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July 11, 2019

David A. Rocha, Fire Chief
Alameda County Fire Department
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RE: UNION CITY FIRE STATION 30 CLOSURE ANALYSIS FOR THE ALAMEDA COUNTY FIRE DEPARTMENT (DRAFT)

BACKGROUND

Citygate has extensive experience with the risks and deployment needs in Union City. We have conducted deployment studies for Fremont and Newark, the Newark-Union City merger analysis with the resultant contract with the Alameda County Fire Department (ACFD), the recent Alameda County ambulance system redesign study, and recently the ACFD regional deployment study.

For this analysis, we reviewed recent incident statistics for Union City as provided by ACFD and used our ACFD geographic mapping analysis model, which includes traffic congestion, to map the travel time loss caused by closing Station 30. Additionally, we reviewed a prior Union City deployment study completed after the Union City Fire Department was reformed following the Fremont consolidation years.

Citygate's Public Safety Principal, and author of this opinion letter, is Chief Stewart Gary, who has over 48 years of experience relevant to this project. Chief Gary is the retired Fire Chief of the Livermore-Pleasanton Fire Department. For 15 years, he was an instructor, program content developer, and principal editor/content developer for the 2nd through 4th editions of the Commission on Fire Accreditation International Standards of Response Cover Manual. Over the last 18 years, he has performed over 300 organizational and deployment studies on departments ranging in size from Minneapolis to San Diego, San Jose, and the Sacramento Metropolitan Fire District, among others.

GENERAL DEPLOYMENT POLICY CONSIDERATIONS

There are no mandatory federal or state regulations directing the level of fire services staffing, response times, or outcomes. Thus, the level of fire protection services provided are a local policy decision. Communities have the level of fire services that they can afford, which may not always be the level desired. However, if services are provided at all, local, state, and federal regulations relating to firefighter and citizen safety must be followed.

Ideally, fire stations should cover a 360-degree area that enables reaching the most people in the fewest travel minutes. Most communities want “equity of coverage” for first responders where the neighborhood population densities and tax rates are similar. The science of fire crew deployment is to spread crews out across a community or jurisdiction for quick response to keep emergencies small with positive outcomes, without spreading resources so far apart that they cannot assemble quickly enough to effectively control more serious emergencies.

Simply summarized, fire service deployment is about the speed and weight of the response. Speed refers to initial response (first-due), all-risk intervention resources (engines, trucks, and/or ambulances) strategically deployed across a jurisdiction for response to emergencies within a specified time interval to control routine to moderate emergencies without the incident escalating to greater size or severity. Weight refers to multiple-unit responses for more serious emergencies, such as building fires, multiple-patient medical emergencies, vehicle collisions with extrication required, or technical rescue incidents. In these situations, a sufficient number of firefighters must be assembled within a reasonable time interval to safely control the emergency and prevent it from escalating into a more serious event.

UNION CITY STATION 30 CLOSURE FINDINGS

1. Geographic Coverage
 - a. A first-unit response area is uncovered in the southwest City during both normal and congested traffic hours.
 - b. The overlap area with Station 32 is eliminated if Station 32 is pulled east.
 - c. The closure totally eliminates first alarm, four-unit coverage in the City’s core, commercial areas.
 - d. The three-engine/quint coverage is reduced to all but a small area just east and alongside I-880.
 - e. The three-engine coverage west and south of Station 32 is reduced.

- f. The first-due, 4:00-minute travel time road miles covered is reduced for normal traffic inside the City limits by 14 miles, reducing Citywide road miles covered from 87 percent to **79.6 percent**.
- g. The first-due, 4:00-minute travel time road miles covered during congested traffic inside the City limits is reduced by 55 miles, reducing Citywide coverage from **69.7 percent** to **58.77 percent**.

2. Closure Findings Based on Incident Workload

- a. Newark's first responder response times to 90 percent of the EMS incidents are between 10:00 and 11:00 minutes into Union City.
- b. In Union City, 90 percent EMS response times are 7.17 minutes, or almost 3:00-minutes faster.
- c. Union City and Newark, as a combined service area within the ACFD, receive 7:00 minute EMS response times 90 percent of the time.
- d. Union City has a "wide" peak-hour incident demand from 10:00AM to 8:00PM on weekdays, and only slightly less on the weekends. Thus, a 40-hour crew could only cover four of seven days versus 24-hour staffing.
- e. Union City's demand patterns for day of week and month of year are almost flat, indicating the need for year-round, baseline services.
- f. The measure of time on any one incident, if measured across a 24/7/365 timeframe, is not statistically useful. The availability of crews at peak hours of the day, when the simultaneous incident rate is greatest, is what matters.

3. Daily Staffing

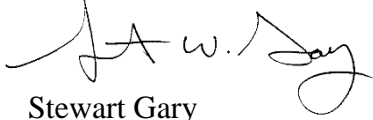
- a. No prior study for Union City fire services has advocated for only three crews with nine personnel on duty. All best practices indicate the minimum need for a serious house or small building fire to be 14–16 personnel, including a command chief officer.
- b. With only three crews, two EMS events at peak hours means the City cannot field more than one unit to a fire or serious technical rescue. Even without Station 30, Union City needs four staffed units with 12 on duty for a minimum response force given the City's population and risks, including two major freeways, light and heavy rail, and wildland fires.

* * *

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DRAFT

Sincerely,

A handwritten signature in black ink, appearing to read "Stewart Gary", written over the printed name.

Stewart Gary
Public Safety Principal

Attachments


















Attachment A: Travel Time Coverage Maps (7)

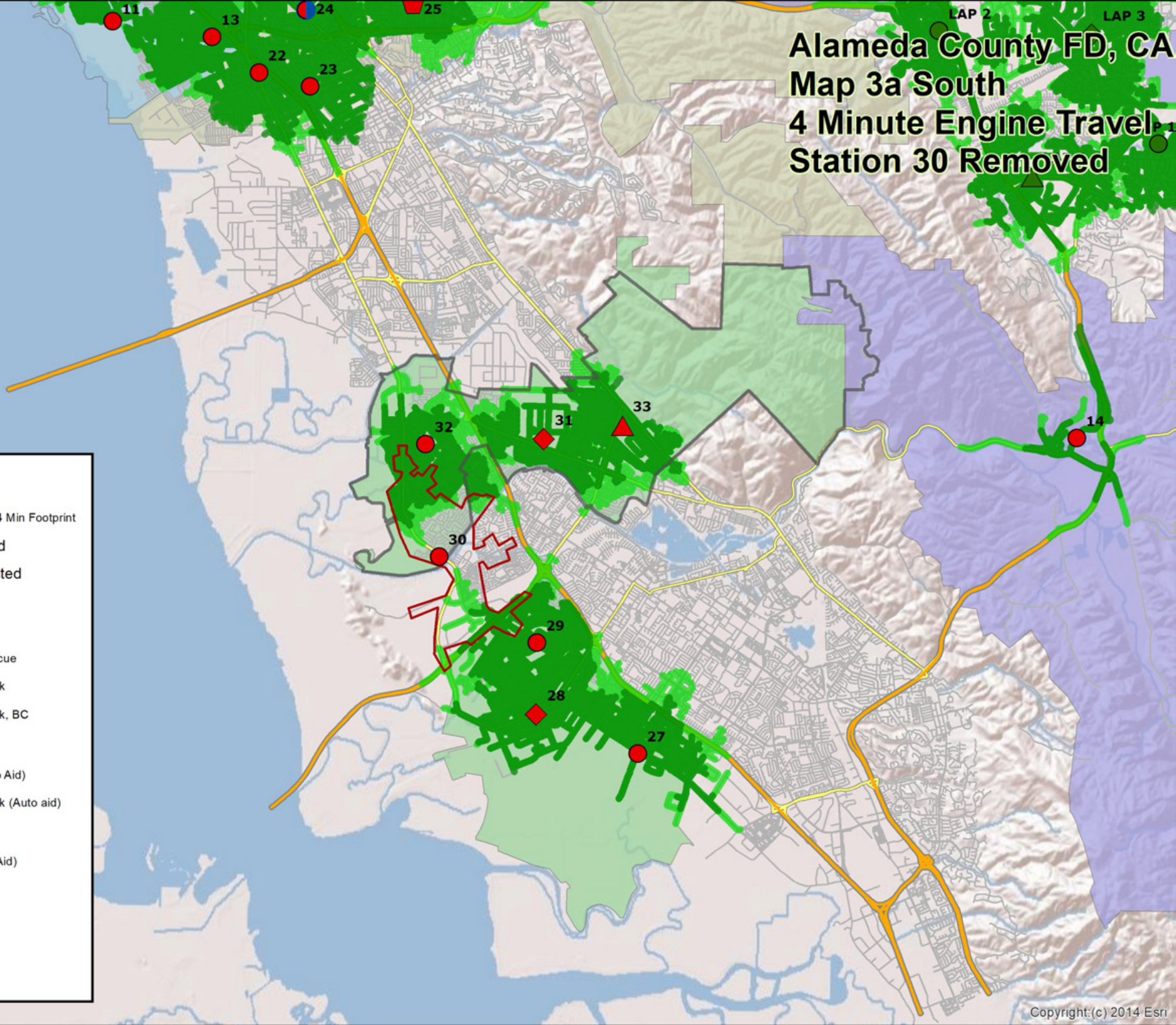
ATTACHMENT A

TRAVEL TIME COVERAGE MAPS

Alameda County FD, CA
Map 3a South
4 Minute Engine Travel
Station 30 Removed


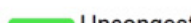














Legend

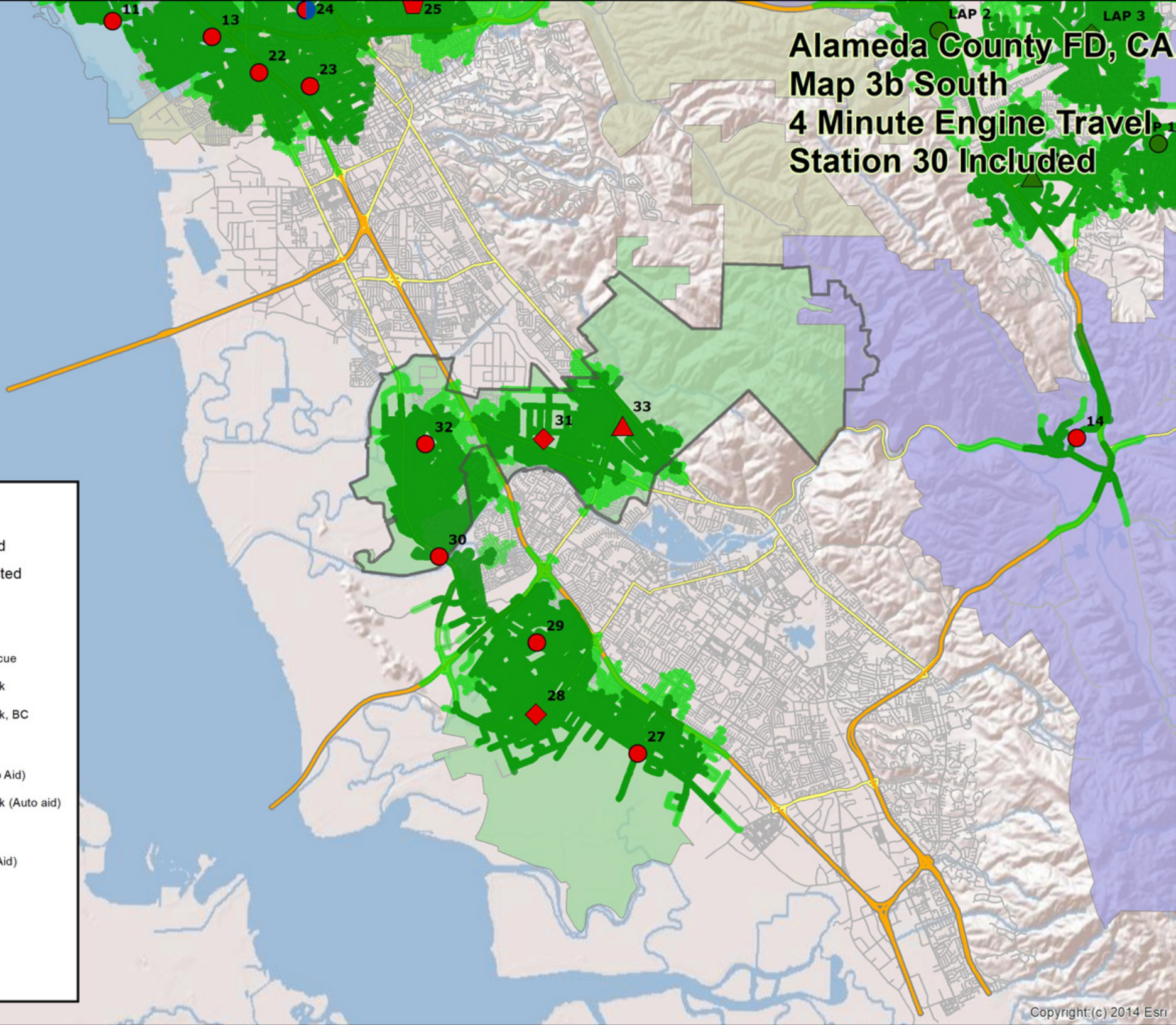
-  Station 30 - 4 Min Footprint
-  Congested
-  Uncongested
-  Engine
-  Engine, BC
-  Engine, Rescue
-  Engine, Truck
-  Engine, Truck, BC
-  Quint
-  Engine (Auto Aid)
-  Engine, Truck (Auto aid)
-  E, BC (MA)
-  Quint (Auto Aid)
-  BAT 2
-  BAT 3
-  BAT 4
-  BAT 7



Alameda County FD, CA
Map 3b South
4 Minute Engine Travel
Station 30 Included

Legend

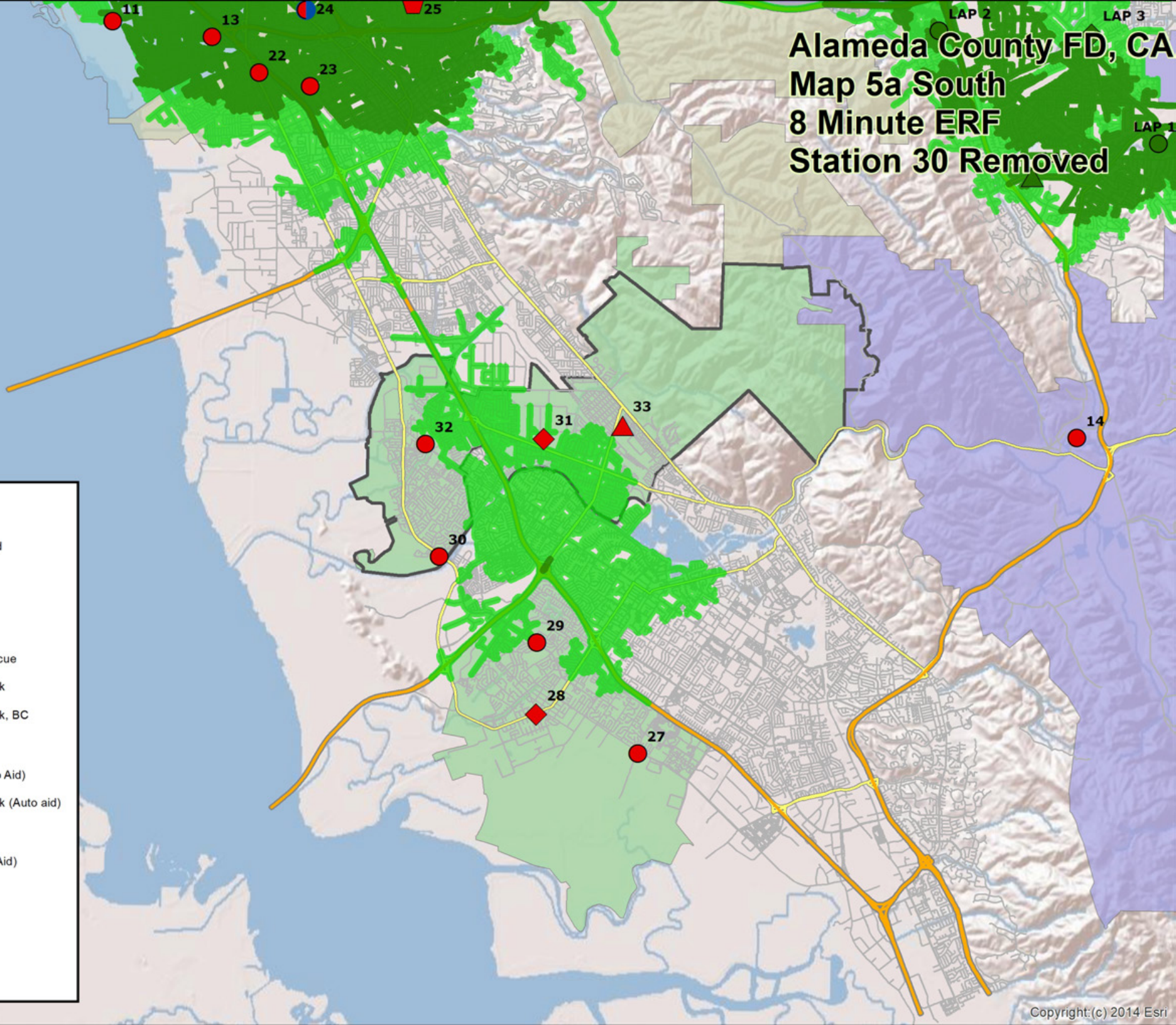
-  Congested
-  Uncongested
-  Engine
-  Engine, BC
-  Engine, Rescue
-  Engine, Truck
-  Engine, Truck, BC
-  Quint
-  Engine (Auto Aid)
-  Engine, Truck (Auto aid)
-  E, BC (MA)
-  Quint (Auto Aid)
-  BAT 2
-  BAT 3
-  BAT 4
-  BAT 7



Alameda County FD, CA
Map 5a South
8 Minute ERF
Station 30 Removed

Legend

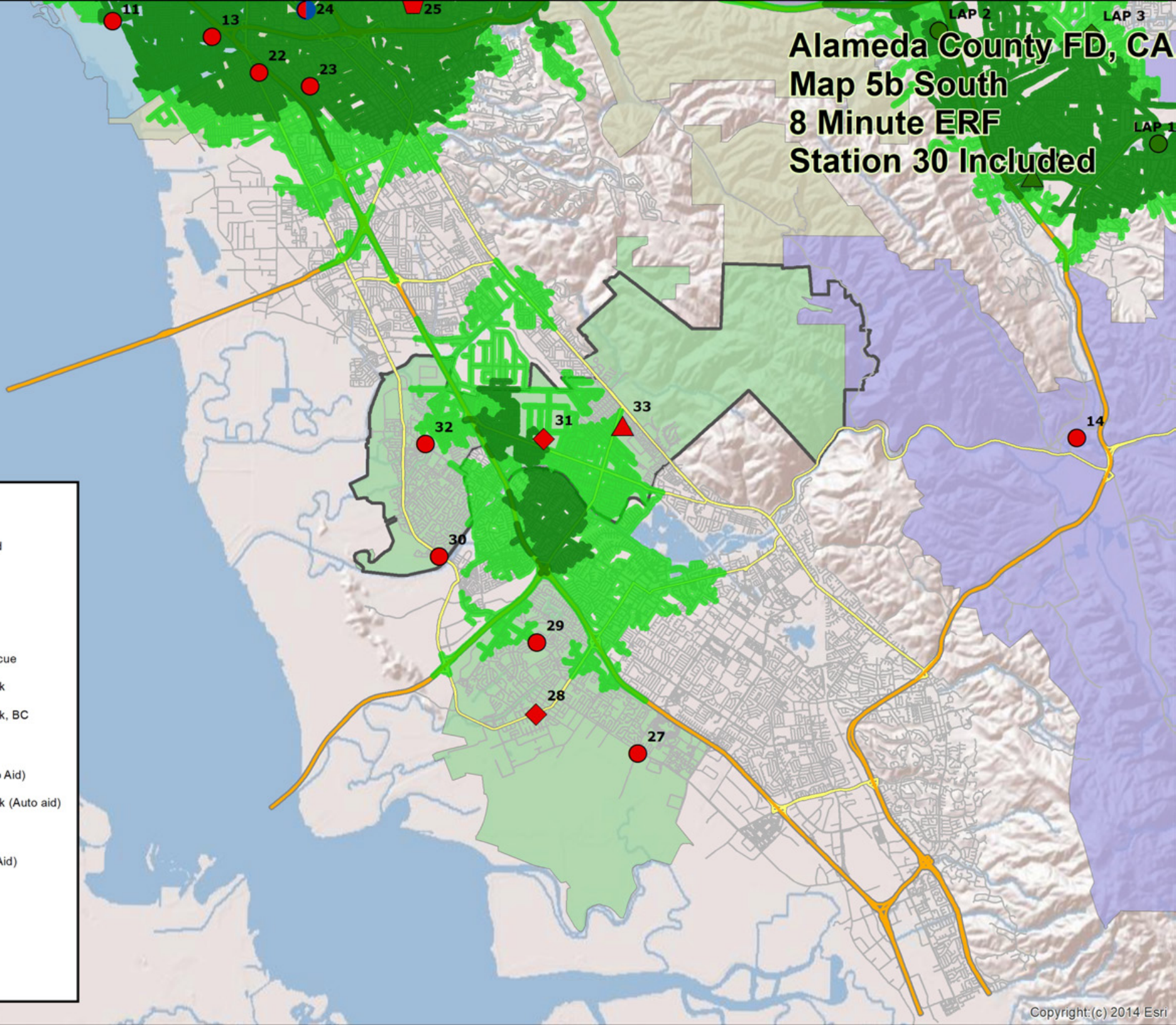
- Uncongested
- Congested
- Engine
- Engine, BC
- Engine, Rescue
- Engine, Truck
- Engine, Truck, BC
- Quint
- Engine (Auto Aid)
- Engine, Truck (Auto aid)
- E, BC (MA)
- Quint (Auto Aid)
- BAT 2
- BAT 3
- BAT 4
- BAT 7



Alameda County FD, CA
Map 5b South
8 Minute ERF
Station 30 Included

Legend

- Uncongested
- Congested
- Engine
- Engine, BC
- Engine, Rescue
- Engine, Truck
- Engine, Truck, BC
- Quint
- Engine (Auto Aid)
- Engine, Truck (Auto aid)
- E, BC (MA)
- Quint (Auto Aid)
- BAT 2
- BAT 3
- BAT 4
- BAT 7



Alameda County FD, CA
Map 6a South
3 Engines/Quints
Station 30 Removed

Legend

- Uncongested
- Congested
- Engine
- Engine, BC
- Engine, Rescue
- Engine, Truck
- Engine, Truck, BC
- Quint
- Engine (Auto Aid)
- Engine, Truck (Auto aid)
- E, BC (MA)
- Quint (Auto Aid)
- BAT 2
- BAT 3
- BAT 4
- BAT 7

Alameda County FD, CA
Map 6b South
3 Engines/Quints
Station 30 Included

Legend

- Uncongested
- Congested
- Engine
- Engine, BC
- Engine, Rescue
- Engine, Truck
- Engine, Truck, BC
- Quint
- Engine (Auto Aid)
- Engine, Truck (Auto aid)
- E, BC (MA)
- Quint (Auto Aid)
- BAT 2
- BAT 3
- BAT 4
- BAT 7

Alameda County FD, CA
Map 6c South
3 Engines Only
Station 30 Removed

Legend

- Uncongested
- Congested
- Engine
- Engine, BC
- Engine, Rescue
- Engine, Truck
- Engine, Truck, BC
- Quint
- Engine (Auto Aid)
- Engine, Truck (Auto aid)
- E, BC (MA)
- Quint (Auto Aid)
- BAT 2
- BAT 3
- BAT 4
- BAT 7