
Project Overview

- 1 The D-to-M Streets Track & Signal Project is a 1.2 mile section of new track to be constructed by Sound Transit on acquired right-of-way connecting Tacoma Dome Station with Sound Transit's Lakeview Subdivision. The rail line will cross a lowered Pacific Avenue on a grade-separated bridge, giving traffic on this major arterial unimpeded access to points north and south of the line.

Meeting Purpose

- 2 Sound Transit and the City of Tacoma gathered the Project Advisory Committee (PAC) to discuss technical issues, design options, construction phasing, and redevelopment as it relates to the D-to-M Streets Track & Signal Project in Tacoma.

Introduction

- 3 Angie Thomson, meeting facilitator, welcomed everyone to the third meeting and thanked them for coming. She reviewed the agenda and highlighted the three goals of the meeting: to talk about the East A Street crossing, South South C Street status, and the PAC roles and responsibilities in the transition from charettes to monthly meetings. She mentioned that this meeting was to address the leftover items from the second charrette held on October 2.

East A Street Crossing

- 4 Chris Larson, City of Tacoma Public Works, welcomed everyone and began the East A Street crossing discussion. He reminded meeting attendees that the train is going to cross between 25th and 26th Streets and the top of the rail will be nine feet above the existing grade at East A Street.
- 5 [Keith Stone] I thought it was only six feet above the existing grade? *Keith Nakano has a profile to show you and he will go into more detail.*
- 6 Chris Larson said they would like to talk about why it is necessary to close East A Street to vehicles. The City has minimum criteria for public streets. South C Street and East A Street wouldn't be able to meet even a 25 mph design speed for vehicles, the standard minimum design speed for streets in Tacoma.
- 7 Keith Nakano, Sound Transit design team, presented profiles of the East A Street crossing drawn at natural scale. He noted that the profile showed about eight feet elevation difference between the track and existing roadway surface. The first drawing maintains City of Tacoma standards on the street design, showing a 30 mph design with a maximum grade of 8%. Keith mentioned an 8% grade is the maximum by City standards. The greatest challenge in this scenario is providing enough of a

vertical curve to transition smoothly from level areas of the roadway to the sloping portions, and allowing drivers to see far enough over the crest of the hill, or vertical curve, to stop safely if necessary.

- 8 [Forrest German] How does this work on the D Street overpass, which seems steeper than 8%? *The City's standard maximum grade is 8%, D Street is actually 8.5%.*
- 9 [Marty Campbell] Are you saying that you could go twice that, 15 or 20% grade? *It would feel really steep. Keith is trying to emphasize that it is how you get on and off the grade that is tricky, not the steepness of the grade itself.*
- 10 Keith Nakano acknowledged that people may ask, "Why don't we just go slower?" However, there is a public standard for safety and there is no guarantee that if the posted speed limit is 10 mph people will drive that slowly.
- 11 [Ed Davis] The line shows the existing grade, but what about the length? The drawing of the new roadway doesn't meet back up with the existing road? *Keith Nakano agreed. As you travel past East 25th Street on the proposed roadway, you'd have to go almost 200 feet beyond the intersection before actually touching down to East A Street, which is a problem.*
- 12 [Forrest German] I have another question about grade percentages. What are the grades on city streets downtown? *They are close to 15%.*
 - We have existed with these city streets for a long time, so why can't we build more at those grades?
- 13 [Jim Merritt] All downtown streets around here are at a 13% grade.
- 14 [Ed Davis] Would a 13% grade improve the situation at the East A Street crossing? *You will get to see that profile in a moment.*
- 15 [Keith Stone] If you keep changing the numbers, we will never win. Six months ago, you were telling us the top of the tracks would be 4 or 5 feet above the existing grade. At the last meeting you told us it would be 6 feet, and now you are telling us it will be 9 feet. *This is an example of people reporting back to you in rough terms. We have not changed the design, what has changed is that now we have an extremely accurate drawing.*
- 16 Mark Johnson, Project Lead for Sound Transit, noted that if the real goal of the project is to keep East A Street open, then they could do what was suggested and drop the track and catch it further up the hill before Chandler Street. However, if we do this, then a worse situation is created through the Pacific Avenue undercrossing, and since Pacific Avenue is a major arterial, that wouldn't be a good idea.

- 17 [Keith Stone] We were told that you would go down 10 feet and up 6 feet. The elevation at the Shell parking lot is almost 4 to 5 feet. I do not understand your logic. I think you are making up a scenario so you can close East A Street.
- 18 [Jim Merritt] You can't change East 25th Street because the light rail is there; you have to start at least past the track. If you went up 13% and did a break over, why won't that work? *We are getting to that approach to the design. We have more drawings to show you.*
- 19 Keith Nakano presented the next drawing in which the grade was increased to 10% and the design speed of the road was reduced to 25 mph. The distance required to meet up with the existing road still took you past the intersection at East 25th Street, although not far as in the previous drawing.
- 20 [Marty Campbell] Do you mark how wide the tracks have to be? *The track is actually 5 feet wide, we kept it minimal. What we are showing you is the required length required to safely traverse this curve at a 10% grade.*
- The curve can't start earlier? *No, because that is the actual crossing point and it needs to be level.*
 - Can you find a way to shorten the curve? *The only way to shorten the curve is to slow the speed.*
- 21 [Keith Stone] Is this 80 or 40 feet wide? Where is the train in relation to the Armour Building? *We would have to look at the plans but it has not shifted from where it has been. It is pretty close to the Armour Building because we are threading between their building and the Elephant Car Wash.*
- 22 [Jim Merritt] In this city, the grade standards have not been followed anywhere. *The roads were designed 100 years ago. If there is an accident on a new portion of roadway, the City cannot take on the liability of a sub-standard design. We have to design to current standards.*
- 23 [Keith Stone] Why is 25 mph the minimum? Why can't we make that street 15 mph? If it is posted, people have to follow the law.
- 24 Keith Nakano stated that at a design speed of 15 mph, it still requires a distance of 209 feet to return to the existing grade of the streets. He explained they looked at the option of a 15% grade and 25 mph design speed, but that resulted in a required distance of 180 feet to return to existing grade.
- 25 Keith Nakano stated his concern that if they changed the speed to 10 mph, some drivers would not drive that slowly, creating an unsafe situation.
- 26 [Chelsea Levy] Different arterials have different speeds. Depending on the type of street, there is usually a standard speed, such as on residential streets. *Yes, that speed for typical city streets is 25 mph in Tacoma.*

- 27 [Keith Stone] So are you saying that people aren't going to follow posted signs? What about the new D Street Bridge, which is posted at 25 mph? *Even if we posted the speed at 10 mph, we couldn't make the grades work. This drawing is showing a simplified scenario. We couldn't have a 15% slope go all the way up through; we would have to have benches at 2% for pedestrian crossings at the intersection.*
- 28 Chris Larson said that if the tracks were lowered at East A Street, the effect further west would be to lower Pacific Avenue even more than is now planned.
- 29 [Keith Stone] We were told you are digging down and raising it 7 feet, so why are you raising it 9 feet?
- 30 [Marty Campbell] Looking at the map, it looks like the track can shift to the left 10-15 feet. *We were talking about that, but the Armour Building is in the way of doing so.*
- 31 [John Lewis] I represent the owners of the Elephant Car Wash and they don't want to be there any more. They are already feeling the effect of the Link light rail and if East A Street is closed, that is going to restrict their traffic. The owners said they were not aware of what was going on with this project.
- 32 Mark Johnson reminded everyone that everything presented at the meeting was in response to Jori Adkins' question, "Why does East A Street have to be closed?" East A Street cannot be safely made to work as a vehicular crossing designing to City of Tacoma standards.
- 33 [Darrel Bowman] Jori asked for three dimensional images and visuals and things she can understand. As a common lay person, I cannot understand and see conceptually with these drawings what is going on. *We have 3d visuals prepared for you, which you will see in a moment.*
- 34 [Jim Merritt] How much higher can we put the track, how much higher than 9 feet can we go? *That is as high as we can go. The grade of the track will be 2.8% and climbing as quickly as we can.*
- Why can't you go more than 2.85%? *That is the maximum grade that Sound Transit can safely operate trains going downhill.*
- 35 [Ed Davis] What is the grade at Tacoma Rail's Mountain track?
- 36 [Keith Stone] It is the steepest grade in the country.
- 37 Mark Johnson explained that Sound Transit did train tests on a section of line that was a 3.5% or 3.6% grade in order to understand how Sounder locomotives performed and how they might need to modify their rail vehicles to travel on those grades. They determined the locomotives could pull a train up such a steep grade, but

that it was too steep for regular operations. For example, the tops of the rail cars were damaged by a sharp vertical curve going onto the steep grade, and Sound Transit had to get them repaired.

- 38 [Ed Davis] Does it matter if the train is going uphill or downhill? *Good question, but it does not matter.*
- 39 [Forrest German] As far as the street system is concerned, if East A Street is closed what happens to South C Street? Does that get improved?
- 40 [Keith Stone] Someone else wants to close East C Street, right in the Dome District.
- 41 [Marty Campbell] But they are not closing it between 25th and 26th Streets.
- 42 [Forrest German] Another question is, if we are closing East A Street, one of things we talked about originally was how important Route 99 is. Who becomes responsible for maintaining this road?
- 43 [Forrest German] The street system needs to be made to work. Can we arrive at a better solution than what we have now? If East A Street is closed, how can we make the situation better than what we currently have? One idea might be to improve 26th Street.
- Yes, improving 26th Street all the way to Puyallup Avenue would be wonderful.
- 44 [Ed Davis] If 26th Street was improved and you didn't have to deal with all the lights, it would be more of a thoroughfare.
- 45 [Forrest German] A traffic study should have been done, especially looking at Pacific Avenue and 23rd Street. There is a lot of congestion on Pacific Avenue where the U.S. Bank is. If we could improve 26th Street all the way to Puyallup Avenue, it would improve the situation at the U.S. Bank.
- 46 [Keith Stone] It would be a busy, busy thoroughfare.
- 47 [Forest German] Even if East A Street stays open, we will still have all of this congestion. The traffic comes around that corner and backs up all the way to 25th Street.
- 48 [Douglas Tooley] The other option was to drop Pacific Avenue below? *That is actually happening because the tracks don't get high enough. We will lower Pacific Avenue where the tracks cross it.*
- 49 Keith Nakano showed a three dimensional visualization of the original design of the pedestrian crossing at East A Street. It showed the switchbacks needed to gain

elevation for pedestrians, and the tracks, which are at roughly the same elevation as 26th Street.

50 [Darrel Bowman] Did you get David Boe's comments on this? *Yes, we have printed them poster size and can view them at the end of the meeting. (These drawings were displayed on easels at the side of the room.)*

- David was concerned about the number of people that could collect at the top of the pedestrian crossing after a Tacoma Dome event if the crossing gates came down—could they be pushed onto the tracks by people behind them who hadn't realized a train was approaching?

51 Keith Nakano showed the next design, which had a wider platform and stair access to the Armour Building. Keith pointed out that from street level all you would see is a wall. He then presented the undercrossing design, which would be 20 feet wide and 10 feet tall. If it were to be a vehicular crossing, it would have to be much wider.

52 [Chelsea Levy] Why can't you put a light there? Maybe a blinking red light? What if this road was closed to truck traffic but open to passenger cars? (Suggested because cars could pass under the tracks, while trucks would be too high to do so.) *Concerning the City standards, I am not sure we could build something that is only for certain sized cars due to safety. If someone with a truck does not pay attention and drives into the underpass structure, we would have a problem.*

53 [Douglas Tooley] The other option is that if you are taking the Elephant Car Wash, you could extend the grade all the way to 25th Street. Bring the light rail onto Pacific Avenue via a flyover so there is no light rail on 25th and that same grade extends to the north. Extend the track elevation all the way to 25th Street and run the light rail on it too, and drop it onto Pacific Avenue. *If you do that, you are looking at 16.5 feet, from what I understand.*

- Could you close off 25th Street and leave East A Street?

54 [Forrest German] One thing I talked about last time is the bowl effect of a lowered Pacific Avenue. It is not very desirable. Start the grade earlier to have more of a level area on Pacific Avenue and not something that feels like a hole. If we did that, we could use our walkway to set-up that area as a plaza instead of a sloped-down hill to nothing but an intersection. We need to start thinking the same thing on the other side.

55 [Keith Stone] What does that gain us for keeping East A Street open?

56 [Forrest German] I am just exploring options. If East A Street is closed, this would make it into a good situation.

57 [John Lewis] That is a brilliant plan and works very well for us. From the Elephant Car Wash, they are already seeing lots of accidents without anything being done to

East A Street. You can put a big X on that location; they are not going to stay. Put that in the plan any way you want but without a gas station on it.

- 58 [Marty Campbell] I would like to see the light rail actually represented on the drawings. It would also be useful to submit this to the police department to get their opinion.
- 59 [Jim Merritt] If you tried to drop East A Street to pass under the tracks for all vehicles, what kind of grade would you get on 26th Street or would you have to close it also? *We looked at this situation and determined that the roadway would not meet standards.*

South C Street Status

- 60 Mark Johnson introduced the South C Street discussion and mentioned that studies of the crossing are underway and have not been completed. Sound Transit is working with the city to determine if South C Street could remain open to bicycles and pedestrians if it is closed to vehicles. They are considering an undercrossing because of the risks of crossing the track. Sound Transit is also working with the City of Tacoma to possibly connect it with the Water Ditch Trail.
- 61 [Forrest German] If there is an underpass, will a police car be able to go through it? *At East A Street, yes, an emergency vehicle less than 10 feet will be able to pass under. At South C Street, probably not because of the grades that need to be overcome to pass under the tracks, then rise to the level of 25th Street.*
- 62 [Douglas Tooley] The Water Ditch Trail is not South C Street. *The Water Ditch Trail is not well defined yet. The Tacoma Comprehensive Plan shows both South C Street and Pacific Avenue as part of the network.*
- 63 Keith Nakano showed the first scheme of the crossing in which there is a 12 foot wide serpentine path to get back up to elevation.
- 64 [Forrest German] South C Street is a big pedestrian thoroughfare. If we make it into a dead-end street that will be bad. As for the Water Ditch Trail, where does it go once it comes down South Tacoma Way? *The plan is to connect it to the Prairie Line.*
- Why does the trail go up and down? *The City is trying to tie the trail's route into the work of Sound Transit.*
- 65 [Douglas Tooley] Do a design that keeps options open in the future.
- 66 Keith Nakano showed another option for the crossing which would have a slightly wider path, not quite as many switchbacks and would still have a 20 foot elevation change.

- 67 [Keith Stone] For the South C Street crossing, you don't have the argument of grade like you do at East A Street, so why are you closing it at all? You have 17 other crossings that are at grade that you aren't worried about. *All the other crossings are being improved but they are located on relatively flat segments of track, not on this steep grade.*
- You have better sight distance at the South C Street crossing than you do at Alaska Street or Wilkeson Street. *In this case, we're concerned about the train operator's ability to see the crossing ahead. It's true that some buildings come close to the tracks in the other locations you mention, meaning that a vehicle driver will have reduced visibility up and down the track when approaching the crossing. However, our concern here is that if a car or truck is stalled on the tracks, the train operator would not be able to see that vehicle or have enough time to stop before hitting it. Additionally, cars and trucks that cross the tracks deposit contaminants on the rail, making it slippery, which can compromise safe train operation. We will be glad to share with you the results from our train operation simulations.*
- 68 [Ed Davis] We have been shown this 3-D computer model at the last few meetings and have been able to see different views of the design. Make a computer model of this section of track and put me in the cockpit of the train, and I bet you can see for a long ways. I haven't seen it yet, but that is what I think.
- 69 Mark Johnson reminded participants that if it weren't on a steep grade, we wouldn't be talking about closing South C Street. The people that have done these calculations have been doing simulations. He suggested that Sound Transit deliver the executive summary and results of the simulations to the committee.
- 70 [Forest German] Can we flatten that grade out for a thousand feet? *We'll look at that.*
- 71 [Rollie Herman] I have heard two things tonight that really bother me. First, that there was a meeting earlier today discussing the closing of East South C Street. Secondly, that the University of Washington Tacoma is going to allow Market Street to stay open but make it transit only.
- 72 [Chelsea Levy] That is not what I saw.
- 73 [Rollie Herman] We need more input from the city about what they are planning. This South C Street closing is affected by what happens with Market Street and what happens with Pacific Avenue. It is a Sound Transit problem but also a City of Tacoma problem. *I appreciate your comments. The Dome Area group is working on plans.*
- 74 [Darrel Bowman] The City needs to be responsible. There are all these different groups: the Thea Foss Waterway Development Group, the Dome District, Sound Transit. All of these plans are butting up against each other and no one is looking at them at an overall macro-view. We are looking at micro-views of chaos. The City needs to address this problem so we can develop this area of the city properly.

- 75 [Rollie Herman] The City may need to say which plans can and can't go.
- 76 [Jim Merritt] One thing that this city has in its advantage is its arterial grid and that can be beneficial for growth. We are emphasizing traffic numbers too much instead of understanding flow. I agree with Darrel and Rollie, there has to be a way to not let this happen.

PAC Roles and Responsibilities

- 77 Angie Thomson pointed out that this meeting was the transition from design charettes to monthly advisory committee meetings. A hand-out describing the PAC roles and responsibilities was distributed and Angie asked for feedback.
- 78 [Forrest German] As a PAC member, a lot of our decision making is within the parameters that we have. This plan doesn't address any of the problems we are dealing with tonight. On record to the City, we don't really have enough information to make good decisions. We cannot make good decisions without good information.
- 79 Chris Larson stated that he would bring more information about the different City plans at the next meeting.
- 80 [Chelsea Levy] What is really lacking from the City is a comprehensive planning process. There is no comprehensive transportation plan in the city.
- 81 [Douglas Tooley] As an outside observer, I would say you need to do the right thing. No matter how much paperwork it requires, you need to do the right thing. That is your job.
- 82 [Forrest German] The hard thing is that the City of Tacoma is not really supporting us. It is a battle the whole time. They do not address growth or infrastructure.
- 83 Angie Thomson thanked everyone for coming and reminded them that the next meeting was planned for Thursday, November 13. She said that future meetings would be from 4-5:30 pm in the Tacoma Municipal Building. Angie informed participants that they would be receiving the notes from this meeting, as well as the October 2 meeting, before November 13.

Meeting Attendees

Sound Transit Team

Mark Johnson

Jeanine Viscount

Keith Nakano

Tom Wilson

Adam Buckmaster

Angie Thomson

Adair Muth

City of Tacoma Staff

Chris Larson
Donna Slinger
Diane Wiatr

Lihuang Wung
Connie Corpez

PAC Members/Public

Chelsea Levy
Keith Stone
Marty Campbell
Ed Davis
Forrest German
Jerry Lechner

Tom O'Connor
John Lewis
Jim Merritt
Rollie Herman
Douglas Tooley
Darrel Bowman