

<b>Project</b>	Lord of the Lakes Church Improvements	<b>Date</b>	12-7-2016
<b>To</b>	Mike Kinney	<b>Contact Info</b>	CLFWLD
<b>Cc</b>	Board of Managers	<b>Contact Info</b>	CLFLWD
<b>From</b>	Greg D. Graske, P.E.	<b>Contact Info</b>	EOR
<b>Regarding</b>	Permit Application #16-024, City of Wyoming		

**Applicant**

Rev. Craig Bertram  
 Lord of the Lakes Lutheran Church  
 25402 Itasca Avenue  
 Forest Lake, MN 55025  
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**Authorized Agent**

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**Project Purpose:** The proposed project will build two small additions to the church along with expansion of the parking lot on a 5.1 acre site. The project will construct 0.5 acres of new impervious resulting in 1.4 acres of impervious cover.

**Project Location:** 25402 Itasca Avenue, City of Wyoming. Site drains to Little Comfort Lake.

**Applicable District Rules:** 2.0 & 3.0

**Recommendation:** Approval pending receipt of:

1. Updated plan set including invert elevations for the proposed storm water pipes to be consistent with the hydrologic modeling.
2. Construction detail for proposed infiltration area including protection of basin during construction and vegetation establishment and revegetation specifications.
3. Updated erosion control plan to include additional silt fence downstream of all graded areas and erosion control stabilization between the pond and infiltration area (see discussion under Rule 3.0).

Prior to permit issuance, the following are required:

4. Execution of a maintenance instrument satisfactory to the CLFLWD addressing the ongoing operation and maintenance of the proposed stormwater management features including swales, ponds and infiltration area. The proposed instrument shall be provided to the District for review prior to execution, and documentation of recording with the County must be provided before permit issuance.
5. Financial Assurance in the amount of \$2,300 for grading and alteration.
6. Financial Assurance in the amount of \$12,500 for stormwater management or demonstration that the applicant has provided the municipality with a financial assurance of equal or greater value.

Stipulations of Permit:

7. Submittal of as-built survey including stormwater pipes and stormwater treatment facilities.

**Rule 2.0: Stormwater Management**

The proposed project meets the District’s Stormwater Management standards. The site drains south through roadside ditches to Little Comfort Lake. The proposed project includes two small additions to the existing church along with expanded parking facilities. Stormwater treatment is proposed via a swale, two retention ponds and an infiltration bench. Soil borings have been taken on the site and indicate a mix of clay and sandy soils. The proposed infiltration area has been placed at a location that has soils conducive for infiltration. Under pre-development conditions the site generates approximately 0.078 acre-feet of runoff. Under proposed conditions the site will discharge approximately 0.066 acre-feet of runoff. The site meets District volume control requirements. The proposed facilities also meet rate control for the 2, 10, and 100-year events.

Rate Control Summary

Conditions	2-year	10-year	100-year
Existing (cfs)	0.61	1.15	4.67
Proposed (cfs)	0.17	0.44	2.61

Under developed conditions the site generates 2.13 lbs/year of phosphorous loading. District rules require a decrease of 50% for developed sites. Assuming a conservative 60% removal for the drainage area routed to the proposed BMPS the site will generate 0.91 lbs/year thereby meeting the District’s water quality treatment requirements.

The proposed buildings will be slab on grade. The proposed low floor elevations of 915.35 and 915.7 meet District freeboard requirements over the proposed basins.

Construction plan notes have been provided indicating that stormwater management facilities required for compliance with Rule 2.0 will be constructed contemporaneous to the work.

The submitted grading plan does not include storm water pipe inverts. The plans should be updated to include inverts consistent with the proposed modeling. A construction detail for the proposed infiltration area including protection of basin during construction and vegetation establishment, and revegetation specifications should also be submitted.

**Rule 3.0: Erosion Control**

The proposed project includes a construction entrance, perimeter silt fence, riprap at stormwater pipe outflows, revegetation specifications and an implementation schedule. The applicant has also submitted a draft Storm Water Pollution Prevention Plan (SWPPP). Although some silt fence has been incorporated there is no perimeter control called out around the new building additions or around the proposed basins. Also it is recommended that some sort of stabilization (such as a reinforced turf mat) be placed between the infiltration area and the stormwater basin in order to prevent erosion and

to maintain a fixed overflow elevation. Additional perimeter control downstream of all graded areas and stabilization measures are required.

#### **Rule 4.0: Lake, Stream, and Wetland Buffer Requirements**

The proposed project does not trigger this rule; a subdivision was not proposed and no municipal rezoning or variance was required for this project.

#### **Rule 5.0: Shoreline and Streambank Alterations**

The proposed project does not trigger this rule; a DNR general permit excusing property owners who hold a District permit is not in effect.

#### **Rule 6.0: Watercourse and Basin Crossings**

The proposed project does not trigger this rule; no roadways, utilities, or water control structures are proposed in the bed of District waterbodies.

#### **Rule 7.0: Floodplain and Drainage Alterations**

The proposed project does not trigger this rule; Wyoming has a state-approved floodplain ordinance.

#### **Rule 8.0: Wetland Management**

The proposed project does not trigger this rule; the District is not the LGU for wetland impacts.

#### **Rule 9.0: Fees**

The fees required for the proposed project are the \$10 application fee and \$4,250 for the permit review and inspection deposit. The required fees have been submitted.

#### **Rule 10.0: Financial Assurances**

The financial assurances required for the proposed project are \$2,300 for grading and alteration and \$12,500 for stormwater management. A financial assurance to CLFLWD for stormwater management facilities is not needed if the applicant demonstrates that the applicant has provided the municipality with a financial assurance for the facility of equal or greater value.

#### **Rule 11.0: Variances**

The proposed project does not request a variance.

#### **Submittals Received**

The following submittals were received and reviewed as the basis for this permit application review:

1. Application, received November 15, 2016, prepared November 14, 2016, prepared by Roshell Engineering.
2. Application fee of \$10, received November 15, 2016.
3. Permit review and inspection deposit of \$4,250, received November 15, 2016.

4. Site, Grading, & Drainage Plan, received November 15, 2016, last revised November 14, 2016, prepared by Roshell Engineering.
5. Stormwater Pollution Prevention Plan, received November 15, 2016, last revised November 14, 2016, prepared by Roshell Engineering.
6. Stormwater Calculations, received November 15, 2016, dated November 14, 2016, prepared by Roshell Engineering.
7. Soil Borings, received November 15, 2016, dated September 14, 2016, prepared by Norther Technologies, LLC.