



# MISSION INN & REDWOOD ALTERNATIVES

---

## Public Works Department

### Meeting

Transportation Board: January 4, 2023

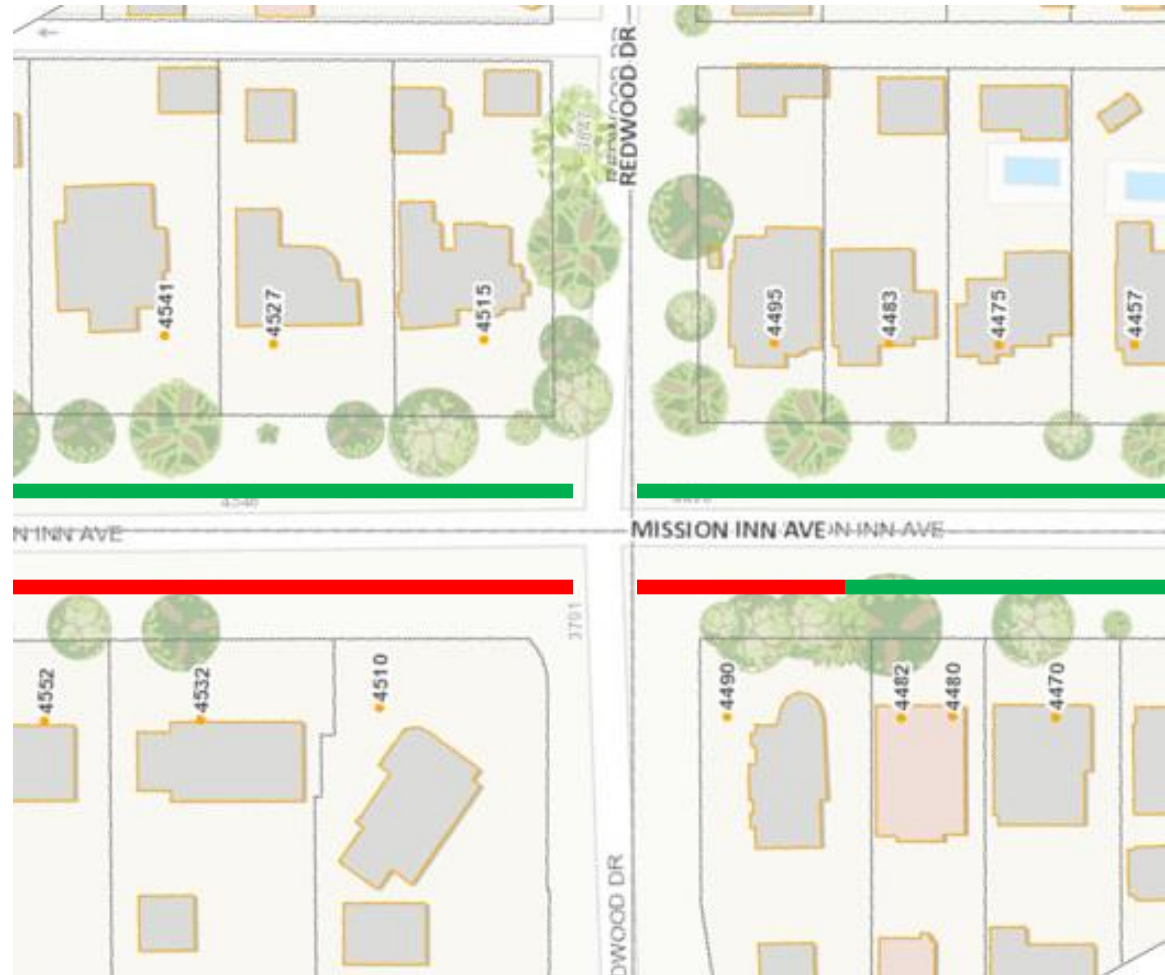
# BACKGROUND

- Community concerns about traffic safety at Mission Inn & Redwood Intersection
- Collision History Analysis
- Mailers Sent & responses received



# DISCUSSION

- Identify alternatives to address safety concerns
- Public Input to preserve parking
- Evaluate traffic operations options





# EXISTING STREET VIEW PHOTOS

Eastbound Mission Inn at Redwood

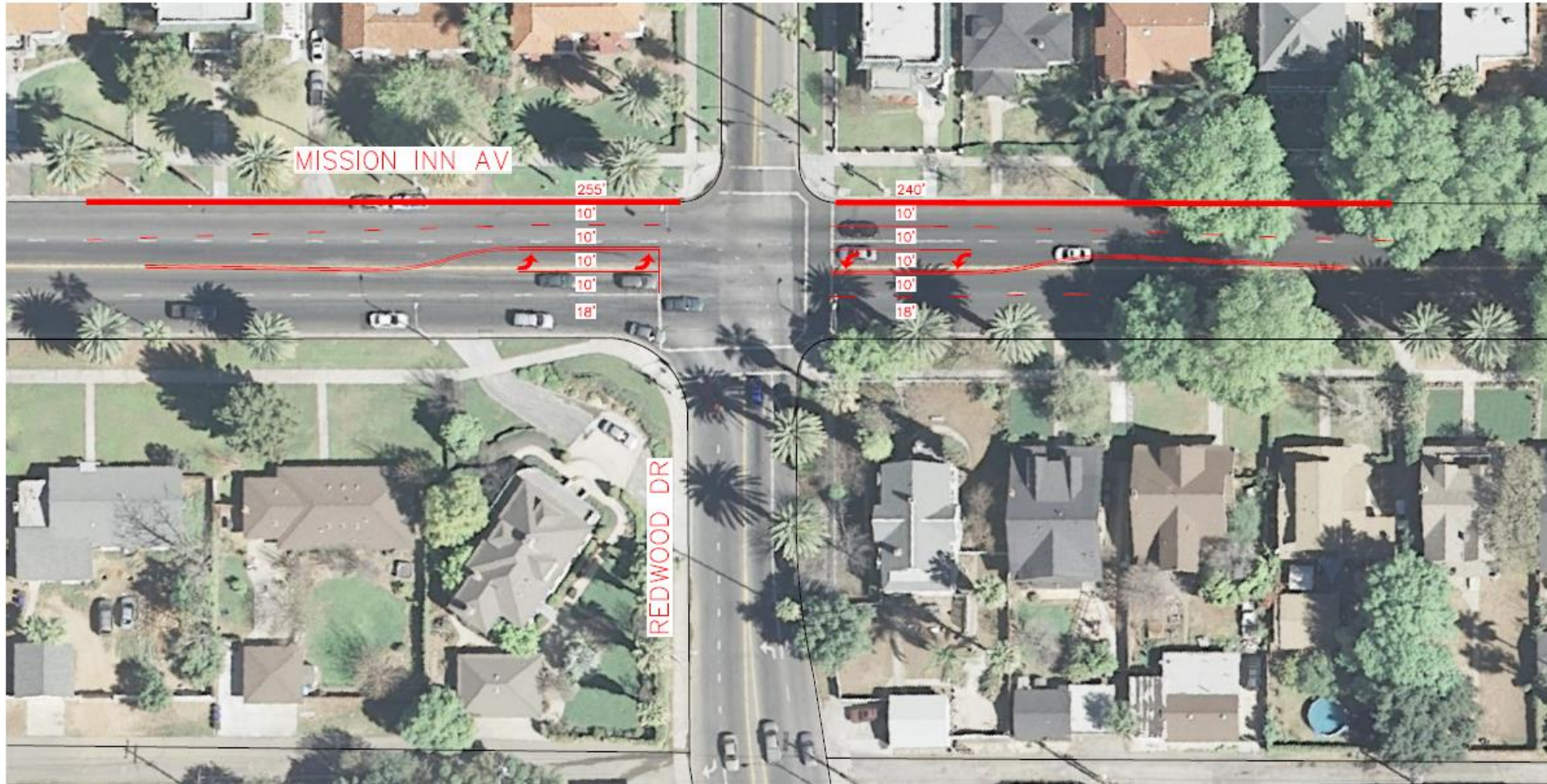


Westbound Mission Inn at Redwood





# ALTERNATIVE 1 – ADD LEFT TURN LANES & PARKING RESTRICTIONS



Requires  
new parking  
restrictions

Separates  
left turn  
movements

Improves  
visibility

New Traffic  
Signal Poles  
& Mast Arm



# ALTERNATIVE 2 – CONVERT INNER THRU LANES INTO LEFT TURN LANES

Preserves  
parking

Adds Left  
turn Lanes

Reduces  
roadway  
capacity

Deficient  
Level of  
Service  
(LOS)



# ALTERNATIVE 3 – SPLIT PHASE OPERATIONS (EB & WB)



Preserves  
Parking

Separates all EB  
& WB  
movements

Deficient Level  
of Service (LOS)

Not efficient  
operational  
usage



# ALTERNATIVE 4 – RESTRICT LEFT TURN MOVEMENTS (3PM-9PM)

Preserves parking

Eliminates left turn movements (PM Peak)

Addresses safety PM concerns

Re-routes left turning traffic



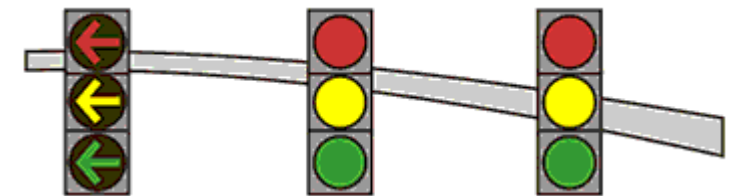


# FACTORS / PERFORMANCE METRICS

Intersection		AM Peak Hour		PM Peak Hour	
Redwood Dr (N/S) at Mission Inn Ave (E/W)		LOS	Delay	LOS	Delay
- Existing Conditions (Traffic Signal)		B	16.8	D	37.9
- Alternative Options :					
1	Construct EB & WB Left Turn Lanes With 2 Thru Lanes & RESTRICT PARKING on one side	B	18.7	C	34.8
2	Convert EB & WB inner thru lane into left turn only lane	D	36.1	F	181.6
3	Modify EB & WB Signal Operations to Split Phase	D	36.5	F	115.1
4	Add EB & WB "NO LEFT TURN" Restrictions 3-9PM	B	16.8	C	32.9
LOS = Level of Service					
Acceptable LOS is "D" or better					
LOS "F" = Traffic congestion and extensive intersection delays					

Factors / Performance metrics to consider:

- **Level of Service (LOS)**
- Parking Preservation
- Traffic Safety Evaluation
- Roadway Capacity
- **Costs & Available Funding Resources**
- Right-of-way



# FACTORS / PERFORMANCE METRICS

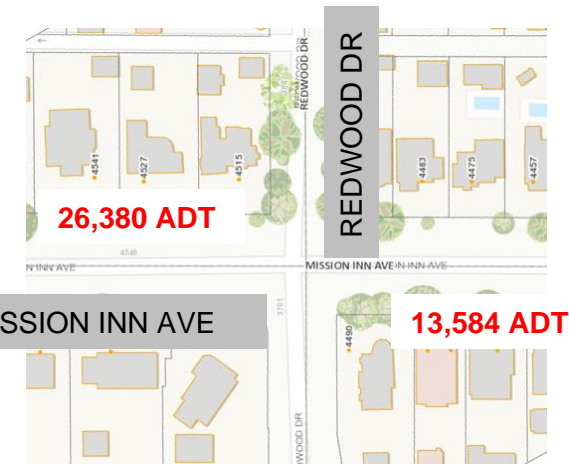
City of Riverside Roadway Capacity <sup>(1)</sup>

Roadway Classification	Number of Lanes	Two-Way Traffic Volume (ADT) <sup>(2)</sup>		
		Service Level C	Service Level D	Service Level E
Local	2	2,500-2,799	2,800-3,099	3,100+
Collector (66' or 80')	2	9,900-11,199	11,200-12,499	12,500+
Arterial <sup>(3)</sup>	2	14,400-16,199	16,200-17,999	18,000+
Arterial (88')	4	16,800-19,399	19,400-21,199	22,000+
Arterial (100')	4	26,200-29,599	29,600-32,999	33,000+
Arterial (120')	6	38,700-44,099	44,100-49,499	49,500+
Arterial (144')	8	50,600-57,799	57,800-64,999	65,000+

Notes: (1) All capacity figures are based on optimum conditions and are intended as guidelines for planning purposes only  
 (2) Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables  
 (3) Two-lane roadways designated as future arterials that conform to arterial design standards for vertical and horizontal alignments are analyzed as arterials.

Factors / Performance metrics to consider:

- Level of Service (LOS)
- Parking Preservation
- Traffic Safety Evaluation
- **Roadway Capacity**
- Costs & Available Funding Resources
- **Right-of-way**



Mission Inn Ave between Redwood Dr & Arfon Way = 26,380 ADT = Need 4 travel lanes (2 in each direction)

Mission Inn Ave between Redwood Dr & Pine St = 13,584 ADT = Need 2 travel lanes (1 in each direction)



# FACTORS / PERFORMANCE METRICS



Factors / Performance metrics to consider:

- Level of Service (LOS)
- **Parking Preservation**
- **Traffic Safety Evaluation**
- Roadway Capacity
- Costs & Available Funding Resources
- Right-of-way



	Collision	Collision Type	Time	Left Turn Movement <sup>1</sup>
1	11/22/2019	Head-On	8:51 PM	WBL
2	6/1/2020	Broadside	3:00 PM	WBL
3	11/14/2020	Broadside	8:36 PM	EBL
4	1/8/2022	Broadside	3:30 PM	EBL
5	3/9/2022	Head-On	5:14 PM	EBL
6	4/21/2022	Head-On	4:38 PM	EBL
7	7/21/2022	Head-On	8:00 AM	WBL

Average Collisions per year (3-year sample)(Oct 2019-Oct 2022):

EBL	1.33			
WBL	1.00			

<sup>1</sup> WBL = Westbound Left; EBL = Eastbound Left

# STRATEGIC PLAN ALIGNMENT



## Community Well-Being

Ensure safe and inclusive neighborhoods where everyone can thrive.

**Goal 2.4.** Support programs and innovations that enhance community safety, encourage neighborhood engagement and build public trust.

## Cross-Cutting Threads



Community Trust



Fiscal Responsibility



Sustainability & Resiliency



Equity



Innovation



# RECOMMENDATIONS

That the Transportation Board Review and provide input regarding the proposed time-limited (3PM-9PM) left turn restrictions along eastbound and westbound Mission Inn Avenue at Redwood Drive (Alternative Improvement Option 4).