18 AM	stop	Livingston Plaza	B-Hi Route	00:04	00:00	00:04	21.30	0.02	0.03	00:03
1495	06:04:06 AM	stop	Livingston Student Center	B-Hi Route	00:27	00:10	00:17	7.14	0.03	0.20	00:51
1495	06:07:51 AM	stop	Busch Livingstone Health Center	B-Hi Route	00:22	00:10	00:12	16.51	0.04	1.25	04:36
1495	06:13:09 AM	stop	Hill Center (NB)	B-Hi Route	00:21	00:00	00:21	12.24	0.04	3.52	09:54
1495	06:14:16 AM	stop	Science Building	B-Hi Route	00:21	00:00	00:21	16.22	0.04	3.00	11:03
1495	06:16:25 AM	stop	Busch Student Center	B-Hi Route	02:46	01:20	01:17	20.07	0.17	4.21	13:10
1495	06:22:06 AM	stop	Busch Livingstone Health Center	B-Hi Route	00:04	00:00	00:04	27.76	0.03	5.28	18:45
1495	06:23:01 AM	stop	Livingston Plaza	B-Hi Route	00:20	00:10	00:10	16.40	0.02	5.61	19:46
1495	06:24:07 AM	stop	Livingston Student Center	B-Hi Route	00:25	00:10	00:15	12.59	0.03	5.79	20:52
1495	06:27:25 AM	stop	Busch Livingstone Health Center	B-Hi Route	00:23	00:09	00:14	14.47	0.03	6.64	24:10
1495	06:32:04 AM	stop	Hill Center (NB)	B-Hi Route	00:20	00:07	00:21	16.50	0.04	9.12	26:49
1495	06:33:18 AM	stop	Science Building	B-Hi Route	00:22	00:00	00:22	15.52	0.04	9.39	30:03
1495	06:35:22 AM	stop	Busch Student Center	B-Hi Route	05:21	04:20	01:01	18.45	0.17	9.61	32:07
1495	06:43:00 AM	stop	Busch Livingstone Health Center	B-Hi Route	00:04	00:00	00:04	28.95	0.03	10.69	39:45
1495	06:43:52 AM	stop	Livingston Plaza	B-Hi Route	00:21	00:10	00:11	17.76	0.04	11.20	40:37
1495	06:44:55 AM	stop	Livingston Student Center	B-Hi Route	02:35	02:20	00:15	11.54	0.03	11.40	41:40
1495	06:50:20 AM	stop	Busch Livingstone Health Center	B-Hi Route	00:24	00:10	00:14	15.90	0.03	12.45	47:05
1495	06:55:22 AM	stop	Hill Center (NB)	B-Hi Route	00:29	00:15	00:14	16.14	0.04	14.72	52:07
1495	06:56:38 AM	stop	Science Building	B-Hi Route	00:26	00:09	00:17	12.30	0.03	14.99	53:23
1495	06:58:43 AM	stop	Busch Student Center	B-Hi Route	05:33	04:20	01:04	20.56	0.15	15.40	55:28
1495	07:05:59 AM	stop	Busch Livingstone Health Center	B-Hi Route	00:00	00:00	00:00	32.23	0.09	16.51	01:03:44
1495	07:07:45 AM	stop	Livingston Plaza	B-Hi Route	00:21	00:14	00:07	17.27	0.03	16.80	01:04:30
1495	07:08:52 AM	stop	Livingston Student Center	B-Hi Route	03:57	03:20	00:17	12.03	0.04	17.00	01:05:37
4152	07:11:24 AM	stop	Red Oak Lane	(jensb) REXIB	01:20	00:50	00:30	12.24	0.04	0.61	01:08:09
4152	07:13:28 AM	stop	Lupman Hall	(jensb) REXIB	00:11	00:00	00:11	15.68	0.03	0.63	01:10:13

NTD Reporting

One-click NTD S-10 reporting with sampling, benchmarking, and certification support from Passio. Our robust Passio NTD reporting module provides VRM (Vehicle Revenue Miles), Deadhead miles, AVM (Actual Vehicle Miles), VRH (Vehicle Revenue Hours), Deadhead hours, AVH (Actual Vehicle Hours), UPT (Unlinked Passenger Trips), PMT (Passenger Miles Travelled) by time period and by weekday/weekend, etc. Passio offers customized NTD reporting that will calculate and extract the metrics required for compliance. The Passio APC solution will provide all 'Actual' data (passenger miles and stop counts) required for NTD reporting. Your account manager will work with you to set up your personalized NTD sampling schedule and Passio will support your certification process. Our integrated Hella 3D APC has been granted NTD Certification Approval.



Passio NTD Reporting Samples

Our robust Passio NTD reporting module provides VRM (Vehicle Revenue Miles), Deadhead miles, AVM (Actual Vehicle Miles), VRH (Vehicle Revenue Hours), Deadhead hours, AVH (Actual Vehicle Hours), UPT (Unlinked Passenger Trips), PMT (Passenger Miles Travelled) by time period and by weekday/weekend, etc. Passio offers customized NTD reporting that will calculate and extract the metrics required for compliance. The Passio APC solution will provide all 'Actual' data (passenger miles and stop counts) required for NTD reporting. Your account manager will work with you to set up your personalized NTD sampling schedule and Passio will support your certification process. Our integrated Hella 3D APC has been granted NTD Certification Approval.

Passio NTD Summary Report:



Our NTD Summary Report provides all required NTD summary metrics (both Revenue and Actual summaries are included). These results can be filtered by date range and route(s).

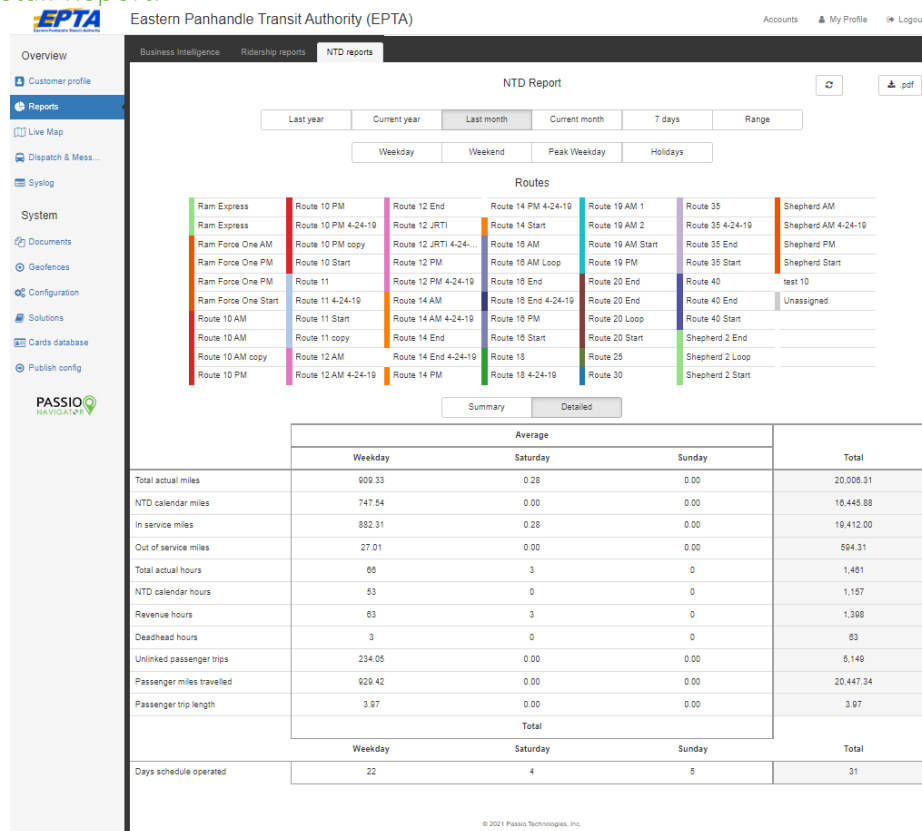


Passio NTD Weekday Route Filter Report:



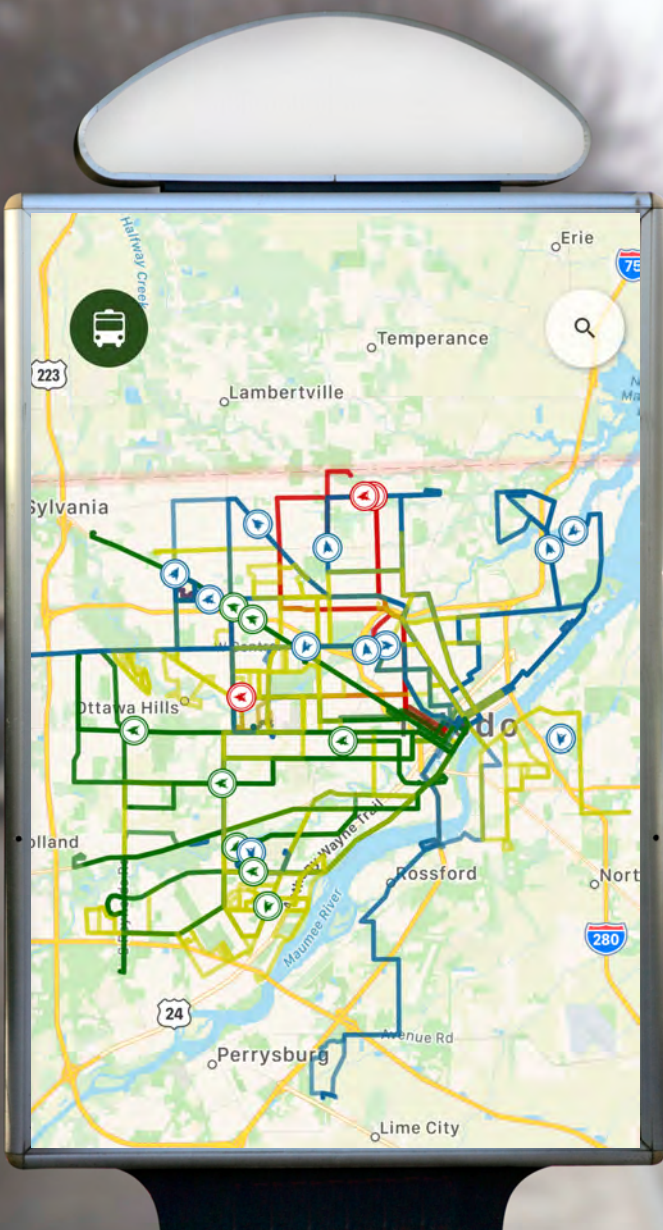
Our NTD Filter Report provides all required NTD summary metrics by date range, day(s) of the week, and selected route(s).

Passio NTD Detail Report:



The following NTD details (totals and averages) are provided by date range and selected route(s). Metrics include: Total actual miles, NTD calendar miles, In service miles, Out of service miles, Total actual hours, NTD calendar hours, Revenue hours, Deadhead hours, Unlinked passenger trips, Passenger miles travelled, Passenger trip length, and Days schedule operated.



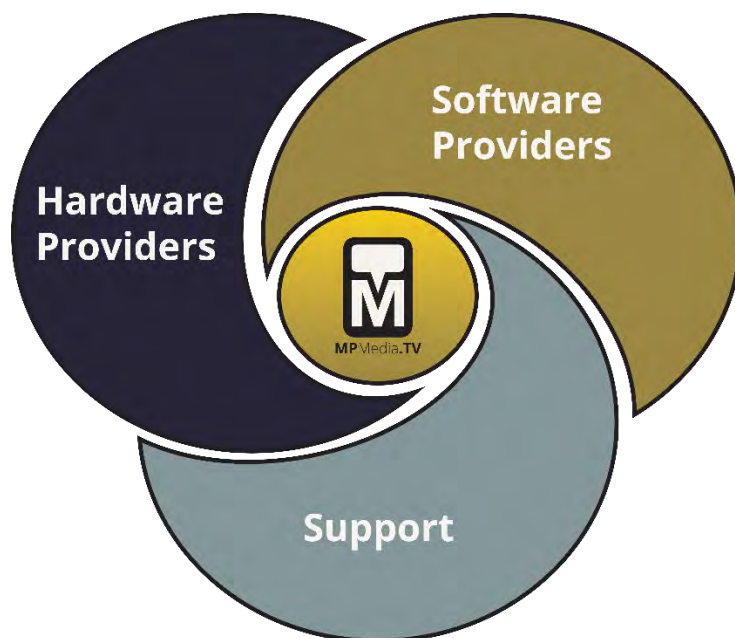


INTELLIGENT DISPLAYS

On-Board displays powered by MessagePoint Media







MessagePoint Media designs digital signage solutions with a 21st century model of mass-customization combined with a managed services model that incorporates hardware and content management platform support to meet any requirement. They make custom designed solutions, tailored, and scaled to the customer's needs at a disruptive price-point when compared with competitors. MessagePoint makes this possible by leveraging Commercially Available, Off-The-Shelf modular technology, sub-components, software, and integrating them within an open development

framework. MessagePoint Media applies the hacker/maker ethos to the concept of digital signage to create a highly extensible and customizable fully managed IT service.

This solution is built upon 3 pillars, Modular and Expandable Purpose Designed Hardware, a Cutting-Edge Content Management Software, and most importantly, a Managed Services & Support Model that gives customers access to extended support uncommon in the industry. The MessagePoint Media model stems from the philosophy that the solution to most problems are found in the spaces between disciplines.

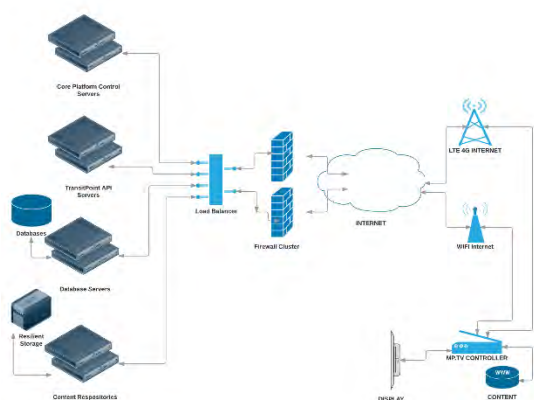
The MessagePoint.TV (MP.TV) platform is the heart of their service. MP.TV is built on top of a powerful next generation HTML5 based general purpose cloud based digital signage platform that drives thousands of screens all over the world. The MessagePoint.TV platform is entirely cloud based and requires zero server infrastructure or maintenance from the agency. The platform is hosted in multiple tier 1 datacenters and boasts a greater than 99.9% uptime. The administrative interface is web based, fully responsive, and can be accessed from a desktop, laptop, tablet, or mobile phone anywhere in the world with an Internet Connection. All communications take place over encrypted HTTPS connections and require no special firewall or network configuration to function properly.

One CMS, Universal Compatibility

This solution is designed from the ground up for cross-compatibility. The solution runs on any screen, any size, any manufacturer. This solution works with LCD, LED, oLED, and E-ink, all from the same content management user interface. The content platform works with any operating system including Windows, Android, Linux, MacOS, or Google Chrome.

Access from Any Device, Anywhere

There is no functionality or capability of the MP.TV platform that requires anything more than a web browser to access. Administration, Management, Content Creation, and Scheduling are all fully enabled in a modern HTML5 Web Based Console that is accessible from anywhere. Not only that, but the platform is also built fully responsive with nearly identical functionality regardless of the size or type of device from Smartphones to tablets to desktops. No matter where you are, and what device you have with you; you can fully operate and manage the platform.



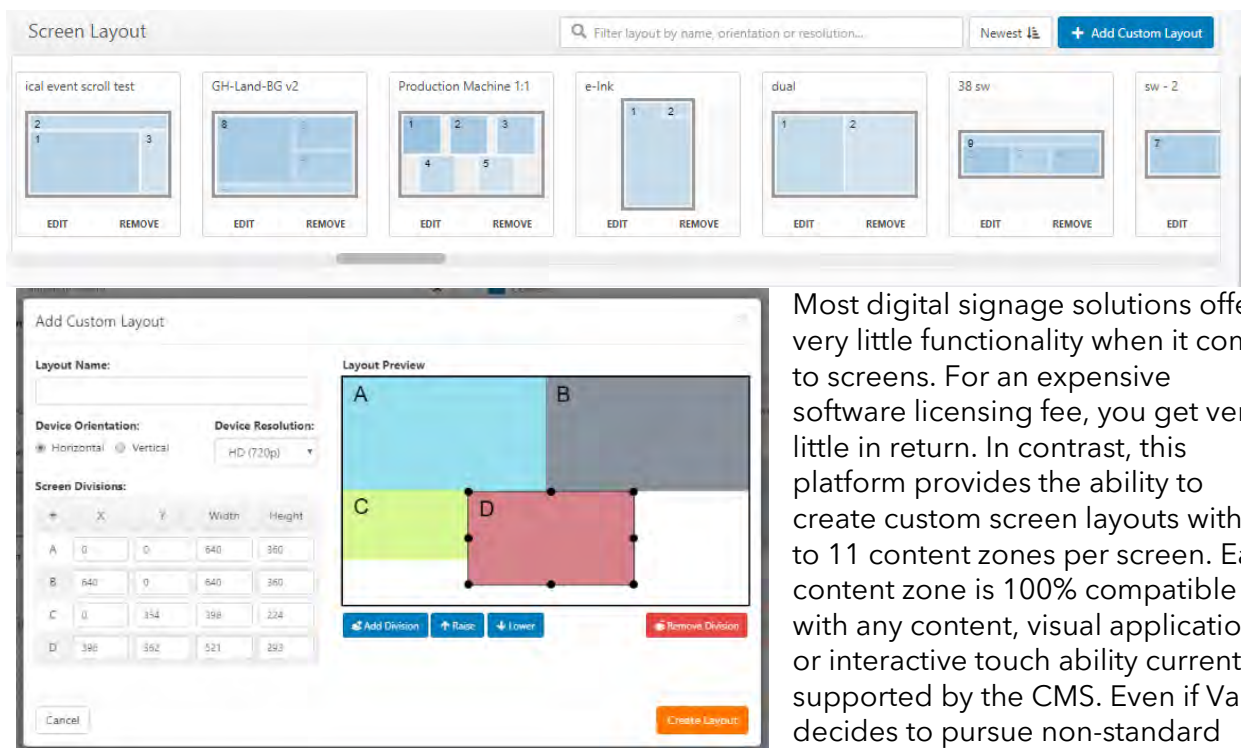
Service Architecture

MP.TV is a cloud-based service that leverages the power of the MP.TV controller's local content cache to provide resilient operation even during extended periods of lack of internet connectivity. This also allows MessagePoint Media to be extremely efficient with bandwidth since all content items are downloaded to the local content cache in the background and only have to be sent once.

The MessagePoint.TV architecture and it is supporting Visual Apps are implemented using an "Offline First" design paradigm wherever possible. In its simplest form this means that any request for data is first served by locally cached data wherever possible. If the data is dynamic the application will opportunistically attempt to update the data in cache in the background and then trigger the foreground app to update its display based on the new data after it is received.

CONTENT PUBLISHING AND CAMPAIGNS

Customizable Layouts

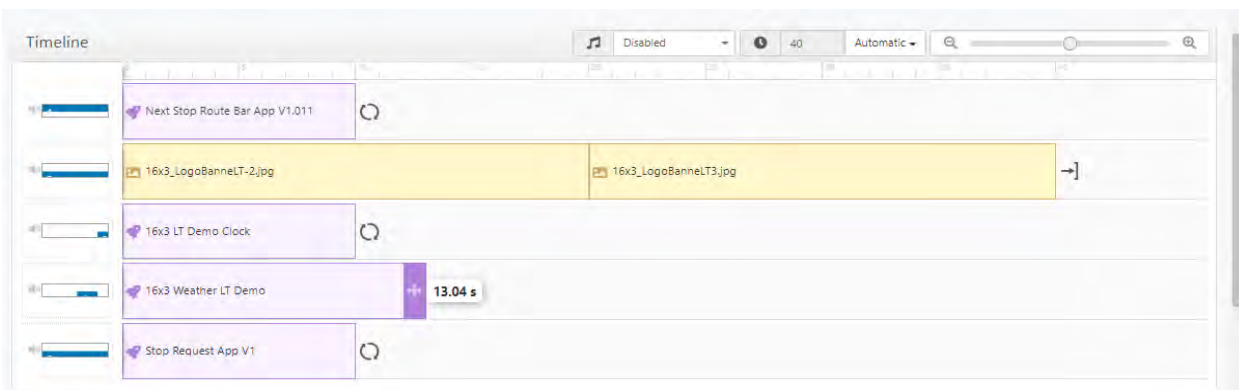


Most digital signage solutions offer very little functionality when it comes to screens. For an expensive software licensing fee, you get very little in return. In contrast, this platform provides the ability to create custom screen layouts with up to 11 content zones per screen. Each content zone is 100% compatible with any content, visual application, or interactive touch ability currently supported by the CMS. Even if Vail decides to pursue non-standard screen sizes in future designs, the

platform is flexible enough to dynamically integrate with any display resolution or aspect ratio natively, without the need for additional development. New content layouts are created via the intuitive, easy to use drag and drop tool. This functionality is in-built because the CMS is not a proprietary solution for a proprietary screen, but a custom developed solution built on top of a powerful existing platform that powers tens of thousands of screens worldwide.

Simplified, Dynamic Campaigns

Once a user has finalized a content layout, they can begin populating each of the content zones with a host of media options (images, videos, HTML, Social Media, RSS Feeds and much more) from the platform's embedded file management interface. Simply drag & drop cloud stored media assets (or upload new files) directly onto the campaign timeline. The timeline module provides an at-a-glance view of content in the campaign rotation, divided by each content zone.



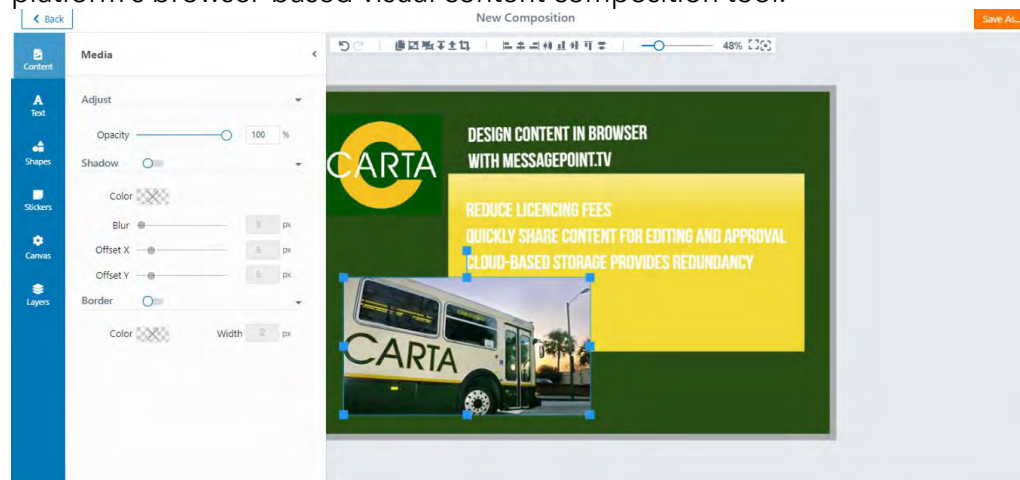
Each artifact in the content feed is intuitively adjustable via a sliding bar. By default, content will automatically loop when it reaches the end of its timeline but can be configured for single rotations. This feature is useful for dynamically triggering content real time content such as announcing next-stop, arrivals/departure alerts, and other time-limited-service alerting.

Content Scheduling and Publishing

MessagePoint's solution provides content scheduling capacity which fulfills the basic requirement for time and date. Campaigns also have the capacity for auto-expiration at setup to ensure seasonal or timely information does not persist after the relevant time-period. In addition, the solution features advanced content scheduling according to dynamic conditions, such as weather, the outcome of a local sporting event, or localized triggers. This dynamic content scheduling is especially useful if an agency intends to use any screen space for advertising, as your advertisers can create campaigns that respond to real-time information. All content campaigns are published remotely from the web interface to the screens in near-real time. Simply click publish and the integrated controller of your screen will incorporate the new content.

Cloud-Based Content Design Tools

Every modern CMS should support the upload, hosting, and a display of a large variety of customer created files. However, one unique feature that sets MessagePoint.TV apart is the platform's browser-based visual content composition tool.



Using this tool, Vail can leverage the power of the platform to quickly collaborate and design content for campaigns without ever leaving the content management ecosystem. The interface is easy enough for even the most design-averse office professional, with the ability to drag/drop existing content, adjust backgrounds/canvas size, incorporate text, group artifacts, and create layered compositions. While the tool may lack the power of an industry leading graphic design software, it provides a stable, easy to use interface that is robust enough to support branded service announcements and other typical use-cases for transit agencies. The composition tool provides Vail with the ability to reclaim the costs associated with licensing commercial design software.

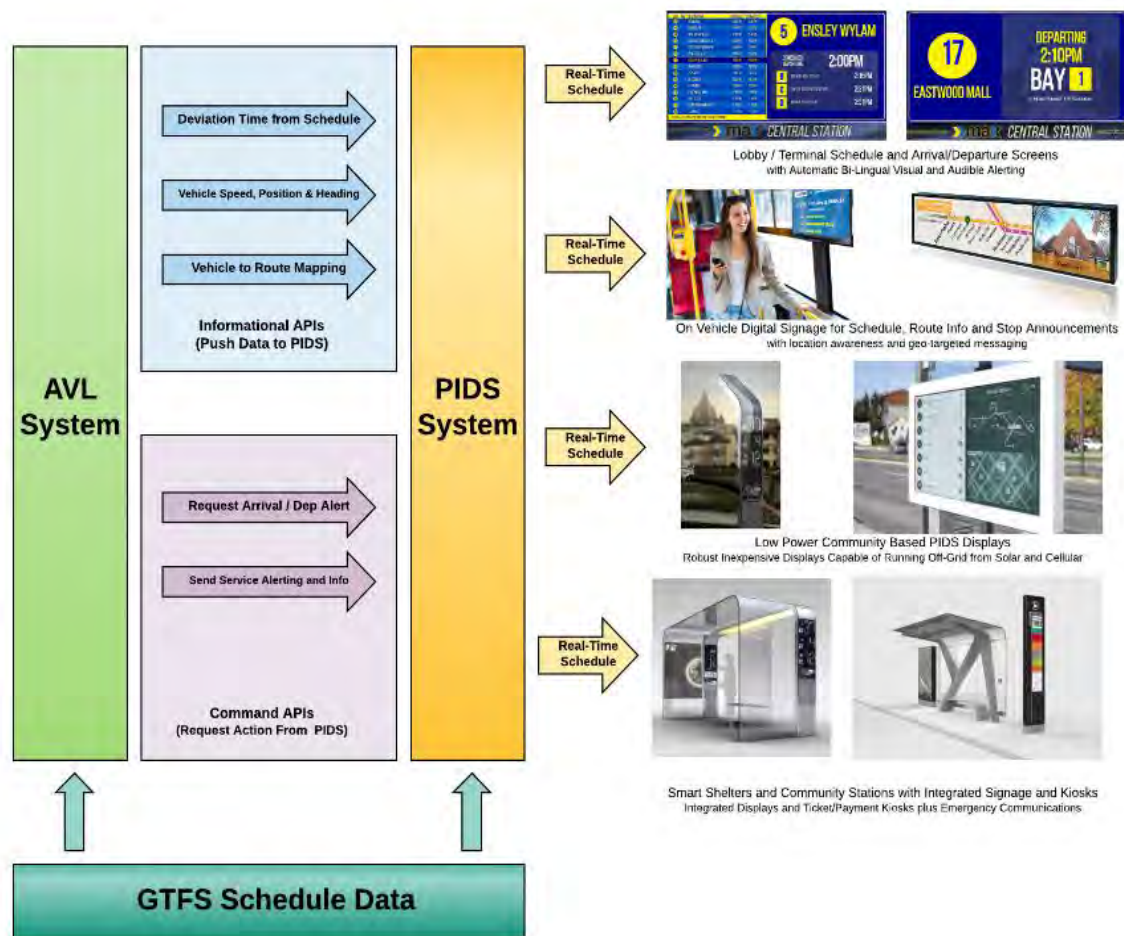
Industry Leading Visual Applications

The Content Management System comes with a continuously growing selection of powerful visual applications. These applications are fully customizable, with the ability to integrate and display information from internal data feeds, 3rd party data, and IoT sensor information using REST APIs. MessagePoint does not hide TransitPoint applications behind a paywall, every TransitPoint application is included with the service. MP.TV's integrated set of visual display apps is one of the most robust in the industry offering a broad set of built-in applications including:

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> • Weather • Stocks • Trivia • Multiple Calendars • Multiple RSS Feed Viewers • Content Rotators • URL Display • Streaming Video • Webcams | <ul style="list-style-type: none"> • Countdowns • Detail and Banner Event Calendars • Social Media Displays • Airport Flight Info • Bike Share Availability (Supported Services) • Image of the Day / Week / Month / Hour | <ul style="list-style-type: none"> • Local (USB) Camera Display • Wi-Fi Info Display App with QR Auto-Configure • Animated Slideshow Apps • Emergency Alerting System • Welcome Visitors App |
|--|---|--|

Real Time Information Integration

The Content Management System uses powerful visual applications to embed any type of Real-time content that is required, including transit specific and more general real-time information driven applications. It also comes with dozens of existing visual applications going far beyond the normal clocks, RSS feeds, and weather apps, along with the ability to coordinate with Town of Vail for the creation of Custom Visual Apps that can be embedded into the platform using simple familiar HTML5 tools. In addition to support for GTFS/GTFS-RT, MessagePoint Media's signage solution supports the Passio Native APIs.



3rd party Data Integration

The CMS platform has the ability to dynamically ingest information from the web. If it has a publicly listed URL, RSS feed or an accessible API, MPTV is able to display it. In addition, these data sources can be used to dynamically trigger content based on environmental conditions. This capability allows the broadest flexibility in triggering public service announcements and tailor them to your agency, including interfacing with other public services and even other private organizations in Vail.

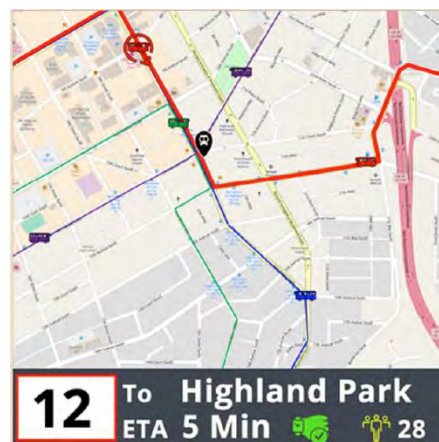
Emergency Alerting



Emergency Alerting is implemented through a dedicated Mobile Web App that supports 4 unique alert campaigns or can be integrated with any external alerting system that can use Webhooks. The alerting system supports custom emergency text entered on the mobile app at the time the alert is triggered. These alerts can immediately preempt content, both globally and in a pre-defined subset of the screens in the network. In addition, the Emergency Alerting app provides an Open API to integrate with other Alerting systems such as CAP.

GTFS Route Map

The visual app catalog includes a robust live map feature which can incorporate information for any CAD/AVL provider or use public information. For this offering, MessagePoint will deliver this solution using Passio's API to deliver highly accurate, granular route information and incorporate their arrival time predictions. This app is also capable of integrating information from APC data and vehicle API feeds to provide information for passengers about available passenger capacity or vehicle specific amenities such as bike racks or Wi-Fi for a given departure.



Accessibility

When it comes to ADA requirements, MessagePoint believes that compliance should not be synonymous with complacency. While the solution offers standard compliance features such as ADA call-buttons with speech to text, MessagePoint Media feels compelled to build additional accessibility into the design. They also include high contrast, large font configurations of standard announcements that can be dynamically triggered. The text to speech engine can also be configured to provide accessible information for up to 27 languages, a necessity for an international destination for tourism

Web/Social Feeds

The platform integrates with data feeds and social media accounts. This data can be incorporated into the signage solution via a CMS with existing or custom visual Apps. In addition, the platform can monitor relevant hashtags for community engagement with an integrated default white-list or default black-list content moderation feature.

Advertising Plus Add-On

With the Advertising Plus Add-On (<http://mpm.to/adplus>), MessagePoint Media is providing a complete sub-system designed to support a robust advertising and sponsorship model. They don't stop with supporting advertising content, or even geo-fencing advertising. They provide a robust model that will let agencies successfully compete for advertising dollars and/or attract the best ad sales partners. Some of the features include:

- **Proof of Play**
- **Split-Placement**
- **Flash-Ads**
- **Automatic Scheduled Content Rotation**
- **Dynamic Triggers**
- **Location Based Ads**
- **Dynamic Response System**
- **Co-Managed Support Level for Advertising Content**

The granular permissions and access control inherent in the web platform allows Vail the ability to give limited access to its advertising partners to individual content zones within campaigns, which will allow third party advertisers to update their content while leaving your passenger information undisturbed.

Software Based Remote Monitoring

As stated in section 1.1, remote monitoring requires multiple redundancies to avoid “silent failures,” and the Content Management System plays a key role in that endeavor. MessagePoint’s content management platform and their onboard hardware both provide several remote monitoring capabilities for internet connectivity, remote screen viewing, and hardware monitoring. In the event a screen experiences a service outage, a service email is immediately generated for both the customer and MessagePoint’s internal support team. The content management system provides the health and connectivity information of your network at a glance in browser and allows the user to remotely control the on-board controller unit for troubleshooting.

Player Status		Player Events	
Player Name	X - BG Office	Played Campaign	GH - CH Dep Single
Campaigns in Player		Played Campaign	GH - CH Dep Single
Campaigns Playing Now		Played Campaign	GH - CH Dep Single
Discovered Campaigns		Played Campaign	GH - CH Dep Single
Settings		Played Campaign	GH - CH Dep Single
Integrations		Played on-demand campaign	SJCTA PIDS Audio Dep Test
Permissions		Played on-demand campaign	SJCTA Lobby Arr or Dep Dev Server
		Interrupted campaign before end	GH - CH Dep Single
		Played Campaign	GH - CH Dep Single
		Played on-demand campaign	SJCTA Lobby Arr or Dep Dev Server
		Played on-demand campaign	SJCTA PIDS Audio Dep Test
		Interrupted campaign before end	GH - CH Dep Single
		Played Campaign	GH - CH Dep Single

Controllers (Players) establish an outgoing HTTPS tunnel to the Management Server at startup. This is referred to as the “Fast Channel”. The Controller sends regular heartbeat updates, playback log information, and performance metrics to the server via this channel on a regular basis that can be adjusted, on a per player basis, on the player settings screen. If the player fails to check in on schedule the console will mark the player as offline, and an email message will be sent to the defined admin users after the configured offline time threshold value on the player settings is reached. In addition, the player will report errors playing content to the management UI which will generate immediate email notifications. Error logging, online/offline status, and performance metrics can all be accessed via the MP.TV Management Web UI.

ON-BOARD

MP.TV Mobile Intelligent Displays

MP.TV Mobile Intelligent (MPTV-M Series) displays are designed from the ground up to provide outstanding performance in a compact, reliable, self-contained package. Instead of building on top of a complex design based on a central Intel PC Architecture computer, a general-purpose operating system, and a network of dumb monitors, the MP.TV mobile display is built on top of the same proven solid-state RISC (Reduced instruction set computer) based technology that powers today's most advanced tablets and smartphones. This allows for more flexible installation options and easier service.

The MPTV-M displays are easily installed on any bus, only requiring access to 8V-36V DC power and onboard Ethernet or Wi-Fi from the Cellular Gateway. For vehicles without a cellular gateway, the M series display can be outfitted with its own LTE Modem internally.

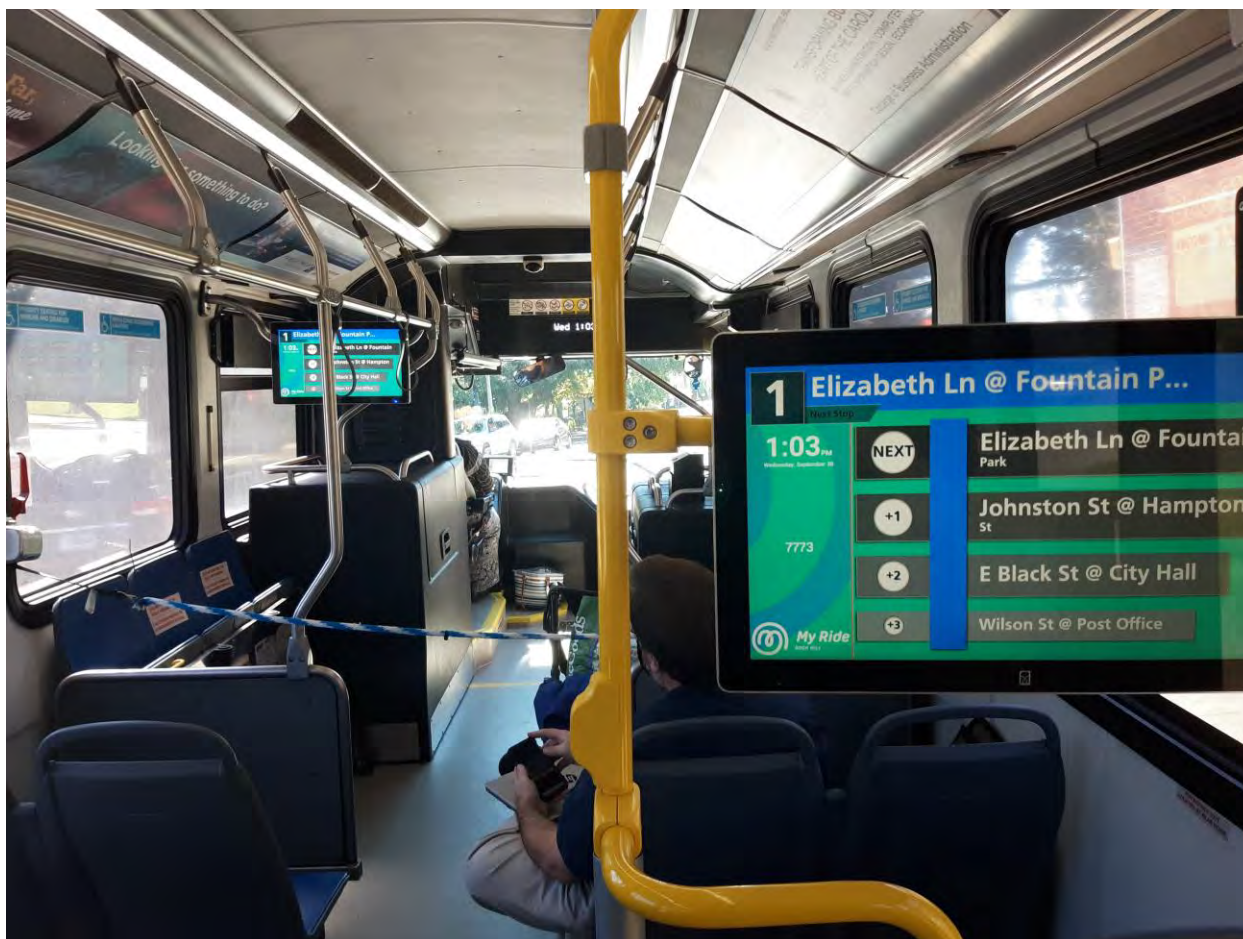
Advertising with Infotainment Displays

Vail has stated that they intend to pursue advertising as part of their Mobile Infotainment solution. Any on-screen solution has the potential to support this endeavor, but MessagePoint's CMS allows Vail to enhance revenue while avoiding the pitfalls that create a system that riders tune out, or worse begin to resent. MessagePoint's platform allows agencies to adhere to the following best practices:

- 1) **NEVER remove the transit-related information** from the screen. The CMS allows screen allocations to be compartmentalized and prioritized in infinite combinations.
- 2) **Geo-Fencing content** is a revenue maximizer. Advertisers will gladly pay less to be displayed only at relevant times along a route. While each individual advertiser may pay less, the volume can be expanded, increasing overall revenue. A solution without geo-fencing is leaving money on the table.
- 3) **Dynamically Trigger Content** based on external conditions. If its cold outside, the local coffee shop might like a spot, if its hot, the ice cream parlor.

MPTV-M24 24-Inch Intelligent Mobile Display

The low-cost option for onboard infotainment is the level 21.5-inch (Diagonal) display is a full HD display packed with over 2 Million pixels and 700 NITS of high-brightness display. This translates into a razor-sharp display that makes even complex animations and data crystal clear, even on the brightest days. A mirror port allows the master display to drive an additional mirrored display at full HD resolution. The integrated controller sports a Quad Core CPU and a Quad Core GPU, supported by 8Gb of onboard storage, expandable to 256Gb for caching display content and data. This means MessagePoint can download content once and play it whenever it is needed, even if Internet is unavailable. This little powerhouse is also packed with connectivity with built in support for Gigabit Ethernet, 802.11n Wi-Fi, Bluetooth 4.0 and Low Energy, as well as optional 4G LTE, GPS, and IoT interfaces. It even supports being mounted in a portrait / Digital Poster orientation for narrow spaces.



MPTV-M27v 27-Inch Intelligent Mobile Portrait Display

When it comes to Stanchion mounting, it is hard to beat this 27-inch vertical display. This display provides native 4k 16:9 resolution at 700 NITS of brightness with the utmost clarity. The Portrait form factor functionally allows you to have around 2.5 FHD monitors worth of content, giving you plenty of space to display route ladders, service announcements, infotainment, and advertising.

MPTV-M37w 37 Inch Super Wide Intelligent Mobile/Indoor Signage Display

The 37" (Diagonal) display is an HD marvel that packs a 35 Inch Wide display into a package only 12 inches in height, less than the M22. With 700 NITS of brightness and a 4000:1 contrast ratio, this screen is typically mounted in the center aisle, typically replacing the standard LED destination sign. This display is a real problem solver, as it provides a wider form factor that allows for convenient and versatile content layouts. Its thin form factor means it can be mounted in locations where a normal display just won't fit.



SUPPORT OVERVIEW

Providing Managed Customer Service, Not Just Product Support

Support offerings are at the core of MessagePoint's service, and what sets them apart from every other provider of digital signage type service in the market. MessagePoint brings the proven Managed Services model from the Information Technology space to your digital signage network. At whatever level your agency requires, they are available to act as an extension of your team over the life of the network. Their developers are continuously improving and extending the platform with enhancements that are available to all clients. Depending on your Support plan, MessagePoint provides day-to-day content management and creation support as well.

Proactive Update Support and Monitoring

This includes enhancements and reactive support for the MP.TV visual apps, the MP.TV platform, and hardware. MPM provides proactive monitoring and management of your system including the MP.TV visual apps, and the MP.TV platform itself. MessagePoint will watch the availability of your controllers and act when controllers fail to check in. They also perform updating and patching of the MP.TV Client. MessagePoint will review the underlying O/S for vulnerability patches. It gives you access to the MP.TV content and development teams on a preferred basis for on-demand services. In addition, they provide first level support from a US and Global team that allows them to provide 24x7x365 support coverage. They also provide full support and maintenance on the MP.TV controllers for the life of the contract, including replacement and upgrade protection, as needed.

Content Management

This is where MP.TV really begins to stand apart from other offerings and is one of the key benefits that clients enjoy. With only some basic restrictions to prevent abuse, you have unlimited ability to submit content. As part of your subscription the MessagePoint Help Desk will perform unlimited Adds, Moves, and Changes of Agency content for your signage channels. This means that rather than having to train dozens of staff on updating content, you can simply let them email the updated content to the MessagePoint support team and include instructions, like where to put it, when to show it, and when to remove it.

MessagePoint takes it from there and fulfill the requirements of adding, scheduling,

managing, and removing the content. In other words, you create the content, and they do the rest. Of course, if you want to be trained and do your own updates, MessagePoint is happy to do that, but with this service you never have to do so.

Content Creation

As part of the co-managed support subscription, MessagePoint will build instances of the standard and MP.TV produced display apps for you, as needed for an application. They can build and publish channels for you. They even include a set of content credits with each screen on their fully managed support level. You can use these to have their team do content production, including images, video, and animation, from their library of content templates. That way, you can just send a general concept and let designers take it from there. This is truly hassle free hands-off Digital Signage. You can simply concentrate on your messaging and let MessagePoint do the rest.

SUPPORT TIERS

Self-Managed (Base) Support

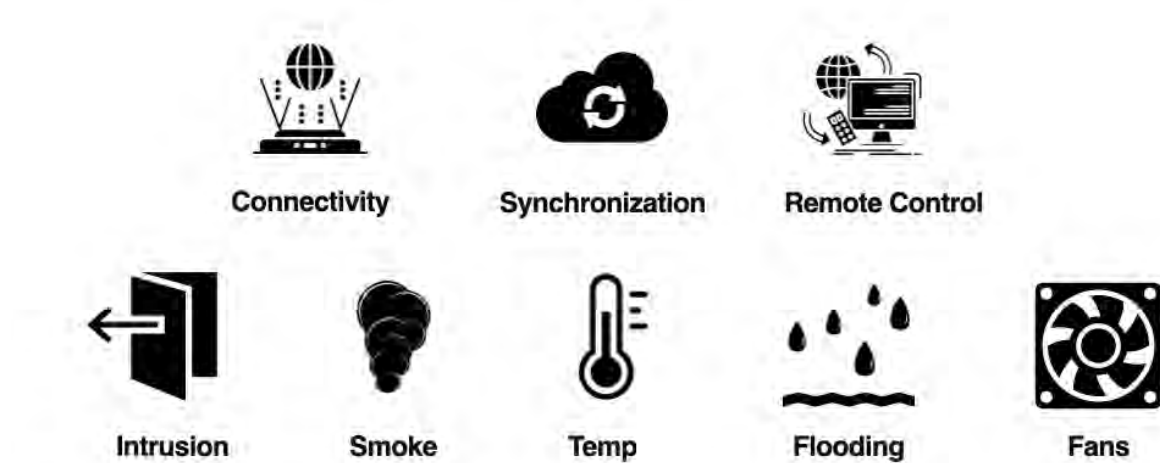
At this level, once you are trained on the system, the MessagePoint team steps back into a support role. You still can leverage their support team for both functionality and usability support questions. They provide regular webinars for your staff and a once a year no-cost design and usability review meeting with your staff to make sure you are getting the most out of the system. Finally, because MessagePoint knows life happens, they provide Two Weeks per year of their Co-Managed level support on-demand. If your operations staff is out sick, on vacation, or turns over, your network won't suffer. They can step in and temporarily manage the network for you, so you will not miss a beat. At this support level Message Point delivers the following elements of the signage operations stack.

Co-Managed Support

This level is for organizations who have a good creative team to create content or don't anticipate needing a lot of content creation, but don't want to have to dedicate the time and I.T. resources to manage their signage network. Co-Managed customers can simply submit content via e-mail to the MessagePoint help desk and they take care of the rest, handling all the programming, scheduling, and content management. They also take responsibility for monitoring, updating, and managing all the controllers and interfaces to ensure that your network stays up and running. At this level MPM takes on responsibility for these additional elements.

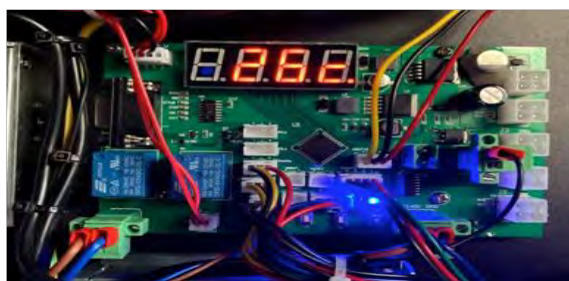
Fully Managed Support

Fully Managed Support is truly hassle-free concierge digital signage service. Not only does MessagePoint provide all the support outlined, but they provide a monthly budget for content production that can be used to create images, animations, or video to run on your network from their design team. You can even use the same content on your website or social media as well. At this level MPM adds these additional elements to their support.

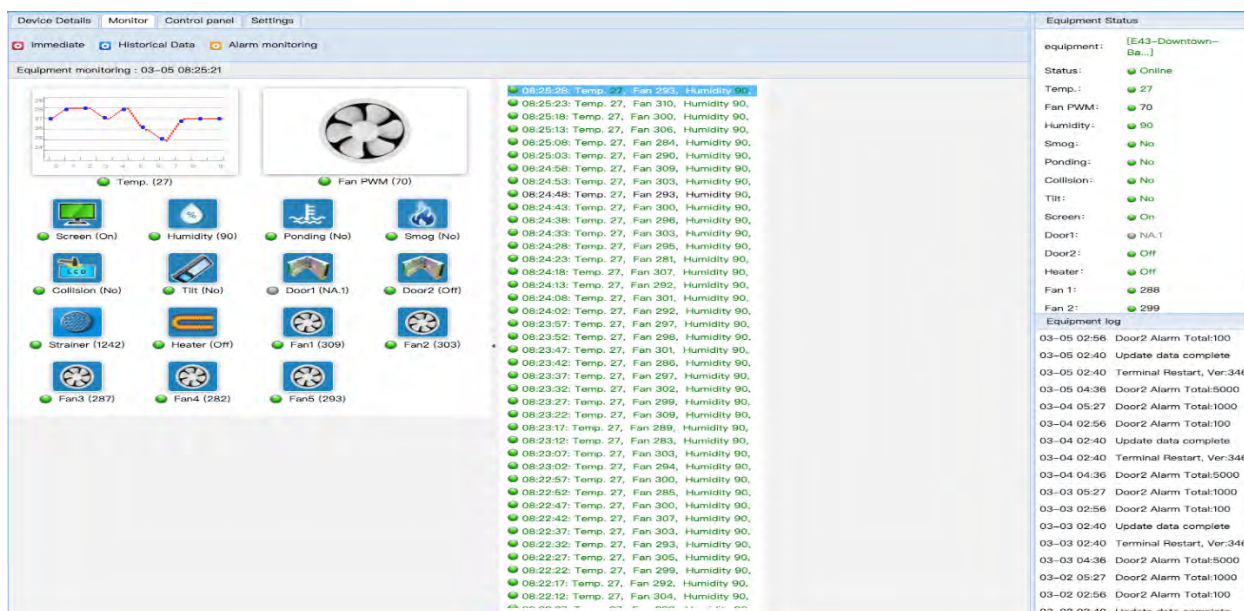


The OMC (Outdoor Management Console) environmental monitoring and management sub-system is a full-spectrum platform for maximizing resilience and up-time for Outdoor LCD displays in harsh environments. The system consists of three main elements. The first is a dedicated OMC (Onboard Management Controller) board installed inside each display. This board provides a dedicated sensor management and measurement platform with connections for all the onboard sensors and inputs in the display enclosure.

The OMC connects to the hardware controller via USB and interfaces to a dedicated supplemental background application called the ODM (Outdoor Display Manager). This application receives all the inputs from the OMC and can take proactive action to protect the display. This can include things as simple as activating the heater module based on the ambient temperature to switching off the LCD panel to prevent damage if the temperature inside the enclosure exceeds the max safe operating temperature. It is also able to take more complex multi-step actions such as the Active Anti-Vandalism Service Component. The third component of the system is the OMC Cloud Management Console. This system operates in a bi-directional mode with the ODM application (and by association the OMC Controllers on each display).



This system can provide aggregated health data on a sensor-by-sensor basis for all your displays in the system from a single interface. It can send e-mail alerts to Vail personnel if alert conditions are met. However, the system also can remotely control the displays via the ODM and OMC. It can turn off the LCD Panel to save power outside of operating hours. It can take screenshots or pictures with the camera. It can perform remote reboots, and much more.



The OMC Console is a Web Based application hosted in Message Point's Server infrastructure. It aggregates an intuitive bird's eye dashboard of information from all OMC enabled EX displays and provides alerting, remote monitoring, and remote management functionality across the entire deployed network of displays.

Active Anti-Vandalism

Many of the MessagePoint displays feature a unique Active Anti-Vandalism System (AAVS) which discourages vandalism. Integrated vibration and tilt sensors detect dangerous thresholds that indicate possible vandalism. This triggers a configurable Text to Speech auditory warning to the individual and then uses the integrated onboard cameras to upload an alert, complete with photos of the environment, to the OMC Cloud Management console. The system also includes an integrated camera for displaying real-time video to potential vandals to let them know the area is under surveillance without requiring any other external systems.

Lifecycle Management

MessagePoint will provide procurement and maintenance services for the duration of the contract lifecycle, including delivering design requirements to their network of contract manufacturers, providing integrated logistics support, and providing field service for routine and emergency maintenance. MessagePoint will retain all procurement documentation including invoices, shipping, and warranty information and provide to the city upon request.

Hardware Updates

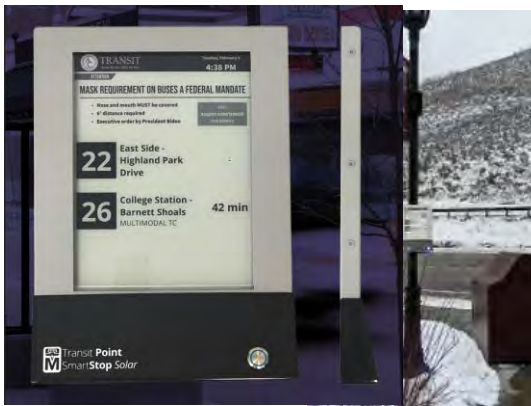
MessagePoint's team frequently innovates new functionalities for their customers. Their service model and signage platform provide an avenue for all customers to share in the benefit of these solutions often without additional software or subscription purchases. This can be new services to leverage existing sensors and equipment or new styles and functions for existing applications. Because MessagePoint employs the design principles of mass customization and modularity in their hardware, the Town of Vail can quickly and affordably roll out new functionality even in use cases that may require new elements/sensors.

MPTV-EX37sw & EX28sw Superwide HD Intelligent Outdoor Signage Display

The EX37sw is a superwide 37" Extreme Outdoor Ruggedized Intelligent Display. This model provides a 2000NIT sunlight-readable display. The model is equipped with a powerful integrated MP.TV controller that provides a wealth of connectivity and content triggering options. Connectivity to the cloud is provided via High Sensitivity 802.11n Dual Band Wi-Fi or Gigabit Ethernet and can be equipped with an integrated multi-band LTE 4G module.



Its little brother, the EX28sw provides the same features and functionality in a smaller footprint and lower cost, making it a great option for budget conscious agencies or for environments that have architectural constraints.



MPTV-E13lp Low Power E-Ink Display

The MPTV-E13lp is built around a 13.3" Flag design E-ink screen with an extremely high resolution, 207 dot per inch pixel pitch, 2200x1650 resolution. The display also uses a plastic substrate versus a glass substrate which provides some level of flexibility, which helps improve the reliability and resistance to breakage. The display is then covered with a six-millimeter anti-reflective tempered safety glass cover for reliability.



MPTV-E43 Intelligent Outdoor Signage Displays

These vertically mounted 43" Intelligent Displays provide a 2000NIT sunlight-readable display. The model is equipped with a powerful integrated MP.TV controller that provides a wealth of connectivity and content triggering options. Connectivity to the cloud is provided via High Sensitivity 802.11n Dual Band Wi-Fi or Gigabit Ethernet and can be equipped with an integrated multi-band LTE 4G module.

MPTV-EX39swkv Dual 39inch Vertical Outdoor Interactive Kiosk

For more crowded platforms, MessagePoint recommends a different approach. The triangular shaped dual screen vertical kiosk provides a vertical form factor that can provide information for two separate bays simultaneously. In addition, this unit can substitute any combination of LED panels and LCD, including 4k, giving a wide range of options for the displays. This kiosk's dynamic triangle shape and height allows users to gain information from a distance, while its angle provides a 300-degree field of view. LCD screens can also be converted to touchscreen to allow interactive wayfinding for riders.





Wi-Fi

Passio offers Wi-Fi installation on any vehicle. Improve the passenger's journey by providing free high-speed Wi-Fi. Usage reports can be pulled from Passio Navigator at any time. Customer terms and conditions, permissions, access points, and time limits can be managed.



Wi-Fi

Main Features

Reporting

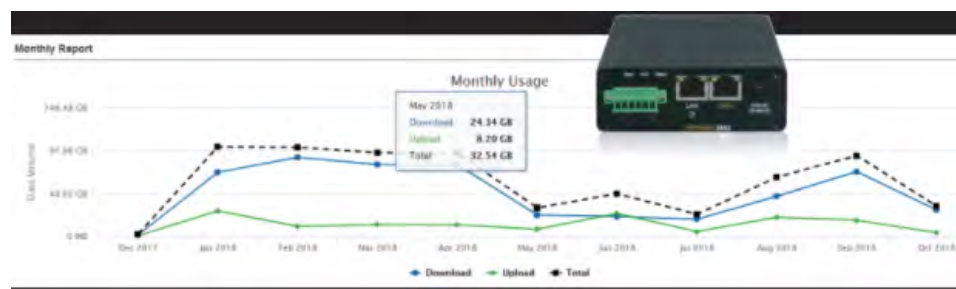
Wi-Fi usage is automatically reported to Passio Navigator and can be viewed in a chart format. Data usage can be viewed by the month, displaying download, and upload data.

Hardware

We use Pepwave devices to allow for Wi-Fi use on vehicles. The Pepwave contains built-in GPS tracking while linking to our cloud-based management system, Passio Navigator. Your agency or Passio can remotely manage the Wi-Fi system.



Passio's Mobile Wi-Fi solution is certified for rugged environments and transit deployments. Provide your passengers with reliable high-speed Wi-Fi using the 802.11ac wireless networking standard.



Passio OnBoard Wi-Fi Reporting

Passio's Wi-Fi solution is certified for rugged environments and transit deployments. Provide your passengers with reliable high-speed Wi-Fi using the 802.11ac wireless networking standard. The routers are managed and configured remotely by Passio's support team. Using the Customizable Captive Portal bandwidth allowance, terms & conditions and access duration per user can be set for all devices.



Highlights

- Cloud-based device management & monitoring
- VPN configuration for remote management and bandwidth monitoring
- Firmware management
- Enterprise-ready
- Configurable backups
- Comprehensive reporting interface
- Intelligent notifications

Security

- Stateful firewall
- DoS prevention
- Web blocking



The Pepwave MAX is equipped with a terminal block for secure power installation in vehicles and other locations. Built-in GPS fleet tracking and cloud-based management enable Passio to use the device for AVL redundancy and to manage the mobile network. Redundant SIMs can be used for additional data or multiple carriers if needed.

Passio's Mobile Public Wi-Fi solution incorporates reliability, full data controls and reporting, and remote hardware management.

- 1 – 60 Simultaneously Connected Users
- Router Throughput up to 65Mbps when using LTE
- 802.11ac standard
- 4.1 x 4.3 x 1.2 inches, weighs just .54 lbs
- 2 x SMA/Female Cellular Antenna Connectors
- 1 x SMA/Female GPS Antenna Connector (GPS antenna included)
- 1 x RP-SMA/Female Wi-Fi Connector
- DC Power 12V – 28V or Passive PoE Input, 12W Max Consumption
- Environmental Operating Parameters:
 - -40° - 149°F (-40° - 65°C), Humidity: 15 to 95% (non-condensing)
- Certifications: FCC, CE, RoHS EN 61000: Electromagnetic Compatibility





INSPECTOR

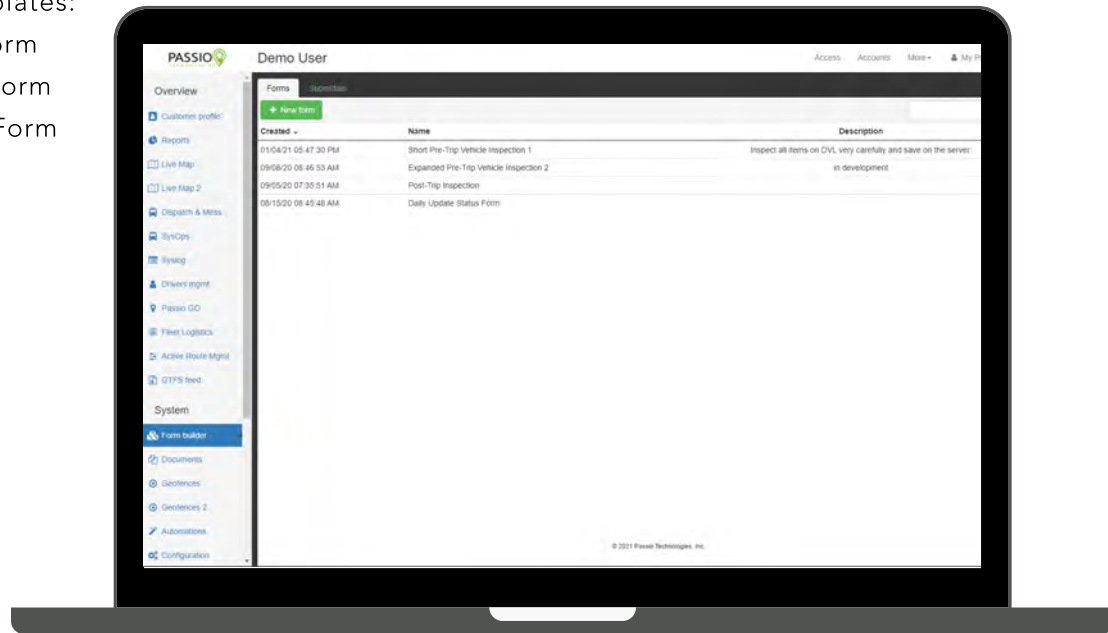
PASSIO INSPECTOR: MAINTAIN AIRTIGHT COMPLIANCE WITH E-DVIR (ELECTRONIC DRIVER VEHICLE INSPECTION REPORTING) AND THE PASSIO INSPECTION MANAGEMENT SYSTEM.



Passio Inspector is available within Passio Navigator:

Tailored Forms & Checklists. Create custom inspection forms for use by your operators. Including any custom variations of the following Passio templates:

- Pre-Trip Inspection Form
- Post-Trip Inspection Form
- Hot Swap Inspection Form
- Mini Inspection Form



Managers can view submitted items, dates, and results of each inspection:

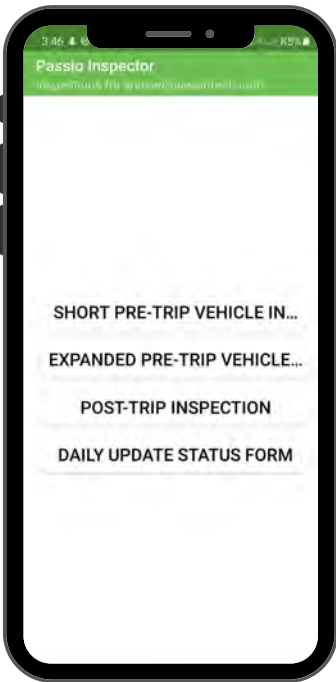
Customize your inspection forms to meet the exact needs of your operation. Designate the type of inspection item and which items are "required/mandatory" by the operator.

Name	Field type	Required
Vehicle ID	Vehicle Select	✓
CONTRACT #	Text input	
DATE	Date	✓
Operator name	Text input	
Operator signature	Signature	
Time Worked	Time	
Vehicle Exterior Checks	Vehicle Graphic	
All lights and lenses	Pass/fail	✓
Turn signals and 4-way flashers	Pass/fail	✓
Windshield wipers and washers	Pass/fail	
Brake System Checks	Header	
Cut in pressure	Text check	✓
Cut out pressure	Text check	
Low pressure warning	Text check	

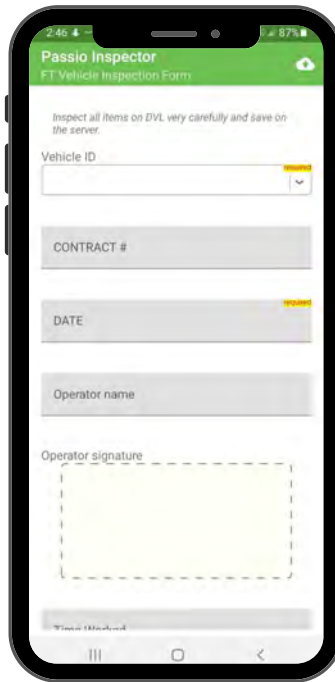
BASIC INSPECTOR WORK FLOW

- Operator performs inspection using Passio Inspector App
- Inspection Submitted for review
- Alerts & Reports Populated in Passio Navigator
- Inspection Detail Archived
- Maintenance performs repairs if required
- Vehicle Cleared Status Updated on next inspection

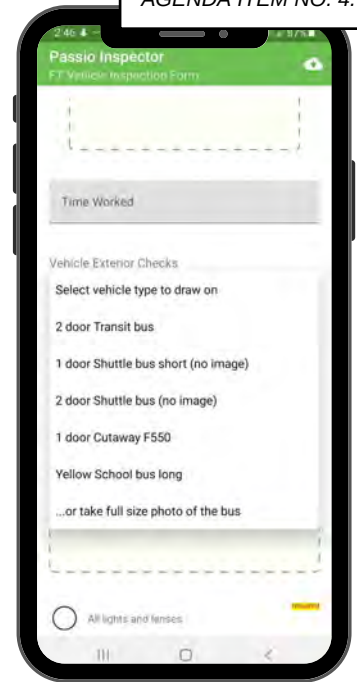
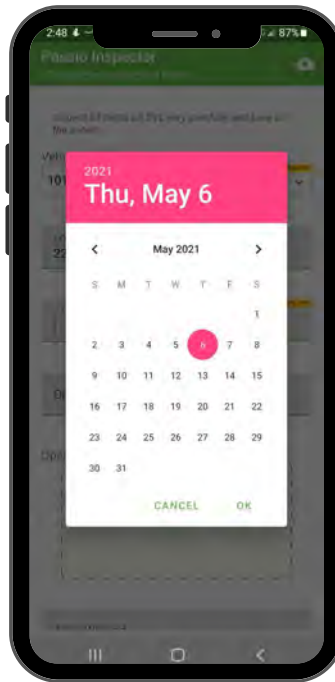




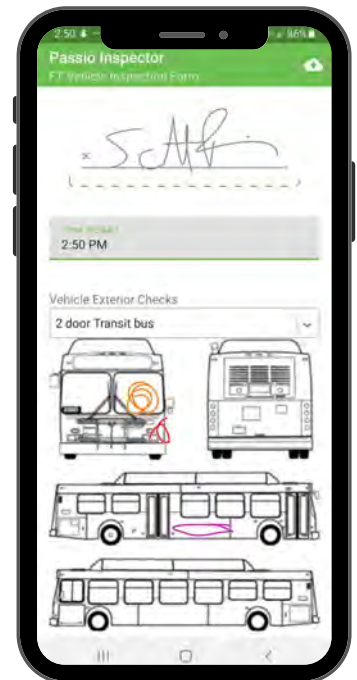
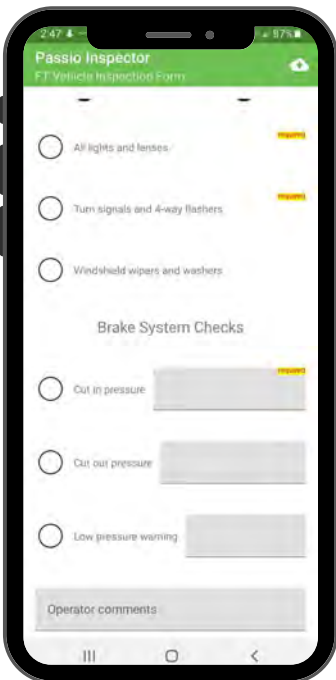
Operator selects inspection type to perform



Operator inputs initial requirements



Operator selects vehicle type to trigger additional requirements



Intuitive design for easy training and reliability
Tap and click indicators for each inspection item
Clearly communicate vehicle damage location using touch point graphics

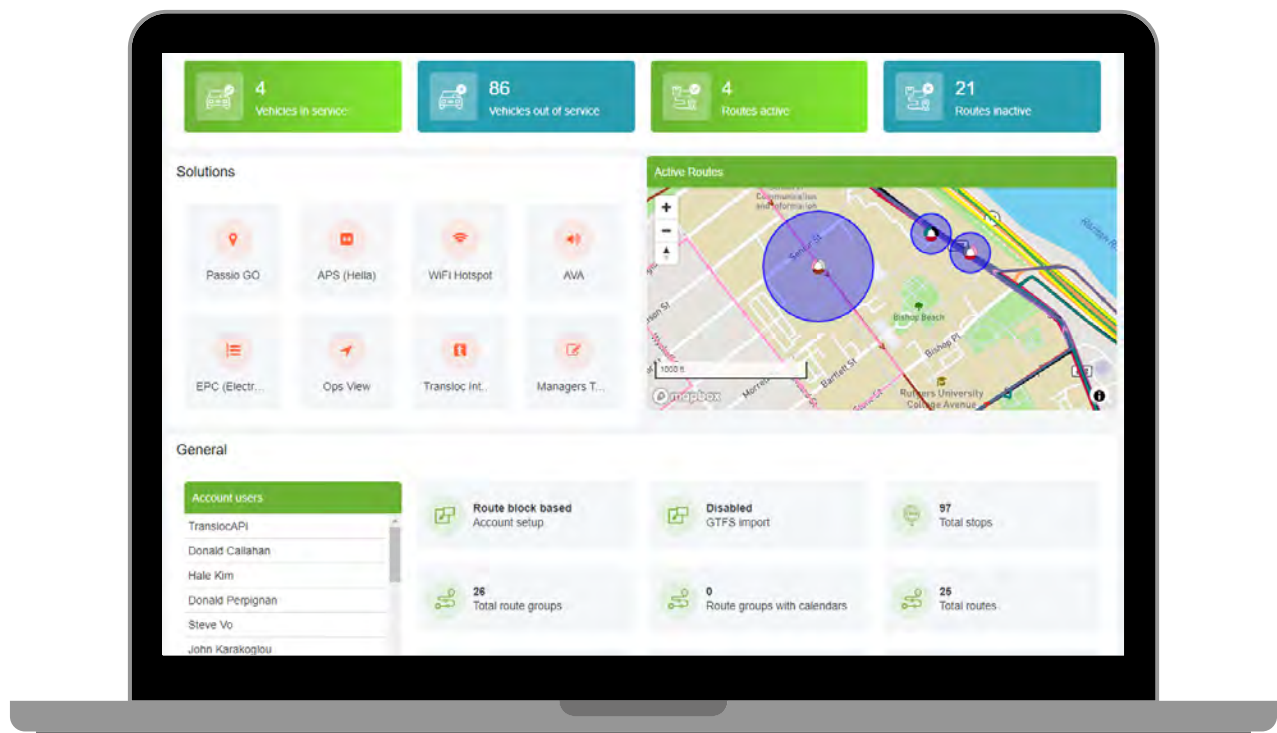


The Passio Inspector Reporting Dashboard within Passio Navigator.

Passio Inspector is an intuitive cloud-based solution to help you manage and track the inspection process end-to-end. Create custom inspection forms and manage reported defects electronically, helping you prove safety and compliance on the road.

Powerful Fleet Insight

Increase visibility into fleet operations. With inspection stats such as most failed inspection items and vehicles, you'll get a better picture of overall vehicle health and performance trends.



Real-time Dashboard within Passio Navigator



INTEGRATIONS

WE INTEGRATE WITH NUMEROUS HARDWARE DEVICES, APPS, AND EVEN OTHER SOFTWARE SYSTEMS TO MAKE BUSINESS EASY FOR OUR CLIENTS.

This section provides information concerning the available integration and customization services provided by Passio Technologies. Passio develops much of their technology in-house and uses their customers' needs and input to guide future innovation. We operate on a modular and open integrator model that allows us to seamlessly connect with other strong industry suppliers.

GENERAL INTEGRATIONS



FORESIGHT AUGMENTED REALITY

We integrate Passio GO, our passenger app, with FAR - wayfinding for the blind or visually impaired. FAR allows riders to have a full understanding of all of our app information, including routes, stops, ETAs, and more using Beacons (Advanced GPS devices)



GENERAL TRANSIT FEED SPECIFICATION (+ REAL-TIME)

GTFS and GTFS Real-Time (RT) are integrated with Passio systems. GTFS can be downloaded or uploaded in our system at any time to allow for full access to data and easy compliance



APPS

Passio integrates with Transit.app seamlessly, making it easier than ever to use our transit technology to communicate information to riders in multiple formats We also work with InsightSmartTRAXX, a rider communication system that also allows for real-time edits and options for an open API.



GOOGLE SINGLE SIGN ON

Passio integrates with Google SSO for easy seamless log-ins to all Passio solutions. Just another way we make managing your transit system even easier.

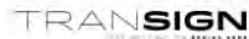


REI AUDIO AND CAMERA

We integrate with REI Audio and Camera systems for full monitoring on-board vehicles



LED SIGN INTEGRATIONS



TRANSIGN

These signs are able to be programmed to match Automatic Voice Announcements on board. No need to take signs down when a route or stop changes. LED signs are updated automatically in near real-time when information in Passio Navigator is updated.



LUMINATOR & TWINVISION

Passio integrates with a number of different LED sign hardware options. This option also allows for programing with AVA and updates over the air in real-time using Passio Navigator, instead of needing to do an update in person.



HANOVER

We integrate with multiple LED sign options to allow for an easy implementation of Passio's solutions. LED signs can be updated virtually which means no need to walk to a bus or plug everything in. This includes new routes or stops or AVA.

AUTOMATIC PASSENGER COUNTING INTEGRATIONS



HELLA

Passio uses multiple different Automatic Passenger Counting devices. All APC devices synch with our reporting dashboard Passio Navigator automatically with no need to upload or download information. APC counters also sync with onboard Mobile Data Terminals and our app.



IRIS

To make our systems and solutions easy to use, we integrate with Iris APC devices! All information can be updated over the air in real-time. New information is communicated to our MDT and other systems like app and LED signs.





TWILIO

We integrate with Twilio, a communication platform that allows for phone calls and text messages, as well as other communication options using the web.



ZONAR

Passio integrates with Zonar for easy to use GPS tracking systems.

OTHER INTEGRATIONS



AMAZON WEB SERVICE

All Paratransit & NEMT data is hosted using Amazon Web Service.



GITHUB

Passio integrates with Github, a software development platform to make any necessary edits while customizing solutions for our clients.

Major Medicaid brokers Passio is compatible with:

- LogistiCare
- Access2Care
- MTM
- National MedTrans (NMN)
- SoutheastTrans
- Veyo

Other trip brokerage services supported by Passio:

- SMS – Special Mobility Services
- Coordinated Transportation Solutions (CTS)
- MAS – Medical Answering Services
- Magellan Complete Care (MCC)
- MCCI
- PACE
- Provide-A-Ride
- Secure Transport
- TotalTransit
- Zoll
- QRyde
- Ride-Health

Passio is focused on creating the perfect combinations of solutions and technology for every transit system we work with. We integrate with other software providers to align with our mission of "Making Passengers Count". Please contact us to determine the exact software providers we are able to integrate with.

CUSTOMIZATION

We are adding to this list consistently by integrating, partnering, or building when the solution identified best meets our customer's needs. Passio is committed to keeping our programmable API fully documented for consumption and integration with any other system providing an API. Passio provides a real-time transit application programming interface (API), documentation, and JSON output for customers. The API includes real-time location data and the estimated time of arrival, as well as other system information such as passenger load. Passio API access is provided over HTTPS, and accessed from our secure site. Data is sent and received as JSON unless stated otherwise. Each Passio customer will own and have full access to system data throughout the life of each contract. In addition to data access via our API, Passio data is always available for export into common formats such as CSV (to XLSX) and PDF from Passio Navigator. If required by any agency, we could import Keyhole Markup Language (KML) data for any 3rd party GIS system. All customers are provided access to Passio's training documents, API documentation (JSON), FAQs, knowledge base articles, Powerpoint presentations, and training videos for their appropriate solutions. Passio uses electronic media and hosted webinars to provide documentation and training to our customers.

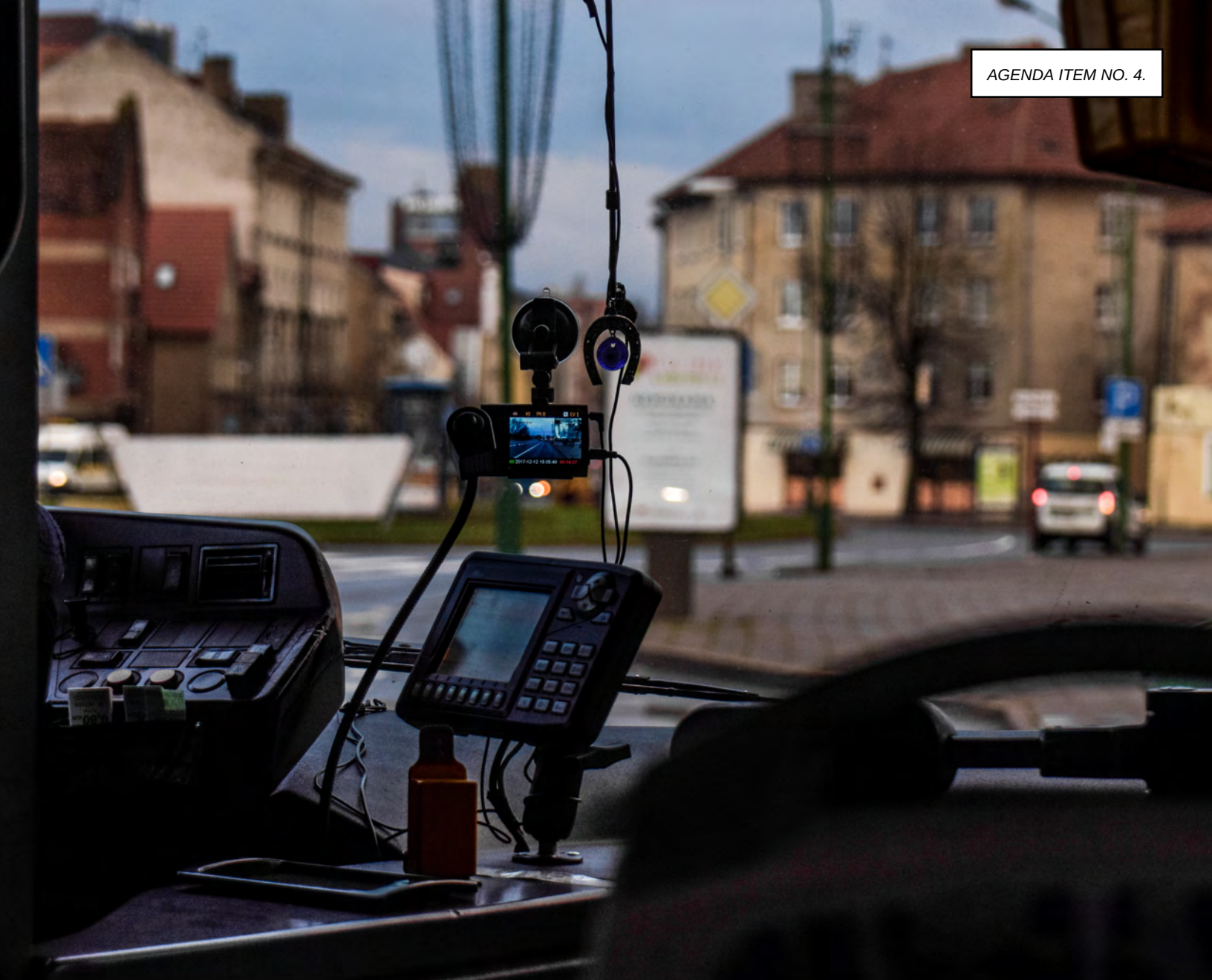
Our Passio GTFS Realtime is a feed specification that allows public transportation agencies to provide real-time updates about their fleet to application developers. It is an extension to GTFS (General Transit Feed Specification), an open data format for public transportation schedules and associated geographic information. GTFS Realtime was designed around ease of implementation, good GTFS interoperability, and a focus on passenger information. The Passio GTFS Realtime feed conforms to Version 2.0 of the GTFS-RT Specification.

Configuration and/or customization changes will not be affected by subsequent software releases. Passio's internal Quality Assurance protocols include comprehensive backend unit testing and interface user testing for all existing & new functions/features/customizations. Our skilled team of production and quality assurance professionals ensures all software releases meet and conform to these stringent requirements.

All software updates and customizations are immediately included in the existing software maintenance agreement.

Integration and/or customization services are charged by project and/or hourly. Estimated timeline and scope for such services will be outlined and agreed upon before notice to proceed on any customization services.





HARDWARE FOR ITS

Summary of all Passio equipment available for service implementation. The data collected using this proposed hardware is provided within our attached solution documents (when applicable). Listing of all hardware components available from Passio (or our partners) for ITS deployments:

- Mobile Data Terminals (MDT)
- Vehicle Logic Units (VLU)
- Automatic Passenger Counters (APC)
- Routers (Wi-Fi)
- LED Signs (Interior)
- Front Destination Signs (Exterior Facing)
- Side Destination Signs (Exterior Facing)
- Public Address Systems (PA)
- Video Surveillance Camera Systems
- Wheelchair Lift Deployment Sensors
- Bike Rack Deployment Sensors

We will provide complete tech specifications for each component if requested. The proposed hardware for this project is listed in our itemized Cost Proposal.



Transit MDT



Portable Transit MDT



Pepwave Router



Hella APS-B



CalAmp VLU



Technical Requirements

Our proposed software solutions are 100% web-based and optimized for Chrome and Firefox. Passio Navigator™ is accessible on any device supporting the listed browsers. Recommended Internet Speed should be five (5) Mbps or greater. The technical requirements for any selected options can also be made available prior to installation.

Passio Navigator Minimum Requirements (Workstation)

- Processor: Intel Core i3 or greater, AMD Ryzen 5 or greater, or Apple M1 Processor (CPU). 2.2 GHz or greater.
- OS Windows: Microsoft Windows 10 Home, Pro, Enterprise or Education version (x86 or x64)
- OS Apple: macOS 10.15.X "Catalina" or 11.X "Big Sur."
- Memory/RAM: 8 GB or higher.
- Video/Graphics: Integrated or Discrete graphics processor of 1440 X 900 resolution, or better.
- Monitor: 13" – 17" notebook display, 19" – 27" desktop widescreen flat-panel display.
- Network Adapter: 802.11ac 2.4/5 GHz wireless adapter.
- Internet Speed: 5 Mbps or greater
- Supported browsers: Chrome, Firefox, Microsoft Edge, & Safari

Passio GO Minimum Requirements (mobile)

- Operating System (OS): iOS 14.4 or newer, Android 5.0 or newer
- Hardware (iPhone): iPhone 7 or newer
- Hardware (Android): Any device running Android 5.0, or greater.
- Data Plan: 1 GB per month per device or greater
- Storage: 32GB or greater





SECURITY

SECURITY FROM THE PASSIO TEAM

We care about the security of your data within the Passio platform. We strive to make our data use durable, reliable, and secure.



Data Security

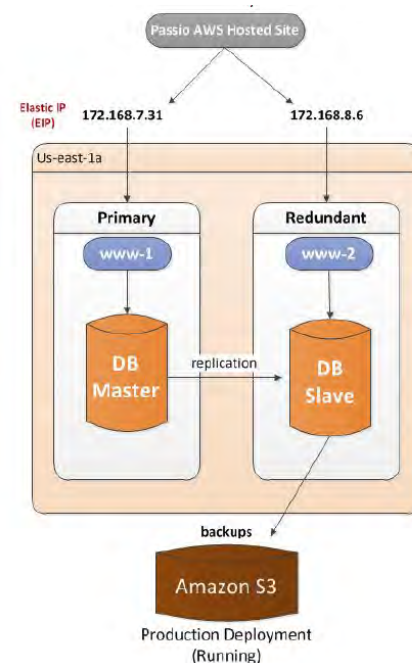
Passio Technologies offers a hosted solution on the Amazon AWS platform for our SaaS model and data storage needs. AWS provides redundancy of the business environment through shared, distributed hardware resources. We also maintain an active backup of the data and SaaS environment both locally and remotely.

Amazon S3

Amazon S3 (Simple Storage Service) provides a fully redundant data storage infrastructure for storing and retrieving any amount of data, at any time, from anywhere on the Web. Access to the customer accounts are user-specific with individual actions logged for transparency. Data transmitted is encrypted between the on-board devices and the server.

Data Durability and Reliability

Amazon S3 provides a highly durable storage infrastructure designed for mission-critical and primary data storage. Amazon S3 redundantly stores data in multiple facilities and on multiple devices within each facility. To increase durability, Amazon S3 synchronously stores your data across multiple facilities before confirming that the data has been successfully stored. In addition, Amazon S3 calculates checksums on all network traffic to detect corruption of data packets when storing or retrieving data. Unlike traditional systems, which can require laborious data verification and manual repair, Amazon S3 performs regular, systematic data integrity checks and is built to be automatically self-healing.



Amazon S3's standard storage is:

- Backed with the Amazon S3 Service Level Agreement for availability.
- Designed for 99.999999999% durability and 99.99% availability of objects over a given year. Designed to sustain the concurrent loss of data in two facilities.

Amazon Cloud

Watch Instant Status Monitoring With instance status monitoring, Passio can quickly determine whether Amazon EC2 has detected any problems that might prevent your instances from running applications. Amazon EC2 performs automated checks on every running EC2 instance to identify hardware and software issues.

- Status Check Every 2 Minutes
- CPU Utilization – Alert if utilization exceeds threshold for more than 15 min
- Disk Volume QueueLength (the number of read and write operation requests waiting to be completed) ≥ 5 for 5 minutes – Alert.



Results of status checks to identify specific and detectable problems are viewable within the dashboard. This data augments the information that Amazon EC2 already provides about the intended state of each instance (such as pending, running, stopping) as well as the utilization metrics that Amazon CloudWatch monitors (CPU utilization, network traffic, and disk activity).

Status checks are performed every minute and each returns a pass or a fail status. If all checks pass, the overall status of the instance is OK. If one or more checks fail, the overall status is impaired. Status checks are built into Amazon EC2, so they cannot be disabled or deleted.

Disaster Recovery Backup & Restore

Passio Technologies' cloud-computing platform is hosted on top of Amazon's AWS EC2 Service.

In order to protect our customer's data against disaster, we have implemented the following plan. Our primary servers' data is replicated across to redundant storage in the same Availability Zone. Backup snapshots are done every 10 minutes and stored in Amazon S3.

Amazon EBS Snapshots are used to save point-in-time snapshots of Passio volumes to Amazon S3. Snapshots provide immediate access to Amazon EBS volumes. Passio utilizes High-Performance Volumes to ensure performance standards are met for the most demanding applications. Amazon EBS volume data is replicated across multiple servers in an Availability Zone to prevent the loss of data from the failure of any single component.

Amazon EBS volumes are designed for an annual failure rate (AFR) of between 0.1% - 0.2%, where failure refers to a complete or partial loss of the volume, depending on the size and performance of the volume. This makes EBS volumes 20 times more reliable than typical commodity disk drives.

AWS will use commercially reasonable efforts to make Amazon EC2 and Amazon EBS each available with a Monthly Uptime Percentage (defined below) of at least 99.95%, in each case during any monthly billing cycle (the "Service Commitment").

Passio utilizes Amazon Elastic Block Store (Amazon EBS) to provide persistent block storage volumes for use with Amazon EC2 instances in the AWS Cloud. Each Amazon EBS volume is automatically replicated within its Availability Zone to protect from component failure to provide high availability and durability. Amazon EBS volumes provide consistent and low-latency performance needed to run large workloads that can scale usage up within minutes.



Data Retention Storage and Retrieval Standards

All data is available 24/7/365 via the web portal accessible via assigned username and password.

GPS/AVL Tracking Data

- Individual GPS Activity Reporting Level stored for 90 (ninety) days. This data provides 'breadcrumb' or detailed historical reporting
- GPS Activity Detail Data stored in the dynamic reporting system for a minimum of 3 (three) years. This data provides GPS based reporting by route and stop, to include on time reports, headways reports, dwell time reports, etc. It also includes GPS based alert reports such as out of boundary, speeding, idling, movement, etc.
- All archived data is available for customers to electronically download at any time prior to removal from the dynamic reporting system.

Passenger Count Data (if applicable)

Record level detail is always stored for a minimum of 36 (thirty-six) months. This archive provides count information at the base level which allows for time and individual bus and driver reporting at the stop level. After 36 (thirty-six) months this data will be summarized at the route, day, and passenger type level. Data will be available in the dynamic reporting system for a minimum of 5 (five) years. All data archived after 5 (five) years will be made available electronically prior to removal from the dynamic reporting system.

Access Levels

Passio Navigator™ controls access to system features for each individual user and user group with multi-layered security features. We use a permission-based user management system that can assign Read, Write, none permissions per user based on their role. Example roles include Dispatcher, Manager, Supervisor, and Admin but we can be very granular with page level access. The AWS infrastructure puts strong safeguards in place to help protect customer privacy. New users are easily added with permission-based security along with bank-grade encryption, SSL-256, which restricts access to authorized personnel as well as secures the data while in transit. Passio also uses UTF-8 encoding everywhere, so we can store and display in any language. We currently support non-English data where all text fields can use non-English characters, such as bus names, route names, etc.

Passio OpenAPI

The Passio OpenAPI utilizes a single secure gateway to authenticate our users. The Passio OpenAPI is consists of 2 types: 1) REST-based, using JSON as the data-interchange format, All API requests require the Authorization Token (auto-expiring), API access is over SSL, and are accessed from <https://passio3.com>, and 2) Real-time location WebSocket (WS) API allows users to listen to Passio real-time location broadcast (instead of querying the Passio database). Data is sent and received as JSON. The API endpoint is <https://passio3.com>. In the Location chapter of this document, you can find a sample Node-Js code of how to connect to our WS API. Passio API endpoints follow modern best-practices security procedures.



HIPAA Security Rule

Passio is dedicated to the protection of your data AND your sensitive patient information. ParaPlan Software by Passio Technologies complies with the Administrative, Physical, and Technical safeguards of the HIPAA Security Rule, which outlines specific regulations that must be applied in order to prevent breaches in the process of the creation, sharing, storage, and disposal of ePHI. All ParaPlan data is encrypted to NIST standards at rest and in transit. Our software also complies with all major components of the HITECH/HIPAA Omnibus Rule of 2013. We are also compliant with the Family Educational Rights and Privacy Act (FERPA) that protects the privacy of student education records. Passio is dedicated to the protection of your data and your sensitive rider information.

- We use Microsoft SQL Server with a non-standard port
- For our API, we use SSL and auto-expiring authentication tokens
- We utilize a single secure gateway to authenticate our users
- We support TLS 1.2 on our web apps and web APIs
- We redirect http calls to https on our web apps and web APIs
- We force SSL connections on traffic to SQL Server
- We force SSL connections on logins to SQL Server
- We encrypt all data in transit (via forcing SSL-256) and at rest (in the database)
- We provide HIPAA level auditing, creating 22 audit action groups to track user access
- Our web security is also managed by Amazon Web Services. All data flowing across the AWS global network that interconnects AWS datacenters and regions is automatically encrypted at the physical layer before it leaves AWS secured facilities.



We ensure your data will not be used for any purpose other than use with Passio Technologies. Passio will destroy any sensitive data once it is no longer needed, nor disclose any information to others without the prior written consent of the user, as stated in our Terms of Service. We follow the “AWS Best Practices” to ensure compliance with the HIPAA Security Rule (national standards for the security of electronic protected health information) and the confidentiality provisions of the Patient Safety Rule (which protects identifiable information being used to analyze patient safety events and safety). We perform nightly backups of all databases using Amazon S3. We have the ability to move between servers to prevent downtime in the case of server failures. Furthermore, we do not use OpenSSL, making our servers and related infrastructure immune to related vulnerabilities.

How is sensitive client data protected from breach?

We use Microsoft SQL Server with a non-standard port. For our API, we use SSL and auto-expiring authentication tokens. With the introduction of our Cloud and iOS products, we needed a single secure gateway to authenticate users, so we moved to an email-based username system. When it (a hashed username & password combination) authenticates, we hand back a single session token and a key. This 'secure token' is a GUID that is active only for that user's session and can be revoked server-side. When the user makes data requests, we use that token and key to determine the local database that user's requests will be run against. ParaPlan limits access via scalable processes administered by web-based tools.

Furthermore, our REST server looks up the database credentials and constructs the data request to the SQL server, then returns the results in encrypted JSON format. Our data requests are made over HTTPS so we do not have to make special firewall rules. Since the request is submitted securely over SSL (the same standard used by financial websites), we know the connection between the client and server is safe.

Passio shall promptly (or in any case within 48 hours) notify customers if we have reason to believe there has been any misuse, compromise, loss, or unauthorized disclosure or acquisition of, or access to, Confidential Data ("Information Security Breach"). Upon any discovery of an Information Security Breach, Passio will investigate, remediate, and mitigate the effects of the Information Security Breach, and provide customers with assurances reasonably satisfactory to customers that such Information Security Breach will not recur.





IMPLEMENTATION PLAN

Implementation Plan

Passio's overall project approach engages in a policy of consistent feedback and continual updates on progress. At each major milestone of the project timetable, we will schedule a confirming conference call, review any open items, and develop a strategic plan to address and correct issues. Our customers will have the opportunity to review those corrections and confirm that they are complete. Client satisfaction is met by the combination of focusing on the planned implementation schedule and constant and open communication. Passio's Implementation Plan consists of the following 5 components:



Determine all key stakeholders, contact information, and roles. Define communications process. Gather location data for installation and identify vehicle availability

Create schedule updates and milestone confirmations process. Define critical dates and identify potential barriers to success. Gather and confirm configuration data from customer

Determine initial installation schedule and pre-install fleet evaluation, schedule installers. Order equipment and document expected delivery timeline. Software setup and initial program testing

Test software deployment with customer configuration. Track, review, and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes. Conduct field testing, make adjustments from feedback, confirm updates

Conduct final testing with customer representatives. Confirm installation documentation and update Conduct training and review of operational items



Agency Requirements and Tasks

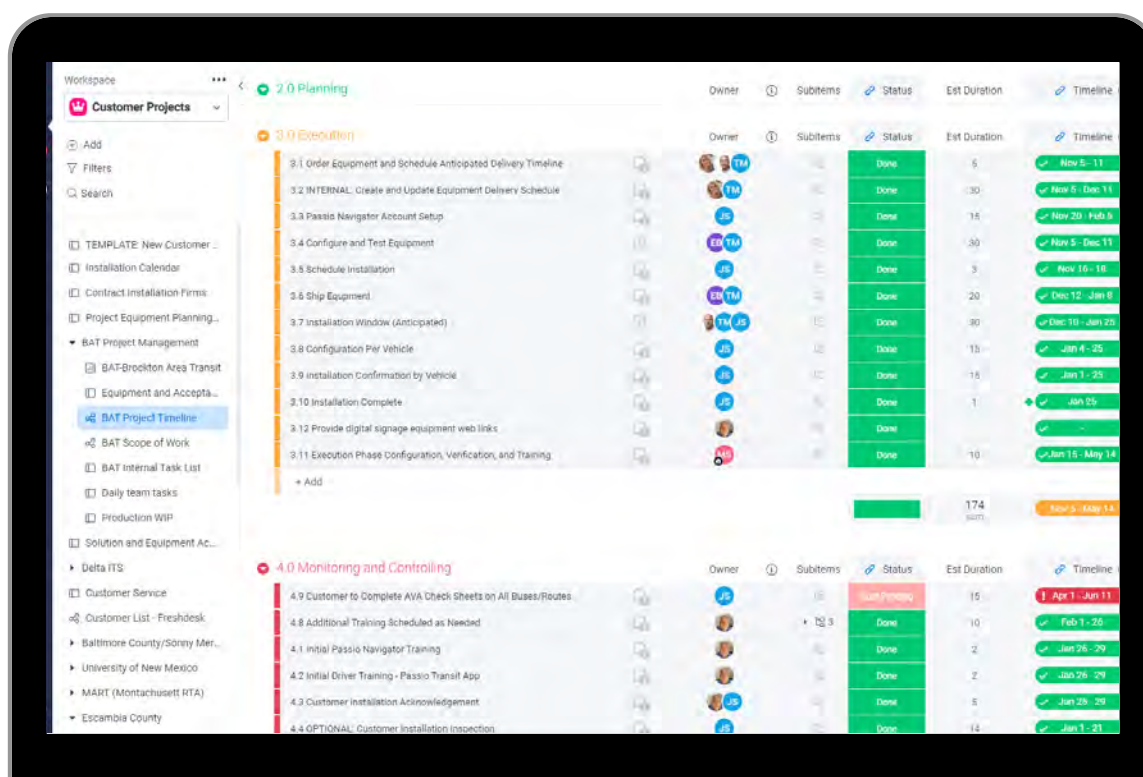
- Coordination of vehicle availability and interaction with the installation team.
- Coordination of training schedule and identifying key staff members requiring access to the system.
- Identifying a minimum of two contacts who are trained to be system coordinators. These individuals will coordinate troubleshooting efforts and implement support items when remote support is initiated.
- Providing feedback and suggestions to enhance the utilization of the system.

Passio Promise

- Our Passio ITS solution provides a state-of-the-art approach that sets us apart from our competitors. The value of our platform continues well after the date of deployment and is easily expandable by taking future demands into consideration.
- All software and version updates, including new standard features and capabilities, are made available to our customers at no additional cost.
- We provide free marketing materials including designs for cut-out cards, posters, banners, and social media posts to help promote your new system to your riders.
- Passio's platform is completely modular and is capable of working with a variety of hardware.
- Passio provides an integrated, web-based user guide for training and system use.
- By choosing Passio as your transit technology provider, you will receive 24/7/365 access to all of your data, superior customer service, and the most innovative cloud-based technology on the market.



COLLABORATIVE (SHARED) CLIENT PROJECT MANAGEMENT EXAMPLE:



Your dedicated Passio Project Manager will keep you updated on each step of planning, installation, implementation, and training using our collaborative online project management website. Each Passio customer will have a dedicated project board where they can see progress, make comments, and participate in the plan with our project team





PROJECT SCHEDULE

Typical implementation schedule for a new Passio agency: Our anticipated Implementation Timeline is approximately 12-18 weeks from Agreement/PO to testing and deployment. Timelines will be adjusted based on customer requests, vehicle availability, equipment delivery, and setup requirements. Installations will be completed as soon as possible. Detailed project tasks are outlined below.

1.0 Initiation (Prep - Week 1)	
1.01 Notice Of Intent To Award	
1.02 Project Setup And Review	
1.03 Review Contract Documents	
1.04 Update Acceptance & Warranty Documentation	
1.05 Execute Contract	
1.06 Notice To Proceed And Po Issued	
1.07 Schedule Kickoff Call	
2.0 Planning (Week 1 - Week 5)	
2.01 Kickoff Call	
2.02 Coordinate Equipment Lead Time And Notify Suppliers	
2.03 Passio To Send Customer Configuration Forms And Instructions	
2.04 Update & Customize Project Schedule	
2.05 Customer To Provide Account Setup And Solution Information	
2.06 Vehicle & Solution Specific Installation Discussions	
2.08 Send Equipment List And Specifications To Customer	
2.09 Passio To Send Wiring Diagrams To Customer	
2.10 Customer To Send Installation Instructions To Passio	
2.11 Develop Installation Plan	
2.12 Configuration Corrections Provided By Customer	



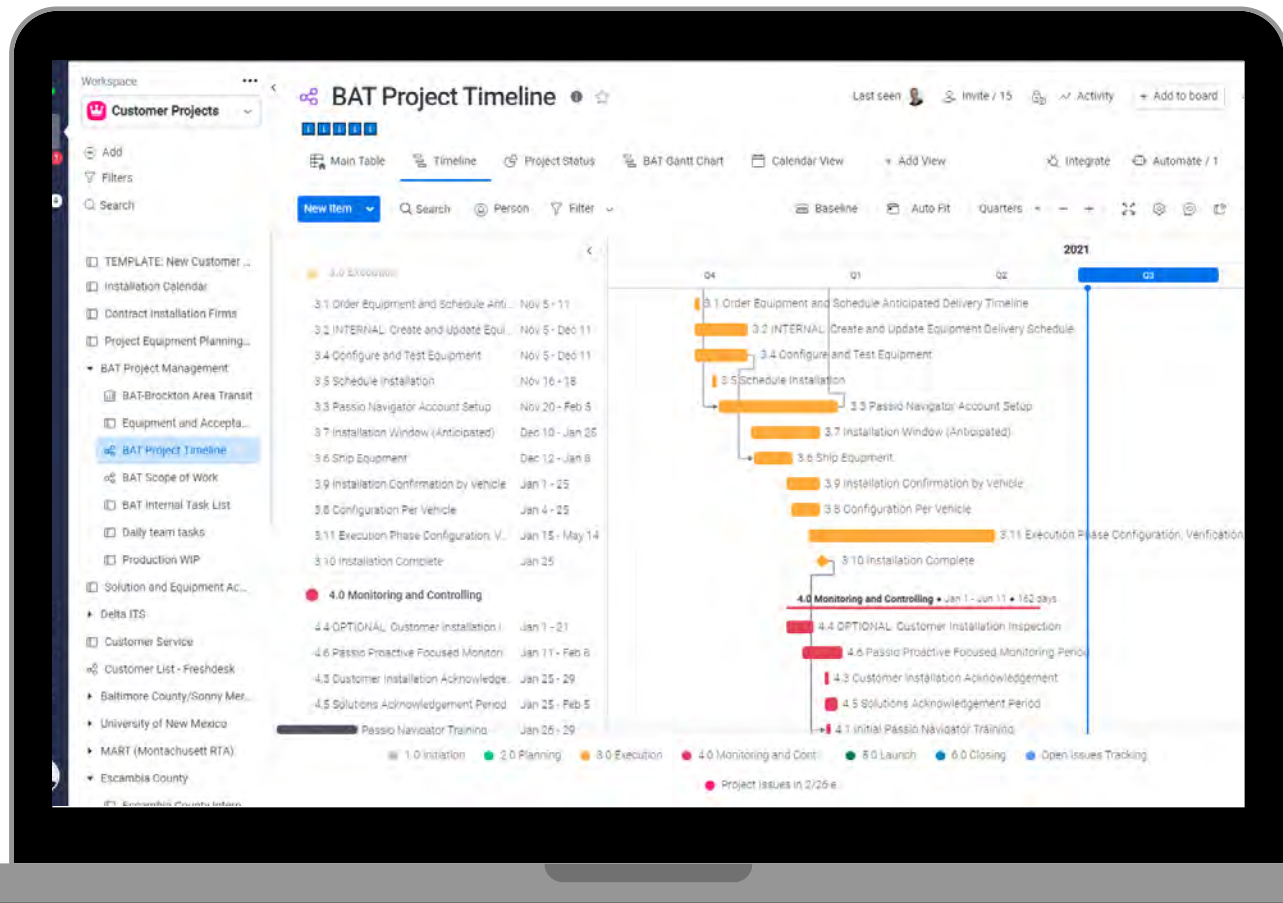
3.0 Execution (Week 2 - Week 12)	
3.01	Order Equipment And Schedule Anticipated Delivery Timeline
3.03	Passio Navigator Account Setup
3.04	Configure And Test Equipment
3.05	Schedule Installation
3.06	Ship Equipment
3.07	Installation Window (Anticipated)
3.08	Configuration Per Vehicle
3.09	Installation Confirmation By Vehicle
3.10	Installation Complete
3.11	Execution Phase Configuration, Verification, And Training
4.0 Monitoring And Controlling (Week 11 - Week 15)	
4.01	Initial Passio Navigator Training
4.02	Initial Driver Training - Passio Transit App
4.03	Customer Installation Acknowledgement
4.04	Customer Installation Inspection
4.05	Solutions Acknowledgement Period
4.06	Passio Proactive Focused Monitoring Period
4.07	Marketing, Communications And Social Media Information Shared
4.08	Additional Training Scheduled As Needed
4.09	Customer To Complete AVA Check Sheets On All Buses/Routes
4.10	Test APC Count Accuracy (If Required)
5.0 Launch (Week 15 - Week 17)	
5.01	Pre Launch Full Deployment
5.02	Official Go Live Date
5.03	Two Day Deep Monitor
5.04	Reports Review
6.0 Closing (Week 18 - Week 22)	
6.01	Customer Configuration Training - Customer Request
6.02	Customer Success Team Interaction - Post Launch

These project tasks will be implemented by a Senior Project Manager, Systems Engineer, Customer Success Supervisor, Account Manager, and a Passio Installation Technician.

PASSIO TECHNOLOGIES USER ACCEPTANCE TESTING. PASSIO WILL ALSO FOLLOW OUR USER ACCEPTANCE TESTING PROTOCOL. INITIAL EQUIPMENT AND DEPLOYMENT TESTS FOR POWER, CONNECTIVITY, AND REPORTING CONNECTION. ONCE THE SYSTEM IS OPERATIONAL, PASSIO WILL ACTIVELY MONITOR ALL REPORTING ACTIVITY FOR A 60-90 DAY WINDOW AND IMPLEMENT ACCURACY TESTING AND CONFIGURATION ADJUSTMENTS DURING THAT PERIOD AS REQUIRED.



COLLABORATIVE (SHARED) CLIENT PROJECT MANAGEMENT EXAMPLE:



Your dedicated Passio Project Manager will keep you updated on each step of planning, installation, implementation, and training using our collaborative online project management website. Each Passio customer will have a dedicated project board where they can see progress, make comments, and participate in the plan with our project team





ITS TRAINING

The following training is included for all customers with purchased products and services.

The following training is included for all customers with purchased products and services. Note that some of these modules will not be required based on solutions selected by the agency.

- Remote training delivered remotely via webinar conference software is unlimited and provided at no additional charge.
- On-site training is available at additional cost plus travel expenses.
- Custom or non-standard remote training may incur additional hourly fees.

All customers are provided access to Passio's training documents, FAQs, knowledge base articles, Powerpoint presentations, and training videos for their appropriate solutions. Passio uses electronic media and hosted webinars to provide documentation and training to our customers.

Training Modules

T-101 Operator Training (45-90 Minutes per Session)

- Driver/Operator
 - Mobile Data Terminal Operation
 - Operator Sign-On Procedures
 - Route Status – In/Out of Service
 - Driver Status – Check In/Check Out
 - System Explanation – general overview of system operations and important actions
 - Safety Overview – reinforce interaction with MDT only when it can be done safely
 - Passenger Counting Procedures (training tailored to specific system requirements)
- Electronic Passenger Counting
- Automatic Passenger Counting
- Gateway™ Card Tap & Swipe (if required)
 - Advanced MDT Features (training tailored to specific system requirements)
- Passenger Types
- Group Counts
- Passenger Load Management
- Operator Initiated Voice/LED Announcements
- On Time Indicators/Schedule Management Tools
 - Incident Reporting and Messaging (training tailored to specific system requirements)Record an Incident
- Send an incident
- Retrieve Messages
- Respond to Messages
 - System Monitoring (training tailored to specific system requirements)
- GPS, WEB
- APC
- LED SIGNS



- Messaging Module Only (Automated Voice Announcements and GPS Enable LED Signs)
- MDT Operation in Controller Mode
- Changing Stops without Triggering Announcements
- Operator Initiated Announcements
 - Troubleshooting
- Confirm passenger count uploads, GPS activity, and connected peripherals
- Resetting Mobile Data Terminal
 - On Site Training (Provided in addition to the above components)
- Observation and correction of operators using each section in training mode
- Review of training components on board vehicle

T102 Supervisor Training (1.5-2 Hours)

- T-101 Operator Training
- Performing Software Updates
- Procedures for Updating Configuration Settings on Mobile Data Terminal
- Backup Procedures for Data Upload
- Troubleshooting and System Management Indicators
- Managing feedback from Operators
- Communication Processes to Passio for Reporting Support Items
- Passio Navigator™ Integrated Functions (If Required)

T102 Supervisor Training (1.5-2 Hours)

- T-101 Operator Training
- Review and Testing Techniques for Operator Training

T202 Dispatcher Training (1.5 Hours)

- Passio Navigator™ Reports Module
- Dynamic Ridership Reports to review activity in real time
- Boundary & Speed Reports – vehicle activity reporting
 - On Time Reports – schedule performance reports
 - Passio Navigator™ Live Map – live vehicle activity
 - Passio Navigator™ Dispatch & Messaging – originate messages and track responses
 - Passio Navigator™ Incident Log – incident activity types, reasons, and reporting options
 - Passio Navigator™ System Alerts – set and update alerts
 - Passio Navigator™ System Configuration
- Add drivers
- Update LED and AVA MessagingAssign/Unassign Vehicles to Routes



T201 System Administrator & Reporting Training (1.5-2 Hours)

Appropriate for supervisors, managers, and staff support. A follow up refresher course is recommended 30-60 days after the system is in operation. Passio provides additional training for major software upgrade releases or system operations changes.

- Passenger Counting Reports
- Dynamic Ridership Reports - creation and downloading of raw data for internal analysis
- Dashboard Reports – create, save, and share tailored reports
 - National Transit Database Reporting
 - GPS/AVL: Operational Reporting
- Boundary and Speed Reports
- On Time Reports
 - GPS/AVL Live Map
- View/Show Stops, Routes, and System Information
- Using Replay Mode
 - Dispatch & Messaging
 - Incident Log Management and Downloading
 - Driver Timesheet Module
 - Alerts Configuration Profile Management
- Adding and Editing Routes, Stops, Drivers, Vehicles
 - Automated Voice Announcements (AVA) Configuration & Management
 - LED Sign SmartSense™ Display Configuration & Management
 - Passio Gateway™ Card Management and Demographics Reporting
 - TransLoc AVL Training (Additional 60 Minutes if Required)
- Documentation and support available for end users (user guide)
- Passio Navigator™ Integrated Functions for TransLoc (if required)

T501 Hardware Maintenance and Installation Training (2 Hours)

- Passio support process
- Wiring and installation overview
- Hardware testing and management
- Cleaning and general maintenance procedures
- Alignment and calibration procedures
- Accessing on board data

Passio Advice & Recommendations

The Passio executive project team has over 125 years of combined experience implementing transportation solutions by partnering with over 250 agencies. Our extensive experience with multiple modes of transit operations and varying methods of service, allows us to serve as subject matter experts if desired. We can help formulate best practices, targeted operational plans, and processes to improve operations. Successful reporting and management focuses on evaluating trends that can be analyzed using Passio software.



Passio Training Staff



For over 20 years, Michael has worked in the transit industry managing new projects and clients. His specialty is client communications and training. Michael is a member of the Project Management Institute, has a B.A. from the State University of New York and graduated from the Executive Leadership Program at Seattle University.

MICHAEL CIVITELLI
PROJECT MANAGER

michael@passiotech.com
(678) 825-3456 x124



Keven started as an Account Manager at Passio in 2012, and now currently serves as Customer Experience Manager. He has worked with staff at over 100 transit agencies using Passio solutions. Prior to working at Passio, he was the Area Development Manager for Concentra Healthcare. Keven majored in Public Relations with a Minor in Business from the University of Florida.

KEVEN IZEN
ACCOUNT MANAGER

keven@passiotech.com
(678) 825-3456 ext. 108



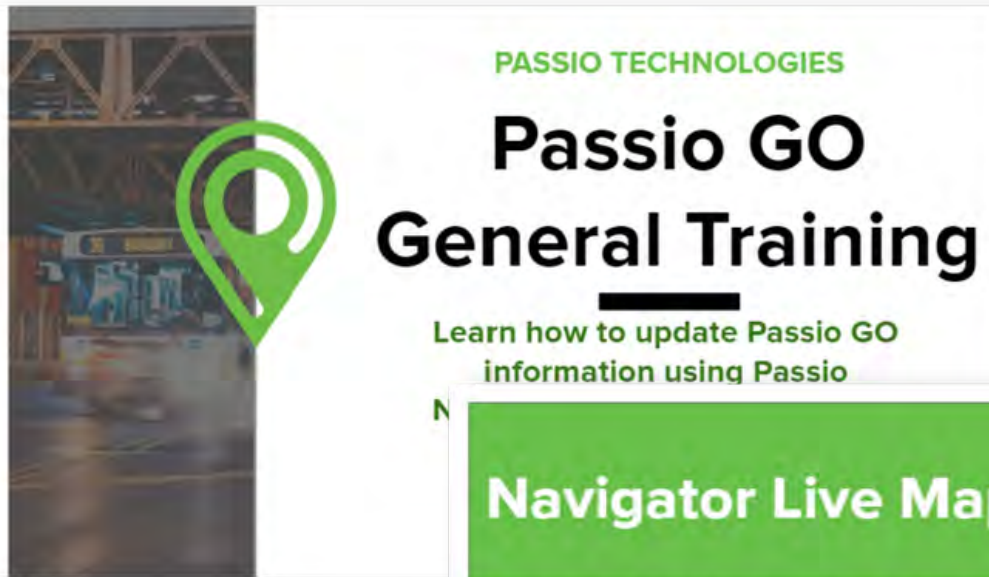
Wayne has been installing for Passio Technologies since 2019. He has been in working with GPS device installation and providing hands-on technical support since 2005.

WAYNE MANIS
HARDWARE MAINTENANCE AND
INSTALLATION TRAINING

wayne@passiotech.com
(678) 825-3456



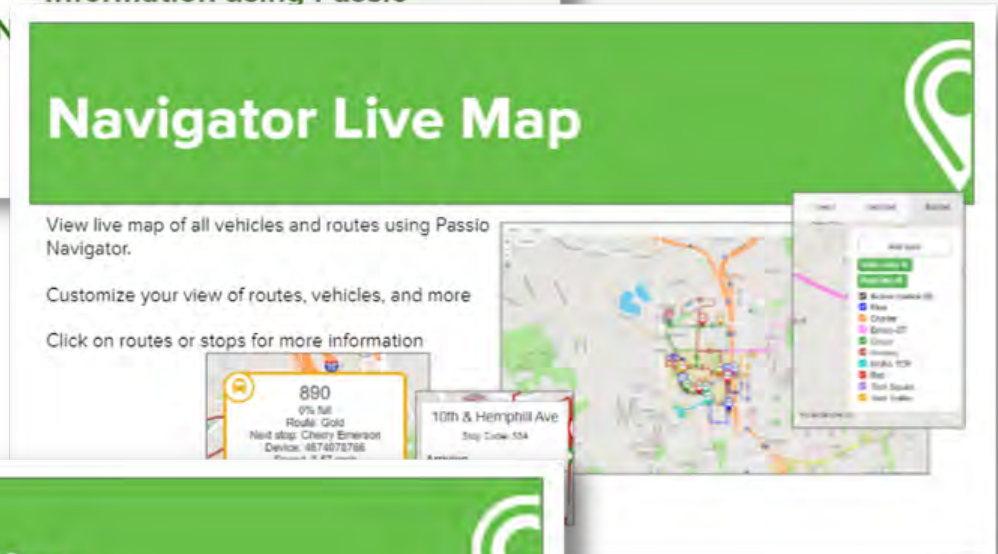
Training Material Examples



PASSIO TECHNOLOGIES

Passio GO General Training

Learn how to update Passio GO information using Passio

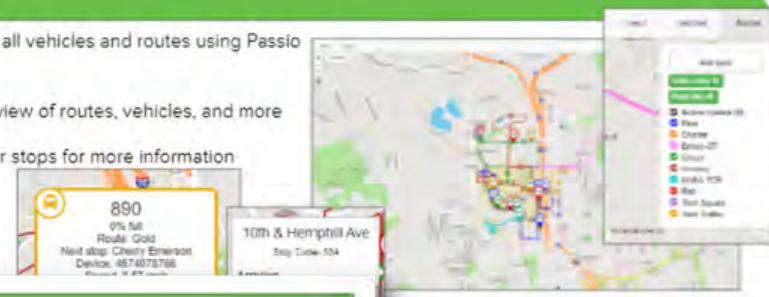


Navigator Live Map

View live map of all vehicles and routes using Passio Navigator.

Customize your view of routes, vehicles, and more

Click on routes or stops for more information




Passio GO Basics

The Passio GO app is available on the AppStore and the Google play store for free to all riders.

The app offers vehicle tracking, real time information, route & stop details, messaging, and more.

The agency page is branded specifically to our client.




Passio GO Messages

New messages show a "new" red box

Messages will always be on the right bottom of the screen




PASSIO TECHNOLOGIES

Navigator Reports

Understanding how to filter and download specific ridership reports within Passio Navigator

Route Configuration



Dashboard Reports



Ridership Reports - BAT



The MDT Basics

The MDT allows information to be entered easily while simultaneously reporting all data back to Passio Navigator, our cloud based reporting system accessed by your supervisor.

Below shows the MDT device and what it controls.

This item will be installed on all vehicles and is the heart of the Passio system.

The MDT controls:

- Going in and out of service
- Driver and Route Assignment
- Passenger Counting
- Automated Voice Announcements
- LED sign information
- Messaging

Note: your agency may not have each of these features



PASSIO TECHNOLOGIES



Driver Training

Full driver training to prepare drivers completely before they begin using Passio systems.

If you have questions, please contact Passio Technologies Customer service

MDT Basics

Vehicle Start

1. The MDT will automatically turn on with the ignition
2. Select Driver Name
3. Select Route
4. Select Route Block (if there is one)



In Service

1. Tap **GREEN START SERVICE BUTTON** when you arrive at the first stop



Out of Service

1. Tap the **BIG GREEN BUS** (bottom corner)
2. Tap **RED STOP SERVICE BUTTON**
3. No counts will happen and bus disappears from GPS until back in service

Note: You may see a list of options when going out of service, please select the appropriate option. Contact your supervisor for additional details.



Change Driver

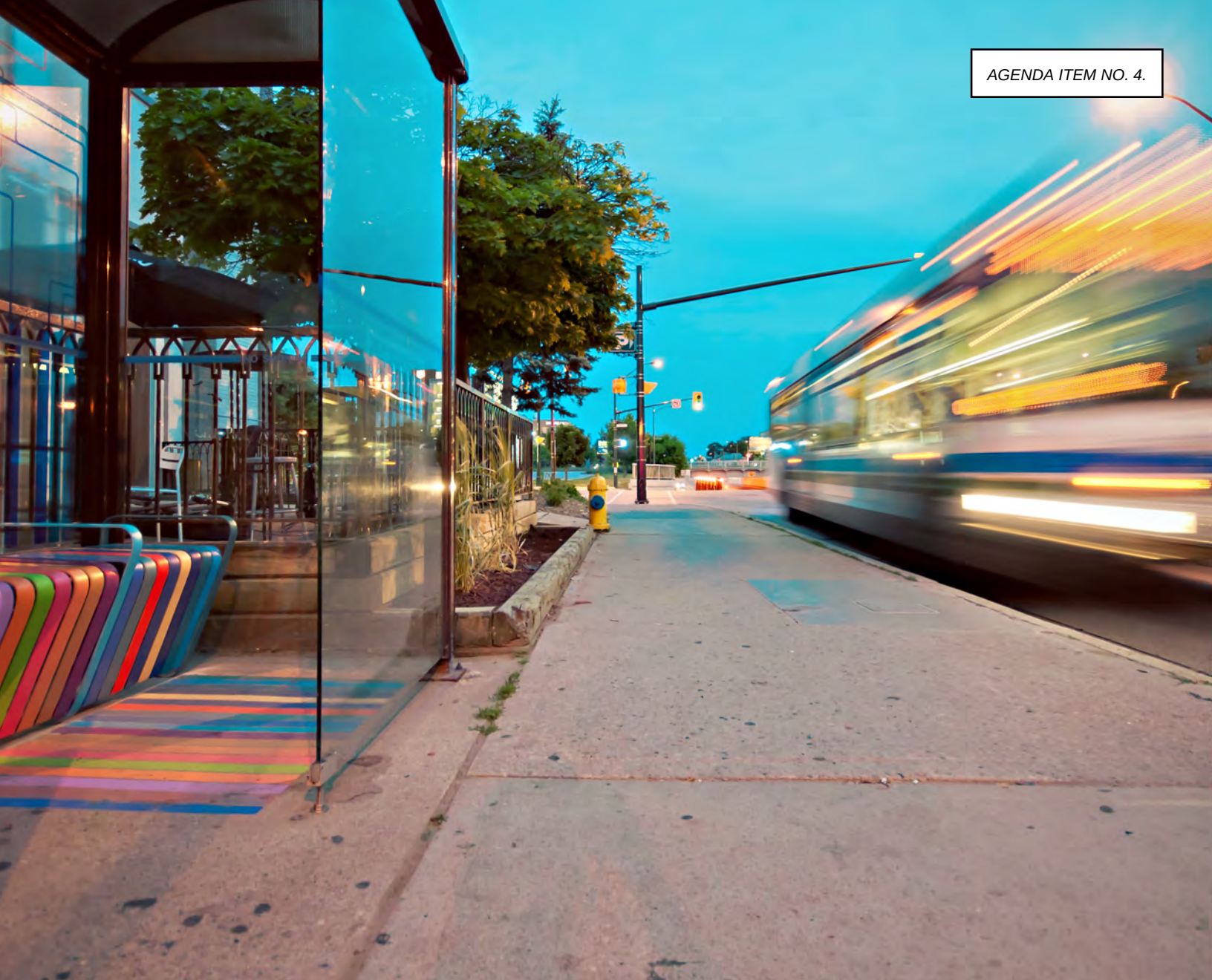
1. Tap the **BIG GREEN BUS** (bottom corner)
2. Select **DRIVER CHECK OUT**
3. Select new driver when ready



Change Route

1. Tap the **BIG GREEN BUS** (bottom corner)
2. Select **CHANGE ROUTE**
3. Select new route (and route block if there is one)





AGENCY INVOLVEMENT

Agency Requirements and Tasks

- Coordination of vehicle availability and interaction with the installation team.
- Coordination of training schedule and identifying key staff members requiring access to the system.
- Identifying a minimum of two contacts who are trained to be system coordinators. These individuals will coordinate troubleshooting efforts and implement support items when remote support is initiated.
- Providing feedback and suggestions to enhance the utilization of the system.



Determine all key stakeholders, contact information, and roles. Define communications process. Gather location data for installation and identify vehicle availability

Create schedule updates and milestone confirmations process. Define critical dates and identify potential barriers to success. Gather and confirm configuration data from customer

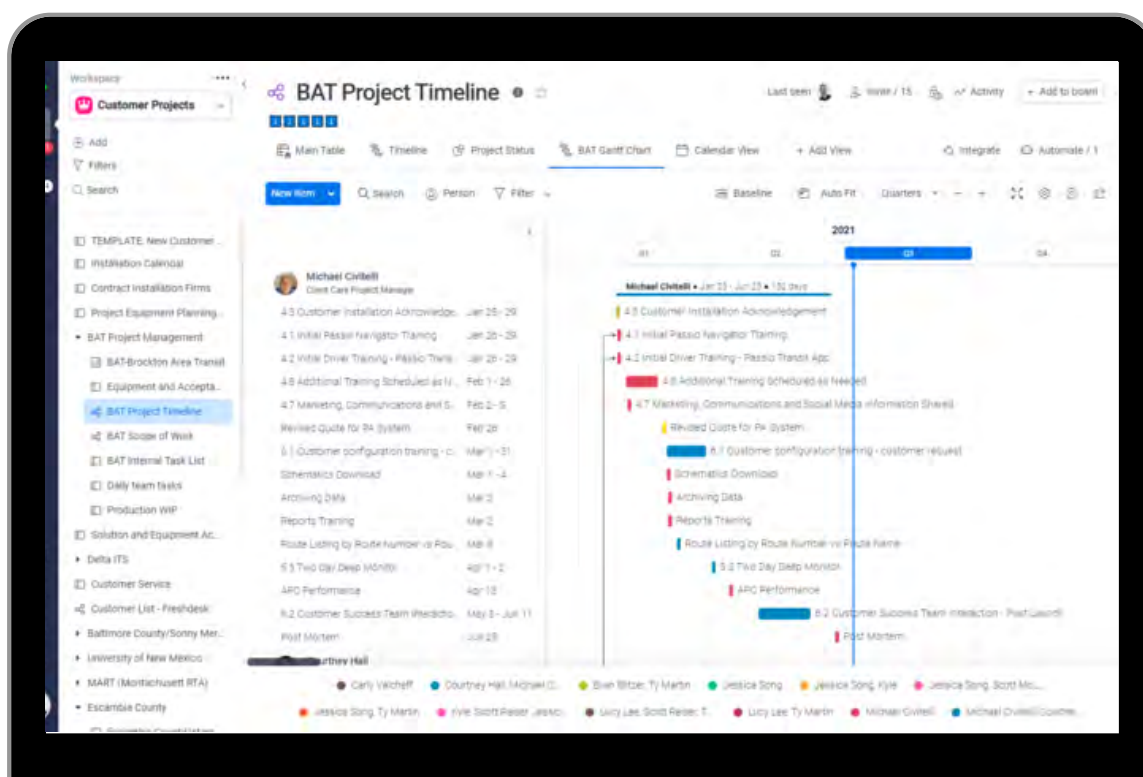
Determine initial installation schedule and pre-install fleet evaluation, schedule installers. Order equipment and document expected delivery timeline. Software setup and initial program testing

Test software deployment with customer configuration. Track, review, and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes. Conduct field testing, make adjustments from feedback, confirm updates

Conduct final testing with customer representatives. Confirm installation documentation and update Conduct training and review of operational items



COLLABORATIVE (SHARED) CLIENT PROJECT MANAGEMENT EXAMPLE:



Your dedicated Passio Project Manager will keep you updated on each step of planning, installation, implementation, and training using our collaborative online project management website. Each Passio customer will have a dedicated project board where they can see progress, make comments, and participate in the plan with our project team





TECHNICAL SUPPORT

SUPPORT FROM THE PASSIO TEAM

Learn what Passio does on a daily basis to support our clients.



Level one support is provided from our support phone/chat/email/social, which is available 24/7. Passio provides immediate tech support (acknowledgment within 30 minutes for any critical issue) during our office hours of 7 AM - 6 PM Eastern Time, Monday through Friday. Issues are evaluated when received and escalated to the senior technical support team if needed, and then to the development team if critical systemic issues are determined. All issues submitted can be tracked and referenced using our Freshdesk Ticketing CRM portal. Most common issues are resolved on the same day. The typical resolution time for 90% of issues not resolved within one working day is three (3) working days. Technical support is always included for the life of any Passio agreement.

Customer calls or emails are reviewed and acknowledged within one working day or less of receipt. Most common issues are resolved within that time period. The typical resolution time for 90% of issues not resolved within one working day is three working days.

Passio's systems can be updated via the administrator portal for some key configuration settings. Additionally, web conference software is used to share screen information. Implementing major upgrades or patches are typically done over weekends and in the early AM hours. Testing of upgrades is also done during this period. All major upgrades and patches are included in the standard service agreement and do not incur additional charges.

Server-side upgrades do not require any customer staff involvement. Passio has developed the capability to upgrade software versions via remote server trigger command. If an update does require a configuration that is not possible to conduct 'over the air' the customer will be provided with complete instructions and pre-scheduled remote support to upgrade on board devices.

Passio Tech Support:

Phone 1-800-520-0277 x102

Email support@passiotech.com

Web <https://passiotech.freshdesk.com>

Chat <https://passiotech.com/#>



Passio Online Training & User Guide

Passio ITS Platform Overview

Passio Technologies training resources are available for customers only. This site has information on how to use passenger counting systems and reporting tools.

Please contact:
support@passiotech.com or 800-520-0277 x102
if you have any questions regarding your system or platform setup.

TOOL TIPS!

Insert your resource into any tool in the Suite

Passio NAVIGATOR

IncroMAXX Transit Platform: Passio Navigator

Subpages (2): [BusBuzz - customer service](#) [Using the Passio system](#)

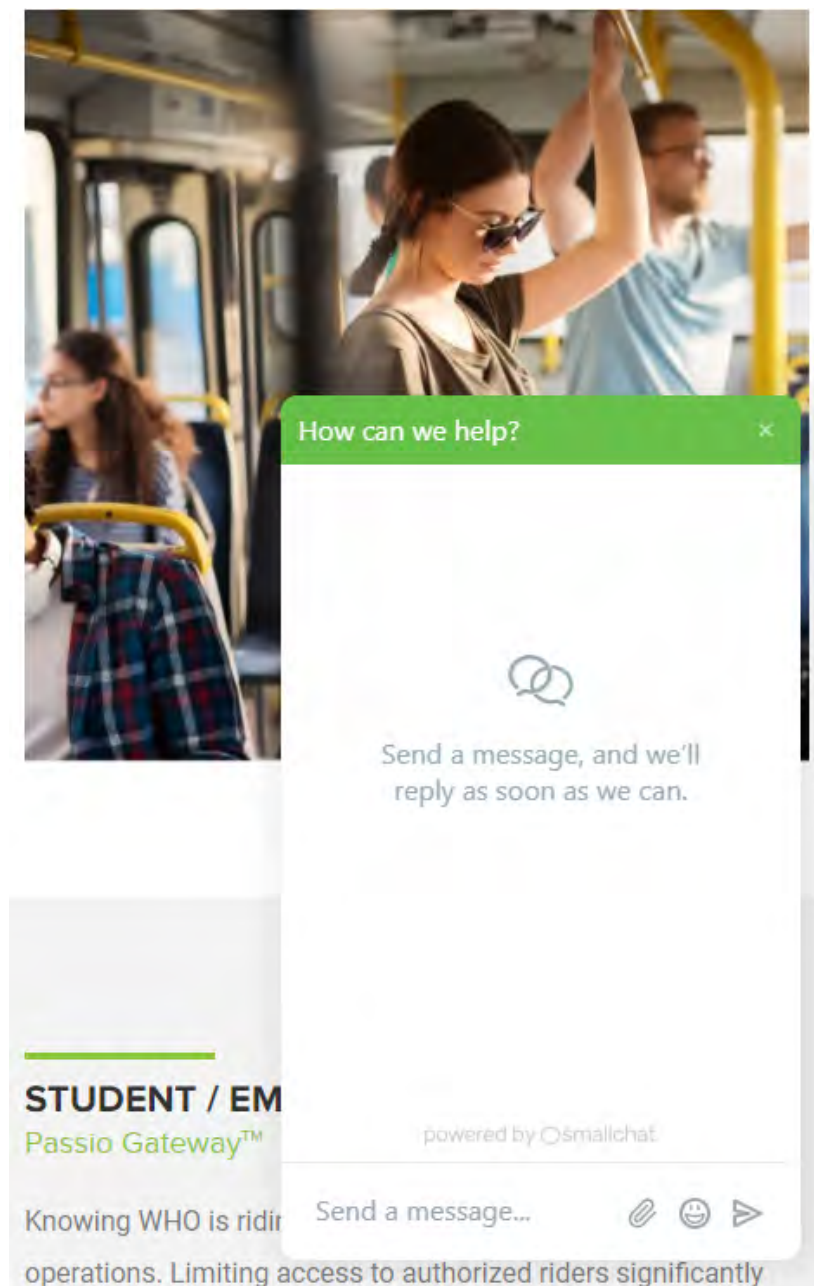
[Add files](#)

Passio maintains an online user management and training tool for all active customers.



PASSIO OFFERS QUICK AND EASY WEB CHAT FOR QUESTIONS, COMMENTS, AND CONCERNS DIRECTLY THROUGH OUR WEBSITE PASSIOTECH.COM

We make it easy for riders, clients, and any other interested parties to ask us questions using a live chatbox on our website. Chats are answered in real-time, answering any questions we receive about our solutions, app, and more!





WARRANTY & MAINTENANCE

All Passio software can be updated in the field over the air. Additionally, the ITS Hardware itself may be re-calibrated in the field. Each configuration is extensively monitored and tested during the initial rollout period, and account managers periodically confirm the configuration and make updates through the life of the contract. Software updates will be provided at no additional charge for the life of the agreement.

Passio's approach to the equipment warranty and ongoing maintenance has been realigned to change the way the industry approaches this challenge. Our goal is to maximize our customer's independence, eliminate downtime, and avoid extra costs that are not necessary when equipment and service are designed with the end-user in mind.

The Passio solution is designed to be self-managed. Our design reduces scheduling time delays and empowers our customers to resolve modest issues quickly, efficiently, and at a lower cost to the transit agency while enjoying full remote support. When situations arise that demand a hands-on approach, company-trained technicians can be dispatched to handle repair or replacement on an hourly or daily basis.

All on-site service will incur additional charges, and be subject to minimum service call amounts. At our customer's requests, Passio will coordinate and schedule post-install on-site service. Customers will be charged with applicable trip charges and hourly fees for services on-site. Service calls are typically charged a three-hour minimum but may be higher based on location. Passio will remotely support customers who use internal employees to conduct on-site repairs for no additional fees.

FIRST 30 DAYS - All new equipment, wiring, and system setup **MUST** be working as promised. All Passio customers can expect us to ensure equipment is installed properly, is tested, and the software/systems are functioning as outlined in our agreement.

WARRANTY PERIOD - All customers, whether they have a standard one-year warranty or have purchased the extended warranty agreements, can expect immediate attention and equipment exchanges or repairs processed as quickly as possible from the initial request, avoiding delays.

ON-SITE/ON-BOARD REPAIRS - Our equipment is designed to be diagnosed in minutes, software updates can be done with minimal disruption to operations, and replacements are fast and simple. We provide unlimited remote support for the life of our client's contracts with us. In the limited instances where an on-site tech is needed, in addition to our staff installation team, we have a nationwide network of installers chosen for their knowledge, professionalism, and value-based pricing.



EQUIPMENT WARRANTY

1. All equipment is sold with a standard one-year manufacturer's warranty.
2. Equipment Warranty covers all equipment failure due to normal wear and tear or manufacturer's defect. Equipment warranty does not cover theft, damages sustained from an accident or vehicle malfunction, vandalism, or damage due to neglect by a driver, passenger, or other individuals.
3. Extended warranties may be purchased in 12 (twelve) month increments up to a maximum of 48 (forty-eight) additional months, for a total of 60 (sixty) months. Warranty fees must be received with initial order payment, or no later than 30 (thirty) days after initial equipment is delivered to the customer.

WARRANTY PRICING

Warranty Costs - Per Vehicle		Warranty Coverage Period (Months)				
Item	Manufacturer	12 Months	24 Months	36 Months	48 Months	60 Months
MDT	Passio	Included	\$185	\$275	\$455	\$515
APC	Hella	Included	\$45	\$95	\$190	\$330
VLU	CalAmp	Included	\$25	\$45	\$75	\$99
LED Sign	TranSign	Included	Included	Included	Included	Included
WiFi Modem/Router	Pepwave	Included	\$85	\$150	\$215	\$290
AVA Connect System	Ducking System	Included	\$45	\$60	\$110	\$135

1. SPARES - Passio recommends a minimum spare ratio of 5% for all equipment.
2. Warranty payment made at time of purchase, covers parts only, no labor included. Customer is responsible for shipping costs.
3. Component Loaner Program for extended warranty repair items.
4. Out of warranty equipment will either be repaired or replaced with the same or compatible upgraded model, whichever is more cost effective for the customer.

On Site Service Fees

1. On site service fee - \$350 for up to 2 hours. Additional hours - \$150.00 per hour. Rate is subject to change.
2. Additional trip charges, travel expenses, and mileage fees are site specific and may apply.

Service and Maintenance Plans

Passio does not typically provide service and maintenance plans, remote support will normally resolve the majority of issues. In some cases quarterly, semi-annual, or annual inspection plans may be valuable to the customer. The costs for these plans vary based on the number of vehicles, availability of vehicles for inspection, and the amount of equipment onboard vehicles. The costs for these plans are currently based on \$1,200 per day plus trip charges and travel expenses.

NON WARRANTY REPAIRS:

- All costs for repair or replacement of units not covered by warranty will be billed at cost for equipment and time. Shipping fees are billed as incurred.
- On-site and/or internal service is billed hourly, current rate is \$150.00 per hour, plus travel costs (if required). Rate is subject to change.



ON-SITE SERVICE AND REPAIR

The Passio solution is designed to be self-managed to a great extent. This reduces scheduling time delays and empowers our customers to resolve modest issues quickly, efficiently, and at lower costs to the agency, while enjoying full remote support. When situations arise that demand a 'hands-on' approach, company trained technicians can be dispatched to handle repair or replacement on an hourly or daily basis.

- All on-site service will incur additional charges, and be subject to minimums.
- Passio does not automatically provide on-site personnel post-installation but will coordinate and schedule on-site service requested by customers.
- Customers will be charged with applicable trip charges and hourly fees for on-site service. On-site service calls are typically charged a three (3) hour minimum but may be higher based on location.
- Passio will remotely support customers who use internal (customer) employees to conduct on-site repairs for no additional fees.

CUSTOMER SYSTEM MANAGEMENT

- The Customer understands and accepts that the technology solutions offered by Passio are dynamic and require designated on-site contact(s) to update software, confirm connectivity, and troubleshoot hardware and system issues.
- The Customer has the option to provide configuration updates such as routes, drivers, and stops to Passio for updates, typically within 2 (two) working days for standard updates. The Customer may, at their option, self-update configuration information.
- Passio will provide remote support for connectivity, configuration, and hardware troubleshooting. The Customer shall not rent, sell, assign, lease, or sublicense the Services. The Customer shall not use the Services in a service bureau, outsourcing, or another arrangement to process or administer data on behalf of any third party.
- Customer shall not knowingly access, store, or transmit via the Services any material that (i) is unlawful, harmful, threatening, defamatory, obscene, infringing, harassing or offensive; (ii) facilitates illegal activity; (iii) is discriminatory; or (iv) causes damage or injury to any person or property.
- Customer shall not violate or attempt to violate the security of Passio's networks, including (i) accessing data not intended for Customer; (ii) accessing a server or account that Customer is not authorized to access; (iii) attempting to scan or test the vulnerability of a system or network or to breach security or authentication measures; or (iv) attempting to interfere with the availability or functionality of the Services, including by means of submitting a virus, overloading, flooding, spamming, mail bombing or crashing.

Customer acknowledges and agrees...

- that the Services are an information tool only and is not a substitute for competent management and oversight of Customer's Vehicle Fleet, transportation system, and personnel;
- that the Services depend upon data being transmitted over the internet, Customer's network, GPS satellites, and third-party carrier networks, and that, Passio has no control over the functioning of the internet, Customer's network, GPS satellites, or the network of a carrier; and
- that Customer alone is responsible for acquiring and maintaining Customer's Vehicle Fleet, Customer's network, Customer's internet access, and the rest of Customer's physical and technological infrastructure.





PASSIO SLA

Passio Technologies – Service Levels Agreement

1. **Support.** Passio will provide remote support for connectivity, configuration, and hardware troubleshooting. Passio will provide or arrange for on-site support services following installation of the Equipment for additional fees, which may include trip charges and/or travel expenses, hourly fees, and minimum charges as incurred. Passio's support personnel will, under most circumstances, log and confirm support items within one working day. Passio shall use commercially reasonable efforts to resolve critical support items are within two working days or less.

2. **Schedule Maintenance.** Passio shall use commercially reasonable efforts to provide Customer with prior notice of maintenance times, which Passio typically conducts during off-peak periods.

3. **Availability.** Subject to the terms and conditions of this Agreement, Passio will use commercially reasonable efforts to make the Hosted Services Available (as defined below) at least ninety-nine point five percent (99.5%) of the time as measured over the course of each calendar month during the Term (each such calendar month, a "Service Period"), excluding unavailability as a result of any of the Exceptions described below in this Section 1 (the "Availability Requirement"). "Service Level Failure" means a material failure of the Hosted Services to meet the Availability Requirement. "Available" and "**Availability**" mean the Hosted Services are available for access and use by Customer. For purposes of calculating the Availability Requirement, the following are "Exceptions" to the Availability Requirement, and neither will the Hosted Services be considered un-Available nor any Service Level Failure be deemed to occur in connection with any failure to meet the Availability Requirement or impaired ability of Customer to access or use the Hosted Services that is due, in whole or in part, to any: (a) access to or use of the Hosted Services by Customer or any of its users, or using Customer's or an users' access credentials, that does not strictly comply with this Agreement or the Documentation; (b) Customer's delay in performing, or failure to perform, any of its obligations under this Agreement; (c) Customer's or its users' Internet connectivity; (d) force majeure event; (e) failure, interruption, outage or other problem with any software, hardware, system, network, facility or other matter not supplied by Passio pursuant to this Agreement; (f) scheduled downtime for routine maintenance of which Passio has provided Customer at least 24 hours' prior notice via email or through the Hosted Services; or (g) disabling, suspending, or terminating the Services pursuant to the Agreement.

4. Service Level Failures and Remedies. In the event of a Service Level Failure, Passio will issue a credit to Customer in the amount set forth in the table below, measured as a percentage of the monthly fees (or pro rata equivalent thereof) for the applicable Hosted Services paid or payable for the Service Period the Service Level Failure occurred (each a "Service Credit").

Availability	Service Credit (as percentage of monthly fees (or pro rata equivalent thereof))
99.5% - 100%	0.0 %
95.0% - 99.49%	2.5 %
90.0% - 94.9%	5.0 %
< 90.0%	20.0 %

Notwithstanding the foregoing, Passio has no obligation to issue any Service Credit unless Customer: (i) reports the Service Failure to Passio immediately upon becoming aware of it, and (ii) requests such Service Credit in writing within 10 days of the Service Level Failure. Additionally, in no event will a Service Credit for any Service Period exceed [twenty percent (20%)] of the total monthly fees (or pro rata equivalent thereof) that would be payable for that Service Period if no Service Level Failure had occurred. For the avoidance of doubt, if a flat fee is agreed upon in the applicable Order, and as a result there is not a monthly fee, the Service Credit for any Service Period will not exceed twenty percent (20%) of the total flat fee divided by the total number of months that constitute the Term. Subject to the foregoing, any Service Credit payable to Customer under this Agreement will be issued to Customer in the calendar month following the Service Period in which the Service Level Failure occurred. This Section 4 sets forth Passio's sole obligation and liability and Customer's sole remedy for any Service Level Failure, and Passio and Customer agree that such credits are a reasonable estimation of the damages and are not a penalty.

5. Hardware Replacement. Passio will typically order and/or ship replacement hardware within two working days of receiving completed Return Merchandise Authorization from Customer. Replacement items not in stock will be processed using the available supplier with the fastest replacement schedule available at the time. Equipment replaced under Passio Warranty Program (either standard one year manufacturer's warranty or if extended warranty is purchased) covers equipment only and does not include labor or installation. Customer is responsible for shipping costs and warranty processing fees.

6. Equipment Installation. If equipment and installation services are contracted, customer shall provide direction, in writing, to Passio Technologies, a minimum of 10 days prior to installation date. Information to be provided shall include power source for all equipment, location of equipment installation, and any other installation parameters. Vehicle installation shall be deemed complete and accepted by customer after successful communications test by installer. Customer has two working days to alert Passio Technologies, in writing to any installation exception. Installations are warrantied for 30 days.

7. System Deployment and Testing. Initial system deployment testing to start a minimum of fourteen (14) working days prior to live deployment and typically continues for 30-90 days post live start. All equipment shall be fully installed to initiate deployment testing, any equipment not installed will extend testing period. Items to be reviewed and adjusted (but not limited to) will include equipment installation and communications, system configuration, schedule activity, and reporting and analytics. Customers will work directly with the deployment team to review, update and provide feedback for edits and adjustments. Accuracy of reports and system data is directly related to the thoroughness of the deployment testing, and any limitations placed on the testing process may impact the amount of time needed to address reporting or configuration issues.

8. Customer Agreement. Customer agrees to the above terms and conditions upon acceptance of equipment and/or software licenses.

THANK YOU

Thank you for taking the time to review our response to your request. Passio Technologies will provide the right team and technology to meet and exceed your expectations. Our advanced transit solutions will impress your riders now and into the future.

If you have any questions, please contact us.

Primary Contact -

MITCH SKYER

President

678-825-3456 x106

mitch@passiotech.com

Secondary Contacts -

SCOTT MCLAREN

Senior Business Development Manager

404-218-4254

scottmclaren@passiotech.com

KYLE ARCHER

Director of Business Development

678-825-3456 x114

kylearcher@passiotech.com





PRICING PROPOSAL

YOUR DETAILED PRICING INFORMATION

COST PROPOSAL

Contractors are to complete the tables for the components they are bidding on. For any other costs not listed, please input them in the blank sections.

The Contractor must submit a line-item breakdown, detailing the overall cost for each category they are bidding on. (e.g. Hardware – Sensors, GPS Unit, Router, etc.) Please indicate if there are any savings/discounts if multiple components are awarded.

A. <u>CAD/AVL/AVA</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
CAD/AVL Hardware	\$5,250.00				
AVA Hardware	\$5,390.00				
Head Sign Control Hardware	\$2,870.00				
MDTs/Tablets	\$9,737.00				
Setup/Installation	\$15,427.50				
License	\$20,267.45				
Service/Support/Maintenance	\$19,236.00	\$19,236.00	\$19,236.00	\$19,236.00	\$19,236.00
Training	Unlimited Remote training included				
Spare Parts (2 MDTs, 2VLUs)	\$2,141.00				
Advanced Analytics	\$8,400.00				
Total CAD/AVL/AVA:	\$88,718.95	\$19,236.00	\$19,236.00	\$19,236.00	\$19,236.00

B. <u>Passenger Infotainment</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Infotainment Hardware	\$77,545.58				
Setup/Installation	\$30,539.74				
License	In Setup/Install				
Service/Support/Maintenance	\$ 2,786.00**	\$2,786.00 **	\$2,786.00 **	\$2,786.00 **	\$2,786.00 **
Training	In Setup/Install				
Passenger Infotainment Total:	\$110,871.32	\$2,786.00 **	\$2,786.00 **	\$2,786.00 **	\$2,786.00 **

**** Service/Support/Maintenance on Infotainment: Pricing includes standard support. For fully managed add \$9,100.00 to this line item. Recommend fully managed in the beginning to help with setup, design and other aspects.**

C. <u>APC's</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
APC Hardware	\$26,586.00				
Setup/Installation	\$19,141.25				
License	\$10,347.75				
Service/Support/Maintenance	\$9,408.00	\$9,408.00	\$9,408.00	\$9,408.00	\$9,408.00
Training	Unlimited Remote Training Included				
Spare Parts – APS Units (2 total)	\$2,420.00				

APCs Total:	\$67,903.00	\$9,408.00	\$9,408.00	\$9,408.00	\$9,408.00

D. <u>Real-Time and Historical API's</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Setup/Installation	\$1,795.00				
License					
Service/Support/Maintenance					
APIs Total:	\$1,795.00				

E. <u>Courtesy Passenger Wi-Fi</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Wi-Fi Hardware	Included in APC				
Setup/Installation	\$995.00				
License	\$3,767.00				
Service/Support/Maintenance	\$2,268.00	\$2,268.00	\$2,268.00	\$2,268.00	\$2,268.00
1GB of Pooled Data on 14 Vehciles	\$5,913.00	\$5,913.00	\$5,913.00	\$5,913.00	\$5,913.00
** Can increase GB on each vehicle as we monitor if needed					
5GB or 10GB pooled options available					

Wi-Fi Total:	\$12,943.00	\$8,181.00	\$8,181.00	\$8,181.00	\$8,181.00

F. eDVIR	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
eDVIR Hardware	MDT in CAD/AVL				
Setup/Installation	\$295.00				
License	\$365.40				
Service/Support/Maintenance	\$1,663.20	\$1,663.20	\$1,663.20	\$1,663.20	\$1,663.20
Training	Unlimited Remote Training Included				
Spare Parts	N/A				
Wi-Fi Total:	\$2,323.60	\$1,663.20	\$1,663.20	\$1,663.20	\$1,663.20

<u>Proposal Totals</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
A. CAD/AVL/AVA	\$88,718.95	\$19,236.00	\$19,236.00	\$19,236.00	\$19,236.00
B. Infotainment	\$110,871.32	\$2,786.00	\$2,786.00	\$2,786.00	\$2,786.00
C. APC's	\$67,903.00	\$9,408.00	\$9,408.00	\$9,408.00	\$9,408.00
D. API's	\$1,795.00				

E. Passenger Wi-Fi	\$12,943.00	\$8,181.00	\$8,181.00	\$8,181.00	\$8,181.00
F. eDVIR	\$2,323.60	\$1,663.20	\$1,663.20	\$1,663.20	\$1,663.20
Proposal Total:	\$284,554.87	\$41,274.20	\$41,274.20	\$41,274.20	\$41,274.20

CHECK LIST

This Checklist is provided to assist vendors in the preparation of their RFP response. Included are important requirements the Contractor is responsible to submit with the RFP package in order to make the RFP compliant.

Check off each of the following (*if applicable*):

1. ☒ Signed cover page of Request for Proposal (RFP).
2. ☒ Check <https://pbsystem.planetbids.com/portal/14742/portal-home> for any addenda.
3. ☒ Signed cover page of each Addendum.
4. ☒ Provide a Conflict of Interest Statement.
5. ☒ Signed *Trade Secret Form* as provided with this RFP (Trade Secret Information, if provided, must be electronically submitted in a separate PDF file and marked as Confidential).
6. ☒ Signed *Debarment Certification Form* as provided with this RFP.
7. ☒ Provide a Criminal History and Civil Actions Disclosure Statement, *if applicable*, as instructed in this RFP.
8. ☒ Signed *Participation Form* as provided with this RFP.
9. ☒ The completed *Reference List* as provided with this RFP.
10. ☒ Indicate all of Contractor exceptions to the City's requirements, conditions and specifications as stated within this RFP.
11. ☒ Contractor's proposal, in PDF format, electronically submitted to the Bid Page on Planet Bids.

Return Checklist with your RFP response

PASSIO TECHNOLOGIES

YOUR CUSTOM SOLUTION QUOTE

City of Clovis - CA

Nick Chin

NICKC@CITYOFCLOVIS.COM

Clovis

Quote #: 510 v4

PLEASE REACH OUT TO
PASSIO SALES WITH ANY
QUESTIONS
SALES@PASSIOTECH.COM

PASSIO
TECHNOLOGIES

Passio Technologies
 6100 Lake Forrest Dr
 Atlanta, GA 30328
 United States

Quote #	510 v4
Date	Oct 17, 2022
Expires	Nov 30, 2022
Contact	Scott McLaren

Prepared for City of Clovis - CA
 Nick Chin
 Clovis, CA
 United States

T: 559-324-2762
 E: NICKC@CITYOFCLOVIS.COM

ACCEPT QUOTE

Passio Technologies Quote - City of Clovis - GO/AVA/LEDx/DVIR/GTFS-RT

Passio GO with MDT

One-Time Fees

Category	Item	Qty	Price	Total
Setup	Passio GO CAD/AVL GPS Setup	1	\$1,995.00	\$1,995.00
	Setup Passio GO solution for customer account. One fee per system.			\$1,496.25 [†]
	25% Item Discount (\$498.75)			
	Code: GOga			
	Base Price		\$1,995.00	\$1,995.00
License	Passio GO GPS CAD/AVL Software License	14	\$134.10	\$1,877.40
	Per unit one time software license. Includes lifetime updates. For Installed, Portable, and API Configuration.			\$1,408.05
	25% Item Discount (\$469.35)			
	Code: GOgpsavl			
	Base Price		\$134.10	\$1,877.40
Hardware	VLU	14	\$422.00	\$5,908.00
	Vehicle Logic Unit for GPS Tracking.			
	Code: VLU			
Hardware	MDT Portable	14	\$966.00	\$13,524.00
	Rugged Android MDT with Cradle Mount			
	Code: MDTport			

One-Time Subtotal \$23,304.40

Discount (\$968.10)

242

Annual Fees

Category	Item	Qty	Price	Total
Recurring	Passio GO GPS/AVL Recurring Annual Per unit annual recurring fee. Configuration updates, reporting, and data storage. Code: 40RX21PGO	14	\$799.00	\$11,186.00[†]

** Recurring fees billed annually with 0 upfront payment(s).*

Annual Subtotal **\$11,186.00**

Headsign Integration - LEDx - J1708 Connection

One-Time Fees

Category	Item	Qty	Price	Total
Setup	LED Connect (LEDx) Destination Sign Software License Integration with J1708/J1939 exterior destination sign. Includes connection hardware. Code: 1212020LEDX	14	\$449.10	\$6,287.40[†]
Hardware	LED Hardware Wiring harness, mounts, hardware Code: LEDhard2	14	\$205.00	\$2,870.00

One-Time Subtotal **\$9,157.40**

Annual Fees

Category	Item	Qty	Price	Total
Recurring	LED Connect (LEDx) Software Recurring Annual Per unit annual recurring fee for J1708/J1939 Destination LED sign integration and software management. Code: 2210029LEDX	14	\$107.00	\$1,498.00[†]

** Recurring fees billed annually with 0 upfront payment(s).*

Annual Subtotal **\$1,498.00**

GTFS-RT (Real Time)

One-Time Fees

Category	Item	Qty	Price	Total
Setup	Real Time GTFS Feed Setup Setup General Transit Feed for real time access. Code: GTFSfeed	1	\$1,795.00	\$1,795.00[†]
One-Time Subtotal				\$1,795.00

Annual Fees

Category	Item	Qty	Price	Total
Recurring	Real Time GTFS Feed Recurring Annually Per unit annual recurring fee. Configuration updates, reporting, and data storage. 100% Item Discount (\$308.00) Code: GTFSa	14	\$22.00	\$308.00 \$0.00[†]

* Recurring fees billed annually with 0 upfront payment(s).

Annual Subtotal	\$308.00
Discount	(\$308.00)

Automated Voice Announcement - AVA

One-Time Fees

Category	Item	Qty	Price	Total
Hardware	AVA: Audio Interrupt System Includes audio interrupt hardware, ancillary equipment, and wiring for connection to existing PA or Head Unit system with installed speakers. If additional audio equipment is required, Passio can provide this option as an upgrade to the customer. Code: 1219045AVA	14	\$385.00	\$5,390.00
Setup	AVA: Automated Voice Announcement Software License Per unit one time software license. Includes lifetime updates. Code: AVAlicense	14	\$898.00	\$12,572.00[†]
Setup	AVA: Automated Voice Announcement Standard Setup Automated Voice Announcement solution setup 25% Item Discount (\$1,248.75) Code: 1213009AVA	1	\$4,995.00	\$4,995.00 \$3,746.25[†]
Hardware / Component	AVA: Inline Noise Filter Inline Noise Filter	14	\$35.00	\$490.00[†]

Category	Item	Qty	Price	Total
	Code: 1210019AVA			
			One-Time Subtotal	\$23,447.00
			Discount	(\$1,248.75)

Annual Fees

Category	Item	Qty	Price	Total
Recurring	AVA: Automated Voice Announcement Recurring Annually Per unit annual recurring fee. Configuration updates, reporting, and data storage. Code: AVAannual	14	\$468.00	\$6,552.00 [†]
				* Recurring fees billed annually with 0 upfront payment(s).
			Annual Subtotal	\$6,552.00

ETA Text Back

One-Time Fees

Category	Item	Qty	Price	Total
Setup/License	ETA Text Back Account Setup ETA to text request initial setup for a customer account. Includes setting up text codes, testing text back feature, training, and database coordination. This is a one time fee per account. 15% Item Discount (\$281.43) Passio (Code: TXTBSET)	1	\$1,876.20	\$1,876.20 \$1,594.77
			One-Time Subtotal	\$1,876.20
			Discount	(\$281.43)

Annual Fees

Category	Item	Qty	Price	Total
Recurring	ETA Text Back Annual Service ETA text back stop codes and messaging. Annual fee per account. Up to 10,000 text messages per month. Additional text packages available in message increments. Code: TXTBANN Base Price <u>ETA Text Back Message Packages:</u> ETA Text Back Messaging - 10K/Month Total (TXTBANN10K)	1	\$4,455.00	\$4,455.00 [†]
			\$2,655.00	\$2,655.00
			\$1,800.00	\$1,800.00

* Recurring fees billed annually with 0 upfront payment(s).

Annual Subtotal \$4,455.00

UTA Integration with APC Solution

One-Time Fees

Category	Item	Qty	Price	Total
Setup	API Integration - UTA API Integration with UTA Customers who utilize UTA as their source for APC data and choose to integrate with one or more Passio Solutions will require this integration. Code: APIGTAB API Setup: API Integration Core Setup (APISET)	1	\$7,800.00	\$7,800.00

One-Time Subtotal \$7,800.00

Annual Fees

Category	Item	Qty	Price	Total
Recurring	API Integration Express Recurring Annual Annual fee for API Integration. Includes software updates and real time location data integration, as well as updates to the integration protocols for any changes. Passio (Code: APIINTRECUR)	1	\$3,600.00	\$3,600.00 [†]

* Recurring fees billed annually with 0 upfront payment(s).

Annual Subtotal \$3,600.00

Infotainment - Advertising Capabilities on Screens

One-Time Fees

Category	Item	Qty	Price	Total
Setup	Setup/Installation Project Management for solution implementation. One time fee for management, deployment, and coordination. Code: PM-SETUP	1	\$30,539.74	\$30,539.74 [†]

Category	Item	Qty	Price	Total
Hardware	Infotainment Hardware	1	\$77,545.58	\$77,545.58[†]
	Included in the Hardware:			
	- MPTV-M27v - 26.9" 1080p Intelligent Display - 700 NIT Brightness (13 Total Screens) - MP-BRK-M27v-SH LD - Clean Back Bracket / Shield for M27 Screens - MP-BRK-M-Kit-Front Stanchion - Mounting kit for front stanchions, includes pipe & clamps. - MP-180M - Quad Core HD Standalone Controller for Mobile Infotainment Deployments. Capable of driving up to 4 secondary displays. 5 Year Warranty			
	Code: PM-SETUP			

One-Time Subtotal \$108,085.32

Annual Fees

Category	Item	Qty	Price	Total
Recurring	Project Support and Maintenance Annual	14	\$848.00	\$11,872.00[†]
	Annual ongoing support, maintenance:			
	Co-managed with AD+ module support for advertising			
	** Previously recommended the basic support and feel you may need more guidance to start in the beginning. This will make sure your screens are set and coordinated until someone on staff is able to learn the process. Or you can keep the support at this setting the entire time.			
	Code: PM-MAINT-ANN			

* Recurring fees billed annually with 0 upfront payment(s).

Annual Subtotal \$11,872.00

Installation

One-Time Fees

Category	Item	Qty	Price	Total
Hardware	Installation	14	\$1,380.00	\$19,320.00
	Hardware installation and connectivity testing. On site charges, travel, and initial costs.			
	Passio (Code: Install)			
	<u>Component Install:</u>			
	MDT (Mobile Data Terminal) (MDTINST)			

Category	Item	Qty	Price	Total
	VLU (Vehicle Logic Unit) (VLUINST)			
	AVA Interrupt (AVAINST)			
	LEDX Installation (LEDXINST)			
	Cellular Router (ROUTRINST)			
One-Time Subtotal				\$19,320.00

Spare Devices - 2 MDTs / 2 VLUs

One-Time Fees

Category	Item	Qty	Price	Total
Hardware	MDT Portable	2	\$966.00	\$1,932.00
	Rugged Android MDT with Cradle Mount			
	Code: MDTport			
Hardware	VLU	2	\$422.00	\$844.00
	Vehicle Logic Unit for GPS Tracking.			
	Code: VLU			
One-Time Subtotal				\$2,776.00

Summary

[†] Non-taxable item

Please contact us if you have any questions.

One-Time Subtotal	\$197,561.32
Discount	(\$2,498.28)
Clovis, CA (8.35%)	\$5,059.33
Total One-Time	\$200,122.38 USD
Annual Subtotal	\$39,471.00
Discount	(\$308.00)
Total Annually	\$39,163.00 USD

ACCEPT QUOTE

Cost Breakdown

Category	One-Time Fees	Annual Fees
Setup	\$65,984.14	—
License	\$1,877.40	—
Hardware	\$127,333.58	—
Recurring	—	\$39,471.00
Hardware / Component	\$490.00	—
Setup/License	\$1,876.20	—
Discount	(\$2,498.28)	(\$308.00)
Clovis, CA	\$5,059.33	—
Total	\$200,122.38 USD	\$39,163.00 USD

Standard Terms and Conditions

- Installation
 - All installation quotes are estimates based on customer provided vehicle information. Limited vehicle availability or undocumented vehicle configuration information may result in increased installation costs and/or trip charges.
- Sales & Use Tax
 - Customer to provide tax exempt certificate if applicable. Customers are required to calculate calculate and pay all applicable USE taxes unless alternate arrangements made at time of order.
- Term of Agreement
 - Standard term is 36 months for optimal pricing. Customers have the option to select 60 month term to lock in pricing for an extended period. Lesser term periods are subject to higher recurring fees.
- Deposit
 - New customers are required to pay a deposit equal to 50% of the one time costs prior to shipment of any equipment or account setup.

PASSIO TECHNOLOGIES

YOUR CUSTOM SOLUTION QUOTE

City of Clovis - CA

Nick Chin

nickc@ci.clovis.ca.us

Clovis

Quote #: 955 v2

PLEASE REACH OUT TO
PASSIO SALES WITH ANY
QUESTIONS
SALES@PASSIOTECH.COM

PASSIO
TECHNOLOGIES

Passio Technologies
 6100 Lake Forrest Dr
 Atlanta, GA 30328
 United States

Quote #	955 v2
Date	Oct 13, 2022
Expires	Nov 30, 2022
Contact	Scott McLaren

Prepared for City of Clovis - CA
 Nick Chin
 Clovis, CA
 United States

T: 559-324-2762
 E: nickc@ci.clovis.ca.us

ACCEPT QUOTE

Passio Technologies Quote with City of Clovis - 5 Year Ext Warranty

One-Time Fees

Category	Item	Qty	Price	Total
Hardware / Warranty	MDT Warranty	14	\$487.50	\$6,825.00 [†]
	Mobile Data Terminal Warranty - covers all manufacturers defects and device failures not related to damage, vandalism, misuse, accident, or other non normal wear and tear event. All devices include a 12 month standard warranty. Warranties may be extended to add to the initial 12 month period.			
	Lilliput (Code: MDTwar)			
	<u>Extended Warranty:</u> MDT 60 Month Warranty Per Device (MDTWTY60)		\$487.50	\$6,825.00
Hardware / Warranty	VLU Warranty	14	\$168.75	\$2,362.50 [†]
	Vehicle Logic Unit Warranty - covers all manufacturers defects and device failures not related to damage, vandalism, misuse, accident, or other non normal wear and tear event. All devices include a 12 month standard warranty. Warranties may be extended to add to the initial 12 month period.			
	CalAmp (Code: VLUwar)			
	<u>Extended Warranty:</u> VLU 60 Month Warranty Per Device (VLUWTY60)			
Hardware / Warranty	AVA Connect System Warranty	14	\$125.00	\$1,750.00 [†]
	AVA Connect Warranty - covers all manufacturers defects and device failures not related to damage, vandalism, misuse, accident, or other non normal wear and tear event. All devices include a 12 month standard warranty. Warranties may be extended to add to the initial 12 month period.			
	CalAmp (Code: AVAwar)			
	<u>Extended Warranty:</u> AVA 60 Month Warranty Per Device (VLUWTY60)			

[†] Non-taxable item

Total One-Time \$10,937.50 USD

251

Please contact us if you have any questions.

ACCEPT QUOTE

Cost Breakdown

Category	One-Time Fees
Hardware / Warranty	\$10,937.50
Total	\$10,937.50 USD

Standard Terms and Conditions

- Installation
 - All installation quotes are estimates based on customer provided vehicle information. Limited vehicle availability or undocumented vehicle configuration information may result in increased installation costs and/or trip charges.
- Sales & Use Tax
 - Customer to provide tax exempt certificate if applicable. Customers are required to calculate and pay all applicable USE taxes unless alternate arrangements made at time of order.
- Term of Agreement
 - Standard term is 36 months for optimal pricing. Customers have the option to select 60 month term to lock in pricing for an extended period. Lesser term periods are subject to higher recurring fees.
- Deposit
 - New customers are required to pay a deposit equal to 50% of the one time costs prior to shipment of any equipment or account setup.

EXHIBIT C

INSURANCE REQUIREMENTS

Prior to commencement of the Services, Contractor shall take out and maintain at its own expense the insurance coverage required by this **Exhibit C**. Contractor shall cause any subcontractor with whom Contractor contracts for the performance of Services pursuant to this Agreement to take out and maintain equivalent insurance coverage. Said insurance shall be maintained at all times during Contractor's performance of Services under this Agreement, and for any additional period specified herein. All insurance shall be placed with insurance companies that are licensed and admitted to conduct business in the State of California and are rated at a minimum with an "A:VII" by A.M. Best Company, unless otherwise acceptable to the City.

a. Minimum Limits of Insurance. Contractor shall maintain the following types of insurance with limits no less than specified:

(i) General Liability Insurance (including operations, products and completed operations coverages) in an amount not less than two million dollars (\$2,000,000.00) per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.

(ii) Worker's Compensation Insurance as required by the State of California.

(iii) Automobile Liability Insurance in an amount not less than one million dollars (\$1,000,000.00) per accident for bodily injury and property damage.

(iv) Umbrella or Excess Liability. In the event Contractor purchases an Umbrella or Excess insurance policy(ies) to meet the "Minimum Limits of Insurance," this insurance policy(ies) shall "follow form" and afford no less coverage than the primary insurance policy(ies). In addition, such Umbrella or Excess insurance policy(ies) shall also apply on a primary and non-contributory basis for the benefit of the City, its officers, officials, employees, agents, and volunteers.

If Contractor maintains higher limits than the minimums shown above, the City shall be entitled to coverage at the higher limits maintained.

b. Other Insurance Provisions. The general liability policy is to contain, or be endorsed to contain, the following provisions:

(i) The City, its officers, officials, employees, agents, and volunteers are to be covered as insureds with respect to liability arising out of automobiles owned, leased, hired, or borrowed by or on behalf of the Contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33 or CG 20 38; and CG 20 37 forms if later revisions used).

(ii) For any claims related to the Services performed pursuant to this Agreement, the Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by the City, its officers,

officials, employees, agents, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

(iii) Each insurance policy required by this section shall be endorsed to state that the City shall receive written notice at least thirty (30) days prior to the cancellation, non-renewal, or material modification of the coverages required herein.

(iv) Contractor grants to the City a waiver of any right to subrogation which any insurer of said Contractor may acquire against the City by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

(v) Any deductibles or self-insured retentions must be declared to and approved by the City of Clovis Risk Services. The City may require the Contractor to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

c. Evidence of Coverage. Contractor shall deliver to City written evidence of the above insurance coverages, including the required endorsements prior to commencing Services under this Agreement; and the production of such written evidence shall be an express condition precedent, notwithstanding anything to the contrary in this Agreement, to Contractor's right to be paid any compensation under this Agreement. City's failure, at any time, to object to Contractor's failure to provide the specified insurance or written evidence thereof (either as to the type or amount of such insurance), shall not be deemed a waiver of City's right to insist upon such insurance later.

d. Maintenance of Insurance. If Contractor fails to furnish and maintain the insurance required by this section, City may (but is not required to) purchase such insurance on behalf of Contractor, and the Contractor shall pay the cost thereof to City upon demand, and City shall furnish Contractor with any information needed to obtain such insurance. Moreover, at its discretion, City may pay for such insurance with funds otherwise due Contractor under this Agreement.

e. Subcontractors. If the Contractor should subcontract all or any portion of the work to be performed in this Agreement, the Contractor shall cover the subcontractor, and/or require each subcontractor to adhere to all the requirements contained herein. Similarly, any cancellation, lapse, reduction or change of subcontractor's insurance shall have the same impact as described above.

f. Special Risks or Circumstances. The City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

g. Indemnity and Defense. Except as otherwise expressly provided, the insurance requirements in this section shall not in any way limit, in either scope or amount, the indemnity and defense obligations separately owed by Contractor to City under this Agreement.

EXHIBIT D

SIGNING AUTHORITY



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: General Services Department

DATE: March 17, 2025

SUBJECT: General Services – Approval – Res. 25-____, Amending the City's FY 2024-2025 Position Allocation Plan by adding two (2) Senior Management Analyst Positions and removing two (2) Management Analyst Positions within the General Services Department.

ATTACHMENTS: 1. Resolution 25-____ Position Allocation Plan

RECOMMENDATION

For City Council to approve a resolution amending the City's FY 2024-2025 position allocation plan by adding two (2) Senior Management Analyst positions and removing two (2) Management Analyst positions within the General Services Department.

EXECUTIVE SUMMARY

The two Management Analyst positions in the Personnel/Risk Management Division of the General Services Department have been assigned substantial additional duties and responsibilities beyond the scope of their current classification. As a result, reclassifying these positions to Senior Management Analyst is deemed appropriate and has been approved by the City Manager. It is recommended that the City's Position Allocation Plan be amended to add two Senior Management Analyst positions and eliminate two Management Analyst positions within the General Services Department. Council approval is required for any changes to the Position Allocation Plan.

BACKGROUND

Personnel has recently evaluated the responsibilities and tasks performed by two Management Analysts in the Personnel/Risk Management Division of the General Services Department as part of a classification review. The nature and scope of duties currently undertaken by both incumbents exceed the scope of their current classification. This reflects changes within the Division related to City growth, increased Federal and State legislation, the incumbents' expanded skill sets, and the heightened level of work required to effectively coordinate projects and programs.

The incumbents are now performing duties more aligned with those of a Senior Management Analyst, which includes overseeing City-wide programs of greater complexity and expanded scope. These programs require more independent administration and management as Federal and State regulations become increasingly intricate due to legislative changes. As the legislative landscape evolves, the incumbents must stay current with new laws and regulations, which demands specialized knowledge of compliance. This includes not only understanding these regulations but also developing policies to ensure compliance across the organization. Furthermore, the incumbents are responsible for the continuous evaluation of programs to ensure all activities align with legal requirements. This expanding scope of responsibilities has significantly broadened their roles, requiring them to manage a wider range of tasks, including research, documentation, monitoring, and reporting, all while maintaining high levels of accuracy and efficiency.

FISCAL IMPACT

The fiscal impact of salary and benefits for the remainder of FY 2024-2025 is approximately an additional \$4,200. There are adequate funds in the General Services budget to cover the costs of these two positions for this fiscal year.

REASON FOR RECOMMENDATION

The addition of two (2) Senior Management Analyst positions and the elimination of two (2) Management Analyst positions reflect the level of responsibility of staff in the General Services Department. The re-classification and additional compensation require Council approval.

ACTIONS FOLLOWING APPROVAL

The position allocation for the General Services Department will be modified as noted in Attachment 1.

CONFLICT OF INTEREST

None.

Prepared by: Lori Shively, Deputy General Services Director

Reviewed by: City Manager AK

RESOLUTION 25-__

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS APPROVING
AMENDMENTS TO THE CITY'S FY 2024-2025 POSITION ALLOCATION PLAN**

WHEREAS, the FY 2024-2025 Position Allocation Plan in the General Services Department was approved as part of the FY 2024-2025 City Budget adoption process; and

WHEREAS, a review of the staffing needs for the General Services Department indicates that the addition of two (2) Senior Management Analyst positions and the removal of two (2) Management Analyst positions is necessary in order to provide the support needed for the General Services Department; and

WHEREAS, amending the City's adopted FY 2024-2025 Position Allocation Plan requires City Council authorization.

NOW, THEREFORE, BE IT RESOLVED, by the City of Clovis that the City's FY 2024-2025 Position Allocation Plan shall be amended as noted in Attachment A.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on March 17, 2025, by the following vote, to wit.

AYES:

NOES:

ABSENT:

ABSTAIN:

DATED:

Mayor

City Clerk

POSITION ALLOCATION ADJUSTMENT BY DEPARTMENT FY 2024-2025

<u>DEPARTMENT</u>	<u>NUMBER OF POSITIONS</u>
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<i>General Services Department Personnel/Risk Management Division</i>	
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Add: Senior Management Analyst	2.0
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Delete: Management Analyst	2.0
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CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Planning and Development Services Department

DATE: March 17, 2025

SUBJECT: Planning and Development Services – Approval – Final Acceptance for CIP 23-03, Willow Avenue Street Improvements.

ATTACHMENTS: 1. Vicinity Map

RECOMMENDATION

For the City Council to accept the work performed as complete and authorize the recording of the notice of completion for this project.

EXECUTIVE SUMMARY

This project involved ±0.5 miles of street improvements on Willow Avenue from Shaw Avenue to Barstow Avenue. Project improvements included removing and replacing existing A.C. pavement, replacement of curb returns, adjustments of utility boxes, manholes, and utility valve boxes to finished grade, replacements of traffic striping, markings and signage, traffic signal modification, and reinstallation of traffic loop detectors.

BACKGROUND

Bids were received on March 19, 2024, and the project was awarded by the City Council to the low bidder, Asphalt Design by Juan Gomez, on April 15, 2024. The project was completed in accordance with the construction documents and the contractor has submitted a request for acceptance of the project.

FISCAL IMPACT

1. Award	\$1,058,995.50
2. Contract Change Orders	\$23,842.70
3. Liquidated Damages Assessed	\$0.00

Final Contract Cost	\$1,082,838.20
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This project was approved in the Community Investment Program 2023-2024 fiscal year budget and is funded by Surface Transportation Block Grant Program (STBG).

REASON FOR RECOMMENDATION

The Public Utilities Department, the City Engineer, the Engineering Inspector, and the Project Engineer agree that the work performed by the contractor is in accordance with the construction documents and has been deemed acceptable. The contractor, Asphalt Design by Juan Gomez, has requested final acceptance from the City Council.

ACTIONS FOLLOWING APPROVAL

1. The Notice of Completion will be recorded; and
2. All retention funds will be released pursuant to Federal requirements and the Prompt Payment of Funds Withheld to Subcontractors clause of the Local Assistance Procedures Manual.

CONFLICT OF INTEREST

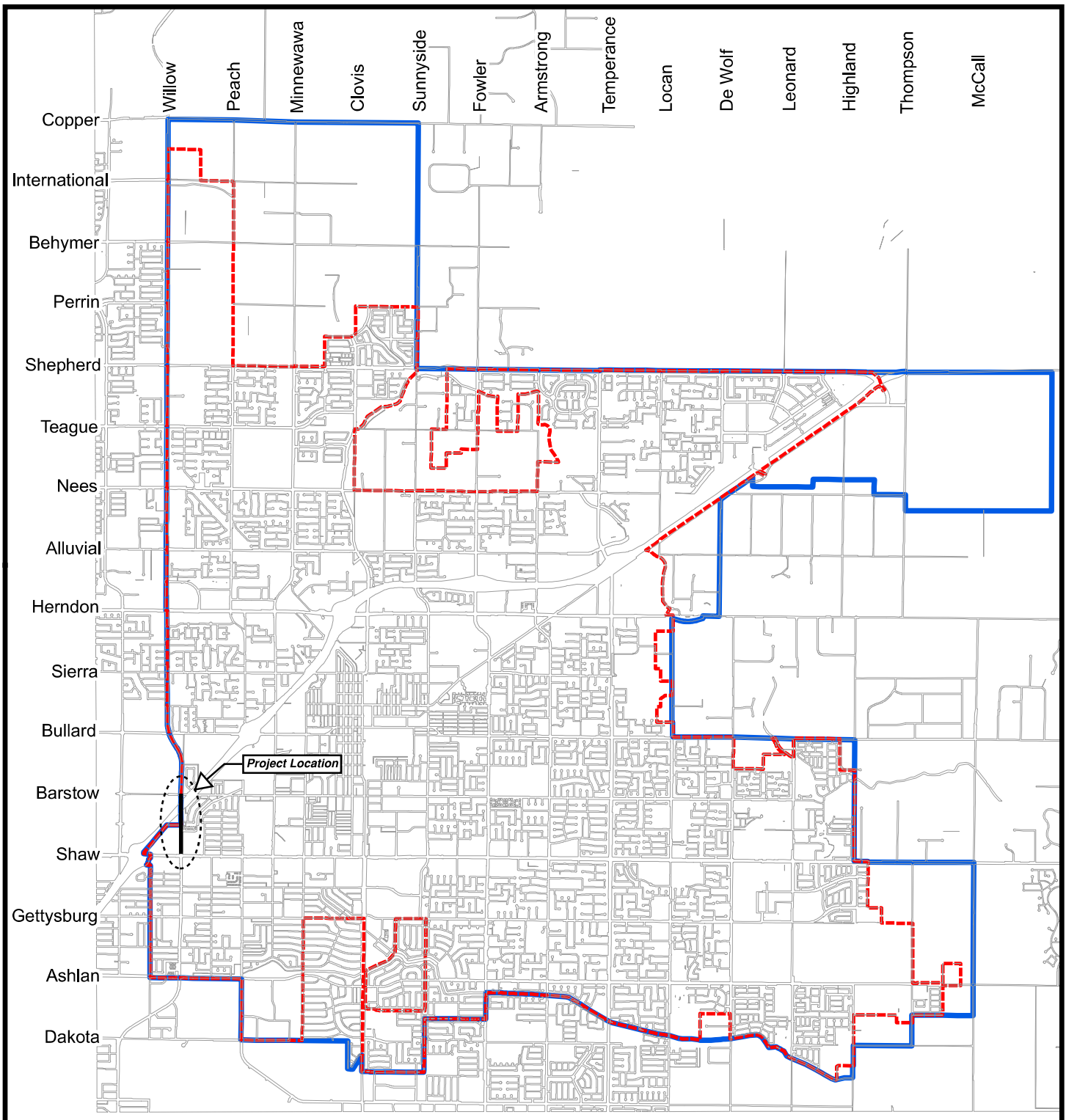
None.

Prepared by: Matt Buller, Senior Engineering Inspector

Reviewed by: City Manager AA

VICINITY MAP

CIP 23-03 - Willow Avenue Street Improvements



Attachment 1



 CITY LIMITS SPHERE OF INFLUENCE





CITY of CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Planning and Development Services Department

DATE: March 17, 2025

SUBJECT: Planning and Development Services – Approval – Final Acceptance for CIP 24-24, Santa Ana Sidewalk Improvements.

ATTACHMENTS: 1. Vicinity Map

RECOMMENDATION

For the City Council to accept the work performed as complete and authorize the recording of the notice of completion for this project.

EXECUTIVE SUMMARY

This project involved ± 0.25 miles of sidewalk improvements. Project improvements included clearing & grubbing, concrete sidewalks, collars around utility boxes, water box adjustment and ADA Curb Return ramps.

BACKGROUND

Bids were received on November 12, 2024, and the project was awarded by the City Council to the low bidder, Platinum General Engineering and Construction Co., Inc., on December 2, 2024. The project was completed in accordance with the construction documents and the contractor has submitted a request for acceptance of the project.

FISCAL IMPACT

1. Award	\$74,594.02
2. Cost decrease resulting from differences between estimated quantities used for award and actual quantities installed	\$(1,199.23)
3. Contract Change Orders	\$5,953.86
4. Liquidated Damages Assessed	\$0.00
Final Contract Cost	\$79,384.65

This project was approved in the Community Investment Program 2024-2025 fiscal year budget and is funded by Community Development Block Grant (CDBG).

REASON FOR RECOMMENDATION

The Public Utilities Department, the City Engineer, the Engineering Inspector, and the Project Engineer agree that the work performed by the contractor is in accordance with the construction documents and has been deemed acceptable. The contractor, Platinum General Engineering and Construction Co., Inc., has requested final acceptance from the City Council.

ACTIONS FOLLOWING APPROVAL

1. The Notice of Completion will be recorded; and
2. All remaining retention funds will be released no later than 35 calendar days following recordation of the notice of completion, provided no liens have been filed. Retention funds may be released within 60 days after the date of completion, provided no liens have been filed, with "completion" defined as the earlier of either (a) beneficial use and occupancy and cessation of labor, or (b) acceptance by the City Council per Public Contract Code Section 7107(c)(2).

CONFLICT OF INTEREST

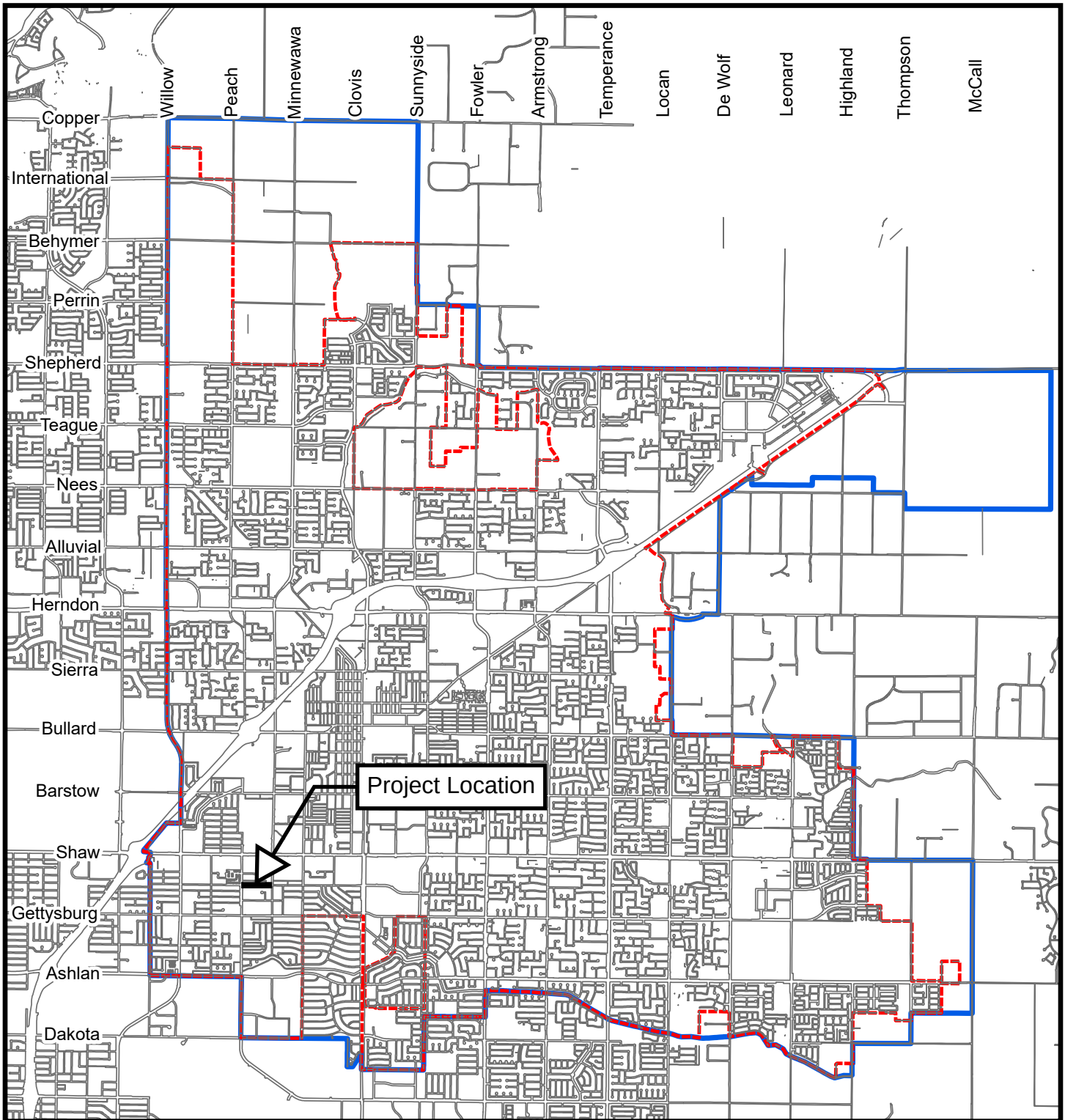
None.

Prepared by: Rami Abunamous, Engineering Inspector

Reviewed by: City Manager AM

VICINITY MAP

CIP 24-24 Santa Ana Sidewalk Improvements

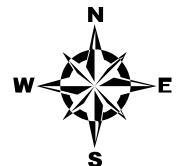


Project Location



Attachment 1

 CITY LIMITS SPHERE OF INFLUENCE





CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Planning and Development Services

DATE: March 17, 2025

SUBJECT: Consider Approval - Res. 25-____, CUP1995-009A4 Appeal. A request to consider an appeal of the Planning Commission's approval of CUP1995-009A4 for the addition of a new, two-story, classroom building and relocation of a basketball court, with a change in operational hours and an increase of student capacity to 414 students for the Valley Crescent School located at 547 W. Nees Avenue. Muslim Society of Central California, owner; Michael Eastman, Applicant, and representative.

Staff: Marissa Parker, Assistant Planner

Recommendation: Deny the request for appeal, uphold the Planning Commission's approval of the Project and deny the Appellant's request to waive the appeal fee.

ATTACHMENTS:

1. Res. 25-____, CUP1995-009A4
2. Site Plan and Floor Plan
3. Applicant's Operational Statement
4. Correspondence from Commenting Agencies
5. February 11, 2025 Appeal Letter
6. Noise Study Dated February 21, 2025
7. Traffic Impact Analysis Dated December 3, 2024
8. City of Clovis School Signage Memorandum Dated June 11, 2024

RECOMMENDATION

Staff recommends that the City Council deny the appeal request, uphold the Planning Commission's approval of Conditional Use Permit (CUP) 1995-009A4 and deny the Appellant's request to waive the appeal fee.

EXECUTIVE SUMMARY

The Planning Commission approved CUP1995-009A4 at its January 23, 2025 meeting. The conditional use permit (CUP) approval allowed the addition of a new, two-story, classroom building, a relocation of the basketball court, change in operational hours, and the increase of student capacity to 414 students for the Valley Crescent School, located on the north side of

Nees Avenues, between N. Willow and N. Peach Avenues, hereinafter referred to as, the "Project." The Project includes the addition of a $\pm 12,500$ square foot, two-story classroom building and the relocation of a $\pm 4,200$ square foot basketball court on the existing private school campus, as shown in **Attachment 2**. Additionally, the Project includes a change in operational hours and an increase in number of students. On February 11, 2025, staff received an application to appeal the Planning Commission's approval of CUP1995-009A4 (**Attachment 5**). Further information regarding the appeal and the neighbor's areas of concern are provided below in the body of this staff report.

FIGURE 1 - Project Location



BACKGROUND

- General Plan Designation: L (Low Density Residential)
- Existing Zoning: R-1-7500 (Single-Family Residential)
- Lot Size: ± 2.42 acres
- Current Land Use: Private School
- Adjacent Land Uses:
 - North: Single-Family Residential
 - South: Single-Family Residential
 - East: Single-Family Residential
 - West: Single-Family Residential
- Previous Entitlements: CUP95-9, 95-9A, 95-9-A2, 95-A3
SPR95-19, 19A, 19A2

On August 8, 1995, the Planning Commission approved CUP95-9, which allowed for the development of a day care facility at 547 W. Nees Avenue. The CUP was then amended (CUP95-9A) on February 2, 2004, to allow a private school campus for kindergarten through eighth grade. Following this, the Applicant requested a second amendment (CUP95-9A2) to modify the hours of operation, develop a playground and install a storage building, which was approved on September 8, 2005. More recently, CUP95-9A3 was approved in October of 2008 to allow for the use of two (2) permanent modular classroom structures totaling 2,040 square feet. Additionally, CUP95-9A3 permitted a maximum enrollment number of 174 students. The Planning Commission's recent approval of CUP1995-009A4 allowed for an additional two-story building, the relocation of a basketball court, modifications to operational hours, and an increase in enrollment from 174 students to 414 students. Project details are discussed below under the *Proposal and Analysis* section.

Consideration of the Appeal

On February 12, 2025, staff received an application to appeal the Planning Commission's approval of CUP1995-009A4. When an appeal is considered, the appeal hearing is considered a new hearing and the Council may consider any issue(s) associated with the appeal, in addition to the specific grounds for the appeal. Per the Clovis Municipal Code ("CMC"), when reviewing an appeal, the Council may:

- a. By resolution, affirm, affirm in part, or reverse the action, the determination, or decision that is the subject of the appeal;
- b. Adopt additional conditions of approval deemed reasonable and necessary, and may even address issues or concerns that go beyond the subject of the appeal; or
- c. Disapprove the permit or approval granted by the previous review authority, even though the Appellant only requested a modification or elimination of one or more conditions of approval.

If new or different evidence is presented on appeal, the Council may, but shall not be required to, refer the matter to the Commission, as applicable, for further consideration.

Throughout this report, the Applicant of CUP1995-009A4 is referred to as the "Applicant," while the party appealing the Planning Commission's approval of CUP1995-009A4 is referred to as the "Appellant."

PROPOSAL AND ANALYSIS

The Applicant has requested approval of this CUP amendment for the addition of a new, two-story, ±12,500 square foot classroom building and the relocation of a ±4,200 square foot basketball court for the Valley Crescent School as shown in **Attachment 2**. This request also includes changes to the operational nature of the use, specifically the hours of operation and an increase in student capacity from 174 students to 414 students.

Existing Site and Surrounding Area

As shown in **Figure 1** above, the subject property is located on the north side of W. Nees Avenue, west of N. Peach Avenue. The school is currently operating on a 2.42-acre parcel with an existing 5,205 square-foot classroom building, play areas with an existing shade structure, and two permanent modular buildings. The site also includes a parking area consisting of 31 parking stalls. Single-family residential neighborhoods abut the northern, eastern, and western portions of the property. Single-family residential neighborhoods are also located on the south side of W. Nees Avenue. Private school campuses are allowed uses within residential areas with an approved conditional use permit.

Project Operations

The school was approved in 2004 and has operated at its existing location for approximately 20 years. The school was approved to accommodate up to 174 students and operate between the hours of 7:30 a.m. to 3:30 p.m., Monday through Friday. In addition, the hours of operation for weekend classes are allowed from 9:00 a.m. to 1:00 p.m. Weekday classes occur between 8:00 a.m. to 3:30 p.m. with one morning recess break, one lunch period, and one afternoon recess break. Physical education classes take place between 1:45 p.m. and 3:30 p.m.

For informational purposes, the project was conditioned through CUP1995-009A2 that the hours of use for the playground shall not occur outside of 7:30 a.m. to 3:30 p.m., Monday through Friday with an exception of occasional use until 5:00 p.m. for organized team sports. CUP1995-009A2 also conditioned that there shall be no use of the playground on Saturday and Sunday. These conditions have been carried over to this CUP, see condition 12 included in **Attachment 1**.

The Applicant has provided an updated operational statement (**Attachment 3**) outlining the operations of the proposed Project. The Applicant's intent of updating the operational statement is for clarification purposes as the operational statement provided to the Planning Commission was brief. The proposed hours of operation are 7:00 a.m. to 5:00 p.m., Monday through Friday, and between the hours of 9:00 a.m. and 1:00 p.m. on Saturday and Sunday. Students attend the private school on a traditional school schedule, 7:30 a.m. to 3:30 p.m., Monday through Friday. Operations before 7:30 a.m. and after 3:30 p.m. are utilized by staff to prepare for classes, hold meetings, and other school-related commitments, including after school programs, clubs, and sports. There are currently 14 employees, however, the school is in the process of adding 12 new staff members for a maximum of 26 total staff members. Condition 10 included in **Attachment 1** requires that there be no more than 31 total staff members, for parking purposes (see additional parking information below under *Site Circulation, Parking, and Traffic*).

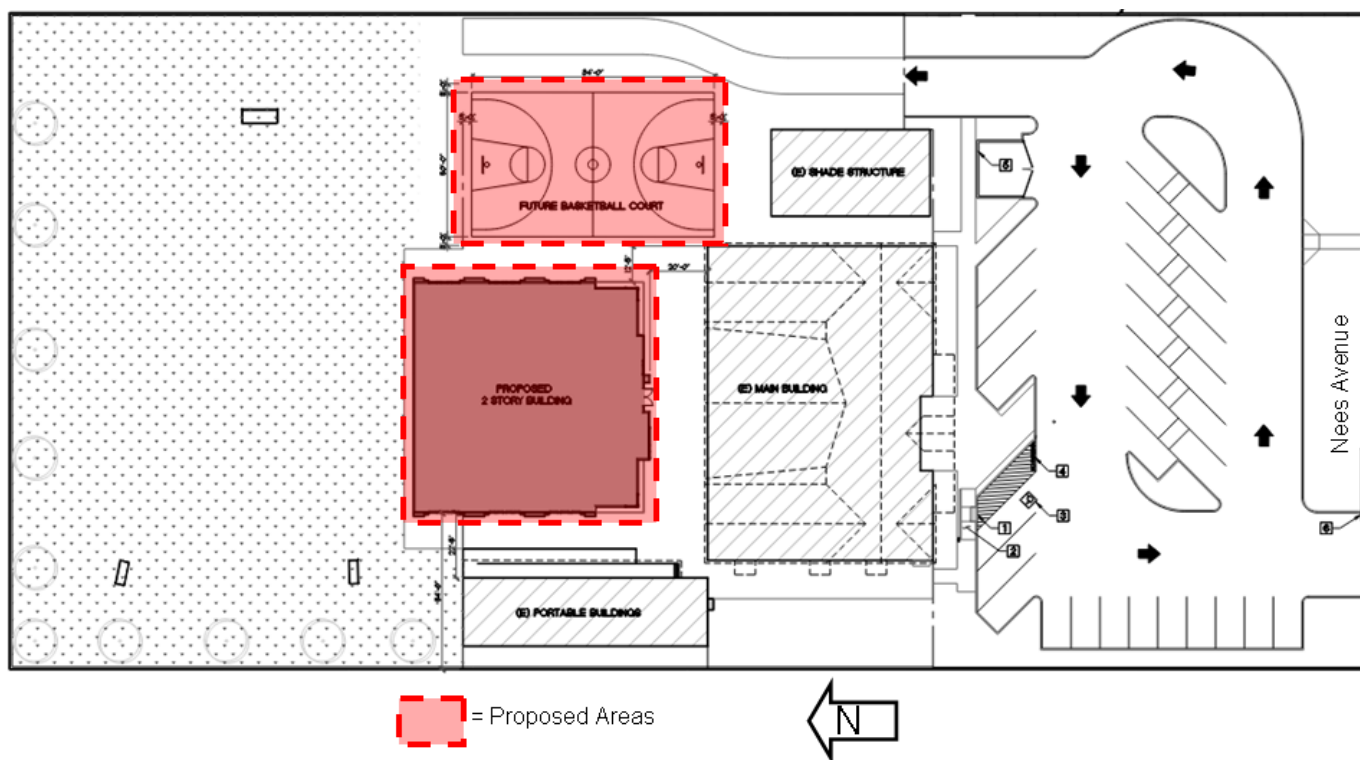
CUP1995-009A3 allowed the school to accommodate up to 174 students from kindergarten to eighth grade. Per the operational statement (**Attachment 3**), the current enrollment is 167 students. With the proposed building addition, the school is requesting an increase of 240 students, totaling 414 students at full capacity. As described in **Attachment 3**, the time frame to reach full capacity is anticipated to be seven (7) years from the completion of construction of the building.

Proposed Site Layout

Figure 2 below showcases the site layout, which includes the proposed $\pm 12,500$ square foot classroom building and the basketball court in red. The proposed classroom building will be situated behind the existing main building and setback approximately 160 feet from the rear property line, 27.5 feet from the west property line, and 54 feet from the east property line. The basketball court will be situated just east of the new building. The location of the building has been conditioned (condition 9 included in **Attachment 1**) to be located no less than the aforementioned setbacks.

The Clovis Fire Department initially expressed concerns regarding access to the proposed classroom building. However, the Fire Department has confirmed that the size and nature of the basketball court being located next to the classroom building will allow for an acceptable access point. In the case of an emergency, first-responders will be able to utilize the future basketball court to reach the building from a sufficient distance, while also ensuring an adequate turnaround for the truck.

FIGURE 2 - Site Layout



A meeting between the Applicant and the neighbors following the Planning Commission meeting occurred on February 5, 2025. During this meeting, one item of discussion was the installation of additional landscaping to provide privacy to adjacent neighbors. The Applicant has agreed to do so, and a condition has been incorporated to this CUP (see condition 19 of **Attachment 1**). Condition 19 requires mature landscaping to be installed along the north, west, and east property lines. If the CUP is approved by Council, staff will work with the Applicant along with the Engineering and Parks Divisions to determine the best approach to incorporate additional

landscaping to screen the view of the proposed classroom building and basketball court and the landscaping plan will be reviewed in detail during the Site Plan Review (SPR) process.

Site Circulation, Parking, and Traffic

This request does not include any modifications to the existing site access, circulation, and parking. The subject parcel currently has one (1) access point located on Nees Avenue, which leads to the parking area. There will be no changes to the overall traffic flow; the circulation pattern will remain largely unchanged.

Requests such as this typically require the Applicant to modify or increase the number of parking stalls, as it is an intensification of the existing use. However, parking for school facilities is based upon the number of staff members and not students. Per section 9.32.040 of the CMC, the required parking ratio for private schools is one (1) space for each faculty and employee member. The operational statement (**Attachment 3**) indicates the maximum number of staff members for the school is between 24 and 26. The site has 31 existing parking stalls, surpassing the requirement.

Because the operations propose an increase in student capacity from 174 to 414, additional drop-off and pick-ups will occur. Due to this increase, a Traffic Impact Analysis (TIA) (**Attachment 7**) was required to be conducted to verify any potential required mitigations. The TIA was prepared by TJW Engineering, Inc. on December 3, 2024, which concluded that with the increase of 240 students, the traffic conditions along Peach, Nees, and Willow Avenues are projected to continue operating at an acceptable level. Upon review of the study, no concerns were raised by Engineering staff regarding access, circulation, or parking.

Additionally, staff would like to note that on November 21, 2023, a representative from Valley Crescent School contacted Engineering staff regarding school signage and student safety. As Valley Crescent is a private school campus for kindergarten through eighth grade, the Engineering Division deemed the installation of signage for a School Zone and School Speed Limit appropriate. As described in **Attachment 8**, staff reviewed the existing school signage and determined that four (4) School Warning signs, two (2) School Speed Limit Signs, and the relocation of one (1) ending speed limit sign were warranted. Signage was installed on June 24, 2024, and **Figure 3** below shows the seven (7) current locations.

Figure 3 – Existing School Signage



Architecture & Building Height

Architectural concepts were provided with the initial application submittal and will be thoroughly vetted through the SPR process. Staff will work with the Applicant on establishing an overall building design and color choice that would be consistent with the existing classroom building. Condition 6 in **Attachment 1** requires the architecture of the proposed building to be compatible with the existing development and surrounding developments.

The classroom building is proposed at thirty-six feet, eight inches (36'8") in height, which exceeds the requirement for the R-1-7500 Zone District. Per CMC section 9.10.030, the maximum building height for this zone district is 35 feet. The Project has been conditioned to reduce the building height to 35 feet to ensure compliance with Zone District standards and compatibility with surrounding developments (see condition 7 included with **Attachment 1**).

Noise

The proposed increase in students and relocation of the basketball court raised concerns from staff regarding the potential impact of noise on the adjacent residences. The Applicant was required to have a noise study prepared (**Attachment 6**) to evaluate the anticipated noise levels specific to the Project. The study was prepared by MD Acoustics prior to the Planning Commission hearing. The CMC indicates that the allowable exterior noise level for residential

areas shall not exceed 55 dBA. The study concluded that the maximum noise levels resulting from the basketball court and other playground activity are below the City's standards.

Following the appeal, an addendum to the noise study was prepared to validate and verify compliance with the CMC. On February 14, 2025, additional on-site measurements were conducted at four (4) locations on the project site during the school's operational hours of 9:00 a.m. and 11:00 a.m., which included times when students are outside for recess and lunch. The findings included in the study conclude that the existing noise levels are between 47 dBA to 52 dBA, depending on the location.

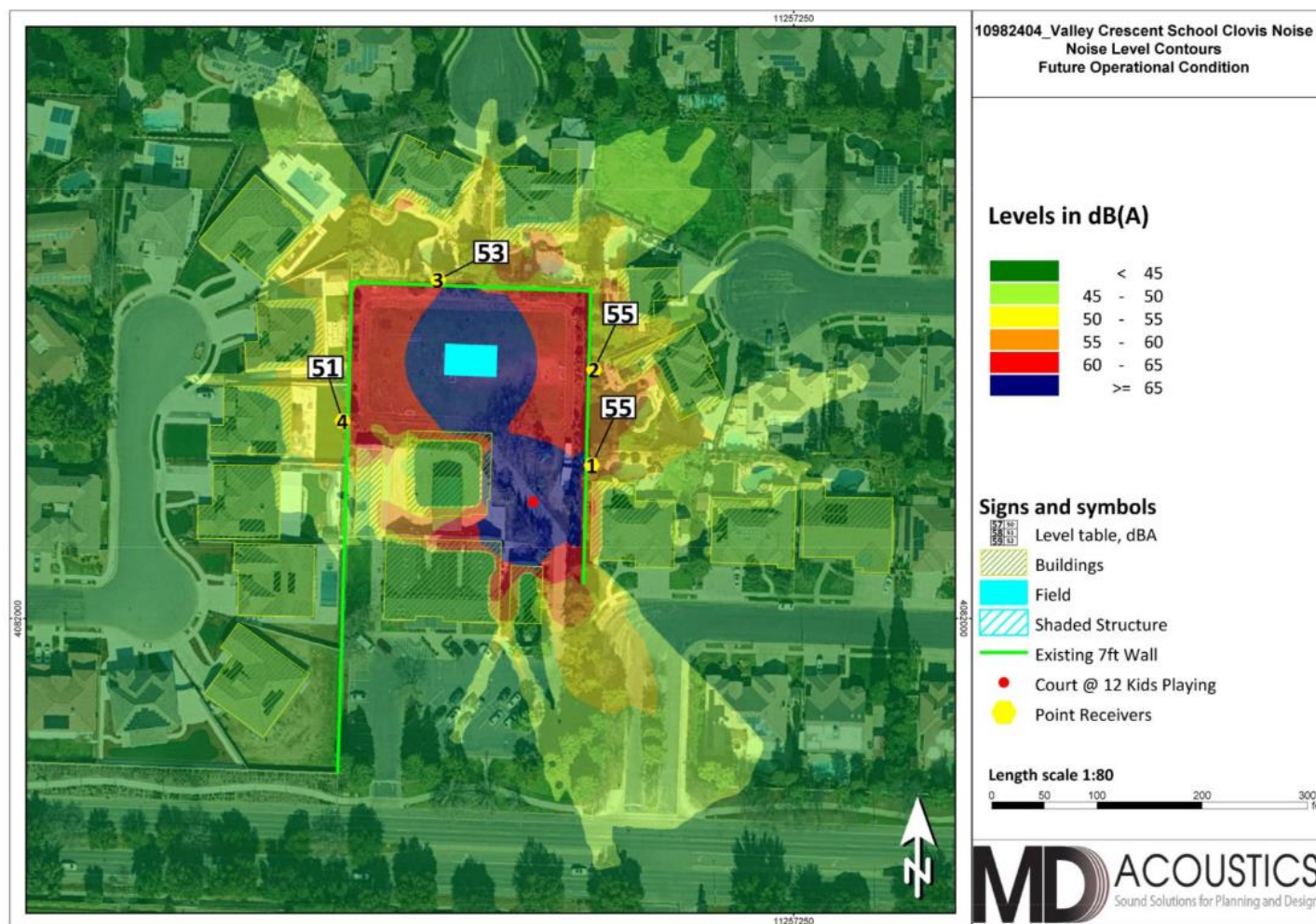
Table 1 below shows the change in the noise level condition as a result of the increase of students and site modifications associated with this Project. The analysis studied the noise levels from four areas (receptors 1 through 4) as identified in **Figure 4**. It is anticipated, based on the acoustic model used, that the change in noise level increase will range between 3 to 4 dBA at the four locations studied. It is important to note that the noise levels below take into consideration the existing 7-foot-tall concrete masonry unit (CMU) walls that surround the perimeter of the property. CMU walls often serve as noise control material by diffusing noise over a wide range of frequencies.

Table 1 – Change in Operational Noise Levels

Receptor	Existing Noise Level (dBA, Leq)	Future Noise Level (dBA, Leq)	Daytime Noise Limit	Change in Noise Level as Result of Project
1	52	55	55	+3
2	52	55	55	+3
3	50	53	55	+3
4	47	51	55	+4

The future operational noise levels are anticipated to reach 51 to 55 dBA, at maximum level, as reflected below in **Figure 4**. Therefore, the proposed Project will meet the daytime residential noise limit of 55 dBA, but is not expected to exceed it.

Figure 4 – Future Noise Levels

**Planning Commission Meeting**

The Applicant submitted this CUP amendment application (CUP1995-009A4) on December 14, 2023. The CUP was brought before the Planning Commission for consideration at its January 23, 2025, meeting. Following staff's presentation, the Applicant and five (5) individuals spoke in support of the Project and provided background regarding the proposal.

A total of eight (8) neighbors spoke in opposition of the Project. Comments received during the meeting mirror the concerns listed in the appeal letter.

The Planning Commission deliberated and ultimately approved CUP1995-009A4, with an added condition to review the school's CUP one year after a certificate of occupancy has been issued, by a vote of 3-1-1, with Commissioner Hebert absent.

Basis of Appeal

Below is a summary of the concerns raised by neighbors and the Appellant in opposition to the Project, along with the staff's responses.

- Noise and Disruption – Neighbors expressed concerns related to noise levels being elevated with the increase in students, which would exacerbate existing noise disruption.

*Analysis: Private school uses are allowed within the residential zone district with an approved CUP. The Project has been conditioned that it shall operate in a manner that complies with the CMC so that it does not generate noise, odor, or vibration that adversely affects any adjacent properties (see condition 14 in **Attachment 1**). As mentioned above under the noise section, a noise study was prepared by MD Acoustics. The noise study evaluated the existing and anticipated noise levels, which concluded that the highest level of noise would not exceed the residential noise level limit of 55 dBA.*

- Traffic and Public Safety Concerns – Neighbors have cited concerns regarding additional Project-related traffic. Neighbors also expressed concerns about drop-offs and pick-ups occurring in the residential neighborhood, specifically on Sylmar Avenue next to the school. Moreover, neighbors are also concerned about increases to vehicular accidents and specifically referenced a fatal vehicular accident.

*Analysis: The TIA completed by TJW Engineering Inc. in December of 2024 concluded that Nees Avenue is currently operating at an acceptable level (see **Attachment 7**). The study provided that Nees will continue to operate at an existing level with the increase of students. Engineering staff reviewed the TIA and agree with the results of the study. Furthermore, as previously mentioned, Engineering staff evaluated the Applicant's request for additional school signage from November 2023. The Engineering Division granted the installation of six (6) additional school signs and the relocation of one (1) sign, within the school's vicinity for a total of seven (7) signs. The signs were installed in June of 2024. Additionally, neighbors expressed that the drop-off and pick-up of students occurs on Sylmar Avenue. CUP1995-009A conditioned that no parking related to this use or drop off or pick up of students shall occur on Sylmar Avenue. This condition has been included with each of the subsequent amendments, including this CUP (see condition 11 in **Attachment 1**). If any school related parking, drop-off, or pick-up along Sylmar Avenue are reported to staff, an investigation would take place, and the CUP could be reviewed and possibly revoked due to violation of a required condition of approval. Furthermore, the appeal letter expressed concerns regarding a fatal vehicle accident that occurred in August of 2023. Engineering and Police staff work closely regarding accidents and traffic issues. An analysis of accidents from January 1, 2023 to December 31, 2024 indicates that a total of nine (9) accidents have occurred on Nees Avenue, between Willow and Peach Avenues. Records indicate that none of the accidents occurred because of the condition of the roads or the school's impact on the roadways.*

- Privacy - Neighbors expressed concerns regarding privacy along the north, south, and east property lines due to the proposed two-story building.

Analysis: The proposed layout is consistent with the applicable standards for lot coverage, building setbacks, and height for the R-1-7500 Zone District. No special accommodations or reductions to development standards are being considered in conjunction with the two-story building. The CMC includes limitations for buildings, such as setbacks, lot coverage, height, and aesthetics. As proposed, the classroom building will be situated behind the existing main building and setback approximately 160 feet from the rear property line, 27.5 feet from the west property line, and 54 feet from the east property line. The proposed setbacks exceed the requirements for the R-1-7500 Zone District as prescribed in the CMC Section 9.10.030. The minimum required setbacks as required by the CMC, are 20 feet from the southern property line, 5 feet for each side, and 20 feet from the northern property line. Additionally, the Applicant has agreed to install mature landscaping along the north, west, and east property lines to screen the view of the proposed classroom building and basketball court. It is important to note the surrounding zone districts allow for two-story homes that may reach 35 feet in height, with a minimum separation of 10 feet from each other.

- **Aesthetics** – Several neighbors argued that the proposed building height and location is out of character with the residential neighborhood and will hinder the residential character.

Analysis: As mentioned above under the Architecture & Building Height section, the classroom building is proposed at thirty-six feet, eight inches (36'8") in height, which exceeds the requirement for the R-1-7500 Zone District. The Project has been conditioned to reduce the building height to 35 feet to ensure compliance with Zone District standards and compatibility with surrounding developments. Currently, two-story homes exist to the west and north of the school's site. These homes are required to abide by the same development standards that are required of the school. The Project will be in compliance with applicable provisions, development standards and subject to the conditions of approval.

Reimbursement of Appeal Fee

As expressed in the appeal letter (**Attachment 5**), the Appellant is requesting a refund of the \$1,760 appeal fee that was collectively paid by several surrounding property owners. The Appellant believes that they should be reimbursed as they should not have to pay for the Council's review of the Project. The current City of Clovis Planning Division Fee Schedule was approved by the City Council on July 1, 2024 and went into effect on September 3, 2024. All items on the Fee Schedule including the appeal process are accompanied by a fee, which must be paid for the application to be deemed complete. As stated in CMC Section 9.50.070, the appeal fee is necessary to compensate for staff time to review the Project, prepare and process council and environmental documents, and present the Project to the Council. The Planning Division typically does not provide refunds. In the rare instance a refund is processed (typically due to the withdrawal of an application), the Applicant will receive a partial refund based upon the prorated costs to date and determination of the status of the application at the time of withdrawal. As this appeal has been fully carried out to the public hearing level, staff is not in support of refunding the Appellant's fee.

FISCAL IMPACT

None.

REASON FOR RECOMMENDATION

In consideration of the information provided in this report, staff continues to support the Planning Commission's approval of CUP1995-009A4. The Project is consistent with the goals and policies of the General Plan and the CMC. The physical building proposed in conjunction with the application meets the standards of the existing zone district. Based on the operational characteristics of the Project and an evaluation of existing conditions, no substantive concerns have been identified by City departments, including but not limited to, Engineering, Police and Fire. Based on this information and the following findings, Planning staff recommends that the City Council deny the request for appeal, uphold the Planning Commission's approval of the Project, and deny the Appellant's request to waive the appeal fee.

Conditional Use Permit 1995-009A4

The findings required to approve a CUP application include each of the following (CMC § 9.64.050, subd. (C)):

1. The proposed use is conditionally allowed within and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of this Development Code.

Private school uses are allowed within the R-1-7500 Zone District with an approved CUP. The private school has been operating for 20 years and was initially approved in 2004 with CUP95-9A. The amendment adds a ±12,500 square foot classroom building, relocation of a basketball court, with a change in operational hours, and increases the student capacity to 414 students. The Project will be in compliance with applicable provisions, development standards and subject to the conditions of approval. This Project will undergo site plan review to further ensure that the site layout and development standards are met. During the SPR review, the height, setbacks, parking standards, and elevations will be reviewed to ensure that applicable standards are met.

2. The proposed use is consistent with the General Plan and any applicable Specific Plan.

This Project is consistent with the 2014 Clovis General Plan. The underlying General Plan land use designation of Low Density Residential would remain unchanged, and the existing use is acceptable within the underlying General Plan land use designation of Low Density Residential, according to the 2014 Clovis General Plan and Zoning Code.

3. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.

The school use was originally established approximately 20 years ago and has been in place for several years in its current form. The existing 5,205 square foot building and two modular buildings have remained mainly unchanged since their development and installation. The Project adds a ±12,500 square foot classroom building, relocation of a basketball court, with a change in operational hours, and increases the student capacity to 414 students. Although the capacity of students will increase, the operations of the school will not change significantly with the addition of this Project. The increase in students is expected to occur incrementally for the next several years. Further, the Project will maintain the general circulation pattern by retaining primary ingress/egress from Nees Avenue. A noise study and a traffic study were conducted and found that there will be no significant impact with the addition of the Project.

4. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.

The proposed building and basketball court will occupy and operate within the existing site, which is physically suitable in size and shape and has the infrastructure in place to support it. The additions will meet the development standards of the R-1-7500 Zone District. Moreover, the Project will be required to comply with all conditions from the Public Utilities Department and Engineering Division, which will further ensure the sites are suitable for the proposed uses.

5. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.

The Project will comply with all applicable public health standards. Further, as an addition to the existing development, the adequate provisions (i.e. water, sanitation, utilities, etc.) are readily available and accessible to the proposed uses. Although modifications and/or upgrades may be required to the existing infrastructure, the overall site can be adequately served. The Public Utilities Department and Engineering Division have reviewed this Project and have no concerns regarding the serviceability of the site.

Details and final approval will occur during engineering review, if approved and the Project moves forward. This review will ensure utility services are sufficient to accommodate the Project and impose conditions for upgrades as needed.

6. The proposed project has been reviewed in compliance with the provisions of the California Environmental Quality Act (CEQA) and there would be no potential significant negative effects upon environmental quality and natural resources that would not be properly mitigated and monitored, unless findings are made in compliance with CEQA.

The Project is exempt from CEQA pursuant to CEQA Guidelines section 15332 (Class 32 – In-Fill Development Projects) and that the exceptions identified under section 15300.2 of the CEQA Guidelines would not be triggered as a result of the Project. Therefore, the Project has been reviewed in compliance with CEQA.

ACTIONS FOLLOWING APPROVAL

If approved, the Project will continue with a site plan review.

CONFLICT OF INTEREST

None.

Prepared by: Marissa Parker, Assistant Planner

Reviewed by: City Manager AM

RESOLUTION 25-____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS DENYING THE REQUEST FOR APPEAL, UPHOLDING THE PLANNING COMMISSION'S APPROVAL OF CONDITIONAL USE PERMIT 1995-009A4 FOR THE ADDITION OF A NEW, TWO-STORY, CLASSROOM BUILDING, THE RELOCATION OF A BASKETBALL COURT, WITH A CHANGE IN OPERATIONAL HOURS AND AN INCREASE OF STUDENT CAPACITY TO 414 STUDENTS FOR THE VALLEY CRESCENT SCHOOL LOCATED AT 547 W. NEES AVENUE, AND DENY THE APPELLANTS REQUEST TO WAIVE THE APPEAL FEE

WHEREAS, Michael Eastman (Applicant and Representative), 10648 N. Highway 41, Madera, CA, 93636, applied for Conditional Use Permit 1995-009A4 for the addition of a new, two-story, classroom building and basketball court, and for the increase in student capacity for the Valley Crescent School located at 547 W. Nees Avenue, in the City of Clovis ("Project"); and

WHEREAS, the Planning Commission considered and voted 3-1-1, with Commissioner Hebert absent, to approve Conditional Use Permit 1995-009A4 and the CEQA analysis outlined in the staff report provided for its January 23, 2025 meeting and determined the Project meets the requirements of a Class 32 (Infill Development) Categorical Exemption pursuant to CEQA Guidelines Section 15332 on January 23, 2025; and

WHEREAS, the City published notice of the public hearing in the Fresno Business Journal on Monday, February 20, 2025, mailed public notices to property owners within 300 feet of the Project site more than ten (10) days prior to the City Council hearing, and otherwise posted notice of the public hearing according to applicable law; and

WHEREAS, the City Council held a noticed public hearing on March 17, 2025, to consider the Project; and

WHEREAS, the City Council has reviewed the record of proceedings as reflected in the March 17, 2025, staff report, which includes additional information presented to the City Council during the appeal; and

WHEREAS, the City Council has had an opportunity to review and consider the entire administrative record relating to the Project, which is on file with the Department, and reviewed and considered those portions of the administrative record determined to be necessary to make an informed decision, including, but not necessarily limited to, the staff report, the written materials submitted with the request, and the verbal and written testimony and other evidence presented during the public hearing, and the conditions of approval attached hereto as **Attachment A** to this Resolution, which are incorporated herein by this reference ("Administrative Record").

NOW, THEREFORE, BE IT RESOLVED, that the City of Clovis resolves as follows:

1. The Project satisfies the required findings for approval of a conditional use permit, as follows:
 - a. The proposed use is conditionally allowed within, and would not impair the integrity and character of, the subject zoning district and is in compliance with all of the applicable provisions of this Development Code.

- b. The proposed use is consistent with the General Plan and any applicable specific plan.
 - c. The design, location, size, and operating characteristics of the proposed use are compatible with the existing and future land uses and would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other allowed uses operating nearby or adverse to the public interest, health, safety, convenience, or welfare of the City.
 - d. There are adequate provisions for public access, water, sanitation, and public utilities and services to ensure that the proposed use would not be detrimental to public health and safety.
 - e. The subject parcel is physically suitable in size and shape for the type and density/intensity of use being proposed.
 - f. The proposed project has been reviewed in compliance with the provisions of the California Environmental Quality Act (CEQA).
2. The City Council finds that the Project is categorically exempt from CEQA pursuant to CEQA Guidelines section 15332 (Class 32 – Infill Development).
 3. The Planning Commission’s approval of CUP1995-009A4 for the reasons expressed during the public hearing as further set forth in the administrative record.
 4. The basis for the findings is detailed in the March 17, 2025 staff report and the staff report addendum, which are hereby incorporated by reference, the entire Administrative Record, as well as the evidence and comments presented during the public hearing.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on March 17, 2025 by the following vote, to wit.

AYES:
 NOES:
 ABSENT:
 ABSTAIN:

DATED: March 17, 2025

 Mayor

 City Clerk

**Attachment A:
CONDITIONS OF APPROVAL
CUP1995-009A4**

**PLANNING DIVISION CONDITIONS
(Marissa Parker, Division Representative – (559) 324-2338)**

1. This conditional use permit amendment approval allows for the construction of a new, two-story, ±12,500 square foot classroom building, a basketball court, and the increase in student capacity from 174 to 414, with an added condition, for the Valley Crescent School located at 547 West Nees Avenue.
2. This conditional use permit shall be reviewed by the Planning Commission one-year following the issuance of a Certificate of Occupancy to ensure compliance with the conditions of approval.
3. This conditional use permit amendment is not transferable to another location.
4. This conditional use permit amendment does not permit or otherwise allow for the operation of the site and/or uses other than explicitly described in the accompanying staff report.
5. A separate site plan review (SPR) and approval shall be required prior to the construction of any structures and/or prior to any site modifications and shall comply with development standards prescribed for the Low-Density Residential land use designation, R-1-7500 (Single-Family Residential) zone district, conditions of CUP1995-009A4, and other applicable standards as determined by the Planning Division during the SPR review process.
6. The proposed two-story building shall be architecturally harmonious with the existing classroom building subject to approval during the Site Plan Review.
7. Building height for the proposed classroom building shall be no higher than 35 feet as prescribed by the R-1-7500 Zone District.
8. The required development standards for the proposed classroom building are derived from the R-1-7500 Zone District:

a. Front:	20 feet
b. Side (interior):	10 feet
c. Rear:	20 feet
d. Maximum Height:	35 feet
e. Maximum Lot Coverage:	40%
9. The proposed classroom building shall be located no less than 160 feet from the rear property line, 27.5 feet from the west property line, and 54 feet from the east property line.
10. The following parking ratio is required pursuant to Chapter 9.32.040 (Table 3-12; classified as “schools (public/private)”) of the CMC: 1 space for each faculty/employee member

• Proposed number of staff:	26 (maximum)
• Existing parking stalls:	31
11. No parking related to this use or drop off or pick up of students shall occur on Sylmar Avenue.

12. The hours of operation for the school shall not exceed 7:00 a.m. to 5:00 p.m., Monday through Friday and between the hours of 9:00 a.m. and 1:00 p.m. on Saturday and Sunday. Special events, such as conferences, assemblies, organized team sport events, or programs outside of these hours are permissible on an occasional basis. There shall be no use of the playground on Saturday or Sundays.
13. The private school shall be limited to a maximum enrollment of 414 students.
14. The applicant shall operate in a manner that complies with the Clovis Municipal Code so that it does not generate noise, odor, or vibration that adversely affects any adjacent properties.
15. Any exterior music and/or outdoor speaker systems shall conform with the City's noise standards.
16. The applicant shall consult with the City of Clovis Building Division on any building code requirements. All conditions of this conditional use permit shall be addressed prior to operation of the facility.
17. Any future request to expand the use shall be subject to an amendment to CUP1995-009A4.
18. Applicant must have on file a current City of Clovis Business License prior to conducting business.
19. Mature landscaping shall be installed along the north, west, and east property lines to screen the view of the proposed classroom building and basketball court.
20. CUP1995-009A4 may be reviewed at any time for compliance with the conditions of approval. Clovis Planning staff may conduct a review of the use in regard to conditions of approval and may present findings of this review to the Planning Commission.

POLICE DEPARTMENT COMMENTS

(Michael Sweeten, Police Department Representative – (559) 324-3494)

21. Surveillance cameras shall be installed to cover the main entry/exit of the structure. Footage shall be retained for a minimum of 30 days. Video shall be made available to the Clovis Police department upon request pursuant to a criminal investigation.
22. The sidewalks and parking lots shall be reasonably illuminated to enhance public safety and deter criminal activity. The lighting shall be shielded in a manner to that it does not create a nuisance for neighboring properties.
23. The property must be maintained and cared for in a manner that increases public safety and follows the Clovis Municipal Code and all other applicable City codes. All lighting, gates and fences shall be maintained and in working order, and landscaping shall be kept clean and free of debris and other hazards.
24. The name and telephone number of a 24-hour emergency contact person(s) shall be provided to Clovis PD and shall be updated regularly.
25. The site owner shall maintain all structures and adjoining fences/walls and keep them free of graffiti. All forms of graffiti shall be removed within 48 hours.

26. Signage in general shall comply with the City of Clovis sign ordinance in CMC chapter 9.34. This specifically does not allow for A-frame, I-frame, temporary banners, roof signs, neon, or flashing signs etc.
27. The applicant shall require compliance with all criminal and administrative state, county, and city laws by the applicant and their employees within the designated use and within 100 feet of the use. The applicant shall make reasonable efforts to report to law enforcement known violations of criminal laws by patrons within the use and within 100 feet of the use.

COUNTY OF FRESNO HEALTH DEPARTMENT

(Kevin Tsuda, County of Fresno Health Representative – (559) 600-3271)

28. The applicant shall refer to the attached Fresno County Health Department correspondence. If the list is not attached, please contact the agency for the list of requirements.

FRESNO IRRIGATION DISTRICT

(Chris Lundeen, FID Department Representative – (559) 233-7161)

29. The applicant shall refer to the attached Fresno Irrigation District correspondence. If the list is not attached, please contact the District for the list of requirements.

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT

(Anthony Zaragoza, FMFCD Department Representative – (559) 456-3194)

30. The applicant shall refer to the attached Fresno Metropolitan Flood Control District correspondence. If the list is not attached, please contact the District for the list of requirements.

AGENDA ITEM NO. 8.

547 N. NEES AVE.
CLOVIS, CA 93611

PROPOSED PROJECT

NEW 2 STORY
CLASSROOM BLDG.
FOR:
VALLEY CRESCENT
SCHOOL
547 N. NEES AVE.
CLOVIS, CA 93611

STATUS

ISSUE

PROJECT NO.: 2023-040
DRAWN BY: K. BARTMAN
CHECKED BY: K. BARTMAN
APPROVED BY: N. BARTMAN
SCALE:

ENGINEER OF RECORD



1000 N. 1ST ST. #1
MILWAUKEE, WI 53212-1000
TEL: (414) 441-0000
FAX: (414) 441-0001
www.platinumeng.com

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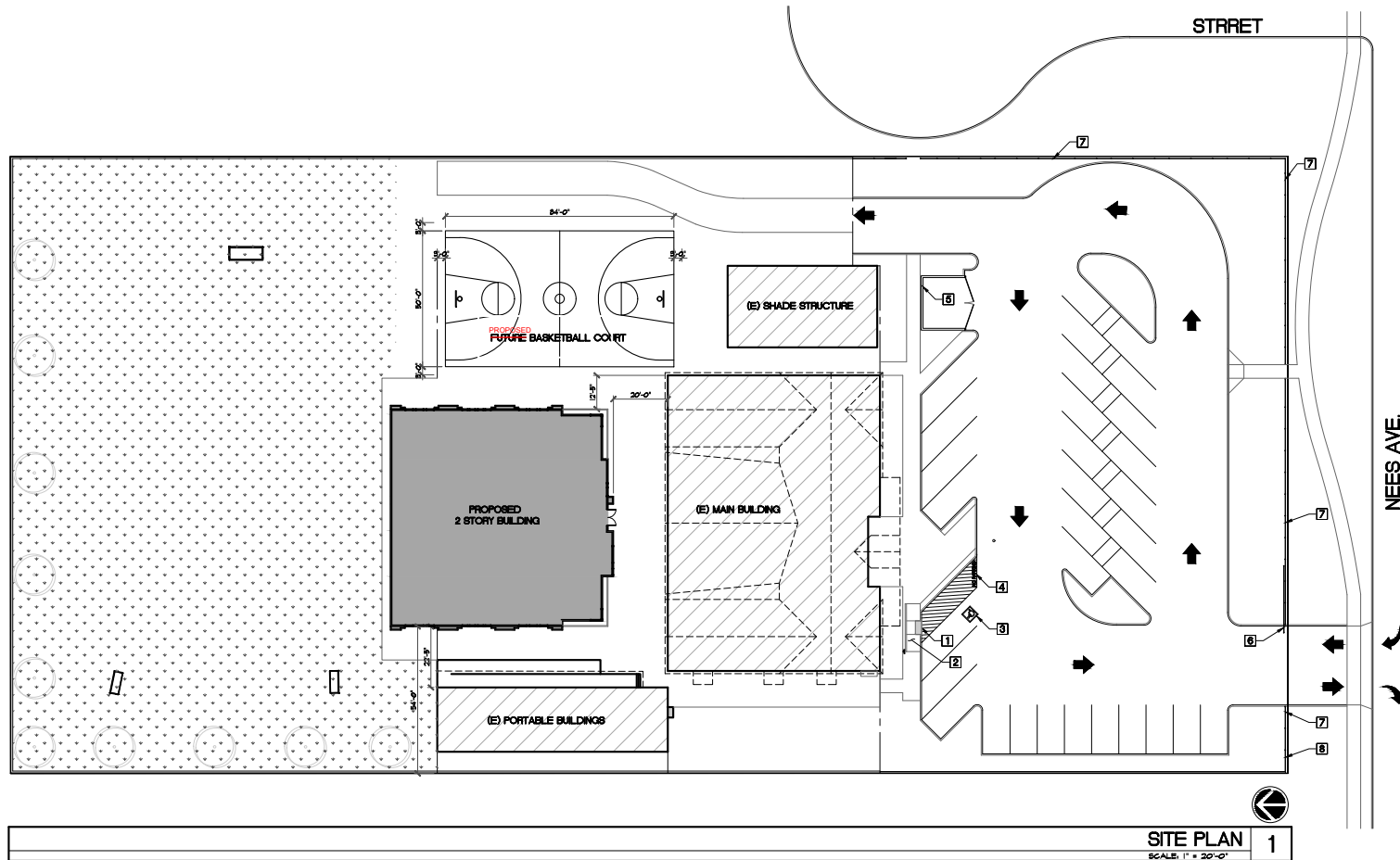


SHEET TITLE

SITE PLAN

SHEET

A11



LEGEND	
	PROPERTY LINE
	LOT LINE
	CENTER LINE
	SANITARY SEWER
	(P) CURB AND GUTTER
	CITY WATER
	(P) STREETLIGHT
	(P) SIDEWALK
	(P) PERMANENT PAVING

PARKING SUMMARY		
STALL TYPE		QTY. PROVID.
STANDARD - 18'-0" X 4'-0"		50
ACCESSIBLE - 18'-0" X 4'-0"		1
TOTAL		51

No.	Description
1	(N) TRUNCATED DOWNS
2	(N) CONCRETE RAMP
3	(N) PAINTED PARKING SYMBOL
4	(N) PAINT IN 12" HIGH LETTERS, "NO PARKING"
5	(N) TRASH ENCLOSURE PER CITY STANDARD
6	(N) 6' HIGH ROLLING POWDER COATED GATE, TO REMAIN OPEN DURING SCHOOL HOURS.
7	(N) 6' HIGH POWDER COATED FENCE
8	PROVIDE KNOX BOX AT GATE
Keyed Notes	

AGENDA ITEM NO. 8.

547 N. NEES AVE.
CLOVIS, CA 93611

PROPOSED PROJECT

NEW 2 STORY
CLASSROOM BLDG.
FOR:
VALLEY CRESCENT
SCHOOL
547 N. NEES AVE.
CLOVIS, CA 93611

STATUS

ISSUE

PROJECT NO.: 2008-040
DRAWN BY: M. BARTMAN
CHECKED BY: M. BARTMAN
APPROVED BY: N. BALDI
SCALE:

ENGINEER OF RECORD

PLATINUM
Engineering Solutions, Inc.
Commercial Industrial Residential Towers

1000 N. 1ST ST. #1
MILPITAS, CA 95035-4000
TEL: (408) 444-0000
FAX: (408) 444-0001
www.platinum-engineering.com

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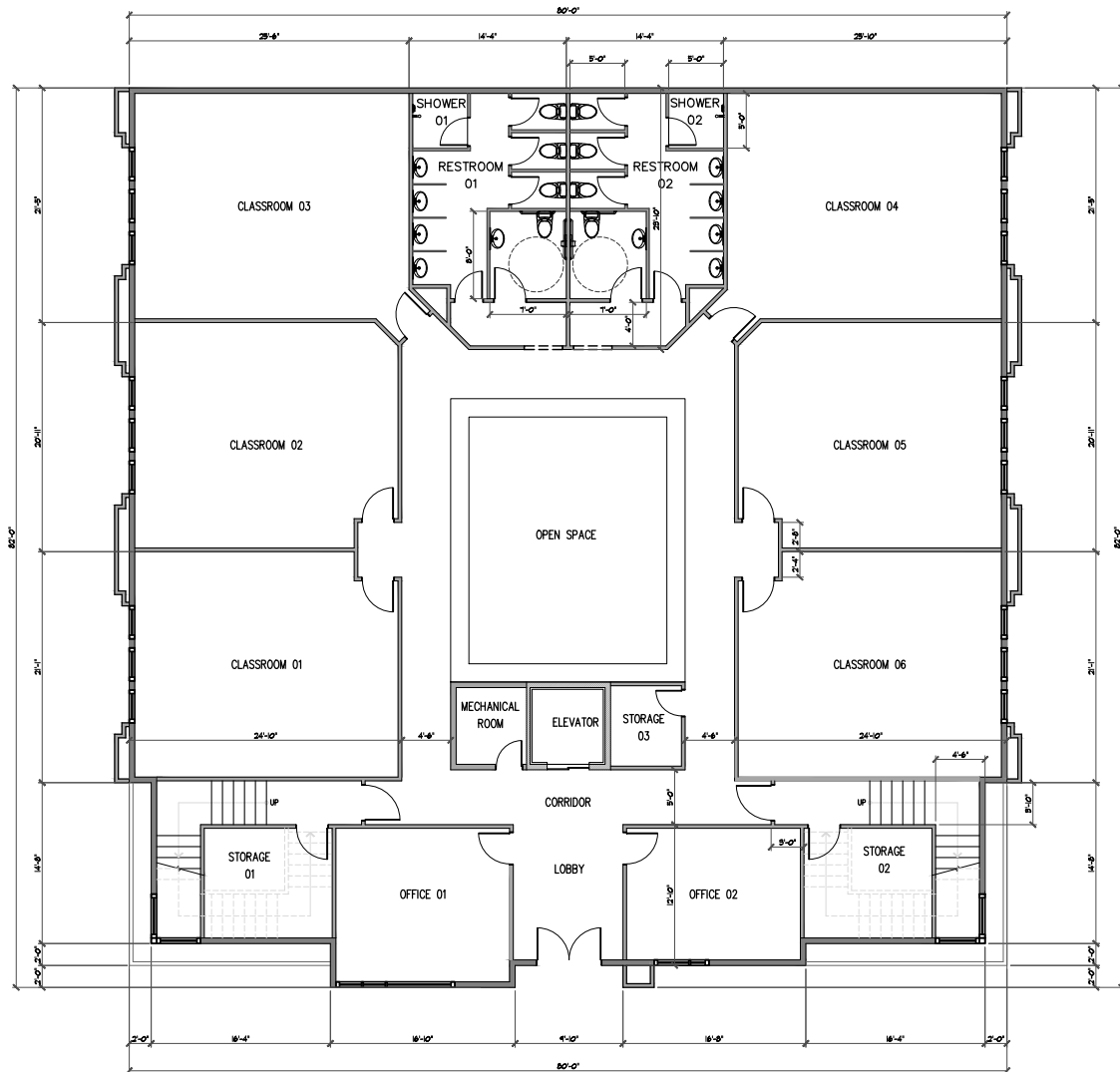


SHEET TITLE

1st FLOOR PLAN

SHEET

A2.1



1st FLOOR PLAN
SCALE: 3/16" = 1'-0"



1

AGENDA ITEM NO. 8.

547 N. NEES AVE.
CLOVIS, CA 93611

PROPOSED PROJECT

**NEW 2 STORY
CLASSROOM BLDG.**

**FOR:
VALLEY CRESCENT
SCHOOL**
**547 N. NEES AVE.
CLOVIS, CA 93611**

STATUS

ISSUE

PROJECT NO.: 2023-010
DRAWN BY: M. BARTMAN
CHECKED BY: M. BARTMAN
APPROVED BY: N. BALDI
SCALE:

ENGINEER OF RECORD

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Engineering Solutions, Inc.
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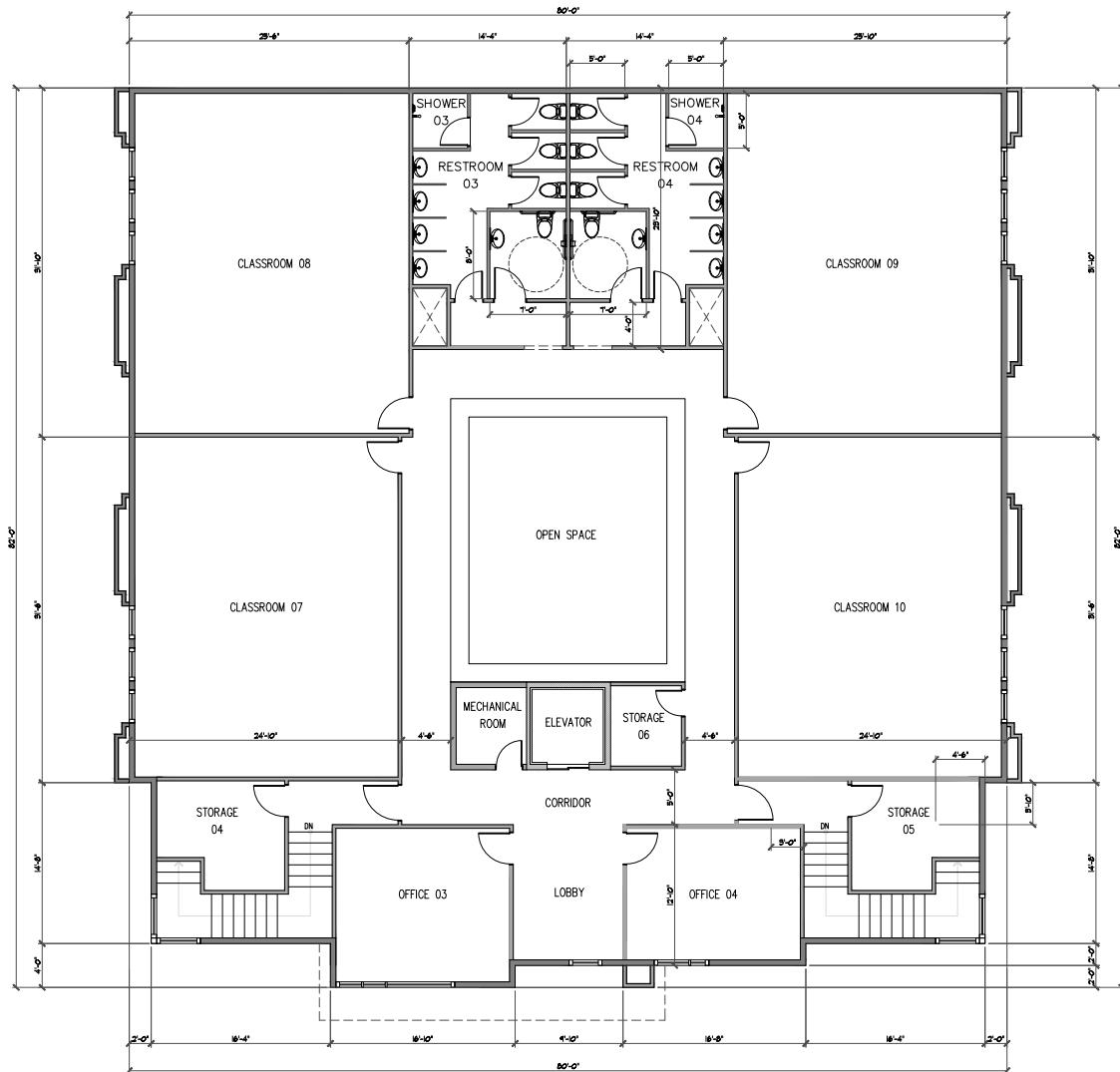


SHEET TITLE

2nd FLOOR PLAN

SHEET

A2.2



2nd FLOOR PLAN
SCALE: 3/16" = 1'-0"



1

Valley Crescent School
547 West Nees Avenue, Covis, California

Operational Statement

Proposed Project Description: We are currently seeking expansion of the existing facility to include one approximate 12,500 square-foot two-story classroom/office building comprised of a total of ten (10) classrooms, four (4) offices, four (4) restrooms, two (2) stairwells, one (1) elevator, one (1) mechanical room, and storage areas and open common areas/space. The proposed building will accommodate larger classrooms with advanced technology to offer a science and computer laboratory, and additional space for staff. Additionally, the expansion includes the installation of one (1) basketball court. The proposed expansion would allow a maximum increased student capacity of 414 students, estimated to take place incrementally and no sooner than seven (7) years.

Taking into consideration neighbor's concerns for Noise and Privacy (February 5, 2025 meeting), the Project includes the following adjustments:

- Additional landscaping to provide privacy to adjacent neighbors
- Implement a noise monitoring plan at the completion of the project to ensure noise limits are within City ordinance thresholds
- Confirm student enrollment is limited to Grades Kindergarten through 8th grade.

Hours of Operation (as permitted under CUP95-09A3, Item 14 and 15):

Currently: 7:30am–3:30pm (Monday-Friday) and 9:00am–1:00pm (weekends)

Proposed: 7:00am–5:00pm (Monday – Friday), with only faculty on premises from 7:00-8:00am; weekend hours remain the same. The length of the school day will remain the same, but the proposal will add one hour and thirty minutes for afterschool activities

School Operations:

Currently: Classes 8:00am-3:30pm, with 2 recess breaks and one lunch period. Physical Education classes take place from 1:45-3:30pm.

Proposed: The school day will remain the same. We will add one hour and thirty minutes for limited after-school activities such as student tutoring.

Special Events (as permitted under CUP95-09A3, Item 14):

Currently:

1. Annual Fair/Fundraiser – takes place 1/year, typically on a weekend day, from 11am – sunset
*Did not take place during 2024
2. Two Graduation Ceremonies (Kinder and 8th Grade) – takes place 1/year, typically in the summer, from 5pm-8pm, varies in schedule and location. *Last year took place indoors.
3. Back to School Nights – takes place indoors once a year.

Proposed: Not expected to change.

Sports Activities / Basketball Games

Currently: Sports activities take place during Physical Education classes 1:45-3:30pm (M-Th) and 2:00-3:30pm (Fridays). Basketball games take place off-site.

Proposed: Not expected to change.

Current Enrollment & Staffing

Currently: 167 students and 19 staff

Proposed: Maximum 414 students and 26 staff

Parking & Access

Currently: The site is accessible via entrance from Nees Ave, leading to parking lot with 31 parking stalls. Student drop-off and pick-up takes place on school parking lot.

Proposed: Minor ADA Parking Improvements are anticipated; however, the number of parking spaces will remain the same. No other changes.

Landscaping and Maintenance:

Currently: Scheduled for Friday afternoons, after 2pm. *Landscaping did take place on several Saturdays (due to Landscaper emergency); however, Landscaper was re-informed it must take place on Fridays due to neighbor's complaints.

Proposed: No changes expected.



County of Fresno

DEPARTMENT OF PUBLIC HEALTH

June 29, 2023

LU0022263
2604

Lily Cha-Haydostian, Assistant Planner
City of Clovis
Planning and Development Services Department
1033 Fifth Street
Clovis, CA 93612

Dear Ms. Cha-Haydostian:

PROJECT NUMBER: **DRC2023-022**

DRC2023-022; New 2-story classroom building for valley crescent school.

APN: 560-020-06

ZONING: R-1-7500

ADDRESS: 547 W. Nees Avenue

Recommended Conditions of Approval:

- Facilities that use and/or store hazardous materials and/or hazardous wastes shall meet the requirements set forth in the California Health and Safety Code (HSC), Division 20, Chapter 6.95, and the California Code of Regulations (CCR), Title 22, Division 4.5. Your proposed business will handle hazardous materials and/or hazardous waste and will be required to submit a Hazardous Materials Business Plan pursuant to the HSC, Division 20, Chapter 6.95 (<http://cers.calepa.ca.gov/>). Contact the Fresno County Hazmat Compliance Program at (559) 600-3271 for more information.
- The proposed project has the potential to expose nearby residents to elevated noise levels. Consideration should be given to your City's municipal code.
- As a measure to protect ground water, all water wells and/or septic systems that exist or have been abandoned within the project area should be properly destroyed by an appropriately licensed contractor.
- Should any underground storage tank(s) be found during the project, the applicant shall apply for and secure an Underground Storage Tank Removal Permit from the Fresno County Department of Public Health, Environmental Health Division. Contact the Fresno County Hazmat Compliance Program at (559) 600-3271 for more information.

Promotion, preservation and protection of the community's health

1221 Fulton Street / P. O. Box 11867, Fresno, CA 93775

(559) 600-3271 ☐ FAX (559) 600-7629

The County of Fresno is an Equal Employment Opportunity Employer

www.co.fresno.ca.us ☐ www.fcdph.org

Attachment 4

REVIEWED BY:

Kevin Tsuda

Kevin Tsuda, R.E.H.S.
Environmental Health Specialist II

(559) 600-33271

cc: Damean Jackson- Environmental Health Division (CT. 57.02)
Mike Eastman- Applicant (meastman@platinumengineering.com)



2907 S. Maple Avenue
Fresno, California 93725-2208
Telephone: (559) 233-7161
Fax: (559) 233-8227

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

January 5, 2024

Marissa Jensen
Planning and Development Services Dept.
City of Clovis
1033 Fifth Street
Clovis, CA 93612

RE: Site Plan Review 1995-019A3
N/E Nees and Willow avenues

Dear Ms. Jensen:

The Fresno Irrigation District (FID) has reviewed Site Plan Review 1995-019A3 for which the applicant proposes an amendment for the construction of a two-story classroom building, APN: 560-020-06. This application is being processed concurrently with CUP1995-009A4. FID has the following comment:

1. FID previously reviewed and commented on the subject property on June 30, 2023, as Development Review Committee Application No. 2023-022. Those comments and conditions still apply, and a copy has been attached for your reference.

Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please feel free to contact Chris Lundeen at (559) 233-7161 extension 7410 or clundeen@fresnoirrigation.com.

Sincerely,

Laurence Kimura, P.E.
Chief Engineer

Attachment



2907 S. Maple Avenue
Fresno, California 93725-2208
Telephone: (559) 233-7161
Fax: (559) 233-8227

CONVEYANCE. COMMITMENT. CUSTOMER SERVICE.

June 30, 2023

Lily Cha-Haydostian
Planning and Development Services Dept.
City of Clovis
1033 Fifth Street
Clovis, CA 93612

RE: Development Review Committee Application No. 2023-022
N/E Nees and Willow avenues

Dear Ms. Cha-Haydostian:

The Fresno Irrigation District (FID) has reviewed Development Review Committee Application No. 2023-022 for which the applicant proposes a classroom building for Valley Crescent School, APN: 560-020-06. FID has the following comment:

1. FID does not own, operate or maintain any facilities located on the subject property, as shown on the attached FID exhibit map.
2. For informational purposes, FID's Helm Colonial W. Br. No. 116 runs southerly along the west side of Peach Avenue and crosses Nees Avenue approximately 900 feet east of the subject property, as shown on the attached FID exhibit map. Should this project include any street and/or utility improvements along Peach Avenue, Nees Avenue, or in the vicinity of this pipeline, FID requires it review and approve all plans.
3. For informational purposes, FID's Maupin No. 118 runs southerly along the west side of Willow Avenue and crosses Nees Avenue approximately 1,700 feet west of the subject property, as shown on the attached FID exhibit map. Should this project include any street and/or utility improvements along Willow Avenue, Nees Avenue, or in the vicinity of this pipeline, FID requires it review and approve all plans.

Thank you for submitting this for our review. We appreciate the opportunity to review and comment on the subject documents for the proposed project. If you have any questions, please feel free to contact Jeremy Landrith at (559) 233-7161 extension 7407 or jlandrith@fresnoirrigation.com.

Sincerely,

Laurence Kimura, P.E.
Chief Engineer

Attachment

G:\Agencies\Clovis\DRC Meetings\DRC2023-022\DRC2023-022 FID Comment.doc

BOARD OF DIRECTORS

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GEORGE PORTER GREGORY BEBERIAN General Manager BILL STRETCH





FRESNO IRRIGATION DISTRICT

Legend

FID Canal	FID Pipeline	Stream Group	FID Boundary	Parcel
Private Canal	Private Pipeline	Other-Creek/River	Railroad	FMFCD Acquired Basins
Abandoned Canal	Abandoned Pipeline	Other-Pipeline	Streets & Hwys	FMFCD Proposed Basins

This map was produced by the Fresno Irrigation District and is provided for reference and informational purposes only and is not intended to show map scale accuracy or all inclusive map features, nor for legal purposes. FID makes no statements regarding the accuracy of this map as the features shown are in their approximate location. Please contact the FID Engineering Dept. at (559) 233-7161 for further information on FID facilities.

Path: G:\Fidgis\20230223 FID Master.mxd
Spatial Reference
Name: NAD 1983 StatePlane California IV FIPS 6040

0 270 540
Feet
1 inch = 533.17 feet



**FRESNO METROPOLITAN FLOOD CONTROL DISTRICT
NOTICE OF REQUIREMENTS**

AGENDA ITEM NO. 8.

Page 1 of 3

PUBLIC AGENCY

MARISSA JENSEN
DEPARTMENT OF PLANNING AND
DEVELOPMENT SERVICES
CITY OF CLOVIS
1033 FIFTH STREET
CLOVIS, CA 93612

DEVELOPER

MIKE EASTMAN, PLATINUM ENGINEERING
10648 N. HWY. 41
MADERA, CA 93636

PROJECT NO: **1995-009A4**

ADDRESS: **547 W. NEES AVE.**

APN: **560-020-06**

SENT: **January 29, 2024**

Drainage Area(s)	Preliminary Fee(s)	Development Review Service Charge(s)	Fee(s)	
CZ	\$0.00	NOR Review *	\$50.00	To be paid prior to release of District comments to Public Agency and Developer.
		Grading Plan Review *	\$100.00	Amount to be submitted with first grading plan submittal.
Total Drainage Fee: \$0.00		Total Service Charge: \$150.00		

* The Development Review Service Charge shown above is associated with CL SPR 1995-019A3 and is currently proposed to develop in conjunction with this permit. Payment for this entitlement shall satisfy the amount due on the associated permits.

The proposed development will generate storm runoff which produces potentially significant environmental impacts and which must be properly discharged and mitigated pursuant to the California Environmental Quality Act and the National Environmental Policy Act. The District in cooperation with the City and County has developed and adopted the Storm Drainage and Flood Control Master Plan. Compliance with and implementation of this Master Plan by this development project will satisfy the drainage related CEQA/NEPA impact of the project mitigation requirements.

Pursuant to the District's Development Review Fee Policy, the subject project shall pay review fees for issuance of this Notice of Requirements (NOR) and any plan submittals requiring the District's reviews. The NOR fee shall be paid to the District by Developer before the Notice of Requirement will be submitted to the City. The Grading Plan fee shall be paid upon first submittal. The Storm Drain Plan fee shall be paid prior to return/pick up of first submittal.

The proposed development shall pay drainage fees pursuant to the Drainage Fee Ordinance prior to issuance of a building permit at the rates in effect at the time of such issuance. The fee indicated above is valid through 2/29/24 based on the site plan submitted to the District on 12/13/23 Contact FMFCD for a revised fee in cases where changes are made in the proposed site plan which materially alter the proposed impervious area.

Considerations which may affect the fee obligation(s) or the timing or form of fee payment:

- a.) Fees related to undeveloped or phased portions of the project may be deferrable.
- b.) Fees may be calculated based on the actual percentage of runoff if different than that typical for the zone district under which the development is being undertaken and if permanent provisions are made to assure that the site remains in that configuration.
- c.) Creditable storm drainage facilities may be constructed, or required to be constructed in lieu of paying fees.
- d.) The actual cost incurred in constructing Creditable drainage system facilities is credited against the drainage fee obligation.
- e.) When the actual costs incurred in constructing Creditable facilities exceeds the drainage fee obligation, reimbursement will be made for the excess costs from future fees collected by the District from other development.
- f.) Any request for a drainage fee refund requires the entitlement cancellation and a written request addressed to the General Manager of the District within 60 days from payment of the fee. A non refundable \$300 Administration fee or 5% of the refund whichever is less will be retained without fee credit.

CL CUP No. 1995-009A4

**FRESNO METROPOLITAN FLOOD CONTROL DISTRICT
NOTICE OF REQUIREMENTS**

AGENDA ITEM NO. 8.

Page 2 of 3

**CL
CUP No. 1995-009A4**

Approval of this development shall be conditioned upon compliance with these District Requirements.

1. ☐ a. Drainage from the site shall
☒ b. Grading and drainage patterns shall be as identified on Exhibit No. 1.
☐ c. The grading and drainage patterns shown on the site plan conform to the adopted Storm Drainage and Flood Control Master Plan.

2. The proposed development shall construct and/or dedicate Storm Drainage and Flood Control Master Plan facilities located within the development or necessitated by any off-site improvements required by the approving agency:
☐ Developer shall construct facilities as shown on Exhibit No. 1 as
☒ None required.

3. The following final improvement plans and information shall be submitted to the District for review prior to final development approval:
☒ Grading Plan
☐ Street Plan
☐ Storm Drain Plan
☐ Water & Sewer Plan
☐ Final Map
☐ Drainage Report (to be submitted with tentative map)
☐ Other
☐ None Required

4. Availability of drainage facilities:
☒ a. Permanent drainage service is available provided the developer can verify to the satisfaction of the City that runoff can be safely conveyed to the Master Plan inlet(s).
☐ b. The construction of facilities required by Paragraph No. 2 hereof will provide permanent drainage service.
☐ c. Permanent drainage service will not be available. The District recommends temporary facilities until permanent service is available.
☐ d. See Exhibit No. 2.

5. The proposed development:
☐ Appears to be located within a 100 year flood prone area as designated on the latest Flood Insurance Rate Maps available to the District, necessitating appropriate floodplain management action. (See attached Floodplain Policy.)
☒ Does not appear to be located within a flood prone area.

6. ☐ The subject site contains a portion of a canal or pipeline that is used to manage recharge, storm water, and/or flood flows. The existing capacity must be preserved as part of site development. Additionally, site development may not interfere with the ability to operate and maintain the canal or pipeline.

**FRESNO METROPOLITAN FLOOD CONTROL DISTRICT
NOTICE OF REQUIREMENTS**

AGENDA ITEM NO. 8.

Page 3 of 3

7. The Federal Clean Water Act and the State General Permits for Storm Water Discharges Associated with Construction and Industrial Activities (State General Permits) require developers of construction projects disturbing one or more acres, and discharges associated with industrial activity not otherwise exempt from National Pollutant Discharge Elimination System (NPDES) permitting, to implement controls to reduce pollutants, prohibit the discharge of waters other than storm water to the municipal storm drain system, and meet water quality standards. These requirements apply both to pollutants generated during construction, and to those which may be generated by operations at the development after construction.
- a. State General Permit for Storm Water Discharges Associated with Construction Activities, effective July 1, 2010, as amended. A State General Construction Permit is required for all clearing, grading, and disturbances to the ground that result in soil disturbance of at least one acre (or less than one acre) if part of a larger common plan of development or sale). Permittees are required to: submit a Notice of Intent and Permit Registration Documents to be covered and must pay a permit fee to the State Water Resources Control Board (State Board), develop and implement a storm water pollution prevention plan, eliminate non-storm water discharges, conduct routine site inspections, train employees in permit compliance, and complete an annual certification of compliance.
 - b. State General Permit for Storm Water Discharges Associated with Industrial Activities, April, 2014 (available at the District Office). A State General Industrial Permit is required for specific types of industries described in the NPDES regulations or by Standard Industrial Classification (SIC) code. The following categories of industries are generally required to secure an industrial permit: manufacturing; trucking; recycling; and waste and hazardous waste management. Specific exemptions exist for manufacturing activities which occur entirely indoors. Permittees are required to: submit a Notice of Intent to be covered and must pay a permit fee to the State Water Resources Control Board, develop and implement a storm water pollution prevention plan, eliminate non-storm water discharges, conduct routine site inspections, train employees in permit compliance, sample storm water runoff and test it for pollutant indicators, and annually submit a report to the State Board.
 - c. The proposed development is encouraged to select and implement storm water quality controls recommended in the Fresno-Clovis Storm Water Quality Management Construction and Post-Construction Guidelines (available at the District Office) to meet the requirements of the State General Permits, eliminate the potential for non-storm water to enter the municipal storm drain system, and where possible minimize contact with materials which may contaminate storm water runoff.
8. A requirement of the District may be appealed by filing a written notice of appeal with the Secretary of the District within ten days of the date of this Notice of Requirements.
9. The District reserves the right to modify, reduce or add to these requirements, or revise fees, as necessary to accommodate changes made in the proposed development by the developer or requirements made by other agencies.
10. X See Exhibit No. 2 for additional comments, recommendations and requirements.



Debbie Campbell
Design Engineer, RCE

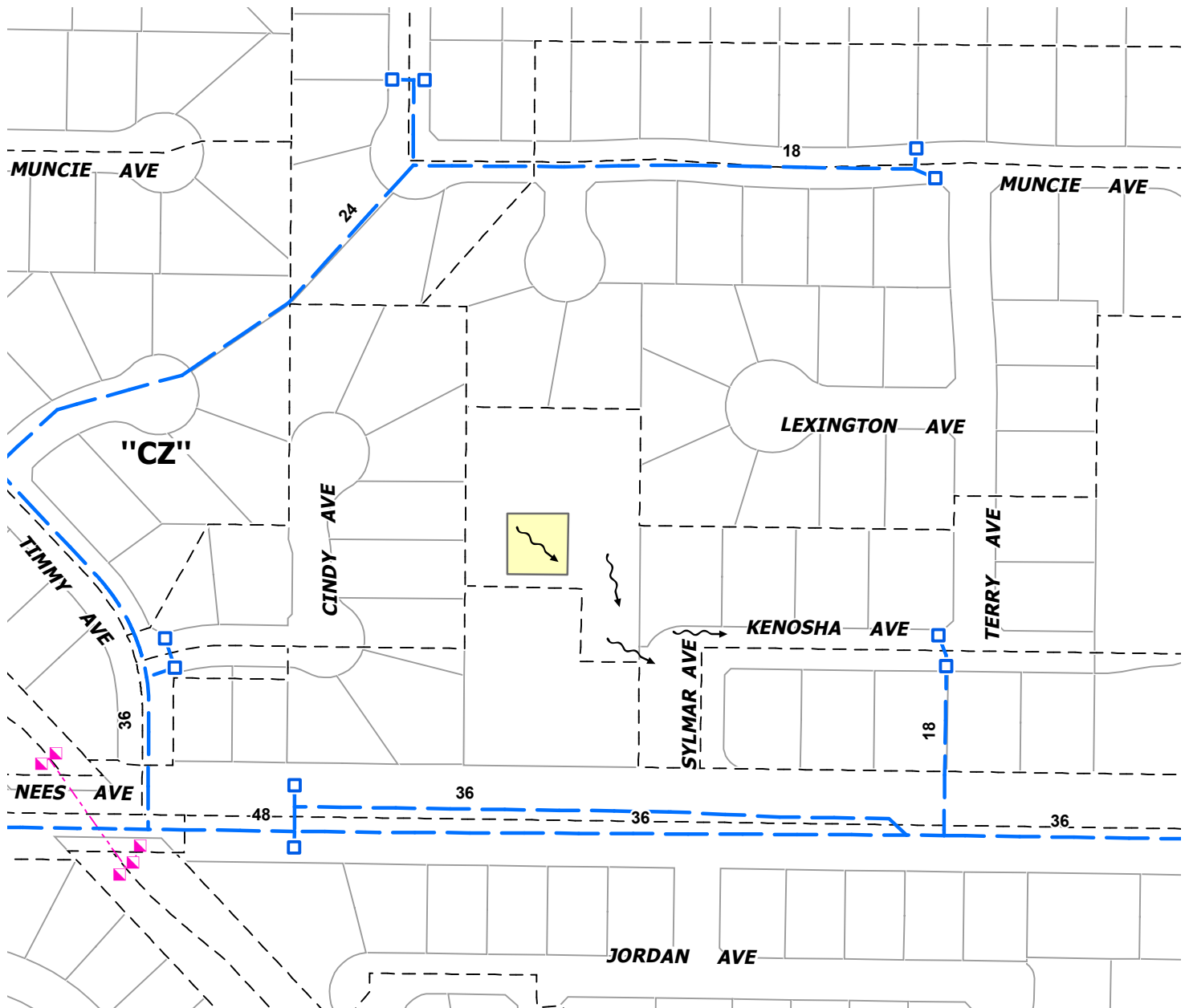
Digitally signed by Debbie Campbell Date: 1/29/2024 11:30:56 AM



Anthony Zaragoza
Engineer III

Digitally signed by Anthony Zaragoza Date: 1/23/2024 3:48:20 PM

**CL
CUP No. 1995-009A4**



LEGEND

- Existing Master Plan Facilities
- - - Existing Private Facilities
- ~ Direction Of Drainage
- - - Inlet Boundary
- Limits Of CL CUP 1995-009A4



1" = 200'

CL CUP 1995-009A4
DRAINAGE AREA "CZ"



EXHIBIT NO. 1 FRESNO METROPOLITAN FLOOD CONTROL DISTRICT

OTHER REQUIREMENTS

AGENDA ITEM NO. 8.

EXHIBIT NO. 2

The minimum finish floor elevation shall be 363.52 (U.S.G.S. Datum).

In an effort to improve storm runoff quality, outdoor storage areas shall be constructed and maintained such that material that may generate contaminants will be prevented from contact with rainfall and runoff and thereby prevent the conveyance of contaminants in runoff into the storm drain system.

The District encourages, but does not require that roof drains from non-residential development be constructed such that they are directed onto and through a landscaped grassy swale area to filter out pollutants from roof runoff.

Reed Van Wagenen
 534 West Muncie
 Clovis, CA 93619
 vanwagenenreed@gmail.com | (559) 284-0954

February 12, 2025

Clovis City Council
 1033 5th Street
 Clovis, CA 93612

Subject: Appeal to Clovis City Council – CUP1995-009A4 for Valley Crescent School

Dear Mayor Mouanoutoua and Members of the Clovis City Council:

I am writing to formally appeal the approval of Conditional Use Permit (CUP) 1995-009A4 for Valley Crescent School, as granted by the Clovis Planning Commission on January 23, 2025. I respectfully request that the City Council rescind this approval and require a resubmission that includes more accurate assessments of community impact and a project proposal more congruent with the character of the neighborhood.

The approved CUP expansion proposes:

- Construction of a 12,500-square-foot, two-story classroom building,
- Installation of a basketball court, and
- A significant increase in student enrollment from 174 to 414 students—an increase of 138%.

This expansion is inconsistent with our R-1-zoned neighborhood and will severely impact my quality of life, property value, and quiet enjoyment of my home, which is immediately adjacent to the north of the school. I have lived here since 1997, and many of my neighbors—longtime Clovis residents—share similar concerns.

Grounds for Appeal

1. Noise and Disruption

The noise study submitted to the Planning Commission was misleading and did not accurately represent current conditions. It was conducted before 8:00 a.m., before children were actively on the playground, and in locations that do not reflect the true

impact on adjacent homes. Had the study been conducted while students were outside, it would have revealed an already unbearable noise level—one that will only worsen with increased enrollment and new facilities like the basketball court.

The Fresno County Department of Public Health raised concerns about this issue in its June 29, 2023, letter recommending conditions of approval:

“The proposed project has the potential to expose nearby residents to elevated noise levels. Consideration should be given to your City’s municipal code.”

Additionally, the school has previously used an outdoor PA system without notice to neighbors, producing sound levels so high that my family has had to leave our home on multiple occasions. There is no guarantee that such disruptions won’t become more frequent under the new CUP.

The construction phase presents another significant issue. A project of this scale—constructing a two-story, 12,500-square-foot commercial-style building—will result in a prolonged construction period of more than a year, with noise allowed between 7:00 a.m. and 7:00 p.m. on weekdays and 9:00 a.m. to 5:00 p.m. on weekends. Beyond the noise, construction workers will have a direct line of sight into private backyards and pool areas, further infringing on the privacy of adjacent homeowners.

2. Traffic and Public Safety Hazards

The traffic study presented to the Planning Commission failed to address existing problems and the serious risks posed by increased congestion. Specifically, the study did not adequately assess the impact on the uncontrolled intersection at Nees and Sylmar Avenues, located at the southeast corner of the project site.

This intersection is already dangerous, and tragically, a fatal accident occurred there in August 2023. The current drop-off and pick-up process for the school creates significant congestion, making it difficult for residents to exit the neighborhood. Parents frequently use the eastbound Nees Avenue turn pocket for U-turns, blocking egress for residents and creating hazardous conditions. Doubling enrollment will undoubtedly exacerbate these risks.

3. Inaccurate Information and a Rushed Decision by the Planning Commission

The Planning Commission’s approval process was flawed. Commissioner Bedsted initially proposed delaying the decision to allow for a neighborhood meeting to address concerns. However, this motion was quickly rescinded after it was stated that approval was needed that night for the school to meet its construction timeline and occupancy for

the 2025/26 school year. That timeline was, of course, completely unrealistic. As a result, the Commission proceeded without requiring a meeting between the school and neighbors.

Since then, a neighborhood meeting was held on February 5, 2025, with school representatives. Key takeaways include:

- The school now claims it only intends to enroll a maximum of 300 students, despite the CUP allowing 414. If 300 is indeed the limit, the CUP should reflect that number.
- The school asserts it will not expand to include high school grades, although an internal email in the Planning Commission packet (Attachment 3) suggests otherwise.
- Neighbors requested the following modifications:
 1. A revised project scope to accommodate a maximum of 300 K-8 students.
 2. A single-story building to better align with the neighborhood.
 3. A noise mitigation plan with ongoing monitoring.

Given these discrepancies, it is imperative that the Clovis City Council intervene to ensure transparency and proper consideration of neighborhood concerns.

Request for Action

On behalf of my neighbors, I respectfully request the Clovis City Council:

- Rescind CUP1995-009A4 and require new noise and traffic studies that accurately reflect neighborhood conditions.
- Limit site development to accommodate a maximum of 300 students, as stated by school representatives.
- Require the building to be single-story to maintain the character of the residential neighborhood.
- Mandate a noise mitigation plan with continuous monitoring and enforceable restrictions.
- Approve a refund of the \$1,760.00 appeal fee, which was collectively paid by the neighbors. Our position is we should not have to pay to protect our neighborhood from a flawed CUP approval.

Conclusion

This proposed expansion is simply incompatible with the surrounding neighborhood and will bring increased noise, traffic congestion, loss of privacy, and disruption to

long-established residents. A project of this scale was never anticipated in our R-1 community, and approving it as proposed is inconsistent with the “Clovis Way of Life.”

I urge you to reconsider this approval and require a modified proposal that respects both the needs of the school and the rights of its neighbors.

Thank you for your time and consideration.

Sincerely,

Reed Van Wagenen

February 21, 2025

Ms. Maria Ruvalcaba
Salem Engineering Group Inc.
4729 W. Jacquelyn Avenue
Fresno, CA

**Subject: Valley Crescent School Expansion – Addendum #1 to the Noise Impact Study –
City of Clovis, CA**

Dear Ms. Ruvalcaba:

MD Acoustics, LLC (MD) has completed an addendum to the Noise Impact Study for the Valley Crescent School Expansion project located at 547 West Nees Avenue in the City of Clovis, CA. MD conducted an additional analysis on the stationary noise (e.g. kids talking/playing, basketball and volleyball noise, etc.) sources at the project site which consisted of taking additional operational noise measurements and creating an operational (recess/kids playing) noise model in SoundPlan 3D acoustical modeling software (SP) to validate and verify compliance to the City's noise ordinance. This assessment reviews the existing and future operational noise levels at Valley Crescent School and projects any noise level changes associated with the planned school expansion.

The existing site consists of a main building, portable buildings, two (2) existing shade structures, an approximate 28,600 square-foot soccer field, an approximate 2,800 square-foot basketball court, a shaded playground, and 31 parking spaces. The proposed project will consist of increasing student enrollment from 167 to a maximum of 414 students (K-8th), adding a proposed 2-story building, relocating the basketball court, and removing the shaded playground.

The project location is shown in Exhibit A, and the proposed project site plan is shown in Exhibit B. A glossary of acoustical terms is provided in Appendix A.

1.0 Assessment Overview

On February 14, 2025, MD conducted additional on-site measurements of the baseline conditions at the school while students were playing in the playground areas. MD conducted three (3) measurements at the project site. The project location map and measurement locations are indicated in Exhibit A.

There were between 0-15 kids playing on the playground during the measurements. Noise consisted of students screaming, laughing, and playing with basketballs on the existing basketball court, traffic, and a pool pump at one of the neighboring residences. MD noted that there is an existing 7-foot CMU wall surrounding the school along the north, east, and west property lines.

Using the baseline conditions, MD calculated the project's current and predicted future operational noise levels and compared them to the City's noise ordinance for informational purposes. The site plan utilized for the project is indicated in Exhibit B. Land uses surrounding the project site include residential uses to the north, south, east, and west.

Exhibit A
Location Map and Measurement Locations



2.0 Local Acoustical Requirements

This study evaluates the stationary noise sources from the project and compares the findings to the City of Clovis Municipal Code.

City of Clovis Municipal Code

Section 9.22.080 and Section 5.27.604 of the City's Municipal Code outlines the City's exterior noise limits as it relates to stationary noise sources.

9.22.080 Noise.

- D. Noise Standards. The following noise standards, unless otherwise specifically indicated, shall apply to all property with a designated noise zone:

Table 1: Maximum Exterior Noise Standards

Noise Zone	Type of Land Use	Allowable Exterior Noise Level (15-Minute Leq)	
		7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
I	Single-, two-, or multiple-family residential	55 dBA	50 dBA
II	Commercial	65 dBA	60 dBA
III	Residential portions of mixed use properties	60 dBA	50 dBA
IV	Industrial or manufacturing	70 dBA	70 dBA

Table 2: Maximum Interior Noise Standards

Noise Zone	Type of Land Use	Allowable Interior Noise Level (15-Minute Leq)	
		7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
I	Residential	45 dBA	40 dBA
II	Administrative/professional office	50 dBA	
III	Residential portions of mixed use properties	45 dBA	40 dBA

1. If the ambient noise level exceeds the resulting standard, the ambient shall be the standard.
2. It is unlawful for any person to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any property measured at the property line, to exceed either of the following within the incorporated area of the City:
 - a. The noise standard for the applicable zone for any fifteen (15) minute period;
 - b. A maximum impulsive noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response). Impulsive noise which repeats four (4) or more times in any hour between 10:00 p.m. and 7:00 a.m. shall be measured as continuous sound and meet the noise standard for the applicable zone.

3. When properties of two (2) different noise zones abut one another, the maximum exterior noise level shall be the lower of the two (2) noise zones where one zone is residential, and in other contexts shall be the average of the two (2) zones.

G. Acts deemed violations of section. The following acts are a violation of this section:

2. Construction noise. Construction activities shall be subject to the provisions of Section [5.27.604](#), which sets forth the permissible hours for construction activity. At all other times, no person shall operate, or cause to be operated, tools or equipment used in alteration, construction, demolition, drilling, or repair work so that the sound creates a noise disturbance across a residential property line, except for emergency work. Stationary equipment (e.g., generators) shall not be located adjacent to any existing residences unless enclosed in a noise attenuating structure, subject to the review and approval of the Director.

3.0 Field Survey and Baseline Measurements

On February 14, 2025, MD recorded observations and noise level measurements on the Valley Crescent School campus during operational hours between 9:00 am and 11:00 am. The campus is enclosed by 7-foot-tall concrete masonry unit (CMU) walls to the north, east, and west. Exhibit C shows pictures of the existing walls. Appendix B provides the field notes on the measurements conducted.

Exhibit C: CMU Property Line Walls



Three (3) 15-minute noise readings were taken at various locations on the campus (see Exhibit A). The measurement results are summarized in Table 3.

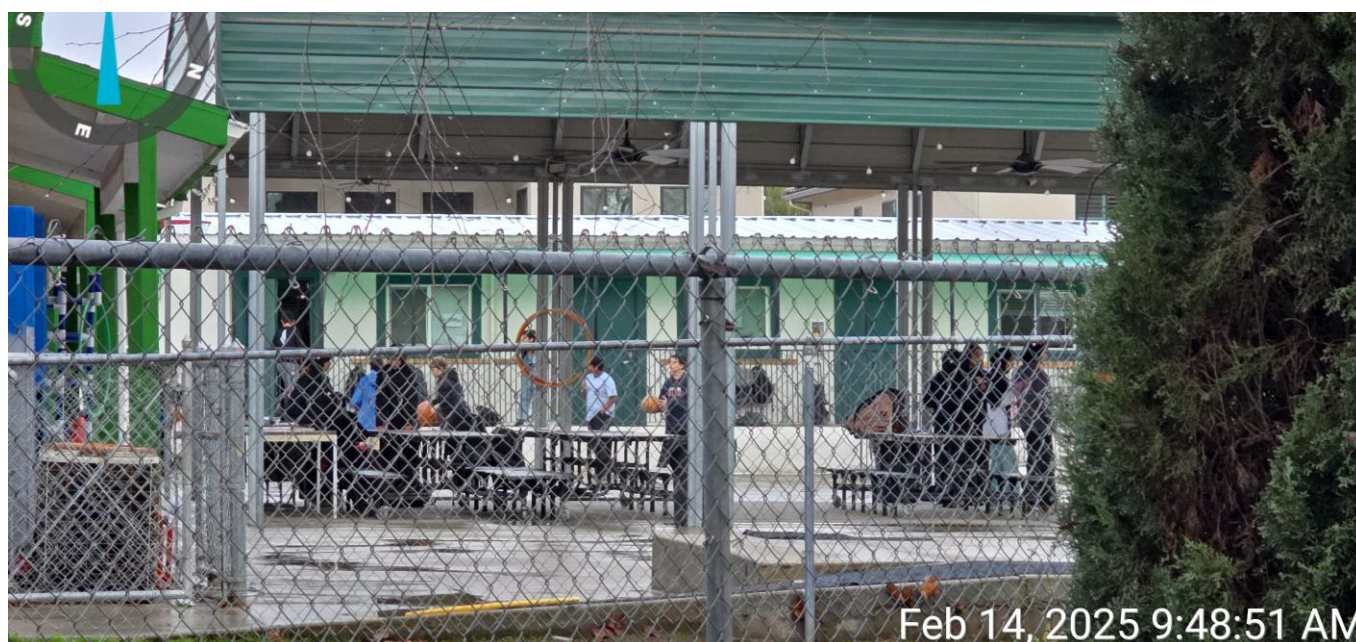
<Table 3, next page>

Table 3: Noise Measurement Results

Measurements Location	Leq (dBA)	Measurement Conditions
NM1	57	12 students playing with basketballs
NM2	49	12 students playing for 2 minutes, 13 minutes of ambient
NM3	50	Includes 15 students playing for 5 minutes

NM1 provides a representative example of operational noise levels as it includes students socializing, playing, bouncing basketballs, etc., combined with ambient noise resulting from traffic. MD used this noise level combined with the observations of the source (12 students playing) to model the noise produced by students playing on the basketball court. NM1 shows that 12 students playing approximately 115 feet away produced an Leq of 57 dBA. Exhibit D shows students playing during the noise measurement NM1.

Exhibit D: Students Playing During Recess



4.0 Study Method and Procedure

SoundPLAN Acoustic Model

SoundPLAN (SP) acoustical modeling software was utilized to model future worst-case stationary noise impacts to the adjacent land uses. SP is capable of evaluating multiple stationary noise source impacts at various receiver locations. SP's software utilizes algorithms (based on the inverse square law and reference equipment noise level data) to calculate noise level projections. The software allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations. Appendix C provides the model input and outputs.

MD utilized playground sound level reference data as well as the 2/14/2025 measurement data of 12 kids playing with basketballs at recess to model the noise levels of both existing and future operations. Reference measurements are included in Appendix D. The measured noise level of NM1 (12 kids playing

basketball) was 57 dBA Leq at approximately 115 feet. MD used the following equation to convert the measured Leq to sound power level for modeling purposes:

$$L_w = L_p + |10 * \log_{10}(\frac{Q}{4\pi r^2})|$$

Where L_w is sound power level, L_p is the measured Leq, Q is the directivity factor, and r is the distance in meters from the sound source. MD scaled the playground sound level data according to the number of students playing to match the existing condition and the future condition using the following equation:

$$L_{p\ adjusted} = 10 * \log_{10}(\frac{n}{n_{ref}} * 10^{\frac{L_{p\ ref}}{10}})$$

Where $L_{p\ adjusted}$ is the adjusted Leq, n is the number of kids playing in the model, n_{ref} is the number of kids playing in the reference measurement, and $L_{p\ ref}$ is the reference measurement Leq.

Table 4 provides the referenced noise level measurements used to develop the SoundPlan model. These measurements were conducted either at the project site or of other school expansion projects where measurement data was obtained of children playing.

Table 4: Measured Reference Noise Sources

Noise Source ¹	# of kids	Noise Level (dBA, Leq)
Kids on Playground	75	70
Kids Playing with Basketballs	12	57
¹ See Appendix D for reference measurement data.		

Existing Condition: Existing play areas consist of the soccer field, the basketball court, and play structure. Per the recess schedule, a maximum of up to one-third of the total student population will be allowed outside at a given time. Thus, MD assumed a total of 56 students are playing in the various play areas. The basketball court was directly calibrated to the NM1 data and assumes 12 students are playing in the area. MD modeled the students playing with basketballs as a point source because the primary contribution to the noise is the impulsive bounce sound of the ball hitting the ground. The soccer field was modeled as a 1,500 square-foot area source with 1 student per 44 square feet (34 students total), and the play structure was modeled as a 675 square-foot area source with 1 student per 68 square feet (10 students total). Because noise emanating from kids playing on the field and the play structure is spread across the respective play areas as children run around, MD modeled these as area sources.

In order to develop a noise model of the existing recess (kids playing) noise condition, MD adjusted the reference noise level data to match the 1/3 student population assumptions. Table 5 provides the Existing Operational reference noise levels utilized within the SoundPlan model.

Table 5: Reference Noise Sources – Existing Operational Condition

Noise Source	# of kids	Noise Level (dBA, Leq)	Adjustment for project condition
Kids on Soccer Field	34	67	adjusted to 67 dBA for 34 kids ²
Kids Playing with Basketballs	12	57	none needed ¹
Play Structure	10	61	adjusted to 61 dBA for 10 kids ²
1. See Appendix D for measurements 2. Adjusted level refers to adjustment of the Leq based on number of kids playing, see “Lp adjusted” equation above.			

Future Condition: The project proposes increasing the number of students, constructing a new classroom building, relocating the basketball court to the east side of the project site, and removing the play structure. The proposed project would increase the maximum number of possible students from 167 to 414 students. No more than one-third of the total students would be outside for recess at a given time. Thus, MD modeled the future condition assuming a maximum of 138 students are playing outside. The basketball court was modeled the same as the existing condition (12 students) at the proposed location. The remainder of the students (126 students) are assumed to be located on the soccer field. The soccer field was thus modeled as a 1,500 square-foot area source with 1 student per 12 square feet. The proposed new structure will be a two-story building that is assumed to have rooftop mounted HVAC shielded by the rooftop parapet. Any increase in noise due to HVAC will be negligible as the noise level at the receptor sites will be far below (more than 10dB less than) the ambient noise due to traffic.

The future project condition (increase in the student population to 414 children) was modeled using the reference measurement data to match the 1/3 student population assumptions as described above. Table 6 provides the Future Operational reference noise levels utilized within the SoundPlan model.

Table 6: Reference Noise Sources – Future Operational Condition

Noise Source	# of kids	Noise Level (dBA, Leq)	Adjustment for project condition
Kids on Soccer Field	126	72	adjusted to 72 dBA for 126 kids ²
Kids Playing with Basketballs	12	57	none needed ¹
1. See appendix D for measurements 2. Adjusted level refers to adjustment of the Leq based on number of kids playing, see “Lp adjusted” equation above.			

5.0 Findings and Recommendations

A total of four (4) receptors were modeled to evaluate the existing and future operational noise levels near the project site. A receptor is denoted by a yellow dot. Receiver 1 – Receiver 4 represent the noise level at the surrounding residential properties that could be impacted by project noise.

Existing Operational Noise Levels

Exhibit E shows the existing ambient plus project noise level based on the current conditions. The noise contours illustrate how the noise will propagate. Existing project noise levels at the surrounding residential uses range between 47 to 52 dBA Leq at the property line and thus fall within the exterior 55 dBA daytime (7 am – 10 pm) noise limits for residential properties. Table 7 provides the noise levels associated with this condition.

Exhibit E Existing Noise Level Condition

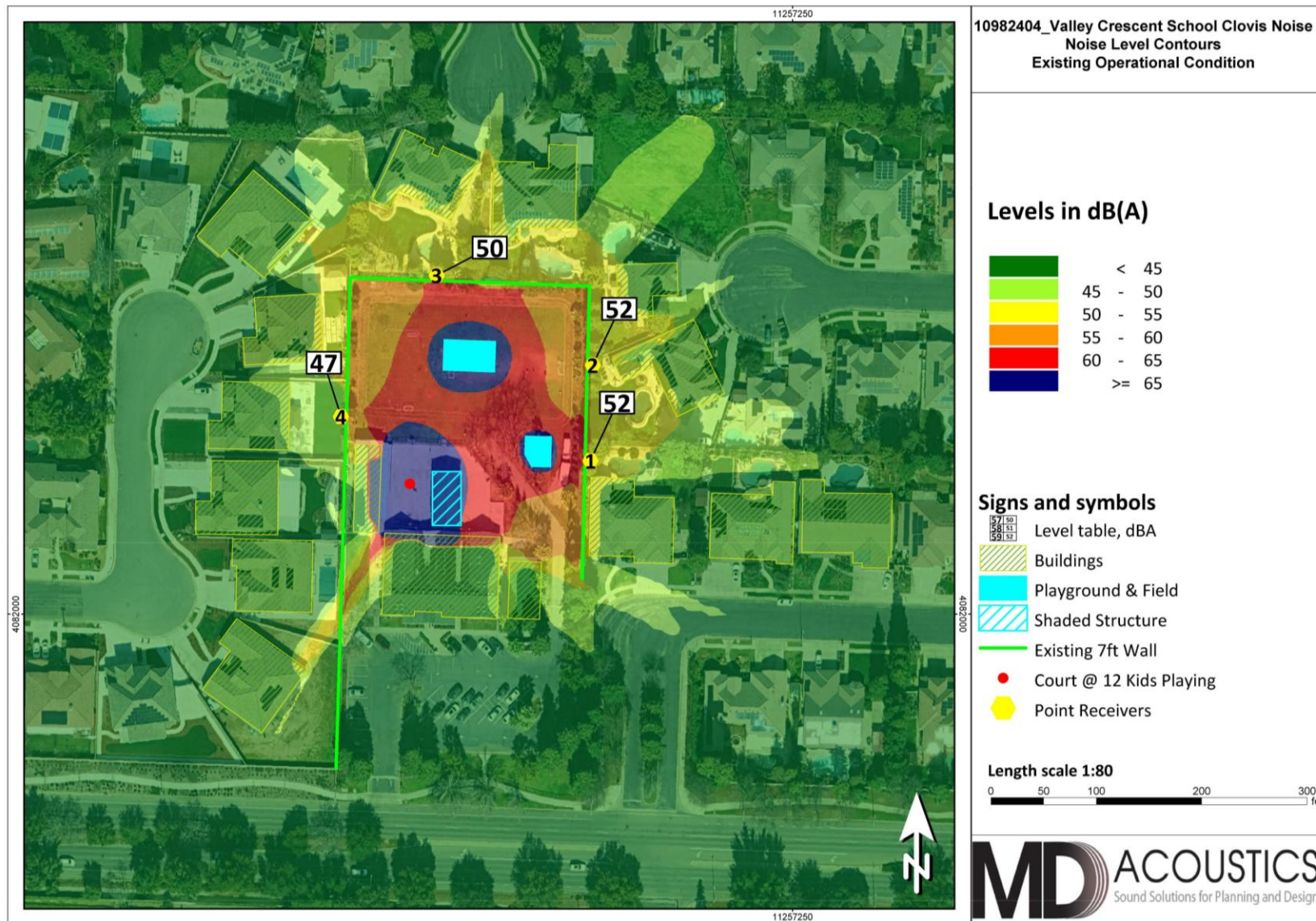


Table 7: 56 Kids Playing Outside – Existing Operational Noise Levels (dBA)

Receptor	Existing Noise Level (dBA, Leq)	Daytime Noise Limit	Exceeds the Noise Standard (?)
1	52	55	No
2	52		No
3	50		No
4	47		No
¹ . See Exhibit E for the noise contour map, assumes 56 children playing.			

Future Operational Noise Levels

Exhibit F shows the future projected ambient plus project noise level based on the proposed expansion. The noise contours illustrate how the noise will propagate. The noise levels will range between 51 to 55 dBA Leq at the residential receptors. Thus, the proposed project will meet the daytime residential noise limit of 55 dBA Leq. Table 8 compares the existing and future noise level conditions.

Table 8: 138 Kids Playing Outside – Future Operational Noise Levels (dBA)

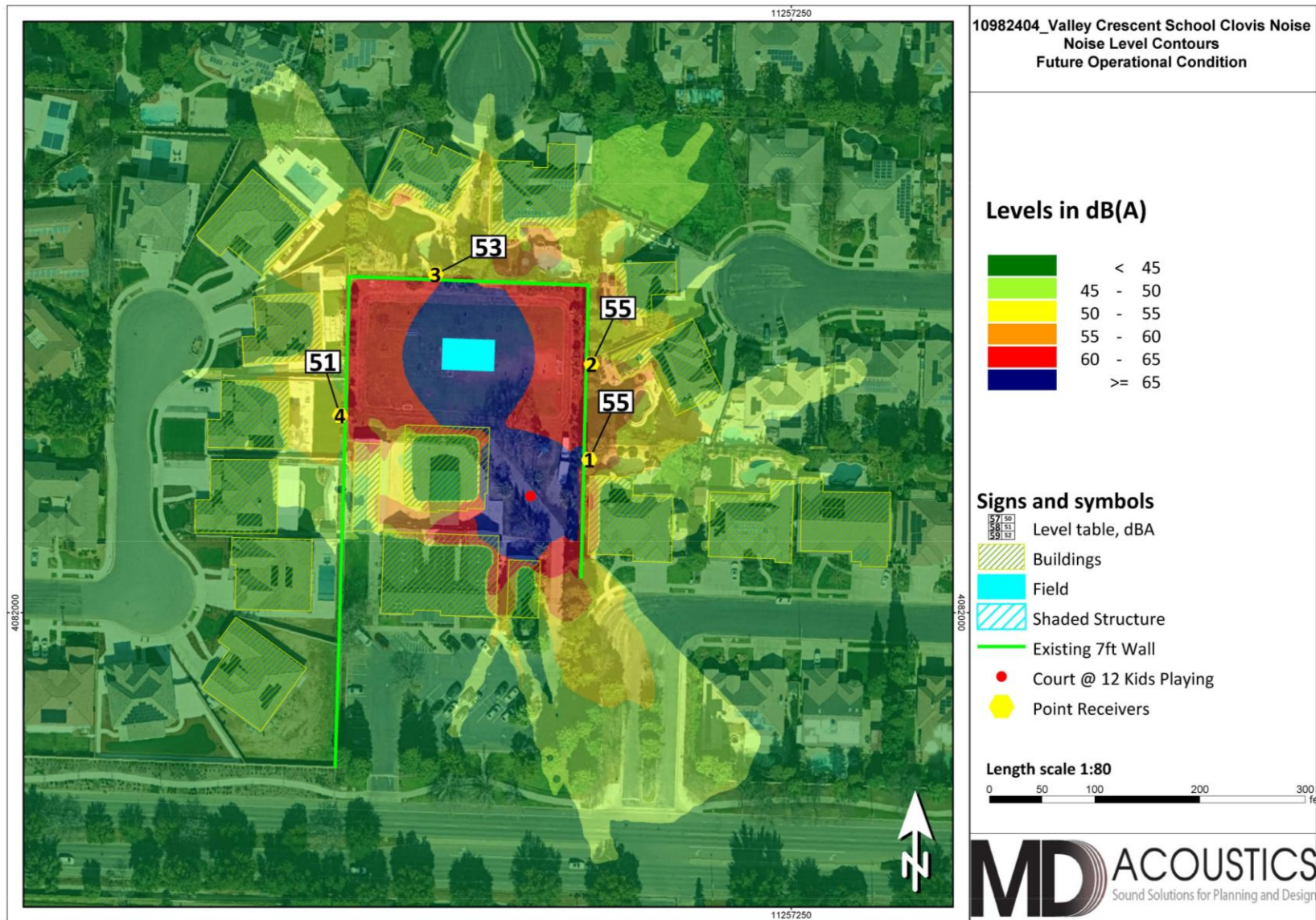
Receptor	Future Noise Level (dBA, Leq)	Daytime Noise Limit	Exceeds the Noise Standard (?)
1	55	55	No
2	55		No
3	53		No
4	51		No
¹ . See Exhibit F for the noise contour map, assumes 138 children playing.			

Table 9 provides the change in the noise level condition as a result of the increase in the children playing within the play areas of the school. It is anticipated that the change in noise level will range between 3 to 4 dBA at the adjust sensitive uses (residences). As previously mentioned, the noise levels take into account the existing 7-foot tall CMU wall around the property line.

Table 9: Change in Operational Noise Levels (dBA)

Receptor	Existing Noise Level (dBA, Leq)	Future Noise Level (dBA, Leq)	Daytime Noise Limit	Change in Noise Level as Result of Project
1	52	55	55	+3
2	52	55	55	+3
3	50	53	55	+3
4	47	51	55	+4

Exhibit F
Future Noise Level Condition



It takes a change of 3 dB or more for the human ear to perceive a change in loudness. The project will increase the existing noise level by up to 4 dB. Thus, the change in noise level would be “Just perceptible” at the residential receptors.

The proposed project will meet the City’s exterior noise standards for residential use, and the noise level increase due to the project will be less than significant.

Interior Noise Levels

The future interior noise level was calculated for the sensitive receptor locations using a typical “windows open” and “windows closed” condition. A “windows open” condition assumes 12 dBA of noise attenuation from the exterior noise level. A “windows closed” condition” assumes 20 dBA of noise attenuation from the exterior noise level. Table 10 indicates the interior noise levels for the surrounding receptors.

Table 10: Future Interior Noise Levels (dBA Leq)

Receptor Location	Noise Level at Residential Building Facade	Interior Noise Standard (dBA Leq)	Interior Noise Level w/ Typical Residential Windows	
			Window Open	Windows Closed
1	55	45	43	35
2	55	45	43	35
3	53	45	41	33
4	51	45	39	31

As shown in Table 10 the interior noise level will be 37 to 43 dBA Leq with the windows open and 29 to 35 dBA Leq with the windows closed, which meets the City’s interior noise standard of 45 dBA as defined within Section 9.22.080.D of the municipal code.

6.0 Conclusions

MD is pleased to provide this addendum to the noise impact study for the Valley Crescent School project. The proposed Valley Crescent School project will comply with the City of Clovis’s noise standards. If you have any questions regarding this analysis, please call our office at (805) 426-4477.

Sincerely,
MD Acoustics, LLC



Rachel Edelman
Acoustical Consultant



Mike Dickerson
Principal, INCE



Joel Demir
Acoustical Consultant, INCE

Appendix A
Glossary of Acoustical Terms

1 Sound, Noise and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic, or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

3 Sound Pressure Levels and Decibels

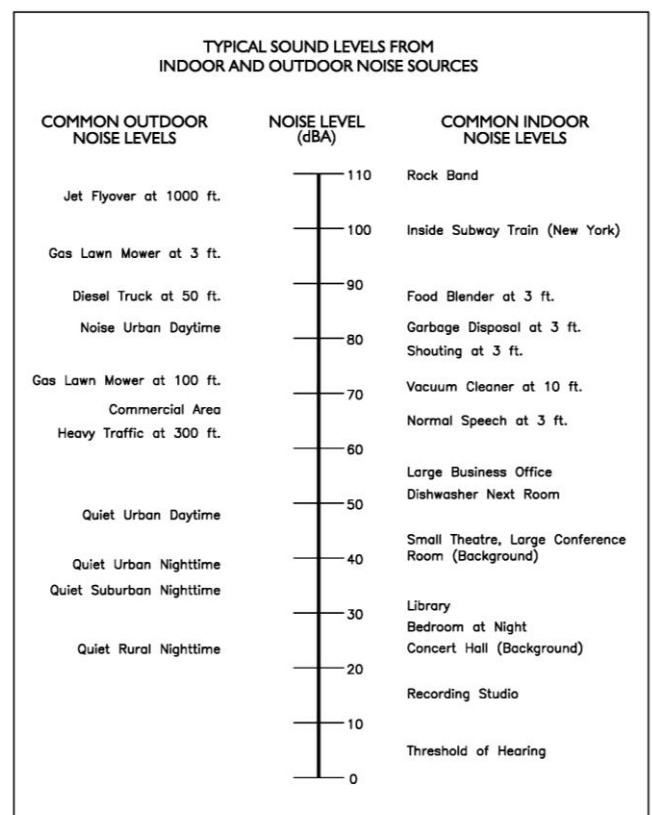
The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square inch meter (N/m²), also called micro-Pascal (μPa). One μPa is approximately one hundred billionths (0.0000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels abbreviated dB. Exhibit C illustrates reference sound levels for different noise sources.

4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds of equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound.

5 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A-weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighting is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously



discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g. doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A): A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms and similar spaces.

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly L50, L90 and L99, etc.

Noise: Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area: Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

7 Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity and turbulence can further impact how far sound can travel.

Appendix B

Field Data Sheets

15-Minute Continuous Noise Measurement Datasheet - NM1, NM2, NM4

Project Name:	Valley Crescent Noise	Site Observations:
Project: #/Name:	1098-2024-004	NM1: 9:47 AM – 12 kids playing basketball/ volleyball- 5 balls total, 9:49 AM - Airplane noise, 9:50 AM – Traffic noise is the second loudest source after the kids, 9:54 AM – Airplane noise 9:55 AM. NM2: 10:01 AM – 10:03 Kids went back inside. Kids played primarily under the outdoor awning area, 10:03 AM – The property on the north side has a pool pump; second loudest noise source is traffic. 10:13 AM – Airplane noise 10:14 AM. 10:15 AM – Airplane noise. NM4: 10:45 AM – 3 kids outside. 10:47 AM – 15 kids out for lunch, playing with basketballs. 10:49 AM – Kids went back inside.
Site Address/Location:	547 W Nees Ave	
Date:	02/14/2025	
Field Tech/Engineer:	Jason Schuyler	
Sound Meter:	XL2, NTI	SN: A2A-16164-E0North and East walls are: 10-12' tall.
Settings:	A-weighted, slow, 1-sec, 15-minute interval	West Sidewall: 6ft tall with 8' wall behind it.-total height 8ft.
Site Id:	NM1, NM2, NM4	



Project Name: Valley Crescent Noise

Calibrator:

Site Address/Location: 547 W Nees Ave

Cal Check: Pre-test: **Post Test:**

Site Id: NM1, NM2, NM4

Figure 1: NM1



Figure 2: NM1



Figure 3: NM2



Project Name: Valley Crescent Noise

Site Address/Location: 547 W Nees Ave

Site Id: NM1, NM2, NM4

Figure 4: NM4



Project Name: Valley Crescent Noise

Site Address/Location: 547 W Nees Ave

Site Id: NM1, NM2, NM4

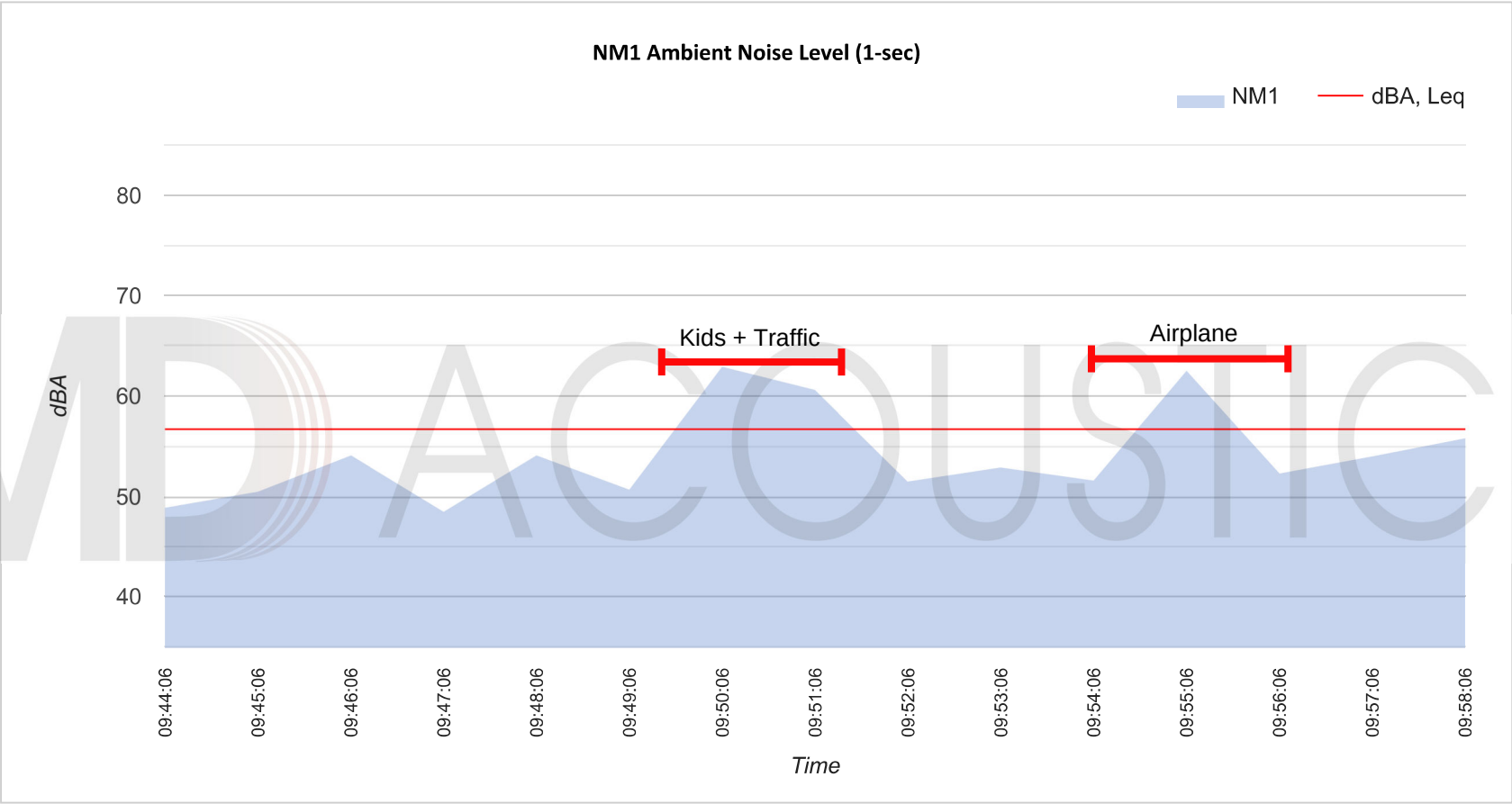
Table 1: Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
NM1	9:44 AM	9:58 AM	56.7	72.3	38.3	62.8	62.3	55	52.9	49.5
NM2	10:01 AM	10:15 AM	48.7	59.8	40.1	54.4	53.3	48.7	47	43.4
NM4	10:45 AM	10:59 AM	49.6	61.9	41.1	55.5	54.1	48.7	45.8	43.7

MD ACOUSTICS

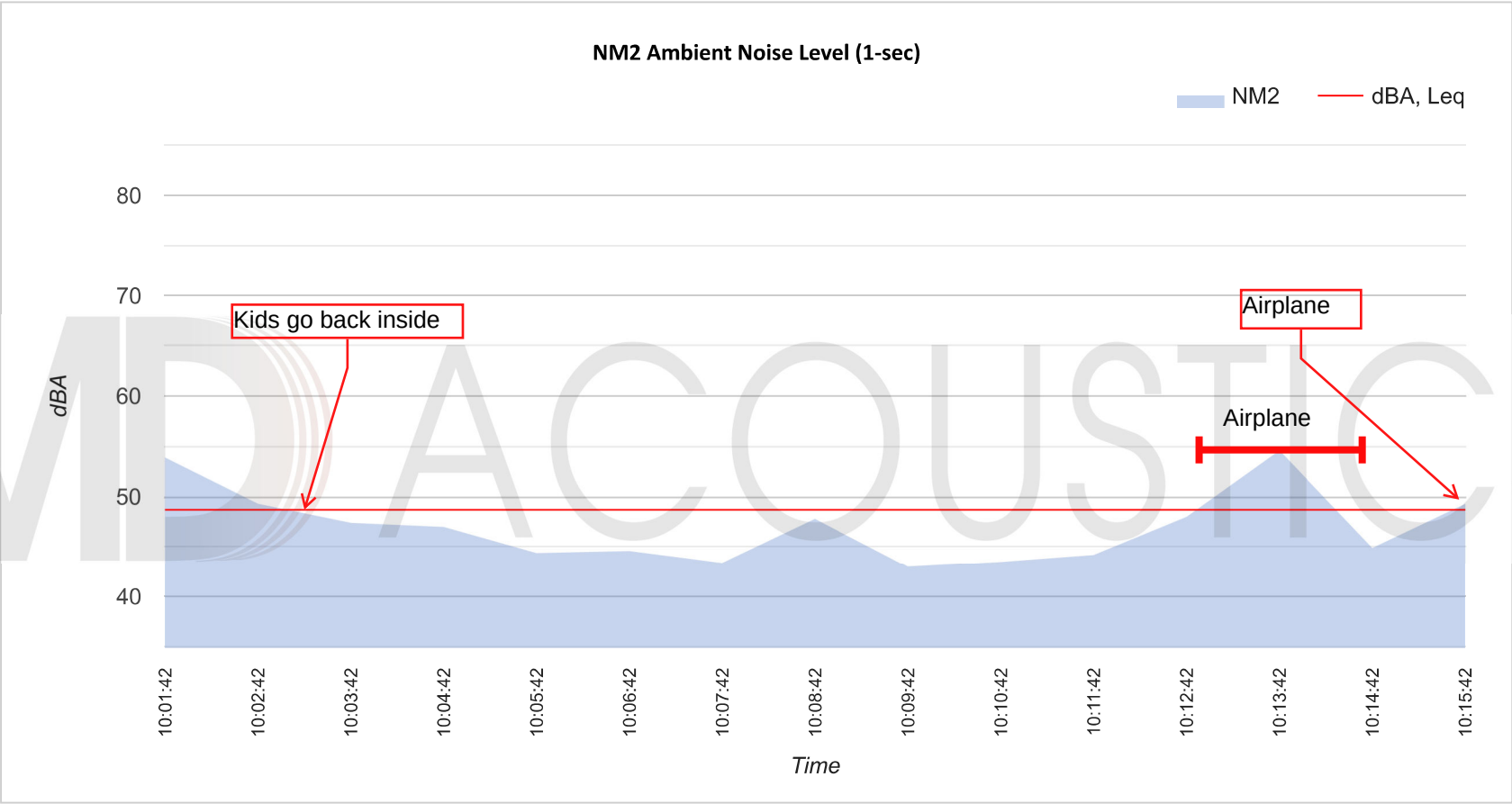
15-Minute Continuous Noise Measurement Datasheet - Cont. - NM1

Project Name:	Valley Crescent Noise	Site Topo:	Flat open ground with 8-12' cynd	Noise Source(s) w/ Distance:
Site Address/Location:	547 W Nees Ave	Meteorological Cond.:	52F WInds 1-3MPH cloudy	Children playing at 145 ft
Site Id:	NM1	Ground Type:	open fields and some paved area with 1-2 story Bldgs	



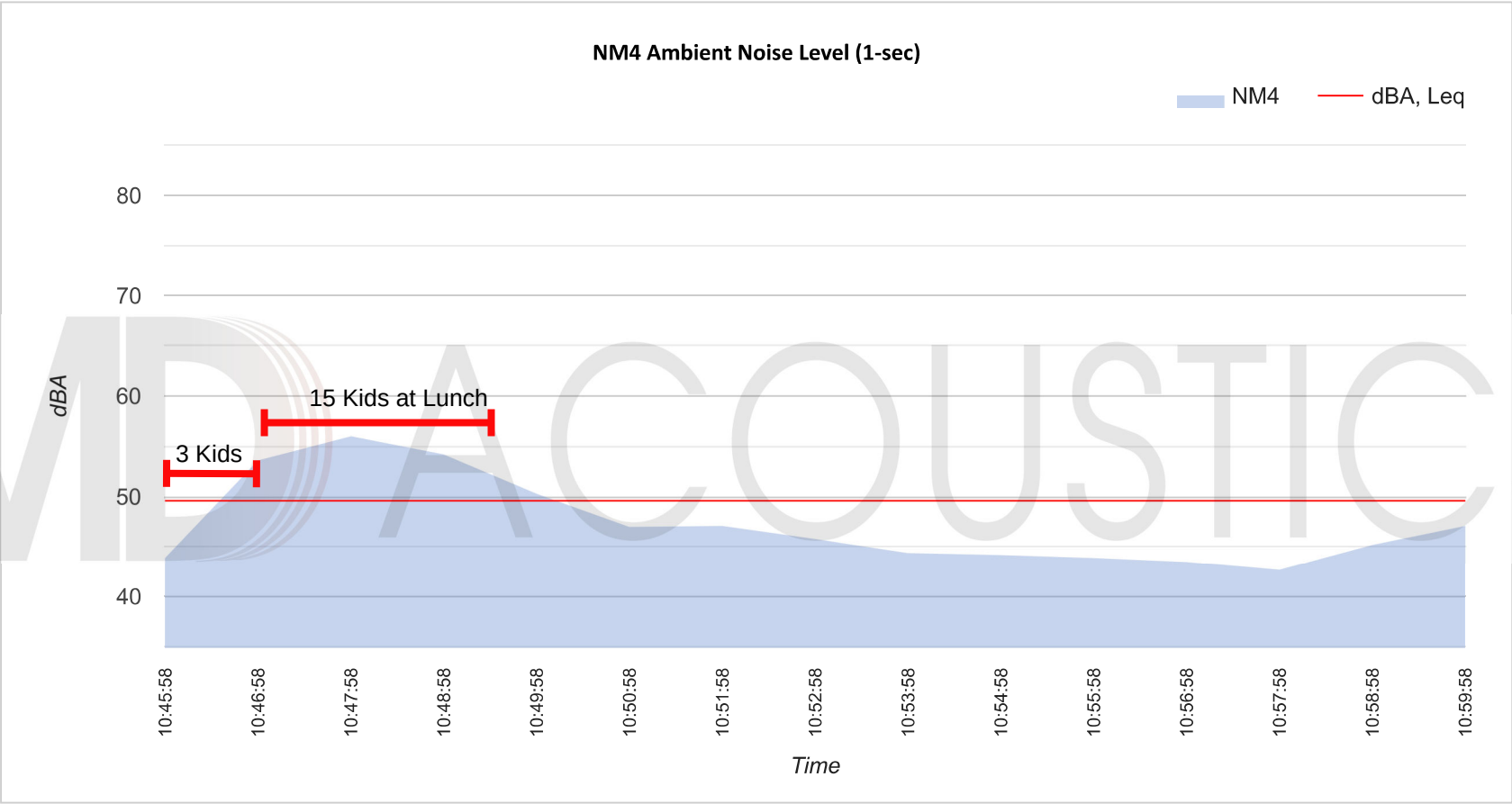
15-Minute Continuous Noise Measurement Datasheet - Cont. - NM2

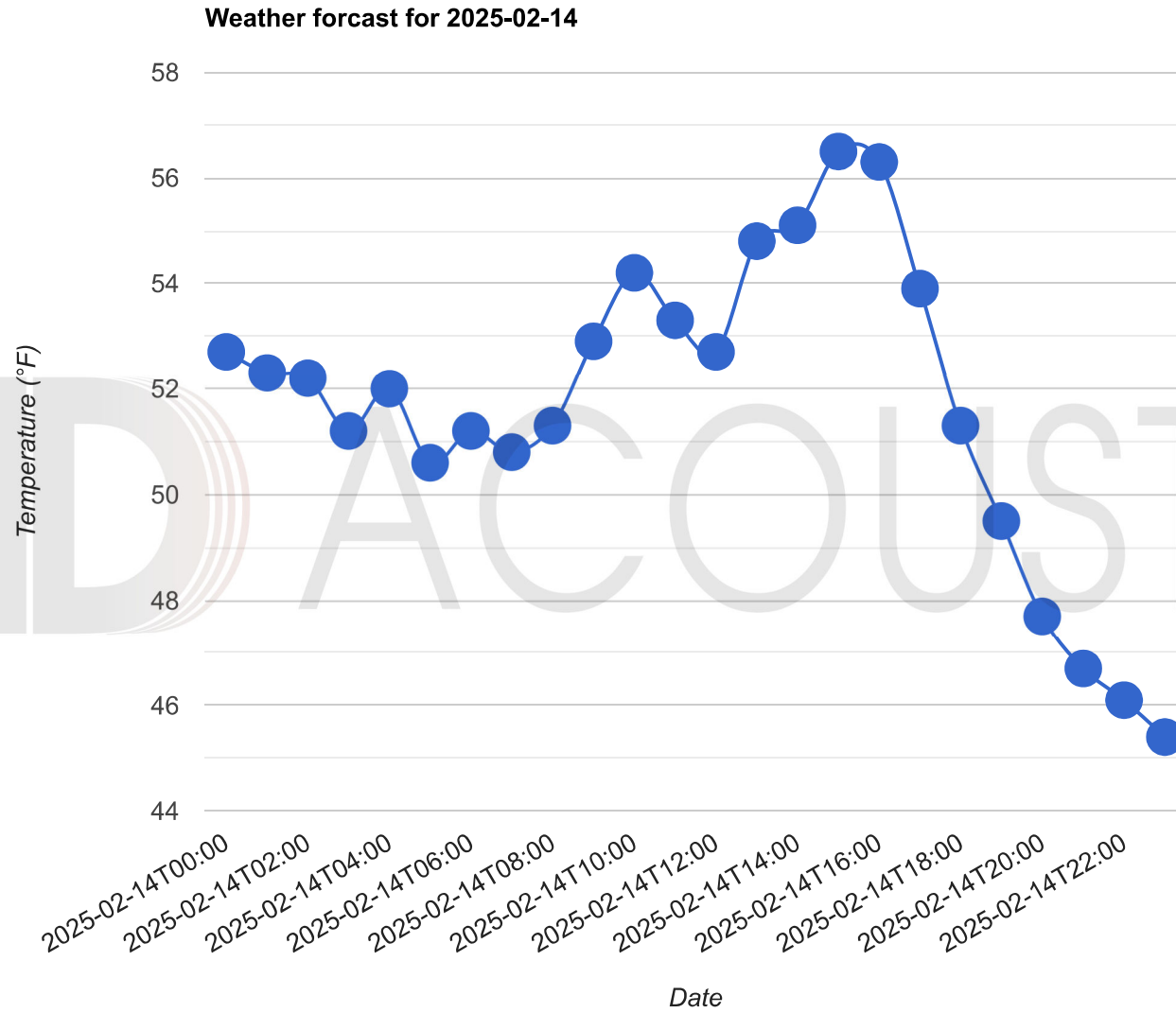
Project Name:	Valley Crescent Noise	Site Topo:	Open field, w paved area and bld	Noise Source(s) w/ Distance:
Site Address/Location:	547 W Nees Ave	Meteorological Cond.:	52F WInds 1-3MPH cloudy	Kids playing @ 200 ft, ambient only after 10:03am
Site Id:	NM2	Ground Type:	Sandy soil w clay, Cement, and school structures	

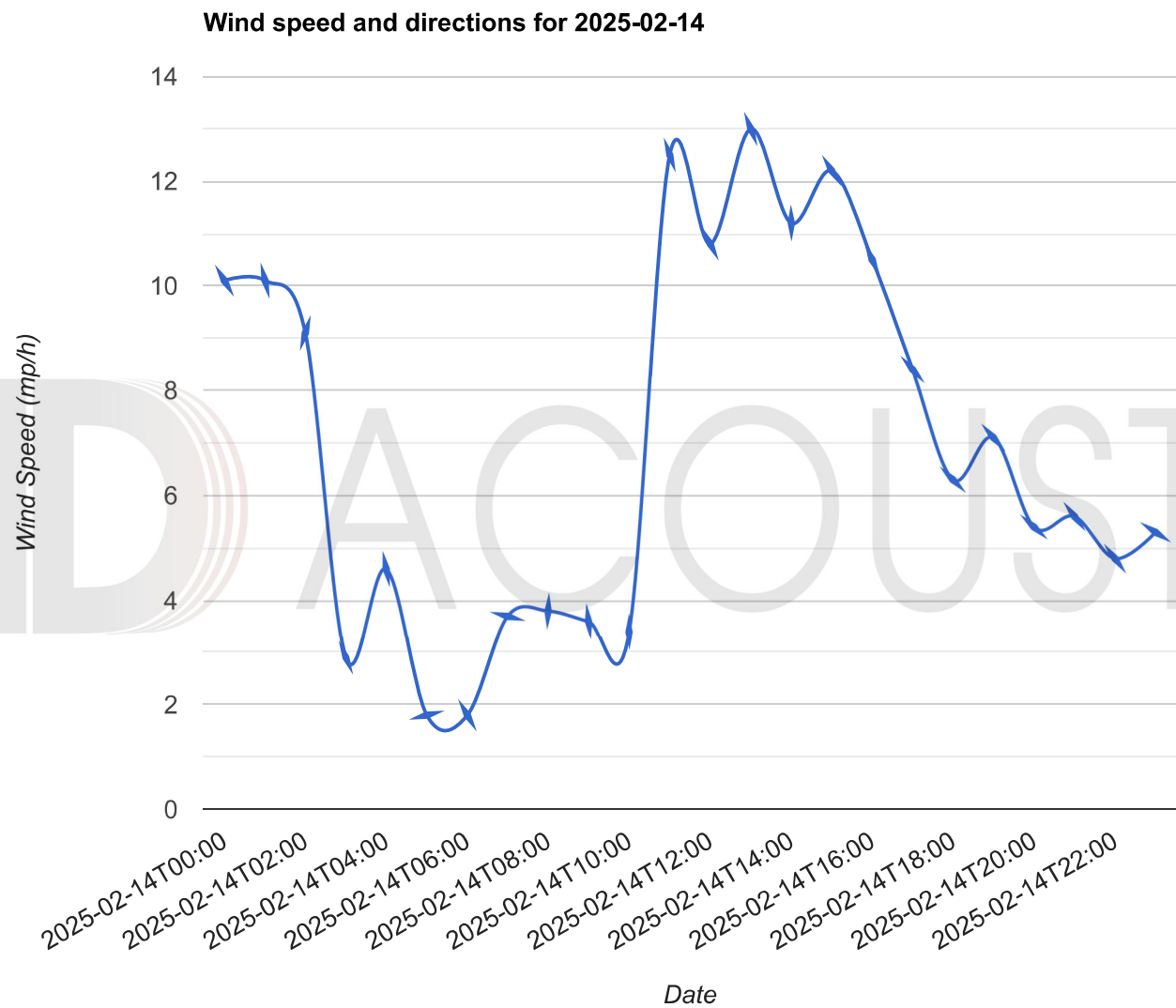


15-Minute Continuous Noise Measurement Datasheet - Cont. - NM4

Project Name:	Valley Crescent Noise	Site Topo:	flat	Noise Source(s) w/ Distance:
Site Address/Location:	547 W Nees Ave	Meteorological Cond.:	rain	Kids playing at 110 ft
Site Id:	NM4	Ground Type:	hard	







Source: Global Forecast System (GFS) weather forecast model

Appendix C

SoundPlan Inputs/Outputs

Valley Crescent School Clovis Noise Contribution spectra - 005 - Exising - Calibrated: Outdoor SP

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Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	12.5kHz	16kHz
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Receiver R1 FI G Lr,lim dB(A) Leq,d 51.8 dB(A)																															
Court	Leq,d	50.6														50.6															
Field	Leq,d	42.4	-7.9	-3.3	-0.1	-0.7	8.4	12.2	11.4	11.1	13.3	11.9	17.0	19.2	23.2	27.8	29.8	34.3	35.5	35.5	35.1	31.9	26.6	24.9	22.3	16.8	10.7	0.6	-9.6	-20.7	-33.7
Playground	Leq,d	42.9	-5.6	-1.1	2.1	1.5	10.5	14.3	13.7	13.3	15.4	13.6	18.7	21.1	25.1	28.5	30.1	34.9	36.0	36.0	35.3	32.3	26.7	24.6	22.6	17.2	11.9	3.1	-4.7	-11.8	-20.6
Receiver R2 FI G Lr,lim dB(A) Leq,d 52.0 dB(A)																															
Court	Leq,d	50.2														50.2															
Field	Leq,d	45.5	-5.5	-1.0	2.3	1.7	10.8	14.6	13.9	13.6	15.8	14.3	19.5	21.7	25.7	29.8	32.2	37.3	38.4	38.5	38.2	35.5	30.3	28.4	25.8	20.0	13.9	4.0	-5.6	-15.6	-27.4
Playground	Leq,d	42.7	-11.1	-6.6	-3.3	-3.9	5.3	9.2	8.6	10.1	12.4	11.1	17.3	19.8	23.9	27.6	29.5	34.2	35.5	35.8	35.6	32.8	27.7	25.9	23.7	18.6	13.4	4.4	-4.3	-13.8	-25.6
Receiver R3 FI G Lr,lim dB(A) Leq,d 50.0 dB(A)																															
Court	Leq,d	46.7														46.7															
Field	Leq,d	47.0	-2.6	2.0	5.2	4.6	13.6	17.5	16.9	16.5	18.7	17.1	22.2	24.4	28.5	32.1	33.9	39.0	40.0	40.1	39.4	36.3	31.2	29.8	27.5	22.2	16.4	7.0	-1.9	-11.0	-21.1
Playground	Leq,d	36.2	-17.3	-12.7	-9.5	-10.1	-1.0	2.9	2.1	1.8	4.0	2.8	8.0	10.2	14.2	18.4	20.5	27.5	28.9	29.3	29.5	27.0	21.8	20.1	17.3	12.0	5.3	-6.0	-17.9	-31.0	-46.6
Receiver R4 FI G Lr,lim dB(A) Leq,d 47.1 dB(A)																															
Court	Leq,d	40.4														40.4															
Field	Leq,d	45.6	-6.8	-2.3	0.9	0.3	9.4	13.2	12.5	12.1	14.2	13.5	20.2	23.3	27.5	31.0	32.8	37.4	38.5	38.6	38.2	35.3	30.0	28.2	26.5	20.9	14.9	4.8	-5.4	-16.5	-29.2
Playground	Leq,d	36.3	-17.3	-12.7	-9.5	-10.1	-1.1	2.8	1.9	1.6	3.7	2.4	8.8	11.9	15.9	19.8	21.9	27.4	28.8	29.1	29.5	27.7	22.2	20.3	18.3	12.6	6.2	-4.6	-16.1	-29.3	-45.1

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Valley Crescent School Clovis Noise Contribution level - 005 - Existing - Calibrated: Outdoor SP

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Source	Source group	Source ty	Tr. lane	Leq,d dB(A)	A dB	
Receiver R1 FI G Lr,lim dB(A) Leq,d 51.8 dB(A)						
Court	Default industrial noise	Point		50.6	0.0	
Field	Default industrial noise	Area		42.4	0.0	
Playground	Default industrial noise	Area		42.9	0.0	
Receiver R2 FI G Lr,lim dB(A) Leq,d 52.0 dB(A)						
Court	Default industrial noise	Point		50.2	0.0	
Field	Default industrial noise	Area		45.5	0.0	
Playground	Default industrial noise	Area		42.7	0.0	
Receiver R3 FI G Lr,lim dB(A) Leq,d 50.0 dB(A)						
Court	Default industrial noise	Point		46.7	0.0	
Field	Default industrial noise	Area		47.0	0.0	
Playground	Default industrial noise	Area		36.2	0.0	
Receiver R4 FI G Lr,lim dB(A) Leq,d 47.1 dB(A)						
Court	Default industrial noise	Point		40.4	0.0	
Field	Default industrial noise	Area		45.6	0.0	
Playground	Default industrial noise	Area		36.3	0.0	

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Valley Crescent School Clovis Noise

Octave spectra of the sources in dB(A) - 005 - Exising - Calibrated: Outdoor SP

3

Name	Source type	I or A m,m²	Li dB(A)	Rw dB	L'w dB(A)	Lw dB(A)	KI dB	KT dB	LwMax dB(A)	DO-Wall dB	Day histogram	Emission spectrum	63Hz dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)	16kHz dB(A)
Court	Point				96.0	96.0	0.0	0.0		0	100%/24h	Street basketball				96.0					
Field	Area	139.36			73.4	94.8	0.0	0.0		0	100%/24h	Playground - 69.9 @ 10ft	60.6	66.4	73.0	83.7	92.1	89.9	82.6	71.9	53.5
Playground	Area	67.33			69.2	87.5	0.0	0.0		0	100%/24h	Playground - 69.9 @ 10ft	53.2	59.1	65.6	76.4	84.7	82.6	75.2	64.6	46.2

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Valley Crescent School Clovis Noise Contribution spectra - 006 - Per Plan: Outdoor SP

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Source	Time slice	Sum	25Hz	31.5Hz	40Hz	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	12.5kHz	16kHz					
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)					
Receiver R1			FI G Lr,lim dB(A) Leq,d 55.5 dB(A)																																	
Court	Leq,d	54.8														54.8																				
Field	Leq,d	47.3	-2.9	1.7	4.9	4.3	13.4	17.2	16.4	16.1	18.3	16.9	22.0	24.2	28.2	32.5	34.5	39.2	40.2	40.3	40.0	37.0	31.7	29.9	27.2	21.9	15.7	5.6	-4.6	-15.7	-28.7					
Receiver R2			FI G Lr,lim dB(A) Leq,d 55.4 dB(A)																																	
Court	Leq,d	53.9														53.9																				
Field	Leq,d	49.9	-0.5	4.0	7.3	6.7	15.8	19.6	18.9	18.6	20.8	19.3	24.5	26.7	30.7	34.8	37.1	41.7	42.8	42.9	42.5	39.7	34.6	32.8	30.3	24.6	18.6	8.8	-0.6	-10.6	-22.4					
Receiver R3			FI G Lr,lim dB(A) Leq,d 53.0 dB(A)																																	
Court	Leq,d	43.5														43.5																				
Field	Leq,d	52.5	2.4	7.0	10.2	9.6	18.6	22.5	21.9	21.5	23.7	22.1	27.2	29.8	34.0	37.5	39.4	44.3	45.5	45.6	45.1	42.0	36.8	35.3	33.1	27.8	21.9	12.3	3.2	-5.9	-16.1					
Receiver R4			FI G Lr,lim dB(A) Leq,d 50.9 dB(A)																																	
Court	Leq,d	39.5														39.5																				
Field	Leq,d	50.6	-1.8	2.7	5.9	5.3	14.4	18.2	17.5	17.1	19.2	18.5	25.2	28.3	32.4	36.0	37.8	42.4	43.5	43.6	43.2	40.3	35.0	33.2	31.6	26.0	20.0	9.8	-0.4	-11.5	-24.2					

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Valley Crescent School Clovis Noise

Contribution level - 006 - Per Plan: Outdoor SP

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Source	Source group	Source ty	Tr. lane	Leq,d dB(A)	A dB	
Receiver R1 FI G Lr,lim dB(A) Leq,d 55.5 dB(A)						
Field	Default industrial noise	Area		47.3	0.0	
Court	Default industrial noise	Point		54.8	0.0	
Receiver R2 FI G Lr,lim dB(A) Leq,d 55.4 dB(A)						
Field	Default industrial noise	Area		49.9	0.0	
Court	Default industrial noise	Point		53.9	0.0	
Receiver R3 FI G Lr,lim dB(A) Leq,d 53.0 dB(A)						
Field	Default industrial noise	Area		52.5	0.0	
Court	Default industrial noise	Point		43.5	0.0	
Receiver R4 FI G Lr,lim dB(A) Leq,d 50.9 dB(A)						
Field	Default industrial noise	Area		50.6	0.0	
Court	Default industrial noise	Point		39.5	0.0	

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Valley Crescent School Clovis Noise

Octave spectra of the sources in dB(A) - 006 - Per Plan: Outdoor SP

3

Name	Source type	I or A m,m²	Li dB(A)	Rw dB	L'w dB(A)	Lw dB(A)	KI dB	KT dB	LwMax dB(A)	DO-Wall dB	Day histogram	Emission spectrum	63Hz dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)	16kHz dB(A)
Court	Point				96.0	96.0	0.0	0.0		0	100%/24h	Street basketball				96.0					
Field	Area	139.36			78.4	99.8	0.0	0.0		0	100%/24h	Playground - 69.9 @ 10ft	65.6	71.4	78.0	88.7	97.1	94.9	87.6	76.9	58.5

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Appendix D
Reference Sound Measurement Data

Project: San Jacinto Valley Academy Expansion
Job Number: 0144-2016-01
Site Address/Location: 480 N. San Jacinto Avenue, San Jacinto, CA 92583
Date: 05/17/2016
Field Tech/Engineer: Mike Dickerson
Source/System: Playground | Kids Playing

Site Observations:
75 to 100 Children playing at school playground area.

General Location: Meter placed within 10-feet of k
Sound Meter: NTi XL2 **SN:** A2A-05967-E0
Settings: A-wgt, slow and fast weight
Meteorological Cond.: Partly cloudy, 63 deg F

Leq	Lmin	Lmax
69.6	63.0	77.1

Ln 2	Ln 8	Ln 25	Ln 50	Ln 90	Ln 99
75.6	71.4	70.5	67.9	65.2	64.7

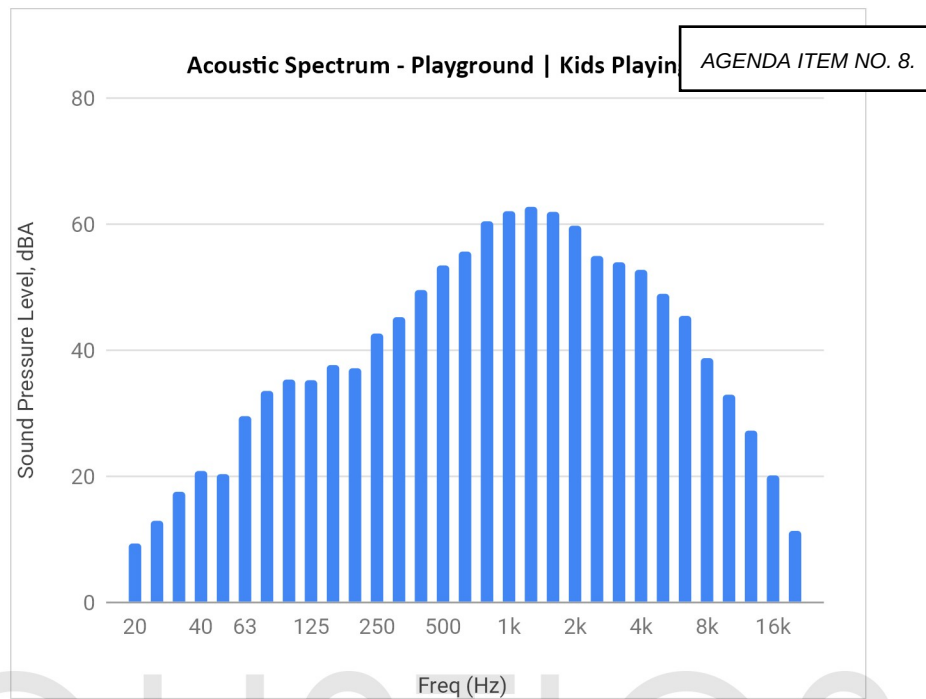
Table 1: Summary Measurement Data

Source/System	Overall Source	Overall dB(A)	3rd Octave Band Data (dBA)																														
			20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1k	1.25	1.6k	2k	2.5k	3.15	4k	5k	6.3k	8k	10k	12.5	16k	20k
Playground Kids Playing	Recess Kids Pla	69.6	9.5	13.1	17.7	21.0	20.5	29.7	33.7	35.5	35.4	37.8	37.3	42.8	45.4	49.7	53.6	55.8	60.6	62.2	62.9	62.1	59.9	55.1	54.1	52.9	49.1	45.6	38.9	33.1	27.4	20.3	11.5

Table 2: Summary Measurement Data (1/1 octave)

Source/System	Overall Source	Overall dB(A)	1st Octave Band Data (dBA)									
			31.5	63	125	250	500	1k	2k	4k	8k	16k
Playground Kids Playing	Recess Kids Play	69.6	23.1	35.3	41.2	47.7	58.5	66.8	64.7	57.3	46.6	28.3

Figure 1: Kids playing



MDACOUSTICS

December 2024

Job No. 1-724-0185

Dr. Mohammad Asharf
Valley Crescent School
547 West Nees Avenue
Clovis, CA 93611

Subject: FINAL TRAFFIC IMPACT ANALYSIS
Proposed Building Addition – Valley Crescent School
547 West Nees Avenue
Clovis, California

Dear Dr. Asharf:

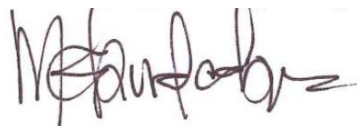
At your request and authorization, a Traffic Impact Analysis (TIA) for the above-referenced project located at 547 West Nees Avenue in the City of Clovis, California (subject property) was conducted by SALEM's Traffic subconsultant (see following report).

This TIA analyzes the projected traffic operations associated with the proposed building addition. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from the development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Clovis via a scoping agreement (See Appendix B) and follows the City of Clovis General Plan (City General Plan) (August 2014) and the City of Clovis Transportation Impact Analysis Guidelines (City Guidelines) (September 2022).

The proposed project is comprised of the construction of additional classrooms to the existing private school, Valley Crescent School, to accommodate 240 additional students. Site access will be via the existing right in/right-out driveway on West Nees Avenue. The site is within the boundaries of the *City of Clovis Herndon-Shepherd Specific Plan* (June 1988). According to the *City General Plan Land Use Designation Map* (October 2023), the site is currently designated for Low Density Residential land use. The site is zoned as Single Family Residential 7,500 square feet, or R-1-7500.

Please refer to the following report for details resulting from this TIA. We appreciate the opportunity to assist you with this project. If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (559) 271-9700.

Respectfully submitted,

SALEM Engineering Group, Inc.

Maria G. Ruvalcaba
Managing Partner

547 West Nees Avenue Traffic Impact Analysis

City of Clovis, California

December 3, 2024

Prepared by:



TJW ENGINEERING, INC.
9841 Irvine Center Drive, Suite 200
Irvine, CA 92618
949.878.3509 | www.tjwengineering.com



TJW ENGINEERING, INC.
TRAFFIC ENGINEERING &
TRANSPORTATION PLANNING
CONSULTANTS

December 3, 2024

Maria Ruvalcaba
SALEM ENGINEERING GROUP, INC.
8711 Monroe Court, Suite A
Rancho Cucamonga, CA 91730

Subject: Traffic Impact Analysis – 547 West Nees Avenue, City of Clovis, CA

Dear Ms. Ruvalcaba:

TJW ENGINEERING, INC. (TJW) is pleased to present you with this traffic impact analysis for the proposed project at 547 West Nees Avenue in the City of Clovis, comprised of the construction of additional classrooms to the existing private school to accommodate 240 additional students.

This traffic study has been prepared to meet the traffic study requirements for the City of Clovis and assesses the forecast traffic operations associated with the proposed project and its impact on the local street network. This report is being submitted to you for review and forwarding to the City of Clovis.

Please contact us at (949) 878-3509 if you have any questions regarding this analysis.

Sincerely,

A handwritten signature in black ink, appearing to read 'Th Wheat'.

Thomas Wheat, PE, TE
President
Registered Civil Engineer #69467
Registered Traffic Engineer #2565

A handwritten signature in black ink, appearing to read 'David Chew'.

David Chew, PTP
Transportation Planner

A handwritten signature in black ink, appearing to read 'Travis Yokota'.

Travis Yokota
Assistant Transportation Planner

547 West Nees Avenue Traffic Impact Analysis

City of Clovis, California

December 3, 2024

Prepared for:

Maria Ruvalcaba

SALEM ENGINEERING GROUP, INC.

8711 Monroe Court, Suite A

Rancho Cucamonga, CA 91730

Prepared by:

Thomas Wheat, PE, TE

David Chew, PTP

Travis Yokota



TJW ENGINEERING, INC.

9841 Irvine Center Drive, Suite 200

Irvine, CA 92618

949.878.3509 | www.tjwengineering.com

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- Appendix A: Glossary of Terminology
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- Appendix C: Existing Traffic Counts
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1.0 EXECUTIVE SUMMARY

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed project at 547 West Nees Avenue in the City of Clovis. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from the development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Clovis via a scoping agreement (See **Appendix B**) and follows the *City of Clovis General Plan (City General Plan)* (August 2014) and the *City of Clovis Transportation Impact Analysis Guidelines (City Guidelines)* (September 2022).

The proposed project is comprised of the construction of additional classrooms to the existing private school, Valley Crescent School, to accommodate 240 additional students. Site access will be via the existing right-in/right-out driveway on West Nees Avenue. The site is within the boundaries of the *City of Clovis Herndon-Shepherd Specific Plan* (June 1988). According to the *City General Plan* Land Use Designation Map (October 2023), the site is currently designated for Low Density Residential land use. The site is zoned as Single Family Residential 7,500 square feet, or R-1-7500.

Full student capacity with the additional 240 students is anticipated to be reached by 2031. An annual growth rate of 2% is used to account for 2031 traffic volumes. When capacity is reached, the proposed project is expected to generate an additional 484 daily trips which includes 242 AM peak hour trips and 62 PM peak hour trips.

The following three (3) intersections in the vicinity of the project site have been included in the level of service (LOS) analysis:

1. North Peach Avenue/West Nees Avenue
2. North Willow Avenue/West Nees Avenue
3. Project Driveway/West Nees Avenue

The study intersections are analyzed for the following study scenarios:

- Existing Traffic Conditions (Existing);
- Existing Plus Project Traffic Conditions (EP);
- Near-Term (Existing + Ambient + Cumulative + Project) Traffic Conditions (NT);
- Long-Term (Horizon Year 2040 + Project) Traffic Conditions (LT).



1.1 SUMMARY OF LEVEL OF SERVICE ANALYSIS RESULTS

Table ES-1 summarizes the results of the intersection level of service analysis based on the City of Clovis thresholds of significance for analyzing transportation deficiencies.

Table ES-1
Summary of Transportation Deficiencies at Study Intersections

Intersection			Existing Conditions	EP Conditions	NT Conditions	LT Conditions
1	North Peach Avenue	West Nees Avenue	-	-	-	-
2	North Willow Avenue	West Nees Avenue	-	-	-	-
3	Project Driveway	West Nees Avenue	-	-	-	-

Existing Traffic Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Existing* traffic conditions.

Existing Plus Project (EP) Traffic Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Existing Plus Project* traffic conditions.

Near-Term (NT) Traffic Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Near-Term (NT) Traffic Conditions* traffic conditions.

Long-Term (LT) Traffic Conditions

The study intersections are projected to operate at an acceptable LOS during the AM and PM peak hours for *Long-Term (LT) Traffic Conditions* traffic conditions.

1.2 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

Wherever necessary, roadways adjacent to the proposed project site and site access points will be constructed in compliance with recommended roadway classifications and respective cross-sections in the *City General Plan* or as directed by the City Engineer.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City sight distance standards at the time of final grading, landscaping and street improvement plans.

Signing/stripping should be implemented in conjunction with detailed construction plans for the project site.

2.0 INTRODUCTION

This traffic impact analysis (TIA) analyzes the projected traffic operations associated with the proposed project at 547 West Nees Avenue in the City of Clovis. The purpose of this TIA is to evaluate potential circulation system deficiencies that may result from the development of the proposed project, and to recommend improvements to achieve acceptable operations, if applicable. This analysis has been prepared in coordination with the City of Clovis via a scoping agreement (See **Appendix B**) and follows the *City of Clovis General Plan (City General Plan)* (August 2014) and the *City of Clovis Transportation Impact Analysis Guidelines (City Guidelines)* (September 2022).

2.1 PROJECT DESCRIPTION

The proposed project is comprised of the construction of additional classrooms to the existing private school, Valley Crescent School, to accommodate 240 additional students. Site access will be via the existing right-in/right-out driveway on West Nees Avenue. The site is within the boundaries of the *City of Clovis Herndon-Shepherd Specific Plan* (June 1988). According to the *City General Plan Land Use Designation Map* (October 2023), the site is currently designated for Low Density Residential land use. The site is zoned as Single Family Residential 7,500 square feet, or R-1-7500.

Full student capacity is expected to be reached by 2031. An annual growth rate of 2% is used to account for 2031 traffic volumes. **Exhibit 1** shows the project site location. **Exhibit 2** shows the proposed project site plan.

2.2 STUDY AREA

The following three (3) intersections in the vicinity of the project site have been included in the level of service (LOS) analysis:

1. North Peach Avenue/West Nees Avenue
2. North Willow Avenue/West Nees Avenue
3. Project Driveway/West Nees Avenue

Exhibit 3**Exhibit 3** shows the locations of the study intersections.



The study intersections are analyzed for the following study scenarios:

- Existing Traffic Conditions (Existing);
- Existing Plus Project Traffic Conditions (EP);
- Near-Term (Existing + Ambient + Cumulative + Project) Traffic Conditions (NT);
- Long-Term (Horizon Year 2040 + Project) Traffic Conditions (LT).

Traffic operations are evaluated for the following time periods:

- Weekday AM Peak Hour occurring between 7:00 AM to 9:00 AM; and
- Weekday PM Peak Hour occurring between 4:00 PM to 6:00 PM.

2.3 INTERSECTION ANALYSIS METHODOLOGY

Level of Service (LOS) is commonly used to describe the quality of flow on roadways and at intersections using a range of LOS from LOS A (free flow with little congestion) to LOS F (severely congested conditions). The definitions for LOS for interruption of traffic flow differ depending on the type of traffic control (traffic signal, unsignalized intersection with side street stops, unsignalized intersection with all-way stops). The *Highway Capacity Manual (HCM) 7th Edition* (Transportation Research Board, 2022) methodology expresses the LOS of an intersection in terms of delay time for the intersection approaches. The HCM methodology utilizes different procedures for different types of intersection control.

The *City General Plan* recommends signalized intersection operations to be analyzed utilizing the HCM 7th Edition methodology. Intersection LOS for signalized intersections is based on the intersections average control delay for all movements at the intersection during the peak hour. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The procedure for stop-control analysis determines the average total delay, expressed in seconds of delay per vehicle, for left turns from the major street and from the stop-controlled minor street traffic stream. Delay values are calculated based on the relationship between traffic on the major street and the availability of acceptable “gaps” in this stream through which conflicting traffic movements can be made.

Table 1 describes the general characteristics of traffic flow and accompanying delay ranges at signalized intersections.

Table 1:
HCM – LOS & Delay Ranges – Signalized Intersections

Level of Service	Description	Delay (in seconds)
A	Very favorable progression; most vehicles arrive during green signal and do not stop. Short cycle lengths.	0 – 10.00
B	Good progression, short cycle lengths. More vehicles stop than for LOS A.	10.01 – 20.00
C	Fair progression; longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though many vehicles still pass through without stopping.	20.01 – 35.00
D	Progression less favorable, longer cycle length and high flow/capacity ratio. The proportion of vehicles that pass through without stopping diminishes. Individual cycle failures are obvious.	35.01 – 55.00
E	Severe congestion with some long-standing queues on critical approaches. Poor progression, long cycle lengths and high flow/capacity ratio. Individual cycle failures are frequent.	55.01 – 80.00
F	Very poor progression, long cycle lengths and many individual cycle failures. Arrival flow rates exceed capacity of intersection.	> 80.01

Source: Transportation Research Board, *Highway Capacity Manual*, 7th Edition (Washington D.C., 2022).

Collected peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. It is a common practice in LOS analysis to conservatively use a peak 15-minute flow rate applied to the entire hour to derive flow rates in vehicles per hour that are used in the LOS analysis. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume. $PHF = [Hourly Volume] / [4 * Peak 15\text{-Minute Volume}]$. The use of a 15-minute PHF produces a more detailed and conservative analysis compared to analyzing vehicles per hour. Existing PHFs, obtained from the *Existing* traffic counts have been used for all analysis scenarios in this study.

The *City General Plan* also recommends unsignalized intersection operations to be analyzed utilizing the HCM 7th Edition methodology. Intersection operation for unsignalized intersections is based on the weighted average control delay expressed in seconds per vehicle.

At a two-way or side-street stop-controlled intersection, LOS is calculated for each stop-controlled minor street movement, for the left-turn movement(s) from the major street, and for the intersection as a whole. For approaches consisting of a single lane, the delay is calculated as the average of all movements in that lane. For all-way stop-controlled intersection, LOS is computed for the intersection as a whole. **Table 2** describes the general characteristics of traffic flow and accompanying delay ranges at unsignalized intersections.

Table 2:
HCM – LOS & Delay Ranges – Unsignalized Intersections

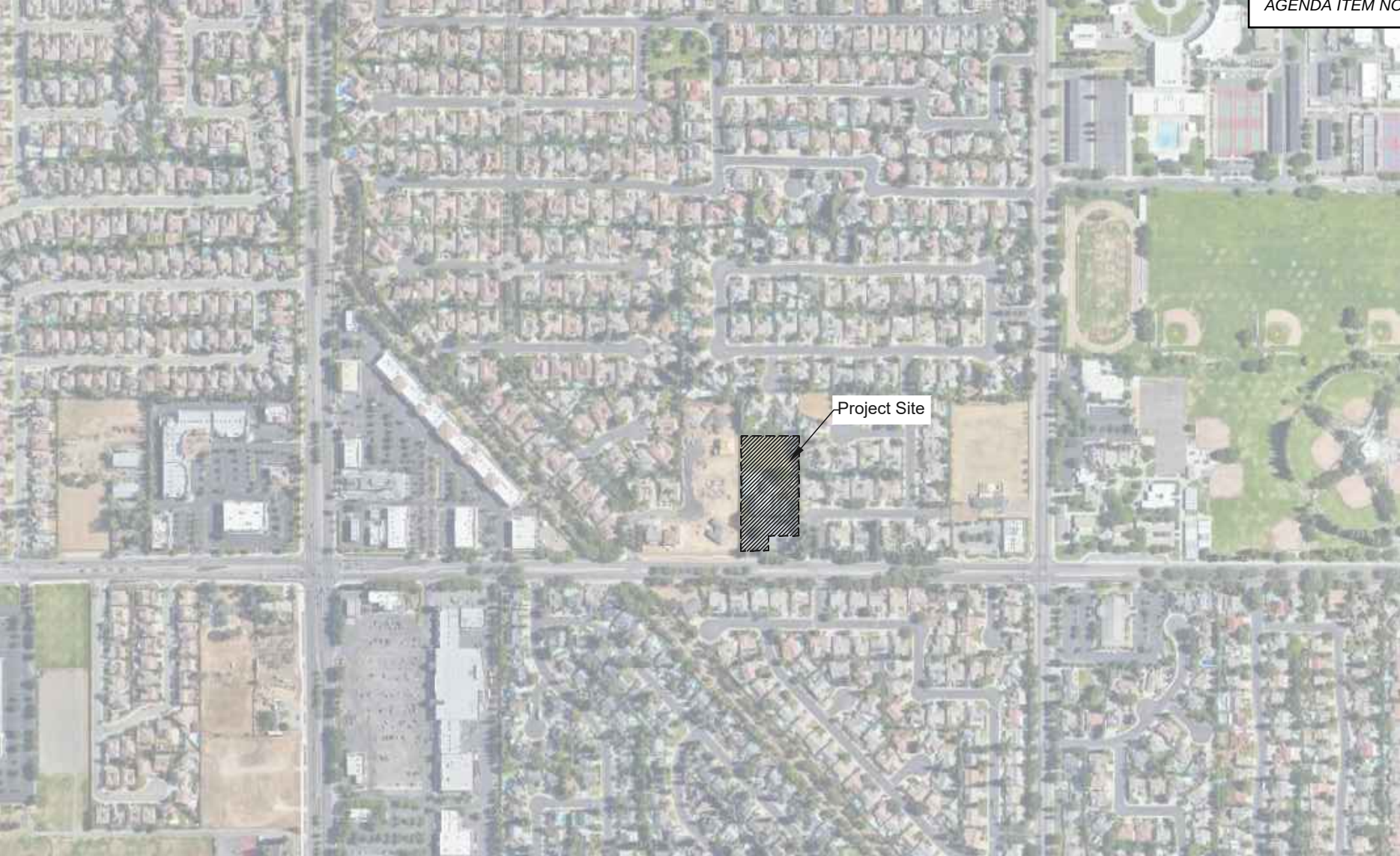
Level of Service	Description	Delay (in seconds)
A	Very favorable progression; most vehicles arrive during green signal and do not stop. Short cycle lengths.	0 – 10.00
B	Good progression, short cycle lengths. More vehicles stop than for LOS A.	10.01 – 20.00
C	Fair progression; longer cycle lengths. Individual cycle failures may begin to appear. The number of vehicles stopping is significant, though many vehicles still pass through without stopping.	20.01 – 35.00
D	Progression less favorable, longer cycle length and high flow/capacity ratio. The proportion of vehicles that pass through without stopping diminishes. Individual cycle failures are obvious.	35.01 – 55.00
E	Severe congestion with some long-standing queues on critical approaches. Poor progression, long cycle lengths and high flow/capacity ratio. Individual cycle failures are frequent.	55.01 – 80.00
F	Very poor progression, long cycle lengths and many individual cycle failures. Arrival flow rates exceed capacity of intersection.	> 80.01

Source: Transportation Research Board, *Highway Capacity Manual*, 7th Edition (Washington D.C., 2022).

This analysis utilizes *PTV Vistro*, Version 2022 analysis software for all signalized and unsignalized intersections. *Vistro* is a macroscopic traffic software program that is based on the signalized intersection capacity analysis specified in Chapter 16 of the HCM. The level of service and capacity analysis performed within *Vistro* takes the optimization and coordination of signalized intersections within a network into consideration.

2.3 PERFORMANCE CRITERIA

The *City General Plan* aims to achieve LOS “D” or better for vehicle traffic operations during both AM and PM peak hours. The *City Guidelines* add that for both signalized and unsignalized intersections, a traffic operation issue is identified if the proposed project increases the average delay that is already operating at an unacceptable LOS, or less than LOS D.



Legend:
Project Site

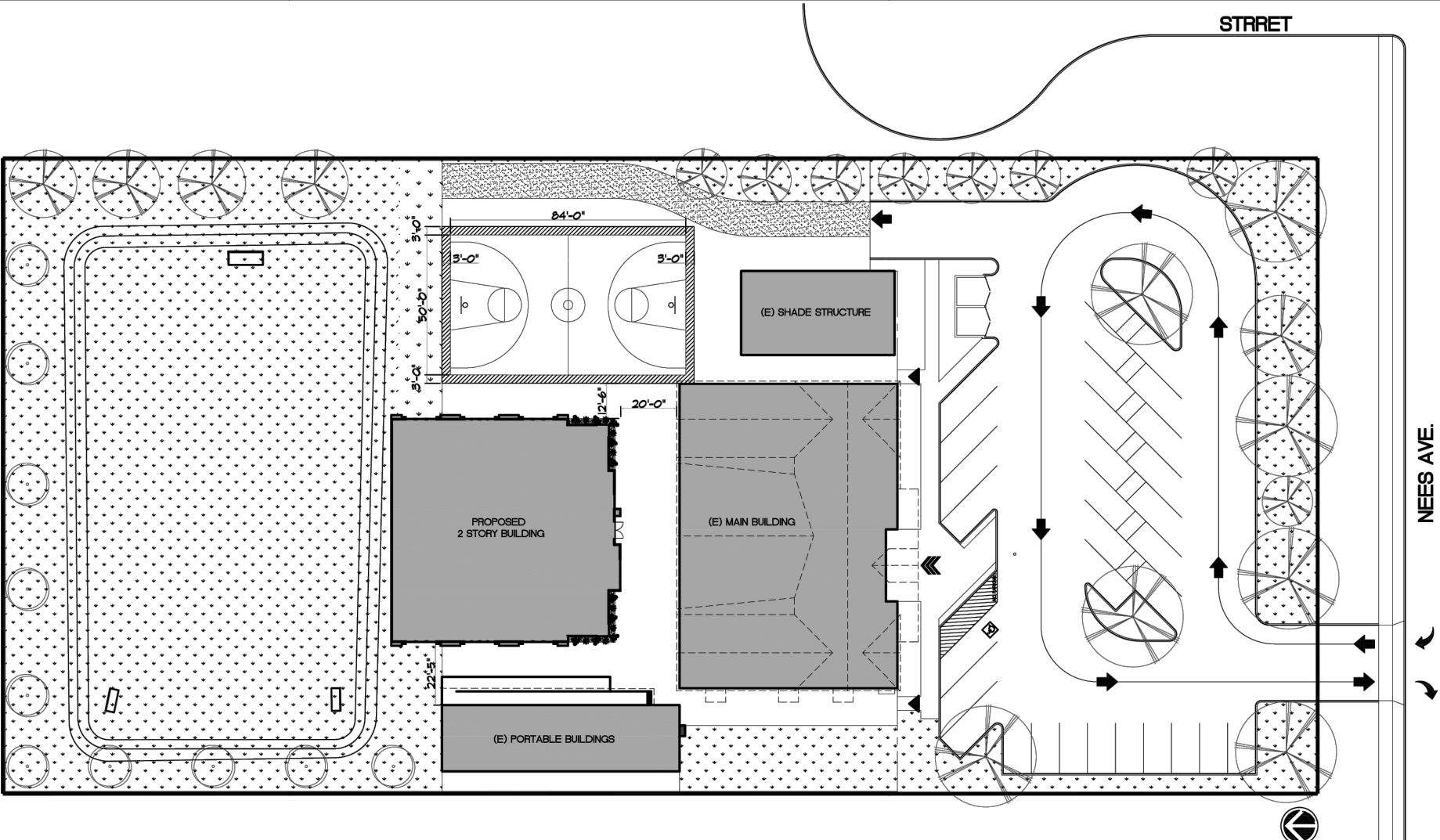


Exhibit 2: Proposed Project Site Plan



- Legend:**
-  Project Site
 -  Study Intersection Location

3.0 EXISTING TRAFFIC CONDITIONS

3.1 EXISTING CIRCULATION NETWORK/STUDY AREA CONDITIONS

The *City General Plan* classifies its streets and highways by their function. The *City General Plan* description of the roadway classifications can be found in **Appendix B**. The characteristics of the roadways in the vicinity of the proposed project site are described in **Table 3**.

Table 3:
Roadway Characteristics within Study Area

Roadway	Classification ¹	Jurisdiction	Direction	Existing Travel Lanes	Median Type ²	Speed Limit (mph)	On-Street Parking
West Nees Avenue	Arterial	Clovis	East-West	4	RM	45	No
North Peach Avenue	Collector	Clovis	North-South	2	TWLTL	40	No
North Willow Avenue	Arterial	Clovis	North-South	6	RM	50	No

1: Sources: City of Clovis General Plan (August 2014).

2: TWLTL = Two-Way Left-Turn Lane, RM= Raised Median.

Exhibit 4 shows the *Existing* intersection controls and roadway geometry of the study area.

3.2 PEDESTRIAN AND BICYCLE FACILITIES

Within the project study area, the *City General Plan* identifies Class II bike lanes on all three roadways in the study area, West Nees Avenue, North Peach Avenue, and North Willow Avenue. Class II lanes are on-street striped lanes for one-way bicycle travel. See **Appendix B** for a map of the City of Clovis bicycle system.

In addition, paved sidewalks for pedestrians are located along all three roadways in the study area, West Nees Avenue, North Peach Avenue, and North Willow Avenue.

3.3 EXISTING PUBLIC TRANSIT SERVICES

The City of Clovis is served by the Clovis Transit, which provides bus service throughout the City of Clovis. The proposed project is located within one-half mile of two stops. The first is along Willow Blue Line Northbound and Southbound at the intersection of North Willow Avenue and West Nees Avenue. The second is along the Clovis Avenue Yellow Line Northbound along North Peach Avenue just south of West Teague Avenue. See **Appendix B** for the Blue and Yellow route maps and schedules.



3.4 EXISTING TRAFFIC VOLUMES

To determine the *Existing* operation of the study intersections and roadway segments, AM and PM peak period traffic volumes were collected on Thursday, August 29, 2024. Detailed traffic count data is provided in **Appendix C**. The *Existing* traffic conditions AM and PM peak hour volumes at each study intersection are shown in **Exhibit 5****Error! Reference source not found..**

3.5 EXISTING CONDITIONS INTERSECTION LEVEL OF SERVICE ANALYSIS

The AM and PM peak hour intersection analysis of the *Existing* traffic conditions are shown in **Table 4**. Calculations are based on the current geometrics at each study area intersection as shown in **Exhibit 4**. HCM analysis reports are provided in **Appendix D**.

Table 4:
Intersection Analysis – Existing Traffic Conditions

Intersection			Control Type ¹	Target LOS	Peak Hour	Existing Conditions	
						Delay ²	LOS
1	North Peach Avenue	West Nees Avenue	Signal	D	AM	31.8	C
					PM	33.6	C
2	North Willow Avenue	West Nees Avenue	Signal	D	AM	32.4	C
					PM	36.1	D
3	Project Driveway	West Nees Avenue	TWSC	D	AM	14.1	B
					PM	10.8	B

1: TWSC = Two-Way Stop-Control.

2: Delay shown in seconds per vehicle. Per the Highway Capacity Manual 7th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 4**, the study intersections under *Existing* traffic conditions are currently operating at an acceptable LOS during the AM and PM peak hours.

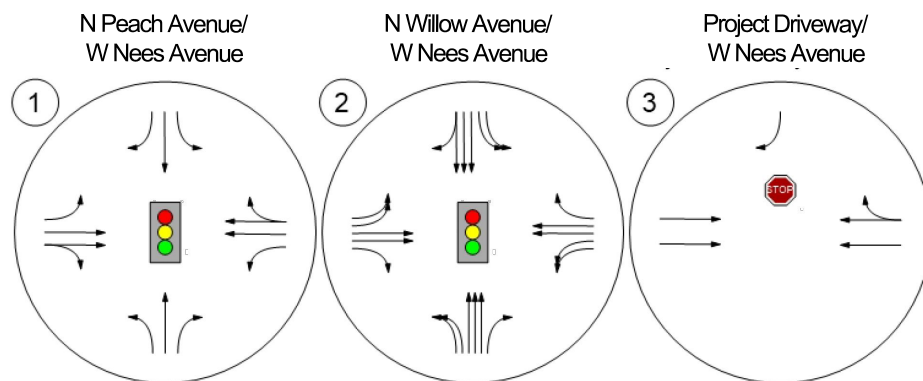


Exhibit 4: Existing Lane Geometry and Intersection Control

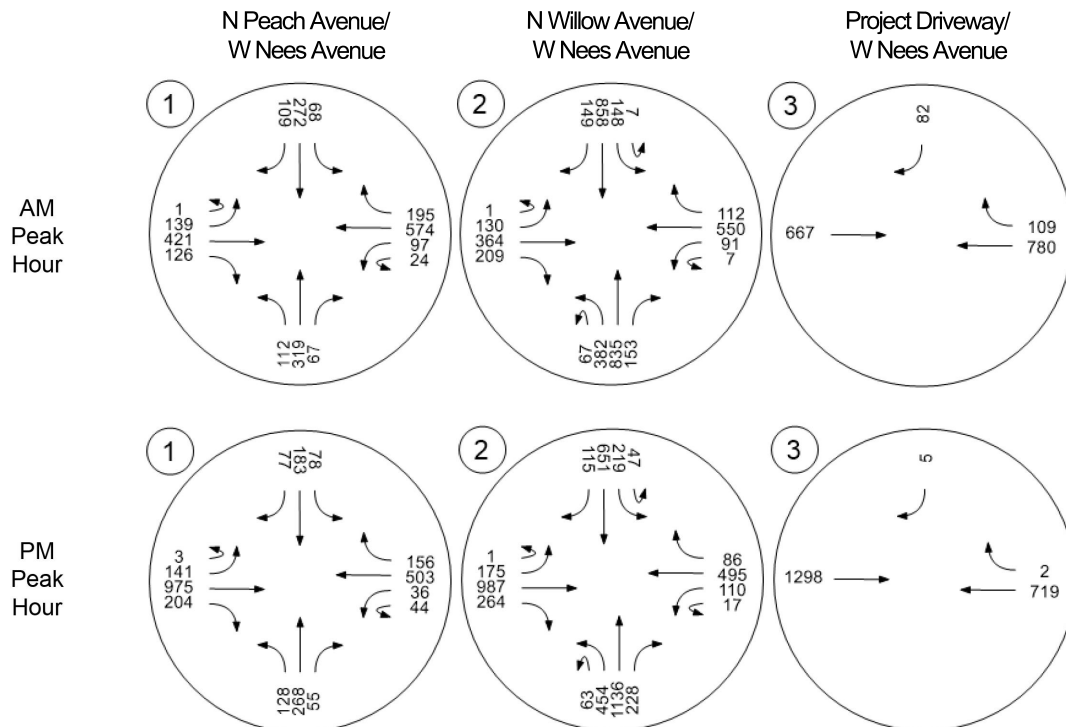


Exhibit 5: Existing AM and PM Peak Hour Volume

4.0 PROPOSED PROJECT

4.1 PROJECT DESCRIPTION

The proposed project is comprised of the construction of additional classrooms to the existing private school, Valley Crescent School, to accommodate 240 additional students. Site access will be via the existing right-in/right-out driveway on West Nees Avenue. According to the *City General Plan* Land Use Designation Map (October 2023), the site is currently designated for Low Density Residential land use. The site is zoned as Single Family Residential 7,500 square feet, or R-1-7500.

Full student capacity is expected to be reached by 2031. An annual growth rate of 2% is used to account for the 2031 traffic volumes.

Exhibit 2 previously showed the proposed project site plan.

4.2 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic, both inbound and outbound, produced by a development. Determining trip generation for a proposed project is based on projecting the amount of traffic that the specific land uses being proposed will produce. Industry standard *Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021)* trip generation rates were used to determine trip generation of for most of the proposed project land uses.

Table 5 summarizes the projected AM and PM peak hour and daily trip generation of the proposed project. The proposed project is projected to generate 484 daily trips which includes 202 AM peak hour trips and 62 PM peak hour trips.

Table 5:
Proposed Project Trip Generation

Proposed Land Use ¹	ITE Code	Qty	Unit ²	Daily		AM Peak Hour					PM Peak Hour				
				Rate ³	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
								In	Out	Total			In	Out	Total
Private School (K-8)	530	240	STU	-	484	1.01	56:44	136	106	242	0.26	46:54	29	33	62

1: Trip generation rates are from the ITE Trip Generation Manual (11th Edition, 2021).

2: STU = Students.

3: Due to the small sample size of daily trip rates for ITE code 530, daily trips are assumed to be twice the AM trips since trips are anticipated to include school drop off and pick up.

4.3 PROJECT TRIP DISTRIBUTION

Projecting trip distribution involves the process of identifying probable destinations and traffic routes that will be utilized by the proposed project's traffic. The potential interaction between the proposed land use and surrounding regional access routes are considered to identify the probable routes onto which project traffic would distribute. The projected trip distribution for the proposed project is based on anticipated travel patterns to and from the project site. **Exhibit 6** shows the project proposed trip distribution.





- Legend:**
- Project Site
 - Study Intersection Location
 - Percent Trip Distribution

5.0 EXISTING PLUS PROJECT (EP) TRAFFIC CONDITIONS

The *Existing Plus Project (EP)* traffic conditions analysis is intended to identify current baseline conditions plus the proposed project.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *EP* conditions scenario are consistent with those previously shown in **Exhibit 4**.

5.2 EXISTING PLUS PROJECT TRAFFIC VOLUMES

The *EP* traffic conditions scenario analyzes *Existing* volumes with no growth rate applied, plus project traffic volumes. It does not include background traffic. **Exhibit 7** shows *EP* AM and PM peak hour volumes at the study intersections.

$$\text{EP Volumes} = \text{Existing Counts} + \text{Proposed Project}$$

5.3 EXISTING PLUS PROJECT INTERSECTION LOS ANALYSIS

The AM and PM peak hour intersection analysis of the *EP* traffic conditions are shown in **Table 6**. Calculations are based on the current geometrics at the study area intersections.

Table 6:
Intersection Analysis – Existing Plus Project Traffic Conditions

Intersection			Control Type ¹	Target LOS	Peak Hour	Existing Conditions		EP Conditions	
						Delay ²	LOS	Delay ²	LOS
1	North Peach Avenue	West Nees Avenue	Signal	D	AM	31.8	C	32.4	C
					PM	33.6	C	33.6	C
2	North Willow Avenue	West Nees Avenue	Signal	D	AM	32.4	C	33.2	C
					PM	36.1	D	38.9	D
3	Project Driveway	West Nees Avenue	TWSC	D	AM	14.1	B	21.9	C
					PM	10.8	B	11.3	B

1: TWSC = Two-Way Stop-Control.

2: Delay shown in seconds per vehicle. Per the Highway Capacity Manual 7th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 6**, the study intersections under *EP* traffic conditions are projected to continue to operate at an acceptable LOS during the AM and PM peak hours.



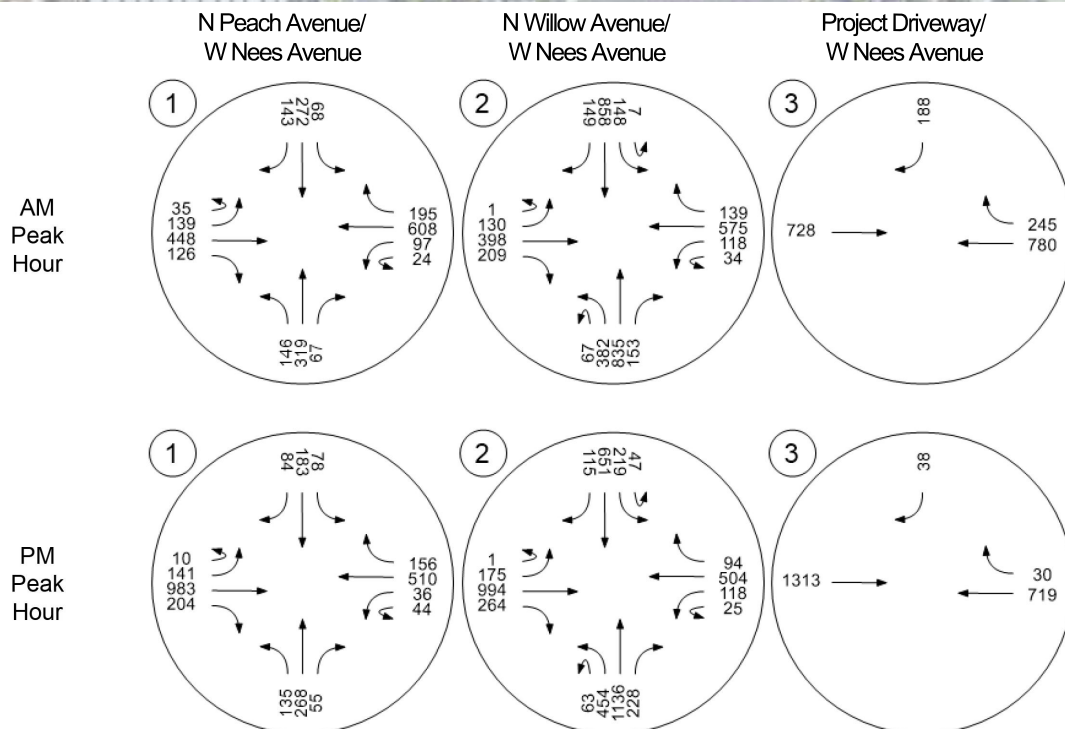


Exhibit 7: Existing Plus Project AM and PM Peak Hour Volume

6.0 NEAR-TERM (NT) TRAFFIC CONDITIONS

The *Near-Term (Existing + Ambient + Cumulative + Project) (NT)* traffic conditions analysis is intended identify traffic conditions in the near-term with the addition of cumulative project and proposed project conditions.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *Existing* traffic conditions scenario are consistent with those previously shown in **Exhibit 4**.

6.2 CUMULATIVE PROJECTS

Other reasonably foreseeable development projects which are either approved or are currently being processed in the study area are also included as part of the *NT* analysis scenario. A list of cumulative projects was developed for this analysis through consultation with City staff. **Exhibit 8** displays a map of approved cumulative projects within a one-half mile radius which provided by the City of Clovis. A summary of the cumulative project land uses and trips generated is shown in Table 7.

Table 7:
Cumulative Project Trip Generation

Project	Land Use ¹	ITE Code	Qty	Unit ²	Daily		AM Peak Hour						PM Peak Hour					
					Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume			Rate	In:Out Split
									In	Out	Total			In	Out	Total		
1. MFRDR 2021-002	Multifamily Housing (Low-Rise)	220	258	DU	6.74	1,739	0.4	24:76	25	78	103	0.51	63:37	83	49	132		
2. SPR 2021-009	General Office Building	710	31.9	TSF	10.84	346	1.52	88:12	43	6	49	1.44	17:83	8	38	46		
3. TM 6284	Single-Family Detached Housing	210	74	DU	9.43	698	0.7	26:74	14	38	52	0.94	63:37	44	26	70		
4. SPR 2021-009	Medical-Dental Office Building	720	90.0	TSF	36	3,240	3.1	79:21	220	59	279	3.93	30:70	106	248	354		

Results	Daily Volume	AM Peak Hour			PM Peak Hour		
Net Total	6,023	302	181	483	241	361	602

1: Trip generation rates are from the ITE Trip Generation Manual (11th Edition, 2021).

2: STU = Students.



6.3 NEAR-TERM TRAFFIC VOLUMES

NT volumes include ambient traffic plus the addition of traffic projected to be generated by the proposed project and nearby cumulative projects. Since the proposed project's full student capacity is expected to be reached by 2031, *NT* volumes include a growth rate of 2% per year for seven years, applied to existing volumes. The resulting volumes were added to volumes generated by both the proposed project and the City's cumulative projects. **Exhibit 9** shows *NT* AM and PM peak hour volumes at each study intersection.

$$\text{NT Volumes} = (\text{Existing (2024) Counts} * 1.02^7) + \text{Cumulative} + \text{Project}$$

6.4 NEAR-TERM INTERSECTION LEVEL OF SERVICE ANALYSIS

The AM and PM peak hour intersection analysis of the *NT* traffic conditions is shown in **Table 8**. Calculations are based on the current geometrics at the study area intersections. HCM analysis reports are provided in **Appendix D**.

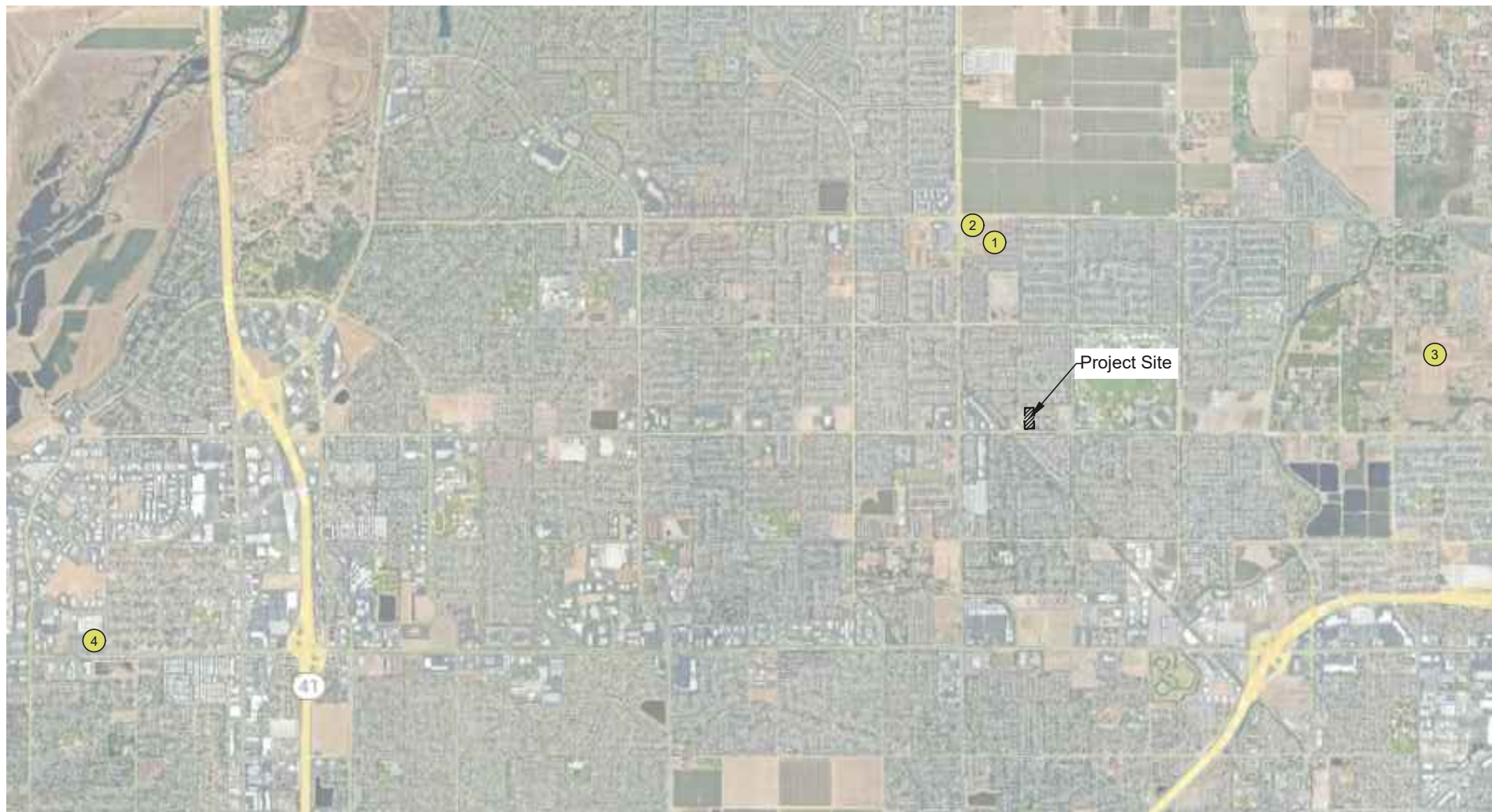
Table 8:
Intersection Analysis – Near-Term Traffic Conditions

Intersection			Control Type ¹	Target LOS	Peak Hour	NT Conditions	
						Delay ²	LOS
1	North Peach Avenue	West Nees Avenue	Signal	D	AM	36.1	D
					PM	38.9	D
2	North Willow Avenue	West Nees Avenue	Signal	D	AM	36.9	D
					PM	49.5	D
3	Project Driveway	West Nees Avenue	TWSC	D	AM	29.4	D
					PM	12.0	B

1: TWSC = Two-Way Stop-Control.

2: Delay shown in seconds per vehicle. Per the Highway Capacity Manual 7th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 8**, the study intersections under *NT* traffic conditions are projected to continue to operate at an acceptable LOS during the AM and PM peak hours.



Legend:



Project Site



Approximate Cumulative Project Locations

Exhibit 8: Cumulative Project Location



547 W Nees Avenue

SEG-24-001



367

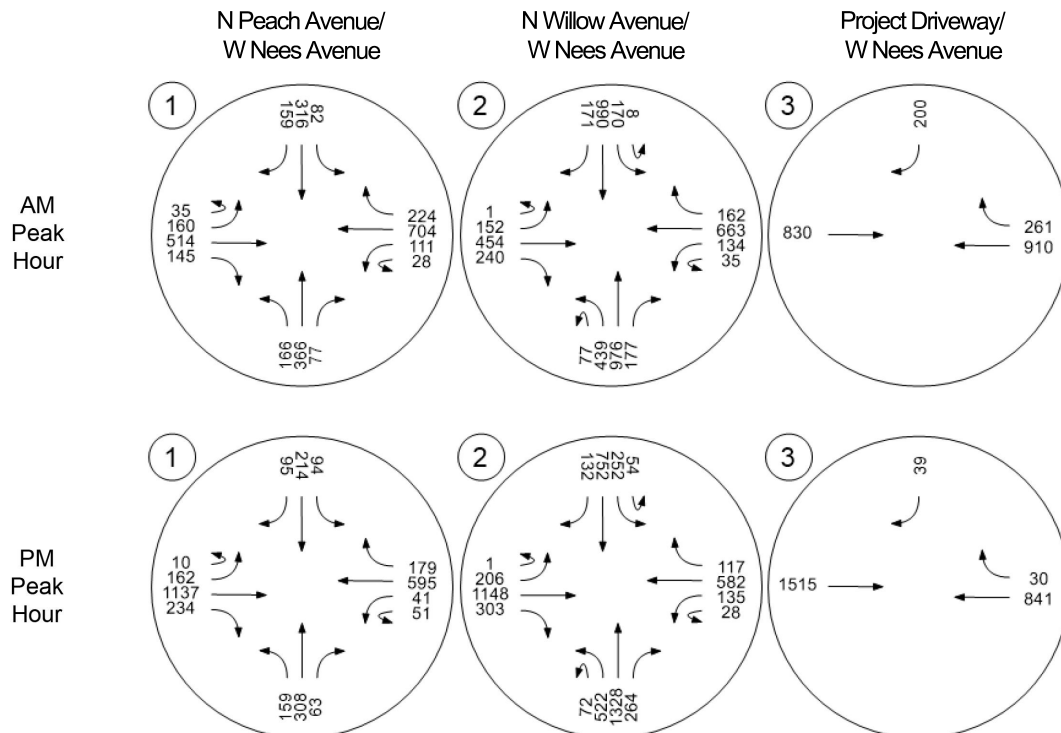


Exhibit 9: Near-Term AM and PM Peak Hour Volume

7.0 LONG-TERM (HORIZON YEAR 2040) TRAFFIC CONDITIONS

The *Long-Term (LT)* traffic conditions analysis is intended to identify the City of Clovis horizon year, or year 2040, traffic conditions in the study area with the addition of the proposed project.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for the *LT* traffic conditions scenario are consistent with those previously shown in **Exhibit 4**.

7.2 LONG-TERM TRAFFIC VOLUMES

LT volumes are *Existing* volumes projected to the City of Clovis horizon year, 2040, plus the anticipated trip volumes generated by the proposed project. An annual growth rate of 1.16% was derived using the projected population of the City of Clovis through 2040 as documented in the Fresno County Council of Governments 2050 Growth Projections (May 2017). This growth rate was applied to the *Existing* traffic volumes for a sixteen-year period beginning with the year 2024 through 2040.

Exhibit 10 shows *LT* AM and PM peak hour volumes at the study intersections.

$$\text{LT Volumes} = (\text{Existing (2024) Counts} * 1.0116^{16}) + \text{Proposed Project}$$

7.3 LONG-TERM INTERSECTION LEVEL OF SERVICE ANALYSIS

The AM and PM peak hour intersection analysis for *LT* traffic conditions is shown in **Table 9**. HCM analysis reports are provided in **Appendix D**.

Table 9:
Intersection Analysis – Long-Term Traffic Conditions

Intersection			Control Type ¹	Target LOS	Peak Hour	LT Conditions	
						Delay ²	LOS
1	North Peach Avenue	West Nees Avenue	Signal	D	AM	39.3	D
					PM	41.6	D
2	North Willow Avenue	West Nees Avenue	Signal	D	AM	37.4	D
					PM	53.3	D
3	Project Driveway	West Nees Avenue	TWSC	D	AM	33.3	D
					PM	12.2	B

1: TWSC = Two-Way Stop-Control.

2: Delay shown in seconds per vehicle. Per the Highway Capacity Manual 7th Edition, overall average delay and LOS are shown for signalized and all-way stop-controlled intersections. For intersections with one-or-two-way stop-control, the delay and LOS for the worst individual movement is shown.

As shown in **Table 9**, the study intersections under *LT* traffic conditions are projected to continue to operate at an acceptable LOS during the AM and PM peak hours.

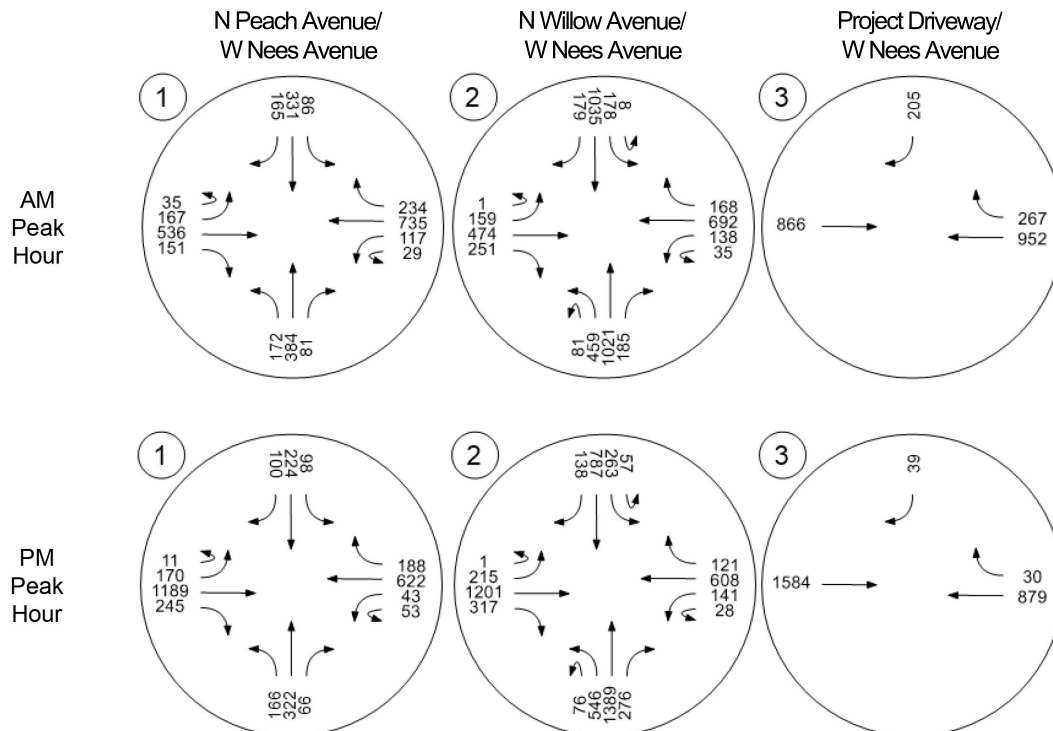


Exhibit 10: Long-Term AM and PM Peak Hour Volume

APPENDIX

Appendix A: Glossary of Terminology

Appendix B: Scoping Agreement and City Documents

Appendix C: Existing Traffic Counts

Appendix D: HCM Analysis Sheets



APPENDIX A

GLOSSARY OF TERMINOLOGY

Glossary of Terminology

ACRONYMS:

ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
LOS	Level of Service
TSF	Thousand Square Feet

TERMS

AVERAGE DAILY TRAFFIC – *The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.*

CAPACITY – *The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.*

CORNER SIGHT DISTANCE – *The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic travelling at a given speed to radically alter their speed or trajectory. Corner sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 36 inches above the pavement in the center of the nearest approach lane.*

CYCLE LENGTH – *The time period in seconds required for a traffic signal to complete one full cycle of indications.*

DELAY – *The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.*

FREE FLOW – *Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.*

LEVEL OF SERVICE – *A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.*

PEAK HOUR – *The 60 consecutive minutes with the highest number of vehicles.*

QUEUE LENGTH – *The length of vehicle queue, typically expressed in feet, waiting at a service area such as a Traffic signal, stop sign, or access gate.*

SIGHT DISTANCE – *The continuous length of roadway visible to a driver or roadway user.*

SIGNAL CYCLE – *The time period in seconds required for one complete sequence of signal indications.*

SIGNAL PHASE – *The part of the signal cycle allocated to one or more traffic movements.*

STARTING DELAY – *The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through an intersection.*

TRAFFIC-ACTUATED SIGNAL – *A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.*

TRIP – *The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.*

TRIP GENERATION RATE – *The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.*

TURNING RADIUS – *The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheel base as well as the steering mechanism of the vehicle.*

APPENDIX B

SCOPING AGREEMENT AND CITY DOCUMENTS

Scoping Agreement for Traffic Impact Analysis

This form acknowledges the requirements for the traffic impact analysis of the following project. The analysis will follow the local jurisdiction's traffic impact analysis guidelines.

Project Name: 547 West Nees Avenue (CUP1995-09A4)
 Project Address: 547 West Nees Avenue, City of Clovis, CA
 Project Description: Additional classrooms for a private school to accommodate 240 additional students

	<u>Consultant</u>	<u>Developer</u>
Name:	TJW Engineering	SALEM ENGINEERING GROUP, INC.
Address:	9841 Irvine Center Drive, Suite 200 Irvine, CA 92618	8711 Monroe Court, Suite A Rancho Cucamonga, CA 91730
Telephone:	949-878-3509	909-489-8515
Email:		maria@saalem.net

Trip Generation Source: ITE Trip Generation Manual, 11th Edition (2021)

Current GP Land Use:	L - low density residential (2.1-4.0 DU/AC)	Proposed Land Use:	
Current Zoning:	R-1-7500 (single-family residential 7500 sq ft)	Proposed Zoning:	

Is the project screened from LOS analysis? ☐ Yes ☒ No

Justification:	Per the <i>City of Clovis Transportation Impact Analysis Guidelines</i> (September 15, 2022), a LOS analysis is required as the proposed project is expected to generate more than 100 peak hour trips.
----------------	---

Is the project screened from VMT analysis? ☒ Yes ☐ No

Justification:	Per the <i>City of Clovis Transportation Impact Analysis Guidelines</i> (September 15, 2022), projects that generate or attract fewer than 500 vehicle trips per day are presumed to cause a less-than-significant VMT impact.
----------------	--



	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips				136	106	242
PM Trips				29	33	62
Daily						484

Internal Trip Capture: ☐ Yes ☒ No _____ % Trip Discount

Pass-By Allowance: ☐ Yes ☒ No _____ % Trip Discount

Trip Distribution: See attached exhibit

Project Build-out Year: 2031 Annual Ambient Growth Rate: 2%

Study Intersections:

1. N. Peach Ave./W. Nees Ave. 6. _____
2. N. Willow Ave./W. Nees Ave. 7. _____
3. Project Driveway/W. Nees Ave. 8. _____
4. _____ 9. _____
5. _____ 10. _____

Study Roadway Segments:

1. _____ 3. _____
2. _____ 4. _____

Analysis Scenarios:

1. Existing Conditions
2. Existing Plus Project Conditions
3. Near-Term Analysis (Existing + Ambient + Cumulative + Project)
4. Long-Term Analysis (Horizon Year 2040 + Project)
5. _____

Other Jurisdiction Analyzed? ☐ Yes ☒ No Name of Jurisdiction: _____

Date of Traffic Counts: New counts will be collected



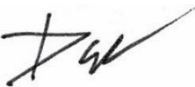
Additional Items to be Addressed:	Cumulative project list to be provided by City.
Additional Notes:	Trip generation based on ITE code 530. However, daily trip rates for ITE code 530 have a small sample size. As a school land use, trips are anticipated to include school drop off and pick up. Therefore, daily trips are assumed to be twice the AM trips.

Authorizations:

David Chew, PTP

Consultant's Representative

City (Approved By)



Signature

Signature

July 22, 2024

Date

Date



Table 1
Project Trip Generation

Proposed Land Use ¹	ITE Code	Qty	Unit ²	Daily		AM Peak Hour					PM Peak Hour				
				Rate	Volume	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
								In	Out	Total			In	Out	Total
Private School (K-8)	530	240	STU	2.02	484	1.01	56:44	136	106	242	0.26	46:54	29	33	62

1: Trip generation rates from ITE Trip Generation (11th Edition, 2021); Daily trip rate sample size too small, daily trips are assumed to be twice the AM peak volume as land use includes drop off and pick up trips.

2: STU = Students.

Trip Distribution

574 West Nees Avenue
CUP-1995-09A4
SEG-24-001

AGENDA ITEM NO. 8.

N

15%

10%

25%

25%

15%

10%

Google Earth

381

1000 ft

Project Site
Driveway

#2

#1



MUSLIM SOCIETY OF
CENTRAL CALIFORNIA

547 W. NEES AVE.
CLOVIS, CA. 93611

PROPOSED PROJECT

NEW 2 STORY
CLASSROOM BLDG.

FOR:
VALLEY CRESCENT
SCHOOL
547 W. NEES AVE.
CLOVIS, CA. 93611

STATUS

ISSUE

PROJECT NO.: 2023-8140
DRAWN BY: M. EASTMAN
CHECKED BY: M. EASTMAN
APPROVED BY: N. SALEM
SCALE:

ENGINEER OF RECORD



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SOLUTIONS, INC.

IN THE EVENT OF UNAUTHORIZED REUSE OF THESE
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PLATINUM ENGINEERING SOLUTIONS, INC. HARMLESS
AND SHALL BEAR THE FINANCIAL RESPONSIBILITY OF
PLATINUM ENGINEERING SOLUTIONS, INC. COSTS.

STAMP

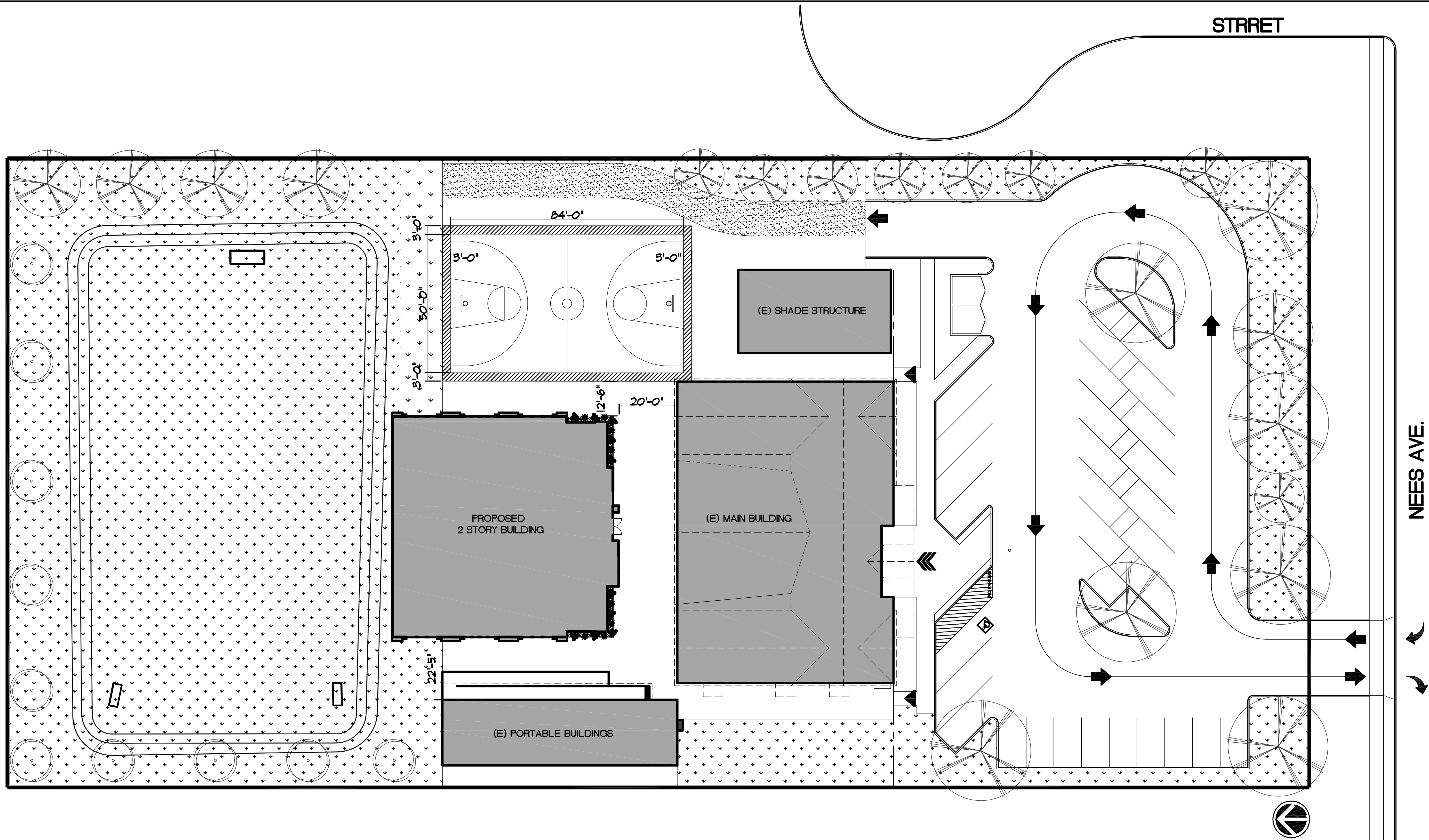


SHEET TITLE

SITE PLAN

SHEET

A1.1



SITE PLAN 1
SCALE: 1" = 20'-0"



VICINITY MAP
SCALE: N.T.S.

LEGEND	
	PROPERTY LINE
	LOT LINE
	CENTER LINE
	SANITARY SEWER
	(P) CURB AND GUTTER
	CITY WATER
	(P) STREETLIGHT
	(P) SIDEWALK
	(P) PERMANENT PAVING

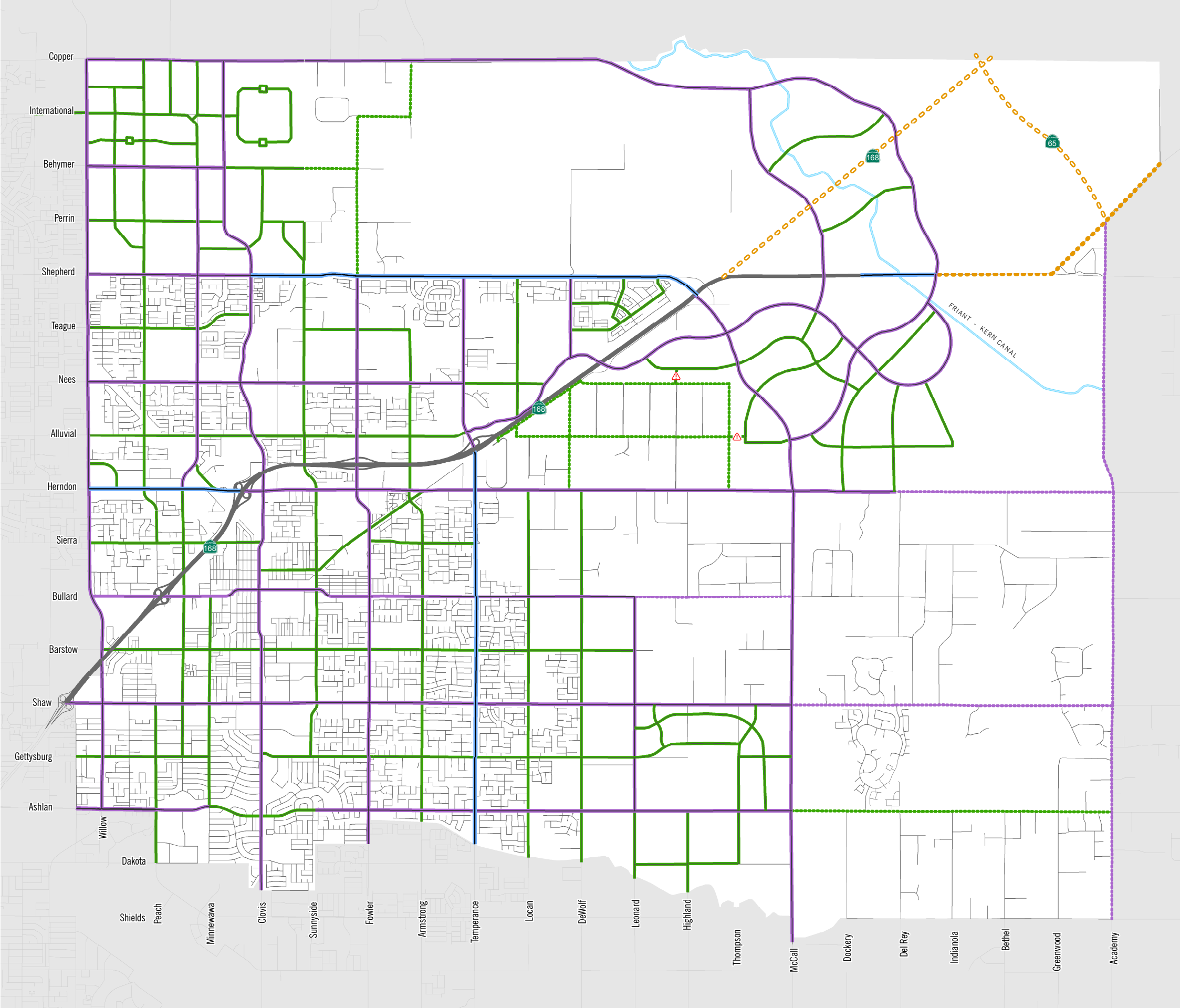
GENERAL NOTES	
1.	1. ANY SURVEY MONUMENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE PRESERVED OR RESET BY A PERSON LICENSED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA.
2.	2. REPAIR ALL DAMAGE AND/OR OFF-GRADE CONCRETE STREET IMPROVEMENTS AS DETERMINED BY THE CONSTRUCTION MANAGEMENT ENGINEER PRIOR TO OCCUPANCY.
3.	3. TWO WORKING DAYS BEFORE COMMENCING EXCAVATION OPERATIONS WITHIN THE STREET RIGHT-OF-WAY AND/OR UTILITY EASEMENTS, ALL EXISTING UNDERGROUND FACILITIES SHALL HAVE BEEN LOCATED BY UNDERGROUND SERVICES ALERT (USA). CALL 1-800-642-2444.
4.	4. UNDERGROUND ALL EXISTING OFFSITE OVERHEAD UTILITIES WITHIN THE LIMITS OF THIS SITE/MAP AS PER FMC SECTION 15-4114.
5.	5. SUBMIT ENGINEERED STREET CONSTRUCTION PLANS TO PUBLIC WORKS DEPARTMENT, TRAFFIC AND ENGINEERING SERVICES.
6.	6. SUBMIT STREET LIGHTING PLANS TO PUBLIC WORKS DEPARTMENT, TRAFFIC AND ENGINEERING SERVICES.

PARKING SUMMARY	
STALL TYPE	QTY. PROVD.
STANDARD - 18'-0" X 9'-0"	20
ACCESSIBLE 18'-0" X 9'-0"	1
TOTAL	21

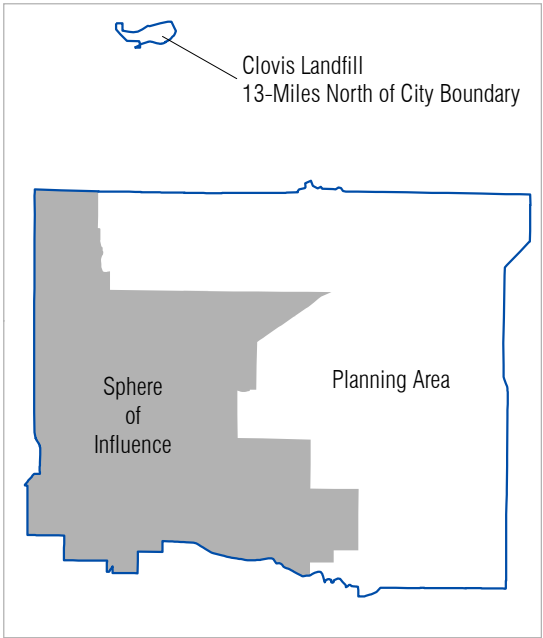
PROJECT INFORMATION	
Use:	NEW 2 STORY CLASSROOM BUILDING
Project Address:	547 W. NEES AVE. CLOVIS, CA. 93611
A.P.N.:	560-020-06
ZONING:	
Owner:	MUSLIM SOCIETY OF CENTRAL CALIFORNIA 547 W. NEES AVE. Clovis, CA 93611
Applicable Codes:	
Building:	2022 California Building Code (CBC)
Plumbing:	2022 California Plumbing Code (CPC)
Mechanical:	2022 California Mechanical Code (CMC)
Electrical:	2022 California Electrical Code (CEC)
	2022 California Fire Code (CFC)
Accessibility:	2022 California Building Code (Title 24, Part 2)
Energy:	2022 California Energy Code (Title 24, Part 6) and 2022 Nonresidential (CEC) Energy Standards, Effective July 1, 2014 2022 California Green Building Standards (CEC PART 6) AND THE 2022 FIRE CODE WITH

Circulation Element

Figure C-1
Circulation Diagram



- Roadway Classification
- Freeway
 - Conceptual 2-4 Lane State Highway
 - State Highway
 - Expressway
 - Arterial
 - Rural Arterial
 - Collector
 - Rural Collector
 - Local
- Emergency Access Only



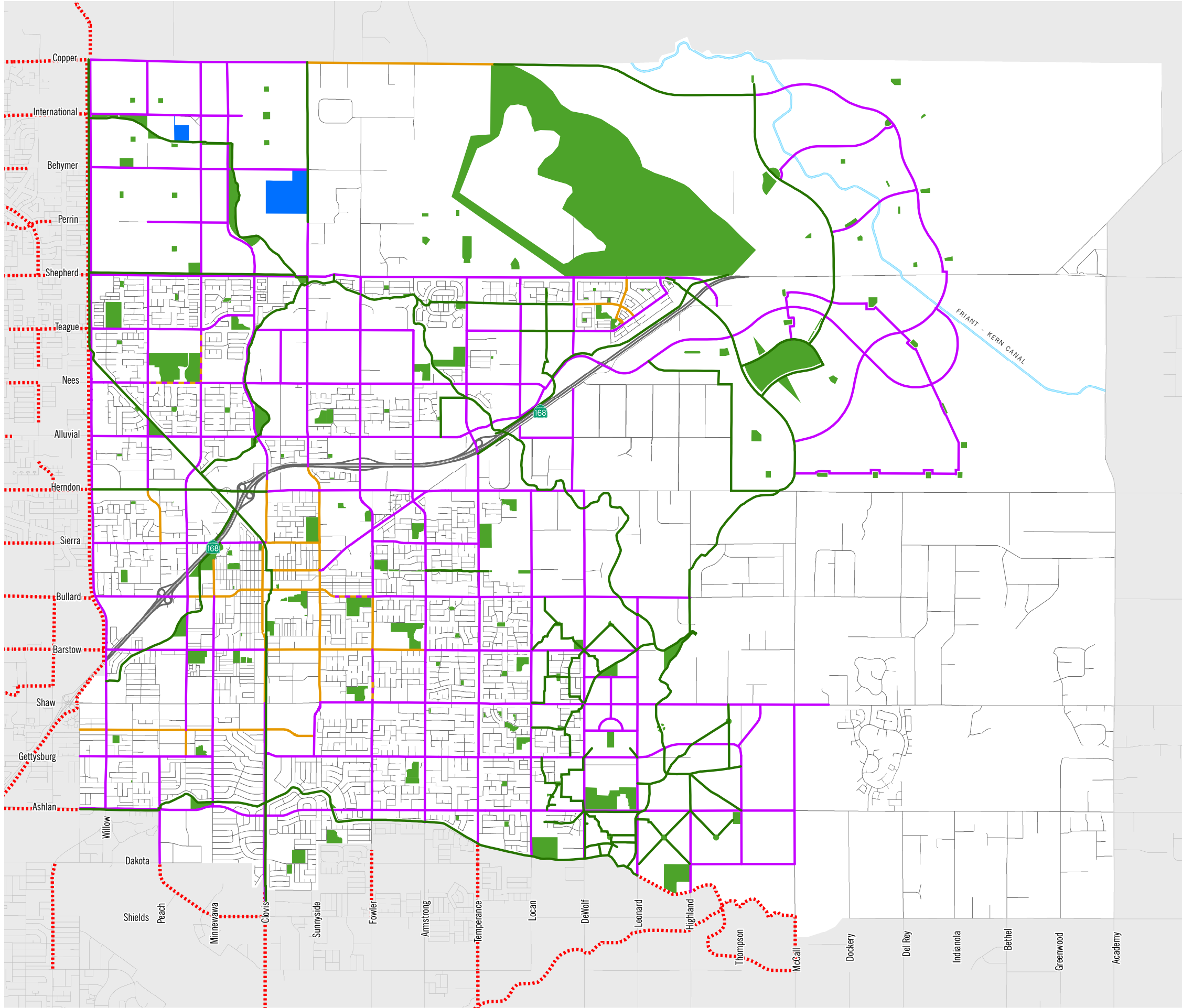
CLOVIS
GENERAL PLAN



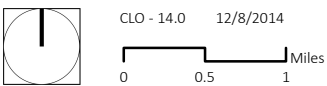
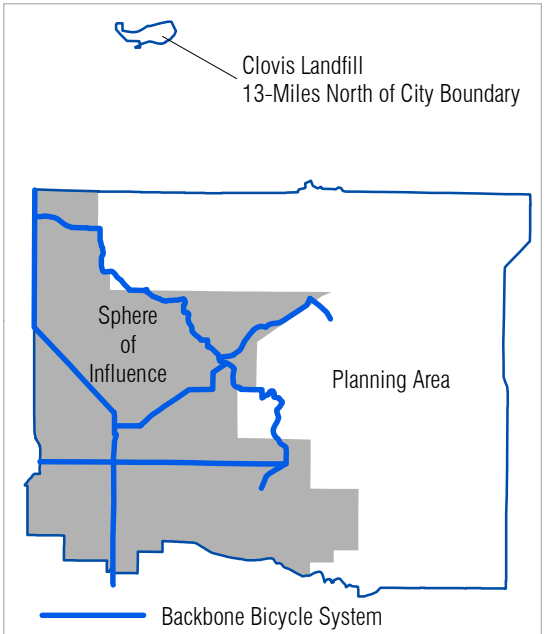
CLO - 14.0 12/9/2014
0 0.5 1 Miles

Circulation Element

Figure C-2
Bicycle and Trails System



- Class I - Multipurpose Trail
- Class II - Bike Lane
- Class III - Bike Route
- Class II or III - Bikeway
- City of Fresno - Existing & Proposed Trail System
- Park/Recreation Facility
- Basin - Open Space



Source: City of Clovis, 2014

Document Name: C-2 Bicycle_and_Trails_System_120814.MXD



Willow (Blue)



Overview



Weekday

FROM	TO	EVERY
06:00	19:00	30 min

Saturday

FROM	TO	EVERY
08:00	17:00	30 min

Sunday

FROM	TO	EVERY
------	----	-------

FAVORITE STATS

- Within 0.25 mi of stops:
 - ~14,200 population
 - ~16% % of people in poverty
 - ~61% % of people who are non-White or of Hispanic / Latino origin

A

SOUTHBOU...

NORTHBOU...

AGENDA ITEM NO. 8.

End

Start

385



Clovis Ave (Yellow)

A

NORTHBOU...

SOUTHBOU...

AGENDA ITEM NO. 8.



Overview



Weekday

FROM

TO

EVERY

06:00

18:00

30 min

Saturday

FROM

TO

EVERY

08:00

17:00

30 min

Sunday

FROM

TO

EVERY

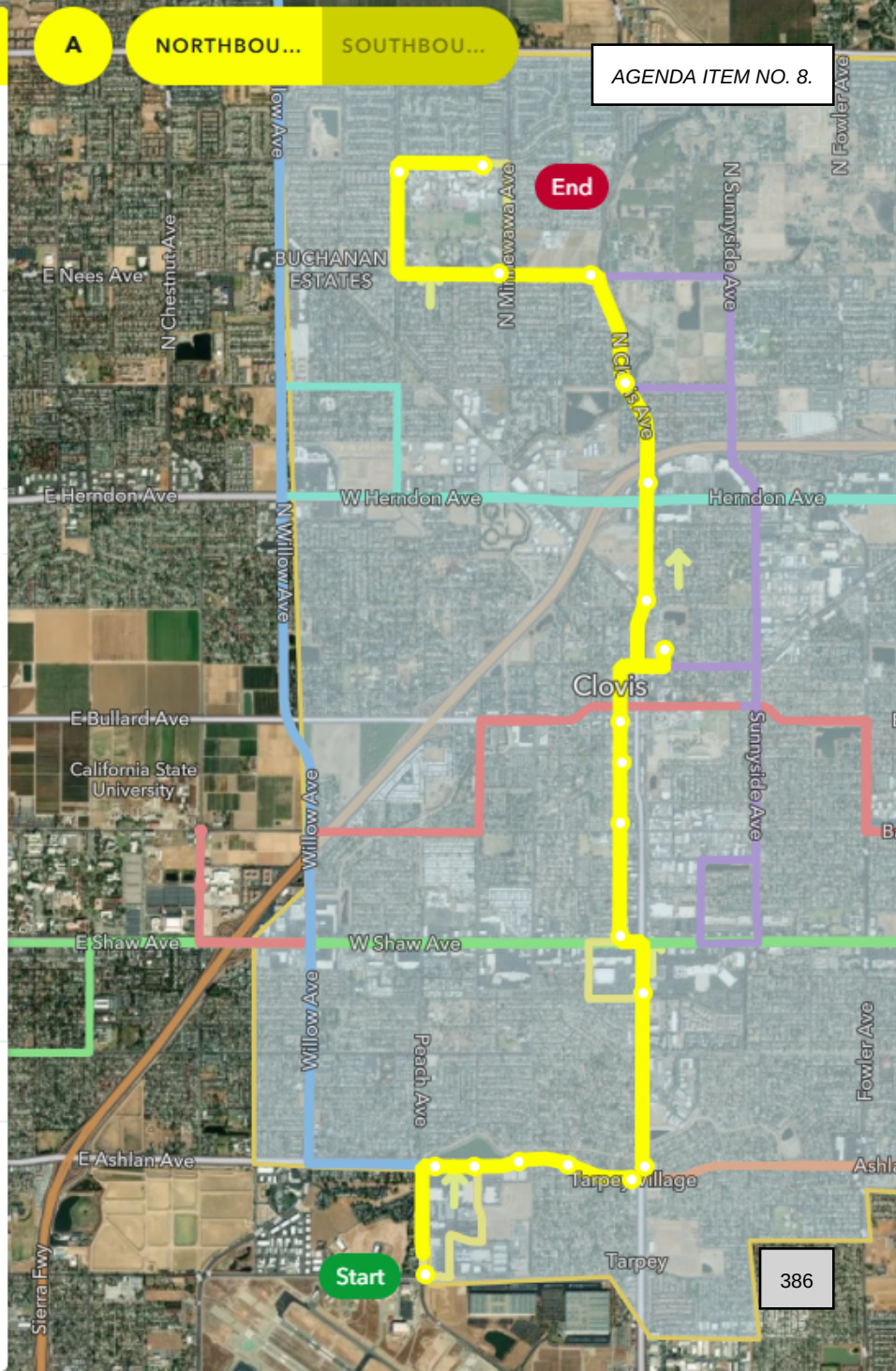
FAVORITE STATS

📍 Within 0.25 mi of stops:

~13,400 population

~12% % of people in poverty

~58% % of people who are non-White
or of Hispanic / Latino origin



APPENDIX C

EXISTING TRAFFIC COUNTS

City of Clovis
N/S: N Peach Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 01_CVS_Peach_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

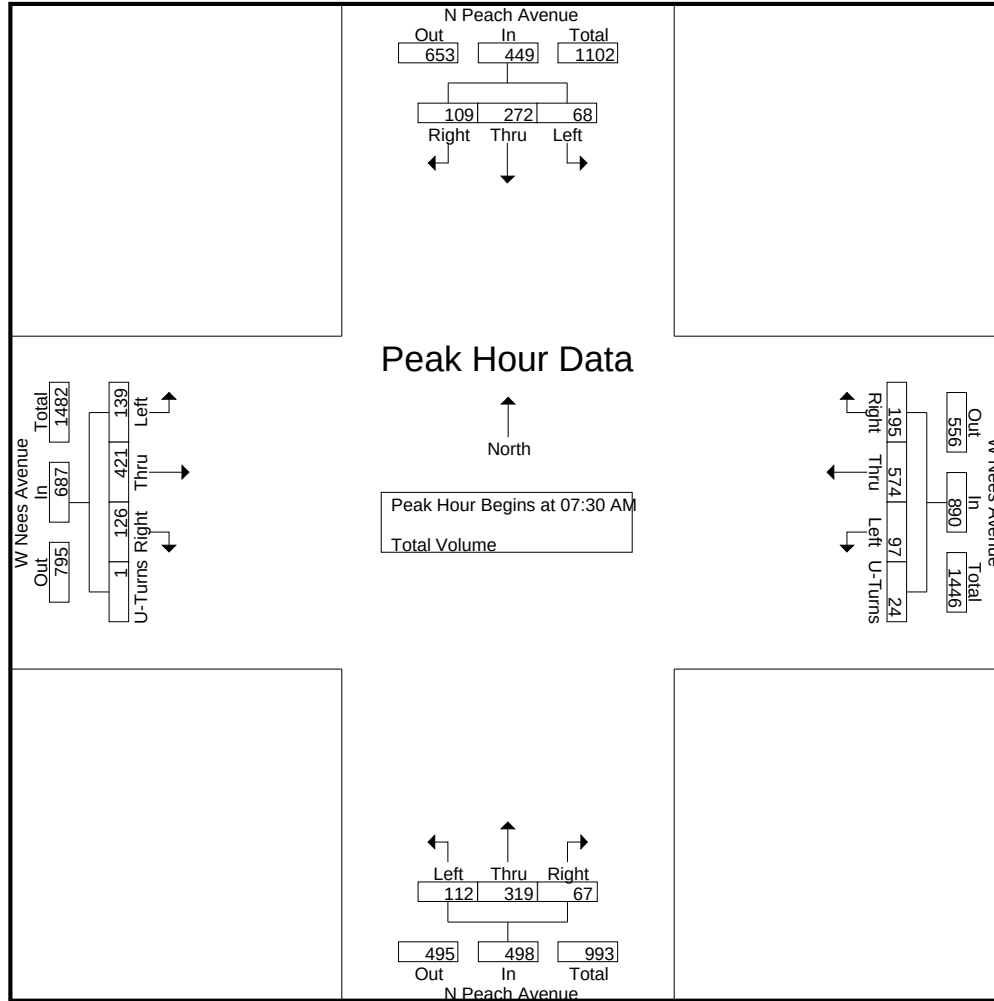
Groups Printed- Total Volume

	N Peach Avenue Southbound				W Nees Avenue Westbound					N Peach Avenue Northbound				W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	4	48	9	61	12	67	4	2	85	12	23	4	39	7	69	14	0	90	275
07:15 AM	6	56	27	89	8	82	26	3	119	20	48	4	72	25	65	17	0	107	387
07:30 AM	13	50	25	88	15	140	37	6	198	23	59	15	97	16	98	26	0	140	523
07:45 AM	18	69	21	108	25	165	49	9	248	34	90	21	145	42	109	35	0	186	687
Total	41	223	82	346	60	454	116	20	650	89	220	44	353	90	341	92	0	523	1872
08:00 AM	20	69	40	129	23	129	59	6	217	39	97	23	159	51	120	34	1	206	711
08:15 AM	17	84	23	124	34	140	50	3	227	16	73	8	97	30	94	31	0	155	603
08:30 AM	14	51	19	84	5	106	21	1	133	14	36	6	56	19	79	32	0	130	403
08:45 AM	8	33	15	56	1	79	8	0	88	11	24	0	35	4	90	21	1	116	295
Total	59	237	97	393	63	454	138	10	665	80	230	37	347	104	383	118	2	607	2012
Grand Total	100	460	179	739	123	908	254	30	1315	169	450	81	700	194	724	210	2	1130	3884
Apprch %	13.5	62.2	24.2		9.4	69	19.3	2.3		24.1	64.3	11.6		17.2	64.1	18.6	0.2		
Total %	2.6	11.8	4.6	19	3.2	23.4	6.5	0.8	33.9	4.4	11.6	2.1	18	5	18.6	5.4	0.1	29.1	

	N Peach Avenue Southbound				W Nees Avenue Westbound					N Peach Avenue Northbound				W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 07:30 AM																			
07:30 AM	13	50	25	88	15	140	37	6	198	23	59	15	97	16	98	26	0	140	523
07:45 AM	18	69	21	108	25	165	49	9	248	34	90	21	145	42	109	35	0	186	687
08:00 AM	20	69	40	129	23	129	59	6	217	39	97	23	159	51	120	34	1	206	711
08:15 AM	17	84	23	124	34	140	50	3	227	16	73	8	97	30	94	31	0	155	603
Total Volume	68	272	109	449	97	574	195	24	890	112	319	67	498	139	421	126	1	687	2524
% App. Total	15.1	60.6	24.3		10.9	64.5	21.9	2.7		22.5	64.1	13.5		20.2	61.3	18.3	0.1		
PHF	.850	.810	.681	.870	.713	.870	.826	.667	.897	.718	.822	.728	.783	.681	.877	.900	.250	.834	.887

City of Clovis
N/S: N Peach Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 01_CVS_Peach_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM					
+0 mins.	13	50	25	88	15	140	37	6	198	23	59	15	97	16	98	26	0	140
+15 mins.	18	69	21	108	25	165	49	9	248	34	90	21	145	42	109	35	0	186
+30 mins.	20	69	40	129	23	129	59	6	217	39	97	23	159	51	120	34	1	206
+45 mins.	17	84	23	124	34	140	50	3	227	16	73	8	97	30	94	31	0	155
Total Volume	68	272	109	449	97	574	195	24	890	112	319	67	498	139	421	126	1	687
% App. Total	15.1	60.6	24.3		10.9	64.5	21.9	2.7		22.5	64.1	13.5		20.2	61.3	18.3	0.1	
PHF	.850	.810	.681	.870	.713	.870	.826	.667	.897	.718	.822	.728	.783	.681	.877	.900	.250	.834

City of Clovis
N/S: N Peach Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 01_CVS_Peach_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

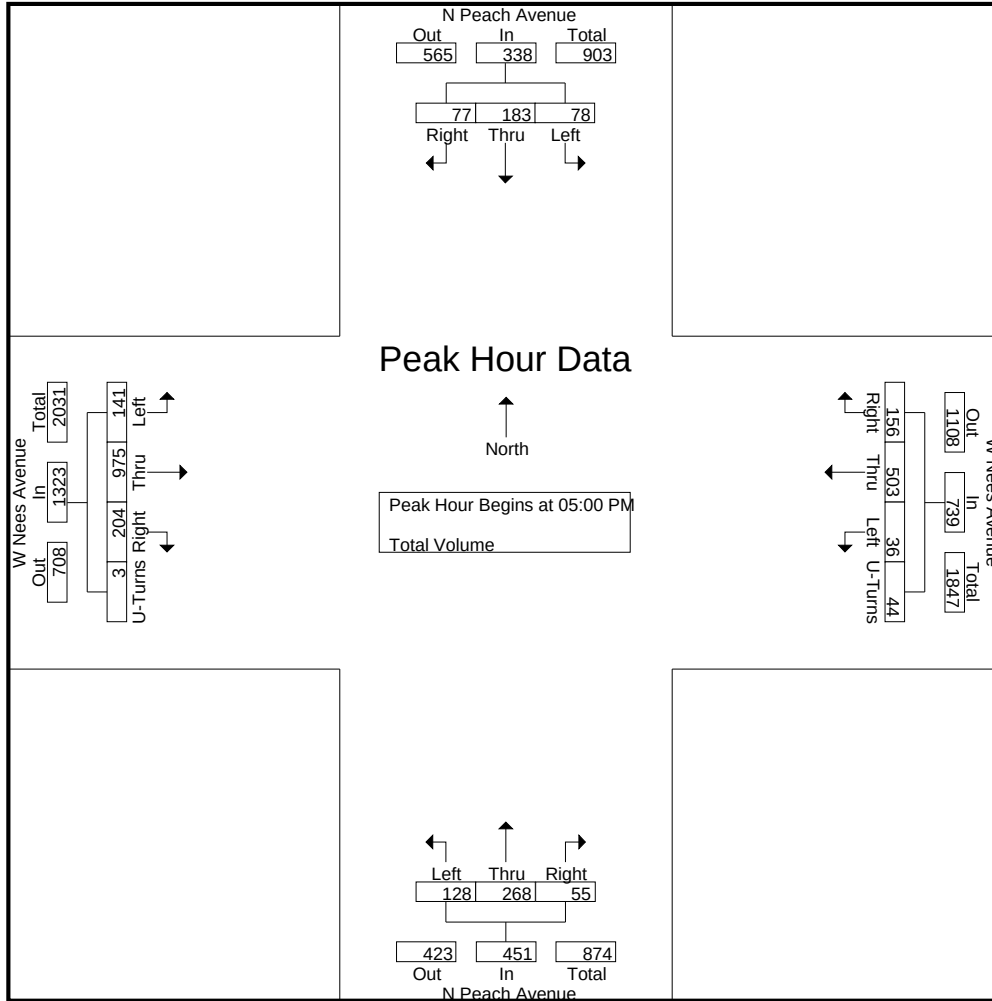
Groups Printed- Total Volume

	N Peach Avenue Southbound				W Nees Avenue Westbound					N Peach Avenue Northbound				W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	16	44	24	84	24	105	22	4	155	21	44	8	73	25	184	47	1	257	569
04:15 PM	13	42	19	74	5	123	24	3	155	28	57	10	95	25	197	32	1	255	579
04:30 PM	16	30	27	73	9	103	22	2	136	25	54	2	81	29	221	37	1	288	578
04:45 PM	14	42	17	73	5	129	18	5	157	23	47	5	75	36	199	39	3	277	582
Total	59	158	87	304	43	460	86	14	603	97	202	25	324	115	801	155	6	1077	2308
05:00 PM	16	38	22	76	8	122	27	5	162	27	60	6	93	26	233	49	2	310	641
05:15 PM	14	30	21	65	9	119	43	2	173	44	82	17	143	31	248	44	0	323	704
05:30 PM	18	59	14	91	9	125	47	12	193	27	66	15	108	38	257	48	0	343	735
05:45 PM	30	56	20	106	10	137	39	25	211	30	60	17	107	46	237	63	1	347	771
Total	78	183	77	338	36	503	156	44	739	128	268	55	451	141	975	204	3	1323	2851
Grand Total	137	341	164	642	79	963	242	58	1342	225	470	80	775	256	1776	359	9	2400	5159
Apprch %	21.3	53.1	25.5		5.9	71.8	18	4.3		29	60.6	10.3		10.7	74	15	0.4		
Total %	2.7	6.6	3.2	12.4	1.5	18.7	4.7	1.1	26	4.4	9.1	1.6	15	5	34.4	7	0.2	46.5	

	N Peach Avenue Southbound				W Nees Avenue Westbound					N Peach Avenue Northbound				W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 05:00 PM																			
05:00 PM	16	38	22	76	8	122	27	5	162	27	60	6	93	26	233	49	2	310	641
05:15 PM	14	30	21	65	9	119	43	2	173	44	82	17	143	31	248	44	0	323	704
05:30 PM	18	59	14	91	9	125	47	12	193	27	66	15	108	38	257	48	0	343	735
05:45 PM	30	56	20	106	10	137	39	25	211	30	60	17	107	46	237	63	1	347	771
Total Volume	78	183	77	338	36	503	156	44	739	128	268	55	451	141	975	204	3	1323	2851
% App. Total	23.1	54.1	22.8		4.9	68.1	21.1	6		28.4	59.4	12.2		10.7	73.7	15.4	0.2		
PHF	.650	.775	.875	.797	.900	.918	.830	.440	.876	.727	.817	.809	.788	.766	.948	.810	.375	.953	.924

City of Clovis
N/S: N Peach Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 01_CVS_Peach_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				05:00 PM				05:00 PM					
+0 mins.	16	38	22	76	8	122	27	5	162	27	60	6	93	26	233	49	2	310
+15 mins.	14	30	21	65	9	119	43	2	173	44	82	17	143	31	248	44	0	323
+30 mins.	18	59	14	91	9	125	47	12	193	27	66	15	108	38	257	48	0	343
+45 mins.	30	56	20	106	10	137	39	25	211	30	60	17	107	46	237	63	1	347
Total Volume	78	183	77	338	36	503	156	44	739	128	268	55	451	141	975	204	3	1323
% App. Total	23.1	54.1	22.8		4.9	68.1	21.1	6		28.4	59.4	12.2		10.7	73.7	15.4	0.2	
PHF	.650	.775	.875	.797	.900	.918	.830	.440	.876	.727	.817	.809	.788	.766	.948	.810	.375	.953

City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

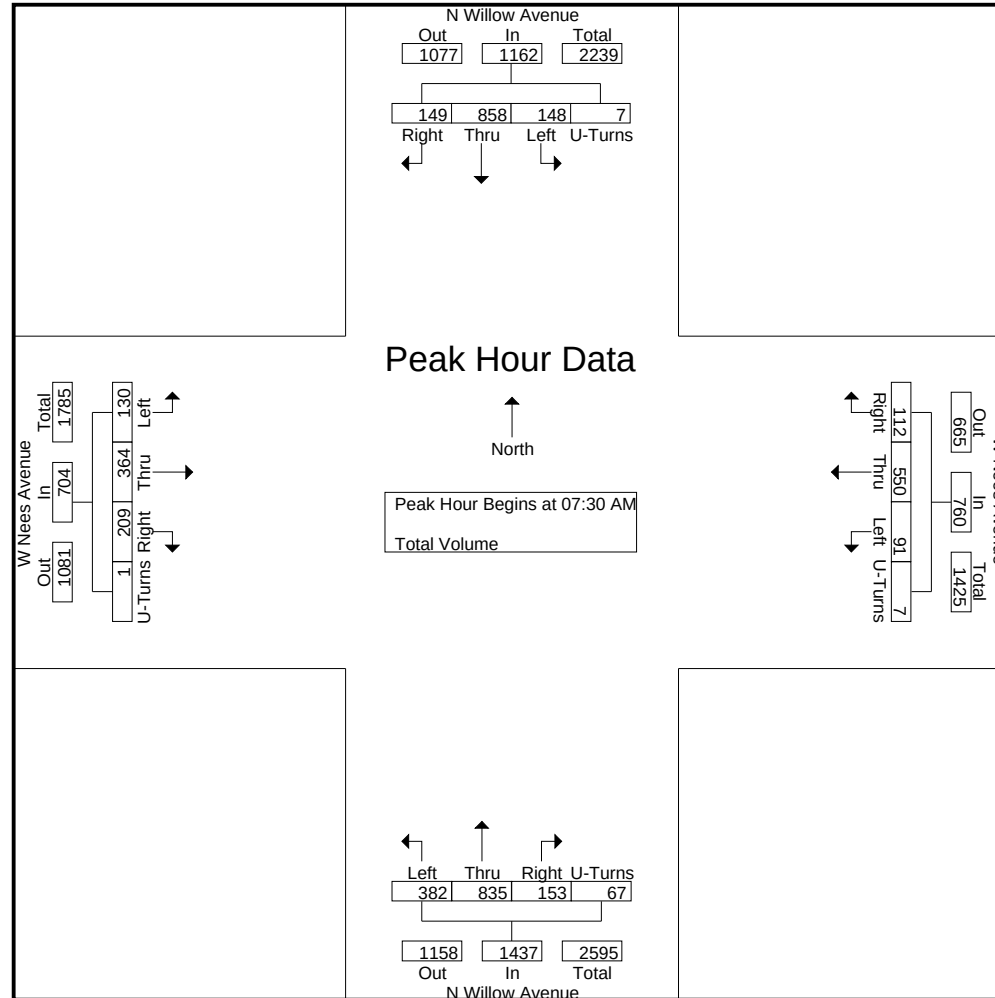
Groups Printed- Total Volume

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	16	114	8	0	138	6	62	6	0	74	51	95	17	9	172	14	54	38	0	106	490
07:15 AM	25	171	27	0	223	10	79	11	1	101	60	110	31	15	216	28	65	40	0	133	673
07:30 AM	18	222	37	1	278	14	146	17	1	178	88	193	24	28	333	16	81	47	0	144	933
07:45 AM	53	221	40	3	317	27	157	21	5	210	84	170	43	7	304	42	110	59	0	211	1042
Total	112	728	112	4	956	57	444	55	7	563	283	568	115	59	1025	100	310	184	0	594	3138
08:00 AM	38	215	37	1	291	30	117	42	1	190	105	263	53	14	435	39	83	36	0	158	1074
08:15 AM	39	200	35	2	276	20	130	32	0	182	105	209	33	18	365	33	90	67	1	191	1014
08:30 AM	31	212	52	2	297	15	107	6	2	130	97	181	24	28	330	10	62	36	0	108	865
08:45 AM	20	144	25	4	193	13	85	7	1	106	87	118	24	17	246	20	86	60	0	166	711
Total	128	771	149	9	1057	78	439	87	4	608	394	771	134	77	1376	102	321	199	1	623	3664
Grand Total	240	1499	261	13	2013	135	883	142	11	1171	677	1339	249	136	2401	202	631	383	1	1217	6802
Apprch %	11.9	74.5	13	0.6		11.5	75.4	12.1	0.9		28.2	55.8	10.4	5.7		16.6	51.8	31.5	0.1		
Total %	3.5	22	3.8	0.2	29.6	2	13	2.1	0.2	17.2	10	19.7	3.7	2	35.3	3	9.3	5.6	0	17.9	

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	18	222	37	1	278	14	146	17	1	178	88	193	24	28	333	16	81	47	0	144	933
07:45 AM	53	221	40	3	317	27	157	21	5	210	84	170	43	7	304	42	110	59	0	211	1042
08:00 AM	38	215	37	1	291	30	117	42	1	190	105	263	53	14	435	39	83	36	0	158	1074
08:15 AM	39	200	35	2	276	20	130	32	0	182	105	209	33	18	365	33	90	67	1	191	1014
Total Volume	148	858	149	7	1162	91	550	112	7	760	382	835	153	67	1437	130	364	209	1	704	4063
% App. Total	12.7	73.8	12.8	0.6		12	72.4	14.7	0.9		26.6	58.1	10.6	4.7		18.5	51.7	29.7	0.1		
PHF	.698	.966	.931	.583	.916	.758	.876	.667	.350	.905	.910	.794	.722	.598	.826	.774	.827	.780	.250	.834	.946

City of Clovis
 N/S: N Willow Avenue
 E/W: W Nees Avenue
 Weather: Clear

File Name : 02_CVS_Willow_Nees AM
 Site Code : 23624707
 Start Date : 8/29/2024
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City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 3

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:45 AM					07:30 AM					07:30 AM					07:30 AM					
+0 mins.	53	221	40	3	317	14	146	17	1	178	88	193	24	28	333	16	81	47	0	144	
+15 mins.	38	215	37	1	291	27	157	21	5	210	84	170	43	7	304	42	110	59	0	211	
+30 mins.	39	200	35	2	276	30	117	42	1	190	105	263	53	14	435	39	83	36	0	158	
+45 mins.	31	212	52	2	297	20	130	32	0	182	105	209	33	18	365	33	90	67	1	191	
Total Volume	161	848	164	8	1181	91	550	112	7	760	382	835	153	67	1437	130	364	209	1	704	
% App. Total	13.6	71.8	13.9	0.7		12	72.4	14.7	0.9		26.6	58.1	10.6	4.7		18.5	51.7	29.7	0.1		
PHF	.759	.959	.788	.667	.931	.758	.876	.667	.350	.905	.910	.794	.722	.598	.826	.774	.827	.780	.250	.834	

City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

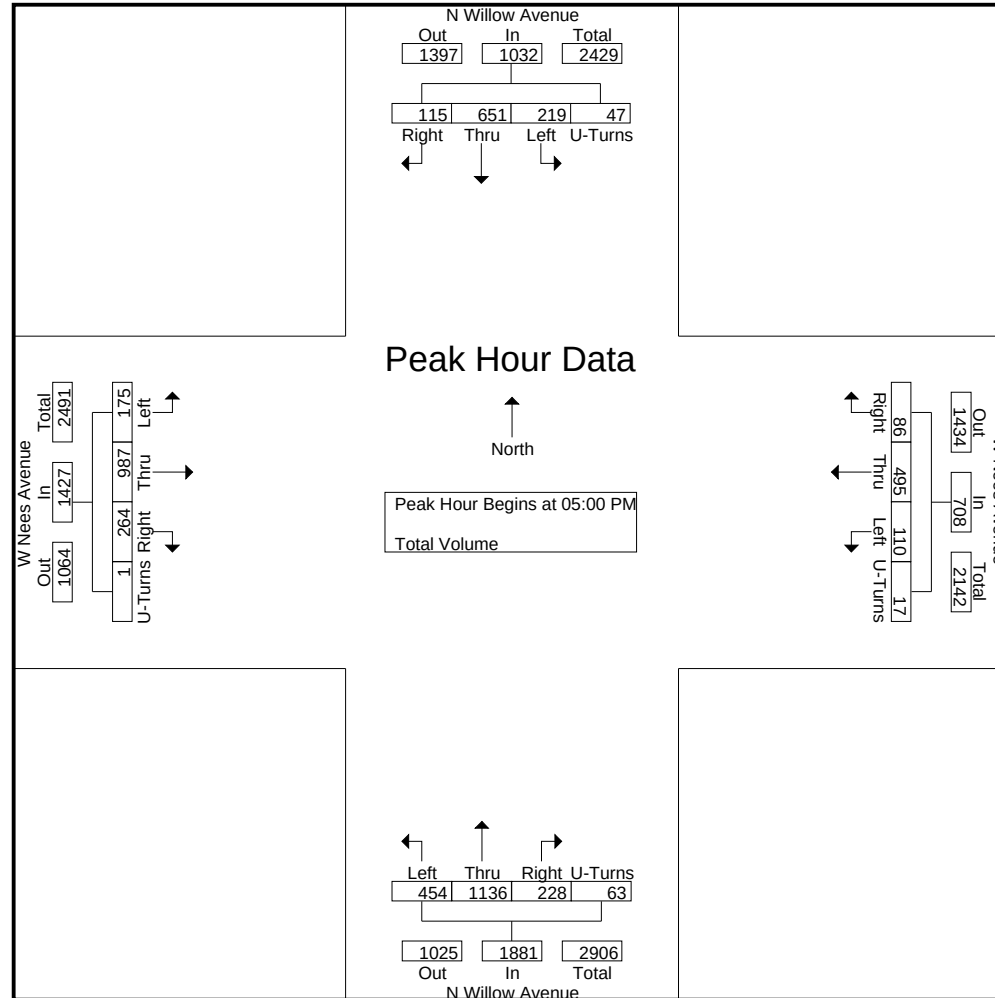
Groups Printed- Total Volume

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	51	173	19	5	248	32	95	24	3	154	91	252	40	20	403	20	166	57	1	244	1049
04:15 PM	38	148	25	3	214	22	85	29	2	138	117	251	46	25	439	18	148	74	0	240	1031
04:30 PM	41	145	17	10	213	23	110	26	1	160	91	199	33	19	342	30	189	59	1	279	994
04:45 PM	47	158	20	19	244	20	112	20	2	154	121	268	43	24	456	40	191	59	0	290	1144
Total	177	624	81	37	919	97	402	99	8	606	420	970	162	88	1640	108	694	249	2	1053	4218
05:00 PM	41	160	22	5	228	33	129	17	7	186	102	261	51	19	433	42	236	74	1	353	1200
05:15 PM	50	170	35	12	267	26	123	21	3	173	111	279	56	18	464	39	212	75	0	326	1230
05:30 PM	59	163	27	17	266	20	113	16	6	155	132	330	63	14	539	37	262	48	0	347	1307
05:45 PM	69	158	31	13	271	31	130	32	1	194	109	266	58	12	445	57	277	67	0	401	1311
Total	219	651	115	47	1032	110	495	86	17	708	454	1136	228	63	1881	175	987	264	1	1427	5048
Grand Total	396	1275	196	84	1951	207	897	185	25	1314	874	2106	390	151	3521	283	1681	513	3	2480	9266
Apprch %	20.3	65.4	10	4.3		15.8	68.3	14.1	1.9		24.8	59.8	11.1	4.3		11.4	67.8	20.7	0.1		
Total %	4.3	13.8	2.1	0.9	21.1	2.2	9.7	2	0.3	14.2	9.4	22.7	4.2	1.6	38	3.1	18.1	5.5	0	26.8	

	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	41	160	22	5	228	33	129	17	7	186	102	261	51	19	433	42	236	74	1	353	1200
05:15 PM	50	170	35	12	267	26	123	21	3	173	111	279	56	18	464	39	212	75	0	326	1230
05:30 PM	59	163	27	17	266	20	113	16	6	155	132	330	63	14	539	37	262	48	0	347	1307
05:45 PM	69	158	31	13	271	31	130	32	1	194	109	266	58	12	445	57	277	67	0	401	1311
Total Volume	219	651	115	47	1032	110	495	86	17	708	454	1136	228	63	1881	175	987	264	1	1427	5048
% App. Total	21.2	63.1	11.1	4.6		15.5	69.9	12.1	2.4		24.1	60.4	12.1	3.3		12.3	69.2	18.5	0.1		
PHF	.793	.957	.821	.691	.952	.833	.952	.672	.607	.912	.860	.861	.905	.829	.872	.768	.891	.880	.250	.890	.963

City of Clovis
 N/S: N Willow Avenue
 E/W: W Nees Avenue
 Weather: Clear

File Name : 02_CVS_Willow_Nees PM
 Site Code : 23624707
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City of Clovis
N/S: N Willow Avenue
E/W: W Nees Avenue
Weather: Clear

File Name : 02_CVS_Willow_Nees PM
Site Code : 23624707
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	N Willow Avenue Southbound					W Nees Avenue Westbound					N Willow Avenue Northbound					W Nees Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	05:00 PM					05:00 PM					04:45 PM					05:00 PM					
+0 mins.	41	160	22	5	228	33	129	17	7	186	121	268	43	24	456	42	236	74	1	353	
+15 mins.	50	170	35	12	267	26	123	21	3	173	102	261	51	19	433	39	212	75	0	326	
+30 mins.	59	163	27	17	266	20	113	16	6	155	111	279	56	18	464	37	262	48	0	347	
+45 mins.	69	158	31	13	271	31	130	32	1	194	132	330	63	14	539	57	277	67	0	401	
Total Volume	219	651	115	47	1032	110	495	86	17	708	466	1138	213	75	1892	175	987	264	1	1427	
% App. Total	21.2	63.1	11.1	4.6		15.5	69.9	12.1	2.4		24.6	60.1	11.3	4		12.3	69.2	18.5	0.1		
PHF	.793	.957	.821	.691	.952	.833	.952	.672	.607	.912	.883	.862	.845	.781	.878	.768	.891	.880	.250	.890	

City of Clovis
N/S: Valley Crescent School Driveway
E/W: W Nees Avenue
Weather: Clear

File Name : 03_CVS_VCS DW_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

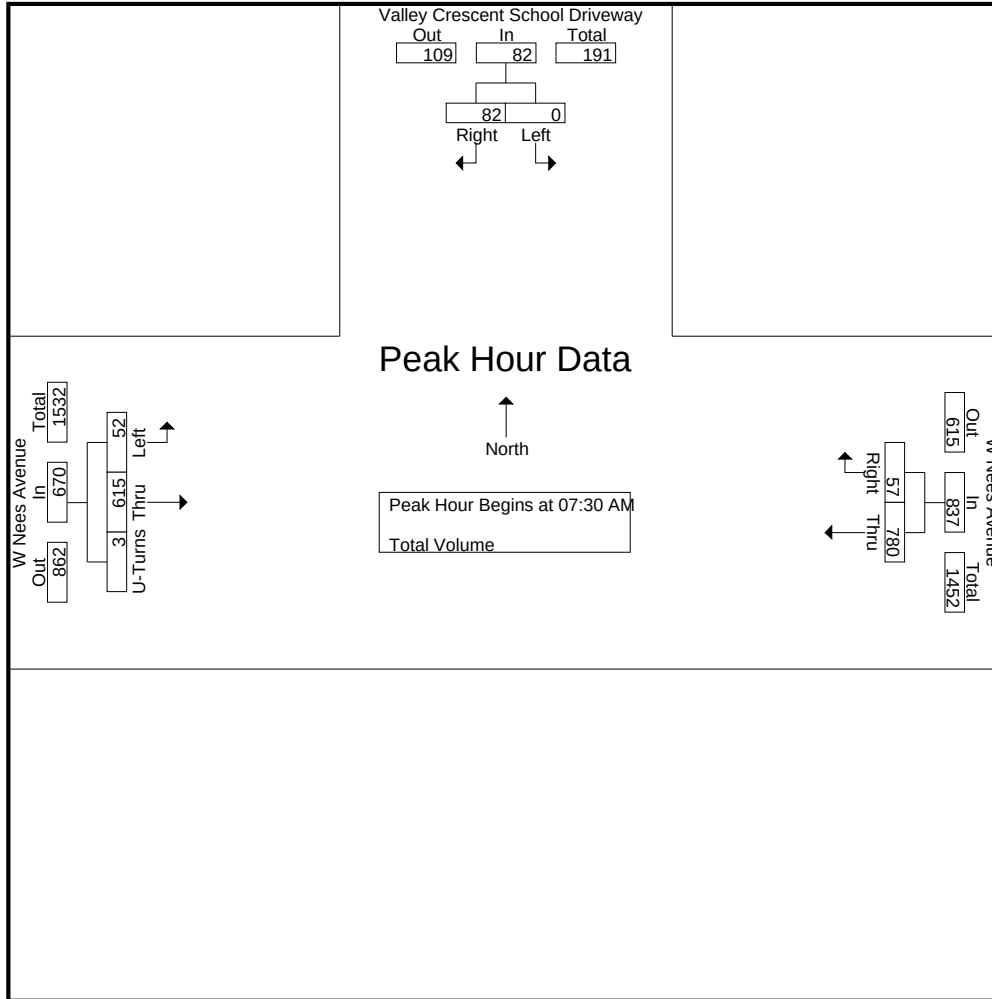
Groups Printed- Total Volume

	Valley Crescent School Driveway Southbound			W Nees Avenue Westbound			W Nees Avenue Eastbound				
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
07:00 AM	0	0	0	84	1	85	1	91	0	92	177
07:15 AM	0	0	0	133	8	141	3	110	0	113	254
07:30 AM	0	5	5	187	10	197	5	110	0	115	317
07:45 AM	0	31	31	202	20	222	30	182	1	213	466
Total	0	36	36	606	39	645	39	493	1	533	1214
08:00 AM	0	43	43	200	25	225	16	175	2	193	461
08:15 AM	0	3	3	191	2	193	1	148	0	149	345
08:30 AM	0	0	0	141	0	141	0	131	0	131	272
08:45 AM	0	0	0	112	1	113	1	119	1	121	234
Total	0	46	46	644	28	672	18	573	3	594	1312
Grand Total	0	82	82	1250	67	1317	57	1066	4	1127	2526
Apprch %	0	100		94.9	5.1		5.1	94.6	0.4		
Total %	0	3.2	3.2	49.5	2.7	52.1	2.3	42.2	0.2	44.6	

	Valley Crescent School Driveway Southbound			W Nees Avenue Westbound			W Nees Avenue Eastbound				
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 07:30 AM											
07:30 AM	0	5	5	187	10	197	5	110	0	115	317
07:45 AM	0	31	31	202	20	222	30	182	1	213	466
08:00 AM	0	43	43	200	25	225	16	175	2	193	461
08:15 AM	0	3	3	191	2	193	1	148	0	149	345
Total Volume	0	82	82	780	57	837	52	615	3	670	1589
% App. Total	0	100		93.2	6.8		7.8	91.8	0.4		
PHF	.000	.477	.477	.965	.570	.930	.433	.845	.375	.786	.852

City of Clovis
N/S: Valley Crescent School Driveway
E/W: W Nees Avenue
Weather: Clear

File Name : 03_CVS_VCS DW_Nees AM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:45 AM		
+0 mins.	0	5	5	187	10	197	30	182	1
+15 mins.	0	31	31	202	20	222	16	175	2
+30 mins.	0	43	43	200	25	225	1	148	0
+45 mins.	0	3	3	191	2	193	0	131	0
Total Volume	0	82	82	780	57	837	47	636	3
% App. Total	0	100		93.2	6.8		6.9	92.7	0.4
PHF	.000	.477	.477	.965	.570	.930	.392	.874	.375

City of Clovis
N/S: Valley Crescent School Driveway
E/W: W Nees Avenue
Weather: Clear

File Name : 03_CVS_VCS DW_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 1

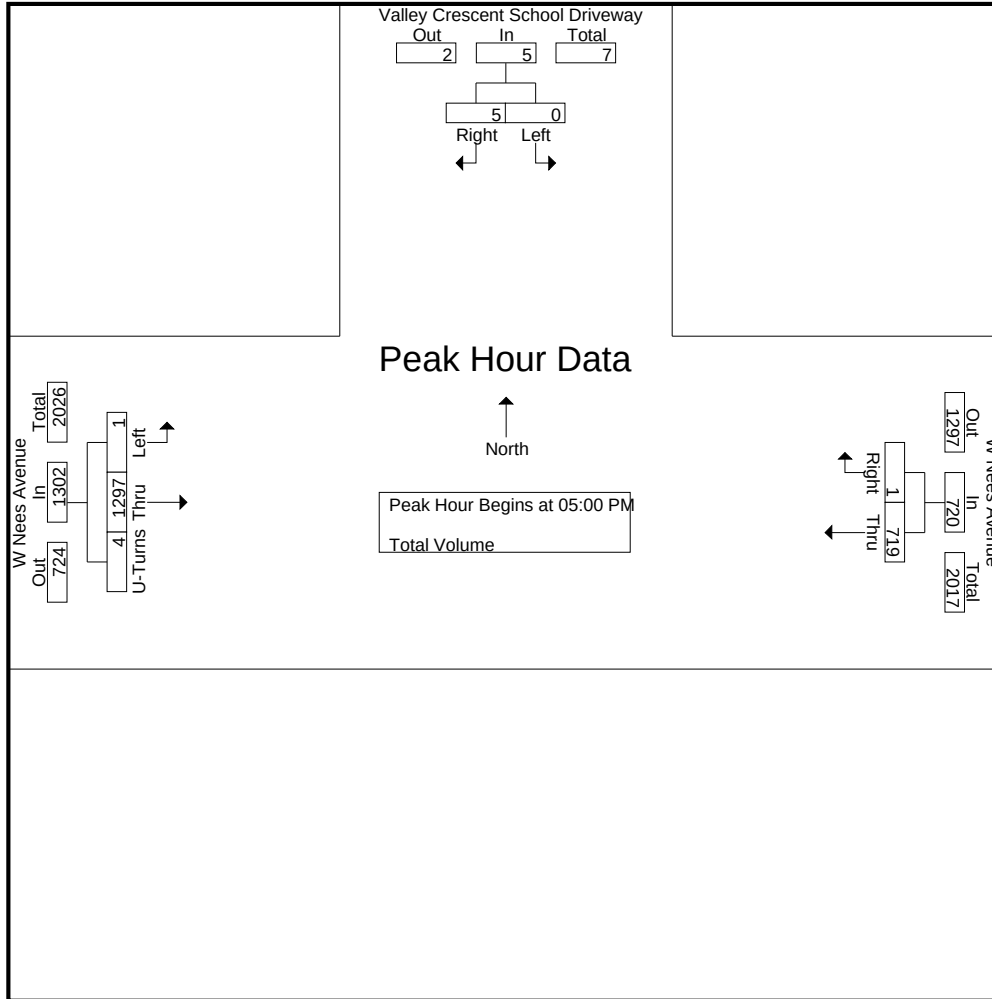
Groups Printed- Total Volume

	Valley Crescent School Driveway Southbound			W Nees Avenue Westbound			W Nees Avenue Eastbound				
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
04:00 PM	0	6	6	155	1	156	0	274	0	274	436
04:15 PM	0	3	3	170	1	171	1	237	0	238	412
04:30 PM	0	4	4	147	1	148	0	264	0	264	416
04:45 PM	0	2	2	188	1	189	0	268	3	271	462
Total	0	15	15	660	4	664	1	1043	3	1047	1726
05:00 PM	0	4	4	176	1	177	1	315	0	316	497
05:15 PM	0	1	1	180	0	180	0	300	1	301	482
05:30 PM	0	0	0	160	0	160	0	352	1	353	513
05:45 PM	0	0	0	203	0	203	0	330	2	332	535
Total	0	5	5	719	1	720	1	1297	4	1302	2027
Grand Total	0	20	20	1379	5	1384	2	2340	7	2349	3753
Apprch %	0	100		99.6	0.4		0.1	99.6	0.3		
Total %	0	0.5	0.5	36.7	0.1	36.9	0.1	62.4	0.2	62.6	

	Valley Crescent School Driveway Southbound			W Nees Avenue Westbound			W Nees Avenue Eastbound				
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1											
Peak Hour for Entire Intersection Begins at 05:00 PM											
05:00 PM	0	4	4	176	1	177	1	315	0	316	497
05:15 PM	0	1	1	180	0	180	0	300	1	301	482
05:30 PM	0	0	0	160	0	160	0	352	1	353	513
05:45 PM	0	0	0	203	0	203	0	330	2	332	535
Total Volume	0	5	5	719	1	720	1	1297	4	1302	2027
% App. Total	0	100		99.9	0.1		0.1	99.6	0.3		
PHF	.000	.313	.313	.885	.250	.887	.250	.921	.500	.922	.947

City of Clovis
N/S: Valley Crescent School Driveway
E/W: W Nees Avenue
Weather: Clear

File Name : 03_CVS_VCS DW_Nees PM
Site Code : 23624707
Start Date : 8/29/2024
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

Peak Hour for Each App. each begins at:	04:00 PM			05:00 PM			05:00 PM			
+0 mins.	0	6	6	176	1	177	1	315	0	316
+15 mins.	0	3	3	180	0	180	0	300	1	301
+30 mins.	0	4	4	160	0	160	0	352	1	353
+45 mins.	0	2	2	203	0	203	0	330	2	332
Total Volume	0	15	15	719	1	720	1	1297	4	1302
% App. Total	0	100		99.9	0.1		0.1	99.6	0.3	
PHF	.000	.625	.625	.885	.250	.887	.250	.921	.500	.922

APPENDIX D

HCM ANALYSIS WORKSHEETS

EXISTING TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	31.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.606

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.887	0.887	0.887	0.887	0.887	0.887	0.887	0.887
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	32	90	19	19	77	31	0	39	119	36	7	27	162	55
Total Analysis Volume [veh/h]	126	360	76	77	307	123	1	157	475	142	27	109	647	220
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	12	30	0	12	30	0	0	14	23	0	0	25	34	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	40	40	5	37	37	10	20	20	9	19	19
g / C, Green / Cycle	0.09	0.44	0.44	0.06	0.41	0.41	0.11	0.23	0.23	0.10	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.07	0.19	0.05	0.04	0.16	0.08	0.09	0.13	0.09	0.08	0.18	0.14
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1809	3618	1615	1804	3618	1615
c, Capacity [veh/h]	159	841	715	102	782	664	194	821	366	174	782	349
d1, Uniform Delay [s]	40.32	17.27	14.69	41.93	18.63	16.91	39.39	31.02	29.54	39.82	33.73	32.07
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.53	1.59	0.30	10.63	1.48	0.61	8.10	0.65	0.67	7.49	2.31	1.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.43	0.11	0.75	0.39	0.19	0.82	0.58	0.39	0.78	0.83	0.63
d, Delay for Lane Group [s/veh]	48.84	18.86	14.99	52.56	20.11	17.52	47.49	31.67	30.21	47.32	36.05	33.94
Lane Group LOS	D	B	B	D	C	B	D	C	C	D	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.02	5.07	0.90	1.93	4.48	1.63	3.69	4.39	2.53	3.30	6.94	4.50
50th-Percentile Queue Length [ft/ln]	75.45	126.63	22.55	48.34	112.01	40.64	92.24	109.77	63.16	82.48	173.38	112.58
95th-Percentile Queue Length [veh/ln]	5.43	8.76	1.62	3.48	7.95	2.93	6.64	7.83	4.55	5.94	11.25	7.98
95th-Percentile Queue Length [ft/ln]	135.81	218.91	40.60	87.01	198.79	73.15	166.03	195.68	113.69	148.46	281.35	199.58

Movement, Approach, & Intersection Results

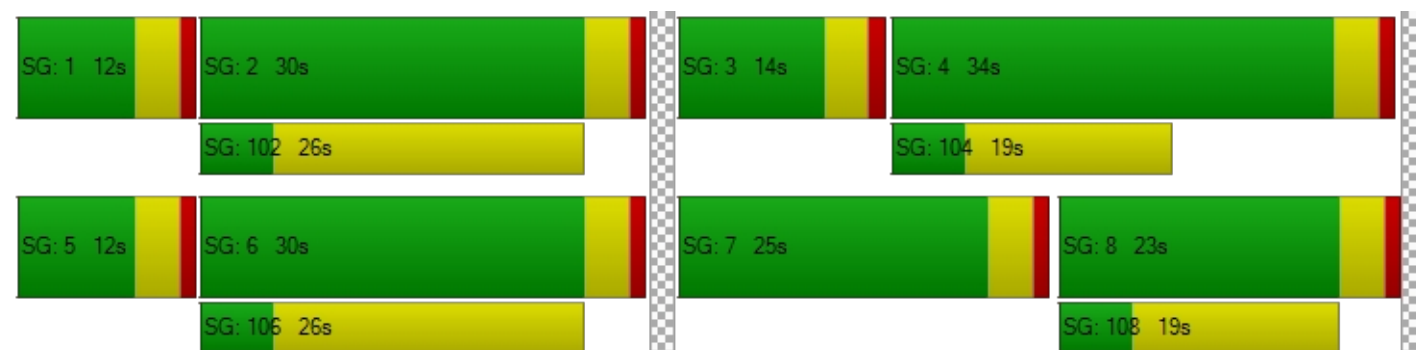
d_M, Delay for Movement [s/veh]	48.84	18.86	14.99	52.56	20.11	17.52	47.49	47.49	31.67	30.21	47.32	47.32	36.05	33.94
Movement LOS	D	B	B	D	C	B	D	D	C	C	D	D	D	C
d_A, Approach Delay [s/veh]	25.06			24.41			34.63			37.11				
Approach LOS	C			C			C			D				
d_I, Intersection Delay [s/veh]	31.79													
Intersection LOS	C													
Intersection V/C	0.606													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00			
d_p, Pedestrian Delay [s]	36.49			36.49			36.49			36.49			
I_p,int, Pedestrian LOS Score for Intersection	2.497			2.537			2.862			2.675			
Crosswalk LOS	B			B			C			B			
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000			
c_b, Capacity of the bicycle lane [bicycles/h]	577			577			422			666			
d_b, Bicycle Delay [s]	22.80			22.80			28.05			20.04			
I_b,int, Bicycle LOS Score for Intersection	2.487			2.396			2.069			2.297			
Bicycle LOS	B			B			B			B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	32.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.597

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	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
Proportion of CAVs [%]	0.00															
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Peak Hour Factor	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	18	101	221	40	2	39	227	39	0	34	96	55	2	24	145	30
Total Analysis Volume [veh/h]	71	404	883	162	7	156	907	158	1	137	385	221	7	96	581	118
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	28	47	0	0	14	33	0	0	9	40	0	0	9	40	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No			No				No				No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	61	61	7	51	51	5	21	21	5	21	21
g / C, Green / Cycle	0.16	0.56	0.56	0.06	0.46	0.46	0.05	0.19	0.19	0.05	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.14	0.17	0.10	0.05	0.18	0.10	0.04	0.11	0.14	0.03	0.16	0.07
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	557	2874	897	228	2389	746	163	682	305	161	681	304
d1, Uniform Delay [s]	45.07	13.13	12.11	50.47	19.34	17.68	52.12	40.56	41.99	51.63	43.23	39.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.81	0.28	0.44	4.11	0.46	0.65	11.44	0.74	3.29	4.16	3.18	0.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.31	0.18	0.71	0.38	0.21	0.85	0.56	0.73	0.64	0.85	0.39
d, Delay for Lane Group [s/veh]	48.88	13.41	12.55	54.57	19.80	18.33	63.56	41.30	45.28	55.79	46.40	39.95
Lane Group LOS	D	B	B	D	B	B	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	6.32	3.54	1.87	2.25	4.73	2.35	2.10	4.65	5.72	1.46	7.74	2.80
50th-Percentile Queue Length [ft/ln]	157.99	88.57	46.76	56.25	118.37	58.69	52.43	116.17	142.95	36.61	193.41	70.09
95th-Percentile Queue Length [veh/ln]	10.44	6.38	3.37	4.05	8.30	4.23	3.78	8.18	9.64	2.64	12.30	5.05
95th-Percentile Queue Length [ft/ln]	261.06	159.43	84.16	101.25	207.58	105.64	94.38	204.55	240.99	65.89	307.45	126.16

Movement, Approach, & Intersection Results

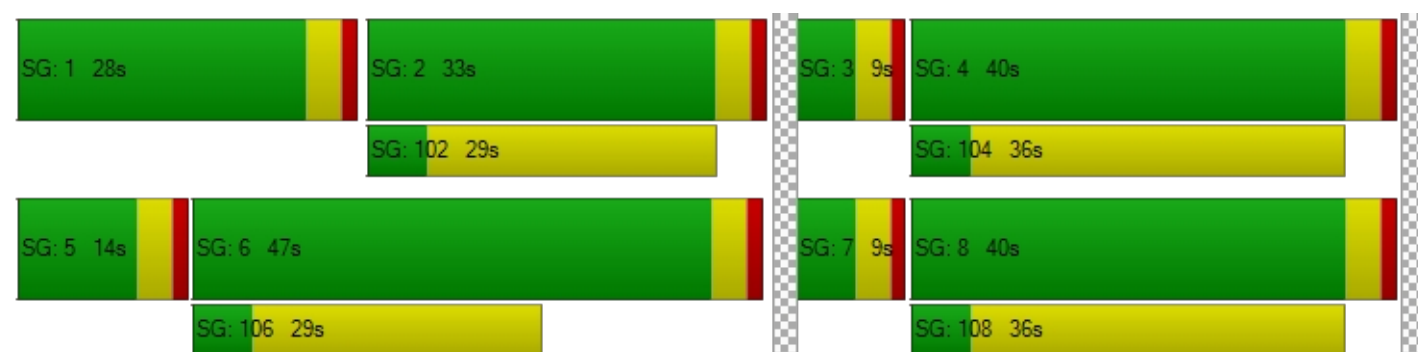
d_M, Delay for Movement [s/veh]	48.88	48.88	13.41	12.55	54.57	54.57	19.80	18.33	63.56	63.56	41.30	45.28	55.79	55.79	46.40	39.95
Movement LOS	D	D	B	B	D	D	B	B	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	24.40				24.23				46.61				46.66			
Approach LOS	C				C				D				D			
d_I, Intersection Delay [s/veh]	32.36															
Intersection LOS	C															
Intersection V/C	0.597															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0				9.0				9.0				9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
d_p, Pedestrian Delay [s]	46.39				46.39				46.39				46.39			
I_p,int, Pedestrian LOS Score for Intersection	3.356				3.288				2.999				2.885			
Crosswalk LOS	C				C				C				C			
s_b, Saturation Flow Rate of the bicycle lane	2000				2000				2000				2000			
c_b, Capacity of the bicycle lane [bicycles/h]	781				527				654				654			
d_b, Bicycle Delay [s]	20.43				29.85				24.91				24.91			
I_b,int, Bicycle LOS Score for Intersection	2.173				2.149				2.060				2.215			
Bicycle LOS	B				B				B				B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.201

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	82	0	667	780	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	82	0	667	780	109
Peak Hour Factor	1.0000	0.8270	1.0000	0.8270	0.8270	0.8270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	25	0	202	236	33
Total Analysis Volume [veh/h]	0	99	0	807	943	132
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.20	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	14.12	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.74	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	18.56	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.12		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.71					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	33.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.924	0.924	0.924	0.924	0.924	0.924	0.924	0.924
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	35	73	15	21	50	21	1	38	264	55	12	10	136	42
Total Analysis Volume [veh/h]	139	290	60	84	198	83	3	153	1055	221	48	39	544	169
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	13	30	0	13	30	0	0	34	47	0	0	10	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	39	39	6	36	36	11	33	33	6	29	29
g / C, Green / Cycle	0.09	0.39	0.39	0.06	0.36	0.36	0.11	0.33	0.33	0.06	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.08	0.15	0.04	0.05	0.10	0.05	0.09	0.29	0.14	0.05	0.15	0.10
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1809	3618	1615	1794	3618	1615
c, Capacity [veh/h]	164	736	626	110	680	578	193	1198	535	109	1031	460
d1, Uniform Delay [s]	44.84	22.16	19.50	46.32	23.06	21.78	43.71	31.63	25.96	46.41	30.12	28.58
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.27	1.58	0.30	10.44	1.09	0.52	7.74	2.30	0.51	12.33	0.42	0.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.39	0.10	0.76	0.29	0.14	0.81	0.88	0.41	0.80	0.53	0.37
d, Delay for Lane Group [s/veh]	56.12	23.74	19.81	56.77	24.15	22.30	51.46	33.94	26.47	58.74	30.54	29.07
Lane Group LOS	E	C	B	E	C	C	D	C	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.82	5.00	0.90	2.33	3.41	1.35	4.05	11.58	3.93	2.52	5.57	3.31
50th-Percentile Queue Length [ft/ln]	95.46	124.93	22.60	58.15	85.23	33.80	101.20	289.46	98.13	62.97	139.31	82.81
95th-Percentile Queue Length [veh/ln]	6.87	8.66	1.63	4.19	6.14	2.43	7.29	17.16	7.07	4.53	9.44	5.96
95th-Percentile Queue Length [ft/ln]	171.83	216.59	40.68	104.67	153.41	60.85	182.15	428.97	176.63	113.35	236.09	149.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.12	23.74	19.81	56.77	24.15	22.30	51.46	51.46	33.94	26.47	58.74	58.74	30.54	29.07
Movement LOS	E	C	B	E	C	C	D	D	C	C	E	E	C	C
d_A, Approach Delay [s/veh]	32.46			31.24			34.69			33.30				
Approach LOS	C			C			C			C				
d_I, Intersection Delay [s/veh]	33.57													
Intersection LOS	C													
Intersection V/C	0.642													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0				
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00				
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00				
d_p, Pedestrian Delay [s]	41.44			41.44			41.44			41.44				
I_p,int, Pedestrian LOS Score for Intersection	2.446			2.455			2.995			2.730				
Crosswalk LOS	B			B			C			B				
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000				
c_b, Capacity of the bicycle lane [bicycles/h]	520			520			859			380				
d_b, Bicycle Delay [s]	27.41			27.41			16.27			32.84				
I_b,int, Bicycle LOS Score for Intersection	2.366			2.162			2.615			2.187				
Bicycle LOS	B			B			B			B				

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	36.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.734

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	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
Proportion of CAVs [%]	0.00															
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Peak Hour Factor	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	16	118	295	59	12	57	169	30	0	45	256	69	4	29	129	22
Total Analysis Volume [veh/h]	65	471	1180	237	49	227	676	119	1	182	1025	274	18	114	514	89
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	23	41	0	0	15	33	0	0	14	45	0	0	9	40	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No			No				No				No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	44	44	11	36	36	8	35	35	5	32	32
g / C, Green / Cycle	0.17	0.40	0.40	0.10	0.32	0.32	0.07	0.32	0.32	0.05	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.15	0.23	0.15	0.08	0.13	0.07	0.05	0.28	0.17	0.04	0.14	0.06
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	595	2054	641	339	1676	523	249	1140	509	163	1051	469
d1, Uniform Delay [s]	44.81	25.93	23.46	48.78	28.95	27.17	50.15	36.04	31.10	52.03	32.29	29.32
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.28	1.18	1.64	4.79	0.72	1.01	4.22	2.87	0.89	9.27	0.35	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.57	0.37	0.82	0.40	0.23	0.74	0.90	0.54	0.81	0.49	0.19
d, Delay for Lane Group [s/veh]	50.09	27.11	25.10	53.57	29.67	28.18	54.37	38.90	31.99	61.29	32.64	29.51
Lane Group LOS	D	C	C	D	C	C	D	D	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.27	7.68	4.36	3.80	4.49	2.31	2.54	12.86	5.85	1.98	5.54	1.75
50th-Percentile Queue Length [ft/ln]	181.73	192.04	108.94	94.89	112.15	57.86	63.62	321.62	146.31	49.52	138.57	43.80
95th-Percentile Queue Length [veh/ln]	11.69	12.23	7.78	6.83	7.96	4.17	4.58	18.75	9.82	3.57	9.40	3.15
95th-Percentile Queue Length [ft/ln]	292.27	305.68	194.53	170.81	198.98	104.16	114.51	468.68	245.50	89.13	235.10	78.83

Movement, Approach, & Intersection Results

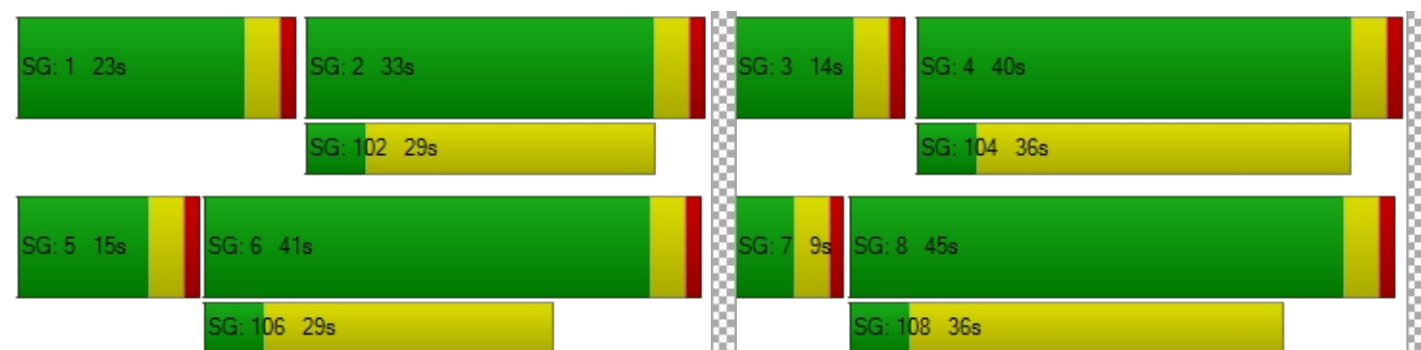
d_M, Delay for Movement [s/veh]	50.09	50.09	27.11	25.10	53.57	53.57	29.67	28.18	54.37	54.37	38.90	31.99	61.29	61.29	32.64	29.51
Movement LOS	D	D	C	C	D	D	C	C	D	D	D	C	E	E	C	C
d_A, Approach Delay [s/veh]	33.17				35.66				39.53				37.41			
Approach LOS	C				D				D				D			
d_I, Intersection Delay [s/veh]	36.07															
Intersection LOS	D															
Intersection V/C	0.734															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0				9.0				9.0				9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
d_p, Pedestrian Delay [s]	46.39				46.39				46.39				46.39			
I_p,int, Pedestrian LOS Score for Intersection	3.405				3.316				3.145				3.018			
Crosswalk LOS	C				C				C				C			
s_b, Saturation Flow Rate of the bicycle lane	2000				2000				2000				2000			
c_b, Capacity of the bicycle lane [bicycles/h]	672				527				745				654			
d_b, Bicycle Delay [s]	24.25				29.85				21.66				24.91			
I_b,int, Bicycle LOS Score for Intersection	2.375				2.024				2.632				2.151			
Bicycle LOS	B				B				B				B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	5	0	1298	719	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	5	0	1298	719	2
Peak Hour Factor	1.0000	0.9490	1.0000	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	342	189	1
Total Analysis Volume [veh/h]	0	5	0	1368	758	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	10.82	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.61	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	10.82		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.03					
Intersection LOS	B					

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	32.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.670

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	0	0	0	0	34	34	0	27	0	0	0	34	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	146	319	67	68	272	143	35	139	448	126	24	97	608	195
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.887	0.887	0.887	0.887	0.887	0.887	0.887	0.887
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	41	90	19	19	77	40	10	39	126	36	7	27	171	55
Total Analysis Volume [veh/h]	165	360	76	77	307	161	39	157	505	142	27	109	685	220
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	14	30	0	14	30	0	0	16	23	0	0	23	30	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	37	37	5	32	32	12	23	23	9	20	20
g / C, Green / Cycle	0.11	0.41	0.41	0.06	0.36	0.36	0.13	0.26	0.26	0.10	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.09	0.19	0.05	0.04	0.16	0.10	0.11	0.14	0.09	0.08	0.19	0.14
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1804	3618	1615	1804	3618	1615
c, Capacity [veh/h]	201	785	668	102	682	580	233	928	414	173	809	361
d1, Uniform Delay [s]	39.22	19.14	16.28	41.91	22.09	20.57	38.38	28.97	27.33	39.84	33.53	31.47
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.16	1.92	0.35	10.51	2.14	1.19	8.02	0.50	0.49	7.57	2.56	1.66
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.46	0.11	0.75	0.45	0.28	0.84	0.54	0.34	0.78	0.85	0.61
d, Delay for Lane Group [s/veh]	47.38	21.07	16.63	52.42	24.23	21.76	46.40	29.47	27.82	47.41	36.09	33.13
Lane Group LOS	D	C	B	D	C	C	D	C	C	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	3.89	5.44	0.97	1.93	5.05	2.46	4.53	4.48	2.40	3.30	7.38	4.44
50th-Percentile Queue Length [ft/ln]	97.26	136.11	24.16	48.26	126.15	61.45	113.26	111.98	59.96	82.57	184.39	110.99
95th-Percentile Queue Length [veh/ln]	7.00	9.27	1.74	3.47	8.73	4.42	8.02	7.95	4.32	5.95	11.83	7.89
95th-Percentile Queue Length [ft/ln]	175.08	231.77	43.49	86.87	218.25	110.60	200.53	198.75	107.93	148.63	295.74	197.37

Movement, Approach, & Intersection Results

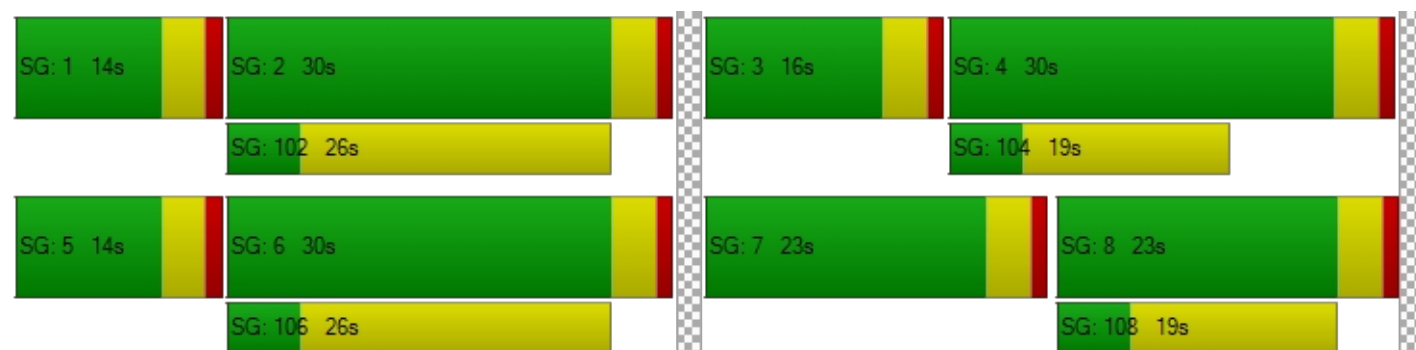
d_M, Delay for Movement [s/veh]	47.38	21.07	16.63	52.42	24.23	21.76	46.40	46.40	29.47	27.82	47.41	47.41	36.09	33.13
Movement LOS	D	C	B	D	C	C	D	D	C	C	D	D	D	C
d_A, Approach Delay [s/veh]	27.73			27.48			33.13			36.95				
Approach LOS	C			C			C			D				
d_I, Intersection Delay [s/veh]	32.35													
Intersection LOS	C													
Intersection V/C	0.670													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0				
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00				
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00				
d_p, Pedestrian Delay [s]	36.49			36.49			36.49			36.49				
I_p,int, Pedestrian LOS Score for Intersection	2.509			2.549			2.906			2.684				
Crosswalk LOS	B			B			C			B				
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000				
c_b, Capacity of the bicycle lane [bicycles/h]	577			577			422			577				
d_b, Bicycle Delay [s]	22.80			22.80			28.05			22.80				
I_b,int, Bicycle LOS Score for Intersection	2.551			2.459			2.126			2.329				
Bicycle LOS	B			B			B			B				

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	33.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.606

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	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
Proportion of CAVs [%]	0.00															
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	34	0	27	27	25	27
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	382	835	153	7	148	858	149	1	130	398	209	34	118	575	139
Peak Hour Factor	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	18	101	221	40	2	39	227	39	0	34	105	55	9	31	152	37
Total Analysis Volume [veh/h]	71	404	883	162	7	156	907	158	1	137	421	221	36	125	608	147
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	27	48	0	0	12	33	0	0	10	40	0	0	10	40	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No			No				No				No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	59	59	7	49	49	6	22	22	6	22	22
g / C, Green / Cycle	0.16	0.54	0.54	0.06	0.45	0.45	0.05	0.20	0.20	0.05	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.14	0.17	0.10	0.05	0.18	0.10	0.04	0.12	0.14	0.05	0.17	0.09
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	555	2787	870	226	2302	718	194	711	317	194	711	317
d1, Uniform Delay [s]	45.13	14.14	13.04	50.53	20.57	18.80	51.13	40.23	41.18	51.48	42.73	39.10
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.91	0.30	0.47	4.27	0.51	0.70	4.71	0.79	2.76	8.65	3.09	1.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.32	0.19	0.72	0.39	0.22	0.71	0.59	0.70	0.83	0.86	0.46
d, Delay for Lane Group [s/veh]	49.04	14.44	13.51	54.80	21.08	19.51	55.85	41.02	43.94	60.13	45.82	40.16
Lane Group LOS	D	B	B	D	C	B	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	6.33	3.73	1.97	2.26	4.93	2.44	1.95	5.08	5.62	2.39	8.06	3.53
50th-Percentile Queue Length [ft/ln]	158.28	93.21	49.17	56.38	123.23	61.10	48.65	127.05	140.53	59.73	201.59	88.16
95th-Percentile Queue Length [veh/ln]	10.46	6.71	3.54	4.06	8.57	4.40	3.50	8.78	9.51	4.30	12.72	6.35
95th-Percentile Queue Length [ft/ln]	261.44	167.78	88.51	101.49	214.26	109.98	87.58	219.48	237.73	107.52	318.02	158.69

Movement, Approach, & Intersection Results

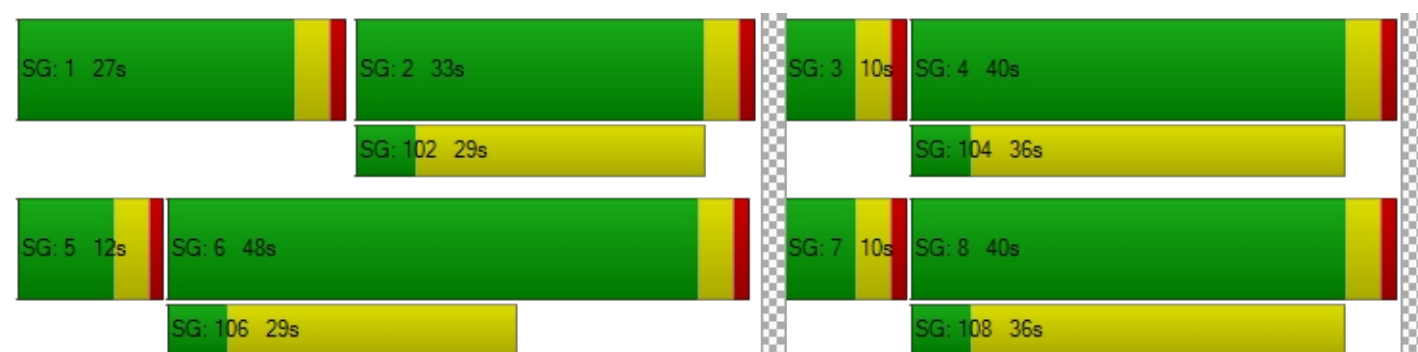
d_M, Delay for Movement [s/veh]	49.04	49.04	14.44	13.51	54.80	54.80	21.08	19.51	55.85	55.85	41.02	43.94	60.13	60.13	45.82	40.16
Movement LOS	D	D	B	B	D	D	C	B	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	25.15				25.35				44.47				47.42			
Approach LOS	C				C				D				D			
d_I, Intersection Delay [s/veh]	33.19															
Intersection LOS	C															
Intersection V/C	0.606															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0				9.0				9.0				9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
d_p, Pedestrian Delay [s]	46.39				46.39				46.39				46.39			
I_p,int, Pedestrian LOS Score for Intersectio	3.361				3.293				3.012				2.912			
Crosswalk LOS	C				C				C				C			
s_b, Saturation Flow Rate of the bicycle lane	2000				2000				2000				2000			
c_b, Capacity of the bicycle lane [bicycles/h]	800				527				654				654			
d_b, Bicycle Delay [s]	19.82				29.85				24.91				24.91			
I_b,int, Bicycle LOS Score for Intersection	2.173				2.149				2.090				2.286			
Bicycle LOS	B				B				B				B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	21.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.520

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	82	0	667	780	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	106	0	61	0	136
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	188	0	728	780	245
Peak Hour Factor	1.0000	0.8270	1.0000	0.8270	0.8270	0.8270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	57	0	220	236	74
Total Analysis Volume [veh/h]	0	227	0	880	943	296
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.52	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	21.87	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	2.93	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	73.21	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	21.87		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	2.12					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	33.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.645

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	0	0	0	0	7	7	0	8	0	0	0	7	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	135	268	55	78	183	84	10	141	983	204	44	36	510	156
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.924	0.924	0.924	0.924	0.924	0.924	0.924	0.924
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	37	73	15	21	50	23	3	38	266	55	12	10	138	42
Total Analysis Volume [veh/h]	146	290	60	84	198	91	11	153	1064	221	48	39	552	169
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	14	30	0	14	30	0	0	33	46	0	0	10	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	39	39	6	35	35	11	33	33	6	28	28
g / C, Green / Cycle	0.10	0.39	0.39	0.06	0.35	0.35	0.11	0.33	0.33	0.06	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.08	0.15	0.04	0.05	0.10	0.06	0.09	0.29	0.14	0.05	0.15	0.10
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1808	3618	1615	1794	3618	1615
c, Capacity [veh/h]	178	733	623	110	662	562	202	1204	537	109	1020	456
d1, Uniform Delay [s]	44.27	22.29	19.61	46.31	23.75	22.54	43.47	31.59	25.83	46.41	30.46	28.83
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.93	1.60	0.31	10.38	1.16	0.62	7.71	2.36	0.50	12.33	0.45	0.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.40	0.10	0.76	0.30	0.16	0.81	0.88	0.41	0.80	0.54	0.37
d, Delay for Lane Group [s/veh]	53.19	23.89	19.92	56.69	24.90	23.16	51.18	33.94	26.33	58.74	30.90	29.33
Lane Group LOS	D	C	B	E	C	C	D	C	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.89	5.02	0.91	2.32	3.47	1.52	4.25	11.69	3.91	2.52	5.70	3.33
50th-Percentile Queue Length [ft/ln]	97.34	125.42	22.69	58.11	86.86	37.99	106.14	292.21	97.81	62.97	142.46	83.23
95th-Percentile Queue Length [veh/ln]	7.01	8.69	1.63	4.18	6.25	2.73	7.62	17.30	7.04	4.53	9.61	5.99
95th-Percentile Queue Length [ft/ln]	175.22	217.26	40.84	104.59	156.36	68.37	190.62	432.38	176.05	113.35	240.33	149.81

Movement, Approach, & Intersection Results

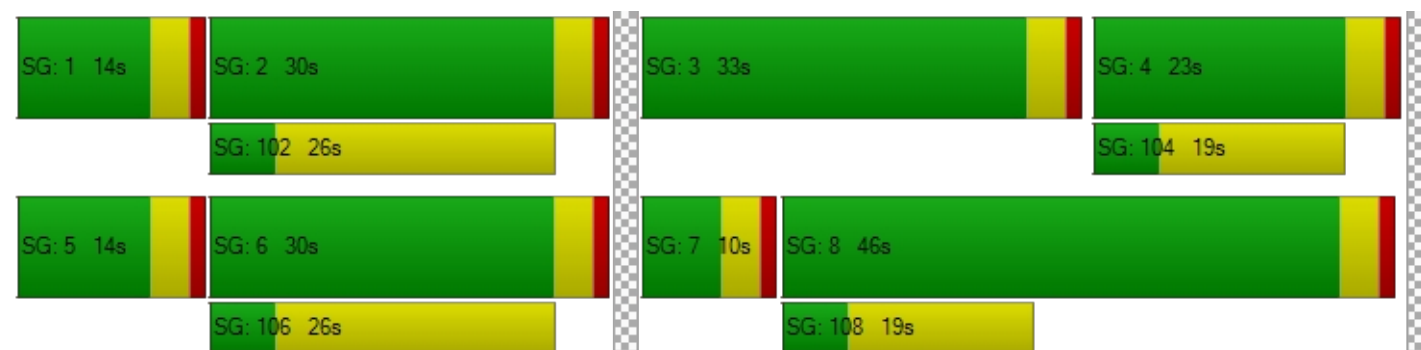
d_M, Delay for Movement [s/veh]	53.19	23.89	19.92	56.69	24.90	23.16	51.18	51.18	33.94	26.33	58.74	58.74	30.90	29.33
Movement LOS	D	C	B	E	C	C	D	D	C	C	E	E	C	C
d_A, Approach Delay [s/veh]	32.03			31.64			34.73			33.57				
Approach LOS	C			C			C			C				
d_I, Intersection Delay [s/veh]	33.64													
Intersection LOS	C													
Intersection V/C	0.645													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0				
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00				
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00				
d_p, Pedestrian Delay [s]	41.44			41.44			41.44			41.44				
I_p,int, Pedestrian LOS Score for Intersection	2.448			2.458			3.005			2.733				
Crosswalk LOS	B			B			C			B				
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000				
c_b, Capacity of the bicycle lane [bicycles/h]	520			520			839			380				
d_b, Bicycle Delay [s]	27.41			27.41			16.85			32.84				
I_b,int, Bicycle LOS Score for Intersection	2.378			2.175			2.629			2.194				
Bicycle LOS	B			B			B			B				

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	38.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.732

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	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
Proportion of CAVs [%]	0.00															
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	7	0	8	8	9	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	63	454	1136	228	47	219	651	115	1	175	994	264	25	118	504	94
Peak Hour Factor	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	16	118	295	59	12	57	169	30	0	45	258	69	6	31	131	24
Total Analysis Volume [veh/h]	65	471	1180	237	49	227	676	119	1	182	1032	274	26	123	523	98
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	26	44	0	0	15	33	0	0	16	51	0	0	10	45	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No			No				No				No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	49	49	11	40	40	8	38	38	6	36	36
g / C, Green / Cycle	0.17	0.41	0.41	0.09	0.33	0.33	0.07	0.32	0.32	0.05	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.15	0.23	0.15	0.08	0.13	0.07	0.05	0.29	0.17	0.04	0.14	0.06
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	597	2104	657	324	1702	531	245	1148	512	178	1079	482
d1, Uniform Delay [s]	48.81	27.39	24.78	53.68	31.10	29.19	54.82	39.16	33.70	56.49	34.55	31.46
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.15	1.09	1.54	6.29	0.69	0.98	4.55	2.85	0.87	9.78	0.34	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.56	0.36	0.85	0.40	0.22	0.75	0.90	0.53	0.84	0.48	0.20
d, Delay for Lane Group [s/veh]	53.97	28.47	26.32	59.97	31.79	30.16	59.37	42.00	34.57	66.26	34.88	31.67
Lane Group LOS	D	C	C	E	C	C	E	D	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	7.98	8.36	4.72	4.25	4.92	2.53	2.81	14.31	6.46	2.45	6.18	2.12
50th-Percentile Queue Length [ft/ln]	199.56	208.89	118.02	106.23	123.11	63.26	70.14	357.69	161.40	61.15	154.48	52.98
95th-Percentile Queue Length [veh/ln]	12.62	13.10	8.28	7.63	8.56	4.55	5.05	20.51	10.62	4.40	10.26	3.81
95th-Percentile Queue Length [ft/ln]	315.40	327.41	207.10	190.75	214.09	113.87	126.26	512.78	265.58	110.06	256.39	95.36

Movement, Approach, & Intersection Results

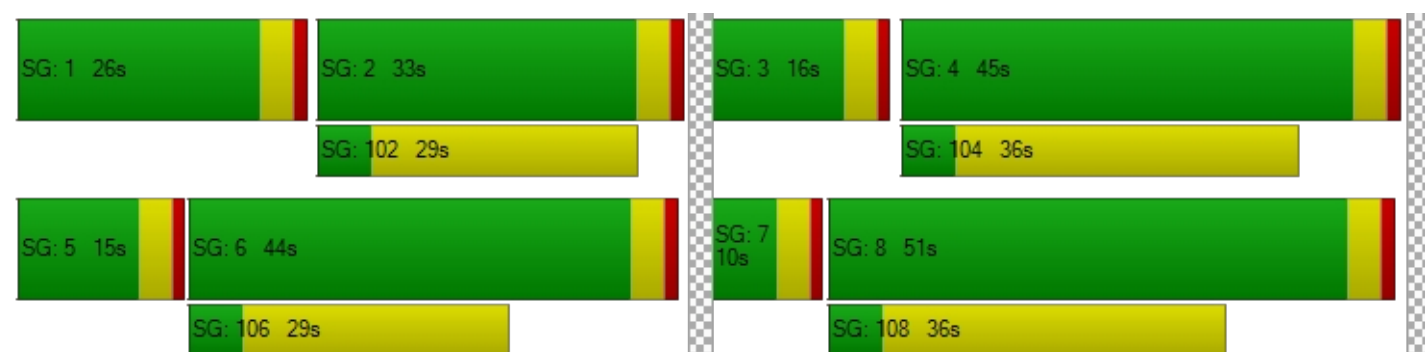
d_M, Delay for Movement [s/veh]	53.97	53.97	28.47	26.32	59.97	59.97	31.79	30.16	59.37	59.37	42.00	34.57	66.26	66.26	34.88	31.67
Movement LOS	D	D	C	C	E	E	C	C	E	E	D	C	E	E	C	C
d_A, Approach Delay [s/veh]	35.21				38.88				42.77				40.55			
Approach LOS	D				D				D				D			
d_I, Intersection Delay [s/veh]	38.86															
Intersection LOS	D															
Intersection V/C	0.732															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0				9.0				9.0				9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
d_p, Pedestrian Delay [s]	51.35				51.35				51.35				51.35			
I_p,int, Pedestrian LOS Score for Intersection	3.411				3.321				3.153				3.030			
Crosswalk LOS	C				C				C				C			
s_b, Saturation Flow Rate of the bicycle lane	2000				2000				2000				2000			
c_b, Capacity of the bicycle lane [bicycles/h]	666				483				783				683			
d_b, Bicycle Delay [s]	26.68				34.52				22.22				26.02			
I_b,int, Bicycle LOS Score for Intersection	2.375				2.024				2.638				2.173			
Bicycle LOS	B				B				B				B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.066

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	5	0	1298	719	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	33	0	15	0	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	38	0	1313	719	30
Peak Hour Factor	1.0000	0.9490	1.0000	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	0	346	189	8
Total Analysis Volume [veh/h]	0	40	0	1384	758	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	11.32	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.21	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	5.25	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.32		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.20					
Intersection LOS	B					

NEAR-TERM TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	36.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.1487	1.1487	1.1487	1.1487	1.1487	1.1487	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	37	0	0	4	4	34	34	0	30	0	0	0	45	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	166	366	77	82	316	159	35	160	514	145	28	111	704	224
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.887	0.887	0.887	0.887	0.887	0.887	0.887	0.887
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	47	103	22	23	89	45	10	45	145	41	8	31	198	63
Total Analysis Volume [veh/h]	187	413	87	92	356	179	39	180	579	163	32	125	794	253
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	16	30	0	16	30	0	0	19	23	0	0	31	35	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	38	38	7	33	33	14	29	29	11	25	25
g / C, Green / Cycle	0.12	0.38	0.38	0.07	0.33	0.33	0.14	0.29	0.29	0.11	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.10	0.22	0.05	0.05	0.19	0.11	0.12	0.16	0.10	0.09	0.22	0.16
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1804	3618	1615	1804	3618	1615
c, Capacity [veh/h]	218	724	615	120	621	528	253	1032	461	194	915	408
d1, Uniform Delay [s]	43.19	24.52	20.28	45.99	27.93	25.53	42.14	30.44	28.44	43.68	35.80	33.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.36	3.25	0.48	9.79	3.82	1.74	8.71	0.48	0.46	7.78	2.67	1.54
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.57	0.14	0.77	0.57	0.34	0.87	0.56	0.35	0.81	0.87	0.62
d, Delay for Lane Group [s/veh]	52.55	27.77	20.76	55.78	31.76	27.27	50.85	30.92	28.90	51.46	38.47	34.67
Lane Group LOS	D	C	C	E	C	C	D	C	C	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	4.97	7.96	1.36	2.52	7.39	3.35	5.68	5.69	3.01	4.23	9.55	5.61
50th-Percentile Queue Length [ft/ln]	124.27	198.96	33.88	62.99	184.69	83.68	142.10	142.19	75.36	105.76	238.79	140.19
95th-Percentile Queue Length [veh/ln]	8.63	12.58	2.44	4.54	11.85	6.02	9.59	9.60	5.43	7.60	14.62	9.49
95th-Percentile Queue Length [ft/ln]	215.68	314.62	60.98	113.39	296.13	150.62	239.85	239.97	135.65	190.09	365.51	237.29

Movement, Approach, & Intersection Results

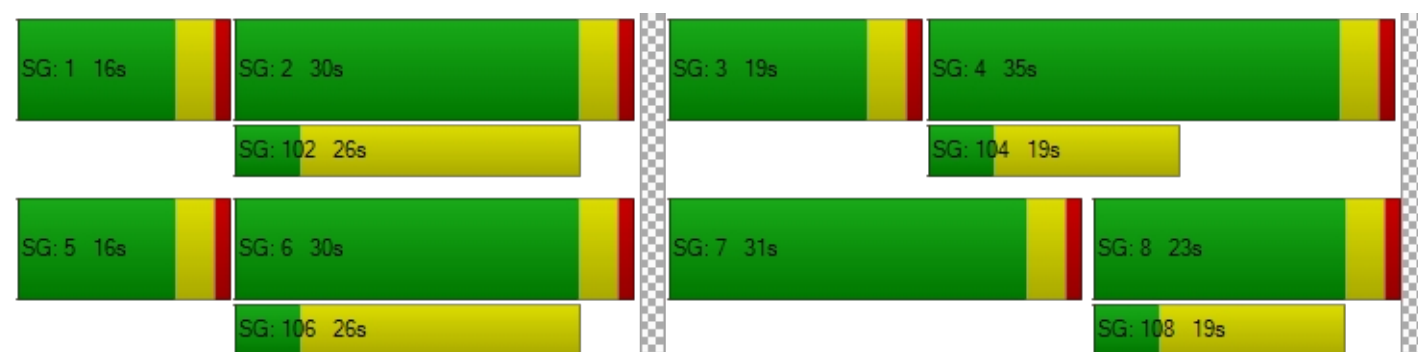
d_M, Delay for Movement [s/veh]	52.55	27.77	20.76	55.78	31.76	27.27	50.85	50.85	30.92	28.90	51.46	51.46	38.47	34.67
Movement LOS	D	C	C	E	C	C	D	D	C	C	D	D	D	C
d_A, Approach Delay [s/veh]	33.62			34.00			35.12			39.37				
Approach LOS	C			C			D			D				
d_I, Intersection Delay [s/veh]	36.09													
Intersection LOS	D													
Intersection V/C	0.752													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0				
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00				
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00				
d_p, Pedestrian Delay [s]	41.44			41.44			41.44			41.44				
I_p,int, Pedestrian LOS Score for Intersection	2.570			2.616			2.977			2.725				
Crosswalk LOS	B			B			C			B				
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000				
c_b, Capacity of the bicycle lane [bicycles/h]	520			520			380			620				
d_b, Bicycle Delay [s]	27.41			27.41			32.84			23.84				
I_b,int, Bicycle LOS Score for Intersection	2.693			2.594			2.204			2.450				
Bicycle LOS	B			B			B			B				

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	36.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.689

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	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
Proportion of CAVs [%]	0.00															
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	17	1	0	0	4	0	0	3	36	0	27	29	31	33
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	77	439	976	177	8	170	990	171	1	152	454	240	35	134	663	162
Peak Hour Factor	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	20	116	258	47	2	45	262	45	0	40	120	63	9	35	175	43
Total Analysis Volume [veh/h]	81	464	1032	187	8	180	1047	181	1	161	480	254	37	142	701	171
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	33	52	0	0	14	33	0	0	11	42	0	0	12	43	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No			No				No				No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21	62	62	8	49	49	7	26	26	8	27	27
g / C, Green / Cycle	0.18	0.52	0.52	0.07	0.41	0.41	0.06	0.21	0.21	0.07	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.16	0.20	0.12	0.05	0.20	0.11	0.05	0.13	0.16	0.05	0.19	0.11
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	624	2673	834	247	2117	661	208	770	344	236	799	357
d1, Uniform Delay [s]	48.04	17.53	15.88	54.81	26.28	23.61	55.72	42.90	44.15	55.04	45.20	40.76
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.00	0.42	0.62	4.77	0.83	1.02	6.27	0.83	3.13	4.93	3.28	1.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.39	0.22	0.76	0.49	0.27	0.78	0.62	0.74	0.76	0.88	0.48
d, Delay for Lane Group [s/veh]	52.04	17.96	16.50	59.58	27.10	24.63	61.99	43.73	47.28	59.97	48.48	41.75
Lane Group LOS	D	B	B	E	C	C	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.97	5.39	2.75	2.87	7.11	3.43	2.54	6.37	7.14	2.78	10.21	4.43
50th-Percentile Queue Length [ft/ln]	199.20	134.83	68.68	71.66	177.86	85.68	63.58	159.18	178.42	69.52	255.19	110.73
95th-Percentile Queue Length [veh/ln]	12.60	9.20	4.95	5.16	11.49	6.17	4.58	10.51	11.52	5.01	15.45	7.88
95th-Percentile Queue Length [ft/ln]	314.93	230.04	123.63	128.99	287.22	154.22	114.44	262.64	287.95	125.14	386.18	197.02

Movement, Approach, & Intersection Results

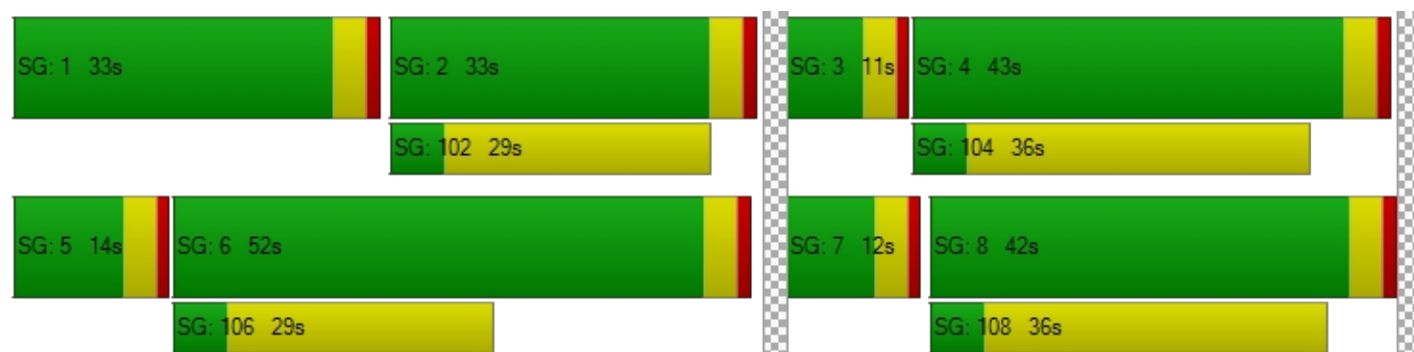
d_M, Delay for Movement [s/veh]	52.04	52.04	17.96	16.50	59.58	59.58	27.10	24.63	61.99	61.99	43.73	47.28	59.97	59.97	48.48	41.75
Movement LOS	D	D	B	B	E	E	C	C	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	28.33				31.10				48.04				49.34			
Approach LOS	C				C				D				D			
d_I, Intersection Delay [s/veh]	36.85															
Intersection LOS	D															
Intersection V/C	0.689															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0				9.0				9.0				9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
d_p, Pedestrian Delay [s]	51.35				51.35				51.35				51.35			
I_p,int, Pedestrian LOS Score for Intersection	3.444				3.366				3.078				2.962			
Crosswalk LOS	C				C				C				C			
s_b, Saturation Flow Rate of the bicycle lane	2000				2000				2000				2000			
c_b, Capacity of the bicycle lane [bicycles/h]	800				483				633				650			
d_b, Bicycle Delay [s]	21.61				34.52				28.03				27.35			
I_b,int, Bicycle LOS Score for Intersection	2.275				2.239				2.166				2.396			
Bicycle LOS	B				B				B				B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	29.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.634

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↱		⇕		⇕↲	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	82	0	667	780	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.1487	1.1487	1.1487	1.1487	1.1487	1.1487
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	106	0	64	14	136
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	200	0	830	910	261
Peak Hour Factor	1.0000	0.8270	1.0000	0.8270	0.8270	0.8270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	60	0	251	275	79
Total Analysis Volume [veh/h]	0	242	0	1004	1100	316
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.63	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	29.40	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	4.19	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	104.75	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	29.40		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	2.67					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	38.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.724

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.1487	1.1487	1.1487	1.1487	1.1487	1.1487	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	0	4	4	7	7	0	17	0	0	0	17	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	308	63	94	214	95	10	162	1137	234	51	41	595	179
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.924	0.924	0.924	0.924	0.924	0.924	0.924	0.924
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	43	83	17	25	58	26	3	44	308	63	14	11	161	48
Total Analysis Volume [veh/h]	172	333	68	102	232	103	11	175	1231	253	55	44	644	194
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	17	30	0	17	30	0	0	50	61	0	0	12	23	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	42	42	9	37	37	15	45	45	8	39	39
g / C, Green / Cycle	0.11	0.35	0.35	0.07	0.31	0.31	0.12	0.38	0.38	0.07	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.10	0.18	0.04	0.06	0.12	0.06	0.10	0.34	0.16	0.06	0.18	0.12
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1808	3618	1615	1794	3618	1615
c, Capacity [veh/h]	198	663	563	129	591	502	219	1369	611	122	1176	525
d1, Uniform Delay [s]	52.65	30.89	26.60	54.87	32.48	30.46	51.68	35.17	27.51	55.22	33.28	31.09
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.02	2.71	0.44	10.10	1.96	0.92	8.73	2.40	0.45	12.01	0.40	0.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.50	0.12	0.79	0.39	0.21	0.85	0.90	0.41	0.81	0.55	0.37
d, Delay for Lane Group [s/veh]	63.68	33.60	27.03	64.97	34.44	31.38	60.41	37.57	27.96	67.23	33.68	31.52
Lane Group LOS	E	C	C	E	C	C	E	D	C	E	C	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.62	7.91	1.37	3.35	5.51	2.29	5.87	16.46	5.22	3.39	7.84	4.44
50th-Percentile Queue Length [ft/ln]	140.51	197.73	34.29	83.79	137.63	57.17	146.78	411.45	130.53	84.69	196.01	110.98
95th-Percentile Queue Length [veh/ln]	9.51	12.52	2.47	6.03	9.35	4.12	9.84	23.11	8.97	6.10	12.43	7.89
95th-Percentile Queue Length [ft/ln]	237.71	313.04	61.71	150.82	233.83	102.91	246.12	577.78	224.22	152.45	310.81	197.37

Movement, Approach, & Intersection Results

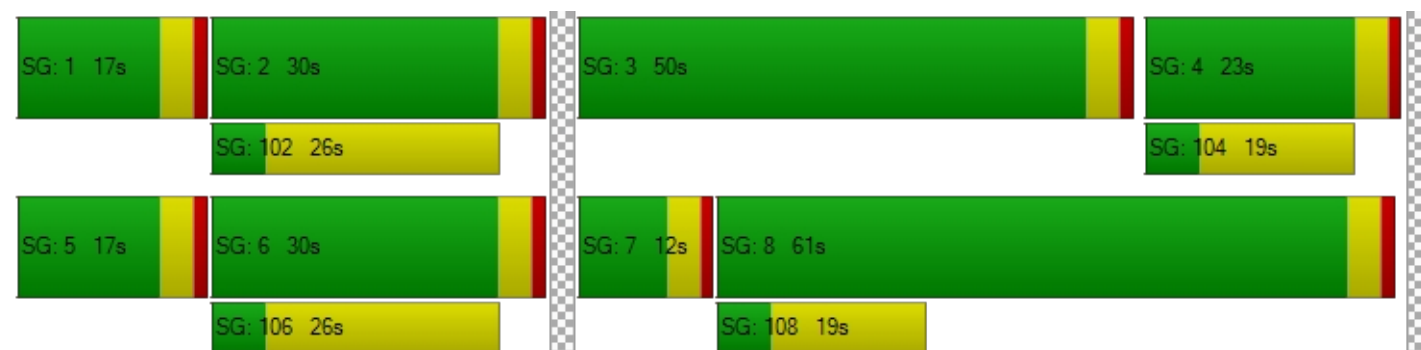
d_M, Delay for Movement [s/veh]	63.68	33.60	27.03	64.97	34.44	31.38	60.41	60.41	37.57	27.96	67.23	67.23	33.68	31.52
Movement LOS	E	C	C	E	C	C	E	E	D	C	E	E	C	C
d_A, Approach Delay [s/veh]	41.85			40.84			38.66			36.78				
Approach LOS	D			D			D			D				
d_I, Intersection Delay [s/veh]	38.94													
Intersection LOS	D													
Intersection V/C	0.724													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.37	51.37	51.37	51.37
I_p,int, Pedestrian LOS Score for Intersection	2.504	2.517	3.099	2.785
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	433	433	950	317
d_b, Bicycle Delay [s]	36.85	36.85	16.56	42.53
I_b,int, Bicycle LOS Score for Intersection	2.505	2.281	2.793	2.296
Bicycle LOS	B	B	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	49.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.822

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	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
Proportion of CAVs [%]	0.00															
Growth Factor	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148	1.148
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	23	2	0	0	4	0	0	5	14	0	8	9	13	18
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	522	1328	264	54	252	752	132	1	206	1148	303	28	135	582	117
Peak Hour Factor	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	19	136	345	69	14	65	195	34	0	53	298	79	7	35	151	30
Total Analysis Volume [veh/h]	75	542	1379	274	56	262	781	137	1	214	1192	315	29	140	604	121
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	150
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	37	50	0	0	20	33	0	0	19	67	0	0	13	61	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No			No				No				No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	150	150	150	150	150	150	150	150	150	150	150	150
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	56	56	15	42	42	11	54	54	9	52	52
g / C, Green / Cycle	0.19	0.37	0.37	0.10	0.28	0.28	0.08	0.36	0.36	0.06	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.18	0.27	0.17	0.09	0.15	0.08	0.06	0.33	0.20	0.05	0.17	0.07
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	674	1922	600	362	1462	456	264	1297	579	212	1244	555
d1, Uniform Delay [s]	59.40	40.39	35.69	66.33	45.46	42.18	68.33	46.00	38.32	69.57	38.75	34.90
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.44	2.33	2.50	6.89	1.40	1.68	6.06	3.12	0.80	6.77	0.29	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.72	0.46	0.88	0.53	0.30	0.82	0.92	0.54	0.80	0.49	0.22
d, Delay for Lane Group [s/veh]	64.85	42.73	38.18	73.22	46.86	43.86	74.40	49.12	39.11	76.34	39.05	35.09
Lane Group LOS	E	D	D	E	D	D	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	11.69	14.45	7.81	6.22	8.19	4.12	4.23	21.14	9.19	3.38	8.75	3.17
50th-Percentile Queue Length [ft/ln]	292.22	361.31	195.20	155.41	204.83	103.03	105.67	528.41	229.65	84.47	218.73	79.21
95th-Percentile Queue Length [veh/ln]	17.30	20.69	12.39	10.31	12.89	7.42	7.60	28.68	14.16	6.08	13.60	5.70
95th-Percentile Queue Length [ft/ln]	432.40	517.17	309.77	257.64	322.19	185.45	189.96	716.90	353.91	152.04	340.00	142.58

Movement, Approach, & Intersection Results

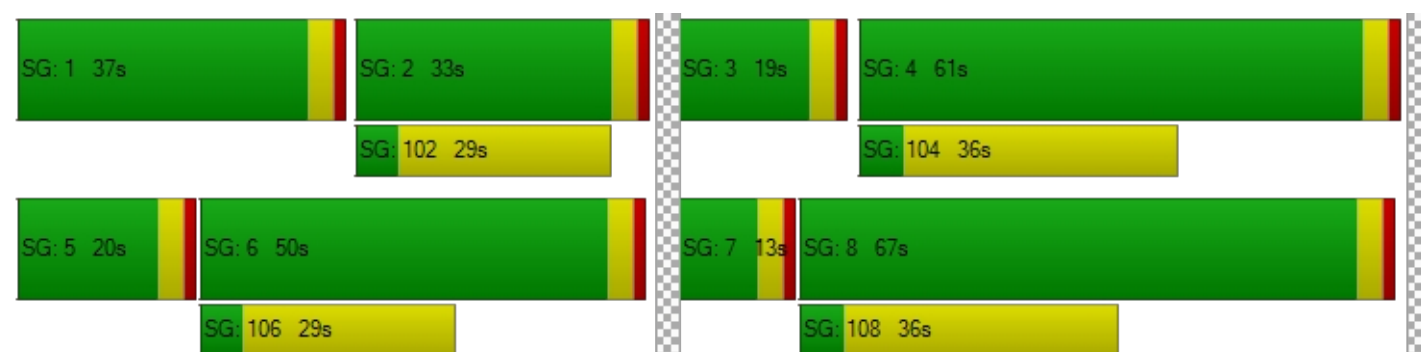
d_M, Delay for Movement [s/veh]	64.85	64.85	42.73	38.18	73.22	73.22	46.86	43.86	74.40	74.40	49.12	39.11	76.34	76.34	39.05	35.09
Movement LOS	E	E	D	D	E	E	D	D	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	48.19				53.31				50.45				45.56			
Approach LOS	D				D				D				D			
d_I, Intersection Delay [s/veh]	49.48															
Intersection LOS	D															
Intersection V/C	0.822															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0				9.0				9.0				9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
d_p, Pedestrian Delay [s]	66.26				66.26				66.26				66.26			
I_p,int, Pedestrian LOS Score for Intersection	3.508				3.407				3.247				3.106			
Crosswalk LOS	D				C				C				C			
s_b, Saturation Flow Rate of the bicycle lane	2000				2000				2000				2000			
c_b, Capacity of the bicycle lane [bicycles/h]	613				387				840				760			
d_b, Bicycle Delay [s]	36.05				48.80				25.22				28.82			
I_b,int, Bicycle LOS Score for Intersection	2.510				2.095				2.804				2.273			
Bicycle LOS	B				B				C				B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.074

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	5	0	1298	719	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.1487	1.1487	1.1487	1.1487	1.1487	1.1487
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	33	0	24	15	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	39	0	1515	841	30
Peak Hour Factor	1.0000	0.9490	1.0000	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	0	399	222	8
Total Analysis Volume [veh/h]	0	41	0	1596	886	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.07	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	12.01	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.24	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	5.97	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.01		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.19					
Intersection LOS	B					

LONG-TERM TRAFFIC CONDITIONS

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	39.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.770

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	112	319	67	68	272	109	1	139	421	126	24	97	574	195
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.2022	1.2022	1.2022	1.2022	1.2022	1.2022	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	37	0	0	4	4	34	34	0	30	0	0	0	45	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	172	384	81	86	331	165	35	167	536	151	29	117	735	234
Peak Hour Factor	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870	0.887	0.887	0.887	0.887	0.887	0.887	0.887	0.887
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	48	108	23	24	93	47	10	47	151	43	8	33	207	66
Total Analysis Volume [veh/h]	194	433	91	97	373	186	39	188	604	170	33	132	829	264
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	18	35	0	13	30	0	0	24	23	0	0	39	38	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	42	42	7	36	36	16	32	32	12	29	29
g / C, Green / Cycle	0.12	0.38	0.38	0.07	0.33	0.33	0.14	0.30	0.30	0.11	0.26	0.26
(v / s)_i Volume / Saturation Flow Rate	0.11	0.23	0.06	0.05	0.20	0.12	0.13	0.17	0.11	0.09	0.23	0.16
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1805	3618	1615	1804	3618	1615
c, Capacity [veh/h]	224	722	614	124	617	524	260	1068	477	200	949	424
d1, Uniform Delay [s]	47.32	27.39	22.41	50.49	31.25	28.39	46.16	32.81	30.55	47.91	38.86	35.81
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.58	3.65	0.51	10.36	4.36	1.88	9.01	0.47	0.45	8.31	2.70	1.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.86	0.60	0.15	0.78	0.60	0.35	0.87	0.57	0.36	0.83	0.87	0.62
d, Delay for Lane Group [s/veh]	56.90	31.05	22.92	60.85	35.62	30.26	55.17	33.29	31.00	56.22	41.56	37.31
Lane Group LOS	E	C	C	E	D	C	E	C	C	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.69	9.47	1.59	2.93	8.77	3.91	6.52	6.59	3.48	4.92	11.05	6.46
50th-Percentile Queue Length [ft/ln]	142.33	236.84	39.75	73.35	219.28	97.69	163.07	164.71	86.90	122.93	276.37	161.40
95th-Percentile Queue Length [veh/ln]	9.61	14.52	2.86	5.28	13.63	7.03	10.71	10.80	6.26	8.55	16.51	10.62
95th-Percentile Queue Length [ft/ln]	240.15	363.03	71.54	132.03	340.71	175.84	267.78	269.95	156.42	213.84	412.69	265.58

Movement, Approach, & Intersection Results

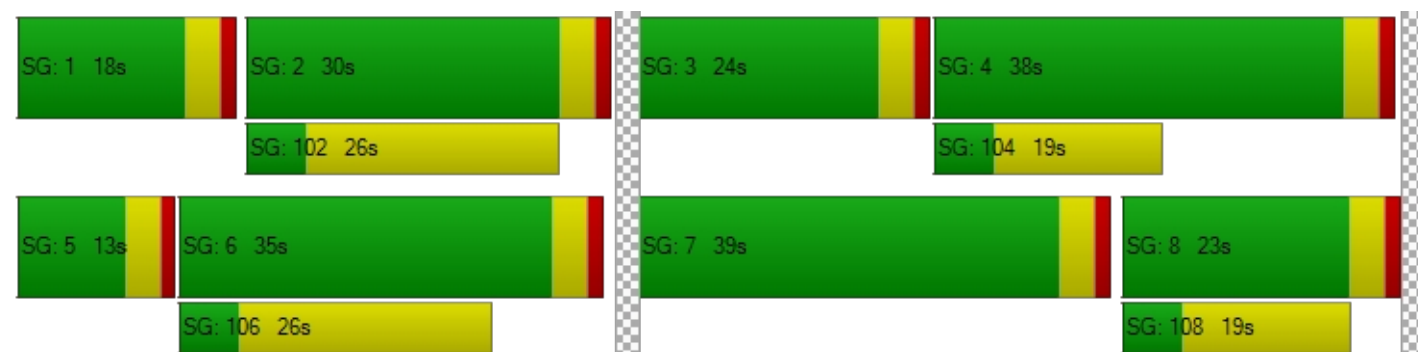
d_M, Delay for Movement [s/veh]	56.90	31.05	22.92	60.85	35.62	30.26	55.17	55.17	33.29	31.00	56.22	56.22	41.56	37.31
Movement LOS	E	C	C	E	D	C	E	E	C	C	E	E	D	D
d_A, Approach Delay [s/veh]	37.00			37.83			37.86			42.59				
Approach LOS	D			D			D			D				
d_I, Intersection Delay [s/veh]	39.32													
Intersection LOS	D													
Intersection V/C	0.770													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00			
d_p, Pedestrian Delay [s]	46.39			46.39			46.39			46.39			
I_p,int, Pedestrian LOS Score for Intersection	2.595			2.643			3.003			2.742			
Crosswalk LOS	B			B			C			B			
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000			
c_b, Capacity of the bicycle lane [bicycles/h]	563			473			345			618			
d_b, Bicycle Delay [s]	28.39			32.10			37.67			26.28			
I_b,int, Bicycle LOS Score for Intersection	2.744			2.642			2.230			2.489			
Bicycle LOS	B			B			B			B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	37.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.720

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	150.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	67	382	835	153	7	148	858	149	1	130	364	209	7	91	550	112
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	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
Proportion of CAVs [%]	0.00															
Growth Factor	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	17	1	0	0	4	0	0	3	36	0	27	29	31	33
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	81	459	1021	185	8	178	1035	179	1	159	474	251	35	138	692	168
Peak Hour Factor	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	21	121	270	49	2	47	274	47	0	42	125	66	9	36	183	44
Total Analysis Volume [veh/h]	86	485	1079	196	8	188	1094	189	1	168	501	265	37	146	732	178
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	31	54	0	0	13	36	0	0	12	41	0	0	12	41	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No			No				No				No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	60	60	9	47	47	8	27	27	8	27	27
g / C, Green / Cycle	0.18	0.50	0.50	0.07	0.39	0.39	0.06	0.23	0.23	0.07	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.16	0.21	0.12	0.06	0.21	0.12	0.05	0.14	0.16	0.05	0.20	0.11
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	646	2588	807	256	2012	628	229	818	365	239	828	370
d1, Uniform Delay [s]	47.76	18.97	17.09	54.68	28.45	25.41	55.14	41.76	43.04	55.03	44.77	40.14
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.12	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.21	0.50	0.71	4.76	1.06	1.23	4.61	0.75	2.95	5.07	3.36	0.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.42	0.24	0.77	0.54	0.30	0.74	0.61	0.73	0.77	0.88	0.48
d, Delay for Lane Group [s/veh]	51.97	19.47	17.81	59.45	29.51	26.64	59.76	42.51	46.00	60.10	48.13	41.11
Lane Group LOS	D	B	B	E	C	C	E	D	D	E	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	8.37	5.96	3.03	2.99	7.86	3.76	2.60	6.55	7.35	2.85	10.65	4.58
50th-Percentile Queue Length [ft/ln]	209.16	148.93	75.65	74.68	196.44	94.01	64.99	163.81	183.77	71.21	266.32	114.40
95th-Percentile Queue Length [veh/ln]	13.11	9.96	5.45	5.38	12.45	6.77	4.68	10.75	11.80	5.13	16.01	8.08
95th-Percentile Queue Length [ft/ln]	327.75	249.00	136.17	134.42	311.37	169.22	116.99	268.76	294.93	128.18	400.14	202.10

Movement, Approach, & Intersection Results

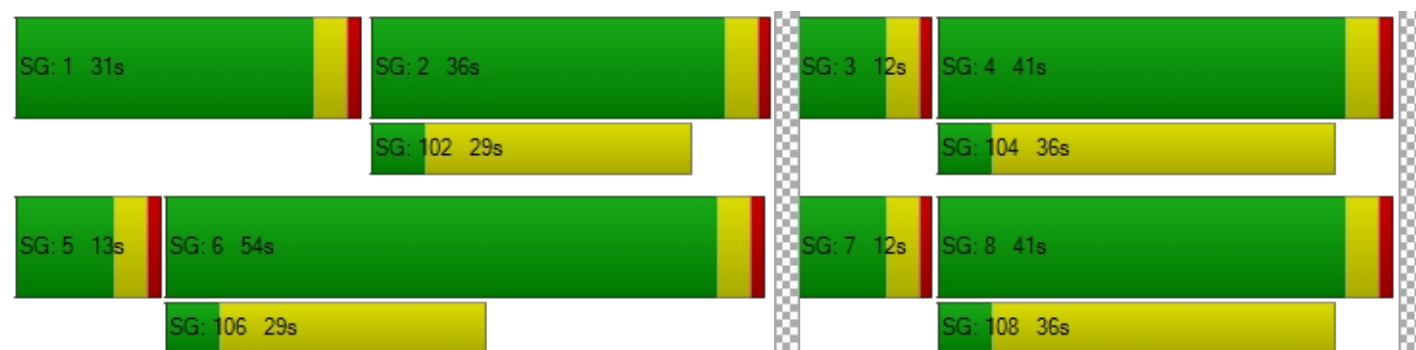
d_M, Delay for Movement [s/veh]	51.97	51.97	19.47	17.81	59.45	59.45	29.51	26.64	59.76	59.76	42.51	46.00	60.10	60.10	48.13	41.11
Movement LOS	D	D	B	B	E	E	C	C	E	E	D	D	E	E	D	D
d_A, Approach Delay [s/veh]	29.35				33.11				46.62				48.99			
Approach LOS	C				C				D				D			
d_I, Intersection Delay [s/veh]	37.42															
Intersection LOS	D															
Intersection V/C	0.720															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0				9.0				9.0				9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
d_p, Pedestrian Delay [s]	51.37				51.37				51.37				51.37			
I_p,int, Pedestrian LOS Score for Intersection	3.470				3.389				3.098				2.977			
Crosswalk LOS	C				C				C				C			
s_b, Saturation Flow Rate of the bicycle lane	2000				2000				2000				2000			
c_b, Capacity of the bicycle lane [bicycles/h]	833				533				616				616			
d_b, Bicycle Delay [s]	20.44				32.30				28.73				28.73			
I_b,int, Bicycle LOS Score for Intersection	2.308				2.270				2.192				2.431			
Bicycle LOS	B				B				B				B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	33.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	82	0	667	780	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.2022	1.2022	1.2022	1.2022	1.2022	1.2022
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	106	0	64	14	136
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	205	0	866	952	267
Peak Hour Factor	1.0000	0.8270	1.0000	0.8270	0.8270	0.8270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	62	0	262	288	81
Total Analysis Volume [veh/h]	0	248	0	1047	1151	323
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.68	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	33.31	0.00	0.00	0.00	0.00
Movement LOS		D		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	4.78	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	119.50	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	33.31		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	2.98					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 1: N Peach Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	41.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.747

Intersection Setup

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Approach	Northbound			Southbound			Eastbound				Westbound			
Lane Configuration														
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	0	1	1	0	0	1
Entry Pocket Length [ft]	150.00	100.00	150.00	150.00	100.00	150.00	240.0	100.0	100.0	200.0	240.0	100.0	100.0	150.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	40.00			40.00			45.00				25.00			
Grade [%]	0.00			0.00			0.00				0.00			
Curb Present	No			No			No				No			
Crosswalk	Yes			Yes			Yes				Yes			

Volumes

Name	North Peach Avenue			North Peach Avenue			West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	128	268	55	78	183	77	3	141	975	204	44	36	503	156
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00													
Growth Factor	1.2022	1.2022	1.2022	1.2022	1.2022	1.2022	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	0	4	4	7	7	0	17	0	0	0	17	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	166	322	66	98	224	100	11	170	1189	245	53	43	622	188
Peak Hour Factor	0.9240	0.9240	0.9240	0.9240	0.9240	0.9240	0.924	0.924	0.924	0.924	0.924	0.924	0.924	0.924
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	45	87	18	27	61	27	3	46	322	66	14	12	168	51
Total Analysis Volume [veh/h]	180	348	71	106	242	108	12	184	1287	265	57	47	673	203
Presence of On-Street Parking	No		No	No		No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0				0			
v_di, Inbound Pedestrian Volume crossing m	0			0			0				0			
v_co, Outbound Pedestrian Volume crossing	0			0			0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0				0			
Bicycle Volume [bicycles/h]	0			0			0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	1	6	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups														
Lead / Lag	Lead	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	19	30	0	19	30	0	0	50	68	0	0	13	31	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	21	0	0	0	14	0	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No				No				No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No			No	No			No	No	
Maximum Recall	No	No		No	No			No	No			No	No	
Pedestrian Recall	No	No		No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	130	130	130	130	130	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	44	44	9	39	39	16	51	51	9	44	44
g / C, Green / Cycle	0.11	0.34	0.34	0.07	0.30	0.30	0.13	0.39	0.39	0.07	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.10	0.18	0.04	0.06	0.13	0.07	0.11	0.36	0.16	0.06	0.19	0.13
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1808	3618	1615	1794	3618	1615
c, Capacity [veh/h]	206	646	549	132	569	483	227	1423	635	126	1225	547
d1, Uniform Delay [s]	56.70	34.67	29.63	59.35	36.59	34.22	55.79	37.13	28.62	59.64	34.95	32.54
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.95	3.20	0.49	10.63	2.33	1.07	9.50	2.44	0.44	12.39	0.39	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.54	0.13	0.80	0.43	0.22	0.86	0.90	0.42	0.82	0.55	0.37
d, Delay for Lane Group [s/veh]	67.65	37.88	30.11	69.98	38.92	35.29	65.29	39.57	29.06	72.03	35.34	32.96
Lane Group LOS	E	D	C	E	D	D	E	D	C	E	D	C
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.36	9.30	1.59	3.79	6.46	2.68	6.76	18.79	5.89	3.85	8.84	4.99
50th-Percentile Queue Length [ft/ln]	158.98	232.48	39.87	94.66	161.41	67.12	169.01	469.66	147.16	96.26	221.06	124.82
95th-Percentile Queue Length [veh/ln]	10.49	14.30	2.87	6.82	10.62	4.83	11.02	25.89	9.87	6.93	13.72	8.66
95th-Percentile Queue Length [ft/ln]	262.37	357.50	71.77	170.38	265.59	120.82	275.61	647.37	246.64	173.26	342.97	216.44

Movement, Approach, & Intersection Results

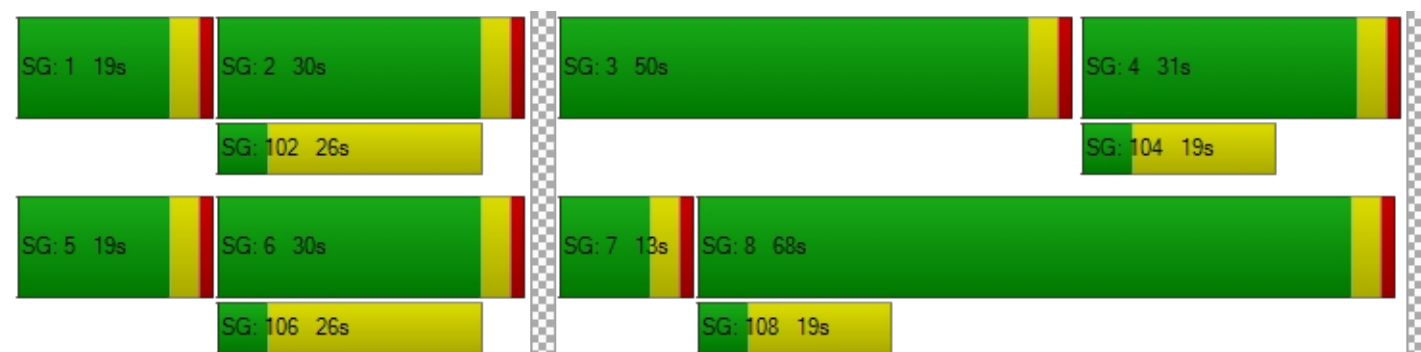
d_M, Delay for Movement [s/veh]	67.65	37.88	30.11	69.98	38.92	35.29	65.29	65.29	39.57	29.06	72.03	72.03	35.34	32.96
Movement LOS	E	D	C	E	D	D	E	E	D	C	E	E	D	C
d_A, Approach Delay [s/veh]	45.90			45.28			40.86			38.74				
Approach LOS	D			D			D			D				
d_I, Intersection Delay [s/veh]	41.64													
Intersection LOS	D													
Intersection V/C	0.747													

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00			
d_p, Pedestrian Delay [s]	56.32			56.32			56.32			56.32			
I_p,int, Pedestrian LOS Score for Intersection	2.525			2.537			3.132			2.803			
Crosswalk LOS	B			B			C			C			
s_b, Saturation Flow Rate of the bicycle lane	2000			2000			2000			2000			
c_b, Capacity of the bicycle lane [bicycles/h]	400			400			984			415			
d_b, Bicycle Delay [s]	41.61			41.61			16.76			40.82			
I_b,int, Bicycle LOS Score for Intersection	2.548			2.312			2.850			2.329			
Bicycle LOS	B			B			C			B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: N Willow Ave/W Nees Ave

Control Type:	Signalized	Delay (sec / veh):	53.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.853

Intersection Setup

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Approach	Northbound				Southbound				Eastbound				Westbound			
Lane Configuration																
Turning Movement	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right	U-tu	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	1
Entry Pocket Length [ft]	245.0	100.0	100.0	75.00	225.0	100.0	100.0	200.0	240.0	100.0	100.0	100.0	140.0	100.0	100.0	120.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	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
Speed [mph]	50.00				50.00				45.00				40.00			
Grade [%]	0.00				0.00				0.00				0.00			
Curb Present	No				No				No				No			
Crosswalk	Yes				Yes				Yes				Yes			

Volumes

Name	North Willow Avenue				North Willow Avenue				West Nees Avenue				West Nees Avenue			
Base Volume Input [veh/h]	63	454	1136	228	47	219	651	115	1	175	987	264	17	110	495	86
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	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
Proportion of CAVs [%]	0.00															
Growth Factor	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202	1.202
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	23	2	0	0	4	0	0	5	14	0	8	9	13	18
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	546	1389	276	57	263	787	138	1	215	1201	317	28	141	608	121
Peak Hour Factor	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963	0.963
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	20	142	361	72	15	68	204	36	0	56	312	82	7	37	158	31
Total Analysis Volume [veh/h]	79	567	1442	287	59	273	817	143	1	223	1247	329	29	146	631	126
Presence of On-Street Parking	No			No	No			No	No			No	No			No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0				0				0				0			
v_di, Inbound Pedestrian Volume crossing m	0				0				0				0			
v_co, Outbound Pedestrian Volume crossing	0				0				0				0			
v_ci, Inbound Pedestrian Volume crossing mi	0				0				0				0			
v_ab, Corner Pedestrian Volume [ped/h]	0				0				0				0			
Bicycle Volume [bicycles/h]	0				0				0				0			

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	160
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing

Control Type	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi	Permi	Prote	Permi	Permi
Signal Group	0	1	6	0	0	5	2	0	0	3	8	0	0	7	4	0
Auxiliary Signal Groups																
Lead / Lag	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-	-	Lead	-	-
Minimum Green [s]	0	5	10	0	0	5	10	0	0	5	10	0	0	5	10	0
Maximum Green [s]	0	30	30	0	0	30	30	0	0	30	30	0	0	30	30	0
Amber [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	1.0	0.0
Split [s]	0	41	53	0	0	21	33	0	0	17	73	0	0	13	69	0
Vehicle Extension [s]	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	0
Pedestrian Clearance [s]	0	0	24	0	0	0	24	0	0	0	31	0	0	0	31	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk			No			No				No				No		
I1, Start-Up Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	2.0	0.0
Minimum Recall		No	No			No	No			No	No			No	No	
Maximum Recall		No	No			No	No			No	No			No	No	
Pedestrian Recall		No	No			No	No			No	No			No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	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

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	R	L	C	R	L	C	R
C, Cycle Length [s]	160	160	160	160	160	160	160	160	160	160	160	160
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	32	58	58	17	43	43	12	60	60	9	57	57
g / C, Green / Cycle	0.20	0.36	0.36	0.11	0.27	0.27	0.08	0.37	0.37	0.06	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.18	0.28	0.18	0.09	0.16	0.09	0.06	0.34	0.20	0.05	0.17	0.08
s, saturation flow rate [veh/h]	3514	5176	1615	3514	5176	1615	3514	3618	1615	3514	3618	1615
c, Capacity [veh/h]	702	1886	589	372	1400	437	266	1350	603	199	1280	572
d1, Uniform Delay [s]	62.75	44.79	39.29	70.62	50.55	46.70	72.96	47.94	39.45	74.92	40.43	36.21
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.54	3.01	2.88	7.55	1.79	1.99	7.02	3.18	0.77	11.88	0.29	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.76	0.49	0.89	0.58	0.33	0.84	0.92	0.55	0.88	0.49	0.22
d, Delay for Lane Group [s/veh]	68.29	47.80	42.16	78.17	52.33	48.69	79.98	51.13	40.23	86.80	40.73	36.40
Lane Group LOS	E	D	D	E	D	D	E	D	D	F	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	13.11	16.82	9.01	6.98	9.49	4.73	4.75	23.69	10.16	3.88	9.74	3.50
50th-Percentile Queue Length [ft/ln]	327.77	420.60	225.18	174.47	237.32	118.37	118.65	592.29	253.95	97.04	243.62	87.42
95th-Percentile Queue Length [veh/ln]	19.05	23.55	13.93	11.31	14.55	8.30	8.32	31.67	15.38	6.99	14.86	6.29
95th-Percentile Queue Length [ft/ln]	476.22	588.77	348.22	282.79	363.64	207.59	207.98	791.86	384.62	174.68	371.61	157.35

Movement, Approach, & Intersection Results

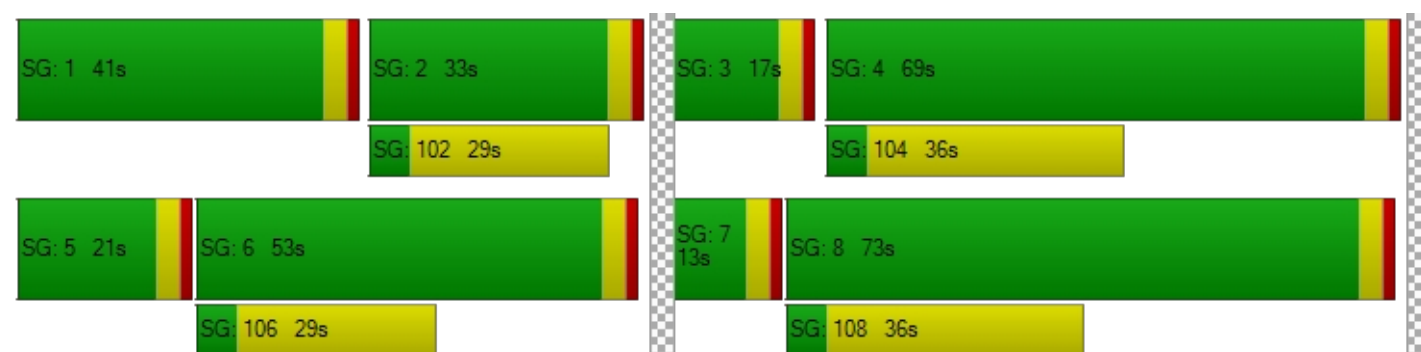
d_M, Delay for Movement [s/veh]	68.29	68.29	47.80	42.16	78.17	78.17	52.33	48.69	79.98	79.98	51.13	40.23	86.80	86.80	40.73	36.40
Movement LOS	E	E	D	D	E	E	D	D	E	E	D	D	F	F	D	D
d_A, Approach Delay [s/veh]	52.69				58.57				52.72				48.80			
Approach LOS	D				E				D				D			
d_I, Intersection Delay [s/veh]	53.32															
Intersection LOS	D															
Intersection V/C	0.853															

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0				9.0				9.0				9.0			
M_corner, Corner Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00				0.00				0.00				0.00			
d_p, Pedestrian Delay [s]	71.24				71.24				71.24				71.24			
I_p,int, Pedestrian LOS Score for Intersection	3.540				3.434				3.279				3.131			
Crosswalk LOS	D				C				C				C			
s_b, Saturation Flow Rate of the bicycle lane	2000				2000				2000				2000			
c_b, Capacity of the bicycle lane [bicycles/h]	613				363				863				813			
d_b, Bicycle Delay [s]	38.49				53.62				25.87				28.19			
I_b,int, Bicycle LOS Score for Intersection	2.554				2.120				2.861				2.305			
Bicycle LOS	B				B				C				B			

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Project Driveway/W Nees Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.076

Intersection Setup

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	10.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Driveway (547 W Nees Ave)		West Nees Avenue		West Nees Avenue	
Base Volume Input [veh/h]	0	5	0	1298	719	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	0.00	0.00	0.00
Growth Factor	1.2022	1.2022	1.2022	1.2022	1.2022	1.2022
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	33	0	24	15	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	39	0	1584	879	30
Peak Hour Factor	1.0000	0.9490	1.0000	0.9490	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	10	0	417	232	8
Total Analysis Volume [veh/h]	0	41	0	1669	926	32
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.08	0.00	0.02	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	12.24	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.25	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	6.16	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.24		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.19					
Intersection LOS	B					



CITY OF CLOVIS

MEMORANDUM

TO: Thad Avery, City Engineer

THROUGH: Fernando Copetti, Supervising City Engineer *FC*

FROM: Gene Abella, Civil Engineer

DATE: June 11, 2024

SUBJECT: Review of the School Signage along Nees Avenue between Willow and Peach Avenues.



REASON FOR THE REVIEW:

Valley Crecent School (547 West Nees Avenue) has approached the City to review existing school signage and determine if modifications are appropriate.

RECOMMENDATIONS:

Nees Avenue Eastbound:

- A. Install 'School Warning Assembly A' signage on Street Light Pole 47080.
- B. Install 'School Speed Limit Assembly C' signage on Street Light Pole 48710.

Nees Avenue Westbound:

- A. Install 'School Warning Assembly A' signage on Street Light Pole 401519.
- B. Relocate existing 'SPEED LIMIT 45' R2-1 from Street Light Pole 49179 to Street Light Pole 407709, immediately east of North Timmy Avenue.
- C. Install 'School Speed Limit Assembly C' signage on Street Light Pole 49180.

North Sylmar Avenue

- A. Install 'School Warning Assembly A' signage at the following locations.
 - 1. On Street Light Pole 49183 at the West Kenosha Avenue intersection.
 - 2. On a new street sign post at the north end of northeast curb return of the West Jordan Avenue intersection.

DISCUSSION:

On November 21, 2023, Fadwa Amireh from Valley Crescent School emailed Sean Smith with the City, about concerns in regard to school signage and student safety at Valley Crescent School.

With Valley Crescent School defined as a K through 8th grade school (regardless of being a private school), the Engineering Division deems the installation of signage for a School Zone and School Speed Limit as appropriate, with guidance from CA MUTCD Part 7. Refer to the attached exhibit.

The School Speed Limit Assembly C (CA) is to be placed at or as near as practical to the beginning of the reduced school speed limit zone. Section 7B.15 Paragraph 19 of the California MUTCD provides the option that this location may be posted up to a maximum distance of 500 feet in advance of the school boundary property. These are to be placed on Street Light Poles 48710 and 49180 on West Nees Avenue.

A School Warning Assembly A (CA) shall be installed in advance of the School Speed Limit Assembly C (CA). Staff determined the appropriate locations to be on Street Light Poles 47080 and 401519 on West Nees Avenue.

In defining the School Zone, the School Warning Assembly A (CA) shall be posted on North Sylmar Avenue, on Pole 49183 at the West Kenosha Avenue knuckle, as well as on a new sign post at the West Jordan Avenue intersection.

To mark the end of the School Speed Limit zone on West Nees Avenue in the westbound direction, the existing westbound speed limit sign (R2-1) shall be relocated from Street Light Pole 49179 to Street Light Pole 407709. Due to the close proximity of Garfield Elementary School, there will be no defined end of the School Speed Limit Zone in the eastbound direction on West Nees Avenue.

It should be noted that with the close proximity of Garfield Elementary, the signage will be compounded between both schools. This will be coordinated in the near future, when addressing a signage request by Garfield Elementary.





CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Planning and Development Services

DATE: March 17, 2025

SUBJECT: Consider Approval - Res. 25-____, A resolution authorizing staff to initiate an application process for soliciting members for the General Plan Advisory Committee as part of the General Plan Update.

Staff: Lily Cha, Senior Planner

Recommendation: Approve

ATTACHMENTS: 1. Res. 25-____,
2. GPAC Memo and Application

RECOMMENDATION

Staff recommends that the City Council approve a resolution authorizing the initiation of the application process to recruit members for the General Plan Advisory Committee as part of the General Plan Update.

EXECUTIVE SUMMARY

On September 16, 2024, the City Council initiated the General Plan Update process by approving a contract with De Novo Planning Group (De Novo) as the selected consultant to assist with the update. As part of the General Plan Update process, the City has committed to establishing a General Plan Advisory Committee (GPAC) to provide input on the General Plan Update. Based on feedback from De Novo, it is recommended that GPAC members be selected through an application process.

BACKGROUND

In May 2022, the City Council authorized an audit of the General Plan, which was conducted by the selected consultant, De Novo. The audit, completed in August 2023, highlighted the need for a comprehensive update to address evolving factors. Staff then initiated the RFP process to solicit qualified consulting firms to assist with the update. After reviewing proposals and conducting interviews in late July 2024, a scoring committee selected De Novo as the preferred consultant. On September 16, 2024, the City Council formally initiated the General Plan Update process by approving a contract with De Novo to assist with the update. The initial phase of work is in process, and the formation of the GPAC is part of this effort.

PROPOSAL AND ANALYSIS

As part of the General Plan Update process, the City has committed to establishing a GPAC to provide input on the General Plan Update. This commitment is outlined in the approved scope of work under Task 3 – Community Participation Program.

The GPAC is a community-based advisory group whose objective is to assist the City with the update of the General Plan. It will serve as one of the primary channels for the community to provide input and make recommendations on the General Plan Update. GPAC membership is temporary, with roles and responsibilities concluding upon City Council adoption of the General Plan. The GPAC's primary responsibilities include:

- Ensuring City staff and the consultant team are aware of and understand the community concerns, values and expectations.
- Assisting City staff and the consultant team in identifying critical issues that should be addressed in the planning process.
- Identifying areas of existing or potential conflicts and find ways to constructively resolve them.
- Leveraging the creative ideas and insights within the Clovis community for input into the General Plan.
- Keeping community organizations and interested citizens informed about the status of the planning process.
- Providing recommendations to the Planning Commission and City Council supporting the General Plan.

GPAC Expectations

It is crucial that individuals interested in joining the GPAC fully understand the commitment and significance of the role and are dedicated to fulfilling it. Serving on the GPAC may require a substantial time investment, and members must be well-informed about the expectations set by both the City and the consultant. GPAC members should be ready to make a complete commitment to this responsibility. In addition to the aforementioned expectations, members can anticipate the following:

- A kickstart meeting in August.
- Monthly meetings, typically occurring between August 2025 and late 2026.
- Primarily in-person evening meetings at a City facility, lasting approximately 2-3 hours.
- Agendas and reading materials provided in advance of each meeting, with members expected to come prepared to discuss the topics on the agenda.
- Meetings facilitated by City staff and the consultant team, with the GPAC working toward consensus. There will be no roll-call votes, and differing viewpoints will be recorded and presented to the City Council.

GPAC Formation

It is important that the City establishes a GPAC that best reflects a broad cross-section of the community, some of which could include residents, neighborhood groups, the business community, civic organizations, community-based organizations, development interests, and resource conservation interests. By ensuring representation from a diverse group, the City can

ensure that a wide range of viewpoints and interests will be considered during the General Plan Update process, resulting in a General Plan that best represents the community's vision for the future. A total of 15 GPAC members will be selected through the application process. Applicants are not required to be residents of Clovis but should have a meaningful connection to the city through business or community involvement.

To achieve balanced representation, applications will be categorized into four main groups with multiple subgroups. Although equal distribution is not guaranteed, selections will be made as evenly as possible across all categories:

1. **Development Community** – Individuals associated with development in Clovis.
 - Residential developers
 - Non-residential developers
2. **Business Community** – Individuals connected with business and business organizations in Clovis.
 - Business owners
 - Business organizations (e.g., Chamber of Commerce, Business Organization of Old Town, Clovis Rotary Club)
3. **Public Organizations** – Individuals involved in groups working to improve the community.
 - Hospitals
 - School district
 - Agencies
4. **Community Service** – Individuals involved in groups working to improve the community.
 - Civic organizations
 - Local historic societies
 - Preservation committees
 - Heritage foundations
 - Museum associations
 - Housing advocacy
 - ADA
5. **At-large** – Resident or member at-large.

Application Process

Based on staff input, the consultant has prepared an application and an accompanying memo outlining the formation process and expectations of the GPAC. The application and memo are provided as **Attachment 2** of this report. The application materials will be available online and can be emailed upon request. Additionally, the call for applications will be promoted through social media outlets, emailed to development and community groups, shared via the General Plan Update list of interested parties, and advertised at events like Trail Fest. Interested individuals must submit a complete application between April 1, 2025, and May 31, 2025, by 4:00 PM. Applications may be submitted via email or in person, with a date and time stamp recorded upon receipt. Late applications will not be accepted.

After the application period closes, staff will review all submissions and make recommendations based on the criteria outlined above, selecting candidates that best align with the City's needs.

The recommended applications will be presented to the City Council in July for final consideration and appointment. The City Council holds the authority to make the final selection of GPAC members.

Youth Commission Participation

The Youth Commission is an important component of Clovis, composed of young people who work in collaboration with the City and officials to ensure that youth have a voice in decision-making processes that impact the community. This platform gives young individuals the chance to advocate for their interests, offers valuable leadership opportunities, and encourages active participation in civic life. The GPAC process is an excellent opportunity for Youth Commission members to get involved and contribute their perspectives.

Although Youth Commission members will not hold official positions on the GPAC, they will participate as representatives and be actively involved in the process. Participants from the Youth Commission will be integrated into the GPAC process, with their involvement likely aligned with their membership cycle in the Youth Commission. It is recommended that one or two Youth Commission members are selected to take part in the GPAC process. The selection process for these members will take place at the Youth Commission level.

FISCAL IMPACT

This effort is part of the broader General Plan Update, which is funded through the City's General Plan Consultant funds. The total contract amount approved for the update is \$2,776,513.

REASON FOR RECOMMENDATION

The City is committed to incorporating a GPAC into the General Plan Update process. To ensure the selection of dedicated members with relevant expertise and diverse experiences and perspectives, staff and the consultant recommend conducting the GPAC selection through an application process.

ACTIONS FOLLOWING APPROVAL

Following approval, staff will begin the application process by advertising and making available the application and relevant information. In July, staff will return to the City Council for final consideration and appointment of GPAC members.

CONFLICT OF INTEREST

None.

Prepared by: Lily Cha, Senior Planner

Reviewed by: City Manager *AA*

RESOLUTION 25-__

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS
AUTHORIZING STAFF TO INITIATE AN APPLICATION PROCESS FOR SOLICITING
MEMBERS FOR THE GENERAL PLAN ADVISORY COMMITTEE AS PART OF THE
GENERAL PLAN UPDATE.**

WHEREAS, on September 16, 2024, the City Council initiated the General Plan Update process by approving a contract with DeNovo Planning Group as the selected consultant to assist with the update; and

WHEREAS, as part of the General Plan Update process, the City has committed to establishing a General Plan Advisory Committee (GPAC) to provide guidance on the General Plan update; and

WHEREAS, the GPAC will be formed through an application process, with staff reviewing submissions and making selection recommendations to the City Council; and

WHEREAS, the City Council will have the final authority in selecting GPAC members.

NOW, THEREFORE, BE IT RESOLVED, that the City of Clovis authorizes staff to initiate an application process for soliciting members for the General Plan Advisory Committee as part of the General Plan Update.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on March 17, 2025, by the following vote, to wit:

AYES:

NOES:

ABSENT:

ABSTAIN:

DATED: March 17, 2025

Mayor

City Clerk

Clovis General Plan Advisory Committee Application

This memo provides information and submittal instructions for persons interested in being appointed to the Clovis General Plan Advisory Committee (GPAC).

Any person interested in serving on the GPAC must complete and submit the attached application form by **Friday, May 30, 2025 at 4:00 p.m.**

Application forms must be signed, and may be submitted via email to: lilyc@clovisca.gov or delivered in-person to the Clovis Planning and Development Services Department at 1033 Fifth Street. In-person applications must be time stamped at the front counter.

Introduction

The City of Clovis has embarked on a multi-year process to update its General Plan. The Clovis General Plan is the City's overarching policy guidance document, and provides direction on a myriad of topics such as land use, housing, transportation, economic development, resource conservation, community health, parks, and open space.

The City of Clovis has hired a professional planning consulting firm, De Novo Planning Group, to assist the City with its General Plan Update. The City Council will also form an ad hoc General Plan Advisory Committee (GPAC) to assist with preparation of the General Plan Update.

The GPAC will serve as one of the primary channels for the community to provide input and make recommendations on the General Plan Update. Participation by members appointed to the GPAC is temporary; the roles and responsibilities of its members will terminate with City Council adoption of the General Plan.

The charge of the GPAC is to:

1. Ensure City staff and the consultant team are aware of and understand community concerns, values and expectations.
2. Assist City staff and the consultant team in identifying critical issues that should be addressed in the planning process.
3. Identify areas of existing or potential conflicts and find ways to constructively resolve them.
4. Capitalize on the creative ideas and insights within the Clovis community for input into the General Plan.
5. Keep community organizations and interested citizens informed about the status of the planning process.
6. Provide recommendations to the Planning Commission and City Council supporting the General Plan.

The City Council intends to form a GPAC that represents a cross-section of the community, including residents and neighborhood groups, the business community, civic organizations, community-based organizations, development interests, and resource conservation interests. By ensuring that these groups are represented on the GPAC, the City of Clovis can be confident that a diverse range of viewpoints and interest areas will be considered as part of the General Plan Update process, ultimately resulting in a contemporary General Plan that best represents the community's vision for the future.

GPAC Formation and Expectations

- 15 GPAC members will be appointed by the City Council, with appointments anticipated to occur in July 2025.
- The GPAC will meet approximately 12 times in total. Meetings will generally occur one time per month, but there may be months when no meetings are held.
- The first GPAC meeting is anticipated to be held in August or September 2025, and meetings will run through late 2026.
- GPAC meetings will primarily be in-person evening meetings at City Hall, and will likely last 2-3 hours.
- GPAC members will be provided agendas and reading materials prior to each meeting, and will be expected to attend all meetings prepared to discuss the topics identified on the agenda. Reading materials for each meeting may be upwards of 50 pages or more, and will include materials from the General Plan Existing Conditions Report, the General Plan Community Outreach Summary Report, and portions of the City's existing General Plan.
- Meetings will be facilitated by City staff and the consultant team, and the GPAC will operate in the spirit of consensus. There will not be roll-call votes, and differing points of view will be recorded and presented to the City Council. The meetings will be structured as roundtable discussions, with defined opportunities for members of the public to provide comments.
- Regardless of the individual background or professional affiliation of a GPAC member, all members will be expected to participate in all meetings, and provide input and feedback on all topics presented to the GPAC for discussion. The City is looking for full participants, not just individuals advocating for, or interested in, a single issue or topic.
- GPAC meetings are generally anticipated to follow the following structure and address the following topics:
 - The first meeting will provide an overview of the GPAC's role, information on requirements for General Plans, a summary of feedback received to-date from the community, and a discussion of high-level goals, priorities, and challenges for the Clovis Community.
 - The following 4-5 meetings will focus primarily on the topic of land use. The GPAC will discuss and provide input on growth patterns, development type, density, land use map changes, and other similar land use-related topics. The intent will be to develop a working draft of the Updated Land Use Map with corresponding designations and densities.
 - The subsequent 4-5 meetings will focus on other topics and issues covered under the General Plan, such as traffic/mobility, economic development, community health and wellness, utilities and public services, etc. Many of these topics overlap with land use, and with each other.
 - The final 2 meetings will provide GPAC members with an opportunity to review and provide input and on the entire Draft General Plan document prior to it being released for public review and comment.
- There will be several community workshops and public meetings held throughout the General Plan Update process, and GPAC members are encouraged to attend as many of these as possible.

AGENDA ITEM NO. 9.



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council

FROM: Planning and Development Services

DATE: March 17, 2025

SUBJECT: Consider Approval - Res. 25-____, A resolution accepting and authorizing the submission of the 2024 General Plan Annual Progress Report, including the 2024 Housing Element Annual Progress Report to the Governor's Office of Land Use and Climate Innovation and the California Department of Housing and Community Development.

Staff: Lily Cha, Senior Planner

Recommendation: Approve

ATTACHMENTS:

1. Resolution 25-____
2. 2024 General Plan Annual Progress Report
3. Assumptions on Affordability

RECOMMENDATION

Staff recommends that the City Council consider approval of a resolution (**Attachment 1**) to accept the 2024 General Plan Annual Progress Report (**Attachment 2**), including the Housing Element Annual Progress Report (APR) (**Appendix A to Attachment 2**), and provide authorization to submit the report to the Governor's Office of Land Use and Climate Innovation (LCI) and the California Department of Housing and Community Development (HCD).

EXECUTIVE SUMMARY

Each year, the City is required to submit an APR on its progress in implementing the General Plan, as mandated by California Government Code Section 65400. A key component of the APR is the Housing Element report, which must follow a format defined by the HCD and include specific data on housing-related efforts. This report includes progress for the 2024 calendar year.

This Housing Element APR documents the City's progress in implementing programs adopted as part of the 2025-2031 Housing Element (Sixth Cycle).

Before submitting the APR, the State requires jurisdictions to present it at a public meeting of the City Council, allowing for both written and oral public comments.

BACKGROUND

The City's current General Plan was adopted by the Clovis City Council on August 25, 2014, along with certification of a Program Environmental Impact Report (PEIR). A comprehensive update to the Development Code was adopted at the same time. The General Plan includes the following elements:

- Land Use;
- Economic Development;
- Circulation;
- Housing;
- Public Facilities and Services;
- Environmental Safety;
- Open Space and Conservation; and
- Air Quality

The City has begun the process of updating the General Plan and is in the early stages, with the goal of adopting the updated plan by the end of 2027.

Housing Element

Every city and county is required by state law to adopt a housing element as a mandatory component of their general plan. The housing element must be updated every eight years and must comply with statutory requirements, including mandatory review by HCD. The City's 2024-2031 Housing Element was adopted on November 4, 2024, and certified by HCD on December 17, 2024. The purpose of the housing element is to assess and address the jurisdiction's housing needs to support the maintenance, improvement and development of housing for all economic segments of the population.

The Sixth Cycle Housing Element Update introduced several new challenges for the City, including the need to accommodate a higher Regional Housing Needs Allocation (RHNA) and comply with new state housing laws, such as Assembly Bill (AB) 686, which mandates a comprehensive fair housing assessment in all housing elements. Additionally, HCD has adopted a more rigorous review process to ensure compliance with housing laws. As a result, the City committed to programs and objectives beyond those of previous cycles. HCD has increased its enforcement and accountability efforts and will now closely monitor progress on these commitments through the APRs more than in previous years.

As required by law, the City must prepare, approve and submit an APR to HCD and the Office of Land Use and Climate Innovation (LCI) by April 1st each year.

General Plan APR Summary

The General Plan APR allows LCI to identify trends in land use decisions and assess their alignment with statewide planning and land use goals. More broadly, these trends can help inform updates to the State's General Plan Guidelines and track a jurisdiction's progress in implementing its General Plan.

The purpose of the General Plan APR is to:

1. Provide local legislative bodies and the public with information regarding implementation of their jurisdiction's General Plan;
2. Inform the public of the progress in meeting community goals;
3. Demonstrate how land use decisions relate to adopted goals, policies and measures of the General Plan; and
4. Provide sufficient information to identify necessary adjustments or modifications to the General Plan to improve implementation.

With the exception of the report on the Housing Element, there are few requirements for specific data to be provided or formats to be utilized in the General Plan APR. The City's 2024 APR is organized into the following sections:

- Section I - Introduction: Briefly describes the requirement for the APR and its purpose.
- Section II - General Plan Implementation Summary: Reports on City's experience with implementing the General Plan in 2024.
- Section III - General Plan Background: Provides a summary of the adoption of the City's General Plan, its structure, and the role of Urban Centers and Specific Plans.
- Section IV - General Plan Amendments: Identifies and describes the general plan amendments approved by the City in 2024 and their relationship to General Plan goals and policies.
- Section V – General Plan Update: Describes the General Plan Update.
- Section VI – Major Projects Pending: Identifies and describes several major projects that include general plan amendments that are in the entitlement process.
- Section VII - Housing Development Update: Provides a brief summary of housing activity in 2024.
- Appendix A - Housing Element Annual Progress Report: Describes the requirement for the Housing Element APR and points readers to the full Housing Element APR in **Attachment 2**.

Housing Element APR

Ascent has served as the City's consultant in preparing the Sixth Cycle Housing Element, including the Housing Element portion of the APRs. The Housing Element portion of the APR primarily consists of several data tables detailing housing-related activities in 2024, such as development applications, building activity (new construction, entitlements, permits, and completed units), permits issued by affordability, additions to the RHNA inventory through rezone entitlements, and program implementation. The 2024 Housing Element APR is included in this report as **Appendix A to Attachment 2**.

RHNA Progress

RHNA is a state-mandated process that determines the number of housing units each local government must plan for in the Housing Element of its General Plan (Government Code §65584). As part of the RHNA process, HCD allocates the statewide housing need, broken down by income category, to councils of governments (COGs) and provides guidance in preparing the RHNA plan. Fresno COG, serving the Fresno County region, is responsible for developing a

methodology to distribute the housing need among local jurisdictions and creating a regional housing needs allocation plan that aligns with the objectives of Government Code Section 65584. In turn, each jurisdiction must update the Housing Element of its General Plan to address its community's housing needs.

The Sixth Cycle RHNA spans the housing projection period from June 30, 2023, through December 31, 2031. The City was allocated a total RHNA of 8,977 units, broken down as follows: 2,926 very low-income, 1,549 low-income, 1,448 moderate-income, and 3,054 above moderate-income units. A total of 191 units were permitted between June 30, 2023, and December 30, 2023. In 2024, a total of 654 units were permitted. **Table 1** provides a summary of the City's progress toward meeting this RHNA, covering the period from June 30, 2023, to December 31, 2024. During this time, the City issued permits for 845 units, including 21 very low-income, 16 low-income, 16 moderate-income, and 792 above moderate-income units. The remaining RHNA obligations are as follows: 2,905 very low-income, 1,533 low-income, 1,432 moderate-income, and 2,262 above moderate-income units.

Table 1: 2023-2031 RHNA Progress as of 2024

Income Level		RHNA Allocation by Income Level	Projection Period Projection Period - 06/30/2023-12/30/2023	Permitted Units Issued by Affordability									Total Units to Date (all years)	Total Remaining RHNA by Income Level
				2023	2024	2025	2026	2027	2028	2029	2030	2031		
Very Low	Deed Restricted	2,926	-	-	-	-	-	-	-	-	-	-	21	2,905
	Non-Deed Restricted		8	-	13	-	-	-	-	-	-	-		
Low	Deed Restricted	1,549	-	-	-	-	-	-	-	-	-	-	16	1,533
	Non-Deed Restricted		3	-	13	-	-	-	-	-	-	-		
Moderate	Deed Restricted	1,448	-	-	-	-	-	-	-	-	-	-	16	1,432
	Non-Deed Restricted		-	-	16	-	-	-	-	-	-	-		
Above Moderate		3,054	180	-	612	-	-	-	-	-	-	-	792	2,262
Total RHNA		8,977												
Total Units			191	-	654	-	-	-	-	-	-	-	845	8,132

Relationship between RHNA Progress and Existing Housing Stock

The City's progress towards meeting its RHNA allocation may only consider new construction as evidenced by the issuance of building permits. Though existing housing stock routinely becomes available on the resale or rental market, and those units can potentially be available at affordable rates, by definition RHNA only considers new housing production. The Housing Element does include a general evaluation of the local real estate market and how it relates to affordability. However, the re-sale or rental of individual units is not tracked.

Housing Program Progress

The City's housing programs are an integral part of the Housing Plan within the Housing Element, a comprehensive strategy designed to meet the City's housing needs throughout the planning period. The City's 29 housing programs play a crucial role in promoting housing development, preserving existing housing, removing barriers to housing growth, and affirmatively furthering fair housing. Updates to these programs can be found in Table D of **Appendix A** in **Attachment 2**.

The current Housing Element consists of both newly introduced and previously established programs. Of the 29 total programs, 16 are entirely new, while 13 have been carried over in some form from the previous Housing Element. Examples of continuing programs include the Housing Rehabilitation Program, Homebuyer Assistance Program, and Affordable Housing Incentives, all of which have benefited the Clovis community and will continue to do so.

In the last housing cycle, the City implemented 20 programs, 13 of which have been integrated into the new Housing Element. Additionally, some new programs stem from commitments made through a settlement agreement in the *Martinez v. City of Clovis* litigation, approved by the court. These include Programs H4, H8, H10, H11, and H12. Due to increasingly rigorous state requirements, these programs demand a greater level of commitment than those in previous housing cycles.

Goal H1. Accelerate Housing Production – Provide an ample supply of housing to meet the existing and projected housing needs for households at all income levels.

- Program H1. Near-term Annexation Program
- Program H2. No Net Loss Procedures
- Program H3. Surplus Public Land
- Program H4. Development Impact Fee Deferral/Waiver Program
- Program H5. Affordable Housing Incentives and Support
- Program H6. Missing Housing Tools and Resources
- Program H7. Density Bonus Ordinance
- Program H8. Development Standards and Zoning Consistency
- Program H9. Lot Configuration and Large Lot Development
- Program H10. Local Housing Trust Fund
- Program H11. Infill Rezone Program
- Program H12. Mixed Income Zoning Ordinance

Goal H2. Preserve and Improve the Existing Housing Stock – Preserve and improve the existing housing stock to ensure safe and sanitary housing conditions, prevent displacement, and maintain housing affordability.

- Program H13. Preserve At-risk Affordable Housing
- Program H14. Mobil Home Rent Review and Stabilization
- Program H15. Code Enforcement
- Program H16. Housing Rehabilitation
- Program H17. Replacement Housing Program
- Program H18. Energy Conservation

Goal H3. Affirmatively Further Fair Housing – Foster inclusive communities and remove barriers to housing for vulnerable communities including special needs populations and persons experiencing homelessness.

- Program H19. Resources for Special Needs Households
- Program H20. Housing Choice Vouchers
- Program H21. Analysis of Impediments to Fair Housing
- Program H22. Distribute Fair Housing Information
- Program H23. Fair Housing Testing
- Program H24. Homebuyer Assistance Program
- Program H25. Multilingual Outreach on Affordable Housing Opportunities
- Program H26. Actions to Address Homelessness
- Program H27. Neighborhood Revitalization
- Program H28. Zoning Code Amendments for Special Needs Housing
- Program H29. Farmworker Housing

FISCAL IMPACT

None.

REASON FOR RECOMMENDATION

To comply with California Housing Law and Clovis' adopted Housing Element, staff recommends that the City Council accept the General Plan Annual Progress Report for the 2024 calendar year and authorize its submission to LCI and HCD.

ACTIONS FOLLOWING APPROVAL

Staff will submit the 2024 General Plan Annual Progress Report to the Governor's Office of Land Use and Climate Innovation and the California Department of Housing and Community Development.

CONFLICT OF INTEREST

None.

Prepared by: Lily Cha, Senior Planner

Reviewed by: City Manager *AA*

RESOLUTION 25-____

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS
ACCEPTING THE 2024 GENERAL PLAN ANNUAL PROGRESS REPORT, INCLUDING
THE HOUSING ELEMENT ANNUAL PROGRESS REPORT, AND AUTHORIZING
SUBMISSION TO THE CALIFORNIA OFFICE OF PLANNING AND RESEARCH AND
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT**

WHEREAS, California Government Code 65400 requires the City to prepare an annual report on the status of the General Plan and progress in implementing the General Plan, and the report must include a portion addressing the Housing Element program progress; and

WHEREAS, the City Council has reviewed and considered the 2024 General Plan Annual Progress Report for the City (which is incorporated herein by this reference) during the regularly scheduled City Council meeting on March 17, 2025; and

WHEREAS, a report titled 2024 General Plan Annual Progress Report was prepared by City staff and the City's Housing Element consultant in accordance with the requirements of Government Code section 65400, and the Report includes the necessary portion addressing the progress in implementing the Housing Element program.

NOW, THEREFORE, BE IT RESOLVED, that the City of Clovis hereby accepts the 2024 General Plan Annual Progress Report and authorizes staff to submit the report to the California Department of Housing and Community Development and the Governor's Office of Planning and Research as required by applicable law.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on March 17, 2025, by the following vote, to wit.

AYES:

NOES:

ABSENT:

ABSTAIN:

DATED: March 17, 2025

Mayor

City Clerk

GENERAL PLAN ANNUAL PROGRESS REPORT 2024



Prepared by:

Clovis Planning Division
Department of Planning & Development Services
Lilyc@clovisca.gov
(559) 324-2335



CITY *of* CLOVIS

PLANNING & DEVELOPMENT

1033 FIFTH STREET • CLOVIS, CA 93612

To Office and Planning Research,

This APR is intended to report on the status of the 2014 Clovis General Plan, including information and summaries related to any general plan amendments occurring during the year 2024, as well as the overall status of implementation of the Clovis General Plan.

The Clovis City Council considered and approved the 2024 General Plan Annual Progress Report (APR) at its regularly scheduled meeting on Monday, March 17, 2025, at 6:00 p.m. at the Clovis City Hall located at 1033 Fifth Street, Clovis, CA 93612.

This APR was prepared by the Planning Division of the Clovis Department of Planning and Development Services. For any questions or comments related to the contents of this APR, please contact Lily Cha-Haydostian, Senior Planner, at lilyc@clovisca.gov or (559) 324-2335.

Sincerely,

Lily Cha-Haydostian
Senior Planner

RESOLUTION 25-____

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CLOVIS
ACCEPTING THE 2024 GENERAL PLAN ANNUAL PROGRESS REPORT, INCLUDING
THE HOUSING ELEMENT ANNUAL PROGRESS REPORT, AND AUTHORIZING
SUBMISSION TO THE CALIFORNIA OFFICE OF PLANNING AND RESEARCH AND
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT**

WHEREAS, California Government Code 65400 requires the City to prepare an annual report on the status of the General Plan and progress in implementing the General Plan, and the report must include a portion addressing the Housing Element program progress; and

WHEREAS, the City Council has reviewed and considered the 2024 General Plan Annual Progress Report for the City (which is incorporated herein by this reference) during the regularly scheduled City Council meeting on March 17, 2025; and

WHEREAS, a report titled 2024 General Plan Annual Progress Report was prepared by City staff and the City's Housing Element consultant in accordance with the requirements of Government Code section 65400, and the Report includes the necessary portion addressing the progress in implementing the Housing Element program.

NOW, THEREFORE, BE IT RESOLVED, that the City of Clovis City Council hereby accepts the 2024 General Plan Annual Progress Report and authorizes staff to submit the report to the California Department of Housing and Community Development and the Governor's Office of Planning and Research as required by applicable law.

* * * * *

The foregoing resolution was introduced and adopted at a regular meeting of the City Council of the City of Clovis held on March 17, 2025, by the following vote, to wit.

AYES:

NOES:

ABSENT:

ABSTAIN:

DATED: March 17, 2025

Mayor

City Clerk

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SECTION I - INTRODUCTION

California Government Code Section 65400 requires that all jurisdictions provide the California Office of Planning and Research (OPR) and the California Department of Housing and Community Development (HCD) an Annual Progress Report (APR) outlining the status of the General Plan and progress in its implementation over the previous year's 12-month reporting period.

The APR affords OPR the opportunity to identify trends in land use decisions and how these decisions relate to statewide planning and land-use goals. On a broader scale, these trends can also serve to inform modifications to the State's General Plan Guidelines, and to track progress of a jurisdiction's General Plan implementation.

The purposes of the General Plan APR are to:

1. Provide local legislative bodies and the public with information regarding implementation of their jurisdiction's General Plan;
2. Inform the public of the progress in meeting community goals;
3. Demonstrate how land use decisions relate to adopted goals, policies and measures of the General Plan; and
4. Provide sufficient information to identify necessary adjustments or modifications to the General Plan to improve implementation.

SECTION II - GENERAL PLAN IMPLEMENTATION SUMMARY

2024 General Plan Amendment Applications

In 2024, the City accepted applications for four (4) new general plan amendments. Two applications (GPA2024-002 and GPA2024-004) were processed to completion, resulting in approval. GPA2024-002 was a City of Clovis initiated application to increase the minimum permitted density from 15 units per acre to 20 units per acre. GPA2024-004 was a request to redesignate 1.73 acres from the Medium Density Residential (4.1-7.0 dwelling units per acre) to the Medium High Density Residential (7.1-20 dwelling units per acre) classification. The remaining two (2) applications are in process. General plan amendment applications are further described in Section IV of this APR.

2024 Progress on Comprehensive General Plan Update

The Council instructed the initiation of a review and assessment of the General Plan in 2022, marking the initial phase in considering a potential update to the plan. This process ultimately

led the Council to decide on a complete and thorough revision of the General Plan. The Comprehensive General Plan Update is further described in Section V of this APR.

Ongoing Processing of Large Projects

In 2024, progress was made on several large projects that are expected to be presented to the Planning Commission and Council in 2025. These projects include two sphere of influence expansion projects, a specific plan, a master development plan, and several large residential tract maps. Large projects are summarized in Section VI of this APR.

SECTION III - GENERAL PLAN BACKGROUND

The 2014 Clovis General Plan (General Plan) was adopted by the Clovis City Council on August 25, 2014¹, along with certification of the Environmental Impact Report^{2,3} (EIR). A comprehensive update to the Development Code was adopted at the same time. The General Plan includes the following elements:

- Land Use;
- Economic Development;
- Circulation;
- Housing;
- Public Facilities and Services;
- Environmental Safety;
- Open Space and Conservation; and
- Air Quality

The stated vision is *“a City that is committed to the Clovis Community Family, their needs, their values, and a quality way of life for all; reflecting that commitment in how it develops and in the activities it undertakes.”*

The General Plan focuses on the preservation and enhancement of the existing Clovis community while allowing the continued development of three Urban Centers to ensure the long-term viability of Clovis. The Urban Centers—key components that are carried forward from the 1993 General Plan—are unique sub-communities of Clovis that enable the City to grow while maintaining authentic, small town character and overall livability. Each Urban Center can be implemented by either a specific plan or a master development plan, either of which requires coordinated land use and infrastructure planning. The three Urban Centers are Loma Vista, Northwest (renamed to Heritage Grove), and Northeast. A summary of each Urban Center is provided below.

¹ City of Clovis Resolution 14-82 for the adoption of the 2014 Clovis General Plan

² City of Clovis Resolution 14-81 for the certification of the 2014 Clovis General Plan EIR

³ 2014 Clovis General Plan EIR State Clearinghouse Number 2012061069

Loma Vista Urban Center

The Loma Vista Urban Center is implemented by the Loma Vista Specific Plan, adopted by the City in 2003. This Specific Plan outlines guiding principles and a comprehensive land use plan to promote a high-quality residential community focused around two community centers, a business campus, and the Reagan Educational Center.

Northwest Urban Center (Heritage Grove)

The General Plan provides fairly specific land use planning for the Northwest Urban Center, with policies that require a comprehensive design document to provide additional development and land use guidance.

The General Plan also envisions that the comprehensive design document for the Northwest Urban Center will:

- Use San Joaquin Valley-appropriate plantings
- Capitalize on views of Owens Mountain and the Sierra Nevada
- Achieve compact development patterns that integrate a variety of housing types, sizes, and densities at the neighborhood and community level
- Eliminate as feasible the use of sound walls separating neighborhoods from roads
- Develop a well-connected grid system of roads
- Prohibit retail land uses within a quarter mile of any Clovis Unified School District campus

Northeast Urban Center

The General Plan provides fairly specific land use planning for the Northeast Urban Center, with policies that require a comprehensive design document to provide additional development and land use guidance.

The General Plan envisions that the comprehensive design document (such as a master plan or specific plan), for the Northeast Urban Center will:

- Create a series of urban villages that are distinct but that, taken together, contribute to a common public identity for the Northeast Urban Center
- Develop major arterials that are not on a grid pattern; rather, the major arterials flow with the land and capitalize on vistas of the Sierra Nevada and pristine local viewsheds
- Provide other streets in a well-connected grid system
- Connect neighborhoods, community centers, parks, schools, and commercial districts with a robust non-vehicular circulation system

General Plan Focus Areas

In addition to the General Plan concentration of development patterns within the three Urban Centers, there are also fourteen (14) Focus Areas throughout the City. Focus areas are intend to the complement the General Pan land use designations and, in some cases, expand permissible uses, introduce policy requirements, augment development standards, or may call attention to a complex property.

SECTION IV - GENERAL PLAN AMENDMENTS

The following is a list of general plan amendments processed in 2024, followed by a brief summary of each.

GPA NUMBER	PROJECT NAME	PLANNING COMMISSION	CITY COUNCIL	STATUS	RESOLUTION NUMBERS
2021-007	R-T Park “Clean UP”	6-27-24	8-19-24	Approved	24-91
2023-001	The Villages Specific Plan	TBD*	TBD*	TBD*	TBD*
2023-002	Ashlan-DeWolf Multifamily	1-25-2024	5-20-24	Approved	24-41
2023-004	Vista Ranch	TBD*	TBD*	TBD*	TBD*
2023-005	Vista Ranch	TBD*	TBD*	TBD*	TBD*
2023-006	Vista Ranch	TBD*	TBD*	TBD*	TBD*
2024-002	Multi-Family Density	5-3-24	6-17-24	Approved	24-75
2024-003	Infill Rezone Program	TBD*	TBD*	TBD*	TBD*
2024-004	Senior Apartments	7-25-24	9-3-24	Approved	24-13
2024-005	Housing Element	11-3-24	11-4-24	Approved	24-115
*TBD - To be determined - indicates the project has not yet gone for consideration, thus no action has been taken.					

GPA2021-007, City of Clovis (Research & Technology [R-T] Park “Clean Up”)

On August 19, 2024, the Clovis City Council approved a resolution initiating amendments to the 2014 Clovis General Plan, Zoning Map, and the Development Code to remove existing inconsistencies between these documents as they relate to the City’s R-T Park area. This effort included a General Plan Amendment (GPA2021-007), Rezone (R2021-010), and Ordinance Amendment (OA2021-004). A component of the changes included student and faculty housing in defined areas of the R-T Park associated with the California Health Sciences University (CHSU) campus.

GPA2023-001, The Villages Specific Plan

General Plan Amendment 2023-01 has not yet been fully processed and therefore has not been considered by the Planning Commission or City Council at the time this report was prepared. GPA2023-01 is a request to amend the General Plan land use diagram for several areas within a proposed 900-acre specific plan boundary. The amendment includes: the redistribution of park areas, increase commercial acreage areas, and an increase in residential density for some areas. This general plan amendment is a part of a larger project that includes a specific plan, annexation, rezoning, residential tract map, planned development permit, and site plan review. Additional project details are included in Section VI of this report below.

GPA2023-002, Ashlan-Dewolf Multifamily

The City Council considered the application on May 20, 2024 and voted to approve the general plan amendment request. GPA2023-002 was a request to amend the General Plan land use designation for approximately 1.62 acres of land from L (Low Density Residential - 2.1-4.0 DU/Ac) and O (Open Space) to the H (High Density Residential - 15.1-30.0 DU/Ac) designation. This general plan amendment is proposed in conjunction with a rezoning application to maintain consistency between land use designation and zone district and is intended to facilitate a 26-unit multi-family project.

GPA2023-004, GPA2023-005, GPA2023-006, Vista Ranch Master Plan

General Plan Amendments 2023-004, 2023-005, and 2023-006 have not yet been fully processed and therefore have not been considered by the Planning Commission or City Council at the time this report was prepared. These applications are associated with a larger master plan overlay project that is comprised of multiple entitlements including a sphere of influence amendment, annexation, pre-zone, and tract map. Additional project details are included in Section VI of this report below.

GPA2024-002, Multifamily Housing Density Range Modifications

General Plan Amendment 2024-002 was considered and approved by the Planning Commission on May 3, 2024 and the City Council on June 17, 2024. On February 20, 2024, the City Council approved a settlement agreement in conjunction with the Martinez v. City of Clovis litigation and the agreement has since been approved by the court and a judgment has been entered. This judgment required the City to amend its R-3 zone district to increase the minimum permitted density from 15 units per acre to 20 units per acre. The previous density range was 15.1-30.0 units per acre. The modified density range was approved by the council to be 20.1-30.0 units per acre.

GPA2024-003, Infill Rezone Program

General Plan Amendment 2024-003 has not yet been fully processed and therefore has not been considered by the Planning Commission or City Council at the time this report was prepared. In conjunction with the Martinez v. City of Clovis litigation, the City is required to complete an Infill Rezone Program to rezone multiple sites throughout the City to the R-3 (Multifamily High Density) or R-4 (Multifamily Very High Density) zone districts to create capacity for approximately 1,284 affordable housing units. The project will also include amendments to the general plan designation for each of the affected sites to ensure consistency between the general plan designation and the zoning classification.

GPA2024-004, Senior Apartments

General Plan Amendment 2024-004 was considered and approved by the Planning Commission on July 25, 2024 and the City Council on September 3, 2024. GPA2024-004 was a request to redesignate 1.73 acres from the Medium Density Residential (4.1-7.0 dwelling units per acre) to the Medium High Density Residential (7.1-20 dwelling units per acre) classification. The approval of this request allowed an affordable, multi-family senior housing development.

GPA2024-005, Housing Element

General Plan Amendment 2024-005 was considered and approved by the Planning Commission on October 3, 2024 and the City Council on November 4, 2024. GPA2024-005 approved an addendum to the City's General Plan Environmental Impact Report, adopted the City's Sixth Cycle Housing Element, and authorized staff to submit the Housing Element to the California Department of Housing and Community Development.

SECTION V – HOUSING ELEMENT & GENERAL PLAN UPDATE

Comprehensive General Plan Update

The City hired a planning firm (DeNovo Planning Group) in May of 2022 to perform an initial review of the current General Plan before establishing a work plan and scope for a subsequent update. The purpose of this review is to evaluate the current General Plan against new legislative requirements as well as local goals and objectives and then develop a set of options, strategies, and recommendations to inform the Council. The Planning Commission and City Council also provided feedback on key topics, issues, and local priorities that should be addressed should a new general plan update be initiated. This information was assembled with feedback from other stakeholders and the consultant's legislative analysis of the current General Plan.

A General Plan Update Strategy Report was presented to the Council on August 21, 2023, at which time the Council provided direction to initiate a comprehensive update to the General Plan. City staff issued a request for proposals (RFP) to invite experienced planning firms to vie for a partnership with the City in the update of the General Plan on March 20, 2024. Following a thorough competitive selection process, staff has identified De Novo as the preferred consultant

to lead this crucial endeavor and a final scope and cost proposal have been negotiated. On September 16, 2024, the City Council approved a consultant agreement between the City and De Novo Planning Group. De Novo is dedicated to completing the entire project within a three-year timeframe. The update will be divided into three distinct phases, each lasting approximately one year, with some overlap between key tasks. A more detailed project schedule will be created after the project kickoff. The phases are as follows; Phase 1 - Visioning and Existing Conditions; Phase 2 - Land Use Alternatives; and Phase 3 - General Plan and EIR.

SECTION VI – MAJOR PROJECTS PENDING

Several major projects are underway that will include or require the approval of a general plan amendment. These projects are described below along with a projected timeline for consideration by the Planning Commission and Council.

Vista Ranch Sphere of Influence - Wilson

The Vista Ranch Project is located directly northeast of the City, bounded on the north by East Behymer Avenue, on the east by Big Dry Creek Reservoir, on the south by East Shepherd and East Perrin Avenues, and on the west by North Fowler and North Sunnyside Avenues. The Project site is approximately 923 acres and includes a City of Clovis Sphere of Influence (SOI) Expansion. Within the Project area, the Vista Ranch Master Plan area will encompass approximately 509 acres, and that area is proposed to be annexed into the City of Clovis. Project entitlements include a sphere of influence expansion, annexation, pre-zoning, master plan, and subdivision tract map. A general plan amendment (GPA2023-004) is proposed to amend the existing land use pattern to reflect the modified land use pattern proposed in conjunction with the master plan. GPA2023-005 is a request to modify General Plan Focus Area 13 and create Focus Area 13a. GPA2023-006 is a request to modify the circulation element, including adding a Shepherd Avenue access. The project is projected to be presented for consideration by the Planning Commission and City Council by the end of 2025.

The Villages Specific Plan, Annexation and Tract Map – Heritage Development Company

A specific plan is proposed for an area encompassing approximately 790 acres located north of Shepherd Avenue and east of Willow Avenue. The project area is currently outside the City limits but within the City's sphere of influence (SOI). The proposed Specific Plan would be constructed in three phases.

- **Phase 1.** Phase 1 would include the construction of residential, retail and commercial uses within the Specific Plan Area between East Shepherd Avenue and East Perrin Avenue. At complete buildout, Phase 1 would include the development of approximately 3,587 dwelling units, 711,167 square-feet of retail uses, and 296,458 square-feet of commercial uses built over 343 acres.

- **Phase 2.** Phase 2 would include the construction of residential, retail and commercial uses within the Specific Plan Area between East Shepherd Avenue and East Behymer Avenue. At complete buildout, Phase 2 would include the development of approximately 1,875 dwelling units, 97,247 square-feet of retail uses, and 338,012 square-feet of commercial uses built over 280 acres.
- **Phase 3.** Phase 3 would include the construction of residential uses within the Specific Plan Area north of East Behymer Avenue. At complete buildout, Phase 3 would include the development of approximately 1,039 dwelling units built over 167 acres.

Entitlements included with the proposed project include a specific plan, annexation, rezoning, residential tract map, planned development permit, and site plan review. A general plan amendment is proposed to adjust the land use pattern for small portion of the total project area in conjunction with the completion of the specific plan. The general plan amendment for the Villages Specific Plan is not referenced in Section IV of this report because the formal application has not yet been filed. The project is projected to be presented to the Planning Commission and City Council for consideration by the end of 2025 or early 2026.

SECTION VII - HOUSING DEVELOPMENT UPDATE

In the 2024 reporting period, the City of Clovis issued 654 residential permits, consisting of 595 single-family homes, 15 multi-family units, and 44 accessory dwelling units (ADUs).

Appendix A - Housing Element Annual Progress Report

As a component of the General Plan Annual Progress Report, the City must provide and report on specific information relative to its Housing Element in a Housing Element Annual Progress Report. Utilizing a standard form provided by HCD, data is gathered and input to demonstrate the City's progress towards housing production across affordability levels, development applications received, and updates on housing program implementation for the year 2024. The purpose of the APR is to provide the City Council and the State with the City's progress on its Housing Element implementation and status towards meeting its allocated share of regional housing needs (RHNA). The Housing Element Annual Progress Report is included as Appendix A.

Please Start Here

General Information	
Jurisdiction Name	Clovis
Reporting Calendar Year	2024
Contact Information	
First Name	Lily
Last Name	Cha
Title	Senior Planner
Email	lilyc@cityofclovis.com
Phone	5593242335
Mailing Address	
Street Address	1033 Fifth Street
City	Clovis
Zipcode	93612

Optional: Click here to import last year's data. This is best used when the workbook is new and empty. You will be prompted to pick an old workbook to import from. Project and program data will be copied exactly how it was entered in last year's form and must be updated. If a project is no longer has any reportable activity, you may delete the project by selecting a cell in the row and typing ctrl + d.

[Click here to download APR Instructions](#)

Click here to add rows to a table. If you add too many rows, you may select a cell in the row you wish to remove and type ctrl + d.

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Appendix A

Summary

AGENDA ITEM NO. 10.

Jurisdiction	Clovis	
Reporting Year	2024	(Jan. 1 - Dec. 31)
Housing Element Planning Period	6th Cycle	12/31/2023 - 12/31/2031

Building Permits Issued by Affordability Summary		
Income Level		Current Year
Very Low	Deed Restricted	0
	Non-Deed Restricted	13
Low	Deed Restricted	0
	Non-Deed Restricted	13
Moderate	Deed Restricted	0
	Non-Deed Restricted	16
Above Moderate		612
Total Units		654

Note: Units serving extremely low-income households are included in the very low-income

Units by Structure Type	Entitled	Permitted	Completed
Single-family Attached	0	0	0
Single-family Detached	0	595	784
2 to 4 units per structure	0	3	0
5+ units per structure	0	12	305
Accessory Dwelling Unit	0	44	38
Mobile/Manufactured Home	0	0	0
Total	0	654	1127

Infill Housing Developments and Infill Units Permitted	# of Projects	Units
Indicated as Infill	57	70
Not Indicated as Infill	584	584

Housing Applications Summary	
Total Housing Applications Submitted:	10
Number of Proposed Units in All Applications Received:	2,807
Total Housing Units Approved:	2,643
Total Housing Units Disapproved:	0

Use of SB 423 Streamlining Provisions - Applications

Number of SB 423 Streamlining Applications	0
Number of SB 423 Streamlining Applications Approved	0

Units Constructed - SB 423 Streamlining Permits

Income	Rental	Ownership	Total
Very Low	0	0	0
Low	0	0	0
Moderate	0	0	0
Above Moderate	0	0	0
Total	0	0	0

Streamlining Provisions Used - Permitted Units	# of Projects	Units
SB 9 (2021) - Duplex in SF Zone	2	2
SB 9 (2021) - Residential Lot Split	4	4
AB 2011 (2022)	0	0
SB 6 (2022)	0	0
SB 423 (2023)	0	0

Ministerial and Discretionary Applications	# of	Units
Ministerial	0	0
Discretionary	7	2823

Density Bonus Applications and Units Permitted

Number of Applications Submitted Requesting a Density Bonus	0
Number of Units in Applications Submitted Requesting a Density Bonus	0
Number of Projects Permitted with a Density Bonus	0
Number of Units in Projects Permitted with a Density Bonus	0

Housing Element Programs Implemented and Sites Rezoned	Count
Programs Implemented	29
Sites Rezoned to Accommodate the RHNA	0

Table A - Entitlements

Ion	Clovis	(Jan. 1 - Dec. 31)
g Year	2024	
6th Cycle		12/31/2023 - 12/31/2031

ANNUAL ELEMENT PROGRESS REPORT

Housing Element Implementation

Note: "+" indicates an optional field

Table A
Housing Development Applications Submitted

[illegible]

[illegible]

Publication	Date
Projecting Year	(Jan. 1, Dec. 31)

Lat/Long/Time	Class
Biggest frog Year	1 Jan '1, Dec 6 30
Parading Person	Feb. March

[illegible]

Year	Days	Left with them
2008	10	(Jan 1 - Dec 1)

Year	Days	Left with them
2008	10	(Jan 1 - Dec 1)

ANNUAL ESTATEMENT PROPERTY REPORT									
Mortgage Statement Information									
Date of Statement: 12/31/2023									
Mortgage Information									
Mortgage Number: 123456789									
Mortgage Type: Fixed Rate									
Interest Rate: 5.00%									
Term: 30 Years									
Original Amount: \$100,000.00									
Current Balance: \$85,000.00									
Next Payment Due: 01/15/2024									
Payment Amount: \$500.00									
Property Information									
Property Address: 123 Main St, Anytown, USA									
Property Type: Single Family Home									
Property Value: \$250,000.00									
Assessed Value: \$240,000.00									
Tax Year: 2023									
Tax Amount: \$1,200.00									
Owner Information									
Owner Name: John Doe									
Owner Address: 456 Oak St, Anytown, USA									
Owner Phone: (555) 123-4567									
Owner Email: john.doe@example.com									
Lender Information									
Lender Name: ABC Mortgage Company									
Lender Address: 789 Elm St, Anytown, USA									
Lender Phone: (555) 987-6543									
Lender Email: info@abcmortgage.com									
Statement Period: 12/01/2023 - 12/31/2023									
Statement Generated: 12/31/2023									
Statement Valid: Yes									
Statement Verified: Yes									
Statement Approved: Yes									
Statement Accepted: Yes									
Statement Completed: Yes									
Statement Final: Yes									
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Statement Final: Yes									
Statement Closed: Yes									
Statement Archived: Yes									
Statement Deleted: No									
Statement Retained: Yes									
Statement Backed Up: Yes									
Statement Restored: No									
Statement Encrypted: Yes									
Statement Decrypted: No									
Statement Signed: Yes									
Statement Verified: Yes									
Statement Approved: Yes									
Statement Accepted: Yes									
Statement Completed: Yes									
Statement Final: Yes									
Statement Closed: Yes									
Statement Archived: Yes									
Statement Deleted: No									
Statement Retained: Yes									
Statement Backed Up: Yes									

Table B - Annual Element Progress Report

Jurisdiction	Clowis	
Reporting Year	2024	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle 12/31/2023 - 12/31/2031	

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

This table is auto-populated once you enter your jurisdiction name and current year data. Past year information comes from previous APRs.
Please contact HCD if your data is different than the material supplied here

Table B														
Regional Housing Needs Allocation Progress														
Permitted Units Issued by Affordability														
		1	Projection Period	2							3	4		
			Period - 06/30/2023-12/30/2023	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total Units to Date (all years)	Total Remaining RHNA by Income Level
Income Level		RHNA Allocation by Income Level												
					</									

*Extremely low-income housing need determined pursuant to Government Code 65583(a)(1). Value in Section 5 is default value, assumed to be half of the very low-income RHNA. May be overwritten.

Please Note: Table B does not currently contain data from Table F or Table F2 for prior years. You may login to the APR system to see Table B that contains this data.

Note: units serving extremely low-income households are included in the very low-income RHNA progress and must be reported as very low-income units in section 7 of Table A2. They must also be reported in the extremely low-income category (section 13) in Table A2 to be counted as progress toward meeting the extremely low-income housing need determined pursuant to Government Code 65583(a)(1).

Please note: For the last year of the 5th cycle, Table B will only include units that were permitted during the portion of the year that was in the 5th cycle. For the first year of the 6th cycle, Table B will only include units that were permitted since the start of the planning period. Projection Period units are in a separate column.

Please note: The APR form can only display data for one planning period. To view progress for a different planning period, you may login to HCD's online APR system, or contact HCD staff at apr@hcd.ca.gov.

VLI Deed Restricted
VLI Non Deed Restricted

AGENDA ITEM NO. 10.

Jurisdiction	Clovis
Reporting Year	2024 (Jan. 1 - Dec. 31)
Planning Period	6th Cycle 12/31/2023 - 12/31/2031

ANNUAL ELEMENT PROGRESS REPORT

Housing Element Implementation

Note: "+" indicates an optional field

Table C

Sites Identified or Reopened to Accommodate Shortfall Housing Need and No Net-Loss Law

[illegible]

Table D - Program Status

AGENDA ITEM NO. 10.

ANNUAL ELEMENT PROGRESS REPORT Housing Element Implementation

Jurisdiction		Clovis	
Reporting Year		2024 (Jan. 1 - Dec. 31)	
Table D			
Program Implementation Status pursuant to GC Section 65583			
Housing Programs Progress Report			
Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.			
1	2	3	4
Name of Program	Objective	Timeframe in H.E	Status of Program Implementation
H1: Near-term Annexation Program	Create capacity for the following number of units included in the Housing Element inventory: •Wilson (TM6343): 590 above moderate-income units. •Shepherd North (TM6205): 605 above moderate-income units. •Heritage Grove Specific Plan Phases 1a and 1b: 1,167 moderate-income units	•Wilson (TM6343): work with applicant on approval of annexation, prezone, planned development permit, subdivision tract maps, and submittal to LAFCO for approval in mid-2024. •Shepherd North (TM6205): work with applicant on approval of sphere of influence expansion, annexation, general plan amendment, prezone, planned development permit, tentative tract map, and submittal to LAFCO for annexation approval in mid-2024. •Heritage Grove Specific Plan Phases 1a and 1b: Work with the applicant on completion of environmental review and approval of the specific plan, annexation, prezoning, tentative tract maps, and submittal to LAFCO by mid-2025.	Wilson (TM6343): Annexation was completed on October 14, 2024. The first phase is currently undergoing Engineering and Construction Plan review. Shepherd North (TM6205): Annexation was completed on October 21, 2024. The first phase is now under Engineering and Construction Plan review. Heritage Grove Specific Plan: The Environmental Review for the Specific Plan is in progress, with entitlement completion anticipated in late 2025 or early 2026. The City Council has approved annexation of Phase 1a, which has been submitted to LAFCO. Annexation of Phase 1b is expected to align with the Specific Plan entitlement process, projected for late 2025 or early 2026.
H2: No Net Loss Procedures	Monitor development and other changes in the inventory to ensure the City has remaining capacity consistent with its share of the regional housing need. Make replacement sites available within 180 days.	Continually update the inventory of residential land resources as projects are approved.	The City has implemented a tracking system to support No Net Loss requirements and ensure compliance with RHNA unit allocations.
H3: Surplus Public Land	Identify one publicly owned site during the planning period to declare surplus public lands in high and highest resource areas to improve housing mobility for lower-income households with capacity for at least 50 lower-income households.	•Review inventory of public lands annually; •Publicize inventory on City website and send to nonprofit developers annually.	The City does not have any surplus public land. However, as outlined in Program H10 below, the City has already dedicated one City-owned property through the Property Dedication Program and is in the process of adding two more sites to the Housing Trust Fund.
H4: Development Impact Fee Deferral/Waiver Program	Provide fee deferrals and reductions to 120 lower-income housing units each year during the planning period.	•The Impact Fee Deferral/Waiver Program shall be marketed in the Spring of 2024 following City Council approval/adoption, and available for use starting July 1, 2024.	Add something like: However, as described in Program H10 below, the City has dedicated one City-owned property through the Property Dedication Program and is in the process of dedicating two more City-owned sites into the Housing Trust Fund.

H5: Affordable Housing Incentives and Support	Provide technical assistance and incentives to support development of 1,100 lower-income housing units during the planning period, including 500 low-, 500 very low-, and 100 extremely low- or special needs housing units.	•Ongoing, as projects are proposed and annual outreach to developers: Promote the use of the density bonus ordinance, application process streamlining, and the Affordable Housing Fee Reduction Program to encourage affordable housing, with an emphasis on encouraging affordable housing in highest resource areas •January 2024: Publish administrative procedures for the processing of housing developments eligible for streamlined review pursuant to SB 35. •Ongoing, as projects are proposed: As projects are proposed, and at least proactively on an annual basis, partner with nonprofit and for-profit affordable housing developers to support their financing applications for state and federal grant programs, tax exempt	City staff promoted the use of the Affordable Housing Fee Reduction Program to encourage affordable housing through the development and publication of the NOFA for the program. To date, one application has been received. Fee deferrals have been set aside for 46 low-income senior housing units. In September 2024, City staff partnered with Better Opportunities Builder, Inc., a local non-profit housing developer and Central California Housing Corporation, a local affordable housing developer in their application to the State of California Disaster Recovery Multifamily Housing Program NOFA which requested funding for a 47-unit low-income senior housing project. Also in September 2024, City staff partnered with Better Opportunities Builder, Inc. and Central California Housing Corporation to apply to the State of California Local Housing Trust Fund Program for \$1,000,000 in state matching funds. The City of Clovis had previously pledged \$1,000,000 in Clovis Housing Trust Funds to the project. Streamlining procedures were adopted in November 2021, by code (CMC 9.50.060) and published on the City's webpage.
H6: Missing Middle Housing Tools and Resources	Facilitate the construction of 200 ADUs, cottage homes, and ministerial lot splits and duplexes, with a goal of 75 percent in highest resource areas.	•Update existing ADU ordinance by June 2024. Review ADU legislative changes annually and update within the timeframe required by new legislation. •Update development standards by July 2025. •Distribute infill cottage and ADU plans and informational handouts and hold community workshops in September 2025 and every two years thereafter. •Begin monitoring ADU production and affordability in January 2024 and evaluate progress toward meeting the ADU production targets by income level every other year. •Take alternative actions within six months (e.g., additional incentives) if not meeting the assumptions in the sites inventory.	The City is researching new ADU legislation and will update the code as needed. Currently, Chapter 9.40.020 permits ADUs in all residential zoning districts and mixed-use zones where residential uses are allowed. Additionally, the City is updating its cottage home program handouts and planning a community informational workshop in the fall of 2025. In 2024, a total of 44 ADUs were permitted. Of these, 32 units (72.7%) were located in highest resource areas and 12 units (27.3%) were located in high resource areas based on geospatial data provided by the AFFH Mapping Tool. SB9-related projects accounted for 4 units in total, 2 located in highest resource areas and 2 located in high resource areas. To ensure targets are met, the City will continue monitoring ADU developments and affordability through the APR. A total of 44 ADUs were permitted during the 2024 calendar year, 33 within the highest resource areas and 11 in the moderate resource areas.
H7: Density Bonus Ordinance	Ensure that the City's development standards are consistent with State Density Bonus law.	•Annually review legislative updates and update local ordinances and informational materials within 6 months, as necessary.	The City's development standards are consistent with State Density Bonus Law. The City will continue to annually review legislatives and updates and update ordinances as necessary.
H8: Development Standards and Zoning Consistency	Accelerate housing production by ensuring that the City's development standards facilitate rather than constrain new development.	•Increase minimum density in the R-3 zone by July 31, 2024. •Review and amend other development standards by June 2025. •Initiate Code update to address General Plan consistency by 2027.	On May 6, 2024, the City increased the minimum density in the R-3 zone district from 15 units per acre to 20 units per acre. In August 2023, the City began reviewing its multifamily objective standards, focusing on parking and open space requirements, with the goal of adopting updated standards by June 2025. Additionally, as part of the ongoing General Plan update, the City aims to align the zoning code for consistency, with the projected update scheduled for 2027.

H9: Lot Configuration and Large Lot Development	Facilitate the development of 1,000 lower-income units on large sites identified in the lower-income sites inventory.	•Establish ministerial approval process by October 2024. •Property owner coordination and priority processing for projects that include affordable housing on an ongoing basis starting in January 2024. •Evaluate effectiveness in January 2028 and implement other strategies, as needed, within 6 months of completing evaluation.	The target area for this program are the large lots primarily located within the Heritage Grove Specific Plan area. The Specific Plan is currently still in the works and staff is coordinating with the applicant on addressing the lot sizes within the plan area. This commitment was identified prior to the certification of the Housing Element in December 2024; however, the city will continue to work towards establishing a ministerial process for the dividing of parcels that include affordable housing.
H10: Local Housing Trust Fund	Facilitate the development of 3,035 lower-income units throughout the city.	•Adopt Housing Trust Fund no later than the May 6, 2024 City Council meeting. (Note: this was completed at the City Council meeting on April 8, 2024) •Make an initial contribution of \$1 million to the Housing Trust Fund by July 2024. •Budget no less than an additional \$100,000 annually as stipulated in the Settlement Agreement. •Transfer of funds to the Housing Trust Fund shall be made based upon State Notice of Funding •Availability ("NOFA") timing to maximize the opportunity for state matching funds. •The Initial Property Dedication will be dedicated to the Housing Trust Fund within 30 days of creation of the Housing Trust Fund. •The City shall use its best efforts to close escrow on the Additional Parcel Dedication and/or enter	Clovis City Council adopted the Clovis Housing Trust Fund on April 8, 2024. The Clovis City Council made an initial contribution of \$1 million to the Clovis Housing Trust Fund on July 1, 2024, as part of the 2024-2025 Clovis Budget. As part of the Clovis Housing Trust Fund approving resolution, the Clovis City Council agreed to deposit an additional \$100,000 into the Clovis Housing Trust Fund on July 1 of each year, through the 2032-2033 fiscal year. City staff published the Clovis Housing Trust Fund NOFA on August 6, 2024 to meet the deadline for the State matching fund program. City staff has undertaken the Property Dedication Program during the last calendar year. The affordable housing developer (Clovis 135 Osmun, LP) has purchased the property known as 135 Osmun. The developer entity is a joint partnership between Better Opportunities Builder, Inc., and Central California Housing Corporation (dba AHDC). The City entered into a funding agreement with the developer to assist in providing City Permanent Local Housing Allocation (PLHA) funds for purchase of the property. Currently, the development entity is applying for other state and federal funds to complete the financing needed to develop the project. City staff is in the process of dedicating two other City-owned properties into the Housing Trust Fund. Title reports were ordered during the calendar year. Next steps involved obtaining an appraisal for the two properties and transferring these with their respective values into the Housing Trust Fund Program for housing development opportunities, as identified in the Settlement Agreement.
H11: Infill Rezone Program	Provide capacity for approximately 1,284 affordable housing units.	•Strive to complete the rezone program by January 31, 2025, but no later than June 30, 2025.	The City has reviewed its list of infill rezone sites with legal counsel and is currently conducting an environmental review. Due to outreach efforts, site modifications, and additional vetting, the process has taken longer than anticipated. The City now projects that the rezoning will be completed by the end of 2025.
H12: Mixed Income Zoning Ordinance	At least 320 low- and very low-income housing units, depending on overall housing production.	•Adopt the Mixed Income Zoning Ordinance by February 28, 2025, or as otherwise provided in the Settlement Agreement.	City staff is has been working diligently during the reporting period to finalize the draft Mixed Income Zoning Ordinance Feasibility Analysis. The draft analysis is expected to be published in May 2025, and provided to Council for review/approval as an Ordinance, along with Implementing Program Regulations in September/October 2025. In anticipation of the release of the Feasibility Analysis, City staff prepared a Frequently Asked Questions for the housing development community. <u>The FAQ's will be released in March 2025</u>
H13: Preserve At-risk Affordable Housing	Minimize displacement of affordable housing residents. Preserve 260 publicly assisted rental units.	•Monitor at-risk units annually.	City staff works directly with state and federal governmental agencies to review any affordable housing projects that are at-risk of becoming market rate units. There were no projects in the Clovis area that were at-risk, during the reporting period. the City continually tracks the status of affordability periods for existing subsidized housing in Clovis. Staff will monitor the following projects within the next 1-3 years as they are near the end of their affordability period: Cottonwood Grove (30 units), Silver Ridge (100 units), and Lexington Square (130 units). The affordability period expires in 2033, 2029, and 2029, respectively, for these three projects. City staff will actively engage the project owners to receive information regarding their long-term plans, and ensure property owners are providing the required 3-years notice of intent to convert to market rate.
H14: Mobile Home Rent Review and Stabilization	Conserve 867 mobile homes within 5 existing mobile home parks to prevent displacement.	•Distribute information on the Rent Review and Stabilization ordinance to local mobile home parks twice a year, beginning in 2024.	City staff regularly reviews the requirements of the Mobile Home Rent Review and Stabilization Ordinance as well as changes in the Consumer Price Index in preparation of sending the annual notices for rent increase to Mobile Home parks. Staff sends notices throughout the year depending on each parks' rent increase cycle.

H15: Code Enforcement	Ensure that all housing units throughout the city are safe and sanitary. Provide assistance and resources to low, very low and extremely low-income households.	•Distribute outreach and educational materials by December 2024. •Provide annual updates on code enforcements received and actions taken to abate through the Housing Element Annual Report.	The City is developing educational materials to promote the code enforcement process, aimed at ensuring residential compliance with city codes. Once completed, this information will be distributed in multiple languages and accessible at various locations throughout the City. Additionally, the City will provide annual updates on code enforcement cases received and actions taken through the APR.
H16: Housing Rehabilitation	Prevent displacement of lower-income homeowners, particularly seniors and mobile home park residents, by providing housing rehabilitation loans and grants to 250 lower-income households including 50 very-low and 50 extremely low-income households during the planning period.	•Apply annually, or as NOFAs are released, for CalHome and CDBG funds •Distribute program information annually.	City Council annually receives federal Community Development Block Grant (CDBG) funds from the U.S. Department of Housing and Urban Development, through its Annual Action Plan. A portion of the funds are utilized to fund the Home Rehabilitation and Repair Program. The CDBG Program provides up to \$8,000 in grant funds to low-income homeowners to provide home repairs. The CDBG funded program is administered together with the CalHome Loan Program for those project that require additional funding. In the 2023-2024 fiscal year, the City assisted 19 homeowners repair their homes through the Home Repair and Rehabilitation Program. Program information is distributed at city-wide resource fairs, at mobile home park offices and also online via the City's Affordable Housing webpage
H17: Replacement Housing Program	To mitigate the loss of affordable housing units, require new housing developments to replace all affordable housing units lost due to new development.	•The replacement requirement will be implemented immediately upon adoption of the Housing Element and applied as applications on identified sites are received and processed. •Local policy shall be adopted by June 30, 2025.	The replacement requirement went into effect upon adoption of the Housing Element. The City has not yet codified the requirement.
H18: Energy Conservation	Improve quality of housing throughout the city and support the State's energy goals by reducing energy consumption in residential development, while helping residents save money on housing costs.		The City's CDBG and CalHome funded owner occupied housing repair programs both assist in providing Energy Efficiency Improvements for low-income households. During the reporting period 19 households were assisted with money saving improvements such as: installation of energy-efficient windows, improvements to electrical systems, replacement of older air conditioning with newer energy-efficient models, and replacement of older water heater with newer energy-efficient models, among other repairs.
H19: Resources for Special Needs Households	Assist 100 extremely low-income households to reduce displacement risk, target outreach efforts in areas and neighborhoods with higher rates of poverty.	•Distribute outreach and educational materials by December 2024. •Provide annual updates on code enforcements received and actions taken to abate through the Housing Element Annual Report.	The City has provided financial support in the amount of \$1,481,281 through its Clovis Permanent Local Housing Allocation Fund to the Clovis 135 Osmun affordable housing development for seniors. The development also received a set-aside of \$1,000,000 in Clovis Housing Trust Funds to assist in the construction of the project. The project is intended to assist 46 households. The City provided \$51,061 in CDBG Program funds to the Marjaree Mason Center, a local non-profit that provides services and housing to domestic violence survivors. Funding will assist up to 150 households with services, safety plans and group sessions; additionally, MMC would provide 75 case management sessions to clients seeking assistance with home stability and self-sufficiency. The City also actively provides referrals for low income households experiencing possible displacement through various networks including the Fresno-Madera Continuum of Care's Multi-Agency Access Point, a one stop resource for those at risk of becoming homeless, as well as other local non-profits that can provide housing and legal resources such as: Central California Legal Services, Centro La Familia, Fresno Madera Area Agency on Aging and the Fair Housing Council of Central California.
H20: Housing Choice Vouchers	Increase Housing Choice Voucher participation and usage by 10 households in highest resource neighborhoods.	#REF!	In process.
H21: Analysis of Impediments to Fair Housing	Assess the City's efforts to reduce discrimination and enforce fair housing laws throughout the city.	•Support expediting applications on an ongoing basis •Review budget annually •Provide financial support annually, as available.	City staff will prepare an Analysis of Impediments to Fair Housing Choice as part of its regular Consolidated Plan renewal process for the U.S. Department of Housing and Urban Development. The Consolidated Plan, and Analysis, will be drafted in 2025 and published in early 2026.
H22: Distribute Fair Housing Information	Distribute fair housing information annually to all prospective home sellers, landlords, buyers, and renters throughout the city.	•Offer translated materials by December 2024 •Continue to provide information and refer fair housing complaints on an ongoing basis.	Fair Housing information is distributed at city-wide resource fairs, at mobile home park offices and also online via the City's Affordable Housing webpage. Housing Program information is provided in three languages: English, Spanish and Hmong. The City actively provides information and referrals for low-income households experiencing housing discrimination to the following local non-profits: Central California Legal Services, Centro La Familia, Fresno Madera Area Agency on Aging and the Fair Housing Council of Central California.

H23: Fair Housing Testing	Encourage FHCCC to conduct 8-10 fair housing tests to understand local issues of housing discrimination and ensure compliance with fair housing laws, and provide fair housing training meetings/conferences.	•Conduct fair housing testing in 2024 •Coordinate fair housing training annually.	Fair Housing Testing is undertaken by the Fair Housing Council of Central California. In November 2024, City staff participated in the annual fair housing training provided by the Fair Housing Council of Central California and presented to attendees on programs provided by the City of Clovis. Additionally, City staff regularly attends in person and online Fair Housing training to provide additional support to Clovis area residents. City staff will continue to partner with the FHCCC to encourage fair housing testing in Clovis and provide assistance to FHCCC staff in the process as needed.
H24: Homebuyer Assistance Program	Assist five households per year with homebuyer assistance to support stability and wealth building for lower-income households.	•Annually pursue CDBG, HOME, and other funding opportunities to maintain the Homebuyer Assistance program. •Begin work with HUD and HCD to revise the program limits annually if needed due to local market conditions.	The City administers a Homebuyer Assistance Program funded by \$415,600 in CalHome Program funds. These funds are set aside specifically for the purchase of mobile homes by low income residents, per HCD requirements. The City also currently has HOME Program available which it intends to use for Homebuyer Assistance upon approval by HCD. The City received several applications for the CalHome program, during the reporting period, though no loans were made due to applicants being over the income limits. Program limits currently do not need to be updated.
H25: Multilingual Outreach on Affordable Housing Opportunities	Increase availability of information about affordable housing opportunities and programs. Conduct 8 workshops during the planning period.	•Prepare outreach materials in 2025 •Update annually as necessary.	Housing Program information and outreach materials are distributed at city-wide resource fairs, at mobile home park offices and also online via the City's Affordable Housing webpage. Housing Program information is provided in three languages: English, Spanish and Hmong. One workshop was held in the reporting year in regards to funding opportunities.
H26: Actions to Address Homelessness	Provide supportive services to the City's most vulnerable populations by providing shelter, services and/or temporary housing assistance for at least 76 persons.	•2023-2031	In the 2024-2025 fiscal year, the City provided \$51,061 in CDBG Program funds to the Marjaree Mason Center, a local non-profit that provides services and housing to domestic violence survivors. Funding will assist up to 150 households with services, safety plans and group sessions; additionally, MMC would provide 75 case management sessions to clients seeking assistance with home stability and self-sufficiency.
H27: Neighborhood Revitalization	Establish a capital-planning prioritization process to optimize the use of available resources for projects and guide an objective methodology used to produce equal and equitable outcomes, particularly in relatively lower-income neighborhoods and areas of higher concentrations of persons with disabilities. Aim to allocate about \$450,000 in CDBG funds for projects that improve infrastructure, provide amenities, or improve housing conditions in areas of greatest need and target 1-2 improvements per year in relatively lower-income areas.	•Annually review and identify capital improvement projects and funding priorities. •Pursue state and federal grant funds annually.	In the 2024-2025 fiscal year, the City set aside CDBG funds for capital projects as follows: Santa Ana Avenue Sidewalk Improvements (\$124,000) and the Holland/Richert Alley Improvements (\$163,538). These projects are located in low-income areas.
H28: Zoning Code Amendments for Special Needs Housing	Compliance with State law.	•Amend the zoning code by December 2024.	This commitment was identified prior to the certification of the Housing Element in December 2024, therefore, the City has yet to have a zoning code update to address these changes. The City has plans to retain the housing consultant to assist with this task in updating the code to be completed within the 2025 calendar year.
H29: Farmworker Housing	Support and incentivize development of 80 lower-income units for farmworkers and their families. Particular focus will be given to encouraging housing mobility by facilitating development of farmworker units in higher resource neighborhoods.	•Meet with farmworker housing owners, developers, and advocates every two years starting in Spring 2025 to discuss their needs and offer assistance in the form of letters of recommendation for grant applications, assistance with site identification and grant opportunities, and discuss incentives for constructing farmworker housing. •Annually review the availability of funding opportunities to provide housing vouchers or other forms of rental assistance for farmworkers, and apply for funding as opportunities arise. •Identify development opportunities for farmworker housing at least twice in the planning	There are no farmworker housing developments in the City of Clovis. Regardless, the City will continue to seek out housing developers to develop farmworker housing as needed in the area, and assist them with identifying funding opportunities. City staff plans on holding an affordable housing programs workshop in Spring 2025 to discuss the housing needs of Farmworkers and offer assistance for the development of affordable farmworker housing.

AGENDA ITEM NO. 10.

Note: "+" indicates an optional field
Cells in grey contain auto-calculation formulas

January 2020

Table F - Rehabilitated Units

AGENDA ITEM NO. 10.

Jurisdiction	Clovis	
Reporting Period	2024	31)
Planning Period	6th Cycle	12/31/2023 - 12/31/2031

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field
Cells in grey contain auto-calculation formulas

Table F									
Units Rehabilitated, Preserved and Acquired for Alternative Adequate Sites pursuant to Government Code section 65583.1(c)									
Please note this table is optional: The jurisdiction can use this table to report units that have been substantially rehabilitated, converted from non-affordable to affordable by acquisition, and preserved, including mobilehome park preservation, consistent with the standards set forth in Government Code section 65583.1, subdivision (c). Please note, motel, hotel, hostel rooms or other structures that are converted from non-residential to residential units pursuant to Government Code section 65583.1(c)(1)(D) are considered net-new housing units and must be reported in Table A2 and not reported in Table F.									
Activity Type	Units that Do Not Count Towards RHNA ⁺ Listed for Informational Purposes Only				Units that Count Towards RHNA ⁺ Note - Because the statutory requirements severely limit what can be counted, please contact HCD at apr@hcd.ca.gov and we will unlock the form which enable you to populate these fields.				The description should adequately document how each unit complies with subsection (c) of Government Code Section 65583.1 ⁺ . For detailed reporting requirements, see the chcklist here :
	Extremely Low-Income ⁺	Very Low-Income ⁺	Low-Income ⁺	TOTAL UNITS ⁺	Extremely Low-Income ⁺	Very Low-Income ⁺	Low-Income ⁺	TOTAL UNITS ⁺	
Rehabilitation Activity									
Preservation of Units At-Risk									
Acquisition of Units									
Mobilehome Park Preservation									
Total Units by Income									

AGENDA ITEM NO. 10.

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

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AGENDA ITEM NO. 10.

Note: "+" indicates an optional field
Cells in grey contain auto-calculation formulas

AGENDA ITEM NO. 10.

ANNUAL ELEMENT PROGRESS REPORT

Housing Element Implementation

For Fresno County jurisdictions, please format the APN's as follows:999-999-99XX

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AGENDA ITEM NO. 10.

NOTE: STUDENT HOUSING WITH DENSITY BONUS ONLY. This table only needs to be completed if there were student housing projects WITH a density bonus approved pursuant to Government Code 65915(b)(1)(F)

[illegible]

Table K - Tenant Preference Policy

AGENDA ITEM NO. 10.

Jurisdiction	Clovis	
Reporting Period	2024	(Jan. 1 - Dec. 31)
Planning Period	6th Cycle	12/31/2023 - 12/31/2031

ANNUAL ELEMENT PROGRESS REPORT

Table K
Tenant Preference Policy

Local governments are required to inform HCD about any local tenant preference ordinance the local government maintains when the jurisdiction submits their annual progress report on housing approvals and production, per Government Code 7061 (SB 649, 2022, Cortese). Effective January 1, 2023, local governments adopting a tenant preference are required to create a webpage on their internet website containing authorizing local ordinance and supporting materials, no more than 90 days after the ordinance becomes operational.

Does the Jurisdiction have a local tenant preference policy?	No	
If the jurisdiction has a local tenant preference policy, provide a link to the jurisdiction's webpage containing authorizing local ordinance and supporting materials.		
Notes		

AGENDA ITEM NO. 10.

[illegible]

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Very Low	Deed Restricted	0
	Non-Deed Restricted	0
Low	Deed Restricted	0
	Non-Deed Restricted	0
Moderate	Deed Restricted	0
	Non-Deed Restricted	0
Above Moderate		0
Total Units		0

Building Permits Issued by Affordability Summary		
Income Level		Current Year
Very Low	Deed Restricted	0
	Non-Deed Restricted	13
Low	Deed Restricted	0
	Non-Deed Restricted	13
Moderate	Deed Restricted	0
	Non-Deed Restricted	16
Above Moderate		612
Total Units		654

Certificate of Occupancy Issued by Affordability Summary		
Income Level		Current Year
Very Low	Deed Restricted	0
	Non-Deed Restricted	14
Low	Deed Restricted	0
	Non-Deed Restricted	9
Moderate	Deed Restricted	0
	Non-Deed Restricted	317
Above Moderate		787
Total Units		1127

Clovis 2024 APR: Assumptions on Affordability

Market Rate Multifamily

Table 1 shows the income limits and affordable monthly rents for moderate-income households in Clovis based on the 2024 Area Median Income (AMI) for Fresno County. Affordable rents are assumed to be 30 percent of monthly income. One- and two-person moderate-income households can generally occupy a one-bedroom unit, three-person households can generally occupy a two-bedroom unit, and four-person households can generally occupy a three-bedroom unit.

City staff researched rental listings that were available for multi-family rental units to determine if they are being rented at rates generally affordable to moderate-income households earning 120 percent AMI. However, rental rates were not available for most multi-family rental units. Information was only available for one property, 1491 Alluvial Avenue, which had a rent of \$2,591 for a 2 bedroom unit in an online listing, which is higher than the \$2,374 maximum monthly gross rent. Where information was not available the City assigned multi-family units as moderate income, consistent with the assumptions in the City's Sixth Cycle Housing Element.

Table 1 Affordable Rents for Moderate-income Households (120% AMI), Fresno County (2024)				
	Household Size (Number of Persons)			
	1	2	3	4
Income Level	\$73,850	\$84,400	\$94,950	\$105,500
Max. Monthly Gross Rent ¹	\$1,846	\$2,110	\$2,374	\$2,638

¹ Assumed as 30 percent of monthly income.

Source: CA Department of Housing and Community Development (HCD), 2024

Accessory Dwelling Units

Accessory dwelling units (ADUs) are small, often detached living quarters built on the same property as existing homes that are most often used as rental housing. ADUs tend to be smaller and therefore rented at lower prices. City staff assigned the affordability of ADUs to income categories consistent with following affordability assumptions are used in the City's Sixth Cycle Housing Element:

- 30% Very low-income
- 30% Low-income
- 30% Moderate-income
- 10% Above moderate-income

The table below shows how City staff applied these affordability assumptions to the 44 ADUs that were issued building permits in 2024.

Table 2: Affordability Assumptions for ADUs		
Income Level	Building Permits Issued	
	Count	Percentage
Very Low Income (0-50% AMI)	13	30%
Low Income (51-80% AMI)	13	30%
Moderate Income (81-120% AMI)	13	30%

Above Moderate Income (120+ AMI)	5	10%
TOTAL	44	100%

Single Family Homes

Building permits for single family homes in 2024 were assigned to the above moderate income RHNA based on the assumption that sale prices of new single family homes are generally only affordable to above moderate income households given the current interest rates.



CITY *of* CLOVIS

REPORT TO THE CITY COUNCIL

TO: Mayor and City Council
 FROM: Finance Department
 DATE: March 17, 2025
 SUBJECT: Provide Direction – 2025/26 Budget Priorities – Measure Y

Staff: Andrew Haussler, City Manager

Recommendation: Provide Direction

ATTACHMENTS: 1. Five-Year Financial Forecast through 2029/30

RECOMMENDATION

That the City Council provides direction on the 2025/26 Budget priorities and the use of projected Measure Y funds.

EXECUTIVE SUMMARY

The Five-Year Financial Forecast for the 2025/26 through 2029/30 period was presented to City Council on March 10, 2025. This management tool is updated and prepared each year to provide the City Council and City management with information on trends for the City's long-term financial condition and is used as a basis for the development of the 2025/26 City Budget. Staff is seeking input on budgeting priorities to allow staff to develop the 2025/26 City Budget that aligns with the Community's needs and expectations. Specifically, staff is seeking feedback on:

1. Service Levels
2. Staffing to Achieve Service Levels
3. Capital Investment (Facilities and Fleet)
4. Fiscal Sustainability Investments (Emergency Reserve and Fund Balance)

BACKGROUND

The Five-Year Financial Forecast for the 2025/26 through 2029/30 period was presented to City Council on March 10, 2025. This management tool is updated and prepared each year to provide the City Council and City management with information on trends for the City's long-term financial condition and is used as a basis for the development of the 2025/26 City Budget. Staff is seeking input on budgeting priorities to allow staff to develop the 2025/26 City Budget that aligns with the Community's needs and expectations.

With the passage of Measure Y, the City has a unique opportunity to invest in the Community. Previous to this, the City was not afforded the opportunity to maintain the quality of life at a level the citizens desire and deserve, and service cuts would have been needed. Measure Y's ballot language serves as a guiding principle in staff's effort to meet community expectations in the 2025/26 budgeting process. The City estimates it will receive \$26 million annually from Measure Y; however, this is approximate and subject to change should inflationary pressures continue to make residents' discretionary spending more restricted, creating major fluctuations in this revenue.

The Measure Y ballot language included the following goals:

1. Maintaining **Public Safety**
2. Keeping Clovis **Safe & Clean**
3. Retaining **Small Businesses & Jobs**
4. Protecting Local **Drinking Water** Sources
5. Repairing **Streets & Roads**
6. Addressing **Homelessness**
7. Maintaining **Youth & Parks** Programs
8. Other **General Services**
9. Spending **Disclosure/Spent Locally**

Staff would appreciate feedback on the following areas:

1. **Service Level Priorities:** Which city services should be prioritized in the 2025/26 City Budget? Many of the goals of Measure Y were addressed in the scenario staff presented in the Five-Year Forecast. Are these the right goals for the first year of implementation?

The following services are areas that were previously presented by City Departments that proposed investing Measure Y funding for the 2025/26 Budget and included in the Five-Year Forecast:

GOAL 1: Maintaining Public Safety

GOAL 6: Addressing Homelessness

- **Police – Restored Services, Proactive Policing**
 - Restoring Patrol/Specialty Units:
 - Code Enforcement/Animal Services/Youth Programs/Investigations/Traffic/Homelessness/Specialty Teams
 - Restoring Support Team
- **Fire – Reduced Response Times, Improved Medical Care**
 - 1 Squad -or- 1 Engine Crew – *Reduced Response Times*
 - Truck Replacement
 - Restoring Support Team
 - EMS Set-up/Implementation – *Improved Medical Care*

GOAL 2: Keeping Clovis Safe & Clean

- **Parks – A Doubling of Care**
 - Additional Tree Crew for Parks (Enhancing tree maintenance and care)
 - Project Funds for Repairs (Allocating funds for parks and facility repairs)

GOAL 5: Repairing Streets & Roads

- **Roads – Faster Maintenance & Safer Streets**
 - Additional Road Maintenance Crew (Expanding the team for more efficient repairs)
 - Additional Investment in Traffic Units (Traffic Lights, Street Lights & Design)

GOAL 7: Maintaining Youth & Parks Programs

- **Supporting Youth & Senior Programs – Stronger Community**
 - Increasing Programs/Classes to meet demand

GOAL 9: Spending Disclosure/Spent Locally

- **Financial Accountability**
 - Providing for expense reviews and oversight

ALL GOALS: Support For All of the Above

- Facilities Assessment/Planning
- Support Services (IT, Personnel, Facilities, Fleet)
- Adequately funding critical reserves – Facilities/Fleet/Emergency Reserve

It is proposed that not all goals are being addressed with Measure Y funds at this time. However, these categories have significant support from non-Measure Y resources.

2. **Staffing Levels:** Are there specific departments or services where staffing adjustments should be considered?

The following indicate the positions, and related equipment needs Staff recommended in the Five-Year Forecast. The objective is to begin implementation of the goals of Measure Y either directly, or as part of a city-wide system, to make the City the safest City in the Valley. All costs indicated and proposed positions are subject to the budgeting process to determining fiscal cost and feasibility. The focus of this discussion is the FY25-26 Budget year:

GOAL 1: Maintaining Public Safety
GOAL 6: Addressing Homelessness

Police Department Details:**Non-Sworn Professional Positions:**

- 1 Animal Services Officer \$130,000
- 2 Community Services Officers \$260,000
- 1 Police Records Assistant \$90,000
- 1 IT Technician (PD) \$100,000

Sworn Officer Positions

1 Youth Services Officer \$230,000
 1 Investigations Officer \$230,000
 1 SET Officer \$230,000
 1 Traffic Officer \$230,000
 2 Homeless Liaison Officers \$460,000
 1 FORT Team Officer \$230,000

Police Department Total Cost: 5 Non-Sworn Professional positions, 7 Sworn Officer positions, and related vehicles/equipment. \$2,000,000 also allotted for Radio Replacements. **Total is \$6,820,000**

Note:

Alternate Dispatch Center Development (\$2,050,000) is part of Development Impact Fee Account.

Fire Department Details:**Non-Sworn Professional Positions:**

½ GIS Specialist \$60,000

Sworn Positions:**Squad Option: (In Forecast)**

6 Firefighters \$1,230,000 and related Promotions

Engine Crew Option:

9 Firefighters \$1,845,000
 3 Captain Promotions \$20,000
 3 Engineer Promotions \$30,000

Fire Department Total Cost:

Squad Option: \$1,790,000 for above positions, vehicles, and ALS set-up costs. Also includes Truck 41 Replacement for \$1,800,000. Squad Option **total is \$3,920,000.**

Engine Crew Option: \$2,785,000 for above positions, vehicles, ALS set-up costs. Also includes, Truck 41 Replacement for \$1,800,000. The new Engine Crew would utilize a reserve fleet engine, in the future an additional engine purchase is needed and is estimated at \$1,200,000. Engine Crew option **total is \$4,585,000**, without the future additional engine purchase.

Note: Funds to purchase Fire Station 7 land is included in the Development Impact Fee Account.

GOAL 2: Keeping Clovis Safe & Clean
GOAL 5: Repairing Streets & Roads

Public Utilities Department Details:

Parks – Additional Tree Crew

1 Senior Maintenance Worker \$130,000

1 Maintenance Worker \$100,000

Streets – Pavement/Pothole Crew

1 Senior Maintenance Worker \$130,000

1 Maintenance Worker \$100,000

Street Lighting & Traffic Signals

1 Senior Maintenance Worker \$130,000

Information Technology Support

½ Information Technology Specialist \$60,000 (other half to be Enterprise funded)

Public Utilities Department total cost: \$760,000 for above positions and corresponding vehicles.

Planning and Development Services Department Details:

1 Engineering Technician \$100,000 - Support Traffic Enforcement/Design

1 Staff Analyst \$100,000 - Grant Writer for streets projects

Planning & Development Services total cost: \$200,000 for above positions.

GOAL 7: Maintaining Youth & Parks Programs

General Services Department - Community Services Details:

1 Recreation Coordinator (Senior Services) \$107,500

1 Recreation Specialist (Recreation) \$107,500

General Services Department - Community Services total cost: \$215,000 for above positions.

GOAL 9: Spending Disclosure/Spent Locally

Finance Department Details:

2 Accountants (1/2 Measure Y=1 Position) \$125,000

1 Accounting Systems Technician (1/2 Measure Y=.5 Position) \$50,000

Finance Department - total cost: \$175,000 for above positions.

ALL GOALS: Support Services

Provide needed support staff/services to achieve the above Measure Y goals.

Facilities – Maintain City Facilities

3 Assistant Building Technicians (1/2 Measure Y=1.5 positions) \$165,000

Personnel & Risk Management - Support additional staffing

1 Personnel Technician (1/2 Measure Y=.5 position) \$50,000

Information Technology - Support additional staffing

1 IT Manager (1/2 Measure Y=.5 Position) \$100,000

Support Services in Various Departments – total cost \$315,000 for above positions.

3. Capital Investment Level: Are the levels proposed below appropriate?

Facilities:

A facility assessment is underway which will result in a plan on addressing critical and long-term facility needs for the City to address Public Safety needs and related support services. The Five-Year Forecast included reserving **\$5.0 million** in Measure Y funding to address those needs in 2025/26, and it is proposed to continue this investment in future years.

Fleet:

The City has not been able to adequately fund fleet replacements for Public Safety vehicles for many years. It is now proposed that fleet replacements be fully funded, with a focus on Public Safety vehicles. The Five-Year Forecast included **\$5.15 million** in Measure Y funding in 2025/26, and it is proposed to continue the investment in future years.

4. Emergency Reserves and Fiscal Sustainability: Are the levels of Reserves and General Fund Balance appropriate?

Emergency Reserve:

City Council has established a goal of maintaining an emergency reserve of 25% of General Fund expenditures. This fund is critical in managing significant economic disruptions and/or unexpected events. It also provides a critical foundation for the City to maintain borrowing capacity. The Five-Year Forecast included **\$3 million** investment to reach **19.3%** of General Fund Expenditures in 2025/26 and it is proposed to continue this investment in future years to maintain at least a 20% emergency reserve.

Fiscal Sustainability/General Fund Balance:

This is the amount of funds available in the General Fund that is not allocated for use. This is critical to allow for cash flow management and ensuring the City can manage relatively small unexpected fiscal needs or revenue shortfalls. The Five-Year Forecast included \$5.56 million General Fund Balance; this is **4.4%** of General Fund expenditures in 2025/26. It is proposed to maintain a similar percentage in future years.

FISCAL IMPACT

The forecast and subsequent feedback provides a basis for staff to develop the 2025/26 Budget for City Council consideration.

REASON FOR RECOMMENDATION

Given the implementation of Measure Y, this process is of extreme importance and requires significant engagement from the Council, staff, and the community to reach the community's goals.

ACTIONS FOLLOWING APPROVAL

Staff will gather comments from the Council to guide the preparation of the 2025/26 City Budget.

CONFLICT OF INTEREST

None.

Prepared by: Andrew Haussler, City Manager

Reviewed by: City Manager AH



City of Clovis

Five-Year Financial Forecast

Through Fiscal Year 2029/30

Prepared March 2025



CITY OF CLOVIS

Five-Year Financial Forecast

Through Fiscal Year 2029/30

PREPARED BY:

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Susan Evans, Deputy Finance Director

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CITY OF CLOVIS

FIVE-YEAR FINANCIAL FORECAST

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INTRODUCTION

The Five-Year Financial Forecast through 2029/30 represents a continuing effort to analyze the City's long-term fiscal condition based upon a reasonable set of economic and operational assumptions. It is an important management tool used by both the City Council and senior management to identify fiscal trends and issues which must be addressed to assure continued financial stability. The set of forecasts contained in this report is not a prediction of what will occur. Rather, this forecast is a snapshot in time and an **approximate view of what could occur** in the future if all the assumptions are realized. As with any forecast or prediction, the assumptions and projections for the nearer years carry more certainty and confidence than for the years further into the future.

While the forecast has become a valuable management tool to examine the ever-changing fiscal conditions the City is faced with, we have also learned of its limitations. The first few years of the forecast are a fairly good indicator of coming events while the later years are subject to less certainty as actual economic conditions become known. Also, the many financial and regulatory changes by the Federal and State governments, which require new programs and other unanticipated expenses and adjustments can have a dramatic financial impact to the City's revenue and expenditures. Despite these challenges, staff is committed to providing the best projections for these years based upon what is known at the time in order to reveal trends in both revenue and expenditure growth or decline, while staying abreast of local, state and national economic conditions and policies that will impact the City's financial health.

The report reviews actual financial performance over the past three years, determines an estimated financial performance for the current year, and projects financial performance for the next five years. All the forecasts are based upon a specific set of assumptions that are utilized throughout the report and identified with each forecast. In addition, the report contains a mid-year review for the current fiscal year.

The report is presented to initiate discussion that will ultimately result in policy guidelines for the development of the 2025-26 Annual City Budget and the Five-Year Community Investment Program and budgetary planning for future years. This forecasting tool has proven useful for examining spending policies which have resulted in the City's ability to live within its means, provide for important programs and adequate service levels for the growing community, and begin to set aside reserve funding for major capital investment in public facilities.

On November 5, 2024, the voters of Clovis approved Measure Y, a 1¢ sales and use tax to be implemented on April 1, 2025. It is estimated that the measure will provide \$26 million annually in revenue to the General Fund in the Forecast. This amount has been reduced from the Measure's original estimate of \$28 million due to more recent

information that shows a softening in taxable sales. The measure shall maintain:

- 9-1-1 emergency medical, police, fire and paramedic response, fire protection, police patrols;
- keep public areas safe and clean;
- retain local small businesses and jobs;
- protect local drinking water sources;
- accelerate repairs to streets and roads;
- address homelessness;
- maintain youth, parks and other general services.

At present, staff is working on an investment plan that will meet these needs and ensuring an oversight committee is established for accountability and transparency. The forecast includes estimated revenues and expenditures to begin the initial investments in meeting the top funding priorities set out by several community input surveys.

In 1986, Fresno County voters passed Measure C, a half-cent sales tax that improves the overall quality of Fresno County's transportation system, including the County and all its 15 cities. In November 2006, Fresno County voters chose to extend Measure C for an additional 20 years through 2027. At present, Fresno County's current half-cent sales tax Measure C will expire in 2027 resulting in a significant loss of revenue which will impact several City departments. These funds help to fund the design and construction of many street, pedestrian, and bicycle improvements throughout the City each year. Additionally, the funds are used to leverage grant funding, including grant match requirements. Finally, the funds sustain the operation of the City's Transit program. If the Measure C renewal effort is unsuccessful, the City will have to make some very hard decisions regarding the projects and services currently being completed and provided. The impact of the loss of Measure C sales tax would be significant to Clovis but the loss of revenue has not been reflected in this year's Forecast in fiscal year's 2027/28 and beyond, as there is still time for Fresno County voters to pass an extension on Measure C.

EXECUTIVE SUMMARY

The current Five-Year Financial Forecast is a shift from recent years in the General Fund. Last year's forecast projections indicated that there may not be sufficient resources to maintain current operations or increase staffing to meet the growing demand for services at established levels, even if revenues meet expectations. With the passage of Measure Y on November 5, 2024, this additional 1¢ sales tax has provided an enormous opportunity to the City from our citizens, to ensure that we not only remain financially stable, but maintain services to meet the community's needs and key priorities.

The City's Staffing for Adequate Fire and Emergency Response (SAFER) grant, which funded the hiring of additional fire fighters in May 2021 for Fire Station 6, ended last year. From that point forward, the General Fund has incurred the additional cost of the nine firefighters – approximately \$1.5 million annually. In December 2023, the City partnered

with the City of Fresno to apply for the Organized Retail Theft Prevention grant from the Board of State and Community Corrections (BSCC). Clovis received approximately \$6.0 million for a three-year period to cover five police officers and one police service officer to address increasing retail theft crime in the City. The BSCC grant will end in 2026/27. From that point forward, the General Fund will incur the additional cost of the six new police positions – approximately \$1.2 million annually.

The Five-Year Forecast for the General Fund shows that revenues are growing faster than expenditures over the five-year period. This is largely attributable to the Measure Y sales tax to be implemented on April 1, 2025. It is estimated to come in annually at approximately \$26 million per fiscal year in addition to the City's Bradley Burns sales tax. As a result of this new revenue source, each forecasted year ends with a positive fund balance. Additional items that were not able to be funded last year are receiving transfers such as Housing, Government Capital Facilities, Fleet and building the Emergency Reserve to 20% of expenditures. This is a significant reversal of what the City was faced with this time last year when the potential for cutting services was a reality in the near future with deficits forecasted.

The Budget Hearing process begin with a thorough review of the Departments and needs to maintain the Clovis Way of Life. The process will continue with additional input hearings to build the investment plan for the City. This will be a critical process as there is only one opportunity to set up the use of Measure Y Funds to reach the previous mentioned goals and ensure fiscal sustainability.

The Water Enterprise Fund forecast maintains adequate but declining reserves with annual 3% rate increases that have been adopted and are included in each year of the forecast. The forecast also includes continued contributions to the reserves for drought contingency and for the Sustainable Groundwater Management Act (SGMA) through 2029/30. In 2020/21, there was a \$5 million down payment as required by the Firm Water Supply Agreement with the Fresno Irrigation District (FID). The remaining balance of \$30 million will be paid by development impact fees in future years. The forecast includes an interfund loan of \$7.5 million in 2021/22 from the Trichloropropane (TCP) reserves to General Services to fund the construction of Fire Station 6, and annual loan repayments for ten years that began in 2022/23. This loan will not affect the City's ability to treat for TCP during the term of the loan. A water rate study is currently in progress and is expected to be completed in the 2025 calendar year with a goal of ensuring adequate revenues to operate the water system.

The Sewer Enterprise Fund forecast maintains stable reserves throughout the forecast period. Beginning in 2025/26, a 3% rate increase is included in each year of the forecast period to keep up with rising operating, maintenance, and capital costs, and to maintain a sufficient fund balance for future bonding capacity. An interfund loan is shown beginning in 2026/27 of the forecast because it is projected that the collection of development impact fees for Sewer Major Facilities will be insufficient to cover the debt service payments. However, there are sufficient funds in the bond charge fund balance collected in prior years to continue the full \$7.30 per month rebate to customers until

2028/29. The ability to continue to rebate funds back to ratepayers will be monitored closely throughout the forecast period.

The Community Sanitation Fund will experience a decline in reserves in this forecast due to increased personnel costs, fleet renewal charges and anticipated adjustments to the recycling and organic contracts. A 4% annual increase, or portion thereof, was approved by City Council in November 2004 to be implemented as necessary. For Refuse, a 4% rate increase is projected annually for the forecast period. To keep pace with the recycling and green waste contract increases, the approved 4% annual increase is projected for these operations. Additionally, a 4% rate increase is projected annually for the forecast period for street cleaning.

The Transit Fund reflects enough revenues throughout the forecast period to support its operational and capital needs because of increased revenues from the Transportation Development Act, which includes Local Transportation Funds (LTF) and State Transit Assistance (STA) funds allocated to Transit based on population, taxable sales, and transit performance. Project-specific funding, including SB1 and various cap-and-trade grants, are used for capital expenses for enhancement of rider amenities. The State's Transit and Intercity Rail Capital Program (TIRCP) will assist in funding for land purchase to build a Transit Operations Center, which will include infrastructure to support zero-emissions mandates. Transit began receiving federal funding in 2024/25, which will provide further support for operations. With funding for Transit constantly in flux, and the Measure C sales tax due to expire after 2027, the types and levels of funding will be closely monitored to make any necessary adjustments to current service levels should the need arise. Beginning with the 2017/18 fiscal year, the Transit Fund was required to defer revenue that it had received but not yet spent. Any working capital that is required to be deferred can be seen on the Transit Fund forecast on the line labeled "Deferred Revenue."

The Planning and Development Services Enterprise Fund forecast maintains stable reserves throughout the forecast period. The reserves are included in case of a slow-down and prudent funding is maintained to absorb development declines. There have been several years of relatively high numbers of residential units per year; however, starting in 2021/22, those numbers have declined from the most recent three-year average of 709 units. As a result, the prior three fiscal years have drawn from the fund's working capital but will increase working capital in the current and projection years beginning in 2024/25, with an anticipated steady increase in residential units. The fund maintains a healthy working capital balance annually through 2029/30.

Internal Service Funds are projected to be self-balancing throughout the forecast period. Each of the Internal Service Funds is continually monitored, and more cost-effective programs are implemented wherever possible to reduce costs to all other City operations.

Debt Service Funds will be fully funded to make all debt payments and meet all legal obligations.

ANALYSIS OF FUNDS

The purpose of this forecast is to provide the City Council and senior management with an early identification of financial trends. With early detection, financial trends identified as possible problems can be dealt with in a reasonable manner rather than waiting for a crisis to occur.

The City's Annual Budget represents a total financing plan for all City operations and must be analyzed by its component parts to make any meaningful adjustments. Unlike a private holding company, the City cannot remove cash from any one enterprise operation to help support general tax funded operations. Although there is certainly some financial interdependence between the funds, such as internal service fund charges to allocate common costs, each fund represented in the budget must stand alone.

When analyzing City operations, it is appropriate to look at the budget department by department. However, when reviewing long range financial policies, it is best to look at the fund structure rather than the department structure. The major fund groups reviewed in this forecast are the operating funds of the City, including:

General Fund - This fund includes the functions of general government, including elected officials, administration and finance, public safety, and some field maintenance activities, such as parks, street lighting, and street maintenance.

Enterprise Funds - These funds include operations for water, sewer, solid waste, street cleaning, transit, and planning and development services.

Internal Service Funds - These funds include property and liability insurance, employee benefits, fleet maintenance, and general services.

Debt Service Funds - These funds include all debt service activity for which the City is responsible.

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GENERAL FUND

Current Year – 2024/25

The 2024/25 Annual Budget was not able to meet the operational needs of the City and address backlogs from previous years. This put into question if the City could maintain the service levels residents deserve, and have come to expect, as the 5-year Financial Forecast showed General Fund deficits in the near term. This prompted the consideration of a revenue measure to address the funding shortfall and enable the City to maintain the Clovis Way of Life. Measure Y was passed in the 2024 General Election and provides a tool to enable the City to maintain the Clovis Way of Life. Based on current estimates, revenues are currently projected to be approximately \$2.4 million above expenditures for fiscal year 2024/25. This is attributable to Measure Y, otherwise, the General Fund would have been operating at a deficit.

General Fund revenues are projected to exceed the current fiscal year's working budget by \$6.3 million. This significant increase in revenues is due to the additional sales tax from the passage of Measure Y on November 5, 2024. This additional local 1¢ sales tax is to be implemented on April 1, 2025 and estimated at \$26 million annually. The additional sales tax for 2024/25 will be for one quarter at an estimated \$6.3 million. Although there was other revenue increases projected for this current year, most of those increases are being offset by a significant decrease to the original Statewide Bradley Burns sales tax receipts received from the State's 7.25% base, of which 1% is allocated to the City's General Fund. Since the quarter ending June 2022, Bradley Burns sales tax revenue has been declining 8 out of the last 10 quarters compared to the same period in the prior year. Sales tax revenues for fiscal year 2024/25 are currently 4.5% less than the prior year's receipts. Bradley Burns sales tax revenues have been reduced by \$2.1 million in the current year based on this trend. State reimbursements for wildfires are coming in with an additional \$1.7 million over working budget largely due to the Los Angeles wildfires. Property taxes are projected to be flat from working budget along with card room and franchise fees. The City was awarded a Police grant for \$6.0 million to fund five police officers and a police service officer. \$2.2 million of this grant was projected for the current year. All additional grant revenues projected are offset with corresponding additional expenditure increases in salaries, benefits, and overtime.

General Fund expenditures are projected to exceed the current fiscal year's council approved budget by approximately \$3.5 million. These increases are due to the addition of a Senior Services Supervisor position along with several other budget amendments in the category of services, materials, and supplies. Of the services, materials, and supplies, \$1.6 million is for attorney fees related to the housing settlement agreement, which was covered by the City's emergency reserve. In addition, the Fire Department's callout overtime has increased by \$1.2 million due to their increased participation in the State's wildfires. In summary, this leaves the General Fund operating budget projected at a surplus of \$2.4 million for the current fiscal year.

Forecast Years – 2025/26 through 2029/30

Revenues

Property taxes and sales taxes are the two largest sources of discretionary revenue making up 85% of the total discretionary revenues on average; franchise fees, business licenses, and transient occupancy taxes make up most of the remainder. Property tax growth is largely driven by growth in the City. When residential, commercial, or industrial growth occurs, there is a corresponding increase in the demand for services. However, the increase in property tax revenues to support the additional demand for services will not be received by the City until potentially two years after the growth occurs. In addition, the property tax rate cannot exceed 2% growth annually due to Proposition 13 statutory limitations. Property tax growth during the forecast period is projected to increase at a rate corresponding to the 15-year average of approximately 800 single and multi-family residential units. The forecast does not project a prolonged housing downturn because those are difficult to anticipate. However, if one was to occur, this would result in property tax growth being lower than forecasted.

Sales Tax is projected to experience an almost doubling of funds due to the passage of Measure Y on November 5, 2024 which will be implemented on April 1, 2025. This additional local sales tax will supplement the Statewide 1% Bradley Burns sales tax. The City's Bradley Burns was experiencing the first reduction in growth in 2022/23 since the Great Recession. Prior to the 2022/23 fiscal year, the City experienced robust growth in 2020/21 and 2021/22 totaling 36%, which is unprecedented. Sales tax is now declining due to inflationary pressures on households, shifting household dollars away from discretionary spending as a larger portion of income goes to essentials such as non-taxable food, transportation, and housing costs. For the remaining projected years, and with the additional revenue from Measure Y, sales tax is expected to experience normalized growth at 3% annually with population growth at 750-800 residential units per year.

Growth in franchise taxes is largely due to electricity rate increases. As more households move away from traditional hard-wired phone and cable TV service towards cellular and satellite services which are not taxed, there is a decline in franchise taxes for these services. All other discretionary revenues are forecast to increase at average growth plus inflation based on the Pacific Cities Consumer Price Index for December 2024 of 2.5%.

Expenditures

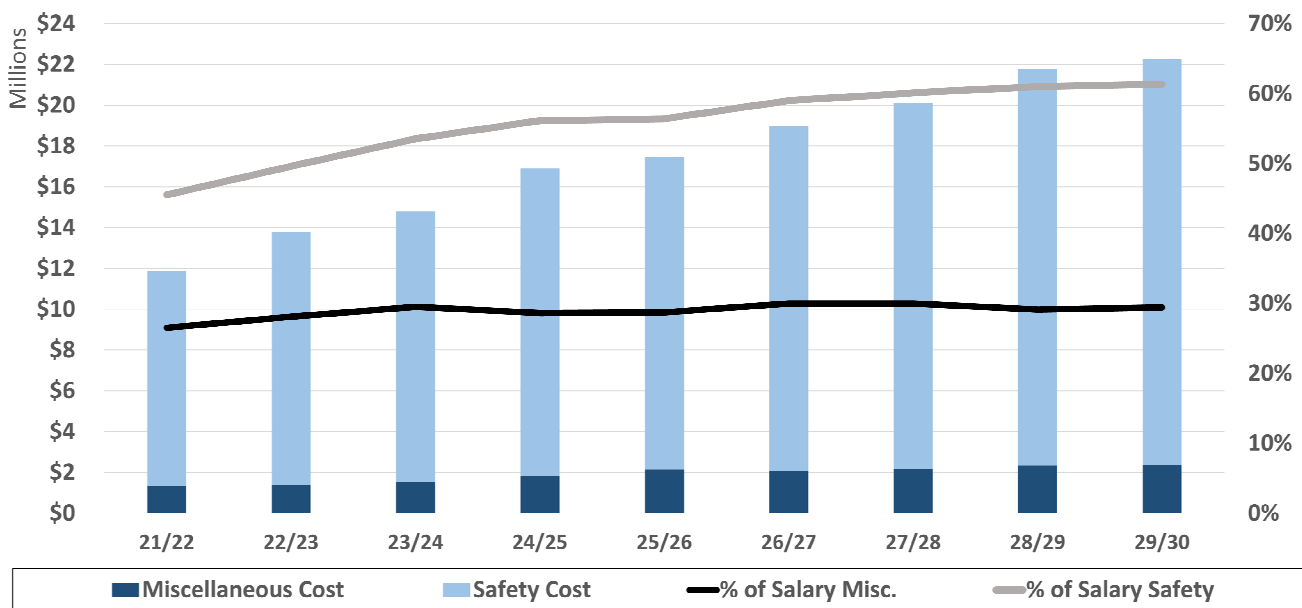
With the passage of the City's local sales tax Measure Y, several departments are expected to grow significantly, for all projected five years, to continue supporting the Clovis Way of Life and address top priorities surveyed from our residents. These priorities include maintaining 9-1-1 emergency medical, police, fire and paramedic response, fire protection, police patrols; keeping public areas safe and clean; retaining local small businesses and jobs; protecting local drinking water sources; accelerating repairs to streets and roads; addressing homelessness; maintaining youth, parks and other general services. This includes remaining financially stable by increasing our emergency reserve, building a stable fund balance, and setting aside funds for future fleet and facility needs. Departments will see considerable allocations over the projected five-year period in the specific categories of Staff, Fleet, and Capital purchases. These estimated expenditures have been allocated to the following departments as follows for the forecasted years: Public Safety is anticipated to receive 65 new positions at an estimated

cost of \$48 million over the five-year projected period, Fleet - \$18 million, Capital - \$5.5 million; Public Utilities is expected to receive 16 new positions at an estimated cost of \$9 million; Fleet - \$550,000 and other General Government Departments will receive approximately \$8 million over the five-year projected period.

Measure Y sales tax begins implementation on April 1, 2025. The City has estimated to receive \$26 million annually, however, these funding amounts are approximate and subject to change should inflationary pressures continue to make resident's discretionary spending more restricted creating major fluctuations in this revenue. The City will continually monitor these funds and make changes to our spending plan, as the need arises.

Public Employment Retirement System (PERS)

PERS costs are projected to continue to rise significantly during the forecast period due to the market volatility of investment returns for the PERS investment portfolio. PERS did outperform its expected rate of return of 6.8% (discount rate) for its 2023/24 investments with a 9.3% rate of return, a notable improvement from the two most recent years of -6.1% and 5.8% in 2021/22 and 2022/23, respectively. Like all investments, they are influenced by a variety of economic and geopolitical challenges. At this point, the full impact of the investment fluctuations has not been determined, however. The following chart shows the expected General Fund PERS costs, both as a percentage of salary and in dollars, for the forecast period.



As can be seen in the chart, annual General Fund PERS costs are projected to rise by approximately \$5 million between the current year and the end of the forecast period. The impact of the PERS costs associated with salaries is significant; those costs as a percentage of Miscellaneous salaries remain fairly constant at about 30%, while the percentage of costs for Safety continue to increase from the current 58%.

Approach to the Forecast

The Five-Year Financial Forecast represents staff's best estimate of the City's finances for the next five years and will be the basis on which the budget is developed. The forecast is structurally sound. Major increases to revenues such as extraordinary commercial growth, are not currently realized at this time so they were not considered in the development of the forecast. Measure Y will begin being collected on April 1, 2025. The Departments developed their 5-year implementation plans for the use of Measure Y funds. These investments are included in the forecast but not everything was able to be included to maintain fiscal sustainability. This required some identified needs to be excluded in the forecast but remain as goals to achieve if funding becomes available.

Growing Demands

The City continues to grow, and in recent years, it has grown faster than the long-term average. The growth drives some revenue growth, but it also drives a growing demand for services. Last fiscal year, Police and Fire comprised the largest expenditures in the General Fund at 87% of the City's discretionary revenues and are most impacted by this growing demand. Measure Y will allow for the City to grow services back to a level residents deserve and have come to expect. In order to be as effective as possible, staff will continue to evaluate different ways of delivering services using technology, social media, and best practices. Failure to grow these departments, as well as other General Fund departments at a rate corresponding to the growth of the City, will diminish the Clovis Way of Life we have all come to enjoy and expect.

The Forecast shows that Clovis is on a sustainable fiscal path with substantial opportunities to invest wisely to build up the foundation for maintaining a high-quality community. This is a significant shift from just a year ago where the City was facing forecasted deficits and corresponding service cuts. It is imperative that the City invests all resources wisely and not return to the previous precarious fiscal condition that threatened the Clovis Way of Life. The City's revenue streams have varying degrees of dependency on economic conditions, with sales tax including Measure Y, currently being the most exposed to this dependency and volatility. Preparing for downturns and implementing strategic investment plans with strong fiscal support is crucial for the City to weather an economic downturn or disruption and maintain the Clovis Way of Life as the community grows.

General Fund Financial Forecast - Summary

(dollars in thousands)

	ACTUALS			ESTIMATED	PROJECTED				
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Beginning Available Fund Balance	1,280	8,420	8,060	4,460	5,340	5,560	6,750	4,260	3,330
Reappropriation/Encumbrances	(790)	230	(450)	(1,620)					
REVENUES									
Discretionary	73,630	76,290	79,840	88,260	112,000	115,770	120,010	124,390	128,930
Non-Discretionary	30,170	23,340	24,880	29,020	27,670	27,000	26,710	27,450	28,200
Total Revenues	103,800	99,630	104,720	117,280	139,670	142,770	146,720	151,840	157,130
EXPENDITURES									
Public Safety	63,300	72,210	77,460	84,580	92,520	97,500	104,330	107,550	110,910
Public Utilities	11,000	12,400	13,060	14,870	15,930	16,990	17,690	18,210	18,680
General Government	9,660	10,700	11,800	15,480	15,500	15,850	16,120	16,740	17,020
Total Expenditures	83,960	95,310	102,320	114,930	123,950	130,340	138,140	142,500	146,610
Resources Above/(Below) Operating Expenditures	19,840	4,320	2,400	2,350	15,720	12,430	8,580	9,340	10,520
ADDITIONAL ITEMS									
Transfers Out to Housing Trust	0	0	0	0	(2,000)	(100)	(100)	(100)	(100)
Transfers Out to General Government Facilities Fund	(5,550)	(2,020)	(2,580)	(1,130)	0	0	(1,000)	(1,000)	(1,000)
Transfers Out to PDS/Projects	(310)	(300)	(370)	(350)	(350)	(350)	(350)	(350)	(350)
Transfers Out to Fleet Fund	(3,010)	(990)	(1,000)	0	(5,150)	(3,690)	(3,020)	(3,920)	(2,350)
Total Additional Items	(8,870)	(3,310)	(3,950)	(1,480)	(7,500)	(4,140)	(4,470)	(5,370)	(3,800)
Net Increase/(Decrease) to Fund Balance	10,970	1,010	(1,550)	870	8,220	8,290	4,110	3,970	6,720
OTHER ITEMS									
(Use of)/Addition to Measure Y Balance (Capital Needs)	0	0	0	0	5,000	5,000	5,000	4,000	4,000
(Use of)/Addition to Emergency Reserve	3,040	1,600	1,600	(1,630)	3,000	2,100	1,600	900	800
Total Other Items	3,040	1,600	1,600	(1,630)	8,000	7,100	6,600	4,900	4,800
Ending Available Fund Balance	8,420	8,060	4,460	5,340	5,560	6,750	4,260	3,330	5,250
Measure Y Balance	0	0	0	0	5,000	10,000	15,000	19,000	23,000
Emergency Reserve Balance	19,400	21,000	22,600	20,970	23,970	26,070	27,670	28,570	29,370
Emergency Reserve as a % of Expenditures	23.10%	22.00%	22.10%	18.20%	19.30%	20.00%	20.00%	20.00%	20.00%

CITY OF CLOVIS

General Fund - Financial Forecast (dollars in thousands)

REVENUES	ACTUALS			ESTIMATED	PROJECTED				
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Residential Units (SF + MF)	859	658	610	700	750	800	800	800	800
<u>Discretionary</u>									
Property Taxes	18,230	19,890	21,510	23,010	24,780	25,470	26,510	27,560	28,630
Property Tax In Lieu-VLF	11,900	12,910	13,880	14,680	15,310	15,980	16,680	17,410	18,180
Sales Tax - Bradley Burns	30,640	29,720	29,020	28,260	29,110	29,980	30,880	31,820	32,770
Sales Tax - Measure Y	0	0	0	6,360	26,190	26,980	27,790	28,620	29,480
Franchise Fee	2,770	2,950	2,950	3,100	3,180	3,290	3,400	3,510	3,630
Business License Tax	4,000	4,120	4,680	5,060	5,460	5,900	6,370	6,880	7,430
Other Taxes	5,780	6,040	7,020	7,090	7,270	7,450	7,640	7,830	8,030
Interest	40	400	510	450	450	460	470	480	490
Other Revenues-Discretionary	270	260	270	250	250	260	270	280	290
<u>Total Discretionary</u>	73,630	76,290	79,840	88,260	112,000	115,770	120,010	124,390	128,930
<u>Non-Discretionary</u>									
Community Facility Fees	2,170	2,680	3,230	3,520	3,760	4,020	4,290	4,560	4,840
Sales Tax-Public Safety	470	520	500	470	480	490	500	520	530
Licenses & Permits	60	70	60	80	80	80	80	80	80
Fines & Forfeitures	190	260	190	200	200	200	200	200	200
Building Rentals	50	50	80	100	100	100	100	100	100
State Subventions-Gas Tax	1,580	1,780	2,020	2,850	2,890	2,920	2,950	2,980	3,010
Grants	3,900	3,110	3,390	5,080	3,030	1,670	660	660	660
From Other Agencies	620	880	850	840	860	880	900	920	940
Current Services	1,640	2,280	2,070	2,500	2,570	2,630	2,700	2,770	2,840
Landscape Maintenance Charges	4,270	4,650	4,960	5,790	5,940	6,090	6,240	6,400	6,560
Other Revenues-Non Discretionary	8,780	410	550	450	470	480	490	500	510
Impact/Rental Fees	1,830	1,870	1,960	2,040	2,090	2,140	2,190	2,240	2,300
Admin Charges	4,610	4,780	5,020	5,100	5,200	5,300	5,410	5,520	5,630
<u>Total Non-Discretionary</u>	30,170	23,340	24,880	29,020	27,670	27,000	26,710	27,450	28,200
Total Revenues	103,800	99,630	104,720	117,280	139,670	142,770	146,720	151,840	157,130

Revenue Assumptions (dollars in dollars)

AGENDA ITEM NO. 11.

PROPERTY TAXES:	<u>ANNUAL INCREASE</u>	<u>INCREASE IN ASSESSED VALUE</u>	<u>CITY TAX RATE (Before reductions)</u>
	2.00%	\$352,000,000	18.81% of 1%
<i>Increase in Assessed Value above is based on 750 residential units</i>		<i>Nonresidential Units based on % of Residential Units is 23%</i>	
PROPERTY TAX IN LIEU-VEHICLE LICENSE FEES (VLF):	INCREASE BY ASSESSED VALUE GROWTH		4.30% <i>(Based on 750 units)</i>
SALES TAX:	<u>CURRENT CPI</u>	<u>SALES TAX RATE</u>	<u>POPULATION GROWTH</u>
	2.50%	1.00%	2,000 PER YEAR
COUNTY SHARE:	5.00% OF GROSS SALES TAX		<u>PER CAPITA PER YEAR</u>
	<u>2025/26</u>		\$242
SALES TAX GROWTH %:	PROJECTED	3.0%	<i>(Based on 750 units)</i>
FRANCHISE FEE:	<u>CURRENT CPI</u>	<u>NEW RES UNITS PER YEAR</u>	<u>FEE OF GROSS</u>
	2.50%	750	1.00%
			<u>PARTICIPATION %</u>
			50.00% Comcast/AT&T
			\$90 Per Unit per Month
			<u>P G & E</u>
			\$250 Per Unit per Mo
<i>Note: 5 year average for residential units is 900, 10 year average is 927, 15 year average is 808 units</i>			
BUSINESS LICENSE TAX:	2.50%	INCREASE BY CURRENT CPI	NEW BUSINESSES 5.50%
OTHER TAXES:	<i>Includes Transient Occupancy Tax, Cardroom Fees, and Real Property Transfer Tax</i>		
	2.50%	INCREASE BY CURRENT CPI	
INTEREST RATE:	3.00%	ON PRIOR YEAR'S BALANCE	
OTHER REVENUES:	2.50%	INCREASE BY CURRENT CPI	
COMMUNITY FACILITY FEE:	2/3 OF NEW RESIDENTIAL UNITS:	500	ANNUAL FEE: \$294 CURRENT CPI: 2.50%
SALES TAX-PUBLIC SAFETY:	PROPOSITION 172 - HALF CENT SALES TAX FOR PUBLIC SAFETY - ESTIMATES PROVIDED BY CONSULTANT		
LICENSES & PERMITS:	2.50%	INCREASE BY CURRENT CPI	
FINES AND FORFEITURES:	PARKING AND VEHICLE	\$213,000	BASED ON THREE YEAR AVERAGE
BUILDING RENTALS:	2.00%	ANNUAL INCREASE	
STATE SUBVENTIONS:	<u>GAS TAX</u>	<u>POPULATION GROWTH</u>	
	PER CAPITA	\$16.00	2,000 PER YEAR
			<i>(Based on 750 units)</i>
	<i>Gas Tax Per Capita based on last year actuals</i>		
GRANTS:	\$660,000	CURRENT AVERAGE OF ONGOING GRANTS	
FROM OTHER AGENCIES:	2.50%	INCREASE BY CURRENT CPI	
CURRENT SERVICES:	2.50%	INCREASE BY CURRENT CPI	
LANDSCAPE MAINTENANCE CHARGES:	2.50%	INCREASE BY CURRENT CPI	
IMPACT/RENTAL FEES:	BASED ON ADD'L ROUTES PROJECTED IN THE ENTERPRISE FUND AND INCREASE BY CURRENT CPI		
ADMIN CHARGES:	2.00%	ANNUAL INCREASE	

General Fund - Financial Forecast (dollars in thousands)

<u>EXPENDITURES</u>	ACTUALS			ESTIMATED	PROJECTED				
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
<u>PUBLIC SAFETY</u>									
Salaries									
Police - Sworn	9,820	11,720	12,880	14,380	15,490	16,900	17,810	18,760	19,740
Fire	6,810	7,640	7,350	7,670	8,430	9,470	9,660	9,860	10,060
Public Safety - Management	3,860	4,330	4,340	4,150	4,250	4,340	4,430	4,520	4,610
Police - Non Sworn	3,890	4,250	4,240	5,040	5,440	5,970	6,440	6,720	6,930
Fire - Non Firefighters	300	340	360	440	520	660	820	840	920
Overtime									
Overtime - Police	3,090	3,340	3,670	3,740	3,830	3,930	4,030	4,130	4,230
Overtime - Fire	2,800	2,620	2,870	3,370	2,190	2,240	2,300	2,360	2,420
Extra Help	820	1,130	1,470	1,440	1,440	1,440	1,440	1,440	1,440
Benefits									
Health	3,640	3,830	4,220	4,670	5,280	6,060	6,650	7,230	7,830
Retirement	10,510	12,400	13,270	15,070	15,330	16,900	17,750	19,170	19,600
Other	3,650	4,300	4,610	5,050	5,200	5,300	5,410	5,520	5,630
Services, Materials & Supplies	13,490	15,530	16,890	18,550	24,170	23,310	26,590	25,970	26,450
Capital Outlay	620	780	1,290	1,010	950	980	1,000	1,030	1,050
Total Public Safety	63,300	72,210	77,460	84,580	92,520	97,500	104,330	107,550	110,910
<u>PUBLIC UTILITIES</u>									
Salaries	2,400	2,780	2,940	3,300	3,750	4,250	4,480	4,570	4,660
Overtime	130	130	130	130	130	130	130	130	130
Extra Help	30	40	0	0	0	0	0	0	0
Benefits									
Health	530	550	640	750	900	1,080	1,200	1,280	1,370
Retirement	510	540	580	710	790	860	920	990	1,000
Other	320	280	270	300	350	410	440	450	460
Services, Materials & Supplies	7,020	8,040	8,430	9,600	9,950	10,200	10,460	10,720	10,990
Capital Outlay	60	40	70	80	60	60	60	70	70
Total Public Utilities	11,000	12,400	13,060	14,870	15,930	16,990	17,690	18,210	18,680
<u>GENERAL GOVERNMENT</u>									
Salaries	3,730	3,830	4,080	4,490	5,040	5,140	5,240	5,340	5,450
Overtime	50	10	10	20	20	20	20	20	20
Extra Help	440	610	650	780	860	860	860	860	860
Benefits									
Health	660	660	670	750	870	930	1,000	1,070	1,140
Retirement	830	850	940	1,110	1,350	1,210	1,250	1,350	1,350
Other	270	290	310	340	380	400	420	450	500
Services, Materials & Supplies	3,680	4,420	4,930	7,910	6,890	7,200	7,240	7,560	7,610
Capital Outlay	0	30	210	80	90	90	90	90	90
Total General Government	9,660	10,700	11,800	15,480	15,500	15,850	16,120	16,740	17,020
Total Expenditures	83,960	95,310	102,320	114,930	123,950	130,340	138,140	142,500	146,610

SALARIES:		<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
<u>POLICE-CPOA</u>	7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
SALARY BASE		\$14,380	\$14,740	\$16,080	\$17,940	\$19,230	\$20,350
Additional Officers-Salary		\$0	\$1,020	\$1,510	\$910	\$720	\$660
Number of Additional Officers		3	7	10	5	5	5
Additional Non-Sworn Positions		0	4	6	5	2	1
Total Sworn Officer Positions		125	132	142	147	152	157
<u>FIRE</u>	7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
SALARY BASE		\$7,670	\$7,860	\$8,670	\$9,860	\$10,210	\$10,410
Additional Firefighter-Salary		\$0	\$640	\$1,000	\$150	\$0	\$60
Number of Addl Firefighters		0	6	9	0	0	0
Total Sworn Positions		67	73	82	82	82	82
<u>PUBLIC UTILITIES</u>	7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
SALARY BASE		\$3,300	\$3,380	\$3,830	\$4,340	\$4,570	\$4,660
Additional Salaries-Park/Street		\$0	\$370	\$420	\$140	\$0	\$0
Addl Park/Street employees		0	6	7	3	0	0
<u>GENERAL GOVT</u>	7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
<u>MANAGEMENT</u>	7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
OVERTIME: INCREASE BY CPI			2.50%	2.50%	2.50%	2.50%	2.50%
EXTRA HELP: FLAT FOR NEXT FIVE YEARS							
HEALTH: INCREASE PER YEAR					7.0%		
					(PERS ESTIMATE)		
RETIREMENT:		<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
POLICE-SAFETY		58.98%	58.08%	58.90%	59.20%	61.10%	60.30%
FIRE		58.98%	58.08%	58.90%	59.20%	61.10%	60.30%
PUBLIC UTILITIES		30.00%	29.37%	28.60%	28.90%	30.10%	29.80%
GENERAL GOVERNMENT		30.00%	29.37%	28.60%	28.90%	30.10%	29.80%
MANAGEMENT		30.00%	29.37%	28.60%	28.90%	30.10%	29.80%
PERS EE COST SHARING -MISC		-8.40%	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%
PERS EE COST SHARING -SAFETY		-8.00%	-8.00%	-8.00%	-8.00%	-8.00%	-8.00%
WORKERS COMP: Police-CPOA		16.55%	17.00%	17.00%	17.00%	17.00%	17.00%
(included in other benefits) Fire		3.47%	3.00%	3.00%	3.00%	3.00%	3.00%
Mgmt & Admin		1.91%	2.00%	2.00%	2.00%	2.00%	2.00%
Public Utility		3.71%	4.00%	4.00%	4.00%	4.00%	4.00%
OTHER BENEFITS: Previous year's amount increased by contracted and estimated salary increases. Includes 2% of non-safety salaries for deferred comp, 1% of total salaries for sick leave incentive, 1.45% for medicare and 1% for other benefits.							
OTHER SMS:	INCREASE BY CPI		2.50%	2.50%	2.50%	2.50%	2.50%
CAPITAL OUTLAY:	INCREASE BY CPI		2.50%	2.50%	2.50%	2.50%	2.50%
	FOUR YEAR AVERAGE-PUBLIC SAFETY			\$930			
	FOUR YEAR AVERAGE-PUBLIC UTILITIES			\$60 + ADDITIONAL EQUIP FOR NEW EMPLOYEES			
	FOUR YEAR AVERAGE-GEN GOVT			\$80			
EMERGENCY RESERVE: Maintain not less than 15% with a goal to reach 25% of total expenditures. See the Summary Sheet for reserve amounts.							

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ENTERPRISE FUNDS

The purpose of the forecast for the Enterprise Funds is to provide the City Council and the City Manager with an early identification of financial trends, along with the future financial costs of legislative and regulatory requirements, and the ability to respond appropriately. Enterprise Funds, by definition, are supported by rates set to recover the full cost of services, including capital outlays and debt service. The rate setting process requires advance planning, preparation of rate studies, a public hearing process, and a final decision to implement new rates if approved. This process can take up to six months to complete. For this reason, the forecast is a critical management tool for the City.

Further detail regarding each Enterprise Fund is discussed in the following pages. Annually, staff re-evaluates all enterprise operations to determine if any adjustments to rates are needed. At this time, water, sewer, and community sanitation enterprise operations have increases approved sufficient to carry the operations through the forecast period, barring any unforeseen or catastrophic event. Once these rate increases meet their objectives, staff will begin to evaluate implementing smaller, more measured increases on an annual basis to avoid large one-time increases.

Water Enterprise

The Water Enterprise Fund is projected to have a working capital balance of approximately \$19.4 million at June 30, 2025. The City Council approved adjusted water rates in the Water Enterprise Fund beginning in June 2016 to comply with state legal requirements regarding a tiered water rate structure. The rate adjustment was revenue neutral. Council also approved a 3% annual increase that can be implemented when necessary to fund the increased cost to treat and distribute potable water, for capital improvements, and to provide debt service coverage for the 2013 Surface Water Treatment Plant bonds. A 3% rate increase to water rates is included in each of the five years of the projected forecast. In 2020/21, there was a \$5 million down payment as required by the Firm Water Supply Agreement with the Fresno Irrigation District (FID). The remaining balance of \$30 million is anticipated to be paid by development impact fees in future years. In 2016/17, the Water Enterprise Fund received a legal settlement for Trichloropropane (TCP) treatment. The Water Enterprise Fund is required to treat potable water for any TCP present, and a reserve for TCP treatment has been established for the treatment costs. Included in 2023/24 is a \$1.7 million transfer from the Parks Development Fund to reimburse the Water Enterprise Fund for its share of a property purchase for a future basin and park site. Beginning in 2024/25, the capital outlay includes an expenditure of \$2.5 million per year for five years to fund an Advanced Metering Infrastructure (AMI) project. Contributions to the reserves for the Sustainable Groundwater Management Act (SGMA) and for drought contingency are included during the forecast period. A water rate study is currently in progress and is expected to be completed in the 2025 Calendar Year. It is anticipated that a Proposition 218 protest hearing to increase water charges will be needed to generate funds for high-cost maintenance projects and to sustain a revenue neutral budget with rising operation and maintenance costs.

Water Enterprise - Financial Forecast (dollars in thousands)

	Actual 2021/22	Actual 2022/23	Actual 2023/24	Estimated 2024/25	Projected 2025/26	Projected 2026/27	Projected 2027/28	Projected 2028/29	Projected 2029/30
BEGINNING WORKING CAPITAL	22,510	22,060	20,210	22,730	19,440	15,440	12,710	9,630	7,710
<u>REVENUES</u>									
WATER CHARGES	19,190	19,980	20,840	22,460	23,270	24,100	24,970	25,860	26,780
DBCP-LEGAL SETTLEMENTS	130	210	210	170	180	190	190	190	190
TOTAL REVENUES	19,320	20,190	21,050	22,630	23,450	24,290	25,160	26,050	26,970
<u>EXPENDITURES</u>									
SALARIES	3,190	3,630	3,680	4,040	4,260	4,480	4,660	4,750	4,850
EXTRA HELP	0	20	0	10	10	10	10	10	10
OVERTIME	130	140	150	150	150	150	150	150	150
BENEFITS									
RETIREMENT	680	710	750	920	920	900	960	1,030	1,040
HEALTH	570	590	620	770	830	890	950	1,020	1,090
OTHER	390	410	360	380	440	460	480	490	500
SERVICES, MATERIALS & SUPPLIES	12,050	10,950	12,910	16,280	17,730	17,000	16,180	16,350	16,530
MEMBRANE REPLACEMENT	300	450	0	0	0	1,100	0	0	0
TCP TREATMENT	100	100	150	150	150	150	150	150	150
CAPITAL OUTLAY	910	3,720	1,990	3,910	4,060	4,060	4,060	4,060	3,060
TOTAL EXPENDITURES	18,320	20,720	20,610	26,610	28,550	29,200	27,600	28,010	27,380
<u>OTHER REVENUE AND EXPENSE</u>									
INTEREST/RENTAL/GRANTS	1,250	760	2,080	1,370	1,280	1,160	1,040	990	980
	1,250	760	2,080	1,370	1,280	1,160	1,040	990	980
TRANSFERS-OUT (CAPITAL)	(1,000)	(500)	(500)	(500)	(250)	(250)	(250)	(250)	(250)
WATER BANKING LOAN TO DEV FUND	0	0	0	0	0	0	0	0	0
PARK DEV PAYBACK - BASIN/PARK	0	0	1,700	0	0	0	0	0	0
INTERFUND LOAN TO GENERAL SERVICES	(7,500)	770	770	770	770	770	770	770	770
CONTRIBUTION-SURFACE WTP	(750)	(750)	(750)	(730)	(730)	(730)	(730)	0	0
MEMBRANE REPLACEMENT RESERVE	450	(100)	(100)	(100)	(100)	1,100	(100)	(100)	(100)
RESERVE FOR DROUGHT CONTINGENCY	(500)	(500)	(500)	500	1,000	1,000	(500)	(500)	(500)
RESERVE FOR SGMA	(1,000)	(1,000)	0	0	(250)	(250)	(250)	(250)	(250)
RESERVE FOR TCP TREATMENT	7,600	0	(620)	(620)	(620)	(620)	(620)	(620)	(620)
ENDING WORKING CAPITAL	22,060	20,210	22,730	19,440	15,440	12,710	9,630	7,710	7,330
RESERVE FOR MEMBRANE REPLACEMENT	980	1,080	1,180	1,280	1,380	280	380	480	580
RESERVE FOR DROUGHT CONTINGENCY	6,500	7,000	7,500	7,000	6,000	5,000	5,500	6,000	6,500
RESERVE FOR SGMA	4,000	5,000	5,000	5,000	5,250	5,500	5,750	6,000	6,250
RESERVE FOR TCP TREATMENT	7,650	7,650	8,270	8,890	9,510	10,130	10,750	11,370	11,990

Water Enterprise - Revenue Assumptions (dollars in dollars)

AGENDA ITEM NO. 11.

Bi-monthly Meter Charges: Residential - \$26.90 Commercial - \$21.65

Residential Usage Rates: \$1.10 per 1,000 gallons for 0 to 23,000 gallons, \$1.83 per 1,000 gallons for 23,000 - 40,000 gallons, \$2.26 per 1,000 gallons above 40,000 gallons. Dwelling unit charge \$13.45 per month (\$26.90 bi-monthly).

Commercial Usage Rates: \$1.10 per 1,000 gallons 0 to 23,000 gallons, \$1.49 per 1,000 gallons over 23,000 gallons. Monthly charge from \$10.83 (1") to \$1,097.43 (10").

Current Charges: INCREASED EACH YEAR BY THE AVERAGE INCREASE OF THE PREVIOUS THREE YEARS

		<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
Rate Increase:	7/1	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Rate Increase:	3% Based on Council approved annual rate increase unless not necessary.						
Interest:	3.00% OF PREVIOUS YEAR'S WORKING CAPITAL OR A MINIMUM OF \$10,000						

Water Enterprise - Expense Assumptions (dollars in thousands)

Salaries:	CPWEA	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
	7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
	Salary Base	\$4,040	\$4,140	\$4,370	\$4,570	\$4,750	\$4,850
	Additional Employee		\$150	\$110	\$90		
Extra Help:	FLAT FOR NEXT FIVE YEARS						
Overtime:	FLAT FOR NEXT FIVE YEARS						
		(PERS ESTIMATE)					
Retirement:		<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
		30.00%	29.37%	28.60%	28.90%	30.10%	29.80%
PERS Cost Sharing:		-8.40%	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%
Health:	INCREASE PER YEAR					7.00%	
Other Benefits:	-WORKERS COMP			4.00% FOR CPWEA		2.00% FOR ADMIN	
	-MEDICARE			1.45% OF SALARIES			
	-DEFERRED COMP/SICK LEAVE/OTHEF			5.25% OF SALARIES			
Other SMS:	INCREASE BY CPI FOR FUTURE YEARS					2.50%	
	(Increase energy cost by 50% for the Surface Water Treatment Plant operation beginning in 2004/05)						
	Rental of the New Corp Yard-beginning 2002/03				\$320 per year		
Capital Outlay:	CURRENT CPI					2.50%	
Transfers Out:	FOR CAPITAL CONTRIBUTIONS FOR DISTRIBUTION SYSTEM IMPROVEMENTS FOR LAND ACQUISITION DESIGN AND CONSTRUCTION OF RECHARGE FACILITIES-100%						
Reserves:	WELLHEAD TREATMENT CONTINGENCY ESTABLISHED FOR CLEANUP OF DBCP CONTAMINATION MEMBRANE REPLACEMENT RESERVE ESTABLISHED FOR NEW MEMBRANE COSTS DROUGHT CONTINGENCY ESTABLISHED FOR WATER PURCHASE DURING POSSIBLE DROUGHT TCP TREATMENT RESERVE FOR TREATMENT CAPITAL AND O&M SUSTAINABLE GROUNDWATER MANAGEMENT ACT RESERVE						

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Sewer Enterprise

The Sewer Enterprise Fund is projected to have a working capital balance of approximately \$27.2 million at June 30, 2025. The City Council approved a series of rate increases for the Sewer Enterprise Fund beginning August 1, 2010. Rate increases are driven by the rising cost of treatment and capital improvements at the Regional Treatment facility as well as the increase in the costs to operate new pump stations, the Sewer Treatment Water Reuse Facility (ST-WRF), and to meet bond covenants normally borne by development fees which are projected to be insufficient to meet the City's obligations in a portion of the forecast period. A 3% rate increase is included in each year of the forecast period to keep up with rising operating, maintenance, and capital costs, and to maintain a sufficient fund balance for future bonding capacity. An interfund loan is shown beginning in 2026/27 of the forecast because it is projected that the collection of development impact fees for Sewer Major Facilities will be insufficient to cover the debt service payments. However, there are sufficient funds in the bond charge fund balance collected in prior years to continue the full \$7.30 per month rebate to customers until 2028/29. The ability to continue to rebate funds back to ratepayers will be monitored closely throughout the forecast period.

Sewer Enterprise - Financial Forecast (dollars in thousands)

	Actual 2021/22	Actual 2022/23	Actual 2023/24	Estimated 2024/25	Projected 2025/26	Projected 2026/27	Projected 2027/28	Projected 2028/29	Projected 2029/30
BEGINNING WORKING CAPITAL	26,260	26,720	28,270	28,750	27,200	23,680	20,240	18,500	19,160
<u>REVENUES</u>									
SEWER CHARGES	13,780	14,510	15,000	16,010	16,720	17,460	18,220	19,000	19,810
PRETREATMENT CHARGES	50	50	50	50	50	50	50	50	50
TOTAL REVENUES	13,830	14,560	15,050	16,060	16,770	17,510	18,270	19,050	19,860
<u>EXPENDITURES</u>									
SALARIES	1,090	1,280	1,300	1,660	1,790	1,820	1,860	1,900	2,060
EXTRA HELP	0	0	0	10	10	10	10	10	10
OVERTIME	20	20	10	20	20	20	20	20	20
BENEFITS									
RETIREMENT	230	250	270	360	360	370	380	410	440
HEALTH	190	200	210	300	320	340	360	390	420
OTHER	120	130	140	150	140	190	190	200	220
SERVICES, MATERIALS & SUPPLIES	5,090	4,840	5,100	6,510	6,670	6,830	6,990	6,840	7,010
FRESNO TREATMENT PLANT	3,180	3,770	4,730	4,870	4,990	5,110	5,240	5,370	5,500
CLOVIS TRMT/REUSE PLANT (ST-WRF)	2,460	2,380	2,510	2,700	2,790	2,890	2,990	3,090	3,200
DEBT SERVICE	1,220	1,220	1,220	10	10	0	0	0	0
CAPITAL	110	440	40	650	2,150	1,710	220	220	230
CAPITAL-FRESNO PLANT IMPROVEMENTS	460	1,080	2,210	2,250	2,000	500	500	500	500
TOTAL EXPENDITURES	14,170	15,610	17,740	19,490	21,250	19,790	18,760	18,950	19,610
<u>OTHER REVENUE AND EXPENSE</u>									
INTEREST	500	860	1,670	950	1,130	1,020	930	890	930
GRANTS/MISC/SALE OF ASSETS/REFUNDS	350	40	190	660	60	50	50	50	50
BOND COVERAGE CHARGES/(REBATE)	0	0	0	0	0	0	0	1,850	1,850
	850	900	1,860	1,610	1,190	1,070	980	2,790	2,830
TRANSFERS IN-DEBT SERVICE	430	430	430	0	0	0	0	0	0
TRANSFERS OUT-CAPITAL	0	0	0	(500)	(500)	(500)	(500)	(500)	(500)
FROM DEVELOPER-PLANT CAPITAL IMPROV	270	270	270	270	270	270	270	270	270
INTERFUND (LOANS)/REPAYMENT	0	0	(390)	0	0	(1,500)	(1,500)	(1,500)	(1,500)
(INC)/USE OF FRESNO PLANT CAP RESERVE	(750)	1,000	1,000	500	0	(500)	(500)	(500)	(500)
ENDING WORKING CAPITAL	26,720	28,270	28,750	27,200	23,680	20,240	18,500	19,160	20,010
RESERVE FOR FRESNO PLANT CAPITAL	2,750	1,750	750	250	250	750	1,250	1,750	2,250
RESERVE FOR RATE STABILIZATION	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

Sewer Enterprise - Revenue Assumptions (dollars in dollars)

AGENDA ITEM NO. 11.

Current Charges:	Population Increase 2,000	New Units Per Year 750	Additional Commercial \$42,000	Residential:	2024/25 Per Unit Per Month \$24.16	Bond Charge Per Unit Per Month \$7.30 (\$7.30) Beginning FY 20/21	Pretreatment Per Unit Per Month \$0.06
Rate Rebate:							
Rate Increase:*		<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
Percentage		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Revised Monthly Rate		\$24.16	\$24.88	\$25.63	\$26.40	\$27.19	\$28.01
Interest:	3.00%	OF PREVIOUS YEAR'S WORKING CAPITAL					

* **Rate Increase:** Note: The Council can approve up to a 3% annual rate increase if deemed necessary.

Sewer Enterprise - Expense Assumptions (dollars in thousands)

Salaries: (CPWEA)	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
SALARY BASE	\$1,660	\$1,700	\$1,820	\$1,860	\$1,900	\$1,940
Additional employee		\$90				\$120
Extra Help:	FLAT FOR NEXT FIVE YEARS					
Overtime:	FLAT FOR NEXT FIVE YEARS					
Retirement:	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
	30.00%	29.37%	28.60%	28.90%	30.10%	29.80%
PERS Cost Sharing:	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%
Health:	INCREASE PER YEAR					
Other Benefits:	-RETIREMENT		30.00%	OF EXTRA HELP		
	-WORKERS COMP		4.00%	FOR CPWEA	2.00%	FOR ADMIN
	-MEDICARE		1.45%	OF SALARIES		
	-DEFERRED COMP/SICK LEAVE/OTHEF		5.25%	OF SALARIES		
Other SMS:	INCREASE BY AVERAGE CPI FOR PREVIOUS 3 YEARS					
	Rental of the New Corp Yard-Beginning in 2002/03				2.50%	
	Clovis Treatment/Reuse Plant Operations-Beginning 1/1/2009				\$320	
Regional Treatment Plant:	Annual payment for original plant buy-in plus O&M costs.					
	Adjusted for average 3 year CPI and per capita amount				\$1,000	
Capital Outlay:	FUTURE YEARS @					
	- ADJUSTED BY 3 YEAR AVERAGE CPI				2.50%	
Cap-Plant Improvements:	Based on estimates from the City of Fresno for sewer main and plant refurbishments					
Transfers In-Debt Service:	In from Major Facilities-34.57% of debt service for 1993 WWTP Renovation					
Transfers Out:	Out for on-going capital improvements-per Five Year CIP					
Interfund Loans:	Temporary cash loans to conform with various bond covenants					

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Community Sanitation Enterprise

The Community Sanitation Enterprise Fund is projected to finish the current fiscal year with a working capital balance of approximately \$11.3 million at June 30, 2025. The fund will experience a decline in reserves over the next few years due to increased administration and personnel costs, fleet renewal charges and anticipated adjustments to the recycling and organic contracts. Reserves are expected to stabilize towards the end of the five-year forecast. A 4% annual increase, or portion thereof, for Solid Waste was approved by City Council in November 2004, and a 4% annual increase for street sweeping was approved by City Council in 2021. The annual increases can be implemented by Council as necessary. A 4% annual increase is projected in the forecast period for Solid Waste, Street Sweeping, Recycling and Organics operations. These annual increases will assist in stabilizing reserves toward the end of the five-year forecast. Staff will continue to monitor fund levels to determine if an increase greater than the 4% is warranted.

CITY OF CLOVIS

Community Sanitation - Financial Forecast (dollars in thousands)

	<u>Actual 2021/22</u>	<u>Actual 2022/23</u>	<u>Actual 2023/24</u>	<u>Estimated 2024/25</u>	<u>Projected 2025/26</u>	<u>Projected 2026/27</u>	<u>Projected 2027/28</u>	<u>Projected 2028/29</u>	<u>Projected 2029/30</u>
BEGINNING WORKING CAPITAL	13,520	13,390	13,100	12,820	11,310	9,020	7,440	6,330	6,130
<u>REVENUES</u>									
REFUSE CHARGES	17,770	18,100	18,890	19,900	20,860	21,870	22,930	24,040	25,200
RECYCLING CHARGES	2,110	2,210	2,320	2,420	2,640	2,770	2,900	3,040	3,180
GREEN WASTE CHARGES	2,540	2,680	2,820	2,910	3,060	3,220	3,380	3,550	3,730
STREET SWEEPING CHARGES	1,280	1,570	1,660	1,730	1,740	1,820	1,910	2,000	2,090
TOTAL REVENUES	23,700	24,560	25,690	26,960	28,300	29,680	31,120	32,630	34,200
<u>EXPENDITURES</u>									
SALARIES	3,900	4,400	4,440	4,900	5,440	5,550	5,740	5,850	5,970
EXTRA HELP	70	90	10	80	0	0	0	0	0
OVERTIME	400	390	440	460	460	460	460	460	460
BENEFITS									
RETIREMENT	840	870	930	1,150	1,140	1,120	1,180	1,270	1,280
HEALTH	790	810	870	1,050	1,130	1,210	1,290	1,380	1,480
OTHER	610	530	360	500	570	580	600	610	630
SERVICES, MATERIALS & SUPPLIES	10,350	10,600	11,790	12,850	13,690	14,030	14,380	14,420	14,780
RECYCLING	1,640	1,610	1,790	1,910	2,410	2,480	2,550	2,620	2,700
GREEN WASTE PROGRAM	2,010	2,010	2,200	2,170	3,030	3,130	3,230	3,330	3,430
STREET SWEEPING	1,770	1,810	2,110	2,080	2,130	2,180	2,230	2,290	2,350
LANDFILL CLOSURE	380	340	350	390	400	410	420	430	440
CAPITAL	1,390	1,190	600	1,180	880	600	600	600	600
LANDFILL IMPROVEMENTS	30	720	1,020	770	100	300	300	300	1,000
TOTAL EXPENDITURES	24,180	25,370	26,910	29,490	31,380	32,050	32,980	33,560	35,120
<u>OTHER REVENUE AND EXPENSE</u>									
INTEREST	170	270	530	450	550	500	460	440	450
GRANTS/MISC/SALE OF ASSETS	30	100	260	420	90	90	90	90	90
	200	370	790	870	640	590	550	530	540
TRANSFERS	150	150	150	150	150	200	200	200	200
ENDING WORKING CAPITAL	13,390	13,100	12,820	11,310	9,020	7,440	6,330	6,130	5,950
RESERVE FOR CLOSURE	5,000	5,340	5,690	6,080	6,480	6,890	7,310	7,740	8,180
RESERVE FOR LIABILITY INS	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

Note: Maintain minimum ending working capital at 15% of expenditures or the bond covenant requirements.

Community Sanitation - Revenue Assumptions (dollars in dollars)

Current Charges:		New Units	24/25 Avg Unit	Recycling	Green Waste	Street Cleaning	
		Per Year	Per Month	Per Month	Per Month	Per Month	
		750	\$27.50	\$4.79	\$7.03	\$2.97	
Additional Commercial Annual Revenue ----->		\$35,000					
		<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
Rate Increase/(Decrease):	7/1	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Adjusted Monthly Rate:		\$27.50	\$28.60	\$29.74	\$30.93	\$32.17	\$33.46
Rate Increase: Based on Council approved 4% annual rate increase unless not necessary.							
Green Waste/Recycling: Based on current year charges, increased by new unit growth and projected rate increases of 4% per year.							
Street Cleaning: Based on current year charges, increased by new unit growth and projected rate increases of 4% per year.							
Interest: 3.00% OF PREVIOUS YEAR'S WORKING CAPITAL							

Community Sanitation - Expense Assumptions (dollars in thousands)

Salaries: (CPWEA)	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
Salary Base:	\$4,900	\$5,320	\$5,550	\$5,660	\$5,850	\$5,970
Additional Personnel: Res/Comm		\$120		\$75		
Extra Help:	\$150 for Operations per year					
Overtime:	FLAT FOR FUTURE YEARS					
	(PERS ESTIMATE)					
Retirement:	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
	30.00%	29.37%	28.60%	28.90%	30.10%	29.80%
PERS Cost Sharing:	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%
Health:	INCREASE PER YEAR				7.00%	
Other Benefits:	-WORKERS COMP				2.00% FOR ADMIN	
	-MEDICARE					
	-DEFERRED COMP/SICK LEAVE/OTHER					
Other SMS:	INCREASE BY AVERAGE CPI FOR PREVIOUS 3 YEARS				2.50%	
Capital Outlay:	Flat for future years				\$600	
	Adjusted by 3 year average CPI				2.50%	
Transfers:	In-For Toters				\$200 /year	
Reserve For Closure:	FROM 98/99, INCREASE BY 3 YEAR AVERAGE CPI				2.50%	

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Transit Enterprise

The Transit Fund is projected to have sufficient revenues throughout the forecast period to meet its operational and capital needs. Revenue from the Transportation Development Act, which includes Local Transportation Funds (LTF) and State Transit Assistance (STA) funds, is allocated to Transit based on factors like population, taxable sales, and transit performance. Recently, these funds have been used to support operational costs and the purchase of vehicles for the route redesign project. Transit is also working toward securing land to build a Transit Operations Center, which will include infrastructure to support zero-emissions mandates. The land for this project will be funded by the state's Transit and Intercity Rail Capital Program (TIRCP). Additionally, Clovis Transit began receiving federal funding in 2024/25, which will provide further support for operations and enable competition for capital grants. Given that transit funding is often subject to change, and with the Measure C sales tax set to expire after 2027, the types and levels of funding will be closely monitored to ensure any necessary adjustments to service levels are made. The Transit Fund must defer LTF and STA revenue that has been received but not yet spent. This deferred revenue is reflected in the Transit Fund forecast under "Deferred Revenue."

Transit - Financial Forecast (dollars in thousands)

	<u>Actual 2021/22</u>	<u>Actual 2022/23</u>	<u>Actual 2023/24</u>	<u>Estimated 2024/25</u>	<u>Projected 2025/26</u>	<u>Projected 2026/27</u>	<u>Projected 2027/28</u>	<u>Projected 2028/29</u>	<u>Projected 2029/30</u>
BEGINNING WORKING CAPITAL	320	650	340	440	0	0	0	0	0
<u>REVENUES</u>									
MEASURE C FUNDS *	2,130	2,190	2,170	2,160	2,210	2,270	2,330	2,390	2,450
LOCAL TRANSPORTATION FUNDS (LTF)	5,050	5,340	6,780	5,010	5,450	4,660	4,760	4,880	4,940
STATE TRANSIT ASSISTANCE (STA) **	1,020	200	2,190	5,160	4,760	5,750	5,850	2,210	2,320
FEDERAL TRANSIT ADMINISTRATION (FTA)	0	0	0	3,270	3,430	3,520	3,610	3,700	3,790
OTHER (Fares, Advertising, Trolley Rents)	50	70	110	40	0	0	0	0	0
TOTAL REVENUES	8,250	7,800	11,250	15,640	15,850	16,200	16,550	13,180	13,500
<u>EXPENDITURES</u>									
SALARIES	1,690	1,890	2,050	2,550	2,810	2,870	2,930	2,990	3,050
EXTRA HELP	1,050	1,540	1,760	1,930	2,030	2,130	2,240	2,350	2,470
OVERTIME	80	60	70	100	100	110	120	130	140
BENEFITS									
RETIREMENT	360	380	410	550	630	580	600	650	650
HEALTH	330	350	430	550	620	660	710	760	810
OTHER	520	560	620	890	740	790	830	890	920
SERVICES, MATERIALS & SUPPLIES	2,900	3,100	3,730	4,460	4,660	4,780	4,900	5,020	5,150
CAPITAL-OTHER	160	170	450	740	200	200	200	200	200
CAPITAL-BUSES	110	110	2,100	1,500	1,000	1,000	1,000	1,000	1,000
TOTAL EXPENDITURES	7,200	8,160	11,620	13,270	12,790	13,120	13,530	13,990	14,390
<u>OTHER REVENUE AND EXPENSE</u>									
INTEREST/GRANTS/MISC	180	50	470	940	690	670	730	810	890
	180	50	470	940	690	670	730	810	890
TRANSFERS (TRANSIT STATION)	(900)	0	0	(3,750)	(3,750)	(3,750)	(3,750)	0	0
ENDING WORKING CAPITAL	650	340	440	0	0	0	0	0	0
DEFERRED REVENUE	5,740	10,820	12,490	13,870	16,690	18,620	21,220	24,060	27,230

Transit- Revenue Assumptions

AGENDA ITEM NO. 11.

Transit Revenue:	Measure C revenue is projected to grow by its historical average increase	2.50%
	* Subject to availability for FY 2027/28 through FY 2029/30 *	
	LTF revenue is projected to grow by its historical average increase	5.00%
	** State Transit Assistance, for fiscal years 2019/20 through 2025/26, a transit agency may expend funds apportioned on any operating or capital costs to maintain transit service levels. For fiscal years 2024/25 through 2027/28, significant increase is due to one-time funds from the Transit and Intercity Rail Capital Program TIRCP **	
	Other revenue is projected to grow by the Current CPI	2.50%
Interest:	3.00% OF PREVIOUS YEAR'S WORKING CAPITAL	
Deferred Revenue:	REVENUE RECEIVED AND NOT SPENT	

Transit- Expense Assumptions

Salaries:	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
Salary Base:	\$2,550	\$2,620	\$2,870	\$2,930	\$2,990	\$3,050
Additional Personnel:		\$190				
Extra Help:	INCREASE PER YEAR FOR ADDITIONAL DEMAND IN ROUNDUP TRANSIT SERVICES					5.00%
Overtime:	INCREASE BY CURRENT CPI					2.50%
	(PERS ESTIMATE)					
Retirement:	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
	30.00%	29.37%	28.60%	28.90%	30.10%	29.80%
PERS Cost Sharing:	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%
Health:	INCREASE PER YEAR			7.00%		
Other Benefits:	-WORKERS COMP			4.00% OF SALARIES	2.00%	FOR ADMIN
	-MEDICARE			1.45% OF SALARIES and EXTRA HELP		
	-DEFERRED COMP/SICK LEAVE/OTHER			5.25% OF SALARIES		
Other SMS:	INCREASE BY CURRENT CPI					2.50%
Capital Outlay:	BASED ON BEST ESTIMATES FOR BUSES AND OTHER ADJUSTED BY CURRENT CPI					2.50%

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Planning and Development Services Enterprise

The Planning and Development Services (PDS) Department transitioned into an Enterprise Fund in 2012/13. This allows for services to be adjusted as demand fluctuates. The 2025/26 forecast estimates 750 residential units to be constructed; this is shy of our historical average of 800 units per year for the past 20 years. The 2024/25 forecast estimates that 700 residential units (380 single-family, 320 multi-family) are projected to be issued this fiscal year. This is primarily due to high interest rates, which continue to lower consumer housing demand. Revenues fluctuate based on construction valuation for different project types; census housing unit numbers are just one indicator. Commercial activity performed better this year than our historical average, with fewer permits but higher valuation. Over the past ten years, the 10-year moving average for commercial valuation rose from \$35 million to \$48 million per year. This year, we anticipate finishing at a \$50 million valuation, \$2 Million higher than the 10-year moving average.

The PDS Department is projected to finish 2024/25 with a working capital balance of approximately \$9.7 million. The forecast reflects that the PDS Department will maintain a prudent reserve that allows for immediate adjustments, should they become necessary.

Planning & Development Services - Financial Forecast (dollars in thousands)

RESIDENTIAL UNITS PER YEAR	859	658	610	700	750	800	800	800	800
	Actual 2021/22	Actual 2022/23	Actual 2023/24	Estimated 2024/25	Projected 2025/26	Projected 2026/27	Projected 2027/28	Projected 2028/29	Projected 2029/30
BEGINNING WORKING CAPITAL	10,080	9,890	9,520	9,080	9,720	9,720	10,260	10,550	10,770
<u>REVENUES</u>									
BUILDING PERMITS	3,390	3,650	3,580	4,950	4,890	5,120	5,120	5,220	5,130
PLANNING FEES	1,310	1,300	2,120	1,730	1,640	1,890	1,830	1,910	1,990
GENERAL PLAN CONSULTANT	180	320	360	1,660	2,410	1,470	670	670	670
ENGINEERING FEES	2,700	2,410	1,720	2,160	2,050	2,100	2,150	2,200	2,260
CAPITAL IMPROVEMENT CHARGES	2,690	3,840	4,000	4,070	4,850	4,970	5,090	5,220	5,350
TOTAL REVENUES	10,270	11,520	11,780	14,570	15,840	15,550	14,860	15,220	15,400
<u>EXPENDITURES</u>									
SALARIES	5,060	5,990	6,050	6,370	7,020	7,270	7,420	7,570	7,720
EXTRA HELP	70	120	150	110	100	100	100	100	100
OVERTIME	80	80	40	140	310	150	150	150	150
BENEFITS									
RETIREMENT	1,050	1,150	1,210	1,280	1,430	1,490	1,540	1,660	1,670
HEALTH	790	870	850	870	900	960	1,030	1,100	1,180
OTHER	420	440	450	560	570	580	590	600	620
SERVICES, MATERIALS & SUPPLIES	3,460	3,840	3,970	3,750	3,630	3,680	3,770	3,860	3,960
GENERAL PLAN CONSULTANT	180	320	360	1,430	2,090	1,400	600	600	600
CAPITAL	40	10	160	70	420	10	10	10	10
TOTAL EXPENDITURES	11,150	12,820	13,240	14,580	16,470	15,640	15,210	15,650	16,010
<u>ADDITIONAL ITEMS</u>									
INTEREST	180	260	510	600	300	300	310	320	320
OTHER REVENUES/GRANTS	200	370	140	120	80	80	80	80	80
TRANSFERS FROM GENERAL FUND	310	300	370	350	350	350	350	350	350
TOTAL ADDITIONAL ITEMS	690	930	1,020	1,070	730	730	740	750	750
NET INC/(DEC) TO WORKING CAPITAL	(190)	(370)	(440)	1,060	100	640	390	320	140
<u>OTHER ITEMS</u>									
(USE OF)/ADDITION TO EMERGENCY RESERVE	0	0	0	420	100	100	100	100	100
ENDING WORKING CAPITAL	9,890	9,520	9,080	9,720	9,720	10,260	10,550	10,770	10,810
Emergency Reserve - (Dollars)	2,500	2,500	2,500	2,920	3,020	3,120	3,220	3,320	3,420
Emergency Reserve as a % of Expenditures	22.4%	19.5%	18.9%	20.0%	18.3%	19.9%	21.2%	21.2%	21.4%

Planning & Development Services - Revenue Assumptions (dollars in dollars)

AGENDA ITEM NO. 11.

	<u>2023/24 (Act.)</u>	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
Residential Units Per Year:	610	700	750	800	800	800	800
Non-Residential Valuation %:	19%	20%	20%	20%	20%	20%	20%
<i>Averages based on two years actuals and estimate to close</i>							
Average Permit Fees Per Unit:		<u>Building</u>	<u>Planning</u>	<u>Engineering</u>	<u>International Code Council 2% Increase:</u>		
		\$5,200	\$2,200	\$2,700	<u>2022/23</u>	<u>2025/26</u>	<u>2028/29</u>
Current CPI:	2.50%						
	<u>2023/24 (Act.)</u>	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
Planning Program Fee (Staff):	\$970,000	\$1,070,000	\$1,110,000	\$1,140,000	\$1,170,000	\$1,210,000	\$1,250,000
Gen. Plan Consultant Admin Fee:	\$0	\$230,000	\$310,000	\$70,000	\$70,000	\$70,000	\$70,000
Plan. Prgm. Fee (Consultant):	\$360,000	\$1,430,000	\$2,100,000	\$1,400,000	\$600,000	\$600,000	\$600,000
Other Planning Fees:	\$1,150,000	\$660,000	\$530,000	\$750,000	\$660,000	\$700,000	\$740,000
Total FY	\$2,480,000	\$3,390,000	\$4,050,000	\$3,360,000	\$2,500,000	\$2,580,000	\$2,660,000
Capital Improvement Charges:	BASED ON HOURLY RATE CHANGES (AS NEEDED)						
Interest:	3.00%	OF PREVIOUS YEAR'S WORKING CAPITAL					
Other Revenues:		INCREASE BY CURRENT CPI				2.50%	
Grants:		BASED ON AWARDED GRANTS					

Planning & Development Services - Expense Assumptions (dollars in thousands)

	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
Salaries: (CPTA)						
7/1	3.00%	2.50%	2.00%	2.00%	2.00%	2.00%
Salary Base:	\$6,840	\$7,010	\$7,270	\$7,420	\$7,570	\$7,720
Additional Personnel:		\$120				
Extra Help:	\$110	\$100	\$100	\$100	\$100	\$100
Overtime:	WILL REMAIN FLAT THROUGHOUT PROJECTION YEARS					
	(PERS ESTIMATE)					
Retirement:	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
	30.00%	29.37%	28.60%	28.90%	30.10%	29.80%
PERS Cost Sharing:	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%	-8.40%
Health:	INCREASE PER YEAR				7.00%	
Other Benefits:	INCREASE BY CURRENT CPI				2.50%	
Other SMS:	INCREASE BY CURRENT CPI				2.50%	
	<u>2024/25</u>	<u>2025/26</u>	<u>2026/27</u>	<u>2027/28</u>	<u>2028/29</u>	<u>2029/30</u>
General Plan Consultant:						
General Plan Update & Housing Element	\$1,000	\$1,600	\$900	\$100	\$100	\$100
Misc. Services (Legal, Housing, Design, Engr)	\$230	\$230	\$230	\$230	\$230	\$230
Specific Plan/Master Plan Prep/Updates	\$0	\$0	\$0	\$0	\$0	\$0
Utility Plans & Engineering Studies	\$100	\$100	\$100	\$100	\$100	\$100
Planning Studies Guidelines	\$40	\$100	\$100	\$100	\$100	\$100
LAFCO Budget Contribution	\$60	\$70	\$70	\$70	\$70	\$70
Total FY	\$1,430	\$2,100	\$1,400	\$600	\$600	\$600
Capital Outlay:	BASED ON CAPITAL NEEDS PROJECTED FOR DEPARTMENT					
Transfers:	GENERAL FUND DISCRETIONARY FUNDING				\$350 PER YEAR	

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INTERNAL SERVICE FUNDS

The Internal Service Fund group is projected to be self-balancing throughout the Five-Year Forecast. Since the Internal Service Fund group is funded by charges to the operating funds, issues that will affect the Internal Service Funds are dealt with in conjunction with analysis of the impact on the operating funds. Each of the funds within the Internal Service Fund group is continually reviewed to determine where more cost-effective programs and services can be utilized, and expenditure reductions have been made in recent years to reduce the impact of cost sharing on all other City operations.

DEBT SERVICE FUNDS

The Debt Service Fund group, out of necessity and legal obligation, will be fully funded in order to make the required debt payments.