



# Memorandum

4.0

1111 Broadway, Suite 800, Oakland, CA 94607 • 510.208.7400 • www.AlamedaCTC.org

**DATE:** April 6, 2015

**SUBJECT:** Countywide Multimodal Arterial Plan – Draft Roadway Typology Framework

**RECOMMENDATION:** Provide input on Draft Roadway Typology Framework

## Summary

The arterial roadways are the core of the transportation system in Alameda County, moving people and goods within the county and the region. These roadways provide regional and local mobility with multiple transportation modes, access to surrounding land uses, and connectivity between employment and activity centers that is essential for Alameda County's economy and quality of life. Alameda CTC is developing a Countywide Multimodal Arterial Plan that will provide a framework for designing, prioritizing, and implementing projects and programs on the arterial network. The Arterial Plan development is being closely coordinated with local jurisdictions, Caltrans and bus transit operators, and with two other major Alameda CTC plans: the Countywide Goods Movement Plan and the Countywide Transit Plan. In addition, Alameda is also coordinating with other stakeholders representing all modes and abilities such as representatives for bicycle, pedestrian, trucks, emergency response, seniors and disabled.

The Commission approved the vision, goals, and performance measures for the Multimodal Arterial Plan in January 2015. The project team later developed draft performance objectives, or thresholds for the approved performance measures, which is being presented separately.

A key task in the Arterial Plan development includes development of a draft roadway typology framework. A memorandum from the consultant team on the draft typology framework is provided in Attachment A. The typology framework has three main components: auto travel and access characteristics; multimodal network overlays; and land use contexts. This plan is an unprecedented effort that identifies the characteristics of major streets across a county, and use the information to evaluate their performance as multimodal complete streets. For the Arterial Plan, this step will help inform the modal priority for the streets on the Study Network, which in turn will lead to identifying multimodal improvement needs. Jurisdictions such as Alameda, Emeryville and Fremont have developed similar street typology systems unique to their General Plans or Specific Plans. Alameda CTC's

typology framework development will consider these jurisdictions' adopted typology systems, and ensure that they nest within the Multimodal Arterial Plan's street typology framework. Similarly, the typology framework is expected to inform or provide a base for any future effort to develop street typology by other local jurisdictions in Alameda County.

The draft typology framework with initial associated draft maps will be presented to the Plan TAC and ACTAC on April 9, 2015 and at each of the Planning Area meetings planned for the week of April 20, 2015. A more detailed memorandum on the proposed typology framework will be shared with the ACTAC members prior to the Planning Area meetings. A meeting with the non-agency stakeholders is also scheduled April 20, 2015. Based on comments received, the performance objectives will be finalized and presented to the Committees and the Commission for approval in May or June.

**Fiscal Impact:** There is no fiscal impact.

**Attachments:**

- A. Alameda Countywide Multimodal Arterial Plan – Draft Arterial Street Typology Framework Preview

**Staff Contact**

[Tess Lengyel](#), Deputy Director of Planning and Policy

[Saravana Suthanthira](#), Senior Transportation Planner

[Daniel Wu](#), Assistant Transportation Planner

# MEMORANDUM

Date: April 3, 2015  
To: Saravana Suthanthira, Alameda CTC  
Cc: Matthew Ridgway and Francisco Martin, Fehr & Peers  
From: Phil Erickson, Bharat Singh, and Warren Logan  
Re: Alameda CTC Countywide Multimodal Arterial Plan: Draft Arterial Street Typology Framework Preview

Philip Erickson, Architect, AIA  
Timothy Rood, AICP, LEED AP ND

The Alameda CTC Multimodal Arterial Plan (MMAP) is developing a street typology framework. The development of a countywide typology framework is an unprecedented effort that identifies the characteristics of major streets across Alameda County. The MMAP will evaluate street performance as *multimodal complete streets*, and suggest potential improvements to streets that are lacking in serving their multimodal function within the countywide network.

Alameda CTC defines multimodal complete streets and their benefits as:

Streets that are designed, built and maintained to be safe, convenient and inviting for all users of the roadway, including pedestrians, bicyclists, motorists, persons with disabilities, movers of commercial goods, users and operators of public transit, seniors, and children.

Streets that are built for all users have multiple benefits, including increased safety, improved air quality through the reduction of auto traffic, improved health through increased physical activity, and greater cost effectiveness.<sup>1</sup>

Jurisdictions such as Alameda, Emeryville and Fremont have developed similar street typology systems unique to these communities' General Plans or Specific Plans. Alameda CTC's typology framework development will consider these jurisdictions' adopted typology systems, and ensure that they nest within the MMAP street typology framework. Similarly, the typology framework is expected to inform or provide a base for future efforts to develop street typology by other local jurisdictions in Alameda County as a part of their implementation of their complete streets policies.



<sup>1</sup> From the Alameda CTC's Complete Streets web page: [http://www.alamedactc.org/app\\_pages/view/8563](http://www.alamedactc.org/app_pages/view/8563)

## Definition of the MMAP Typology Framework

The typology framework consists of three components: a set of base street typologies defined by vehicular functionality, a set of multimodal emphasis overlays, and a set of land use context overlays. These three components are defined as:

- **Base Street Types** – Four street types are defined by proportion of trip lengths for vehicles that travel along the *Study Network's*<sup>2</sup> streets, as well as threshold vehicle volumes. Base street types provide a better understanding of the importance of mobility as opposed to access and other modes.
- **Multimodal Transportation Overlays** – All streets should be designed for all users, but some streets have a particular importance to specific modes and these are represented by multimodal transportation overlays. These overlays assure connected and continuous networks for transit, bicycle, and goods movement; and define nodes where pedestrian circulation is vital to economic development and transit access.
- **Land Use Context Overlays** – These overlays define the context of built and natural environments of the streets. The land use is characterized by Priority Development Area (PDA) place types and the land use designation used in developing the region's Sustainable Communities Strategy. In later phases of the MMAP, the land use context will inform specific cross sectional elements of the street, such as parking and loading lanes and the desired width and use of different zones of the sidewalk.

More detail about how the street types and overlays were determined and examples of streets throughout Alameda County will be provided in a separate memorandum prior to the Planning Area meetings.

## How the Typology Framework will be used in the MMAP effort

The typological framework is being used in the MMAP effort in three ways:

1. The Typology Framework informs modal priorities:
  - a. Base Street Types inform streets of importance to vehicles;
  - b. Modal Transportation Overlays for transit, goods movement and bicycles define continuous and connected networks for each of these modes.
  - c. Land Use Context Overlays and pedestrian modal transportation overlay define nodes where the pedestrian experience is important to achieving economic development and facilitating access to transit.
2. The Typology Framework informs appropriate modal improvements (to be derived in a subsequent phase of work) that address the specific modal needs of a roadway. For example, a pedestrian priority street along a commercial corridor would have a wider desired sidewalk than a pedestrian priority street in a residential corridor.
3. The street types and multimodal transportation overlays will also help identify *arterials of countywide significance*, reflecting vehicular travel, access and modal function of the streets.

---

<sup>2</sup> The *Study Network* consists of the arterials and collectors that are part of the California Road System (CRS) classification system that was sent to all Alameda County jurisdictions for review and to support data collection in December 2014.

Draft *Arterial Network*<sup>3</sup> criteria were previously presented to stakeholders at the February 2015 ACTAC and Commission meetings; a separate white paper documenting *Arterial Network* selection criteria (updated to reflect typology work to date) and accompanying maps will be prepared and presented to jurisdictions and stakeholders.

The typology framework process is graphically illustrated in Figure 1. Data collected from local jurisdictions, the Alameda Countywide travel demand model, MTC, ABAG, transit agencies, and other sources have been used to identify base street types and to develop and apply the multimodal and land use overlays.

A series of initial maps of the street types and overlays are being prepared and will be presented at the Plan TAC and ACTAC on April 9, 2015. A description of the methodologies used in generating the initial maps will also be presented at the Plan TAC and ACTAC in April. In addition, jurisdictions will be given access to the online GIS Server maintained by Fehr & Peers to review these initial typology maps and provide comments as necessary.

---

<sup>3</sup> The *Arterial Network* is a subset of the *Study Network* consisting of those streets which satisfy the criteria for countywide significance that have been defined in a separate MMAP memorandum.

Figure 1: Multimodal Arterial Plan Typology Framework Process Diagram

