



## ANNUAL PROGRAM COMPLIANCE REPORT

Fiscal Year 2019-2020

The City of Monterey's Annual Program Compliance Report from Measure X funding describes the City's efforts to comply with the policies of Measure X over the reporting period. The project reports which follow the attachments chronicle the City's use of Measure X funding for each of the City projects listed in the balance sheet below.

### CITY OF MONTEREY - YEAR 2020 BALANCE SHEET

<b>REVENUES</b>	
Carryover from Previous Year	\$ 1,145,270
Measure X Revenues	\$ 1,316,143
Earning on Interest	\$ 30,536
<b>TOTAL REVENUES:</b>	<b>\$ 2,491,949</b>
<b>EXPENDITURES</b>	
Safety Critical Maintenance – <i>Traffic Signal Adaptive System</i>	\$ 73,895
Identified Safety Projects – <i>North Fremont Project and VMT</i>	\$ 151,128
Citywide Adaptive – <i>Traffic Signal Adaptive System</i>	\$ 105,123
Operational Improvements – <i>Wayfinding and Figueroa/Del Monte Protected Lefts</i>	\$ 115,400
<b>TOTAL EXPENDITURES:</b>	<b>\$ 445,546</b>
<b>FUND BALANCE, END OF PERIOD:</b>	<b>\$ 2,046,403</b>

The following attachments support this compliance report:

Attachment 1: Independent Audit of Financial Statements for Measure X Funds, Fiscal Year 2020

Attachment 2: Five-Year Capital Improvement Program

Attachment 3: Pavement Management Program Report

Attachment 1: Independent Audit of Financial Statements for Measure X Funds, Fiscal Year 2020

**City of Monterey  
Transportation Safety and Investment  
Plan Account Fund**

Monterey, California

**Independent Auditors' Reports  
and Financial Statements**

*For the Year Ended June 30, 2020*



**City of Monterey**  
**Transportation Safety and Investment Plan Account Fund**

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## INDEPENDENT AUDITORS' REPORT

To the Honorable Mayor and the Members of City Council  
of the City of Monterey  
Monterey, California

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Transportation Safety and Investment Plan Account Fund (the "Fund") of the City of Monterey, California (the "City"), as of and for the year ended June 30, 2020, and the related notes to the financial statements, as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### ***Auditors' Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### ***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Fund, as of June 30, 2020, and the changes in financial position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

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To the Honorable Mayor and the Members of City Council  
of the City of Monterey  
Monterey, California  
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***Emphasis of Matter***

As discussed in Note 1, the financial statements present only the Fund and do not purport to, and do not, present fairly the financial position of the City, as of June 30, 2020, the changes in its financial position, or, where applicable, its cashflows for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

***Other Matters***

***Other Information***

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Fund's financial statements. The accompanying supplemental information – Schedule of Revenues, Expenditures, and Changes in Fund Balance – Budget and Actual on page 11 is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The Supplemental Information is the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Supplementary Information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated December 23, 2020, on our consideration of the Fund's internal control over financial reporting and on our tests of its compliance with the requirements described in the TAMC's Ordinance No. 2019-01 and in the Measure X Master Programs Funding Agreement (the "Agreement") between TAMC and the City and other matters for the year ended June 30, 2020. The purpose of that report is solely to report our opinion on compliance and to describe the scope of our testing of internal control over financial reporting and the results of that testing, and not to provide an opinion on the effectiveness of the Fund's internal control over financial reporting. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Fund's compliance.



Santa Ana, California  
December 23, 2020

## **FINANCIAL STATEMENTS**



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**City of Monterey**  
**Transportation Safety and Investment Plan Account Fund**  
**Balance Sheet**  
**June 30, 2020**

**ASSETS**

Cash and investments	\$	2,163,876
Intergovernmental receivable		260,204
<b>Total assets</b>	<b>\$</b>	<b>2,424,080</b>

**LIABILITIES, DEFERRED INFLOWS OF  
RESOURCES, AND FUND BALANCE**

**Liabilities:**

Accounts payable	\$	117,473
<b>Total liabilities</b>		<b>117,473</b>

**Deferred Inflows of Resources:**

Unavailable revenue		260,204
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**Fund Balance:**

Restricted		2,046,403
<b>Total fund balance</b>		<b>2,046,403</b>
<b>Total liabilities, deferred inflows of resources and fund balances</b>	<b>\$</b>	<b>2,424,080</b>

**City of Monterey**  
**Transportation Safety and Investment Plan Account Fund**  
**Statement of Revenues, Expenditures, and Change in Fund Balance**  
**For the Year Ended June 30, 2020**

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**REVENUES:**

Transportation Safety and Investment Plan Account revenue	\$ 1,316,143
Use of money and property	30,536
<b>Total Revenues</b>	<u>1,346,679</u>

**EXPENDITURES:**

Capital outlay	445,546
<b>Total Expenditures</b>	<u>445,546</u>

**NET CHANGE IN FUND BALANCE**

901,133

**FUND BALANCE:**

Beginning of year	1,145,270
End of year	<u>\$ 2,046,403</u>

**City of Monterey**  
**Transportation Safety and Investment Plan Account Fund**  
**Notes to the Financial Statements**  
**For the Year Ended June 30, 2020**

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**Note 1 – Summary of Significant Accounting Policies**

***Reporting Entity***

The Transportation Safety and Investment Plan Account Fund from the Transportation Agency for Monterey County (“TMAC”) was approved on November 8, 2016. The revenue from the Measure X sales tax measure will be used to fund transportation safety and mobility projects in Monterey County. Expenditures are restricted to road improvements, pothole repairs, street and road maintenance, traffic deduction and regional safety, mobility and walkability.

The Transportation Safety and Investment Plan Fund financial statements and related accounting policies of the City of Monterey, California (the “City”) conform with generally accepted accounting principles applicable to governments in the United States of America. The Governmental Accounting Standards Board (“GASB”) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

The financial statements present only the Transportation Safety and Investment Plan Account Fund (the “Fund”) of the City and do not purport to, and do not present, the City’s financial position and changes in financial position. The City of Monterey’s basic financial statements are available from the Finance Department at City’s address and website.

***Basis of Accounting***

The accounting and financial reporting treatment applied to a fund is determined by its measurement focus. The Fund of the City is a governmental fund type. Governmental funds are accounted for using a “*current financial resources*” measurement focus. The application of this measurement focus provides that, in general, only current assets and current liabilities are present on the balance sheet. Operating statements of these funds present revenues and expenditures.

The modified accrual basis of accounting is used for the Fund. Under the modified accrual basis of accounting, revenues are recognized when they become susceptible to accrual (i.e., both measurable and available). Measurable means that the amount of the transaction can be determined. Available means the funds are collectible within the current period or soon enough thereafter to be used to pay liabilities of the current period. For this purpose, the City considers revenues to be available if they are collected within 60 days of the end of the current fiscal period.

Expenditures of governmental funds are generally recognized when the related fund liability is incurred.

**Note 2 – Cash**

The City follows the practice of pooling cash and investments for all funds (including the Fund) under its direct daily control. Interest earned on pooled cash and investments is allocated periodically to the various funds based on average cash balances. Detailed disclosure regarding the City’s cash and investment is included in the notes to City’s basic financial statements.



**SUPPLEMENTARY INFORMATION**

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**City of Monterey**  
**Transportation Safety and Investment Plan Account Fund**  
**Schedule of Revenues, Expenditures, and Changes in Fund Balance - Budget and Actual**  
**For the Year Ended June 30, 2020**

	Original Budget	Final Budget	Actual	Variance with Final Budget Over/(Under)
<b>REVENUES:</b>				
Transportation Safety and Investment Plan Account revenue	\$ 1,048,441	\$ 1,048,441	\$ 1,316,143	\$ 267,702
Use of money and property	-	-	30,536	30,536
<b>Total Revenues</b>	<u>1,048,441</u>	<u>1,048,441</u>	<u>1,346,679</u>	<u>298,238</u>
<b>EXPENDITURES:</b>				
Capital outlay	<u>750,000</u>	<u>750,000</u>	<u>445,546</u>	<u>304,454</u>
<b>NET CHANGE IN FUND BALANCE</b>	<u>\$ 298,441</u>	<u>\$ 298,441</u>	901,133	<u>\$ 602,692</u>
<b>FUND BALANCE:</b>				
Beginning of year			<u>1,145,270</u>	
End of year			<u>\$ 2,046,403</u>	



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**REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE  
WITH TAMC ORDINANCE NO. 2019-01 TRANSPORTATION SAFETY AND INVESTMENT  
PLAN FUND AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS  
PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS***

***Independent Auditors' Report***

To the Honorable Mayor and the Members of City Council  
of the City of Monterey  
Monterey, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Transportation Safety and Investment Plan Account Fund (the "Fund") of the City of Monterey, California (the "City"), as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Fund's financial statements, and have issued our report thereon dated December 23, 2020.

We have also audited the City's compliance with the types of compliance requirements described in the Transportation Agency's for Monterey County's (the "TAMC") Ordinance No. 2019-01 and the Measure X Master Programs Funding Agreement (the "Agreement") between TAMC and the City, applicable for the year ended June 30, 2020.

***Management's Responsibility***

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to the Fund.

***Auditors' Responsibility***

Our responsibility is to express an opinion on the City's compliance based on our audit in accordance with the compliance requirements described in the TAMC's Ordinance No. 2019-01 and in the Agreement between the TAMC and the City. The Agreement requires that the independent auditor shall perform at least the following tasks: (1) determine whether the recipient expended all Measure X funds received in compliance with Measure X, the Measure X Investment Plan, and the Policies & Project Descriptions, as they may be adopted or amended by TAMC from time to time, and the Agreement, (2) determine whether the Measure X revenues received and expended were accounted for and tracked in its own separate budget and fund titled "Transportation Safety & Investment Plan Account" and were not be comingled with any other funds and that the accounting system provides adequate internal controls and audit trails to facilitate an annual compliance audit for each fund type and the respective usage and application of said funds, and (3) determine whether the City met the Maintenance of Effort requirements imposed by Measure X and State law. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the compliance requirements referred to above that could have a direct and material effect on the state laws and regulations applicable to the City occurred. An audit includes examining, on a test basis, evidence about the City's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance. However, our audit does not provide a legal determination of the City's compliance.

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To the Honorable Mayor and the Members of City Council  
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Page 2

### ***Opinion on Compliance with the Fund***

In our opinion, the funds allocated to and received by the Fund of the City, complied, in all material respects, with the compliance requirements referred to above that are applicable in accordance to the compliance requirements described in the TAMC's Ordinance No. 2019-01 and in the Agreement between the TAMC and the City for the year ended June 30, 2020.

### **Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Fund's internal control over financial reporting (the "internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Fund's internal control. Accordingly, we do not express an opinion on the effectiveness of the Fund's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

### **Purpose of this Report**

The purpose of that report is solely to report our opinion on compliance and to describe the scope of our testing of internal control over financial reporting and the results of that testing, and not to provide an opinion on the effectiveness of the Fund's internal control over financial reporting. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. This report is intended solely for the information and use of City Council, management of the TAMC and for filing with the appropriate regulatory agencies and is not intended to be and should not be used by anyone other than these specified parties.

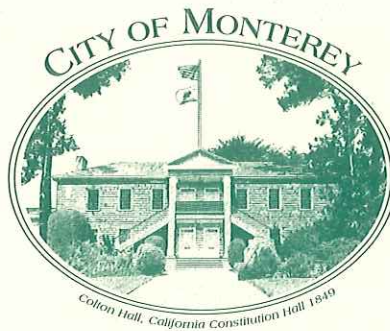


Santa Ana, California  
December 23, 2020

## Measure X 5 Year Capital Improvement Program

	Measure X Funding	Measure X Amount	Total Cost	
<b>YEAR 1</b>	<b>FY 20/21</b>			
35c1850	Measure X Transportation Safety Critical Maintenance	\$50,000	\$50,000	
35c1851	Measure X Transportation Safety Projects Grant match and Preliminary Engineering	\$100,000	\$100,000	
37c2050	Measure X Citywide Adaptive	\$350,000	\$800,000	
CIP2012	Measure X Operational Improvement to Transportation System	\$100,000	\$100,000	
<b>YEAR 2</b>	<b>FY 21/22</b>			
35c1850	Measure X Transportation Safety Critical Maintenance	\$50,000	\$50,000	
35c1851	Measure X Transportation Safety Projects Grant match and Preliminary Engineering	\$400,000	\$4,000,000	*ATP Grant Application/HSIP
37c2050	Measure X Citywide Adaptive	\$300,000	\$800,000	
CIP2012	Measure X Operational Improvement to Transportation System	\$100,000	\$100,000	
<b>YEAR 3</b>	<b>FY 22/23</b>			
35c1850	Measure X Transportation Safety Critical Maintenance	\$50,000	\$50,000	
35c1851	Measure X Transportation Safety Projects Grant match and Preliminary Engineering	\$800,000	\$4,000,000	*ATP Grant Application/HSIP
37c2050	Measure X Citywide Adaptive	\$300,000	\$800,000	
CIP2012	Measure X Operational Improvement to Transportation System	\$100,000	\$100,000	
<b>YEAR 4</b>	<b>FY 23/24</b>			
35c1850	Measure X Transportation Safety Critical Maintenance	\$50,000	\$50,000	
35c1851	Measure X Transportation Safety Projects Grant match and Preliminary Engineering	\$50,000	\$100,000	
37c2050	Measure X Citywide Adaptive	\$200,000	\$500,000	
CIP2012	Measure X Operational Improvement to Transportation System	\$100,000	\$100,000	
<b>YEAR 5</b>	<b>FY 24/25</b>			
35c1850	Measure X Transportation Safety Critical Maintenance	\$50,000	\$50,000	
35c1851	Measure X Transportation Safety Projects Grant match and Preliminary Engineering	\$200,000	\$400,000	
37c2050	Measure X Citywide Adaptive	\$100,000	\$200,000	
CIP2012	Measure X Operational Improvement to Transportation System	\$100,000	\$100,000	

\* Staff is working hard to stretch Measure X dollars by applying for competitive grants



PUBLIC WORKS DEPARTMENT

December 8, 2020

Mr. Todd Muck  
Deputy Executive Director  
Transportation Agency for Monterey County 55-B Plaza Circle  
Salinas, CA 93901

Re: Pavement Management Program Annual Report Letter

Dear Mr. Muck, *Todd*

The City of Monterey confirms that it has a Pavement Management Program that conforms to the criteria established by the Transportation Agency for Monterey County and included in the Measure X Agreement with the Local Agency. An approved Pavement Management Program must be in place to be eligible for Measure X funds.

The Pavement Management Program utilizes a software system developed by:

- Metropolitan Transportation Commission StreetSaver
- Other \_\_\_\_\_

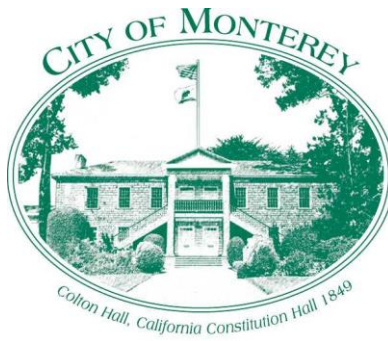
The system was updated by the City of Monterey and contains, at a minimum, the following elements:

- Inventory of all existing pavements under the local agency jurisdiction:  
Centerline miles: **102.22**  
Total lane miles (or equivalent units): **220.20**  
The last update of the inventory was completed on: **December 8, 2020**
- Pavement Condition Index (PCI): **69**
- Identification of sections of pavement needing maintenance, rehabilitation, or replacement.  
Total lane miles (or equivalent units) **211.43** (PCI < 90)
- Estimated budget needs to rehabilitate or replace deficient sections for the current year and the next three years: **\$38,625,213 (Unconstrained Needs)**

You may direct any questions regarding the system to Thomas Korman, P.E. at (831) 646-3475.

Sincerely,

Steve Wittry, P.E.  
Public Works Director



# Measure X Project Report

## December, 2020

### Measure X Citywide Traffic Signal Adaptive System (and Critical Maintenance)

The City of Monterey experiences significant and unpredictable arterial roadway congestion, which creates inefficient traffic flow resulting in considerable emissions of pollutants and particulate matter. This degrades quality of life as well as air quality.

## Objectives

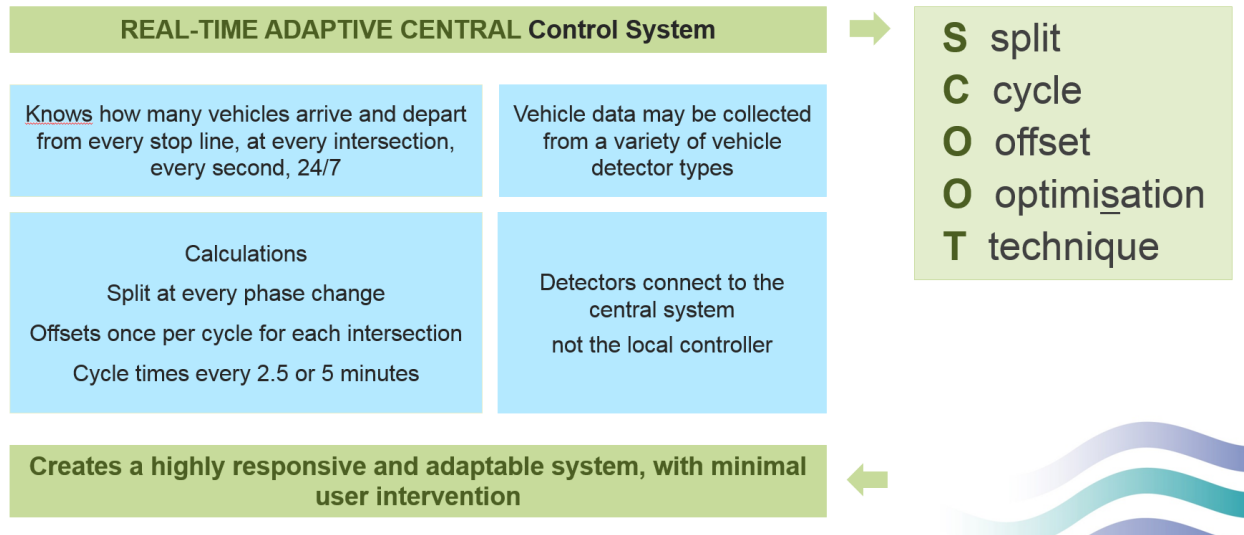


Adaptive traffic control systems are the latest technology for improving traffic conditions by better synchronizing and controlling traffic signals. The system uses vehicle detection and artificial intelligence software to respond accurately and immediately to real-time traffic conditions. This enables the system to use green light time efficiently and to progress traffic through a corridor with few or no stops, and therefore less fuel consumed and fewer emissions. By eliminating idling due to stops and the resulting acceleration, vehicles burn less fuel and expel fewer pollutants and particulate matter. There are also travel time, quality of life, economic, and safety benefits from the system. The system consists of installing additional video vehicle detection and in-cabinet processors as well as software and engineering services.

City of Monterey staff extensively researched the different adaptive systems and based on a study of 12 different systems, conducted by Kimley Horn and Associates, the City

chose to deploy the SCOOT (Split Cycle Offset Optimization Technique) system.

### SCOOT is the network-wide adaptive traffic control solution chosen for the City of Monterey



This ongoing project has been funded through Measure X, Monterey Bay Air Resources District's Emissions reduction grant, City of Monterey Neighborhood Capital Improvement Program and Regional Surface Transportation Program. Staff has applied for competitive grants to fund all of these efforts. By combining multiple sources of funding and leveraging Measure X dollars, staff has been able to fund the system implementation resulting in cost and time savings. By managing this large project in house, the City has been able to efficiently implement necessary equipment upgrades, fiber optic communication installation and install the adaptive system. By eliminating mark up costs and profit margins, staff estimates a cost savings of over \$700,000 for this Citywide Project.

The system uses green time efficiently and progresses traffic through a corridor with few or no stops, and therefore less fuel consumed and fewer emissions. By eliminating idling due to stops and the resulting acceleration, vehicles burn less fuel and expel fewer pollutants and particulate matter. The system, when completed along Lighthouse, Del Monte and North Fremont, Munras, Foam, Pacific and Franklin, will result in a yearly reduction of **20 tons** of criteria pollutants (NO<sub>x</sub>, ROG and PM).

Between 2016 and 2019, the following intersections were running adaptive control:

- Lighthouse and Reeside
- Lighthouse and Dickman
- Lighthouse and Drake
- Lighthouse and McClellan
- Lighthouse and Hoffman
- David and Hawthorne
- Lighthouse and David
- Lighthouse and Irving
- Lighthouse and Prescott
- Del Monte and Washington
- Del Monte and Figueroa
- Del Monte and Camino El Estero
- Del Monte and Camino Aguajito
- Del Monte and Sloat
- Del Monte and NPS
- Del Monte and Casa Verde
- Del Monte and English

In 2020, the North Fremont Corridor was completed:

- North Fremont and Casa Verde
- North Fremont and Airport/Dela Vina
- North Fremont and Ramona
- North Fremont and Casanova



We also started the process of installing equipment and fiber communication in preparation for SCOOT for the Munras & Fremont and Foam Corridors:

- Munras and Webster
- Munras and El Dorado
- Munras and Del Monte Center North
- Munras and Del Monte Center South
- Munras and Soledad
- Soledad and Pacific
- Fremont and Abrego
- Fremont and Camino El Estero
- Foam and Cannery Row
- Foam and Reeside
- Foam and Drake
- Foam and Hoffman
- Foam and Prescott
- Foam and Irving
- Foam and David

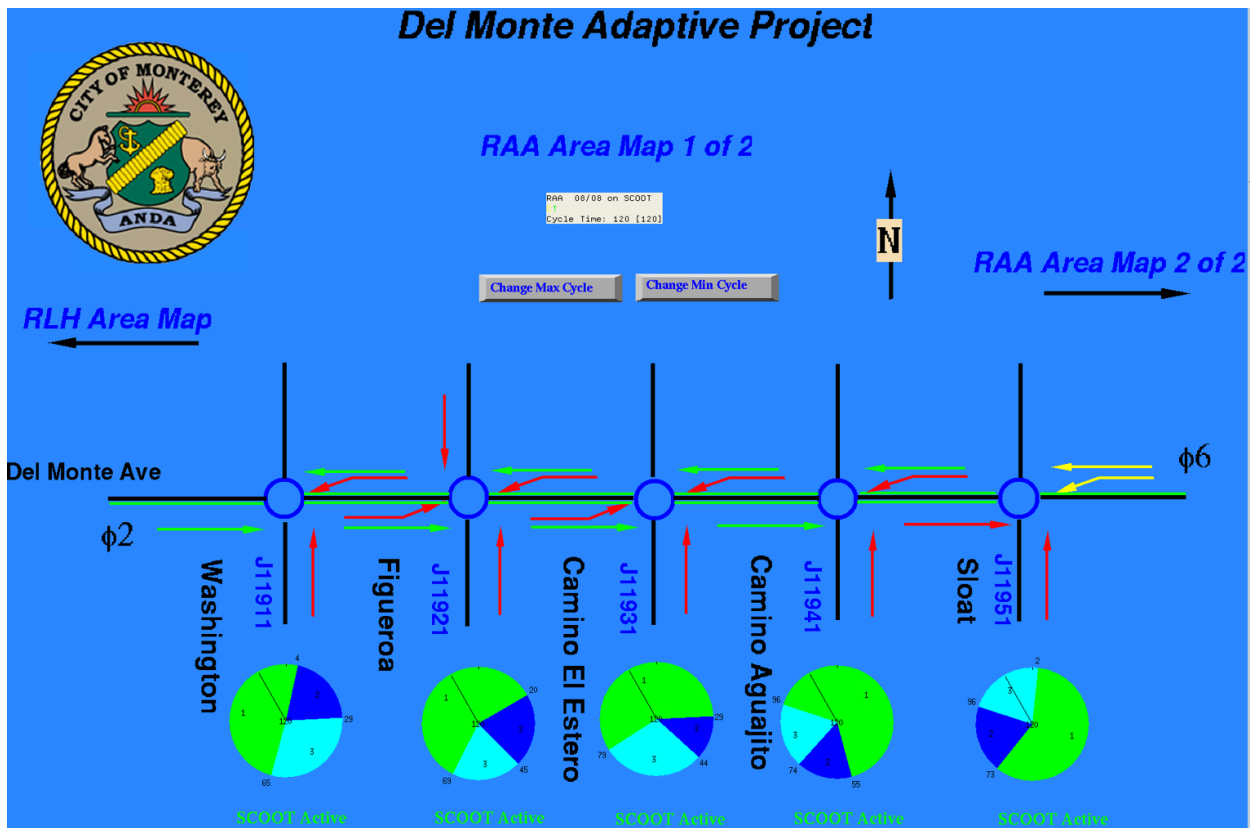
The City is preparing to install the Adaptive Signal System on the Franklin and Pacific corridors as of December 2020:

- Franklin and Van Buren
- Franklin and Calle Principal
- Franklin and Alvarado
- Franklin and Tyler
- Franklin and Washington
- Franklin and Figueroa
- Pacific and Scott
- Pacific and Franklin
- Pacific and Jefferson
- Pacific and Madison
- Pacific and El Dorado/Martin



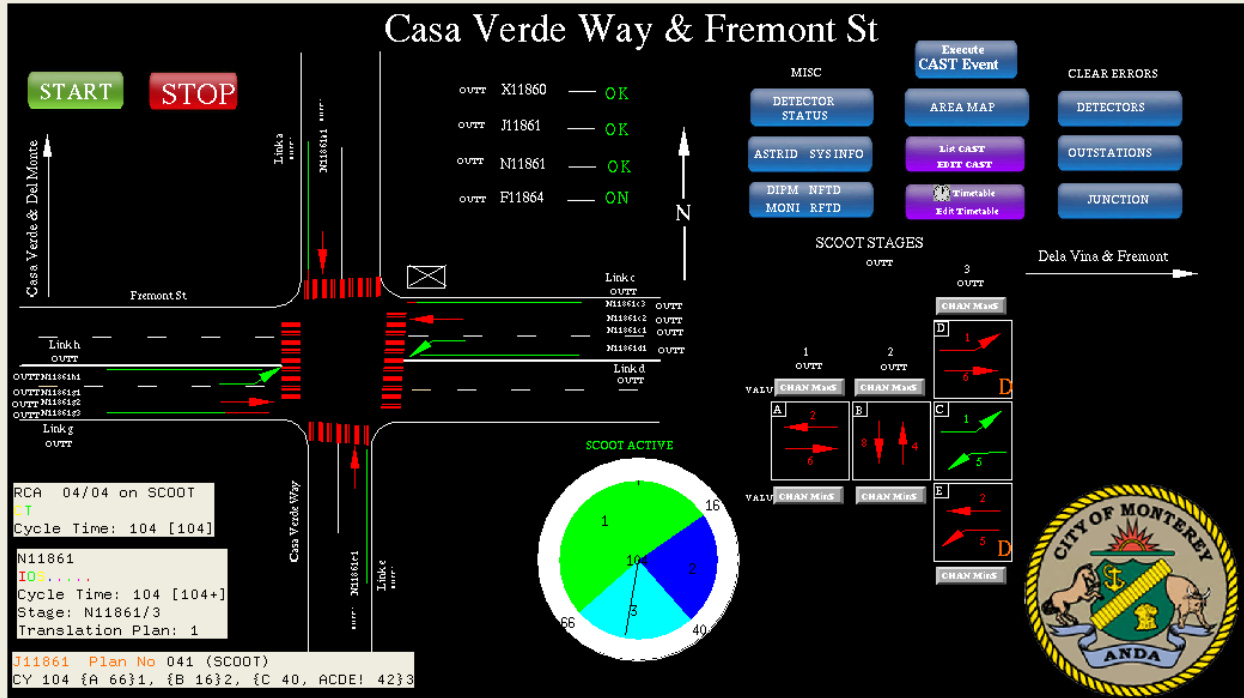
In order to implement the SCOOT system at additional intersections, existing traffic signal equipment has and will have to be upgraded (cabinets, controllers and communications) and new vehicle detection will need to be installed. Measure X funding was used to upgrade outdated and failing equipment to improve the reliability of the City's traffic signal system.

The SCOOT system also is completely compatible with the SIEMENS TACTICS central system that the City of Monterey uses to manage their signal system.



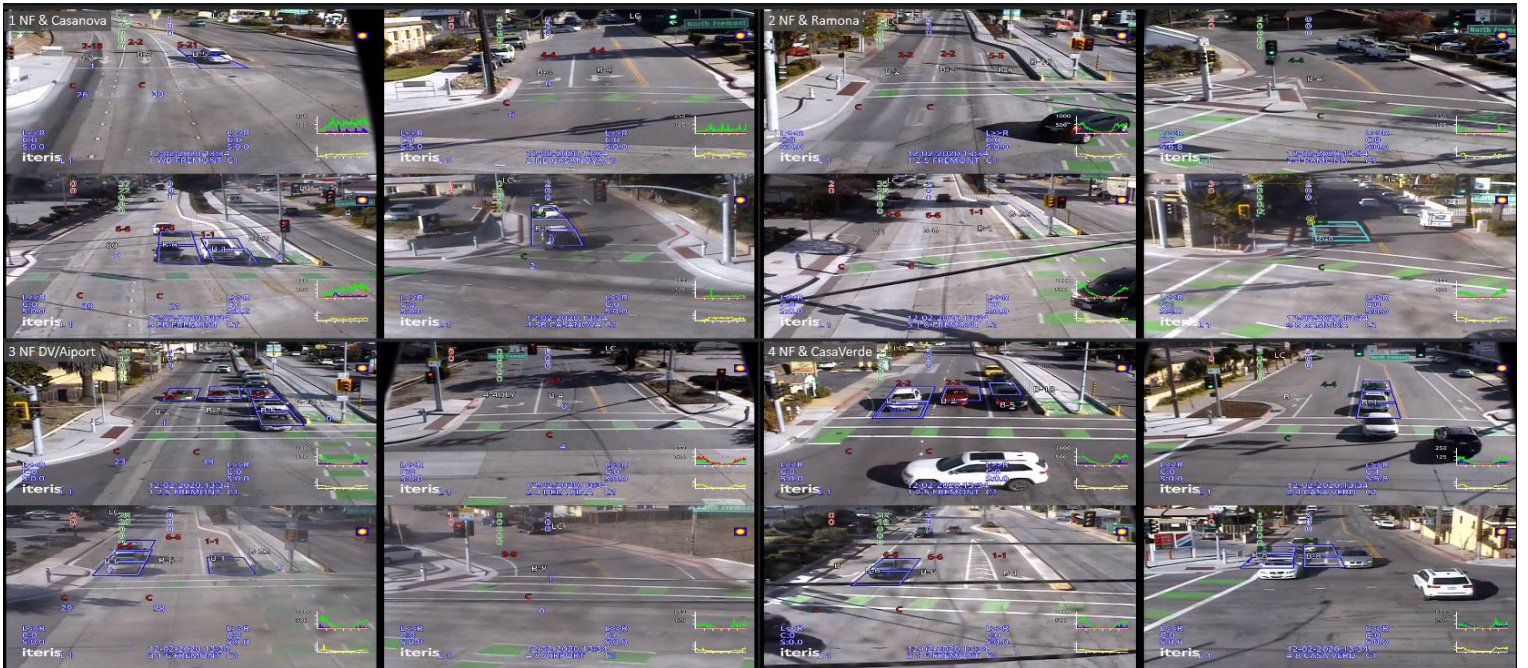
SCOOT requires both software and hardware asset installation and construction and the project included such assets as:

- Video detection on all approaches of all eight intersections
- Cabinet upgrades
- Controller and/or software (SEPA 5.0) upgrades
- SCOOT expansion licenses
- Urban Traffic Control database programming
- SCOOT database programming
- SCOOT Communication Server programming
- Calibration, Validation and Fine tuning of the adaptive model

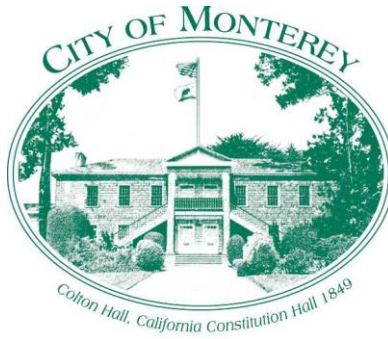


Coordinated traffic signals on the corridor will benefit all modes of travel by improving traffic flow and maintaining more consistent travel speeds. MST has a BRT service on Lighthouse and North Fremont that will also greatly benefited from this project and offer a substantial savings for bus travel, improving the ability for travelers to reach the corridor on modes other than via automobile. This system will also benefit the future SURF line on Del Monte Avenue.

The City of Monterey has been so successful in installing the adaptive system in a cost effective and efficient manner that we received yet another grant from the Monterey Bay Air District in the amount of \$382,000 in order to implement the same system on the Foam and Munras corridors. And in this fiscal year, the City applied for and received another AB2766 Grant in the amount of \$400,000 for Pacific and Franklin.



New Video detection on N Fremont



## Measure X Project Report

December, 2020

### Measure X Transportation Safety Projects

#### 2020 Update:

Fiber Optic was placed into the conduits and pull boxes that were installed in 2019. Fiber Optics enabled the City to install a traffic signal adaptive on North Fremont (please see related Measure X Report on Adaptive). The traffic signal infrastructure on N Fremont was old and failing. The conduits were reaching a failing point. Installing an adaptive system would not have been possible without this comprehensive infrastructure upgrade.

This project faced many challenges such as sink holes caused by years of failing storm drain pipes, extensive underground utility conflicts and failing existing equipment.

The constant flooding on N Fremont was addressed by placing storm chambers under the sidewalks. The sink holes were addressed and repaired. New ADA curb ramps and push buttons were installed. An important update on 2020 is that N Fremont is receiving the first touchless Audible Pedestrian Push Buttons in the City of Monterey. This is part of a new technology that not only benefits individuals with disabilities but also reduces the surfaces that are touched by multiple people.



## NEW SMART TRAFFIC SIGNALS

After 50 years of no major infrastructure work, resulting in failing equipment, North Fremont now has traffic signals that adapt to real-time conditions, saving commuters time and improving safety. Improvements include all new safety lighting, poles, wiring, and controllers.



## NEW STORM DRAIN SYSTEM

New storm drain systems include chambers under sidewalks that hold 41,000 gallons of water, helping prevent flooding and reducing the risk of vehicles hydroplaning during heavy storms.



## SIGNIFICANTLY IMPROVED SAFETY FOR ALL PEDESTRIANS & BICYCLISTS

These improvements include important and state-required Americans with Disabilities Act (ADA) ramps at intersections, increasing safety for users of all abilities.



North Fremont went over 50 yrs without major infrastructure work



26,000 square feet of bike path, about half the size of a football field



Over 30 miles of electrical wiring for traffic signals & lighting



Almost 5,000 ft of bike rail - over 12 mi of 1/4 in stainless steel tubing



Smart traffic signal technology adapts to real-time conditions



First of its kind in CA, median bike lane - upstages Penn Ave in Washington DC



Increased safety lighting, new traffic signal poles, wiring & controllers



A new storm chamber under the sidewalk holds 41,000 gallons of water



Significant improvements to pedestrian & bike safety



Over 5,000 ft of concrete poured using a machine similar to a Play doh Fun Factory

Funding - Combining funding to increase project savings and address many improvements under one contract, minimizing impacts to residents and businesses



## ALL OF THIS ON BUDGET AND PAID FOR BY 5 MAJOR FUNDING SOURCES

- Active Transportation Grant (CalTrans) (1)
- Regional Surface Transportation Program (TAMC) (2)
- Measure P/S (3)
- Measure X (4)
- Neighborhood Community Improvement Program (NCIP) (5)





## North Fremont Project

This project is the perfect example of using Measure X funding in addition to Active Transportation Program and Regional Surface Transportation grant funding to enhance transportation safety.

North Fremont has a very high number of commercial driveways, on street parking and a high volume of right turns. North Fremont carries an Average Daily Traffic of 30,000 and the speed limit is 35 mph. Crossing distances across North Fremont at each existing intersection are excessively long due to skewed side streets and crosswalks. These long crosswalks substantially increase pedestrian exposure and generate excessive pedestrian timing delay.

When determining options for bike improvements for North Fremont, a class II bicycle lane was also reviewed. A Class II facility at this location would have attracted adults with a higher confidence and higher “traffic-tolerance” and would not be as attractive to all potential users (of different ages and abilities).



To improve pedestrian access, crosswalk lengths crossing North Fremont Street was reduced by straightening out the angle of the crosswalk. Audible pedestrian signals and countdown pedestrian heads were added to all signalized intersections to dramatically increase ADA accessibility. New curb ramps were installed at all intersections.



The benefits and positive impacts of this project occur between Casa Verde and Casanova where there is the potential to increase biking through the construction of Class IV bike lanes and the ADA improvements that link employment centers, residents, shopping areas and recreational facilities.

The Class IV lanes were built received great support from the Bike and Pedestrian Committee as well as residents and the business community. Groups such as Families of Color of Monterey

County also strongly supported the Class IV bike lanes which enhanced safety, mobility choices and promoted social equity.

Roger Geller's "Four types of Transportation Cyclists" survey results, showed that up to 71% of the population would be attracted to bicycling if the bicycle network was designed to reduce the stress associated with potential motor vehicle conflicts. This is in addition to the 8% to 19% who are confident to use any bike facility. A San Francisco survey showed that 7 in 10 people cite safety concerns as a major impact on their decision to bike and 55% don't feel safe riding a bike adjacent to traffic (Class III or II).

The proposed Class IV facility offers a much higher degree of safety and comfort and the ability to attract users of all ages and abilities. The Class IV is the alternative that best fulfills the Active Transportation Program goals of increasing walking and biking trips, increasing safety for all users, increasing mobility, supporting GHG reduction and enhancing public health. Class IV bike lanes have shown to have 89% fewer injuries among bike riders. Class IV bike lanes also minimize conflicts between pedestrians and bicyclists riding on the sidewalk (who are not comfortable riding near traffic).

Other jurisdictions that have installed Class IV bike lanes have seen an increase of upwards of 300% in ridership. The City expects to see an increase in bicyclists of 200% which amounts to 140 new daily riders in the Class IV bike lanes from Casa Verde to Casanova. The City expects an increase in 50% of pedestrians, which amounts to 330 new pedestrian trips due to improved ADA access and shortened crossings.

The project broke ground in June of 2018 and was completed in October 2019.

In September 2019 a ribbon cutting ceremony was held at the intersection of North Fremont and Airport Road to celebrate the completion of the median bicycle lanes. The bicycle lanes were fully open to the public

**Completed improvements include:**



Intersection Improvements at North Fremont (Casa Verde Way, Casanova Avenue, Airport Road, and Ramona Avenue

- Work consisted of rebuilding new concrete sidewalks, curb ramps, electrical & underground improvements
- Installation of traffic signal poles and bicycle signals

### Median Bicycle Lanes

- Re-opened all lanes and Parking along North Fremont
- Installation of railing on median bicycle lanes

The City has conducted extensive outreach to businesses and residents and created a project specific website at:

<https://monterey.org/City-Hall/Featured-Projects/The-NFremont-Bike-and-Pedestrian-Access-and-Safety-Improvements-Project>

As construction progressed, the Frequently Asked Questions webpage was updated to address new concerns:

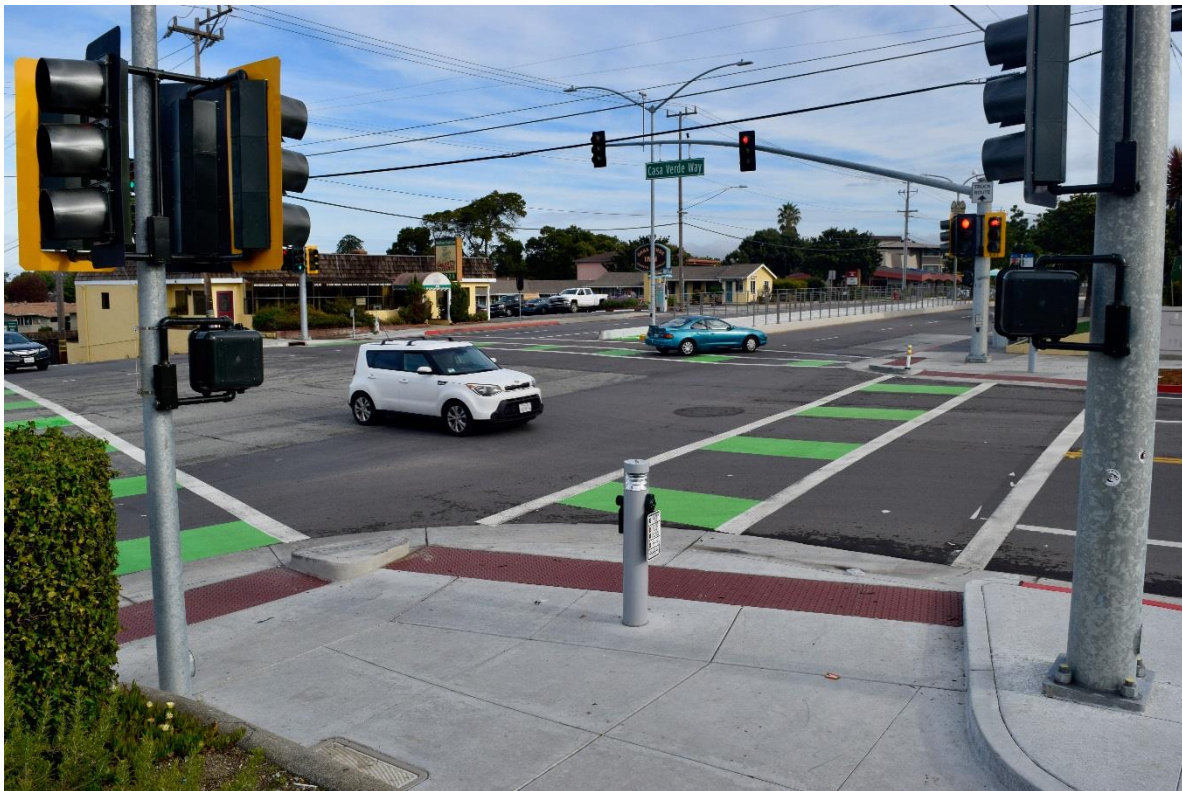
<https://monterey.org/Portals/0/MajorProjects/NorFremontBikPed/North-Fremont-FAQs-and-Memos-FINAL.pdf>

With the opening of the project, to educate users on how to utilize the bicycle lanes:

<https://monterey.org/Portals/0/MajorProjects/NorFremontBikPed/NFremont-Instructions.pdf>



Striping crosswalks and “Crossbikes”



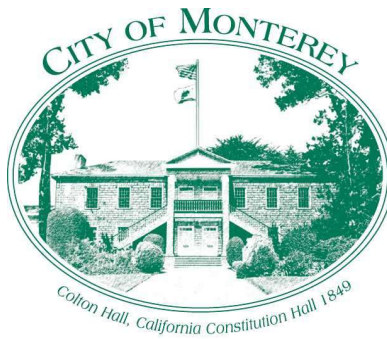
Intersection of North Fremont and Casa Verde Way, After Improvements



Intersection of North Fremont and Airport Rd, After Improvements



Before



# Measure X Project Report

December, 2020

## Measure X Transportation Projects

### Vehicle Mile Traveled Projects

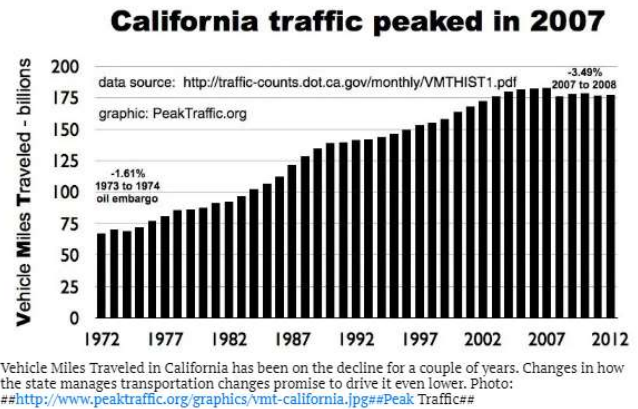
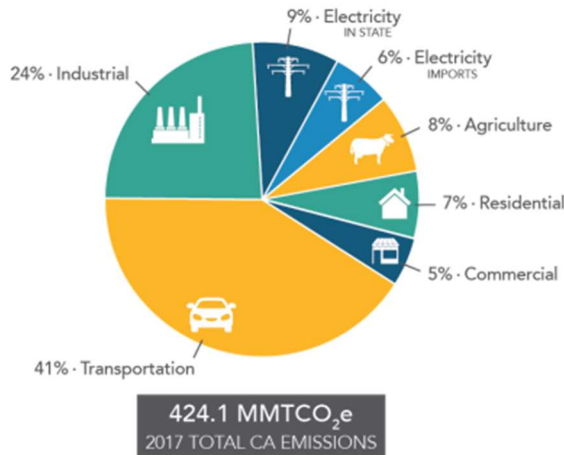
This project is the perfect example of using Measure X funding in addition to Caltrans Complete Streets grant funding to enhance the quality of transportation in Monterey and Monterey County.

In 2013 the State of California passed Senate Bill 743, which changed the CEQA determination of significance threshold from Level of Service (LOS) to vehicle miles traveled (VMT) for transportation impacts. The state gave local and state agencies until June 2020 to adopt thresholds for significance for vehicle miles traveled impacts. In December 2018, the Governor's Office of Planning and Research published the final *Technical Advisory on Evaluating Transportation Impacts in CEQA* in December 2018. Measure X funding for this project allows the City of Monterey to evaluate existing VMT, future VMT, and proposed mitigation measures to reduce VMT and meet state goals and mandates.

The establishment of VMT as the new significance threshold was done in part to better support three statutory goals: "the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." (Pub. Resources Code, § 21099, subd. (b)(1)). Currently, the use of LOS as a threshold of significance any project that increases car congestion from a single family home to a mixed use development as adversely impacting the environment. To supposedly fix congestion – the adverse environmental impact of that new development – LOS measurements end up requiring more space for cars, so a project might also have to widen the road. LOS does not take into account the effects of induced travel. This means that adding an extra lane on a heavily congested freeway means that it will stay equally congested after its widened.

LOS was not originally part of CEQA when it was passed, however over time without another quantifiable measure, courts tied LOS to CEQA, which meant that California environmental analysis yielded pro-car results. LOS shows that widening freeways is good for the environment, while multimodal improvements (bike lanes and bus lanes), where they take space from cars, are bad for the

environment. VMT allows local agencies to change the view by which we look at transportation from a measure of capacity to a measure of demand. This demand, shown in how many miles we travel, can be directly linked with greenhouse gas emissions. As of the last Greenhouse Gas inventory (2000-2017), emissions from VMT accounted for 40 percent of the emissions by economic sector. (See figure below) To reduce greenhouse gas emissions in California, reductions are needed in the largest emission category. Although traffic decreased during the 2008 recession, California VMT is increasing again.



Source: California Air Resources Board, 2019.

The City of Monterey is researching and developing quantifiable measure in which development which cannot be streamlined based on OPR guidance to ensure that projects in the City of Monterey support the state mandate to reduce greenhouse gas emissions.

Measure the City is exploring include:

- Transportation Demand Management (done in combination with the City's AT/TDM project) (i.e. Flexible Schedules/Telework, Bus Passes, Parking Policies)
- Bicycle infrastructure (i.e. protected bicycle lanes, multi-use paths, bicycle lanes, bicycle routes)
- Pedestrian infrastructure (i.e. sidewalk expansions, curb improvements, bulbouts)
- Transit infrastructure (i.e. bus stop improvements, Transit Signal Priority (TSP))
- Land Use Planning

Although not funded by Measure X, the project is being done in combination with the update to City's Circulation Element to adopt Complete Streets policies. By combining these effort, the City is able to combine outreach meetings and make sure that the efforts complement each other.

## 2020 Progress Update

**Completed efforts include:**

### Refinements to AMBAG 2040 Transportation Model

- Work to validate the model and ensure that it matches the City General Plan



**In Progress efforts include:**

Development of an Excel Based VMT sketch tool

- Beta version is developed and has been tested by staff, consultant in process of refinements

**VMT CALCULATOR (Beta Version)**

**PROJECT INFORMATION**

Project Name: [ ]  
 Address: 2600 Garden Road, Monterey, CA  
 TAZ: [ ]  
 Project Context/Setting: Low Density, Suburb  
 TAZ# 881

**LAND USE INFORMATION**

VMT Land Use Type: Residential  
 Trip Gen Land Use Type: 210 | Single-Family Detached Housing  
 Accepted: Common Land Use  
 Number of Dwelling Units: [ ]  
 Mixed-Use Adjustment: 0%

**PRESUMPTIONS OF LESS THAN SIGNIFICANT IMPACT**

Affordable Housing  
 Within a 1/2 mile of Major Transit Stop  
 Local Retail (<50,000 Sq Ft)  
 Less than 110 Trips per Day  
 Trip Gen less than 110, consider checking the above box

**VMT OUTPUT**

	PROJECT	REDUCTIONS	PROJ. WITH MITIGATION
VMT/Capita	18.69	0.00	18.69
Daily Trips	0	0	0

Average (VMT/Capita): 11.4  
 Threshold (15% below Average): 9.7  
 Significant Impact?: Yes

**VMT per Capita**

Bar chart showing VMT per Capita for Project (18.69), Project with Mitigation (0.00), and Threshold (9.7).

**PROJECT LOCATION**

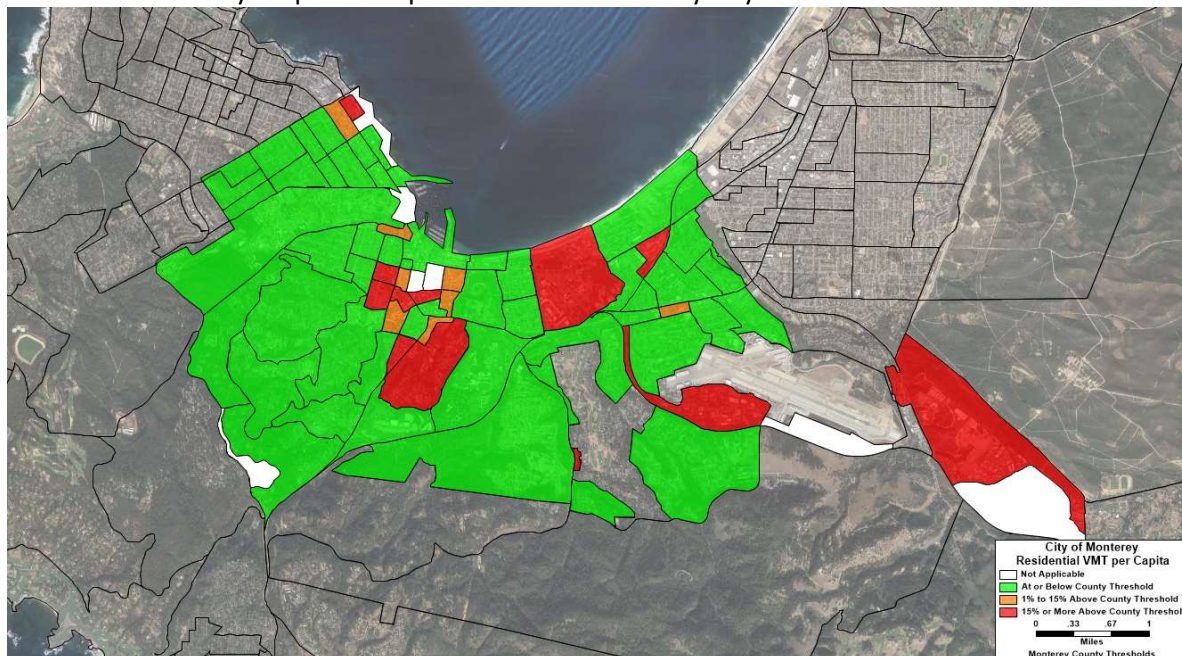
Map showing project location in Monterey, CA. Search bar and Reset button.

Must be Full Address including City

Updates Map, which shows the **CENTROID** of TAZ not the Project address

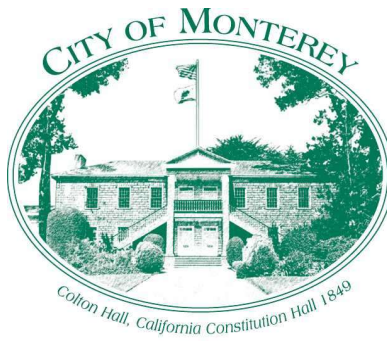
Development of VMT Threshold maps for screening purposes

- -Preliminary Maps developed and under review by City Staff



Development of City Policies and Mitigation Measures

- Development of VMT specific policy
- Development of mitigation measures for VMT including Transportation Demand Management measures and Complete Streets improvements (bike, pedestrian, transit improvements)
- -Development of City Transportation Impact Analysis Guidelines



# Measure X Project Report

## December, 2020

### Measure X Transportation Projects

#### Citywide Wayfinding Sign Program, Phase 1, Project

This project is the perfect example of using Measure X funding in addition to Local funds to enhance the quality of Transportation in Monterey and Monterey County.

The City of Monterey is a major tourism destination on the peninsula. The City has many popular destinations such as Cannery Row, Monterey Bay Aquarium, Fisherman's Wharf and Customs House Plaza. For example, the Monterey Bay Aquarium alone, experiences over 1.9 million visitors in a typical year.

The City is improving its wayfinding experience by updating and creating a comprehensive wayfinding sign program which also includes bicycle and pedestrian wayfinding. The first phase is the Parking Phase which directs vehicles to the City's public parking Lots and garages. This first step is also in line with the City's "Park Once" program which encourages visitors to park once and use the free MST Trolley or walk between Cannery Row and Downtown to reduce congestion between Downtown and Cannery Row.



Phase 1 of the project commenced in April 2020 and was completed in June 2020.

**Completed improvements include:**

61 new wayfinding signs, including 39 vehicular signs and 22 pedestrian signs

- Work consisted of installing new foundations for sign poles, fabricating wayfinding signs and installation of wayfinding signs.

As part of the project the City has created an article on the Traffic Engineering City Webpage, which shows sign types and sign locations for current and future phases.

<https://monterey.org/Services/Public-Works/Traffic-Engineering>



*Wayfinding sign foundation construction*



*Example of signs installed during Phase 1*

**MOTORIST**

**PARKING**



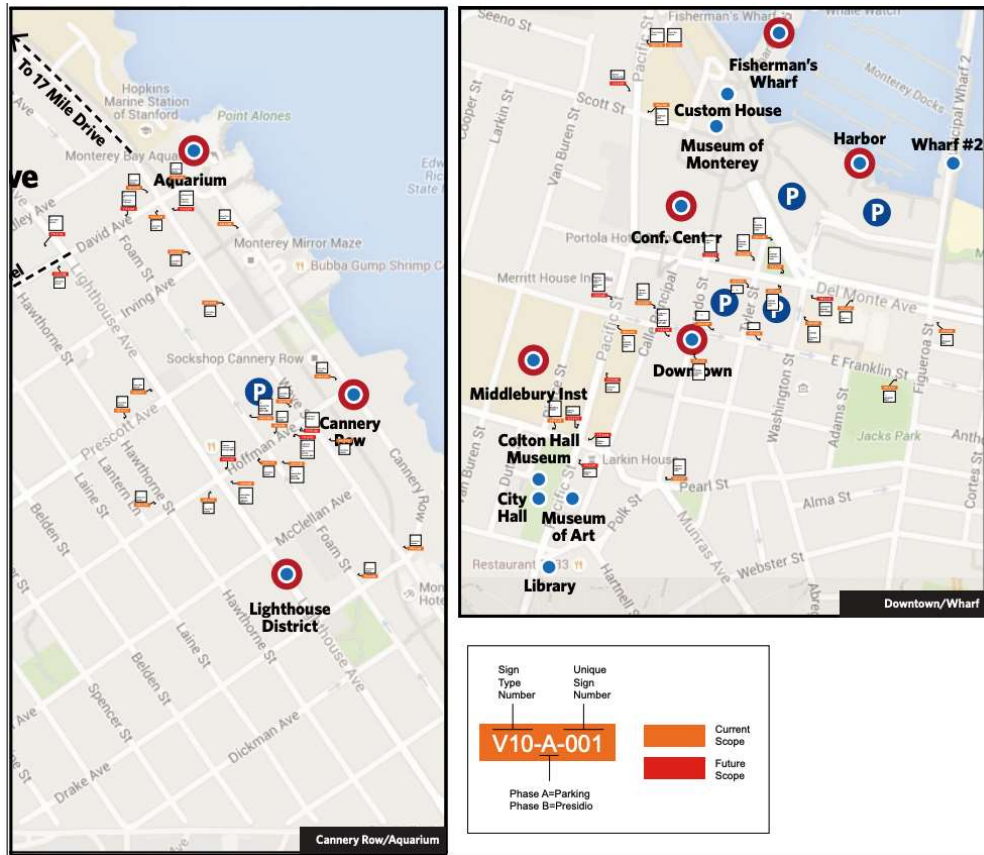
**PARKING**

**PEDESTRIAN**

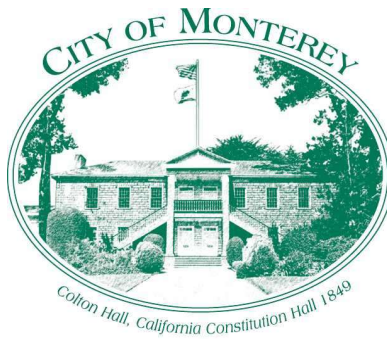


Note: Master sign type family. Depending on the phase of the project, only a portion of the signs will be used.

Examples of Wayfinding Sign Types for All Phases



Map of Existing and Future Phase Sign Locations



## Measure X Project Report

December, 2020

### Measure X Transportation Projects

#### Del Monte Avenue and Figueroa Street Protected Left Turns Installation Project

This project is the perfect example of using Measure X funding to support transportation safety and operations improvements to enhance the quality of Transportation in Monterey and Monterey County.

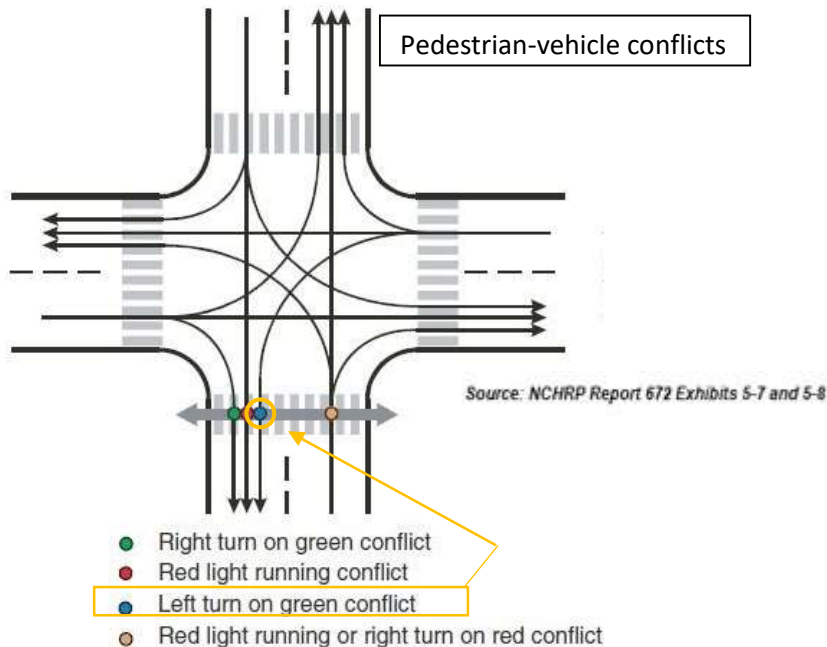
The City of Monterey is a major tourism destination on the peninsula. The City has many popular destinations such as Fisherman's Wharf. The intersection of Del Monte Avenue and Figueroa Street serves visitors to Fisherman's Wharf. In addition to the tourism, this intersection provides access to Wharf II, the primary source of the City's commercial fishing economy.

Due to the high use of this intersection, particularly with higher volumes making a southbound left turn, the City decided to implement protected left turns on Figueroa Street at the Del Monte intersection.



Southbound left turn at Figueroa and Del Monte

Installing protected left turns, where they were previously permissive left turns has major safety benefits to pedestrians, bicyclists and vehicles. In a study from Florida in 2019, the implementation of a protected left turn phase demonstrated reduction of 31 percent in vehicle and bicycle crashes (Raihan, et al). Several other studies consistently shown positive results, after the installation of protected left turns, with varying degrees of reduction depending on the prior intersection configuration. As for pedestrians the measurable benefits are inconclusive, however anecdotally there is a benefit for pedestrian as the implementation of a protected left turn removes conflict points between vehicles and pedestrians, that would occur with a permissive phase.



The installation of left turns was completed in May, 2020.

The installation of protected left turns also improved the efficiency of the Traffic Signal Adaptive System.

In order to better serve traffic exiting from the Wharf/ Marina Parking Lots. The City is also improving its wayfinding experience by updating and creating a comprehensive wayfinding sign program which also includes bicycle and pedestrian wayfinding.