

City of San Diego Prefabricated Permanent Roundabouts

Phil Rust prust@sandiego.gov



Cycle 11 vs Cycle 12

Taylor St. & Hotel Circle North/South

- Version 1: \$400k B/C = 13 (failed to meet threshold)
- Version 2: \$220k B/C = 27 (successful grant award)





Credit: FHWA Small Business Program.

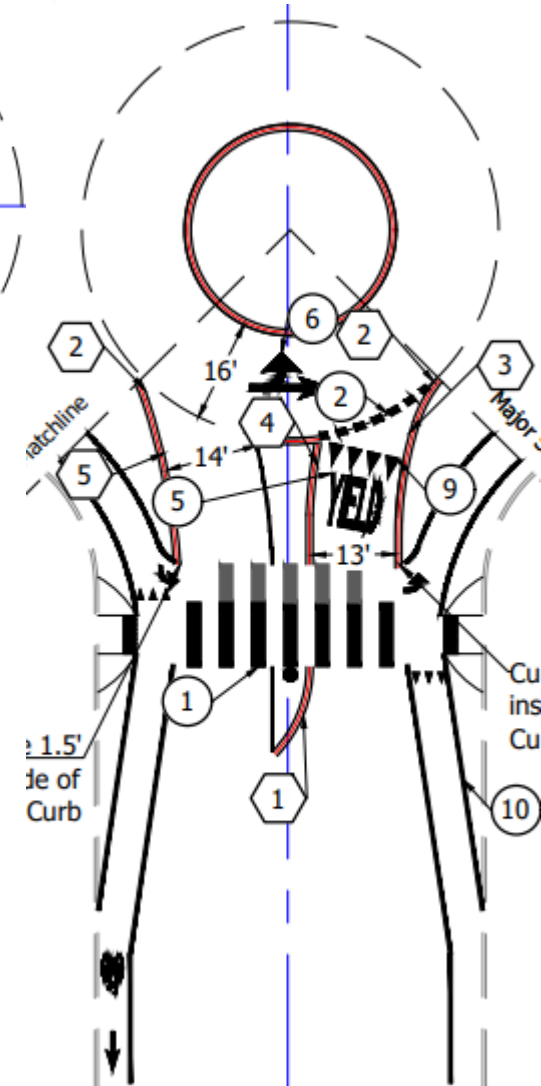
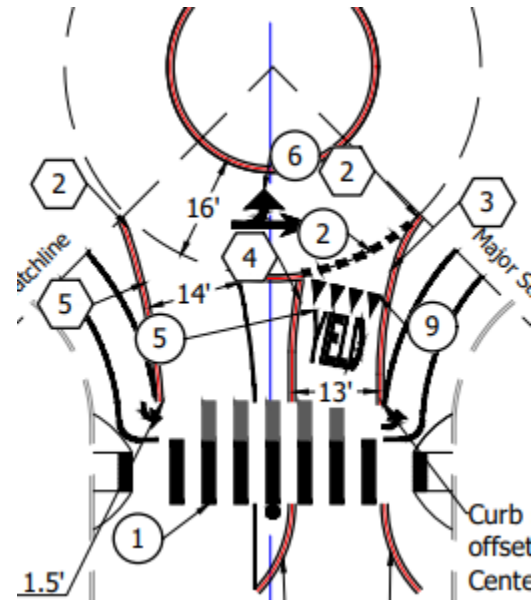
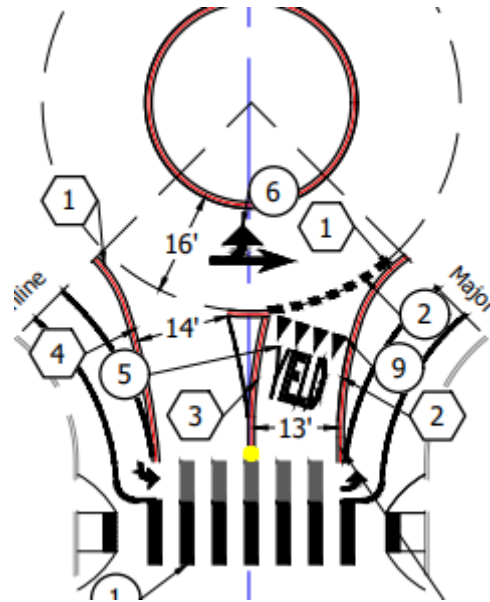
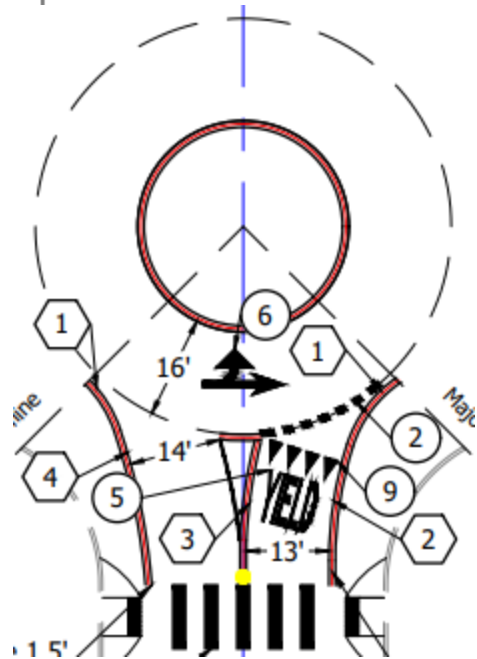
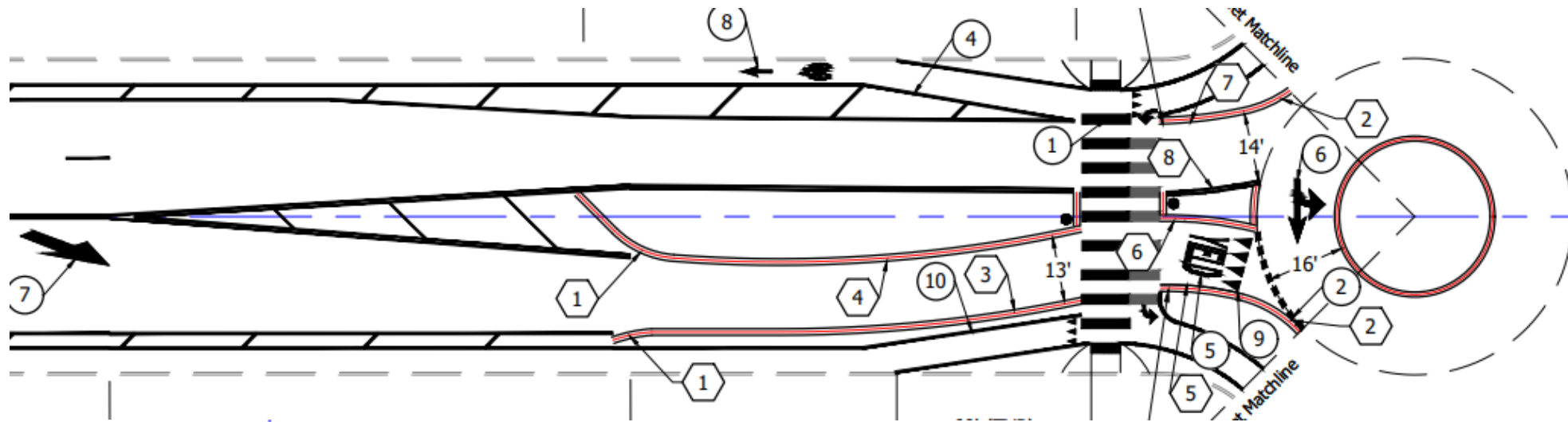


- Perimeter-only
 - Interchangeable parts
 - Painted islands
- Pilot innovations:**
- Quick-build ped ramps
 - Quick Design
 - Quick Layout



Quick-build Pedestrian Ramps

Quick Design Templates



The ultimate intersection solution

(2-layer protection for redundancy)

Driver Workload Layer

- Direct, Simple, Spaced
because people make mistakes



Crash Energy Layer

- Angle, Speeds (no severe conflicts)
because people are fragile



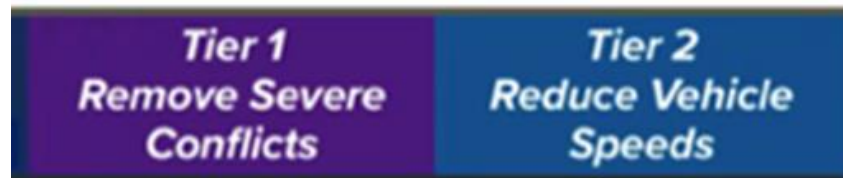
First principles -> Empirical evidence

- **Driver workload**



- **Cuts **90%-100%** of fatal crashes**

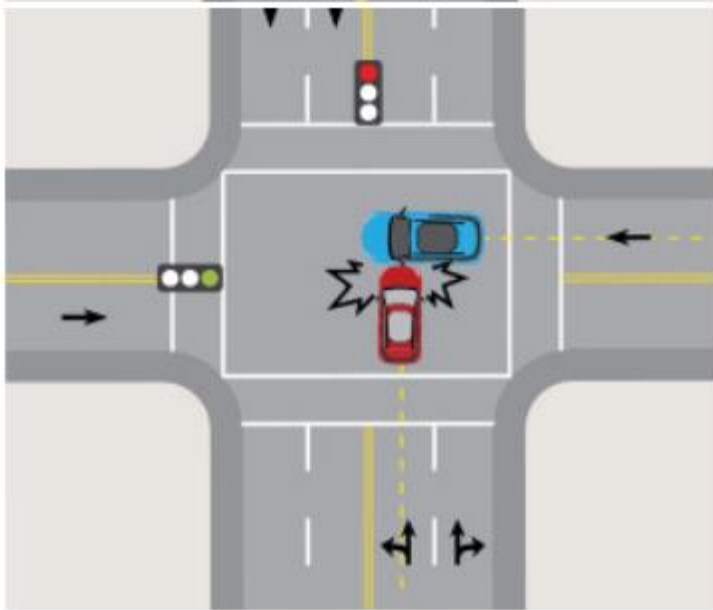
- **Crash energy**



- **Cuts **99.9%** of fatal ped/bike crashes**

Past fatals are poor predictors

Most common features?



- 4x2
- Transit routes
- 3+ injury crashes

A high production rate solves many ills.

ROW

- screen for 4x2

Capacity

- screen for 1-lane
- removable, use today's traffic

Design

- screen for templates

Outreach

- pressure is off, efficient
- focus between the RABs



Ribbon cutting > everything else.

- Political support is only rewarded if installation happens before re-election
- The public hates construction
- You don't have to sell the value of saving money
- Every week, 1 life is lost in SD
- Only installation saves lives



You got this!

