

STREETS AND TRAFFIC SAFETY COMMITTEE MEETING

Tuesday, August 27, 2019
6:00 P.M.

NOTICE IS HEREBY GIVEN that the Streets and Traffic Safety Committee of Bountiful, Utah will hold a meeting at the **South Davis Metro Fire Station**, 255 S 100 W, Bountiful, Utah, at the time and on the date given above. The public is invited to the meeting. Persons who are disabled as defined by the Americans With Disabilities Act may request an accommodation by contacting the Public Works Director at 801.298.6125. Notification at least 24 hours prior to the meeting would be appreciated.

AGENDA

1. Request for Extension of No Parking Zone at UTA bus stop on Medical Drive near Lakeview Hospital
2. Request for 25 MPH Speed Limit Signs on 200 W Street between 1050 S and Main Street
3. Request for 30 MPH Speed Limit Signs on 1000 N Street between 500 W and 200 W
4. Install 30 MPH signs on Main Street and 500 W streets from 1500 S to 2600 S
5. Consider installation of Pedestrian Crossing at 650 E 400 N
6. Consider installation of Pedestrian Crossing at 1400 S 350 W
7. Consider Pedestrian Crossing Improvements at 500 S 100 E
8. Report of traffic issues for future consideration by the TSC.

Traffic Safety Committee Staff Report

ITEM 1

Subject: Installation of No Parking Signs, Painted Curb at
UTA Bus Stop on Medical Drive
Author: City Engineer, Lloyd Cheney
Department: Engineering
Date: August 27, 2019



Background

Robert Brotherson, UTA's Bus Stop Administrator, has requested permission for UTA to extend the no parking area (red curb) and add 2 "No Parking" signs to the bus stop on the south side of Medical Drive near Lakeview Hospital. The no parking area is proposed to be extended approximately 25 feet to the south to allow adequate maneuvering space for the bus to better service the bus stop with less interference from cars that currently park too close.

Analysis

The existing bus stop is shown below:



The extension of the painted curb will eliminate one on-street parking space. The addition of the "No Parking Signs" on either side of the bus stop will legitimize the no parking area and make it easier for enforcement activities, when necessary.

Department Review

This proposal has been reviewed by the City Engineer/Public Works Director, Police Chief and Street Department Director.

Recommendation

Extend the painted curb 25 ft to the south and install 2 No Parking signs at the ends of the painted curb.

Significant Impacts

No significant impacts are anticipated.

Attachments

Aerial Photography of the proposed sign installation locations.



Figure 1 Suggested locations for No Parking signs, and extension of painted curb

Traffic Safety Committee Staff Report

ITEM 2

Subject: Installation of Speed Limit Signs on 200 West
Author: City Engineer, Lloyd Cheney
Department: Engineering
Date: August 27, 2019



Background

At the request of David and Cecilia Oster, the Engineering Dept. conducted a speed study at approximately 1200 S 200 W. This is a two lane road with a pavement width of 36 feet, and a solid double yellow line which extends from 1050 S to Main Street. The Osters were concerned about the speed of traffic on that segment of 200 West, have pointed out that there are no speed limit signs installed between 1100 S and Main St, and that prior efforts at enforcement by BCPD have resulted in temporary impacts on the speed of traffic. In March of 2019, I also received a request from Linda Meldrum, a resident of the condominium complex on 200 W requesting a speed limit sign be installed.

Analysis

The speed study which was started on November 13, 2018 ran for 2 full days. During this time, the speeds of 5,588 vehicles were logged. A staggering 88 % of traffic exceeded the posted speed limit, and the 85th percentile speed was 34.2 mph. Approximately 77 % of the speeds were within the range of 26-36 mph, and the mean speed was calculated at 30 mph. The maximum speeds captured during the study are significantly higher than the mean speed and ranged from the lower 40's (mph) to a high of 67 mph. These higher speeds are clearly not appropriate for a residential area, and due to the predominance of higher speeds some additional measures for speed control are justified.

The initial economical speed control measure to implement would be the installation of 2 ~ 25 mph speed limit signs. This signs are proposed to be installed at the locations shown on the aerial photograph. The effect of the new speed limit signs will continue to be evaluated by the Engineering Department by conducting additional annual speed studies.

Department Review

This proposal has been reviewed by the City Engineer/Public Works Director, Police Chief and Street Department Director.

Recommendation

Install 25 mph speed limit signs at the locations shown on the aerial photograph.

Significant Impacts

The intended impact is the reduction of traffic speeds in this area.

Attachments

Aerial Photography of the proposed sign installation locations.



Figure 1 Suggested locations for speed limit signs

Traffic Safety Committee Staff Report

ITEM 3

Subject: Installation of Speed Limit Signs on 1000 North
Author: City Engineer, Lloyd Cheney
Department: Engineering
Date: August 27, 2019



Background

At the request of residents on 1000 N, the Engineering Dept. conducted a speed study at approximately 300 W 1000 N. From 200 W Street to 500 W Street this is a two lane, 42 ft wide road. A solid double yellow line separates the traffic lanes from 400 W Street to 500 W Street. A properly marked and signed school crossing is located at the intersection of 1000 N and 300 W Streets. 1000 N is designated as a minor collector street on the City's Master Street Plan.

Analysis

The speed study was conducted on September 25, 2018. Speed data from 4,771 vehicles was collected. (This was a Wednesday, and included traffic from Viewmont High School.) Approximately 12 % of traffic exceeded the posted speed limit (25 mph, since no signs are present), and the 85th percentile speed was 36.2 mph. Approximately 73 % of the speeds were within the range of 26-36 mph, and the mean speed was calculated at 31.3 mph.

The pavement width of 1000 N Street is comparable with that of 200 W Street - which is currently signed with a speed limit of 30 mph. Many of the adjacent residential streets are constructed with a 30 ft pavement width, so the travelling public is likely to feel that a higher speed on 1000 N is safe, and appropriate for the wider pavement width. It is also important to consider that the High School is a significant source of traffic, and that these "less experienced" drivers can be pre-disposed to travel at speeds which are not appropriate for the location and conditions.

The near future of 1000 N Street includes the replacement of the existing culinary water line and a comprehensive reconstruction between 200 W and 500 W Streets. It would be appropriate to install 2 ~ 30 mph speed limit signs at this time, with consideration given to the opportunity to include additional speed control measures (such as edge line markings or pavement messages) to be included in the reconstruction project. The signs are proposed to be installed at the locations shown on the aerial photograph.

Department Review

This proposal has been reviewed by the City Engineer/Public Works Director, Police Chief and Street Department Director.

Recommendation

Install 30 mph speed limit signs at the locations shown on the aerial photograph.

Significant Impacts

The intended impact is the reduction of traffic speeds in this area.

Attachments

Aerial Photography of the proposed sign installation locations.

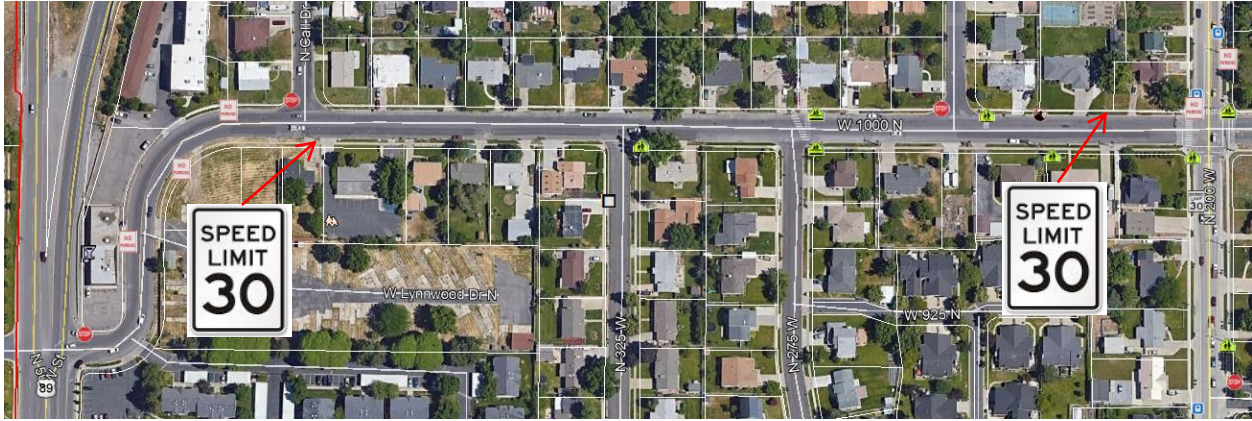


Figure 1 Suggested locations for speed limit signs

Traffic Safety Committee Staff Report

ITEM 4

Subject: Installation of 30 mph Speed Limit Signs on Main Street
Author: City Engineer, Lloyd Cheney
Department: Engineering
Date: August 27, 2019



Background

Over the last couple of months, the Engineering, Planning and Police Departments have been working with Performance Ford to address parking issues along Main Street. As part of this process, an inconsistency with the speed limit signs on Main Street has been identified.

Analysis

From 500 S to 1500 S, the posted speed limit is 30 mph. This is largely a residential area, with some commercial uses on the northern and southern portions of this segment. Since Main Street functions as a minor collector road in this area, the 30 mph speed limit is appropriate.

Continuing south on Main Street along the segment between 1500 S to 2600 S (which also includes the transition from Main Street to 500 W) the speed limit is posted at 35 mph. While this area has more multi-family and commercial uses, the road width remains basically the same as the previous road segment and is in close proximity to single family residences.

The final segment on 500 W from 2600 S to Orchard Drive is posted at 30 mph. This segment is similar to the first segment of Main Street from 500 S to 1500 S with its width and proximity to the single family residences and a minor number of business and commercial properties.

Department Review

This proposal has been reviewed by the City Engineer/Public Works Director, Police Chief and Street Department Director.

Recommendation

Install 30 mph speed limit signs at the following locations:

- Southbound Main Street: Replace the existing 35 mph sign located near the North side of the parking structure at Renaissance Towne Center with a 30 mph sign.
- Southbound Main Street: Replace the existing 35 mph sign located near the south driveway of the Wind Gate Apartment complex with a 30 mph sign.
- Northbound 500 W: Install a new 30 mph sign near the north entrance to the Life Care Center.
- Northbound 500 W: Remove the existing 35 mph sign from the power pole located at 2423 S 500 W.
- Northbound Main St: Replace the existing 35 mph sign located near 2023 S Main St. with a 30 mph sign.

Significant Impacts

This work will add consistency to the posted speed limit along Main Street and 500 W.

Attachments

Aerial Photography of the proposed sign installation locations.



Figure 1 Replace existing 35 mph sign with 30 mph sign



Figure 2 Install a new 30 mph sign



Figure 3 Replace existing 35 mph signs with 30 mph signs



Figure 4 Remove existing 35 mph sign and install new 30 mph sign

Traffic Safety Committee Staff Report

ITEM 5

Subject: New Pedestrian Crossing 650 E 400 N
Author: City Engineer, Lloyd Cheney
Department: Engineering
Date: August 27, 2019



Background

The residents of the Kensington Court Subdivision (located at approximately 350 N 650 E) via Kate Bradshaw, have requested the installation of a new pedestrian crossing at the intersection of 650 E and 400 N. The LDS church and associated facilities are frequently used by the neighborhood. The south side of the intersection has new ADA ramps which were installed with the subdivision. These ramps are currently set up for E-W crossings. The north side of the intersection is also configured for E-W crossings across the church driveway. This driveway into the church property is private property, and is not a City Street. This driveway has a sidewalk on the east side.

From 400 E to Davis Boulevard there is only one painted N-S crosswalk. This crosswalk at 1000 E is a school crossing which directs students to Hanna Holbrook Elementary.

Analysis

The intersection of 400 N, 650 E and the Church driveway is an appropriate location to construct a pedestrian crossing.

With the existing sidewalk located on the east side of the driveway, construction of a pedestrian crossing on the east side of the intersection at 650 E is the most viable option. This location would also maximize visibility for vehicles and pedestrians.

If the crossing were to be constructed in the traditional manner (with ADA ramps on all corners), there are additional considerations which would affect the construction:

1) NW Corner:

- i) Is affected by heavy runoff flowing down the north curb line of 400 N.
- ii) Has an existing inlet box which may interfere with the construction of “the most compliant” ADA ramp.
- iii) Is constrained by the short retaining wall which is located at the back of the sidewalk.
- iv) Depending on the location and configuration of a new ADA ramp, runoff from the street will have a tendency to jump the curb and affect the front yards of homes to the west.

2) NE Corner:

- i) Likely has clear vision area issues with the presence of the fence and vegetation.
- ii) Would need a new inlet box top (minimum) and should have a double inlet box installed at this location.
- iii) Most of the sidewalk and parkstrip to the east will be affected by construction of a new double inlet box and the ADA ramp.

3) SE Corner:

- i) Would require some minor modifications to construct the ADA ramps so to accommodate the new N-S crossing and the existing E-W crossing.

4) SW Corner:

- i) No modifications required.

An alternate scenario for construction of the crossing would require the existing at-grade street entry to the church's driveway to be converted to a drive approach style entry. By constructing a drive approach style entry, the following issues could be addressed:

1. Runoff on the north side of the street would be less likely to overflow into adjacent residential properties.
2. Construction of the E-W ADA ramps are not necessary, only the N-S ramps on the east side of the intersection would be needed.

Department Review

This proposal has been reviewed by the City Engineer/Public Works Director, Police Chief and Street Department Director.

Recommendation

It is recommended that a North-South pedestrian crossing be constructed on the east side of the intersection of 650 E and 400 N Streets, with the required signs for the crossing.

Significant Impacts

No significant impacts are anticipated.

Attachments

Aerial Photography of the intersection.



Figure 1 650 E / 400 N intersection with proposed crosswalk configuration.

Traffic Safety Committee Staff Report

ITEM 6

Subject: New Pedestrian Crossing 1400 S 350 W
Author: City Engineer, Lloyd Cheney
Department: Engineering
Date: August 27, 2019



Background

Mr. Charles Penrose (1396 S 400 W) is requesting the installation of an ADA accessible crossing at the intersection of 400 W/1400 S/300 W. (See the aerial photo.) Mr. Penrose and his wife walk to the church which is at the south end of the 350 W cul-de-sac, along with other residents of the neighborhood.

Analysis

The intersection of 400 W/1400 S/300 W is a unique configuration and is not conducive to the installation of a N-S crossing. Staff has considered 2 configurations:

1. Create an E-W crossing from the SW corner at 1396 S 400 W. This option provides good visibility for pedestrians and vehicles, and would provide an opportunity to correct a drainage problem in the curb in front of 1390 S 400 W. The disadvantages to this location are the interruption of the park strip landscaping in front of 1390 S 400 W, and the creation of an unusual location which will function like a mid-block crossing.
2. Create a N-S crossing from the NE corner of 1420 S 350 W. This configuration is not the preferred location because of visibility issues for southbound traffic on 300 W due to the presence of the maple trees on the north side of the road and the route would require crossing the waterway on the south side of the intersection.

Department Review

This proposal has been reviewed by the City Engineer/Public Works Director, Police Chief and Street Department Director.

Recommendation

It is recommended that an East-West pedestrian crossing be constructed at location "1b" (see aerial photo) from the SW corner of 1396 S 400 W with the required signage.

Significant Impacts

No significant impacts are anticipated.

Attachments

Aerial Photography of the intersection.



Figure 1 350 W / 1400 S intersection with proposed crosswalk configuration.

Traffic Safety Committee Staff Report

ITEM 7

Subject: Pedestrian Crossing Improvements 100 E & 200 E, 500 S
Author: City Engineer, Lloyd Cheney
Department: Engineering
Date: August 27, 2019



Background

In the fall of 2018 the Engineering Department received requests from Sherman Hawkes and Heather Murri requesting information regarding the number of pedestrian accidents at the intersections of 100 E and 200 E on 500 S Street. Both requests were the result of pedestrian accident at the intersection of 100 E and 500 S. In order to improve pedestrian visibility, a member of the community independently installed flag holders and provided orange flags at the 100 E intersection. Both Mr. Hawkes and Ms. Murri request that the orange flags be available at the intersections for use by pedestrians crossing 500 S Street.

Analysis

500 S Street is among the busiest roads in Bountiful. It has historically carried a volume of 20,000 to 22,000 vehicles per day east of the Main Street intersection. In the ten year period between 2017 and 2008, there were 27 vehicle accidents and 1 pedestrian accident at the intersection at 100 E and 500 S. The highest number of accidents occurred in 2015 when 5 accidents were reported. The pedestrian accident was also reported in 2015. The rate for vehicle accidents is approximately 1:1.6M vehicles, which is statistically acceptable.

In December, 2018, members of the Engineering Department staff conducted a study of the 200 E / 500 S intersection for a Reduced Speed School Zone Warrant. The study was conducted on a "nice" day in December...partly cloudy...and 35°. The intersection performance is based on the time between useable gaps in traffic, the number of school pedestrians, the vehicle approach speed, and the average number of demands per useable gap. The intersection scored a total of 13 points, with the highest source of points being attributed to the extensive time between useable gaps (10 points, the maximum allowed for this criteria). Unfortunately, the intersection failed to meet the minimum requirement of 16 points. Only 6 school age pedestrians were observed using the crossing. It should also be noted that the N-S crossing is located on the west side of the intersection, and is the only N-S crossing for the 200 E intersection.

Department Review

This proposal has been reviewed by the City Engineer/Public Works Director, Police Chief and Street Department Director.

Recommendation

At the 500 S / 100 E intersection, it is recommended that cross walk signs (including advance warning signs), Yield to Pedestrians Here signs, and yield lines be installed for the N-S crossings, per the MUTCD requirements (see Figure 2).

At the 500 S / 200 E intersection, it is recommended that Yield to Pedestrians Here signs and yield lines be installed for the N-S crossing, per the MUTCD requirements (see Figure 3).

At this time it is not recommended to allow the installation of orange crossing flags and flag holders at either intersection.

Significant Impacts

No significant impacts are anticipated.

Attachments

Aerial Photography of the intersections.



Figure 1 500 South Street, 100 E and 200 E intersections and existing crosswalk configurations, with existing signage.



Figure 2 Proposed Improvements at 500 S 100 E Intersection



Figure 3 Proposed improvements at the 200 E intersection