

Traffic Committee Analysis

Public Works and Facilities Committee

February 13, 2019

Presentation by: C. O'Neal; Engineering Tech

Proposed 4-Way Stop on Maple St. at S. Harold St.

(#6a-2018)

Warrants	Requirement	Harold at Maple (#6a)
Recommendation	Approve/Deny	Deny -Instead declare as "School Zone"
Traffic	The vehicular volume entering the intersection (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day and;	Hourly Average 205 Average Daily Traffic (ADT) = 3072 Maple Street is the primary road with approximately 25% more traffic than Harold
Pedestrians	Combined (vehicular, pedestrian, and bicycle) from the Minor street averages at least 200 units per hour for the same 8 hours;	Combined = 79 units * WTRANS estimated 4 pedestrians/hour based on one count.
Accident History *	3 in 12-months; OR 5 in 2-years *(susceptible to correction by a multi-way stop installation)* Accident Data from 1/2015-11/2018 (3.5 years)	Does Not meet Warrant - 1/2 susceptible to correction by 4-way stop (collision 1-left turn conflict, collision 2- speeding vehicle hit a pedestrian). Speeding is not considered correctable by stop sign placement. 1 injured pedestrian in crosswalk

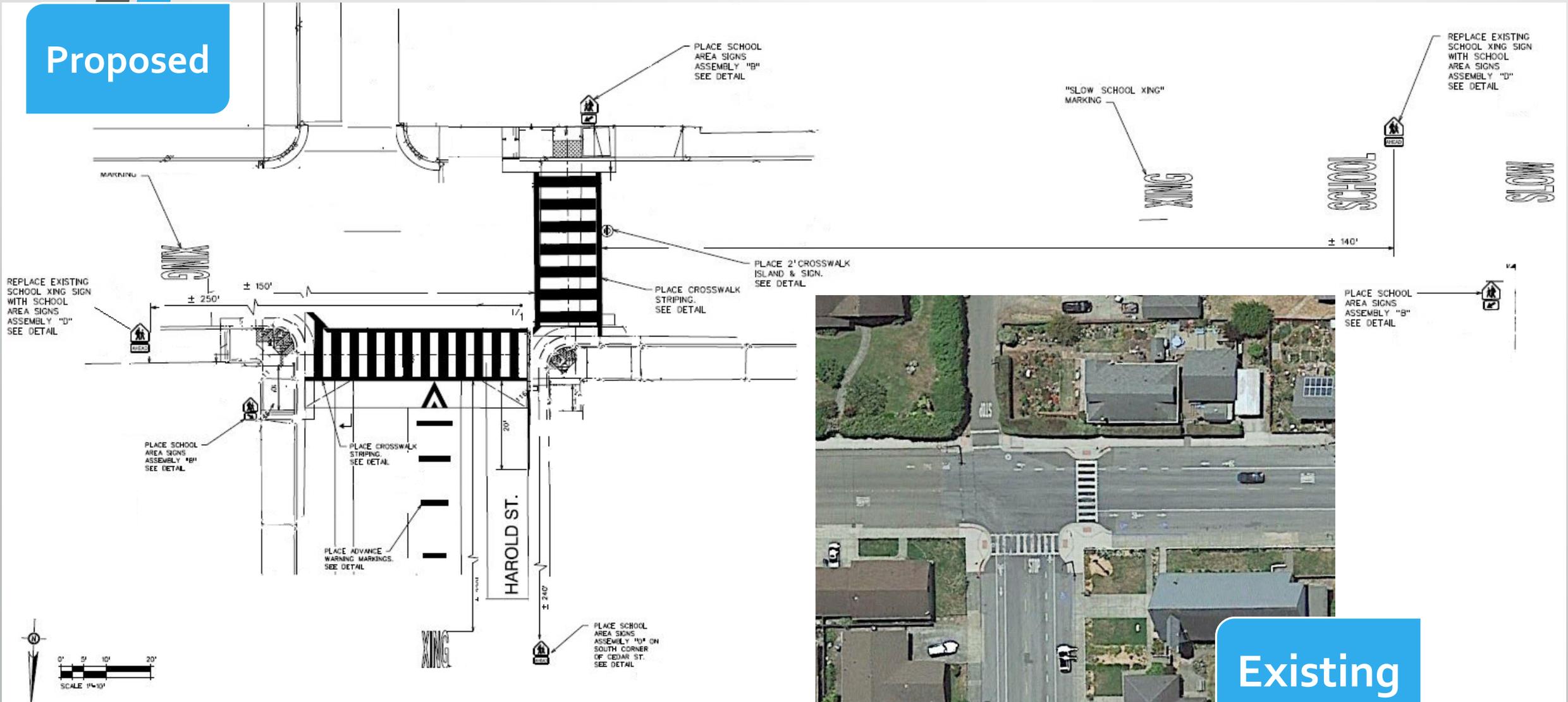
Warrants	Requirement	Harold at Maple (#6a)
Intersection Geometry/Site Specific Details	Sight Triangle Red curb distance at each leg of Intersection Safe stopping distance Existing Crosswalk	<ul style="list-style-type: none"> • The South Harold leg of the intersection is narrow and off set from the other three legs. • This narrow (20') leg of Harold is also a One-Way Street with the direction of traffic flowing in the northerly direction. • Large overgrown vegetation on both east and west side of the S Harold leg, this vegetation was trimmed back in December 2018. • Red curbs at standard (10') intervals at all legs of intersection.
Speed	Existing speed limit Volume of traffic exceeding the limit	Average Speed 27 MPH 85th Percentile Speed 31 MPH
Proximity to destinations	Public Transportation Public Parking Businesses High Density Residential	<ul style="list-style-type: none"> • This location is 2 blocks from the FBUSD Elementary School and at the corner of the Catholic Church/School. • Maple St is on the primary transit route, with the nearest bus stop two blocks east of this intersection.

Warrants	Requirement	Harold at Maple (#6a)
Miscellaneous	Notes/Observations, not mentioned elsewhere	<ul style="list-style-type: none">• Both crosswalks at this intersection could be painted and striped per MUTCD as school crossings (TC Policy 6a.) if we consider the Catholic Church as a "School".• Both Maple St. (from Franklin to Lincoln) and Harold St (from Fir to Maple) are designated "Through Streets". According to Municipal Code 10.14.020, northbound and southbound through streets cross eastbound and westbound through streets, eastbound and westbound shall have the through traffic and northbound and southbound shall stop, unless it is designated otherwise by resolution. This is the case at this location.• Maple St is also the higher volume road-way, so again should not be subject to the stop unless warranted by other conditions.

Proposed School Zone on Maple at Harold

(Item #6a-2018)

Proposed



Existing

Proposed 4-Way Stop South St. at S. Franklin St.

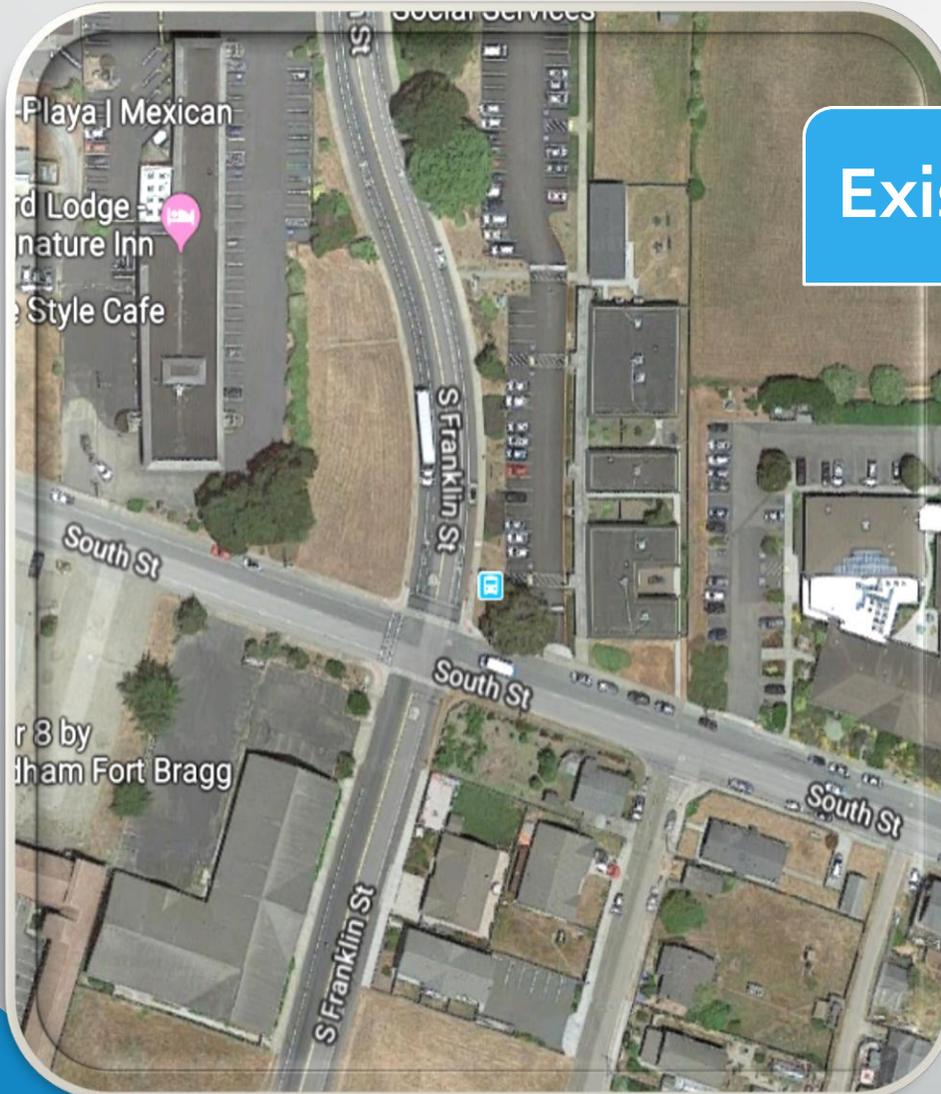
(Item #11-2018)

Warrants	Requirements per MUTCD/City Committee Policy Manual	Existing Conditions at South at Franklin (#11)
Recommendation	Approve/Deny	Approve
Traffic	The vehicular volume entering the intersection (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day and;	ADT 6,142 Vehicles 409 vehicles per hour The volume of the intersecting Traffic is approximately equal AM Peak - 11AM 255 Vehicles PM Peak - 1 PM 502 Vehicles
Pedestrian	Combined (vehicular, pedestrian, and bicycle) from the minor street averages at least 200 units per hour for the same 8 hours;	Combined Total= 274 vehicles/hour + 4 pedestrians/hour for a total of 278 combined per hour on minor street (South Street)
Accident History *	3 in 12-months; OR 5 in 2-years *(susceptible to correction by a multi-way stop installation)*	0 reported accidents

Warrants	Requirements	Existing Conditions at South at Franklin (#11)
Intersection Geometry/ Site Specific Details	Sight Triangle Red curb distance at each leg of Intersection Safe stopping distance Existing Crosswalk	<ul style="list-style-type: none"> Sightlines for Northbound traffic on the Franklin St leg are especially limited to the east by a fence built out into the sight triangle and to the west by vegetation and signage. Sightlines for the southbound leg of Franklin St are also impaired to the east by the large number of vehicles parked along the length of South St.
Speed	Existing speed limit Volume of traffic exceeding the limit	Average Speed 19 MPH 85th Percentile Speed 26 MPH
Proximity to destinations	Public Transportation Public Parking Businesses High Density Residential	<ul style="list-style-type: none"> South St is the main route to the Hospital and most of the Doctor/Clinical offices in town, peak traffic occurs during the lunch hours (11AM-1PM) This intersection is on the main MTA route, a bus stop is located 30 feet north of the intersection on Franklin St. This intersection is also adjacent to the County Social Services office, a gas station, and two blocks south of Safeway. Located 2 blocks to the east are six RVH parcels, three are developed with Apartment complexes on them and three undeveloped

Proposed 4-Way Stop South St. at S. Franklin St.

(Item #11-2018)



Existing



- Approximate cost \$3,000 for installation of stopped intersection only

Passenger Loading Zone on 300 Block of N. Franklin St.

(Item # 13-2018)

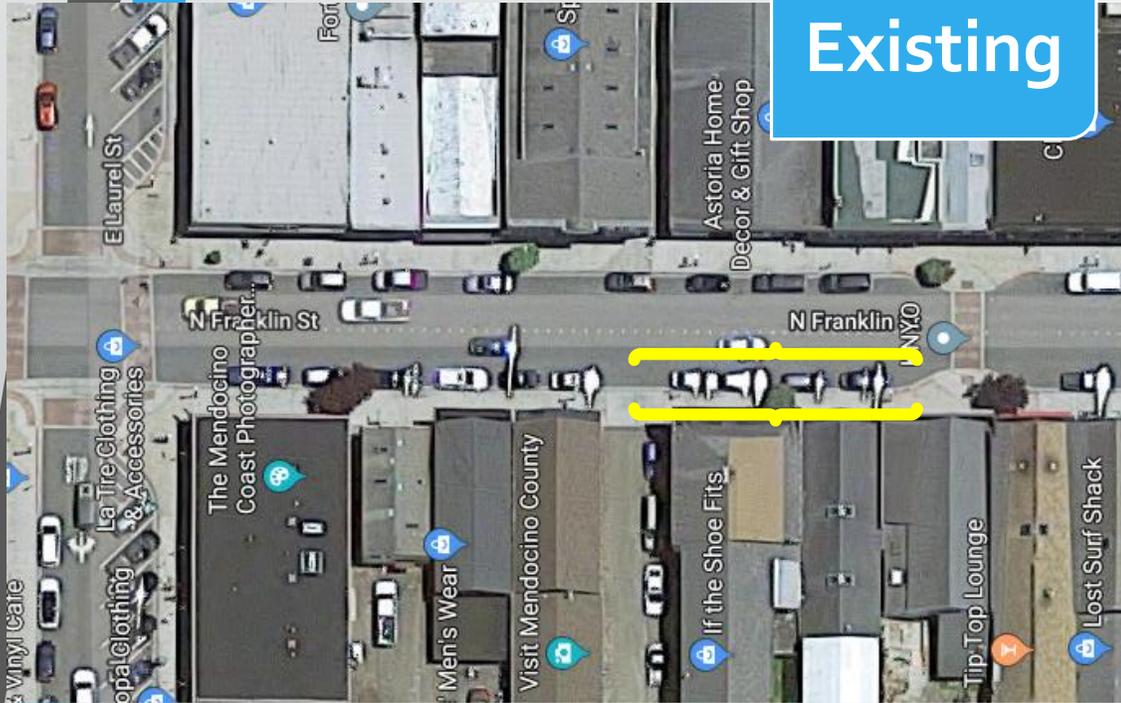
- Art Explorers has moved from their E Redwood location to 333 N Franklin St.
- Having several clients who utilize “Dial-a-Ride” services, they have requested an on-street loading zone.
- This issue is challenging as the Dial-a-ride service is performed by the MTA bus system large vehicle, so the loading space will take up approximately three on-street spaces.
- Three on-street spaces is approximately equal to $\frac{1}{4}$ of the length of the block .
- **Recommendation: Deny Request;** parking in downtown is already congested and there is a bus stop right around the corner of E. Laurel Street.



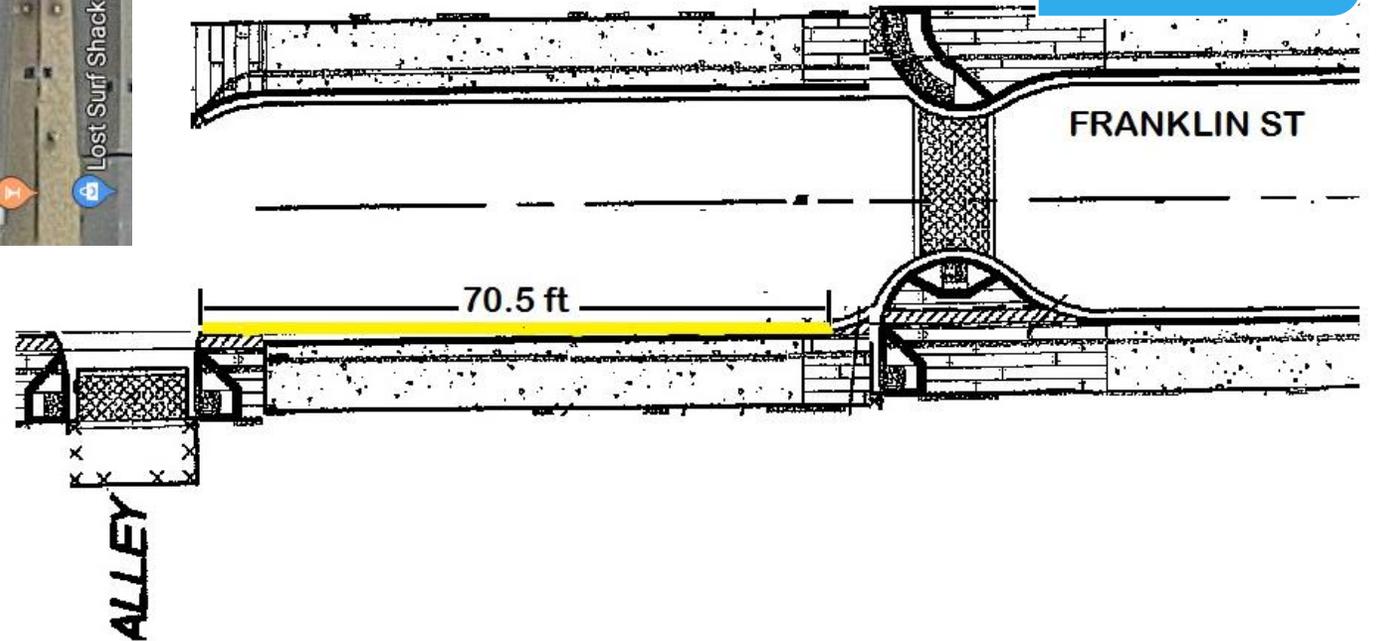
Franklin Street-Loading Zone Request

Item # 13-2018

Existing



Request



Mid-block ADA Parking on S Harrison St.

(Item #14-2018)

- Currently no other existing blue curbs along this block
- Situs is located at center of block and ADA spaces are best placed at end of block near curb ramp.
 - There are no driveways or curb access fronting this segment of the block of S Harrison Street, all residences appear to be accessed off alley
 - The residence is 120 feet from the south end and 270 feet from the north end
- This residence has sufficient on-site parking. There is a garage on alley and two additional parking spaces

- The width of the street is such that it accommodates both lanes of traffic, bike lane, and on-street parking so installing an elaborate mid-block ADA space would be possible within the existing space



Existing

- **Recommendation: Deny**

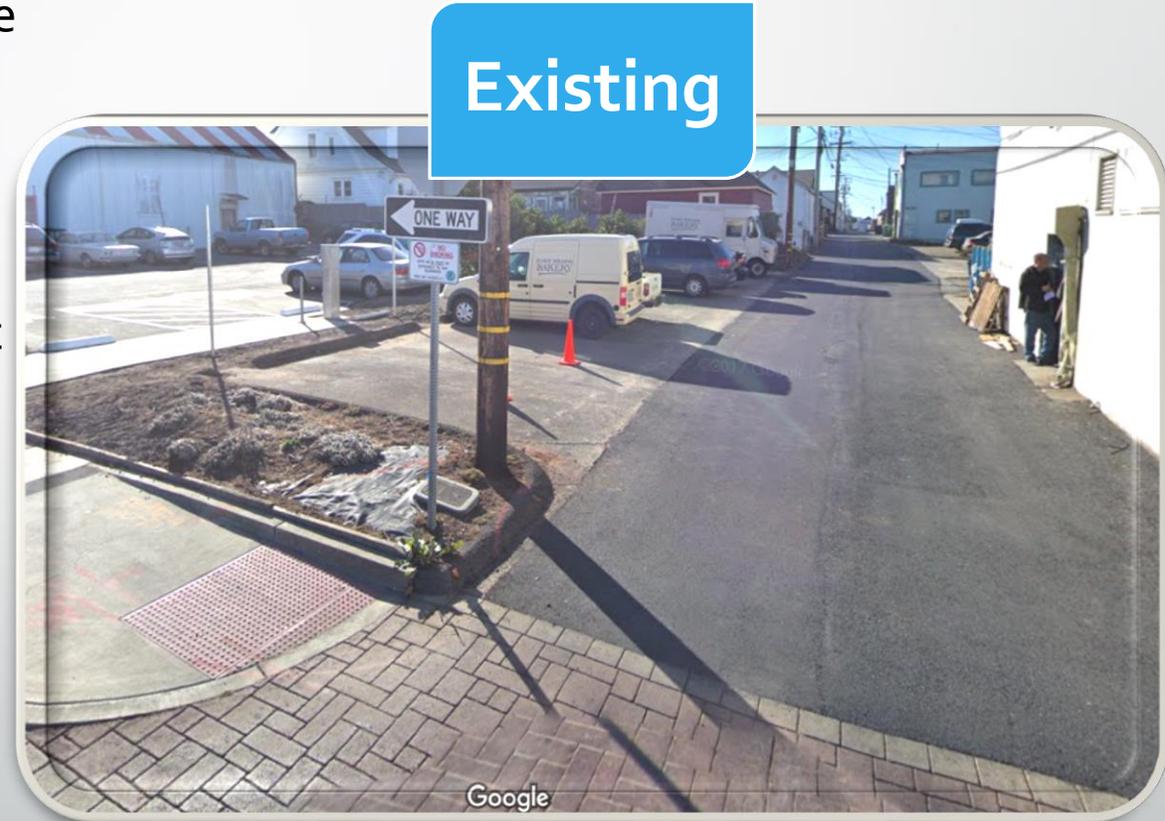
Alley Parking Behind Sears

(Item #16-2018)

Transition from 90° parking to angled parking behind Sears along alley at Laurel St.

- The appliance delivery trucks at Sears take up multiple parking spaces on delivery day as the size of the vehicle makes negotiating the 90° turn difficult.
- A review of the WM Annual Disposal report indicates that the trash truck was unable to service bins along this alley 4 times in the last year due to “alley blockage”.
- Transitioning the orientation of the spaces to 60° will result in the reduction of two spaces .
- Angling and re-striping the spaces will also provide the opportunity to install one ADA space in this area

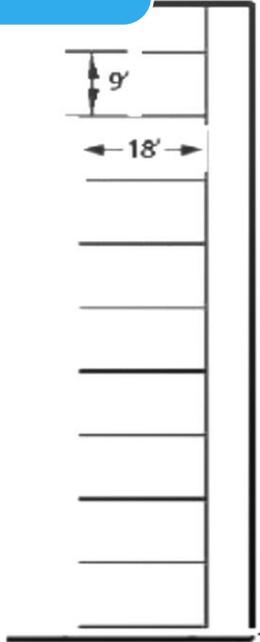
- **Recommendation:** Approve



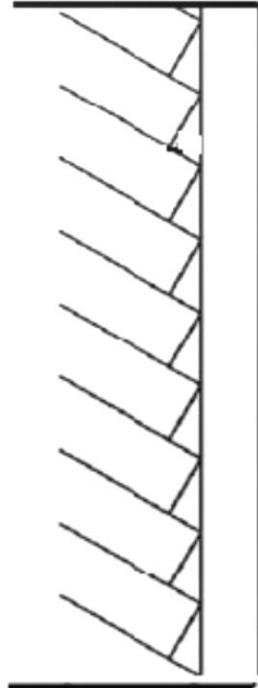
Alley parking behind Sears

(Item #16-2018)

Proposed



90° Parking Spaces
10 existing spaces



60° Parking Spaces
7-8 proposed
ADA Access Space

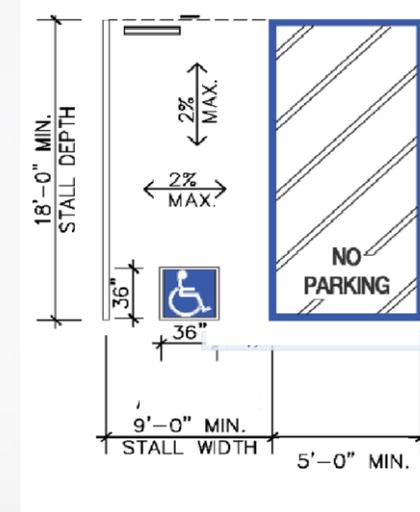
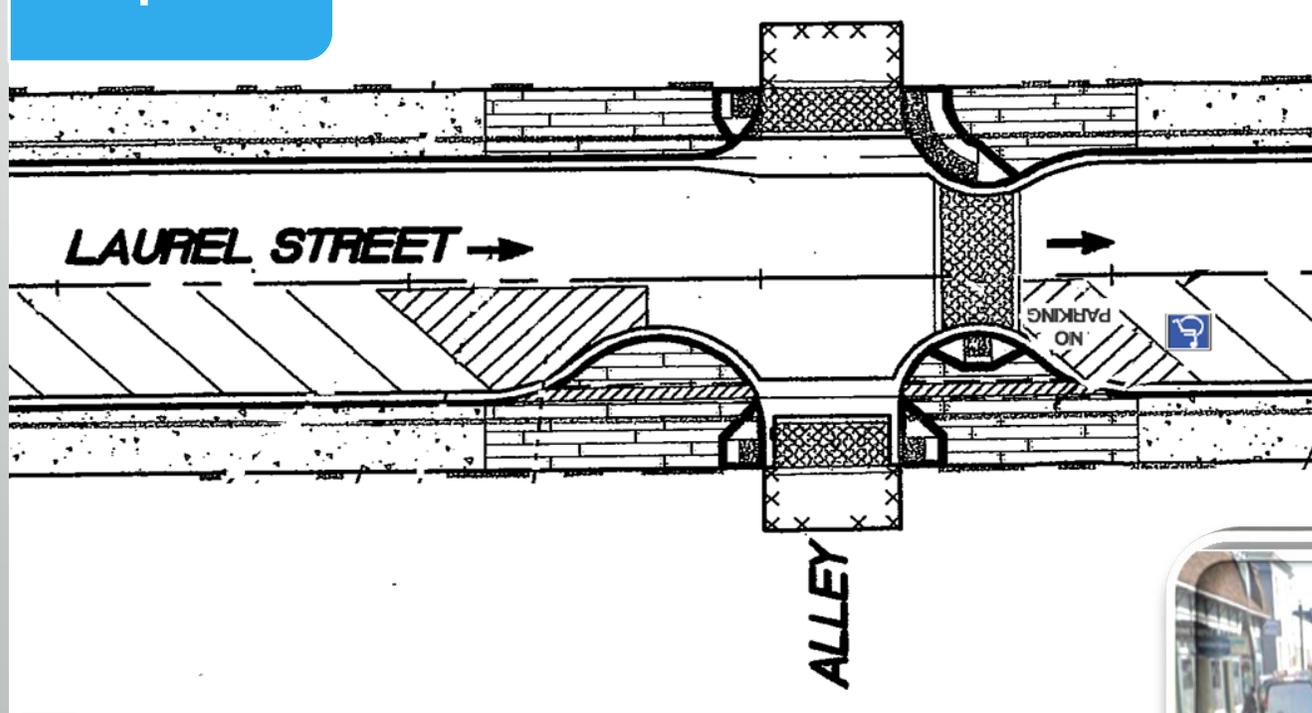


Cost Estimate; striping only \$2000. If the ADA space and pathway ramp to existing sidewalk in median are included installation cost up to \$10,000

ADA Parking space – 100 Block of E. Laurel St.

Proposed

(Item #17-2018)



Estimated Cost \$700

Existing



Proposed 4-Way Stop on Pine Street at Harrison Street

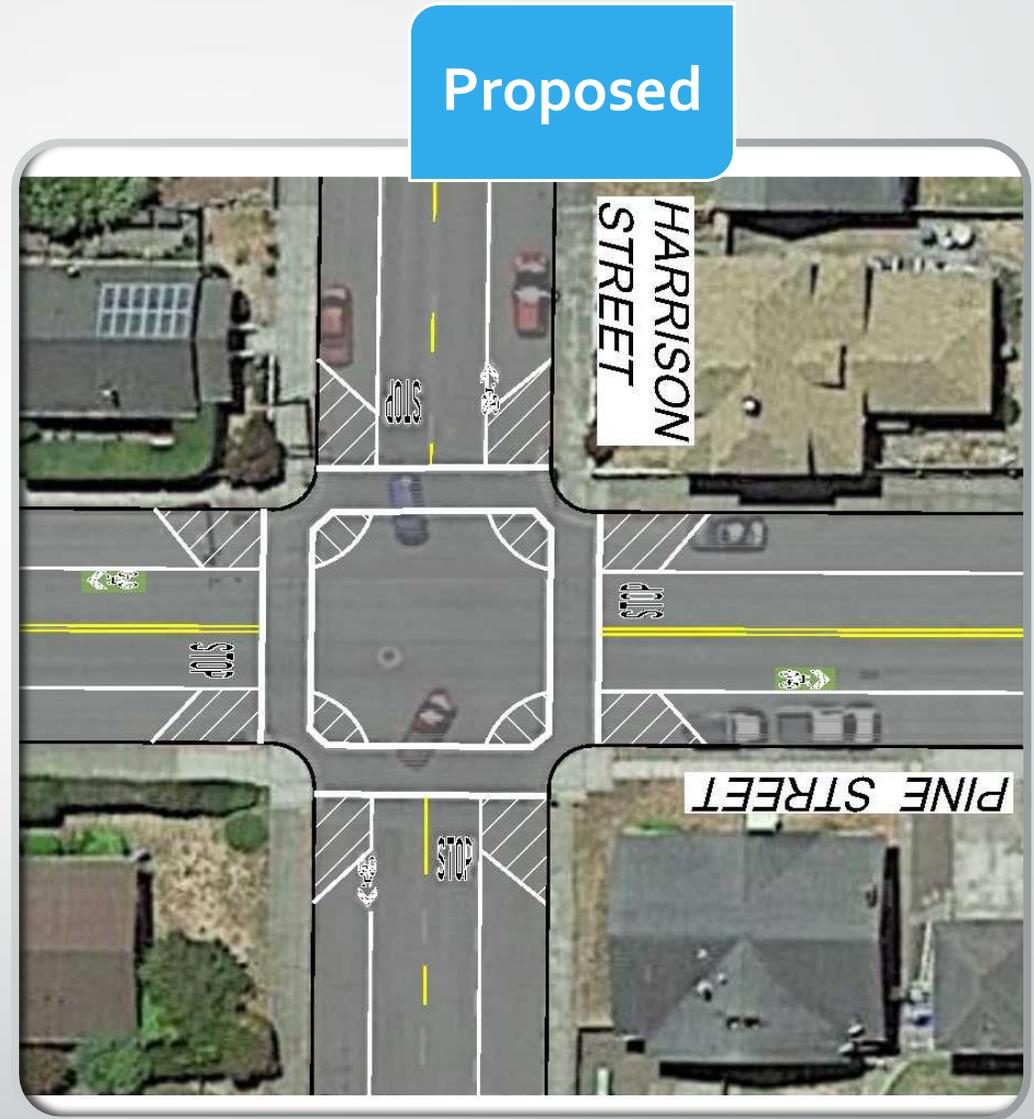
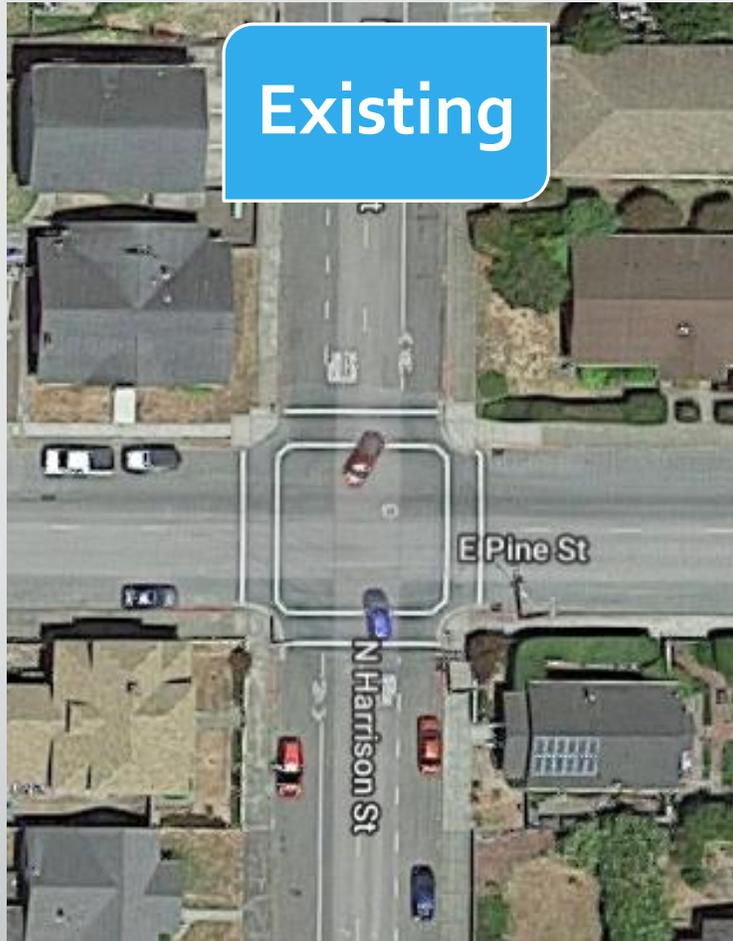
(#10-2018)

Warrants	Requirement	Pine at Harrison (#10)
Recommendation	Approve/Deny	<p>Approve</p> <p>*2nd Recommendation made by WTRANS in 2018 SSP</p>
Traffic	<p>The vehicular volume entering the intersection (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day and;</p> <p>AM PEAK PM PEAK</p>	<p>232 Vehicles per hour is the average for any 8-hour period ADT 3341 Pine is the Primary street with approximately 80% of the intersections volume</p> <p>AM PEAK- 274 Vehicles* PM PEAK- 190 Vehicles*</p>
Pedestrian	<p>Combined (vehicular, pedestrian, and bicycle) from the Minor street averages at least 200 units per hour for the same 8 hours</p>	<p>Combined Total=50 units/hour on minor street (Harrison) -Average of 4 pedestrians during peak hour</p>
Accident History *	<p>3 in 12-months; OR 5 in 2-years *(susceptible to correction by a multi-way stop installation)* Accident Data from 1/2015-11/2018 (3.5 years)</p>	<p>Does Not meet Warrant -1/1 susceptible to correction by 4-way stop. Accident-Failure to yield at stop sign on Harrison, no injuries, no pedestrian involvement.</p>

Proposed 4-Way Stop on Pine Street at Harrison Street (#10-2018)

<p>Intersection Geometry/Site Specific Details</p>	<p>Sight Triangle Red curb distance at each leg of Intersection Safe stopping distance Existing Crosswalk</p>	<ul style="list-style-type: none"> • Pine Street is an east-west street with one travel lane in each direction • Posted speed limit of 25 mph, with a 15 mph limit near the school when children are present. • Parking is permitted on both sides for the full length of the road. There are no marked bicycle facilities. • There are marked uncontrolled crosswalks on all four legs most intersections along Pine Street. • The road width is approximately 42 feet. • This Street would be appropriate for similar travel/bike lane narrowing striping like Fir St (10' travel lanes and 11.5' shared parking and bike)
<p>Speed</p>	<p>Existing speed limit Volume of traffic exceeding the limit</p>	<p>*85th Percentile Speed between Corry and Whipple- 30 MPH At Harrison- 29 MPH</p>
<p>Proximity to destinations</p>	<p>Public Transportation Public Parking Businesses High Density Residential</p>	<ul style="list-style-type: none"> • Pine Street is a major corridor linking the downtown area of Fort Bragg to the surrounding neighborhoods. • Pine Street is also a major corridor for the surrounding neighborhood children going to and from Fort Bragg Middle School. • Pine Street is a moderate to high traffic area.

Proposed 4-Way Stop on Pine Street at Harrison Street (#10-2018)

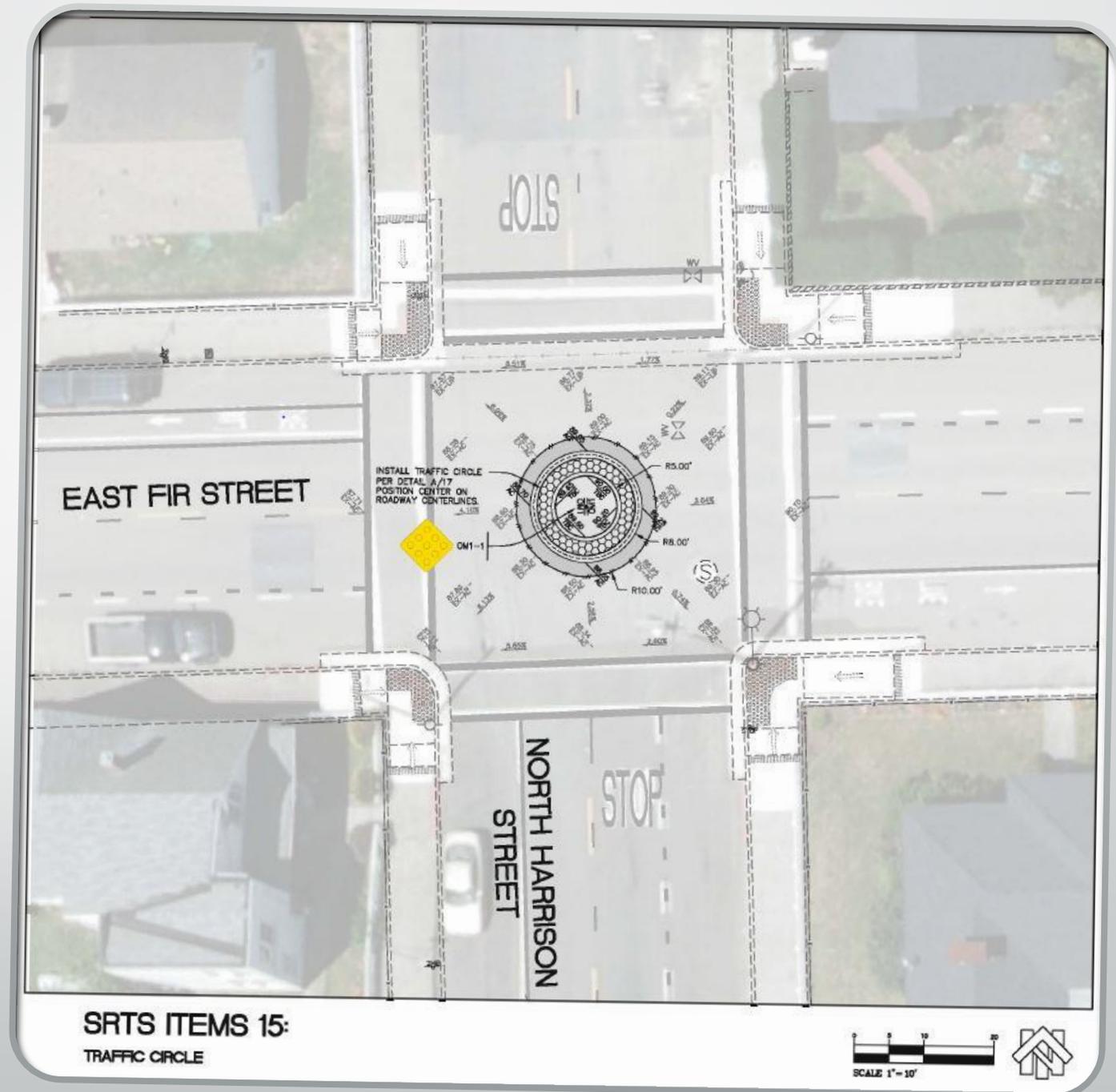


- Approximate cost \$3,000 for installation of stopped intersection only
- The cost of full implementation of separated travel and parking lanes, bike markings and improved crosswalk markings is approximately \$50,000

Fir Street at Harrison

(Item #9-2018)

- This traffic circle was installed as part of the Safe Routes to School Project in 2013.
- Local participants in the recent survey conducted as part of the City's 2018 Street Safety Plan indicates that "street improvements that included ... traffic-circles... were opposed by more than half of the respondents"



Remove Traffic Circle from Fir at Harrison

(Item #9-2018)

Warrants	Requirement	Fir at Harrison (#9)
Recommendation	Approve/Deny	<p>Approve –removal of traffic circle Return to two-way stop * This conclusion is dependent on the installation of an All-Way stop at Pine St.</p>
Traffic	The vehicular volume entering the intersection (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day and;	Traffic count data was not processed prior to publication of agenda – counts in progress
Pedestrian	Combined (vehicular, pedestrian, and bicycle) from the Minor street averages at least 200 units per hour for the same 8 hours;	Pending count data, however data from the 2011 street safety plan indicated this road is a relatively high pedestrian use area due to proximity to the Middle School
Accident History *	<p>3 in 12-months; OR 5 in 2-years *(susceptible to correction by a multi-way stop installation)* Accident Data from 1/2015-11/2018 (3.5 years)</p>	<p>1/4 susceptible to correction by 4 way stop, 1 was due to sun (causing blind spot) and 3 were for unsafe speed (speeding is not considered correctable by stop signs). 4 accidents over 2 years</p>

Warrants	Requirement	Fir at Harrison (#9)
Intersection Geometry/Site Specific Details	Sight Triangle Red curb distance at each leg of Intersection Safe stopping distance Existing Crosswalk	<ul style="list-style-type: none"> • Fir Street is a straight east-west street with one travel lane, a bicycle lane, and on-street parking in each direction. • The posted speed limit is 25 mph, with a 15-mph school zone when children are present. • There are speed humps between McPherson Street and Franklin Street, a residential traffic circle at the intersection with Harrison Street, and a raised intersection at Corry Street-Brandon Way. • The travel lanes were narrowed to 10' in each direction and the parking/bike lanes are 12.5' this was also done as part of Safe Routes to School Cycle 3
Speed	Existing speed limit Volume of traffic exceeding the limit	*85th Percentile Speed at -Speed Humps - 22 MPH -Traffic Circle- 28 MPH -Raised Intersection - 25 MPH
Proximity to destinations	Public Transportation Public Parking Businesses High Density Residential	Fir Street is a major corridor linking the downtown area of Fort Bragg to the surrounding neighborhoods and for children going to and from Fort Bragg Middle School. Fir Street is a moderate to high traffic area.

Fir at Harrison (Item #9-2018)



Approximate cost of removal \$25,000

