

D2: FORMATIVE RESEARCH REPORT ON LOCAL TRANSPORTATION

Summaries & Reflections:

- **Observation Summary:** Local public transportation options in Portland constitute TriMet bus service, Max rail system, Portland Streetcar and TriMet's WES (Westside Express Service). Among these possible options, I visited PSU college campus, TriMet bus stop, MAX station and Streetcar stop to conduct the observations.

I visited Goose Hollow **TriMet bus stop** on SW 18th Ave. on Sunday in the evening at 3.30. There are no people at that time though the service is till 5.30 in the evening. I waited there for about 10 mins and then I left to SW 11th Ave. I reached there at about 4.00 pm. Since this stop is in little crowded area, I could find few people waiting for the bus. Bus arrived at 4.08pm. Bus is not totally filled and there are few spaces left.

During my initial observation at **PSU campus** on Monday 10.00 am, I found most of the students walking to come to university, in and around the campus.

Students also use Streetcar as an alternative to walking. Very few are using rented bicycles in the campus. I choose a weekday for this observation on campus so that I can observe the regular crowd frequency better than that on a weekend.

My other observation is on same day as PSU campus visit, but it is in the evening and I went to **Streetcar stop** at SW 11th & Jefferson at 5.30pm. I found that there are a lot of people waiting and Street car arrived at 5.33pm. People are purchasing Streetcar pass for either 2.5hrs/ 1day and some are carrying their monthly pass. On Tuesday at 4.30pm, I went to nearest Goose Hollow Jefferson- Westbound **MAX station**. The frequency count of the people is less compared to Streetcar stop on the previous day. It has the similar ticket generating machine as in Streetcar stop and the price is also same.

- **Observation Reflection:** I am surprised to see that lot of people are accessing Streetcar than TriMet bus/ MAX. With a single \$5 one day pass, one can travel either by TriMet bus or Streetcar. I observed that - physically challenged people can also find it easy to get into the Streetcar or MAX along with their wheel chair.

People can take their pets and bicycles along with them- bicycles are placed inside streetcar and MAX while in TriMet bus they are placed at the front (outside).

There are fire extinguishers in every compartment of MAX. The doors are automatically closed and opened which is useful for regular user and disabled too. There is a facility for people having visual difficulty, they can generate the tickets using audio option and can select language also. I may not have come across these observations if I haven't visited the actual field location.

While thinking in technological aspect, though there are many improvements, the frequency of people who prefer walking is much high. Improvements can be made so that their walking commute becomes easier. For example, Google maps have helped them a lot in making their lives easier. But for this search, they need an active internet connection which may or may not be accessible every time. If there is a Google map location finder available for every small distance periodically, it would help. It becomes hard to use any of the three services on a snow storm day. Technological improvements are to be made such that while bus/ streetcar or max moves, it should automatically clear the snow.

It is really a good experience going around Portland observing people, the way they commute and how all the local transportation works. Most of the observation focus is done on people and it is outside the vehicle. Next time I would rather like to travel in them and observe. I would go to Arial tram and WES station for my future observations.

▪ **Interview Summaries:**

Interview 1: My interviewee is a master's student at PSU in ECE department. I have seen her twice in library, but I don't her personally before the interview. She might be around 24-26 years. From the interview I noticed that she prefers walking more. She's not a bicycle rider.

During my PSU campus visit on Monday, after the observation I went to library for studying and after a while I wanted some relaxation, so I thought of taking an interview and I found her sitting on the opposite table in library. I asked her if she could spare 15mins of her time with me and she agreed. She seems to be very friendly and interview went well. It is 13.33-minute long.

The 3 key findings from the interview are:

- ✓ Most of the students walk regularly to PSU. For grocery shopping and close places near by they prefer walking. Since there is a street car facility near PSU campus they use it, but it is very rare.

- ✓ She has a driver license back in her home town and she feel that it is tough to get the license here. The exam is quite tough here and it is because they screen every candidate fairly with all required tests. It is evident from this statement that the rules are implemented and followed properly.
- ✓ Rental cars are high priced and are not better option for students. They use these only when they couldn't access the public transport at odd times or to locations where the Streetcar/ MAX doesn't go.

Interview 2: I met this interviewee in Streetcar stop near Safeway when I went to conduct the observations. I requested him if he could take part in a small interview regarding the transportation and he said yes! We sat in the nearby restaurant for about 20 minutes. He is also a student (he didn't mention his college name) and he might be around 25-27 years. The interview went so good for 17.30 minutes. Seems like he follows technological updates.

The key findings from the interview are:

- ✓ He feels that transportation here is expensive and so he walks to his college every day.
- ✓ I learnt that people are waiting and excited for the automation in the field of transportation.
- ✓ He is confident in saying that the transportation services are safe here. He mentioned that there is fire extinguisher in every compartment of MAX.
- ✓ He feels good about the facilities and support they provide for the disabled people. Apart from the fares, he seems comfortable with the transportation services.
- ✓ One of his suggestion to reduce traffic is to have fly-overs which I feel is good and he wants the government to encourage people to use more public transport.

▪ **Interview Reflection:**

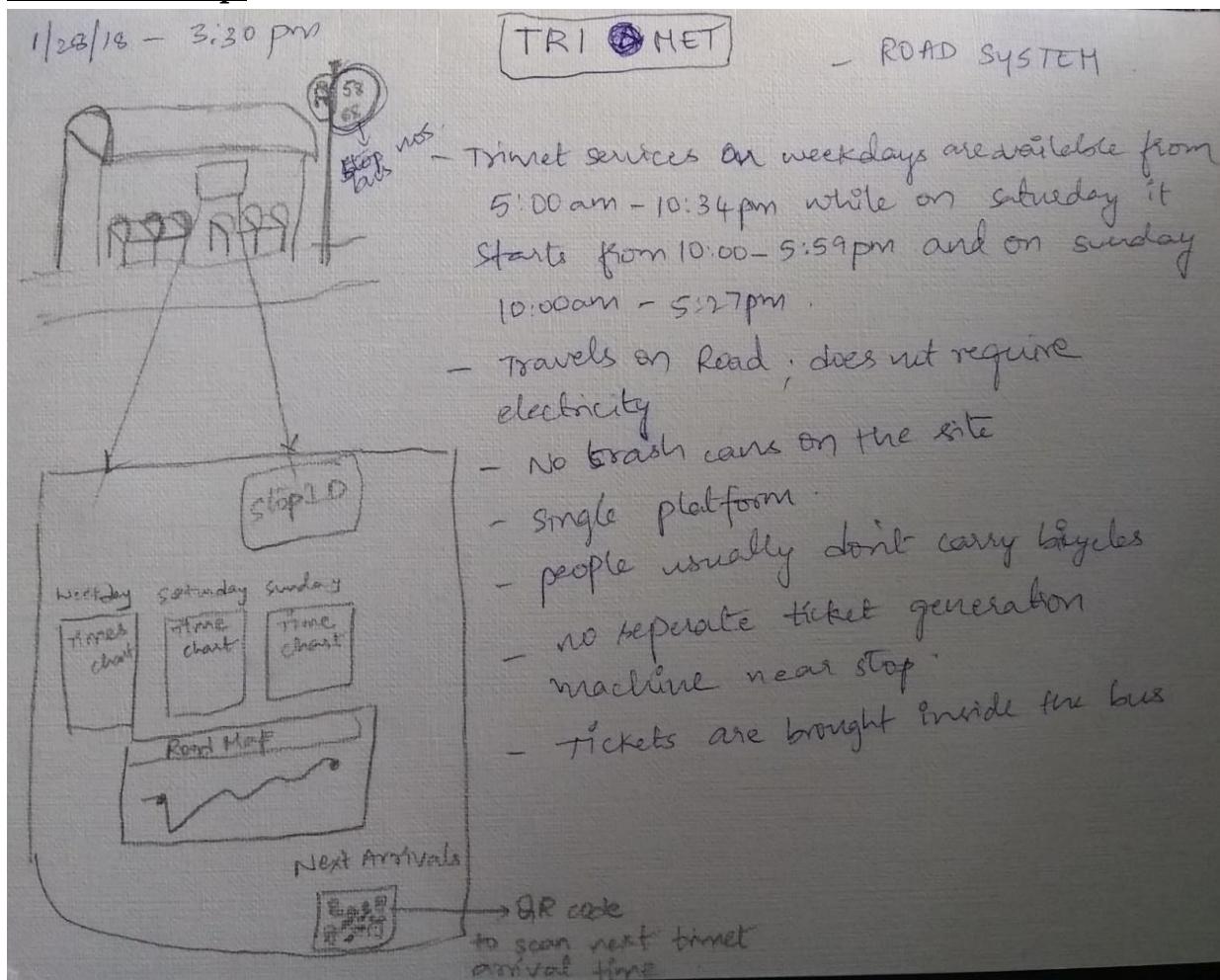
I was surprised to hear that Streetcar facility is specific to Portland city when 2nd interviewee mentioned that he couldn't find such service in California. I didn't know about the Arial tram facility in Portland. I learnt that people (mainly students) are eagerly waiting for self-driving cars and they are welcoming these changes in technology that improves their life style. Students are facing a lot of difficulty walking everyday though they have accessibility to public transport. It is good that Streetcar service is free for PSU students. In these two interviews are concentrated mostly on regular accessible public services but next time I want to

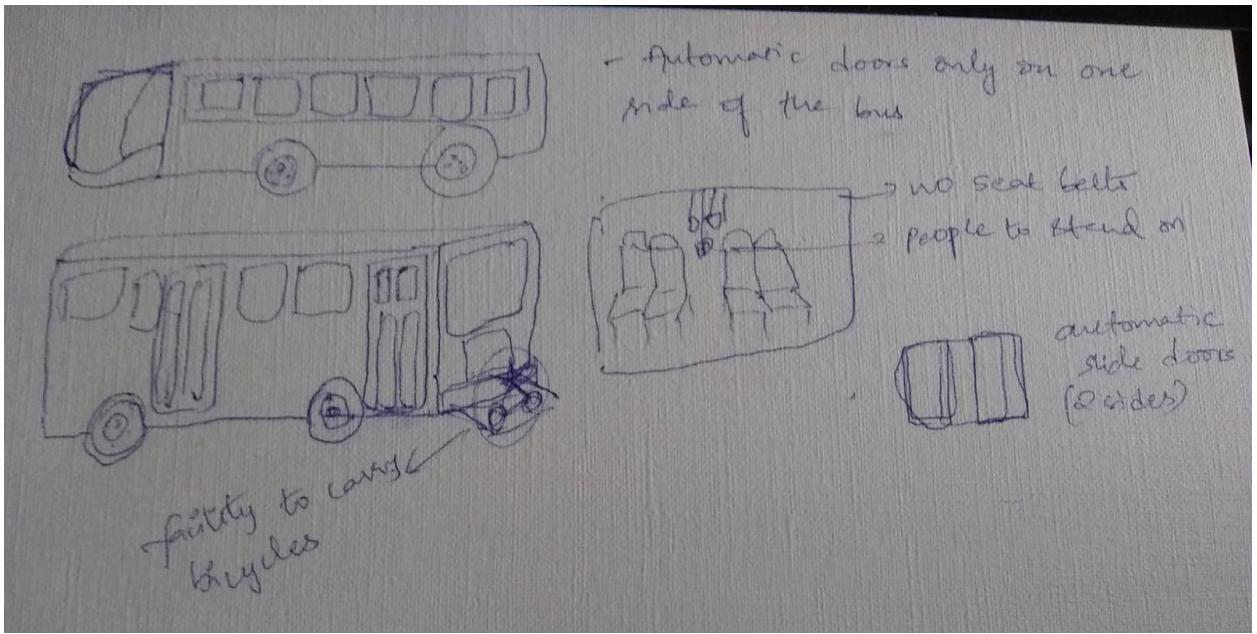
know about rented vehicles and cab services-their accessibility, fares and most importantly safety issues. The two interviews are different in discussions on technological improvements, supportiveness for disabled people and safety issues. I got an opportunity from the second interview to know how the transportation facilities are different from state-to-state within the same country. Similarity is that both are students and their main concern is about walking long distances and higher prices of transportation facilities. If I had more time, I would interview a working person who owns his own vehicle so that I get to know about the local transport they prefer apart from having their own and how frequently he uses them.

Appendix:

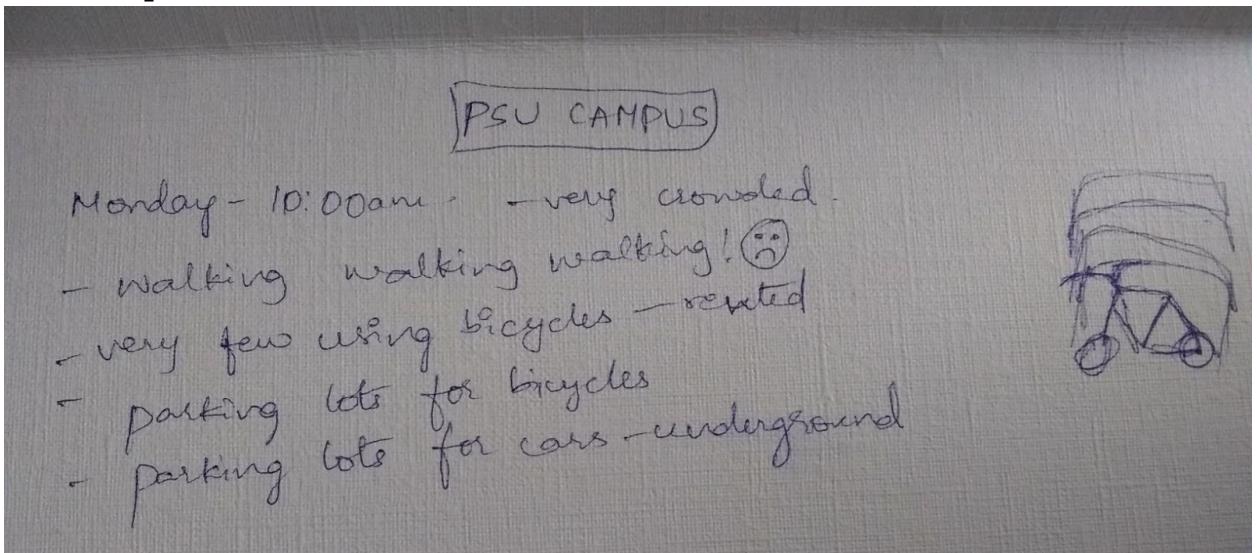
▪ **Fieldnotes:**

TriMet bus stop:

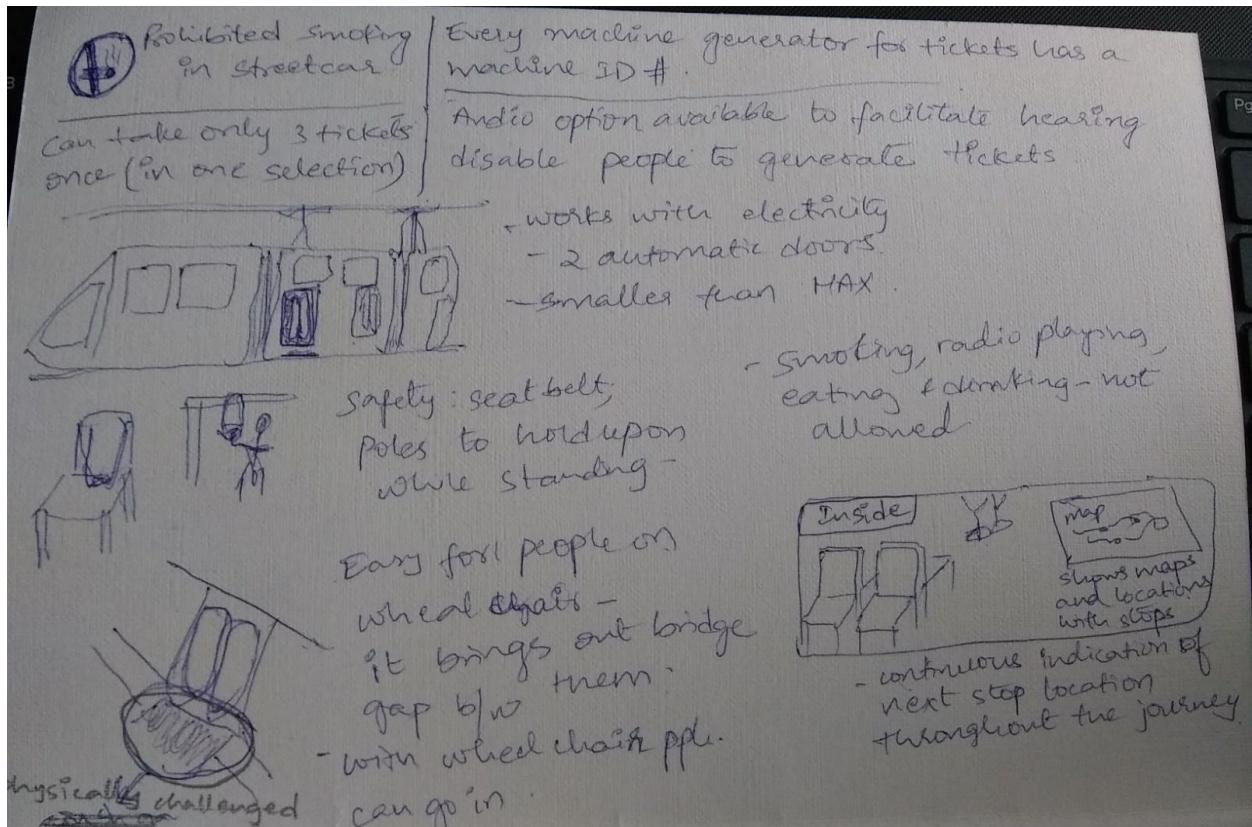
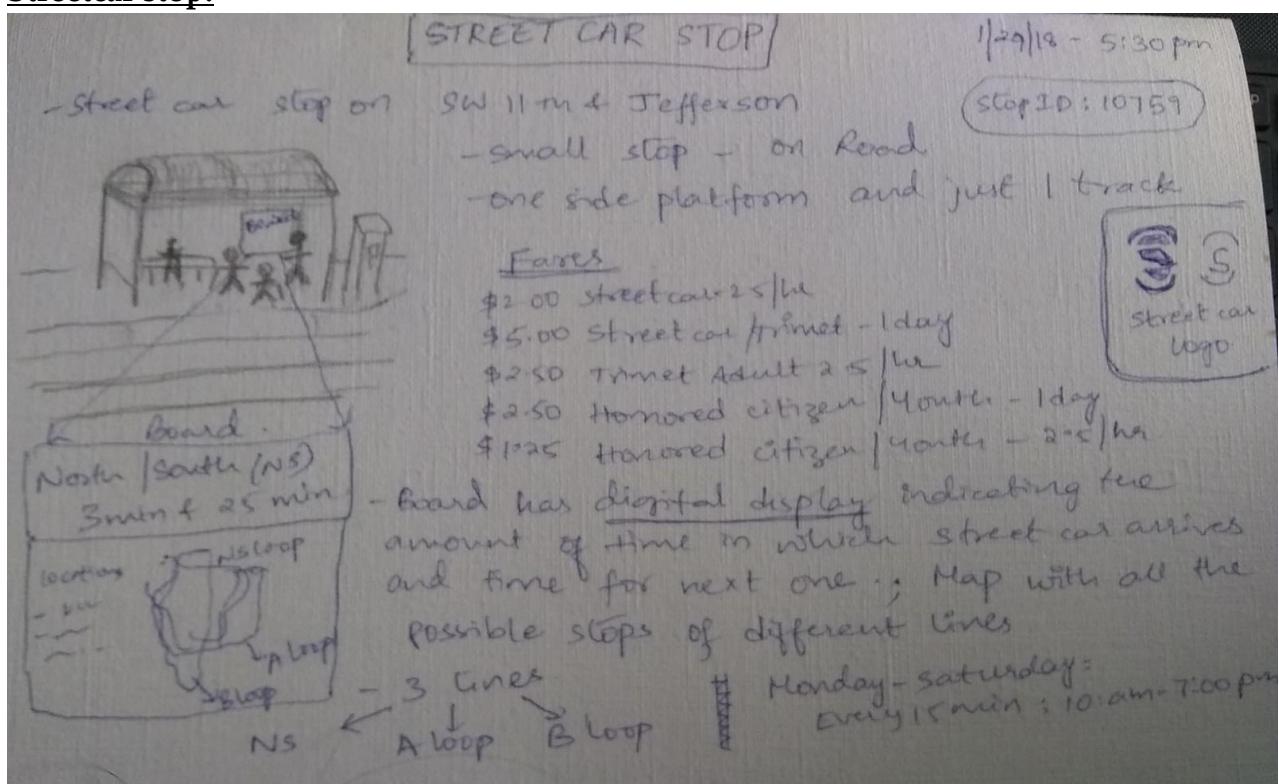




PSU Campus:



Streetcar stop:



MAX Station:

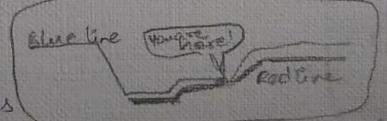
(MAX STATION)



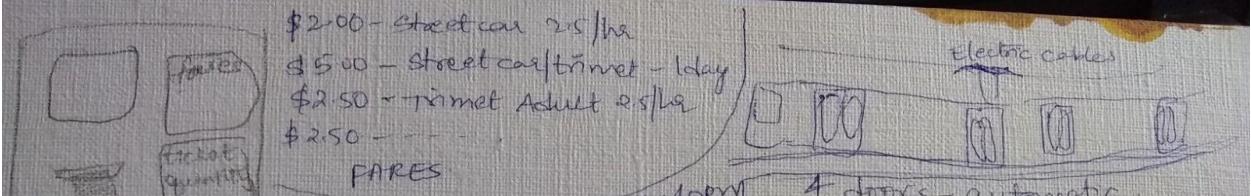
- Goose Hollow Jefferson - westbound
- 1/30/18 - 4:30 PM
- 2 tracks - 2 sided platform
- Blue lines and red lines
- ↓ Cleveland Ave ↓
Airport
- very clean → has trash cans also
- People can sit on benches like Rail system maps platforms.
- People taking MAX passes.
- People can take their pets and bicycles
- Sunday - Tuesday evening - not very crowded - limited no. of people.

Stop ID
10118

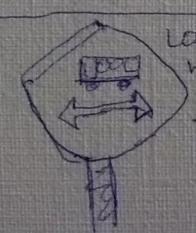
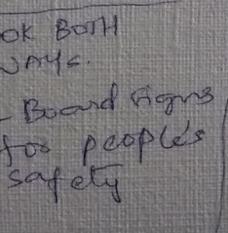
Next Stop ID
27899 for tracking



Detailed indications of all stations in between and also all possible Red line, Blue line, Orange line details - - -



- works on electricity
- MAX train not on the front
- Not very crowded so people can get in easily
- 4:44 PM departure (:()
- Look BOTH WAYS.
- Board Signs for people's safety

4 doors - automatic

electric cables

4 doors - automatic

automatic sliding doors

signals indicating the arrival of train on roads.

- So, simple and convenient

- Train in every 10 mins (from the time of departure)

- cheaper to travel around if we take day passes

▪ **Photographs:**



PSU CAMPUS- people walking and a lot of bicycles are parked. Right side picture shows a building of college campus and bicycles parked in front of it.



Ticket generation machine- Has audio facility to generate tickets- useful for people having visual difficulties. Indications showing how to use the machine. Prices of pass can be seen on the right side.



Streetcar Stop:





MAX Station:





TriMet Stop:





Transit Tracker
Next arrivals in real time | trimet.org
503-238-RIDE (7433)
Text Stop ID to 27299

Stop ID 10168

| 58-Canyon Rd | | 58-Canyon Rd | | 58-Canyon Rd | |
|--------------|-------------------------|--------------|-------------------------|--------------|-------------------------|
| Weekday | To Portland City Center | Saturday | To Portland City Center | Sunday | To Portland City Center |
| 6:30 | 6:30 | 6:30 | 6:30 | 6:30 | 6:30 |
| 6:35 | 6:35 | 6:35 | 6:35 | 6:35 | 6:35 |
| 6:58 | 6:04 | 6:10 | 6:10 | 6:10 | 6:10 |
| 6:24 | 6:07 | 6:37 | 6:47 | 6:47 | 6:47 |
| 6:40 | 6:48 | 6:54 | 7:01 | 7:01 | 7:01 |
| 6:55 | 7:03 | 7:41 | 7:19 | 7:19 | 7:19 |
| 7:11 | 7:18 | 7:28 | 7:37 | 7:37 | 7:37 |
| 7:28 | 7:36 | 7:45 | 8:00 | 8:00 | 8:00 |
| 7:48 | 7:56 | 8:05 | 8:14 | 8:14 | 8:14 |
| 8:22 | 8:30 | 8:37 | 8:45 | 8:45 | 8:45 |
| 8:55 | 9:03 | 9:09 | 9:16 | 9:16 | 9:16 |
| 9:27 | 9:35 | 9:40 | 9:46 | 9:46 | 9:46 |
| 9:58 | 10:06 | 10:11 | 10:17 | 10:17 | 10:17 |
| 10:29 | 10:37 | 10:42 | 10:48 | 10:48 | 10:48 |
| 11:01 | 11:09 | 11:14 | 11:20 | 11:20 | 11:20 |
| 11:32 | 11:40 | 11:45 | 11:51 | 11:51 | 11:54 |
| 12:04 | 12:12 | 12:17 | 12:23 | 12:23 | 12:27 |
| 12:35 | 12:44 | 12:49 | 12:55 | 12:55 | 12:59 |
| 1:07 | 1:16 | 1:21 | 1:27 | 1:27 | 1:31 |
| 1:38 | 1:47 | 1:52 | 1:58 | 1:58 | 2:02 |
| 2:09 | 2:18 | 2:23 | 2:29 | 2:29 | 2:33 |
| 2:41 | 2:50 | 2:55 | 3:01 | 3:01 | 3:05 |
| 3:11 | 3:20 | 3:25 | 3:32 | 3:32 | 3:36 |
| 3:42 | 3:51 | 3:56 | 4:03 | 4:03 | 4:07 |
| 4:12 | 4:22 | 4:27 | 4:34 | 4:34 | 4:38 |
| 4:42 | 4:52 | 4:57 | 5:04 | 5:04 | 5:08 |
| 5:12 | 5:22 | 5:29 | 5:33 | 5:33 | 5:37 |
| 5:42 | 5:51 | 5:55 | 6:02 | 6:02 | 6:06 |
| 6:12 | 6:21 | 6:25 | 6:32 | 6:32 | 6:36 |
| 6:44 | 6:52 | 6:56 | 7:03 | 7:03 | 7:06 |
| 7:16 | 7:23 | 7:27 | 7:33 | 7:33 | 7:36 |
| 7:47 | 7:54 | 7:58 | 8:03 | 8:03 | 8:06 |
| 8:17 | 8:24 | 8:28 | 8:33 | 8:33 | 8:38 |
| 9:17 | 9:24 | 9:28 | 9:33 | 9:33 | 9:36 |
| 10:17 | 10:22 | 10:26 | 10:31 | 10:31 | 10:34 |

58-Canyon Rd

For additional details, call 503-238-RIDE (7433)

58-Canyon Rd

MAX Line and Station: 20 52 53 54 87 11 13 16 18 MAX WES

Secure Bike Parking

Portland Streetcar

MAX Line and Station: 20 52 53 54 87 11 13 16 18 MAX WES

Secure Bike Parking

Portland Streetcar

RESPECT THE RIDE.

- Valid fare is required.
- Move for seniors and people with disabilities.
- Don't threaten or intimidate riders or operators.
- Don't be so loud that you disturb others.

During snow or ice, visit trimet.org/alerts or call 503-238-7433.

STAY ALERT. STAY ALIVE.

- Always look both ways.
- Tracks are for trains.
- Use crosswalks and obey signals.

▪ Interview Questions:

- 1 ① Are you a student / employee?
- 4 ② How do you go to your college / work usually?
- ③ If walk - For how many hours approximately do you walk in a day?
- ④ How often do you use the public transport?
- ⑤ If student - Do you have any bus facility offered by your college?
- ⑥ Any reason why you prefer to walk than going by public transport?
- ⑦ I saw students using bikes for rent. Have you ever used a rental bike?
- ⑧ How do you go to grocery store usually? How far is it?
- ⑨ For nearest places - Do you prefer to go by tram / MAX / street car?
- 2 ⑩ Do you have your own vehicle?
- ⑪ Do you prefer taking a day pass / monthly pass in local transport?
- ⑫ From how many years are you staying here? - what are the differences in local transportation facilities in your home town to here? - Do you feel it is easier to commute here or in your home towns?
- ⑬ Have you used rental cars like uber / lyft any time? - When and in what situations you prefer that.
- 3 ⑭ How far is your college / office from your home?

① Student - PSU-ECE ; walk - streetcar ; 45min walk ; grocery shopping - walk ; max - Airport ; uber / lyft - group travel or no max / streetcar ; Driving license is tough ; native people - cars mostly or - car pool ; zip car sharing rent ; train (nice view) ; Snow storm - no public transport ; some technological implementation so that walking is reduced

- (15) What kind of measures do you think are taken by government for safety?
- (16) Are the transportation modes really safe?
- (17) Do you think disabled people can also use these facilities?
- (18) Did you find any fire extinguishers in tramet / MAX / street car?
- (19) Do you love travelling?
- (20) Is there WiFi availability in them?
- (21) Are you comfortable with the transportation system.

→ Student; walk to college - streetcar;
day pass - \$5 ; problems during renovation but not very often; good safety - every compartment;
disabled people - slider; cabs - very expensive;
car pooling less - people prefer own cars → environment effects; tracking through app; lost once - no google maps; → they are supporting; self driving cars; - no streetcar in cali; changes by govt → flyovers to divert traffic - under ground transportation