Charleston/Meadow Underpass Concept

November 13, 2019
Elizabeth Alexis
Why another alternative?

- Tunnel very pricey/ water impacts
- Hybrid likely VERY undercosted because of Caltrain work windows
  - 2% design typically excludes explicit phasing/ work window cost
  - Alma detours complicated
- Both alternatives likely to induce SIGNIFICANT new traffic
Revisiting road undercrossing concept

- Two variations studied in 2014 by HMM
  - Lower Alma and Charleston - same intersection as today but sunken
  - Just lower Alma, no turns allowed
  - Assumed two lanes in each direction
  - Assumed VERY thick Caltrain bridge
  - Significant impacts to houses along Charleston/Meadow because of access issues

- Ignored Charleston/Arastradero concept
  - One lane in each direction
  - Extra lanes on Charleston/Alma so cars can wait / get through lights/tracs
  - Very slow speeds/ several short merges
  - Possible to meter traffic because of signals in all directions
Turn philosophy

- All turn movements on and off Alma should be possible
- All turns should be safe
- Design should accommodate but not encourage turns from Alma to West Charleston/ West Meadow
- Conflicts with bicyclists and pedestrians should be minimized
Concept

- East-bound and west-bound single lane (plus bike/ped at split grade) underpasses
- Driveway access on ALMA for homes on Charleston
- Allow east-bound cars to U-turn at Wright Place
- Wright Place cul-de-saced to limit cut through traffic
Original undercrossing plan
Old school thin deck bridge
Similar concept in Italy
Road underpass in Italy