Permit Application Review Permit No. 2018-137
Received complete: January 8, 2019

Applicant:	Patrick Poquette.; IDS #270
Consultant:	Neil Tessier; SAFEngineering, PLLC
Project:	Parking Lot Reconstruction and Building Expansions to Harley Hopkins Family Center
Location:	125 Monroe Avenue: Hopkins
Rule(s):	4 and 5
Reviewer:	BCO

General Background & Comments

The project proposes the construction of two building expansions, a new garage, reconstruction of the parking lot and miscellaneous storm sewer modifications and sidewalk reconfigurations at Harley Hopkins Family Center located at 125 Monroe Avenue in Hopkins. This is a pre-school facility operated by the Hopkins School District.

The project site information is:

- Total Site Area: 134,200 square feet
- Existing Total Site Impervious Area: 84,000 square feet
- New Impervious Area: 480 square feet
- New Total Site Impervious Area : 84,480 square feet
- 0.6% increase in the percentage of site impervious area
- Disturbed and reconstructed impervious area: 13,300 square feet
- 15.8% of the existing impervious area will be disturbed and reconstructed
- Total disturbed area: 18,700 square feet

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 a parcel or will increase the imperviousness of the parcel by more than 50%, storm water management will apply to the entire project parcel. Otherwise, the storm water requirements will apply only to the disturbed areas and additional impervious area on the parcel. Since the increase in site impervious area is 0.6% and 15.8% of the existing site impervious area is to be disturbed and reconstructed, storm water management is required for the 18,700 square feet of disturbed

area that includes 13,780 square feet of new and disturbed and reconstructed impervious area.

The District's requirements for both storm water management and erosion and sediment control apply to the project because more than 50 cubic yards of material will be disturbed and 5000 square feet or more surface area disturbed, Rules 4.2.1a and b and 5.2.1a and b.

Volume retention, rate control and water quality management will be provided within an underground storm water management facility (UGSWMF) to be located in the reconstructed parking lot.

Silt fence, inlet protection and a rock construction entrance are to be installed to provide erosion control.

Exhibits

1. Permit Application dated December 7, 2018.
2. Plans dated December 5, 2018, prepared by SAFEngineering.
3. Storm Water Management calculations dated December4, 2018 and revised January 3, and 8 2019, prepared by SAFEngineering.
4. Geotechnical Report dated October 19, 2018 prepared by American Engineering Testing.

4.0 Stormwater Management

Stormwater management, volume retention, rate control and water quality management will be provided within an UGSWMF to be located within the reconstructed parking lot.

The existing and proposed 2, 10 and 100 year frequency discharges from the site are:

Frequency	Existing Discharge to the Monroe Avenue c.f.s.	Proposed Discharge to Monroe Avenue c.f.s.
2 year	<1.0	<1.0
10 year	2.4	2.1
100 year	6.6	6.3

Frequency	Existing Discharge to the east c.f.s.	Proposed Discharge to the east c.f.s.
2 year	5.2	5.2
10 year	9.1	9.1
100 year	18.0	18.0

There are two discharge points leaving the site from the area disturbed. Rule 4.3.1b is met.

An infiltration volume of 1,263 cubic feet is required from the 13,780 square feet of new and disturbed and reconstructed impervious area. The soils information provided indicates the underlying soils is silty sand (SMP) having an infiltration rate of 0.45 inches/hour using the Minnesota Storm Water Manual. A volume of 4,138 cubic feet will be provided by the UGSWMF (1,263 cubic feet required). An area of 702 feet is required, with an area of 3,572 square feet provided, for volume retention using this infiltration rate. This is based on a maximum allowable inundation depth of 1.8 feet within the UGSWMF with a required drawdown in 48 hours (4.3.1a (ii)).

The District's water quality criterion requires a 60% annual removal efficiency for phosphorus and 90% annual removal efficiency for total suspended solids. The results of a MIDS calculator submitted indicates the UGSWMF provides an annual removal efficiency of 90.4% for total suspended solids (366 lbs.) and an annual removal efficiency of 90.4% for total phosphorus (2.01 lbs.). Rule 4.3.1c is met.

The geotechnical information submitted indicates that groundwater was not encountered to a depth of 14 feet, elevation 910 M.S.L. The bottom of the UGSWMF is 914.0 M.S.L., a separation of 4.0 feet. A three (3) foot separation is required between the bottom of an infiltration facility and groundwater.

The HydroCAD modeling provided shows elevation 919.3 M.S.L. as the calculated 100-year frequency flood elevation for the UGSWMF. The finished floor of the existing building is 925.7 M.S.L., a 6.4 foot separation and the proposed finished floor elevation of a garage to be constructed is 923.0 M.S.L., a 3.7 foot separation. District Rule 4.3.3 states that a stormwater management facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with a standard in subsections 4.3.3 c, requiring at least two feet of separation provided between the 100-year high water elevation of a constructed facility and the low floor elevation of a structure. Rule 4.3.3 is met.

In accordance with Rule 4.3.1a (i), the pre-treatment of runoff prior to the infiltration area will be provided by sump manholes within the storm sewer system and two isolator rows constructed as part of the UGSWMF.

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 includes silt fence at the limits of construction, inlet construction and a rock construction entrance at the entryway onto the site. The project contact is Neil Tessier, SAFEngineering.

11.0 Fees

Because the property owner is a public entity, no fees are charged.

Rules 2.0-6.0 ..... $0

12.0 Sureties

Because the property owner is a public entity, the District's financial assurance requirements do not apply.

Sureties for the project are: $0

Findings

The proposed project includes the information necessary, plan sheets and erosion control plan, for review.

1. Rules 4 and 5 are met.

Recommendation

Approval, contingent upon:

1. General Conditions
2. Submission of documentation that a drainage easement over the stormwater-management facility has been submitted to Hopkins (4.5.4i), if such easement is required by the city.
3. In accordance with Rule 4.3.5, submission of a document signed by an official with authority with the Hopkins School District being a public entity assuming the maintenance obligation for the on-site storm water management facility.

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

1. Per Rule 4.5.6, an as-built drawing of the storm water facilities, including a stage-volume relationship in tabular form, for the retention area within the underground storm water management facility conforming to the design specifications as approved by the District must be submitted.
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.

Board Action

It was moved by Manager _____, seconded by Manager _____ to approve permit application No. 2018-137 with the conditions recommended by staff.

Permit #: 2018-137
Project Name: Harley Hopkins Family Center Parking Lot Reconstruction and Building Addition Construction – 125 Monroe Avenue: Hopkins
Approval Date: January 16, 2019

General Provisions

1. All temporary erosion control measures shown on the erosion and sedimentation control plans must be installed prior to commencement of surface or vegetation alteration and be maintained until completion of construction and vegetation is established as determined by NMCWD.

   If silt fence is used, the bottom flap must be buried and the maximum allowable spacing between posts is 4-foot on center. All posts must be either 2-inch x 2-inch pine, hardwood, or steel fence posts. If hay bales are used, all bales must be staked in place and reinforced on the downstream side with snow fence.

2. All areas altered because of construction must be restored with seed and disced mulch, sod, wood fiber blanket, or be hard surfaced within two weeks after completion of land alteration and no later than the end of the permit period.

3. Upon final stabilization, the permit applicant is responsible for the removal of all erosion control measures installed throughout the project site.

4. At the entryway onto the site, a rock filter dike being a minimum of two feet in height and having maximum side slopes of 4:1 must be constructed. This rock filter dike will enable construction traffic to enter the site and also provide an erosion control facility.

5. If dewatering is required and sump pumps are used, all pumped water must be discharged through an erosion control facility prior to leaving the construction site. Proper energy dissipation must be provided at the outlet of the pump system.

6. The NMCWD must be notified a minimum of 48 hours prior to commencement of construction.

7. The NMCWD, its officers, employees and agents review, comment upon, and approve plans and specifications prepared by permit applicants and their consultants for the limited administrative purpose of determining whether there is reasonable assurance that the proposed project will comply with the regulations and criteria of the NMCWD. The determination of the NMCWD that issuance of this permit is appropriate was made in reliance on the information provided by the applicant.

8. The grant of this permit shall not in any way relieve the permittee, its engineer, or other professional consultants of responsibility, nor shall it make the NMCWD responsible for the technical adequacy of the engineer's or consultant's work. The grant of this permit shall not relieve the permittee from complying with all conditions and requirements of the permit which shall be retained by the permittee with the permit.

9. The issue of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

10. This permit is permissive only. No liability shall be imposed upon the NMCWD or any of its officers, agents or employees, officially or personally, on account of the granting of this permit or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors.

11. In all cases where the doing by the permittee of anything authorized by this permit shall involve the taking, using, or damaging of any property, rights or interests of any other person or persons, or of any publicly-owned lands or improvements or interests, the permittee, before proceeding therewith, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all necessary property, rights, and interest.

12. The permit is transferable only with the approval of the NMCWD (see NMCWD Rule 1.0). The permittee shall make no changes, without written permission previously obtained from the NMCWD, in the dimensions, capacity, or location of any items of work authorized by this permit.

13. The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the NMCWD for inspection of the work authorized by this permit.

14. This permit may be terminated by the NMCWD at any time deemed necessary in the interest of public health and welfare, or for violation of any of the provisions of this permit.

15. Construction work authorized under this permit shall be completed on or before date specified above. The permittee may, in writing, request that the NMCWD extend the time to complete the project in accordance with NMCWD Rule 1.0.

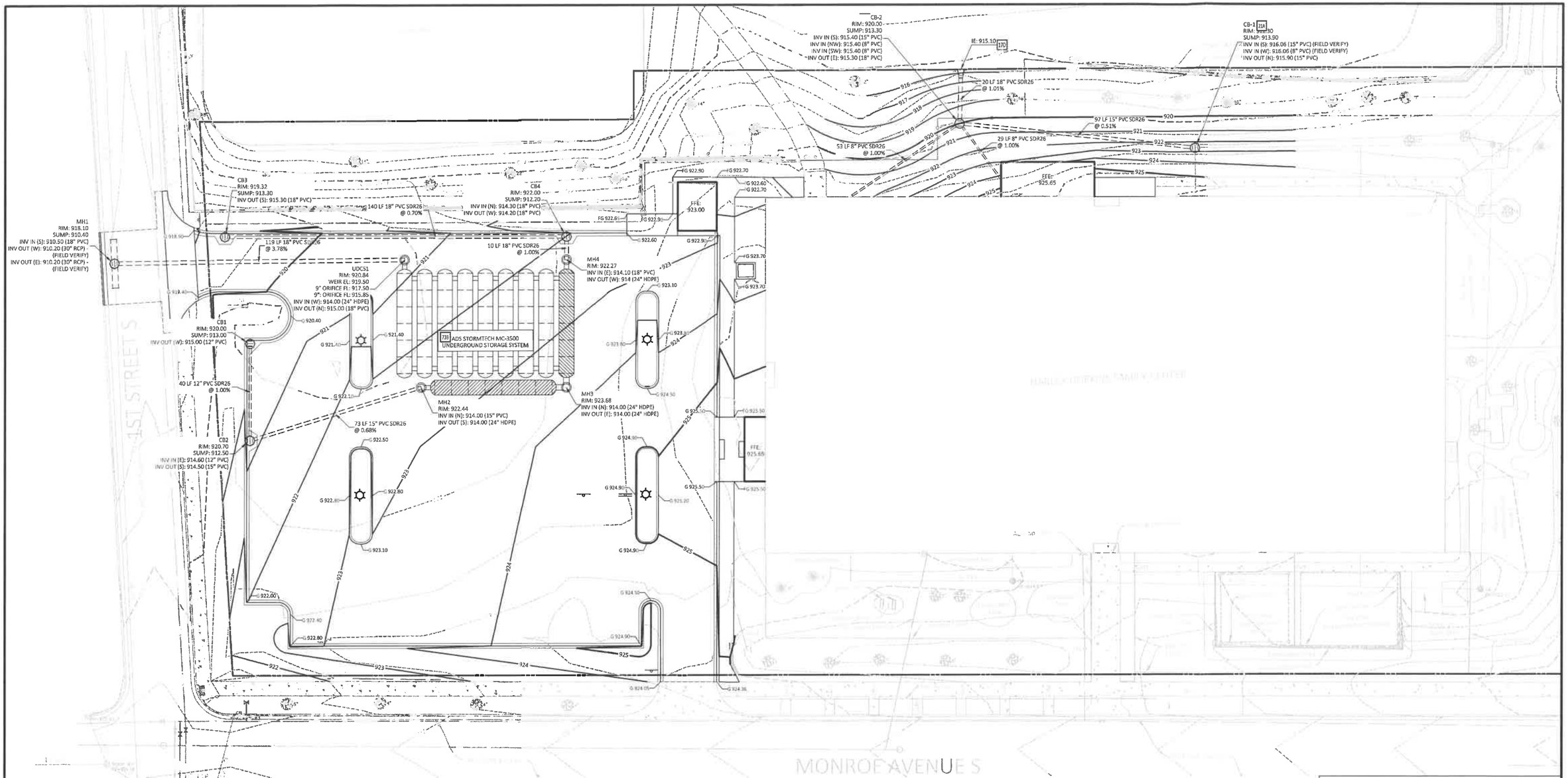
Permit No.2018-137

Is hereby issued to Patrick Poquette, Hopkins Public Schools, subject to the conditions specified in the attached form:

For parking lot reconstruction and building addition construction at Harley Hopkins Family Center located at 125 Monroe Avenue in Hopkins.

Steve Kloiber, Chair
Nine Mile Creek Watershed District

This permit expires on: February 1, 2020



811 Know what's **below.** **Call** before you dig.

0 20' 30' 40'
SCALE IN FEET

EXISTING LEGEND

- CABLE TV PEDESTAL
- AIR CONDITIONER
- ELECTRIC MANHOLE
- ELECTRIC METER
- ELECTRIC PEDESTAL
- ELECTRIC TRANSFORMER
- LIGHT POLE
- GUY WIRE
- POWER POLE
- GAS METER
- TELEPHONE PEDESTAL
- SANITARY MANHOLE
- CATCH BASIN
- FLARED END SECTION
- ROOF DRAIN
- STORM MANHOLE
- FIRE DEPT. CONNECTION
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- CURB STOP
- WATER VALVE
- BOLLARD
- FLAG POLE
- TRAFFIC SIGN
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- SPOT ELEVATION
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- UNDERGROUND ELECTRIC
- UNDERGROUND FIBER OPTIC
- UNDERGROUND TELEPHONE
- UNDERGROUND GAS
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- FENCE
- CURB [TYPICAL]

GRADING LEGEND

FG FINISHED GRADE
G GUTTER ELEVATION
FL FLOW LINE
INV INVERT

STORMWATER DETAILS

17D FLARED END SECTION WITH RIP-RAP PAD
21A CATCH BASIN
738 UNDERGROUND STORAGE SYSTEM

I HEREBY CERTIFY THAT THIS SET OF PLANS AND SPECIFICATIONS 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.

NEIL TESSIER, PE. | DATE | 26364 REGISTRATION NO.

31031	12/5/18	NT	NT	JPB	MCR
PROJECT NO.	INITIAL DATE	DPDR	PM	DES	DRW

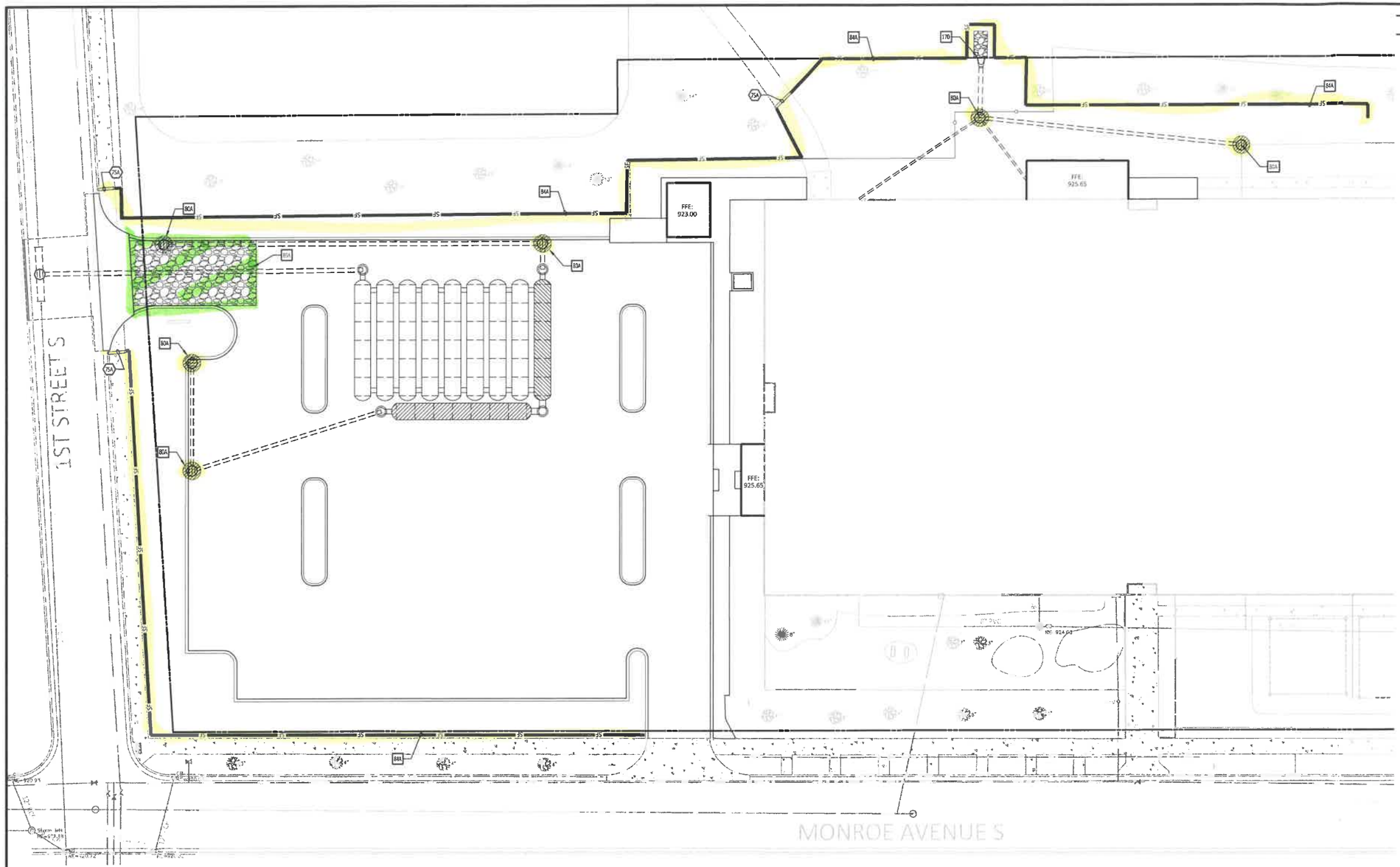
SAFEngineering, PLLC
Site and Athletic Facility Engineering
3200 122nd Avenue NE
Blaine, MN 55449
612-213-9859
nrtessier@gmail.com

HARLEY HOPKINS FAMILY CENTER
125 MONROE AVE. S.
HOPKINS, MN 55343

GRADING PLAN | REV DATE 12/5/18 REV-5 | SHEET NO. C-4.0

JOB # 31031 DRAWING: 31031 Proj.dwg LAST SAVED BY: PBRYANT

2018-137



GENERAL EROSION NOTES

A. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF MINNESOTA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

B. THE TEMPORARY PARKING AND STORAGE AREA SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AREA, EQUIPMENT CLEANING AREA, EMPLOYEE BREAK AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS AND TOILET FACILITIES. THE EXACT LOCATIONS SHALL BE COORDINATED WITH THE OWNER'S CONSTRUCTION MANAGER.

C. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORM WATER THAT IS DISCHARGED FROM THE SITE.

D. MAINTAIN ON THE SITE OR HAVE READILY AVAILABLE SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CONTAIN AND CLEAN UP FUEL OR CHEMICAL SPILLS AND LEAKS.

E. DUST ON THE SITE SHALL BE CONTROLLED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

F. NO RUBBISH, TRASH, GARBAGE OR OTHER SUCH MATERIALS SHALL BE DISCHARGED INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

G. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

H. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL STOP FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED WITHIN 7 DAYS.

I. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY RESTORED. THESE AREAS SHALL BE RESTORED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE LANDSCAPING PLAN.

J. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. THE EXACT LOCATIONS SHALL BE COORDINATED WITH THE OWNERS CONSTRUCTION MANAGER.

K. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

L. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AFTER THE STABILIZATION OF THE SITE AND ALSO ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS.

M. IF SOIL STOCKPILING IS EMPLOYED ON THE SITE, SILT FENCES SHALL BE USED TO HELP CONTAIN THE SEDIMENT.

N. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

O. SEDIMENT BASINS ARE ATTRACTIVE TO CHILDREN AND CAN BE VERY DANGEROUS. IN ALL CASES, LOCAL ORDINANCES AND REGULATIONS REGARDING HEALTH AND SAFETY MUST BE ADHERED TO.

P. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OF THE COVER FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN EMPLOYED.

Q. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, STRAW BALES, ETC.) TO HELP PREVENT EROSION AND STORM WATER POLLUTION.

R. ALL OFF-SITE CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR STORM DRAINS & UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

MAINTENANCE

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT, AND SHOULD BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
2. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD TO ONE-HALF THE HEIGHT OF THE SILT FENCE.
3. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE).

EXISTING LEGEND

- CABLE TV PEDESTAL
- AIR CONDITIONER
- ELECTRIC MANHOLE
- ELECTRIC METER
- ELECTRIC PEDESTAL
- ELECTRIC TRANSFORMER
- LIGHT POLE
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- BOLLARD
- FLAG POLE
- TRAFFIC SIGN
- UNKNOWN MANHOLE
- 750.0 SPOT ELEVATION
- CONIFEROUS TREE
- DECIDUOUS TREE
- UNDERGROUND ELECTRIC
- UNDERGROUND FIBER OPTIC
- UNDERGROUND TELEPHONE
- UNDERGROUND GAS
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- FENCE
- CURB (TYPICAL)

EROSION CONTROL NOTES

75A BIO-LOG

EROSION CONTROL DETAILS

17D FLARED END SECTION WITH RIP-RAP PAD
80A DANDY BAG
84A TEMPORARY SILT FENCE
85A CONSTRUCTION ENTRANCE

0 20' 30' 40'
SCALE IN FEET

I HEREBY CERTIFY THAT THIS SET OF PLANS AND SPECIFICATIONS 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.

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SAFEngineering, PLLC
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612-213-9859
nrtessier@gmail.com

HARLEY HOPKINS FAMILY CENTER
135 MONROE AVE. S.
HOPKINS, MN 55343

EROSION CONTROL PLAN

REV DATE 12/5/18 REV-5

SHEET NO. C-5.0

JOB # 31031 DRAWING: 31031 Proj.dwg LAST SAVED BY: PBRYANT

2018-137