

**Final Report  
MSRC Contract No. ML18179**

**CP 13-308 - Traffic Signal Synchronization & Controller Cabinet Equipment Upgrades**

**Executive Summary**

MSRC Contractor:	City of Rancho Mirage 69-825 Highway 111 Rancho Mirage, CA 92270 (760) 770-3224
City's Contractor:	Belco Elecnor Electric, Inc. 14320 Albers Way Chino, CA 91710 (909) 993-5470
City Council Acceptance:	4/01/21
County Recordation:	4/14/21
Contract Amount:	\$2,864,345.00
Project Total:	\$2,930,042.75
(-) Federal Highway Safety Improvement Program (HSIP) Grants	\$2,060,200.00
Remaining Local Share:	\$ 869,842.75
MSRC Funds Requested:	\$ 50,000.00

**Project Description:**

The City was awarded a federal Highway Safety Improvement Program grant for two projects, Project 5412-014 and Project 5412-015, more commonly referred to as CP 13-308 Traffic Signal Interconnect Project or simply Signal Synchronization Project. The City completed both projects simultaneously as one project, however federal requirements are being met by administratively managing the projects as individual projects. The federal grants cover \$2,060,200 million of the \$2,930,042.75 project costs and the City has funded the remaining \$869,842.75. MSRC Funds are being used to help offset the local share of the project cost.

The projects installed new traffic control equipment at forty intersections and new communication methods amongst traffic signals via fiber optic cable and radio communications. The projects were awarded to Elecnor Belco Electric, Inc. A Notice to Proceed was issued for both projects in February 2020. The contractor has completed the scope of work, including the punchlist items

noted by City staff for both projects. City staff have inspected the work performed and found all work to be in accordance with the contract documents.

The purpose of this project is to improve the flow of traffic along major arterials within the cities of Rancho Mirage and Palm Desert. The project consists of signal coordination/timing improvements, controller cabinet upgrades, and the installation of pedestrian countdown signal heads at 16 intersections along Highway 111, eight intersections along Bob Hope Drive, three intersections along Country Club Drive, 10 intersections along Monterey Avenue, and three intersections along Dinah Shore Drive.

Goals and Accomplishments:

- Reduce emissions, including CO and greenhouse gases stemming from idling vehicles
- Decrease number of collisions
- Improve traffic flow
- Enhance pedestrian safety
- Increase traffic signal reliability
- Ability to monitor and management traffic signals at traffic signal management center and remotely via smart phone
- Real-Time video footage of Highway 111

Estimated Cost Breakdown (per Payment Schedule in Contract):

<b>Purchase Category</b>	<b>Maximum AB2766 Discretionary Funds payable under this Contract</b>	<b>CONTRACTOR AB2766 Subvention Funds Applied</b>	<b>Other Funds Applied to Match</b>	<b>Additional Project Co-Funding (not matched)</b>	<b>Total Cost</b>
Signal synchronization	\$50,000	\$0	\$50,000	\$2,395,600	\$2,495,600

Actual Cost Breakdown (upon Completion of Project):

<b>Purchase Category</b>	<b>Maximum AB2766 Discretionary Funds payable under this Contract</b>	<b>CONTRACTOR AB2766 Subvention Funds Applied</b>	<b>Other Funds Applied to Match</b>	<b>Additional Project Co-Funding (not matched)</b>	<b>Total Cost</b>
Signal synchronization	\$50,000	\$0	\$50,000	\$2,880,042.75	\$2,930,042.75

### Public Outreach:

The City of Rancho Mirage showed a Power Point presentation at its July 19, 2018 City Council Meeting, including project summary and discussion about the MSRC Clean Transportation Funding program's involvement. The presentation was broadcast to all Rancho Mirage residents via closed circuit television and was available for public viewing on the City's YouTube Channel. A copy of the Power Point presentation and meeting Minutes are attached.

### Results and Conclusions

Idling is bad for vehicle engines because they don't operate at their peak temperatures and they leave fuel behind that doesn't burn completely, leaving residue behind that can damage exhaust systems. It wastes gas and causes environmental damage.

According to nonprofit information resource Idle Free California ([www.idlefreecalifornia.org](http://www.idlefreecalifornia.org)), idling emissions can cause cancer, exacerbate heart conditions, and cause or exacerbate asthma. The children and the elderly are especially vulnerable. In addition to the health risks, "ghost miles" accumulate on an idling engine, creating engine wear and carbon soot buildup in the engine and components that can lead to shortened life of motor oil, spark plugs, and exhaust systems, plus decreased fuel mileage and a greater reliance on severe duty maintenance. That leads to higher maintenance and fuel costs for drivers. It also affects climate change and contributes to global warming.

Transportation amounts to 41% of California's greenhouse gas emissions, higher than the national average of 26%, according to the Air Resources Board.

MSRC funds have provided the City with an opportunity to obtain funding for air pollution reduction measures. Traffic signal synchronization is an air pollution reduction strategy that is encouraged by the MSRC and was approved by the MSRC for this round of funding opportunities.

The traffic signal synchronization project improved traffic flow and reduced air pollution caused by idling vehicles at signalized intersections throughout Rancho Mirage. This was accomplished by updating the City's outdated signal controller equipment and updating the signal timing to provide a greater signal timing benefit to vehicles traveling on Rancho Mirage's arterial streets. This helped to implement the SCAQMD's clean air roadmap and helped the MSRC achieve its goal of reducing greenhouse gas emissions.

A portion of the project along Dinah Shore Drive was located in an Environmentally Sensitive Area (ESA), based on its proximity to tribal land, and required a Discovery Action Plan and Tribal Monitoring in case any human remains or tribal artifacts were found. The City was required to install a temporary fence to ensure that the area to the north of the project site along

Dinah Shore Drive wasn't disturbed during construction. The City complied with all environmental requirements and was able to complete the project with minimal impact to the surrounding area.

The signal lengths have been extended on the major streets as part of this project, which has led to greater traffic flow and decreased idling frequency and duration on Highway 111, Bob Hope Drive, Country Club Drive, Dinah Shore Drive, and Monterey Avenue – all arterial streets. The amount of time that vehicles idle at the cross streets' signalized intersections has generally increased, but this was necessary to offset the reduction of time for the vast majority of traffic on the arterial streets.

Rancho Mirage City Council accepted the project on April 1, 2021. The final project total, after final change orders and invoices, is \$2,930,042.75.



# CITY OF RANCHO MIRAGE

## MINUTE ORDER

No. 2021-11

OFFICE OF THE CITY CLERK  
RANCHO MIRAGE, CALIFORNIA

Regular City Council Meeting Date: April 1, 2021

### Consent Calendar Item No. 3

Subject: Final Acceptance of CP 13-308 (Projects 5412-014 & 5412-015) - Traffic Signal Interconnect.

MOVED/SECONDED BY WEILL/KITE TO APPROVE CONSENT CALENDAR ITEM NOS. 1, 2, 3, 4, 5, 7, 8, AND 9. BY APPROVING CONSENT CALENDAR ITEM NO. 3, THE CITY COUNCIL ACCEPTED THE SUBJECT CONSTRUCTION IMPROVEMENTS AND AUTHORIZED STAFF TO RECORD THE NOTICE OF ACCEPTANCE WITH THE COUNTY RECORDER'S OFFICE FOR CITY PROJECTS 5412-014 AND 5412-015.

A ROLL CALL VOTE WAS TAKEN AND MOTION CARRIED 5/0 BY THE FOLLOWING VOTE:

AYES: Hobart, Kite, Smotrich, Townsend, Weill.  
NOES: None.  
ABSENT: None.  
ABSTAIN: None.

  
\_\_\_\_\_  
Kristie Ramos  
City Clerk

04/13/2021  
\_\_\_\_\_  
Date



## STAFF REPORT

**TO:** Mayor and City Council

**DATE:** April 1, 2021

**FROM:** Jesse Eckenroth, Public Works Director

**SUBJECT:** Final Acceptance of CP 13-308, 5412-014, & 5412-015, Traffic Signal Interconnect

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### **SPECIFIC REQUEST OR RECOMMENDATION**

That the City Council accept the subject construction improvements and authorize staff to record the Notice of Acceptance with the County Recorder's office for City Projects 5412-014 and 5412-015.

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### **JUSTIFICATION OR INFORMATION**

The City was awarded a federal Highway Safety Improvement Program grant for two projects, Project 5412-014 and Project 5412-015, more commonly referred to as CP 13-308 Traffic Signal Interconnect Project or simply Signal Synchronization Project. The City completed both projects simultaneously as though it was one project, however federal requirements are being met by administratively managing the projects as individual projects. Therefore two individual NOA's are attached to this staff report to continue complying with federal requirements.

The projects installed new traffic control equipment at forty intersections and new communication methods amongst traffic signals via fiber optic cable and radio communications. The projects were awarded to Elecnor Belco Electric, Inc. A Notice to Proceed was issued for both projects in February 2020. The contractor has completed the scope of work, including the punchlist items noted by City staff for both projects. City staff have inspected the work performed and found all work to be in accordance with the contract documents. City staff recommend that the City Council accept the subject work as complete for Project 5412-014 and Project 5412-015.

### **ATTACHMENT(S):**

1. Draft Notice of Acceptance – CP 13-308, 5412-014
2. Draft Notice of Acceptance – CP 13-308, 5412-015

PLEASE COMPLETE THIS INFORMATION  
RECORDING REQUESTED BY:

AND WHEN RECORDED MAIL TO:  
AND MAIL TAX STATEMENTS TO:

ATTN: City Clerk  
City of Rancho Mirage  
69825 Hwy. 111  
Rancho Mirage, CA  
92270

2021-0233332

04/14/2021 01:08 PM Fee: \$ 0.00

Page 1 of 2

Recorded in Official Records  
County of Riverside  
Peter Aldana  
Assessor-County Clerk-Recorder



554

Space above this line for recorder's use only

Notice of Acceptance

Title of Document

TRA: \_\_\_\_\_

DTT: \_\_\_\_\_

**Exemption reason declared pursuant to Government Code 27388.1**

- This document is a transfer that is subject to the imposition of documentary transfer tax.
- This is a document recorded in connection with a transfer that is subject to the imposition of documentary transfer tax.  
Document reference: \_\_\_\_\_
- This document is a transfer of real property that is a residential dwelling to an owner-occupier.
- This is a document recorded in connection with a transfer of real property that is a residential dwelling to an owner-occupier.  
Document reference: \_\_\_\_\_

**THIS PAGE ADDED TO PROVIDE ADEQUATE SPACE FOR RECORDING INFORMATION  
(\$3.00 Additional Recording Fee Applies)**

Recording requested by and  
when recorded mail to:

Kristie Ramos, City Clerk  
City of Rancho Mirage  
69-825 Highway 111  
Rancho Mirage, CA 92270  
No fee

**NOTICE OF ACCEPTANCE**

Notice is hereby given that the following public improvements have been completed and accepted by the City of Rancho Mirage City Council on April 1, 2021.

**Description of Work:**

Traffic Signal Interconnect Project, CP 13-308, 5412-014

**Owner:**

City of Rancho Mirage

**Nature of Interest:**

In Fee

**Contractor:**

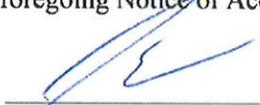
Elecnor Belco Electric, Inc.  
14320 Albers Way  
Chino, CA 91710

The labor and material security (payment bond) shall be retained in full value for seven (7) months after recordation of the Notice of Acceptance.

This Notice of Acceptance is executed under authority of a directive from the City Council of the City of Rancho Mirage.

I, Jesse Eckenroth, declare under the penalty of perjury that I am the Public Works Director of the City of Rancho Mirage, that I am familiar with the facts stated in the foregoing Notice of Acceptance executed for and on its behalf, and that I have read the foregoing Notice of Acceptance and know the contents thereof to be true.

DATED: April 1, 2021

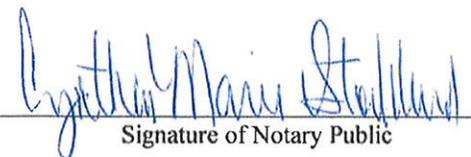
  
\_\_\_\_\_  
Jesse Eckenroth  
Public Works Director  
City of Rancho Mirage

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of Riverside

On **April 1, 2021**, before me, **Cynthia Marie Stoddard** Notary Public, personally appeared **Jesse Eckenroth** who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person or entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.  
WITNESS my hand and official seal.

Signature   
Signature of Notary Public



PLEASE COMPLETE THIS INFORMATION  
RECORDING REQUESTED BY:

AND WHEN RECORDED MAIL TO:  
AND MAIL TAX STATEMENTS TO:

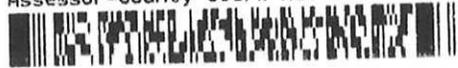
ATTN: City Clerk  
City of Rancho Mirage  
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Rancho Mirage, CA  
92270

2021-0233331

04/14/2021 01:08 PM Fee: \$ 0.00

Page 1 of 2

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City of Rancho Mirage  
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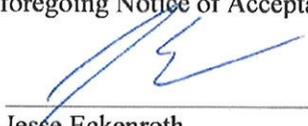
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Jesse Eckenroth  
Public Works Director  
City of Rancho Mirage

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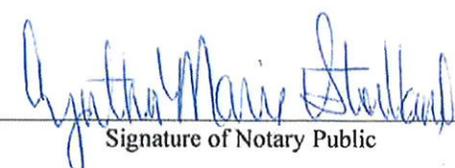
State of California  
County of Riverside

On **April 1, 2021**, before me, **Cynthia Marie Stoddard** Notary Public, personally appeared **Jesse Eckenroth** who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person or entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_

  
\_\_\_\_\_  
Signature of Notary Public



## **Project Goals**

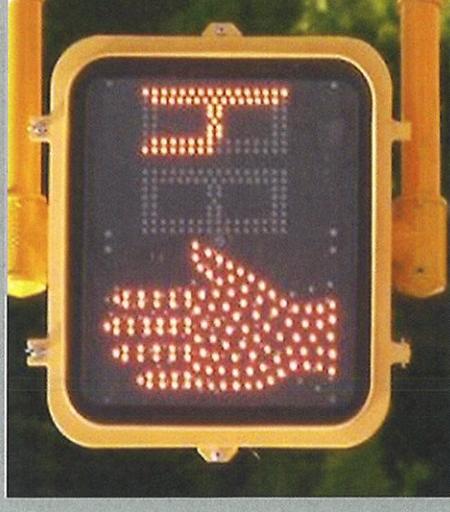
# SIGNAL SYNCHRONIZATION

- Project Facts:
  - 5 major corridors
  - 40 Intersections
  - Miles of Fiber Optic cable
- Significant Coordination Efforts
  - Palm Desert
  - Cathedral City



# SIGNAL SYNCHRONIZATION GOALS

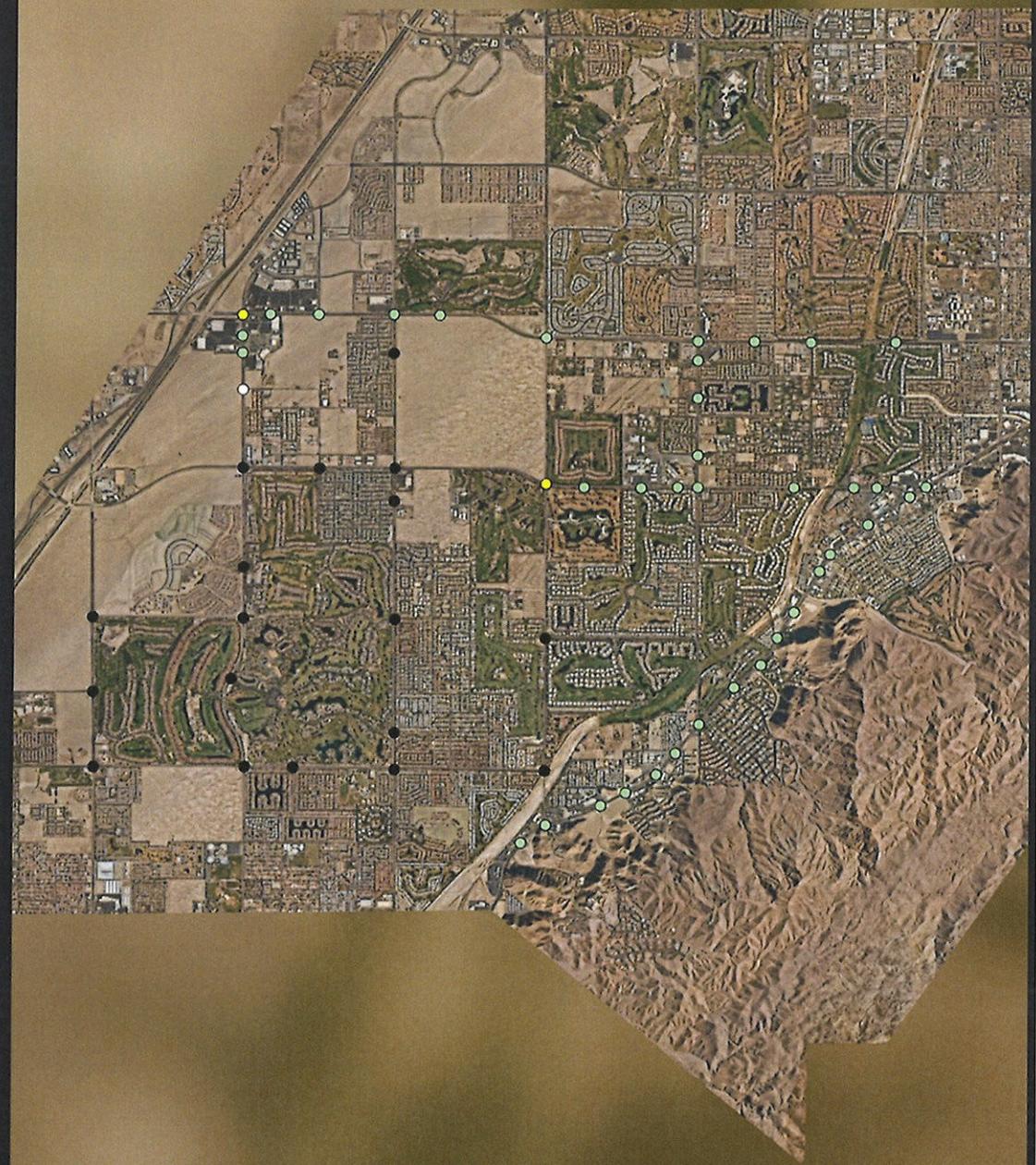
- Improve Traffic Flow
- Decrease Collisions
- Improve pedestrian safety, specifically with the installation of pedestrian countdown heads
- Improve air quality
  - Greenhouse gas and emissions reduction as a result of decreased vehicle idling times
- Maintain Local Control
  - Ability to respond to seasonal traffic pattern fluctuations
  - Ability to respond to intersections that provide unique challenges



# SIGNAL SYNCHRONIZATION GOALS

- **Maintain a High Level of Responsiveness**
    - Specify equipment that staff can become familiar with
    - Design a system that staff can monitor and adjust instantly
  - **Increase Reliability of Traffic Signals**
    - Specify reliable, proven equipment
    - Replace aged components
  - **Increase Compatibility with Neighboring Cities**
    - Share timing sheets and programming with neighboring cities
    - Coordinate special events
  - **Utilize Grant Opportunities**
    - Comply with federal requirements to obtain reimbursements
    - Continue to look for grant opportunities
-

## **Project Photos**



CentiCast - Matthew Reynolds (Default)

File View Monitoring Control Configuration Management Reports Window Help

Entry Tree X

- System Rancho Mirage
- Section 100 - Rancho Mirage Signals
  - Subsection 101 - Hwy 111 North/West Section
    - Signal 01 - Highway 111 @ One Mirage Place  
EOS-10.111.10.1
    - Signal 10 - Highway 111 @ Pardon Dr  
EOS-10.111.10.10
    - Signal 11 - Highway 111 @ Lacey Way  
EOS-10.111.10.11
    - Signal 12 - Highway 111 @ Fontana/Emmons Way  
EOS-10.111.10.12
    - Signal 13 - Highway 111 @ Indian Trail  
EOS-10.111.10.13
    - Signal 02 - Highway 111 @ Frank Sinatra Dr  
EOS-10.111.10.2
    - Signal 03 - Highway 111 @ Alnum Way  
EOS-10.111.10.3
    - Signal 04 - Highway 111 @ Mirage Cove Dr  
EOS-10.111.10.4
    - Signal 05 - Highway 111 @ Via Florencio  
EOS-10.111.10.5

02 - Highway 111 @ Frank Sinatra Dr - EOS - 10.111.10.2 (Eos) - SubSec: 101 - Hwy 111 North/West Section X

MSG Mode/Pattern Time Alarms Preempt Comments

TOD/4 Last: 12:24:24 Error: 1s 100.0%

Map Timings Misc

13 - Highway 111 @ Indian Trail - EOS - 10.111.10.13 (Eos) - SubSec: 101 - Hwy 111 North/West Section X

MSG Mode/Pattern Time Alarms Preempt Comments

TOD/4 Last: 12:24:10 Error: 1s 99.0%

Map Timings Misc

20 - Bob Hope Dr @ Country Club Dr - EOS - 10.111.10.20 (Eos) - SubSec: 103 - Bob Hope South End X

MSG Mode/Pattern Time Alarms Preempt Comments

TOD/2 Last: 12:24:41 Error: 1s 100.0%

Map Timings Misc

04-34 - RM - Monterey Ave @ Gerald Ford Dr - EOS - 10.111.10.34 (Eos) - SubSec: 109 - Monterey X

MSG Mode/Pattern Time Alarms Preempt Comments

TOD/2 Last: 12:24:03 Error: 1s 100.0%

Map Timings Misc



13 - Highway 111 @ Indian Trail - EOS - 10.111.10.13 (Eos) - SubSec: 101...

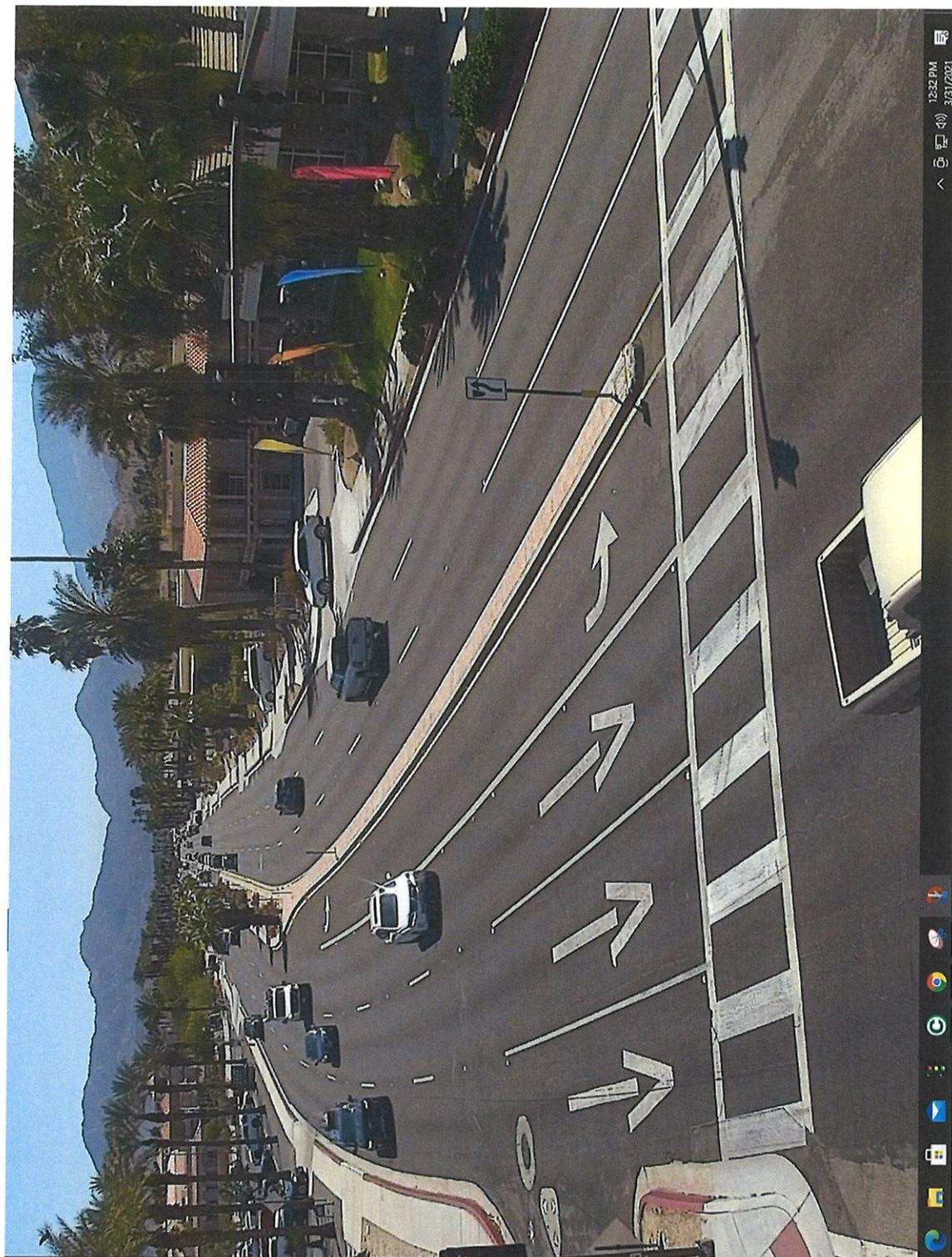
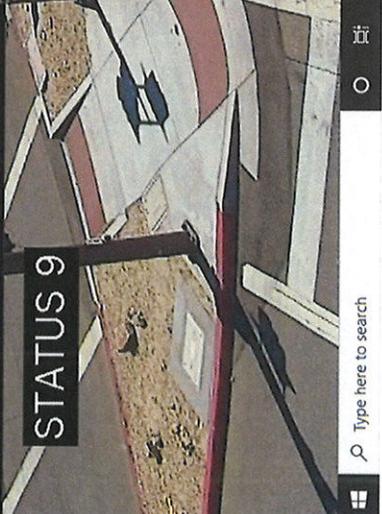
Unit control is in manual mode

Mode / Pattern	Coordination	Time	Preempt	Alarms
Desired	Actual	Prog	Lat	1:31:24
NONNON	53	100	Error	25
TO:4	70	70		

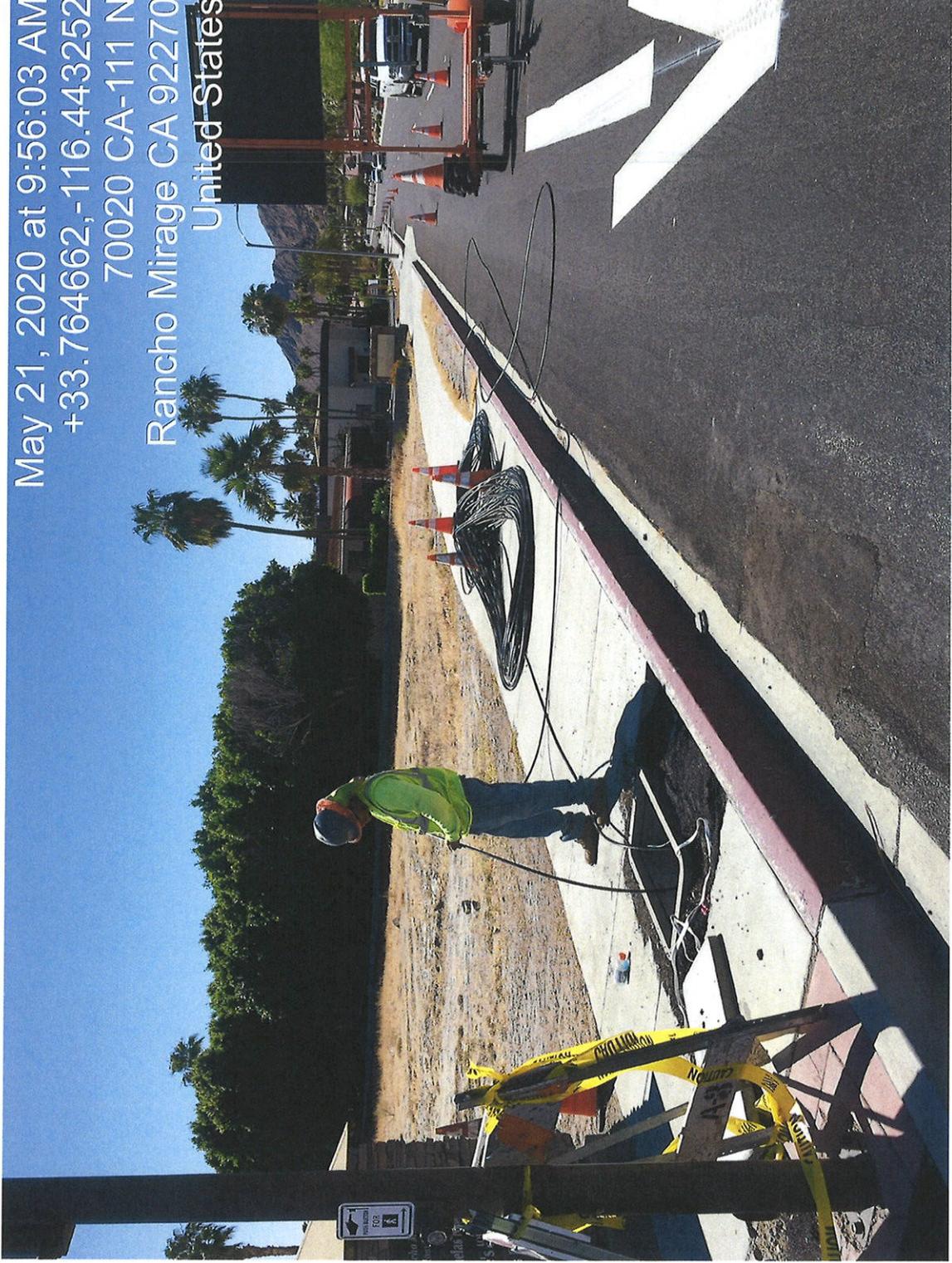
Phase	1	2	3	4	5	6	7	8	9	10	11	12
Actual	17.0	6.1	6.3	6.0	6.8	6.3						
Prog	17	43	35	17	43	35						
On	●	●	●	●	●	●						
Off	●	●	●	●	●	●						
Flt	●	●	●	●	●	●						
Flt Call	●	●	●	●	●	●						
Next	A	B	C	D	E	F	G	H	I	J	K	L
Overlap	●	●	●	●	●	●	●	●	●	●	●	●
Time	17	81	0	0	63	0						
On	●	●	●	●	●	●						
Off	●	●	●	●	●	●						
Flt	●	●	●	●	●	●						

Comments: Ring 1 - Green Rest, Ring 2 - Green Rest



Windows taskbar and system tray area. Includes search bar with 'Type here to search', taskbar icons for Edge, File Explorer, and other applications, and system tray icons for network, volume, and battery. The system clock shows 12:32 PM on 3/31/2021.

May 21, 2020 at 9:56:03 AM  
+33.764662,-116.443252  
70020 CA-111 N  
Rancho Mirage CA 92270  
United States



# Before & After

