

**CITY OF MILWAUKIE
PLANNING COMMISSION
DESIGN & LANDMARKS COMMITTEE
Joint Session
MINUTES
Milwaukie City Hall Council Chambers
10722 SE Main Street
WEDNESDAY, June 1, 2011
6:30 PM**

COMMISSIONERS PRESENT

Nick Harris, Vice Chair
Scott Churchill
Mark Gamba
Russ Stoll

STAFF PRESENT

Katie Mangle, Planning Director
Kenny Asher, Community Development
and Public Works Director
Susan Shanks, Senior Planner

COMMISSIONERS ABSENT

Lisa Batey, Chair
Chris Wilson

DESIGN & LANDMARK COMMITTEE MEMBERS PRESENT

Greg "Frank" Hemer, Chair
Jim Perrault, Vice Chair
Patty Wisner
Chantelle Gamba

DESIGN & LANDMARK COMMITTEE MEMBERS ABSENT

Becky Ives

1.0 Call to Order – Procedural Matters

DLC Chair Hemer called the Design and Landmarks Committee (DLC) meeting to order.

Vice Chair Harris called the Planning Commission meeting to order at 6:35 p.m.

2.0 Minutes

2.1 March 17, 2011 PC/DLC Joint Session (*for DLC approval*)

DLC Member Jim Perrault corrected the notes to recognize himself as Vice Chair rather than Becky Ives.

DLC Member Patty Wisner moved to accept the **PC/DLC Joint Session Minutes dated March 17, 2011 as corrected**. **Commissioner Churchill** seconded the motion, which passed unanimously.

3.0 Information Items

Katie Mangle, Planning Director, thanked everyone for making it to the meeting and apologized for the venue change.

4.0 Audience Participation – This is an opportunity for the public to comment on any item not on the agenda. There was none.

5.0 Joint Session Items

- 5.1 Summary: Portland to Milwaukie Project – Early review of the design for the proposed bridge over Kellogg Creek and McLoughlin Blvd
Presenter: Susan Shanks, Senior Planner; TriMet PMLR design team

DLC Chair Hemer reminded that in providing recommendations to TriMet, everyone should keep in mind the criteria on which the bridge application would be judged, which included the Downtown Design Guidelines and Willamette Greenway criteria.

Susan Shanks, Senior Planner, stated the only item on the agenda was to discuss the Kellogg Bridge structure, which would cross over the Kellogg Lake area and Hwy 99E/McLoughlin Blvd, land in the Island Station area, and then running alongside the Trolley Trail and McLoughlin Blvd. This was the last informal group discussion to provide input to TriMet on the design of the structure. TriMet would take the comments, do some red lines, and give them back to their consultants who would start preparing the actual land use application that would return in a formal hearing through the land use review process.

- A clipped copy of a portion of the zoning map had been distributed. She noted the portion of the structure located in one of the downtown zones from Eagle St to the north that would be going through Design Review with the DLC. After the DLC reviewed the design against the Design Review criteria and design guidelines, they would make a recommendation to the Planning Commission, who would then review the Design Review application along with the other components of the application which would be the Willamette Greenway, Water Quality Resource (WQR) and Habitat Conservation Area (HCA) reviews.
- Staff would get back to the commissions when the level of review for the Trolley Trail modifications was determined. A worksession would be held because the Planning Commission approved the Trolley Trail application as its own CSU application in 2008 and the TriMet project would be modifying the trail to some degree, which would be evaluated through some land use process.

Carol Mayer-Reed, Mayer-Reed Landscape Architects, noted that a memo had been sent last week addressing a number of issues; however, they would focus on the bridge for the evening's discussion. She confirmed that the Commission and DLC wanted to hear both the bridge and art presentations together before opening up to questions.

- She noted that Mr. Mikolavich had prepared a handout and that the plan showing where the bridge would be located was on the bulletin board.

Mark Mikolavich, Design Architect, Waterleaf Architecture, along with **Ms. Mayer-Reed**, reviewed the PowerPoint presentation and responded to questions and comments from the DLC and Commission with these key comments:

- The slide depicting an aerial view of downtown Milwaukie in the 1950s was shown and locations of the Lake Road platform, redevelopment parcel, and light rail alignment were identified. An overview of the proposed light rail route was provided with additional details reviewed using different slides, including one of the site plans displayed on the wall.
- As discussed at the last meeting, they were able to remove a column from the center of the lake, resulting in two sets of columns on each side of the lake with single columns used elsewhere along the structure.
- The route and connections of the Trolley Trail were reviewed. Trails in Kronberg Park were not part of the scope of this project, but were being shown just for reference.
- One item being worked on at the time of the last meeting was circulation at the tricky intersections at 21st Ave and Lake Rd and 21st Ave and Adams St. Pedestrian accommodations were made surrounding the Lake Rd and 21st Ave intersection, which

presented various engineering challenges and resulted in changes to the platform since the last meeting. Given the fixed length of the platform, extra room was needed to get the circulation to work. Trains required a safety overrun and even more room was needed at the acute angle for circulation and pedestrian access onto the platform itself. These resulted in a shift of the platform 20 ft farther to the south and an access that went over onto the bridge deck, which was something new than presented last time. At this point, they had access to the south end of the platform and the pedestrian routes on and off the platform were described.

- The shifting of the platform also resulted in the platform entrance at the south end to be cantilevered over Lake Rd. Lake Rd would not be depressed at that point for clearances. A minimum clearance was required for the light rail bridge, and the cantilevered area was adjacent to it. Because of structural requirements, the cantilevered area could be shallower structurally, resulting in having more clearance over Lake Rd than the bridge.
- The abutment wall had stayed in the same approximate location.
- The pay station would be at the base of the stairs. The platform would adhere to TriMet's minimum lighting requirements for safety.
- The objectives and design goals were reviewed. Some of the objectives were to create a simple, elegant connector between Milwaukie and Oak Grove, bring a sense of craft to otherwise standard bridge elements, and enhance the sense of arrival to Milwaukie.
 - The new Kellogg Bridge was not seen as a gateway element, but did frame the entrance experience coming from the south to Milwaukie. The experience of the bridge had been considered from the vantage points of drivers, light rail riders, pedestrians, and bicyclists.
 - The design goals included the intention to create a graceful line across the landscape, referred to as a ribbon. A consistent material was desired in the spanning elements to maintain a consistent structural depth for the spanning elements to achieve the ribbon effect. They also wanted to provide textural and/or sculptural effects in the pedestrian zone to create visual interest and address the sense of craft.
- A rendering of a design representing the design during the environmental impact statement phase was shown that had not been previously presented. At that time, it was an all concrete bridge.
- A new rendering was presented depicting the preferred options expressed at the last meeting: tapered concrete columns with a steel drop caps on top, steel tubs, and concrete decks. The railings were also depicted.
- Since the last meeting, a more detailed study had been done in collaboration with the structural and civil engineers, which informed the design being presented:
 - Incorporated into the design was community policing through environmental design principles, which were basically safety and security principles.
 - There had been further development on the Lake Rd station design, the bridge abutments at each end of the Kellogg Bridge, and the Trolley Trail design, which now included landscaping, lighting, and site walls.
 - The consultants had also been working with the sustainability programs of TriMet and the design team and held meetings with the bridge artists to integrate their art.
- Certain elements of the design were reviewed as follows:
 - Railings would be weathering steel flat bar at about 5 ft centers. Stainless steel cable would be strung between the railings with a galvanized steel handrail on top.
 - The deck supporting the rail had about a 5-ft overhang beyond the edge of the supporting tubs which gave the effect of a narrower silhouette to the structure and reduced the visual mass of the bridge while also reinforcing the refined ribbon-like quality.

- The supporting beams would be a trapezoidal-shaped, weathering steel element. A sample of the weathering steel was circulated to the Commission and DLC members.
- At the last meeting, interest had been expressed in a tapered steel tub. Upon further analysis by the structural engineers, it was determined that the core actually needed to be 6 ft as opposed to 5 ft in diameter.
 - The structural core was actually pored first. In order to get the tapered configuration, a shell was actually cast around the core that had to have a minimum thickness of about 4 in plus 2 in of clearance between the inside face of the shell and the outside face of the structural core. The result was a much larger, squatter column element than they had hoped. The concern was that this would become a disproportioned looking element.
- The heights shown were very accurate. The minimum clearance over River Rd was 16½ ft from the road surface to the underside of the tub. As one moved north from River Rd, the minimum clearance requirement was still 16½ ft, but the actual clearance was closer to 20 ft from grade to the underside of the deck.
- The structural core of the twin columns on either side of the lake was only 4 ft in diameter.
- Another consideration with the columns' size was visibility when driving on and off the side streets. They wanted to make sure that both bicyclists and motorists could see around the columns.
- An opportunity to give a different texture to the columns was explored by applying weathering steel elements to the base of the column. This seemed to create an overly busy effect distracting from the craft of the column and the other elements. They recommended some similar texture be added in the zone but not with weathering steel.
- Staining the concrete elements to match or harmonize with the steel elements was also explored.
 - From a sustainability standpoint, the stain itself was not a benign element and had some toxicity. There was concern about staining these elements over a relatively sensitive environmental area. In order to get an even stain, the entire concrete surface would first have to be etched with a light acid which would then have to be washed off. Again, this also raised concern because of the environmental area.
 - The consultants liked the contrast between the natural concrete and the weathering steel and the honesty of the expression of those materials. So, the recommendation was to move away from a stain solution for the concrete.
- It was hard to believe the stain and etching process could not be encapsulated, obviously the materials would not be left open to the soil. It seemed excessive to eliminate that as an option at this point.
 - Only staining the columns had been discussed, not the platform. Pre-stained concrete should be used rather than staining in place. Taking staining off the table for environmental issues was absurd.
 - **Mr. Mikolavich** explained there were issues with getting an even effect when prestaining the concrete. Integrated color concrete was rather expensive as the additive had to be added to the entire bulk of the column even though they were only trying to achieve a surface effect.
 - It was noted that surface staining did fade and would not look the same in ten years.
- It had been previously suggested to have the columns completely encased in weathering steel and not striped. This would give a natural blending effect with the bridge and the natural area of the lake.
 - It was noted that the Commission and DLC still wanted to see this option as they had previously discussed it quite extensively. Concrete would not blend with the natural elements.

- **Mr. Mikolavich** responded that option had not been explored, as they understood there was a stronger interest in concrete than an all-steel solution. They agreed to return to it as a discussion item later in the meeting.
- An overview was given of the current proposal following direction from the last meeting and subsequent investigations with these key comments:
 - The columns were about 6 ft in diameter, and a simple, round form with surface relief at the base and a slightly different board form treatment at the top, which simulated 2-in boards. The character was still sculptural because of the texture and form. The textural treatments would create visual and tactile interest at the pedestrian level and has proved to discourage graffiti and tagging at other TriMet installations.
 - The column capital was still a weathering steel element as expressed as a preference at the last meeting. The sides of the element were sloped at the same slope as the sides of the tubs.
 - The cantilever on the top plate was similar to the type of cantilever over the edge of the tubs. The cantilever also served to hide the bearing plates between the top plate and the underside of the tub.
 - The Overhead Contact System (OCS) poles supporting the overhead electrification system would be an I or H section in plan and would have a galvanized finish, which would help those elements recede against the sky. The poles were round and painted black consistent with the City's design standards in the immediate station areas.
 - The railing system was slimmer in profile than was shown in the last meeting. The flat bar scheme almost disappeared when viewed straight on.
 - The tubs were also slimmer since the last scheme, because there had been some structural design refinement.
 - The drop cap was slightly deeper than the previous scheme. Structural requirements increased the depth from 2 ft to 3 ft from the bottom of the steel to the top of the cap.
 - There would be at least a 6 in, and as much as a 12 in, gap between the top of the cap and the bottom of the tub, and in that zone the bearing plates transferred the load from the spanning elements to the support elements.
 - One concern with the I-beam plan regarded perching birds, and the proposal with this gap posed a gigantic perching challenge around the columns.
 - An anti-bird mechanism would need to be installed. One measure used really narrow wires that virtually disappeared visually but prevented perching. It did not look like the Nixalite multi-prong devices that were often seen.
 - The overhang of the platform was 5 ft on each side of the bridge. In the earliest schemes, the overhangs were as little as 18 in to 2 ft, and they had worked hard with the structural engineers to push those back. As they refined the section through the spanning elements, they were able to place them on center under the tracks which was actually more efficient structurally than placing it off center.
- Previously used images were reviewed with the current scheme to show the different conditions along the alignment. Views of the bridge from other vantage points were also displayed. Key comments included:
 - The number of columns had been reduced from 14 to 10; some of the vertical curves of the bridge itself had been smoothed out.
 - The guardrails intended to protect the columns had been reduced in number from 6 to 2. The face of one guardrail would be of the same weathering steel used on the bridge structure.
 - Mechanically stabilized earth (MSE) walls would be utilized to retain earth and soil to support the decks. These were part of a family of elements along with the Trolley Trail wall treatments. Similar relief treatments would be used on the abutment walls as used on the columns.

- The pedestrian bridge was not part of the scope of the light rail bridge project, but was shown to give a sense of what might be seen at full build-out. The general anticipated size and configuration were used to design the light rail bridge to support it.
 - Trusses used to support the pedestrian bridge would rest on a projection from the base of the column and spanned from double column to double column with a 14-ft wide deck in between.
 - Openings in the deck would let daylight through to light the area under the bridge during the day.
- Guardrails would keep people from toppling off the stairs and overhang. They were proposed to look like a set of railings used in other parts of downtown Milwaukie. It was a different design than the standard TriMet railing and unique to the Milwaukie area.
- Because conditions at Lake Rd were actually unique from the rest of the bridge, it changed the structural system and had different support columns. The abutment wall supported a cantilever as well as the end of the bridge. A different kind of treatment could be used than the south abutment, because those abutments were never experienced adjacent to each other.
- The end of the bridge transitioned to a concrete slab rather than continuing the tubs into the station because of the clearance required to come across Lake Rd. The tubs needed to be almost 7 ft deep, which was several feet too deep to get clearance.
- The clearance heights at various locations of the Lake Rd crossing and abutment were reviewed. The pedestrian bridge would spring from a different location and at a lower level. The presentation included a plan view showing where the pedestrian bridge would hit and swerve over to the right.
- The last columns coming into the Lake Rd station seemed very engineering-driven, not aesthetically-driven. The flat span of concrete just landed on a clunky element.
 - **Mr. Mikolavich** explained it was an odd condition as it had to perform so many functions. Another scheme that was L-shaped to account specifically for those conditions could be explored as a better solution. That design ended up looking a lot lighter.
- **Commissioner Gamba** stated the whole concept of transitioning for the last 40-ft of the bridge seemed like an afterthought. It did not look elegant at all, but completely unplanned.
 - **Ms. Mayer-Reed** replied that had troubled them as well. The rest of the bridge was a ribbon traveling through the landscape, but as it came in and around the end of the platform, they were starting to look at it more as a lengthening of the platform itself and the architecture that held up the platform. This space would be very different from anything else on the bridge project. They were looking at different architectural treatments and railings. There were furnishings in this zone and more pedestrians; it was sort of like an outdoor room with a street underneath. The bridge really began at the pair of columns. They certainly welcomed any suggestions on the matter.
 - **Mr. Mikolavich** agreed that this area was an exceptional condition and was different than the rest of the alignment. One thing they explored recently, but were unable to resolve, was that maybe those should be more wall-like elements corresponding to what was on the other side of Lake Rd. They could make something handsome of that, but ran into difficulty making something that looked good which also had the same level of transparency the current design represented. They would continue to study the issue given the level of concern.
 - **Ms. Mayer-Reed** clarified that in order to use the same structural system as used for the rest of the project, many more columns would be needed. There was a good engineering rationale for changing the structural system, because this was a relatively short span and it could be done a bit differently.

- **Commissioner Gamba** confirmed the clearance distance over Lake Rd would be about 6½ ft if the tubs continued on into the station. He asked why the platform would still have to be 2 ft if the rest of the decking for the train was only about 8 in.
 - **Mr. Mikolavich** clarified that the deck was not self-supporting; but the planks actually supported the deck. The deck was just there to support maintenance staff on a curb and the rail lines themselves. The actual bearing was done by the tubs and concrete planks.
- There had been some preliminary studies and would be continuing studies regarding noise and acoustic issues arising from the noise generated by the train leaving the station and coming around the corner over McLoughlin Blvd. A key change could occur from some of the studies in that some portions of the transparent railing could become more opaque. They would work to balance the desire for transparency with the desire not to acoustically disturb some of the neighbors.
- **Commissioner Churchill** asked if any acoustical studies were planned regarding the resonance underneath the concrete deck, which could be an uncomfortable experience for pedestrians when the trains go over the bridge.
 - **Jeb Doran, Urban Designer, TriMet**, responded such studies were actually already underway. They had already met with several private property owners that had already been identified as having potential noise impacts. Kerrie Standlee was the acoustical engineer who had done some field measurements and begun to put the study together. TriMet intended to submit that to the City and have continued discussion once they had more information.
 - Part of the analysis would look at existing structures along the alignment with similar characteristics such as curve, materials, and location over streets and water. That noise information would be submitted as well.

Commissioner Churchill:

- Confirmed that one reason the bearing points were being split between 2 columns was so the pedestrian bridge could run between them. In the last presentation, there was talk that it could not be asymmetrical and be bearing on and supported by those columns, which was why it needed to be symmetrical underneath. If it was structurally independent, there was no reason why it could not go back to a single column at those bearing points again.
 - **Mr. Mikolavich** clarified it was actually not entirely independent of the columns. The columns would have little flanges or benches that supported each end of the truss. If not, the truss would have to be deeper and span considerably farther.
- Stated it sounded like an asymmetrical cap could still be done at the base of the 2 columns, or a single column, without huge structural implications. The language identified a single column and he preferred the flared column. He was curious why a single column was not being considered at those points.
 - **Mr. Mikolavich** stated when they looked at the single columns early in the process even before the last March meeting, the clear width of the pedestrian bridge between the trusses was around 14 ft. When 12 in or so for each side of the trusses plus a clearance for the column was taken into account, the cantilever off a single column was more than could reasonably be done to support it.
 - **Calvin Lamb, TriMet, Structural Design Task Lead**, clarified the history of the pedestrian structure, noting they were trying to create an environment that did not preclude the construction of a pedestrian structure while also trying to get the best bang for the buck. The only thing that would be needed for a future pedestrian structure was to create the spanning elements. The 2 columns created the substructure so that in-ground construction would not have to be done at a future point in time.

- Suggested a single column with an enlarged base could be used that would be asymmetrical so a pedestrian bridge could be supported without L brackets off the side of the columns. There seemed to be a lot of structural incongruity. It would simplify things to get away from the double column and utilize a single, tapered column at both points in Kellogg Lake.
 - **Mr. Lamb** indicated the elevation of the twin columns, which addressed being outside the floodplain, adding that creating a cap created an exceptionally large structure. By replacing the twin columns with a single column, a large element would hang off to one side that would not have a structure on it at this time. Until a structure was put into place, the configuration would look a little odd. It would function in an asymmetric situation causing a different type of loading into the column system and the drilled chaff foundations underneath, creating much larger foundations.
 - **Mr. Mikolavich** added they had actually considered single columns with asymmetric loading. Aside from the structural issues, it pushed the outer edge of the pedestrian walkway beyond the edge of the bridge above, which got into environmental issues regarding shading.
 - Also, when considering single columns and trying to avoid the asymmetric condition, they looked at conditions where the pedestrian bridge aligned with the center line of the columns, which would drive the kind of truss that would be required. They were worried that it would put them into the realm of a more expensive bridge. There were a series of considerations that led them to the current solution, but they would keep the conversation open.

Thom Faulders, Kellogg Creek Bridge Artist, gave a brief overview of the strategy for the artwork via PowerPoint presentation. His partner, Andre Caradec, was not able to attend the meeting.

- As a number of things with the bridge were in flux and still being determined, they were interested in generating a strategy for the art that would accentuate the decisions as the bridge continued to be designed, while also accentuating the location. They attempted to develop a set of ideas that would start to situate the new bridge within its context.
- They did their own sets of analysis. By understanding a series of thresholds, the areas underneath the bridgeway could become areas of opportunities. The art could start to accentuate, understand, integrate, or synthesize these local zones somehow.
 - A number of different strategies were considered to understand the motion dynamics and how a fixed element could start to accentuate or recognize the presence of movement.
- The underside of a bridge was often undesirable, so they looked for ways to accentuate the underside of the bridge and create an outdoor urban space or urban room.
- The artists studied various systems of moving particles, including flocking birds, schools of fish, and leaf canopies, that when studied as a whole became larger, flexible, adaptable systems and unique figurations. They wanted to create a similar system using their strategy.
- Conceptually, they had been interested in the idea of application and how to integrate onto the bridge itself and looked for different ways to adhere to various surfaces that were somewhat accommodating and opportunistic.
- As a strategy, they proposed to simply start to understand different nodes along the path. Based on those nodes, most of it would be wrapping the underside. They were very interested in the broad surfaces of the double tub condition and the perceptual differentiations created by playing one geometrical shape against another. The artists' pattern adhered to the underside of the bridge were rather dynamic and exciting.
 - They intended to adhere only to the underside of the bridge and not come down the columns to retain the continuity and ribbon like effect.

- Bits and pieces of the artwork might be seen from afar, but for the most part, it became very dynamic from underneath. The geometry of the elements being played against each other resulted in a constant dynamic change and shift in the artwork as bicyclists or cars passed.
- While the elements could be singled out individually, from a distance a virtual pooling of green would be seen, similar to how a tree's leaves look singular up close, but from afar a field of green was visible.
- The art would start to accommodate a bright presence of space inside the tubs that would normally be quite dark.
- They proposed using botts, which are used as line markers on roadways and very durable. They would customize the color and a very large number of these small, inexpensive elements adhered directly onto the surface of the tubs and underneath the bridge would provide the desired figuration.
- They acknowledged that the art was for the cyclists and pedestrians near the area. They also wanted the bridge design to become a marker and identity for the Milwaukie.
- There were ongoing discussions about the locations for the artwork. Although it was shown mostly along the curve, in other meetings interest had been expressed in locating it closer to Lake Rd. Where the artwork was located would depend on the final bridge configuration.
- They were interested in going over the water potentially, but the bike path was still on hold at the moment.

DLC Chair Hemer called for a brief recess, and reconvened the meeting at 8:21 p.m. He then called for clarifying questions from the DLC and Planning Commission.

Commissioner Stoll agreed that because of the seismic recommendations, the tapered columns were starting to look a bit massive. He was willing to go back to cylindrical, but he was still wedded to the idea of the metal cladding.

- He agreed the metal 'blades' could be too busy and suggested looking at the same width of blades with greater spacing so fewer blades were used, or looking into wider blades. He asked if the consultants had looked at other ways of cladding the columns with metal.

DLC Chair Hemer requested that the discussion focused on the art; other concerns could be addressed later.

Discussion regarding the artwork for the light rail continued with the following comments and questions from the Commission and DLC with responses from TriMet's design team as noted.

- **Mr. Faulders** clarified that both he and his partner were both from the Bay Area.
- **Michelle Traver, TriMet, Public Art Coordinator**, clarified that the Art Advisory Committee for TriMet, which included members from the Milwaukie community, had selected the artists for the project.
- The artists were talking with ODOT about where to place the botts so they would not interfere with traffic. One idea was to place the art are where there was a lot of action, such as an intersection, but that could also create problems should drivers want to look up instead of paying attention to the road. Such things would have to be seriously considered when placing the artwork. A lot of interest existed in placing the art in areas like the bike and pedestrian paths and the adjacent park.
- In Milwaukie, they were trying to really retain a sense of the natural environment which was why they were heavily pushing for the weathered steel look of the bridge and trying to get away from concrete. The bright lime green color was such a contrast to the natural weathered steel. Was there a possibility of working with a range of color in the composition?

- **Mr. Faulders** replied they were trying to determine type, size, and location of where this piece would go and how to synthesize the pattern being created relative to its local environment. Once that was determined, they were interested in exploring color possibilities.
 - The natural colors at the site were presently incredibly lime green; sometimes one forgets how green nature could be, but they understood the point, and were trying to look at various possibilities. They did want to have a light effect up there, because it could be rather dark between the tubs. They were interested in working with colors that would perceptually feel light and attractive.
- Lime green and brown was seen in nature quite a bit with the foliage, plant life, and soil.
 - The artists would be very interested in using different shades of green; however budgeting issues needed to be taken into consideration. They could go with more colors and fewer pieces or vice versa. The intention was not to be vague, but it was something they were trying to still determine.
- The botts were already manufactured and had proven to be incredibly resilient. Once the system was underway and a final bott count determined, they might be able to actually customize and mass produce the botts because of the scale of what they were working with.
- Adhesion had been considered and was critical. They were currently working with 3M on a 2-part bonding system to keep the bott there when first placed and last over time. They would be doing mockups with 3M's technical staff because it was important that the botts stayed in place.
- **Mr. Faulders** did not know if the botts had ever been used on COR-TEN or weathering steel, or if 3M had done this before. They were aware of the potential difficulty with the material. Weathering steel was a sloughing material except when sealed which stopped the oxidation. Presently, 3M was willing and able to bond the botts with COR-TEN, but the artists wanted to be further convinced and were doing their own research. The entire bott would have a continuous seal all the way around.

Comments and clarifying questions from the Commission and DLC about the proposed Kellogg Bridge were addressed by the TriMet design team as follows:

- The type of lighting used depended on the area. TriMet's standard for lighting in and around the station area was an induction lamp. In and around downtown Milwaukie, they would use Milwaukie's standard lights. Underneath the bridge would be some induction lamps at both ends. Other safety and security devices were being looked at for those areas for Capital Community Television cameras and other things to combine with the intrusion detection for the top of the bridge.
 - Induction lamps were highly efficient and had long lives. They were more efficient than fluorescent and slightly less efficient than LED.
- Very early on the design team had pushed to look at cantilevered and other options rather than the center-running walkway. However, environmental permitting essentially pulled in the reins on that. The Federal Environmental Impact Statement (FEIS) for the project had an environmental opinion that laid out some guidelines about staying within the shadow lines of the bridge because of salmon habitat in the water. The design team was not sure they could achieve a split walkway within the shadow lines of the current bridge, which was why they pulled back from that design.
 - While the shadow impact on the water when splitting the walkway was essentially the same, the column width and required clearances around the columns for ADA clearances started to push them outside of the envelope.
 - For most of the bridge length, the deck was 32-ft wide. They had spent some time considering a split solution because it moved away from the problems with an offset,

asymmetrical structural situation. They had moved away from this solution mainly because a column in the middle of the pathway was an obstruction that might create safety and security issues as it was a hiding place. There were also concerns about shadowing and structural support.

- The design team had not been asked to consider options for a wall on top of the platform, so materials such as Plexiglas had not been considered. The Preliminary Engineering designs did have concrete parapet walls on the side. If the noise analysis determined that any areas required some sort of noise protection, they would try to keep with the original concept of a light structure, and would look at alternatives to concrete.
- They had moved away from considering the tapered column presently. When the column got a foot bigger, it became an enormous chunk of concrete and did not look right; it was too big in relation to other elements and was disproportionate. They also wanted to be sensitive to issues the neighborhood had raised with regard to sight lines and security around the column. The bigger column made a much bigger hiding place. **Mr. Mikolavich** stated he preferred a more slender column that tapered, if possible.
- **Ms. Wisner** noted that the DLC and Commission had expressed a strong preference to see the columns match in color to the tubs to avoid a busy look of transitioning colors from gray to the weathered steel to the upper deck. She still wanted to see plans for a tapered column completely color matched to the tubs, whether it was wrapped steel or colored another way.
 - The transition between the tubs to the station looked unsolved at this point. She challenged the design team to create a transition that somehow used the weathered steel into the station area along with the color transition of some color harmony. The materials could possibly be used to blend and soften that transition better.
- The height of the bridge bed was 16½ ft over River Rd from the deck to the base of that abutment at ground level and then it tapered to 14 or 15 ft coming down into the abutment on the south end as it went by the Trolley Trail because the ground rose a little and the bridge was falling.

DLC Chair Hemer called for public comment.

Cindy Tyler, 1959 SW Morrison Ave, Portland, OR stated she was generally interested in the entire project. Regarding the north end of the bridge and the transition to the station, there was an issue with the 2 ft high expanse of concrete in the dual tuning fork columns holding up the 7 ft high steel tubs. To make the transition unnecessary, she suggested extending the steel tubs all the way to the abutment. They could gain the appropriate clearance from Lake Rd by lowering its grade 5 ft. This had been done in other areas and might save all the architectural piecemealing.

Mr. Perrault stated they could run into the problem of undermining the existing trestle structure by going down to that level.

Greg Bowman, Milwaukie resident, stated he was disappointed that the pedestrian bridge over Kellogg Lake was not included in the project. For such a massive project that really highlighted the pedestrian bridge in Portland, it seemed \$1.4 million was a miniscule amount of money to attach the pedestrian bridge. If the dam came down, the creek returned to prior conditions and the salmon were running, the pedestrian bridge would look great and the access would be great. He asked that TriMet reconsider putting the bridge back in the project.

Dion Shepard, 2136 SE Lake Rd, stated the bridge was hideous, including the materials and design, and was not what the community wanted to see there. The materials and noise were also a concern. She was also concerned that a train driver needed an additional 20 ft, when

other drivers, including those with semi-trucks, knew enough to moderate their speed prior to a stop sign so another 20 ft was not necessary.

- She was concerned about having issues this late in the game with the placement of the platform and allowing enough time or space for train drivers to stop safely. This was the first time the issue had come up.
- She hoped the DLC and Planning Commission would really take TriMet to task to see about making the project better.
- On the other side of what was currently there was a rock wall. This project looked like something that might be seen on the industrial side of Milwaukie, not downtown.

Ms. Wisner asked if she was concerned about the entire bridge or only the transition section over Lake Rd.

- **Ms. Shepard** replied the bridge was a concern because of the noise. She realized there was a desire to make it very transparent, but people needed to also realize that if Kronberg Park was to be used as a park and Kellogg Creek was going to be restored, the audible impacts were just as great as the visual impacts. Some of this could be screened with landscaping, but noise could not be shut out. The noise from the hard surfaces would bounce back over to the lake and to the park land as well.

DLC Chair Hemer understood the platform was extended out to be able to slow the trains down; they could not slow down in front of Adams St because of time or a safety issue. He asked if there was any way to not extend the platform without closing down Adams St.

- **Mr. Doran** replied the only way to get away from extending the platform was if there was no access to the south edge of the platform. The station setback would be kept regardless. The issue was that as trains approached the station, the signal system had the capability to control train speeds down to a certain speed, and if it detected they were going over that speed, it would stop them. After that, the operator was relied on. They tried to maximum the distance so the operator would have the maximum amount of time to stop the train before it got into the intersection. This was called overrun protection. To eliminate incidences with cars and trains, they wanted to maximize the setback.

Commissioner Churchill

- Commented that another way to handle overrun protection was to reduce the speed heading northbound.
 - **Mr. Doran** noted they had already reduced the speed, and the signal speed reduced the train down to 15 mph, which was the minimum amount they could get control. Because trains weighed so much, they needed a considerable amount of distance to stop.
- Found it hard to believe that controllers could not get the speed down to 5 mph.
 - **Mr. Doran** stated that at some point, the operator had to make a decision to stop the train, and if they were late doing so, TriMet wanted to make sure they had the distance to still stop before going into the street. In early designs, from the curb to the top of the block was 50 ft, which was not enough. They looked at how to reconfigure this access to push that back further, which actually gained an additional 41 ft.
- Suggested slowing the train down further before it got to the station when heading northbound so drivers would need less of a cushion and safety zone.
 - **Mr. Doran** responded many factors had to be considered, including timetables for train arrival. There was a point where the train hit that speed and then began to decelerate down to zero, and they were just making sure to maximize that safety cushion to the greatest extent possible.

- Stated that technically, a controller speed issue was resulting in a huge platform change and affected the architecture of the platform in the station. It seemed as though the tail was wagging the dog.

David Aschenbrenner, 11505 SE Home Ave, stated he liked seeing the daylight open area over Lake Rd between the 2 pillars and the end of the platform, even though it was smaller.

- He did not really like the wood-like treatment at the top of the pillars. He leaned toward doing the column all in steel as opposed to the concrete pattern shown.
- He was not impressed with the wall treatments on both abutments. They could come up with a better design than the concrete pattern presented. The wall treatment issue really needed to be addressed and really played into the character and feel of things. It still seemed to be cold concrete and was something they wanted to move away from. The columns and concrete treatments needed a little more work.
- Art at the Lake Rd end of the structure needed to be addressed. The bott elements could be used under the Lake Rd part of the structure which could get a lot of bike and pedestrian use. Another place would be under the pedestrian bridge area, which he also wanted to see put back into the plan.
- He confirmed that Boston Ivy, which was mentioned in the plans, was not on the noxious weed list for the state of Oregon; it was a different type of ivy. He preferred native plants be used if possible.
- At the Lake Road station, he suggested that extending the steel beam over the columns rather than using cold concrete would be a step in the right direction.

Matt Menely, 2016 SE Lake Rd, echoed most of the prior public comments. The bike/pedestrian bridge should be fully designed and funded as part of the project. This was essentially to providing adequate access from the other side of the lake. The Lake Road station needed to be cleaned up and have a cleaner transition from the tubs into the station. He agreed with the idea of wrapping the columns with steel. He reiterated the bike/pedestrian bridge needed to be a big part of the project.

DLC Chair Hemer closed public comment and called for any additional technical questions regarding the bridge.

Commissioner Stoll:

- Asked why the platform had to be accessed at its very end.
 - **Mr. Doran** stated that part of that regarded fare zone enforcement. It was also a center platform and TriMet did not want people crossing the tracks for access.
- Noted one could go down to the Lake Rd end and take the little L that cantilevered off the street to go right along the edge of the embankment.
 - **Mr. Doran** indicated the level boarding areas, which were part of the criteria necessary to allow trains to align for level boarding, and this was above the tracks by 10 in. He indicated an area at grade with the tracks that was ADA accessible so a ramp was present at each end. It was also safer to control the crossing points to 2 distinct locations as an extra level of safety because signage and warning devices and other things could be placed to alert people to oncoming trains. The fare zone enforcement would have people coming to these points to buy tickets before entering the area where fare was required.
 - **Ms. Mayer-Reed** added they were pretty sure they did not want to lose the south entry to the platform.
 - **Ms. Mangle** added that when these technical issues did arise from the operation side of TriMet, the City was faced with losing the southern access and felt very strongly that

having a south access was important, not only to feed the high school and the neighborhood down Lake Rd, but to serve the south end of downtown and anyone coming from the future plaza. The connectivity throughout the area was already so limited that it was important that people had maximum access. Additionally, the platform environment would be safer if there were multiple points of egress. If one was on the platform and could only go to the north, they could feel trapped. What had been presented was a solution to the problem, but there could be further ways to improve that solution.

- **Mr. Doran** indicated the access points for disabled people. Citizens for Accessible Transport would be providing input on that access. No disabled access was available from the south end due to the elevation changes.

Commissioner Churchill commented an elevator would eliminate the need for a series of multiple switchbacks to allow the disabled access from the south end. As presented, they were forcing the disabled to go to the north end.

- **Mr. Doran** explained the distance to travel if the stairs were replaced with a ramp and extended would be about the same as the distance for at the north end. An accessible route at the north end was very important because of the bus and lift connections, and people with disabilities coming from that direction relied on the transit system.
- **Ms. Mangle** added that another important consideration was the future development of the triangle site and preserving that site so it was not be taken up with ramping.

DLC Member Chantelle Gamba:

- Asked where the elevation of the fee station on the south end was relative to the future proposed station building.
 - **Mr. Doran** indicated the station elevation was roughly the same as the crossing which was intentional to ensure good sight lines for approaching trains. With the stair system coming straight up, the fee station would be lower, causing concern about the sight lines not being as open as they could be if at the same elevation.
- Asked if she was looking out at the fee station from the second floor of the future proposed station building. She was thinking about security if people were in the building.
 - **Mr. Doran** responded there was a retaining wall at the grade of the existing track. The building design had not been completely flushed out, because it was not really part of the project. Generally, it would probably be with the second level of the building.
 - **Ms. Mangle** added the conceptual design of the building did have that at approximately the same level.
- Noted that no one really liked the very angular staircase and asked if kind of circular staircase had been considered which would be consistent with the ribbon idea.
 - **Ms. Mayer-Reed** responded the big challenge was geometry given the angle of Lake Rd coming in and 21st Ave more or less matching the rest of the downtown grid. They had not looked at a curved stair solution in that area. It was more straight forward in keeping with the idea that people arriving and departing the station would want to get there as quickly as possible.
 - **Commissioner Gamba** commented it would be the same number of steps.
- Stated a curved stair might soften the transition with the beautiful curve that came off the pedestrian bridge curving up to the station and the beautiful ribbon effect going across if it were not so angular.
 - **Ms. Mayer-Reed** stated that at this point, they needed to choose what geometry to follow. There was the area where they chose to make a curve around the intersection. They could look at the idea to see if it would soften it up. Once the building was in place,

it would probably look pretty good, because it was following the geometry of the building. At some point, they had to follow urban geometry versus landscape.

- She agreed they would be challenged by the whole Lake Rd issue anyway, so it was worth taking a look.

DLC Chair Hemer:

- Asked if the X lateral designed railing was stainless steel, gray tubing, or another material.
 - **Ms. Mayer-Reed** responded they were looking at flat bar wrought iron and that design would be used as a way finder of sorts for people to follow around the interesting intersection of 21st Ave and Adams St. This particular railing needed to serve as a guard rail so did not quite have the transparency of the X form with the little circle. They would make the design as simple as possible while still meeting the requirements of not being able to pass a 4-in sphere between any steel members, including the center one, because of height concerns. It was bar stock, so it would come off pretty light.
 - **Mr. Mikolavich** noted the TriMet standard for bar stock was used, which addressed a structural issue as well as the issue with the 4-in sphere. The major stanchions were 2½-in deep by 1-in thick. The minor stanchions were 2-in by ½-in; the actual pickets were ½-in by ½-in.
 - **Ms. Mayer-Reed** added there were ways to make some of it appear bolder and some lighter.

DLC Chair Hemer called for additional comments from the DLC and Commission.

Commissioner Gamba stated that he liked the concept of the art and where it was going. He would like to see it continued on as much of the bridge as the budget allowed.

- The concrete patterning needed improvement in all places. It would be nice to have some consistency and something that actually looked like part of the bridge design. Steel wraps on the columns would provide the ribbon effect, because then only the ribbon would be concrete and everything else, such as the columns and supporting tubs, would blend into the background. If they were not going with a tapered column, the weathered steel wraps were critical.
- This was the first time they had seen the transition over Lake Road, and it was really bad. It looked like it was just tacked on and needed to be addressed with materials, coloration, or something. He understood the issue with the height clearance over Lake Rd, but the whole transition was terrible and that would be the most viewed portion of the bridge with everyone coming from the Lake Rd side and coming across the pedestrian bridge.
- His big issue regarded the pedestrian bridge. In the Pedestrian Emphasis section of the Downtown Design Guidelines, the guideline under Reinforce and Enhance the Pedestrian System stated, "Barriers to pedestrian movement and visual and other nuisances should be avoided or eliminated, so that the pedestrian is the priority in all development projects." It seemed like making a pedestrian/bicycle bridge across the lake was an afterthought or something someone else needed to deal with, and at this point was flying completely in the face of the guidelines. They wanted as many people as possible to ride this train. There was a huge apartment complex right across the lake. Just by building that bridge, ridership would be increased. He would have a hard time voting for this project without the pedestrian bridge, specifically because Milwaukie's Design Guidelines required it.

Commissioner Stoll stated that he had a lot of concerns about the station. He realized it was a new design and would be worked on further after hearing the concerns of the Commission. He would like to see an attempt at the L shape on the abutment or tuning forks.

- In general, he liked the way the bridge was moving. The overall shape had improved.

- He was still wedded to the idea of the metal cladding on the columns. The metal cladding also worked very well with cylindrical columns. As mentioned before, they could look at different spacing on the metal cladding.
- The new capital element looked too massive. He preferred the one that was split into 2 as it looked more elegant, and he also liked the flanges on it because it echoed where the Tillamook branch crossed McLoughlin Blvd, picking up a little bit of that old railroad bridge element.

Commissioner Churchill stated he had come away from the last joint session very encouraged and supportive of the work done to that point. A lot of that had to do with the use of the COR-TEN steel options, the tubs, and tapered columns. He was very disappointed to find that the tapered columns had been dropped. Although he understood the explanation for this decision, he did not agree with it. He believed there was a way to integrate a tapered COR-TEN steel jacket around the column, which would not add substantially to the column's profile. Many parts of southern and northern California were cladding existing concrete columns with a structural sleeve, so it was possible to make that a structural element to reduce the amount of structural steel inside the column. They would be getting stronger columns with less profile. He challenged the engineering group to look at that. He would not support the project unless he saw some logic behind this. He agreed that adding a foot of width to the columns and adding another 4 in on both sides all the way around created a rather massive column.

- He had concerns about the lack of ADA access to the platform from the south. They were creating a secondary route to the platform for those who were disabled, and it was not appropriate. They needed to make sure a lift was provided, and this needed to be part of the project budget.
- He agreed that the column capitals needed some better proportion review. He was not pleased with them.
- He agreed that not having the pedestrian bridge integrated as part of the project was a very poor decision. He understood the funding challenges, but there had been funding challenges all the way along the project.
- There were solutions that would avoid the double column impact as it crossed Kellogg Lake. He would like to see some creative form work around the landing of the COR-TEN structural tubs. He understood the dynamics of clearances, but there was a way to land that better at the north end.
- The stopping distance for the trains was the tail wagging the dog. He found it hard to believe they did not have motor controllers that would reduce the speed to 5 mph before approaching a station if it were really a concern that someone would overrun the station to Adams St. It seemed like TriMet used the excuse of stopping distance to extend the platform south and solve the clearance problem over Lake Rd.
- He was concerned about the acoustical environment underneath the platform that hung over Lake Rd. He appreciated the daylight punches, but thought they would be small and barely sufficient to solve the problem.
- Last time they met, he was excited about the project, but now he was feeling very pessimistic. He wanted to see much more integration of structural elements and thoughtfulness about the entire vision from the platform all the way to the landing along McLoughlin Blvd. It seemed very disjointed. He would not support what was presented tonight at all.
- As far as art, he was a bigger fan of integration of art into concepts. There were opportunities to integrate artwork into, with, and supporting this structure as opposed to applied art, which was highly conceptual. He was not a fan of putting green bott on the bottom side of COR-TEN steel. The beauty of the COR-TEN steel needed to stand on its own. He would rather see the emphasis of the artwork land at Lake Rd and look at the

opportunities to support artwork in that zone as opposed to the simplicity and beauty associated with the COR-TEN steel.

- **Ms. Traver** clarified an additional artist was hired to work at the Lake Rd station. This evening the focus had been on the Kellogg Bridge.

Planning Commission Vice Chair Harris wanted to see what it would look like with the COR-TEN clad columns and then with tapered columns.

- It would be nice if the images all showed bearings so they could get a better perspective. After about the midpoint in the packet, there were no bearings on the supports, and they were all flat together. If there was a variance between 6 in and 12 in, they might want to put it at 8 or 10 in so they could see more of the worst case scenario as opposed to best case scenario.
- He emphasized that the pedestrian bridge was hugely important.

DLC Chair Hemer was very disappointed that somewhere in the planning stages they ran out of road, stuck the station where they wanted it, and then extended the road as far as they could. All he could imagine was a big yellow sign with a flashing light saying "10 ft 6 in Clearance" at the top on the side of that bridge. He assumed some type of sign was required to let people know they would hit the top of a concrete bridge if driving through. Other things could happen in the city so that platform did not have to extend out like that, and he understood there was a cost issue associated with those things.

- He was disappointed about the ADA access. Each access should be able to be accessed by any individual. By not providing such access, it did not appear very friendly. If the building ended up with a second story level with the train, and that building had an elevator with 24-hour access, that was a different story. The City was building something with future hopes, and if it did not happen it would just look odd.
- He did not mind the dual columns and did not necessarily care about the steel wraps.
- He did care about the pedestrian bridge. He would much rather cut something else out of the budget to make that pedestrian bridge work.
- Design-wise, it would be nice to match the angle of the 2 columns with the train trestle, so when viewed, it would match. The view from Lake Rd would really not matter compared to what was seen on McLoughlin Blvd, because it was very well treed.
 - He was surprised no one raised questions about what would be done with the trees and what kind of plantings would be used to help with environmental and tree removal, and the vegetation loss.
- He would also like to see some idea about what would happen and what it would actually look like when the lake turned into a creek. He believed they would basically end up with an overgrown and unmaintained riparian zone.
- He could also see people attempting to jump from bridge to bridge, if the height was not planned carefully enough. There was a wood platform that allowed people to walk on the train trestle.
- He liked the very Romanesque and masculine design.
- He worried about the shadows. From his calculations, one would see 6 in of concrete; if it came 3 ft down and 5 ft out, the angle is actually 6 ft from the platform top, so maybe a little wave to that might solve the problem with the wave of the steel tubs going into the overextended street to make it fit in the spot where it was decided it needs to go. Instead of putting the steel wraps around the posts, slide them up at an angle like a triangle, so it would look like it just faded in. Something real easy and simple, with a little extra steel carrying over.

- If funding were found for the pedestrian bridge, they would end up with a muddy trail and people bumping their heads at 4 ft because they did not want to get wet. The entire path could be traveled without getting wet.
- The electric poles were fine.
- He was worried about the acoustics and the pollution underneath Lake Rd. If vehicle access was allowed, exhaust needed a way to escape when traffic was backed up.
- They needed to determine where the water would go coming off the platforms, such as into a storm drain, and was there a chance of overspillage.
- He was worried about echo and the amount of noise produced by geese, seagulls, people, etc.
- The art was one of the coolest things he had ever seen. He loved the whole concept and design. However, they were missing what the concept would be coming the other direction. The same discussion about how everything ties in would apply to the other abutment. They needed to determine the starting and ending points for the art.
- He agreed the Design Guidelines required projects to enhance pedestrian access. The pedestrian bridge was a key element to the project. He would love to see some contingency funds found.
- He agreed with the slanting of the columns so the 2 columns matched the trail and believed in finding a better solution than extending an area [the platform] where it did not fit.

Ms. Wisner also advocated for the pedestrian bridge; gaining access there for bikes and pedestrians would be a real benefit, if at all possible.

- She favored an approach or direction to the tapered column. The vertical fluting did not express what was discussed in the last meeting. She was a strong advocate for the weathered metal cladding all the way on every surface of all the columns and not breaking up the unified color. Being able to blend in with the trestle and with the natural environment, the trees, and changes in seasons, was the best way to soften the whole bridge and keep the ribbon idea going.
- She was not too excited about the formed concrete surfaces presented, especially around the station area on Lake Rd. They had talked about some more creative options earlier in the process, so she was not too positive about what was presented tonight.
- She was very concerned about maximum sound abatement. She would like to see that explained more as more plans were presented regarding the Lake Rd station.
- She was very concerned about the need for an ADA lift on the south end, mainly because the whole mile east on Lake Rd and beyond was a big walkway for people. A lot of people, including older retired people, exercised on Lake Rd. It was a very well-traveled pedestrian way. There were condos and small apartments where retired people and disabled persons of all ages often resided. There was a strong likelihood that those citizens would be taking light rail into town at times.
- Being an artist and designer, she realized the appropriateness of where art is placed. The concepts of the flocks of birds and swarming masses of small images were very intriguing. She could see how visually interesting that could be on such an unusual structure. She was also very conscious about staying with Milwaukie's sense of place, its natural environment, and natural organic shapes, including the shapes of the animals and foliage. She was a little disappointed that it was so geometric, confining the concept down to the very uniform bottoms. She hoped to see an art concept that would incorporate irregular shapes hearkening to the natural environment in Milwaukie. She would also like to see a range of possible colors from bright to dull, dark to light, that could fill out the patterns and imitate a play of light where placed on the bridge. She would let the artist and DLC figure out where the emphasis of the art should be placed on the bridge. Obviously, it either had to be at the station end or the south end where it adjoined the park and ride area.

Mr. Perrault stated that in large part, he mirrored what had been stated. He would like to see the overhead power poles line up with the columns where possible to have some congruity as far as the vertical members.

- He encouraged a great deal more thought on the Lake Rd platform so hopefully it could be done much, much better.
- The pedestrian bridge was also key.

Ms. Gamba also noted the importance of the pedestrian bridge.

- She suggested softening the transition for the Lake Rd overpass by using curves, or if the tubs could not be extended all the way across because of clearance, carrying the element of the weathered steel through the concrete to create some continuity for the eye.
- They should explore Commissioner Churchill's idea of using the steel wraps on the columns to increase the structural integrity of the columns.
- She was appreciative of the art and encouraged the artists to think about using color as another layer of dynamism for that art. She did think of dots as being a natural form, but not necessarily lime green dots.

Ms. Mangle stated two other big meetings were coming up this month where they might learn more. At the DLC meeting on June 22, 2011, Ms. Mayer-Reed would be discussing walls and fences. Tonight, they focused on the geographic area that would be part of the application for the Kellogg Bridge which was abutment to abutment. Much more information would be presented at an open house scheduled for June 27, 2011.

Mr. Doran stated that many comments this evening were similar to those expressed by the design team and TriMet. The Lake Rd transition was a new element relative to the project. They acknowledged before the presentation that this needed to be looked at more closely. Additionally, they would be considering the columns and the other comments.

- TriMet was also very supportive of the pedestrian bridge. They had committed their time, funds, resources, and design team time to alter the design of the bridge to make sure they could not only keep from precluding the bridge, but also to support it. They put money into the structural design so the columns could support the pedestrian bridge to minimize some of the funding needed to complete the bridge. Efforts were ongoing to find money to make the pedestrian bridge happen at the same time as this project.
- They would explore the idea of the steel wraps further as a structural element. As an architectural treatment, they needed to keep in mind that during the biannual maintenance they needed to see the structural component of the concrete itself, so completely wrapping them in steel was not an option. If the steel was structural, that might change that conversation, and they would definitely look into it.

Commissioner Gamba asked how they would access the structural pillar if they were looking at a tapered column that had a concrete covering over a concrete pillar.

- **Mr. Doran** responded that concrete on the outside would reveal certain things that structural or aesthetic steel placed over the column would not. Maintenance considerations must be kept in mind when considering the idea of completely wrapping the columns in steel.

Commissioner Churchill encouraged them to look at the hundreds of miles of columns that had been wrapped in California with much greater spans, knowing they had to do the same inspections.

- **Mr. Doran** stated the other maintenance aspect was graffiti removal. Removing graffiti changed the appearance of the steel. Graffiti removal was handled much better by concrete than steel while also allowing easier removal.

Mr. Mikolavich appreciated the comments, particularly in that the DLC and Commission had touched on a number of things they had been aware of. The area around Lake Rd was a unique element that needed further resolution, and they would be looking at this along with the other issues raised.

DLC Chair Hemer thanked the consultants for coming and the public for their comments.

6.0 Worksession Items – None

**7.0 Forecast for Future Meetings:
Planning Commission**

June 14, 2011 1. Public Hearing: ZA-11-01/CPA-11-01 Natural Resource Regulations Amendments *continued from 4/26/11*

June 28, 2011 1. Joint study session with City Council on Residential Standards project and other land use items.
2. Worksession on electronic sign regulations

Design & Landmarks Committee

June 22, 2011 1. Storefront improvement program application review
2. Proposed bylaw revisions – review

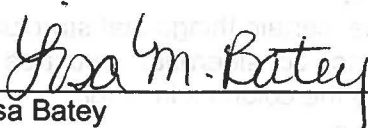
July 5, 2011 1. City Council Joint Session

July 27, 2011 1. Storefront improvement program application review
2. Proposed bylaw revisions – review


Meeting adjourned at 9:55 p.m.

Respectfully submitted,

Paula Pinyerd, ABC Transcription Services, Inc. for
Alicia Stoutenburg, Administrative Specialist II



Lisa Batey
Planning Commission Chair



Greg "Frank" Hemer
Design and Landmarks Committee Chair



AGENDA

MILWAUKIE DESIGN & LANDMARKS COMMITTEE PLANNING COMMISSION JOINT SESSION

Wednesday June 1, 2011, 6:30 PM

**MILWAUKIE PUBLIC SAFETY BUILDING
3200 SE HARRISON STREET**

1.0 Call to Order - Procedural Matters

DLC Chair Greg Hemer

2.0 Minutes – Motion Needed

2.1 March 17, 2011 PC/DLC Joint Session (*for DLC approval*)

3.0 Information Items

4.0 Audience Participation – This is an opportunity for the public to comment on any item not on the agenda

5.0 Joint Session Items

5.1 Summary: Portland to Milwaukie Light Rail Project – Early review of the design for the proposed bridge over Kellogg Creek and McLoughlin Blvd
Presenter: Susan Shanks, Senior Planner; TriMet PMLR design team

6.0 Worksession Items – None

7.0 Forecast for Future Meetings:

Planning Commission

June 14, 2011 1. Public Hearing: ZA-11-01/CPA-11-01 Natural Resource Regulation Amendments *continued from 4/26/11*

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Milwaukie Planning Commission Statement

The Planning Commission serves as an advisory body to, and a resource for, the City Council in land use matters. In this capacity, the mission of the Planning Commission is to articulate the Community's values and commitment to socially and environmentally responsible uses of its resources as reflected in the Comprehensive Plan

1. **PROCEDURAL MATTERS.** If you wish to speak at this meeting, please fill out a yellow card and give to planning staff. Please turn off all personal communication devices during meeting. For background information on agenda items, call the Planning Department at 503-786-7600 or email planning@ci.milwaukie.or.us. Thank You.
2. **PLANNING COMMISSION MINUTES.** Approved PC Minutes can be found on the City website at www.cityofmilwaukie.org
3. **CITY COUNCIL MINUTES** City Council Minutes can be found on the City website at www.cityofmilwaukie.org
4. **FORECAST FOR FUTURE MEETING.** These items are tentatively scheduled, but may be rescheduled prior to the meeting date. Please contact staff with any questions you may have.
5. **TME LIMIT POLICY.** The Commission intends to end each meeting by 10:00pm. The Planning Commission will pause discussion of agenda items at 9:45pm to discuss whether to continue the agenda item to a future date or finish the agenda item.

Public Hearing Procedure

Those who wish to testify should come to the front podium, state his or her name and address for the record, and remain at the podium until the Chairperson has asked if there are any questions from the Commissioners.

1. **STAFF REPORT.** Each hearing starts with a brief review of the staff report by staff. The report lists the criteria for the land use action being considered, as well as a recommended decision with reasons for that recommendation.
2. **CORRESPONDENCE.** Staff will report any verbal or written correspondence that has been received since the Commission was presented with its meeting packet.
3. **APPLICANT'S PRESENTATION.**
4. **PUBLIC TESTIMONY IN SUPPORT.** Testimony from those in favor of the application.
5. **NEUTRAL PUBLIC TESTIMONY.** Comments or questions from interested persons who are neither in favor of nor opposed to the application.
6. **PUBLIC TESTIMONY IN OPPOSITION.** Testimony from those in opposition to the application.
7. **QUESTIONS FROM COMMISSIONERS.** The commission will have the opportunity to ask for clarification from staff, the applicant, or those who have already testified.
8. **REBUTTAL TESTIMONY FROM APPLICANT.** After all public testimony, the commission will take rebuttal testimony from the applicant.
9. **CLOSING OF PUBLIC HEARING.** The Chairperson will close the public portion of the hearing. The Commission will then enter into deliberation. From this point in the hearing the Commission will not receive any additional testimony from the audience, but may ask questions of anyone who has testified.
10. **COMMISSION DISCUSSION AND ACTION.** It is the Commission's intention to make a decision this evening on each issue on the agenda. Planning Commission decisions may be appealed to the City Council. If you wish to appeal a decision, please contact the Planning Department for information on the procedures and fees involved.
11. **MEETING CONTINUANCE.** Prior to the close of the first public hearing, *any person* may request an opportunity to present additional information at another time. If there is such a request, the Planning Commission will either continue the public hearing to a date certain, or leave the record open for at least seven days for additional written evidence, argument, or testimony. The Planning Commission may ask the applicant to consider granting an extension of the 120-day time period for making a decision if a delay in making a decision could impact the ability of the City to take final action on the application, including resolution of all local appeals.

The City of Milwaukie will make reasonable accommodation for people with disabilities. Please notify us no less than five (5) business days prior to the meeting.

Planning Commission:

Lisa Batey, Chair
Nick Harris, Vice Chair
Scott Churchill
Chris Wilson
Mark Gamba
Russ Stoll

Design & Landmarks Committee:

Greg "Frank" Hemer, Chair
Jim Perrault, Vice Chair
Becky Ives
Patty Wisner
Chantelle Gamba

Planning Department Staff:

Katie Mangle, Planning Director
Susan Shanks, Senior Planner
Brett Kelter, Associate Planner
Ryan Marquardt, Associate Planner
Li Alligood, Assistant Planner
Alicia Stoutenburg, Administrative Specialist II
Paula Pinyerd, Hearings Reporter

CITY OF MILWAUKIE
PLANNING COMMISSION
DESIGN & LANDMARKS COMMITTEE
Joint Session
MINUTES
Milwaukie Public Safety Building
3200 SE Harrison Street
THURSDAY, March 17, 2011
6:30 PM

COMMISSIONERS PRESENT

Jeff Klein, Chair
 Nick Harris, Vice Chair
 Scott Churchill
 Lisa Batey
 Mark Gamba
 Russ Stoll

STAFF PRESENT

Katie Mangle, Planning Director
 Kenny Asher, Community Development Dir.
 Susan Shanks, Senior Planner

COMMISSIONERS ABSENT

Chris Wilson

DESIGN & LANDMARK COMMITTEE MEMBERS PRESENT

Greg Hemer, Chair
 Becky Ives, Vice Chair
 Chantelle Gamba
 Jim Perrault
 Patty Wisner

1.0 Call to Order – Procedural Matters

Chair Klein called the meeting to order at 6:33 p.m. and read the conduct of meeting format into the record.

DLC Chair Hemer called the Design and Landmarks Committee (DLC) meeting to order.

2.0 Minutes

2.1 Planning Commission – January 11, 2011

Commissioner Batey corrected Page 6, Line 178 to state that Les Poole as a resident of Unincorporated Clackamas County. He was not a resident of Milwaukie.

Commissioner Stoll moved to approve the January 11, 2011, Planning Commission minutes as amended. **Commissioner Batey** seconded the motion, which passed unanimously.

2.2 Design and Landmarks Committee – February 23, 2011

DLC Chair Hemer noted Lines 81 through 83, which listed items regarding the zoning, should

be corrected to make clear for the public record that a transit center was not allowed in that zone.

DLC Member Ives moved to approve the DLC notes dated February 23, 2011, as amended. DLC Vice Chair Perrault seconded the motion, which passed 4-0-1 with DLC Member Gamba abstaining.

3.0 Information Items

Katie Mangle, Planning Director, welcomed new members Russ Stoll to the Planning Commission and Chantelle Gamba to the DLC.

4.0 Audience Participation – This is an opportunity for the public to comment on any item not on the agenda. There was none.

5.0 Joint Session Items

- 5.1 Summary: Portland to Milwaukie Light Rail Project – Early review of the design for the proposed bridge over Kellogg Creek and McLoughlin Blvd
Presenter: TriMet PMLR design team

Ms. Mangle explained that the joint worksession provided an early opportunity for the Planning Commission and DLC to comment on a very important part of the light rail project. Light rail was proposed to open in 2015 and the proposed bridge would be one of the first elements to be constructed as part of the project and therefore one of the first to get permitted. TriMet hoped to submit the application this summer and the public hearings on the needed land use applications would be held in the summer/fall. The light rail project would involve applications regarding Willamette Greenway, downtown Design Review, and Natural Resource review, currently known as Water Quality Resource review. The Commission was the decision-maker for these applications; however, the DLC was a strong advocate and advisor to the Commission on Design Review. She provided an overview of the timeframe for the project applications and reviews, noting the urgency in finalizing certain design elements in order to meet the goals for the light rail completion. No formal actions would be taken, but feedback and direction was being requested by TriMet about some specific elements for the bridge design.

Jeb Doran, Urban Designer, TriMet, explained the Preliminary Engineering (PE) process focused on defining a cost range for the Kellogg Bridge, and the alignment which considered

going from the Lake Road Station, across Kellogg Lake and McLoughlin Blvd, and landing at the Trolley Trail. The bridge was a significant structure for the area and they extended the PE to focus some of the important design considerations for the bridge.

- TriMet sought to define better options for the bridge type to create a ribbon in the landscape rather than just a highway on/off ramp bridge style. Staff provided feedback about the community's preferences, and TriMet developed some options that were presented to the public at the community outreach meetings. The public seemed to prefer steel as a building material, but was concerned about the shape of the bridge and how the architectural elements related to things on the ground.
- TriMet sought feedback from the Commission and DLC about the material type, steel vs. concrete; and if steel was the preference, direction about the shape of that material, such as more rhythm and texture or cleaner lines, etc. Input was also wanted about the how the piers interact differently with these elements. Structural decisions were very important right now. Making these decisions would help the architecture and urban design teams further develop their responses regarding the design for presentation in early April.
 - Shortly after returning in April, TriMet would come in for a preapplication meeting, focusing on getting to the 60% design, which was a key time for major decisions on the project; where the project was cost-wise; and if elements could be added back into the project, etc.
 - In July, TriMet would submit a land use application and begin working through the hearings process for approval hopefully by the end of 2011. Many of the elements in the south portion of the light rail line would start quickly. The Trolley Trail and Kellogg Bridge would be some of the first items built, starting in about February 2012, with some advanced utility work being carried out prior to that. Some of the stations would be coming later in 2012 and continuing into 2013.
- The proposed Kellogg Bridge would be 1,700 ft long. Images displayed later in the presentation would provide context as to how the feature connected to familiar community elements. He was not certain of the length or height of the I-205 Johnson Creek overpass but would find out that information in order to provide a familiar scale reference. He believed the overpass was longer than the proposed bridge.

Carol Mayer-Reed, Landscape Architect/Urban Designer, briefly reviewed the station locations and proposed light rail alignment using an aerial photograph from the 1950s, which

showed a pedestrian bridge crossing Kellogg Lake. She indicated key features and properties near the rail line and bridge site, noting the trestle bridge and identifying the view corridors anticipated along the route.

Mark Mikolovich, Design Architect, Waterleaf Architecture, stated he worked primarily on the station areas and station platforms on the alignment but also on the bridge structure with Ms. Mayer-Reed, TriMet, and a group of bridge structural engineers.

- He noted the only intention of the bridge was to carry a light rail vehicle across Kellogg Lake and McLoughlin Blvd. It was not intended to have any pedestrian access with the exception of maintenance personnel.
- The bridge would also support a pedestrian bridge that would cross Kellogg Lake, and although that had not been the team's focus, some images would show some consideration for such a bridge.
- The bridge would be a significant visual element in the landscape, similar to the trestle. It would be an exceptional part of the larger alignment and frame the foreground to Milwaukie, creating a gateway when arriving from the south.
- Objectives in developing the design of the bridge was a simple, elegant connector between the south end of Milwaukie and the Park Avenue Station while bringing a sense of craft to otherwise standard bridge elements. The bridge was being considered from different vantage points, particularly from the point of view of someone riding or walking on the Trolley Trail or along future paths in the park at Kellogg Lake. These people would more intimately experience the underside of the bridge and its supporting elements.

Mr. Mikolovich presented the PE scheme and three proposed Kellogg Bridge designs via PowerPoint, during which he and the TriMet team responded to questions and comments from the Commission and DLC as noted:

- The PE scheme regarded the engineering effort leading to the 30% documents and involved the bridge's location and some design elements. Key engineering elements included the concrete slab deck that supports the rail, safety railing, beams or spanning elements, columns, and in some designs, crossbeams to support the spanning elements. In each scheme, column elements would be concrete, and spanning elements could be either steel or concrete.

- 145 • He confirmed the concrete deck had been modified to extend beyond the spanning
146 elements. The sides of the deck were pulled in as much as possible to create more of a
147 ribbon-like element.
- 148 • Concrete supporting structures last longer and have fewer maintenance issues than
149 steel support elements.
- 150 • To achieve a ribbon-like effect, a graceful line curving through the landscape and a
151 consistent spanning material, either all concrete or all steel, was needed. At the level of
152 pedestrians/bicyclists, TriMet hoped to create textural/sculptural effects to project that
153 sense of craft.
- 154 • Concrete Tub scheme. The displayed scheme was comprised of a concrete deck, open
155 railing, concrete tubs as support beams; simple, round, unadorned columns, 5 to 6 ft in
156 diameter; and a concrete crossbeam supporting the spanning beams.
 - 157 • Several views of the proposed bridge were shown, as seen from different locations to
158 indicate how the bridge would look on the site.
 - 159 • He noted that if a concrete scheme were chosen, it was likely they could achieve a
160 consistent concrete material even along the curve spanning over McLoughlin Blvd.
 - 161 • The pedestrian bridge structure shown on one slide had not been designed yet, but
162 was simply a placeholder. A pair of columns was represented on each bank of
163 Kellogg Lake and the pedestrian bridge would span the distance between them.
 - 164 • One advancement the team was trying to attain was to eliminate a column in Kellogg
165 Lake, which afforded advantages with regard to permitting and cost.
 - 166 • An example was shown of an elevated light rail alignment in the Seattle area with all
167 concrete piers that curved over a roadway, which was similar to the Kellogg Bridge
168 structure. The main difference between the structures was that the Seattle railway used
169 a single tub, which was a little deeper with a slightly different configuration. The precast
170 double concrete tubs used for Kellogg Bridge would be crisper; and not as canted at the
171 edges. The proposed tubs were more efficient for the proposed project which was wider
172 with double light rail tracks.
 - 173 • **Mr. Mikolovich** speculated that the Seattle example could use a single, narrower tub
174 because it was deeper. The shallower and wider tubs being proposed would produce a
175 thinner profile on the landscape.
 - 176 • The traffic clearance on McLoughlin Blvd was also an issue. About 18 feet of
177 clearance was required from any part of the ground plane to the underside of the

- 178 structure, and could be one reason a shallower tub was being considered. Also, a
179 higher structure would require a steeper track, and therefore a longer length to reach
180 grade. Extending the track would negatively impact the Trolley Trail.
- 181 • Comparison information was requested by the Commission about the simplicity of the
182 Seattle structure versus the proposed double tub system. Retaining components to
183 ensure an attachment mechanism was available for a pedestrian bridge was critical.
 - 184 • Steel tub scheme. The main difference was that the material was a weathering steel that
185 naturally weathers to a rust-colored patina and needs no painting. Dual tubs and 5-ft round
186 columns supported a concrete deck, which had a flared edge, creating a finer profile for the
187 bridge. The handrails were also constructed of weathering steel. Because of the columns'
188 simplicity, a textural effect would be probably used on the columns. Examples were shown
189 of different patterns that would enrich the visual experience at the pedestrian level.
 - 190 • The structural design of the bridge had not advanced to the degree to know for sure
191 whether the crossbeams would be used or if the column could tuck up right under the
192 spanning elements.
 - 193 • Depending upon the spans, which varied from about 110 to 200 ft or more, the tub
194 elements would come in sections about 60 or 70 ft long. At third points, splice joints
195 which are a plate applied to the outside with a series of bolt heads, would be seen. In
196 some ways, this would enhance the ribbon effect by giving a rhythmic textural element
197 along the spanning element.
 - 198 • The tubs were premanufactured offsite and lifted by crane onto the supporting
199 structure where they were held in place by temporary shoring at the splice points
200 until spliced. The temporary shoring would then be removed to reveal the finished
201 bridge. A beam was at the same elevation as the main beams to provide enough
202 support without the crossbeam; it was just not visible in the slide.
 - 203 • Looking at the underside, one could appreciate either the detail or the more
204 continuous look overall.
 - 205 • The pairs of tubs were moved as closely as possible to almost right under the tracks
206 resulting in a lot more extension of deck over the top which made the deck look
207 lighter, whether steel or concrete. This provided a bigger reveal and emphasized the
208 thin profile of the deck.
 - 209 • With many similar bridges, the distance from the face of the beam to the outer
210 edge of the deck was sometimes 1 ft or 2 ft. Pushing the tubs closer together

gave the effect of a lighter silhouette for the overall bridge and the eye was drawn to the very narrow line at the outer edge, supporting the ribbon concept.

- Shrouding the columns in steel was suggested to reduce mass of the columns. This would help control fracturing of the concrete and increase the strength without increasing the interior structural elements, possibly decreasing the column dimension.
 - The team had begun exploring the idea of using a weathering steel pipe as the casement and formwork for the concrete center, but had not determined the cost implications or whether the size of the columns would be reduced.
 - The columns in this scheme were smaller than the PE scheme because 5 ft was determined to be safe for all the columns, and they could be as small as 4 ft in diameter, which was something they would be considering.
 - Smaller diameter columns helped with the ground plane relate to the human scale, and help with sight lines. The difficulty was the overall proportion of the columns. The tubs had to be sized to carry the loads and their thickness would direct the proportion of the rest of the bridge to a great degree. If it was too thin structurally, it would look like it was going to tip over.
- The weathering steel material would be darker than concrete which would recede in the landscape. The reddish brown color was also sympathetic to the natural setting of Kronberg Park.
 - Staining the concrete the same color as the weathering steel was currently being investigated. They wanted to be sure the coloring was even and would be consistent over time. The stain would be within the concrete itself so would not change color when things such as graffiti were removed.
- Views of the steel tub bridge were also presented from different perspectives.
- Changing from double piers to single piers midway through the bridge seemed jarring visually. Had the option been explored to continue with double piers?
 - Continuing with single piers had actually been studied, but some structural issues existed in terms of supporting the bridge that had not been fully investigated yet. The bridge had to be centered on the columns, whether single or double. The single-centered column would be at each end of the bridge, but the deck would come off the bridge before reaching the column.

- 242 • The pedestrian bridge was approximately level with the top of the bank of the river or
243 lake. That image illustrated one pair of the double piers; the other pair would be at
244 the other end of the pedestrian bridge.
- 245 • TriMet began exploring the idea of having no column in the lake because the
246 experience of the lake was more open and accessible with one less set of columns.
- 247 • An image of an existing project was displayed to show the color of the weathering
248 steel and how the splice plates and bulkheads looked in reality.
- 249 • Steel I-beams scheme. This third option used the weathering steel spanning element with
250 steel I-beams instead of tubs. The beams are about the same depth as the other two
251 schemes at about 6.5 to 7 ft deep for the actual spanning element. It had the same concrete
252 deck with a slightly more sculptural column support.
- 253 • All the schemes were in the same cost range but with some tradeoffs.
- 254 • The steel tubs were slightly more expensive than the I-beams, and the sculptural
255 column was more expensive than the simple column. If the tubs were a priority, a
256 simpler column would be used; if the sculptural column element was more of a
257 priority, the less expensive I-beam spanning elements would be used.
- 258 • This scheme was more sculptural in that the column flared slightly from the bottom to top
259 where a steel crossbeam element acted as a transitional element from the column to the
260 bridge spanning elements.
- 261 • The aesthetic material qualities were the same as the tub scheme in the weathering
262 steel. This scheme had more of an industrial feel, and a more open, less finished
263 presence to the underside of the spanning elements.
- 264 • While flaring sonotubes out a little bit at the top would not cost that much, anything other
265 than a round form required custom form work and increased costs. The structural
266 engineers had advised that no matter what shape the concrete column, a 5-ft core would
267 be cast with a sonotube. The sono tube would be torn off, additional form work would be
268 put outside, and then the special shape would be cast.
- 269 • The preliminary costing for the 13 columns in the PE scheme showed an additional
270 \$500,000 to get that shape for the columns, which would be traded off against the
271 less expensive I-beams. TriMet was considering being able to remove 3 columns,
272 which would save money in concrete, footings, and form work.

- Using shotcrete as the skin for the flared columns was a great idea that would be brought to the structural engineer. This material provided a more textural element as well.
- The issue of birds was brought up; the 1,700 linear feet on each of the 4 I-beams would create a lot of nesting area, unlike the tub scheme.
- On I-beam bridges, the outer beams were fairly clean, but the inner beams got very dingy, which might be a greater maintenance issue long term.
- In Chicago, cyclone fences were erected to keep the homeless from gathering in the I-beams and prevent homeland security issues, such as explosives being placed in the beams. The fences looked ugly and attracted garbage.
- Was fencing being considered where the bridge adjoined the Trolley Trail.
 - TriMet had discussed the bird issue, but not issues about keeping people out. Mr. Mikolovich noted the team was aware of the issues and would take them into consideration with regard to this scheme.
- Examples of typical I-beam schemes were displayed.
- Not represented in the model were cross braces at 1/3 or 1/2 points that could be cross braces or a solid element. The cross braces would be every 70 ft or so. This was true of the tub scheme as well, and would probably be a solid, cross bracing element in that scheme.

Comments and questions regarding the proposed Kellogg Bridge continued from the Commission and DLC with responses from the TriMet design team as follows:

- The pedestrian bridge was relatively parallel to Kronberg Park and its elevation was quite level. The north bank was a bit lower than the south bank but not as severe as one might think. Boardwalks would run through the Kronberg Park landscape and connect at some point to each end of the bridge.
- More detail was requested about the catenaries system, which could potentially look like part of the structure or just more tacked on.
 - The distance between the catenary support poles varied along the length of the structure, but averaged 90 to 100 ft on center. Typically, single poles would be used. The poles were intended to be center mounted and round. The system was a significant element. The round shape created less shadow and helped reduce the mass. For the

material, black steel was being considered to match the downtown Milwaukie color scheme.

- The proposed, clean looking, renderings did not reflect the details of the system seen in the Seattle example.

- The vertical supports of the railing system needed to be 5-ft on center with a top rail, and the other horizontal elements would be cable. This would make for a very transparent appearance, providing light rail riders a bigger experience of the landscape and contributing to the sense of a less massive bridge.

- **Mr. Mikolovich** preferred that the railing colors match the bridge, not the poles, because that repetitive element helped enforce the ribbon concept.

- While a cable would keep someone from falling off as well as a handrail, a cable was not as comfortable; however, safety was a bigger concern than comfort. The building code and OSHA regulations would be checked regarding the possible use of cable as opposed to a handrail. The cable option fit in with the lightness being sought and put less visual clutter between the passenger and landscape.

- The railing was intended for employees so intrusion protection was being considered, similar to that used in tunnels and other TriMet structures, to keep people off the bridge. Sensors would be placed to indicate when something entered the bridge and an alert would be sent to the safety and security personnel who would use a camera to see if it was a deer or a person, in which case, security would be dispatched.

- Noise was a concern given the metal-on-metal wheel noise and reverberation off the concrete. Perhaps having more of a wall instead of a cable railing system would be better.

- A noise study was conducted as part of the Final Environmental Impact Statement (FEIS) and the locations of noise sound walls along the alignment were considered. No issues were identified for portion of the bridge going over the lake and stretching around, so TriMet moved toward keeping it more open. Another factor was the sight line considerations at the Lake Road Station, so having the railing more transparent would help people see the trains and the train operators see people.

- To address squeal noise, a track lubricator was already factored into the design that kicked in for any curve under a certain radius. The system would dispense track lubrication with every passing train to avoid wheel squeal. This was already in place at multiple other light rail locations based on the gradient of the curve.

- 337 • None of the three design schemes seemed consistent with or complementary to the
338 adjoining structures, such as the trestle, but were in stark contrast to them. Were other
339 design concepts explored?
- 340 • The TriMet team started with the fact that the trestle was an artifact and icon for the
341 community. They looked at railroad tradition, complementary structures and ways to
342 mimic that form. The trestle was very complex and muscular and yet it possessed
343 transparency and light, which was difficult to mimic with today's construction materials
344 and technology. Different forms and column shapes were considered, but many were too
345 big to conform to the sight clearance lines. The team concluded that it would be best to
346 put something very simple and plain next the trestle to feature the trestle rather than
347 mimic it.
- 348 • If they tried too hard to mimic the trestle or aspects of its character, it could tend to
349 diminish the trestle. One thing attractive about the trestle was the play of light and
350 shadow that all the stick work created. Some early schemes had a series of thin
351 elements alluding to the character of light and shadow, but it was difficult to make
352 sense of it cost-wise and structurally.
- 353 • Kellogg Bridge was a structure in its own right, and the contrast would allow the
354 trestle to stand on its own.
- 355 • Decisions made tonight would help guide the artists, who are from Oakland, CA, in creating
356 public art for the project. The artists were very engaged in the idea of creating pattern,
357 whether columns, fences, or the underside of the bridge. The artists had discussed sleeving
358 the structure, which was a wrap over each element, but this was expensive, and a wrapped
359 bridge could not be inspected. The artists were waiting for decisions about materials, and for
360 the architectural and structural issues to have some more definitive direction before deciding
361 how to approach the project.
- 362 • With \$250,000 being allocated to the large conceptual artists, why spend more money on
363 weathered steel if the steel was going to be covered up? Would the artwork be permanent
364 or removed in 5 years? If a concrete scheme was chosen, where would that savings over
365 the weatherized steel go?
- 366 • The artists were interested in the interactions where points of circulation connect, such
367 as where the bridge met the roadway, the Trolley Trail, smaller roads, etc. The tub
368 option would provide more opportunity to do more with their limited budget and interact

with the structure a bit more in those locations. There was not enough funding to completely cover the steel. The art would provide a sort of accent at those locations.

- The artists' ability to interact diminished a bit with the I-beam option because it required some type of substructure to connect those points to do what they were interested in. If the I-beam option was chosen, the artists might want to look at other locations or just have a smaller impact.
- The artists' focus was on the main points of view: pedestrian and traffic interactions. They were interested in the flow of movements with cars and pedestrians.
- Putting shapes and movements and other things on the bridge busied up Kellogg Lake, because it added to everything happening with the trestle. The TriMet team felt the same way and would be discussing that with the artists.
- It was fascinating that the pedestrian crossing was not part of TriMet's project, but was the City's project.
 - **Leah Robbins, Project Manager, TriMet**, clarified that the City and TriMet submitted a TE Grant application for this whole portion of the project, the pedestrian crossing, and the boardwalk at Kronberg Park. The TriMet commitment with the design of the structure was that, whether it was built with the TE grant funds or later, TriMet had incorporated additional costs into the structure during PE to hold the bones of the pedestrian structure.
 - The City was matching funds for parts of the boardwalk at the park. The project was named among the finalists for the TE Grant, and the review committee requested additional visuals, which had been provided. The decision would be rendered in about a month.
 - The pedestrian bridge seemed like an afterthought.
- As a non-car oriented world, a pedestrian crossing of the lake made a lot of sense in the 1950s. The goal was to move back to a non-car oriented world. Pedestrian and bicycle crossings were planned into the bridge across the Willamette River that was going to be paid for and built by TriMet. How was this missed? Why was this not built into the original design of this bridge?
- The cost consideration of \$500,000 was discussed for tapered versus non-tapered columns, yet the City was fighting to get a pedestrian bridge.
- **Ms. Robbins** responded that during the preliminary hearings, TriMet looked at all the connections from the Trolley Trail to downtown Milwaukie and whether the grade of

- 402 bringing pedestrians up onto the light rail structure made sense given the
403 connections and the scale of the city. They looked at it both from the Trolley Trail
404 connection and also the pedestrian connection and discussed where the right level
405 was to bring pedestrians. It was not an afterthought but rather an outgrowth of the
406 overall look at the pedestrian connections from Island Station, Trolley Trail, and
407 downtown Milwaukie.
- 408 • The Willamette River bridge was likened to a 7- course meal while Milwaukie was getting
409 ala carte.
 - 410 • Was the option of a pedestrian bridge considered, and then decided not to proceed with
411 it?
 - 412 • The bones of the pedestrian bridge had been incorporated, more environmental
413 efforts were then added from the permitting agency, and whether it should be a
414 separate structure or attached to the light rail structure was considered. It was part of
415 the mix going forth, but it was not part of the original concept that created the overall
416 budget.
 - 417 • Why was the pedestrian bridge not part of the original concept?
 - 418 • The project's focus was connecting the light rail alignment over McLoughlin Blvd
419 versus future pedestrian connections. Fundamentally, the structure would be there
420 and everyone had aspirations that funding would be available to make the pedestrian
421 bridge work, but not at the light rail part of the project.
 - 422 • **Commissioner Stoll** asked how some of the City's design recommendations were going to
423 be addressed in the design; for example, "Design, and scale, and details of the structure to
424 be an asset to the Island Station neighborhood." He wanted to see a rendering from the
425 Island Station neighborhood at ground level and a rendering showing what the bridge would
426 look like coming down River Road and going under the structure. It was a gateway for
427 travelers into Milwaukie. He wanted to see additional perspectives, especially more aerial
428 perspectives from the riverfront and Island Station. At the next presentation, he hoped for a
429 lot more information to make aesthetic judgments. He hated concrete tubs, which looked like
430 a highway interchange. He was willing to go for steel tubs or I-beams. He wanted the
431 structural tubs or I-beams as narrow as possible for the greatest reveal. He did not want
432 straight cylinders either; they should be flared.
 - 433 • **Mr. Doran** explained that the intent of tonight's meeting was to get feedback on
434 material and shape. Universally, it seemed steel was the preferred direction, and that

- tubs were preferred to I-beams. TriMet would take this information to the design team, focus on those architectural treatments, and start looking at land use requirements and all the guidelines to begin making responses. It was hard for the architect to make those choices before decisions were made about materials and shape.
- While concrete I-beams were more common and the most cost-effective, in the three proposed designs, concrete or steel tubs, or steel I-beams, the structural spanning members followed the curve of the track above to achieve a ribbon effect.
 - The Commission and DLC were being asked to pick a generic material and preferred shape, as well as feedback about the railing type, fence shape, and to address some of the guidelines, etc. The designs presented were not the actual designs.
 - Because of traffic going underneath the bridge and the angle presented, there was not enough clearance to create a visual transition using gently curved arches going from column to column to support the tubs.
 - A lot of criteria were involved in terms of material choices, structural elements, and the bridge design in addition to the marriage of architecture and structure, aesthetics and proportion. While some details needed to be considered, the design team needed to be released to develop the structure to 60% very soon, and they had to have a direction. This project needed to be narrowed down to one structure type. That direction was critical at this point.
 - **Mr. Mikolovich** explained that if the I-beams were preferred but were considered too plain, ribs could be added to the outside of the I-beam members structurally, probably at about 7 or 8 ft on center, to give the effect of light and shadow and possibly lighten the structure to a certain extent. If that type of direction was given, the TriMet team could begin exploring those issues with the engineers and return with something in response.
- Chair Klein** called for a break at 8:20 p.m. and reconvened the meeting at 8:37 p.m. He called for any public comment.
- Fred Nelligan**, stated that he represented Oak Grove on the Citizen Advisory Committee. He noted that Oak Grove considered this as a gateway to their community and appreciated everything being done. He asked the City to remember this was a holistic project that would really benefit both communities and possibly bring them together. He liked the weathered steel

tub look; the idea of dressing the columns, whether cylindrical or tapered, with the weathered steel sounded very interesting.

Discussion continued as follows:

- It was noted that Historic Milwaukie Neighborhood District Association (ND) Chair Dion Shepard expressed concerns at the NDA meeting about sound and the train headlights sweeping through various bedrooms in the community. Mr. Nelligan had been doing a lot of work on the issue of headlights coming into or out of McLoughlin Blvd and shining into windshields, homes, and businesses and had spent 7 months working on the issue.
 - **Mr. Doran** acknowledged this was an issue especially along McLoughlin Blvd, and they understood that the lights are hard to look at. TriMet hoped to do what they can help screen that corridor, and perhaps put some larger trees around that area to help with the issue. It was hoped this could be discussed with ODOT and other jurisdictions.
- Going south on I-205, the train headlight shined directly into southbound traffic, which prevented drivers from seeing in front of them. It was suggested that the light be aimed away or have a blinder installed.
 - TriMet's safety and security people had given a little feedback on that issue. Adding the light to the trains significantly increased the security and decreased safety issues by alerting people and helping minimize impacts.
- As one was headed southbound on McLoughlin Blvd, headlights would be in drivers' eyes on both sides of the road.
 - **Mr. Doran** explained that the trees along McLoughlin Blvd would be a great solution to help green up the street and also in some ways extending the Trolley Trail.
- The relationship between the Trolley Trail and light rail was unclear since the rail was actually grounded as it headed toward the park. This would help with understanding this as it related to the headlights as well as the train and traffic.
 - **Mr. Doran** replied the team would definitely look at all that in more detail, specifically the Trolley Trail, walls, plant design, etc.
- Information was requested about whether shielding direct emanation of noise from the track toward the neighborhoods would be effective. The shielding could be done along the edge of the deck.

- 500 • Ms. Shepard also inquired about any speed restrictions on the bridge, just as speed
501 restrictions existed in certain other zones. This would help reduce noise as well.
- 502 • The curve of the rail effectively was a speed restriction as it was a 25 mph designed
503 curve. South of the curve at the park, the train could speed up, but going northbound
504 crossing McLoughlin Blvd on that curve, the train would slow to the design speed of
505 that curve.
- 506 • Did the sound study consider the fact that there was a waterway and valley with the train
507 above it, which would cause an echo chamber effect?
- 508 • That echoing and discussion about any noise the steel tubs and structure made
509 came up at the outreach meeting. The issue was discussed with the structural
510 engineer, and in this case it would not be an issue because it was not boxed enough
511 to cause sound to echo.
- 512 • **Commissioner Churchill** noted that nothing in the Portland Metro area was equivalent
513 to this condition with a train over the lake. On Hwy 101 in Mill Valley, CA, as it crossed at
514 Richardson Bay, the reverberation effect was a factor. He would like to understand a
515 little more about the studies that concluded that this would not be a problem.
- 516 • **Mr. Doran** agreed to provide additional information about the studies.
- 517 • The location where the bridge came back around along McLoughlin Blvd and hit grade was
518 indicated on the aerial photo; it was not as far down as the ODOT gravel site. The abutment
519 was also indicated, as well as walls on each side of the track that tapered back down to
520 grade and the Trolley Trail.
- 521 • TriMet had to acquire the ODOT gravel pit site due to the change in access. The Trolley
522 Trail diverged from being totally tangent with the light rail, into the gravel pit site, and
523 around one of the large Sequoia trees. The rest of that ODOT property could be used for
524 many things or sold.
- 525 • Although some people who lived in that area wanted some of the pavement to be taken
526 up, the City was not aware of any discussions to do that at this time.
- 527 • A local example of the weathered steel could be found on the Springwater Corridor; the
528 bridge east of the big orange bridge that went over the freight track was rusted steel. It was
529 not the same structure type, but it was the same material.
- 530 • Were there degrees of weathering features in the steel? Coreten steel had been a popular
531 option, or was it degrees of weathering, or variations of it used?

- 532 • Was there an example of a tub construction that was close in scale to get an idea how the
533 proposed bridge would look with that much surface area?
- 534 • Although the beams were different than structures supporting rail or vehicles, the
535 pedestrian bridge actually had probably a four or five section. The team agreed to find
536 an example of a more similar structure.
- 537 • The difference between the depths of the I-beam and tub schemes was a matter of 4 or 5 in
538 and not really perceivable. The span was the driver of that depth.
- 539 • The tubs maintained the same height all the way through the structure, but could change
540 in size because the spans were different to some degree. In trying to achieve that
541 continuous ribbon effect, the tubs would be the same depth consistently across the
542 1,700 ft. A thicker steel plate was used in the tub where the spans were larger. The
543 external appearance was a continuous, same depth section.
- 544 • There was an abutment at the south end, and the tubs did start to come down to grade. But
545 since the Trolley Trail came in front of that abutment, about 14 or 15 ft of clearance existed
546 where the tubs land on that abutment. The abutment had retaining walls that tapered down
547 to the ground. The I-beams and the concrete tubs would all be uniform in that same way.

548
549 **Commissioner Churchill** stated he was not a major supporter of the alignment, but was
550 pleased with the design team. The devil would be in the details. He was withholding praise until
551 after the budget process. If he learned that the budget had killed all this effort regarding
552 weathering steel, he would be quite upset. He was pleasantly surprised with the results of the
553 redirections. He liked the weathering steel tub with the tapered column, possibly with a beam at
554 the top that supported it. The bridge would be a great feather in the cap of TriMet to have a
555 successful bridge that did not look like the Johnson Creek overpass, and reflected the effort that
556 everyone made on the design.

557
558 **Chair Klein** directed the Commission and DLC to address the following items in their
559 comments:

- 560 • Structure shape: I-beam or tubs
- 561 • Structural material: weathered steel or concrete
- 562 • Column shape: round or tapered
- 563 • Other comments/feedback on the relationship to the environment, railings, etc.

564

Commissioner Churchill favored tapered columns and ideally with Coreten steel, or possibly with shotcrete to get texture and color. He favored steel tubs as the structural shape.

Ms. Gamba stated that after reading through the Design Guidelines for downtown Milwaukie, she preferred the tapered steel tub columns and recommended either a stained concrete or a steel wrap so the coloring of the tubs was carried further down into the pedestrian experience. She was disappointed that the bridge was not pedestrian-ready. She believed all steps needed to be taken to push forward with that, because the guidelines were very much about pedestrian experience.

Commissioner Stoll liked the steel, tapered columns and the idea of putting them inside a steel wrap. Using a steel form was an interesting idea. He was agnostic as to I-beams or tubs, but wanted the bridge to be narrow, so there was a big reveal on the deck.

Ms. Wisner stated they needed to do whatever possible to prevent the bridge from looking like a huge monolithic pile of concrete. She advocated weathered steel and opposed the excessive use of concrete. She would like to see the steel or stained concrete create a cohesive unified unit from the tubs or I-beams down to the total length of the support columns.

- The I-beams had a really interesting linear feel, and tended to have more of a historic feel in relationship to the trestle, because the trestle was very skeletal. She was concerned about birds nesting, and did not want this to become an eyesore, so she understood the issue with maintenance. The more they could do to make it look good for long periods of time with less maintenance the better.
- She advocated for the steel tubs and preferred that the columns be as minimized as possible. She did not advocate a heavy cross support beam because that would add heaviness to the overall design. She would like to see a tapered column on the lighter side, so there was a transition going up into the load-bearing area of the tubs, so it would not look like a stick stuck onto a horizontal beam. She would also like to see the structure all as one weathering earth tone that would blend with the surrounding environment through the seasons and blend in with the color of the trestle.

Commissioner Batey agreed with comments made about the material. She originally liked the beams, but in retrospect, the tubs made more sense. She preferred that the tubs be as close together as possible so the reveal was as wide as possible to minimize the visual impact. She

599 liked the steel tubs and the railing that matched the tubs. She was agnostic about the taper or
600 no taper on the supports; however, not having them be in plain concrete was important, whether
601 wrapped in steel or stained.

- 602 • The neighbors in the Island Station neighborhood were concerned about the new PGE
603 poles. It would be useful to have a visual from coming down River Road that showed the
604 poles and the proposed Kellogg Bridge for the next open house.
- 605 • She would also like to see any examples that were as close as possible to the steel being
606 used in a tub final version, which she would drive to see, as well as physical examples to
607 check out the sound issue, especially on elevated curves

608
609 **Ms. Ives** favored the steel tubs. She was not concerned about the shape of the column and
610 agreed that scale was more important than shape.

611
612 **Commissioner Gamba** definitely wanted weathered steel, and would like to see using it
613 explored from the ground through the catenaries, with the platform being the only concrete
614 visible. He was agnostic as to tubs versus I-beams. He initially liked the I-beams because they
615 were a nod to the trestle with a more industrial, skeletal look; he was still not convinced this was
616 not the right way to go. He had become more comfortable with the tubs, and could live with
617 them if that was the general consensus.

- 618 • The steel wrap was really intriguing, and would be a finishing touch that would really work.
619 The tapering with a cross member was the right way to go, but with the steel wrap or at least
620 the staining.
- 621 • He noted that the pedestrian emphasis of the Design Guidelines stated, "Reinforce and
622 enhance the pedestrian system," not the pedestrian experience, but the pedestrian system,
623 "so that the pedestrian is the priority in all development projects." This was actually written
624 into the Design Guidelines. He would have a really hard time approving anything that did not
625 have a pedestrian bridge across the lake. It needed to be in the design. If they didn't get the
626 grant, they needed to start scrambling, because he wanted to see it built with the bridge; by
627 all measures of sticking to the Design Guidelines, it would have to be.
- 628 • He would also like to see the construction methods and any considerations for sustainability
629 addressed; keeping the lake clean and the parks from being damaged permanently.
630 Keeping sustainability in mind throughout the project was critical.

Mr. Perrault liked the idea of the I-beams at first, but saw the inherent problems. He was okay with the tubs, but believed they should be brought closer together so more of the deck was exposed and there was less of a big shadowed area. He was a fan of the weathered steel and tapered columns.

- The finish of the deck itself had not been addressed. If steel or stained columns were used with the weathered steel tub and a crisp white deck, it would be the equivalent of a farmer's tan.
- Another very important issue to take into consideration was to only disturb the environment once and construct the pedestrian bridge with the rest of the project so Kellogg Lake would not be built over twice. With the lake being intended to become a salmon habitat sooner than later, the construction should only be done once so as to lessen the impact on that environment.

DLC Chair Hemer preferred tubs, weathered steel, straight versus tapered columns, and some sort of designer coloring on the columns.

- He commented that it seemed there was a protection or nondescript overall general view and everybody was protected, but then all of a sudden a decision was made that was not really what was wanted, and pretty soon it was done and over and any input was lost.
- He understood there were budget issues and that other areas of the project would take precedence over the bridge. He hated to see it all fall to the wayside and feared that their opinions would not be heard.
- He worried about pedestrian bridges and narrow planned steel I-beams because somebody from National Oceanic and Atmospheric Administration (NOAA) or the Army Corps of Engineers would say predatory fish habitat was being created in the lake because of the big shadow line. He hoped that issue would be resolved quickly so it was off the table right away, because those agencies had the last look, and could deny the project.
- He appreciated how TriMet was handling things. He hoped that they followed through, that everything went according to plan, and that TriMet listened to the input about the designs.

Chair Klein liked the tubs, the steel and tapered columns; however he had a number of concerns. In the decision making process, it made people feel important when they could make decisions; however the decisions presented before this body were not overly crucial.

- 664 • He was concerned that they were worried and concerned about \$500,000 in a \$1.5 billion
665 project. In the overall cost, this was a miniscule amount. If at this stage they were looking at
666 rationing it down and tying this dollar amount down, that was somewhat of a concern.
- 667 • He felt a bit like he was trying to buy a car and wanted a really nice Prius with GPS, etc., but
668 he was just looking at the frame, which looked pretty cool, but in reality in 6 months or 3
669 years, he would end up with a Yugo that was not all that great. This was his concern.
- 670 • He believed Milwaukie would get what they would get because they were afforded and not
671 necessarily because that was what the community wanted. This was an ala carte type thing,
672 and once things were done further up the light rail line, Milwaukie would get the left over
673 scraps.
- 674 • Though a bit off topic, creating a Master Plan for Kronberg Park was absolutely important
675 and needed to be done before this project started. As confident as people were in getting
676 the grant to build the walkway underneath Kellogg Bridge, they could go out and look for
677 funds to be able to develop the area as a park. He was making a pretty big assumption, but
678 it was only logical that the park would be used as a staging area. As TriMet and the
679 construction crews were leaving that area, it should be built into the park.

680
681 **Chair Klein** summarized the consensus of the Commission and DLC in providing direction for
682 the TriMet team: tubs for the structure shape, weathered steel as the material, and tapered
683 columns.

684
685 **Commissioner Gamba** added that everyone wanted the columns to be steel cased or at the
686 very least stained to match the weathered steel.

687
688 **Chair Klein** noted that in Bend, the main corridor had concrete form retaining walls that were
689 not a consistent color and looked like natural stone. It was beautiful and looked like the type of
690 rock found in that area. He believed this could be incorporated on this project; but if they were
691 worried about \$500,000, it would take that much to integrate it into the environment. He certainly
692 hoped \$500,000 was not the issue; that really scared him.

693
694 **Mr. Doran** thanked the Commission and DLC, adding that it was refreshing that the group was
695 so engaged, asking good questions, and providing good feedback. The team was leaving with a

positive outlook and he was optimistic knowing what was being done behind the scenes and what the team was capable of doing.

Commissioner Churchill stated that with regard to budget, as much passion and support that TriMet had for the current direction, if they returned with the decision that the bridge was going to be concrete, there would be three times that much passion in the wrong direction.

Ms. Mangle noted that the Commission was the decision maker on the Willamette Greenway, Design Review, and Natural Resource applications; the DLC was the chief recommending body for the Design Review. As the designs were developed over the next several months, she sought feedback about whether they wanted to continue to have joint meetings, a subcommittee, or Commissioners joining the DLC.

- She understood that one design featuring or one structure material type would be presented that would continue to be refined in terms of its different elements, such as the railing.
- There would probably be one more meeting between now and the hearings with more information than would probably be presented at the open house. It was important that the Commission and DLC got the information they needed.

Ms. Wiser asked if a little variation was possible in that TriMet could show how the comments would be culminated and show different options with a straight column, a slightly tapered column, and a more pronounced taper to the column providing a stepped view indicating the options.

Mr. Doran stated that TriMet would take the comments, look at the cost impacts, and see what needed to be considered further. They will talk to the design team, taking into consideration all the land use issues, Design Guidelines, etc., and start making those responses. He proposed evolving those designs with staff and return to the group to discuss the details of that progression. Now that the structural issue was addressed, they wanted to lay the foundation for the architectural decisions soon and get a lot of that evolution resolved early in order to get the preapplication decisions made. The TriMet team wanted to return to this group soon with some of those decisions, and then the details would continue to be tweaked in the coming months.

DLC Chair Hemer inquired whether the Commission wanted the DLC to view what the scale was and make the changes as they saw fit, or should they all meet together.

730

731 **Commissioner Gamba** stated that however it was done scheduling-wise, it would be a good
732 idea for both bodies to be together in the same room.

733

734 **Ms. Mangle** said they would see how it played out in terms of schedule and she would contact
735 everyone about how to get everybody back together when the time was right.

736

737 **Ms. Mayer-Reed** stated the next public meeting would be held on April 4th and the design team
738 would probably not be able to push the design to another level by that point. It would probably
739 be okay to show some of the similar images at that open house that were shown here tonight,
740 and basically endorse the direction. It would take time to evolve the designs according to the
741 direction provided. She appreciated there being such unanimity about the direction, adding it
742 was really a pleasure to work with the group.

743

744 **DLC Chair Hemer** urged the Commission to please keep the Sellwood neighborhood and traffic
745 in mind when it came time to look at the Tacoma Station, as well as what ODOT could do to
746 make that project better. It was a snarling nightmare. He was disappointed that the Commission
747 would not review that project. He hoped that the traffic, lighting, security, and everything
748 involved with that site did not discourage it from being used.

749 • **Mr. Doran** assured that Chair Hemer's statements would be considered.

750 • **Ms. Robbins** explained that TriMet would be going to the City of Portland's design review
751 for updates and would be able to convey the concerns as the design developed. She
752 announced that funding had been secured and ODOT was going to put in a left-hand turn
753 lane, and that change would be effected before the Kellogg Bridge project was built.

754

755 **6.0 Worksession Items – None**

756

757 **7.0 Forecast for Future Meetings:**

758 **Planning Commission**

759 March 22, 2011 1. Public Hearing: ZA-11-01/CPA-11-01 Natural Resource Regulations

760 April 12, 2011 1. Public Hearing: WQR-11-01 Johnson Creek Confluence project -
761 *tentative*

762

Ms. Mangle briefly reviewed the future meetings forecast, and encouraged the Commission to contact Mr. Kelter with any questions regarding the Natural Resource Regulations.

Design & Landmarks Committee

March 23, 2011 1. Meeting Cancelled

April 27, 2011 1. TBD

Meeting adjourned at 8:53 p.m.

Respectfully submitted,

Paula Pinyerd, ABC Transcription Services, Inc. for
Alicia Stoutenburg, Administrative Specialist II

Lisa Batey
Planning Commission Chair

Greg "Frank" Hemer
DLC Chair



MILWAUKIE

Dogwood City of the West

To: Planning Commission
Design and Landmarks Committee

From: Katie Mangle, Planning Director *KM*
Susan Shanks, Senior Planner

Date: May 23, 2011, for June 1, 2011, Worksession

Subject: Early Review of Portland to Milwaukie Light Rail bridge over Kellogg Creek and McLoughlin Blvd

ACTION REQUESTED

TriMet staff is requesting early review and direction regarding the design of the Portland to Milwaukie Light Rail bridge that will cross over Kellogg Creek and McLoughlin Blvd. The comments received during this meeting will guide the project designers as they prepare the final application materials to be reviewing during a public hearing in the autumn of 2011. Since the bridge will undergo permitting review by both the Design and Landmarks Committee (DLC) and the Planning Commission (PC), early design direction from both bodies is important.

BACKGROUND INFORMATION

The Portland Milwaukie Light Rail (PMLR) project has met several milestones over the past year, including designing to a 60% level of completion (and refine the cost estimate accordingly). Generally the urban design of the project is following the ambitions outlined in the Conceptual Design Report (CDR) that was presented in 2010 (see Attachments 1 for the City's findings on that report).

Some elements of the project will require land use approvals and construction permits. The Planning Commission and DLC will play an important role in the City's review of these permit applications. However, since light rail is already an approved use per the 2008 Land Use Final Order (LUFO), the City's land use review and permitting process will focus on the physical characteristics of the project to ensure that it meets the City's various design standards and guidelines, fits into the existing fabric of the City with minimal disruption, and enriches Milwaukie's unique small-town identity. Generally speaking, LUFO approves the construction of light rail in the location of the final alignment, including the location of specific key elements, i.e. stations, bridges, park and ride facilities, etc. LUFO does not, however, override the City's

authority to issue most development approvals that are triggered by the project or conditions that are required by the Planning Commission, during design, engineering, and construction.

A. History of Prior Actions and Discussions

- **January, 2010:** DLC worksession on the PMLR project, focusing on the elements that will go through Design Review, and the Committee's role in advising the City on the design of the project.
- **January 26, 2010:** Staff briefed the PC on the PMLR light rail project, focusing on the Commission's role in the permitting of the project.
- **March 9, 2010:** PC and DLC held a joint session at which TriMet staff provided a briefing on the PMLR project and the Conceptual Design Report.
- **February 22, 2011:** Staff briefed the PC on the status of the Kellogg bridge structure and the schedule for public input on the design.
- **February 23, 2011:** Staff briefed the DLC on the status of the Kellogg bridge structure and the schedule for public input on the design.
- **March 17, 2011:** The Planning Commission and DLC held a joint meeting to review the preliminary bridge design. And provide guidance on preferred shape and materials to be used to construct the bridge.

B. Proposed Bridge Over Kellogg Creek

Though the alignment from Portland to Milwaukie isn't expected to open until 2015, the major design elements of the project will be established this spring. The discussions that have been underway with the Design and Landmarks Committee and Planning Commission members will inform what the project will look like in Milwaukie.

One of the largest single elements of the PMLR project in Milwaukie will be the new bridge that will cross over Kellogg Creek, Kronberg Park, and McLoughlin Blvd. This structure will extend from the southern edge of the light rail platform at Lake Rd to just south of 22nd Ave. Most of the bridge will fall within the City's Downtown zoning district and the Willamette Greenway Overlay, and will therefore be subject to the following land use reviews: Design Review (DLC and PC), Willamette Greenway review (PC only), Water Quality review, and Habitat Conservation Area review (PC only). See Attachment 2 for a summary of review criteria that will be applied to the bridge during the Design Review and Willamette Greenway Review process.

Summary of Comments and Questions from March

During the meeting on March 17, TriMet staff presented the bridge design and received the following preliminary comments from the PC and DLC members about the bridge design.

- The weathering steel tub structural system was preferred over concrete.
- Tapered columns were preferred over plain round columns. Consider cladding or staining the columns to match the tubs.

During this meeting, project staff and designers will explain how those comments were considered and, where possible, incorporated into the 60% design documents. TriMet provided the following summary of the current bridge design, which will be presented at the meeting:

- *The weathering steel tub structural system has been carried forward as the basis for the design of the Kellogg Bridge structure, beams and column caps.*
- *After a great deal of study into the alternatives, the design team recommends that natural concrete color and finish be used for all of the concrete elements. The concrete deck will contrast with the weathering steel elements, highlighting the rich, earthy color of the steel. Staining the concrete to match or complement the color of the weathering steel will diminish the visual character and authenticity of both the steel and the concrete.*
- *The team's research into applied stains indicates that staining in place has environmental risks which could impact the soils and water quality of Kellogg Creek. The stain product itself is not an environmentally benign product and should be avoided in a sensitive habitat environment. Further, the surface preparation necessary to obtain a uniform result will require an acid etch and rinse that could have additional environmental impacts. Integrated color in the concrete is very expensive to incorporate into the mix; it's difficult to achieve consistency and control on a large scale project.*
- *There was interest in a tapered concrete column shape. Further structural analysis has shown that the structural core of the concrete columns must be 6 feet in diameter, a foot larger than previously assumed. When a minimum 6" thick concrete shell is added over this core, the exterior diameter of the column becomes 7 feet, increasing as the column flares upward. Adding shot-crete layers as a construction method also increases the girth of the column. Since this bridge is not very high, the result is a series of broad, squat, columns that appear to be overly thick and poorly proportioned. In addition to aesthetics, sight lines at McLoughlin and the Trolley Trail are important safety considerations. Therefore, the smallest possible 6 foot diameter column is recommended.*
- *The design team has studied textural treatments on the columns that will provide tactile qualities, visual interest and a fine-scale play of light and shadow, thereby helping to reduce the apparent breadth of the column. A deeper relief treatment cast into the concrete at the base of the columns will provide further visual interest and deter tagging.*
- *Weathering steel wraps or applied strips were considered on the concrete columns; but the design team found that the applied steel created an overly busy visual effect that detracted from the texture and simple character of columns.*
- *The safety railing system will utilize weathering steel flat bar stanchions at approximately 5 feet on center with a round galvanized steel guardrail at the top of the stanchions and stainless steel cable between. The railing will maximize transparency while blending with the other bridge materials. Currently, additional noise analysis is underway to determine the need of changing from the transparent railing to a low solid parapet wall in the affected segment of the bridge.*
- *The pedestrian/bike bridge has been studied enough to assure its integration into the bridge structure when added in the future. To accommodate the pedestrian/bike bridge, two pairs of columns will be used on the banks of Kellogg Lake, with no structural supports required in the lake.*

- *Vertical textural treatments of abutment walls will break up large vertical wall surfaces. Wherever practical, clinging vines (Boston ivy) will be planted on walls to reduce graffiti.*
- *ODOT will require traffic rated guardrails At McLoughlin Blvd. at two locations to protect the bridge columns. Exact locations are proposed to be as minimal as possible while meeting the safety requirements. Weathering steel is the material being proposed by the design team.*
- *Demonstration of sustainable practices includes use of weathering steel, a recyclable and recycled content material. Weathering steel is notable for its low maintenance and long life cycle.*
- *Tall evergreen and deciduous tree plantings have been added to the west side of McLoughlin Blvd. where it is expected that train lights will shine toward on-coming traffic. Additional study of this condition is underway.*

At the meeting, the TriMet design team will also provide more information on the following:

- Lake Road Station design and bridge abutments
- Trolley Trail design, landscape and lighting
- Public art project on the bridge
- Options for the overhead electrification system (OCS) poles on both the Kellogg Bridge and the entire line section

ATTACHMENTS

1. City Council Recommendations on the Conceptual Design Report (“Exhibit A”)
2. Summary of Applicable Design Review and Willamette Greenway Criteria

EXHIBIT A

Conceptual Design Report – City of Milwaukie Recommendations

The Milwaukie City Council requests that TriMet, in collaboration with City staff, finalize the Conceptual Design Report, to be reviewed by the Planning Commission (PC), Design and Landmarks Committee (DLC), and City Council prior to the completion of the project's final design phase. The report should describe how the project will respond to the following City of Milwaukie recommendations:

A. Safety and Security Recommendations

A1. Crime Prevention Through Environmental Design (CPTED)

- a. Coordinate with City staff to review the inclusion and design of CPTED features at and around Milwaukie-area stations (and parking structures).
- b. Design the light rail trackway to discourage pedestrian access and trespassing in the freight and light rail corridor and clearly designate safe routes.
- c. Ensure the Lake Road “tunnel” (under the light rail structure) is designed to best practice CPTED standards.
- d. Support the City of Milwaukie efforts to put eyes on the downtown Milwaukie Station through development of the adjacent property with the provision of space for Milwaukie Police presence.

A2. Security Operations Plan

- a. Coordinate with Milwaukie Police to develop an operating plan for monitoring and patrolling the three Milwaukie-area stations (and two parking structures).
- b. Provide security cameras and lighting at Milwaukie-area stations (and park-and-rides) and share research results related to best practices for monitoring security cameras (per 2008 MOU).
- c. Work with area public and private schools to develop a safety education process for students and schools in the vicinity of light rail.

B. Planning and Permitting Recommendations

B1. Station Development Strategies

- a. Coordinate with the City of Milwaukie, affected property owners, and other public and private partners on comprehensive station development strategies for the Tacoma, Downtown Milwaukie and Park Avenue stations in support of redevelopment desired by the local jurisdictions.
- b. Coordinate with City staff on the disposition, reuse and redevelopment of remnant or other TriMet-owned parcels in the City of Milwaukie, including the railroad right-of-way west of the existing freight tracks between Adams and Lake Road.

B2. Bus Service Planning

- a. Undertake a conceptual bus plan to evaluate Milwaukie's transit service needs for 2015-2020, prior to opening of light rail. The plan should include options for future service for Main Street north of Harrison Ave, and new east-west bus service options for the Johnson Creek Blvd corridor.
- b. Demonstrate an increase of new Milwaukie bus service (i.e. non-light rail) equivalent to service hours saved by terminating line 33 in Milwaukie (see Milwaukie Comprehensive Plan Transit Savings Reinvestment Policy, Chapter 7 pg 11).
- c. Identify new location for line 70 and 75 bus layovers currently using 21st Ave and Jackson St near City Hall.

B3. City of Milwaukie Review Process

- a. Ensure the project complies with the terms of TriMet's June 2008 MOU with Milwaukie concerning future transit improvements in the City of Milwaukie.
- b. Ensure the project is properly evaluated through Milwaukie's adopted land use review and permitting processes to allow for staff, DLC, and PC examination and public comment opportunities.
- c. Ensure that project elements comply with all applicable design review criteria, zoning standards and Public Works Standards (including downtown streetscape standards as described in the Downtown Milwaukie

Public Area Requirements and the undergrounding of overhead utilities in downtown, as described in the Public Works Standards).

- d. Coordinate with Milwaukie Planning staff regarding Milwaukie's ongoing projects to improve its development codes. Review and provide comment on draft revisions to assure that project-specific needs are addressed to avoid unnecessary variance requests or specific code amendments in the future.

B4. Public Utilities and Streets

- a. Design sidewalks, street crossings, vehicle lane widths, and streetscapes to comply with Milwaukie Public Works Standards (PWS). Street improvements shall include but are not limited to: sidewalks, curbs, travel lanes, planter strips, pavement markings, parking strips, bike lanes, signage, crossing protections, driveways and ramps, road bed, street furniture, utility infrastructure, and all other elements within the public right-of-way.
- b. Coordinate with Milwaukie Engineering and Operations Departments to clearly identify impacts to the public right-of-way, and develop design and construction plans to mitigate for identified impacts to all rail crossings of City streets
- c. Coordinate with Milwaukie Engineering and Operations Departments to clearly identify impacts to the municipal water and sanitary sewer systems, and provide mitigation in accordance with the City of Milwaukie Public Works Standards (PWS). Waterlines and sewer lines impacted by station location, rail crossings, or other project construction will be relocated outside of freight and light rail trackway, per the PWS, and encased as required. Costs for utility relocation will be included in the PMLRT project budget.
- d. Coordinate with Milwaukie Engineering and Operations Departments to clearly identify impacts to the storm drainage system along the entire alignment in Milwaukie. Design and provide mitigation in accordance with the City of Milwaukie PWS and Water Quality Standards.

C. Urban Design Recommendations

C1. North Industrial Structure

- a. Coordinate with City staff on the design of the elevated structure in the North Industrial area. Design the structure to include graffiti-proof finishes and minimize the visual changes experienced by residents of the adjacent Ardenwald neighborhood by using, for example, plant screening vegetation where warranted and feasible.

C2. Kellogg/McLoughlin Structure

- a. Design the bridge over Lake Road to create a well-lit pedestrian-oriented passage beneath the structure along Lake Road.
- b. Coordinate with the City on the bridge design over Kellogg Lake to anticipate the future restoration of the creek and riparian corridor and installation of a pedestrian bridge beneath the structure.
- c. Design the bridge over Kellogg Lake to enhance the feeling of the area and to meet the intent of the Willamette Greenway Zone.
- d. Design the bridge over McLoughlin and 21st Avenue to serve as a gateway for northbound travelers into Milwaukie, protect views into downtown and toward the Willamette River.
- e. Design the scale and details of the structure to be an asset to the Island Station neighborhood. Investigate alternative approaches to scale, depth of reveals, choice of materials (color, lighting, detailing), and placement and shape of columns west of McLoughlin.
- f. Work with City staff and affected property occupants and owners to mitigate the impacts of the project between Kellogg Lake and River Road, especially with regard to the placement of bridge columns and changes to visibility to and from commercial and residential properties.
- g. Design the entire structure to appear as seamless and coherent as possible, with architectural treatments that recognize the “gateway” aspect of the structure at the south end of downtown Milwaukie.

C3. Bicycle and Pedestrian Access

- a. Provide adequate pedestrian and bicycle access to the three Milwaukie-area stations. Integrate Tacoma, Downtown Milwaukie and Park Avenue stations to adjacent neighborhoods by providing safe and direct bike/ped access through the provision of adequate sidewalks, bike zones, lighting, signage, street crossings, track crossings, public art, bicycle parking, etc.
- b. Continue working to resolve bicycle conflicts along the alignment and improve bike and pedestrian connections from adjacent neighborhoods to station areas. Pay particular attention to the bicycle and pedestrian access along SE 21st Ave into the Downtown Milwaukie station.
- c. Support the development of the Trolley Trail as part of right-of-way acquisitions and final design.
- d. Identify locations for expanded bike parking at stations beyond what is included in the current project scope.

C4. Connections to Parks and Green Space

- a. Coordinate with Portland and Milwaukie to design and plan for improved connections to the existing Springwater Corridor trail to ensure safe and direct access between the station and the trail.
- b. Design the bridge over Kellogg Lake to accommodate a future pedestrian bridge under the light rail tracks, and to connect to future paths in Kronberg Park and along the restored Kellogg Creek.
- c. Design the Downtown Milwaukie station with pedestrian connections at both platform ends to facilitate easy and clear access between the platform and the City's future plaza and Dogwood Park at the south end of Main Street.
- d. Coordinate with Clackamas County and Milwaukie to design and plan for improved connections to the Trolley Trail to ensure safe and direct access and use of the trail.

C5. Public Art

- a. Work in collaboration with the Regional Arts and Culture Council, the Milwaukie Arts Committee, Clackamas County Arts Alliance, and the communities along the alignment with regards to public art.
- b. Explore creative incorporation of art along the alignment and at stations.

C6. Greenscaping

- a. Make extensive use of plantings/vegetation to soften the visual impact along the alignment where appropriate to mitigate the effects of light rail.
- b. Prior to 60 percent design completion, identify the size and condition of all trees to be removed in the City of Milwaukie. Develop a plan for tree protection, removal and replacement. The plan should estimate the affect on the canopy and resulting visual changes to surrounding properties.

C7. Finish, Fixtures and System Elements

- a. Design the finishes and system elements to be pedestrian scale and to lend the streetscape a sense of permanence and care. Finishes should comply, with or come closest to matching, those listed in the City's downtown Public Area Requirements document.
- b. Develop a menu of design options which support the basic urban design principles of the City of Milwaukie. The menu should include design options for fences, walls, overhead catenary systems, crossing arm barricades, substations, electrical cabinets, railings, stairs, bollards and lighting.

C8. On-Street Parking

- a. Coordinate with City staff on the design and implementation of on-street parking spaces to support downtown activities and help compensate for the loss of on-street parking resulting from the light rail project.
- b. Coordinate with City departments before, during and after construction of the light rail project to deter "park and hide" parking in Milwaukie neighborhoods. This may include supporting the city's implementation of neighborhood parking permit programs and increased levels of enforcement by TriMet.

- c. Coordinate with City staff on the provision and location of light rail quick drop areas.

D. Station Design Recommendations

D1. Tacoma Station

- a. Explore opportunities for redevelopment of the site with complementary uses, in addition to the park-and-ride structure. Design the final site plan to allow for redevelopment of the adjacent Bishop property.
- b. Coordinate with City staff, adjacent neighborhoods, and the Johnson Creek Watershed Council to improve the final park-and-ride design through material selection, screening, lighting, and artwork. Develop a site restoration plan that enhances the Johnson Creek riparian area.
- c. Continue to coordinate with Portland, ODOT, Milwaukie, and adjacent neighborhood residents on the final package of transportation improvements to SE Johnson Creek Boulevard, SE Tacoma and SE McLoughlin required to mitigate traffic from the Tacoma park-and-ride.
- d. Continue exploring grant opportunities for funding of enhancements of the site.

D2. Downtown Milwaukie Station

- a. Coordinate station design with Milwaukie's South Downtown development plans.
- b. Design the station in anticipation of a joint development project to occur on the "triangle site" adjacent to the northbound platform.
- c. Consult with the DLC on the design of the station to ensure that the design supports future development on adjacent parcels and enhances pedestrian connections in the area.
- d. Develop the station design to ensure that platform infrastructure and amenities are located outside of the 21st Ave public right-of-way.
- e. Coordinate with City staff to design transit shelters and furnishings that are distinctive and complement the character of downtown Milwaukie.

Exhibit A – Light Rail CDR Recommendations
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- f. Coordinate with City staff to improve the design of access to both platforms. Emphasis should be placed on designing the access at the north end of each platform to be safe, universally accessible, and welcoming. Pedestrian access at the south end of the platform should be designed to minimize the construction of large retaining walls or ramps.
- g. Given the size, shape and grade changes on the “triangle site,” explore options for providing appropriate ADA access to the platforms and consider alternatives to TriMet standards.
- h. Integrate station lighting to provide a safe nighttime environment on the platform and under the bridge over Lake Road, such that lighting becomes a defining feature of the station.
- i. Coordinate with City staff and affected property owners to evaluate additional design options for the re-grading of the Adams Street right-of-way east of the LRT tracks. Evaluate alternative access changes to affected properties.

D3. Park Avenue Station

- a. Coordinate with City and County staff and adjacent neighborhoods to identify needed improvements to enhance bicycle and pedestrian connectivity to the station.
- b. Coordinate with the City and County staff, and adjacent neighborhoods and organizations to integrate Urban Green design elements into the park-and-ride construction plans.

E. Light Rail Construction

E1. City of Milwaukie Quiet Zone

- a. Include supplemental safety measures in project design and construction required to implement a City of Milwaukie Quiet Zone on the Tillamook Branch at the Mailwell, Harrison, Monroe, Washington and Adams crossings. Support the City of Milwaukie application requesting FRA designation of a Quiet Zone for these crossings.
- b. Make use of shrouds, directional bells and other technologies available to reduce ambient noise levels (i.e. undirected noise) from the sounding of gate-arm bells.

E2. Property Impacts

- a. Minimize impacts to existing businesses and properties along the corridor.
- b. Work with City staff to relocate Milwaukie businesses impacted by property acquisition within the City of Milwaukie.
- c. Consider the future economic viability of acquired sites and parcels in project design.
- d. Minimize right-of-way acquisitions.
- e. Minimize the loss of on-street parking.
- f. Minimize the loss of access to properties.
- g. Minimize noise impacts.
- h. Where partial property impacts are necessary, coordinate with City staff and affected property owners to evaluate changes to property access, on-site parking, setbacks, and other aspects that may create nonconforming situations.
- i. Work with City staff to develop a lease arrangement for temporary construction staging on Kronberg Park.
- j. Coordinate with the City to plan for the future use and/or restoration of the ODOT yard in the Island Station neighborhood.

E3. Sustainability

- a. Coordinate with City staff to develop a sustainability plan that details how TriMet will incorporate sustainable practices in the design and construction of the PMLR project. Elements should include: reuse of materials from the careful dismantling/deconstruction/demolition of buildings; waste management practices that enable reuse and recovery of construction materials; incorporation of storm water plantings, vegetation and trees; reduced energy consumption; alternative power renewable energy sources; and low-emission vehicles and equipment.



To: Katie Mangle, Planning Director
From: Li Alligood, Assistant Planner
Date: February 4, 2011
Subject: TriMet overview of approval criteria for projects in the Kellogg Lake area

The purpose of this memo is to provide an overview of the design-related standards and guidelines for work in and around Kellogg Lake and related structures.

BACKGROUND

The subject site is located within the Downtown Open Space Zone DO and the Willamette Greenway Zone WG. Per the Milwaukie Municipal Code (MMC) Title 19 Zoning Ordinance, development in and around Kellogg Lake is subject to the design standards and guidelines of the following sections of the Milwaukie Municipal Code (MMC):

- MMC Chapter 19.312 Downtown Zones: All new construction in the downtown zones is subject to objective development and design standards and design review, which requires approval by the Planning Commission with a recommendation from the Design and Landmarks Committee (DLC).
- MMC Chapter 19.320 Willamette Greenway Zone WG: New construction within the WG zone is permitted conditionally and requires approval by the Planning Commission.

APPLICABLE REGULATIONS RELATED TO STRUCTURE DESIGN

The project will have to meet the following guidelines and criteria, so they should be considered throughout the design effort. Additional criteria related to other parts of the Municipal Code (e.g., Water Quality Resources) may apply in addition.

Downtown Zones

- All development in the downtown zones, including design standards and design review, is subject to the regulations of MMC Chapter 19.312, which can be found at http://www.ci.milwaukie.or.us/sites/default/files/fileattachments/DowntownDesignGuidelines_0.pdf.

Design Review

- All new construction in the downtown zones is subject to design review.
- Applications for design review for new construction are subject to Minor Quasi-Judicial review and approval by the Planning Commission with a recommendation by the Design and Landmarks Committee (DLC).

- Projects are evaluated against consistency with the Downtown Design Guidelines, which can be found at http://www.ci.milwaukie.or.us/sites/default/files/fileattachments/DowntownDesignGuidelines_0.pdf.
- Relevant Design Guidelines (references to buildings read as references to structures):
 1. Milwaukie Character Guidelines
 - Reinforce Milwaukie's Sense of Place = Strengthen the qualities and characteristics that make Milwaukie a unique place.
 - Integrate the Environment = Building design should build upon environmental assets.
 - Consider View Opportunities = Building designs should maximize views of natural features or public spaces.
 - Consider Context = A building should strengthen and enhance the characteristics of its setting, or at least maintain key unifying patterns.
 - Use Architectural Contrast Wisely = Contrast is essential to creating an interesting urban environment. Used wisely, contrast can provide focus and drama, announce a socially significant use, help define an area, and clarify how the downtown is organized.
 - Integrate Art = Public art should be used sparingly. It should not overwhelm outdoor spaces or render building mere backdrops. When used, public art should be integrated into the design of the building or public open space.
 2. Pedestrian Emphasis Guidelines
 - Reinforce and Enhance the Pedestrian System = Barriers to pedestrian movement and visual and other nuisances should be avoided or eliminated, so that the pedestrian is the priority in all development projects.
 - Define the Pedestrian Environment = Provide human scale to the pedestrian environment, with variety and visual richness that enhance the public realm.
 - Protect the Pedestrian from the Elements = Protect pedestrians from wind, sun, and rain.
 - Integrate Barrier-Free Design = Accommodate handicap access in a manner that is integral to the building and public right-of-way and not designed merely to meet minimum building code standards.
 3. Architecture Guidelines
 - Wall Materials = Use materials that create a sense of permanence.
 - Green Architecture = New construction or building renovation should include sustainable materials and design.
 4. Lighting Guidelines
 - Exterior Building Lighting = Architectural lighting should be an integral component of the façade composition.

- Landscape Lighting = Lighting should be used to highlight sidewalks, street trees, and other landscape features. Landscape lighting is especially appropriate as a way to provide pedestrian safety during holiday periods.
- Sign Lighting = Sign lighting should be designed as an integral component of the building and sign composition.

5. Sign Guidelines

- Wall Signs = Signs should be sized and placed so that they are compatible with the building's architectural design.

Information and Guide Signs = Directional signs should be small scale and of consistent dimensions, and located in a visually logical order. These signs should also provide on-site directional information.

Willamette Greenway Overlay Zone WG

- All construction the WG zone is subject to the regulations of MMC 19.320, which can be found at http://www.qcode.us/codes/milwaukie/view.php?topic=19-19_300-19_320&frames=off.
- All uses and accessory structures in the WG zone are subject to the provisions of MMC Chapter 19.600 Conditional Uses, which can be found at http://www.qcode.us/codes/milwaukie/view.php?topic=19-19_600&frames=off.
- New construction in the WG zone is subject to Minor Quasi-Judicial review and approval by the Planning Commission with a recommendation by the DLC.
- Design-related approval criteria
 - Compatibility with the scenic, natural, historic, economic, and recreational character of the river
 - Protection of views both toward and away from the river
 - Landscaping, aesthetic enhancement, open space, and vegetation between the activity and the river, to the maximum extent practicable
 - Public access to and along the river, to the greatest possible degree, by appropriate legal means
 - Maintain or increase views between the Willamette River and downtown