Roseville Public Works, Environment and Transportation Commission Meeting Agenda

Tuesday, March 22, 2016, at 5:30 p.m. City Council Chambers, 2660 Civic Center Drive Roseville, Minnesota 55113

- 5:30 p.m. 1. Introductions/Roll Call
- 5:35 p.m. **2. Public Comments**
- 5:40 p.m. **3. Approval of February 23, 2016 Meeting Minutes**
- 5:45 p.m. **4. Communication Items**
- 5:46 p.m. 5. South Lake Owasso Private Drive Storm Sewer Improvements
- 6:00 p.m. **6. Review of Tour**
- 6:05 p.m. 7. Possible Items for Next Meeting April 26, 2016
- 6:10 p.m. **8. Adjourn to Tour**

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Roseville Public Works, Environment and Transportation Commission

Agenda Item

Date: March 22, 2016	Item No: 3
Item Description: Approval of the February 23, 2016 Public Works Co	ommission Minutes
Attached are the minutes from the February 23, 2016 meeting.	
Recommended Action: Motion approving the minutes of February 23, 2016 subject to any necess revision.	ssary corrections or
Move:	
Second:	
Ayes:	
Nays:	

Roseville Public Works, Environment and Transportation Commission Meeting Minutes

Tuesday, February 23, 2016, at 6:30 p.m. City Council Chambers, 2660 Civic Center Drive Roseville, Minnesota 55113

1	1. Introduction / Call	Roll	
2	Chair Dwayne Stenlund called the meeting to order at approximately 6:30 p.m. and		
3	Public Works Director Mark		
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5	Members Present:	Chair Dwayne Stenlund; Vice Chair Brian Cihacek; and	
6 7		Members Joe Wozniak, John Heimerl, Kody Thurnau, and Duane Seigler	
8		Dualic Scigler	
9	Members Absent:	Member Sarah Brodt Lenz, having announced her	
10		unavailability at last month's meeting.	
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12 13	Staff Present:	Public Works Director Marc Culver, City Engineer Jesse Freihammer, and Environmental Engineer Ryan Johnson	
14	2. Public Comments		
15	None.		
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17	3. Approval of Januar	y 26, 2016 Meeting Minutes	
18	Member Cihacek moved, Me	ember Wozniak seconded, approval of the January 26, 2016	
19	meeting minutes as presented	d.	
20			
21	Ayes: 6		
22	Nays: 0		
23	Motion carried.		
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25	4. Communication Item	ms	
26	City Engineer Jesse Freiham	mer and Public Works Director Culver provided additional	
27	comments and a brief review	and update on projects and maintenance activities listed in	
28	the staff report dated Februar	ry 23, 2016.	
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30	Discussion included no antic	ripated delay in use of ball fields due to the St. Croix	
31	stormwater lift station upgrade currently in process; report on stormwater pond clean-up		
32	• •	ith the majority of the sediment removed not needing land	
33	filled due to contamination;	pending decision by transit bench owners regarding their	

potential relocation to the sites of former shelters; report by staff of four watermain breaks over the last month; and attendance by staff at the recent meeting of the St. Paul Regional Water Services for its external customers.

Further discussion included the City's utility base rate structure being the envy of other metropolitan communities and intended to provide for future capital improvement program (CIP) planning for infrastructure updates and needs; and a future staff report to the PWETC on how and where tree trimmings end up.

Specific to PWETC questions related to the City of Roseville's purchase of water from St. Paul Regional Water Services (SPRWS), Mr. Culver advised that SPRWS's rate structure would be facing challenges to pay for improvements to their treatment facility and distribution system. Mr. Culver reported that the trend is for less water sales, and without a base rate, not as much may be sold as anticipated. Mr. Culver noted that the SPRWS's intent is to implement a base rate in the future that would theoretically build those treatment costs into it. While Roseville maintained its own infrastructure, that rate change may convolute the rate structure for Roseville; but he did anticipate future rate increases, but hoped they wouldn't be too excessive and impactful for Roseville residents. Mr. Culver noted that Roseville's water rates had not increased this year, while other customers had experienced increases.

5. Private Sewer Services Lining Options

Mr. Culver introduced Paul Pasko, Project Engineer and-Principal at S.E.H., Inc. and his credentials as someone considered in the industry as an experienced expert with lining technologies and practices in the Midwest area. Mr. Culver reported that Mr. Pasko had recently provided a presentation at a recent city engineer's conference based on his experience with watermain linings in the City of Hastings, MN. As a result of that very informative presentation, Mr. Culver advised that he had invited Mr. Pasko to share that presentation with the PWETC to outline options and what other metropolitan communities were doing to respond to this and similar issues.

Mr. Culver briefly reiterated, for background purposes, previous discussions of the PWETC about ownership of service laterals and the City Council's charge to the commission to recommend if any changes were evident. Mr. Culver reported that the City Council continued to question if there was more the City could do since it was pursuing an aggressive lining program for its aging sewer lines and in conjunction with that address some of those older laterals for which residents were responsible and to better protect those residents. As part of that consideration, Mr. Culver noted the yet-to-be-determined impact of inflow and infiltration (I & I) that the City of Roseville was undertaking as a mandate from the Metropolitan Council.

Mr. Pasko introduced his associate, Jen Schueman, in the audience, who worked with him on projects throughout Iowa, Wisconsin and Minnesota in addition to other Midwest areas.

Mr. Pasko noted that his presentation would essentially ask and provide information on the following items:

- Why rehabilitate laterals?
- Administratively, how do other communities do it?
- What tools are they using?
- How much do the tools cost to use?

Mr. Pasko reviewed some points to consider, including those communities where I & I were drivers and the various options used in communities for rehabilitation of those laterals up to street reconstruction lines via assessment, including some of that work done by the City's contractor or a private owner's contractor, but still allowed to be applied as an assessment to property taxes.

Mr. Pasko reviewed the variables in the upper and lower laterals and options and challenges in both. If I & I is the driver, and the attempt is to hit the upper lateral, Mr. Pasko advised that many East Coast communities in the United States insist they have a right to make sure those lines are in compliance with code and that private property owners meet that code.

Mr. Pasko noted that care was needed to ensure clear ordinance language that protected a citizen's Fourth Amendment Rights as it relates to unjust or arbitrary inspections of private property, frequently debated by courts, but able to be sufficiently addressed with a comprehensive ordinance in place prior to inspections and to protect municipalities. Mr. Pasko noted that this involved access to private property and parameters for that access, since there was obviously a potential liability for the city accessing private property and/or laterals (considered private property) through main manholes, especially when dealing with mishaps in using robotics. Mr. Pasko noted that if an unanticipated problem occurred with the robotics, there was always the possibility that the lateral line would need to be dug up to rescue the equipment; and suggested that would not be a good first test of a city ordinance.

Mr. Pasko also noted the need for an ordinance addressing expenditure of public money to rehabilitate private property and clearly defining those parameters or potential circumstances, such as the municipality subsidizing a portion of the rehabilitation of longer laterals. Mr. Pasko emphasized the need to make sure the ordinance was very clear about how, when and why public monies would be expended. Other than in several instances in the State of WI, Mr. Pasko advised that those Fourth Amendment questions were being sufficiently addressed from his perspective as long as the ordinances were enacted before rehabilitation was undertaken.

Specific to options used by other communities, Mr. Pasko reported on one who applied a \$50/month surcharge for private property owners choosing not to rehabilitate those private laterals as an incentive to encourage them to do so; while others used a subsidy for rehabilitation; and others chose not to provide any subsidy. Another community, for those property owners choosing not to rehabilitate their private laterals, chose to install an

- 124 inflatable ball where the city's line met the private lateral to prevent use of the main line
- 125 beyond their lateral until the property owner chose to correct problem areas.
- 126 Mr. Pasko reported other variables among communities: total subsidy for rehabilitation
- 127 borne by the city, options for lower lateral rehabilitation by a city contractor only, and
- 128 some of those done up to the wye, some to the edge of the road, and some up to the
- 129 rights-of-way. Mr. Pasko noted that upper lateral lining was done by either using private 130 or city contractors.

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Specific to Minnesota communities, Mr. Pasko provided a matrix of the options used by the Cities of Edina, Golden Valley, Shakopee, Hastings, and Rockford; and for comparison purposes, he included the City of Hampton Roads, VA in that matrix.

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Overall, Mr. Pasko opined that the most successful option he observed around the country was real estate transaction based, such as used by the City of Golden Valley, MN with point-of-sale inspections performed from within the home allowing a holistic viewpoint for both the upper and lower laterals. Mr. Pasko reported that some communities choose a dye or smoke test when possible. On the east coast, Mr. Pasko reported that over the last four years, they had experienced a turnover of homes at 10% to 15%, making those inspections a sustainable program, with the same home inspected periodically over a fifteen year period, and thereby compiling a database of information for the City's GIS system for comparison purposes. Mr. Pasko noted this was also possible for inspecting new homes being constructed annually and adding that data for future comparison purposes as well.

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Lower Lateral Tools Being Used:

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"Top-hat" style liner with the potential that it may be unable to fully wrap the trunk sewer main and only able to extend <18" into the lateral pipe. Mr. Pasko noted further problems with this tool include the brim not always being wide enough to find its way through or around tree roots, causing communities to shy away from using it.

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"Shorty" style liner that does fully wrap the trunk sewer main, and extends 1-2' into the lateral pipe.

157 158 • "Longer" style liner that fully wraps the trunk sewer main and extends >2' into the lateral pipe and can be done with or without installing cleanouts. Mr. Pasko reported that the City of Shakopee, MN currently uses this tool.

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When to Use Robotic Tools:

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To prevent damage to a lateral liner, you must line the main line first

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Any sharp main liner edges must be brushed to prevent tearing of the lateral liner

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What Tools are They Using?

- Many communities use dig and replace in lower and upper laterals depending on specific situations
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- Use of cleanouts vary among communities and depends on their location, whether above or below ground

• Some communities choose to use vacuum excavating

Mr. Pasko noted that again, these choices are based on individual community ordinances and their specific issues.

How Much Do the Tools Cost to Use?

Mr. Pasko again provided a matrix comparing the cost for various options, and limits of the lateral rehabilitation, including:

- Up to the wye: estimated at \$2,000;
- Up to the edge of the road: estimated at \$3,000 to 7,000;
- Up to the rights-of-way (same as above)
- With the upper lateral, Mr. Pasko opined that most of the cost was the contractor's mobilization to get to the site; with the actual length of the lining not that problematic beyond the cost of the base project itself; estimating it at \$1,000 to \$2,000 based on his very schematic level opinion of construction costs.

As an example, in the City of Edina, with most of their single-family homes built pre- or post-World War II, they may experience 60% to 70% of those homeowners using private contractors.

If the City had cast iron laterals, Mr. Pasko suggested the city not bother and just leave them along. However, if the majority of the city's pipes were clay or orange bird piping, Mr. Pasko suggested that the city seriously consider a lateral lining initiative.

Based on his experience, Mr. Pasko briefly addressed lateral insurance or warranty programs, and reported on various communities throughout the country.

 Mr. Pasko provided one example of the city forces undertaking that private lateral work themselves rather than hiring an outside contractor, essentially using city labor and equipment. Mr. Pasko advised that part of their rationale was that it provided them another opportunity to interact with customers in a positive way, and whether or not the lateral rehabilitation program is also subsidized or not, they claim they've been successful in their endeavors.

Mr. Pasko provided other examples, such as in the Philadelphia area where the municipality chose a for-profit warranty program at reasonable rates. However, Mr. Pasko noted that this created some significant increases in utility rates of up to a \$1 increase in one year; and some communities were limited in the number of contractors serving in this capacity. Mr. Pasko noted that most of the warranty program agreements allow the municipality to build in a clause for choosing contractors or only quotes from local contractors. Mr. Pasko cautioned that there were pros and cons with this type of warranty program, one of which was whether or not the municipality may be endorsing certain plumbers above others. Mr. Pasko noted that he had found with municipalities partnering with these warranty programs, their residents had been engulfed with mass mailings from the plumbing industry.

Again, Mr. Pasko emphasized the need for appropriate ordinance language to protect the municipality and its residents.

218 Q&A

219 During and after the presentation, Mr. Pasko responded to questions of the PWETC.

Chair Stenlund noted that, overall, the lower laterals in Roseville were not typically a problem for I & I.

Given the age of the community and its infrastructure, Mr. Pasko opined that this was most likely due to backfilling of pipes in rights-of-way done to a higher standard with inspection staff on-site than may be found in current construction efforts. Mr. Pasko noted that the other side of the laterals were usually more problematic outside that right-or-way line with private contractors being less diligent in packing soils. Mr. Pasko noted that this was problematic nationwide, with findings that the lower lateral is better compacted than the upper lateral as it related to I & I.

Chair Stenlund noted that some mains were not under the road in Roseville, but may be located on one side or the right-of-way or the other, and affected homeowners accordingly for rehabilitation costs. Member Stenlund questioned if those situations would be redlined as good candidates to consider for lining sooner than later.

Mr. Pasko responded that lining was paid for by the foot; and as an example, there were many situations where whether or not that lateral was on the short or long side, those homeowners on the short side got more of a bargain than those on the long side. Mr. Pasko noted that some communities stipulate that all property owners pay the same to equalize factors; but if not a lot of those situations, that was not taken into consideration beyond a unique situation. Mr. Pasko noted that there were many different ways for a community to approach that inequity.

Chair Stenlund questioned problems with flows coming toward the lining and creating a plug.

Mr. Pasko responded that there were not, and as an engineer, a pre-lining television inspection (after cleaning the line) was performed and if active I & I was found, it may be addressed with a plug, while tree roots were removed. After that, Mr. Pasko noted that the end cap was cut off and then inspected again, and if the problem or indication of a problem during installation was observed, it was removed and the process done again. Mr. Pasko advised that he uses a two-year inspection clause for lining contractors, requiring them to re-inspect and correct any problems on their own dime. While it varies with contractors, Mr. Pasko advised that the best lining contractors average 2% or less with problem areas.

At the request of Chair Stenlund, Mr. Pasko advised that the liner has a built-in taper, with minimal identification loss, and while there may many roots and problems within the pipes, there was little problem or evidence of problems from flushable items getting

caught in the laterals with the smaller and smoother liner applications now available with improved technologies.

Member Wozniak asked if there was a limit to the pipe condition in which lining would work (e.g. broken, disjointed or disconnected) that determined if and when the liner tool would still prove effective.

Mr. Pasko advised that the only problem was a pipe was a pipe with 50% or more missing; and even then if technicians were gentle in the lining, they could still blow right through that broken or missing area, essentially creating a pipe within the pipe. Mr. Pasko noted that the only problematic situations he'd observed were if a pipe had been crushed or offset and became oval or teardrop shaped. At that point, Mr. Pasko suggested it may be better to dig and replace that spot, or in areas with a sag. Again, Mr. Pasko noted the need to address that clearly in ordinance language to address rights and responsibilities for laterals for homeowners and the municipality.

At the request of Chair Stenlund, Mr. Pasko estimated the typical cost for each cleanout would be \$1,500 to \$2,500 each, and perhaps up to \$3,000 for vacuuming.

Based on his experience, Member Seigler asked Mr. Pasko if those communities offering a warranty program were happy with it.

Mr. Pasko opined that it varied: with older communities getting more than new communities; along with some property owners pushing back or not wanting to participate based on their preference for less government intervention.

Chair Stenlund asked staff to report on the percentage overall in Roseville of PVC, clay or cast iron laterals.

Mr. Culver noted that, with the majority of the Roseville sewer system installed in the late 1950's, and primarily in the 1960's, most lines were clay, but he wasn't able to identify how much if any were cast iron. Mr. Culver noted that, obviously, new lines were of PVC construction, but those were few and far between unless in new construction situations.

Mr. Pasko noted that this would fit in with most of the upper Midwest and national averages, with clay popular at the turn of the century through the 1970's until use of cast iron, then trending to PVC once that technology became available.

Given the age of most of the homes in Roseville, Member Seigler asked when a large amount of lateral failures could be anticipated.

Mr. Pasko advised that it had a lot to do with soil type and trees in their vicinity. Based on the amount of Roseville's tree cover, Mr. Pasko opined that there was probably a lot of root damage that had already occurred or was occurring right now. Mr. Pasko noted that the sub-grade soils around Roseville varied; and if you had heavy clay soils, any

defect in joints when the laterals were put together were probably leaking water. If those soils were sandy, Mr. Pasko opined that most of the surrounding trees were drinking water out of those laterals and had been doing so for some time.

Mr. Culver referenced the permit information previously supplied to the PWETC for sewer services (September 2015) and advised that those numbers continued to increase. When televising city mains, Mr. Culver reported that they looked the short distance available into laterals, and when seeing an obvious root intrusion, those property owners were sent a standard courtesy letter alerting them to that observation.

Mr. Pasko briefly reviewed some of the new inspection tools available in that everchanging technology and ability for television inspections that can pan and tilt about 1' into the lateral. Also, if no root intrusions are observed, Mr. Pasko advised that a small crawler attached to the main robot can be deployed to move up the lateral into the home carried by a tether.

If there are too many roots present or a sag, Mr. Pasko noted there is also technology for a mobile probe through the home's inside cleanout consisting of a low voltage probe to hit the pipe, then another section grounded to a sign post or fire hydrant to ground it and complete the circuit. Mr. Pasko advised that this allows the operator to measure how much current arrives at that ground from the probe and from the amount of current back estimate or calculate the amount of I & I that can go in. Mr. Pasko noted that this also provided a nice and repeatable measure from one year to the next. However, Mr. Pasko noted that it also depended on the operators on those cameras and their skill levels; again requiring ordinance parameters that clearly define potential problem areas and variables.

At the request of Member Cihacek, Mr. Pasko confirmed that the contractors performing lining of mains and those lining laterals were two separate specialties with their equipment also radically different at this time. Mr. Pasko noted that lining of mains was becoming more common and specialized, and those contractors didn't want to stop that process to deal with laterals. Mr. Pasko advised that he had yet to see any contractor make lining laterals part of lining main lines. Mr. Pasko noted that it was more common to line the mains one year and return the next year to line laterals.

In the City of Edina, Mr. Pasko reported that when they do street reconstruction, they will also rehabilitate or line laterals, but that is typically done by a different contractor while still allowing private owners to take advantage of a better rate for that contractor to do multiple linings once mobilized. In other words, as suggested by Member Cihacek, if the City of Roseville bid street reconstruction, and chose to bid laterals while the street was torn up, it made sense to do so, but otherwise there was no benefit to bidding them together. Mr. Pasko reiterated that he didn't see those technologies merging anytime soon; since those operating the joysticks differ. Mr. Pasko advised that the skill sets of most of those operators were amazing; with some of the best he'd observed having previously been drone pilots, and transferring those skills to this technique.

- From his perspective, Chair Stenlund asked Mr. Pasko for his opinion on why or how a
- 353 homeowner could be responsible for a portion of the line under the street and beyond his
- right-of-way; and without any power on their part to control what occurs around or near
- that line, such as compaction or traffic vibrations. Chair Stenlund also sought Mr.
- 356 Pasko's observations of other communities and their practice.

Based on his experience across the country, Mr. Pasko advised that he was only personally aware of one community that stops ownership at the property line or right-of-way. Mr. Pasko advised that the responsibility of the owner usually went to the main and includes the wye, with the private property owner responsible for the lateral and wye connection that comes into the main to make it a complete pipe. Furthermore, Mr. Pasko noted that it was common on the east coast for ownership of the wye and lateral up to the main. Mr. Pasko recognized that the wye was generally the first part to break.

Mr. Pasko noted that the State of MN was actually progressive in that a private property owner didn't own water service to the main or half or all of the curb stop box; and advised that many communities across the nation do so.

Mr. Pasko opined that depending on the situations and technology to employ them, he suspected that the use of cleanouts was coming to an end. Mr. Pasko noted that it wasn't unusual for private plumbers to carry liners into home basements or install cleanouts next to the foundation wall but not in a right-of-way.

Member Seigler asked if water laterals and linings had the same issues as that of sanitary sewer lines as far as deterioration.

While water mains were similar in terms of trouble spots and many can be rehabilitated using similar technology, Mr. Pasko noted that it depended on the community and its type of soil. Mr. Pasko advised that 30% to 60% of pipe wall loss was being experienced in communities with 1920's era infrastructure. Mr. Pasko anticipated that in the next ten years, technologies will be available allowing for water service pipes of ½" diameter to be lined, once the materials used are certified; with some being experimented with now.

Mr. Culver reported that S.E.H., Inc. will be designing and administering a Roseville project lining the water main on Heinel Drive due to it being a long dead-end street and creating difficulties for those residents if an open cut process was used. Mr. Culver advised that this new technology for water main lining was different than the previous pilot program using 3M spray-on material.

On behalf of the PWETC, Chair Stenlund thanked Mr. Pasko for his informative presentation and discussion.

6. Roseville Recycling Request for Proposals (RFP) – continued from January Mr. Culver referenced the staff report and attachments; highlighting specific items remaining for PWETC recommendation. Mr. Culver also provided a summary of the 60 comments and questions received via the Speak Up! Roseville website.

398 Mr. Culver noted that the frequency question was intended to be built into the 399 upcoming 2016 community survey as well to inform the RFP; with options 400 included in the RFP for final deliberation and determination of the City Council. 401 402 **Review of Last Month's Discussion** 403 A brief review of last month's PWETC discuss ensued, including current and 404 proposed pick-up frequency and whether occurring between regular routes or at 405 an extra charge; possibility of more than one cart per home, but recognizing the 406 limited garage sizes and available storage space for many older Roseville single-407 family homes; and city code requirements for storage out-of-site. 408 409 Chair Stenlund sought clarification as to whether park pick-ups would be a 410 separate zone unto itself or embedded into one of the five existing zones. 411 Mr. Johnson responded that the RFP would include that option for contractors and 412 413 include routine pick-ups whether on the trails requiring a smaller truck or 414 relocated by city staff to a central collection point depending on the park and/or 415 trail accessibility. 416 417 Member Wozniak noted that the current contractor does not separate multi-family 418 zoning or collections. 419 420 Mr. Johnson reported that the rationale of Eureka Recycling is to keep those 421 multi-family collections separated from single-family units to allow tracking 422 materials to determine participation rates among various housing stock types. Mr. 423 Johnson noted that the city could not really stipulate whether or not a vendor 424 chose to keep that separation going forward. 425 426 Member Cihacek opined that the city should not dictate that for contractors, nor 427 require that a special trip be made for a designated pick-up point. However, Member Cihacek suggested the RFP should provide an opportunity for the vendor 428 429 to describe their preference or value added. 430 431 Mr. Culver also noted that for park pick-up, it required coordination of park 432 maintenance staff with the contractor; but agreed that at the very start, the vendor 433 should signify the most effective way to accomplish pick-ups. 434 435 Specific to parks as a separate zone, Chair Stenlund clarified that he had no 436 problem with the current zoned collections, but was seeking to differentiate it 437 separately. 438 439 Mr. Johnson advised that he would clarify the RFP accordingly. 440 441 Specific to curbside collection of residential organics (pages 18-19), Member 442 Cihacek asked if the vendors would provide their options; with Mr. Johnson

responding affirmatively for future consideration, whether via bag, another cart or how they would propose to collect organics.

Section 5.11: Mr. Johnson noted language specific to missed collections by the vendor.

Section 8.04 (page 32): Mr. Johnson addressed the optional revenue sharing component and definitions by each contractor to choose a percentage.

Member Cihacek noted that if no revenue, the price would revert back to the base price; with Chair Stenlund noting in theory that could lower overall prices for residents.

Mr. Culver agreed, noting that could result in lower and consistent pricing versus more volatile pricing.

Continuation of RFP Discussion Tonight

Cart Ownership (city vs. contractor)

Among questions outlined in the staff report, Mr. Johnson asked for the PWETC feedback on ownership of the carts, referencing background information included in the report as indicated, and provided by Ramsey County's consultant, Foth; and a grant program available through Ramsey County paying up to 50% of the city's cart purchase if that was the preferred option in Roseville.

Member Cihacek questioned if revenue sharing monies could be used to pay for the city's cart ownership and spread out over time.

Mr. Johnson responded that it was possible, but would require significant staff time in tracking that process; as well as taking into consideration the considerable mobilization charge when first rolling out the carts, with the cit potentially incurring those costs annually as well if it chose cart ownership.

Mr. Culver advised that he was not sure of the Recycling Fund balance at this time without consulting with Finance Director Miller on the account; but agreed those funds could also be used. Mr. Culver advised that the theory is that if the city owns the carts, it would provide a reduction per residential unit for monthly or quarterly recycling fees. Mr. Culver noted that another option would be to keep the fund as-is to build the fund back up once the carts were purchased by the city. Mr. Culver suggested this should all be part of the financial analysis. Mr. Culver noted that the real benefit of cart ownership was that after the term is up with a contractor, the owner of the carts remained the city and there was no swapping out of carts if changing from one vendor to another. Mr. Culver noted that this also provided the city another benefit for more flexibility even if choosing to terminate a contract with a contractor earlier if needed.

488 Member Cihacek stated that he was fine with the city owning the carts if city 489 funds were available for their purchase; and if there would be no additional outlay 490 or implicit overhead costs with city ownership beyond their purchase, including 491 management and/or maintenance of the carts and it could be solvent within the 492 current budget. Member Cihacek opined that it seemed to be a good use for 493 revenue share funds going forward. 494 495 Member Seigler concurred with Member Cihacek, opining that if the average life 496 expectancy for carts was up to ten years, it would result in a \$2/month savings. 497 498 By consensus, the PWETC majority supported city ownership of the carts. 499 500 Section 5.05 - Zero Waste Events (pages 18 - 19) 501 Mr. Johnson noted current zero waste events: and asked if the PWETC would like 502 to add other events. 503 504 Member Cihacek opined that he found the intent of this section vague other than 505 requiring contractors to attend and collecting materials. 506 507 Mr. Johnson responded that the intent was to 1) educate the public; 2) helping 508 people sort materials; 3) use of special compostable materials supplied by the city 509 (e.g. BPI-certified utensils). 510 511 Member Cihacek questioned how contractor performance was measured. 512 513 Mr. Johnson advised that, for the Taste of Roseville in 2015, the contractor 514 provided a report showing the composition of discarded material by volume; 515 providing overview as well as informing future events. 516 517 Member Cihacek noted that this fit with Eureka's operating model; but asked if 518 other vendors offered this as part of their standard business model, or if this 519 limited vendors to only those with a similar core vision. 520 521 Mr. Johnson advised that, as with the previous RFP, all vendors said they could 522 do it and provided their ideas for how they could do so; and he saw no reason how 523 this should limit vendors. 524 525 Organic Composting Facility. Member Seigler asked if the City of Roseville had a composting facility at this 526 527 time; with Mr. Johnson responding that it did not, and while it could be dropped 528 at a Ramsey County site, any organics currently collected were brought to the 529 Eureka Materials Recovery Facility (MRF). In response to Member Seigler, Mr. 530 Johnson advised that the vendor would need to take that into consideration as part 531 of their bid to provide that or subcontract with another MRF if they didn't have

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their own processing plant. However, Mr. Johnson advised that it was part of the

533 process and they would provide prices accordingly through multiple and 534 competitive bids accordingly. 535 536 At the request of Member Cihacek, Mr. Johnson confirmed that the city reserved 537 the right to add other zero waste events to the contract term. 538 539 Chair Stenlund reminded to make sure it was clear in the RP that vendors reported 540 annually to the PWETC with an update, suggested improvements or challenges. 541 542 Costs 543 Mr. Johnson noted that Roseville had served as the "golden child" of recycling 544 from a rate perspective, and therefore advised that the only way to go would most 545 likely be an increase in that rate. Mr. Johnson reviewed the current Eureka contract and annual costs based on the 2013 RFP process receiving a total of three 546 547 proposals from vendors. Mr. Johnson also included a price comparison from Foth 548 in the matrix. Mr. Johnson noted that the county-wide average for curbside 549 collection every-other-week was anticipated at approximately \$3.20/unit. 550 551 Member Wozniak stated that he had a problem with current multi-family facilities 552 paying a per unit fee; and suggested instead a "pull" rate for multi-family units; 553 and further suggested the RFP say those facilities should designate a proscriptive 554 96 gallon cart size. 555 556 Mr. Johnson noted that the RFP does indicate that the contractor provide another 557 location for cardboard and larger recyclable items to avoid filling up carts. 558 559 Member Wozniak suggested leaving that up to the contractor as to what type or 560 size of carts, especially if Ramsey County is paying for containers. 561 562 At the request of Member Seigler, Member Wozniak defined the "pull" rate that addressed either per container, per cart or per stop, depending on the contractor's 563 564 use. 565 Mr. Johnson agreed that using the "pull" rate would provide more flexibility for 566 567 the vendor, but suggested a minimum for the bidding floor and to guarantee the 568 containers are right-sized for the facility and number of units. 569 570 Member Cihacek noted that, as part of their due diligence in responding to the 571 RFP, each vendor could request that information and based on their perspective, 572 make sure right-sized containers are bid for multi-family units. Member Cihacek 573 suggested that the RFP make it clear that the city would only work with vendors 574 willing to provide the right-sized containers. 575

include the revenue share assumption.

At the request of Member Cihacek, Mr. Johnson advised that the cost does not

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577

579 Member Cihacek asked, if the city took on cart ownership, would they be amortized for one year or for a longer period. 580 581 582 Mr. Culver responded that it may depend on the fund balance and input from the 583 City's Finance Director. Mr. Culver agreed that, if the fund balance was 584 sufficient, there should be no discussion; and to that extent, staff should be able to 585 perform a pseudo-amortization and rebuilt the fund balance, recognizing that it 586 may never reach today's high. 587 588 Member Wozniak noted that, in the pricing sheet prepared by staff, they did 589 include a "per pull" price for park collection. 590 591 Cart Size 592 Recognizing the limited space available in some residential garages in Roseville, 593 Member Wozniak suggested weekly collection would allow some of those units 594 to move to a smaller cart for storage. 595 596 Proposal Review Committee/Interview Panel 597 Member Wozniak asked who was involved in the RFP review panel and how the 598 PWETC fit in. 599 600 Mr. Johnson advised that those details had yet to be confirmed on the staff and 601 City Council level; but encouraged comment from the PWETC if they had 602 recommendations for the interview panel. 603 604 Mr. Culver advised that staff generally performed the initial scoring of proposals, based on their familiarity with the Best Value Process, including the price 605 606 component. Mr. Culver noted that this RFP would prove more challenging with 607 the many options, making it difficult to ensure a blind price comparison. Mr. 608 Culver noted that the typical process scored each proposal based on the values 609 and their weight before getting to the price. However, Mr. Culver noted, 610 depending on which options were selected and their complexities, it would impact 611 that pricing for overall scoring of proposals. Depending on the timing, Mr. Culver advised that the intent was for staff to then bring it back to the PWETC for 612 613 scoring on each proposal, including staff's recommendation and the PWETC's 614 subsequent recommendation to the City Council. Mr. Culver advised that the 615 process would then move into a negotiation period with the contractor, to

616 617 618

At the request of Member Cihacek, Mr. Culver proposed that the PWETC would see all rankings and an explanation of how the end recommendation was arrived at.

ultimately ratify a contract during the summer of 2016.

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Member Cihacek asked if there was any reason staff would not consider using someone from the PWETC as part of that evaluation.

Chair Stenlund advised that the PWETC was not involved last time beyond setting the criteria.

Member Cihacek expressed concern that the stakeholder perspective of the PWETC may provide a different agenda than that of staff's perspective and thereby score proposals differently. Even though he trusted staff to evaluate the proposals, Member Cihacek noted that it still involved a qualified opinion from staff's perspective. Member Cihacek opined that a lot of things occurred during the evaluation of specific proposals and expressed his interest in serving on that panel. Member Cihacek opined that it was at least worth having that conversation at the PWETC level to involve a member of this commission or an interested resident representing that stakeholder perspective.

Mr. Culver suggested that this option be presented to the City Council when the draft RFP was presented to them at their March 14th meeting to see their interest in that, providing the PWETC majority sought that feedback and participatory level from the City Council.

Member Cihacek opined that the City Council or someone beyond staff should be involved in the panel.

Chair Stenlund stated that he would not be interested in serving; opining that it was a lot of work and in some ways personally felt that it was overstepping the bounds of the PWETC. Chair Stenlund noted that the PWETC participant(s) would need to make sure they were fully prepared for the amount of work and time commitment needed. Chair Stenlund noted that he considered the preliminary work of the PWETC in setting the stage and subsequent review of the results as most appropriate, since the proposals would be based on input variables and weighting outlined and recommended by the PWETC. Chair Stenlund opined that he was fine with staff doing the work based on the criteria set by the PWETC. With the current transparency in local government and this process itself, Chair Stenlund questioned how anything other than the previous process and established evaluation variables could be improved upon.

Member Seigler agreed with Chair Stenlund's viewpoints, opining that it would only add another layer of complexity; and opined that he had no desire to serve on the panel.

Section 5.02 – Collection Vehicle Equipment Requirements (page 13) Chair Stenlund suggested further clarification that a vendor will use new diesel engines using the clean diesel concept, and not old beater trucks. While the age may be insignificant, Chair Stenlund opined that the technology wasn't and further opined that a vendor promoting natural gas or a cleaner burning fuel should receive additional points accordingly.

669 Also, Chair Stenlund suggested fine-tuning language related to appropriate terms 670 and expectations for universal clean-up of spills or leaks that may end up in the 671 city's gutter lines by defining what they meant by "clean-up, including how and 672 when they would address those spills. Chair Stenlund noted that this area tied 673 directly to the City's MS4 permit. 674 675 Chair Stenlund also suggested clear language that the contactor, their employees, 676 or subcontractors did not smoke in garages; and wherever "No Smoking" signs 677 are in evidence, they comply with that. 678 679 Specific to collection zones, Chair Stenlund reiterated the potential dividing of the 680 park zone; and asked that staff review the draft RFP for areas or zoned (Section 681 5.08) to make it clearer. 682 683 Chair Stenlund noted the need to spell out MRF the first time it was used in the 684 draft RFP. 685 686 Chair Stenlund expressed his appreciation that the annual recommendations to the 687 City Council come through the vendor and PWETC to further discussion actions 688 taken by a vendor to reduce their carbon footprint as well as that of the city; and 689 as a way to inform future best management practices. 690 691 To that point, Mr. Culver noted that the best part of the Best Value Process 692 scoring was recognizing those additional standards proposed by a vendor and 693 rewarding them for those extra efforts. 694 695 Section 6.07 – Annual Work Plan (page 28) 696 Chair Stenlund opined that he found the first sentence somewhat awkward, and 697 asked that staff review that as well as Section 6.08 (Outreach to Low Participating 698 Communities) to make sure there was consistency in what was being addressed. 699 Chair Stenlund noted in Section 6.08 specifically the need to be consistent with 700 the terminology of "Best Value Plan," Value Added Plan," or "Best Value 701 Process" throughout the RFP. 702 703 Chair Stenlund also noted the reference to the "annual work plan" in Sections 704 6.07, 6.08 and 6.09 needing consistency as well. 705 706 In Section 7.01 – Processing Facilities Must Be Specified (page 28), Chair 707 Stenlund again asked that MRF be spelled out the first time it was referenced. 708 709 Chair Stenlund noted the changes made by staff in Section 8.05 – Liquidated 710 Damages (page 34 - 35) based on Member Cihacek's comments at the last 711 meeting and whether that language was clearer.

Member Cihacek responded that while "liquidated damages" was a different term, from his read of the previous month's meeting minutes, the numbers were justifiable and he was fine with them as indicated in those minutes.

Member Wozniak suggested referencing Section 8 (page 30) and "payment in damages" versus "penalty" as previously discussed.

On page 36, discussing failures, Chair Stenlund noted Item g. specific to clean-up of spilled materials by the contractor within six hours or verbal or written notification. Chair Stenlund noted that a lot could happen in six hours, and suggested that language be changed to "Immediate Clean-up" and also requiring that the contractor self-report the spill to the state duty officer, depending on the amount and type of spill. In the case of a truck breakdown, for example, Chair Stenlund noted that materials were not always picked up before those rich nutrients ended up in the storm sewer system. Chair Stenlund suggested that some incentive should be in place to get the spill cleaned up ASAP without direction from city staff being required. Chair Stenlund also noted the need for the contractor to clearly identify what they were carrying in their spill kits. Chair Stenlund suggested that any additional costs incurred by the city for discharge of materials (e.g. cleaning out or jetting the sewer system) be applied as an additional cost to the contractor, thereby revising the language to \$250 for each incident, PLUS any additional costs incurred by the city.

Mr. Culver expressed his concern in the subjective interpretation of "immediate;" and suggested instead language to read "...immediately or no later than six hours after the incident occurs.

Evaluation Criteria and Weighting

Chair Stenlund asked if there were any individual concerns of the PWETC with this evaluation as defined. Chair Stenlund advised that he was fine with the scoring as currently defined in the draft RFP.

At the request of Member Cihacek, Mr. Johnson referred to the first three bullets on page 4 identifying "community values."

Chair Stenlund noted that they were further defined in the packet under community values; and each vendor was asked to provide information as to how their proposal met them.

Member Cihacek stated that his concern was with transparency for the vendor, since the value system was unclear or the vendor may not understand the value. Member Cihacek proposed changing the weighting as follows:

• Price: 40%

Past Performance: 15%Value Added Plan: 15%

Member Cihacek questioned why the Interview wasn't scored was included; with Mr. Culver responding that it didn't provide a separate score for the interview, but allowed the interview panel to tweak some scores based on the answers of vendors during the interview. Member Cihacek opined that it looked like two different scores to him and suggested removing it entirely or somehow noting that an outcome of the interviews may result in scoring being adjusted; allowing vendors to clarify or modify their proposals.

Member Seigler proposed that the price be weighted at 50% rather than 40%, opining that it was at least as important if not more so than the other components.

Mr. Culver recognized Member Seigler's perspective and advised that he would recommend it to the City Council. As with all other Best Value Processes to-date, Mr. Culver noted that 40% was the typical weighting for price, remaining the highest factor, but less than half. Mr. Culver clarified that the fear was if the price was weighted at half or more of the criteria, other categories would have even less weight in this optional bidding process and not recognize the value added of a particular contractor beyond that price.

Regarding whether the PWETC or a member of the public should be involved in the panel process, Member Wozniak admitted he was torn. While considering that city policies were in place guiding the process and precedents as well in place, Member Wozniak admitted he was compelled by Member Cihacek's suggestion that it would engage a public perspective in the decision-making process.

Member Cihacek noted that even as a non-voting member of the panel, it would allow their input and serve as an education piece for the public as well as enhance transparency. Whether as a formal or non-formal vote, Member Cihacek stated that he was happy with staff or the City Council further evaluating that option.

Member Seigler spoke in support of the PWETC suggested that a better option would be for the full PWETC to be involved through every part of the review process to serve transparency purposes.

Member Wozniak noted that the PWETC would eventually be evaluating and making a recommendation on the best proposal.

Chair Stenlund asked how the PWETC would have accountability in order to ask good questions, through documentation received from staff; or transparency in that interview discussion. Chair Stenlund opined that it was important for the PWETC to understand the thought and scoring process, having any deeper conversation on the scoring outcome provided an added and dramatic complexity to the process.

804 Member Cihacek opined that his concern was that in not having that piece of the 805 information and process, it wasn't allowing him to do his job of engagement and 806 information processing as part of his decision-making on the PEWTC and 807 subsequent recommendation to the City Council. 808 809 Chair Stenlund noted that it was up to the PWETC majority. 810 811 Member Cihacek suggested a subcommittee of the PWETC review the proposals. 812 813 If the majority decided to pursue this option, Chair Stenlund advised that he 814 would support the full PWETC reviewing the proposals versus a subcommittee. 815 816 Members Thurnau, Seigler and Heimerl agreed that if the PWETC was to be involved in reviewing the proposals that it be done by the entire PWETC as a full 817 818 commission. 819 820 Member Cihacek reiterated that he was happy to let the City Council make a determination as to whether or not the PWETC should be involved or if it should 821 822 be left at the discretion of staff. Member Cihacek opined that the PWETC didn't 823 need to make that decision, but his interest was in presenting the argument to the 824 City Council, and let the public and City Council speak to it; with staff advising 825 the commission of the City Council's subsequent decision. 826 827 Member Seigler opined that staff should perform the review; reiterating that he 828 didn't want to be involved as a group or individually; and agreed that staff should 829

be left alone to do their job.

830 831

Motion

Member Cihacek moved, Member Wozniak seconded, recommending to the City Council that they accept the RFP as revised.

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835 Ayes: 6 836 Navs: 0

837 Motion carried.

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7. **Review March 2016 Meeting**

- Mr. Culver advised that the Lake Owasso private drive storm sewer project was an item the PWETC needed to address next month, with the potential for a possible assessment and recommendation of the PWETC to the City Council accordingly.
- Community Solar (tentatively scheduled)

845 846

However, Mr. Culver suggested a field trip in honor of Chair Stenlund's last meeting, including a tour of the Upper Villa Re-Use System and Corpus Christi Basin, and if time allowed, possibly another stormwater-related project; the St. Croix Lift Station Rehabilitation.

850	
851	Mr. Culver suggested the PWETC meet in the Council Chambers to address immediate
852	business concerns; and then proceed with the tour. In order to accommodate the tour, Mr.
853	Culver suggested meeting earlier than the regular 6:30 p.m. meeting time.
854	
855	Motion
856	Member Cihacek moved, Member Thurnau seconded, moving the March 22, 2016
857	meeting to 5:30 p.m.; and directing staff to meet applicable notice requirements
858	accordingly.
859	
860	Ayes: 6
861	Nays: 0
862	Motion carried.
863	
864	8. Adjourn
865	Member Cihacek moved, Member Heimerl seconded, adjournment of the meeting at
866	approximately 9:00 p.m.
867	
868	Ayes: 6
869	Nays: 0
870	Motion carried

Roseville Public Works, Environment and Transportation Commission

Agenda Item

Date: March 22, 2016 **Item No:** 4

Item Description: Communication Items

Project updates:

• Lift Station Replacements

- On March 16, the lift station was put into operation. Staff was trained on the new pumps and controls and the system was tested, including the new backup generator.
- Final site work will be finished in May
- Twin Lakes Parkway
 - Extension of Twin Lakes Parkway from Prior Ave to Fairview Ave.
 - Major road work will begin in spring of 2016.
- 35W & Cleveland Interchange
 - Improved intersection improvements at 35W and Cleveland Avenue.
 - Major work will begin the Spring of 2016
- Capital Region Upper Villa Reuse and Infiltration Project
 - Installation of an underground system on Upper Villa Park behind the B-Dale Club.
 - All underground work installing the system has been completed.
 - Final work will begin to take place starting March 28 and should be completed by April 29.
- 2016 Sewer Lining Project
 - The contractor, Insituform, began sewer cleaning and televising on March 7
 - Sewer lining will begin on April 4.

Metro Transit A Line BRT Project:

 Construction has started on the stations along Snelling Ave at County Road B and Larpenteur (in Falcon Heights). A kick-off event for the start of BRT service has been scheduled for Saturday, June 11th.

Transit Shelter Update

• The transit shelters maintained under the now expired franchise agreement with OutFront Media have all been removed.

MnDot Project Update

• Attached is a Minnesota Department of Transportation (MnDot) presentation on MnDot projects in Ramsey County that was presented to the City Council on Monday March 14.

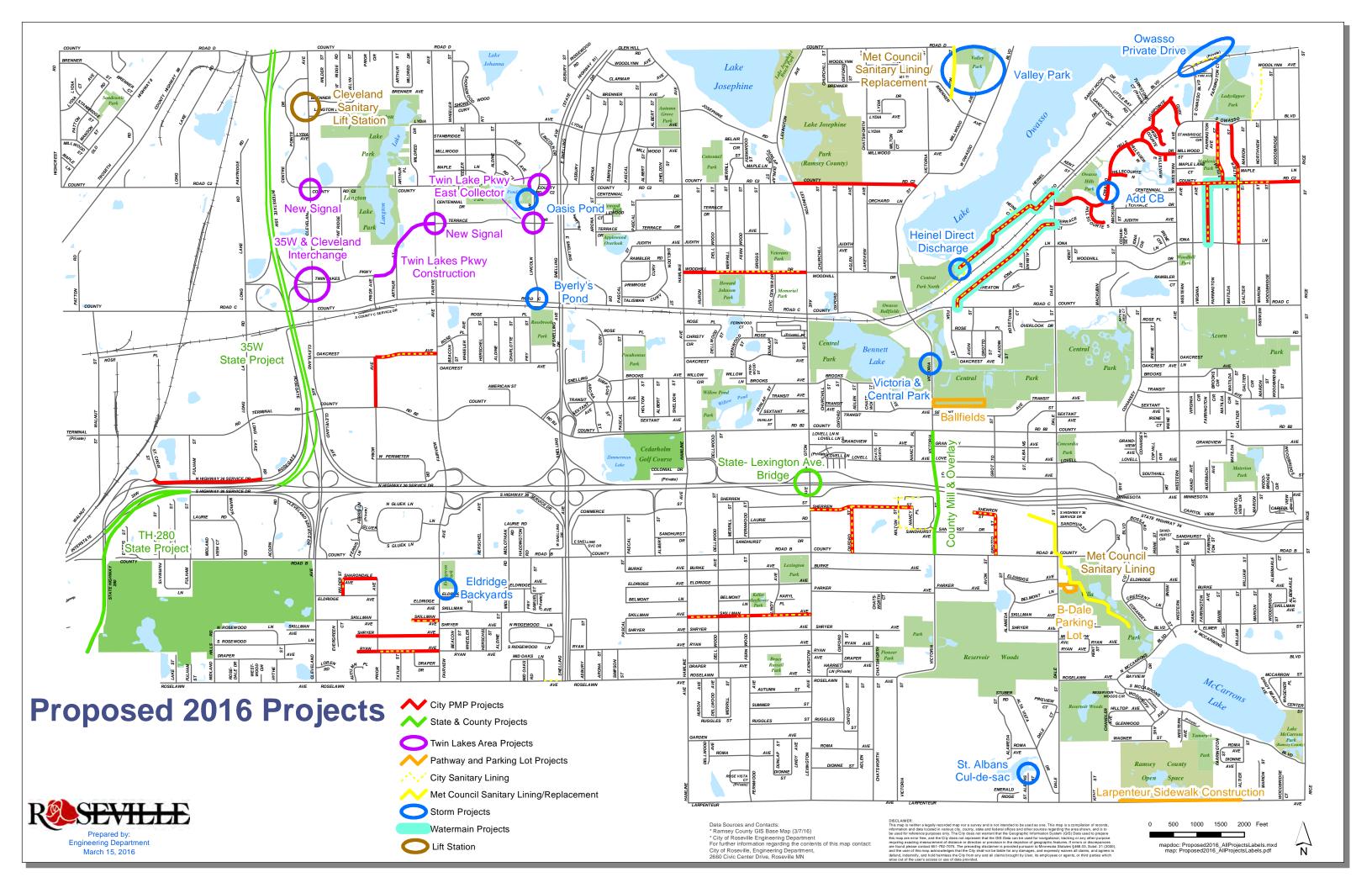
Major Maintenance Activities:

- Continued tree trimming.
- Began street sweeping.
- Began spray patching potholes as weather allows.
- Continued sign replacement
- Performed inlet/outlet inspections of storm sewer
- Hauled watermain break material
- Some staff participated in "Shade Tree" class
- Continue working on meter repairs. Only 70 meters remain to be upgraded to new meter and radio.
- Repaired water valve at County Rd B and Fry St.
- Repaired five water main breaks
- Worked with contractor and consultant at St. Croix Lift Station project to get training and make system operational.
- Began 2016 flushing dead end sewer mains.
- Worked with facilities contractor to get bids on carpet and window cleaning
- Staff attended "Work Zone Traffic Safety" seminar
- Collected bacteriological samples

Attachments:

A: 2016 Project Map

B: MnDot Project Presentation





City of Roseville 2016 Construction Update

Mark Lindeberg, North Area Engineer

Minnesota Department of Transportation

March 14, 2016

We all have a stake in $A \oplus B$



















2016 MnDOT projects in Ramsey County





















I-694 Corridors of Commerce



- Add a general
 purpose lane between
 Rice Street &
 Lexington Avenue
- Reconstruct existingPavementwww.enhance694.com

Construction Cost of \$35M













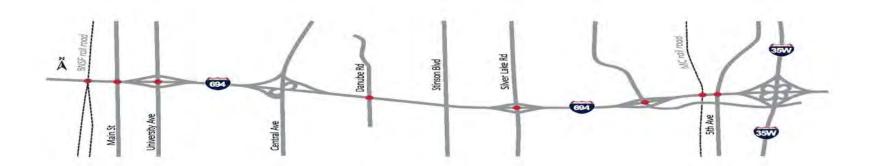






I-694 bridges: East River Rd to I-35W

- Repaint bridges
- ▶ Construction cost: \$1.3M













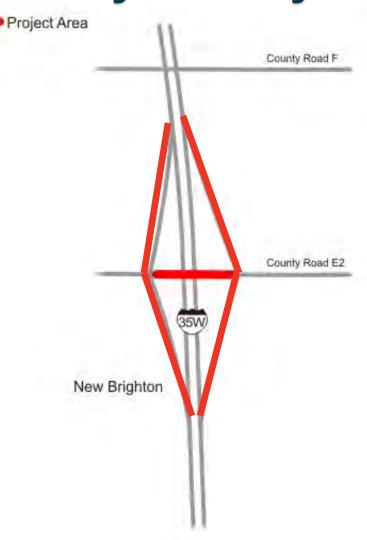








Ramsey County Rd E2 over I-35W



- Replace bridge
- Construction Cost \$3.7M











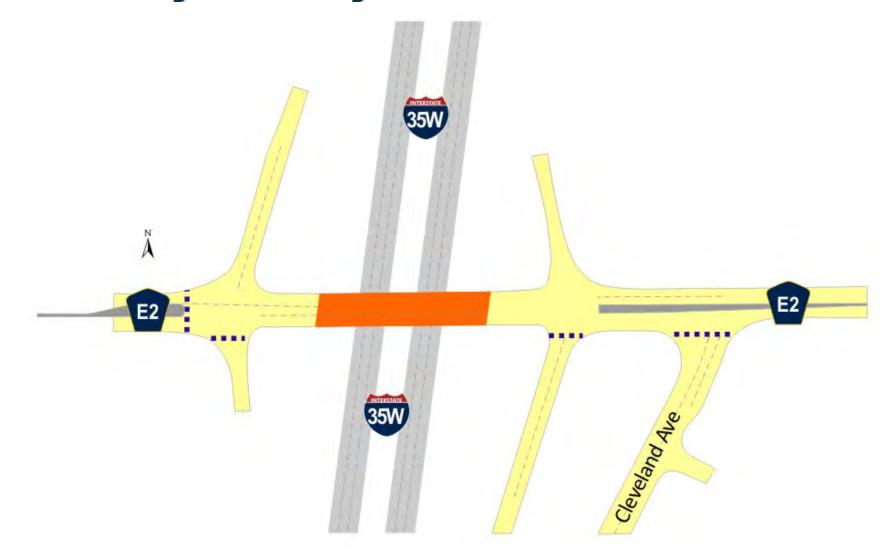








Ramsey County Rd E2 over I-35W















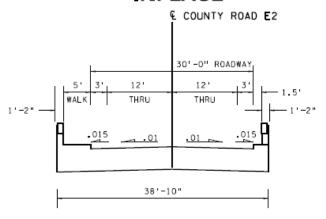




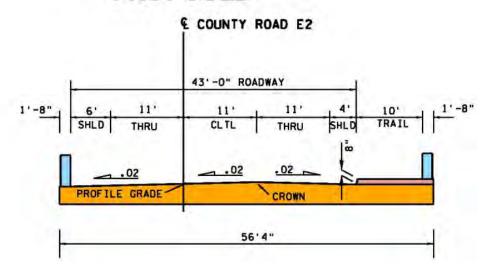


Ramsey County Rd E2 over I-35W

BRIDGE NO. 9570 (1964) INPLACE



BRIDGE NO. 62873 PROPOSED





















2016 Construction Map

Co. Rd. H Detours

Co. Rd. E2 Detours

Repaying I-35W















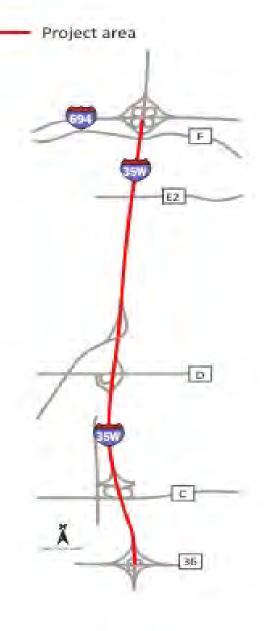






I-35W

- Repave I-35W between Hwy 36 and I-694
- Construction Cost: \$2.5M















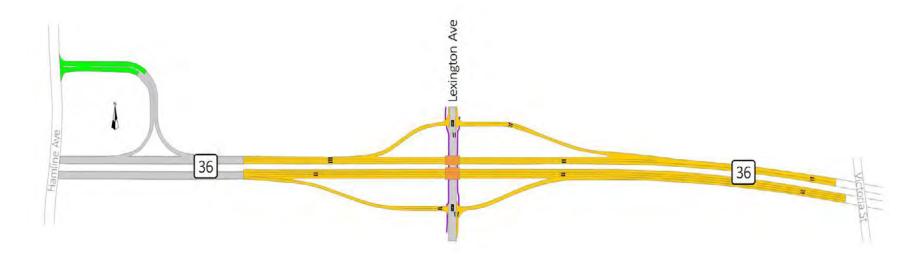






Highway 36 at Lexington Ave.

- Replace bridges over Lexington Ave.
- Reconstruct ramps at Lexington Ave. and WB ramps at Hamline Ave.
- Resurface Hwy 36 between Hamline Ave. and Victoria St.
- Estimated cost: \$11 M





















Hwy 280: Como Ave. to I-35W/Hwy 36



- Resurface road, repair ramps
- NB Hwy 280 to I-35W/Hwy36
- Estimated cost: \$3.3M











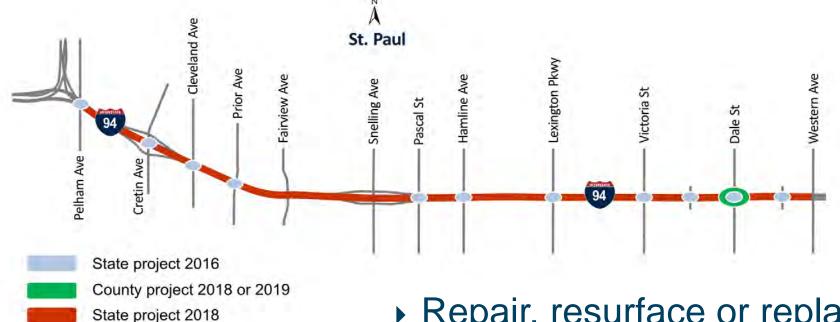








I-94 bridge repair: Pelham Avenue to Western Avenue, St. Paul



- Repair, resurface or replace bridge decks
- ▶ Construction Cost: \$4.2M













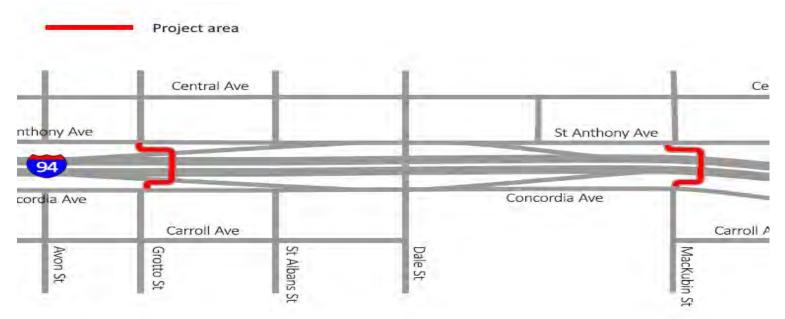






MacKubin/Grotto Street pedestrian bridges

- Rebuild pedestrian bridges over I-94 west of downtown St. Paul
- Estimated cost: \$3.5M





















I-94 East of downtown St. Paul

- Resurface road, repair bridges, construct auxiliary lane, noise wall
- Estimated cost: \$48M













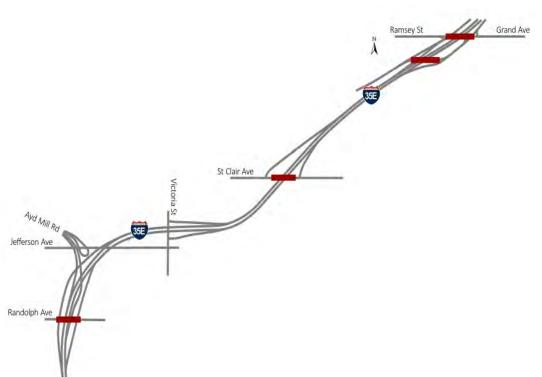








I-35E south of downtown St. Paul



- Repair four bridges over I-35E, south of downtown St. Paul
- ▶ Estimated cost: \$1.6M



















Future 35W Projects



















The Project

- ▶ Hwy 36 to Lexington Ave.
- Add a lane in each direction
- Noise walls will be evaluated
- 2019 construction project (\$210 million)





















Goals

- ▶ Develop a project on I-35W between Hwy 36 and Lexington Ave that:
 - Reduces congestion and improves safety
 - Provides a reliable congestion-free trip
 - Sustainable for 20 to 30 years
 - Utilize existing R/W









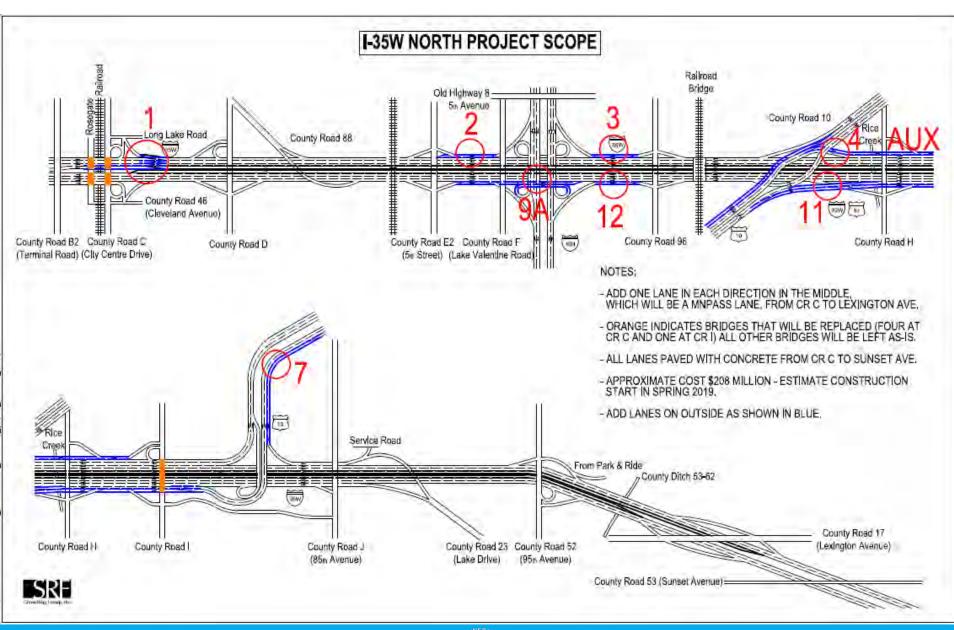






























Why Not Just Improve I-694?

- Only short-term benefits
- Improvements on I-694 both east and west deliver more traffic to I-35W
- Hwy 10 commons area will become primary bottleneck during both A.M. and P.M. peak periods
- Congestion increases south of I-694 due to increased throughput









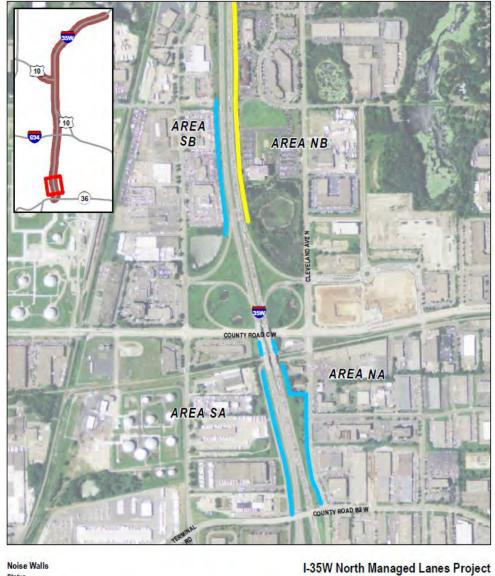






















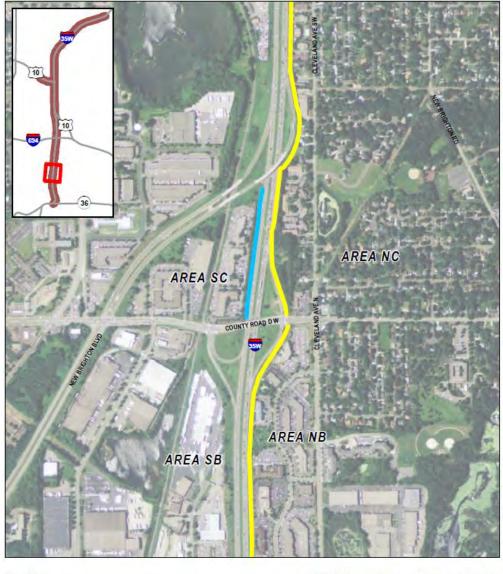








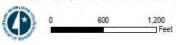








Noise Receptor and Wall Locations: Page 2 of 13

















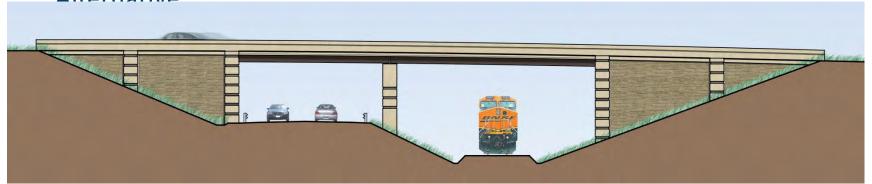


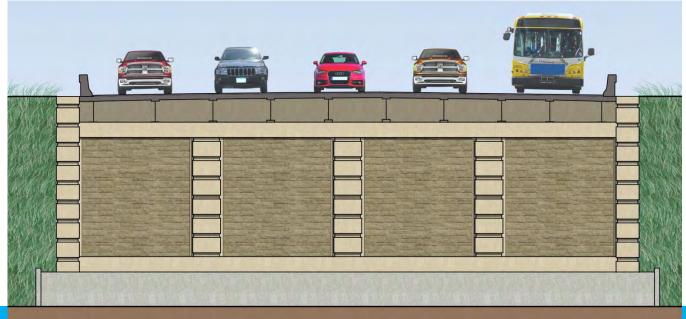




Visual Quality - Bridge Aesthetics

Bridge over BNSF Railroad and Rosegate – High Abutment























Noise Wall Design Precedents



Noise Walls at CR 96 Interchange



















Noise Wall Design Precedents



Noise Walls at CR 96 Interchange



















Need more information?

- mndot.gov/metro/projects/i35wroseville/
- www.mnpass.org

Questions?

Jerome Adams **MnDOT Project Manager** Jerome.Adams@state.mn.us (651) 234 - 7611

Bobbie Dahlke MnPASS Bobbie.Dahlke@state.mn.us (651) 234 - 7088



















Further Information & MnDOT Contacts

www.511mn.org

Current Construction projects:

www.mndot.gov

Mark Lindeberg
North Area Engineer
mark.lindeberg@state.mn.
us













651-234-7722







Roseville Public Works, Environment and Transportation Commission

Agenda Item

Date: March 22, 2016 **Item No:** 5

Item Description: South Lake Owasso Private Drive Storm Sewer Improvements

Background:

City staff has been working with residents along South Lake Owasso Boulevard for the past two years to address drainage concerns with the road. Currently this section of road east of Owasso Boulevard is a private road with a gravel surface. The road is in an easement from the railroad.

Currently the drainage on the road is minimal and the storm water discharges into Lake Owasso with no treatment. Staff has met with residents on the road on two occasions to discuss improvements to the road that could be done. Staff held a neighborhood meeting with residents on January 19, 2016 to discuss the project and potential costs to adjacent property owners.

The current proposal is to construct a permeable paver system (PaveDrain) with an angular stone subgrade to provide stormwater treatment and storage capacity. The system would have an underdrain that would be discharged to the lake. Attached is a draft plan showing the impacts of the project as well as a photo of the PaveDrain system.

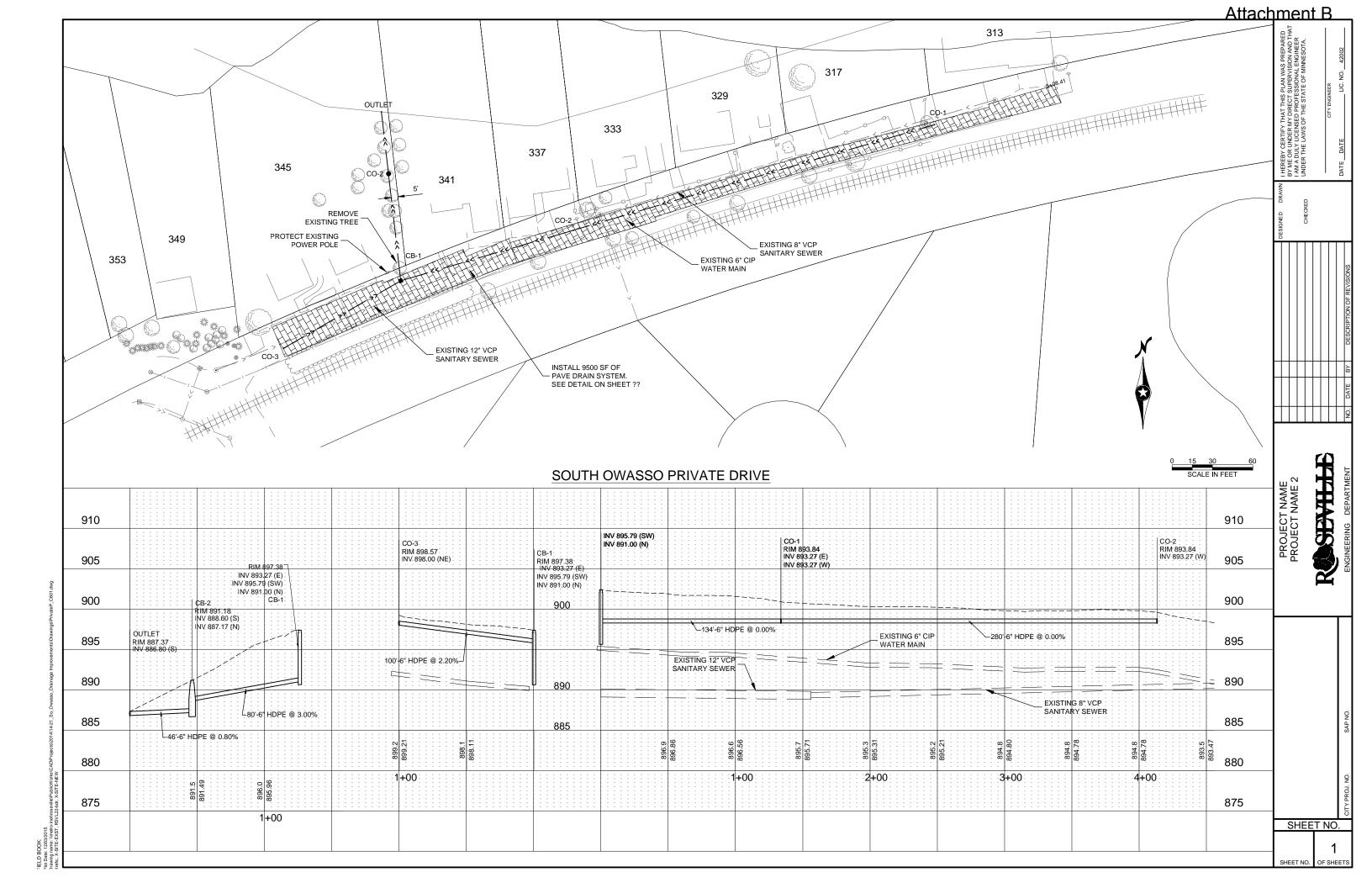
Recommended Action:

Receive a presentation on the South Lake Owasso Private Drive Project and consider support for the project.

Attachments:

A: Project Area Map B: Draft Plan Sheet C: PaveDrain Photo









Roseville Public Works, Environment and Transportation Commission

Agenda Item

Date: March 22, 2016 **Item No:** 6

Item Description: Review of PWET Commission Tour

Background:

The PWET Commission will adjourn to a tour of a few sites around the City including:

- Upper Villa Reuse System
- Water Distribution Booster Station
- Corpus Christi Stormwater BMP
- St. Croix Stormwater Lift Station

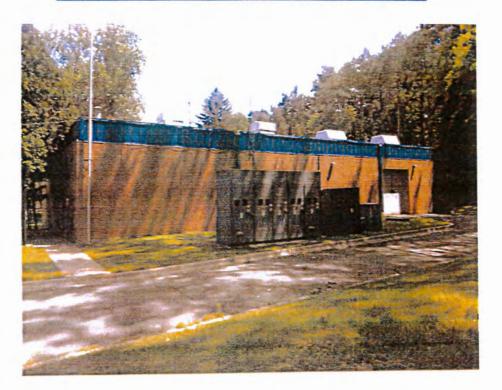
A map of these locations is attached. Also attached are fact sheets about each tour location.

Recommended Action:

Participate in tour of the above mentioned locations.

Attachments:

A: Map of Tour B: Fact Sheets



- Built in 1963 with four pumps
 - o Pumps 1 & 2
 - 125hp each
 - 3,500 Gallons per Minute Capacity
 - o Pumps 3 & 4
 - 200hp each
 - 6,500 Gallons per Minute Capacity
- Addition built in 1976
 - o Pumps 5 & 6 Added
 - 400hp each
 - 9,000 Gallons per Minute Capacity

Winter daily gallons

4,000,000 - 5,000,000 gallons per day

Summer daily gallons

8,000,000 - over 11,000,000 gallons per day

CORPUS CHRISTI BIOFILTRATION BASINS

The Corpus Christi Filtration Basins were installed in partnership with the RCWD, and the church. The goal of the project is to slow the overland flow of water that drains into a catch basin, and help alleviate the Fairview Truck Storm Sewer System. An analysis of the Fairview system was completed in 2011, and the City needs to manage 13 acre feet of stormwater to reduce localized flooding of the area. This project manages 0.5 acre feet of the 13 acre feet the City identified as a goal.



Right: The filtration basins will slow down and filter the 10 year rain event (4.2" of rain). This will help alleviate flooding by allowing water to slowly drain into the system versus the fast

Below: All excavated soils were kept onsite to create a multi use field for the church.



Project Cost: \$96,000

RCWD Funding: \$26,000

Roseville Funding: \$70,000

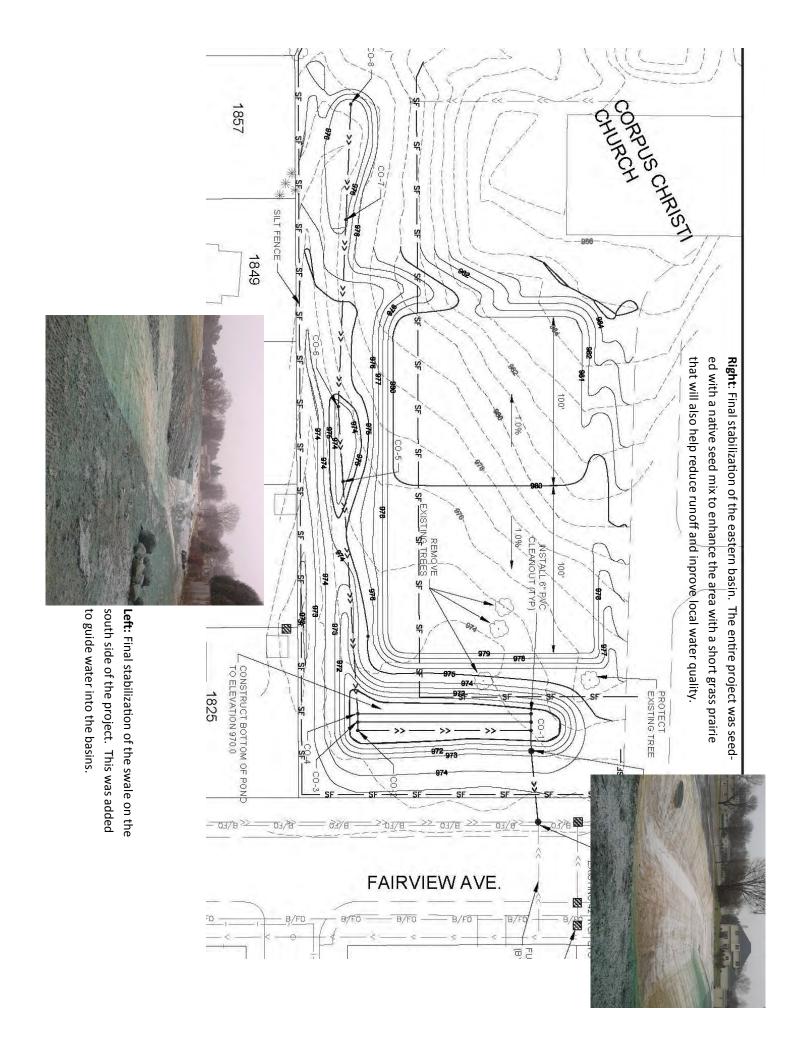
Left: The preconstruction condition of the Corpus Christi Field.

Below: Excavation of the Eastern basin. The heavy soils were overexcavated 3-5' to promote as much infiltration and storage as possible. A draintile was added and then had rock and sand backfilled around it.





Above: The contractor hydromulching in the snow. Proof that it can be done.



UPPER VILLA STORMWATER HARVESTING AND UNDERGOUND INFILTRATION

The stormwater harvesting and underground infiltration has a drainage are of 249 acres of mixed land use. Annually, 6.8 million cubic feet of stormwater drains through this system carrying 84 pounds of phosphorus that drain to Lake McCarrons. The system will remove up to 30% of the stormwater and 48 lbs of phosphorus annually.

Left: Stormwater harvesting concrete vault installation. 20,000 cubic feet of water will be used to irrigate the ballfields. The ballfields can be watered 4 times a week with a coverage of 1" over the entire green space before the vault is empty.

There is a real time storm monitoring system synced with the cloud that will empty the concrete vault into the infiltration system if a runoff producing rainfall is expected. This will maximize the systems water quality potential.

Right: 10' diameter perforated pipes that have a volume capacity of 60,000 cubic feet. This water is infiltrated into the sand below the system.

Below: Backfilling of the pipe to match the current grade.

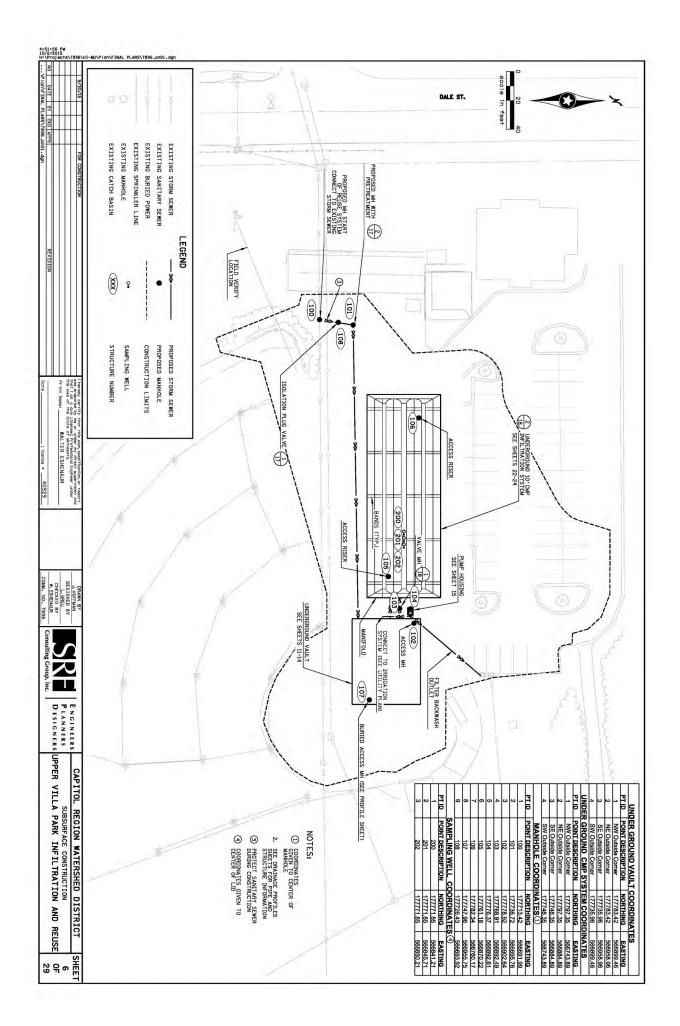
Project Cost: \$989,467

MPCA Grant: \$275,000

BWSR Grant: \$360,000

CRWD Funding: \$182,500

Roseville Funding: \$182,500



St Croix Lift Station Upgrade

The existing storm water lift station was built in 1968 and pumps water from the north and south Fulham Ponds. The station had two existing pumps (125-HP @ 10,000 GPM, 22.3 cfs and 250 HP @ 20,000 GPM, 44.6 cfs). The storm water is pumped through a 1,150 foot, 36" forcemain and discharges into a open channel to the north.



Engineering: SEH

Construction: Magney Construction

Left: The old storm water lift station prior to upgrades. The overall structure remained in the same location but new pumps and controls were added and the layout was modified to provide a safer working environment for maintenance.

Right: The two new pumps and motors after installation. The pumps are both 200-HP pumps. The new pumps are run with a variable frequency drive (VFD) to improve the flexibility of flow rate and to allow more control of the pond elevation.

Below: New generator being installed. The new generator is 625 KVA and is capable of running both pumps. The system is designed to turn on automatically in the event of a power outage.





Engineering: \$58,817

Construction: \$865,000

Project Cost: \$923,817

Funding: Storm Water Fund

Roseville Public Works, Environment and Transportation Commission

Agenda Item

Date: March 22, 2016 **Item No:** 7

Item Description: Look Ahead Agenda Items/ Next Meeting April 26, 2016

Suggested Items:

• ADA Transition Plan

• East Twin Lakes Collector Improvements

Recommended Action:

Set preliminary agenda items for the April 26, 2016 Public Works, Environment & Transportation Commission meeting.