MILILANI INTERCHANGE TRAFFIC STUDY

Mililani Mauka Elementary School
95-1111 Makaikai Street
September 05, 2013

DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII

Community Planning and Engineering, Inc.

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU, HAWAII

MILILANI INTERCHANGE TRAFFIC STUDY

- Introduction
  - Welcome
  - Alvin Takeshita, Highways Administrator

MILILANI INTERCHANGE TRAFFIC STUDY

- Agenda
  - Introduction
  - Background of Study
  - Study Objectives
  - Study Schedule
  - Recap of First Meeting
  - Design Alternatives
  - Closing Remarks
  - Questions

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- Background
  - 2007 – Mililani Mauka Neighborhood Board requested a traffic study be performed due to morning rush hour traffic.
  - 2008 – Mililani Mauka Neighborhood Board sent a resolution asking for 6-month pilot program to add a second on-ramp to H-2 southbound and to synchronize traffic signals in the vicinity of the interchange.
  - 2009/2010 – HDOT in partnership w/City & County DTS optimized traffic signals in the vicinity of Mililani Interchange.
  - 2010 – HDOT conducted a preliminary evaluation. Results were presented at a community meeting held on May 5, 2010.
  - 2011 – Act 164/11 allocated funds to conduct a detailed study.
  - 2012 – HDOT procured a consultant, Community Planning & Engineering to conduct the study.
  - 2013 – HDOT held a community meeting to inform the public and to receive community feedback of the study.

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- Study Objectives

  To evaluate the feasibility of alternatives to reduce traffic congestion at the Mililani Interchange through detailed traffic analyses and cost estimates.

- Community Meeting Objective

  To inform the community on the results of the design alternatives and the traffic analysis performed.

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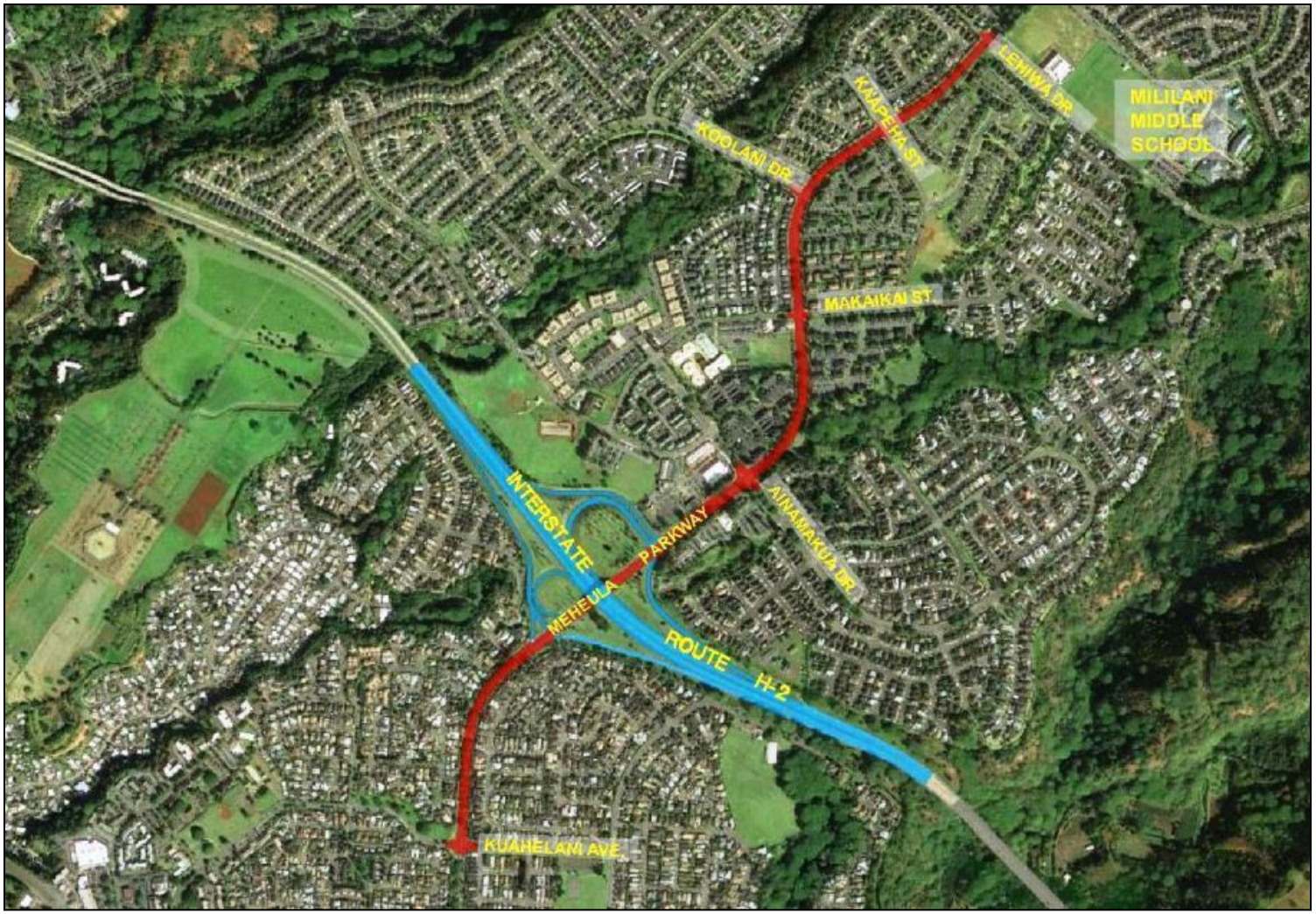

Study Area

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- Study Schedule
  - November 2012 – Traffic Data Collection
  - May 2013 – First Community Meeting
  - July 2013 – Draft Study Completed
  - September 2013 – Second Community Meeting
  - November 2013 – Final Study Completed

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- Recapitulation of First Meeting
  - Study Scope
  - Data Collection
  - Existing Conditions
  - Proposed Alternatives

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- Data Collection
  - Traffic congestion was observed for the morning rush hour in the westbound direction of Meheula Parkway
  - Traffic generally operated adequately along Meheula Parkway during the afternoon rush hour

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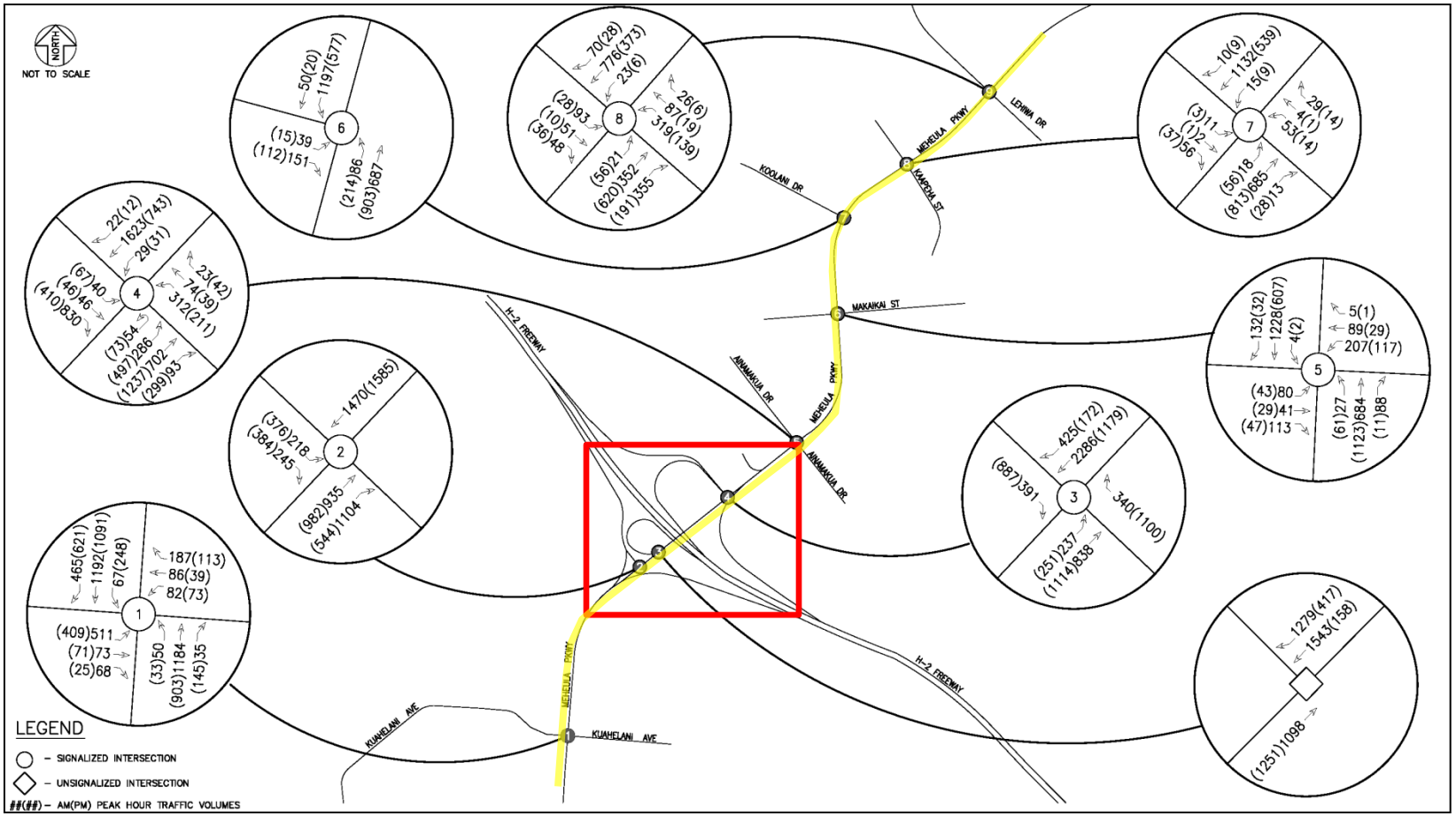

Traffic Volumes

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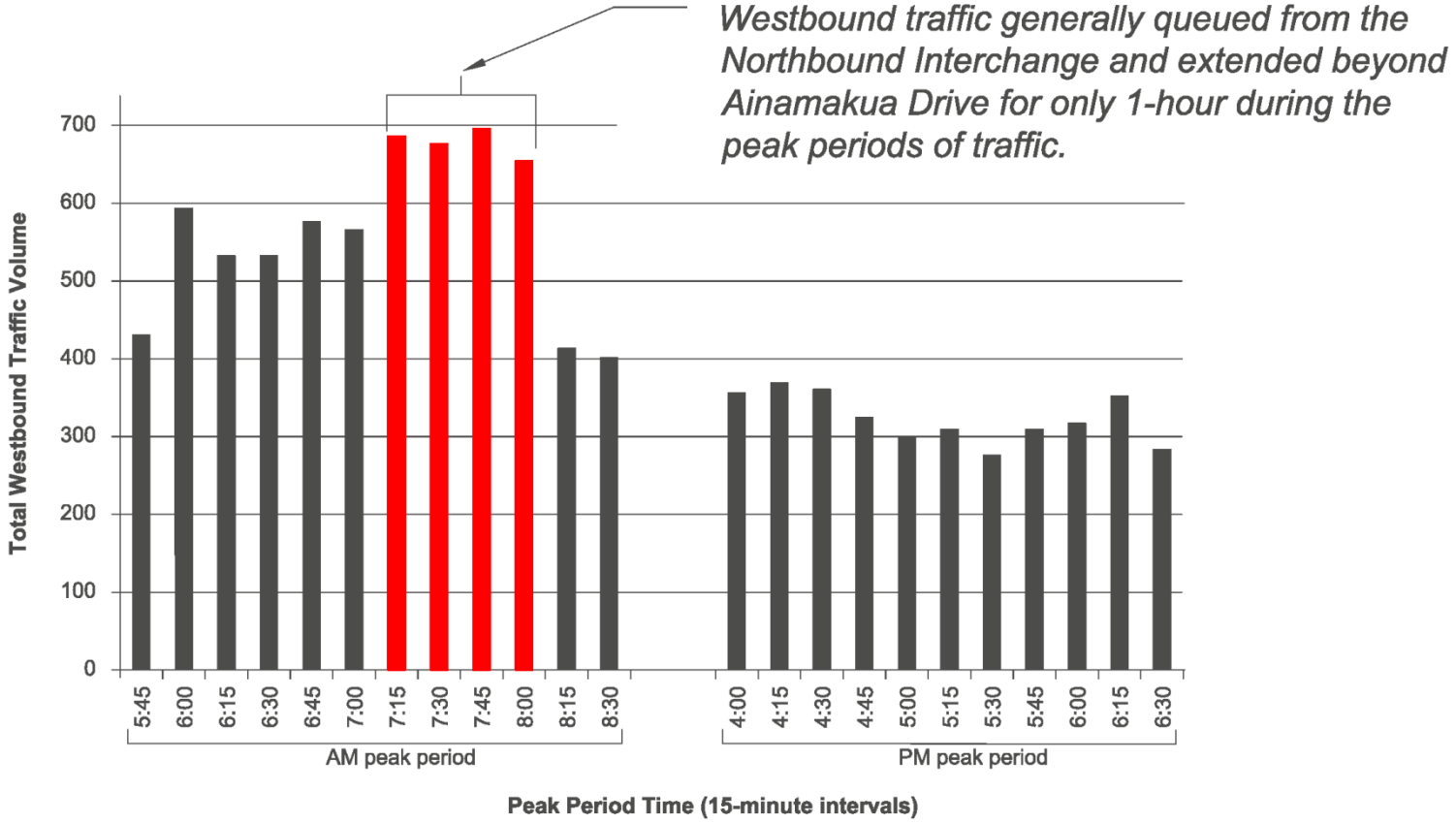
Westbound Traffic Volume at the Meheula Parkway/Northbound Interchange Intersection During the Peak Periods of Traffic



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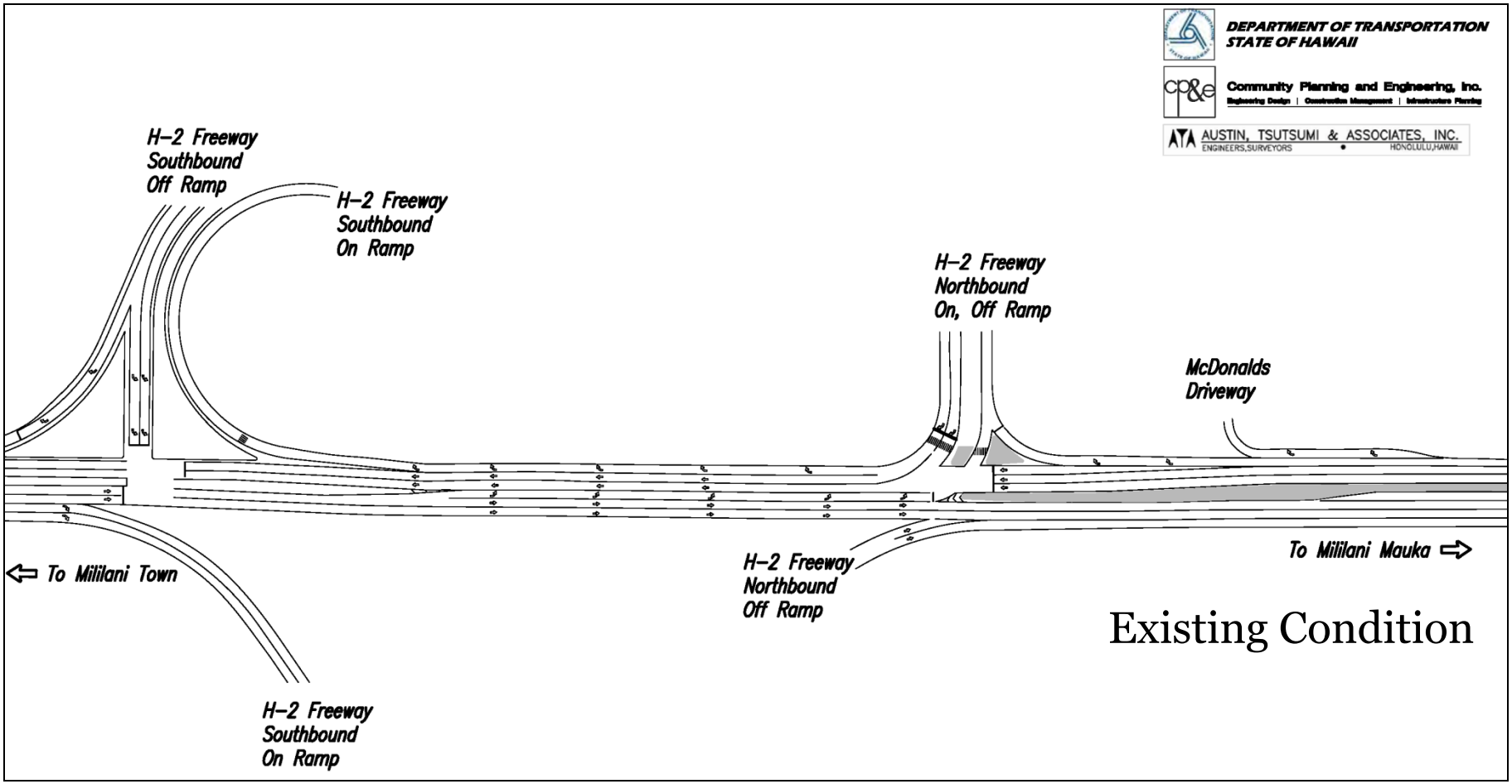

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- Design Alternatives
  - Signal Optimization
  - Double Loop On-Ramp with Pedestrian Traffic Signal
  - Double Loop On-Ramp with Pedestrian Overpass
  - Left Turn Lane via Auxiliary Lane
  - Left Turn Lane via Auxiliary Lane with Upstream Improvements
  - Temporary Morning Delineators

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- Signal Optimization
  - 2009 - HDOT in partnership w/City & County DTS optimized traffic signals in the vicinity of Mililani Interchange.
  - April 2013 – ATA performed an analysis of the traffic signal timing in the vicinity of the Mililani Interchange.

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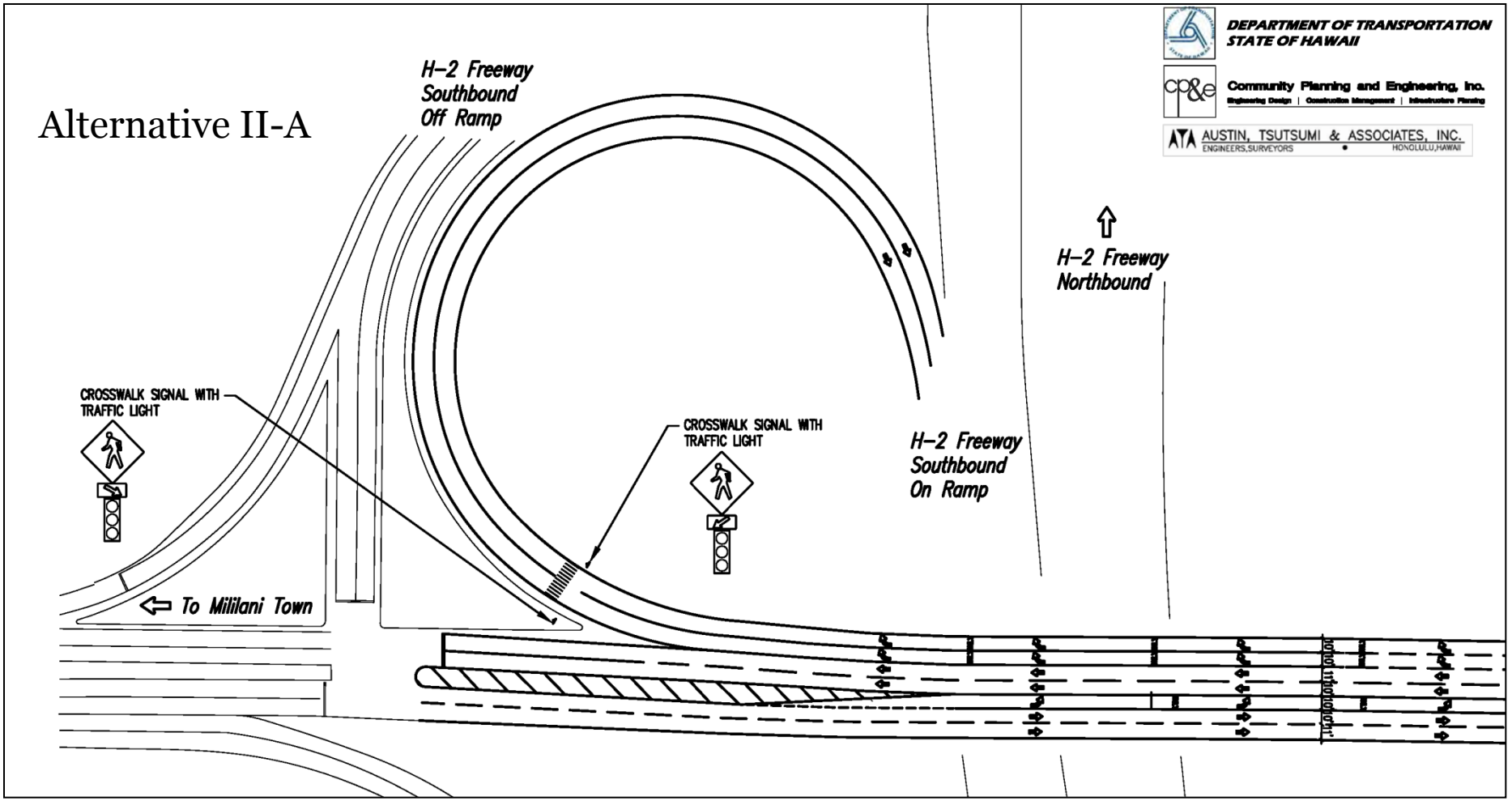

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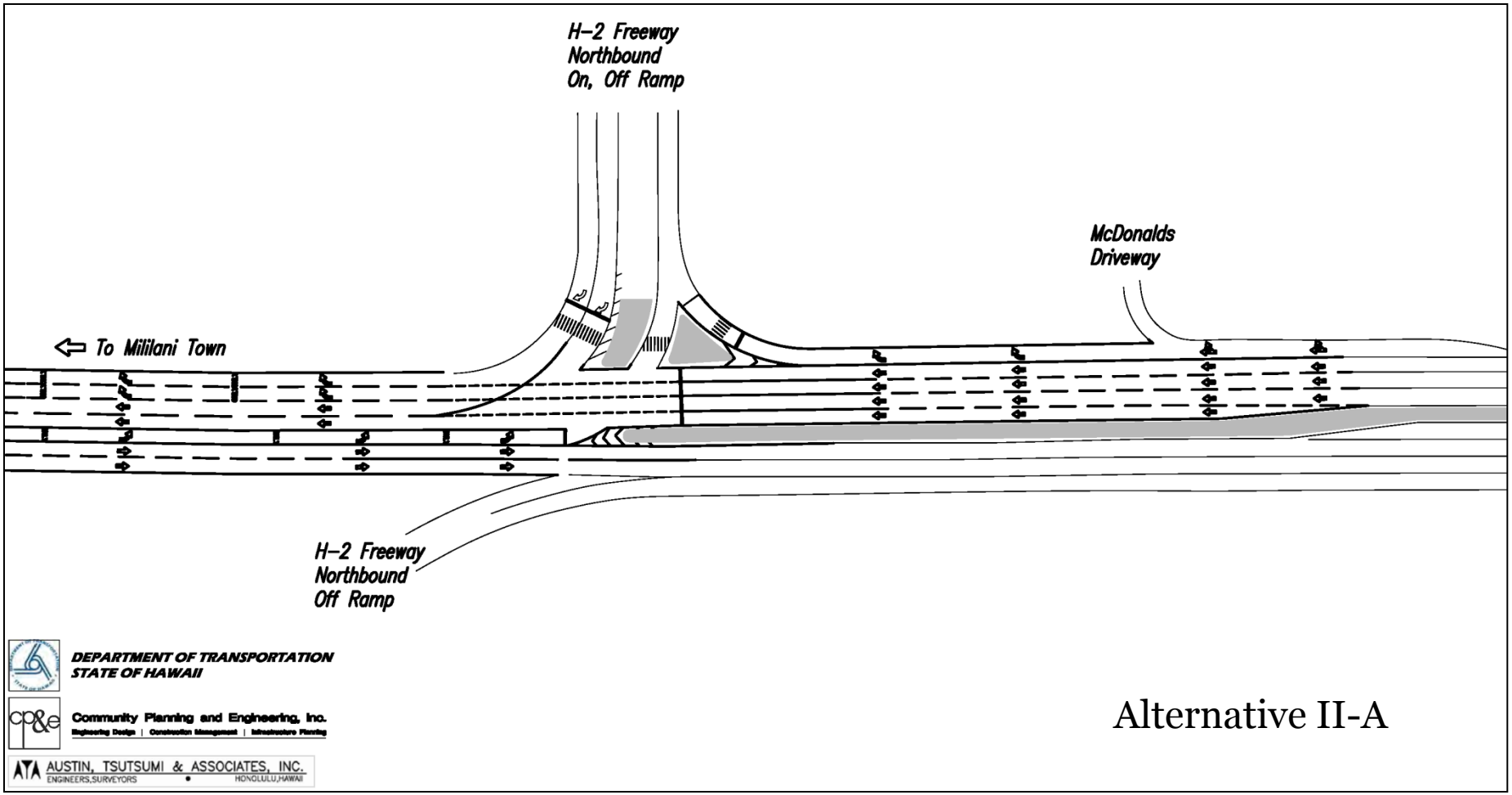

Alternative II-A

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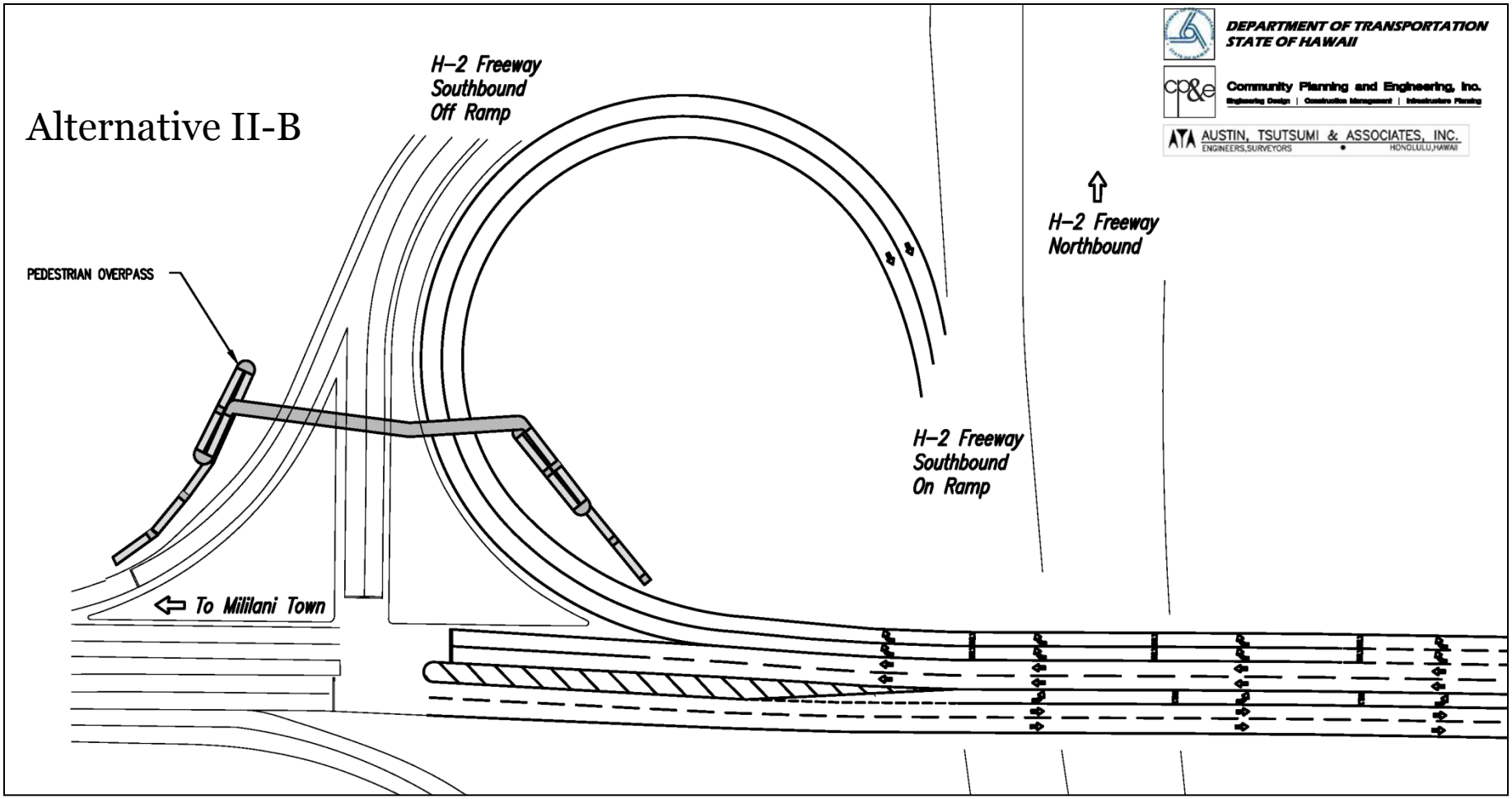

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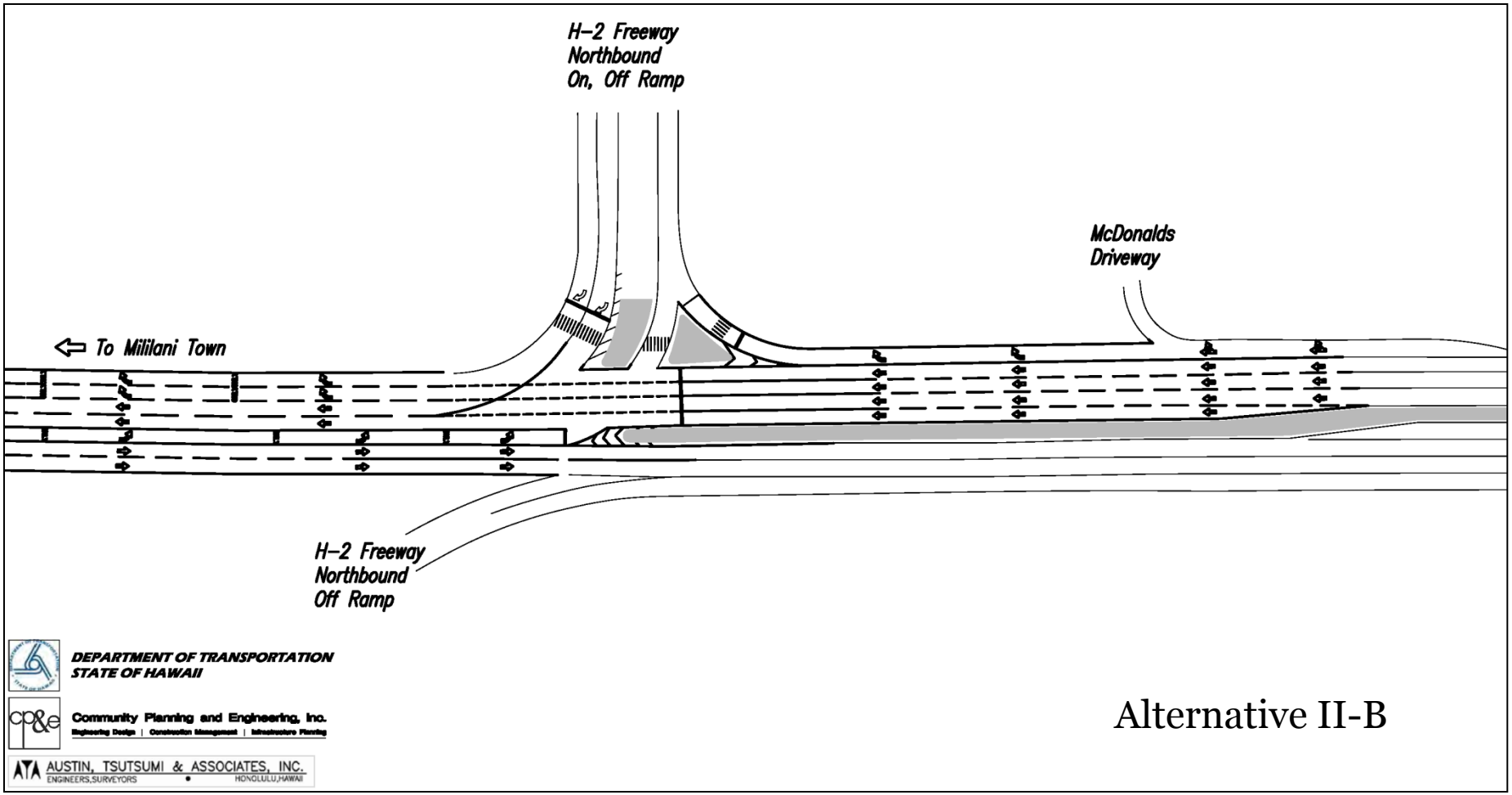

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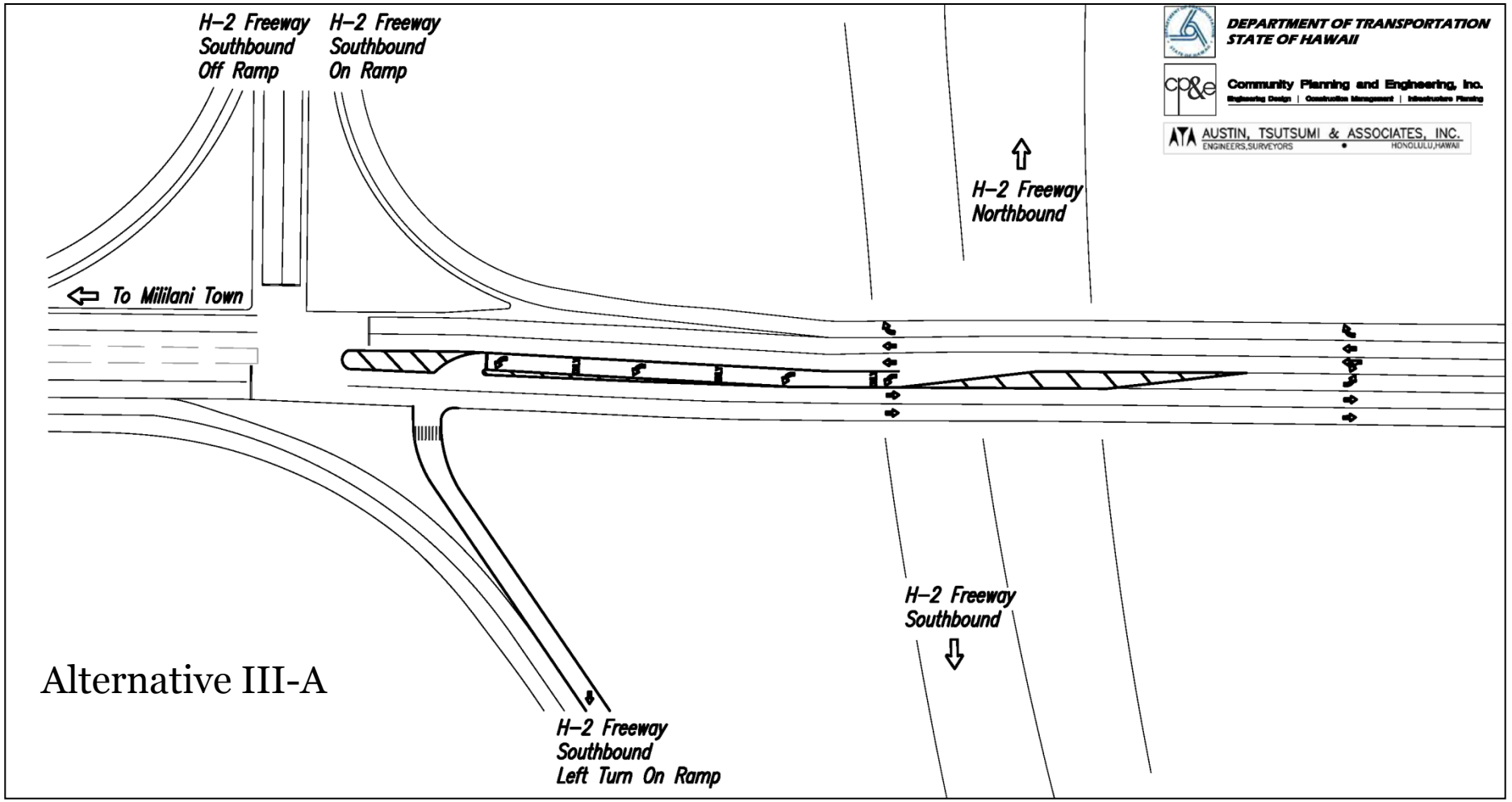

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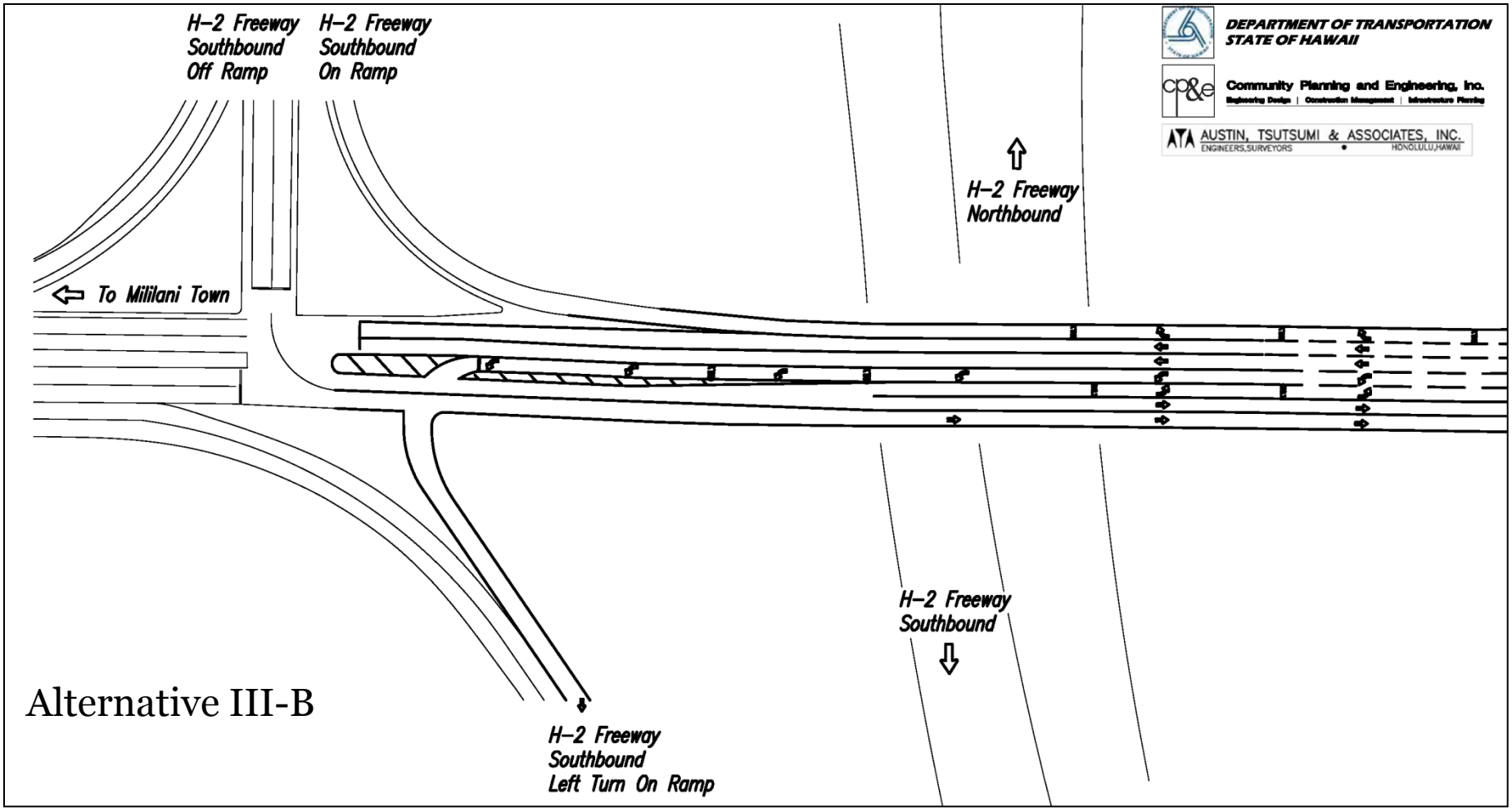

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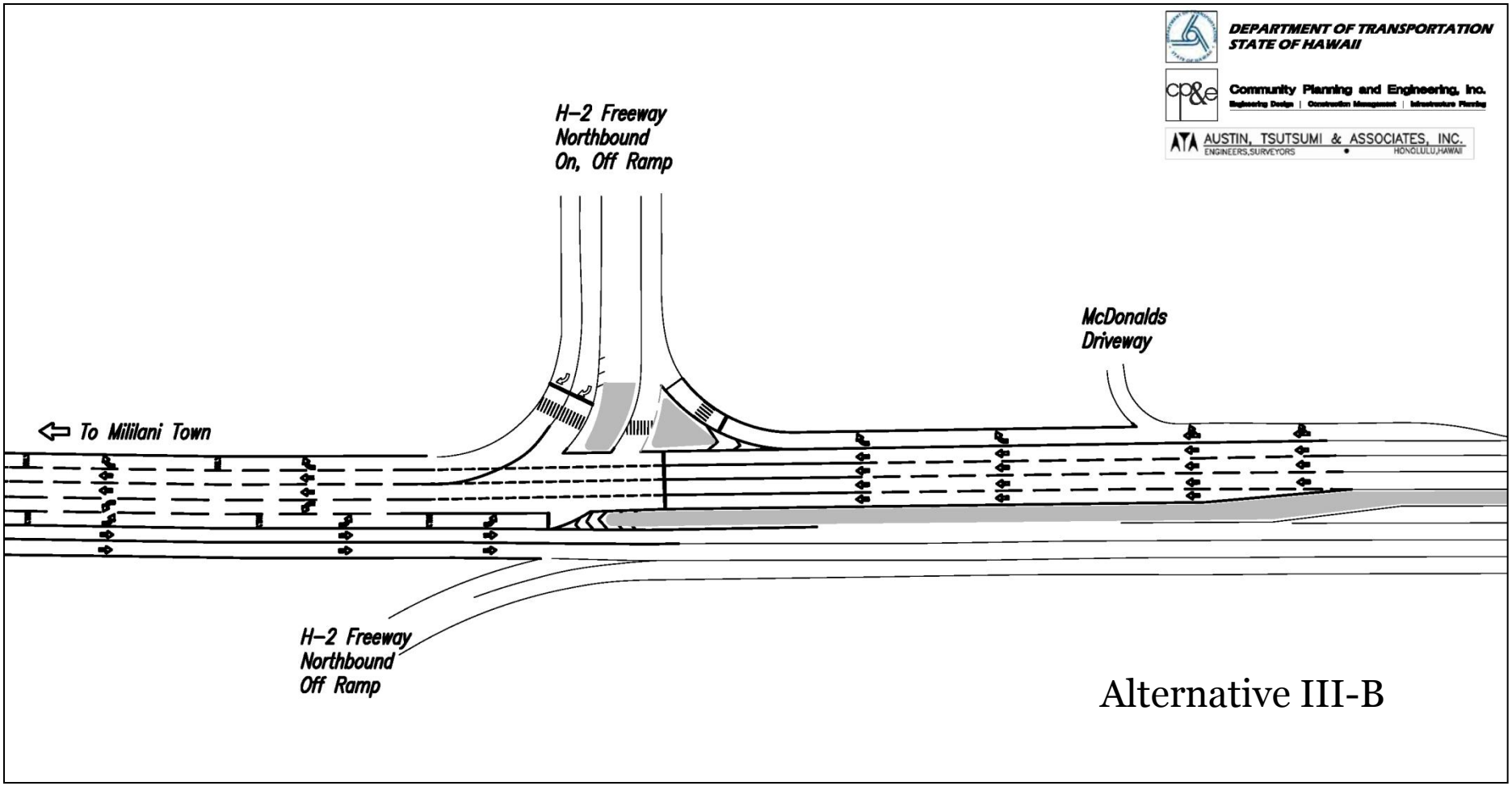

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- Traffic Analysis
  - Level of Service Measurements
  - Volume to Capacity Ratios
  - Travel Time Runs
  - Queue Lengths/Delays

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Table 4: Meheula Parkway - Arterial AM Peak Travel Time Summary Comparison

Meheula Parkway	AM Peak Hour						
	Existing Conditions	Existing Conditions w/ Delineators at Loop On-Ramp	Alternative I Optimized	Alternative IIa Double Loop On-Ramp w/ Ped Signal	Alternative IIb Double Loop On-Ramp w/ Ped Overpass	Alternative IIIa Left-Turn On-Ramp w/ LT Phase Only	Alternative IIIb Alternative IIIa w/ Widened Meheula Pkwy
Westbound	13 min.	15 min.	Unchanged from existing	4 min.	4 min.	10 min.	5 min.
Eastbound	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.	3 min.

Notes:

- Travel time values shown are taken between Kaapeha Street and the Southbound Interchange.

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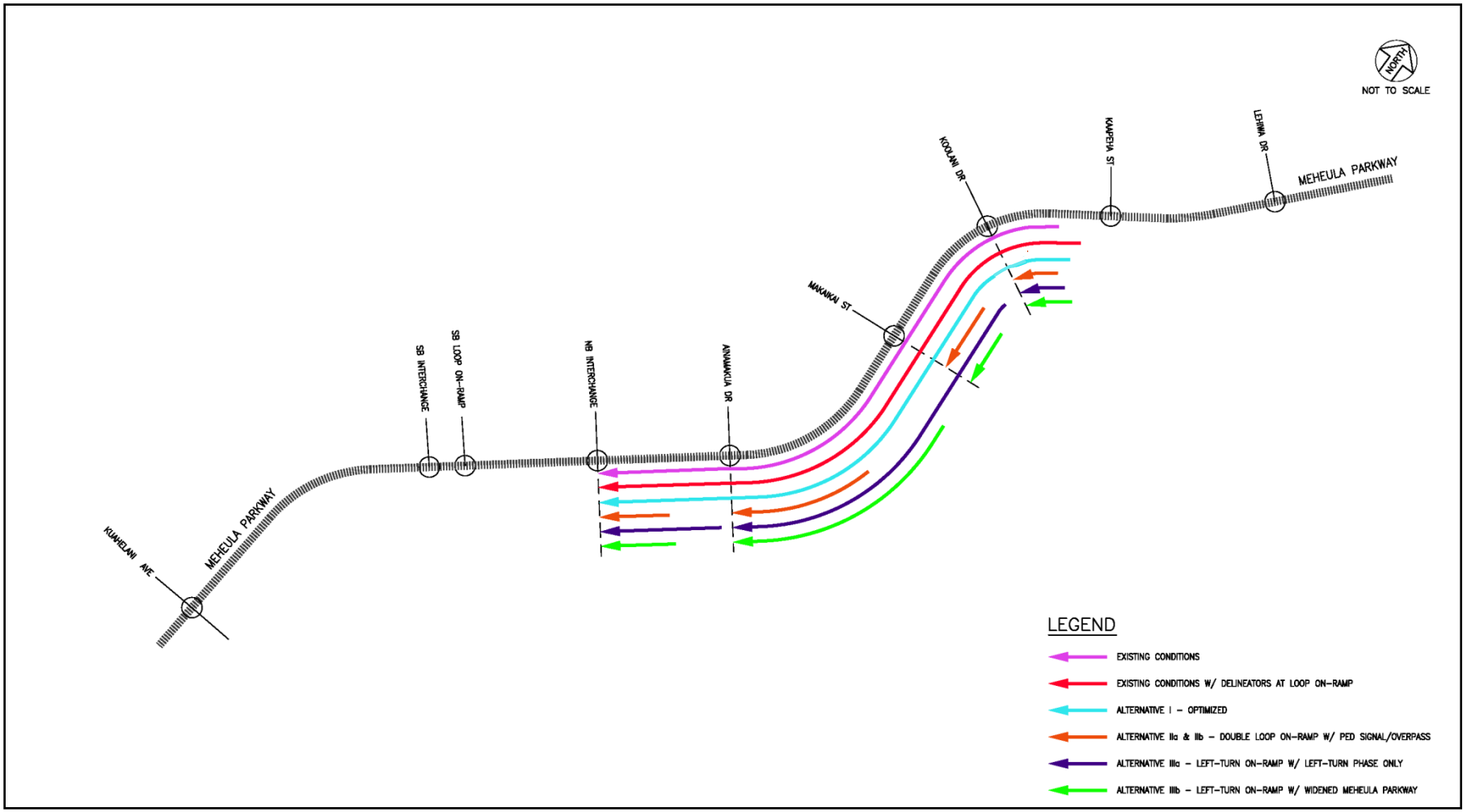

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- Closing Remarks
  - "Next Steps"
    - Complete Cost Benefit Analysis (November 2013)
    - Finalize Report (November 2013)

- http://hidot.hawaii.gov/

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Questions?

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MAHALO!