

Roseville Public Works, Environment and Transportation Commission Meeting Agenda

Tuesday, July 22, 2014, at 6:30 p.m.
City Council Chambers, 2660 Civic Center Drive
Roseville, Minnesota 55113

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- | | | |
|-----------|----|--|
| 6:30 p.m. | 1. | Introductions/Roll Call |
| 6:35 p.m. | 2. | Public Comments |
| 6:40 p.m. | 3. | Approval of June 24, 2014 Meeting Minutes |
| 6:45 p.m. | 4. | Communication Items |
| 6:55 p.m. | 5. | Raingardens and Other Stormwater BMPs |
| 7:25 p.m. | 6. | Twin Lakes Improvements Feasibility Study |
| 7:55 p.m. | 7. | Community Solar Discussion |
| 8:25 p.m. | 8. | Possible Items for Next Meeting – August 26, 2014 |
| 8:30 p.m. | 9. | Adjourn |

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**Roseville Public Works, Environment and
Transportation Commission**

Agenda Item

Date: July 22, 2014

Item No: 3

Item Description: Approval of the June 24, 2014 Public Works Commission Minutes

Attached are the minutes from the June 24, 2014 meeting.

Recommended Action:

Motion approving the minutes of June 24, 2014 subject to any necessary corrections or revision.

June 24, 2014 Minutes

Move: _____

Second: _____

Ayes: _____

Nays: _____

Roseville Public Works, Environment and Transportation Commission Meeting Minutes

Tuesday, June 24, 2014, at 6:30 p.m.
City Council Chambers, 2660 Civic Center Drive
Roseville, Minnesota 55113

1 **1. Introduction / Call Roll**

2 Chair Stenlund called the meeting to order at approximately 6:30 p.m.; and Public
3 Works Director Schwartz called the roll.
4

5 **Members Present:** Chair Stenlund; and Members Steve Gjerdingen; Joe
6 Wozniak; Duane Seigler
7

8 **Members Excused:** Members Sarah Lenz; Brian Cihacek; and Joan Felice
9

10 **Staff Present:** Public Works Director Duane Schwartz; Assistant Public
11 Works Director/City Engineer Marcus Culver
12

13 **2. Public Comments**

14 None.
15

16 **3. Approval of May 27, 2014 Meeting Minutes**

17 Member Wozniak moved, Member Seigler seconded, approval of the May 27,
18 2014, meeting as amended.
19

20 **Corrections:**

21 • **Throughout Document in General**

22 Verify and/or add correct addresses for public speakers/residents

23 • **Page 8, Line 341 (Stenlund)**

24 Typographical Correction: change “240 watt: to “2-40KW”

25 • **Page 16, Line 678 (Stenlund)**

26 Correct contact person at U of MN-Mankato is Rick Baird

27 • **Page 16, Line 698 (Stenlund)**

28 Correct first line to read: “Chair Stenlund asked staff to provide additional
29 public...”

30 • **Page 17, Line 721 (Gjerdingen)**

31 Typographical correction: “I” to “in”

32 • **Page 17, Line 724 (Stenlund)**

33 Typographical correction: “not” to “no”

Ayes: 4

Nays: 0

Motion carried.

4. **Communication Items**

Mr. Schwartz and Mr. Culver respectively reviewed project updates and maintenance activities listed in the staff report dated June 24, 2014.

Discussion included progress to-date on County Roads B and B-2; whether or not the City ordinance was silent or if there was a current ordinance permitting or prohibited bicycling on sidewalks in business districts that superseded State Statute (request of Member Wozniak), **with staff tasked to follow-up and report back to the PWETC in the near future, but staff advising that the City of Roseville had no formal business districts established for maintenance purposes as a land use designation versus the state's definition of "business district;" with Mr. Schwartz requesting assistance from Member Gjerdingen in researching ordinances from other communities and State Statute, based on his interest in city-wide pathways.** and future bicycling around the Rosedale area once the County Road B-2 pathway was completed and how to define it to accommodate pedestrians, bicyclers and other users (e.g. skateboards, roller blades, etc.). The consensus of the PWETC was that once the County Road B-2 was completed, if bicycling on sidewalks was promoted in that area, that the City of Roseville was doing so legally and within the parameters of State Statute.

Additional discussion included individual member support for bicycling on sidewalks in general; the difference in recreational and commuter bicycle traffic; and how best to protect students en-route to and from school; existence of an ordinance in Minneapolis addressing those issues; ability to enforce by the Police Department due to other priorities; and keeping it in mind for future developments (e.g. Rice Street corridor).

Specific to the 2014 PMP Project and installation of storm water retention and treatment devices to address historic drainage issues, Chair Stenlund requested additional information on the status of ponds in that area (Dellwood and Sherren Streets); with staff duly noting the request for additional information for the PWETC; Mr. Culver did report that the improvements included a substantial underground storage on the east side, which was originally bid to be constructed of precast concrete structures, but an alternate submitted providing more storage available by using aluminized corrugated pipes was received and after review by staff determined to be the most cost-effective and efficient storage solution, as well as causing less disturbance at those times. Therefore, Mr. Culver advised that both locations would be constructed using those systems, ultimately improving storm water conveyance at Dellwood and Sherren Streets.

80 At the request of Chair Stenlund, Mr. Culver confirmed that there would still be a
81 filtration swale in place before the corrugated pipe chamber system; with work
82 anticipated in mid to late July.

83
84 At the request of Chair Stenlund, Mr. Schwartz advised that, based on studies,
85 aggregate chips can be removed the day after sealcoating as there appeared to be
86 no benefit in leaving excess loose material on any longer, as it actually dislodges
87 some of the bonded material. Mr. Schwartz also confirmed that excess material
88 was reused.

89
90 In addition to written project updates, Mr. Schwartz reported that at their meeting
91 the previous evening, the City Council approved a turn back agreement with
92 Ramsey County for County Road B west of Cleveland; with action pending with
93 Ramsey County Board of Commissioners in July, and construction of the
94 pedestrian shoulder on County Road B scheduled to begin in late July, after that
95 final approval of the agreement by the Board of Commissioners.

96
97 Member Gjerdingen requested more coordination with Metro Transit regarding
98 issues on the Snelling Avenue BRT project, especially aesthetics issues around
99 the stations (e.g. trash and recycling receptacles). Member Gjerdingen opined
100 that Metro Transit representatives were vague in their willingness to work with
101 other parties, but he felt strongly that as Snelling Avenue served as a gateway to
102 Roseville, especially near the Har Mar Mall area, it was important, along with
103 maintenance and upkeep of the facilities. Member Gjerdingen also opined that
104 the station could facilitate pedestrian and bicycle traffic crossing Highway 36,
105 since a bus was safest way to get across, and suggested pursuing a “fare free
106 zone” between Snelling Avenue and the B Station, even though Metro Transit had
107 previously stated that the only place such a zone existed today was in the
108 downtown area. Member Gjerdingen strongly urged the PWETC and staff to
109 push harder to get the City of Roseville more involved in this project to address
110 important issues for the community.

111
112 At the request of Mr. Schwartz, Mr. Culver confirmed that Metro Transit intended
113 building the first prototype BRT station in Minneapolis this fall; and Mr.
114 Schwartz suggested a tour of that facility once constructed would be prudent for
115 the PWETC to include in their annual field trip itinerary, providing an idea of
116 how they would look.

117
118 Mr. Culver noted that the Metro Transit representative, when speaking to the
119 PWETC in the past, had provided some mock-ups of station design, and short of
120 aesthetics, they intended them to be pretty consistent across the board, with
121 modular shelters, technology pylons and ticket machines built into the pylons,
122 bike racks and benches, and a few other amenities. Mr. Culver advised that he
123 would check with Metro Transit design staff to clarify trash and recycling
124 receptacles, as well as who would be responsible for their maintenance, and who

and how would enforce it. Regarding the “no fare zone,” Mr. Culver advised that it may prove difficult for Metro Transit to enforce such a system.

Member Gjerdingen opined that everyone had to get off the BRT at Rosedale anyway, and suggested at a minimum the northbound BRT have the “no fare zone” available, since it would address existing issues that unfortunately occurred some time ago when the Highway 36 cloverleaf was installed, and this could provide an opportunity to improve that situation.

Member Gjerdingen stated that he would like to see the PWETC get more involved in the I-35W/Cleveland Avenue project layout and design, specifically for pedestrian crossings, medians and how they looked; whether there would be one or four crosswalks and getting a sidewalk installed as part of it if the road was intended to be widened anyway, opining that a sidewalk versus turn lanes would be more beneficial, especially with the complications in the marsh land in that area.

Mr. Culver advised that federal funding on the project would make additional design amenities difficult, as minimum elements were needed for installation on which those federal funds were based, with their priority being to move traffic. With the current layout providing dual left turn lanes onto the I-35W ramp, Mr. Culver advised that it was important to preserve some capacity in there; and while there may be alternative intersection designs as part of that, there would be limitations to changes in order to keep the width down. However, Mr. Culver agreed with Member Gjerdingen that the City should continue to do its best to get pedestrian facilities installed there.

Discussion ensued among commissioners as to the location being referenced by Member Gjerdingen (along Cleveland Avenue from the intersection to Symantec).

Member Seigler noted the discussion held with the City Council at their joint meeting and their support for filling in sidewalk segments to obtain the maximum return for minimum dollars available as a priority of the City Council, and appearing to be a direct charge to the PWETC to facilitate, as well as recognizing that any installation needed to be maintained as well, which would typically be the City’s responsibility

Mr. Culver clarified that, as part of the annual and long-term CIP budget, infrastructure – including sidewalks and pathways – would be included in funding allocations.

Mr. Culver concurred, noting that each project would come back for review several times before actual construction.

Chair Stenlund noted previous requests, and repeated interest expressed by the City Council, to participate in a tour of the Eureka Recycling facility;

and asked that staff coordinate with them and try to pick a date for a joint tour by the PWETC and City Council in the near future; and a future tour of the BRT station in Minneapolis when built.

5. **Recap of Joint Meeting with City Council**

Chair Stenlund thanked those members of the PWETC who'd attended the joint meeting with the City Council; expressing his pride in the group.

Of the items discussed with the City Council, Chair Stenlund noted that organized trash collection remained silent, with no direct charge to the PWETC to pursue it further at this time.

From his notes of the joint meeting, Chair Stenlund reviewed the directives and comments provided by individual City Councilmembers, and his recommendation for those items the PWETC should include in their work plan for ultimate recommendation to the City Council as applicable.

- Involve and/or increase participation in curbside recycling collection by multi-family apartments, businesses and churches to continue increasing participation and a larger percentage of recovered material.
- Green Cities Program: determine where that process is at, and next steps.

On a related note, Chair Stenlund advised that he had recently attended a water quality workshop in St. Louis Park for commission members, which he found quite interesting and offered to share information with others if interested.

Mr. Schwartz reported that Environmental Specialist Ryan Johnson had recently taken a look at the project performed by Mankato State students, and met with Metro/CERTS in mid-April to discuss the process and next steps to reach a Level 2 minimum Green Step. Mr. Schwartz further reported that this morning, Mr. Johnson had tentatively scheduled a meeting with the City Council at their July 14, 2014 meeting for formally establish the City of Roseville as a Green Step City via resolution, after which the MPCA would get the City started on their website for additional data entry; and the City of Roseville would be recognized at the next League of Minnesota Cities annual conference in June of 2015. Therefore, Mr. Schwartz advised that the program should be up and running before too long.

Chair Stenlund asked staff to include an update from staff for the benefit of new commissioners on a future PWETC agenda.

- Status report on single-sort recycling program to-date after its initial roll-out in February of 2014; and as part of that a reminder about the requested Eureka tour.

- Frozen water pipes: how to solve the problem before the coming winter; and Best Practices ideas from other communities or sources.
- Alternative salt/ice control materials and cost impacts.

At the request of Member Seigler, staff provided additional information on why the City was moving away from using salt and toward other materials to address stormwater runoff and negative impacts on water bodies, locally and in the broader area.

Mr. Culver suggested part of that discussion and research could be how to use sodium chloride more effectively to provide safe driving situations for the public, especially at intersections, but how to use less of the material, or whether other chlorides would prove just as effective but have less of an environmental impact. Mr. Culver noted that there were other mixes to be researched that may have lower melting temperatures allowing less material to be used, along with beet juice and cheese brine as some of the materials being studied and experimented with. Mr. Culver advised that staff would research other items and report back to the PWETC to facilitate their discussion and subsequent recommendation to the City Council. In response to discussion among commissioners, staff noted that use of sand, while effective, also provided its own pollution concerns, requiring its eventual removal from bodies of water. It was the consensus of commissioners that public safety was a vital part of this discussion, in addition to cost, water quality and pollution issues; with staff noting that there also a limited amount of material available and also that they were permitted to use.

Mr. Schwartz noted that some heating technology elements were currently being used in Europe to some extent and had proven effective.

- Pavement Condition Index / Pavement Management Program (PMP) Goals. Chair Stenlund stated that he had been personally shocked at the joint meeting that any consideration was being given to reduce the current goals and funding, opining that it would only make it more difficult and take more money to get back to an acceptable level of service. Chair Stenlund suggested a more prudent approach would be to hold the current level of service by continuing a small investment now to avoid a major investment later. However, Chair Stenlund stated that his take away from the meeting was a charge by the City Council for the PWETC to research and make a recommendation on the impact and potential cost savings if the Index goals were dropped by 5%.

At the request of Member Seigler, Mr. Schwartz reviewed the City Council's rationale in requesting that study based on the current reserves (e.g. interest earnings) in the PMP reducing annual projects and future planning needs as roads come up for reconstruction beyond normal maintenance.

263
264 • Pavement Lamination Issues

265 At the request of Member Seigler, Mr. Culver reviewed what this meant, and
266 suggested a review by the PWETC should be wrapped into their PMP study as
267 well.

268
269 Members were directed to some problem roadways for their inspection and at
270 varying levels of deterioration: Rosewood west of Cleveland; Minnesota
271 Avenue between Rice and Lovell north of Highway 36; and west of County
272 Road C.

273
274 • Community Solar Gardens.

275 The consensus of the PWETC was that the City Council's initial charge was
276 for a review of the City's current ordinances and how solar installations would
277 be accommodated and/or prohibited and revisions to address that. Also,
278 commissioners recognized that this review would be part of the grant
279 application, if awarded, for that detailed review; with the initial step taken by
280 staff to draft a Letter of Support on behalf of the City Council to submit for
281 the City of Roseville to become part of the State's forty cities designated as a
282 "Solar Ready City" in Minnesota. Mr. Schwartz opined that there would be a
283 role for the PWETC in that review process.

284
285 Other potential work plan items and areas of interest expressed by the City
286 Council and/or PWETC members included:

- 287 o Organic collection and how/if the City should be proactive; research of
288 information on State Statute and Ramsey County mandates to understand
289 how the City will implement it in the future; and requirements of cities
290 receiving SCORE funding for curbside recycling to comply with the
291 Ramsey County plan in the future. Commissioners noted that discussions
292 and research of the Eureka Recycling, 3-year contract was needed as that
293 was part of their proposal to provide organic collection opportunities in
294 the third year of the contract; and/or to have it in place before new contract
295 bids in 2016.

296
297 Mr. Culver noted the strong interest and clear desire of Eureka to be a
298 willing partner and move forward with organic collection, which is more
299 easily facilitated with single sort recycling, with their current trucks
300 having space available for organics, making their conversion easy.

301
302 o Pathway Master Plan

303 Member Gjerdingen expressed interest in pursuing ranking beyond the
304 2008 ranking, and shorter versus longer segments and funds required, and
305 how to build in funding mechanisms to build out the pathway system
306 following conclusion of the Parks Renewal Program.

Mr. Schwartz reminded commissioners that there was currently no dedicated funding for new pathways at this point beyond the CIP recommendations the City Council and staff were relying on, showing the Parks Renewal Program running through 2017; with 2018 beginning allocation of some dedicated levy funds for pathway construction. Mr. Schwartz advised that the last levy funds for pathway construction was in 2002, after which the funding allocation was eliminated. Mr. Schwartz further noted that a new update on the City's Comprehensive Plan would be required in another 4-5 years, and suggested an appropriate time to bring that proposal forward for a formal update of the 2008 Pathway Master Plan, allowing a broader discussion with a cross-section of the community and commissions jointly receiving and collating public comment to recommend dedicated funding sources, unless the City shoes to commit to its funding before that time. Mr. Schwartz questioned the value of looking at the pathway ranking and funding now, other than applying state aid dollars for road construction projects and/or addressing certain segments as part of redevelopment as applicable.

Member Gjerdingen questioned if all the funding of the \$2 million bond issue was already committed to Parks Renewal Project expenses beyond internal pathways in parks as part of the process; and suggested the Parks & Recreation Department be consulted accordingly. Member Gjerdingen spoke in support of a resolution from the PWETC to the City Council recommending a designated amount of dedicated funds for implementation as other major pathway projects (e.g. County Road B-2) were completed.

Mr. Schwartz reminded Member Gjerdingen and other members of the PWETC that they had already adopted such a recommendation several years ago, requesting the City Council to consider such funding.

Member Gjerdingen suggested the PWETC and City get more creative in requiring businesses to include pathway installation as part of their redevelopment requests in the future (e.g. Interim Use and Conditional Use permits) as opportunities came forward.

Member Wozniak, in his prior role on the City's Planning Commission, advised that those discussions were often part of the land use application and approval process.

6. Stenlund Capstone Project Presentation

Chair Stenlund reported on a completed senior class project for Civil Engineering Students at the U of MN for an idea he'd submitted and students had bid on a proposal to provide a feasibility study on City/State retrofitting use of LED lighting for street lights. Chair Stenlund noted that the students: Daniel Fife,

Matthew Neudecker, and Sam Trebesch had completed the project and reviewed their report and executive summary.

Areas covered included the scope of work, light quality and sources; conversion; sustainability; light pollution; energy savings; maintenance; priority replacement schedule; and cost benefit for such a retrofit and payback time as part of their economic analysis and rate of return.

Chair Stenlund advised that their final recommendation was in support of the retrofit, and reviewed proposed approaches to facilitate the retrofit based on a systematic approach to consider high use areas, light locations and wattage based on uses (e.g. pedestrian walkways, signal lights, etc.), vehicle traffic, road safety, environmental benefits, air emissions during manufacturing and energy used in the manufacturing process; and availability of rebates.

In conclusion, Chair Stenlund advised that their recommendation was that it was worthwhile for the City to make the conversion as funding became available.

Mr. Schwartz noted that the City Council had begun funding \$25,000 per year for LED conversion, with 2014 the first year for scheduling thirty-seven fixtures on County Road C for conversion of pedestrian level lights to LED.

Discussion included past interest expressed by Xcel Energy, but based on their return of investment or available revenue received through rate increases for customers to fund that conversion to LED.

If other members of the PWETC had ideas they'd like to submit for consideration as a Capstone project, Chair Stenlund encouraged them to submit them. Chair Stenlund advised that he was resubmitting his proposal for students to design a community car wash system or kit to fit on a trailer, to be stored in a city-owned facility, for schools, churches or community groups to use for all water to be re-used and soaps and garbage from vehicles properly disposed of. Chair Stenlund advised that the system would be similar to the portable system currently used by the DNR in dealing with Zebra Mussels.

7. Lexington Bridge at Highway 36 Layout Overview

Mr. Culver reviewed the preliminary schematics and highlights of the project's elements and timing for MnDOT's replacement of Highway 36 bridges, specifically the Lexington Avenue bridge in this instance.

Mr. Culver advised that Ramsey County and the City of Roseville had been working with MnDOT for a number of months on design elements and staging concerns for the overall project, with stormwater improvements and ultimate staging and final bridge aesthetics details to be finalized over the next year. Mr. Culver noted that the project was originally slated to be underway already, but with the acceleration of the I-35E MNPASS system and impacts to the I-35E

project, this project was pushed out to eliminate and/or reduce those impacts. Mr. Culver advised that the updated tentative timeline was for bid in the fall of 2015 and construction start in 2015. Mr. Culver advised that staff continued to work with MnDOT to keep construction activities limited to one year versus a two-year project as originally planned, in order to reduce local impacts.

Specific to the aesthetics of the current versus new bridge, Mr. Culver advised that the existing railing no longer met current design or safety standards for interstate roadways, but staff was attempting to work the Art Deco design into the new bridge and maintain the look of existing pillars, and the arch element.

Discussion included the importance of this Lexington Avenue corridor for school students; similar travel lanes (two through lanes and one center turn lane); existing pedestrian facilities with a better 2' separation between the pathway and drive lanes, with slope paving on the west side; and a 10' clear zone on the east side. Mr. Culver advised that staff continued to consult with MnDOT on the potential installation of a sidewalk, since there will be some width gained underneath the bridge that could hopefully extend not, with installation under the bridge now and future extension and connection both north and south as a future project.

On the freeway side, Mr. Culver advised that was supportive of the long-term goal for three lanes on Highway 36 eastbound, and was therefore building the roadway wide enough to support that in the future, with only striping at this time, but scripted as a wide shoulder and construction of the bridge at this time supporting that application in the future. While it was difficult to absorb the whole context of the interchange layout from these maps, Mr. Culver reviewed areas of new pavement, signal replacement for ADA compliance features at ramps; and concrete rehabilitation on the Hamline Avenue ramps on the north side, which will also be closed for a portion of the construction project as well.

At the request of Member Wozniak, Mr. Schwartz reviewed past considerations by MnDOT to remove the Hamline Avenue overpass and exits when the bridge was originally slated for replacement in 2005. However, Schwartz advised that in 2000, additional discussions had been initiated with MnDOT on the feasibility of that, originally intended to look at the broader spacing along this stretch and desire by MnDOT to eliminate weave movements between ramps and westbound traffic and the Hamline Avenue off ramp, and based on exits too close together according to ramp spacing guidelines. However, Mr. Schwartz advised that at the request of Ramsey County and Roseville were the negative impacts that would have on traffic on Snelling and Lexington Avenues and in front of the high school on County Road B-2, with that infrastructure being inadequate to take on an additional estimated 14,000 cars displaced from the Hamline Avenue ramps. Mr. Schwartz noted that, around that same time, funding shortages occurred; with the current project focus simply one of bridge replacement and not reconfiguration of other elements.

445
446 Additional discussion included changes in alignment of two of the four ramps;
447 lack of analysis by MnDOT pursuing roundabouts in this area to avoid back-ups
448 during peak school times, but limited by significant grade issues and challenges to
449 the cost of the project. Form a staging perspective, Mr. Culver advised that
450 diverting Highway 36 traffic off the ramp and then back onto Highway 36 around
451 bridge replacement segments would cause Lexington Avenue to be closed to
452 through traffic for a time. Mr. Culver advised that MnDOT had originally
453 intended to divert eastbound traffic, build the bridge and move traffic onto it;
454 however, that would have required two construction seasons, and the City had
455 suggested that MnDOT look at widening the ramp temporarily to allow one lane
456 in each direction in order to build both bridges at the same time and provide
457 significant economies of scale (e.g. easier traffic control and contractor
458 mobilization costs). Mr. Culver advised that this would save a whole construction
459 season of difficulty for Roseville residents and users of Lexington Avenue with
460 one versus two construction seasons, with Lexington open to local traffic only.
461

462 Mr. Schwartz advised that the proposed closure would be four months. At the
463 request of Member Wozniak, Mr. Schwartz confirmed that staging remained
464 preliminary at this point, and MnDOT was committed to looking at it again.
465

466 Mr. Culver advised that, if traffic was completely diverted, contractors could
467 accomplish the work quickly to the benefit of all. As an example, from his
468 experience with bridge construction on Highway 610 in Maple Grove, one
469 freeway overpass in forty-five days, proving that it can be done, as well as saving
470 money and time and impacts. At the request of Member Gjerdingen, Mr. Culver
471 advised that consideration was given to impacts to State Fair traffic impacts as
472 well as school schedules, with determination that the larger impact would be for
473 State Fair traffic, and therefore, the project may need to be initiated before school
474 gets out.
475

476 Member Seigler opined that Highway 36 was currently backed up daily, and with
477 reduced lanes during construction and/or diversion of the traffic, it would bury
478 Larpenteur Avenue, Highway 96 and other alternates as people found those
479 options.
480

481 Mr. Culver agreed that there would be serious restrictions during rush hour, but
482 the goal was to focus the pain into a few months versus two years, and get the
483 project done.
484

485 Chair Stenlund concurred, opining that people tended to adjust after the first
486 week.
487

488 Specific to drainage issues and designs by MnDOT, Mr. Culver advised that City
489 staff was working with their proposal to address what was needed locally from a
490 drainage perspective, and allow the City to incorporate its historical drainage

issues in that area and flow issues for the nursing home and other problem areas (e.g. Sherren and Dellwood areas) as part of that extended drainage management mitigation. Mr. Culver noted that there were several open spaces that may allow for shared ponding between the City and MnDOT; and assured members that staff would continue working with them on that aspect.

At the request of Chair Stenlund, Mr. Culver advised that based on the noise analysis performed by MnDOT, as long as no lanes were being added at this time, no noise walls were required. However, when the third lane occurred, Mr. Culver advised a noise wall would need to be installed, and based on preliminary noise wall studies along this corridor indicating areas that qualified under those standards.

At the request of Member Gjerdingen, Mr. Culver advised that a mill and overlay of Lexington in that area would be included as part of the project; and while MnDOT has accommodated the City's request for a 10' clear zone on the east side of Lexington, it was doubtful they would agree to any additional widening to accommodate pedestrian facilities due to lack of additional funding, and the need for Ramsey County to fund additional bridge length to accomplish that additional width. At the request of Member Gjerdingen, Mr. Culver roughly estimated the cost for six lanes with shoulders at a significant amount per linear foot, \$100 - \$150 per square foot of additional bridge.

Mr. Schwartz concurred, and advised that Ramsey County did not foresee, in the next twenty years, needing additional capacity in this area, which may be a value judgment on their part, but supporting their cost analysis projections and planning.

Member Gjerdingen opined that this put the City in a tough spot; and questioned how the cross section of road under the bridge compare to the north/south areas of Lexington and Sherren.

Mr. Culver advised that there would be about the same area as far as width on the left; and it smaller than the rest of the roadway, it seemed prudent to expand the width unless this is a natural chokepoint. However, Mr. Culver opined that it would be difficult for the City to consider expansion of Lexington Avenue north or south of the bridge to add a full additional travel lane, based on available of rights-of-way.

Additional discussion ensued regarding Member Gjerdingen's concerns about sufficient space on the shoulder for pedestrian and bicycle traffic; 40 mph speeds posted on Lexington Avenue; with Member Gjerdingen offering to personally measure the roadway to alleviate his curiosity and concerns; seeking assistance from staff to determine the actual right-of-way locations and widths.

Chair Stenlund noted that, by comparison, the Dale Street bridge was not as wide as the Lexington bridge, and the proposed slope paving would make it appear even wider. With MnDOT willing to provide the additional 10' clear zone requested by the City, which it currently didn't have, Chair Stenlund opined that this was a great addition to the project and to the benefit of the community.

Mr. Schwartz concurred, noting that the slope paving could also be dealt with differently in the future to widen the roadway if and when needed; and the lanes in place now would allow sufficient width for a small shoulder on either side of Lexington, and curb & gutter to provide better drainage.

As an example, Member Gjerdingen referenced the wide curb installed in Minneapolis and on Como Avenue.

Mr. Culver noted that in some places the wide gutter was used as a bicycle lane, even though the seam was difficult for riders to deal with, but creating a 4' gutter and an 11' through-lane.

Member Gjerdingen concurred that as the pavement got worn, the seam was difficult to deal with; and questioned how the pathway could be extended, since he was aware that MnDOT preferred to have a connection point at both ends.

Mr. Schwartz advised that staff would need to look at the potential of extending from Sherran to Lovell, but cautioning that MnDOT would not pay for such an extension, and would not pay for even the portion they'd already agreed to, but it would be up to Roseville and/or Ramsey County to pay for it at a negotiated cost between them. Mr. Schwartz offered to discuss Member Gjerdingen's suggestions with Ramsey County to determine their interest; however, he noted that there was no construction fund dedicated by the City's levy dollars to facilitate the expenditure; and would need to determine if it made sense in the overall scheme.

Member Gjerdingen opined that, if the dollar amount was small enough, it could be worth bringing to the attention of the City Council for funding. Member Gjerdingen further expressed his concern with crosswalks at those intersections, and across the Highway 36 ramps on the east/west portion of the roadway.

Mr. Schwartz advised that it had been decided that at least sidewalks installed at the controlled intersections for ramps would provide some relief; with the intent to leave all four in place as they currently exist.

Member Gjerdingen opined that it was important to him to know sooner than later if that was going to change.

8. Public Works Department Overview

Mr. Schwartz provided an overview of the Public Works Department, which had originally been put together by staff for the benefit of new commissioners, but deferred due to other agenda scheduling conflicts. Mr. Schwartz advised that the information was also periodically updated as part of the “Roseville University” workshops held for interested citizens over the last few years, with each City department presenting information to better inform residents about their community and local government operations. Mr. Schwartz referenced the atlas pages in hard copy form that had previously been provided to PWETC members, and encouraged them to ask questions of or provide input to staff at any time.

Mr. Schwartz reviewed the City of Roseville’s 13.8 square miles and population of 33,600, 2014 Public Works Department budget of \$19,500,000 and 32 FTE staff, and its current organizational chart. Mr. Schwartz briefly reviewed each division and their specific responsibilities: Public Works Administration, Engineering, Street Maintenance, Utilities, Building and Vehicle Maintenance, Solid Waste, and Asset Management.

As part of the Street Maintenance Division, Mr. Schwartz included a discussion of the PMP and street lifecycle applications; 40 city-owned parking lots; and public owned pathways; in-house preparation by grading and prep work before paving to reduce costs; and snow plowing and the City’s current policy on street plowing (available at www.cityofroseville.com.snow).

Mr. Schwartz also provided an update on the City’s automatic meter reading (AMR) and replacement of commercial and difficult-to-read meter replacements begun in 2010 and expectations of meter replacement to be finished in 2016, with 4,000 installed to-date, with the Finance Department then able to read all meters city-wide from four data collectors placed throughout the City. Mr. Schwartz advised that this also allowed more useful data for the City and its customers in leak detection, promoting efficiency and conservation, decreasing costs of meter reading and billing times, reliability and better management of staff resources.

Mr. Schwartz advised that 1/3 or more of the City’s entire sanitary sewer system was cleaned annually with a high pressure jet, and in some cases, root cutting; with 50,000 plus feet of sewer main televised annually to remain proactive in finding problems and high priority segments. Mr. Schwartz advised that staff had made significant progress in addressing problem areas, especially when 80% of the City’s pipes were clay tile, and with lining technologies, PVC products could be used inside those areas where the clay tile was failing, with over six miles accomplished in 2014, seven miles in 2013, and five miles in years prior to that. Mr. Schwartz noted that grant dollars available from State bonding through the Metropolitan Council helped the City be able to do more than it could accomplish on its own financially.

Mr. Schwartz reviewed the City’s sanitary sewer back-up cleaning assistance policy established by the City Council several years ago in an effort to protect the

health and safety of its citizens in addressing immediate needs in the event of a sewer back-up and cleaning it up as soon as possible. Mr. Schwartz advised that the amount of assistance, up to \$5,000, was intended to offer assistance to residents, no matter if and when liability was determined by outside insurance providers, and did not include restoration.

As part of the Building and Vehicle Maintenance Division, Mr. Schwartz reviewed facility projects; vehicle maintenance for a 250 plus vehicle and equipment list handled by two full-timer shop personal (working foreman and mechanic) responding to over 1,000 work orders per year, along with preventative maintenance on vehicles based on mileage and/or hours. Mr. Schwartz noted that this also involved keeping the HVAC systems running, and any painting or minor rehabilitation of public and office areas. Mr. Schwartz noted that it had been over ten years since the last update in paint at City Hall, and a need in the near future would be for some carpet replacement in areas showing extensive wear. Mr. Schwartz noted that the Division also addressing campus lighting issues inside and out for select hallway and office lights on 24/7 to meet code; with other lights on timers and sensors to conserve energy. Mr. Schwartz provided energy savings trending from 2010 through 2012, with costs being reduced based on a focused effort by staff to reduce the City's carbon footprint and providing significant savings at City Hall and the Public Works building, and vehicle idling policies as well.

Specific to the Engineering Division, beyond the obvious responsibilities for the PMP, project management, infiltration and inflow, development project review, erosion control, right-of-way management, drainage, a city-wide GIS – with Roseville being a leading city on those GIS services – Mr. Schwartz advised that the City provided consulting engineering services to the City of Falcon Heights. Mr. Schwartz noted that, with recent rain events and increased volume of water into the sanitary sewer – requiring treatment – the City had been able to identify significant areas with sump pumps connected to the sanitary system versus the storm sewer, and would be addressing those in the near future to reduce treatment costs city-wide. Mr. Schwartz reviewed the intent of the PMP program and annual inventory and CIP.

Mr. Schwartz reviewed other aspects and improvements made recently with the City's comprehensive asset management software program for tracking all work performed in the department.

As a recent hire to the City, Mr. Culver offered his favorable impression when accepting the position, of the City's atlas and the amount of information contained within it and coordinated through the GIS program and providing location-specifics to better plan and complete projects.

Chair Stenlund and members thanked Mr. Schwartz for providing the information and recognized the diversity of the Public Works Department and related role for the PWETC.

At the request of Member Seigler, Mr. Schwartz advised that the data was available to the public as requested, including requests of commissioners.

If interested, staff encouraged members to contact them to see a lining project live and in operation, as there were several underway at this time.

9. Possible Items for Next Meeting – July 29, 2014

- Community Solar Issues, including reviewing other community ordinances (e.g. City of Rosemount) to keep on track to facilitate possible 2015 City participation in community solar issues and their role and what is best suited for the City of Roseville.
- Frozen Pipe Alternatives as a priority topic to provide recommendations to the City Council before needed this fall in anticipation of the winter season.
- Pathway Priorities and Rankings
At the request of Member Gjerdingen, staff advised that they would review the previous resolution adopted by the PWETC and presented to the City Council and whether additional work was needed at this time. However, Mr. Schwartz noted that this was an exceptionally busy time of year for staff to focus on research given the number of construction projects it needed to monitor and inspect, but offered to research whether or not any additional work was needed on pathway issues.
- Bicycling/Commercial Districts, with Chair Stenlund advising that additional education was needed for the PWETC to better understand the situation prior to any additional meeting discussions. Member Gjerdingen expressed interest in reviewing other cities with district mapping as part of that educational piece.

Mr. Culver advised that staff could briefly explore current State Statute and what the City was bound to, along with anything in current City Code that may supersede Statute or anything additional needed. Mr. Culver advised that the information could be provided to the PWETC for their feedback at that time.

- Mr. Schwartz noted past discussions about having Mr. Johnson provide information on rain gardens and BMP's, and current practices.

Chair Stenlund suggested a representative from Capitol Region Watershed District as another resource for that discussion as well.

- Chair Stenlund requested an update on railroad noise issues in Little Canada, and any communication on where the signalization efforts are at.

717 • Green Step Overview Program and Tiers

- 718
- 719 • Member Seigler requested a quick overview and update on the WalMart
- 720 development, now that it was fully functioning, and what was happening in
- 721 that area specific to traffic, lighting and movement through the area, even if
- 722 the impact was found to be less than originally anticipated.
- 723

724 Mr. Schwartz advised that he wasn't sure if sufficient data was available yet

725 as to the impact, but offered to research it. Mr. Schwartz advised that there

726 were other activities in the Twin Lakes Redevelopment Area that were also

727 stirring things up, and preliminary to future projects. Mr. Schwartz suggested

728 that update be provided on an upcoming Feasibility Study on the next phase of

729 Twin Lakes Parkway and remaining infrastructure improvements.

730

731 Member Gjerdingen expressed his interest in the proposed design for the

732 crosswalks as part of the new Twin Lakes Parkway and where on-street

733 parking fit into the picture, or how the environment may be improved for

734 vehicle and pedestrian traffic in the Twin Lakes area.

735

736 Mr. Schwartz clarified that, based on his recollection, there was no on-street

737 parking anticipated in the Twin Lakes Redevelopment Area, and as part of

738 preliminary plans completed a few of years ago. Mr. Schwartz advised that

739 the infrastructure already built today did not allow for on-street parking, and

740 he didn't anticipate the next phase did so either; with concurrence by Mr.

741 Culver.

742

743 Member Gjerdingen opined that it was worth discussing, especially with the

744 Planning Commission, as it was a very important component of a vibrant,

745 walkable city to have buffers between traffic and pedestrians.

746

747 Mr. Schwartz advised that the storm water infrastructure constructed to-date

748 provided buffer opportunities as part of stormwater mitigation amenities. Mr.

749 Schwartz, as noted by Member Wozniak, advised that in determining street

750 and right-of-way widths, trade-offs had been made for parking, trees and

751 boulevards. Mr. Schwartz further noted that there was a good portion of the

752 next phase of infrastructure already redeveloped, with stormwater ponds in

753 place, and the current proposal for apartment buildings near Fairview may

754 allow an opportunity to review and share that data.

755

- 756 • Member Wozniak suggested a future presentation by Ramsey County about
- 757 available recycling containers and grants available for small businesses and
- 758 institutions interested in applying.
- 759

760 Given the number of items already addressed, Mr. Schwartz suggested

761 flexibility in accommodating that on the July or August agendas as time

762 allows.

763
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770

10. Adjourn

Member Gjerdingen moved, Member Seigler seconded, adjournment of the meeting at approximately 8:58 p.m.

Ayes: 4

Nays: 0

Motion carried.

DRAFT

Roseville Public Works, Environment and Transportation Commission

Agenda Item

Date: July 22, 2014

Item No: 4

Item Description: Communication Items

Projects update:

- 2014 Sanitary Sewer Lining Project –This project is about 90 % complete. Work remains on one segment of County Road B-2, Larpenteur Avenue, and an easement through Central Park. Once Ramsey County is done with their Larpenteur concrete rehabilitation project, the contractor will be able to access and complete the lining. The easement work is scheduled for winter work (or frozen ground), to minimize turf damage through Central Park.
- County Road B2 Sidewalk Construction – This project consists of constructing a 6 foot sidewalk along the north side of County Road B2 from Lexington Ave to Rice Street as well as along Victoria Street from County Road B2 north to County Road C. Concrete curb and sidewalk is being installed on the first segment, between Lexington and Victoria, and concrete curb is being installed along the east side of Victoria north of County Road B2. The contractor will then begin restoration on the first segment, and continue prepping the second segment for sidewalk. The sidewalk will be complete before the start of school with some restoration and other minor work occurring after that.
- 2014 PMP- This project is well underway. The work along Ridgewood Lane and Oakcrest Ave is complete. With the exception of the areas in the northwest portion of the City and Dellwood Ave milling and paving operations are complete. The final areas are waiting for the new storm sewer and drainage improvements to be complete. The City is installing some substantial storm water retention and treatment devices in the northwest corner of the City (Stanbridge St and Manson St) and at Dellwood St and Sherren St behind the Roseville library to address some historic drainage issues. More information on these aspects of the project are attached. Work will begin the week of July 21st on the Stanbridge and Manson system. Work on the Dellwood and Sherren system will begin early to mid August.
- Snelling Ave Bus Rapid Transit: Earlier this month the Metropolitan Council approved the Proposed Plan for the A Line (Snelling Ave) Bus Rapid Transit service. This line will run between Rosedale and the 46th Street station of the Blue Line LRT along Hiawatha Ave. As a part of the proposed plan, the previously planned Roselawn station will be “deferred” in favor of a station at Hoyt/Nebraska where ridership numbers are significantly higher. It is unclear what the timing would be for consideration of a station at Roselawn if it is not installed in this first phase. The Roseville City Council will be considering a resolution of support for the Roselawn station to be included in phase one of this project on Monday, July 21st. Staff will provide an update of that discussion at the PWETC Commission meeting Tuesday night.

- I-35W Interchange Project: Next week staff anticipates receiving several proposals for engineering services for the design and construction of a revised intersection and interchange for the northbound ramps to I-35W at Cleveland Ave. Scoring will occur in early August with a projected award by Council on August 11th. We anticipate being under construction in 2015. This project also received federal funds that will pay for about 80% of the estimated \$1.5 million cost.
- Staff will discuss what we found regarding bicycles on sidewalks and whether they are prohibited at the meeting.
- Staff will also give the Commission a summary of the City Manager's recommended budget.
- Greenstep Cities action by the Council.

Maintenance Activity:

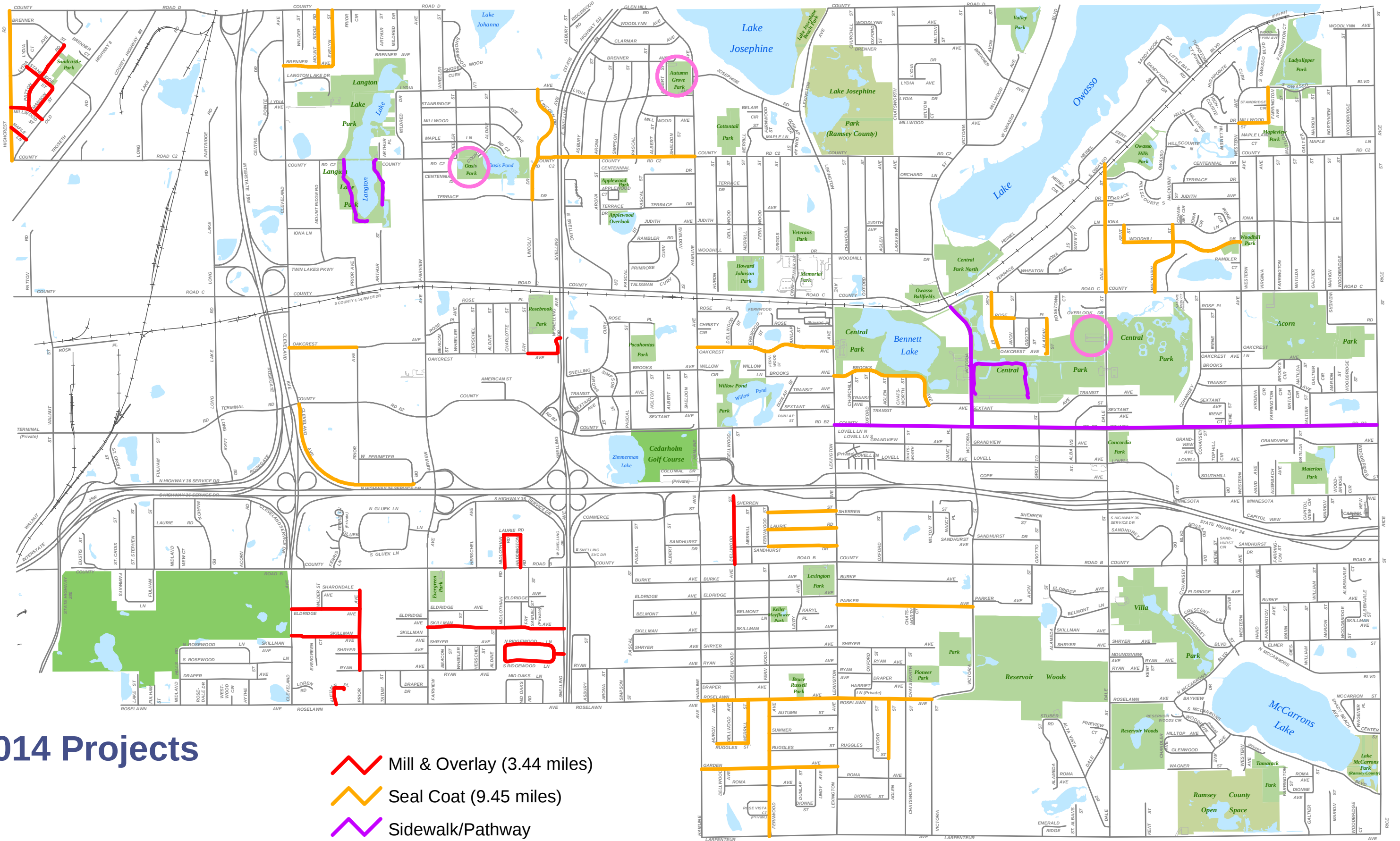
- Staff continues to sweep spot locations on an as needed basis.
- Staff has been spending a significant amount of time monitoring and cleaning drainage infrastructure due to the number of rainfall events.
- Street maintenance staff is spending a significant amount of time mowing boulevards and maintaining streetscape areas.
- Seasonal street maintenance activities continue with general patching operations as well as crack sealing.
- Street crews will begin preparing the County Road B shoulder widening for a pedestrian facility in the next two weeks.
- Utility crews continue with preventive maintenance activities including hydrant and gate valve repairs, meter installations, and sewer jetting (cleaning) operations.

Attachments:

A: 2014 Project Map

B: 2014 Sewer Lining Map

C: 2014 PMP Storm Water Improvements Information



2014 Projects

-  Mill & Overlay (3.44 miles)
-  Seal Coat (9.45 miles)
-  Sidewalk/Pathway
-  Parking Lot



Prepared by:
Engineering Department
May 22, 2014

Data Sources and Contacts:

* Ramsey County GIS Base Map (4/29/13)

* City of Roseville Engineering Department

For further information regarding the contents of this map contact:
City of Roseville, Engineering Department,
2660 Civic Center Drive, Roseville MN

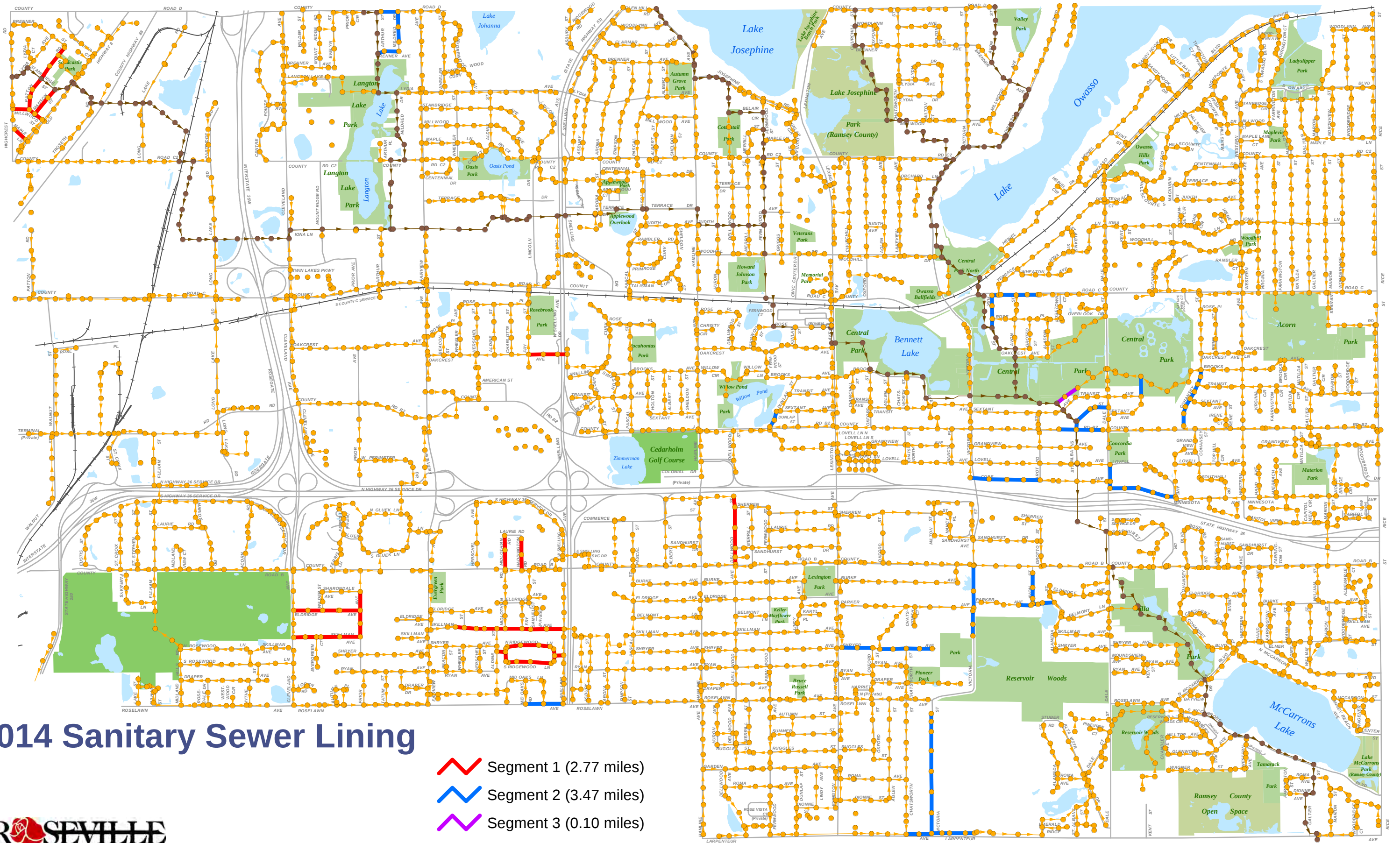
DISCLAIMER:

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This map is a compilation of records, information and data located in various city, county, state and federal offices and other sources regarding the area shown, and is to be used for reference purposes only. The City does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and the City does not represent that the GIS Data can be used for navigational, tracking or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. If errors or discrepancies are found please contact 651-782-7075. The preceding disclaimer is provided pursuant to Minnesota Statutes §466.03, Subd. 21 (2000), and the user of this map acknowledges that the City shall not be liable for any damages, and expressly waives all claims, and agrees to defend, indemnify, and hold harmless the City from any and all claims brought by User, its employees or agents, or third parties which arise out of the user's access or use of data provided.

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mapdoc: 2014Projects.mxd
map: 2014Projects.pdf





2014 Sanitary Sewer Lining



Prepared by:
Engineering Department
January 23, 2014

- Segment 1 (2.77 miles)
- Segment 2 (3.47 miles)
- Segment 3 (0.10 miles)
- City Sanitary Pipe
- Metro Sanitary Pipe

Data Sources and Contacts:
* Ramsey County GIS Base Map (12/21/13)
* City of Roseville Engineering Department
For further information regarding the contents of this map contact:
City of Roseville, Engineering Department,
2660 Civic Center Drive, Roseville MN

DISCLAIMER:
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mapdoc: 2014lined.mxd
map: 2014lined.pdf





May 2, 2014

**RE: Sherren- Dellwood Neighborhood
Drainage Improvements**

Dear Resident:

As you are aware, during extreme rain events, flooding occurs on your street, as well as in several backyards. City staff has completed an analysis of the storm sewer system to better understand the existing drainage and localized flooding issues. We have also identified improvements to alleviate some of these flooding concerns.

There are three areas of improvements to be implemented this construction season as a part of the street improvement project on Dellwood Street:

Underground storage pipes under Dellwood Street:

North of Sherren Street, three 150 foot long rows of 60-inch diameter pipe will be constructed under the pavement. Storm water will be retained in this system until the storm sewer pipe drains to a level where it can accept more water. The pipes will then drain back into the storm sewer (similar to draining a bath tub.) The pipes will also be perforated, to allow for infiltration into the ground. The cul-de-sac will be modified to allow for an emergency high water overflow to the north.

Holding back water will delay the storm water from reaching the system, making the system better able to convey the storm water over a longer period of time and reduce the depth of the street flooding.

Storm sewer extension south of Sherren Street:

South of Sherren Street, a single row about 100 feet long of 48-inch diameter perforated pipe will be constructed under the pavement. This will provide additional underground storage, as well as provide an outlet to a new 12-inch diameter pipe that will be extended into the backyard at 2246 Dellwood. A catch basin constructed in the backyard will provide an outlet for stormwater that drains the backyards between Merrill and Dellwood north of Sandhurst.

Storm sewer replacement behind 2263/2271 Dellwood, and 1290 Dellwood:

There is an existing storm sewer pipe along the back property lines of these properties. This will be replaced with 48-inch diameter perforated pipe, to increase pipe storage capacity, as well as allowing for infiltration. An added benefit for infiltration in this area is it will allow the ground above the pipe to accept water, even during periods of snow, or if inlets become clogged. The ground above the pipe will be graded to ensure positive drainage to the catch basins, and the final outlet to the north will be cleaned and graded to ensure water can overflow if needed.

Please contact me at kristine.giga@ci.roseville.mn.us or 651-792-7048 if you have any questions or would like to schedule a meeting to discuss the improvements.

Sincerely,

Kristine Giga, P.E.
Civil Engineer

CC: Marc Culver, City Engineer



April 25, 2014

RE: Manson Street Drainage

Pamela and George Paige
3000 Manson Street
Roseville, MN 55113

Dear Mr. and Mrs. Paige,

As you are aware, during extreme rain events, flooding occurs on your street, as well as in your backyard. Since the storm that occurred last June, we have completed a study of the storm sewer system in your neighborhood and out on to Old Highway 8, to analyze the existing drainage and localized flooding issues. The study also identified potential improvements throughout the neighborhood that would reduce the level of flooding.

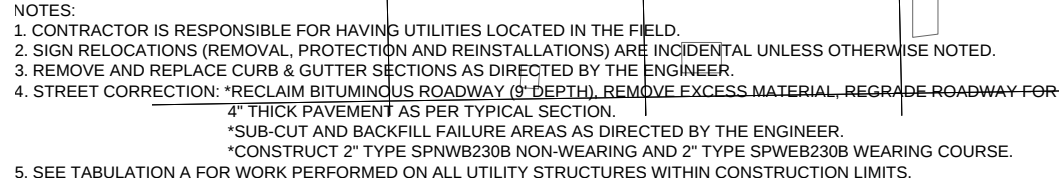
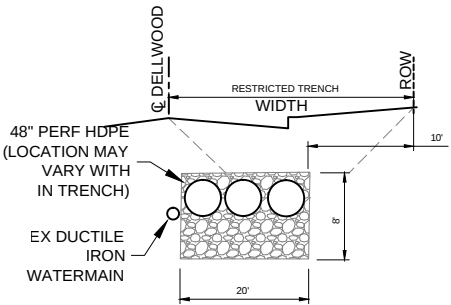
City staff has identified improvements to alleviate some of these flooding concerns. We would like to meet with you to discuss the proposed improvements. Work is proposed on both sides of your property: in the park open space northwest of your property, as well as within the City's drainage and utility easement that runs along the north side of your neighbor's property at 2990 Manson. I have contacted your neighbor, as he will also be impacted by the project.

Please contact me at kristine.giga@ci.roseville.mn.us or 651-792-7048 to schedule a meeting. I would like to meet with you by May 16, 2014. I am available to meet into the early evening, if that works better for your schedule.

Sincerely,

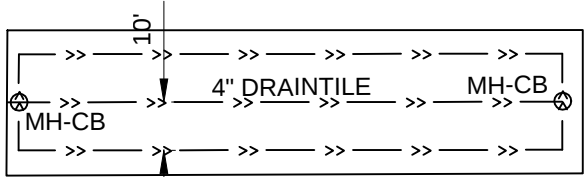
Kristine Giga, P.E.
Civil Engineer

CC: Marc Culver, City Engineer

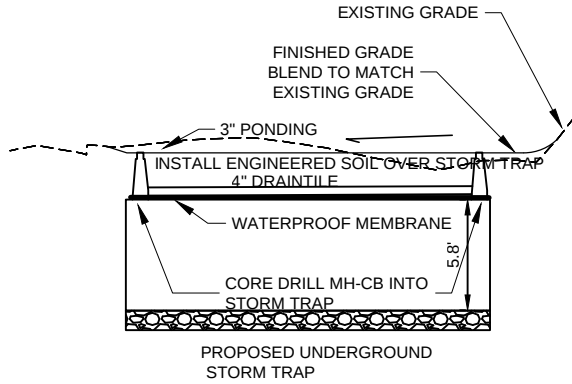


34	38	SHEET NO. OF SHEETS	SHEET NO.
IMPROVEMENTS STORM SEWER IMPROVEMENTS: DELLWOOD STREET FROM 7+00 TO 12+72.77		PAVEMENT MANAGEMENT PROJECT SEGMENT 2 	
CITY PROJ. NO. 14-04 SAP NO.		ENGINEERING DEPARTMENT	
DESIGNED DDF CHECKED MJC		DRAWN DDF	
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA		DATE <u>3/25/2014</u> LIC. NO. <u>42002</u>	

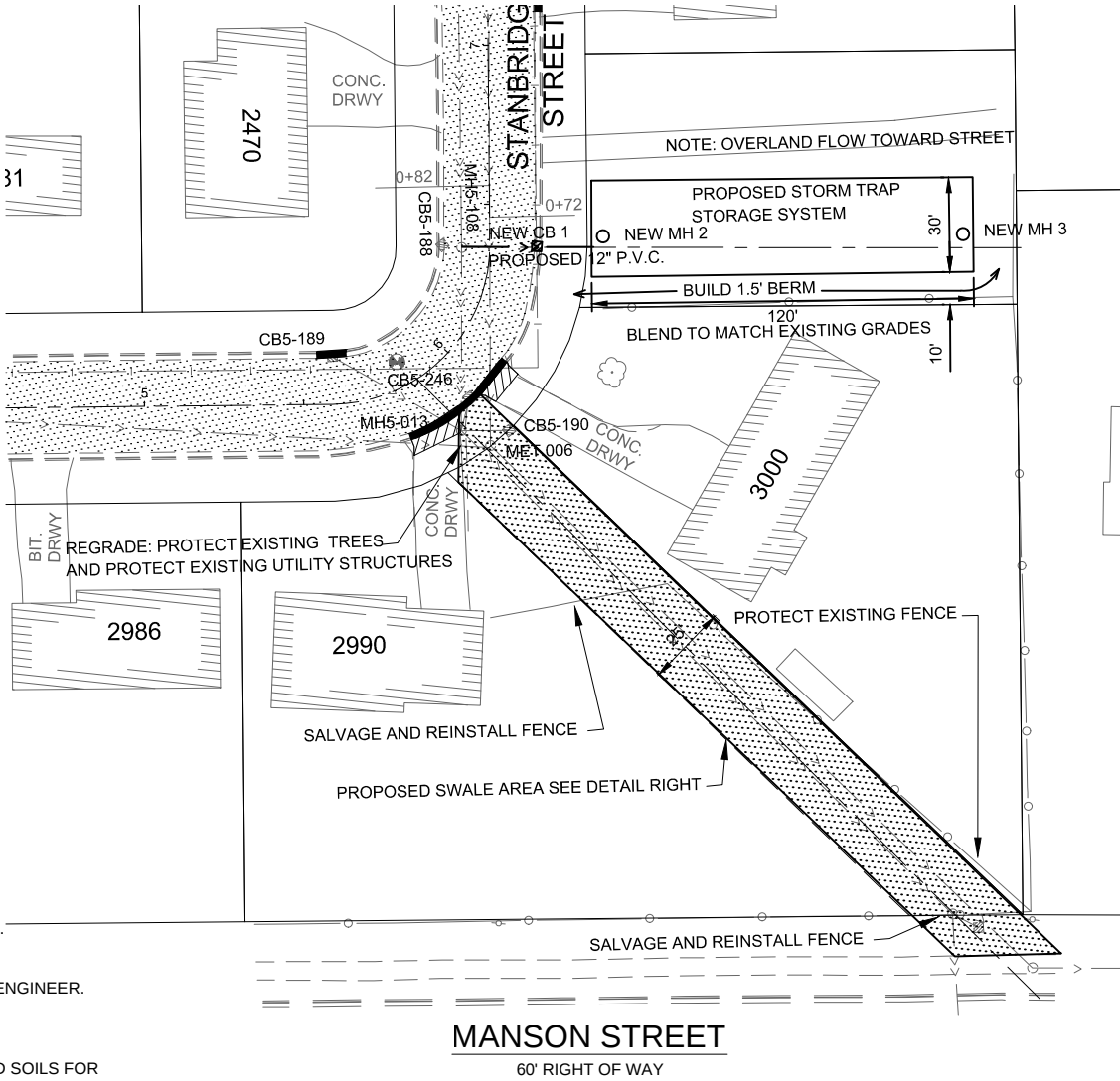
FIELD BOOK:
Plot Date: 04/11/2014
Drawing name: R:\Public\Works\CAD\Projects\2014\14-04__2014_PMP\Drawings\DelwoodAveStomP_601.dwg
(Refs: RSVL22-bdr, X-SITE-EXST, X-SITE-NEW)



PROPOSED 4" DRAINTILE
OVER NEW STORM TRAP



- NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR HAVING UTILITIES LOCATED IN THE FIELD.
 2. SIGN RELOCATIONS (REMOVAL, PROTECTION AND REINSTALLATIONS) ARE INCIDENTAL UNLESS OTHERWISE NOTED.
 3. REMOVE AND REPLACE CURB & GUTTER SECTIONS AS DIRECTED BY THE ENGINEER.
 4. STREET CORRECTION: *MILL ROADWAY CURB TO CURB, 2" THICK MILL AT EDGE OF CURB.
*MILL DEPTH AT CENTER WILL VARY TO MEET 2.8% CROSS-SLOPE OR AS DIRECTED BY THE ENGINEER.
*SUB-CUT AND BACKFILL FAILURE AREAS AS DIRECTED BY THE ENGINEER.
*CONSTRUCT 2" TYPE SPWEB230B WEARING COURSE AS PER TYPICAL SECTION.
 5. SEE TABULATION A FOR WORK PERFORMED ON ALL UTILITY STRUCTURES WITHIN CONSTRUCTION LIMITS.
 6. INSTALL DRAINTILE ON TOP OF WATERPROOF MEMBRANE LAYING ON TOP OF THE STORM TRAP USING ENGINEERED SOILS FOR BACKFILL.



**Roseville Public Works, Environment and
Transportation Commission**

Agenda Item

Date: July 22, 2014

Item No: 5

Item Description: Raingardens and Other Stormwater BMPs

Background:

Members of the PWET Commission have requested some information on the use and design of raingardens and other stormwater BMPs in the City of Roseville. Ryan Johnson, the City's Environmental Specialist, will present information on the current use of BMPs in Roseville.

Recommended Action:

None

Attachments:

- A. None
- B.

**Roseville Public Works, Environment and
Transportation Commission**

Agenda Item

Date: July 22, 2014

Item No: 6

Item Description: Twin Lakes Improvements Feasibility Study

Background:

The City of Roseville is planning several transportation improvements in the Twin Lakes Area including: improvement of the 35W/Cleveland Ave Interchange, extension of Twin Lakes Parkway to Fairview Ave, and the Installation of a traffic signal at Cleveland Ave and County Road C2

As per City policy, the costs of these improvements will be distributed to benefiting properties. The City's Special Assessment Policy includes provisions for assessments to an area of benefit.

City staff has been working with SRF Consulting Group to establish a method to determine the benefit of each individual improvement to the properties in the area surrounding Twin Lakes. A presentation will be made to Commission that explains how the benefit was calculated.

Recommended Action:

None

Attachments:

A. None

B.

**Roseville Public Works, Environment and
Transportation Commission**

Agenda Item

Date: July 22, 2014

Item No: 7

Item Description: Community Solar Discussion

Background:

The Commission requested a discussion of other cities ordinance updates regarding solar energy installations. The city that we are aware of that has done significant work on their ordinance is the City of Rosemount. We are attaching the Roseville code where solar is referenced as well as the Rosemount amended code for comparison. We also ask the Commission brainstorm to identify other topics and issues for discussion regarding solar to focus in on who we might invite for future presentations.

Recommended Action:

Discuss Rosemount ordinance pertaining to solar.

Attachments:

- A. Excerpts of Roseville code
- B. Rosemount amended code pertaining to solar

CHAPTER 1011

PROPERTY PERFORMANCE STANDARDS

SECTION:

- 1011.01: Statement of Purpose and Applicability
- 1011.02: Environmental Regulations in All Districts
- 1011.03: Landscaping and Screening in All Districts
- 1011.04: Tree Preservation and Restoration in All Districts
- 1011.05: Lot Controls in All Districts
- 1011.06: Visibility Triangles in All Districts
- 1011.07: Height Exemptions in All Districts
- 1011.08: Fences in All Districts
- 1011.09: Essential Services in All Districts
- 1011.10: **Solar** Energy Systems in All Districts
- 1011.11: Additional Standards in All Non-LDR Districts
- 1011.12: Additional Standards for Specific Uses in All Districts

1011.01: STATEMENT OF PURPOSE AND APPLICABILITY

- A. This Chapter establishes requirements pertaining to:
 - 1. Environmental regulations in all districts
 - 2. Landscaping and screening in all districts
 - 3. Tree preservation and restoration in all districts
 - 4. Lot controls in all districts
 - 5. Visibility triangles in all districts
 - 6. Height exemptions in all districts
 - 7. Fences in all districts
 - 8. Essential services in all districts
 - 9. **Solar** energy systems in all districts
 - 10. Additional standards in all non-LDR districts
 - 11. Additional standards for specific uses in all districts
- B. The purpose of this Chapter is to establish regulations of general applicability to property throughout the City, to establish regulations for certain specific uses that are allowed in multiple districts, to promote the orderly development and use of land, minimize conflicts between uses of land, and protect the public health, safety, and welfare. The regulations set forth in this Chapter shall apply to all structures and uses of land, except as otherwise provided in this Title.

1011.02 Environmental Regulations in All Districts:

- A. Statement of Purpose: The purpose of this Section is to establish standards for activities within all zoning districts that have the potential to affect the natural environment or the livability of residential or employment areas.
- B. Compliance: All uses must comply with the environmental standards established in this section unless any federal, state, county or local law, ordinance or regulation establishes a more restrictive standard, in

which case, the more restrictive standard will apply. All applicants for building permits in non-residential districts and/or non-residential uses shall demonstrate compliance with the performance standard set forth in this Section. An application for building permit shall not be deemed complete until a showing by the applicant that they meet the standards herein.

- C. In General: All uses shall be conducted so as to prevent any nuisance, hazard or commonly recognized offensive conditions, including creation or emission of noise, smoke and particulate matter, toxic or nontoxic matter, odors, vibrations, glare or heat, and the use of explosives.
1. Noise: Any use established shall be so operated that no noise resulting from said operation which would constitute a nuisance is perceptible beyond the premises. This does not apply to incidental traffic, parking and off-street loading operations.
 2. Smoke And Particulate Matter: The emission of smoke or particulate matter is prohibited where such emission is perceptible beyond the premises to the degree as to constitute a nuisance.
 3. Toxic Or Noxious Matter: No use shall, for any period of time, discharge across the boundaries of the lot wherein it is located, toxic or noxious matter of such concentration as to be detrimental to or endanger the public health, safety, comfort or welfare or cause injury or damage to property or business.
 4. Odors: The emission of odorous matter in such quantities as to be readily detectable beyond the boundaries of the immediate site is prohibited.
 5. Vibrations: Any use creating periodic earthshaking vibrations, such as are created by heavy drop forges or heavy hydraulic surges, shall be prohibited if such vibrations are perceptible beyond the boundaries of the immediate site.
 6. Glare or Heat: Any operation producing intense glare or heat shall be performed within a completely enclosed building.
 7. Explosives: No activities involving the storage, utilization or manufacture of materials or products which could decompose by detonation shall be permitted except such as are specifically licensed by the city council. Such materials shall include, but not be confined to, all primary explosives such as lead oxide and lead sulfate; all high explosives and boosters such as TNT, RDS, tetryl and ammonium nitrate; propellants and components thereof such as nitrocellulose, black powder, ammonium perchlorate and nitroglycerin; blasting explosives such as dynamite, powdered magnesium, potassium chlorate, potassium permanganates and potassium nitrate, and nuclear fuels and reactor elements such as uranium 235 and plutonium.

1011.03 Landscaping and Screening in All Districts:

- A. Landscaping Generally:
1. Purpose. The City recognizes the aesthetic, ecological, and economic value of landscaping in both the natural and built environments, and has established minimum landscaping and screening requirements applicable throughout the City to serve the following objectives:
 - a. Protect the health, safety, and general welfare of the community;
 - b. Deter crime through the use of good environmental design practices;
 - c. Promote the reestablishment of vegetation in the community for aesthetic, health, and wildlife reasons;
 - d. Improve ground water quality;
 - e. Reduce storm water runoff;
 - f. Promote compatibility between land uses by reducing the visual, noise, dust, and lighting impacts of specific development on users of the site and abutting uses;
 - g. Aid in energy conservation by providing shade from the sun and shelter from the wind;
 - h. Safeguard and enhance property values;
 - i. Encourage a resourceful and prudent approach to urban development and break up expanses of paved areas and provide surface shade;

- j. Provide incentives for creative land use and good site design which preserves existing trees and maintenance of existing vegetation; and
 - k. Provide an objective method for the replacement of trees.
2. Applicability: The Community Development Department may require additional landscaping or alter the placement of the landscaping as deemed appropriate.
3. Minimum Landscape Requirements:
- a. All open areas of a lot that are not used for buildings, parking or circulation areas, patios, or storage shall be landscaped with a combination of canopy trees, ornamental trees, evergreen trees, shrubs, flowers, sod, ground cover materials, and other site design features to ensure soil stabilization. This shall not apply to undisturbed areas retained in a natural state.
 - b. All landscaping and site improvements shall be completed within 1 year after the certificate of occupancy has been issued.
 - c. An underground sprinkler system shall be installed in all landscaped areas except areas to be preserved in a natural state or where all proposed plant materials are drought-tolerant. Where drought-tolerant plant materials are used, irrigation shall be required only for the 2-year period following the installation and may be accomplished using hoses, water trucks, or other nonpermanent means.
 - d. Landscape plans shall be developed with an emphasis upon the boundary or perimeter of the subject site, to the immediate perimeter of the structure, parking areas, and along areas to be screened.
 - e. The following minimum number of plant materials shall be provided:
 - i. One and two-family dwellings constructed after January 1, 2011 shall plant 1 tree per lot in the boulevard. The boulevard tree shall be of a species identified in the City of Roseville Street Tree Master Plan for streets and boulevards and shall be planted according to City requirements.
 - ii. Multi-family residential dwellings shall require 1 canopy or evergreen tree per dwelling unit.
 - iii. Non-Residential uses shall require the greater of:
 - 1 canopy or evergreen tree per 1,000 square feet of gross building floor area; or
 - 1 canopy or evergreen tree per 50 lineal feet of site perimeter;
 - iv. Up to 25% of the required number of canopy or evergreen trees may be substituted with ornamental trees at a ratio of 2 ornamental trees to 1 canopy or evergreen tree.
 - v. Except for one- and two-family dwellings, shrubs shall be required at the greater of the following:
 - 6 shrubs per 1,000 square feet of gross building floor area; or
 - 6 shrubs per 50 lineal feet of site perimeter.
 - vi. In a mixed-use building or development, each use shall be calculated separately to determine minimum landscape requirements.
 - f. The City encourages the use of native plant materials that provide interest and color in the winter.
4. Plant Material Standards:
- a. The complement of trees required shall be at least 25% deciduous and at least 25% coniferous. Not more than 30% of the required number of trees shall be composed of a single species.
 - b. Minimum Size of Plantings: Caliper inches to be measured 6 inches off the ground.
 - i. Canopy tree: 3-inch caliper
 - ii. Ornamental tree: 1.5-inch caliper
 - iii. Evergreen tree: 6-foot height
 - iv. Deciduous or evergreen shrub: 5-gallon pot
5. Method of Installation:
- a. The spacing of trees shall be appropriate to the type of plant species provided. Evergreen shrubs shall be planted in clusters in order to maximize survival.
 - b. Visibility triangles shall be maintained as required in Section 1011.06 by selecting and locating landscaping and design features that do not exceed the height limitation in visibility triangles.

- c. All deciduous shrubs and spreading or globe evergreen shrubs shall be moved onto the site in pots. All other plant materials shall be balled and burlapped (B&B) or moved onto the site with a tree spade.
 - d. In calculating the required plant material under the provisions of this section, all areas and distances on which required calculations are based shall be rounded up to the nearest whole number.
6. Alternative Landscape Options: The City encourages the use of special design features such as xeriscaping, raingardens/bioswales, rooftop gardens, native landscapes, integrated pedestrian facilities, and public art. To encourage the use of these special design features the city acknowledges a degree of flexibility may be necessary to adjust to unique situations. This subsection provides such flexibility and presents alternative ways to meet the standards set for in this section. The alternatives provided below are discretionary and are subject to approval of the Community Development Department, unless the development application requires approval by the City Council, in which case the City Council shall approve the alternative landscape plan. Landscape requirements may be modified if the proposal meets any of the following:
- a. It is of exceptional design that includes amenities such as public art, public seating, an outdoor plaza, green rooftop, recreational benefit, and/or transit shelter.
 - b. It is deemed equivalent to the minimum requirements of this Section and complies with the purpose and objectives of this Section.
 - c. It will allow a site plan that is more consistent with the character of the area.
 - d. It will result in the retention of more existing significant trees.
 - e. It better accommodates or improves the existing physical conditions of the subject property.
 - f. The topography decreases or eliminates the need for visual screening.
 - g. It does not reduce the effect of required screening.
 - h. Efforts are made to create interest by providing a variety of colors and textures.
7. Required Landscape Plan: With the exception of one- and two-family dwellings, a detailed landscape plan shall be submitted for review and approval by the Community Development Department for all new developments, additions, or modifications to existing developments, or when changes are made to existing landscape plans. Landscape plans shall be prepared by a registered landscape architect or other qualified individual as determined by the Community Development Department. The landscape plan shall be drawn to a scale of not smaller than 1 inch equals 50 feet. The locations and materials which are to be used in landscaping existing and proposed developments shall be clearly drawn and labeled on a landscape plan. The plan shall, at a minimum, show the following:
- a. Boundary lines of the property with accurate dimensions.
 - b. Locations of existing and proposed buildings, parking lots, roads, and other improvements;
 - c. Existing topography and proposed grading with contour intervals no greater than 2 feet;
 - d. Location and diameter of trees and common names of existing trees and shrubs;
 - e. Planting schedule containing symbols, quantities, common and botanical names, size of plant materials, and root condition;
 - f. Planting details illustrating proposed locations of all new plant materials;
 - g. Locations and details of other landscape features including berms, retaining walls, fences, walls, sculptures, fountains, street furniture, lights, courtyards, and planters;
 - h. Details of restoration of disturbed areas including areas to be sodded or seeded;
 - i. Location and details of irrigation systems;
 - j. Details and cross sections of all required non-vegetative screening;
 - k. Description of the method to be employed for the protection of all existing landscape materials to be saved; and
 - l. Planting and installation details as necessary to ensure conformance with all required standards.
8. Maintenance: The continued maintenance of all required landscaping materials in a live and healthy state is a requirement of this Section and is the responsibility of the owner and tenant of the property on which the materials are required. This requirement shall run with the land and be binding upon all

future property owners. Failure to comply with this requirement shall be a violation of this Section.

- a. All new landscape plans shall be accompanied by a landscape maintenance plan that includes all initial plant warranties, the plan for mulch restoration, and all pertinent contact information.
- b. Plantings shall be maintained in a neat, healthy condition and comply with the site maintenance plan approved by the Community Development Department. Plantings which have died shall be promptly replaced in accordance with a landscape plan approved by the City for the site.

9. Security:

- a. Landscape Security Required: Prior to the issuance of a building permit for all projects requiring approval of a landscape plan, the developer, contractor, or property owner shall deposit a security with the City to guarantee compliance with and to indemnify the City for any expenses incurred in enforcing the requirements of this Section.
 - i. One- and Two-family Dwellings: Landscape security for detached or attached one- or two-family dwellings shall be a cash escrow in the amount of \$500.00.
 - ii. All Other Uses: Landscape security for all uses except detached or attached one- or two-family dwellings shall be in a form approved by the Community Development Department and shall be equal to 125% of the estimated cost necessary to furnish and plant the required landscaping and any ancillary screening improvements such as fencing. The estimated cost shall be subject to approval by the City. If the estimated cost submitted by the developer to the City is not approved by the City, the City shall have the exclusive right to determine the estimated cost.
- b. Landscape Inspection: The developer, contractor, or property owner shall request an inspection after the required landscaping has been installed. The Community Development Department will perform the inspection and determine compliance with the approved landscape plan.
- c. Releasing the Security: Upon the determination by the Community Development Department that a landscape installation is consistent with landscape requirements and approved plans, the security shall be released to the developer, contractor, or property owner according to the requirements below.
 - i. One- and Two-family Dwellings: A required security shall be released upon the successful inspection of the landscape installation. Notwithstanding the foregoing, no portion of the security shall be released while there are unsatisfied obligations.
 - ii. All Other Uses: The landscape security for all uses except detached or attached one- or two-family dwellings shall be held by the Community Development Department for a minimum of 2 full years beginning upon the successful inspection of the landscape installation. A reduction can be sought after the first year and after an inspection is requested by the developer, contractor, or property owner. If the Community Development Department determines that the landscape is established appropriately, a portion of the security may be released. That part of the security which has not been released at the end of the first year shall be retained and shall secure the remaining obligation to replant trees which are not alive or are unhealthy at the end of the year and to replant missing trees. The entire security may be released 1 year after the replanting of such trees has been satisfactorily completed and the City has certified that those replacement trees are alive and healthy. To be certified as alive and healthy, all of the following conditions must exist:
 - No tree shall have sustained mechanical injury to the trunk of a tree causing loss of more than 30% of the bark circumference of the tree at any location along the tree's trunk.
 - No tree shall have had soil compacted to 6 inches deep over more than 30% of its root zone.
 - No tree shall have had more than 30% of its roots cut for the installation of any utility or for any other purpose.
 - No more than 25% of the crown of a tree shall consist of dead branches.
- d. None of a security shall be released until the developer's, contractor's, property owner's

obligations to indemnify the City for any expenses incurred in enforcing the requirements of this Section are satisfied.

10. Penalties for Violation: Any tree that is visibly damaged, has a root system that has been driven on, or has a root zone in which the soil has been compacted in any way, shall be replaced in accordance to the tree replacement formula found in Section 1011.04G. Also, any person who is not authorized by the City who removes any tree from any public property without first obtaining a permit and any person who fails to replace trees in the manner provided in this subsection shall, in addition to the criminal penalties prescribed by law, be required to pay to the City the estimated cost of tree replacement in the amount determined by the City. Upon determination that this has occurred, the City shall submit a bill for the amount of tree replacement. If that amount is not received by the City within 90 days, such amount shall be assessed as a special assessment on any land located in the City owned by the person violating this Section.
- B. Buffer Area Screening: The setback requirements established for uses in each district are intended to act as buffers between those districts and uses, but heightened screening is appropriate between low-density residential dwellings and more intensive uses. For all new construction in all districts that lie adjacent to or across the street from LDR Districts, therefore, additional screening shall be implemented as required herein.
 1. Exception: The requirements in this subsection shall be applied in addition to the preceding general landscaping requirements, except that they shall not apply to Low Density Residential or Park and Recreation Districts.
 2. Acceptable Screening: Screening requirements of this Title shall be satisfied through the use of buildings, berms, solid board-on-board fences, walls, planting screens, evergreen trees, hedges, or some combination thereof. If the topography, existing vegetation, permanent structure, or other feature creates a barrier which achieves the standards of this section, they may be substituted.
 - a. Screen Fences and Walls: Any screen fence or wall shall be constructed of attractive, permanent finished materials, compatible with those used in the construction of the principal structure. Such screens shall be at least 6 feet in height and shall be 100% opaque.
 - b. Planted Screening: Any planting screens shall consist of healthy plants, shall be at least 6 feet in height, and shall be designed to provide a minimum year round opacity of 80% at the time of installation.
 - c. Notwithstanding these requirements, screening along street rights-of-way shall be maintained at a height not less than 3 feet nor more than 4 feet.
 3. Maintenance: Screen fences and walls which are in disrepair shall be promptly repaired. Planted screens shall be maintained according to the normal landscape maintenance requirement of Section 1011.03A8
- C. Parking Lot Landscape: Off street parking lots with more than 25 parking stalls shall contain interior landscaped islands. Such islands shall be bounded by a raised concrete curb or approved equivalent and shall contain mulch to retain soil moisture. Turf grass is permitted within landscaped areas located around the periphery of a parking lot.
 1. Islands are required at the end of each row of cars, where it abuts vehicle circulation aisles or driveways, or every 15 stalls, whichever is less.
 2. Islands shall be provided to separate pedestrian and vehicular traffic.
 3. All islands shall contain a minimum of 160 square feet and a minimum dimension shall be 5 feet.
 4. At least 1 canopy tree shall be provided in each island, in addition to assorted shrubs, perennials, to assorted ornamental grass.
 5. Islands shall be prepared with clean soil to a depth of 5 feet and amended to ensure adequate drainage and nutrient and moisture-retention levels for the establishment of plantings.
- D. All perimeter and interior landscaped areas in parking lots shall be equipped with a permanent irrigation system, unless drought-tolerant plant materials are used exclusively. Where drought-tolerant plant materials are used, irrigation shall be required only for the two-year period following plant installation and may be accomplished using hoses, water trucks, or other nonpermanent means.

1011.04 Tree Preservation and Restoration in All Districts:

- A. Intent and Purpose: It is the intent of the City of Roseville to protect, preserve, and enhance the natural environment of the community, and to encourage a resourceful and prudent approach to the development and alteration of wooded areas. This Section has the following specific purposes:
1. To recognize and protect the natural environment consistent with the City's mission statement and goals of the Comprehensive Plan through preservation and protection of significant trees.
 2. To promote protection of trees for the benefits provided, including beautification, protection against wind and water erosion, enhancement of property values and air quality, reduction of noise and energy consumption, buffering, and protection of privacy and natural habitats.
 3. To establish requirements related to cutting, removal, or destruction of existing trees, especially significant trees.
 4. To establish reasonable requirements for replacement of significant trees.
 5. To allow the development of wooded areas in a manner that minimizes and mitigates the removal and destruction of trees, and preserves the aesthetics, property values, and character of the surrounding area.
 6. To provide for the fair and effective enforcement of the regulations contained herein.
- B. Applicability: This Section applies to all new development.
- C. Tree Preservation Plan Approval Required: It is unlawful for any person to engage directly or indirectly in land alteration, as defined in Section 1001.11, unless such person has first applied for and obtained approval of a tree preservation plan by the Community Development Department or other authorized City official. No preliminary plat, building permit, grading permit, or other City-required permit approval shall be granted unless approval of a tree preservation plan has first been obtained. Application for approval of a tree preservation plan shall be made in writing to the Community Development Department.
1. This application may be made separately or may be included as part of a development application. Information to be included in the application includes at least the following:
 - a. Survey location of all significant trees;
 - b. A significant tree summary sheet identifying the species of all significant trees located on the map;
 - c. Identification of critical root zones extending from trees located on adjacent tracts, including the location and species of the trees;
 - d. A table of area sizes for the following:
 - i. Existing site area, floodplain area, and forest area;
 - ii. Proposed areas of tree retention;
 - iii. Proposed areas of tree removal; and
 - iv. Proposed areas of reforestation and afforestation.
 - e. A graphic delineation of the following areas:
 - i. Proposed significant tree retention areas;
 - ii. Proposed afforestation and reforestation areas;
 - iii. Proposed limits of disturbance;
 - iv. Steep slopes of 25% or more;
 - v. Wetlands, including any required setbacks; and
 - vi. Topographic contours and intervals.
 - f. Such other information that the Community Development Department determines is necessary to implement this Section.
 2. A simplified Tree Preservation Plan may be submitted where trees do not currently exist on the site or where existing trees will not be cut, cleared, or graded for the proposed development, and where adequate tree protection devices and long-term agreements are established for the protection of existing significant trees. This simplified plan may be included on an "Existing Conditions Survey."

3. Exception: The forgoing does not apply to LDR-zoned properties where new construction or subdivision is not proposed.
- D. Tree Preservation Species: Significant specimens of the following types and species of trees shall be identified on a Tree Preservation Plan.
1. Coniferous Trees: Coniferous trees are considered to be significant at a height of 12 feet or more. Species of coniferous trees required to be surveyed for tree preservation plan approval are identified in Table 1011-1.

Table 1011-1	
Arborvitae, White Cedar	Pine, Ponderosa
Fir, Douglas	Pine, Red (Norway)
Fir, White	Pine, scotch
Hemlock, Canada Eastern	Red Cedar, Eastern
Junipers	Redwood, Dawn
Larch, Eastern Tamarack	Spruce, Black Hills
Larch, European	Spruce, Colorado Blue
Pine, Austrian	Spruce, Norway
Pine, Eastern White	Spruce, White
Pine, Mugo	Spruce, Japanese

2. Deciduous Trees: Deciduous trees are considered to be significant at a diameter at breast height (DBH) of 6 inches or more. Species of deciduous trees required to be surveyed for tree preservation plan approval are identified in Table 1011-2.

Table 1011-2			
Ash, Green	Crabapple, ornamental	Linden, all varieties	Oak, Red
Ash, White	Dogwood, alternate-leafed	Maple, all varieties	Oak, Scarlet
Basswood	Elm, Accolade	Mountain Ash, European	Oak, Swamp White
Beech, Blue	Ginko Male trees	Mountain Ash, Snow	Oak, White
Birch, River	Hackberry	Mulberry, Red	Plum, American
Canada Red Cherry, Shubert	Hawthorns	Nannyberry	Plum, Canadian
Catalpa, Northern	Hickory, Bitternut	Oak, Burr	Redbud, Eastern
Chokecherry, Amur	Honey Locust, Imperial	Oak, Chestnut	Serviceberry
Chokecherry, Shubert's	Honey Locust, Skyline	Oak, Northern Pin	Walnut, Black
Coffee-tree, Kentucky	Ironwood	Oak, Northern Red	
Corktree, Amur	Lilac, Japanese tree	Oak, Pin	

3. Heritage Trees: A heritage tree is any tree on Table 1011-1 or Table 1011-2 in fair or better condition which equals or exceeds the following diameter size:

Table 1011-3

Table 1011-3	
Tree Type	Minimum DBH in inches
Deciduous	27
Coniferous	24

- a. A tree in fair or better condition must have:
 - i. A life expectancy of greater than 10 years;
 - ii. A relatively sound and solid trunk with no extensive decay or hollow; and
 - iii. No major insect or pathological problem.
- b. A smaller tree can be considered a heritage tree if:
 - i. Certified forester determines it is a rare or unusual species or of exceptional quality.
 - ii. A smaller tree can be considered a heritage tree if it is specifically used by a developer as a focal point in the project.
4. Other Trees: A tree not included on Table 1011-1 or Table 1011-2 may be included for credit as part of the Tree Inventory subject to City approval if it has:
 - a. A life expectancy of greater than 10 years;
 - b. A relatively sound and solid trunk with no extensive decay or hollow; and
 - c. No major insect or pathological problem; and if
 - d. A certified forester determines it is a rare or unusual species or of exceptional quality; or
 - e. It is specifically used by a developer as a focal point in the project.
- E. Tree Protection: All trees which are to be retained on any site shall be marked and physically protected from harm or destruction caused by soil compaction, equipment and material storage within the drip line, bark abrasions, changes in soil chemistry, out-of-season pruning, and root damage during construction.
 1. Before any construction or grading of any development project occurs, a “safety fence” at least 4 feet in height, and staked with posts no less than every 5 feet shall be placed around the drip line borders of woodlots and/or the drip lines of significant trees to be preserved. Signs shall be placed along this fence line identifying the area as a tree protection area, and prohibiting grading beyond the fence line. This fence must remain in place until all grading and construction activity is terminated.
 2. No equipment, construction materials, or soil may be stored within the drip lines of any significant trees to be preserved.
 3. Care must be taken to prevent the change in soil chemistry due to concrete washout and leakage or spillage of toxic materials such as fuels or paints.
 4. Drainage patterns on the site shall not change considerably causing drastic environmental changes in the soil moisture content where trees are intended to be preserved.
 5. Pruning of oak and elm tree branches and roots must not take place from May 1 through July 31. If wounding of oak or elm trees occurs, a nontoxic tree wound dressing must be applied immediately. Excavators must have a nontoxic tree wound dressing with them on the development site.
 6. Any tree determined by the Community Development Department to be destroyed or damaged shall be replaced in accordance with the Tree Replacement Formula in Section 1011.04G.
- F. Allowable Tree Removal:
 1. Pursuant to an approved tree preservation plan, significant trees may be destroyed without any required replacement within the width of required easements for public streets, utilities, and storm water ponding areas.
 2. Development of Vacant Lots: On individual lots, up to 35% of the total DBH-inches of all significant trees and up to 15% of the total DBH-inches of all heritage trees may be removed for the installation of utilities, driveways, and the building pad without tree replacement or restitution.
 3. Redevelopment of Lots: On lots which have been previously platted and developed, where the structures have been removed or destroyed to more than 50% of the current market value, up to 35% of the total DBH-inches of all significant trees and up to 15% of the total DBH-inches of all heritage

trees may be removed for the installation of utilities, driveways, and building pads without tree replacement or resolution.

4. Significant trees in excess of the limitations of this Section may be removed, provided all trees removed in excess of said limitations shall be replaced in accordance with the Tree Replacement Formula.
- G. Tree Replacement Formula: Replacement of removed or disturbed trees in excess of that which is allowed under a tree preservation plan shall be according to the following guidelines:
1. Significant Trees: Significant trees shall be replaced at the ratio of 0.5 caliper inch per 1 DBH-inch removed.
 2. Heritage Trees:
 - a. Due to their inherently greater value, heritage trees shall be replaced at a ratio of 2 caliper inches per DBH-inch.
 - b. For each heritage tree saved, the developer may receive credit towards the required replacement trees. This credit will be at a rate of 2 caliper inches for each DBH-inch saved. To receive this credit, the applicant must demonstrate that extraordinary measures have been taken to preserve the heritage trees that otherwise would not be saved.
 3. Required replacement trees shall be planted on the site being developed. The applicant may also request approval to plant replacement trees on boulevards, at the discretion of the City.
 4. Minimum sizes for replacement trees shall be:
 - a. Deciduous Trees: 3-inch caliper
 - b. Coniferous Trees: 6 feet in height
 5. Replacement trees shall be from balled and burlapped, certified nursery stock as defined and controlled by MN Stat. 18.44 through 18.61, the Plant Pest Act, as may be amended from time to time. Replacement trees may also be from bare root stock, provided the trees are planted no later than May 15th in any year, and the planting is inspected by the City.
 6. Replacement trees shall be covered by a minimum 2-year guarantee.
 7. Replacement trees shall be of a species similar to other trees found on the site where removal has taken place. Selection of replacement tree types for use on public sites shall be at the sole discretion of the City.
 8. Where heritage trees have been removed, replacement trees shall consist of the same species as the removed heritage tree, or a tree that has the same potential value as the removed heritage tree. This value shall be certified by a certified forester or arborist. For the purposes of this paragraph, value is defined as a species which has the same growth and life potential as the removed tree.
 9. Replacement trees may be utilized to meet landscaping and screening requirements if placement, species, and location are consistent with those requirements.
- H. Certification of Compliance with Approved Landscape Plan: Upon completion of the required landscape installation, the Developer shall notify the City and request an inspection of the work. Following the inspection, the City shall notify the Developer that all work has been satisfactorily completed, or what work is still required. The required warranty period, shall begin on the date of the letter of satisfactory completion issued by the City.
- I. Warranty Requirement:
1. New Development Sites: The Developer shall provide a financial guarantee, in a form satisfactory to the City, prior to the approval or issuance of any permit for land alteration.
 - a. The amount of the guarantee shall be 125% of the estimated cost to furnish and plant replacement trees. The estimated cost shall be provided by the Developer subject to approval by the City. The estimated cost shall be at least as much as the reasonable amount charged by nurseries for the furnishing and planting of replacement trees. The City reserves the right in its sole discretion to determine the estimated cost in the event the Developer's estimated cost is not approved.
 - b. The security shall be maintained for at least 2 years after the date that the last replacement tree has been planted. Upon a showing by the Developer and such inspection as may be made by the City, that portion of the security may be released by the City equal to 125% of the estimated cost

of the replacement trees which are alive and healthy at the end of such year. Any portion of the security not entitled to be released at the end of the year shall be maintained and shall secure the Developer's obligation to remove and replant replacement trees which are not alive or are unhealthy at the end of such year and to replant missing trees. Upon completion of the replanting of such trees the entire security may be released.

2. Development or Redevelopment of Existing Lots: The developer shall provide a cash escrow in the amount of \$500.00 to guarantee compliance with the requirements of this Ordinance. Said security shall be released upon certification of compliance by the developer to the satisfaction of the City. Notwithstanding the foregoing, no portion of the security shall be released while there are unsatisfied Developer's obligations to indemnify the City for any expenses in enforcing this requirement.
3. The City may retain from the security required above as reimbursement an amount expended by the City to enforce the provisions of this Section.
- J. Entry on Private Property and Interference with Inspection: The Community Development Department may enter upon private premises at any reasonable time for the purposes of enforcing the regulations set forth in this Section. No person shall unreasonably hinder, prevent, delay, or interfere with the Community Development Department while engaged in the enforcement of this Section.

1011.05 Lot Controls in All Districts:

- A. Purpose: Lot controls are established to provide for the orderly development and use of land, and to provide for adequate light, air, open space, and separation of uses.
- B. Use of Lots: All lots shall be used in a manner consistent with the requirements of this Title and the zoning district in which the property is located. No part of any existing lot shall be used as a separate lot or for the use of another lot, except as may be otherwise provided in the City Code.
- C. Lots of Record:
 1. A lot of record shall be deemed a buildable lot provided it has frontage on a public right-of-way and meets the setback and size requirements for the district in which it is located.
 2. Exception: An LDR-zoned lot of record as of January 1, 2011, which does not meet the requirements of this Title as to area or width, may be utilized for one-family detached dwelling purposes provided the measurements of such lot meets 100% of the front yard, side yard and rear yard setback requirements for the district in which it is located and at least 60% of the minimum lot area and lot width requirements for the district in which it is located.
- D. Principal Buildings in LDR Districts: No LDR-zoned lot shall include more than 1 principal building.
- E. Principal Buildings in Non-LDR Districts: Lots in non-LDR districts may include more than 1 principal building, provided each building meets all of the requirements, including setbacks, of the district in which it is located.
- F. Required Yards: Yard requirements shall be as specified for the zoning district in which the lot is located.
- G. Yard Encroachments: The following improvements shall not be considered as encroachments into required yards, provided they conform to the pertinent limitations.
 1. Cornices, canopies, awnings, eaves, gutters, bay windows, and other ornamental features which do not extend more than 3 feet into the required yard.
 2. Chimneys, air conditioning units, fire escapes, uncovered stairs, ramps, and necessary landings which do not extend more than 3 feet into the required yard.
 3. Terraces, steps, uncovered porches and patios, decks, stoops, or similar features which do not extend above the height of the ground floor level of the principal structure or to a distance less than 2 feet from any lot line. Notwithstanding this requirement, patios shall not be less than 10 feet from a street right-of-way.
 4. Fences constructed and maintained in accordance with the applicable provisions of this Title.

1011.06 Visibility Triangles in All Districts:

- A. Purpose: This section is intended to define and regulate areas around street intersections for the purpose of preserving adequate sight lines for the safety of motorists, cyclists, and pedestrians passing through the intersections. Visibility triangles are described by locating Points A, B, and C as instructed in this Section and connecting these points with straight lines.
- B. Applicability: Although the visibility triangles described in this section at least partially overlap land in the public right-of-way, the requirements of this section apply only to the privately owned property (i.e., land which is not in the public right-of-way) that lies within a visibility triangle.
- C. Definitions: The following words and phrases, when used in this section, shall have the meanings respectively ascribed to them:
 1. Street X: At an intersection, Street X is the street of higher classification or, if intersecting streets are of equal classification, the primary street as determined by the Community Development Department.
 2. Street Y: At an intersection, Street Y is the street of lower classification or, if intersecting streets are of equal classification, the street which is not determined by the Community Development Department to be the primary street.
 3. Width of Street: The distance in feet measured from back-of-curb to back-of-curb or, in the absence of a curb, the distance measured perpendicularly from the edge of the paving surface to the opposite edge of the paving surface.
- D. Parcels Zoned Low-Density Residential: The visibility triangle for a street intersection adjacent to an LDR-zoned parcel shall be described as follows:
 1. Point A: Located by extending the curb lines (or pavement edges where there are no curbs) of Streets X and Y toward the intersection until the curb lines meet.
 2. Point B: Located on the curb line of Street Y 45 feet from Point A.
 3. Point C: Located on the curb line of Street X 45 feet from Point A.
- E. Parcels Not Zoned Low-Density Residential: The regulations in this section shall apply to all private property, except LDR-zoned property, within visibility triangles.
 1. Controlled Street Intersections:
 - a. Four-way Stop or Traffic Control Signal: The visibility triangle for a four-way stop or traffic signal controlled intersection shall be described as follows:
 - i. Point A: Located at the intersection of the center lines of Streets X and Y.
 - ii. Point B: Located on the center line of Street Y at a distance from Point A equal to 1½ times the average of the widths of Street X and Y.

$$\text{Distance from Point A to Point B} = \frac{3}{4}(\text{width of Street X} + \text{width of Street Y})$$
 - iii. Point C: Located on the center line of Street X at a distance from Point A equal to 1½ times the average of the widths of Streets X and Y.

$$\text{Distance from Point B to Point C} = \frac{3}{4}(\text{width of Street X} + \text{width of Street Y})$$
 - b. Three-way Stop: The visibility triangle for a three-way stop at a T-intersection shall be described the same as for the four-way stop.
 - c. Two-way Stop: The visibility triangle for a two-way stop controlled intersection shall be described as follows (Street Y has stop control):
 - i. Point A: Located at the intersection of the center lines of Streets X and Y.
 - ii. Point B: Located on the center line of Street Y at a distance from Point A equal to half the width of Street X plus 15 feet.

$$\text{Distance from Point A to Point B} = \left(\frac{\text{width of Street X}}{2} \right) + 15 \text{ feet}$$
 - iii. Point C: Located on the center line of Street X at a distance in feet from Point A given by Table 1011-4 according to the speed limit and width of Street X.

Table 1011-4					
Width of Street X (in feet)	Speed Limit of Street X				
	30 mph	35 mph	40 mph	45 mph	50 mph
16 - 20	155	190	220	290	350
21 - 25	170	205	245	300	365
26 - 30	185	225	265	330	400
31 - 35	200	245	290	360	435
36 - 40	215	265	310	390	470
41 - 45	230	280	330	420	505
46 - 50	250	300	355	450	540
51 - 55	265	320	375	475	575
56 - 60	280	340	400	505	610

- d. One-way Stop: The visibility triangle for a one-way stop at a T-intersection shall be the same as for the two-way stop.
- e. Two-way Yield: The visibility triangle for a two-way yield controlled intersection shall be described as follows (Street Y has yield control):
 - i. Point A: Located at the intersection of the center line of Streets X and Y.
 - ii. Point B: Located on the center line of Street Y at a distance from Point A equal to half the width of Street X plus 50 feet.

$$\text{Distance from Point A to Point B} = \left(\frac{\text{width of Street X}}{2} \right) + 50 \text{ feet}$$

- ii. Point C: Located on the center line of Street X at a distance in feet from Point A given by Table 1011-5, according to the speed limit of Street X.

Table 1011.5			
Speed Limit of Street X or Y (in miles per hour)	30	35	40
Distance from Point A(in feet)	110	140	180

- f. One-way Yield: The visibility triangle for a one-way yield at a T-intersection shall be described the same as for the two-way yield.
 - g. Special: The visibility triangle for all other types of controlled intersections shall be described as combinations of the above visibility triangles.
2. Uncontrolled Street Intersections:
- a. Four-leg and Three-leg Intersections: Other than T-intersections, the visibility triangle for these types of intersections shall be described as follows:
 - i. Point A: Located at the intersection of the center lines of Streets X and Y.
 - ii. Point B: Located on the center line of Street Y at a distance from Point A given by Table 1011-5, according to the speed limit of Street Y.
 - iii. Point C: Located on the center line of Street X at a distance from Point A given by Table 1011-5, according to the speed limit of Street X.
 - b. T-Intersections: The visibility triangle shall be determined as for T-intersections with a one-way yield.
 - c. Roundabout Intersections: No visibility triangle is necessary at roundabout intersections because all traffic circulates in the same counterclockwise direction.
3. Intersections of Streets with Driveways (or Alleys): The visibility triangle for the intersection of a street with a driveway shall be described as follows.

- a. Point A: Located by extending the curb lines (or pavement edges where there are no curbs) of the street and driveway toward the intersection until the curb lines meet.
 - b. Point B: Located on the curb line of the driveway 10 feet from Point A.
 - c. Point C: Located on the curb line of the street 10 feet from Point A.
4. Intersections of Driveways (or Alleys) with Sidewalks (or Paths): The visibility triangle for the intersection of a driveway shall be described as follows:
- a. Point A: Located at the intersection of the driveway and sidewalk.
 - b. Point B: Located on the edge of the sidewalk 5 feet from Point A.
 - c. Point C: Located on the curb line (or pavement edge, if no curb is present) of the driveway 5 feet from Point A.
- F. Prohibitions: The following restrictions apply to all visibility triangles:
1. No structures shall be erected except for fences, walls, or berms not exceeding 30 inches in height as measured from the top of the curb (or pavement edge where there is no curb) immediately adjacent to the triangle area;
 2. No motor vehicle, trailer, or other equipment shall be allowed to park, stand, or stop; and
 3. No vegetation shall be planted or allowed to grow higher than 30 inches as measured from the top of the curb (or pavement edge where there is no curb) immediately adjacent to the triangle area.

1011.07 Height Exemptions in All Districts:

- A. The building and structure height limitations established for each zoning district shall apply to all buildings and structures, except that the following shall be exempt from said height limitation:
1. Church spires
 2. Belfries
 3. Cupolas and domes which do not contain usable space
 4. Monuments
 5. Water towers
 6. Fire and hose towers
 7. Observation towers
 8. Flagpoles
 9. Electrical transmission towers
 10. Chimneys
 11. Smokestacks
 12. Parapet walls extending not more than 3 feet above the limiting height of the building
 13. Cooling towers
 14. Grain elevators
 15. Elevator penthouses
- B. Exception: If, in the opinion of the Community Development Department, such structure would adversely affect adjacent property, such greater height shall not be authorized except by the City Council pursuant to the appeals procedure established in Section 1009.08.

1011.08 Fences in All Districts:

- A. General Requirements: Fences may be constructed, placed, or maintained in any yard or adjacent to a lot line in accordance with these requirements.
1. The owner of the property upon which a fence is located shall be responsible for locating all property lines prior to constructing said fence.
 2. All fence posts and supporting members shall be placed within the property lines of the property on which the fence is located.
 3. Fences in front yards shall not exceed 4 feet in height. Notwithstanding this limitation, fences in front yards which are adjacent to the side or rear yards of abutting lots may be as tall as 6.5 feet.
 4. Fence height shall be measured from the average grade adjacent to the bottom of the fence to the top

- of the fence material. Fence posts may extend an additional 6 inches.
5. All fences shall be constructed so that the finished side or more attractive side of the fence faces the adjacent property or the public right-of-way.
 6. All fences shall be constructed of durable, uniform, weather-resistant, and rust-proofed materials.
 7. All fences shall be maintained and kept in good condition.
 8. Fences exceeding 4 feet in height shall require a permit from the City.
 9. Temporary snow fencing is allowed seasonally, when snow is present, without a permit.
 10. Non-residential Fences: In addition to the requirements of this section, fences in all non-residential districts shall conform to the screening requirements of Section 1011.03B of this Chapter.
 11. Fencing of Play Areas: For public or private parks and playgrounds located adjacent to a public right-of-way or railroad right-of-way, a landscaped yard area no less than 30 feet in width or a fence no less than 4 feet in height shall be installed between the facility and the right-of-way.
- B. Residential Fences: The following standards shall apply to all fences constructed in any residential zoning district or directly adjacent to any residential zoning district:
1. No fence used for screening or security shall exceed 6.5 feet in height;
 2. Fences shall be comprised of chain-link, wood, plastic, or metal, but shall not be barbed wire, electric, weaved or welded wire
 3. Exception: Weaved or welded wire or mesh fences erected at the periphery of a garden and used to keep unwanted animals out of the garden shall be allowed to a maximum of 8 feet in height.
- (Ord. 1436 5-13-13)

1011.09 Essential Services in All Districts:

- A. Purpose: The purpose of this Section is to provide for the installation of essential services in a manner that does not adversely affect the public health, safety, or welfare.
- B. Essential Services Allowed by Permit: The following essential services, when installed primarily for the use of City residents, shall only require a permit from the City Engineer:
1. All communication lines.
 2. Underground electrical transmission lines, overhead utility lines, and electrical transmission lines intended to serve properties within the City.
 3. Pipelines for distribution to individual properties within the City.
 4. Electrical substations with less than 33 KV.
 5. Radio receivers and transmitters accessory to an essential service, when placed on an existing utility pole, tower, or light standard.

1011.10 Solar Energy Systems in All Districts:

- A. Solar energy systems are allowed as accessory uses in all zoning classifications where structures of any sort are allowed.
- B. Active solar energy systems shall be allowed as accessory uses in all zoning classifications where structures of any sort are allowed, subject to certain requirements as set forth below:
1. Height: Active solar systems must meet the following height requirements:
 - a. Building- or roof- mounted solar energy systems shall not exceed the maximum allowed building height in any zoning district. For purposes for height measurement, solar energy systems other than building-integrated systems shall be considered to be mechanical devices and are restricted consistent with other such mechanical devices.
 - b. Ground- or pole-mounted solar energy systems shall not exceed 15 feet in height when oriented at maximum tilt.
 2. Setback: Active solar energy systems must meet the accessory structure setback for the zoning district and primary land use associated with the lot on which the system is located.
 - a. Roof-mounted Systems: Consistent with the required building setback, the collector surface and mounting devices for roof-mounted solar systems shall not extend beyond the exterior perimeter

- of the building on which the system is mounted or built. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building on a side yard exposure.
- b. Ground-mounted Systems: Ground-mounted solar energy systems shall not extend into the required side- or rear-yard setback when oriented at minimum design tilt.
 3. Visibility: Active solar energy systems shall be designed to blend into the architecture of the building or be screened from routine view from public rights-of-way other than alleys. The color of the solar collector is not required to be consistent with other roofing materials.
 - a. Building-integrated Photovoltaic Systems: Building-integrated photovoltaic systems shall be allowed regardless of visibility, provided the building component in which the system is integrated meets all required setback, land use, and performance standards for the district in which the building is located.
 - b. Solar Energy Systems with Mounting Devices: Roof- or ground-mount solar energy systems shall not be restricted if the system is not visible from the closest edge of any public right-of-way other than an alley. Roof-mounted systems that are visible from the nearest edge(s) of the street frontage right(s)-of-way shall be reviewed and approved by Community Development staff to ensure the system meets the wind load standards for the roof and there are not major aesthetic impacts with the system to the surrounding properties.
 - c. Coverage: Roof- or building- mounted systems, excluding building-integrated systems, shall not cover more than 80% of the south-facing or flat roof upon which the panels are mounted, and shall be set back from the roof edge by a minimum of 1 foot. The surface area of pole or ground mount systems shall not exceed half the building footprint of the principal structure.
 4. Approved Components: Electric solar energy system components must have a UL listing.
 5. Plan Approval Required: All solar energy systems shall require administrative plan approval by the Community Development Department.
 - a. Applications: Plan application for solar energy systems shall be accompanied by scaled horizontal and vertical (elevation) drawings. The drawings must show the location of the system on the building, or on the property for a ground-mount system, including the property lines.
 - b. Pitched-roof-mounted Systems; For all roof-mounted systems other than a flat roof the elevation drawings shall show the highest finished slope of the solar collector and the slope of the finished roof surface on which it is mounted.
 - c. Flat-roof-mounted Systems: For flat-roof applications a drawing shall be submitted showing the distance to the roof edge and any parapets on the building and shall identify the height of the building on the street frontage side, the shortest distance of the system from the street frontage edge of the building, and the highest finished height of the solar collector above the finished surface of the roof.
 6. Plan Approvals: Applications that meet the design requirements of this policy shall be granted administrative approval by the Community Development Department and shall not require Planning Commission review. Plan approval does not indicate compliance with Building Code or Electric Code.
 7. Compliance with Building Code: All active solar energy systems shall require building permits.
 8. Compliance with State Electric Code: All photovoltaic systems shall comply with the Minnesota State Electric Code.
 9. Utility Notification: No grid-intertie photovoltaic system shall be installed until evidence has been given to the Community Development Department that the owner has submitted notification to the utility company of the customer's intent to install an interconnected customer-owned generator. Off-grid systems are exempt from this requirement.

1011.11 Additional Standards in All Non-LDR Districts:

- A. Rooftop Equipment: Rooftop equipment, including structures related to elevators, shall be completely screened from eye level view from contiguous properties and adjacent streets. Such equipment shall be

screened with parapets or other materials similar to and compatible with exterior materials and architectural treatment on the structure being served. Horizontal or vertical slats of wood or other material shall not be utilized for this purpose. Solar and wind energy equipment is exempt from this provision if screening would interfere with system operations.

- B. **Waste and Recycling Areas:** Waste and recycling storage areas shall be enclosed. Enclosure walls shall be of a block or masonry material and designed to match the building where it is located. Waste and recycling enclosures within developments of 2-stories or more shall incorporate a trellis cover or a roof design to screen views from above. The enclosure should be accessible to residents and businesses, yet located away from main entries.
- C. **Maintenance Activities:** Movement of sweeping vehicles, garbage trucks, maintenance trucks, and other service vehicles and equipment is prohibited within 300 feet of a residential district between the hours of 10:00 P.M. and 7:00 A.M., except for emergency vehicles and emergency utility or maintenance activities. Snow removal shall be undertaken in a manner that minimizes activity between the hours of 10:00 P.M. and 7:00 A.M. Long term snow storage (more than 7 days) shall not occur within 300 feet of a residential district unless approved by the Community Development Department. Long term snow storage may only occur on surplus parking spaces beyond the required spaces within Chapter 1019 of this Title.
- D. **Service Areas and Mechanical Equipment:** Service areas, utility meters, and building mechanical equipment shall not be located on the street side of a building or on a side wall closer than 10 feet to the street side of a building, unless determined by Community Development Department that there is no reasonable alternative.
- E. **Parking Lot Lighting:** The following standards for on-site lighting of parking lots shall be required for all uses.
 - 1. **Fixtures:** Lighting fixtures shall be of a downcast, cutoff type, concealing the light source from view and preventing glare unless decorative and utilized for pedestrian safety.
 - 2. **Minimum Lighting Levels:** Energy efficient lighting systems shall be employed for all exterior lighting. Minimum lighting levels, measured at a height of 5 feet above the grade, for parking facilities shall be as follows:
 - a. **Covered Parking Facilities (Day):**
 - i. General parking and pedestrian areas: 5 foot-candles
 - ii. Ramps/corners: 10 foot-candles
 - iii. Entrances/exits: 50 foot-candles
 - iv. Stairwells: 20 foot-candles
 - b. **Covered Parking Facilities (Night):**
 - i. General parking and pedestrian areas: 5 foot-candles
 - ii. Ramps/corners: 5 foot-candles
 - iii. Entrances/exits: 5 foot-candles
 - iv. Stairwells 20 foot-candles
 - c. **Open Parking Areas:**
 - i. General parking and pedestrian areas 0.9 foot-candle
 - ii. Vehicle use areas 1 foot-candle
 - 3. All lights not reasonably required for security or business operations must be turned off between the hours of 10:00 P.M. and sunrise, or operated by motion detectors so that they only turn on when there is activity nearby and turn off shortly thereafter.
 - 4. **Pole Height:** The height of light poles shall not exceed 12 feet if located closer than 50 feet to a residential property line, nor a height of 25 feet if located between 50 feet and 100 feet of a residential property line. Light poles or fixtures may be a maximum of 40 feet tall if located greater than 100 feet from a residential property line and if the light source and light source glare is completely screened by building, berm, or landscape material with a minimum opacity of 90% to eye level view of living spaces in homes within 300 feet of light source.
 - 5. **Decorative Lighting:** Decorative poles and luminaires shall be allowed on all new development sites

when incorporated as pedestrian safety/security lighting along walkways, paths, and near the principal structure.

1011.12 Additional Standards for Specific Uses in All Districts:

A. Residential Uses, Principal:

1. One- and two-family dwellings: See design standards in Section 1004.05.
2. Multi-family dwellings: See design standards in Section 1004.06 in addition to the following:
 - a. Recreational facilities must be provided to serve the needs of the anticipated population.
 - b. Minimum distances between buildings shall equal the sum of the required side yards for each building.
 - c. Screening and buffering shall be required per Section 1011.03B of this Chapter.
3. Cohousing Community: Cohousing is a permitted use within any housing type that is permitted within the zoning district where the cohousing development is located. Likewise, any housing type that is conditional within the zoning district may be used for cohousing with conditional use approval. Any allowed use within the zoning district where the cohousing development is located may be allowed as part of the cohousing development.
 - a. A cohousing community shall provide a community building for the shared use of the residents for typical domestic activities such as cooking or child care, and for home occupations as regulated in Section 1011.12B
 - b. Usable open space may be combined and shared among cohousing units.
4. Community residential facility, state licensed:
 - a. On-site services shall be for residents of the facility only, except where part of a regimen of scheduled post-residential treatment.
 - b. To the extent practical, all new construction or additions to existing buildings shall be compatible with the scale and character of the surroundings, and exterior building materials shall be harmonious with other buildings in the neighborhood.
 - c. An appropriate transition area between the use and adjacent property shall be provided by landscaping, screening, and other site improvements consistent with the character of the neighborhood.
5. Nursing Home, Assisted Living, Congregate Care:
 - a. The yard requirements for multi-family dwelling in the district apply.
 - b. A facility established after the effective date of this ordinance within a predominantly residential or mixed-use area shall have vehicular access to a collector or higher classification street.
 - c. The site shall contain a minimum of 150 square feet of usable open space per resident, consisting of outdoor seating areas, gardens, and/or recreational facilities. Public parks or plazas within 300 feet of the site may be used to meet this requirement.
 - d. An appropriate transition area between the use and adjacent property shall be provided by landscaping, screening, and other site improvements consistent with the character of the neighborhood.

B. Residential Uses, Accessory:

1. Accessory Dwelling Units (ADU):
 - a. An ADU shall be located on a lot occupied by a one-family dwelling.
 - b. No more than one ADU shall be allowed on a lot.
 - c. Either the principal dwelling unit or the ADU shall be owner-occupied and both dwelling units shall be under unified ownership.
 - d. Maximum occupancy of an ADU shall be limited to 2 people.
 - e. An ADU shall be assigned a unique address identifier to differentiate it from the principal dwelling. An attached ADU shall be identified by "Unit A" and a detached ADU shall be identified by "Unit B" following the primary property address (e.g., 1234 Elm Street Unit B).

- f. A detached ADU may be located above a detached garage or within a separate accessory building meeting the standards for accessory buildings established in §1004.02 of this Title.
- g. A property shall have a minimum of 1 additional, conforming, off-street vehicle parking space above and beyond the number of parking spaces required for the principal dwelling unit in the zoning district.
- h. Home Occupations: Home occupations are permitted in ADUs, provided that the combined impacts of home occupations in the ADU and the principal dwelling unit conform to the standards and limitations established in §1011.12B2 of this Title.
- i. Dimensional Standards for All ADUs:
 - i. Maximum height of an ADU, including one built above a garage shall not exceed the standards for principal or accessory buildings, as applicable.
 - ii. Unit size: An ADU shall include at least 300 square feet of living area up to a maximum of 650 square feet of living area, but in no case shall an ADU exceed 75% of the principal dwelling's four season living area (exclusive of the ADU). For the purposes of this provision, "living area" shall include kitchen areas, bathrooms, living rooms, bedrooms (including the closet which defines the bedroom), and other rooms, and shall exclude utility rooms, hallways, entryways, storage areas, and garages.
 - iii. An ADU shall include a maximum of 1 bedroom.
 - iv. Setback requirements: All ADUs shall meet the standards for principal buildings; notwithstanding this requirement, detached ADUs shall not be located closer to the front property line than the principal building.
- j. The entryway to a detached ADU shall be connected to a street frontage with a paved walkway.
- k. Design Standards for Attached ADUs: The appearance or character of the principal building shall not be significantly altered so that its appearance is no longer that of a one-family dwelling.
- l. Design Standards for Detached ADUs:
 - i. Material: The exterior finish material shall match in type, size, and placement, the exterior finish material of the principal dwelling unit.
 - ii. Roof pitch: The roof pitch shall match the predominant roof pitch of the principal dwelling unit.
 - iii. Details: Trim shall match the trim used on the principal dwelling unit. Projecting eaves shall match those of the principal dwelling unit.
 - iv. Windows: Windows shall match those in the principal dwelling unit in proportion (relationship of width to height) and orientation (horizontal or vertical).
- m. Permit Required: A lifetime, non-transferrable ADU Occupancy Permit shall be required from the Community Development Department to allow an ADU to be rented. For the purposes of this provision, a "rented" ADU is one that is being occupied by a person or persons other than the family (as defined in §1001.11 of this Title) occupying the principal dwelling unit. Each property owner seeking to rent an ADU, or occupy an ADU while renting the principal dwelling unit, shall apply for a new ADU Occupancy Permit according to the procedure established herein. In addition to receiving an ADU Occupancy Permit, the property shall be in compliance with the City's rental registration requirements.
 - i. Application: The owner of property on which an ADU is proposed shall file a permit application by paying the fee set forth in Chapter 314 of this Code and submitting a completed application form and supporting documents as set forth on the application form. The Community Development Department will review the application to determine whether the application is complete and the subject property is eligible to receive the requested ADU permit.
 - ii. Notification: Upon the determination that a complete application has been submitted and that the property is eligible to receive the requested ADU permit, property owners

within a radius of 100 feet shall be notified in writing by the Community Development Department of the application and that they have 7 days in which to share comments or concerns about the application before the Community Development Department issues the permit.

- iii. Conditions: The City may impose conditions on the issuance of an ADU permit. Such conditions must be directly related to, and must bear a rough proportionality to, impacts created by the ADU.
 - iv. Revocation: If a permitted ADU or the property for which an ADU permit has been issued should fail to meet the requirements of the permit, and/or if a property for which an ADU permit has been issued should become ineligible for such permit, the issued ADU permit may be revoked upon the determination by the Community Development Department that the noncompliance and/or ineligibility issue(s) cannot or have not been resolved. If an ADU permit is revoked, occupation of the ADU by a person or persons other than the family (as defined in §1001.11 of this Title) occupying the principal dwelling unit shall cease within 60 days of the date of the revocation.
 - v. Appeals: Determinations pertaining to the continuing compliance and/or eligibility of an ADU permit or the property for which an ADU permit has been issued are subject to appeal according to the procedure for appeals of administrative decisions established in Section 1009.08 of this Title.
 - vi. Expiration: An ADU permit shall expire upon transfer of the property to a new owner. Continued use of an ADU on a property which has been transferred to a new owner shall require the new owner to apply for a new ADU permit.
2. Garden Sheds in LDR Districts: Garden sheds may be built and/or sided with materials which are different in character from the principal structure, but acceptable materials shall not include galvanized or corrugated metal.
3. Home Occupation: Home occupations are allowed in residential districts, subject to the standards below.
- a. All new home occupations as of January 1, 2011, shall be subject to an annual registration with the City, on a form as required by the Community Development Department and with a fee as determined by the City Council.
 - b. Home occupations shall be clearly incidental and subordinate to the residential use of the property. Exterior alterations or modifications that change the residential character or appearance of any structures or the property itself are not allowed.
 - c. Home occupations shall not occupy more than 30% of the floor area of the dwelling, to a maximum of 600 square feet. The home occupation shall be conducted entirely within the dwelling. An accessory building shall not be used in the operation of a home occupation.
 - d. Only persons residing on the premises and no more than 1 nonresident employee shall be engaged in the conduct of home occupations on the premises at any given time.
 - e. There shall be no outside storage of products, materials, or equipment used in conjunction with home occupations.
 - f. The required off-street parking for the residential use shall not be reduced or made unusable by home occupations.
 - g. Home occupations shall not generate excessive traffic or parking demand that is detrimental to the character of the neighborhood.
 - h. Shipment and delivery of products, merchandise, or supplies shall be by single rear axle straight trucks or similar delivery vehicles normally used to serve residential neighborhoods.
 - i. There shall be no indications of offensive noise, odors, smoke, heat, glare, vibration, or electrical interference at or beyond the boundaries of the residential lots occupied by home occupations.
 - j. Home occupations shall meet all applicable fire and building codes, as well as any other City, State, or Federal regulations.

- k. Signage for home occupations shall be subject to the requirements of Chapter 1010 of this Title.
 - l. The following activities shall be prohibited as home occupations:
 - i. The operation of any wholesale or retail business unless it is conducted entirely by mail or Internet. The sale of products incidental to the delivery of a service is allowed.
 - ii. Any manufacturing, welding, machine shop, or similar use.
 - iii. Motor vehicle repair.
 - iv. The sale, lease, trade, or transfer of firearms or ammunition.
 - v. Headquarters or dispatch centers where persons come to the site and are dispatched to other locations.
4. Private Swimming Pools: All private swimming pools, hot tubs, and other similar private recreational facilities are subject to the following standards:
- a. The facility shall not be operated as a business or private club.
 - b. The facility shall not be located within any required front or side yard.
 - c. The facility, including any walks, paved areas, or related structures or equipment, shall be set back at least 10 feet from any property line.
 - d. For swimming pools, the pool itself, the rear yard, or the entire property shall be enclosed by a non-climbable wall, fence, or combination thereof at least 4 feet in height with ventilating slats with openings not exceeding 4 inches, with a self-closing gate with a latch and located on the inside, 3 inches below the top of fence and capable of being secured with a lock so as to prevent uncontrolled access by children. If the only access is through a principal or accessory structure, such point of access shall be lockable. In the case of above-ground pools, pool sides that are vertical may contribute to the required fencing, provided all points of access are controlled to prevent access by children, including the removal of all ladders or stairs whenever the pool is not in use (or compliance with a nationally recognized pool safety standard).
 - e. For in-ground pools, the pool shall be set back at least 6 feet from the principal structure.
 - f. Hot tubs shall not be located within 5 feet of any side yard or rear lot line, or within any required front yard. Such pools may be equipped with a child-resistant, lockable cover in lieu of a 4 foot tall fence. Hot tubs are permitted on attached or detached decks if it can be proven that the deck is engineered to be structurally sound enough to support the bearing load of the hot tub.
 - g. Portable pools shall not be located within 5 feet of any side or rear lot line, or within any required front yard. Such pools may be equipped with a child resistant cover in lieu of a 4 foot tall fence. Any ladder or other means of entry into a portable pool shall be detachable and placed so that no child can gain entry into the pool without the owner's consent. Portable pools shall not be in place longer than 6 months in a calendar year.
 - h. Lighting shall be so oriented so as not to cast light on adjacent properties.
 - i. The facility shall not be located within any drainage or utility easement.
 - j. Any accessory mechanical apparatus shall be located at least 30 feet from any residential structure on an adjacent lot.
 - k. All swimming pools containing more than 3,000 gallons or with a depth in excess of 42 inches shall require a building permit from the City.
5. Private Recreational Courts: All private tennis courts, ball courts, and other similar private recreational facilities are subject to these standards.
- a. The facility shall not be operated as a business or private club.
 - b. The facility shall not be located within any required front or side yard.
 - c. The facility, including any walks, paved areas or related structures or equipment, shall be set back at least 10 feet from any property line.
 - d. The facility shall not be located on a public street.
 - e. The facility shall not be located within any drainage or utility easement.
 - f. A chain link or other non-opaque fence not exceeding 10 feet in height may be allowed to enclose a hard-surfaced recreational court. If such a fence is used, it shall be set back at least 5 feet from side property lines and 10 from the rear property line, and shall not be placed in front of the

principal structure.

6. Roomers, boarders: A maximum of 3 roomers or boarders shall be permitted per dwelling unit.
(Ord. 1418, 10-10-2011)

C. Civic and Institutional Uses:

1. Church, Religious Institution: A facility established after the effective date of this ordinance within a predominantly residential or mixed-use area shall have vehicular access to a collector or higher classification street.
2. School, Elementary or Secondary: A facility established after the effective date of this ordinance within a predominantly residential or mixed-use area shall have vehicular access to a collector or higher classification street.
3. College, or Post-secondary School, Campus:
 - a. An office-based facility established after the effective date of this ordinance within a Neighborhood Business district shall have vehicular access to a collector or higher classification street, and shall have buffer area screening consistent with Section 1011.03B of this Title.
 - b. A campus master plan, approved by the City Council, may be required for campus facilities to address the management of pedestrian, bicycle and vehicular circulation, relationship to surrounding land uses, and buffering and screening of adjacent uses to mitigate any impacts of a new or expanded/intensified campus.
4. Theater (Live Performance) Performing Arts Center: A facility established after the effective date of this ordinance shall have vehicular access to a collector or higher classification street.

(Ord. 1427, 7-9-2012)

D. Institutional and Recreational Uses: Whenever temporary and/or portable restroom facilities are located within Institutional or Park and Recreation Districts for longer than the duration of a single event, the following requirements shall apply unless the Community Development Department determines that the proposed location provides adequate distance and screening from residential property views:

1. Facilities shall be located a minimum of 75 feet from any residentially zoned property; and
2. Facilities shall be screened with a minimum 6 foot tall 100% opaque board-on-board wood fence.

E. Business and Commercial Uses:

1. Extended Hours of Operation adjacent to all Residential Districts: Fence or screening height in the following requirements supersede the limitations established elsewhere in this Title:
 - a. Buffer Area: Where a Community Business, Regional Business, or Community Mixed Use District abuts a residential district, all existing buffers shall remain in effect, and any new site improvement shall include an increased buffer area of a minimum of 20 to 40 feet as determined by the Community Development Department. This protective buffer shall contain no structures, shall not be used for parking, off-street loading or storage, and shall include screening. The screening treatment shall include the seeding of grass or sodding of the whole of the buffer area, the planting of shrubbery and trees and maintaining of same, a compact screen wall, fence, berm, landscaping, or combination thereof, which shall be not less than 75% opaque year-round to a minimum height of 6 feet above the parking lot curb. The screening treatment must be approved by the Community Development Department and shall be in harmony with a residential neighborhood and provide sufficient screening of the Community and Regional Business uses. The fence or landscape screening shall be no less than 6 feet at the time of installation. Where a berm, wall, fence, or combination thereof is required for screening purposes for a commercial use adjacent to a residential use, such berm, wall, fence, or combination thereof shall be set back from the residential district boundary at least 3 times its height, and landscaped with trees, shrubs, perennials and sod or seed to screen 50% of the surface of the wall or fence at maturity of the plant materials year-round.
 - b. Traffic: The site plan shall provide vehicular circulation routes away from residential areas and avoid commercial vehicle ingress and egress from local residential streets to commercial property sites. In the site plan review and approval process, every reasonable effort must be made to design the site circulation so that service vehicles over 1 ton capacity do not use routes which bring

vehicles between a building and a residential district boundary. The site plan shall also provide pedestrian access routes using walks or paths, including where practical, connections to adjacent residential areas. Service vehicles over 1 ton capacity which enter or exit the site between the hours of 10:00 P.M. and 7:00 A.M. shall use a designated route approved by the City. Deliveries and/or delivery truck access, in and on the site during the hours of 10:00 P.M. to 7:00 A.M., shall be limited to single unit, 2 axle vehicles not in excess of 26,000 pounds gross weight. The designated route shall keep vehicles at least 300 feet away from any residential district boundary, or be completely screened by a building, wall, landscaped berm, fence, or combination thereof to a point 14 feet above the ground at the outside edge of the truck route lane and to a point 5 feet above the first floor (main level) of the adjacent residences.

- c. Off-Street Parking: Where a 24 hour use is within 300 feet of a residential district, that portion of the site within 300 feet shall provide screening of parking and driving areas adjacent to residential areas. The screening shall have a minimum opacity of 90% year-round and a minimum height of 6 feet, and shall be comprised of landscaping, walls, fences, berms, or combinations thereof.
 - d. Service delivery or non-customer vehicles shall not be parked or staged within 300 feet of a residential district, except when actively loading or unloading.
 - e. In no case shall vehicle staging for unloading occur for more than 24 hours on a site within any Community Business, Regional Business, or Community Mixed Use District.
 - f. Off-Street Loading: Off-street loading shall be as listed in Chapter 1019 of this Title and servicing space shall be designated for each store unit in the shopping district. Such loading space shall be designed so as not to conflict with movement of vehicular traffic to and from parking areas.
 - i. Any commercial loading dock within 300 feet of a residential district shall be completely screened by a wall, landscaped berm, fence, or combination thereof from an adjacent residential area, to a point 14 feet above the ground at the loading area and to a point 5 feet above the first floor (main level) of adjacent residences.
 - ii. Any commercial loading dock within 300 feet of a residential district which is to be used for any reason by vehicles or equipment between the hours of 10:00 P.M. and 7:00 A.M. shall be within a completely enclosed and roofed structure. All loading and unloading operations shall occur with the exterior doors shut at all times.
- 2. Animal Hospital, Veterinary Clinic: All activities shall take place within completely enclosed buildings with soundproofing and odor control; outdoor kennels are prohibited except in zoning districts where specifically permitted.
 - 3. Day Care Center: The center must meet all standards for registration and inspection and not exceed state limits for number of clients.
 - 4. Mini-storage Facility: No commercial transactions shall be permitted other than the rental of storage units. Plans for on-site circulation and driveway locations shall be reviewed as part of the site plan review process. Site design shall accommodate a logical and safe vehicle and pedestrian circulation pattern.
 - 5. Communication Antennas and Towers: See subsection G below.
 - 6. Restaurants:
 - a. In the CMU and Employment districts, all restaurants shall be incorporated within a multi-use retail center.
 - b. Points of vehicular ingress and egress for fast food restaurants shall not be onto a street which is used primarily for access to abutting residential property.
 - c. A litter collection plan shall be developed for fast food restaurants and submitted to the Community Development Department. The litter collection plan obligates the restaurant operator to keep the area surrounding the restaurant free of litter for a reasonable, specified distance.
- F. Employment Uses:
- 1. Artisan Workshop: Sale of goods produced shall not exceed 25% of the floor area of the facility.
 - 2. General Retail Sales and Personal Service: In the Employment Districts, retail or service uses must be

located within buildings or as part of building complexes that include office or other employment-related uses and shall be limited to 25% of the building or complex.

3. Motor Vehicle Broker/Wholesaler: All activities related to a vehicle broker or vehicle wholesaler shall be conducted within the building. No sale lots shall be allowed. A vehicle being readied for purchase/sales transaction shall be allowed to be parked in the parking lot for no more than 8 hours.
 4. Manufacturing and Processing, Outdoor Activities/Storage:
 - a. Outdoor servicing, processing, manufacturing, or storage of the materials used in these operations shall be no closer than 300 feet to a property occupied by a residential use.
 - b. All outdoor servicing, processing, or manufacturing shall be conducted, operated and maintained in accordance with any necessary permits of the Minnesota Pollution Control Agency, Ramsey County, and the City.
 - c. The applicant shall provide a site plan showing the location of buildings, areas of outdoor storage, servicing, processing or manufacturing, and fences and walls. A narrative shall accompany the plan stating the measures the applicant will take to comply with the environmental regulations established in Section 1011.02.
 5. Wholesale Uses: Within the Office/Business Park District, a wholesale use shall not exceed 25% of the gross floor area of the building where it is located.
- G. Accessory Uses and Structures:
1. Telecommunication Towers and Antennas:
 - a. Private Antennas and Towers: Private (noncommercial) receiving or transmitting antennas and towers more than 20 feet in height above the principal structure height in residential districts or more than 50 feet in height above the principal structure height in business and industrial districts shall be a conditional use in all districts.
 - b. City-Owned Antennas and Towers: City-owned or controlled antennas and tower sites shall be a permitted use in Commercial, Community Mixed Use, and Employment Districts, and a conditional use in all other districts.
 - c. Commercial Antennas and Towers - City Sites: Commercial receiving or transmitting antennas and towers regardless of height or size with the exception of satellite dish antennas shall connect to and use the City tower sites if use of such facilities is technically feasible.
 - d. Commercial Antennas and Towers - Non-City Sites: Commercial receiving or transmitting antennas and towers not located on a City tower site shall be a conditional use. Commercial receiving or transmitting antennas and towers may only be located in Commercial, Community Mixed Use and/or Employment Districts. The City may establish permit review periods, tower termination, time limits or an amortization schedule specifying the year in which the tower shall be taken down by the applicant or assign. A performance bond or other surety may be required by the City in order to assure removal of the tower at a specific date.
 - e. Application: The applicant shall present documentation of the possession of any required license by any Federal, State, or local agency.
 - f. Requirements: All antennas and towers and support structures including guy wires and foundations shall be subject to the appropriate requirements of subsection A8 of this Section and the setback requirements established for accessory structures in the applicable zoning district. Antennas, towers, guy wires and foundations, and support buildings shall be constructed on 1 lot or parcel and shall be set back a minimum of 30 feet from any front property line.
 - g. Design: All antennas and towers shall be designed and screened as visually appropriate, shall utilize a City-approved gray or blue color, and shall contain no signage, including logos, except as may be required by any State or Federal regulations.
 - h. Existing Facilities: Existing transmitting and receiving facilities at the time of the adoption of this Section may remain in service. However, at such time as any material change is made in the facilities, full compliance with this Section shall be required. No transmitting or receiving antennas or towers may be added to existing nonconforming facilities. Towers and receiving facilities shall be dismantled and removed from the site within 1 year after abandonment of the

use of the tower or facility for communication purposes.

- i. Security Fencing: Security fencing for antennas and towers may include chain link and barbed wire to a total height of 8 feet above grade.
 - j. Support Buildings: Support buildings to house switching and other communication equipment shall have a brick exterior, be a maximum of 200 square feet in size, 24 feet in height and have 2 off-street, paved parking spaces.
 - k. Building Permit: A building permit shall be required for the construction of new antennas and/or towers and shall include wind loading and strength and footing calculations prepared by a Minnesota registered engineer.
 - l. Exception: Antennas attached to, but not above, the exterior walls of buildings as an integral part of the architecture shall be a permitted use in all Commercial, Community Mixed Use and/or Employment Districts. Antennas attached to existing public utility structures or existing public utility towers in any zoning district, including electrical transmission towers or other structures deemed appropriate by the Community Development Department, shall be a permitted use in all zoning districts, provided the antenna(s) do not increase the height or bulk of said structure or tower.
2. Temporary Uses and Structures: The following temporary uses and structures shall be permitted in all zoning districts unless specified otherwise, provided such use or structure complies with the regulations of the zoning district in which it is located and all other applicable provisions of this Title:
- a. Garage and boutique sales in residential districts: Garage sales and residential boutique sales are permitted accessory uses in residential districts, but shall be limited to 3 sales each calendar year per dwelling unit, and shall not exceed 3 consecutive days per sale or 9 total days in duration per year. The maximum daily hours of operation shall be 8:00 A.M. to 6:00 P.M. A residential boutique sale shall not occupy more than 400 square feet of a dwelling unit.
 - b. Construction Sites: Storage of building materials and equipment or temporary buildings for construction purposes shall be located on the same lot as the project under construction, and shall be removed within 30 days following completion of construction.
 - c. Portable Storage Unit: A maximum of 2 portable storage units, not exceeding a cumulative gross floor area of 250 square feet shall be permitted on a lot for no more than 30 days per calendar year, unless otherwise approved in conjunction with a building permit.
 - d. Annual Outdoor Storage and Display: An annual permit shall be required from the Community Development Department to allow outdoor storage and display of merchandise in the Commercial and Mixed-Use Districts. The Community Development Department shall review a site plan and specifics of the proposed outdoor storage and display area/use and may issue the permit, subject to (but not limited to) the following requirements:
 - i. The area of outdoor storage and/or display shall be limited to 350 square feet or as determined by the Community Development Department.
 - ii. The outdoor storage and/or display shall not utilize existing on-site parking spaces.
 - iii. The outdoor storage and/or display area shall not obstruct existing pedestrian access on the site, whether from parking areas to the building entrance or from the public street to the building entrance.
 - iv. Merchandise shall be stacked and/or arranged neatly and may be up to 8 feet in height or as determined by the Community Development Department.
 - v. The type of merchandise shall be limited to items incidental to the primary or principal use of the premises or as determined by the Community Development Department.
 - e. Seasonal Outdoor Sales: A seasonal outdoor sales permit shall be required from the Community Development Department to allow outdoor sales of merchandise such as produce, plants, garden supplies, and/or a farmer's market. The Community Development Department shall review a site plan and specifics of the proposed seasonal outdoor sales area/use and may issue the permit, subject to (but not limited to) the following requirements:
 - i. The outdoor sales area shall be located within the parking lot in a location so as not to disrupt

the safety and flow of customer traffic.

- ii. The outdoor sales area shall not eliminate parking spaces to an amount that is detrimental to primary use or function of the site.
 - iii. The outdoor sales area shall not obstruct existing pedestrian access on the site, whether from parking areas to the building entrance or from the public street to the building entrance.
 - iv. Accessory structures (e.g. stands, booths, and/or tents) used in conjunction with the seasonal event shall meet all applicable fire codes and parking lot setback requirements.
 - v. Tents 200 square feet and over in size and/or canopies 400 square feet and over require a review and inspection by the Fire Marshal.
 - vi. Signage shall be regulated by Chapter 1010 of this Title.
- f. Temporary Event: A temporary event permit shall be required from the Community Development Department to allow the temporary sale of merchandise or temporary event/activity. These uses may include the sales of fireworks, rugs, and other similar merchandise and events utilizing search lights or tents for employee/customer appreciation. The Community Development Department shall review a site plan and specifics of the proposed event area/use and may issue the permit, subject to (but not limited to) the following requirements:
- i. Any single or recurring temporary event shall be limited 30 total days per calendar year.
 - ii. The event area shall be located within the parking lot in a location so as not to disrupt the safety and flow of customer traffic.
 - iii. The event area shall not eliminate parking spaces to an amount that is detrimental to primary use or function of the site.
 - iv. The event area shall not obstruct existing pedestrian access on the site, whether from parking areas to the building entrance or from the public street to the building entrance.
 - v. Accessory structures (e.g. stands, booths, and/or tents) used in conjunction with the seasonal event shall meet all applicable fire codes and parking lot setback requirements.
 - vi. Tents 200 square feet and over in size and/or canopies 400 square feet and over require a review and inspection by the Fire Marshal.
 - vii. Signage shall be regulated by Chapter 1010 of this Title.

(Ord. 1427, 7/9/12)

Disclaimer:

This is provided for informational purposes only. The formatting of this ordinance may vary from the official hard copy. In the case of any discrepancy between this ordinance and the official hard copy, the official hard copy will prevail.

**City of Rosemount
Ordinance No. B- 231**

**AN ORDINANCE AMENDING THE
CITY OF ROSEMOUNT ZONING ORDINANCE B**

RELATING TO SOLAR COLLECTORS WITH SCREENING STANDARDS

THE CITY COUNCIL OF THE CITY OF ROSEMOUNT, MINNESOTA, ORDAINS that Ordinance B, adopted September 19, 1989, entitled “City of Rosemount Zoning Ordinance,” is hereby amended as follows:

Section 1. Rosemount Zoning Ordinance B, Section 11-2-12: ~~Satellite Dishes and Solar Collectors~~ is hereby amended as follows:

~~Section 11-2-12: Satellite dishes and solar collectors shall be permitted in all districts and subject to the setback requirements in subsection 11-5-2C1 of this title. (Ord. B-33, 10-19-1993)~~ Alternative Energy Systems.

A. Purpose and Intent: It is the goal of the city council, as expressed in the Comprehensive Plan, for Rosemount to become a more sustainable community by encouraging activities that conserve energy and result in less/no pollution output such as alternative energy sources. In accordance with that goal, the city finds that it is in the public interest to encourage alternative energy systems that have a positive impact on energy production and conservation while not having an adverse impact on the community. Therefore, the purposes of this ordinance include:

1. To promote rather than restrict development of alternative energy sources by removing regulatory barriers and creating a clear regulatory path for approving alternative energy systems.
2. To create a livable community where development incorporates sustainable design elements such as resource and energy conservation and use of renewable energy.
3. To protect and enhance air quality, limit the effects of climate change and decrease use of fossil fuels.
4. To encourage alternative energy development in locations where the technology is viable and environmental, economic and social impacts can be mitigated.

B. Definitions. The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section:

ALTERNATIVE ENERGY SYSTEM: A ground source heat pump, wind or solar energy system.

COMMUNITY SOLAR GARDEN: A solar-electric (photovoltaic) array that provides retail electric power (or a financial proxy for retail power) to multiple community members or businesses residing or located off-site from the location of the solar energy system, under the provisions of Minn. Statutes 216B.1641 or successor statute.

PHOTOVOLTAIC SYSTEM: An active solar energy system that converts solar energy directly into electricity.

SOLAR COLLECTOR: A device, structure or a part of a device or structure for which the primary purpose is to capture sunlight and transform it into thermal, mechanical, chemical, or electrical energy.

SOLAR ENERGY: Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

SOLAR ENERGY SYSTEM: A device or structural design feature, a substantial purpose of which is to provide daylight for interior lighting or provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generation or water heating.

SOLAR ENERGY SYSTEM, ACTIVE: A solar energy system whose primary purpose is to harvest energy by transferring solar energy into another form of energy or transferring heat from a solar collector to another medium using mechanical, electrical, or chemical means.

SOLAR ENERGY SYSTEM, BUILDING-INTEGRATED: A solar energy system that is an integral part of a principle or accessory building, replacing or substituting for an architectural or structural component of the building. Building-integrated systems include but are not limited to photovoltaic or hot water solar energy systems that are contained within or substitute for roofing materials, windows, skylights, awnings and shade devices.

SOLAR ENERGY SYSTEM, ROOF-MOUNTED: a solar energy system mounted directly or abutting the roof of a principal or accessory building.

SOLAR ENERGY SYSTEM, GRID-INTERTIE: A photovoltaic solar energy system that is connected to an electric circuit served by an electric utility company.

SOLAR ENERGY SYSTEM, OFF-GRID: A photovoltaic solar energy system in which the circuits energized by the solar energy system are not electrically connected in any way to electric circuits that are served by an electric utility company.

SOLAR ENERGY SYSTEM, GROUND-MOUNT: A freestanding solar system mounted directly to the ground using a rack or pole rather than being mounted on a building.

SOLAR ENERGY SYSTEM, PASSIVE: A system that captures solar light or heat without transforming it to another form of energy or transferring the energy via a heat exchanger.

SOLAR FARM: A commercial facility that converts sunlight into electricity, whether by photovoltaic (PV), concentrating solar thermal devices (CST), or other conversion technology, for the principal purpose of wholesale sales of generated electricity.

SOLAR HOT WATER SYSTEM (ALSO THERMAL SYSTEM): A system that includes a solar collector and a heat exchanger that heats or preheats water for building heating systems or other hot water needs, including residential domestic hot water and hot water for commercial processes.

SOLAR RESOURCE: A view of the sun from a specific point on a lot or building that is not obscured by any vegetation, building, or object for a minimum of four hours between the hours of 9:00 AM and 3:00 PM Standard Time on any day of the year.

- C. Solar Energy Systems: The following standards apply to solar energy systems, subject to standards of the applicable zoning district in which they are located.

1. Exemptions. Passive or building integrated solar energy systems are exempt from the requirements of this section and shall be regulated as any other building element.
2. Uses. Roof-mounted solar energy systems are an accessory use in all districts. Ground-mounted solar energy systems are an accessory use in the Agricultural, Residential, PI – Public and Institutional, and Industrial districts. Community Solar Gardens or Solar Farms as defined in this section are an interim use in the following zoning district outside the Metropolitan Urban Service Area (MUSA): AG – Agricultural, PI – Public and Institutional, LI – Light Industrial, GI – General Industrial and HI – Heavy Industrial.

3. Setbacks. Roof-mounted solar energy systems shall comply with the setbacks requirement for the applicable zoning district and structure type (principal or accessory) on which they mounted and may encroach those setbacks per Section 11-5-2.C.1.a (Special Structural Elements). Ground-mounted solar energy systems shall comply with the accessory structure setback standards for the applicable zoning district in which they are located. Community solar gardens or solar farms shall comply with the principal structure setback standards for the applicable zoning district in which they are located
4. Height. Roof-mount solar energy systems shall comply with the height standards of the applicable zoning district. Roof-mounted solar energy systems may be mounted at an angle to the roof to improve their efficiency; however, the highest point of a solar panel in any residential district shall not be more than three (3) feet, measured in a straight line, above the roof upon which the panel is mounted. This three (3) foot height limitation does not apply to roof-mounted solar energy systems located in non-residential districts or on non-residential uses. Ground-mounted solar energy systems shall not exceed 15 feet in height.
5. Aesthetics. Roof-mounted solar energy systems shall be designed to blend into the architecture of the building, provided that design considerations shall not diminish energy production. The color of the solar collector is not required to be consistent with other roofing materials. Reflection angles from collector surfaces shall be oriented away from neighboring windows. Where necessary, screening may be required to address glare.
6. Screening. Roof-mounted solar energy systems located in non-residential districts or on non-residential uses shall be screened in accordance with the requirements of Section 11-2-5 and the screening requirements of the applicable zoning district to the extent possible without reducing their efficiency. Ground-mounted solar energy systems, community solar gardens or solar farms shall be screened from view of the public right-of-way to the extent possible without reducing their efficiency by setback, berming, landscaping, walls or a combination thereof.
7. Coverage. Roof-mounted solar energy systems shall not cover more than 80% of the south-facing or flat roof upon which the panels are mounted and shall be set back a minimum of one (1) foot from the edge of the roof. The surface area of ground-mount systems shall not exceed the maximum lot coverage standard of the applicable zoning district.
8. Feeder Lines. All power lines shall be placed underground within the interior of each parcel.
9. Compliance with Building Code. All active solar energy systems shall meet approval of local building code officials, consistent with the State of Minnesota Building Code, and solar thermal systems shall comply with HVAC-related requirements of the Energy Code.
10. Compliance with State Electric Code. All photovoltaic systems shall comply with the Minnesota State Electric Code.
11. Compliance with State Plumbing Code. Solar thermal systems shall comply with applicable Minnesota State Plumbing Code.
12. Certifications. Solar electric system components shall be certified by Underwriters Laboratories, Inc., and solar thermal systems shall be certified by the Solar Rating and Certification Corporation, or other appropriate certification(s) as determined by the City. The City reserves the right to deny a building permit for proposed solar energy systems deemed to have inadequate certification.
13. Utility Connection. All grid-intertie systems shall have an agreement with the local utility prior to the issuance of a building permit. A visible external disconnect must be provided if required by the utility. Off-grid systems are exempt from this requirement.

14. Abandonment. If the solar energy system remains nonfunctional or inoperative for a continuous period of one year, the system shall be deemed to be abandoned and shall constitute a public nuisance. The owner shall remove the abandoned system at their expense after a demolition permit has been obtained. Removal includes the entire structure including transmission equipment.
15. Permits. No solar energy system shall be erected, altered, improved, reconstructed, maintained or moved in the city without first securing a permit from the city. Community Solar Gardens or Solar Farms as defined in this section shall also require an interim use permit.
16. Deviations. Deviations from the required standards for a solar energy system may be addressed through a variance.

Section 2. Rosemount Zoning Ordinance B, Section 11-4-1: Agricultural District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

E. Interim Uses:

Community Solar Gardens or Solar Farms on properties outside the Metropolitan Urban Service Area (MUSA), subject to section 11-2-12 of this title.

Section 3. Rosemount Zoning Ordinance B, Section 11-4-3: Rural Residential District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 4. Rosemount Zoning Ordinance B, Section 11-4-4: Very Low Density Residential District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 5. Rosemount Zoning Ordinance B, Section 11-4-5: Low Density Residential District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 6. Rosemount Zoning Ordinance B, Section 11-4-6: Low Density Residential District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 7. Rosemount Zoning Ordinance B, Section 11-4-7: Moderate Density Residential District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 8. Rosemount Zoning Ordinance B, Section 11-4-8: Medium Density Residential District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 9. Rosemount Zoning Ordinance B, Section 11-4-9: High Density Residential District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 10. Rosemount Zoning Ordinance B, Section 11-4-10: Convenience Commercial District is hereby amended as follows:

C. Accessory Uses:

Roof-mounted solar energy systems, subject to section 11-2-12 of this title.

Section 11. Rosemount Zoning Ordinance B, Section 11-4-11: Downtown District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 12. Rosemount Zoning Ordinance B, Section 11-4-13: Highway Commercial District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 13. Rosemount Zoning Ordinance B, Section 11-4-14: General Commercial District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 14. Rosemount Zoning Ordinance B, Section 11-4-15: Business Park District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

Section 15. Rosemount Zoning Ordinance B, Section 11-4-15-1: Light Industrial District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

E. Interim Uses:

Community Solar Gardens or Solar Farms on properties outside the Metropolitan Urban Service Area (MUSA), subject to section 11-2-12 of this title.

Section 16. Rosemount Zoning Ordinance B, Section 11-4-16: General Industrial District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

E. Interim Uses:

Community Solar Gardens or Solar Farms on properties outside the Metropolitan Urban Service Area (MUSA), subject to section 11-2-12 of this title.

Section 17. Rosemount Zoning Ordinance B, Section 11-4-16-1: Heavy Industrial District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

E. Interim Uses:

Community Solar Gardens or Solar Farms on properties outside the Metropolitan Urban Service Area (MUSA), subject to section 11-2-12 of this title.

Section 18. Rosemount Zoning Ordinance B, Section 11-4-18: Public and Institutional District is hereby amended as follows:

C. Accessory Uses:

~~Satellite dishes and~~ Roof-mounted or grounded-mounted solar collectors energy systems, subject to section 11-2-12 of this title.

E. Interim Uses:

Community Solar Gardens or Solar Farms on properties outside the Metropolitan Urban Service Area (MUSA), subject to section 11-2-12 of this title.

Section 19. Rosemount Zoning Ordinance B, Section 11-4-20: Industrial Park District is hereby amended as follows:

C. Accessory Uses:

Roof-mounted solar energy systems, subject to section 11-2-12 of this title.

Section 20. Rosemount Zoning Ordinance B, Section 11-5-2: Supplementary Regulations is hereby amended as follows:

B. Supplementary Height Regulations:

1. Permitted Exceptions: Except as specifically provided in a business park or industrial district, the following structural appurtenances shall be permitted to a height not to exceed twenty five feet (25') in addition to the maximum height permitted for the district, provided they do not impair the solar access of buildings on adjoining properties and are not used for human occupancy or commercial enterprise:

a. Ornamentation such as church spires, belfries, bell towers, cupolas, domes, monuments and flagpoles.

b. Mechanical appurtenances such as ~~solar collectors~~, chimneys, smokestacks, elevator and stairwell penthouses, antennas, transmission towers and other necessary structures.

c. In all districts, setbacks for all freestanding tower antennas shall be equal to the height of the antenna and its supporting structure.

Section 21. EFFECTIVE DATE. This Ordinance shall be in full force and effect from and after its passage and publication according to law.

ENACTED AND ORDAINED into an Ordinance this 4th day of March, 2014.

CITY OF ROSEMOUNT

William H. Droste, Mayor

ATTEST:

Amy Domeier, City Clerk

Published in the Rosemount Town Pages this ____ day of _____, 2014.

Roseville Public Works, Environment and Transportation Commission

Agenda Item

Date: July 22, 2014

Item No: 8

Item Description: Look Ahead Agenda Items/ Next Meeting August 26, 2014

Suggested Items:

- Community Solar
- Ramsey County recycling presentation
- Greenstep Cities inventory
-

Recommended Action:

Set preliminary agenda items for the August 26, 2014 Public Works, Environment & Transportation Commission meeting.