

# Technical Memorandum

**To:** Linda Loomis, Administrator  
Lower Minnesota River Watershed District

**From:** Kaci Fisher, Environmental Specialist  
Katy Thompson, PE, CFM

**Date:** July 7, 2021

**Re:** Core Crossings Apartments (LMRWD No. 2021-020)

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Sand Companies (the applicant) has applied for an individual project permit from the Lower Minnesota River Watershed District (LMRWD) to develop an apartment building in the City of Shakopee (City), as shown in Figure 1. The applicant's engineer, Larson Engineering, has provided site plans for the Core Crossings Apartments project (Project) along with the permit application. This Project was previously reviewed as part of the Wetland Conservation Act application by Young Environmental Consulting Group (Young Environmental) under the project name Southbridge Crossings; the wetland delineation was approved June 7, 2021.

The proposed Project consists of constructing an apartment building, playground, parking lot, sidewalks, and two infiltration basins (Figure 1). The Project would disturb approximately 3.8 acres and create 1.8 acres of new impervious surfaces. The Project is not located within the High Value Resource Area, Steep Slopes Overlay District, or within a 100-year floodplain, and the applicant proposes to commence construction on August 2, 2021. The Project is part of a second phase of the two-phase development. The first phase consisted of several apartment buildings, two parking lots, and two infiltration basins.

Because the City does not have its LMRWD municipal LGU permit, this Project requires an LMRWD individual permit and, as such, is subject to an LMRWD permitting review.

## Summary

Project Name: Core Crossings Apartments

<u>Purpose:</u>	61-unit apartment building
<u>Project Size:</u>	3.8 acres disturbed; 1.8 acres of new impervious surface
<u>Location:</u>	1360 Stagecoach Road, Shakopee, MN 55379
<u>LMRWD Rules:</u>	Rule B—Erosion and Sediment Control Rule D—Stormwater Management
<u>Recommended Board Action:</u>	Conditional approval

## Discussion

The District received the following documents for review:

- LMRWD online permit application, received June 14, 2021
- Fee of \$750, received June 30, 2021
- Project Map, dated May 4, 2021, received June 14, 2021
- Aerial photo of overall project site, received June 30, 2021
- Core Crossings plan sheets by Larson Engineering, dated May 25, 2021, revised June 10, 2021, received June 14, 2021
- Southbridge Apartments Stormwater report by Larson Engineering, dated May 26, 2016, revised most recently on January 24, 2018, received June 14, 2021
- Southbridge Apartments Stormwater Calculations by Larson Engineering, dated June 30, 2021, received June 30, 2021
- Southbridge Crossings Apartments plan sheets by Larson Engineering, dated March 2, 2018, received June 30, 2021
- Notice of Decision for Southbridge Crossing, dated June 7, 2021, received June 14, 2021
- Utility Facilities Easement Agreement with the City of Shakopee, unsigned, received June 30, 2021

The documents provided include the information necessary for review, and the application is considered complete as of July 1, 2021.

### Rule B—Erosion and Sediment Control

The District regulates land-disturbing activities that affect one acre or more under Rule B. The proposed Project would disturb approximately 3.8 acres within the LMRWD boundary. The applicant has provided an erosion and sediment control plan and Stormwater Pollution Prevention Plan. The Project generally complies with Rule B; however, before the District can issue the final permit, the following items are needed:

- Copy of NPDES Construction Stormwater Permit coverage
- Contact information of contractors and person(s) responsible for inspection and maintenance of all erosion and sediment control features

**Rule D—Stormwater Management**

The Project proposes a total of 1.8 acres of impervious surfaces, including the construction of an apartment building, playground, and parking lot. The applicant is proposing to expand the existing infiltration basins constructed in the first phase of development with the construction of two infiltration basins, connected via equalizer pipes to function as a single infiltration basin, to meet the District’s stormwater management requirements (Figure 1). The stormwater management report provided by the applicant was developed with the full-build out of the site; the results reported below incorporate the previous development’s impervious surfaces as well as the proposed Core Crossings Project.

Section 4.4.1 of Rule D requires applicants to demonstrate no increase in proposed runoff rates compared with existing conditions. It should be noted that this area is subject to the City discharge rate control requirement of 1/3 cfs per acre for the 100-year, 24-hour design event.

*Table 1. Core Crossings Design Discharge Rates*

<b>EVENT</b>	<b>Existing Conditions (cfs)</b>	<b>Proposed Conditions (cfs)</b>	<b>Change (cfs)</b>
2-YR/24-HR	0.03	0.04	+0.01
10-YR/24-HR	0.53	0.49	-0.04
100-YR/24-HR	4.99	3.53	-1.46

The reported runoff rates show a total decrease from existing to proposed for the 10- and 100-year events, but there is a 0.01 cubic feet per second increase for the 2-year event. In discussion with the City and applicant, this slight increase is likely due to small fugitive areas within the development that cannot be captured by the stormwater collection system and sent to a stormwater basin. The City said that this is a common occurrence with developments that are required to infiltrate the full 100-year design event, such as Core Crossings. Staff concur with the City that the potential to infiltrate 7.2 inches of rainfall during the 100-year event outweighs the negligible increase in the 2-year design event.

Section 4.4.2 of Rule D requires 1-inch volume reduction for post-construction stormwater runoff volume for projects that create more than one acre of impervious surface. The Project is required to provide 6,534 cubic feet of volume reduction to meet the requirements of Rule D. Additionally, the City has required that the Project also infiltrate the entire 100-year design event within 72 hours.

There is approximately 44,800 square feet of off-site runoff from the area adjacent to

Stagecoach Road that will also be treated in the proposed conditions. The revised stormwater report states the entire infiltration basin has the capacity to treat 6.9 acres of new impervious surfaces, requiring 24,978 cubic feet of volume reduction to meet the District's Rule D requirement. Due to the City's requirement, the Project infiltrates the 100-year event and provides 162,084 cubic feet of volume reduction, more than meeting the District's volume reduction requirement.

Section 4.4.3 of Rule D requires projects that create more than one acre of impervious surfaces to provide evidence that no net increase in total phosphorus (TP) and total suspended solids (TSS) to receiving waters would result from the Project. The MIDS summary sheet states 96 percent of both TP and TSS will be removed, meeting the water quality requirement.

Finally, the applicant has provided a draft copy of the City's Facility Utilities Agreement; however, the final agreement is not yet available since it will be recorded with Scott County. The City's Utility Facility Agreement is transferrable to all future owners and grants the City right of entry to maintain the best management practice should the owner fail to meet its obligations. The District's legal counsel has previously reviewed the City's agreement and stated that a separate maintenance agreement between the applicant and the District is not required.

### **Recommendations**

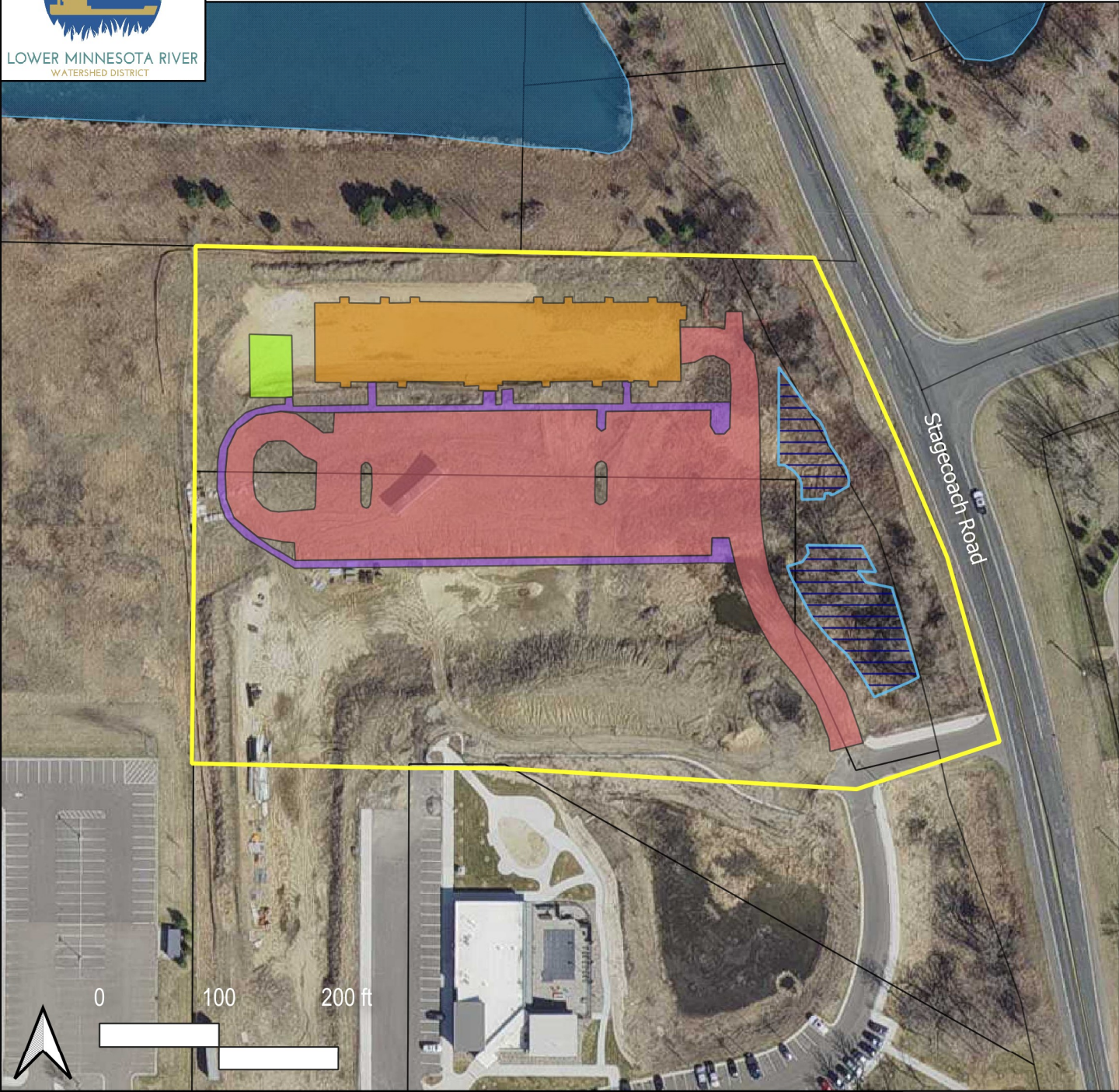
Staff recommends conditional approval of the Project, pending receipt of the NPDES permit copy and contact information for the contractors. The City of Shakopee must also provide the final copy of the executed Utility Facilities Agreement after it has been recorded with Scott County.

### **Attachments**














- Figure 1—Core Crossings Project Location Map



Figure I: Core Crossings Apartments Project Location



**LEGEND**

-  Project Location
-  Core Crossings Apartments
-  Building
-  Parking lot/driveways
-  Play ground
-  Sidewalk
-  Infiltration basins
-  Public Waterways
-  Public Waterbodies
-  Open Water
-  High Value Resource Area Overlay District
-  Steep Slopes Overlay District
-  Parcel Boundaries

**LMRWD Watershed Location Map**

