

REDESIGNING THE INTERSECTION OF E MARION AVE AND NESBIT ST

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Civil Engineering Senior Design

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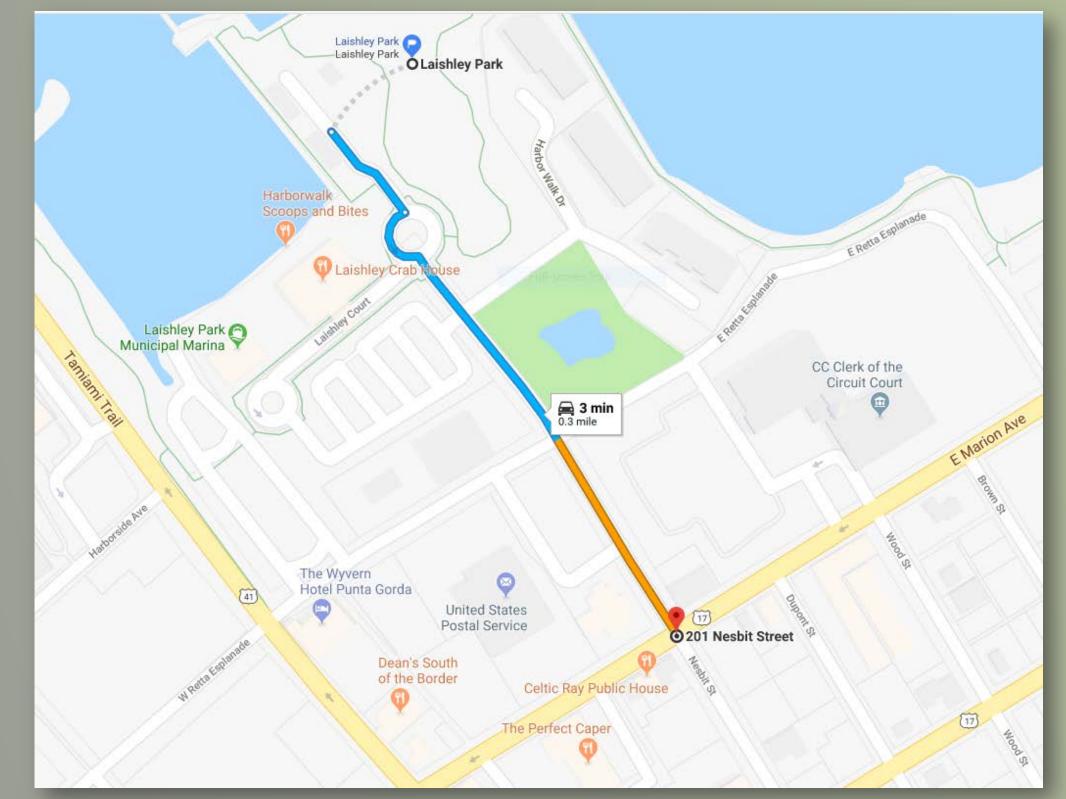
Abstract

Traffic leaving the area of Laishley Park located north of the intersection of E Marion and Nesbit St is commonly congested due to one right-turn lane and a no ROR rule. It is proposed that the existing space on Nesbit be repurposed to include a 3-lane configuration with a dedicated right turn lane onto Marion in order to alleviate the congestion. Two additional solutions for future growth are suggested.

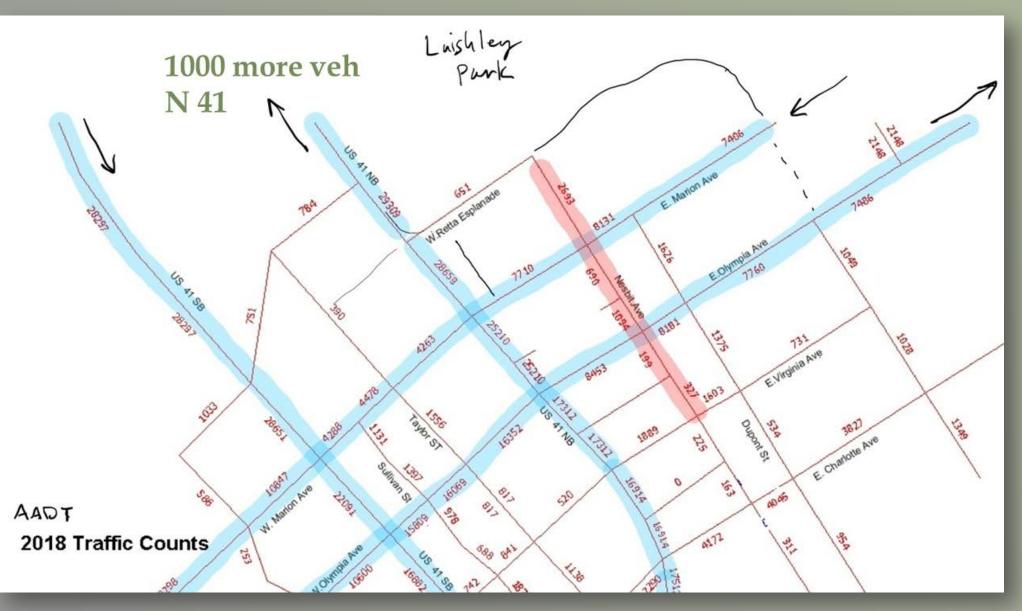
Problem

Congestion at E Marion Ave. & Nesbit St.

- Laishley Park
- 50 Events a year
- Post Office
- No Right-on-Red rule
- 800 parking space capacity



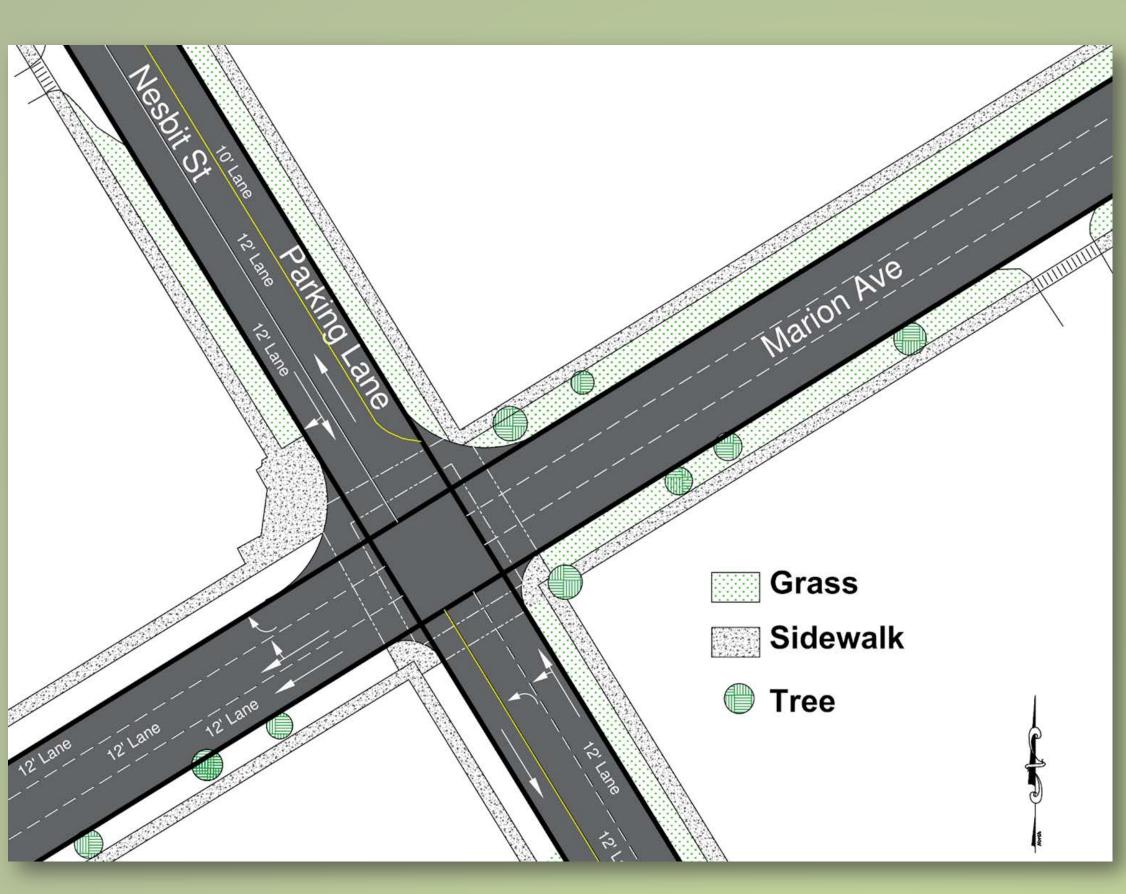
Ariel View of Laishley Park and intersection of E. Marion and Nesbit St



AADT Counts for Surrounding Area, 2018

Current Configuration

- 2 Lane Road
- Parking Lane 10 ft
- Northbound Nesbit Center Lane 12 ft
- Southbound Nesbit Lane 12 ft



Current Conditions of Intersection of E. Marion and Nesbit St.

Traffic Flow (Before)

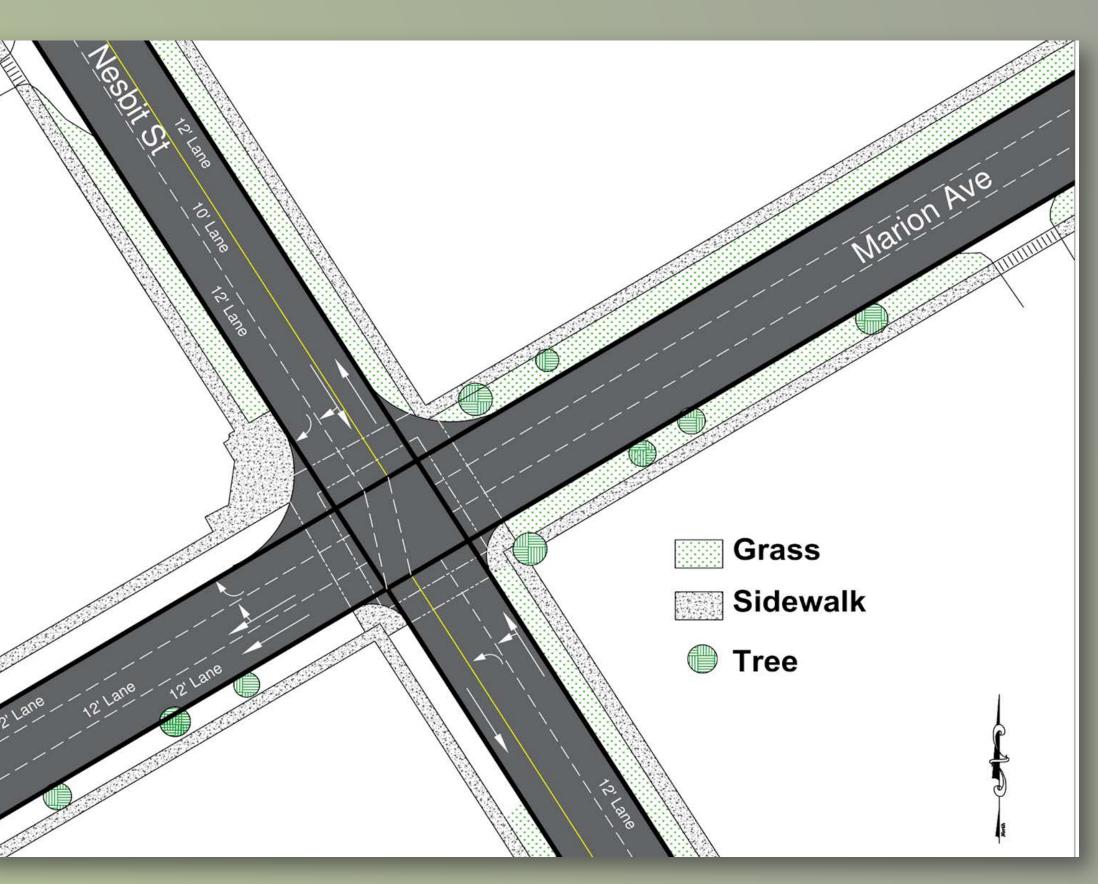
8 veh/1.5 min 5.33 veh/min 300 veh = **56 min**

Traffic Flow (After)

16 veh/1.5 min 10.67 veh/min 300 veh = 28 min

Proposed Changes

- 3 Lane Road
- Northbound Nesbit Lane 12 ft
- Southbound Nesbit Center Lane 10 ft
- Southbound Nesbit Lane 12 ft



Proposed Conditions of Intersection of E. Marion and Nesbit St.

Additional Solution 1

Search for a place or address | The property of the property

I-75 Exits

Improve Harborview Rd.

1000 more cars traveling N on 41 from Marion

- Leads to Charlotte Harbor in Port Charlotte
- Narrow, 2-lane Road
- Many drop-offs

Harborview Rd. Heading Towards I-75

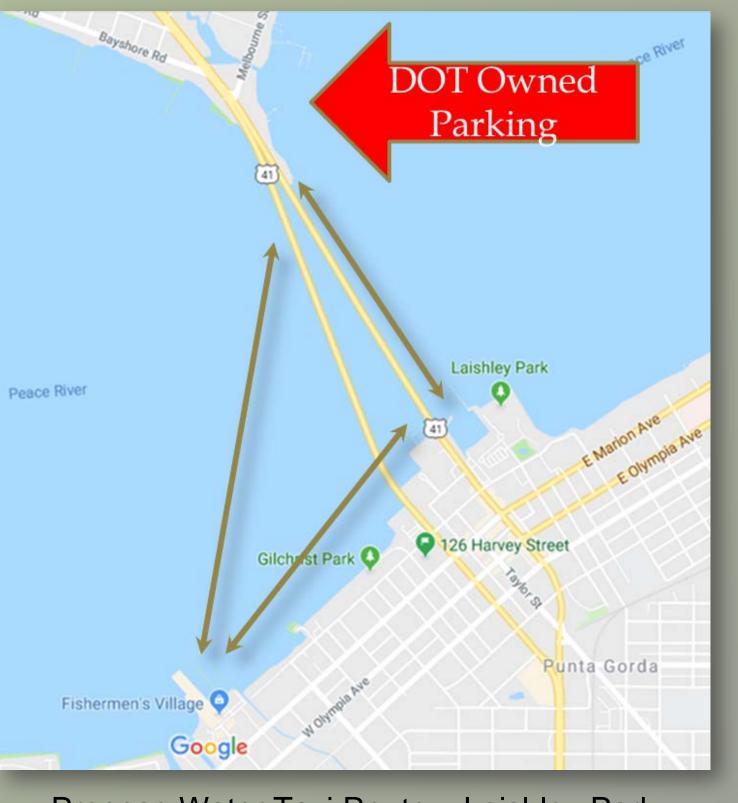


E Marion Heading Towards Nesbit St.

Additional Solution 2

Water Taxi

- Less than a mile across <u>Peace River</u>
- DOT owned parking on N side of bridge
- 3 Taxis (15 ppl.) = 60 ppl. in 40 min.



Propose Water Taxi Route – Laishley Park, Fisherman's Village and DOT Parking

Special thanks to our Mentor,
Mitchel Austin,
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Lakshmi Gurram & Dr. Ashraf Badir

R.O.W. Engineering