

Quick-Build for Complete Streets

Oakland Department of Transportation (OakDOT)



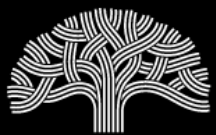
Brian Sukkar
Transportation Engineer
Safe Streets Division, OakDOT

Quick Build

What is it?

Street improvements that are

- “Installed roughly within a year of the start of planning
- Planned with the expectation that it may undergo change after installation
- Built using materials that allow such changes”



City of
Oakland

QUICK BUILDS FOR BETTER STREETS: A NEW PROJECT DELIVERY MODEL FOR U.S. CITIES



people or bikes

Quick Build Example



Source: NYC Street Design Manual

Rapid Response Program

A rapid response is a coordinated effort in the days and weeks following a traffic tragedy that includes quick build projects.

Along with quick build projects, we consider maintenance treatments, coordination with current capital projects, and the identification and prioritization of new capital improvements.



City of
Oakland

OakDOT Goals and Objectives



Rapid Responses are a means to prioritize safety, pilot innovative designs, and demonstrate responsiveness to the communities that OakDOT serves.

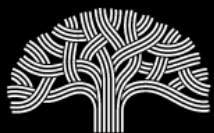
- A quick response to the traffic crash
- Prioritize a Rapid Response while maintaining critical OakDOT functions
- Efficient reporting for internal coordination
- Clear communications with the affected community and the media



City of
Oakland

Key points - Quick Build for Rapid Response

- For expedience, design and construction work done in-house
- Design done by transportation engineers
- Construction done by traffic control maintenance crews
- Improvements focus around pavement markings, signs, and other traffic control or related devices such as flexible posts, modular curb, or modular speed bumps



City of
Oakland

Select Treatment

Depends on:

- Ability for rapid implementation
- Potential to improve safety
- Type of collision that occurred in the tragedy
- Collision history
- Equipment/staff that are readily available
- Existing geometric and traffic conditions
- Planned work in the area



City of
Oakland

What type of Quick-Build projects have I worked on in Oakland?

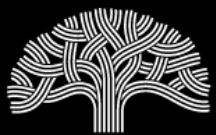
- “Painted Safety Zones” with flex posts and paint
 - Refuge islands
 - Curb extensions/Bulb outs



City of
Oakland

What type of Quick-Build projects have I worked on in Oakland?

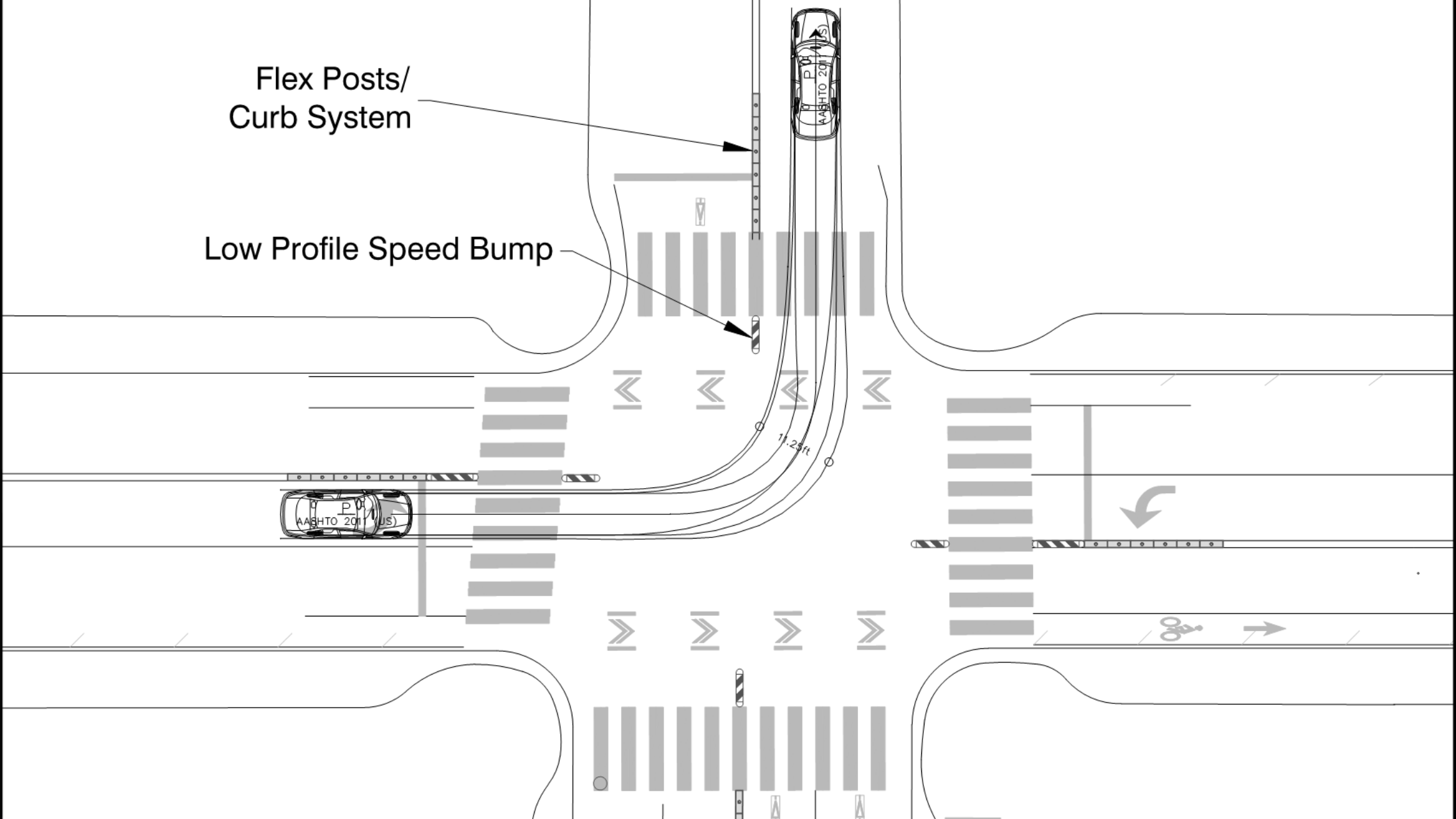
- Left Turn Traffic Calming using “Hardened Centerline” with flex posts and speed bumps



City of
Oakland

Flex Posts/
Curb System

Low Profile Speed Bump

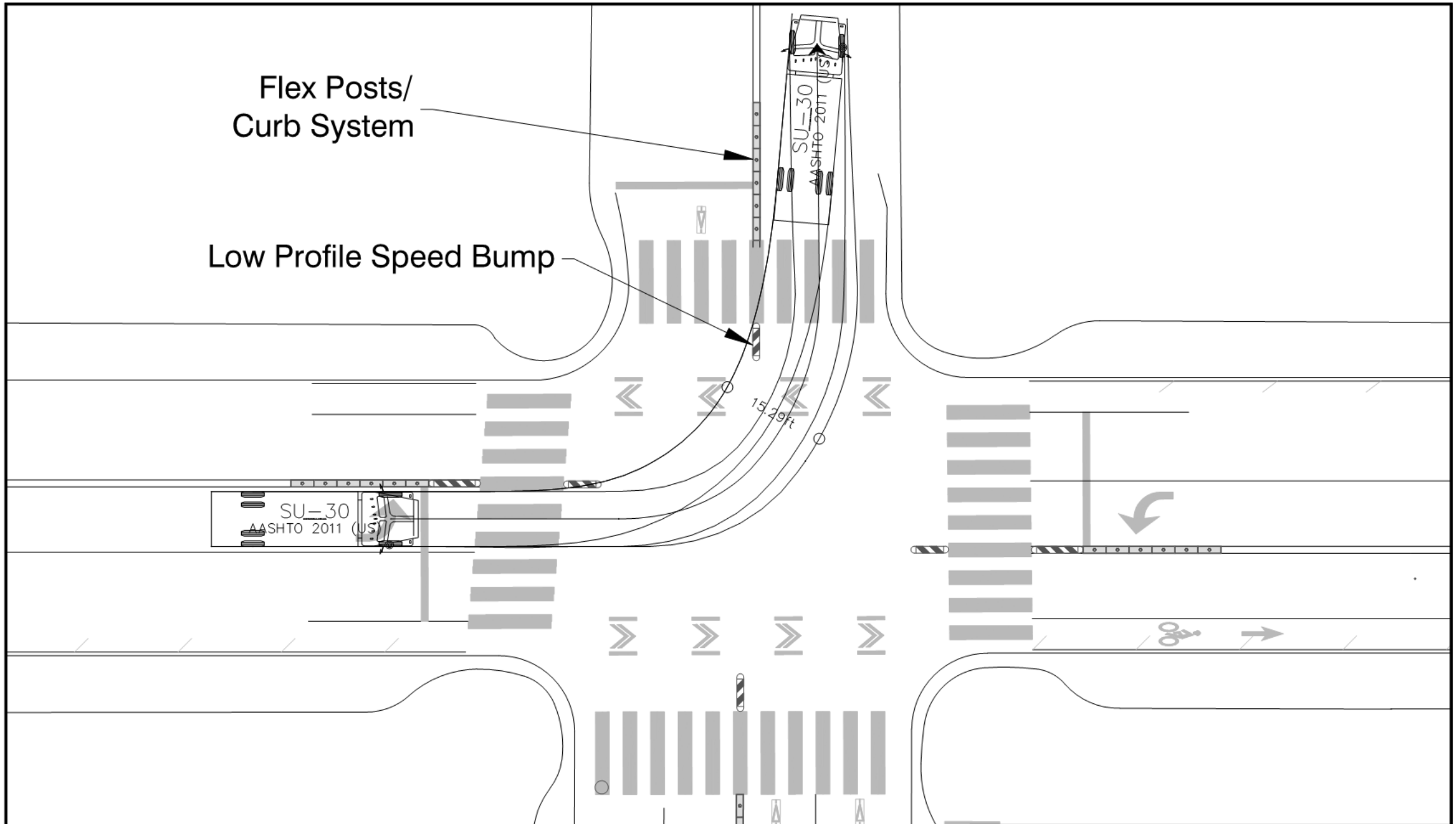


CITY OF OAKLAND
DEPARTMENT OF TRANSPORTATION - SAFE STREETS DIVISION
TRAFFIC ENGINEERING
250 FRANK H. OGDEN PLAZA, SUITE 4344
OAKLAND, CA 94612

PASSENGER VEHICLE TURNING TEMPLATE

Flex Posts/
Curb System

Low Profile Speed Bump



CITY OF OAKLAND
DEPARTMENT OF TRANSPORTATION - SAFE STREETS DIVISION
TRAFFIC ENGINEERING
250 FRANK H. CGRAWIA PLAZA, SUITE 4364
OAKLAND CA, 94612

SU-30 TRUCK TURNING TEMPLATE

Left-turn traffic calming

- “Hardened Centerline” is a form of left turn traffic calming
- Proven to reduce left turn speeds and reduce occurrence of pedestrian injuries
- NYC DOT has installed left turn traffic calming at over 300 intersections as of 2019
- NYC DOT has observed the following statistics at locations where left turn traffic calming has been implemented
 - 20% reduction in pedestrian injuries
 - 20.5% reduction in average left turn speeds
 - 78.9% reduction in vehicles crossing the centerline

Source: NYC DOT Left Turn Traffic Calming

<https://www1.nyc.gov/html/dot/html/pedestrians/left-turn-traffic-calming.shtml>



City of
Oakland

On-going Challenges

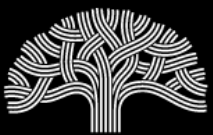
- Street-sweeping



City of
Oakland

On-going Challenges

- Flex post maintenance



City of
Oakland

On-going Challenges

- Lack of national standards



New York



California



New Jersey



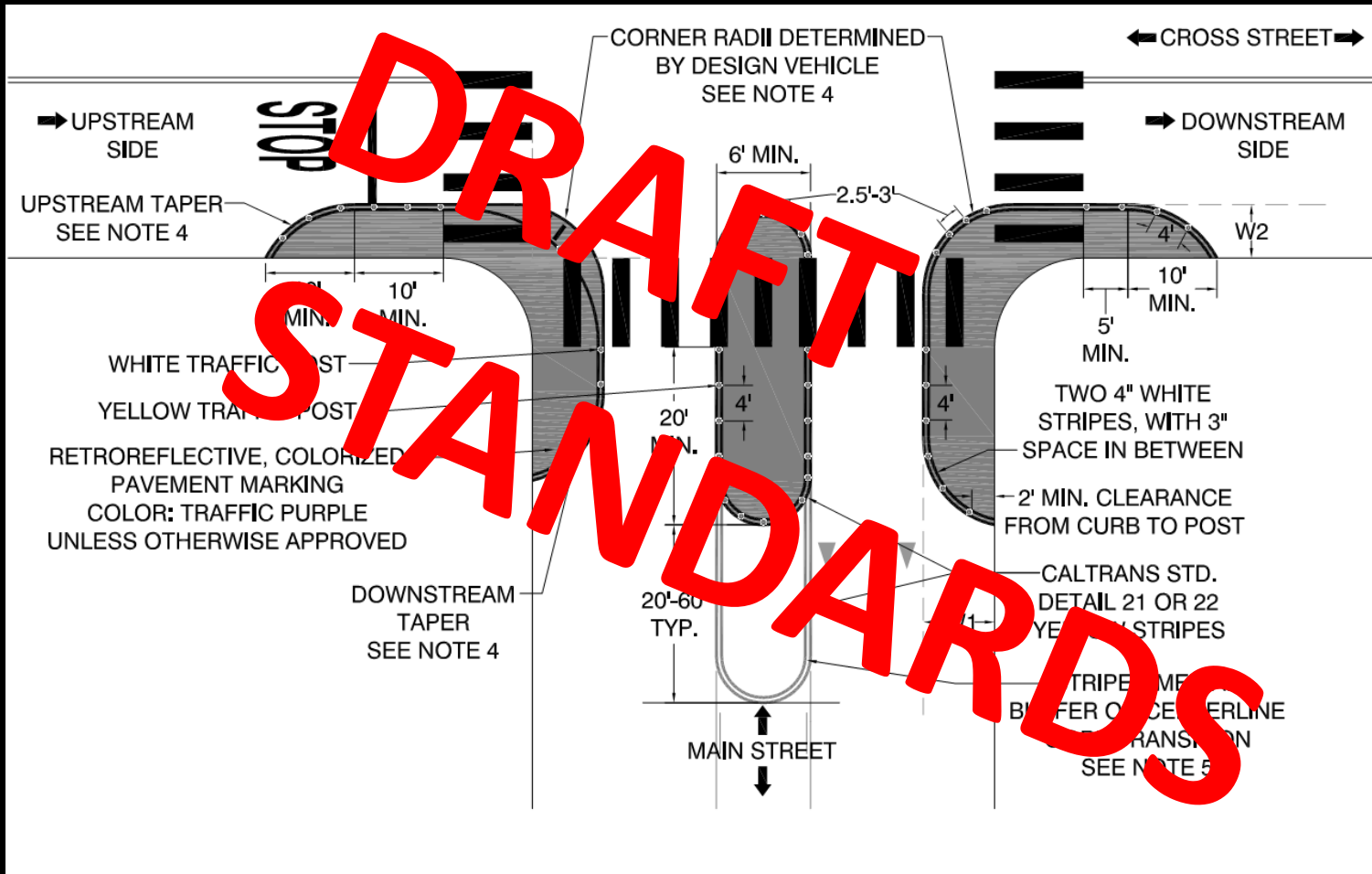
City of
Oakland

Lessons learned

- Identify roles and responsibilities early on
- Set realistic expectations on timeline and impact to regular services
- Always keep enough equipment in stock
- Since there is no single national quick-build specific standards, develop in-house standards on items such as selection on type of posts, and spacing between posts in order to minimize variability.



City of
Oakland



City of
Oakland

References:

- Don't Give Up At The Intersection (2019, May), NACTO
- Quick Builds for Better Streets: A New Project Delivery Model For U.S. Cities (2016), People For Bikes
- Street Design Manual Second Edition (2015), New York City Department of Transportation



City of
Oakland

Thank you!

Questions?



City of
Oakland