



CITY OF TACOMA BIKE AND PEDESTRIAN ADVISORY GROUP MEETING MINUTES

DATE: April 20, 2015

GROUP MEMBERS

PRESENT: Dave Cook, Kris Symer, Aaron Knight, Ben Storrar, Matt Stevens, Brandi Riddle, Susan Reehill, Anne James; Jennifer Halverson-Kheun

OTHERS PRESENT: Diane Wiatr, Hannah Miner, Rae Bailey, Matt Fengler, Emily Campbell, Leigh Starr, Sue Comis

- **Meeting called to order at 5:35 PM**
- **Call to order and approval of minutes**
- **Welcome new BPTAG Members and Introductions--** Dave Cook and Kris Symer, BPTAG co-chairs
- **Traffic Signals--** Leigh Starr, [lstarr@cityoftacoma.org]

Leigh Starr presented on the three different types of signals in the City of Tacoma, fixed, actuated and adaptive. Cycle length is how much of the timer cycle does on direction get. The split is how much time you give to each group. The phase is the color (red, green, yellow). The cycle length at a signal depends on the phase and the split. The "pie" of the cycle can be bigger, with more time, the split can be 50/50 or 40/60, etc; the split depends on the number of intersections and the traffic at each leg. When there is a pedestrian phase, this takes up a piece of the pie and makes every other leg's phase shorter.

A fixed signal has no detection. Tacoma's Downtown Core is on fixed timing because of the Link Light Rail System. The cycle is 90 seconds long and uses detection only for left hand turns. When traveling on an east-west corridor, if you start the progression on the east, you can time signals to change according to the speed of traffic. This creates a wave in one direction. The signals look the opposite of being synched if you are moving in the opposite direction. Some cities have one-way streets that allow for waves like this.

An actuated signal is when a vehicle, bike, or pedestrian activates the signal using detection or push buttons. Historically, detection loops are used. Stop bar detection will trigger the light to change. Timing detection is placed further back and will help determine the length of the light. Advanced detection is placed even further back and

will extend the green light. If no one is in opposing lane, the advanced detection can also change the light.

There are failed detection loops throughout the City. Because of the cost of detection, the City is moving towards using fixed loops. Signals, like many parts of the roadway system, are failing faster than the City can repair them.

Adaptive signals are connected to a central computer and adjust on the fly based on traffic loads. In order to have adaptation, there first need to be working detection loops.

It is also easier to coordinate everything on an even grid. That is not the reality of Tacoma where there are corridors/arterials running both north-south and east-west. How do you prioritize one corridor/arterial compete over another? Does one get more priority during one part of the day?

There are many complex situations. Short blocks can create blocks in traffic because cars can end up in the middle of intersections. Five and six-way intersections need more than two phase and take up pieces of the signal cycle pie. One-way streets change traffic flows. Different modes have different needs—one-way street changes, contra bike lanes, bus stops on hills and near signals. Which you do time for? Bus movements, or cars, freight, bicycle, pedestrians, light rail? In Downtown Tacoma, the priority is mass transit and the signals are timed for the Link. Timing the Link's trips snarls up other traffic.

Additionally, paint is cheap and signals are not. If the detection is not up to date with the painted infrastructure, you are not meeting all road-users' needs. A person on a bicycle will not trigger a light if they are standing in a bike lane that does not have detection. Also, detection needs to be calibrated for bicycles which is challenging given the many different types of bikes (20 lb. steel frame Schwinn's are more easily detected than 5 lb. carbon fiber bikes). N 21st and Union is considered a bike lane that is "completed" but it does not have detection for bikes.

One of the reasons why this is so difficult to address is because of the differences in cabinets that house controllers. There are differences in size of both cabinets and controllers, the types of detection, technology. And all of these variables are not compatible. This is important to note because the architecture of the cabinet itself can impact the decisions that are made for technology, specifically the cost of a project.

Current standard loops do not detect bicycles reliably (See RWC 47.36.025). And some cabinets cannot take on additional capacity and requires replacing cabinets which can double the amount of some projects. Striping lanes and sharrows isn't going far enough.

Key take-away: Call Leigh Starr when signals don't work.

- **Road Resurfacing Program– Matt Fengler**

Matt spoke about upcoming resurfacing projects in Tacoma. Roads are designed for a 20-year life, but this depends on loads (how heavy), traffic volumes, and weather elements like rain and sun. Chip seal is about \$9/yard and it's purpose is to protect the road surface. The City uses chip seal to resurface roads because it is cost-effective. It is about an eighth of the cost of paving a street. Matt would like to work with BPTAG in the future to get input on chip sealing projects specifically to make certain that roads are

working for all users and find a balance between acting wisely and doing things well. This is also an important time to discuss roads because surface treatment is a big part of the Mayor's upcoming roads initiative.

The City of Tacoma currently uses ½ inch rock when chip sealing arterials. Street Operations is experimenting with 3/8 inch rock in a limited capacity on a few streets in residential areas (between M St. and Alaska, 48th – 56th for example). 3/8 inch rock gives a smoother surface. Its possible to shoot oil over the surface and fill in the rock grade, but 3/8 inch will provide a more comfortable ride for users. All chip seal is eventually settle down evenly due to gravity. This have been used in a limited, experimental capacity in residential areas. Arterials use ½ inch and residential streets generally use 3/8 inch because arterials need to last longer.

Chip seal is also used as a last resort on failing streets, like Pine and Union. In this location, chip seal was applied to mitigate potholes because the cost of re-engineering this street is too great.

Matt would like to continue the conversation after winter and discuss other alternatives. 2017 will be next major street projects. This will be a good time to try other options. Diane will distribute information about additional options like slurry and kape seal. Both of these are more expensive because they are considered construction, not maintenance projects, and mandate ADA ramps. These have also been used in a limited capacity on residential streets in Tacoma. Matt will follow up with options and locations to check them out as well.

Please send any questions and requests to Matt or Rae Bailey
[rbailey@cityoftacoma.org]

- **Response to Link Light Trail Letter from Sound Transit**

Sue Comis delivered the response letter from Sound Transit to the BPTAG's letter with recommendations for bicycle and pedestrian access to the new Link Lightrail on MLK. Sue explained that Sound Transit is working cooperatively with the City of Tacoma to make decisions about to the create better bike and pedestrian access around stations and discuss the various factors that play into where a station is located.

- **Question about meeting on the 4th Monday rather than the 3rd (in light of the annual shift during MLK and President's Day, except Memorial Day)**

BPTAG Members decided to switch meetings to the 4th Monday of every month.

- **Bike Month and Flume Line Trail Ribbon Cutting**

Diane and Hannah will send out information about upcoming Bike Month events and the Flume Line Trail Ribbon Cutting.