

# US 1 Reversible Flow Lane Study

**From SW 40th Street (Bird Road) to Interstate 95 (I-95)**



Prepared for:

Miami-Dade  
Metropolitan Planning Organization



Prepared by:

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# Project Purpose

To evaluate the feasibility for the addition of a reversible lane system along the US 1 corridor between Bird Road and I-95.

## Project Objectives

- Improve Roadway Operations
- Increase Capacity during the Peak Periods
- Mitigate Existing Traffic Congestion
- Accommodate Future Traffic Demand



# Planning Corridor Study

- Review Existing Conditions
- Data Collection
- Safety Analysis
- 2030 Model Forecasts
- Traffic Operations Analysis
- Potential Alternatives
- Preliminary Construction Costs



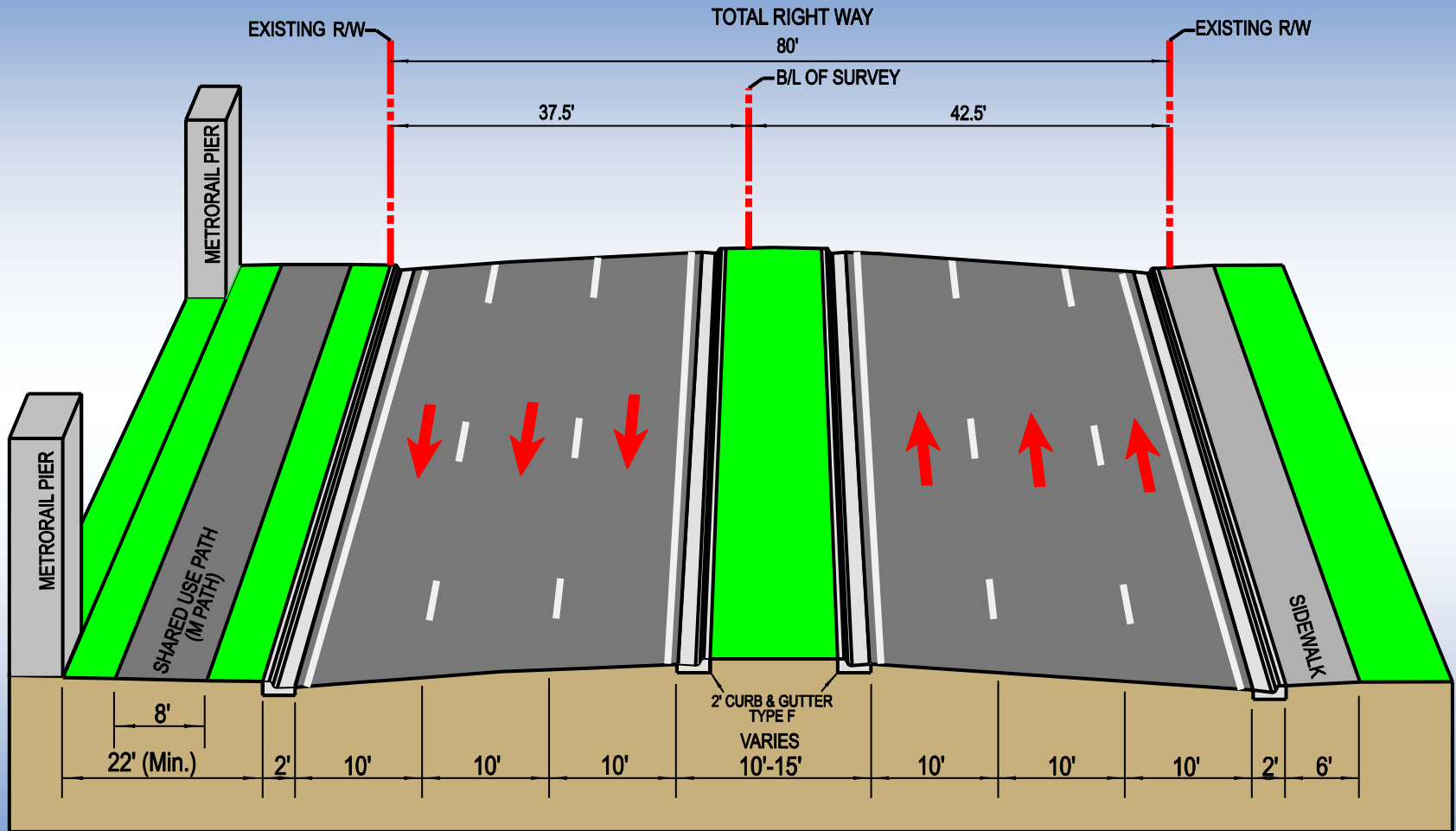


# The US 1 Corridor Study Area

- 6-Lane Divided Urban Roadway Section
- Metrorail runs parallel to US 1
- Metrorail Path (M-Path) Greenway
- Thirteen (13) Intersections
- Conventional Street Lighting and Utilities



# Existing Typical Section



# Land Use in Corridor

- Northern portion is predominantly residential
- South of SW 22<sup>nd</sup> business and commercial retail properties emerge along the frontage parcels
- High density residential areas are located behind the frontage parcels



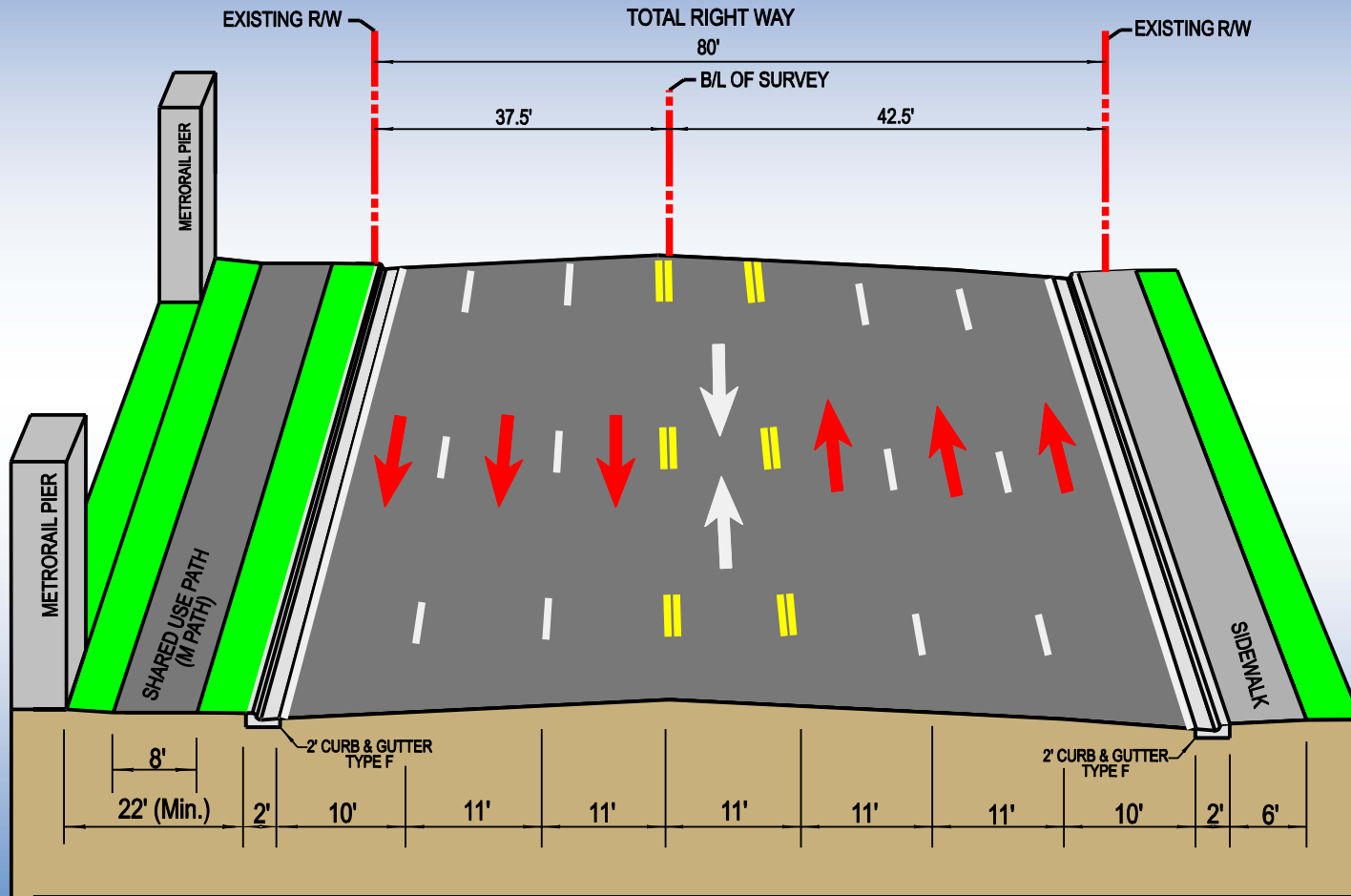
# Study Alternatives

- No Build (Alternative #1)
- One Reversible Lane (Alternative #2)
- Two Reversible Lanes (Alternative #3)
- Two Reversible Lanes with TWLT (Alternative #4)

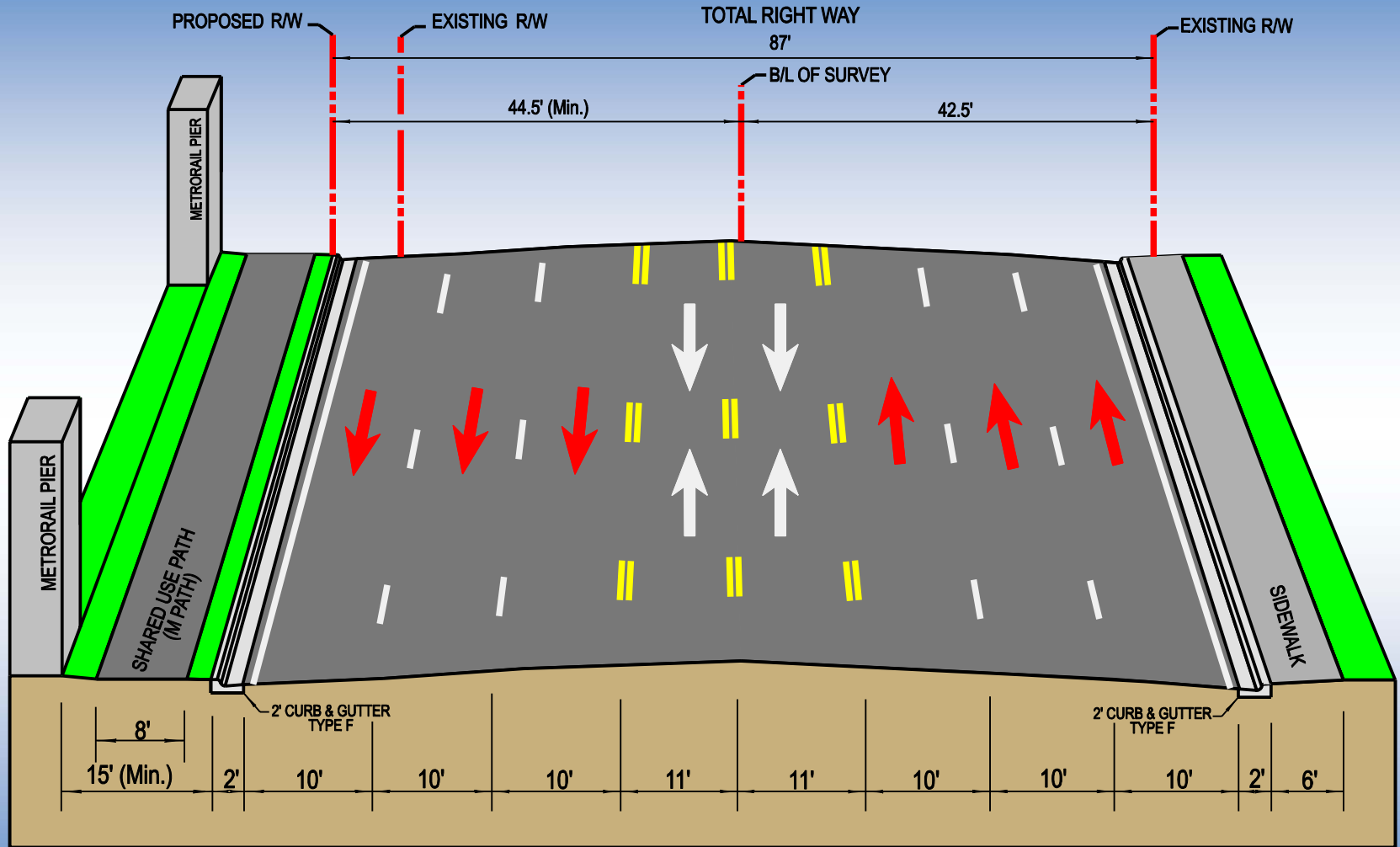




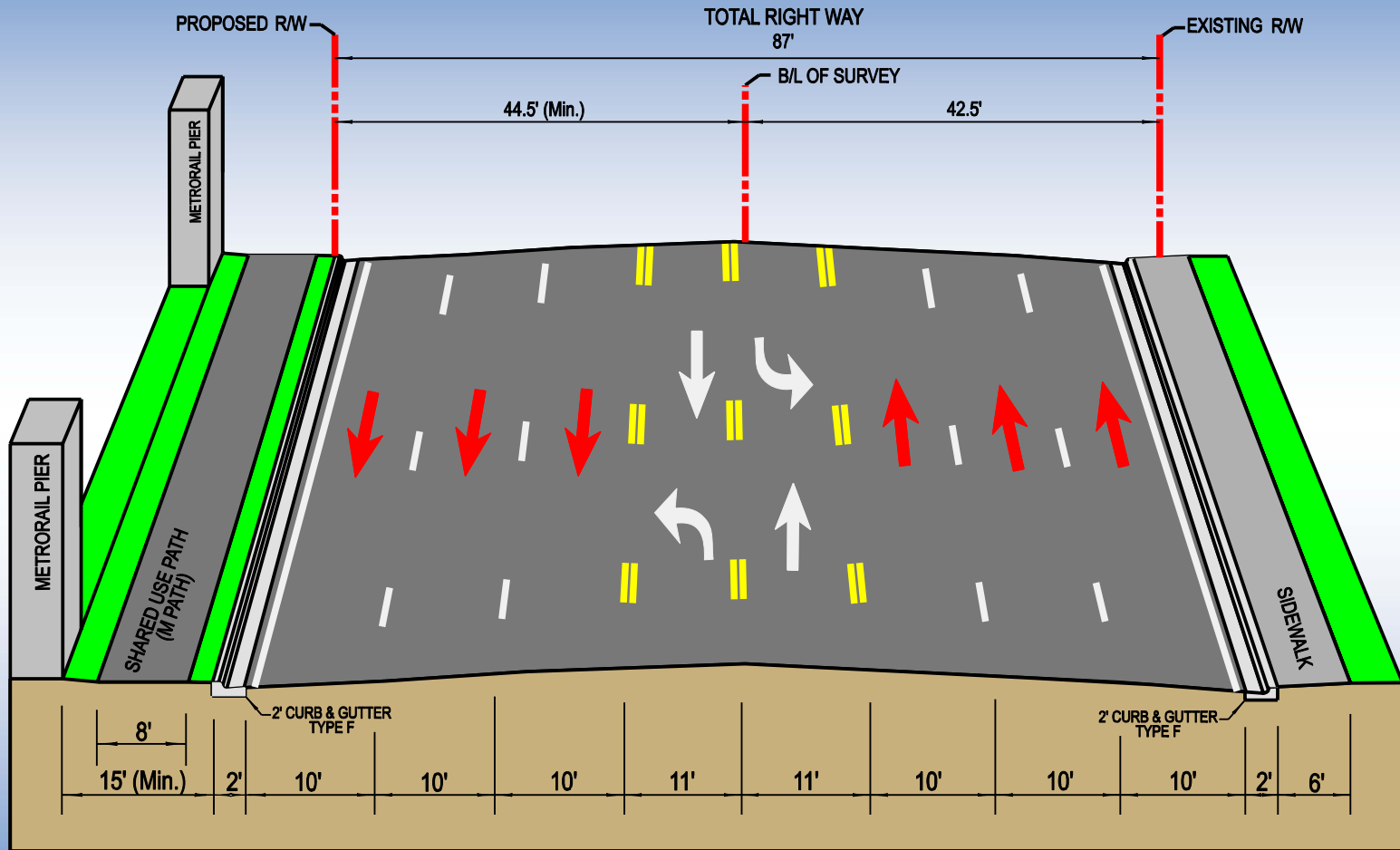
# Alternative #2



# Alternative #3



# Alternative #4



# Study Recommendation

- Alternatives 2 and 3
- Preferred Alternative (Alternative #2)
- Minimal ROW Acquisition
- Lower Total Construction Cost
- Traffic Level of Service
- Maintenance of Traffic



**Table S-4  
Signalized Intersections – Level of Service**

Intersection	Year	Delay (sec)		LOS	
		AM	PM	AM	PM
1) SW 37 <sup>th</sup> Avenue	2007	37.6	69.5	D	E
	2030	49.6	131.7	D	F
	Alt # 2	73.8	141.1	E	F
2) SW 40 <sup>th</sup> Street	2007	138.7	100.5	F	F
	2030	324.4	207.7	F	F
	Alt # 2	340.3	101.2	F	F
3) SW 32 <sup>nd</sup> Avenue	2007	38.8	47.1	D	D
	2030	44.0	120.4	D	F
	Alt # 2	22.7	21.3	C	C
4) SW 27 <sup>th</sup> Avenue	2007	54.9	97.9	D	F
	2030	72.8	98.2	E	F
	Alt # 2	21.9	40.5	C	D
5) SW 22 <sup>nd</sup> Avenue	2007	98.4	67.1	F	E
	2030	123.9	62.1	F	E
	Alt # 2	49.5	23.5	D	C
6) SW 17 <sup>th</sup> Avenue	2007	97.9	98.8	F	F
	2030	119.7	124.0	F	F
	Alt # 2	54.3	47.3	D	D
7) SW 16 <sup>th</sup> Avenue	2007	46.5	149.6	D	F
	2030	102.2	103.5	F	F
	Alt # 2	26.9	112.4	C	F



**Table S-3  
Arterial Roadway – Level of Service (US 1)**

Roadway Segment	Year	Direction	Average Travel Speed (mph)		LOS	
			AM	PM	AM	PM
Overall within the Study Limits	2007	NB	12.2	25.8	F	C
		SB	22.6	12.8	C	F
	2030	NB	7.9	21.1	F	D
		SB	15.6	7.2	E	F
	Alt #2	NB	12.4	26.5	F	C
		SB	15.6	13.6	E	E





# Preliminary Construction Costs

<b>Construction Cost</b>		<b>\$7,624,938</b>
Landscape	2%	\$152,499
Maintenance of Traffic	15%	\$1,143,741
Mobilization	15%	\$1,143,741
Contingency	15%	\$1,143,741
CEI	15%	\$1,143,741
Design	15%	\$1,143,741
<b>Total Estimated Construction Cost</b>		<b>\$13,496,142</b>

