

## Cumulative Articles on Lynn Peterson from February 2015 - February 2013

### *Booze-for-perks scheme alleged at Seattle tunnel site*

The KING 5 Investigators have uncovered allegations of inappropriate workplace activity on the SR 99 tunnel project, including getting perks on the job in exchange for alcohol.

Susannah Frame, KING 5 News 1:12 p.m. PST February 25, 2015

Allegations of unprofessional and unsafe behavior by some workers on the Seattle tunnel project were reported to the Washington State Department of Transportation last month.

The allegations were originally brought forth by an employee of the state's private contractor – Seattle Tunnel Partners (STP), which has a \$1.35 billion dollar contract with the state to design and build the tunnel. The employee, who has since quit the company, authored a four-page letter and sent it to WSDOT.

#### Worker letter alleges misconduct

The worker alleged that the environment created by the supervisors of a carpentry crew was hostile, discriminatory, and featured a quid pro quo system of needing to bring alcohol to the foreman in exchange for perks such as overtime, better shifts, and assistance with tasks at the job site.

"As I worked longer in the hole, I began to see how things worked. If anybody wanted extra hours or if sub-contractors wanted cooperation, they needed to bring...alcohol," wrote the worker.

In his letter, the worker said a supervisor and a handful of co-workers would occasionally report to work under the influence of alcohol.

"Another safety concern is employees working under the influence of alcohol. (The crew) would go to bars after work and drink until closing, take a cat nap then come to work early...They would show up to work drunk. This occasionally happened when they were working in the cut and cover but this behavior increased when they started working in the tunnel," he wrote in the letter.

#### KING investigation of allegations

KING 5 investigated the worker's claims by conducting lengthy and multiple interviews with seven other workers who were part of the same carpentry crew or who worked alongside them from other trades. The interviews were conducted independently with each worker, who all agreed to speak to KING on the condition of anonymity. They said they feared losing their job or being denied jobs in the construction field in the future if they spoke out on the record.

The seven other workers described having firsthand knowledge of similar inappropriate work site activities outlined in the four- page letter to WSDOT.

Four people told KING 5 they either brought bottles of alcohol, usually Grey Goose vodka, to a supervisor on the job site in exchange for extra hours, or they said they were encouraged to do so and declined. Another worker said he was offered Crown Royal whiskey by co-workers as a "thank you" for a job well done.

"Alcohol was being passed around for favors because you needed help on the job site," said one worker employed by an STP subcontractor. "If you want stuff done, you bring booze."

Another construction worker employed by STP detailed the process of how the bottles were exchanged. "I saw my co-worker bring bottles of Crown Royal in a grocery bag at least two times," he said. This worker said the bottles would be transferred from the supervisor's company car at the end of the shift into the supervisor's personal car.

"It's an 'I'll take care of you, you take care of me' atmosphere," said the current worker who witnessed the exchange of alcohol. "In 30 years in the trade, I've never seen anything like this...They (field managers) are on a power trip and like to bully."

"(My co-worker) got all the overtime and gravy work because he'd buy them gallons of alcohol," said a former employee. "I'm dumbfounded at the entire thing. I can't believe it....In 17 years in the business I've never seen such a hostile environment."

Four of the employees interviewed by KING 5 described seeing a foreman and a handful of coworkers intoxicated on the site.

"I saw them once or twice stumbling around," said one former employee. "I know when someone is drunk."

A current STP employee described seeing a foreman "out of it" on several occasions, but said the behavior had recently stopped. "You could totally tell. You could smell it, bloodshot eyes....he even bragged that he'd been up all night."

#### Top WSDOT officials involved

When the allegations first came to light, top officials from WSDOT got involved. Transportation Secretary Lynn Peterson was concerned enough about the allegations made in the letter that she scheduled a meeting with the employee's union representatives, but later rescheduled and conducted the meeting by conference call.

Following the call, WSDOT's deputy secretary and chief operating officer, Cam Gilmour, wrote the union representative in a letter dated January 15 to say the department was taking the concerns seriously.

"As a result of the call (with Sec. Peterson) we have a better understanding of your concerns," said Gilmour. "We have taken prompt action on the allegations...by sending our own letter to representatives of (STP)." Gilmour also described the situation as an "urgent matter".

STP finds allegations "without merit"

On January 20, STP responded to WSDOT in a five-page letter authored by Chris Dixon, the top STP manager on the project. Dixon reported that the allegations of alcohol-for-perks were unfounded. He did not address the allegations of impairment on the job.

"STP finds that the allegations are either not supported by the evidence obtained through investigations or are related to long past undocumented alleged events involving employees who are no longer employed by STP," wrote Dixon. "STP is committed to a safe, harassment free, working environment. STP has an obligation to investigate complaints and take appropriate actions when necessary."

Seattle Tunnel Partners is a joint venture comprised by two international construction companies - Dragados USA and

Tutor Perini Corporation. They currently employ 283 people on the tunnel project. Workers we spoke with say that Tutor Perini employees, not Dragados USA workers, were the ones engaging in the the inappropriate behavior.

#### Sexual harassment alleged

The original employee complaint sent to WSDOT also brought up accusations of sexual harassment.

"I would also like to bring to your attention to sexual harassment (at work)," wrote the employee. He described women receiving requests for provocative photos from a supervisor via late-night texts.

Five employees interviewed by KING 5 said women were harassed in their work area. Two employees reported seeing pornography displayed in what is known as a "dry shack" where crew members take breaks and eat lunch. They said the offensive photos have since been removed.

Others said they had firsthand knowledge of the inappropriate texts. One person who said he saw texts from a foreman to a female worker described the contents: "Yes I saw them.....(they were like) 'send me a picture of me in your swimsuit baby girl.'"

One woman told KING she felt "uncomfortable" on the job site because a supervisor had "overstepped his boundaries (with requests via text)."

In his response to WSDOT, STP's Chris Dixon also denied the allegations of harassment. He characterized those allegations as "hearsay" and said they hadn't received any other complaints of this nature.

"In summary, (STP's investigation) has found no evidence supporting the allegations...and thus considers these allegations without merit and therefore closed," said Dixon.

STP investigators fail to interview key employees

KING 5 has found the contractor's investigation did not include interviewing the employee who wrote the detailed letter which prompted their inquiry. Nor did STP interview any of the workers who spoke to KING, even though each one had firsthand knowledge of the allegations.

"I was never contacted, nor were the people that were directly involved, were they contacted either," one employee said.

"No one called me about anything," said a current STP employee with detailed knowledge of the behavior.

STP reported to WSDOT that one allegation was found to be true -- a foreman was suspended for five days over his role in a hostile shouting match with another worker.

KING 5 reached out to two of the supervisors cited in the employee's letter. One declined to comment, while the other said "they're all liars" before abruptly hanging up.

WSDOT, meanwhile, said it can't tell STP how to manage the behavior of its workers but Gilmour outlined other options for the employee who wrote the letter.

"As WSDOT noted in previous discussions with you, the Union may want to approach the Equal Employment Opportunity Commission and the Washington State Human Rights Commission to discuss these concerns," said Gilmour.

"Though WSDOT cannot comment on specific personnel issues regarding our staff or those working for contractors on WSDOT projects, we can state unequivocally that we are committed to a safe, harassment-free working environment. The safety and civil rights of all employees and contractors working on WSDOT projects cannot be compromised. STP reported to us that they follow the process outlined in the Project Labor Agreement (PLA) for allegations that are covered by the agreement. It is WSDOT's expectation that this process will be followed by STP until an issue is resolved," wrote WSDOT Communications Director Lars Erickson in a statement provided to KING.

One employee told KING 5 he's not surprised by STP's conclusion.

"Somebody makes a complaint and they try to cover it up or blame the person complaining," he said.

After KING 5 asked an STP representative about the company's failure to interview the letter's author or other employees with knowledge of the alleged incidents, they sent the following statement:

"Seattle Tunnel Partners values all of our employees and works diligently to ensure that all of our employees and subcontractors have a safe and healthy work environment, free from discrimination or harassment of any type or form. STP has created a culture of open communication at, and between, all levels of STP to ensure that all employees are able to freely raise concerns and complaints to anyone they desire. STP takes all worker concerns and complaints very seriously and immediately investigates complaints when they are brought to STP's attention.

After learning of allegations filed by an STP employee with WSDOT in January, STP took immediate steps to investigate the allegations. STP conducted a thorough investigation and determined that the allegations were either unsubstantiated or had already been resolved prior to being filed with WSDOT. STP did not receive complaints from any other STP employee regarding these allegations," wrote Rachel Bomker, STP Public Information Specialist.

-----

*Long-stalled Bertha crawls 6 feet toward repair pit*

Originally published February 18, 2015 at 8:58 pm

Updated February 19, 2015 at 9:40 am

Stalled for more than a year Bertha, the Highway 99 tunneling machine, has began churning again — toward the daylight of a deep repair pit.

By [Lewis Kamb](#)

Seattle Times staff reporter

She moved.

After more than a year, Bertha — the Highway 99 tunneling machine stalled beneath downtown Seattle — began her slow chew through 20 feet of concrete late Tuesday on her way toward the daylight of a deep repair pit.

And by Wednesday afternoon, the damaged boring device had moved more than 6 feet in all, state Transportation Secretary Lynn Peterson told state lawmakers. Project contractors Seattle Tunnel Partners (STP) “managed to move Bertha forward today,” Peterson told the Senate Transportation Committee. “... She’s now 6 feet through.”

STP started operating Bertha at 10:15 p.m. Tuesday as part of a rescue plan that requires the machine to mine through the concrete on its way to the 120-foot-deep access pit. Once inside, crews are expected to lift the broken part of the machine to the surface for repairs.

By 7 a.m. Wednesday, Bertha had managed to mine more than 3 feet, prompting the Washington State Department of Transportation (WSDOT) to issue a news release on the machine’s progress. By 4 p.m., when Peterson briefed the Senate committee, Bertha had moved another 3 feet.

“The machine is at an angle, so the first part of the move went through dirt on the lower end of the machine,” WSDOT spokeswoman Laura Newborn said in an email Wednesday afternoon. “The majority of the mining, however, has been in concrete.”

After the 2-yard trudge, contractors halted Bertha’s forward progress for the day to begin building a concrete support ring inside the tunnel — the 151st ring to be installed.

“Mining will resume after the ring has been built,” a WSDOT news release said.

Transportation officials have declined to say how long they think Bertha’s slow journey to the repair pit might take or how long it will take to fix the machine.

But because Bertha is damaged and prone to overheating, the trek is expected to go slowly. Bertha might also have to take periodic breaks along the way, should the machine become too hot, officials have said.

Contractors were keeping a close eye on Bertha’s heat levels Wednesday, Peterson told lawmakers. “Her temperature — everybody’s worried about her temperature,” Peterson said. “They are keeping it at a very slow, even pace as they go through this to make sure she does not overheat and to ensure there is no further damage to the machine.”

Bertha’s re-start is the latest screw-turn in the saga of the troubled Alaskan Way Viaduct replacement project, started in 2012.

STP’s \$1.35 billion undertaking aims to dig and construct a nearly 2-mile-long highway tunnel from Sodo to South Lake Union.

The tunnel contract is part of an overall \$3.1 billion project to replace the aging, earthquake-damaged viaduct, a key segment of the north-south highway corridor through Seattle.

When digging began, Bertha’s tunneling work was expected to be finished by last October, with the new tunnel scheduled to open to traffic by the end of 2015.

But so far, Bertha has only mined about 1,000 feet.

Custom-built for the project, the world’s largest-diameter tunneling machine first overheated on Dec. 6, 2013. The machine was shut down about 60 feet underground near Pioneer Square. STP later determined Bertha had a damaged rubber-seal system and main bearing. Since then, Bertha has moved only a few feet.

To repair the machine, STP dug and constructed the access vault to perform the needed fixes. Crews completed chipping a circle into the pit’s south wall Tuesday to allow Bertha an easier breakthrough when it eventually moves into the pit.

Once inside, repair crews plan to disassemble parts of Bertha before a giant crane hoists her 4 million-pound front end to the surface, Newborn said. The crews then plan to make alterations to Bertha’s cutterhead, and replace the bearing and damaged rubber seals.

Still to be determined is who will pick up the tab. Last year, STP requested \$125 million for the repair work, but the WSDOT denied that request, claiming it had “no contractual merit.”

Since then, STP has asked that the state pay an additional \$22.3 million for costs tied to excavating Bertha's repair pit. As of last Friday, the department said it was reviewing those change-order requests. As the project runs behind schedule, the WSDOT also disclosed last week that a section of the viaduct between South Main Street and Railroad Avenue South sank another quarter-inch in the past month. Damaged in the 2001 Nisqually earthquake, the viaduct has gradually settled since then, sinking by as much as 6 inches at Yesler Way.

Transportation officials have said the viaduct remains vulnerable to future earthquakes but remains safe for everyday use.

During her briefing to lawmakers Wednesday, Peterson noted, "The viaduct is being monitored, and there has been zero movement."

Transportation reporter Mike Lindblom contributed to this report, and material from Seattle Times archives was included. Lewis Kamb: [lkamb@seattletimes.com](mailto:lkamb@seattletimes.com) or 206-464-2932. Twitter [@lewiskamb](https://twitter.com/lewiskamb)

----

### *Deep bore tunnel project IS 70 percent complete, WSDOT insists*

Posted on February 10, 2015 | By [Joel Connelly](#)

Bertha, the massive tunnel-boring machine, arrived in July 2013 to begin drilling a 9,000-foot-long tunnel to replace the Alaskan Way Viaduct. The machine had gone 11 percent of the way when it was stopped and damaged in December 2013. But the Washington Department of Transportation insists that the Viaduct replacement project is 70 percent complete.

State overseers of the Alaskan Way Viaduct replacement, and the stalled Bertha tunneling machine, tried Tuesday to put the best face on their project, talking up the Seattle Port Commission with liberal application of makeup in the form of charts and optimistic figures.

"It actually is 70 percent complete," Todd Trepanier told the commissioners.

With Bertha stalled for more than a year — "As you know, the tunnel-boring machine is not currently boring," said Washington Transportation Secretary Lynn Peterson — WSDOT boasted of progress on the tunnel's south and north portals and even claimed that 16 percent of the bored tunnel is complete.

"Of those 30 (project goals), 21 have been completed, signified by the check marks you see on the chart," Trepanier told the commission.

When the project will be done, however, they could not say. The tunnel was slated for completion in 2015. A 14-month drilling schedule was predicted when Bertha arrived in July 2013. Now, however, Bertha has been stalled and damaged for more than 14 months.

"We cannot verify schedules with what Seattle Tunnel Partners is doing but we can talk about what has been done," Trepanier said.

And that was enough for the port commissioners. "My first question was going to be revised schedule, but I suppose you are off the hook on that one with your caveat," Seattle Port Commissioner John Creighton told Trepanier.

The commissioners did not show an instinct for the capillary, let alone the jugular, in their questioning. There was much talk of partnership, and Commissioner Stephanie Bowman chimed in with praise, saying: "I just want to compliment you on the updates you provide."

The port is justified in rooting for Bertha to get repaired and back to work. It has also committed \$281 million to the \$3.1 billion project, the bulk of which will kick in with a \$120 million payment in May, followed by a \$147 million commitment in May 2016.

The port is a multibillion-dollar business enterprise and needs to get cargoes in and out of the waterfront. "Some people don't like Seattle but they have to get through Seattle," explained Kurt Beckett, a senior port executive.

But the banged up Bertha, sliding completion dates and uncertainty over stability of the 1950-vintage Alaskan Way Viaduct has generated widespread doubt and public questioning.

The response on Tuesday echoed a line made famous by Lt. Frank Drebin, the police detective played by Leslie Nielsen in the movies: Nothing to see here.

The viaduct was damaged in the 2001 Nisqually earthquake, Peterson said. It is, however, important to keep the viaduct open, said Trepanier. "I can't promise," he added, "but there is no reason to believe we cannot keep the structure open."

"If we see any issue, we are on it," Peterson assured commissioners.

Bertha had drilled about 11 percent of the 9,000-foot-long tunnel when it was stopped and damaged in December 2013. Seattle Tunnel Partners has dug a 121-foot deep pit and created a "cradle" with which to repair the tunneling machine.

The state's latest projected opening for the tunnel is now the fall of 2017.

Until Bertha gets going again, the tunnel builders are "focusing on the first 450 feet," Trepanier explained. Again to the essential question, "Everyone wants to know about schedules. We cannot verify schedules at this time," he added.

-----

### *Two GOP senators propose bill to kill Bertha*

Danielle Leigh, KING 5 News 11:11 a.m. PST January 27, 2015

SEATTLE - Two Republican lawmakers have proposed a bill to stop the Seattle tunneling project.

In their bill, state Senators Michael Baumgartner and Doug Erickson wrote, "... the state route number 99 Alaskan Way viaduct replacement project has failed."

Baumgartner, who is from Spokane, said other transportation projects could be left in jeopardy if the state keeps pouring money into Bertha.

He said the state has already spent about \$2 billion on what was supposed to be a \$3 billion project.

That project was supposed to be finished in December of this year, but it's now not scheduled for completion before August 2017.

The project has been plagued by problems from Bertha – the tunneling machine that malfunctioned and is currently stuck underground -- to concerns about groundwater, the soil and settling near the construction area.

"I don't think anybody in the legislature would invest their own money into Bertha. So, why should we invest the state tax dollars into Bertha?" Baumgartner said.

His bill, SB 5646, would stop the project and use any remaining funds slated for it to research an alternative proposal to replace the Alaskan Way Viaduct.

This bill follows a tough meeting between the Washington State Department of Transportation and lawmakers that focused, in part, on whether the project was on the right track.

"We have been working on our oversight to make sure that is indeed occurring," said Transportation Secretary Lynn Peterson.

In a statement, Nick Harper, director of the Seattle's Office of Intergovernmental Relations said, "The City wants to be a good partner to WSDOT as it continues to work with its contractor, Seattle Tunnel Partners, to move this project forward. It's still early in the session, a lot of bills get introduced, and it will be interesting to see if this bill makes any headway in the legislative process."

The bill still has a long way to go before it can become law. It has to pass the Transportation Committee before it can go to the floor for a vote.

-----

### *WSDOT Should Pay Seattle Tunnel Contractor for Groundwater Troubles, Dispute Board Says*

01/23/2015

## Seattle Times (WA)

Jan. 23 --In a decision that foreshadows a long tug of war for taxpayer dollars, a dispute review board says Washington state should pay its contractors for tackling severe groundwater flows at the Highway 99 tunnel machine's launch pit in Sodo.

Seattle Tunnel Partners (STP) seeks \$20 million, according to a change-order request filed two years ago, which the state denied.

The dispute board didn't say how much the Washington State Department of Transportation (WSDOT) owes, only that it should shoulder the bill because groundwater conditions differed from data the state gave contractors.

Fortunately for WSDOT, the \$1.44 billion tunnel-construction contract already contains a \$40 million fund for unexpected soil conditions and major interventions, such as breaking boulders in front of tunnel-boring machine Bertha.

"This can be paid for without what is considered a cost overrun in the budget," said Todd Trepanier, the state's Highway 99 administrator, at a House Transportation Committee meeting Thursday afternoon. But other struggles are on the way. This month's recommendation proves that the state can't continue to presume taxpayers will be safe from cost increases. Bertha has been stalled near Pioneer Square for more than a year, awaiting repair.

The dispute-board opinion is an early step among many, which could include negotiations, arbitration or lawsuits to determine who pays for added costs.

Last April, Trepanier told The Seattle Times there "would be a very slim chance" taxpayers wind up covering STP's change-order requests, which at that point were \$190 million.

He took a more nuanced line Thursday: "Even with this being a design-build contract that transfers risk to the contractor, there will still be disputes. There will still be disputes and a need for a way to solve them," he told lawmakers.

Change-order requests by STP have reached \$210 million, including \$125 million STP seeks for Bertha's repairs and delays, Trepanier told lawmakers. The state holds \$144 million in contingency and intervention funds, he said.

Rep. Jesse Young, R- Gig Harbor, asked an uncomfortable question: If \$20 million is slipping away, what happens after \$210 million in claims, if the state losses exceed the tunnel's reserves?

That prompted Chairwoman Judy Clibborn, D- Mercer Island, to ask that members take detailed questions "off-line" after the hearing.

Trepanier replied that the state has already denied three-fourths of the money contractors requested.

He reiterated the state will continue to hold STP responsible for fixing its broken tunnel drill, which overheated as the seals on its main bearing failed Dec. 6, 2013. Hitachi-Zosen, which built the \$80 million machine, is currently funding new parts and repair work, STP project manager Chris Dixon has said.

But at the Sodo launch pit, the dispute board sided with contractors, who cited "differing site conditions." In other words, the groundwater's behavior differed from the data WSDOT supplied before tunneling began.

Seattleites know the city's history, that the industries and stadiums south of downtown were built over weak fill soil, where the Duwamish River flowed through tideflats into Elliott Bay.

"It was very clear to all, in all the contractual documentation, that the area had a lot of groundwater in it," said Matt Preedy, deputy Highway 99 program administrator for WSDOT.

However, the board accepted the idea that "the various [groundwater] strata are in different locations than what had been portrayed," he said.

Several months ago, ponds of water formed at the floor of the tunnel's south operations building site, mostly underground between CenturyLink Field and the tunnel's south entrance. Besides extensive pumping there, STP encountered leaks in the launch pit itself, where a cut-and-cover roadway slopes toward the future tunnel.

But the dispute board earlier sided with WSDOT in another matter, saying contractors should absorb the \$5.5 million cost to strengthen the foundations of the old Alaskan Way Viaduct, where Bertha would eventually pass beneath at Yesler Way.

There was some good news Thursday: Workers have excavated 106 feet of the 120-foot-deep access vault near South Main Street, where a giant red crane will hoist Bertha's front end to the surface for

repairs. Despite the digging and groundwater pumping there, the soil settlement in nearby Pioneer Square has remained stable since Thanksgiving at around 1 inch, Trepanier reported. He also said STP is hiring more minority- and women-owned businesses, awarding some \$50 million in subcontracts to date toward the \$90million target. A year ago, the federal government issued a scathing civil-rights report, and state Transportation Secretary Lynn Peterson declared STP in breach of contract, for failing to hire enough "disadvantaged business enterprises," such as small trucking firms. The state didn't release the dispute-resolution board's recommendation to The Seattle Times , saying lawyers are reviewing the document. The view of the three-member panel of independent tunneling experts, chosen and funded by the state and STP, will likely carry weight in any lawsuit down the road. Rep. Clibborn , a key backer of the 2009 bill choosing a deep-bore tunnel, complimented Trepanier and WSDOT Chief Engineer Linea Laird on Thursday. "Thank you for keeping a cool head. Thank you for staying the course. We expect to get it done. We expect to get it paid for, without the taxpayers taking a huge hit," Clibborn predicted. Mike Lindblom : 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com) . On Twitter @mikelindblom

### *Who's Paying for Bertha's Overruns Again?*

by [Sydney Brownstone](#) • Jan 8, 2015 at 3:59 pm

#### WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

The Tacoma News Tribune says that the state isn't paying for any Bertha overruns. State officials say Seattle isn't paying for cost overruns. SO WHO'S PAYING FOR COST OVERRUNS?

The Tacoma News Tribune ran an anxiety-inducing editorial earlier this week. The headline for the piece read, "[Law is clear: Bertha overruns are not state burden,](#)" and it argued that the state shouldn't be responsible for paying any cost overruns—even if the tunnel contractor doesn't absorb them.

Not quite as forthright as "[You're about to get fucked, Seattle,](#)" but okay. As evidence, the TNT's authors dredged up the 2009 decision from the legislature that put a \$2.8 billion cap on tunnel spending from the state. And while acknowledging that Governor Inslee has said the requirement is unenforceable, the editorial also issued this coded threat: "If things turn out badly beneath Seattle, state lawmakers will have to teach a refresher course on the original deal."

Wasn't that refresher course supposed to have already been taught, with different lessons? Mayoral spokesperson Jason Kelly reminded us that both "the Seattle City Attorney and the state Attorney General have said the legislature's provision to push cost overruns onto to the city is unenforceable."

But the TNT also argued that the only people who say it's unenforceable need Seattle votes. Non-Seattle legislators might have other priorities.

State Department of Transportation spokesperson Lars Erickson forwarded along a statement that still stuck to holding the contractor to the overrun issue. "The City of Seattle is not providing funds toward the tunnel project," the statement read. "There are other ways to access the machine and if the contractor changes course, they will assume the risk associated with that choice."

But that 2009 law is still on the books. And, as my predecessor Dominic Holden pointed out in [his 2010 piece on cost overruns](#), this could turn into a legislative fight. (But not before it potentially turns into a fight between the contractor and WSDOT.)

If it does, House transportation chair Judy Clibborn (D-Mercer Island) seems to strike a clear tone about keeping Seattle out of the line of fire. When The Stranger reached out for her take, she issued a statement that warned against early speculation regarding the cost overruns. "However, if there are cost overruns, Seattle will not be the one paying them," the statement read. "The legislation states that they will be borne by the region that benefits from the tunnel project. Given the significant implications for statewide trade and commerce, that means the State—not Seattle—is legally responsible."

Encouraging, somewhat.



UPDATE: Not so fast! Senate Majority Leader Mark Schoesler (R-Ritzville) just sent along a statement that attempts to contradict much of what I just wrote: "State taxpayers are not responsible for cost overruns. Transportation Sec. Lynn Petersen has assured lawmakers that is the WSDOT position. House Speaker Frank Chopp and former state Sen. Ed Murray were instrumental in making sure those guaranteed protections were in the contract."  
It's gonna get ugly.

----

### *Tentative Highway 99 tunnel opening: August 2017*

Posted by [Mike Lindblom](#)

The Highway 99 tunnel schedule will absorb another eight months of delay — not opening until August 2017, according to an a tentative schedule released Monday.

Seattle Tunnel Partners gave that estimate in [an Oct. 31 schedule chart](#), which was released Monday by the Washington State Department of Transportation. That would increase total delays to 20 months beyond the original goal to serve traffic in the four-lane, tolled tunnel at the end of next year.

[The state also announced](#) some good news, that soil settlement in the historic Pioneer Square area is probably less than the 1.4 inches that WSDOT described last week and that no structural damage was found in examinations of 50 buildings. A few showed "cosmetic damage," such as doors and windows sticking, an official update said.

Among other effects, more delays mean that bus riders and drivers entering Seattle on Aurora Avenue North will suffer longer through the bottleneck at Valley Street, where the state and city governments say only two general lanes each direction can be provided until tunnel machine Bertha completes its job.

As of Monday, crews along the waterfront have dug 90 feet of the 120-foot deep access vault, which will be used to lift and repair the front end of Bertha, the stuck tunnel-boring machine. A mammoth red crane has been erected by the Mammoet company next to the Alaskan Way Viaduct, to lift the broken part to the surface.

Chris Dixon, project manager for STP, disclosed a new issue with the vault, causing excavation to halt until early January. A few vertical pilings, designed like a wall to contain concrete grout, have shifted out of plumb, so it's difficult to inject "interstitial grout" between the nearby pilings.

Five pilings, shown in brown, must be replaced so that grout will fill the ring snugly. (STP image)

A tight seal is needed so that the ring-shaped vault will reinforce itself against massive soil and groundwater pressures. It's a safety issue, as well as essential for preserving the vault, which has no internal bracing. Five of these pilings must be removed.

The state DOT emphasized that it cannot provide any specific completion date, given that repairs to Bertha haven't begun yet. A week ago, Transportation Secretary Lynn Peterson did not mention the August 2017 opening date in a City Council hearing.

August 2017 would be four years after Bertha began digging at Sodo, only to halt some 1,025 feet into the 9,270-foot route from Sodo to South Lake Union.

"The one thing we can say for certain is the TBM (tunnel boring machine) is going to be repaired, and we will finish the tunnel drive, and open the tunnel to traffic," Dixon said.

Matt Preedy, deputy administrator for the state's Highway 99 project, said that until the 2,000-ton front end of Bertha is fixed, any schedules should be considered tentative.

Both men declined to discuss the total costs of delays and repairs, or who will pay what share, except that Dixon reiterated that Berthamaker Hitachi-Zosen of Japan is paying to retrofit the tunnel machine. They said the focus now is on restarting the dig.

----

*The Tunnel Project Is Not 70 Percent Done*

by [Heidi Groover](#) • Dec 17, 2014 at 2:27 pm

#### THE STRANGER

Some people are saying the downtown Seattle tunnel project is 70 percent done. That's bullshit. The tunnel is not 70 percent dug, and the overall viaduct replacement project is nowhere near 70 percent complete.

Remember on Monday, when the Washington State Department of Transportation and Council President Tim Burgess told us all to [just calm down about the tunnel already because it's mostly done?](#)

"The vast majority of the replacement of the viaduct is complete—in fact 70 percent done and on the ground," WSDOT secretary Lynn Peterson told the city council.

"The tunnel project is 70 percent completed, according to WSDOT, so there's no turning back at this point," Burgess wrote in a press release soon after.

Anyone who's been paying even casual attention is wondering how this project—in which a tunnel boring machine has dug only 1,000 feet of a two-mile tunnel and is now stuck underground with no certain rescue date in sight—can be so close to the finish line.

The answer is that it's not. WSDOT is misleading you by omission.

There is only one way to calculate that the tunnel project is 70 percent done, and that method leaves out a lot of important (and expensive) facts. To get to the 70-percent-done figure, you have to look only at the state's \$1.35 billion contract with Seattle Tunnel Partners, the group designing and building the tunnel. According to WSDOT, about 70 percent of the work included in that contract is done and, expectedly, that means 70 percent of the money has been spent. Even though Bertha's been stuck, WSDOT says the tunnelers have been working on all the other things they're responsible for in an effort not to get too far behind schedule.

"There is a tremendous amount of work that has already been completed at either end of the project. The concrete tunnel liners have all been manufactured and await the machine's repair," says WSDOT spokesperson Laura Newborn in an e-mail. "The tunnel contract is 70 percent complete, even though the tunnel itself is 10 percent complete." (Actually, if only 1,000 feet of the two-mile route has been dug, the tunnel itself is only 9.5 percent complete. But I'll let her round up on that one.)

But look at the bigger picture.

The design-build contract with STP is \$1.35 billion of the state's overall \$3.1 billion project\*, according to Newborn. The rest of that state money—in other words, a still-to-be-spent \$1.75 billion in taxpayer dollars—will pay for stuff we haven't even started yet, including tearing down the Alaskan Way Viaduct, building the new street that will go where the viaduct is now, and decommissioning the Battery Street Tunnel.

Let's do some math. If we're 70 percent done with the \$1.35 billion chunk of work, that means about \$945 million worth of tunnel-building has been done. How much of the total project (\$3.1 billion) is that? About 30 percent. So we're not 70 percent done with the state's project of replacing the Alaskan Way Viaduct with a tunnel, and then revamping surface streets in the area. In truth, we have about 70 percent of the way left to go.

\*I'm using WSDOT's total here since they're the ones making this claim. They're overseeing \$3.1 billion of work. But it's worth noting that that doesn't include hundreds of millions of dollars in additional costs to the city to [rebuild the seawall](#) and [relocate utilities](#).

----

*Public needs straight story about tunnel project's issues*

Dec 17, 2014

Downtown Seattle is undergoing that sinking feeling, literally and metaphorically. The troubled Highway 99 tunnel project that is supposed to replace the Alaskan Way Viaduct has found even more trouble upon news that work to repair the stuck tunnel-boring machine may be causing the ground — and the structures that sit on it — to “settle,” aka sink.

This is the apparatus known as Bertha, stalled for more than a year now after leaky seals allowed grit to gunk up its gears. Bertha rests about 120 feet below Pioneer Square, and the fix involves digging a vertical shaft into soils that contain massive amounts of groundwater — which means pumping that water into Puget Sound to relieve pressure. Engineers say the pumping may be causing the ground to sink; at last report, the ground has settled up to 1.4 inches over an area that includes a number of buildings and the elevated viaduct that the tunnel is scheduled to replace.

The good news, such as it is, is that the ground is sinking consistently across the affected area, which has less impact than if individual structures were sinking and others weren't. The bad news is that it took awhile for the news to reach people who needed to know about it — in particular the Seattle City Council, which found out about the sinking through news reports and not from the state Department of Transportation.

WSDOT officials had given a presentation to the council several days before the news broke without any indication of the new developments. The Seattle council did get an update Monday; it appears a major water main will need to be replaced, and the WSDOT officials have apologized for not being more forthcoming about the settling. State Transportation Secretary Lynn Peterson told the council that the tunnel project is “70 percent is done and on the ground,” when accounting for portals and other aspects of the project. But her statement prompted further questions from council members about a proposed 9,270-foot tunnel that itself is 11 percent bored and not moving any closer to completion.

Recall that this is an agency with a troubled recent history on major westside projects — leaking pontoons on the State Route 520 bridge and misaligned freeway ramps in Tacoma come to mind. In fairness to Peterson, these problems predate her tenure, which began in 2013, as does the decision to replace the viaduct with a tunnel. But just as civil engineering calculations have tight tolerances for error, so does the WSDOT have little room for political maneuvering with the stalled underground project. And the timing for the latest Bertha miscue is most unfortunate.

Next month, the Washington Legislature will convene with transportation being a major order of business. The westside wants to address commuting issues, while eastside business interests are keen to ensure smooth transport of goods through westside ports. Any major projects likely will involve tax increases of some sort, and legislators at the very least will have to justify their votes — or argue for voter support should a referendum put a gas-tax increase on the ballot, as occurred in 2005.

Transportation improvements are essentially to our state's economy, but a skeptical state electorate must be persuaded that the billions now allocated are well-spent before it agrees to spend billions more. The public is well aware that Bertha has problems; the interests of both WSDOT and the public are served when the agency gives us the straight story about what is happening.

• Members of the Yakima Herald-Republic editorial board are Sharon J. Prill, Bob Crider, Frank Purdy and Karen Troianello.

*Guest: WSDOT explains the settling, liability and safety of the Highway 99 tunnel project*

Originally published December 14, 2014 at 6:07 am Updated December 15, 2014 at 2:46 pm

By Lynn Peterson

WE knew digging the world's largest bored tunnel beneath Seattle wouldn't be easy. That's why the state Legislature chose a different approach in 2009 when it passed legislation that required the Washington State Department of Transportation to incentivize the contractor to encourage on-time delivery of the project while minimizing the potential for cost overrun. To accomplish this, WSDOT entered into a contract, which gave responsibility to the contractor to design and build the tunnel, including the [tunneling machine](#). That placed the majority of the risk on the contractor.

It is incumbent on the state and the city to ensure public safety along the tunnel route, and it is up to the contractor to fix Bertha and get the tunnel done.

With the recent earth settlement near the repair site for Bertha, people are asking questions that are both timely and valid, including those in a [Dec. 9 Seattle Times editorial](#).

At what point does the viaduct become unusable?

Our bridge experts have confirmed that the viaduct remains safe for day-to-day use. If we had any reason to believe it isn't, we wouldn't hesitate to close it. This does not change the fact that the viaduct remains vulnerable to earthquakes. That's why it's being replaced.

All structures are designed to withstand some settlement and we expected some on this project. It's challenging to explain in general terms how any ground movement is acceptable. In the case of the viaduct, no one number represents an acceptable level — limits vary along the length of the viaduct based on ground conditions and the condition of the structure. How the ground settles is also important. A structure that settles uniformly is less likely to be damaged than a structure that settles unevenly. If necessary, techniques could be used to strengthen the viaduct and keep it open to traffic until the new Highway 99 corridor is completed, including strengthening columns to provide additional support and reinforcing the viaduct's foundation.

How viable now is the plan to get Bertha restarted?

We're disappointed with Seattle Tunnel Partners' progress to date, and we can't guarantee it will meet its schedule milestones. A preliminary review showed its plan to restart Bertha would likely work. But an expert technical team is awaiting more information from the contractor once the machine is brought to the surface to provide us with feedback on STP's plan.

The nature of our contract places the risk to resume mining squarely on STP. That's why we denied the change order they submitted related to the tunneling stoppage, and why we believe that problems related to their repair efforts are not the responsibility of Washingtonians.

What are the other options if the 120-foot pit cannot be dug without destabilizing the viaduct?

There are other ways for STP to access the machine, both through the pit and through the tunnel. At its core, this is an engineering problem, one that can no doubt be solved. The current plan was simply chosen by STP for reasons of cost and expediency. If it changes course, deciding the best path forward — and assuming the risk associated with that choice — will be up to STP.

What is the state's financial exposure in this tunnel contract?

The answer to this question goes back to the way this contract is structured. A design-build contract gives the contractor greater opportunities for reward if things go well, but it also requires the contractor to take on a greater share of the risk. As a result, the contract is perhaps the most important tool we have on this project: protecting taxpayers.

I would be remiss if I didn't address the main issue raised by The Seattle Times editorial — that we've struggled to communicate with our partners. It's been nearly five years since plans to replace the viaduct with a bored tunnel were announced. The focus then, as now, was on coordination. All of us are in this together — state, county, city and the Port of Seattle. We have to be. That's the only way to make this vision, so long in the making, a reality.

Not including the countless meetings and both formal and informal communications with city officials and their staff, in the year since tunneling stopped we've sent 41 project updates to them as well as to state and local elected officials.

Even when challenges or misunderstandings arise, the truth is that we all want the same thing: safety for the public, protection for taxpayers and daylight for Bertha.

Lynn Peterson is secretary of the Washington State Department of Transportation.

Lynn Peterson

---

*WSDOT agrees to pay \$500K to settle suit*  
*Former employee alleged gender discrimination*  
By Eric Florip, Columbian transportation & environment reporter  
Published: November 27, 2014, 2:43 PM

The Washington State Department of Transportation has agreed to pay \$500,000 to settle a lawsuit filed by a former employee who alleged gender discrimination within the agency's regional office in Vancouver, according to the law firm who represents the woman.

Sharon Zimmerman worked for WSDOT from 2008 until early 2012, holding various management positions. During that time, Zimmerman encountered a hostile work environment, wasn't given the same standing as her male counterparts and was relieved of some of her management duties after she filed a formal complaint, according to the lawsuit filed in Clark County Superior Court in 2012.

The move amounted to a retaliatory action, Zimmerman alleged, "sending a clear message that any employee who stands up for her legal rights will be subject to retaliation and hostile work environment," according to the lawsuit.

In its response filed with the court at the time, WSDOT denied discriminating against Zimmerman. The agency this week declined to comment specifically on the case or the resulting settlement.

"We take all claims of inequality seriously and take action as appropriate," WSDOT spokesman Lars Erickson said in an email. "We are committed to providing a discrimination-free workplace."

Zimmerman claimed much of the gender discrimination she faced came from her subordinates. She said her complaints were either ignored or not addressed properly, and nothing was done to improve the situation.

Zimmerman left WSDOT in January 2012 after being "constructively discharged" based on medical advice against returning to the work environment, according to her attorney Stephanie Bloomfield. The agency characterized her departure as a "voluntary resignation" at the time.

WSDOT ultimately agreed to pay Zimmerman \$500,000 to settle the lawsuit in August, according to Bloomfield. The agency also agreed to provide a positive letter commending her service and take several steps to address her concerns. Zimmerman also recently met with WSDOT Secretary Lynn Peterson, according to Zimmerman's attorney.

"I couldn't just leave and not do something," Zimmerman said in a statement. "To do that would be to accept that what I experienced is okay and embolden the men responsible to continue this kind of conduct."

----

*Region's commute times worsen*

Originally published October 21, 2014 at 4:36 pm Updated October 21, 2014 at 6:46 pm

By [Mike Lindblom](#)

If you're serious about driving Interstate 5 from Everett in time for work in Seattle, you need to reach the freeway 18 minutes earlier than three years ago.

That should be no surprise to North End drivers who on Monday morning endured backups of more than nine miles, after a truck crash and fuel spill near Northgate.

Increasing delays are documented in the state's annual [Corridor Capacity Report](#). For I-5 commuters, annual delay per person increased three hours from 2011 to 2013 — from a total 5 hours, 27 minutes, to 8 hours, 40 minutes.

And the “reliable” travel time for that Everett-to-Seattle drive, for solo drivers to be sure of reaching work on time 19 out of 20 days, has increased from 62 minutes to 80 minutes. Average travel time increased, too, from 40 minutes to 50 minutes.

To some extent, traffic jams reflect the state's economic boom, centered on the nation's fastest-growing city.

Strangely, traffic got slower even though vehicle miles traveled didn't change. How is this possible?

“I don't have a great answer to that,” said Sreenath Gangula, lead systems analyst for the Washington State Department of Transportation. “The root cause is, there's only so much capacity.”

But he has found that congestion begins before daybreak because drivers are leaving earlier for work.

In the Federal Way-to-Seattle corridor, for instance, average speeds fell below 51 mph as early as 5:40 a.m. last year, whereas cars could stay near the 60-mph speed limit until 6:30 a.m. in 2011, he said. Peak traffic still lasts beyond 9 a.m.

“A lot of traffic is hitting the system early on, reducing the speed significantly,” said Gangula.

Likewise, the state has documented a long-term change in afternoon traffic. The southbound I-5 Ship Canal Bridge congests about 1 p.m., instead of two or three hours later.

Another possibility is that more people drive the busy commute routes while cutting back on other trips, keeping total miles down.

Mark Hallenbeck, director of the Washington State Transportation Center at the University of Washington, likes to cite [the “Wile E. Coyote” effect](#). Traffic runs along just fine — until suddenly it drops off a cliff, as in the cartoon. When a system is stretched as tight as Seattle highways, one crash or stall can stifle highway capacity for miles.

Other theories abound:

- Highway 99 has been reduced from three lanes to two in each direction on Aurora Avenue North, where the Seattle Department of Transportation (DOT) is slowly building a new Aurora overpass above the new, two-way Mercer Street. And in Sodo, only two lanes per direction pass the Highway 99 tunnel construction zone.
- Traffic congestion is a leading indicator that is showing up sooner than other measures of economic growth, said Jim Bak, spokesman for the Kirkland-based INRIX traffic information company. Slowdowns for all Seattle-area driving have increased 6 percent in the past year, he said. “This is not about anything else. This is about the economy,” he said.
- Tolls on the Highway 520 bridge have mixed effects. Traffic there is faster while traffic on untolled I-90 is slower, as drivers divert. Drivers going south toward downtown Seattle face less congestion from drivers weaving onto Highway 520 at the Ship Canal Bridge or weaving from 520 to Mercer Street. But a mile south, there's more weaving from downtown to I-90, making the right lanes slower, said Hallenbeck.
- Lack of roadway. “The major freeway projects in the area are not adding any new general capacity but cost billions,” said Bob Pishue, transportation analyst for the Washington Policy Center, citing the Highway 99 tunnel, Highway 520 replacement and future light rail on the I-90 bridge.
- Adding roadway. Temporary lane shifts or losses on I-405 near Kirkland, where future high-occupancy or toll (HOT) lanes are being built, are one cause for delays that have worsened by one-third from Lynnwood to Bellevue, Hallenbeck said.
- Deteriorating highways. A passing truck [pulled up a loose expansion joint](#) on May 29, closing I-5 from Sodo back through North Seattle. Steve Mullin, president of the business group Washington Roundtable, cited that incident to argue that lawmakers in 2015 should pass a multibillion-dollar transportation package — including \$1.25 billion to \$3.4 billion for maintenance.

Things would be worse if not for high-occupancy lanes, Gangula said.

At Northgate, the two HOV lanes carry 33,900 people per direction during the six hours from 6 to 9 a.m. and 3 to 6 p.m., almost as many as the 44,900 in all the general lanes combined. Some 14 million annual transit riders keep the buses 79 percent full in the I-5 corridor, the state reported.

“Transit plays a major role in at least keeping everything in check,” Gangula said.

Statewide, population increased 1.7 percent from 2011-13, to 6.89 million people. Jobs increased. Yet vehicle miles traveled (VMT) per person dropped 1.2 percent and overall miles traveled increased 0.4 percent, the report says.

State Transportation Secretary Lynn Peterson sees good news in those numbers. They show that people are opting to make shorter trips, or they spend more time in compact, walkable neighborhoods, she said. “The fact that VMT per capita is stabilizing, it is a success,” she said.

But she emphasizes: “There are more people moving here every day. Because of that, demand for trips isn’t going down.” The long-range future is hard to predict, she says, because of emerging technologies such as self-driving cars.

What has disappeared is a perpetual stream of rising gas-tax money to build more highways. [In their latest report](#), the state’s economic forecasters predict total miles driven in the state will grow less than 0.5 percent a year through 2020, then slowly wane. That is a cultural change; miles driven increased 4.5 percent a year from 1966-90.

Clark-Williams Derry, deputy director for Sightline Institute, points to another reason for what he calls “peak driving.” The roads have run out of room.

“And then there’s the fact that congested roads actually carry fewer cars per hour — so congestion may be in a very small way contributing to the decline in VMT.”

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter [@mikelindblom](https://twitter.com/mikelindblom)

Mike Lindblom : or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com)

On Twitter: [@MikeLindblom](https://twitter.com/MikeLindblom)

---

### *The specter of Seattle paying tunnel cost overruns, again*

Posted by [Jonathan Martin](#)

Seattle City Councilmember Mike O’Brien

The specter of Seattle being on the hook for Highway 99 tunnel cost-overruns has been repeatedly raised (see: McGinn, Mike, former mayor) and [repeatedly debunked](#), according to Seattle Times news reports.

But you can’t blame tunnel opponents like Seattle City Councilmember Mike O’Brien for raising them once again, with tunneling machine Bertha shutdown for a month.

At a council hearing Monday focused on the tunnel and the Seattle seawall, O’Brien conceded that the state was on the hook for the tunnel itself. “From the city’s perspective, I feel comfortable for now that is your deal,” he told Washington State Department of Transportation secretary Lynn Peterson.

But O’Brien noted there are other side deals between the city and state on the massive \$3.1 billion project. Namely, the \$290 million contract, paid by the state, to decommission the Battery Street tunnel, tear down the viaduct and replace Alaskan Way.

Is DOT “fully committed” to preserve that \$290 million for that portion, even if Bertha blows her budget, O’Brien asked. DOT project administrator Todd Trepanier gave less than an absolute yes. “What is happening with this machine now, or what will happen at other times, the intent is not to take money that is set there... to complete this project.”

What Bertha dug, before she stopped (Washington State Department of Transportation photo)

Holy non-committal! That sort of squishy answer is the stuff that fueled the 2009-10 era debated over a Legislative amendment which makes Seattle a partner in cost-overruns. It was debunked as unenforceable because it is a state project. Yet it lives on.

What makes O'Brien's question relevant again is that the state DOT is potentially doing that sort of budget-shifting right now with the Highway 520 project. To deal with the \$170 million cost-overrun caused by the cracked bridge pontoons, DOT Secretary Lynn Peterson planned to issue more bonds against toll revenue, wiggle room allowed by the very good interest rates on existing 520 bonds. The problem, as O'Brien sees it, is that toll-bonding capacity could have been used to pay for the \$1.4 billion west side landing of 520, which hasn't been funded.

"What it means is the hole they have on the west side just got deeper," O'Brien told me.

That anxiety is worsened by the Legislature's inability to reach agreement on a statewide transportation. Full funding for the 520 west side is in the Senate version, but the Senate can't even muster the will to vote for it.

Apply this scenario to the Highway 99 tunnel. The Bertha-dug tunnel is equivalent to the cracked pontoons, eating up the project budget. The Viaduct tear-down is the 520's west side landing. What if there's no money left for the second part? Senate Republican Leader [Mark Schoesler](#) of Ritzville, asked about it before this Legislative session, had an answer: Seattle pays. "The law is the law," he said. For Seattle to actually be on the hook requires a lot of catastrophe and for Inslee, among others, going back on their word. It would be a huge geo-political fight in Olympia. Don't think it's going to happen. Just saying it's a scenario.

Here's what's ironic about O'Brien's concern: Seattle itself is doing exactly the same budget-shifting game. The \$30 million cost-overrun on the Seattle seawall project is coming out of a related portion of the project to rebuild Piers 62 and 63. Instead of \$50 million for the rebuild, Seattle now has \$20 million, and hasn't said a peep about how it will finish the piers.

----

***State DOT boss: Ferry operations chief was 'belligerent' toward her***

Originally published September 4, 2014 at 2:38 pm Updated September 4, 2014 at 4:46 pm

Secretary Lynn Peterson's reprimand letter is released to the newspaper.

By [Mike Lindblom](#)

State Transportation Secretary Lynn Peterson formally reprimanded the operations director of state ferries, saying he disrespected her during a phone conversation in June.

Steve Rodgers, a 42-year employee, is on paid administrative leave, creating a gap in upper management for a ferry system that has endured a number of mishaps in recent months.

[Peterson's letter of reprimand to Rodgers](#) is dated July 3. That same day Rodgers [was ordered home on leave](#) in a memo from deputy transportation secretary Cam Gilmour, who did not specify the reasons.

The move came after the state's unsuccessful attempt to recruit a new ferries director to replace David Moseley, who retired in April.

The reprimand letter and personnel files were released Wednesday to The Seattle Times, in response to a public-records request.

On June 17, Peterson told the entire Washington State Ferries (WSF) staff through email she was reopening the hiring process. Capt. George Capacci, interim director, had withdrawn from consideration the previous weekend, and Peterson chose not to hire the other finalist, former Pierce County Executive John Ladenburg, her message explained.

Within minutes, Rodgers replied to Peterson via email: "Considering the union pressure and influence in Olympia they have I doubt this is entirely true."



Peterson called Rodgers. Her reprimand letter describes Rodgers' attitude during the phone conversation as "belligerent, challenging and unprofessional." She wrote that Rodgers told her during the conversation that "unions only have my [Peterson's] ear," and that she did not listen to management.

The "union pressure" remark in Rodgers' email is an apparent reference to a pro-union letter that urged Peterson to reject Capacci for the top job. A letter signed by five captains — union members in the International Organization of Masters, Mates & Pilots — blamed Capacci for pushing an "anti-labor agenda" that harmed morale, and for downplaying the issue of boats designed with a slight lean (they've since been leveled). The five captains urged Peterson to choose the other finalist, Ladenburg. Capacci later said in news interviews he pulled out for personal reasons.

Peterson's reprimand of Rodgers concluded with several directives, such as "Support efforts of creating a positive work environment" and "Refrain from emotionally reacting, and instead react with strategy and calmness."

A second recruitment effort for a ferries chief is under way. It attracted more than 80 applications, and three potential finalists are being considered, said Lars Erickson, spokesman for Peterson.

Erickson said the Washington State Department of Transportation cannot comment further on the "ongoing personnel matter." Erickson would not say how long Rodgers might be on leave.

Rodgers gave a brief statement Wednesday: "I respectfully disagree with the reprimand, but my hope is to move forward in a collaborative effort to find solutions to the many complicated issues facing WSF."

While on leave, he is under orders to stay at home and be available to take calls in the daytime.

Rodgers, 58, joined the ferry system in June 1972. He worked his way up from jobs at waterfront terminals, became director of operations in 2007, and is currently paid \$122,200 a year.

Among his job assignments, as outlined by Moseley in 2009, was to "assist in division-wide expenditure reduction efforts." He has represented management in difficult negotiations with the maritime unions. Perennially tight budgets, and changed staffing requirements by the Coast Guard, have increased the pressure.

His personnel files include at least four commendation letters from years ago, and a favorable 2009 evaluation by Moseley, who rated him "above standards" or better in eight of nine areas. "Steve is an effective communicator, particularly verbally," the evaluation notes, going on to say he shows expertise and kept positive relationships with his team.

Moseley attributed occasional employee conflicts to "his responsibility to hold people accountable." One criticism was that Rodgers needed to prioritize time better, to quickly fix issues reported by customers. This year's tiff between Peterson and Rodgers comes after another personnel issue.

Rodgers' son, Josh Rodgers, a ticket-seller at the Fauntleroy ferry terminal, was fired in late 2013 after accusations that he took for personal use \$529 out of an \$800 "working fund." Each seller has this fund on hand to make change for customers.

According to a report by ferries management, Josh Rodgers maintained he needed gas money to commute to work, and was only borrowing the money.

In an internal ferries email last fall, Doug Schlieff, a regional terminal manager, worried about the case sparking "fleet gossip" by people wishing to embarrass Steve Rodgers. Schlieff also wrote that Steve Rodgers removed himself from fact-finding or disciplinary decisions involving his son, according to records released to The Times last month.

Union representatives have challenged the firing of Josh Rodgers.

The employees' code-of-conduct agreement forbids personal use of the working fund, but it's not among the six violations that would automatically cause someone to be fired.

[News reports](#) about Steve Rodgers' leave that were circulated statewide in August mentioned the son's firing but noted that records about the cash-handling case did not contain a connection to Steve Rodgers' leave.

State Sen. Christine Rolfes, D-Bainbridge Island, has said the lack of an operations director may have contributed to mishaps this summer, such as boat breakdowns and loading the wrong number of passengers.

While Rodgers stays at home, three other upper-management jobs at WSF are unfilled.

Mike Lindblom : or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com)

On Twitter: [@MikeLindblom](https://twitter.com/MikeLindblom)

## *Bertha: Wasting money while the Viaduct risks grow?*

by [Art Skolnik](#)

Have you ever let your mind wander to the question of what happens to Alaskan Way Viaduct traffic if an earthquake occurs, making it unusable before the waterfront tunnel is complete? In such a case, the closure would be indefinite, cutting off or rerouting tens of thousands of daily trips.

If the tunnel were almost finished when a quake struck, perhaps we could tough it out for a few months or so. But here we are, having dug only one-ninth of the total drilling length and we already appear to be losing significant time, no matter what officials say about actually opening the tunnel on time. That's extra time for an earthquake to happen.

Lucky for us, the stoppage is in the shallowest section of the tunnel, so Bertha, the tunnel-boring machine, is accessible by a 130-foot shaft for repairs. There's at least a reasonable hope that the project can be restarted. Washington state Secretary of Transportation Lynn Peterson has said, however, that she wants everyone to remember it's possible the tunnel can't be finished. And we still have eight-ninths of the tunnel to drill, including all of the deepest boring under downtown buildings. Bertha will be inaccessible from the surface for much of that stretch.

If any serious stoppage happens down there, kiss the tunnel goodbye. And by that time, most of the funds will be spent, not available for any sort of Plan B.

What happens then if an earthquake or anything else — including some new assessment of the Viaduct's safety — forces the shutdown of the Alaskan Way Viaduct? Immediately, we will be left with only I-5 and city streets to move traffic north and south. This would back traffic up on the whole freeway system, affecting people and businesses throughout the Puget Sound region. At that point, repairs to the Viaduct may be impossible; they are almost certainly going to be astronomically expensive.

Even as we wonder about any below ground progress with Bertha, let's go back to the surface and take another look at the un-retrofitted Viaduct we have today. WSDOT isn't doing any new retrofitting of the Viaduct; it doesn't want to spend the money. Despite an upcoming project that includes replacing some cracked roadway sections, the department has largely limited itself to monitoring the Viaduct for any signs of structural deterioration and maintaining an alarm system for when an earthquake comes.

Then — assuming that the technology works — gates will close off traffic in order to save as many lives as possible among those intending to use the Viaduct at that very moment. I don't know about you, but I would be putting on the brakes at the first sign of shaking anyway. Still, who knows how an actual disaster would unfold?

So, I go back to my concern about a Plan B. After a major earthquake, what happens to the vehicle trips that residents, businesses and everyone else, including emergency responders, need to make? What sort of congestion would we face? And where would the money come from for necessary improvements if this scenario comes to pass?

Our Sponsors

Gov. Chris Gregoire took a calculated risk in deciding to pursue a tunnel while keeping the Viaduct open. Her bet was built upon a timetable, probably optimistic. But, state leaders are responsible for making calculations that fit the changing reality.

WSDOT and our political leaders are gambling with our lives, our livelihoods and our transportation system. Should we perhaps consider ways to cover the potential failure of the tunnel project? Maybe we should at least stop spending money on work at the north end of the tunnel until we know that Bertha can

make it there. Lawmakers aren't going to have much sympathy for spending new money on a massive new project if \$2 billion has already been spent on an uncompleted tunnel. A potential Transportation Armageddon surely demands serious consideration: a Plan B, maybe even plans C and D. Otherwise, no matter how lucky we are with traffic on the Viaduct during a massive earthquake, there's one certain casualty: the region's economy.

### *Deck hand continued with ferries after becoming sex offender*

Ed Friedrich

3:00 PM, Aug 7, 2014

6:04 PM, Aug 7, 2014

SEATTLE — State transportation officials want to be notified of employees' criminal convictions after the officials said they were unaware that a sex offender worked as a ferry deck hand for 4 1/2 years. Steve Dailey, hired by Washington State Ferries in 1999, pleaded guilty to possessing visual depictions of minors engaged in sexually explicit conduct in 2009. He served 30 days in prison in 2010, using a combination of vacation, holiday pay and unpaid leave to hide it from his employer, and was placed on 10 years probation, according to documents released Wednesday.

Ferries officials also weren't in the loop when the Port Orchard man registered as a Level 1 sex offender with the Kitsap County Sheriff's Office.

They didn't know until after a woman riding on the Southworth-Vashon Island-Fauntleroy ferry route reported to King County sheriff's deputies that Dailey was taking what the woman believed were up-skirt pictures of young girls. Deputies interviewed him and took his cellphone but didn't have cause to arrest him, they said.

Dailey, 50, was reassigned to his home the next day to keep him away from the public. On July 9, he was placed in the Federal Detention Center in SeaTac for violating parole. He committed suicide there July 12. Federal officials examined his phone and found no up-skirt images.

Cam Gilmour, state Transportation Department chief operating officer, said in a letter Wednesday to Transportation Secretary Lynn Peterson that procedures had begun that would have led to Dailey being fired. He directed interim ferries Director George Capacci to work with the Coast Guard and U.S. Probation Office to see whether there's a way for WSF to become aware of information sooner. And he directed Jeff Pelton, director of the Office of Human Resources and Safety, to work with the Office of Financial Management and labor unions to develop a policy that requires a ferry employees to disclose a charge or conviction of criminal activity that affects their ability to perform their job.

Ferries officials might not have known Dailey was a sex offender, but it shouldn't have come as a surprise. Supervisors had written him up or counseled him several times for interactions with girls and women.

— In October 2011, a passenger said she witnessed contact between Dailey and a young girl that made her feel uneasy. Dailey was directed to "cease contact with girls and young women passengers," and it was noted in the ship's log.

— In July 2006, a passenger complained that Dailey stared at her, tried to talk to her and noticed things about her like when she changed her hair color. Dailey was counseled by the second mate.

— In November 2006, Dailey received a letter of reprimand from the senior port captain for making sexual comments, including propositioning a co-worker.

— In June 2007, he was counseled by the chief mate for sitting in the cabin talking to a female passenger for almost an entire crossing.

In June 2014, Dailey was counseled by the captain and chief mate to be professional in his language after a complaint that he made inappropriate comments about young girls. It went into the ship's log.

---

### *Too many aboard Washington ferry; 480 had to leave*

By Associated Press - AUG. 15, 2014

BREMERTON, Wash. (AP) — A Seattle-bound Washington state ferry mistakenly loaded with 484 more passengers than it was rated to carry had to return to the dock and leave the overflow at the Bremerton ferry terminal late Friday afternoon as Seattle Seahawks fans tried to reach an evening preseason game. Ferry staff apparently thought the Cathlamet could carry 1,600 passengers when its capacity is 1,200, Washington State Ferries spokeswoman Marta Coursey said. In all, 1,684 passengers were loaded, so 484 had to leave, she said.

Coursey said she couldn't explain the "misjudged capacity," saying the Cathlamet has been on the route all summer.

The captain turned back after getting the total number of those on board, she said.

Washington state Transportation Secretary Lynn Peterson apologized to the inconvenienced passengers, promising a thorough review and adding that "everyone in the chain of command at Washington State Ferries responsible for this oversight will be held accountable."

When the captain's call for volunteers netted only about 100 passengers, state troopers were asked to assist, the Kitsap Sun reported

A trooper found Chaz Forsberg, 27, of Silverdale, in the Cathlamet's men's room and told him he had to return to the terminal. "He said if I had a problem with it, I should send a complaint to the ferry system," Forsberg told the newspaper.

Troopers told passengers the boat would not sail until it was no longer overloaded, State Patrol Sgt. Tina Martin said. There were no arrests, and "nobody had to be physically removed," she said.

The Cathlamet left Bremerton about an hour late, Coursey said. She said she thinks everyone left behind was able to board the next Bremerton-Seattle ferry.

Those taken off the boat were given vouchers for a free trip, the spokeswoman said.

The ferry system added an extra late-night round trip on the route Friday night, Coursey said.

Washington State Ferries also said it was waiving the charge for vehicles and foot passengers from Seattle to Bremerton on four departures late Friday night and early Saturday.

----

## *Overloaded Seattle-bound ferry forced to turn back to Bremerton*

Posted by [Paige Cornwell](#)

UPDATE, 9:10 p.m. | There will be no charge for vehicles and walk-on passengers sailing from Seattle to Bremerton on the 10:30 p.m., 11:30 p.m. and 12:50 ferries, according to the Washington State Department of Transportation.

UPDATE, 7:30 p.m. | State Transportation Secretary Lynn Peterson issued the following statement about the overloaded ferry:

"I apologize to all ferry passengers impacted by the overloading of the Cathlamet late this afternoon.

Due to the safety concerns related to the overloading of the Cathlamet, a thorough review of this incident will take place and everyone in the chain of command at Washington State Ferries responsible for this oversight will be held accountable accordingly.

As Secretary, the safety of the traveling public on our ferries, highways, and railways, is my top priority. I am pleased the crew took corrective action and all passengers made it across Puget Sound. The passengers, who disembarked the Cathlamet for the next sailing, received a voucher."

ORIGINAL POST | Ferry workers mistakenly allowed an extra 400 passengers to board a Seattle-bound ferry Friday afternoon, forcing the ferry to turn back to Bremerton and causing an hour-long delay.

The crew on the Cathlamet, scheduled to leave Bremerton at 4:20 p.m., thought the capacity was 1,600, so they allowed 1,684 people to board the ferry, Washington State Ferries spokeswoman Marta Coursey said. The capacity is 1,200 passengers.

Shortly after the ferry departed, staff realized their mistake, Coursey said.

"It appears that we overloaded the ferry," she said.

The ferry turned back and had to offload 400 people, who were issued vouchers.

The late departure will delay the 5:35 p.m. return to Bremerton and may delay other departures. The Cathlamet will make an extra round trip this evening, departing Bremerton at 10:15 p.m. and Seattle at 11:30 p.m.

Both Bremerton-to-Seattle ferries have a capacity of 1,200 passengers, so it's unclear why workers thought the capacity was 1,600.

This is the latest in a series of problems this summer. On Aug. 3, mechanical problems with a drive motor on the ferry Elwha gave passengers a scare when they were ordered to congregate on the main passenger level and [put on life vests](#). On July 29, Tuesday, the ferry Tacoma lost power near Bainbridge Island and had to be pushed to the Winslow terminal by tugboats.

### *Gridlock for ferry commuters amid service outages*

By [Jerry Cornfield](#) and [Sharon Salyer](#), Herald writers

Update, 10:50 a.m., July 31: Ferry riders are encountering reduced service and long waits between Edmonds and Kingston Thursday morning as the state continues to operate only one boat on the route.

Washington State Ferries issued an alert at 5:10 a.m. Thursday telling drivers to anticipate long wait times.

Capt. George Capacci, interim ferries director said the route will again be served by two boats Thursday afternoon when the 124-vehicle Chelan arrives. It is being diverted from the international route between Anacortes and Sidney, British Columbia.

EDMONDS — A trying situation worsened Wednesday for bedeviled ferry riders when the state's newest vessel conked out, forcing cancellations of several runs between Mukilteo and Whidbey Island.

Officials of Washington State Ferries took the practically new 144-car Tokitae out of service for unspecified repairs shortly before its 2 p.m. departure from Clinton. It returned to operation two hours later.

The Tokitae's temporary sidelining came one day after another vessel, the Tacoma, broke down on the water heading to Bainbridge Island from Seattle with 405 passengers and 138 vehicles on board.

With the sidelining of the Tokitae, the nation's largest passenger ferry system had five of its 22 vessels out of service Wednesday evening.

Ferry officials scrambled to fill the gap partly by diverting one of two boats on the Edmonds-Kingston route to serve the Seattle-Bremerton run. That meant half as many trips out of Edmonds and, for some, twice as long waits.

Two-boat service resumes Thursday with the arrival of the 124-vehicle Chelan, officials said.

"Situations such as these aren't easy because of the travel time impact to commuters and passengers," state Transportation Secretary Lynn Peterson said in an email.

"Our goal (Wednesday) was getting passengers where they needed to go. Some passengers experienced delays last night and today and I want to thank people for their patience," she said. "Our goal tomorrow is to continue to improve travel times for commuters and of course determine what needs to happen to get the Tacoma back into the rotation."

At times Wednesday, the line-up of cars for the Kingston-bound ferry extended up the hill from the Edmonds terminal and at other times shrunk to no waiting or a one-boat wait.

Scott Legler, a Washington State Patrol trooper working near the ferry dock, said generally the lines hadn't been too bad, but "every once in a while there's a long delay." Most people who are commuters had figured it out, he said.

Rex Rice, of Port Townsend, said he needed to be at Sea-Tac airport in the morning to pick up his wife, Carrie. Rather than wait for the Kingston Ferry and risk being late, he drove around by way of the Tacoma Narrows Bridge.

The couple opted for a ferry ride home and sat parked in the shade before being the last to drive on for the 1:40 p.m. crossing.

Two of the state ferries, the 144-car Yakima and the 124-vehicle Kitsap, are undergoing scheduled maintenance and are to return to service in September. A third, the 202-car Wenatchee, is getting repaired for a leaky seal.

That left 19 available boats Tuesday morning, the minimum needed to carry out the ferry system's 450 scheduled crossings a day.

Then the Tacoma failed and the repositioning began. On Wednesday it resulted in the state canceling 20 runs — 10 each way — between Edmonds and Kingston.

Interim ferries Director George Capacci said the chain of events exposes the state's lack of boats, and thus back-up options.

"We are a fragile organization. We are on the edge," he said. "I don't have six other ships. I don't have a lot of extra people. When something like this happens it's a wake-up call of how we are so fragile.

"We are operating efficiently but it is unsustainable in the long term," he said.

Further repositioning of vessels forced Thursday and Friday cancellations of international departures from Anacortes, Friday Harbor and Sidney, B.C.

Two lawmakers who've closely monitored management of Washington State Ferries agreed with Capacci's assessment of a system with little margin for vessel breakdowns.

"What it does show is we have an aging fleet that is stretched to the max and we've got to keep building" boats, said Rep. Larry Seaquist, D-Gig Harbor.

Rep. Norma Smith, R-Clinton, said constructing new vessels is "above all else" the focus of a caucus of lawmakers from communities served by car- and passenger ferries.

"We need to ensure that we have the capital investments needed to be able to provide reliable and safe service for the next 50 to 60 years," she said.

Seaquist also said ferry officials can do a better job on publicizing their plans for dealing with such crises.

"What we are missing is a master plan for what we need to be doing," he said. "I do think that by today (Wednesday) we should have had a game plan."

Seaquist emailed Capacci on Wednesday asking if the state might take steps like adding earlier and later sailings to boost service levels.

He also called for an independent probe of what knocked out the Tacoma's propulsion, leaving it to float without power.

"We have to have a proper, thorough investigation," he said. "They need to find out if it was a material failure, if it was a training failure or did (the equipment) just burn out."

Jerry Cornfield: 360-352-8623; [jcornfield@heraldnet.com](mailto:jcornfield@heraldnet.com) and on Twitter at @dospueblos

## *NTSB says several errors led to Skagit River bridge collapse*

Posted by [John de Leon](#)

The Associated Press

OLYMPIA —Insufficient route planning, a distracted pilot driver and an inadequate permitting process by the state of Washington all played a part in last year's Interstate 5 bridge collapse north of Seattle, which sent two cars into a river below, the National Transportation Safety Board said Tuesday.

The I-5 bridge collapsed over the Skagit River in Mount Vernon on May 23, 2013. (Photo by Rick Lund / The Seattle Times, 2013) [More photos](#)

The board voted unanimously after a nearly two-hour hearing to issue a number of recommendations, including encouraging states to ban nonessential cellphone use by pilot car drivers and requiring better warnings of low-clearance bridges, as well as lane-specific guidance for bridge clearance.

Chris Hart, acting chairman of the four-member board, said the wide-ranging report provided by NTSB staff showed the "many missed opportunities to prevent this accident."

"Movement of oversized loads is a specialized operation that demands special precautions," he said.

"What this investigation uncovered were multiple gaps in multiple systems."

Board member Mark Rosekind said the report showed "there were holes in every one of these slices of cheese."

A section of the bridge fell into the water in May 2013 after a truck carrying a tall load hit the bridge in Mount Vernon, about 60 miles north of Seattle. Two other vehicles fell into the Skagit River, and three people were rescued with minor injuries.

William Scott, who was driving the truck with the tall load for Mullen Trucking, told investigators a freight truck came up fast on his left. He said he drove to the bridge's right side, which had a lower vertical clearance than the center lane.

According to the investigation, Scott thought his load was 15 feet, 9 inches – about 2 inches shorter than it actually was. The top of the load collided with the far right side of the overhead truss structure.

The state Department of Transportation automatically issued Mullen Trucking an oversize-load permit over the Internet, without personnel review and without comparing the given dimensions to the proposed route, according to Tuesday's staff presentation.

NTSB staff noted an automatic permit process does not motivate carriers to conduct route surveys ahead of time to ensure their loads are within the clearance limits.

The pilot vehicle's driver, Tammy Detray, told investigators the clearance pole mounted on her vehicle never struck the bridge. She also said she was using her cellphone on a hands-free device at the time of the accident.

"Her entire reason for being there was to protect the oversize vehicle and the vehicles that shared the roadway with her, and yet she jeopardized the safety of others because of a cellphone call," board member Robert Sumwalt said.

Sumwalt asked staff whether the accident could have been avoided if Detray had notified Scott of the low clearance. He was told Scott was following Detray too closely to stop safely.

The investigation showed Scott was about 400 feet, or about five seconds, behind the pilot car, instead of the 865 feet, or 10 seconds, he should have been trailing by.

Safety recommendations also approved by the board include asking the Federal Highway Administration to develop a guide for states on how to prevent bridge strikes, including collecting and sharing data, and evaluating and reviewing bridge strike countermeasures.

In a written statement, state Department of Transportation Secretary Lynn Peterson said the agency already has started working on improving access to data for the freight industry, and would work with the industry and Legislature for any recommendations that require legislative action.

"We all aim to provide the safest conditions possible for the traveling public," she wrote.

As for the other changes, including to the permitting process oversight, spokesman Lars Erickson said the department will move on making revisions. "That's our commitment," he said.

The 59-year-old Skagit bridge carries an average of 71,000 vehicles a day over the river on I-5, Washington's major north-south roadway between Oregon and Canada. Workers installed an emergency span and then replaced it with a permanent one in September.

### *City's layout can put Seattle one crash away from gridlock*

Originally published June 12, 2014 at 6:45 am Updated June 12, 2014 at 8:54 pm

By [Mike Lindblom](#)  
[Christine Clarridge](#)

How could one accident south of the West Seattle Bridge, serious as it was, close a major arterial for almost six hours and so thoroughly jam up traffic around the city that people were still seething the next day?

More to the point: Couldn't somebody — the police, the transportation department, the mayor — have done something to ease the gridlock?

That's what many people were asking Wednesday.

At a City Hall news conference, Mayor Ed Murray said traffic investigations and road closures are part of living in any city. Police-department decisions, he said, must be made for reasons of public safety, not because people are frustrated in traffic.

"The most important thing is to make sure people are safe," Murray said.

The two-vehicle crash Tuesday afternoon prompted police to close the Battery Street Tunnel. On a Mariners game day, it was the second huge traffic jam since May 29, when state officials say a [truck yanked a steel plate loose](#) from the deck of Interstate 5, reinforcing the sense that on any given day, Seattle traffic is on the brink.

Seattle's transportation department says the city's layout works against us. There simply aren't many north-south options.

"Once we have a failure on Interstate 5 or State Route 99, there is no silver-bullet solution. There just isn't sufficient capacity on any of the area's surface streets," said Richard Sheridan, spokesman for the Seattle Department of Transportation. "At some point all we can do is ask people to please, if they can delay their trip, do so, and try not to join the congestion."

The police, for their part, reject suggestions that a fleet of officers could have been dispatched to improve traffic flow with quickly created detours or by waving people through intersections.

Capt. Ken Hicks, acting captain of the Police Department's traffic unit, said the city does not have a "warehouse of extra traffic cops."

As for the notion of letting drivers squeeze past the crash investigators, "You absolutely do not get the scene cleared faster if you are allowing traffic through," Hicks said.

Furthermore, "I am not going to take the chance that one person who is in a rush is going to swing between the cones and kill a detective."

The two-car crash occurred around 1:45 p.m. on East Marginal Way South near South Nevada Street, when a driver heading north crossed the centerline and hit a southbound vehicle, according to officials. One man was critically injured and had to be cut from his vehicle, according to the Fire Department. The driver and passenger of the second vehicle were also hurt, one seriously.

Southbound Highway 99 did not reopen until about 8 p.m.

Police say serious collisions need to be investigated with painstaking thoroughness, for many reasons, including justice, accountability and the possibility of lawsuits against the people involved or the city.

And because an injury accident can turn into a fatal accident depending on how patients fare, police have to investigate as if it were a potential homicide scene, Hicks said.



"We have to preserve the whole scene because we never know what is going to happen," he said. "I know that because of the (Mariners) game and the tunnel construction, it turned into a day from hell as far as traffic was concerned, but there was nothing else we could do."

Maan Sidhu, a traffic engineer with the Washington State Department of Transportation (WSDOT), said decisions about detours are made entirely by police, without direction from the state.

Traffic from the North End was detoured at Denny Way, but Interbay traffic was allowed onto the Alaskan Way Viaduct at Elliott Avenue, and allowed off at the Atlantic Street exit in Sodo, the West Seattle Blog said.

Before that exit was completed, WSDOT was unwilling to detour all viaduct traffic there during construction closures, for fear of rear-end crashes. But that option is more available now, with help from electronic-message signs, the agency says.

"I think we could probably have found ways to keep traffic moving (Tuesday)," said Travis Phelps, spokesman for WSDOT. "There are things that transportation departments can do to recommend decisions on traffic control."

The city used social media and message boards aggressively Tuesday to give commuters and other drivers a heads up on the situation and to propose potential alternatives, but there was only so much that could be done, Sheridan said.

Still, said Murray, the city probably could do a better job of putting out real-time information.

"We can do this better," said Murray, who noted he was among those stuck on the road Tuesday.

State Transportation Secretary Lynn Peterson said a briefing is planned between WSDOT and Seattle staff about Tuesday's response and the delays.

"We're going to move forward after that, to see if there are any gaps in our protocols," she said. "How do we work with our partners to bring down the response time?"

Eight years ago, Doug MacDonald, WSDOT's secretary at the time, openly complained that a [five-hour closure of northbound I-5](#), after a sheriff's deputy fatally shot a man near the Albro-Swift exit, was "unacceptable" in length, and ways needed to be found to minimize delays.

WSDOT and State Patrol have since negotiated guidelines on how they would work together after crashes and other incidents.

Christine Clarridge can be reached at [cclarridge@seattletimes.com](mailto:cclarridge@seattletimes.com) or 206-464-8983. Staff reporter Lynn Thompson contributed to this report.

Christine Clarridge : or [cclarridge@seattletimes.com](mailto:cclarridge@seattletimes.com)

----

*State cites money and politics in failed hunt for new ferries chief*

Originally published June 30, 2014 at 4:57 pm Updated June 30, 2014 at 7:46 pm  
By [Mike Lindblom](#)

The Washington State Department of Transportation will try again this summer to hire a new ferries director, after its first attempt failed.

What might seem a prestigious position has turned out to be difficult to fill — because of relatively low pay, ceaseless political demands and tension with maritime unions.

David Moseley's retirement April 15 prompted a national search that yielded roughly 80 applications, 15 qualified candidates and six people interviewed, the state says. Still, the two finalists were local.

Capt. George Capacci, the Washington State Ferries' (WSF) operations director, withdrew his application. That left John Ladenburg, a former Pierce County executive and Sound Transit board chairman, who had a one-hour final interview with Transportation Secretary Lynn Peterson.

Peterson chose not to hire Ladenburg, who had pledged to rebuild statewide political and financial support for the ferry system.

“He certainly has quite a lot of experience, but I just don’t feel he was the change agent we need at Washington State Ferries right now,” Peterson said last week. She went on to say a person with maritime experience is needed, to help WSF modernize the aging fleet. She then joked about finding a “Superman.”

Peterson wouldn’t comment about whether she would have hired Capacci, saying through a spokesman it’s a moot question. Capacci, who now serves as interim director, declined an interview request. Washington’s ferry system is the nation’s largest, carrying [more than 22 million passengers a year](#) on 23 vessels serving 10 routes. It’s a major attraction for tourists, and walkboards abound on the Seattle routes. Compared with B.C. Ferries, [one of whose vessels sank in 2006](#), WSF has maintained a stellar safety record.

Yet there is little reason to think a second search will yield better results.

One problem is the pay range — \$118,000 to \$145,000. That is considerably below what maritime executives would make in the private sector, industry officials say.

And it’s below the \$175,201 paid last year to Peter Hahn, former Seattle Department of Transportation director; the roughly \$300,000 pay and benefits to Sound Transit CEO Joni Earl, or the half-million dollars or so [paid to B.C. Ferries executives](#).

“They don’t pay enough to take the level of BS from the Legislature they get. It’s clear the job doesn’t get the respect it deserves,” said Darrell Bryan, vice president of Victoria Clipper, who served on the hiring advisory committee for the WSF director job.

Lawmakers are frequently demanding studies that devour staff time, Bryan said.

The state is attempting to improve the pay range in the second round, but it would be a modest 7 percent or so, Peterson said.

Generally speaking, she said state transportation workers earn a third less than comparable public sector employees.

Maritime officials say ferry workers from top to bottom tend to earn less than the private sector offers, making staffing a challenge. “To really get a professional mariner ... they get paid more than the state pays,” said Alan Cote, president of the [Inlandboatmen’s Union](#).

Capacci served in the Coast Guard, Alaska Marine Highway and B.C. Ferries before joining WSF in 2009. In a letter to Peterson and Gov. Jay Inslee this month, five captains urged the state to pick Ladenburg as the better of the two finalists. They blamed Capacci for recent foibles — in particular for minimizing design flaws in three new 64-car, [Kwa-di Tabil class vessels](#) that leaned in the water.

After the agency took scorn for deploying the “I-Lean” class of boats, the M/V Salish, Kennewick and Chetzemoka were eventually ballasted to level, [saving fuel](#), WSF says.

The letter claimed Capacci tried to reduce staffing “to save a few labor dollars,” which backfired in the form of [staff shortages](#), a Coast Guard directive setting mandatory crew counts, and a \$14.7 million loss. On the other hand, Capacci was endorsed by a screening committee this spring that included two union leaders.

During a [ferry-industry forum](#) last fall, Capacci emphasized the ferry system deserves more credit for an on-time record of more than 90 percent. He said he looked forward to innovations, such as retrofitting a diesel ferry [to run on cleaner liquefied natural gas](#).

The ferry system is also recovering two-thirds of operating cost through fares, more than twice what typical transit agencies recover.

Ladenburg, who now works as an attorney, readily admits he lacks marine experience. He said his focus would have been on fortifying the budget — for instance, persuading taxpayers and lawmakers in Wenatchee the ferry system is integral to the state’s economy. He didn’t care about the salary level.

“To me, it was because of the challenge,” he said. “It’s a question of whether I would get up in the morning and look forward to going to work.”

Greater funding could help replace a fleet [that averaged 36 years of age](#) as of 2010. [Under Moseley](#), six ferries were built in the past six years, a start on the backlog.

State Rep. Larry Seaquist, D-Gig Harbor, said Ladenburg would have been a fine choice. “We need an executive to go in there and completely overhaul the headquarters, and establish a new working climate on the ferries,” he said.

For instance, Seaquist said, flawed dispatching systems, not the deck crews, were to blame for dozens of missed sailings the last few years.

Miscommunication was also a factor that made recruiting difficult.

Erickson said many of the 80 applications came from people seeking a clerical job, because the formal title is "Assistant Secretary" for ferries. One of the qualified candidates was a Danish ferry manager, who withdrew once he understood the pay range, Bryan said.

There are few ferry systems around the world as large as Washington State Ferries, and as politically visible.

Seaquist, a retired naval officer himself, said he hopes Ladenburg reapplies. Too late. Ladenburg says that to be passed over, then compete again, makes no sense.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter @mikelindblom

### *State: We're already tackling issues in NTSB's Skagit bridge-collapse report*

Originally published July 15, 2014 at 7:31 pm Updated July 16, 2014 at 7:04 am

By [Jack Broom](#)

State Transportation Secretary Lynn Peterson said steps already are being taken to correct what a federal panel Tuesday labeled "a series of deficiencies" that led to last year's collapse of the Interstate 5 bridge over the Skagit River.

Peterson's statement came after the National Transportation Safety Board (NTSB) blamed the collapse on a distracted pilot-car driver on a hands-free phone call, insufficient warning signs about the low clearance on the bridge and a lax system authorizing the travel of oversized loads.

Chris Hart, acting chairman of the four-member board, said the report by NTSB staffers showed "many missed opportunities to prevent this accident."

The board voted unanimously on its recommendations after a nearly two-hour hearing in Washington, D.C.

Peterson's statement, thanking the NTSB for its input, was in sharp contrast to the reaction of Patricia Auvil, owner of Olympic Peninsula Pilot Service, which provided the pilot car guiding the truck.

"It's an inside joke," Auvil said. "We're out there to protect the public, but when anything goes wrong, it's the pilot's fault."

She said pilot-car driver Tammy DeTray was using a legal, hands-free phone. Auvil blames the calamity on the lack of warning that the outside lane of the bridge had a low clearance.

"Frankly, our state sucks when it comes to overheight loads," she said.

A large section of the bridge fell into the Skagit River on the evening of May 23, 2013, after a truck's overheight load hit a low section on the overhead crossbeams. Two cars plunged into the river, but the three occupants escaped serious injury.

Investigators have determined that if the truck had been traveling in the inside lane, it would not have hit the beam.

The truck, driven by William Scott of Mullen Trucking, was carrying a steel platform used for well drilling. It was 15 feet, 11 inches tall — 6 inches taller than the outer curve of the overhead beam.

The NTSB report faulted the state for a lack of low-clearance warning signs — and not just at the Skagit bridge.

"Washington State has 22 bridges on its interstate system with a similar design ... and none have low-clearance signs or give any indications of the lane oversized vehicles should use," the report says.

The report also criticized the system that allows trucking companies to enter data on an Internet site about a trip and then automatically receive a permit, without anyone actually reviewing the company's plan.

In addition, it said truckers should be able to receive more complete information about any potential hazards on the route.

Peterson said she appreciates the NTSB report's recognition that permitting oversized loads is an issue that requires national attention.

"WSDOT (Washington State Department of Transportation) has a history of proactively working with the freight industry and we will continue to be an active partner as these efforts progress," Peterson said. "We all aim to provide the safest conditions possible for the traveling public."

Some recommendations from the board are not steps that WSDOT can take on its own, but would require collaborative effort with the trucking industry and the Legislature, said Lars Erickson, WSDOT spokesman. As an example, he cited a recommendation that loads as wide as the travel lane be accompanied by two pilot vehicles, one in front and another behind.

The pilot vehicle in front of the Mullen truck was equipped with a 16-foot pole to ensure safe passage for the load.

The driver, DeTray, told investigators her pole didn't strike any beams.

She said that as she crossed the bridge, she was speaking on a hands-free phone with her husband, who holds a commercial driving license, about clearance hazards south on Interstate 405.

The NTSB report said a witness, an off-duty commercial truck driver driving alongside the pilot vehicle, said he saw the pole touch the bridge in four or five places.

The board said it was unable to determine if the guide pole actually struck the bridge, but said the pilot driver's phone call was a distraction that "diminished her ability to recognize whether the height pole struck the bridge."

Board member Robert Sumwalt said, "Her entire reason for being there was to protect the oversize vehicle and the vehicles that shared the roadway with her, and yet she jeopardized the safety of others because of a cellphone call."

The investigation also showed that Scott's truck was driving too closely behind the pilot vehicle, a factor that would have reduced his ability to stop if needed.

The 59-year-old Skagit River bridge carries an average of 71,000 vehicles a day. A permanent replacement was completed in September.

Material from The Associated Press is included in this report.

Jack Broom: [jbroom@seattletimes.com](mailto:jbroom@seattletimes.com) or 206-464-2222

----

*NTSB says several errors led to Skagit River bridge collapse*

Posted by [John de Leon](#)

The Associated Press

OLYMPIA —Insufficient route planning, a distracted pilot driver and an inadequate permitting process by the state of Washington all played a part in last year's Interstate 5 bridge collapse north of Seattle, which sent two cars into a river below, the National Transportation Safety Board said Tuesday.

The I-5 bridge collapsed over the Skagit River in Mount Vernon on May 23, 2013. (Photo by Rick Lund / The Seattle Times, 2013) [More photos](#)

The board voted unanimously after a nearly two-hour hearing to issue a number of recommendations, including encouraging states to ban nonessential cellphone use by pilot car drivers and requiring better warnings of low-clearance bridges, as well as lane-specific guidance for bridge clearance.

Chris Hart, acting chairman of the four-member board, said the wide-ranging report provided by NTSB staff showed the "many missed opportunities to prevent this accident."

“Movement of oversized loads is a specialized operation that demands special precautions,” he said.

“What this investigation uncovered were multiple gaps in multiple systems.”

Board member Mark Rosekind said the report showed “there were holes in every one of these slices of cheese.”

A section of the bridge fell into the water in May 2013 after a truck carrying a tall load hit the bridge in Mount Vernon, about 60 miles north of Seattle. Two other vehicles fell into the Skagit River, and three people were rescued with minor injuries.

William Scott, who was driving the truck with the tall load for Mullen Trucking, told investigators a freight truck came up fast on his left. He said he drove to the bridge’s right side, which had a lower vertical clearance than the center lane.

According to the investigation, Scott thought his load was 15 feet, 9 inches – about 2 inches shorter than it actually was. The top of the load collided with the far right side of the overhead truss structure.

The state Department of Transportation automatically issued Mullen Trucking an oversize-load permit over the Internet, without personnel review and without comparing the given dimensions to the proposed route, according to Tuesday’s staff presentation.

NTSB staff noted an automatic permit process does not motivate carriers to conduct route surveys ahead of time to ensure their loads are within the clearance limits.

The pilot vehicle’s driver, Tammy Detray, told investigators the clearance pole mounted on her vehicle never struck the bridge. She also said she was using her cellphone on a hands-free device at the time of the accident.

“Her entire reason for being there was to protect the oversize vehicle and the vehicles that shared the roadway with her, and yet she jeopardized the safety of others because of a cellphone call,” board member Robert Sumwalt said.

Sumwalt asked staff whether the accident could have been avoided if Detray had notified Scott of the low clearance. He was told Scott was following Detray too closely to stop safely.

The investigation showed Scott was about 400 feet, or about five seconds, behind the pilot car, instead of the 865 feet, or 10 seconds, he should have been trailing by.

Safety recommendations also approved by the board include asking the Federal Highway Administration to develop a guide for states on how to prevent bridge strikes, including collecting and sharing data, and evaluating and reviewing bridge strike countermeasures.

In a written statement, state Department of Transportation Secretary Lynn Peterson said the agency already has started working on improving access to data for the freight industry, and would work with the industry and Legislature for any recommendations that require legislative action.

“We all aim to provide the safest conditions possible for the traveling public,” she wrote.

As for the other changes, including to the permitting process oversight, spokesman Lars Erickson said the department will move on making revisions. “That’s our commitment,” he said.

The 59-year-old Skagit bridge carries an average of 71,000 vehicles a day over the river on I-5, Washington’s major north-south roadway between Oregon and Canada. Workers installed an emergency span and then replaced it with a permanent one in September.

---

### *Bertha’s repair pit now under construction*

Posted by [Mike Lindblom](#)

Crews this week began building a repair pit next to stranded tunnel-boring machine Bertha, while the state [released new images](#) of how the front end would be lifted out this fall. [A Washington State Department of Transportation pit-cam](#) is webcasting the work.

[A WSDOT update this week](#) unveiled some conceptual strategies that are either new, or have been tweaked since earlier visualizations.

A huge wall of grout will be poured behind the machine’s cutting face, to block groundwater from following Bertha into the repair pit.

Groundwater will be pumped away before Bertha begins a 45-foot journey forward, toward the repair zone.

Dirt won’t be scooped from the pit until after Bertha arrives through the south end, penetrating a ring of new, 120-foot-deep concrete pillars.

The rotary cutters, a ring-shaped drive axle and the main bearing will be hoisted together to the surface, by a gantry crane that sits on top of previously-sunk concrete pillars — a lift of some 2,000 tons. Then the parts would be disassembled, so a new bearing and seals can be installed.

After the tunnel drill penetrates the deep, ring-shaped pit in September, dirt would be removed. A red gantry crane would lift the cutter (green) and bearing (black) to the surface for repairs. (Image by WSDOT)

“It’s at that point that the contractor is going to be able to fully assess the damage to the seal array,” said Matt Preedy, WSDOT’s deputy Highway 99 administrator, at a legislative hearing Wednesday, echoing previous remarks by Seattle Tunnel Partners (STP) project director Chris Dixon. Until they can reach the bearing, STP and machine builder Hitachi Zosen won’t fully understand the causes of [seal failure and overheating Dec. 6](#), though STP has blamed a buried steel pipe for damaging several cutting teeth. STP has set a goal to resume drilling by March 2015. STP has said it can open the four-lane tunnel to traffic by November 2016, but WSDOT Secretary Lynn Peterson has said she’s skeptical about being ready by then.

Hitachi Zosen has yet to issue a detailed repair plan, which the state says is to be published June 16. The reassembly will include additional monitoring devices inside Bertha, said Preedy.

“The contractor is extremely motivated to make sure this machine is fixed and that it’s fixed right,” he said. As for costs, Preedy said the project has \$170 million in contingency funds remaining. The state has denied \$157 million of the [\\$188 million in claims by STP to date](#), and is still examining the other \$31 million. Linea Laird, WSDOT’s chief engineer, said the odds are extremely low that the state will lose in cost disputes. She reminded lawmakers that STP obtained insurance policies and a \$500 million performance bond, designed to help assure completion of the tunnel, even if contractors can’t or don’t finish.

Meanwhile, the state has already made well over \$1 billion in progress payments to STP, and [some 400 workers are employed](#) as construction continues at the north and south portals.

Rep. Gael Tarleton, D-Seattle, aired her worries that [Metro bus reductions](#) and worsened traffic congestion are coming soon to Highway 99 commuters. She urged WSDOT to broaden its public communications to deal with issues beyond the drilling machine.

### *On the waterfront plan – contradictions abound* by [Knut Berger](#)

People ogling the waterfront makeover model at a public forum on the project. Credit: Courtesy City of Seattle

The city’s remake of the central waterfront is moving ahead. In March, the Seattle Department of Transportation released a refined design. The current budget for the project is around \$1.07 billion dollars, which includes the seawall and the surface highway. But now that the design is 30 percent complete, SDOT is recalculating. The agency expects to have an updated budget total by mid-year. I doubt that the new figure will be lower.

Already the seawall project is some \$30 million more than anticipated and the makeover will likely run into new challenges here and there. Then there is the potential impact of the long Bertha delay. Not only does that draw out the timeline for the project but repairing the broken tunnel boring machine might complicate seawall work. For example, this fall traffic will need to be diverted around the area near Colman Dock where the rescue pit work for Bertha will be underway. That could create a bottleneck or conflicting needs.

The Bertha situation raises a lot of questions, not the least of which comes from Lynn Peterson, head of the Washington State Department of Transportation, who said this week that she couldn’t guarantee that Bertha could complete the job. If the tunnel had to go back to the drawing board, well, a lot that’s contingent upon it would be up for grabs.

On April 29, the Seattle Channel devoted an [episode](#) of its “Seattle Speaks” program to a Town Hall forum on the waterfront project. I served as a panel member, apparently the designated skeptic of the plans. One thing became clear during that 74 minutes of TV: There are a number of seeming contradictions in the way people speak and think about the waterfront plan. Here are a few I’ve noted.

### Infrastructure vs. Amenity

When proponents discuss the waterfront plan, its purpose always sounds lofty. A "Central Park" for Seattle. A "front porch" for the city. A "waterfront for all" that is first and foremost a beautiful park. Yet when these aspects of the project are questioned, supporters quickly remind skeptics that no, this isn't really about amenities, but about infrastructure: a necessary new seawall, for example, which will cost around \$330 million, and a state highway. Some traffic diverts to the tunnel, but a lot of cars will be moving along the waterfront. In other words, there's a tension between the waterfront project's park-i-ness and its functionality as a major surface thoroughfare.

Artist's rendering: Looking north from S. King Street.

In some ways, it's a highway disguised as a park. Designers have tried to hide the roadways with phalanxes of cherry trees and a partial lid. People seem more willing to pay for infrastructure, so when talking cost, the waterfront makeover is pitched as strictly practical. But amenities — certainly captured in the design's emphasis on play areas, amphitheaters, porch swings, sculptures, a floating pool, an ice rink, etc. — are used consistently as a major selling point.

### Public vs. Private

Seattle city planning director Marshall Foster is adamant that this is a public project and he shies away from any suggestions of privatization of the waterfront right-of-way that the city will have. Yet, there is concern already about a trend toward increased private and commercial use of park properties. In addition, adjacent businesses will be self-taxed, via an improvement district. That revenue will pay part of the project's cost, thus businesses will have a vested interest. Project reps also suggested at the forum that private sponsorships or donations might cover things like the cost of the floating pool barge. So don't be surprised to see naming rights, corporate funding and private contractors being considered when it comes to running the waterfront park.

Everyone recognizes the waterfront's enormous economic and commercial consequence. But the dimensions of its nine-acres and complex design promise a high maintenance public space, one that will require constant "activation" (meaning: lots of activities and events). Bottom line: Long-term care of the new waterfront will require extensive, ongoing private investment of one kind or another.

How to manage the waterfront, says city council member Sally Clark, is an open question, but one thing under discussion is the creation of a separate waterfront development authority. In short, the new waterfront as envisioned is not some isolated urban park or wild area. It's a fully integrated, complex commercial landscape; a public-private partnership, albeit an unofficial one, and that could be a very slippery slope.

### Waterfront for All vs. the Elite

I've criticized the waterfront vision for not being "Seattle" enough. Others have used words like Disney or Bellevue to describe the look. The fact is, much of the waterfront will be brand new — and the designs don't even show the massive private development that is expected to go up once the viaduct comes down. And who will be living in the "new" Seattle that will evolve in the wake of the waterfront's makeover? Likely, some very wealthy people, not those waiting around for their \$15 an hour wage.

With the exception of the Pike Place Market's waterfront-related expansion plan, which will add 40 units of low income senior housing to the area, there's no reason to expect a lot of moderately-priced or low-income housing along the water. The city is providing transportation connections, walkability, bikeability and open space, but developers will do the rest. I expect most of the waterfront's new residents will be professional and well-to-do.

Whether the newcomers can ever be persuaded to embrace the touristy and grittier parts of the waterfront remains to be seen. But if you look at the architectural renderings, you don't see people of color or ethnic minorities or panhandlers. As one observer noted, you don't even see "people from Lynnwood." Will there really be an "all" in our "waterfront for all"? Will there just be a lot of rich residents and cruise ship passengers?

Artists's rendering. Courtesy: City of Seattle  
There's Still Time for Input vs. Uh, We'll Study That

The waterfront redo has discussed ad infinitum. Many people have attended meetings and briefings, and rendered their opinions. You hear two messages in the official discussion. One is an invitation to join the process and start going to meetings. Fair enough. The other, which seems to come up every time an idea is broached, implies that things are too far along for major modifications. Are the waterfront trolleys coming back? That question gets you a "gee, we'll sure study that," which is the classic "Seattle No." (According to Marshall Foster, waterfront planners will more likely advocate sticking an old trolley or two on the proposed 1st Ave. streetcar line.)

Noticeably missing from the plan is anything relating to local tribes — no Native American art or recognition of the heritage of the site before Henry Yesler built his mill. At the forum, representatives from the Muckleshoot and the Duwamish complained that they hadn't been consulted (the Suquamish had). The current plans emphasize modern art, but not traditional heritage. The gondola proposal is another complication, a fun idea that elicits eyeball rolls from waterfront planners because it's not in the plan. The message is simple, if unspoken: Stuff that isn't in the plan but doesn't really change the plan is okay to talk about, the rest must be skillfully avoided or ignored. Not a great way to get people involved. I have talked to a number of local architects who have been disillusioned with the whole design process. My sense is that people generally support the idea of making the waterfront better, more accessible, greener and more attractive. They get that it benefits the whole city and feel generally positive about the idea. The seawall ballot measure passed big, as did the tunnel option. Still, many people remain unfamiliar with the complicated specifics and the costs.

People attending the forum seemed to agree that the waterfront redo, as currently conceived, lacks a kind of genuine Seattle sense-of-place. Marshall Foster admits that it keeps him up at night. Let's hope the Seattle-ness of Seattle's waterfront doesn't get lost in the shuffle or the contradictions of the project.

### *Reports reveal frantic effort to keep Bertha tunneling*

Originally published March 4, 2014 at 9:40 pm Updated March 7, 2014 at 9:56 pm

By [Mike Lindblom](#)

Seattle Tunnel Partners spent three work shifts trying in vain — as temperatures spiked, motors shut down and mud flooded in — to budge its giant boring machine after stalls Dec. 6 and 7, newly released records show.

Daily reports by state inspectors explain how the contractors discussed probing the soil from above to look for an obstruction.

But before doing so, they pushed the \$80 million drill near its limits, in hopes of breaking through a mysterious clog in the watery soil.

"Unable to move machine forward efficiently all shift. Thrust force and torque are running very high," says a Washington State Department of Transportation (WSDOT) wrap-up from the day shift Dec. 6.

Two of the 24 huge electric motors that turn the round cutterhead automatically tripped off, and were reset.

"High temperatures in the main drive are causing shutdowns of machine as well," the inspector wrote. Two more attempts during the swing shift also failed.

Before and after the drilling attempts, workers wanted to open a hatch to peer at the cutterhead, but the area was filling too quickly with groundwater. The drill advanced only 4 feet that entire day, after moving as much as 32 feet per day earlier in the week.

WSDOT on Tuesday released Highway 99 tunnel quality-verification reports for Dec. 2, 3, and 6 to The Seattle Times, after a public-disclosure request. The state previously released reports for other days of the week, including Dec. 7, when the machine known as Bertha overheated again, sand was found in grease around the bearings, and operators decided to stop drilling.

The quality reports contain information that could help Hitachi-Zosen, the Osaka, Japan-based manufacturer, troubleshoot how the machine broke down.

The chronology almost certainly will factor into any disputes between Seattle Tunnel Partners (STP) and the state over who pays for cost increases to the \$1.44 billion contract. The state already is questioning some of STP's decisions.



Of course, the machine is now stranded, after digging 1,025 feet of the 9,270-foot route from Sodo to South Lake Union. Rubberized seals that protect the main bearing, and possibly the bearing itself, need to be replaced. Drilling will restart Sept. 1 or later.

State officials sent the contractors [11 questions about how they've operated the machine](#). Transportation Secretary Lynn Peterson told state lawmakers in January she'd had "concerns" since drilling began in July.

"What are the factors and decisions that led to operating the TBM (tunnel-boring machine) at extremely high temperatures before the shutdown on the afternoon of December 6. Were any fail safe mechanisms overridden during the period leading up to shut down?" one question says.

Chris Dixon, STP's project director, vigorously defended the work [in a reply letter](#) Jan. 15, released by the state.

He says the contractors followed a preset threshold of 60 degrees Celsius (140 degrees Fahrenheit), then adjusted it to try mining at 65 C, and quit before the machine breached its true limit of 70 C.

"The final fail safe temperature was never changed or exceeded," he wrote.

He also charted [how the excavation rate plummeted](#) soon after Bertha hit a buried steel pipe, left over from state groundwater tests in 2002 and 2010.

The quality reports don't mention [the buried steel pipe](#) — an indication workers on the front line didn't immediately see a crisis when Bertha struck it Dec. 3.

An email the next morning, from a supervisor with tunneling company Dragados USA, said a search of state records couldn't find any abandoned wells. The worker surmised the pipe was so shallow it didn't tangle with the cutter at all:

"The tunnel crown is approximately 48' (deep) at this location and judging by the straight verticality of the pipe, it would make sense that the bottom of the pipe (well screen) was above the crown and TBM pressures pushed it straight up."

Steel fragments were found later that day in the conveyor system.

Dixon theorized at a news conference Feb. 11 the pipe gouged some cutting teeth and wrapped around the face, which kept it from scraping away dirt. Instead, the soil squeezed through without crumbling and became stuck in the cutterhead gaps, he said. Dixon's letter to Peterson was headed "[Re: PCO #0250 — TBM Obstruction](#)," a warning of a potential change order to bill the state for the December stall.

Measuring muck

The state's Dec. 2 quality report raises a previously unknown issue: Scales that weigh the excavated soil in the front and the back end of the conveyor were uncalibrated and gave different readings. That's not necessarily a big deal along the waterfront, where the Alaskan Way Viaduct is shielded by a row of buried pilings — the "tunnel in a box" strategy, to isolate the machine during its early shakedown phase.

But if the scales aren't adjusted, the results could be dire later — tunnelers need to keep an accurate record of how much soil they remove, or risk causing voids or settlement that damage the viaduct or downtown buildings.

"That's one of the things that need to be proofed out during this test section," said Matt Preedy, deputy program administrator for WSDOT.

Voids happened in recent years above both King County's Brightwater sewer tunnel and Sound Transit's Beacon Hill light-rail tunnel. In response, WSDOT required multiple muck-measuring systems, and 900 sensing devices on streets and buildings.

Arm's length

Based on January inspections of the cutter face, the December stall was caused by soil clogging the cutterhead, Preedy said.

But he said the exact reason for the clog remains under investigation by STP.

Under the design-build contracting method, the state is supposed to keep arms length from the builders, so that private companies are responsible for their tools and decisions.

WSDOT runs a risk that if it micromanages the job by telling STP how to run the machine, the state might wind up absorbing liability later.

Think of the Highway 520 bridge — the state took the design of the pontoons in-house, and therefore will spend \$208 million for repairs and delays due to cracking in the first batch from 2012.

Preedy reiterated the public should have patience, and the contractors need time to reach correct conclusions about how to finish the job.

“I’m confident they are 100 percent dedicated to this task, and at the end of the day they will pass muster,” he said.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter @mikelindblom

Mike Lindblom : or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com)

On Twitter: [@MikeLindblom](https://twitter.com/MikeLindblom)

----

---

### *How Bertha chipped her teeth*

Posted by [Mike Lindblom](#)

Photos from Seattle Tunnel Partners’ winter inspections bear witness to the extremely abrasive soils that lurk below downtown Seattle, and perhaps contributed to tunnel machine Bertha’s lengthy stoppage. Project directors have already reported that drill teeth are wearing out and being replaced faster than expected — no mean feat, given that Lynn Peterson, the Washington State Department of Transportation secretary, said in a groundbreaking ceremony speech that [the machine would shed nine tons of steel](#) particles during its 1.7-mile journey.

Chipped scraping bits. (Seattle Tunnel Partners photo)

Here is an image of chipped teeth removed during two weeks of inspections in January, after Bertha stopped making forward progress Dec. 7. Photos and other documents were released to The Seattle Times late last week under an open-records act request.

In addition, crews working under hyperbaric pressure retrieved several feet of steel pipe, wrapped around some spokes of the cutter head, a boulder more than three feet wide, and chunks of concrete that likely were part of the tunnel project. Shortly after the dig began July 30, Bertha struggled through layers of concrete grout that STP used to reinforce the weak fill soil in Sodo. A brick and plastic also turned up.

Steel pipe scraps found in the cutterhead. (STP photo)

The records don’t contain any news bombshells, but add a few interesting details:

An expert review team for WSDOT noted the heavy wear on cutting blades, but says it wasn’t severe enough to prevent moving forward. Their investigation in January focused mainly on the soggy soils, and whether STP was injecting the right conditioners to make the dirt firm yet crumbly. Clogs in the cutterhead are being blamed for the Dec. 7 stall.

During restart attempts Jan. 28-29, in which the machine advanced about four feet, tunnelers stopped or slowed the drill several times to prevent overheating. They also pumped in new grease to cool the main bearing. “DT (downtime) due to continuing to pump grease thru main bearing while contractors discuss a solution with Hitachi about bearing overheating,” says a notation the afternoon of Jan. 29.

That night, operators restarted and stopped seven times, halting whenever Bertha reached temperatures of around 150 degrees, state quality reports say. The crews skipped their meal break.

This week, STP is expected to announce details of how it will dig a 120-foot-deep, circular pit in front of the machine, to remove the cutterhead and fix the damaged bearing. Hitachi-Zosen, which built the \$80 million drill, is still working out a plan for repairs. Bertha would restart Sept. 1 at the soonest.

### *State money will keep viaduct buses rolling*

Posted by [Mike Lindblom](#)

Transit riders on buses that travel on the Alaskan Way Viaduct — who faced the possibility of severe bus-service cuts this summer — will catch a break until the end of 2015, it now seems.

Bus use has grown on the viaduct routes since construction in that corridor began in 2011, [Metro says](#). Many buses run full, including RapidRide C from West Seattle, and the 120, which serves Delridge, White Center and Burien.

State Transportation Secretary Lynn Peterson has told her Highway 99 team to keep sending King County Metro millions of dollars to sustain the popular viaduct bus lines, which carry more than 24,000 daily passengers. An earlier allotment of \$32 million in state funds, which pay for about 150 daily bus runs, will run out midyear.

“This wildly successful mitigation service has moved more people through the Alaskan Way Viaduct while reducing the vehicles using it,” said King County Councilmember Joe McDermott. “As a C Line commuter, I am pleased the state is continuing the funding as the project continues.”

However, the county government still says it needs a sales-tax increase of 0.1 percent, which is likely to appear on the April 22 ballot, to avert a broader reduction of up to 17 percent in bus hours, spread throughout the county. Low-use routes could be scrapped, some peak-only routes might run fewer times a day, and the most popular routes may become more crowded. A \$60 car-tab fee for roads is also proposed alongside the transit tax.

A letter from Peterson to County Executive Dow Constantine doesn’t explain how transit dollars will be distributed from the increasingly strained highway budget to replace the viaduct. Contingency funds stood at \$78 million last summer, not counting whatever losses result from [the lengthy stoppage of tunnel machine Bertha](#).

McDermott said the amount of additional state funding isn’t determined yet, but it’s been flowing at close to \$10 million per year.

---

**New report: Tunnel project will be late, could be on budget**

Posted by [Mike Lindblom](#)

The Highway 99 tunnel project will probably be finished a few months late, even if workers accelerate by working 24 hours a day, says a report this morning by the governor’s expert-review panel, whose primary job is to examine financial risks.

Nonetheless, the panel maintains confidence the entire \$3.1 billion Alaskan Way Viaduct replacement, including the \$2 billion tunnel, can be done on budget — because non-tunnel parts of the viaduct replacement are going fine, even as the giant boring machine remains idle and in need of a major repair. Contractors have said it will take several months to get the machine moving again.

“Current challenges notwithstanding, the ERP finds that, based on information available to us, the Project is likely to be completed, within the existing budget, and on a schedule that is somewhat delayed,” says the [43-page document](#), which predicts completion in the first half of 2016.

The panel ventures no guess as to how much money it will take to fix the damaged bearing seals in tunnel machine Bertha, which has moved only 4 feet since sand was found in the lubricating grease Dec. 7 — and the report acknowledges that a root-cause analysis may “supersede the information contained herein and could change the ERP’s finding.”

The state says that under the design-build contracting system, Seattle Tunnel Partners (STP) and machine builder Hitachi-Zosen are responsible to work out the costs to repair or replace the \$5 million bearing. But claims or lawsuits, to seek taxpayer money, are likely.

In other highlights, the panel says the biggest risk to the project is “strained relations” between the state Department of Transportation (WSDOT) and STP executives — in particular that Transportation

Secretary Lynn Peterson publicly declared STP to be in breach of contract, for failing to hire sufficient minority-owned small subcontractors in 2012-13.

“The issues have been intensified by WSDOT executive management’s decision to declare STP to be in “breach” of the contract. The companies comprising the STP joint venture believe WSDOT’s “breach” action has damaged their reputations and compromised their ability to seek business elsewhere in the United States,” the report says.

The two sides publicly pointed fingers in January, in particular about whose fault it was that a steel groundwater-research pipe was left in the ground and struck by the tunnel machine.

The panel suggests that WSDOT’s technical advisers, who have tunneling experience, hold informal talks with STP’s team. To date, the sides have stayed at arm’s length.

And the experts say there are chances to regain lost time. For instance, by changing from 20 hours, five days a week to 24 hours, seven days a week, the work team could save up to eight weeks. In addition, by starting to build the highway decks at the south portal right now, while Bertha is stopped, another six weeks could be saved.

The report also says that a \$290 million allotment to tear down the old viaduct, and build a surface Alaskan Way street, is too high, and DOT could save up to \$70 million.

Judy Clibborn, chairwoman of the House Transportation Committee, said she’s heartened by the report overall.

She notes that the DOT has secured a commitment from the Port of Seattle to provide the port’s pledged \$300 million — solving a problem that the expert panel flagged in previous reports as an important risk.

Clibborn vowed to prevent “scope creep” — that is, the adding of features or sub-projects that would drain the tunnel fund. For instance, Clibborn said she will resist any attempts to spend tunnel money to continue supplemental Metro Transit buses on the Alaskan Way Viaduct, even though Transportation Secretary Lynn Peterson directed her staff to find perhaps \$20 million [to keep the popular service going](#) after the current \$32 million in bus aid expires this summer.

About \$78 million in contingency money remains in the \$2 billion tunnel portion of the overall \$3.1 billion viaduct replacement budget, based on a DOT report to the federal government last summer. Today’s report suggests the contingency will be completely tapped, though the methodology isn’t immediately clear.

STP said in its bid proposal the four-lane highway tube from Sodo to South Lake Union would open to traffic by the end of 2015, which is 10 months sooner than the state required in the bidding rules.

Within a few days, STP and DOT are expected to announce a strategy to fix machine, using a 120-foot-deep pit to remove the rotary cutting face and gain access to the problem area.

---

*WSDOT gives tunnel contractor mandatory steps to meet DBE goal*

Date: Monday, January 13, 2014

Contact: Lars Erickson, WSDOT communications, 360-789-6463 (mobile)

Agency determines contractor actions constitute breach of contract

SEATTLE – The Washington State Department of Transportation today notified (pdf 183 kb) Seattle Tunnel Partners (STP), the design-build contractor on the State Route 99 Tunnel Project, that actions identified in a recent FHWA report (pdf 728 kb) constitute breach of contract, as the contractor erected barriers and created hardships to DBE participation. FHWA issued the report in response to a complaint filed by a DBE firm. By declaring the contractor in breach, WSDOT now has multiple enforcement and oversight actions available to ensure that STP implements steps necessary to achieve the 8 percent DBE participation goal.

“The actions described in the FHWA report are unacceptable,” said Transportation Secretary Lynn Peterson. “We are increasing our oversight on these issues, and working to ensure that STP provides a level playing field to DBE firms and offers fair opportunities to compete for the work generated by the SR 99 Tunnel Project.”

Richard Mitchell, a Seattle-area attorney with expertise in civil rights contracting law, was hired as a

Special Assistant Attorney General to provide a third-party review (pdf 344 kb) of the FHWA report. After Mr. Mitchell reviewed FHWA's findings and the documents used during their investigation and conducted interviews; he determined that STP's noncompliance with DBE requirements constituted a breach of contract, and provided recommendations to WSDOT for next steps.

Under the terms of the contract, WSDOT could pursue monetary or other sanctions against STP. WSDOT has communicated to STP the conditions which must be met in order to avoid those sanctions.

STP must allow WSDOT to monitor all activity related to subcontracting policies and procedures. WSDOT oversight and monitoring will be done to ensure that STP is not creating hardships or barriers to DBE participation. Should the agency determine that STP is not conducting business in an honest and open manner, WSDOT could proceed with sanctions.

STP must meet quarterly participation targets established by WSDOT. WSDOT will establish monthly and quarterly targets that must be achieved in order to meet or exceed the 8 percent participation goal. STP will provide monthly progress reports which must provide verifiable information demonstrating how the monthly and quarterly targets were met. If the quarterly goals are not met, WSDOT could proceed with sanctions.

"What is most important is that we all work together so that the many qualified, certified DBE firms in Washington receive work and economic opportunities generated by this project, and agency and contractor efforts are best invested in ensuring that outcome," Peterson noted.

The agency also outlines other actions for STP, such as hiring a DBE program monitor to oversee DBE participation efforts, implementing specific DBE procedures and practices, and executing the DBE Action Plan created by STP in recent weeks, after it has been reviewed and accepted by WSDOT.

*WSDOT executes new SR 520 pontoon change order*

Date: Wednesday, January 08, 2014

Contact: [Lars Erickson](#), WSDOT Communications 360-705-7076; 360-789-6463 (cell)

Agency proposes to fund added costs with existing revenue sources

OLYMPIA – The Washington State Department of Transportation today announced it has reached agreement with its pontoon contractor for added costs associated with building pontoons for the new State Route 520 floating bridge.

In late December WSDOT executed five new change orders for the [SR 520 Bridge Replacement and HOV Program](#) with its pontoon and floating bridge contractors. These change orders total \$42.65 million, of which \$37.1 million is with Kiewit-General Joint Venture for the [redesigned pontoon work](#) on Cycles 3 through 6.

In a media briefing today, Washington Transportation Secretary Lynn Peterson and SR 520 Program Director Julie Meredith said WSDOT's pontoon design error is consuming much of the SR 520 program's \$250 million risk reserve. One additional change order associated with the pontoon design error is expected in the next month and will likely bring the total cost associated with the pontoon design mistake to approximately \$200 million. WSDOT also has signed or identified expected change orders worth \$134.3 million related to other construction in the corridor.

With the signed and expected change orders, plus WSDOT's thorough analysis of the potential future risks associated with the remaining \$800 million in funded construction, the agency has determined that approximately \$170 million in additional project funding is required. Peterson said the agency has identified existing funding sources to cover these costs and keep the bridge-replacement project on track.

WSDOT has determined that most of the needed construction funds can be obtained from available SR 520 toll bonding capacity, with other existing agency resources providing the remaining funds, dependent on legislative approval.

The SR 520 program's legislatively authorized budget currently is capped at \$2.72 billion. The budget covers three major projects: Eastside improvements to the SR 520 corridor from Medina to Redmond; the new floating bridge and bridge landings; and pontoon construction. The addition of transit/HOV lanes in both directions from Seattle's Montlake neighborhood to I-5, along with other corridor enhancements on that stretch of highway, remains unfunded. WSDOT will work with the Legislature to request authority to change the program budget from \$2.72 billion to \$2.89 billion.

"The original pontoon design included an unfortunate and costly mistake," Peterson said. "While the error discovered in 2012 is depleting most of the contingency reserve, we are proactively managing the remaining risks and don't foresee the need for new funding sources to complete the work at hand and move our region closer to a safer, higher-capacity, multimodal 520 corridor."

In 2012, WSDOT determined that repairs and modifications were needed on four pontoons from Cycle 1 as a result of a design error. In addition, all remaining pontoons required either modifications or construction using an updated design. WSDOT contractors have since completed repairs on two of the four Cycle 1 pontoons, and will complete repairs on the remaining two pontoons this spring.

When complete, the SR 520 program will replace the existing, 50-year-old SR 520 bridge across Lake Washington with a safer structure, dedicated lanes in each direction for buses and high-occupancy vehicles, a separate path along the highway corridor for bicyclists and pedestrians, and environmental improvements along SR 520 between I-5 in Seattle and SR 202 in Redmond. The new floating bridge is expected to open to traffic in late 2015 or early 2016.

---

*State questions Bertha strategy, sees 'potential future litigation'*

Originally published January 16, 2014 at 11:12 am

Updated January 16, 2014 at 11:36 pm

By [Mike Lindblom](#)

State Transportation Secretary Lynn Peterson says the agency "has had concerns" about how contractors have been operating tunnel-boring machine Bertha since July 30, when drilling began. The admission came via an email Wednesday to state lawmakers, while the world's largest drill spends its sixth week stranded in the soil near Pioneer Square.

Meanwhile, Seattle Tunnel Partners (STP) planned to send teams of five or six workers to the buried cutting face for the next couple of days to search for any objects that might be blocking Bertha or any damage to the front of the machine.

But the state Department of Transportation questions whether STP has been using the right strategies during this tricky, initial stage of the Highway 99 tunnel project.

Peterson's [message says](#), in part:

"WSDOT has had concerns about the machine's operations and critical systems since its launch on July 30, 2013. We have discussed these concerns with STP frequently over the past five months and this week sent a formal letter stating our concerns and asking STP how they will address them prior to tunneling under the viaduct and downtown. We are providing you [elected officials] with this information in lieu of a copy of the letter because it could be the subject of a potential future litigation between WSDOT and the contractor."

On Monday, she requested several pieces of information, including a strategy from STP to regain lost time.

Peterson also sought an explanation as to why Bertha's operators ran the machine at unusually high temperatures before shutting it down Dec. 6, when the rotary cutter stopped grabbing soil.

The tunnel drill had struck an 8-inch-diameter pipe Dec. 3, but contractors kept drilling for three more days — and in fact progressed 58 feet in a day, its best-ever pace.

Bertha is 60 feet deep, near South Main Street.

Solutions are critical right now, before the machine dives under the old Alaskan Way Viaduct and passes historic brick buildings in Pioneer Square.

Excess vibrations could damage the elevated highway, while mistakes in the soil-excavation rate could cause downtown buildings to sink.

Chris Dixon, project director for STP, didn't comment Wednesday on Peterson's message.

But earlier Wednesday, he said the contractors think something in the soil, as opposed to mechanical trouble, is to blame for the stall. The conveyor screw, for instance, is moving muck just fine, he said.

The \$80 million drill, made by Hitachi, is still in a break-in period before the sale to STP is final, once Bertha completes 1,250 feet of mining.

At a news conference Wednesday just before Peterson's email went to lawmakers, Todd Trepanier, WSDOT's program manager, said, "We're confident in STP's ability to move this project forward."

Trepanier later called Peterson's letter a form of due diligence that any strong owner would exert over such a huge project.

He said he believes the machine itself is free of problems and is up to the task of reaching South Lake Union.

In recent weeks, the state has portrayed the steel pipe as only a partial reason for the stoppage.

As for WSDOT's concerns in earlier weeks, fiberglass became stuck in the conveyor screw, and "there have been cutting tools that have shown damage; there have been issues with heat, and there have been issues with muck flowing," Trepanier said.

Peterson wrote Wednesday that WSDOT plans to call on tunnel experts for suggestions.

However, she warned lawmakers that she can't "direct how STP does their work" or else the state will bear increased risks and responsibility, under the \$1.44 billion contract.

STP provided some information to WSDOT on Tuesday

and planned to forward more details Wednesday night, Trepanier said.

The drilling from Sodo to South Lake Union has been delayed by extra testing last winter in Japan, by a labor dispute in August — and since Dec. 6 by a blockage that officials say they don't yet know how to resolve.

Meanwhile, Dixon said 20 workers on his team have been trained to inspect the cutting head, under about 1½ times atmospheric pressure, after compressed air is pumped in.

Workers will use flashlights and cleaning tools to get a look around the 57-foot diameter rotary cutter — after four deep, vertical shafts failed to hit a big object, and a worker who was lowered down a shaft didn't find an obstruction.

High pressure exists here because groundwater permeates the soil.

Pressures around the cutter were forecast at perhaps double the surface pressure, but STP will significantly reduce pressure — and improve worker safety — by using 10 temporary wells to pump away groundwater.

Worldwide, builders have conducted "hyperbaric interventions" in tougher conditions beneath the Elbe River in Hamburg, Germany, under the Yangtze River in Nanjing, China, and at the Brightwater sewer tunnel north of Seattle, and elsewhere.

More days or weeks could be needed to fix any problems and resume digging. It's entirely possible Bertha might need to be modified, said Trepanier.

Big tunnel projects usually run into "some unique issue," he said, but the job nearly always gets done.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter @mikelindblom

Mike Lindblom : or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com) On Twitter: [@MikeLindblom](https://twitter.com/MikeLindblom)

---

*Before long shutdown, Bertha crew stopped to remove steel pieces*

Originally published January 31, 2014 at 12:17 pm

Updated January 31, 2014 at 9:01 pm

By [Mike Lindblom](#)

The day after the Highway 99 tunnel-boring machine hit a buried pipe in early December, the crew stopped mining for 70 minutes to remove fragments of steel and rock that had made their way inside.

The material had reached the conveyor screw, designed to pull stones and mud to a conveyor belt in the rear of the machine.

After the stoppage, late Dec. 4, the giant drill known as Bertha went back to work Dec. 5, moving 32 feet north. The next day, the machine quit grabbing dirt and traveled only four feet in three hours, prompting operators to shut it down.

The tunnel contractors' production reports, issued daily to the state, were released to The Seattle Times through a public-records request. They provide new details about what led up to a nearly two-month shutdown.

Officials have said that steel damaged some cutting tools on the rotating drill, but they haven't mentioned before that the pipe was intrusive enough to lead Bertha's operators to open and clean the enclosed conveyor screw.

Seattle Tunnel Partners (STP) has argued the pipe was the main reason the machine eventually stopped moving forward.

The state Department of Transportation (DOT) waited a month to disclose that a pipe hit occurred, and said the steel doesn't fully explain Bertha's problems.

Then in mid-January, Transportation Secretary Lynn Peterson told state lawmakers she had broader concerns over how STP was running the machine since boring began July 30.

The state's tunnel managers haven't said what they think is keeping Bertha from moving. DOT has called an expert panel to review the situation. The machine moved two feet on Tuesday, as an experiment, another two feet Wednesday, then stopped for maintenance.

A concrete chunk and at least one pipe segment were found during 11 days of recent inspections, DOT said, but test probes found no huge obstacles, such as an oversized boulder.

The state and its contractors are likely to negotiate or litigate, with millions of dollars at stake, who will pay for the delay.

The pipe strike happened just as Bertha was hitting her stride, the reports show.

On Monday, Dec. 2 the drill advanced 26 feet, then on Dec. 3 another 59 feet — its best day ever.

Officials said the pipe strike happened sometime Dec. 3, knocking half of the 119-foot, eight-inch diameter well casing to the surface. The pipe had been used by DOT for groundwater tests in 2002 and 2010.

Bertha got a late start on Dec. 4, to clean concrete-grouting equipment, but traveled through sandy silt 32 feet, close to its fall average, [that day's report says](#), before the 70-minute stoppage to "clear the screw of steel projectiles and boulders."

Matt Preedy, deputy project director for DOT, said Friday that the tunnel crew opened the rear gate of the conveyor-screw chamber to remove loose metal pieces — there wasn't anything wedged or stuck, he said.

"The reason they stopped was a safety issue," said Preedy. Tunnel workers didn't want metal to ride on the long conveyor belt from Sodo to Terminal 46, where a barge or trucks remove the excavated materials, he said.

The pace [slowed](#) Dec. 5, to about 24 millimeters per turn of the 57-foot-diameter cutterhead, which spins about once per minute. By day's end, the boring rate decreased to 10 millimeters per turn, though the report doesn't state reasons. Still, the machine went 32½ feet.

But on Dec. 6, after creeping only four feet in three hours, operators turned the machine off.

DOT said later that [some steel and rock were pushed beyond the screw](#) and out the back of the machine that week.

STP project director Chris Dixon, asked last month why he didn't stop Bertha right away after the pipe strike, said he thought the pipe was shallower, and had been knocked out of the way.

In that brief chat, he didn't mention that steel had been plucked out of the conveyor screw. The red screw is a vulnerable piece, as shown earlier in the project when it was jammed by bunches of fiberglass.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter [@mikelindblom](https://twitter.com/mikelindblom)

Mike Lindblom : or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com) On Twitter: [@MikeLindblom](https://twitter.com/MikeLindblom)

---

*State has long had concerns about Bertha, wants answers — today*

January 15, 2014 at 4:16 PM

Posted by [Mike Lindblom](#)



The state Department of Transportation says it's been concerned about the operations of tunnel machine Bertha since its July 30 launch — long before the blockage that has left it stranded 60 feet deep near Pioneer Square for more than a month.

In a note to lawmakers today, WSDOT Secretary Lynn Peterson said she has “concerns about the machine's operations and critical systems.”

She's requesting that contracting team Seattle Tunnel Partners (STP) forward to her several pieces of information by the end of work today. These include a plan to regain lost time. The drilling from Sodo to South Lake Union has been delayed by extra testing last winter in Japan, by a labor dispute in August — and now, since Dec. 6, by a blockage that officials say they don't yet know how to resolve.

Peterson requested other details, such as why the giant drill operated at unusually high temperatures just before the Dec. 6 shutdown.

A couple of days earlier, Bertha had moved 58 feet in a single day, its fastest rate so far, shortly after hitting a buried pipe, DOT told the City Council on Monday.

Peterson also plans to convene tunneling experts to make suggestions — but she also warns that DOT can't “direct how STP does their work” or else the state will bear increased risks and responsibility.

[From the note:](#)

WSDOT has had concerns about the machine's operations and critical systems since its launch on July 30, 2013. We have discussed these concerns with STP frequently over the past five months and this week sent a formal letter stating our concerns and asking STP how they will address them prior to tunneling under the viaduct and downtown. We are providing you [elected officials] with this information in lieu of a copy of the letter because it could be the subject of a potential future litigation between WSDOT and the contractor.

Meanwhile, STP planned to send a crew of five workers to the cutting face tonight to inspect for obstructions and damage, after four vertical shafts drilled last week failed to reveal exactly what has Bertha stalled. This work will be done in compressed but breathable air, at greater than atmospheric pressure. Workers will use flashlights and cleaning tools to get a look around the 57-foot diameter rotary cutter, and check around the cutter's drive shaft.

Earlier today, Chris Dixon, STP project director, told The Seattle Times he didn't suspect that the current stoppage was caused by mechanical flaws or internal damage, but by objects or problems in the ground. The conveyor screw, for instance, is moving muck and air just fine, he said. The \$80 million drill, made by Hitachi, is still in a break-in period before final acceptance by the tunnel team, until it finishes 1,250 feet or so of mining.

And Todd Trepanier, DOT's program manager, had told reporters earlier: “We're confident in STP's ability to move this project forward.” In recent weeks, the state has been referring to the steel pipe as only a partial reason for the stoppage.

---

*State: Too few minorities, women on tunnel project*

Originally published January 14, 2014 at 11:32 am

Updated January 14, 2014 at 1:46 pm

By [Mike Lindblom](#)

The big companies building the Highway 99 tunnel violated their contract by creating barriers to minority- and women-owned small businesses, a state review says.

Payments to Seattle Tunnel Partners could be reduced or withheld unless the firms demonstrate progress toward an 8 percent hiring goal for what are called disadvantaged business enterprises (DBEs).

“If there are not honest and open transactions with the DBE contracting community and with WSDOT (Washington State Department of Transportation), WSDOT reserves the right to proceed with sanctions,” state Transportation Secretary Lynn Peterson said [in a letter released Monday](#).

She struck a more conciliatory tone in a phone interview, saying the contractors are cooperative, and they've found upcoming jobs that can bring minority-owned contractor participation to within \$5 million to \$6 million of the \$91 million target.

That includes an increase in trucking work, for which small companies can be recruited fast.

So far, Bertha's progress has been delayed three months: by extra testing work in Japan last winter, by a waterfront labor dispute in August, and by a blockage in December.

However, DOT engineers say they can still meet the overall schedule, to open the four-lane tunnel to traffic between Sodo and South Lake Union in December 2015. On its best day, the drill advanced 58 feet, giving the team cause for optimism.

The pace must accelerate once [a buried steel pipe](#) or whatever else is blocking the machine's path is removed. Seattle Tunnel Partners (STP) initially planned to remove excavated soil by barge, but trucking opportunities could increase if the team works extra shifts, or if drilling moves quickly.

"STP has indicated that as mining gets under way in earnest, it is likely that they will need to truck and barge spoils concurrently to keep up with output," said state spokesman Lars Erickson.

Last fall, a federal civil-rights report put minority-contractor hiring at less than 2 percent, missing the 8 percent goal.

Initiative 200 forbids race and gender preferences by state and local governments, but the tunnel is one-third funded by federal grants, and therefore subject to federal affirmative-action rules.

STP is a consortium headed by the U.S. branch of Spain-based Dragados and California-based Tutor-Perini. Its project director, Chris Dixon, has declined to comment on the DBE investigations.

Peterson said that while Monday's letter is serious, she thinks it won't send relations between the state and the tunnel contractors spiraling toward impasse.

The tunnel consortium has already collected more than \$700 million in payments, and owns the giant drill in the ground. The state has the power to withhold progress payments, or even end the contract — but such an extreme move would add delays and costs.

The federal civil-rights investigation was prompted by a complaint from minority contractor Elton Mason, owner of Washington State Trucking in Kirkland, who sought a contract to transport dirt.

Mason said Monday's letter looks to him like another round of process.

"That's the way WashDOT operates. This is how they sneak by millions of taxpayer dollars, then ask for more," he said. "It's like the (big) contractors are running WashDOT."

Mason said he met tunnel managers twice this winter without a job offer. Mason said he's moving some loads at a Highway 99 bridge project in Sodo, but that work ends next week.

[The federal investigation found](#) local minority contractors faced unnecessary barriers in bidding. For example, small truckers were told to obtain a performance bond, which federal investigators said isn't normally required, and to file bids using a complicated software system.

The federal report said minority contractors must be used, even if that causes a modest cost increase.

Seattle tunnel executives had awarded a major trucking contract to a larger firm, Grady Excavation, which was later stripped of its DBE certification.

Recently, STP awarded a trucking contract to Hos Brothers Construction of Woodinville, which is retaining a minority subcontractor.

Nationally, the contractor programs have been under scrutiny for errors or fraud. The federal Transportation Department criticized itself in an internal audit that said \$124 million in federal funds for women and minority contractors were misspent in 2009 by weak state and local programs.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter @mikelindblom

*Director of 99 tunnel project irked at state shifting blame*

Originally published January 17, 2014 at 1:39 pm

Updated January 17, 2014 at 11:11 pm

By [Mike Lindblom](#)

Seattle Tunnel Partners project director Chris Dixon expressed surprise Thursday that after a longtime good-working relationship, the state now blames its contractors for difficulties with the Highway 99 tunnel project.

Criticisms by Transportation Secretary Lynn Peterson "have the potential of seriously damaging this relationship and adversely affect WSDOT's and STP's ability to move forward together to deliver this project," said Dixon in a letter to her and shared with state lawmakers.

The rancor comes in an early stage of the drilling work. More commonly, public-works fights come toward a project's end, when governments and builders joust over claims for extra payment, based on unforeseen changes.

The 57-foot-diameter tunnel drill has been stalled for six weeks, after completing about 1,000 feet of its 1.7-mile trip from Sodo to South Lake Union.

Peterson — who issued a pair of harsh messages about STP’s performance this week — nonetheless told senators Thursday she is confident the tunnel construction will ultimately succeed.

“There’s no fatal flaw. We’re going to make it through,” she said.

On Monday, she had announced STP was in “breach of contract” for setting barriers to small businesses owned by women and minorities, based on a federal civil-rights investigation last fall. The feds also accused the state Department of Transportation of failing to provide oversight.

Then, [in a memo Wednesday to lawmakers](#), Peterson said, “WSDOT has had concerns about the machine’s operations and critical systems since its launch on July 30, 2013.”

She requested a plan to recover lost time, details about what caused wear to cutting tools, and facts about an episode when the machine ran at high temperatures in early December.

The DOT is also bringing in outside tunnel experts, to help ensure the machine runs properly before it proceeds under the Alaskan Way Viaduct and downtown.

Peterson’s memo also mentioned “potential future litigation” between the state and contracting team.

Dixon’s letter called for a meeting to mend relations. Earlier this week, he said the machine stall is due to external problems, in the soil.

His letter emphasized that STP will meet the minority-hiring goal of 8 percent, or approximately \$91 million in subcontracts.

Peterson told the Senate Transportation Committee on Thursday that she didn’t levy fines because STP has recently shown her a plan to reach the minority-contracting goal.

But the local NAACP chapter is calling on the state to kick the contractors off the project.

Workers halted drilling Dec. 6, to avoid damaging tunnel-boring machine Bertha, after the rotary cutters spun without grabbing dirt. Causes are still being investigated.

A possible culprit is a steel pipe that Bertha hit on Dec. 3.

[Dixon’s letter](#) says:

“We are surprised that WSDOT appears to be attempting to shift the responsibility for the cost and time impacts associated with the current TBM stoppage to STP, when WSDOT understands that the cause of this stoppage was the encountering of a steel well casing, which was installed and left in place by WSDOT.”

But Todd Trepanier, the DOT’s Highway 99 administrator, told the senators that not only did the state show the well casing in contract documents, but it appears the top of the pipe had been “driven over” earlier in the project.

Friday morning, tunnel workers are expected to enter the machine’s cutting face to conduct inspections, Trepanier said.

International tunneling expert [Colin Lawrence](#) of New York, who will serve on the new state tunnel-oversight team, told senators about his background, including work on the Channel Tunnel between England and France.

“I’ve seen projects that have had much bigger problems than what you’re encountering, believe it or not,” Lawrence said. “I’ve also seen projects where they’ve had to change the contractor.”

He urged leaders to rely on facts from upcoming cutter inspections, as opposed to speculation about what’s hindering the machine.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter @mikelindblom

---

*Problems push 520 project over budget*

Originally published January 8, 2014 at 9:26 pm

Updated January 8, 2014 at 11:31 pm

Errors and cost increases for the new Highway 520 bridge will chew up the \$250 million contingency fund and require more dollars from toll-backed bond debt and even from other...

By [Mike Lindblom](#)

Cost increases on the new Highway 520 bridge not only will drain the megaproject's entire contingency fund, but could require money to be shifted from other road work, Transportation Secretary Lynn Peterson told lawmakers Wednesday.

The problem was caused mainly by repairs, redesigns and delay associated with cracks in the first four giant pontoons, built at Grays Harbor in 2012.

With the \$250 million cash reserve depleted, Peterson asked the Joint Transportation Committee to boost the 520 program's overall budget by \$170 million.

The update represents the first time the state Department of Transportation (DOT) has publicly abandoned hope of corraling costs within the existing budget.

Bottom line: Instead of a \$2.72 billion price cap, Peterson asked lawmakers to raise the total to \$2.89 billion for the six-lane Lake Washington crossing and rebuilt freeway segment on the Eastside.

"The good news is, we can pay for these costs with existing funding sources and without looking for new revenue," she told the committee in a brief update.

In other words, taxes don't have to rise, nor will tolls beyond what is already approved, she said.

Car traffic and toll revenue on the current 520 bridge have, in fact, been stable, reaping [just over \\$5 million a month](#) before expenses, and providing what the state considers a solid base.

Talks are under way with the state Treasurer's Office to sell additional toll-backed bonds to cover most of the new \$170 million, Peterson said.

She told the Joint Transportation Committee that some money must also come from other highway programs, which would involve seeking "efficiencies," rather than canceling specific roads.

Any proposal that curbs highway funding beyond Seattle might provoke resistance in the legislative session that begins Monday.

Sen. Tim Sheldon, D-Potlatch, said, "The money will be swept from other small projects around the state, and they won't get done. That's my prediction."

Later, Peterson said the DOT would take a harder look at design — for example, whether 12-foot shoulders can be reduced to 6 feet on certain highway stretches, to conserve money.

She cited last summer's rapid Skagit River Bridge repair as a sign she is changing the agency since taking the job almost a year ago.

In July, Peterson and 520 Administrator Julie Meredith said they would look to negotiate major savings with the Kiewit-General-Manson joint venture and other contractors.

Wednesday's numbers are actually about \$35 million less than a worst-case scenario disclosed in agency documents last summer, but the DOT couldn't forge a cheap enough deal to stay on budget.

Besides \$208 million in crack-related losses, [a new DOT chart](#) acknowledges \$134 million in rising costs, including some construction on land east of the lake.

The \$170 million proposal would not only pay off change orders, but enable the department to replenish \$77 million of the lost \$250 million reserves, as insurance against more glitches in 2014-16, as contractors build road decks and connect the bridge segments.

The DOT reported Wednesday [it signed five change orders, mostly](#) with the Kiewit partnership, mainly to deliver redesigned pontoons.

During casting of the first batch, cracks formed on endwalls and radiated to the undersides of four giant pontoons.

Experts blamed that weakness partly on the DOT's failure to require each huge concrete box to be compressed from either side, using steel bands, in a method known as post-tensioning.

Project leaders pointed to progress, with more than half [the 23 giant pontoons and 54 smaller supplemental ones](#) completed at Grays Harbor, and others in Tacoma.

The lake portion of the crossing is scheduled to open in April 2016, said Meredith, more than a year beyond former Gov. Chris Gregoire's goal of late 2014.

Sen. Tracey Eide, D-Federal Way, said during the meeting that Peterson "inherited a mess" when Gov. Jay Inslee appointed her last February, and that lawmakers should provide the money.

Eide pointed out the project's purpose: to replace a 1963 span vulnerable to windstorms and quakes.

"The No. 1 issue is safety, and we want to make darn sure, the first car that goes over the bridge, it has to stay up forever," Eide said.

The \$2.89 billion does not include about \$1.4 billion

to build through Montlake, and a new Portage Bay Bridge reaching Interstate 5.

Tolls on I-90, or future taxes, are being considered to fund that western link.

Mike Lindblom: 206-515-5631 or [milindblom@seattletimes.com](mailto:milindblom@seattletimes.com). On Twitter @mikelindblom

---

## *520 bridge project needs more money; other projects may take a hit*

January 8, 2014 at 11:04 AM

Posted by [Mike Lindblom](#)

Errors and cost increases for the new Highway 520 bridge will chew up the project's \$250 million contingency fund and require more dollars from toll-backed bond debt and even from other transportation projects, state officials testified this morning.

However, the financial fix won't require higher toll rates, nor a tax increase, Transportation Secretary Lynn Peterson told the Joint Transportation Committee in Olympia. Many questions went unasked in the brief update, approximately 20 minutes long. "The ability to fund against the existing tolling rate is greater than anticipated," she said.

Bottom line is the \$2.72 billion now budgeted for the six-lane crossing needs to rise to \$2.89 billion, she said. That's a \$170 million boost for the stretch crossing Lake Washington, and does not include about \$1.4 billion needed to build through Montlake and a new Portage Bay Bridge reaching I-5.

The lake portion of the six-lane crossing is currently expected to open to traffic in April 2016, said 520 program Administrator Julie Meredith.

Peterson acknowledged some money must come from other highway programs by seeking "efficiencies," rather than changing the "outcomes" for other roads.

Sen. Tim Sheldon, D-Potlatch, said, "The money will be swept from other small projects around the state, and they won't get done. That's my prediction." Later, Peterson mentioned the state Department of Transportation (DOT) would take a harder look at design — for example, whether 12-foot shoulders could be reduced to six feet on certain highway stretches, saving money.

Peterson did mention last summer's rapid Skagit River Bridge repair as a sign of agency reforms since she took the post not quite a year ago.

Previously, the DOT released internal documents showing that [overruns might reach \\$378 million](#), chewing up the project's financial reserve plus another \$128 million or so. Those broad, preliminary figures included not just pontoon fixes, but cost increases on land near the Eastside approach, and general costs of project delays.

Today's testimony suggests that contrary to hopes expressed in speeches by Peterson and Meredith, the agency was unable to slash those numbers through negotiation with the Kiewit-General-Manson partnership and other contractors.

The \$170 million request conservatively assumes that DOT hasn't yet spent down the \$250 million reserve, and is still protecting about \$62 million of that cash, to tackle any further cost increases for 2014-16.

The first group of giant lengthwise pontoons from 2012 included long cracks, which had to be repaired, causing a redesign of other pontoons. Now, more than half the 77 large and small pontoons are finished or under construction. [Three batches of pontoons have been completed at Grays Harbor](#), and others in Tacoma.

---

---

## *Bertha, 520 troubles hurt hopes for transportation-tax deal*

Originally published January 9, 2014 at 9:29 pm

Updated January 10, 2014 at 5:05 pm

Sections of new pontoons for the new Highway 520 bridge across Lake Washington sit along the north side of the western high-rise of the existing bridge last month.

By [Andrew Garber](#)

OLYMPIA — A proposed multibillion-dollar, transportation-tax package is as bogged down as Bertha, the tunnel-boring machine.

New obstacles to an agreement are piling up quickly, including a fight over who should pay for Bertha getting stuck while plowing a new underground path for Highway 99, cost overruns related to construction of the Highway 520 bridge, and a debate over a possible climate-change regulation.

The GOP-led majority in the Senate and the Democratic majority in the House have been trying for months to agree on a tax package that would increase the state gas tax by more than 10 cents a gallon and fund about \$10 billion to \$12 billion in transportation spending over the next 12 years, including expansions to Interstate 405 and Highway 167.

Lawmakers remain stuck on longstanding issues including stormwater treatment, sales taxes collected from transportation projects, and funding for public transportation.

But Seattle's troubled megaprojects drew a lot of attention Thursday at an Associated Press forum that looked ahead to the legislative session that starts Monday.

Senate Republican Leader Mark Schoesler of Ritzville, Adams County, indicated Seattle would be on the hook for possible Bertha cost overruns, referring to a provision approved by lawmakers in 2009 even though some questioned whether it could be enforced.

"It would be very hard to convince a legislator from Vancouver or Yakima or Spokane to change hundreds of millions in dollars in spending to cover that action. Right now, the law is the law," Schoesler said.

However, House Transportation Chairwoman Judy Clibborn, D-Mercer Island, said the state should pay the tab. "Seattle is not on the hook for cost overruns on the tunnel," she said.

Democratic Gov. Jay Inslee suggested the company drilling the tunnel should pay, noting the state's contract specified it was the contractor's responsibility to remove obstructions previously identified by the state. He said more research is needed.

Bertha has been stalled for more than a month by a 119-foot-long well casing left behind by a research crew. The location of the well was included in state documentation given to the contractor.

The costs of the delays are unknown, and the Department of Transportation has refused to offer an estimate. The tunnel budget has nearly \$120 million in reserves.

#### Other complications

In addition to Bertha, lawmakers are concerned about cost overruns for the new 520 bridge.

The state this week announced it will need an additional \$170 million to pay for problems, including cracks in the floating bridge's pontoons. Some of the money will need to come from other planned transportation projects, DOT Secretary Lynn Peterson said Wednesday.

"I do think it erodes public support for a (tax) package," Rep. Ed Orcutt, R-Kalama, Cowlitz County, said of projects such as Highway 99 and Highway 520. "I just got an email from a constituent saying, 'I don't have a problem with taxes, but I'm concerned about paying taxes when I see these kinds of things occurring.'"

Lawmakers said rumors about Inslee instituting low carbon-fuel standards through executive order or agency regulation also are bogging down transportation negotiations.

Inslee has championed the need to reduce greenhouse-gas emissions and [signed a pact](#) with Oregon, California and British Columbia last year promising to do so.

A low carbon-fuel standard is a policy designed to reduce the amount of carbon in transportation fuels. Inslee was vague about what it might entail.

Republicans contend such a policy would drive up fuel costs and hurt the economy. They have asked Inslee to promise he would not take action unilaterally.

"The potential of severe economic impact is enormous," said House Republican Leader Dan Kristiansen, R-Snohomish.

Clibborn said she's been hearing from the trucking industry about the prospect. "That hanging over our head has probably more of an opportunity to hurt us going forward ... than any of the mistakes we're talking about," she said, adding that she hoped the governor would clarify his plans.

Inslee expressed surprise that fuel standards are even an issue, saying no lawmaker had raised it during previous transportation negotiations. He also disagreed that such a policy would significantly increase costs. He did not indicate if he would take action on his own.

"We have not made a decision on a low carbon-fuel standard, and before we make any decision on that or any other measure we will be doing a full economic and environmental assessment of those rules," he said.

On top of all those issues, legislators also are bickering over who should make the next move. Democrats maintain it's up to the GOP-led caucus in the Senate to prove it can pass a bipartisan transportation package out of that chamber before talks can progress. The House passed a transportation plan last year, but it died in the Senate.

GOP Sen. Curtis King, co-chairman of the Senate Transportation Committee, said the Senate will obviously need to pass one at some point, but said that doesn't need to happen for negotiations to proceed.

"If that was true, then we've spent six months doing nothing," he said. "Wouldn't it be better to try to reach an agreement among all parties?"

King said he could not get enough votes from his GOP-led caucus to pass any transportation-tax package, given the opposition to tax increases. Asked if half his caucus would vote for a package, King said, "I cannot answer that question."

Transportation reporter Mike Lindblom contributed. Material from Seattle Times archives were included. Andrew Garber: 360-236-8268 or [agarber@seattletimes.com](mailto:agarber@seattletimes.com)

Andrew Garber

---

### *Head of WSDOT ignores attorney, skips fine for tunnel contractor*

Posted: 8:47 p.m. Monday, Jan. 13, 2014

By Graham Johnson

SEATTLE — The state transportation secretary has ignored the advice of her own attorney and decided not to fine the contractor building the new Highway 99 tunnel. At issue is not the stoppage of the boring machine known as Bertha, but the failure of Seattle Tunnel Partners to hire enough subcontractors owned by minorities.

The Federal Highway Administration criticized the Washington State Department of Transportation and Seattle Tunnel Partners for not coming close to the goal of awarding 8 percent of the work to minority-owned businesses. The agency even threatened to withhold federal funds from the project.

On Monday, transportation secretary Lynn Peterson found STP in violation of the contract and ordered the contractor to meet or exceed the goals for minority-owned businesses. She did not impose fines.

Last year, Peterson hired Seattle attorney Richard Mitchell to provide advice on how respond to the concerns raised by the federal review. In a letter to Peterson requested by KIRO 7 and released by the agency Monday, Mitchell suggested WSDOT recover damages, assess financial penalties and withhold future payments. Peterson told the Seattle City Council on Monday why she did not do that. "I think what we want to avoid is ending up in court litigating this and all our time and resources spent there and not getting the investment in the community we need," she said.

Peterson says she has ordered the contractor to meet or exceed the goals for the project and reserves the right to impose fines in the future.

---

### *520 floating bridge cracks will hurt other state projects*

by [John Stang](#)

The Evergreen Point Floating Bridge Credit: Flickr: stevevoght

The State Route 520 bridge's pontoon troubles could siphon off up to \$170 million from other Washington transportation projects.

Washington Transportation Secretary Lynn Peterson told the combined state Senate and House transportation committees Wednesday that the department's own pontoon design errors will cost \$208.2 million to fix. That \$208.2 million is far greater than the \$81.1 million figure that The Seattle Times quoted last July.

And it wipes out a contingency fund to meet unexpected expenses on the reconstruction of the floating bridge connecting Seattle and the Eastside. The \$2.72 billion bridge replacement project has a

contingency fund of \$250 million. But that contingency fund already has \$211.6 million charged to it. The change orders to fix the cracks due to pontoon design errors are expected to total another \$208.2 million. The bottom line: \$169.8 million more is needed.

Peterson said the Highway 520 bridge replacement's budget needs an authorized increase from \$2.72 billion to \$2.89 billion. She was unsure Wednesday whether the Legislature needs to approve that budget increase in a bill, but speculated that requirement is likely.

State engineering mistakes have led to cracks showing up in several replacement bridge pontoons. Water will ooze through the cracks and shorten the 75-year design life of the bridge. The problems have delayed the project by at least a year. The current completion date is April 2016, with demolition of the existing bridge to be finished by late 2016.

"You inherited a huge mess. ... We want to make sure that when the first car goes over the bridge, it stands there forever," Senate Transportation Committee co-chairwoman Tracey Eide, D-Federal Way, told Peterson. Peterson took over the Transportation Department last March.

Peterson contended no extra taxes or increased tolls will likely be needed to scrape up the extra roughly \$170 million. Senate Transportation Committee member Tim Sheldon, D-Potlatch, worried that the extra money will be transferred from numerous smaller transportation projects around the state — a scenario that Peterson conceded is probable. Nevertheless, she said, "We will work to minimize the dollars coming from other projects."

----

### *The specter of Seattle paying tunnel cost overruns, again*

January 16, 2014 at 6:25 AM

Posted by [Jonathan Martin](#)

Seattle City Councilmember Mike O'Brien

The specter of Seattle being on the hook for Highway 99 tunnel cost-overruns has been repeatedly raised (see: McGinn, Mike, former mayor) and [repeatedly debunked](#), according to Seattle Times news reports. But you can't blame tunnel opponents like Seattle City Councilmember Mike O'Brien for raising them once again, with tunneling machine Bertha shutdown for a month.

At a council hearing Monday focused on the tunnel and the Seattle seawall, O'Brien conceded that the state was on the hook for the tunnel itself. "From the city's perspective, I feel comfortable for now that is your deal," he told Washington State Department of Transportation secretary Lynn Peterson.

But O'Brien noted there are other side deals between the city and state on the massive \$3.1 billion project. Namely, the \$290 million contract, paid by the state, to decommission the Battery Street tunnel, tear down the viaduct and replace Alaskan Way.

Is DOT "fully committed" to preserve that \$290 million for that portion, even if Bertha blows her budget, O'Brien asked. DOT project administrator Todd Trepanier gave less than an absolute yes. "What is happening with this machine now, or what will happen at other times, the intent is not to take money that is set there... to complete this project."

What Bertha dug, before she stopped (Washington State Department of Transportation photo)

Holy non-committal! That sort of squishy answer is the stuff that fueled the 2009-10 era debated over a Legislative amendment which makes Seattle a partner in cost-overruns. It was debunked as unenforceable because it is a state project. Yet it lives on.

What makes O'Brien's question relevant again is that the state DOT is potentially doing that sort of budget-shifting right now with the Highway 520 project. To deal with the \$170 million cost-overrun caused by the cracked bridge pontoons, DOT Secretary Lynn Peterson planned to issue more bonds against toll revenue, wiggle room allowed by the very good interest rates on existing 520 bonds. The problem, as O'Brien sees it, is that toll-bonding capacity could have been used to pay for the \$1.4 billion west side landing of 520, which hasn't been funded.

"What it means is the hole they have on the west side just got deeper," O'Brien told me.

That anxiety is worsened by the Legislature's inability to reach agreement on a statewide transportation. Full funding for the 520 west side is in the Senate version, but the Senate can't even muster the will to vote for it.



Apply this scenario to the Highway 99 tunnel. The Bertha-dug tunnel is equivalent to the cracked pontoons, eating up the project budget. The Viaduct tear-down is the 520's west side landing. What if there's no money left for the second part? Senate Republican Leader [Mark Schoesler](#) of Ritzville, asked about it before this Legislative session, had an answer: Seattle pays. "The law is the law," he said. For Seattle to actually be on the hook requires a lot of catastrophe and for Inslee, among others, going back on their word. It would be a huge geo-political fight in Olympia. Don't think it's going to happen. Just saying it's a scenario.

Here's what's ironic about O'Brien's concern: Seattle itself is doing exactly the same budget-shifting game. The \$30 million cost-overrun on the Seattle seawall project is coming out of a related portion of the project to rebuild Piers 62 and 63. Instead of \$50 million for the rebuild, Seattle now has \$20 million, and hasn't said a peep about how it will finish the piers.

---

### *We need to dig out truth about Bertha problems*

Originally published January 18, 2014 at 2:23 pm

Updated January 21, 2014 at 2:14 pm

Something sure seems broken with the Bertha megaproject. Something more than the tunneling machine itself.

When the world's largest drill was brought to a halt last month by what they said was an unidentified buried object, state officials soothed that these things happen in tunneling.

"Seeing some reports that I'm stuck," Bertha herself [tweeted on Dec. 9](#). "I'm working fine, but have encountered an obstruction. I'll keep you posted."

Bertha's tweets are intended to humanize this \$3 billion highway project, but they are the work of the state Department of Transportation's PR department. So the tweets are a version of the official line.

Cuteness aside, they are supposed to have a side benefit of telling the public what's actually going on. So compare that "I'm working fine" to what the project's public manager, Todd Trepanier, finally told a freaked-out state Senate committee about the [actual state of Bertha on Thursday](#).

"If it was your car, and all your warning lights were on and you still needed to make a trip, would it be wise to make that trip? We're saying no. We're saying you've got to figure out why the warning lights are all on."

Wait — what? All the warning lights? She was supposed to be blocked by something. Now she sounds like my 31-year-old Volvo.

On top of that, the Transportation Secretary Lynn Peterson said last week that the [state has had serious doubts about the drill's "operations and critical systems"](#) since the first day it started mining — in July.

Which means that happy talk all fall was just spin. How perfect: We've been spun by a drill.

Now part of this sudden change in tone is that the government and its private contractors are jockeying to sue one another over delays and potential cost overruns. It's early in the game to be playing to the lawyers, as the tunnel is only about 10 percent drilled.

It's also no surprise Bertha ran into some trouble. That's expected when you're remodeling your kitchen, let alone boring the widest diameter tunnel ever attempted.

But the unsettling feeling around town isn't just that there might be some major engineering problem with the tunnel or with Bertha. It's that the story keeps changing so much that the state has drilled a hole in its credibility.

Why say Bertha is fine and then imply she's not — and that you suspected she wasn't all along? Why say you don't know what the drill may have hit when you knew at a minimum that it hit a steel pipe? These obfuscations are maddening because there's no apparent purpose for them.

Five years ago I wrote that the tunnel project [was born in a deception of sorts](#): the categorical guarantee by the transportation secretary at the time and other public officials that, "There won't be any cost overruns."

This unknowable promise may have been "delusional optimism" — when you want it so badly you can't see its flaws. Or, more likely, it was what a professor at Oxford who studies the psychology of megaprojects, [Bent Flyvbjerg, calls "strategic misrepresentation."](#) That is, spinning to grease the politics of the project (which worked).

What's going on now, though, won't work. It will only make it less likely voters trust the state going ahead. Such as when they ask for a gas-tax increase to do other highway megaprojects.

Is Bertha really broken? Just tell us. We can handle it. We all knew this tunnel was likely to bust the budget anyway. So lay it out straight.

“Less cutesy PR and more project management please,” someone tweeted at Bertha the other day. Exactly. Broken trust is much harder to fix than a broken machine.

Danny Westneat’s column appears Wednesday and Sunday. Reach him at 206-464-2086 or [dwestneat@seattletimes.com](mailto:dwestneat@seattletimes.com)

---

*DOT to lawmakers: Have patience with Bertha*

January 10, 2014 at 11:06 AM

Posted by [Mike Lindblom](#)

UPDATE 4:02 p.m.: A worker was lowered 60 feet into a vertical, five-foot diameter exploratory shaft Thursday, but his visual search for an object blocking the tunnel drill was inconclusive, the DOT said Friday. Three of four planned shafts have been drilled. (Earlier, the agency had said it would not lower a person there.) The team expects to make additional searches.

POSTED FRIDAY MORNING:

Highway 99 program administrator Todd Trepanier didn’t use the word “patience,” but that was the theme of an email he sent Thursday to state lawmakers and the Transportation Commission, about the push to get tunnel machine Bertha moving again.

The giant drill has been stranded 60 feet underground since Dec. 6, shortly after hitting a steel pipe. In his email, Trepanier mentions but then downplays a project team member’s remark that it could take “one month” to resume drilling, without offering his own conjecture. Megaprojects are inherently uncertain enough that this sort of time estimate should be treated as an educated guess anyhow, rather than a fact. Trepanier raises two other points that are more subtle, and more meaningful:

He calls the wayward 8-inch-diameter steel pipe in front of the machine “a contributing factor,” which raises the ominous question of whether more problems lurk in the soil or in the machinery. “The overall cause won’t be known until our investigation is completed,” he said.

Second, he notes that if the blockage can’t be removed through the vertical shafts that are [being drilled this week](#), the shafts would be filled to build a deep concrete wall, to “create a safe environment” for workers. Such a wall would restrain loose soil and groundwater that would otherwise collapse into the cutting face during work there. In December, Chris Dixon, director of the Seattle Tunnel Partners (STP) contracting team, said such a barrier [would take several weeks to build](#), even before sending a team in. For the time being, the delay hasn’t busted the budget — but taxpayers could potentially take a hit if delays drag on. The project’s \$2 billion plan includes a \$40 million reserve for so-called “extraordinary interventions,” in which tunnel-trained divers remove surprise blockages or make emergency repairs to the cutter.

Beyond that, about \$78 million in projectwide reserves remained untapped as of July, when drilling began, according to page 53 of [this state Department of Transportation \(DOT\) report to the Federal Highway Administration](#). Project officials have acknowledged that some reserves likely will be drawn down, as STP and DOT sort out the costs and the blame. Citizens will recall that Transportation Secretary Lynn Peterson told lawmakers this week that the Highway 520 bridge project needs a \$170 million infusion, after pontoon cracks and other woes consumed the \$250 million reserve.

---

THIS ARTICLE NO LONGER EXISTS AT SOURCE

---

*Steel pipe, plastic and big rock found inside tunnel machine*

Originally published January 21, 2014 at 8:57 pm

Updated January 22, 2014 at 6:10 pm

By [Mike Lindblom](#)

Workers found a tangled fragment of steel pipe, plastic and a large rock or concrete piece during the first 35 hours of inspections inside the cutting face of Highway 99 tunnel machine Bertha.

The discoveries, made since Friday, suggest more junk might appear in the next few days.

Seattle Tunnel Partners is trying to determine why the machine has been stalled since Dec. 6, when the cutter head quit grabbing dirt. Three days earlier, the machine hit a pipe along the central waterfront. On Tuesday, the state Department of Transportation (DOT) issued its first status report since inspections began to look for obstructions or damage inside the cutting machine.

The [state update Tuesday](#) said:

“While the inspections are under way, it is too early to speculate on what led to the tunneling stoppage. “Over the weekend, crews inspected a portion of the cutterhead as well as the cutting tools they were able to access. They also cleaned the spokes and removed a bent piece of metal well casing and plastic PVC pipe. Crews also identified a large boulder or piece of concrete material in a cutterhead opening.” DOT would not elaborate or make staff members available to answer questions Tuesday about the size or importance of the buried objects.

The search for answers has dragged on because the machine’s 5-foot wide mixing chamber, where dirt enters the conveyor system, was flooded with mud and groundwater. Ten temporary wells had to be drilled just to pump enough water away from soil around the machine that workers could view the cutter from inside.

Teams of five or six workers are cleaning and inspecting the rotary cutter at 1.4 times normal atmospheric pressure, more than 60 feet underground. Compressed air is being blown into the area to form a sort of bubble surrounding the cutter head — a work zone.

On Sunday, a gradual loss of air pressure occurred, so the chamber needed to be resealed and refilled with air, the update said. DOT spokeswoman Laura Newborn said this air loss wasn’t unusual, nor did it pose a safety hazard.

The state wouldn’t describe the rock or concrete piece in detail Tuesday. The \$80 million Hitachi machine was designed without an internal rock crusher, on the premise that boulders 3 feet or bigger would stay lodged in the soil, and get cracked apart by discs on the spinning face. But it’s possible for STP to break apart a recalcitrant rock using power drills or hammers.

Steel pipe was left behind from groundwater research conducted for the state years ago, before excavation began on the new four-lane tunnel — but DOT didn’t divulge for four weeks that STP hit it on Dec. 3.

STP has blamed the stoppage mainly on the 8-inch-diameter pipe. Steel is capable of gouging cutting tools or becoming tangled in moving parts.

State officials have called the pipe only a partial factor but won’t say what else they think is wrong. Transportation Secretary Lynn Peterson last week said the state had concerns since summer about how STP was operating the machine.

Plastic PVC pipe was used in previous groundwater studies and wouldn’t ordinarily be considered a threat to a tunnel drill.

It’s likely several days of inspections remain.

Groundwater and muck cover the lower half of the 57-foot-diameter tunnel drill. Once the top half is inspected, the plan is to rotate the cutter 180 degrees, to inspect the half that was submerged. Inspections began Friday afternoon. The work proceeds slowly, in part because scaffolding and safety equipment must be set in place for people to enter the work zone near the crown of the machine, and descend nearly 30 feet.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter @mikelindblom

---

*Transportation deal: Don’t count on it*

by [John Stang](#)

Traffic on I-405 near the Highway 520 interchange: Is help on the way? Credit: [Photo: Oran Viriyincy](#)

As legislators prepare for a new session that starts next week, it is increasingly questionable whether the Legislature will pass a multi-billion-dollar transportation package.

On Thursday, legislative leaders hinted that a transportation package might not pass until the 2015 session. Already, the Washington Department of Transportation is figuring out how to deal with the lack of a transportation package to pay for projects, said Transportation Secretary Lynn Peterson. But she said that a package is needed immediately.

There are not enough Republican senators willing to vote for any gas tax hike to approve their own proposed transportation package without some support from minority Democrats. The current Republican package has a proposed increase of 11.5 cents a gallon.

And using Democratic votes assumes the leadership of the Republican-dominated Senate Majority Coalition Caucus would allow a floor vote in the first place — something it was unwilling to do in the last regular session unless its members were unanimous in their position.

Gov. Jay Inslee is continuing to make passage of a transportation measure a top priority. "If the Legislature is unable to produce a transportation package this year, not only will we have long-term problems, but short-term problems as well," said Inslee at a Thursday Associated Press forum that included separate sessions with legislative leaders. Inslee pointed to the possibilities of work stalling on replacing the State Route 520 across Lake Washington to I-5 in Seattle, Interstate 405 on the Eastside, the proposed extension of State Route 167 to Tacoma and highway work around Spokane. If the transportation package talks go into 2015, the Legislature will become distracted by wrangling over the 2015-27 state operating budget, plus dealing with the increased demands for money to fix schools as required by a Washington Supreme Court ruling, Inslee said.

Republicans and Democrats have been negotiating for eight to 12 months — depending on when you start the clock — on a package of transportation projects, how to raise money to pay for those projects and changes in transportation-related laws. Last May, the Democratic-controlled House passed a \$10 billion proposal, financed in part by a 10.5-cents-per-gallon gas tax hike. The current state gas tax is 37.5 cents a gallon. House Republicans and the Republican-dominated Senate majority coalition originally took a no-tax-hike stance. The majority coalition's current proposal of a gas tax hike of 11.5 cents a gallon was informally unveiled in public in November.

At Thursday's forum, Sen. Curtis King, R-Yakima and co-chairman of the Senate Transportation Committee, said the majority coalition, with 26 members, will not collect 25 votes among its own members to pass a transportation package with any tax hikes in it. Twenty-five votes are needed to approve anything in the 49-member Senate.

[Seattle Top Story](#) was at the forum

King did not know how many Republican senators would oppose a package with a tax increase. He and Republican Caucus Leader Mark Schoesler, R-Ritzville, portrayed the question as premature, saying the caucus has not done a vote count yet. Questioned by reporters, King said the SR 520 bridge and waterfront tunnel construction problems don't help with gas tax support.

King speculated that the Democrats and Republicans might not come to an agreement on transportation in the 60-day 2014 session that begins next Monday. Half of the Senate and the entire House are up for election in November, so everyone will be skittish about passing a tax increase this year, King suggested. "It just makes it tough for everyone to come to an agreement. But we're going to try," he said.

Besides the gas tax issue, Republicans and Democrats are still split on the majority coalition's desire to get rid of the sales-and-use tax on transportation construction materials, which Democrats counter would reduce money to the state's general fund. The majority coalition also wants to shift the funding of stormwater-runoff projects from gas-tax revenue to a state Ecology Department-related hazardous substances tax — which Democrats oppose. Urban Democrats want more money for mass transit, while the rural Republicans want less money allocated there. And the Republicans want to trim prevailing wage requirements on state-financed transportation projects, a move that labor-backed Democrats oppose.

At Thursday's forum, both Republican and Democratic transportation leaders opposed an Inslee proposal to mandate some use of low-carbon vehicle fuel in Washington. Republican leaders contended that requiring low-carbon fuel would add 60 cents to a \$1 per gallon to the price of fuel — a huge burden on top of an 11-cent gas tax hike. Democratic transportation leaders Rep. Judy Clibborn, D-Mercer Island, and Sen. Tracey Eide, D-Federal Way, said they would oppose such a large fuel price increase on top of a gas tax hike. Inslee later questioned the figures on any cost effect from low-carbon fuels.

The legislative leaders' united stance surprised Inslee. He said in all of the transportation and carbon emissions talks, no one brought up that a low-carbon-fuel mandate as a deal breaker on transportation funding. Republicans have dug in deeply against installing a low-carbon fuel mandate in Washington,

expressing worry that Inslee might create a requirement through administrative means. On Thursday, Inslee said he would explore all options on this matter, and would not rule out administrative action. A difference of opinion on next steps also emphasized the difficulties of reaching a final agreement. Inslee contended that the majority coalition must pass a transportation package in the Senate in order to have solid Republican and Democratic positions established for the continuing negotiations. However, King said he did not believe that was necessary.

----

*If Bertha busts the budget, who pays?*

by [Knut Berger](#)

Crews drill to look for an obstruction in front of the tunnel-boring machine on Seattle's waterfront. Credit: [Washington State Department of Transportation](#)

Maybe Seattle should be on the hook for Bertha overruns.

Big revelations about Bertha and the 520 Bridge costs make you wonder if Seattle and the state of Washington have bitten off more than they can chew, boondoggle-wise.

Bertha has literally ground to a halt while digging the deep-bore tunnel. And, as the new legislative session begins, the folks building the 520 Bridge have given us some new numbers about the size and scale of their cost overruns to date, with more anticipated.

If anything, the two troubled projects are giving legislators cause for pause as they contemplate a new state transportation package.

In Bertha's case, since we're at the beginning of what could be a quagmire, we don't yet have a full handle on the cost of delays, damage and other issues related to the project. The Washington State Department of Transportation has been reluctant to be pinned down, but the project has a \$40 million fund for "running into stuff," according to state Secretary of Transportation Lynn Peterson. And running into stuff it has done.

On the other side of town, a year after we learned about the 520 pontoon design and cracking fiasco, we're finally getting the bill for the faulty pontoons that need to be repaired or rebuilt: \$208 million. The project's contingency fund is essentially blown, WSDOT revealed last week. They are requesting another \$170 million to cover additional expected overruns and future costs over and above what was originally planned. The \$2.72 billion project will now cost \$2.89 billion.

While the focus has been on the pontoons, WSDOT documents reveal that there are over \$134 million in other 520-related cost overruns, changes and delays in the offing that we haven't been hearing about, a big chunk of that on the Eastside.

One hundred million here, 200 million there, and pretty soon you're talking real money.

WSDOT assures us that the \$170 million now needed to complete half the 520 job (the funded eastern half— there's still the connection to I-5 to figure out) can come out of other state projects and bonds sold against expected toll revenues. In other words, no tax increases. Is it real money if it's not a tax increase?

Of course it is. Taxpayers and toll payers will be paying to borrow that money, and citizens counting on other projects might find their work delayed or downsized. Just because the state can put overruns on its credit card doesn't mean the money is imaginary.

Still, you wonder if anyone really cares. We expect mega-projects to go over budget. We complain loudly and say "I told you so," but these monsters lumber along and the debt piles up. The long time-frames ensure anger will cool down, lawsuits and negotiations will determine who pays the final bills, and people will enjoy the benefits of the new projects, eventually. The pols who pushed them are long gone by the time the piper is paid. We're expected to give a big, worldly shrug.

Mike McGinn made an issue of overruns and was overruled by the political leadership and Seattle voters, who insisted Bertha go ahead. Since it's reasonable to speculate that Bertha's final bill might be higher

than anticipated, the former mayor's concerns about who's on the hook have come to the surface like the bits of steel pipe in Bertha's path.

It's a state project, Seattle argues, so the state should pay the entire tab. Pro-tunnel legislators have argued that even though there's an overrun provision in the Bertha bill that says Seattle pays, it's not legally enforceable. Too vague, they say.

But surely the intent is clear. Votes to approve the tunnel bill were gathered on the guarantee that Seattle would pay.

New mayor and former state Sen. Ed Murray says not to worry about paying any overrun. But, when Seattle could have selected less expensive options, it came up with a risky plan with a Tiffany price tag (\$2 billion for the tunnel and another \$1 billion for taking down the Alaskan Way Viaduct and related work). Seattle insisted on a project that was more than the state wanted to spend. We could have had a surface project, a new viaduct, a retro-fitted viaduct or a cut-and-cover tunnel. All were problematic, but all were likely cheaper and less risk-prone.

Is it right for Seattle to insist on foisting any Bertha overruns onto state taxpayers? Doesn't Seattle have at least some liability for the insisting on a one-of-a-kind project? In the city referendum in 2011, the deep-bore tunnel project was approved by 60 percent of Seattle voters who said go ahead (the pro-tunnel group was Let's Move Forward). Shouldn't those voters have some accountability in the event of a fiasco?

Gov. Jay Inslee articulated the strategy of pushing off overrun concerns for now. "Let's drill Bertha, let's get this job done, let's focus as a team to get the job done and we'll worry about some of these cost issues at the appropriate moment," [MyNorthwest.com](#) quoted him as saying. It's a pragmatic approach, an engineer's approach. It encourages people to forget, to forgive, to repeat. We'll sort out the bill, alki. If Bertha busts the budget, the answer will be largely in the hands the courts and Olympia, a nexus for the rest of the state to express its low opinion of Seattle priorities. Already Bertha is giving some legislators a reason to go slow on new transportation spending, including finishing the 520 project, which has another quagmire waiting for it at the west end in Montlake.

Sure, Seattle is the state's economic engine, but like Bertha, it's a high-maintenance, expensive machine.

### *State Needs \$170 Million More To Finish 520 Bridge*

By MIKE BAKER • JAN 8, 2014

On Oct. 16, 2013 Kiewit-General crews prepared for the fourth cycle of pontoon construction in Aberdeen by placing the massive formwork into the casting basin.

WSDOT

State officials say they need \$170 million more to complete a replacement of the Highway 520 floating bridge on Lake Washington.

The Washington State Department of Transportation said Wednesday that an agency error on pontoon design error is consuming most of the project's reserve funds. Lawmakers had capped the project budget at \$2.72 billion, but state transportation officials are now asking the Legislature to raise that to \$2.89 billion.

Washington Transportation Secretary Lynn Peterson says most of the extra \$170 million can come from bonds funded by 520 tolls. The agency would also tap into other funds, leaving less money for other projects.

The money covers improvements on the eastside 520 corridor, a new floating bridge and pontoon construction. Some other proposed enhancements to the corridor remain unfunded.

---

### *Mystery object blocking Highway 99 tunnel drill*

December 9, 2013 at 11:13 AM

Posted by Mike Lindblom

Nearly three days after an unknown object blocked tunnel-boring machine Bertha, project managers haven't yet determined the size or how to remove it, according to the state Department of Transportation. "We don't know what it is. We don't know whether it is man made or natural," DOT spokeswoman KaDeena Yerkan said.

Drilling halted Friday night, about 60 feet deep, along the Seattle waterfront between South Jackson Street and South Main Street. In normal conditions, the team might try a "hyperbaric intervention," meaning that the tunnel machine could retreat 18 inches, and then divers would explore gaps around the cutting face, at high pressure. (Tunnel projects keep specially-trained divers on call, to work in air and soil that exceeds atmospheric pressure – Bertha includes three hatches where drivers can move to the machine face.) But in this case, there is watery sand and weak fill soil immediately above the machine. So if high air pressure were exerted in front of the machine, the air would push or burst through the soil, said Yerkan.

The problem was discovered Friday night, and reported to state DOT Secretary Lynn Peterson, who was updated on Monday.

"STP (Seattle Tunnel Partners) has not made a decision on how they're going to move forward yet," Yerkan said. "They're talking to their experts, we have been talking to ours." Chris Dixon, STP's manager, hasn't yet responded to messages requesting comment.

The cutting face, at 57 feet, 4 inches, is the widest in the world. It's equipped with steel cutting discs to scour and crack boulders, but apparently can't defeat the large obstruction. Fragments less than three feet diameter can slip through openings in the cutter head, and be removed out the back of the conveyor system.

The tunnel route was intensively sampled by soil engineers from Shannon & Wilson long before the project started, but apparently their narrow test shafts didn't strike this object. The soil at 60 feet down is considered clean, glacial sediment, but most of the soil above is unstable fill, including wood debris from industries more than a century ago, and spoils from the Denny Regrade in 1898.

One scenario might be to simply excavate from the surface, and pluck out what's in the way — since the soil above is useless anyhow. A blue crane was being assembled nearby on Terminal 46 Monday, but it's unknown whether that's related to the drilling.

Another response could be to send in crews with pneumatically driven drills, hammers or other tools to break the large object. But that task would be hampered by the loose soil, Yerkan said.

Several steel discs on Bertha's cutter head, designed to gouge and crack boulders, were recently replaced. (WSDOT file photos)

Since its start on July 30, the deep-bore tunnel project has advanced more than 1,000 feet, or close to one-eighth of its total distance from Sodo to South Lake Union.

"The machine is running well, it's functioning," Yerkan said. There have been no reports of damage to the drill face, where eroded steel discs were recently replaced during routine maintenance.

By early 2014 the machine is supposed to dive under the Alaskan Way Viaduct, causing a temporary highway closure and potential risks of vibration to old brick buildings nearby.

Seattle Tunnel Partners, led by the US branch of Spanish-based Dragados and by California-based Tutor-Perini, has been paid \$730 million as of September, or about half the total \$1.44 billion contract value, according to a state chart, released under a public-document request.

Asked why officials waited two days to disclose the problem, Yerkan offered two theories: some project staff were gone during the weekend, so Monday was the logical time to regroup for an update; and the team may have wanted to come up with some progress or strategy to offer, before reporting to the public there was a hitch.

*Independent review of mega projects released*

Date: Wednesday, October 09, 2013

Contact: [Lars Erickson](#), Communications director, 360-789-6463

WSDOT implements recommendations

OLYMPIA – An independent review of the Washington State Department of Transportation’s management of its largest projects recommends improvements that will strengthen the agency’s delivery record and ensure better stewardship of taxpayer dollars.

The report was commissioned in March 2013 by Washington state Secretary of Transportation Lynn Peterson to provide specific recommendations on how the agency can learn from recent errors and prevent them from occurring on future projects.

“WSDOT is charged with building and maintaining a safe, reliable, and efficient transportation system for our state. When I joined the agency, I requested a review of how WSDOT conducts business to ensure we are delivering all of our projects on time and on budget,” said Secretary Peterson. “I wanted to know, ‘What lessons can we learn from recent mistakes to ensure that similar situations don’t happen again?’”

The assessment of WSDOT mega projects makes recommendations on organizational structure; capturing lessons learned and translating that knowledge to other projects; developing workforce and project staffing; applying quality assurance protocols; conducting oversight and review; modifying WSDOT’s internal procedures; and assessing risk and choosing the correct contract method for each project. In particular, the report recommends WSDOT consider the general contractor/construction management delivery approach, which other state DOTs are using successfully to encourage innovation, accelerate delivery, decrease traffic impacts, and establish a fair price for taxpayers and the contractor.

The independent review found that while there are existing procedures and systems within WSDOT to appropriately manage these large projects, they were not consistently used, risk-management decisions were not always fully evaluated, and resources were limited in several key positions so that the level of oversight required did not occur. The report also found that more work is needed to ensure that staff with experience on the large projects is sharing lessons learned within the agency and being provided opportunities to apply that experience to other projects across the state.

Secretary Peterson received weekly updates on the report progress, and in some cases, moved quickly to implement changes as the authors shared their interim findings with her. Some of the recommendations already implemented or underway include:

A new chief engineer with mega project experience has been appointed, and a deputy chief engineer position has been created to ensure there is capacity to provide oversight of the mega projects.

A more robust analysis of how the agency contracts for work and how risk is shared with contractors is being developed.

A new quality assurance manager position is being created that will report directly to the chief engineer to ensure that quality assurance protocols are followed across the agency.

Opportunities will be created for agency staff to gain mega project experience, so that lessons learned on current projects can be applied to future programs.

In addition to those changes, Secretary Peterson earlier this year appointed a new bridge and structures engineer with 29 years of experience at WSDOT to lead the agency’s bridge office.

The agency, as part of Governor Inslee’s Results Washington Initiative, is currently developing a broader set of reform recommendations to improve WSDOT performance.

The review made several recommendations that would require legislative action, including enabling the use of a general contractor/construction management delivery approach described above. The report also recommended establishing a pilot program for a limited number of public/private partnerships in order to more fully evaluate the effectiveness of this delivery approach.



The review was conducted by Ron Paananen, CH2M Hill, and John Njord, Tom Warne & Associates, who have experience managing large transportation projects in Washington state and across the country. The report can be found at: [www.wsdot.wa.gov/Secretary/MegaProject.htm](http://www.wsdot.wa.gov/Secretary/MegaProject.htm).

----

### *Ferries are 'staffing up' after 82 canceled runs*

Originally published October 8, 2013 at 8:45 pm

Updated October 9, 2013 at 8:24 pm

By Mike Lindblom

Washington State Ferries plans to add 45 deckhands to its workforce, an effort to prevent the staffing shortages that have canceled dozens of sailings.

Secretary of Transportation Lynn Peterson called for the increase after 31 trips were canceled on Sept. 7. Vashon Island was largely isolated because of missed trips on the Vashon-Southworth-Fauntleroy triangle and the Tahlequah-Point Defiance route.

In all, staffing shortages have thwarted 82 crossings throughout Puget Sound this year, ferry officials say. "Obviously we're understaffed, so we haven't been able to respond to the last-minute requests for relief, to people calling in sick," Peterson said.

Thirty deckhands who worked this summer will be retained at least half-time instead of being seasonally laid off, and 15 more will be hired by the end of this year, she said. Job openings have already been posted online for more-experienced deckhands to work next summer.

"Right now, we're staffing up," Peterson said.

She said she didn't have a cost estimate yet for the added deckhands.

"Other things will not get done, because this is more important," Peterson said. "Missed sailings are not acceptable."

The ferry system's staffing shortages are partly due to a failure to train enough entry-level deckhands for positions that bear increased responsibility for safety. The Coast Guard requires specific combinations of deckhands, mates, engineers and pilots, who can operate a vessel and evacuate up to 2,500 passengers in an emergency.

In late 2011, ferry officials asked the Coast Guard to relax manning requirements — but the Coast Guard, with union support, took a fresh look at emergency response and set new requirements in late 2012.

Typically that means 11 crew, or up to 14 on the largest boats at peak times. If even one person didn't show up, a boat would be stuck.

There were at least 113 missed trips last year, roughly triple the previous year's level, a KING 5 news report said.

State lawmakers in spring added more than \$11 million to the budget to meet Coast Guard crew requirements the next two years. Meanwhile, the ferry system this summer ran low on workers, due to vacations, illness, and difficulty coordinating employee schedules. Some accrued so much overtime they were required by safety rules to turn down shifts.

"They [Washington State Ferries] were told there was a shortage. They put their heads in the sand until this summer," said Dennis Conklin, regional director for the Inlandboatmen's Union, representing about 1,000 local ferry deckhands.

Dispatchers were routinely making 300 daily calls to fill shifts, and 800 on Sept. 7, said David Moseley, deputy transportation secretary for ferries, in his weekly online newsletter.

Moseley apologized last month and promised to fix the problem.

One reason for shortages is that the state curtailed training subsidies, to stop covering wages plus \$1,500 in tuition for deckhands known as "ordinary seamen" to become "able-bodied seamen," Conklin said.

He asserted the state likely lost more money than it saved, just in overtime pay,

Capt. George Capacci, head of operations, said training will take time, because each person has to be off duty for 11 days.

"I think we've got a pretty good handle on it," he said recently.

Another shortage — this one of marine engineers and technicians — looms in two or three years, says Dave Nashif, of the Maritime Engineers Benefit Association, representing 350 specialists. The association's training school in Maryland quit enrolling Washington ferry workers in September, because the state paid less than one-tenth the cost of training. The union plans to bring experts to Seattle to give limited training.

Several engineers have been lured by higher pay in private shipping or the oil industry, Nashif said. By early 2014, the politics change when state lawmakers consider whether to raise taxes for a multibillion-dollar transportation plan — which would likely propose some kind of increase for ferry operations and maintenance.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter @mikelindblom

---

### *Investigations seeking causes of ferry-sailboat collision*

Ed Friedrich

5:06 PM, Sep 18, 2013

SEATTLE — Dual investigations should help determine whether the state will be buying Jack Gray a new sailboat.

His boat rests on the bottom of Puget Sound after colliding with the ferry Hyak on Sept. 13 in the San Juan Islands.

Washington State Ferries and the Coast Guard are looking into the incident.

The Hyak, after stopping Friday afternoon at Lopez Island, continued toward Orcas Island for its next stop. In Harney Channel between Shaw and Orcas islands, it and Gray's 25-foot boat, Taysa, slammed together.

"They came right over my back end, right behind me," Gray said by phone Wednesday. "I didn't hear or see them coming. There were no horns."

Gray, 68, was en route to Deer Harbor on Orcas for a rendezvous of Fisher sailboats. The English boats are distinguished by tall pilothouses, where Gray was standing during the collision. The ferry rode over and crushed the pilothouse, pushing the sailboat down, Gray said. He crawled out, but couldn't find his small dog, Tablo. He re-entered, saw the terrier clinging to a table in the flooding compartment and snagged it.

Nearby boaters picked up Gray and Tablo. Vessel Assist tried to tow the Taysa, but it sank. Gray returned to his Chimacum home after being checked for hypothermia and chest pain at a Friday Harbor hospital. He remains sore.

"I feel very lucky. I can't believe I came out alive," he said of the encounter with a 2,700-ton ship.

Vehicles and passengers got off at Orcas and were picked up by other ferries. The Hyak sailed to Anacortes for inspection, and was back in service that night. Field sobriety tests were conducted by the San Juan County Sheriff's Office at Orcas, and a drug test administered by a contract medical review officer at Anacortes, as is routine in such situations, said WSF spokeswoman Marta Coursey. The captain and second mate were placed on paid administrative assignment.

"(That) does not happen often, and each case is decided on a case-by-case basis, depending on the incident," Coursey said. Factors include severity of the incident, safety and personal conduct and performance.

Gray is dealing with his insurance company and the Coast Guard. He hasn't heard from Washington State Ferries, he said.

The Marine Investigation Department at Coast Guard Sector Puget Sound has begun an investigation. It's looking at contributing factors, said Lt. Cmdr. Darain Kawamoto.

"We're still early in the investigation," he said. "We're still just gathering information. There are so many factors in this, I can't give you a time (estimate of when it will be completed)."

Washington State Ferries has convened a Board of Inquiry, its highest level of investigation. It's being led by Darnell Baldinelli, a retired Coast Guard officer and chairman of the WSF board. He's joined by the senior port captain, a port engineer and a Department of Transportation risk management specialist, said Transportation Secretary Lynn Peterson.

Peterson responded Tuesday to state Rep. Larry Seaquist's concerns that panelists don't have the needed experience and seniority, and that the investigation be focused on finding and fixing problems instead of who's to blame.

The Board of Inquiry will "identify the causes, recommend corrective actions and capture lessons learned to prevent future occurrences," Peterson said in a letter to Seaquist. It won't make recommendations about discipline, which is counter to the goal of a safety investigation. That would be handled, if necessary, through normal personnel procedures.

There's no estimate on the investigation's length. Meanwhile, Gray doesn't know when he'll get to go boating again.

"I want to be out on the water, but I don't know at this point," he said. "I don't have the money to buy another boat."

---

### *Design errors may put 520 bridge \$128M deeper in hole*

Originally published August 24, 2013 at 12:10 pm

Updated August 24, 2013 at 2:16 pm

By Mike Lindblom

Construction delays and upcoming change orders are threatening not only to wipe out the Highway 520 bridge's remaining \$100 million cash reserve, but also send the project another \$128 million in the red, the state disclosed Friday.

Most of the costs are related to design errors by the state Department of Transportation (DOT) that caused cracks in the first four giant pontoons. These required repairs, while others have been redesigned.

The original goal for completing the floating section by late 2014 has been dropped. The estimate is now April 2016, about 490 days late, according to the latest internal report.

So, a crossing that was already short of money will become even more broke.

If all the expected extra expenses materialize, the \$4.13 billion price will surpass \$4.25 billion. And a known shortfall of \$1.4 billion — the Seattle landings aren't currently funded by existing gas taxes, federal grants and toll-backed bonds — would surpass \$1.5 billion.

The state doesn't have any strategy right now that would dredge up money beyond the existing reserves. One option that's not on the table is to bleed the next phase of construction, the new westbound lanes from the floating pontoons to Foster Island and Montlake. The budget for that work is already set, said DOT spokesman Lars Erickson.

Friday's revelations come just a month after new Transportation Secretary Lynn Peterson and 520 program administrator Julie Meredith held a news conference on Harbor Island, during which they reassured the public that even after several repair costs this year, a \$100 million reserve remains from the starting reserve of \$250 million. The week they spoke, the project team already was predicting that upcoming change orders with contractors would exceed the reserve fund.

Erickson said he'd "push back" against anybody thinking DOT leaders were less than transparent. "One, we don't know if they're real. They're just planning estimates," he said of the \$228 million of potential new costs. "Two, we have to negotiate them." And Peterson did caution in July that more change orders were ahead.

An Aug. 16 letter from Peterson instructs the 520 team to look for cost savings, negotiate aggressively and work with the state treasurer's office on financing options. No specifics yet.

Erickson said \$228 million is the upper end, and DOT will try to negotiate downward from there with contractors, including Kiewit, the primary partner for the floating section. The estimates vary by up to \$36 million, showing how uncertain they are, he said.

He said DOT doesn't know how it will pay for the job if money runs out — but the agency has funding to proceed through mid-2014 while it negotiates and devises a plan.

State lawmakers failed to pass a new 10-year highway package, and the latest news makes that a tougher sell for DOT, said state Rep. Ed Orcutt of Kalama, the ranking Republican on the House Transportation Committee.

"If they want a gas tax, to build more projects, they've got to get things right. They've lost a lot of trust," he said.

Orcutt said he doesn't know how to react if the 520 fund "goes negative." Conceivably, if some other project is done under budget, money could be shifted around, he said. House Transportation Chairwoman Judy Clibborn, D-Mercer Island, tried to allocate at least \$100 million more for 520 in the failed package in the spring, and could be expected to try again.

The DOT said it released memos and weekly reports on its website Friday in response to a public-records request by KOMO News. On Feb. 7, KOMO won a judge's ruling prying loose a series of 2012 reports that contained bleak, preliminary cost estimates.

Last winter, then-Secretary Paula Hammond acknowledged in interviews with The Seattle Times the pontoon-repair cost could exceed \$100 million. But in reports released later, project staffers were using a new reporting format to avoid listing the dollar figures. Those have been restored recently.

This summer, two pontoons have been repaired in dry dock, one at Harbor Island and one in Portland. The pontoon in Portland was floated out of dry dock Thursday headed toward Lake Washington, while the Harbor Island work will be finished in a few weeks, a spokeswoman said. Cracks were patched with epoxy, and the pontoons were compressed from either side using high-tension steel.

A total 32 of the project's 77 pontoons have been cast and are supposed to last 75 years.

On the land east of the bridge, new lanes are to open in June 2014, six months late.

State legislators and consultants are studying ideas, backed mainly by Republicans, that might reduce costs of state projects — though there isn't a targeted plan for the 520 bridge.

Highway 520 from Redmond to Seattle contains the world's longest floating bridge, at 7,578 feet. The new bridge will provide two general-purpose lanes and a carpool lane in each direction, and a bike trail, to replace the four-lane bridge built in 1963.

Last fall, Hammond announced that an initial \$4.65 billion figure could be revised to \$4.13 billion due to low bids, federal help and good progress on construction.

The bottom line is creeping back up.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter @mikelindblom

*Costs for SR 520 pontoon repairs announced*

Date: Tuesday, July 30, 2013

Contact: Contact: [Debera Carlton Harrell](mailto:Debera.Carlton.Harrell@wsdot.wa.gov), SR 520 Communications 206-770-3554, 206-819-7230 (cell)

New schedule for bridge opening estimated late 2015-early 2016

SEATTLE – The Washington State Department of Transportation and its contractors have reached agreements on the cost of repairing four pontoons from the first construction cycle and modifying another four pontoons from the second cycle for the [new State Route 520 floating bridge](#).

In February, WSDOT acknowledged a design error that led to cracks in the initial cycle of concrete pontoons, which also required modifications to the second construction cycle to meet the new bridge's 75-year design life. At that time, WSDOT estimated repairs would cost tens of millions of dollars.

Repairs were recommended by an engineering firm specializing in the repair of concrete structures, and then endorsed by an expert review panel.

"These repairs are important to ensure we are building a safe bridge that meets the needs of the traveling public and supports the regional transportation system for many years," said WSDOT Secretary Lynn Peterson. "We are committed to following the recommendations of the expert review panel and moving forward."

For the first change order, WSDOT will pay \$48.8 million to floating bridge contractor Kiewit/General/Manson, A Joint Venture, to complete Cycle 1 pontoon crack repairs. These repairs for Cycle 1 have been underway since June to help keep overall bridge construction moving.

The repair procedure will address cracks that developed in the keel slabs and end walls on four of the first six pontoons built in Aberdeen. The repairs include the following:

Leasing and towing pontoons to drydock facilities in Portland and Seattle.  
Building a coffer cell in Tacoma and towing it to Seattle for repairs on the other two pontoons.  
Implementing repair procedures on all four pontoons: epoxy injections, transverse post-tensioning, and the application of carbon-fiber wrap.  
For the second change order, WSDOT will pay \$22.4 million to pontoon construction contractor Kiewit-General to add transverse post-tensioning to four pontoons while they were in the casting basin in Aberdeen. The work was completed prior to float-out in April.  
Both costs will be paid from the SR 520 risk reserve developed to address unforeseen project issues as part of the \$2.7 billion SR 520 program budget. With these charges paid, the current risk reserve is now \$100 million.

With the two change orders complete, the new floating bridge is now estimated to open to traffic in late 2015 or early 2016. The final date will be determined as part of the schedule negotiated with contractors.

Additional change orders to be finalized later this year include:

Adding transverse post-tensioning to the pontoons built in cycles 3–6. These cycles will be built using the revised design.

Schedule effects to the pontoon construction project and the floating bridge and landings project with their respective contractors.

The current bridge, which will be 50 years old in August, is vulnerable to earthquakes and windstorms and must be replaced. Construction on the replacement began in April 2012, and pontoon construction is underway at two casting basins: one in Aberdeen and one in Tacoma. Eight pontoons recently floated out of the Tacoma casting basin. With the recent Tacoma float-out, 32 of the 77 pontoons needed to replace the bridge are complete.

---

*Big bill and big delay to fix new 520 pontoons*

Originally published July 30, 2013 at 8:08 pm

Updated July 31, 2013 at 3:16 pm

The easternmost pontoon for the new 520 bridge is being fixed in dry dock at Vigor Industrial at Seattle's Harbor Island.

John Clark, an independent inspector under contract to the state Department of Transportation, looks at a hole that still needs to be patched.

Cracks in pontoons for the new Highway 520 span didn't pose a risk of bridge failure but could have allowed corrosion or erosion to reduce the 75-year design life of the bridge.

1 of 3 The easternmost pontoon for the new 520 bridge is being fixed in dry dock at Vigor Industrial at Seattle's Harbor Island.

By Mike Lindblom

Fixing, sealing and strengthening Highway 520 bridge pontoons has cost at least \$81.1 million, with more expenses ahead, the state has revealed.

That work, the result of a state design team's engineering error, has also delayed opening the bridge by at least a year.

Four of the giant pontoons showed severe cracking last year, after they were cast in a basin at Grays Harbor.

A second batch of pontoons was delayed several months, before they could be floated to Seattle in April. The walls were redesigned, and some reinforcing steel was moved partway through construction, to add strength.

But the first batch still needs work. So this summer, contractors are squeezing the boxlike pontoons from either side with steel cables, a common technique known as post-tensioning.

The cracks didn't pose a risk of bridge failure, but they would have let water seep in, allowing corrosion or erosion to reduce the 75-year design life of the bridge.

The eastern pontoon is currently perched on a dry dock at Vigor Industrial at the north end of Seattle's Harbor Island, after being floated from Lake Washington back through the Ballard Locks.

The enormous piece sits on blocks, while epoxy dries within a half-dozen cracks that stretch from the ends down to the underside.

Next comes the cable squeeze, in which wires will be pulled through four conduits on each end, at 1 million pounds pressure. Finally, carbon fiber will be wrapped around the lower 20 feet of the end walls. "It's like building your fiberglass boat," said John Clark, member of an expert oversight panel, and a former engineer for the west landings of the 1963 Highway 520 bridge.

Last winter, workers at Lake Washington planted pillars into the top of that pontoon to support the future highway deck that will slope down from the east shore to the lake level. That led to the odd sight of a tall, spiky structure passing Seattle's four north-end drawbridges this month.

A second pontoon, 360 feet long, is at dry dock in Portland. A dry dock allows easy access for a faster repair than doing the job in water, but spaces are limited.

So two more pontoons will be fixed in the lake using a coffer dam, a partial enclosure that allows water to be pumped away from the walls before repairs.

The state's costs are \$9.9 million to fix damage to the first batch, when an awkwardly shaped interior wall broke apart at Grays Harbor; an additional \$48.8 million to seal cracks in the first batch; and \$22.4 million to strengthen the second batch. The state issued change orders in the \$367 million contract to reimburse the builders, Kiewit-General-Manson.

Kiewit made mistakes in concrete curing, but those caused mainly superficial cracks of less than 0.006 inches, that have been patched at Kiewit's expense.

"We are continuing to make progress on what will be the new world's-longest floating bridge," said Julie Meredith, 520 program director. About 400 workers are on the project, half of them at Grays Harbor, where casting is under way for the third of six batches.

The DOT's contractors have built 32 of the 77 pontoons for the 1½-mile floating highway segment. Eight pontoons, of a smaller shape to add buoyancy on the flanks of the bridge, are being floated out of a Tacoma basin this week.

The six-lane floating span, once aimed at late 2014, will now be open to traffic by late 2015 or early 2016, state Transportation Secretary Lynn Peterson said Tuesday. The date hinges on negotiations with Kiewit and partners, she said.

There will be more change orders, worth tens of millions of dollars, to cover design changes to the remaining pontoons, and overall construction delay.

Peterson said \$100 million remains in the project's contingency fund, to cover costs of changes or errors. The state has funded and approved \$2.7 billion in construction to date for a \$4.1 billion corridor, which will require new taxes or tolls for the Seattle segment.

Earlier this year, the DOT fired state bridge engineer Jugesh Kapur and demoted Patrick Clarke, design manager for floating bridges and special structures.

Expert reviews of the cracking episode say DOT's bridge division erred by taking the pontoon design and risks under its wing late in the bidding preparations — rushing to meet former Gov. Chris Gregoire's 2014 goal, and attract lower bids — rather than push the risk of cost overruns to the contractors.

And then, the DOT team designed the end pontoon with 72 post-tensioning bands in the long direction, but did not compress the critical end walls from the sides. The Interstate 90 Lacey V. Murrow Bridge was built successfully in 1993 without such crosswise compression, and DOT was satisfied to do likewise for the 520. Engineers failed to model the forces, according to former Secretary Paula Hammond.

But the 520 pontoons are almost twice as large, so the stresses differed, to the point where walls cracked where they intersected with heavy interior beams. "It's easy to scale things up from what you've done before, (but) some of these things are effects that don't happen until you get to a certain scale factor," said John Clark, the expert reviewer.

The 2009 Hood Canal Bridge, buffeted by tremendous winds and currents, was designed to include extra tensioning.

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com). On Twitter @mikelindblom

---

*Highway 99 tunnel machine Seattle's biggest grind*

Originally published July 20, 2013 at 9:41 pm  
Updated July 30, 2013 at 4:29 pm

By Mike Lindblom

When the world's biggest drill grinds a path under downtown Seattle, its first few weeks will be the most precarious.

The Highway 99 tunnel machine will push the limits of technology by navigating an obstacle course of soft soil, seeping saltwater, road pilings and historic brick buildings as it starts a 1.7-mile underground voyage from Sodo to South Lake Union.

Engineers here have learned from mistakes at the nearby Brightwater sewer tunnel and the Beacon Hill light-rail tunnel, and from successes and failures around the world. But if megaprojects teach us anything, it's that new mistakes are waiting to be made.

Bertha will grind through the front of its launch pit by the end of July. An opening celebration Saturday attracted Gov. Jay Inslee and a crowd of about 5,000 curious people.

The \$80 million machine, built by Hitachi-Zosen in Japan, measures 57 feet, 4 3/16 inches in diameter — led by a cutter disc seven times as large as a Sound Transit rail tunnel. The 322-foot-long colossus, including conveyors to whisk excavated dirt out the back end, had to be shipped in 41 pieces and reassembled.

Its route begins a few yards below the surface, where vibrations might damage brick buildings in Pioneer Square if not controlled well. Bertha then dives a mere 20 to 40 feet below pilings that support the 60-year-old waterfront viaduct.

Meantime, the machine operators will still be getting a feel for how Bertha handles.

No wonder the work will proceed at just 6 feet per day at the outset.

"The part that everybody is the most sensitive about, and the most concerned about, is going under the Alaskan Way Viaduct when we start, because everything is so tight," said Lynn Peterson, secretary of the state Department of Transportation (WSDOT).

Awed by the sophisticated parts, Peterson said she feels as if she's watching an engineering documentary — and in fact, an IMAX crew has been here to take footage.

WSDOT plans to finish the \$2 billion, four-lane tunnel by late 2015, with funding mostly from gas taxes. Toll rates have not been set by state officials and an advisory group, who seem at a loss as to how to raise \$600 million for construction and operations without causing drivers to divert and clog nearby streets.

Seattle Mayor Mike McGinn for years has objected to spending huge sums to serve carbon-spewing automobiles. He skipped Saturday's ceremony to campaign in West Seattle for re-election, then spoke downtown at a Trayvon Martin civil-rights rally.

Plan of attack

The political world seems distant within the machine, where welders shout and smoke, Japanese control-room technicians sweat, and an alarm on the hydraulic arms chimes like an ice-cream truck.

The machine's kahuna is Gregory Hauser, a 66-year-old engineer, veteran of 35 projects and deputy project manager for contractor Seattle Tunnel Partners. He helped lead Brightwater to the finish line after two drills eroded in abrasive dirt and got stuck.

"This is the highlight, it really is, just because it's so big," he said, after crawling out of the cutter's backside and climbing a double staircase. "Nobody's ever done anything like this before. We're going to tunnel under downtown Seattle and build a highway as we go. It's an extremely challenging project."

The cylindrical machine is packed with hoses, gauges and head-smacking catwalks, like a submarine, which it is. Bertha will withstand more than four times atmospheric pressure when it bottoms at 100 feet below sea level shortly after passing the viaduct.

There's a control room, lunchroom and strategy room. And even hyperbaric capsules to transport workers, trained like deep-sea divers, into high-pressure areas immediately in front of and behind the cutter head. The divers will make inspections, replace worn parts and troubleshoot if the machine gets stuck.

"It's a little city," says Bob Donegan, president of Ivar's and a follower of the project.

As the machine advances, arc-shaped concrete segments will be delivered from the rear and set in place by two vacuum arms to form a succession of giant rings. Once a ring is completed, 56 hydraulic rams

within the machine will push against the front rim of the ring to propel Bertha ahead, 6 feet at a time. The 56 thrusters, also called jacks, are the sole means of steering the colossal cylinder. The drill's waterfront route will be cladded by rows of thick concrete pilings, on the bay and inland sides. The roof of this protective box includes a 400-foot-long slab of concrete exerting downward pressure, so groundwater cannot float the tunnel upward. Concrete grout injected into the soil should make it more stable.

The viaduct has been wrapped in carbon fiber, painted gray and reinforced by steel rods in the soil. WSDOT might close traffic for a few days as a precaution against what it calls a tiny risk of vibration-loosened fragments falling on motorists.

Because the Highway 99 precautions are thorough, Hauser insists: "Brightwater was tougher than that." The sewer route burrowed under railroad tracks just 80 feet from the launch site, next to Puget Sound at the King-Snohomish county line.

Oatmeal, not stew

Once Bertha moves past the viaduct, "the soil gets better and deep as we go" because it has been compressed by multiple glacial flows, said project manager Chris Dixon.

However, Seattle-area dirt is abrasive enough to erode cutting teeth. Therefore, polymers, grout and soap will be carried aboard in tanks. The soap will make the soil slippery so cutting surfaces last longer.

Wherever groundwater intrudes, polymers will be squirted into the soil to stiffen the dirt flowing into the machine — so the texture is consistent and easy to measure.

"We want a paste or a cream, like stiff oatmeal," says Hauser. "I don't want beef stew."

Measurement errors can lead to voids, one of which almost swallowed a Beacon Hill home during light-rail tunneling. Scales to measure weight and lasers to measure volume are meant to ensure that excessive dirt won't tumble into Bertha from overhead.

Above ground, \$20 million is being spent for 700 high-tech devices to monitor streets and buildings, and another \$20 million to brace the century-old Western Building.

Over the 1.7-mile dig, an estimated 9 tons of steel will flake off the drill.

There are more than 600 cutting tools: large teeth to chew the soil, discs to crack boulders, smaller teeth to scrape and shape the dirt. More than 30 of the tools can be replaced by workers who crawl through the spokes. Other repairs require those trained like deep-sea divers to venture into high-pressure areas in front of and behind the cutting face.

Many

discs, from the Robbins Co., are protected by a unique seal, and grease inside the discs will be pressurized so water and sand can't seep into the bearings, said Dick Robbins, of Seattle, a retired company board member and inventor.

Robbins says abrasion is a worry. "I think they are experienced enough to avoid that problem, but we don't know. There's some risk," he said. Robbins notes that compared with Brightwater, the huge Highway 99 drill "is a much bigger diameter, which of course makes it less stable for the same geology." But he also said Hitachi and lead tunnel contractor Dragados, which successfully built a huge highway tunnel in Madrid, understand the terrain. Once the drill hits so-called virgin soil beyond the viaduct, he predicts the machine "should operate without any hiccups."

Mike Lindblom: 206-515-5631 or [mlindblom@seattletimes.com](mailto:mlindblom@seattletimes.com)