



moulton niguel water district

Recycled Water Master Plan Update

March 13, 2017

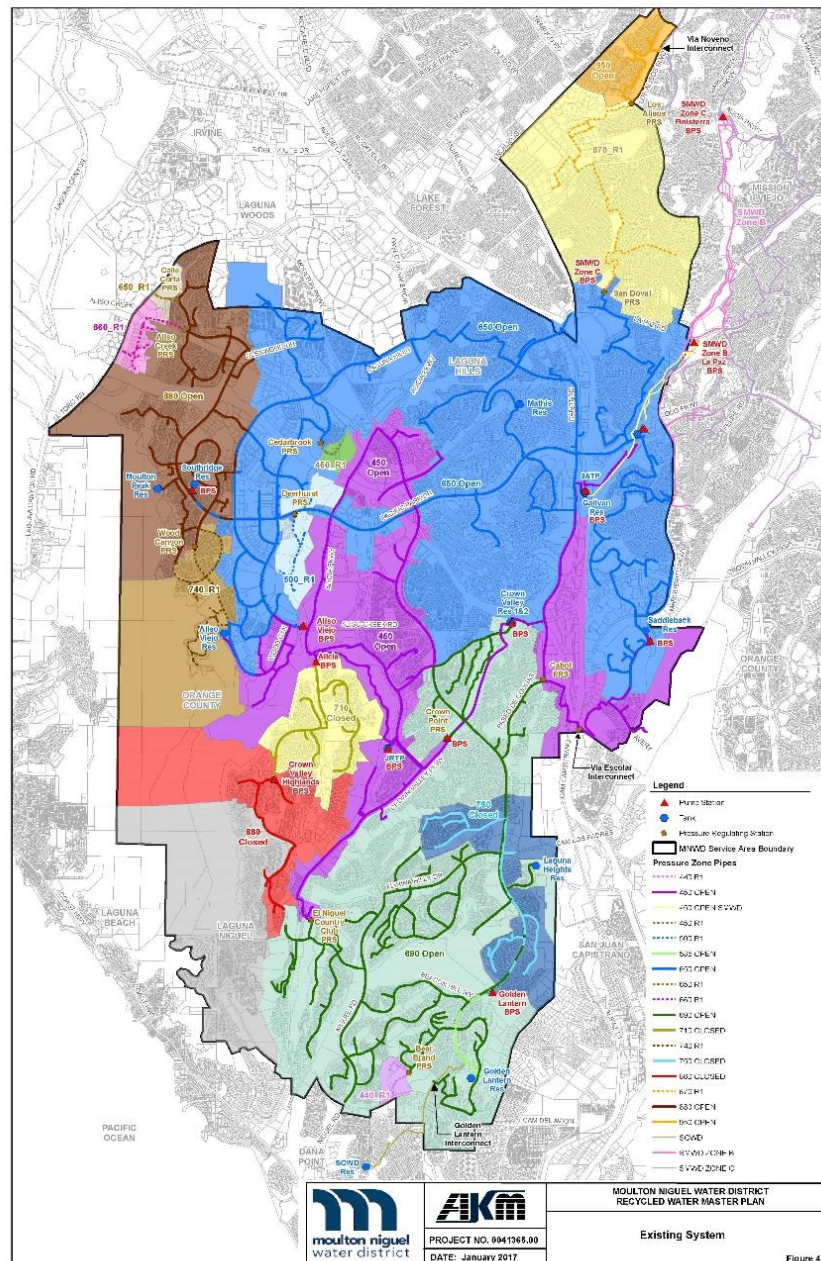
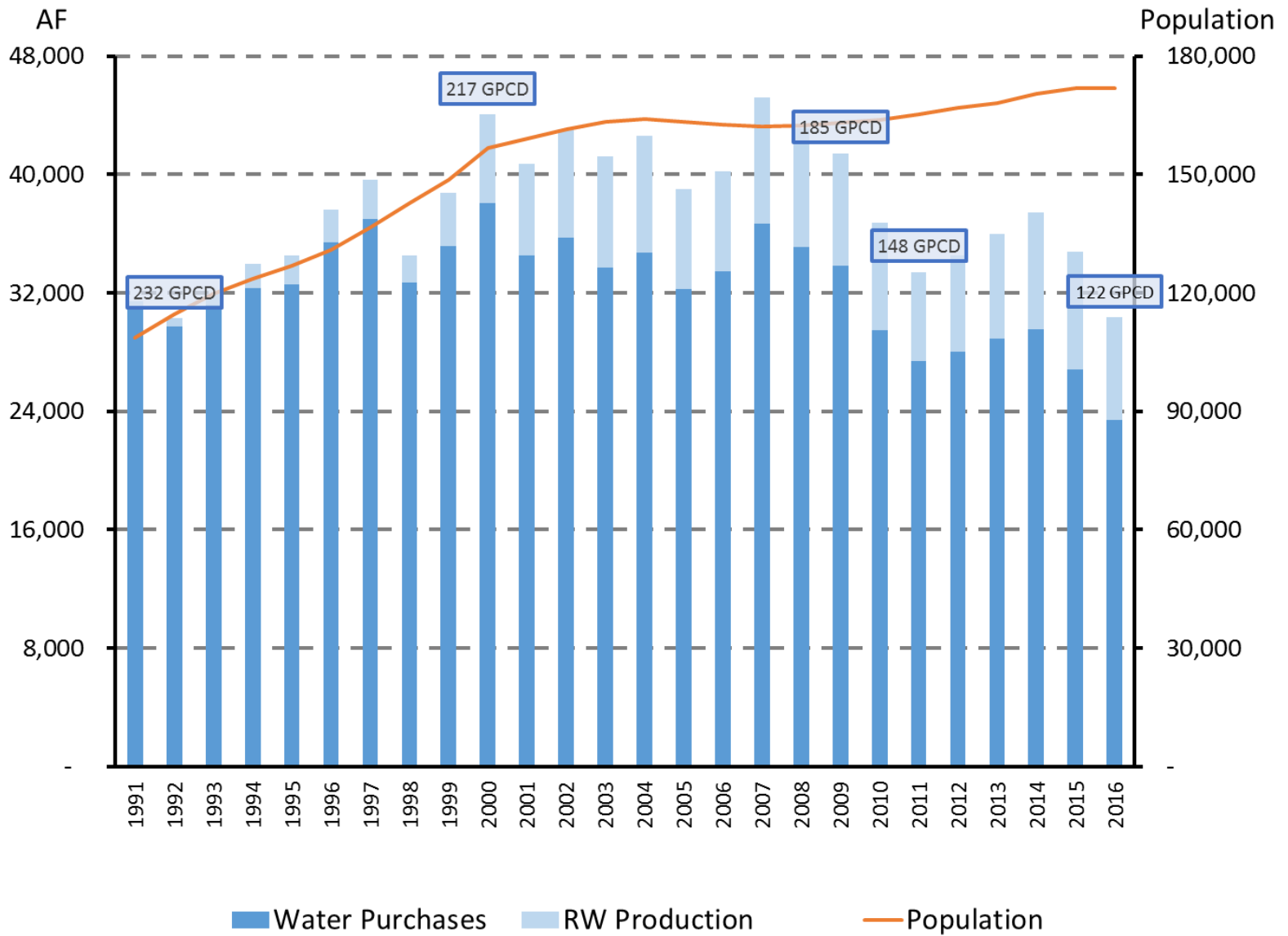


Figure 4.1



No. of Connections

AFY

1,600

10,000

1,200

7,500

800

5,000

400

2,500

FY 1990-91
FY 1991-92
FY 1992-93
FY 1993-94
FY 1994-95
FY 1995-96
FY 1996-97
FY 1997-98
FY 1998-99
FY 1999-00
FY 2000-01
FY 2001-02
FY 2002-03
FY 2003-04
FY 2004-05
FY 2005-06
FY 2006-07
FY 2007-08
FY 2008-09
FY 2009-10
FY 2010-11
FY 2011-12
FY 2012-13
FY 2013-14
FY 2014-15
FY 2015-16

Total Recycled Water Demand

Total Recycled Water Connections

52.39 AF/Conn.

33.28 AF/Conn.

8.76 AF/Conn.

7.4 AF/Conn.

6.47 AF/Conn.

4.92 AF/Conn.

Recycled Water Master Plan

- Purpose and Scope
 - Awarded to AKM in August 2015
 - Identify existing infrastructure needs
 - Identify opportunities for expansion and associated needs and costs
 - Identify regional opportunities to provide recycled water services
 - Develop a Capital Improvement Program
 - Support new Local Resources Program application with MET



Initial Conclusions

- ~1,700 acre-feet per year in additional demand feasible
- Up to \$30M in improvements to existing facilities over 15 years to meet existing demands
- Up to an additional \$125M to expand recycled water system



Cost Components

- Recycled Water Conversions
- MNWD Facility Improvements
- Infrastructure to Capture Additional Wastewater
- Shared Facility Improvements
 - Pipeline Upsizing
 - Booster Station Upgrades
- Seasonal Storage Capacity Acquisition



Next Steps

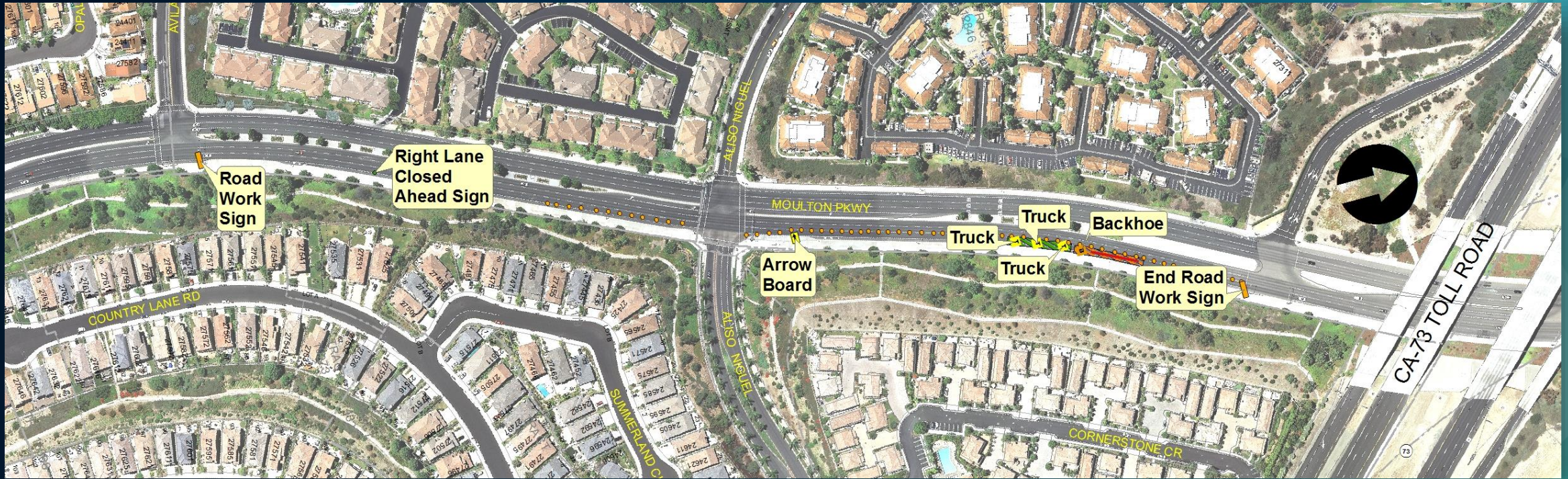
- Finalize Report
- Analyze and Refine Cost Estimates
- Analyze Supply & Demand Scenarios
- Assess Feasibility and Potential Phasing
- Assess Interagency Impacts
- Evaluate Other Reliability Opportunities



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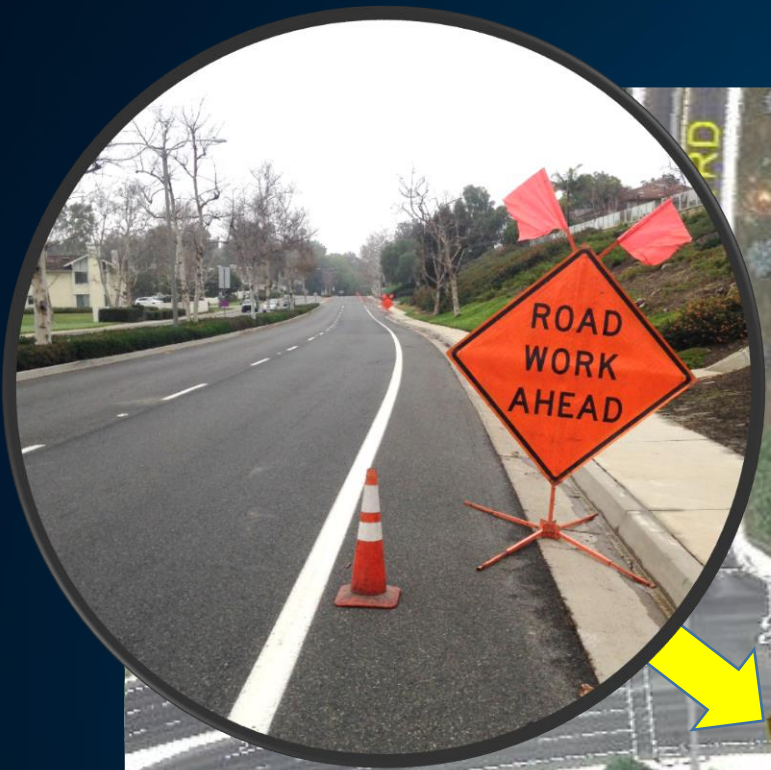
Traffic Control Safety Plan

March 13, 2017



- Moulton Parkway / Aliso Niguel

WORK LIMITS AND OVERALL SITE MAP

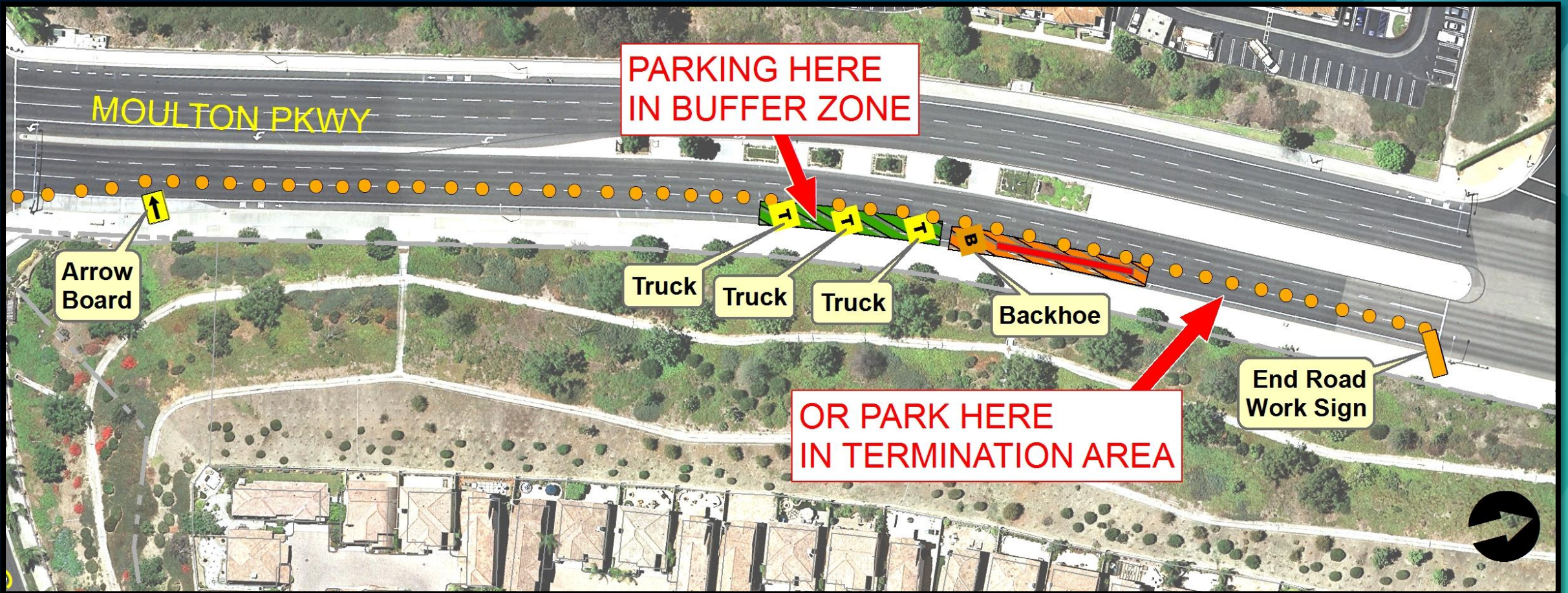


BEGINNING OF WORK AREA SIGNAGE — MOULTON PARKWAY / AVILA ROAD

APPROACHING THE JOB SITE...

ADDITIONAL SIGNAGE





PARKING SAFELY NEAR A WORK ZONE



PARKING IN BUFFER ZONE

PARKING IN TERMINATION ZONE



BE CAREFUL, YOU ARE IN A CONSTRUCTION ZONE.

EQUIPMENT AND VEHICLES ARE CONSTANTLY MOVING.

BE SURE TO SIGNAL MOULTON PERSONNEL BEFORE ENTERING WORK ZONE.



Q & A

- DISCUSSION
- CONCERNS
- PLANNING