

Applicant: Vicky Warfield; McDonald's USA, LLC
Consultant: Tom Meyer; Landform Professional Services, LLC.
Project: McDonald's Site Improvements
Location: 8000 and 8030 Nicollet Avenue South: Bloomington
Rule(s): 4, 5
Reviewer(s): LLH/BCO

General Background & Comments

The project proposes site improvements at the McDonalds site (MCD14263) located at 8030 and 8000 Nicollet Avenue South in Bloomington. The 3.04-acre site is currently occupied by the McDonalds building and associated site elements on the two adjoining parcels. Proposed site improvements include landscaping, utility improvements, removal and replacement of concrete and bituminous pavement, pavement striping, and construction of a stormwater management system.

The project site information is:

- Total Site Area: 132,632 square feet
- Existing Site Impervious Area: 95,396 square feet
- New Site Impervious Area: 95,093 square feet
- A decrease of 303 square feet in site impervious area (<1% decrease)
- Disturbed Area: 7,477 square feet
- Existing Impervious Area Disturbed/Replaced: 2,433 square feet
- 3% of the existing site impervious area is to be disturbed

The Nine Mile Creek Watershed District's Rule for Redevelopment, Rule 4.2.3, states, if a proposed activity will disturb more than 50% of the existing impervious surface on the site or will increase the imperviousness of the site by more than 50%, stormwater management will apply to the entire project site. Otherwise, the stormwater requirements will apply only to the disturbed, replaced and net additional impervious surface on the project site. Since the project will disturb less than 50% of the existing site impervious surface and will decrease the site imperviousness, applicable stormwater management criteria is required for the 7,477 square feet of disturbed area, including the 2,433 square feet of disturbed and replaced impervious surface.

The District's requirements for both stormwater management and erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5,000 square feet or more of surface area is altered, Rules 4.2.1a and b and 5.2.1a and b.

Exhibits

1. Permit Application dated January 18, 2021.
2. Plans dated January 20, 2021, prepared by Landform Professional Services, LLC.
3. Stormwater Management Report dated January 18, 2021, prepared by Landform Professional Services, LLC.
4. HydroCAD Report dated January 21, 2021, prepared by Landform Professional Services, LLC.
5. Boring Logs dated September 18, 2018, completed by Braun Intertec.
6. Email correspondence dated January 20, 2021 outlining two items required for the application to be considered complete.

The application with the submittal items above is complete.

4.0 Stormwater Management

Stormwater management for compliance with Rule 4.3.1 will be provided by an infiltration basin located in the southeast corner of the site, adjacent to Nicollet Avenue South. The infiltration basin will provide rate control, volume retention and water quality management. The infiltration basin will capture a portion of runoff from the parking area south of the existing McDonalds building. The stormwater management facility overflow will be graded to direct runoff overland towards a catch basin along the Nicollet Avenue South driveway entrance.

Rule 4.3.1b requires the 2-, 10-, and 100-year post development peak runoff rates be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. Proposed discharge rates from the site will be limited to that from existing conditions as a result of the decrease in impervious area. Additionally, the infiltration basin will further attenuate runoff from the site. Rule 4.3.1b is met.

Braun Intertec performed five standard penetration tests (SPT) on September 18, 2018 to depths of approximately 14.5 feet each. The geotechnical evaluation identified the on-site underlying soil as generally consisting of poorly graded sand with silt (SP-SM) near the bottom of the proposed infiltration basin (soil boring ST-3). A design infiltration rate of 0.45 inches per hour has been used, conforming with infiltration rates shown in the Minnesota Stormwater Manual.

A retention volume of 223 cubic feet is required from the proposed 2,433 square feet of new and reconstructed impervious area, Rule 4.3.1a. A HydroCAD hydrologic model was used to identify the volume retention achieved by the stormwater management facility below the overflow elevation. The infiltration basin provides a volume of 481 cubic feet (223 cubic feet required) with an area of 516 square feet (124 square feet required). Rule 4.3.1a is met.

The District's water quality criteria requires 60% annual removal efficiency for total phosphorus and 90% annual removal efficiency for total suspended solids. The site runoff load reductions required from the disturbed area is approximately 43.7 lbs. for total suspended solids and approximately 0.2 lbs. for total phosphorus. The infiltration basin will receive runoff from a portion of the parking area, and the results from the MIDS Calculator provided show that the

infiltration basin will provide an annual removal efficiency of 100% for total phosphorus (0.4 lbs.) and 100% for total suspended solids (68.2 lbs.). We are in agreement with the modeling results. Rule 4.3.1c is met.

Rule 4.5.4d (i) requires at least three feet of separation between the bottom of a stormwater management facility and groundwater. Groundwater was not encountered while drilling or sampling in the five borings. ST-3 was taken near the location of the infiltration basin and groundwater was not encountered in the boring to a depth of approximately 14.5 feet, approximately 817.5 M.S.L. The bottom of the infiltration basin is 829 M.S.L., providing a separation of approximately 11.5 feet to the bottom of the boring where groundwater was not encountered. In accordance with Rule 4.5.4d, the required three feet of separation between the bottom of an infiltration area and groundwater is provided.

Rule 4.3.3 states that all new and reconstructed buildings must be constructed such that the low floor is at least two feet above the 100-year high water elevation or one foot above the emergency overflow of a constructed facility. The low floor and low opening elevation of the McDonalds building is 832.8 M.S.L. The HydroCAD modeling provided shows a calculated 100-year high water elevation of 830.6 M.S.L. for the infiltration basin. A separation of 2.2 feet will be provided between the 100-year high-water elevation of the stormwater facility and where surface water could enter the existing building. The project conforms to NMCWD Rule 4.3.3.

In accordance with Rule 4.3.1a (i), where infiltration facilities, practices or systems are proposed, pre-treatment of runoff must be provided. A sump manhole will provide pretreatment for runoff entering the infiltration basin. Rule 4.3.1a (i) is met.

In accordance with Rule 4.3.4, a post-project chloride management plan must be provided that will, 1) designate an individual authorized to implement the chloride-use plan and 2) designate a MPCA certified salt applicator engaged in the implementation of the chloride-use plan for the site.

5.0 Erosion and Sediment Control

The submitted erosion and sediment control plan utilizes storm drain inlet protection, and silt fence and bio-log at the limits of construction. Permanent stabilization methods include seed, sod and mulch. The project contact is Tom Meyer, Landform Professional Services.

11.0 Fees

Fees for the project are:

Rules 4.0 and 5.0	\$1,500
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12.0 Financial Assurances

Financial Assurances for the project are:

Rule 4: Volume Retention: 223 sq. ft. x \$12/sq. ft. = \$2,676	\$2,676
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Chloride Management:	\$5,000
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Rule 5: Perimeter control: 270 L.F. x \$2.50/L.F. = \$675	
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Inlet Control: 7 x \$100/each = \$700	
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Site restoration: 0.17 acres x \$2,500/acre = \$425	\$1,800
Contingency and Administration	\$1,924

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. Rules 4 and 5 are met.
3. The proposed stormwater management facilities will provide volume retention, water quality management, and attenuate discharge rates from the site in accordance with Rules 4.3.1 a, c and b, respectively. In accordance with NMCWD Rule 4.3.5, the applicant must provide a maintenance and inspection plan that identifies and protects the design, capacity and functionality of the stormwater management facility.

Recommendation

Approval, contingent upon:

1. General Conditions
2. Financial Assurance in the amount of \$11,400, \$6,400 for stormwater management, erosion control and site restoration, and \$5,000 for compliance with the chloride management requirements.
3. A receipt showing recordation of a maintenance declaration for the on-site stormwater management facilities. A draft of the declaration must be approved by the District prior to recordation.
4. A revised site plan submitted identifying the 100-year high water elevation of the stormwater management facility (Rule 4.5.3c).

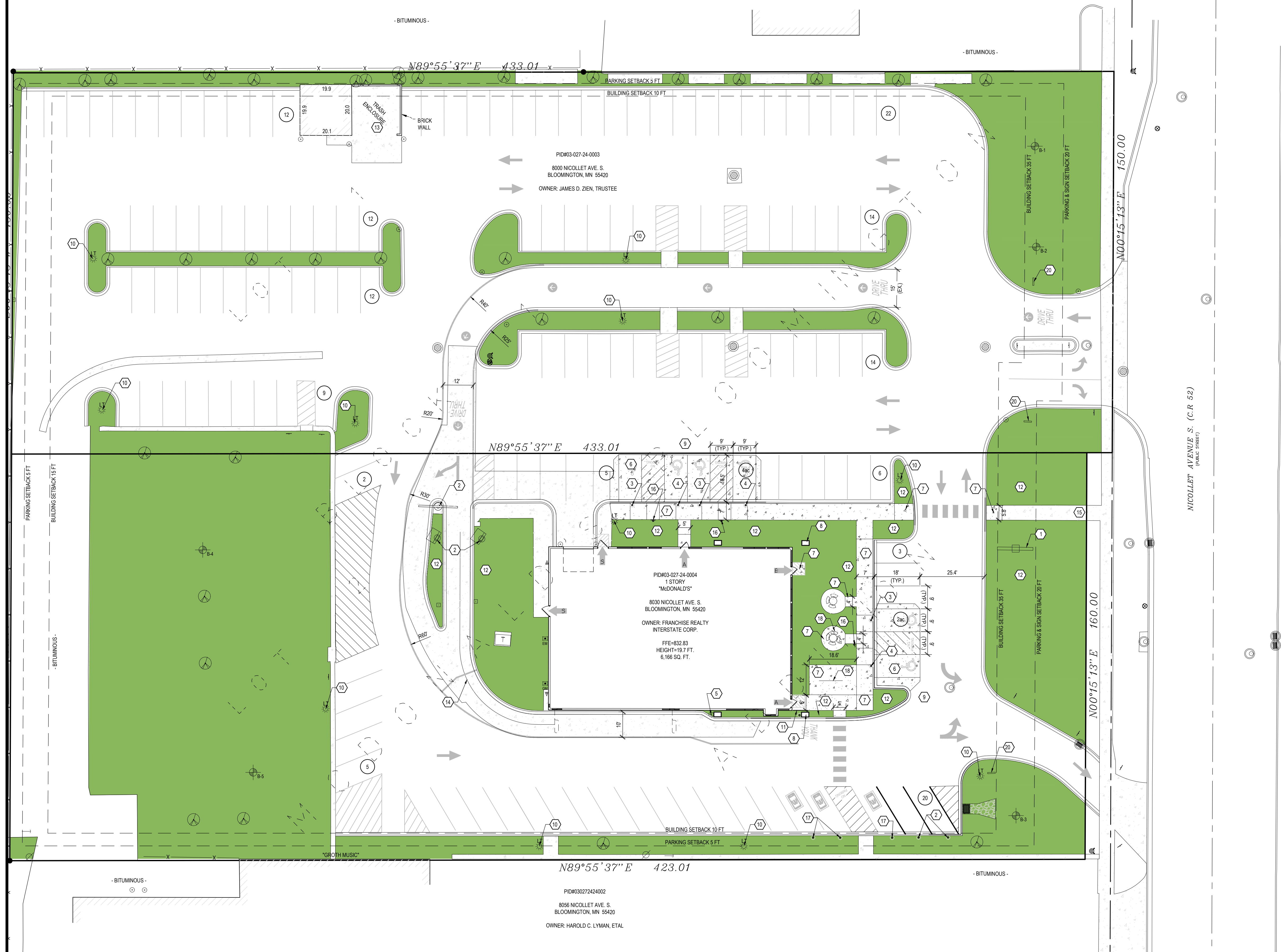
By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule 4.5.8, an as-built drawing of the stormwater management facility conforming to the design specifications, including a stage volume relationship in tabular form for the infiltration basin.
2. Submission of a plan for post-project management of Chloride use on the site. The plan must include 1) the designation of an individual authorized to implement the chloride use plan and 2) the designation of a Minnesota Pollution Control Agency certified salt applicator engaged in the implementation of the chloride-use plan for the site. The release of the \$5,000 of the financial assurance required for the chloride-management plan requires that chloride-management plan has been provided and approved by the District's Administrator.
3. For the release of the \$6,400 financial assurance required, Rule 12.4.1b requires demonstration and confirmation that the stormwater management facilities have been constructed or installed and is functioning as designed and permitted. Verification, through daily observation logs and photographs, must be provided showing the stormwater facilities used for volume retention have drawn down within 48 hours from the completion of two 1-inch (approximate) separate rainfall events.

PID#0302724210015
 101 AMERICAN BLVD. S.
 BLOOMINGTON, MN 55420
 OWNER: 101 WEST 79TH STREET, LLC

PLANS NO. 801

PID#0302724240080
 7940 NICOLLET AVE. S.
 BLOOMINGTON, MN 55420
 OWNER: EMBASSY ENTERPRISES, LLC
 "KWIK MARKET"



SITE CONSTRUCTION NOTES

- 1 McDONALD'S PYLON SIGN - EXISTING.
- 2 DRIVE-THRU SIGNAGE. SEE SHEET C2.2.
- 3 STATE AND ADA APPROVED ACCESSIBLE SIGN AND BOLLARD PER DETAIL C2.15.
- 4 STATE AND ADA APPROVED ACCESSIBLE SIGN AND BOLLARD WITH "VAN ACCESSIBLE" SIGN PER DETAIL C7.15.
- 5 6' x 36" BOLLARD - EXISTING.
- 6 CONCRETE DRIVE APRONS AND SLABS. REFER TO SHEET C3.1 FOR SPECIFICATIONS.
- 7 CONCRETE SIDEWALK AND PATIO. MEET AND MATCH EXISTING SIDEWALK. REFER TO SHEET C3.1.
- 8 ARCH FOUNDATION.
- 9 BITUMINOUS PAVEMENT. REFER TO SHEET C3.1 FOR SPECIFICATIONS.
- 10 PARKING LOT LIGHT - EXISTING.
- 11 6' x 42" RAILING. REFER TO ARCHITECTURAL.
- 12 PLANTING AREA. REPLACE IN-KIND FOR AREAS THAT ARE DISTURBED.
- 13 TRASH ENCLOSURE - EXISTING.
- 14 STACKING DISTANCE IS 100'.
- 15 CONNECTION TO PUBLIC SIDEWALK.
- 16 STATE AND ADA APPROVED ACCESSIBLE SIGN AND BOLLARD WITH "ACCESS AISLE / NO PARKING" SIGN PER DETAIL C7.15.
- 17 MOBILE ORDER PICK UP SIGNAGE. REFER TO DETAIL C2.5/2.
- 18 INSTALL SALVAGED SITE FEATURE.

DIRECTIONAL SIGNAGE NOTES

- 19 NEW OR REPLACED DIRECTIONAL SIGNAGE IS NOT BEING APPROVED AS PART OF THIS PLAN SET WITH THE JURISDICTION.
- 20 DIRECTIONAL SIGNAGE. INSTALL NEW BASE FOR DIRECTIONAL SIGNAGE AS NECESSARY. REFER TO DETAIL C2.41 AND SEPARATE SIGN PACKAGE. IF EXISTING BOLT PATTERN WORKS WITH NEW SIGNAGE, AND THE BOLTS ARE LONG ENOUGH, CONTRACTOR MAY REUSE EXISTING FOUNDATION. IF BOLT PATTERN DOES NOT MATCH, OR IF BOLTS ARE NOT LONG ENOUGH FOR THE BOLTS TO BE DOUBLE NUTTED, REMOVE AND INSTALL NEW FOUNDATION. NO RETROFIT FOUNDATIONS ARE ALLOWED.

SITE PLAN NOTES

1. OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WITHIN, OR USE OF, PUBLIC RIGHT-OF-WAY.
2. THE DIGITAL FILE, WHICH CAN BE OBTAINED FROM THE ENGINEER, SHALL BE USED FOR STAKING. DISCREPANCIES BETWEEN THE DRAWINGS AND THE DIGITAL FILE SHALL BE REPORTED TO THE ENGINEER. THE BUILDING FOOTPRINT, AS SHOWN ON THESE DRAWINGS, AND THE DIGITAL FILE, SHALL BE COMPARED TO THE STRUCTURAL DRAWINGS PRIOR TO STAKING.
3. DIMENSIONS SHOWN ARE TO FACE OF CURB AND EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.

GREEN SPACE

ZONING AND SETBACK SUMMARY

THE PROPERTY IS ZONED GENERAL COMMERCIAL ZONE (B-2)

BUILDING SETBACK INFORMATION IS AS FOLLOWS:
 FRONT YARD = 35 FT.
 REAR = 15 FT.
 SIDE (NT) = 10 FT.

PARKING SETBACK INFORMATION IS AS FOLLOWS:
 FRONT YARD = 20 FT.
 REAR = 5 FT.
 SIDE (NT) = 5 FT.

SIGN SETBACK INFORMATION IS AS FOLLOWS:
 FRONT YARD = 20 FT.

LOT COVERAGE INFORMATION IS AS FOLLOWS:
 LOT AREA MINIMUM = 25,000 S.F. = 0.57 ACRE
 LOT WIDTH MINIMUM = 100 FT.
 TOTAL SITE AREA = 132,422 S.F. = 3.04 ACRES

PARKING SUMMARY

REQUIRED PARKING:	
ONE STALL PER 2.5 SEATS	
122 SEATS TOTAL	
TOTAL PARKING STALLS REQUIRED	49 EA.
PROVIDED PARKING:	
STANDARD STALLS	137 EA.
ACCESSIBLE STALLS	6 EA.
TOTAL PARKING STALLS PROVIDED	143 EA.

AREA SUMMARY

EXISTING:		
PERVIOUS	37,106 S.F.	28.0%
IMPERVIOUS	95,396 S.F.	72.0%
TOTAL (3.04 Aq)	132,422 S.F.	100.0%
PROPOSED:		
PERVIOUS	37,329 S.F.	28.2%
IMPERVIOUS	95,093 S.F.	71.8%
TOTAL (3.04 Aq)	132,422 S.F.	100.0%

REVISION HISTORY	
REV	DATE
1	08-15-18
2	04-24-20
3	01-20-21
4	02-02-21

CERTIFICATION
 I hereby certify that this plan, specification, or report 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.
 Christopher N. Call

License Number 46224
 Date 02/02/2021

McDONALD'S USA, LLC.
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DRAWN BY		STATE	
TDD	MINN	BLOOMINGTON	MINN
PROTO. ISSUED		COUNTY	
		HENNEPIN	HENNEPIN
REVIEWED BY		SHEET NAME	
CNC		8030 NICOLLET AVE.	SITE PLAN
DATE REVIEWED		NATIONAL NUMBER	
01-18-21		022-0010	00284
DATE ISSUED		PROJECT NO.	
02-02-21		C2.1	

