

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2022-046

Considered at Board of Managers Meeting: August 3, 2022

Received complete: June 29, 2022

Applicant: Klastic Property, Dario Klastic

Representative: Kimley-Horn and Associates, Inc., Mike Brandt

Project: Dakota Retail - The applicant proposes improving site access, adding parking stalls, landscaping, and replacing the existing basin with an underground stormwater management facility and Bayfilter to provide water quality and rate control.

Location: 190 Lake Drive, Chanhassen, Minnesota, 55317

Reviewer: Scott Sobiech, PE; Barr Engineering Co.

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the August 3, 2022 meeting of the managers:

Resolved that the application for Permit 2022-046 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval of the permit have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2022-046 to the applicant on behalf of RPBCWD.

Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Applicable Rule Conformance Summary

Rule	Issue		Conforms to RPBCWD Rules?	Comments
B	Floodplain Management and Drainage Alterations		Yes	
C	Erosion Control Plan		See comment	See rule-specific permit condition C1 related to name of individual responsible for on-site erosion control.
J	Stormwater Management	Rate	Yes	
		Volume	Yes	
		Water Quality	Yes	
		Low Floor Elev.	Yes	
		Maintenance	See comment	See rule-specific permit condition J1 related to recordation of stormwater facilities maintenance declaration.

Rule	Issue		Conforms to RBPCWD Rules?	Comments
		Chloride Management	See comment	See stipulation #4 related to providing an executed chloride management plan prior to permit close-out.
		Wetland Protection	NA	
L	Permit Fee Deposit		Yes	\$3,000 deposit fee received June 20, 2022. Replenish permit fee deposit. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. As of July 28, 2022 the amount due is \$2,797
M	Financial Assurance		See Comment	The financial assurance is calculated at \$270,257.

Background

The proposed redevelopment will include improving site access, adding parking stalls, landscaping, and replacing the existing basin with an underground stormwater management facility and a proprietary filter cartridge system called a Bayfilter to provide water quality and rate control. The applicant is also proposing the installation of 18 trees for provide abstraction to the maximum extent practicable.

The project site information is summarized in Table 1.

Table 1. Project site information

Site Information	Project Area
Total Site Area (acres)	1.52
Existing Site Impervious Area (acres)	0.96
Post Construction Site Impervious (acres)	1.03
New (increase) in Site Impervious Area (acres)	0.07
Percent increase in Impervious Surface	7.3%
Disturbed Site Impervious Area (acres)	0.21
Percent Disturbance of Existing Impervious Surface	21.9%
Total Disturbed Area (acres)	0.43

Exhibits:

1. Permit application dated May 24, 2022 (Notified applicant on May 27, 2022 that submittal was incomplete, revised materials completing the application received June 29, 2022)
2. Project Plan set (15 pages) dated May 23, 2022 (revised June 28, 2022 July 22, 2022, and July 26, 2022)
3. Stormwater Report memo dated May 23, 2022 (revised June 28, 2022, July 22, 2022, and July 26, 2022)
4. Existing and Proposed HydroCAD Models received June 28, 2022 (revised July 22, 2022, and July 26, 2022)
5. Existing and Proposed MIDS Model received June 28, 2022 (revised July 22, 2022)

6. P8 Model results received July 26, 2022
7. Geotechnical borings by Braun Intertec received May 24, 2022 (dated October 4, 2016)
8. Advanced Drainage Systems (ADS) (BaySaver Technologies, LLC) BayFilter™ System using Enhanced Media Cartridges Details and TAPE performance evaluations from Washington State Department of Ecology received on July 22, 2022
9. Resolution of Support; Application for a Contamination Cleanup Grant Submitted to the Department of Employment and Economic Development (DEED); 7910 Dakota Avenue dated April 28, 2014
10. MPCA Tank and Leak Sites summary for the property identifying known petroleum leaks.
11. Response to RPBCWD Comments from Kimley Horn received June 29, 2022
12. Response to RPBCWD Comments from Kimley Horn received July 22, 2022
13. Response to RPBCWD Comments from Kimley Horn received July 26, 2022
14. Draft Chloride management plan received July 22, 2022
15. Draft Maintenance declaration received July 22, 2022

Rule Specific Permit Conditions

Rule B: Floodplain Management and Drainage Alterations

Because the proposed project involves replacing the existing stormwater management facility on the site with an underground stormwater management facility (i.e., work below the 100-year flood elevation of a stormwater-management facility), the project activities must conform to the RPBCWD's Floodplain Management and Drainage Alterations rule (Rule B). The existing 100-year flood elevations of the basin is 939.2 feet.

Because the project does not involve constructing new structures or reconstructing an existing structure with a low floor, low floor elevation requirements set forth by Rule B, Subsection 3.1 do not impose a requirement on the project.

Placement of fill below the 100-year flood elevation is prohibited unless fully compensatory flood storage at or below the same elevation and within the floodplain of the same water basin is provided (Rule B, Subsection 3.2). The supporting materials demonstrate, and the RPBCWD Engineer concurs, that the project will result in a net increase in flood storage of 9.8 cubic yards below the 100-year floodplain of the existing basin. Because the proposed underground stormwater facility is at the same location as the existing basin, the compensatory storage will be provided within the floodplain of the existing stormwater facility (Rule B, Subsection 3.2b).

Because modifying the existing basin to facilitate site development will alter the timing and duration of flows leaving the site, the applicant must demonstrate that the alterations are not reasonably likely have an adverse offsite impact and will not adversely affect flood risk, basin or channel stability, groundwater hydrology, stream baseflow, water quality, or aquatic or riparian habitat (Rule B subsection 3.3). The

applicant provided pre- and post-project water quality modeling to demonstrate the project is not reasonably likely to have an adverse impact on water quality. The modeling results show the total suspended solids and total phosphorus load leaving the site after the development will be less than the existing load leaving the site. The water quality modeling also shows the proposed project will meet the water quality treatment criteria for areas tributary to the onsite wetlands (see Rule J Wetland Protection analysis).

In addition, consistent with the rate-control requirement in Rule J, the proposed peak discharge rates leaving the site, are less than existing for the 2, 10, and 100-year event. Because the flow rates are not increasing, the project is not likely to impact channel stability. Because the proposed 100-year flood elevation (935.98 feet) is lower than the existing 100-year flood elevation (939.2 feet), the proposed project reduced the flood risk. This also the engineer's determination that the project meets the requirements of Rule B, subsection 3.3.

Because there are no watercourses on or adjacent to the site, Rule, Subsection 3.4 does not impose requirement on the project.

The applicant submitted an erosion control plan in conformance with Rule C, per Rule B, Subsection 3.5. A note on the plans indicates that activities must be conducted to minimize the potential transfer of aquatic invasive species conforming to Rule B, Subsection 3.5.

The project conforms to Rule B.

Rule C: Erosion Prevention and Sediment Control

Because the project will involve the alteration of 0.43 acres of land-surface area, the project must conform to the erosion prevention and sediment control requirements established in Rule C.

The erosion control plan prepared by Kimley-Horn and Associates, Inc. includes installation of perimeter control (silt fence or sediment control logs), a stabilized rock construction entrance, inlet protection, daily inspection, staging areas, placement of a minimum of 6 inches of topsoil (at 5% organic matter), decompaction of areas compacted during construction, and retention of native topsoil onsite to the greatest extent possible. To conform to RPBCWD Rule C requirements, the following revisions are needed:

- C1. The applicant must provide the name, address and phone number of the individual who will remain responsible for performance under this rule and maintenance of erosion and sediment-control measures from the time the permitted activities commence until vegetative cover is established.

Rule J: Stormwater Management

Because the project will disturb 0.43 acres of land-surface area, the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.1). The criteria listed in Subsection 3.1 will apply to the new and disturbed impervious surface on the site because the proposed project increases the

imperviousness of the entire site by 7.3 percent (less than 50%) and disturbs 21.9 percent (less than 50%) of the existing impervious area (Rule J, Subsection 2.3).

The applicant is replacing the existing basin with an underground stormwater management facility and a proprietary filter cartridge system called Bayfilter to provide water quality and rate control. Pretreatment for runoff entering the underground stormwater facility is being provided by manholes with sumps.

Rate Control

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in Table 2 below.

The proposed project conforms to RPBCWD Rule J, Subsection 3.1.a.

Table 2. Existing and Proposed Peak Runoff Rates

Modeled Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
Pond Discharge	1.7	0.4	3.5	2.5	10.3	8.2	0.5	0.4
Perimeter Discharge	1.1	1.0	1.9	1.7	3.8	3.5	0.2	0.2

Volume Abstraction

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the 0.28 acres of regulated impervious surface of the site. An abstraction volume of 1,118 cubic feet is required from the regulated site impervious area on the project for volume retention. The following information was considered during the review of the application permit:

- Soil borings performed by Braun Intertec show that soils in the project area are sandy lean clays; the MN Stormwater Manual indicates an infiltration rate of 0.06 inches per hour for such soils.
- Information within the Application for a Contamination Cleanup Grant Submitted to the Department of Employment and Economic Development; 7910 Dakota Avenue dated April 28, 2014 indicates the presence of contaminated soils on the site. Because it is RPBCWD engineer's understanding that contamination remains on site after prior site redevelopment in 2014, infiltration of runoff through a BMP has the potential to increase the movement of the existing contamination.

- The project site is located in the Drinking Water Supply Management Area (DWSMA). The MPCA Stormwater Manual suggests no infiltration if site is a potential stormwater hotspot, such as a gas station or contaminated site, to protect drinking water. Based on the historic use of the site prior to redevelopment in 2014 (i.e., a Sinclair Gas Station), the RPBCWD engineer determines that site is a potential stormwater hotspot.
- Rainwater harvest and reuse was dismissed as a viable abstraction method for this site because retrofitting a system would require disturbance of additional impervious area beyond the proposed project limits.
- The use of pervious pavement was reviewed to determine if it would be a feasible option for stormwater management. Permeable pavement is not proposed onsite due to limitations in allowing infiltration onsite because of contaminated soils.
- The existing building is not structurally designed to handle the additional loading of a green roof system.

The RPBCWD engineer concurs that soil-contamination information and clay soils show that the abstraction standard in Subsection 3.1 of Rule J cannot practicably be met, and the engineer determines that the site is restricted and stormwater runoff volume must be managed in accordance with Subsection 3.3 of Rule J. For restricted sites, Subsection 3.3 of Rule J requires rate control in accordance with Subsection 3.1a and that abstraction and water quality protection be provided in accordance with the following sequence: (a) Abstraction of 0.55 inches of runoff from site impervious surface determined in accordance with paragraphs 2.3, 3.1 or 3.2, as applicable, and treatment of all runoff to the standard in paragraph 3.1c; or (b) Abstraction of runoff onsite to the maximum extent practicable and treatment of all runoff to the standard in paragraph 3.1c; or (c) Off-site abstraction and treatment in the watershed to the standards in paragraph 3.1b and 3.1c. The applicant has maximized stormwater abstraction in accordance Subsection 3.3b of Rule J by providing 18 trees to extend over a portion of the impervious surface. The designed abstraction performance for the project site is summarized in the table below.

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
1.1	1,118	0.12	121 ¹

¹ Abstraction volume from trees calculated using the Center for Watershed Protection's published Document for *Stormwater Performance-Based Credit. Crediting Framework Product #7 for the project Making Urban Trees Count: A Project to Demonstrate the Role of Urban Trees in Achieving Regulatory Compliance for Clean Water*

Water Quality Management

Subsection 3.1.c of Rule J requires the applicant to provide volume abstraction in accordance with 3.1b or least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff, and no net increase in TSS or TP loading leaving the site from existing conditions. The applicant proposes to use an underground stormwater management facility and Bayfilter to achieve the required TP and TSS removals and sump manholes for

pretreatment. MIDS and P8 water quality models were used to estimate the TP and TSS removal capacity of the existing BMP and is summarized in the table below. The engineer concurs with the modeling and finds that the proposed project is in conformance with Rule J, Subsection 3.1.c.

Annual TSS and TP removal summary:

Pollutant of Interest	Regulated Site Loading (lbs/yr)	Required Load Removal (lbs/yr)	Provided Load Reduction (lbs/yr)
Total Suspended Solids (TSS)	773	696 (90%)	702 (90.8%)
Total Phosphorus (TP)	2.52	1.5 (60%)	1.51 (60.2%)

Summary of net change in TSS and TP leaving the site

Pollutant of Interest	Existing Site Loading (lbs/yr)	Proposed Site Load after Treatment (lbs/yr)	Change (lbs/yr)
Total Suspended Solids (TSS)	178	69	-109
Total Phosphorus (TP)	1.43	0.99	-0.44

Low floor Elevation

All new buildings must be constructed such that the lowest floor is at least two feet above the 100-year high-water elevation or one foot above the emergency overflow of a stormwater-management facility according to Rule J, Subsection 3.6a. Because no new buildings are proposed with the project, subsection 3.6a does not impose requirements on the project.

In addition, a stormwater-management facility must be constructed at an elevation that ensures that no adjacent habitable building will be brought into noncompliance with this requirement, according to Rule J, Subsection 3.6b. The low elevation of the existing building and the 100-year event flood elevation in the proposed underground system is summarized below. The RPBCWD Engineer concurs that the proposed project is in conformance with Rule J, Subsection 3.6.

Location	Low Floor Elevation of Building (feet)	100-year Event Flood Elevation (feet)	Freeboard (feet)
Underground System	940.4	935.98	4.42

Maintenance

Subsection 3.7 of Rule J requires the submission of maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J1. Permit applicant must work with RPBCWD engineer or staff to revise the submitted draft maintenance and inspection declaration to include tree maintenance, preservation and replacement provisions, proprietary cartridge filter manufacturers maintenance requirements, pretreatment locations, to make sure the stormwater facility names and the pretreatment names in the narrative matches the callouts on the exhibit and a cross section of the BMPs with dimensions and elevations

- J2. . A revised draft declaration must be provided for District review and approval prior to recordation and documentation of recordation must be provided to RPBCWD as a condition of issuance of the permit.

Chloride Management

Subsection 3.8 of Rule J requires the submission of chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan. To close out the permit and release the \$5,000 in financial assurance held for the purpose of chloride management, the permit applicant must provide a chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site. An unsigned chloride management plan was received on behalf of Klasic Property on July 22, 2022 without listing a designated, MPCA-certified salt applicator. Prior to project close-out the applicant must designate, MPCA-certified salt applicator and execute the chloride management plan.

Rule L: Permit Fee

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to deposit \$3,000 to be held in escrow and applied to cover the \$10 permit-processing fee and reimburse RPBCWD for permit review and inspection-related costs and when a permit application is approved, the deposit must be replenished to the applicable deposit amount by the applicant before the permit will be issued to cover actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules. A permit fee deposit of \$3,000 was received on June 20, 2022. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. Subsequently, if the costs of review, administration, inspections and closeout-related or other regulatory activities exceed the fee deposit amount, the applicant will be required to replenish the deposit to the original amount or such lesser amount as the RPBCWD administrator deems sufficient within 30 days of receiving notice that such deposit is due. The administrator will close out the relevant application or permit and revoke prior approvals, if any, if the permit-fee deposit is not timely replenished.

- L1. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. The amount needed to replenish the permit fee deposit is \$2,797 as of July 28, 2022.

Rule M: Financial Assurance

	Unit	Unit Cost	# of Units	Total
Rules C: Silt fence:	LF	\$2.50	295	\$738
Inlet protection	EA	\$100	5	\$500
Rock Entrance	EA	\$250	1	\$250
Restoration	Ac	\$2,500	0.43	\$1,075
Rules J: Chloride Management	LS	\$5,000	1	\$5,000

	Unit	Unit Cost	# of Units	Total
Rules J: Stormwater Management: 125% of engineer's opinion of cost (\$190,500 underground detention systems, Bayfilter, 18 trees, and pretreatment structures)	EA	125% OPC	1	\$238,125
Contingency (10%)		10%		\$24,569
Total Financial Assurance				\$270,257

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.
3. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed on the permit. The grant of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
4. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority.
5. The issuance of this permit does not convey any rights to 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.
6. In all cases where the doing by the permittee of anything authorized by this permit involves 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, must acquire all necessary property rights and interest.
7. RPBCWD's determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
8. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

Findings

1. The application includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project conforms to Rule B and will conform to Rules C, and J if the Rule Specific Permit Conditions listed below are met.

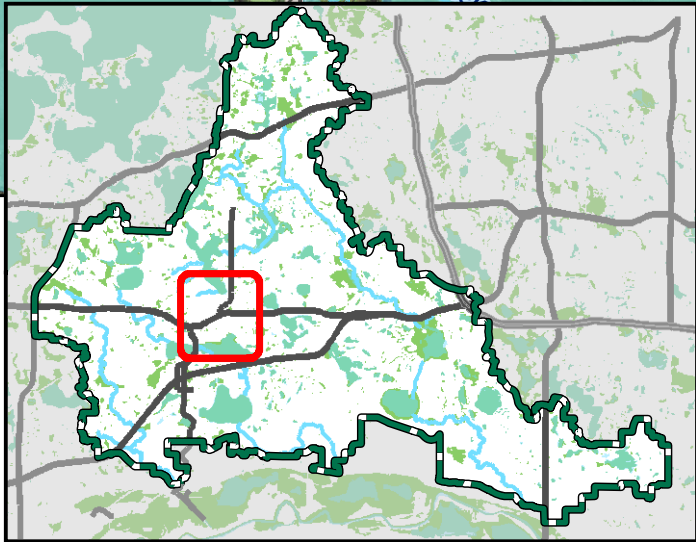
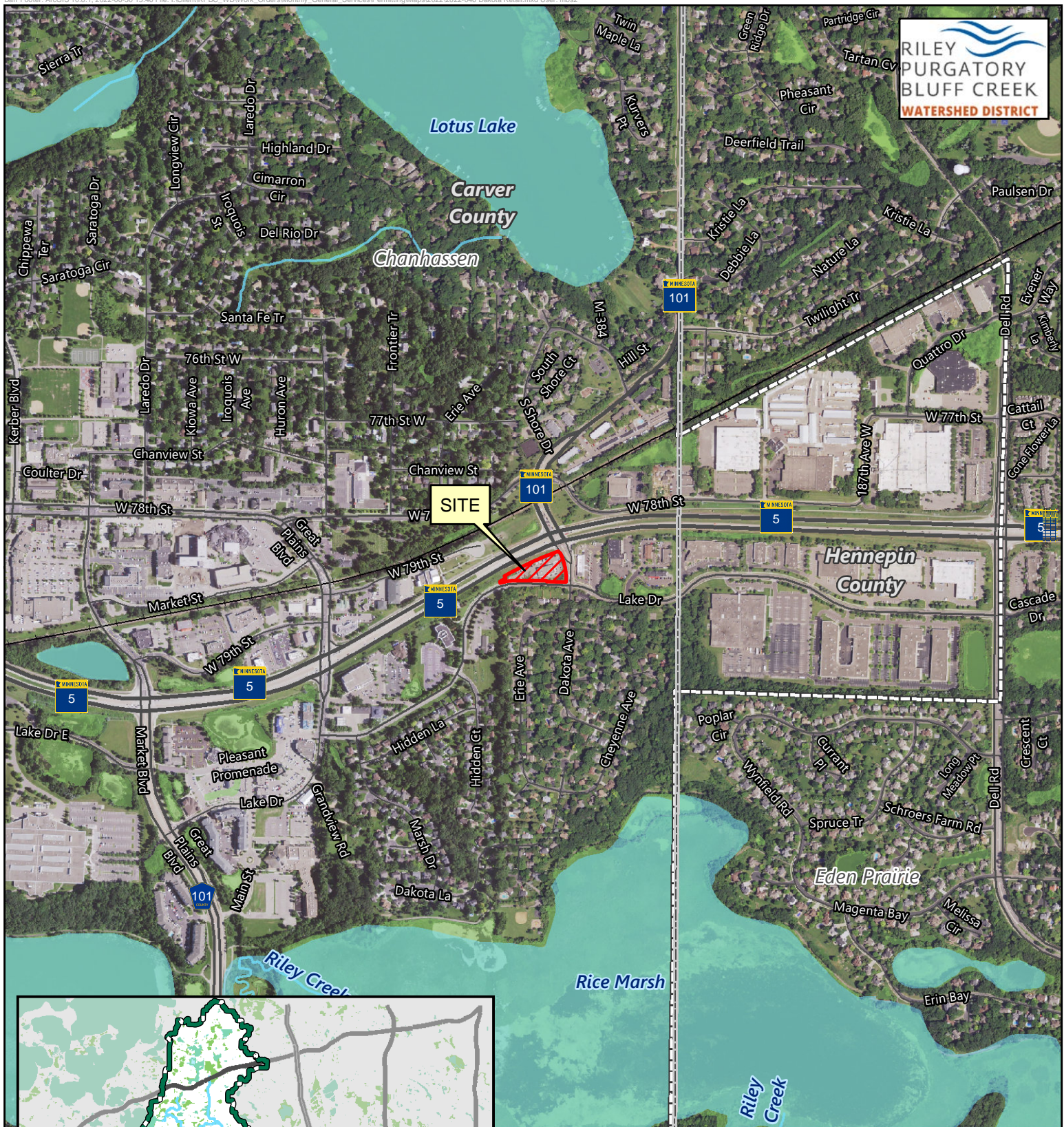
Recommendation:

Approval of the permit contingent upon:

1. Financial Assurance in the amount of \$270,257.
2. Permit applicant must provide the name and contact information of the general contractor responsible for the site. RPBCWD must be notified if the responsible party changes during the permit term.
3. Documentation of recordation of a maintenance declaration for the stormwater management facilities, including tree maintenance, preservation and replacement provisions. A draft must be reviewed and approved by the District prior to recordation. Permit applicant must provide a proof of recordation as a condition of issuance of the permit.
4. The applicant must replenish the permit fee deposit to the original amount due before the permit will be issued. The amount needed to replenish the permit fee deposit is \$2,797 as of July 28, 2022.

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

1. Continued compliance with General Requirements.
2. Per Rule J Subsection 5.6, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, the stormwater facilities conform to design specifications and function as intended and approved by the District. As-built/record drawings must be signed by a professional engineer licensed in Minnesota and include, but not limited to:
 - a) the surveyed bottom elevations, water levels, and general topography of all facilities;
 - b) the size, type, and surveyed invert elevations of all stormwater facility inlets and outlets;
 - c) the surveyed elevations of all emergency overflows including stormwater facility, street, and other;
 - d) other important features to show that the project was constructed as approved by the Managers and protects the public health, welfare, and safety.
3. Providing the following additional close-out materials:
 - a) Documentation that constructed filtration facilities perform as designed. This may include filtration testing, flood testing, or other with prior approval from RPBCWD
 - b) Documentation that disturbed pervious areas remaining pervious have been decompacted per Rule C.2c criteria
4. To close out the permit and secure the release of the \$5,000 chloride-management financial assurance, the permit applicant must provide a chloride management plan that designates the individual authorized to implement the chloride management plan and the MPCA-certified salt applicator engaged in implementing the plan at the site.
5. Replenish the permit fee deposit to the original amount or such lesser amount as the RPBCWD administrator determines sufficient within 45 days of receiving notice that such deposit is due in order to cover continued actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules.



Feet



Permit Location Map

DAKOTA RETAIL
Permit 2022-046
Riley Purgatory Bluff Creek
Watershed District

SITE DEVELOPMENT PLANS FOR

COFFEE SHOP DRIVE THRU IMPROVEMENTS

**SECTION 13, TOWNSHIP 116N, RANGE 23W
CHANHASSEN, COUNTY, MN**

PROJECT TEAM:

ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.

Kimley»Horn

PREPARED BY: MIKE C. BRANDT, P.E.
767 EUSTIS STREET, SUITE 100
ST. PAUL, MN 55114
TELEPHONE (651) 645-4197

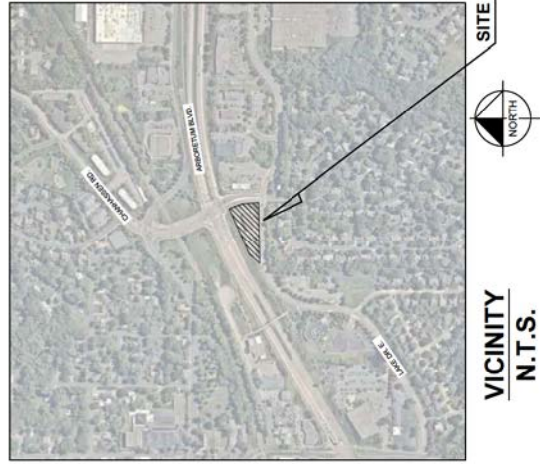
LANDSCAPE ARCHITECT
KIMLEY-HORN AND ASSOCIATES, INC.
767 EUSTIS STREET, SUITE 100
ST. PAUL, MN 55114
TELEPHONE (651) 645-4197
CONTACT: RYAN HYLLESTED, PLA. ASLA

OWNER / DEVELOPER
KLASIK PROPERTY



905 JEFFERSON AVE, UNIT 101
ST. PAUL, MN 55102
TELEPHONE: (651) 356-6226

SURVEYOR
EGAN, FIELD, AND NOWAK, INC.
1229 TYLER STREET NE, SUITE 100
MINNEAPOLIS, MN 55413
TELEPHONE: (612) 466-3300
CONTACT: ERIC ROESER



Sheet List Table	
Sheet Number	Sheet Title
C000	COVER SHEET
C100	GENERAL NOTES
C200	DEMO & EROSION CONTROL PLAN - PHASE 1
C201	EROSION AND SEDIMENT CONTROL DETAILS
C300	SITE PLAN
C301	FIRE TRUCK TURN EXHIBIT
C400	GRADING & EROSION CONTROL PLAN - PHASE 2
C401	GRADING DETAILS
C402	GRADING DETAILS
C403	GRADING DETAILS
C404	GRADING DETAILS
L100	LANDSCAPE PLAN
L101	LANDSCAPE DETAILS

NOTES:

1. CONTRACTOR SHALL CONFIRM THAT THE EXISTING CONDITIONS FOR THE SITE MATCH THE CONDITIONS SHOWN ON THESE PLANS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY UPON DISCOVERY. IF THE CONDITIONS DO NOT MATCH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY INFORMATION TO CORRECT THE PLANS. IF THE CONDITIONS DO NOT MATCH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY INFORMATION TO CORRECT THE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INSPECTIONS AND CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICES COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INSPECTIONS AND CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICES COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
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RELIMINARY - NOT FOR CONSTRUCTION



COVER SHEET

COFFEE SHOP DRIVE
THRU IMPROVEMENTS
PREPARED FOR
KLASIC
PROPERTY
ANHANGEN

C000

Kimley»Horn
2022 KIMLEY-HORN AND ASSOCIATES, INC.
787 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-445-4187
WWW.KIMLEY-HORN.COM

STATE OF MISSISSIPPI
COUNTY OF HANCOCK
JANUARY 1, 2003
NOTARY PUBLIC
[Signature]
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REV	DATE	REVISIONS
21R	07/26/2022	WATER-SHED COMMENTS
21R	07/20/2022	WATER-SHED COMMENTS

DEMOLITION PLAN NOTES

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







EROSION CONTROL PLAN NOTES

1. THE CONTRACTOR SHALL CONSTRUCT DRAINAGE DRAINING PRIOR TO SETTING GRADES.
2. THE CONTRACTOR SHALL INSTALL GATED IN-BAINER EROSION CONTROL MEASURES UPON THE COMPLETION OF THE DRAINAGE.
3. THE CONTRACTOR SHALL STABILIZE SLOPES WITH SEED, SOIL, OR ROCK MATS. INTENT TO LANDSCAPE PLANTS FOR MATERIALS.
4. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CITY OF CHICAGO'S EROSION CONTROL MANUAL.
5. THE CONTRACTOR SHALL MAINTAIN SLOPE EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF SALT IN FRONT OF SALT TRUCKS DURING THE DURATION OF THE CONSTRUCTION.
6. EROSION CONTROL MEASURES IN PROPOSED DRAINAGE SHALL BE REMOVED BY THE CONTRACTOR.
7. REMOVAL OF EROSION CONTROL MEASURES AFTER VEGETATION IS ESTABLISHED.
8. THE CONTRACTOR SHALL REMOVE ALL SALT AND SMOG TRAPED ONTO EXISTING STREETS AND PARKED AREAS, AND SHALL SWEEP TRAPPED SALT AS NECESSARY IN ACCORDANCE WITH CITY REQUIREMENTS.
9. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITY STRUCTURES, INCLUDING FROM A LOCAL TO A NATIONAL CONSTRUCTION AREA.

SEQUENCE OF CONSTRUCTION:

1. LAYOUT AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER PARKING, LAUNCH, PORTABILITY, WHEEL CHOCKS, DISMOUNT / FUEL, AND STOWAGE AREAS.
2. CONSTRUCTION OF THE STIMULUS AND NOTICING CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
3. BUMP AND INSTALLATION OF PROTECTION RESOURCES SHALL BE AS FOLLOWS:
 - a. INITIAL INLET PROTECTION AT EXISTING STORMWATER VALVES
 - b. CONSTRUCTION STABILIZED CONSTRUCTION ENTRANCE (CONCRETE WASHOUT PREPARE, TEMPORARY PARKING AND STORAGE AREA)
 - c. CONSTRUCTION STABILIZED CONSTRUCTION ENTRANCE (CONCRETE WASHOUT PREPARE, TEMPORARY PARKING AND STORAGE AREA)
 - d. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - e. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - f. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - g. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - h. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - i. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - j. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - k. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - l. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - m. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - n. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - o. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
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 - r. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
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 - t. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
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 - v. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - w. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - x. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - y. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.
 - z. TEMPORARY GRADING AND GRUBBING OF THE SITE, FORM WORK, MAKE GRADINGS, PAVING, AND CONCRETE.

LEGEND

- | | |
|---|----------------------------|
|  | WOOD ENTRANCE |
|  | EDGEWOOD CONTROL BLANKET |
|  | WALK PROTECTION |
|  | SILT FENCE |
|  | LIMITS OF DISTURBANCE |
|  | SAFETY FENCE |
|  | ROCK SOCK |
|  | EXISTING RETAINING WALL |
|  | EXISTING STORM DRAIN |
|  | EXISTING CONTOUR |
|  | EXISTING SOIL |
|  | EXISTING MANHOLE |
|  | EXISTING STORM CATCH BASIN |
|  | EXISTING GATE VALVE |
|  | EXISTING FIREWALL |
|  | EXISTING POWER POLE |
|  | EXISTING WATER POLE |
|  | EXISTING LIGHT POLE |
|  | EXISTING TREE |

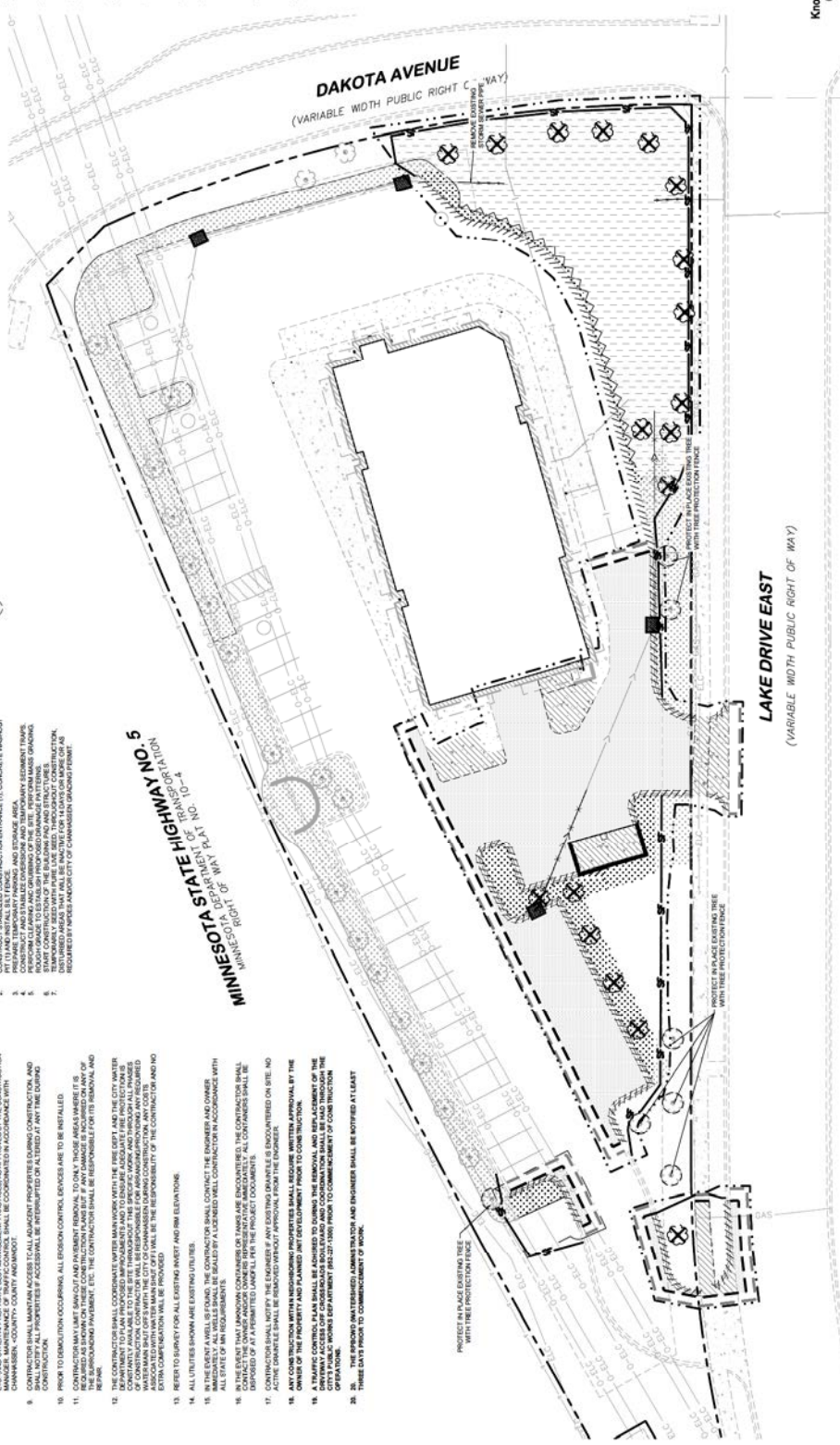
KEYNOTE LEGEND

- | PROPERTY SUMMARY | |
|-------------------------------------|--------|
| COFFE SHOP DRIVE THRU IMPROVEMENTS | |
| TOTAL PROPERTY AREA | 152 AC |
| EXISTING IMPERVIOUS AREA | 06 AC |
| EXISTING PERVIOUS AREA | 96 AC |
| PROPOSED IMPERVIOUS AREA | 103 AC |
| PROPOSED PERVIOUS AREA | 051 AC |
| TOTAL DISTURBED AREA | 643 AC |
| EXISTING IMPERVIOUS AREA WITHIN LOD | |
| EXISTING PERVIOUS AREA WITHIN LOD | 926 AC |
| PROPOSED IMPERVIOUS AREA WITHIN LOD | 923 AC |
| PROPOSED PERVIOUS AREA WITHIN LOD | 926 AC |

THREE PROTECTION (SEE DETAILS)

RPBCWD EROSION CONTROL PLAN NOTES

1. NATURAL DRAINAGE AND DRAINAGE CONDITIONS MUST BE PROTECTED. EXISTING DRAINAGE PATTERNS AND DRAINAGE DITCHES MUST BE MAINTAINED TO THE GREATEST EXTENT POSSIBLE.
2. ADDITIONAL MEASURES, SUCH AS HYDRAULIC CALCULATING AND OTHER PRACTICES AS REQUIRED BY THE DISTRICT MUST BE USED ON SLOPES OF 3:1 OR GREATER.
3. FINAL CUTTING STAKE LOCATIONS MUST BE SPECIFY THAT AT LEAST ONE INCHES OF TOPSOIL OR ORGANIC MATTER BE DEPOSITED AND INCORPORATED INTO THE SOIL PROFILE. THE DISTRICT MAY REQUIRE TIGHTENING BUFFER ZONE MEASURES, AS BEEN ASSIGNED.
4. CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONSTRUCTION DEBRIS, EXCESS FERTILIZERS, PESTICIDES, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.
5. ALL TEMPORARY EROSION AND SEDIMENT CONTROL STRUCTURES MUST BE MAINTAINED AND MONITORED TO ENSURE EFFECTIVENESS. EROSION CONTROL IS DETERMINED BY THE DISTRICT.
6. ALL TEMPORARY EROSION AND SEDIMENT CONTROL STRUCTURES MUST BE MAINTAINED AND MONITORED TO ENSURE EFFECTIVENESS.
7. SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING UNDEVELOPED MUST BE RESEEDED WITH A SEED MIXTURE OF 1:1 GRASS AND LEGUMES. AN OPEN CROWN COVER OF 75% MUST BE MAINTAINED THROUGHOUT THE GROWING SEASON. PERMANENT OPEN CROWN COVER OF 75% MUST BE MAINTAINED THROUGHOUT THE GROWING SEASON. PERMANENT OPEN CROWN COVER OF 75% MUST BE MAINTAINED THROUGHOUT THE GROWING SEASON. PERMANENT OPEN CROWN COVER OF 75% MUST BE MAINTAINED THROUGHOUT THE GROWING SEASON.
8. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 14 CALENDAR DAYS AFTER COMPLETION OF CONSTRUCTION. STABILIZATION MUST BE MAINTAINED FOR A PERIOD THAT DRAINS TO AN IMPAIRED WATERSHED, WITHIN 14 DAYS.
9. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 14 CALENDAR DAYS AFTER COMPLETION OF CONSTRUCTION. STABILIZATION MUST BE MAINTAINED FOR A PERIOD THAT DRAINS TO AN IMPAIRED WATERSHED, WITHIN 14 DAYS.
10. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 14 CALENDAR DAYS AFTER COMPLETION OF CONSTRUCTION. STABILIZATION MUST BE MAINTAINED FOR A PERIOD THAT DRAINS TO AN IMPAIRED WATERSHED, WITHIN 14 DAYS.



LAKE DRIVE EAST

(VARIABLE WIDTH PUBLIC RIGHT OF WAY)

PRELIMINARY - NOT FOR CONSTRUCTION

WATER RESOURCES
CITY OF CHANHASSEN
WATER RESOURCES
COORDINATOR
7700 MARKET BOULEVARD
P. O. BOX 147
CHANHASSEN, MN 55317



Know what's below.
Call before you dig.

Responsibility	Percentage
Current government	40%
Opposition	20%
Other/Unsure	40%

C200

COFFEE SHOP DRIVE THRU IMPROVEMENTS PREPARED FOR KLASIC PROPERTY	CHANNASSEN
SHEET NUMBER C200	

DEMO & EROSION
CONTROL PLAN -
PHASE 1

DATE	07/26/2008	PROJECT	AS SHOWN
DATE	07/26/2008	REVISION	ZTH
		APP'D BY	ZTH
		DRAWN BY	MGB
		CHECKED BY	MGB
		DATE	09/26/2002
		LIC. NO.	42981
		FIRM NAME	INNOVATION P.E.

Kimley-Horn
2022 KIMLEY-HORN AND ASSOCIATES, INC.
787 EUSTIS STREET, SUITE 300, ST. PAUL, MN 55114
PHONE: 651-445-1197
WWW.KIMLEY-HORN.COM

DATE	REVISIONS	BY
01/26/2022	WATER-SHED COMMENTS	ZTH
01/26/2022	WATER-SHED COMMENTS	ZTH

NO.	REVISIONS	DATE	BY
1	WATERSHED COMMENTS	07/26/2022	ZTH
2	WATERSHED COMMENTS	07/26/2022	ZTH

Kimley-Horn

© 2022 KIMLEY-HORN AND ASSOCIATES, INC.
707 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-644-4187
WWW.KIMLEY-HORN.COM

NOA PROJECT	DATE
NOA PROJECT	07/26/2022
NOA PROJECT	07/26/2022
NOA PROJECT	07/26/2022
NOA PROJECT	07/26/2022

SITE PLAN

COFFEE SHOP DRIVE THRU IMPROVEMENTS
PREPARED FOR
KLASIK PROPERTY
CHANNASSEN

SHEET NUMBER
C300

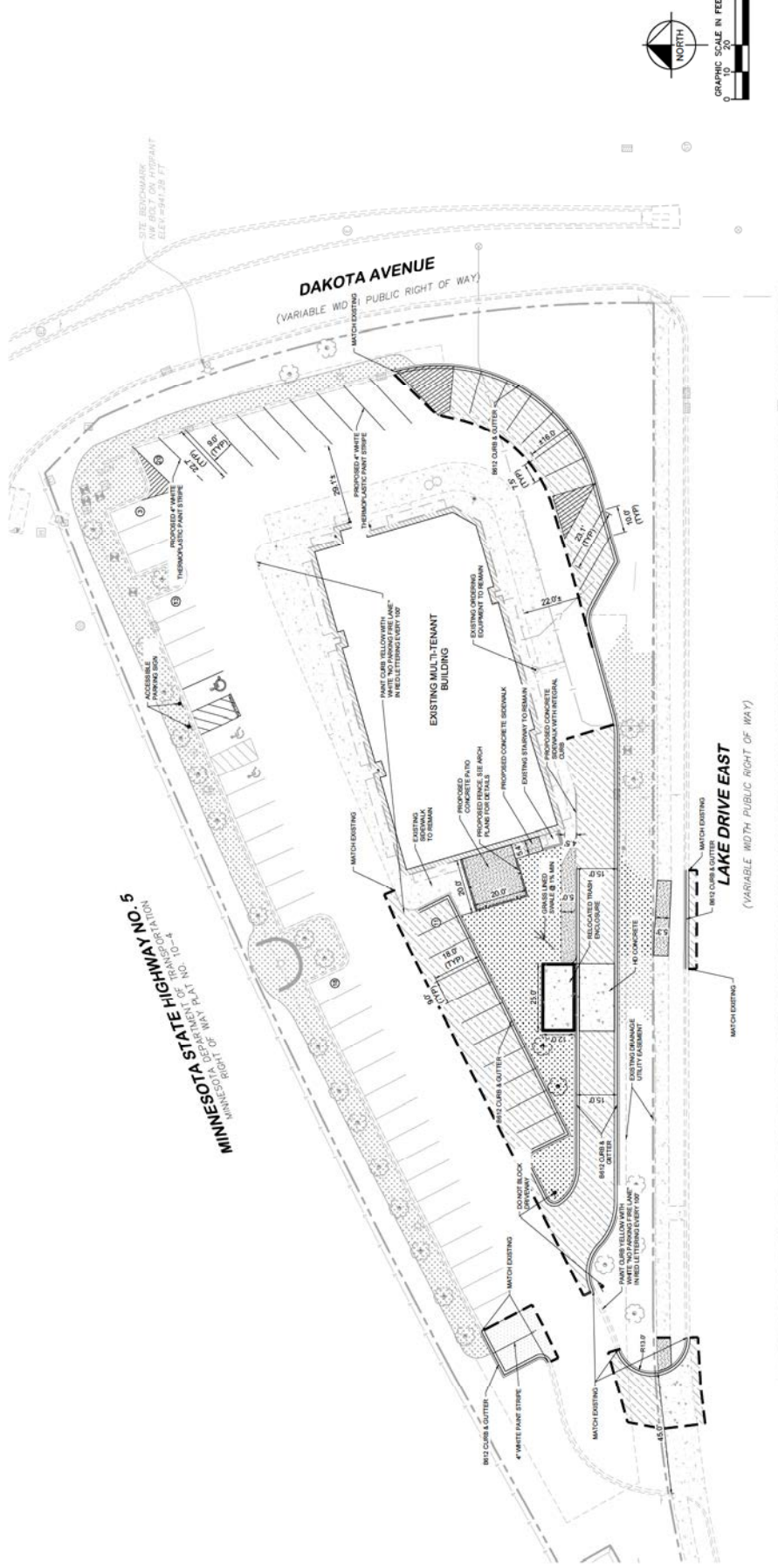
SITE PLAN NOTES

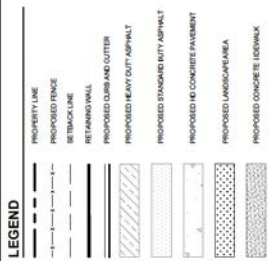
1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ST. PAUL AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION.
3. ALL DIMENSIONS SHOWN ARE TO FACE UNLESS OTHERWISE NOTED. DIMENSIONS OF CURBS AND GUTTERS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
4. ALL DIMENSIONS AND RADIUS ARE TO BE 1/8" UNLESS OTHERWISE NOTED. DIMENSIONS OF CURBS AND GUTTERS SHALL BE TO FACE UNLESS OTHERWISE NOTED.
5. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE DEMOLISHED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RECONSTRUCTION. UNLESS OTHERWISE NOTED, RECONSTRUCTION SHALL NOT BE LIMITED TO ALL EXISTING CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ST. PAUL AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION.
7. SITE ELEVATION: TOPOGRAPHY, UTILITY AND ROAD INFORMATION TAKEN FROM A SURVEY BY GEAR, FIELD & NORMAN, INC., DATED 06/02/2021.
8. TOTAL LAND AREA IS 1.51 ACRES.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ST. PAUL AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ST. PAUL AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ST. PAUL AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ST. PAUL AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ST. PAUL AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ST. PAUL AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF ST. PAUL AND THE MINNESOTA DEPARTMENT OF TRANSPORTATION.

BUILDING DATA SUMMARY	
AREAS	
EXISTING BUILDING AREA	7,864 SF (12% OF TOTAL PROPERTY AREA)
PARKING	43,000 SF MIXED USE 6,231 SF RESTAURANT
EXISTING PARKING	53 STALLS INCL. 2 ADA STALLS
REQUIRED PARKING	RESTAURANT: 50 SPACES @ 1100 SF SHOPPING CENTER: 15 SPACES @ 1200 SF TOTAL: 65 SPACES
PROPOSED PARKING	43 STALLS INCL. 3 ADA STALLS TOTAL: 66 SPACES
ADA STALLS REQ'D / PROVIDED	3 STALLS / 3 STALLS

PROPERTY SUMMARY	
COFFEE SHOP DRIVE THRU IMPROVEMENTS	
TOTAL PROPERTY AREA	1.52 AC
EXISTING IMPERVIOUS AREA	0.98 AC
EXISTING PERVIOUS AREA	0.54 AC
PROPOSED IMPERVIOUS AREA	1.01 AC
PROPOSED PERVIOUS AREA	0.51 AC
TOTAL DISTURBED AREA	0.43 AC
ZONING SUMMARY	
EXISTING ZONING	BIH (HIGHWAY AND BUSINESS SERVICE DISTRICT)
PROPOSED ZONING	BIH (HIGHWAY AND BUSINESS SERVICE DISTRICT)
PARKING SETBACKS	SIDE REAR = 10' FRONT = 10'

LEGEND	
PROPERTY LINE	---
PROPOSED FENCE	---
SETBACK LINE	---
RETAINING WALL	---
PROPOSED CURB AND GUTTER	---
PROPOSED HEAVY DUTY ASPHALT	---
PROPOSED STAMPADE BUTY ASPHALT	---
PROPOSED 16" CONCRETE PAVEMENT	---
PROPOSED 18" CONCRETE PAVEMENT	---
PROPOSED LANDSCAPE AREA	---
PROPOSED CONCRETE SIDEWALK	---





GRADING PLAN NOTES

- [illegible]

RILEY PURGATORY BLIFF CREEK WATERSHED NOTES

1. MISUAL, TOPOGRAPHY AND SOIL COMPOSITION OF THE PROPOSED REHABILITATION AND REVEGETATION ZONE.
2. CONSTRUCTION SHALL INCLUDE MAINTENANCE OF THE EXISTING VEGETATION, REHABILITATION OF THE EXISTING ROAD, AND CONSTRUCTION OF A NEW ROAD TO THE REHABILITATION ZONE. THE REHABILITATION ZONE SHALL BE PROTECTED BY A FENCE AND A SIGN.
3. ADDITIONAL MEASURES, SUCH AS FISHING, AND OTHER ACTIVITIES, SHALL BE PROHIBITED IN THE REHABILITATION ZONE.
4. ALL STORMWATER MANAGEMENT FACILITIES MUST BE PROTECTED THROUGHOUT THE REHABILITATION ZONE.
5. THE REHABILITATION ZONE SHALL BE PROTECTED BY A FENCE AND A SIGN.
6. THE REHABILITATION ZONE SHALL BE PROTECTED BY A FENCE AND A SIGN.
7. THE REHABILITATION ZONE SHALL BE PROTECTED BY A FENCE AND A SIGN.
8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE MAINTAINED UNTIL COMPLETION OF THE REHABILITATION ZONE.
9. THE REHABILITATION ZONE SHALL BE PROTECTED BY A FENCE AND A SIGN.
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11. THE REHABILITATION ZONE SHALL BE PROTECTED BY A FENCE AND A SIGN.
12. THE REHABILITATION ZONE SHALL BE PROTECTED BY A FENCE AND A SIGN.

.....

COFFEE SHOP DRIVE THRU IMPROVEMENTS	
TOTAL IMPROVEMENT AREA	1.52 AC
EXISTING IMPROVEMENT AREA	0.96 AC
PROPOSED IMPROVEMENT AREA	1.03 AC
PROPOSED IMPROVEMENT AREA	0.51 AC
TOTAL IMPROVEMENT AREA	0.43 AC
EXISTING IMPROVEMENT AREA WITHIN LDD	0.20 AC
EXISTING IMPROVEMENT AREA WITHIN LDD	0.23 AC
PROPOSED IMPROVEMENT AREA WITHIN LDD	0.23 AC
PROPOSED IMPROVEMENT AREA WITHIN LDD	0.20 AC

100 YR FLOOD PLAIN VOLUME & ELEVATIONS
EXISTING POND = 8,558 CF @ 935.89'
PROPOSED UNDERGROUND DETENTION =
8,684 CF @ 935.80'

PROPOSED EARTHWORK QUANTITY:

CUT = 74 CU YD
FILL = 155 CU YD
NET VOLUME = 80 CU YD (FILL)
REGULATION 45 CFR 1.64020

LEGEND

PROPERTY LINE

EXISTING SIDEWALK

PROPOSED CONTOUR

PROPOSED STORM MANHOLE / SOILS CASTING

PROPOSED STORM MANHOLE / CATCH BASIN CA

PROPOSED STORM MANHOLE / RAIN GUT

PROPOSED STORM MANHOLE / CATCH BASIN CB

PROPOSED STORM SEWER CLINOT

PROPOSED FLARED END SECTION

PROPOSED BIRAP

PROPOSED STORM SEWER

PROPOSED SPOT ELEVATION

PROPOSED HIGH POINT ELEVATION

PROPOSED LOW POINT ELEVATION

PROPOSED OUTLET ELEVATION

60' ±

(1)

(2)

(3)

(4)

(5)

C/SB-80

C/FB-32

C/PB-32

C/SB-80

MATCH EXISTING ELEVATION

PROPOSED EMERGENCY OVERFLOW

PROPOSED DRAINAGE DIRECTION

0.0%



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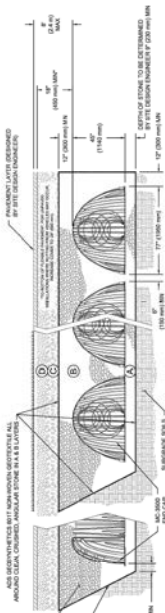
OR REFERENCE ONLY

ADS SiteAssist[®]
FOR SFWATCHER
(INSTALLATION INSTRUCTIONS)
VISIT OUR APP

STORMTECH MC-3000 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.

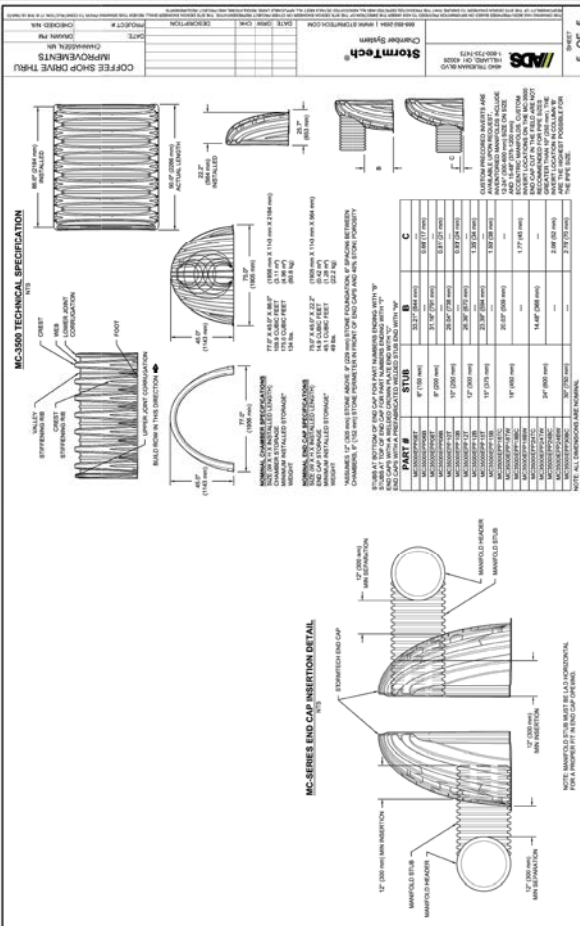
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STORMTECH MC-3500 CHAMBER SYSTEMS

[illegible]

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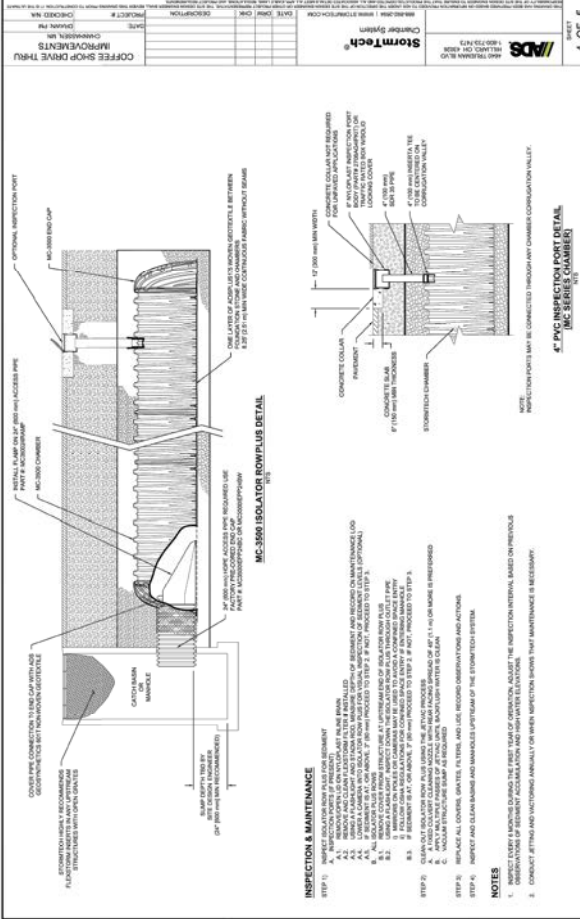
FOR REFERENCE ONLY



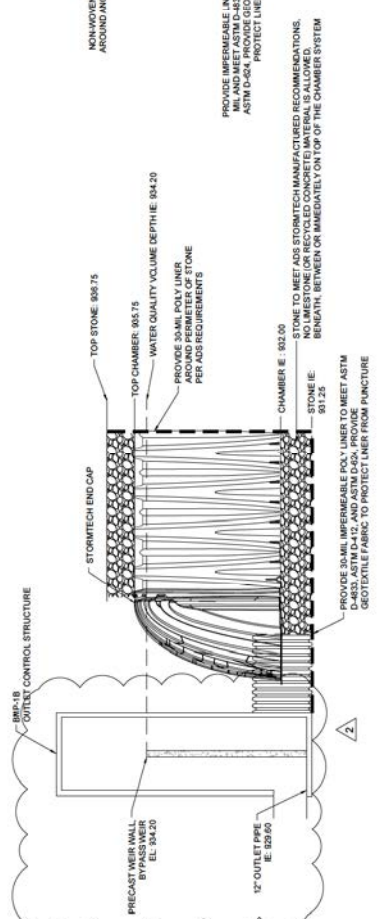
NOTE: MANIFOLD STUDS MUST BE LAD MARKED FOR A PROPER FIT IN END CAP OPENING.

SHEET
1 OF 2

FOR REFERENCE ONLY



NTB
SERIES CHAMBER)



FILTRATION BASIN - UNDERGROUND FILTRATION SYSTEM DETAILS

NOTES:

1. THE CONTRACTOR SHALL TAKE CARE TO PREVENT SEDIMENT AND DEBRIS FROM CLOGGING THE PORE SPACE IN THE COARSE FILTER AGGREGATE.

NOT TO SCALE

TYPICAL SECTION - ADS STORMTECH MC-3500 - DETENTION

EMBEDMENT STONE. SEE AOS DETAILS.

STORMWITCH MC-3000 CHAMBERS. SEE AOS DETAILS.

PROVIDE IMPERMEABLE LINER, LINER TO BE 30 MIL AND MEET ASTM D-4833, ASTM D-412, AND ASTM D-624. PROVIDE GEOTEXTILE FABRIC TO PROTECT LINER FROM PUNCTURE.

STONE TO MEET ADS STORMTECH MANUFACTURED RECOMMENDATIONS, NO LIMESTONE (OR RECYCLED CONCRETE) MATERIAL IS ALLOWED, BENEATH, BETWEEN OR IMMEDIATELY ON TOP OF THE CHAMBER SYSTEM

NO.	REVISIONS	DATE	BY
1	WATERSHED COMMENTS	07/26/2022	ZTH
2	WATERSHED COMMENTS	07/26/2022	ZTH

Kimley-Horn

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 707 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
 PHONE: 651-445-4187
 WWW.KIMLEY-HORN.COM

NOA PROJECT	16010006
DATE	07/26/2022
SCALE	AS SHOWN
DESIGNED BY	XXX
CHECKED BY	XXX

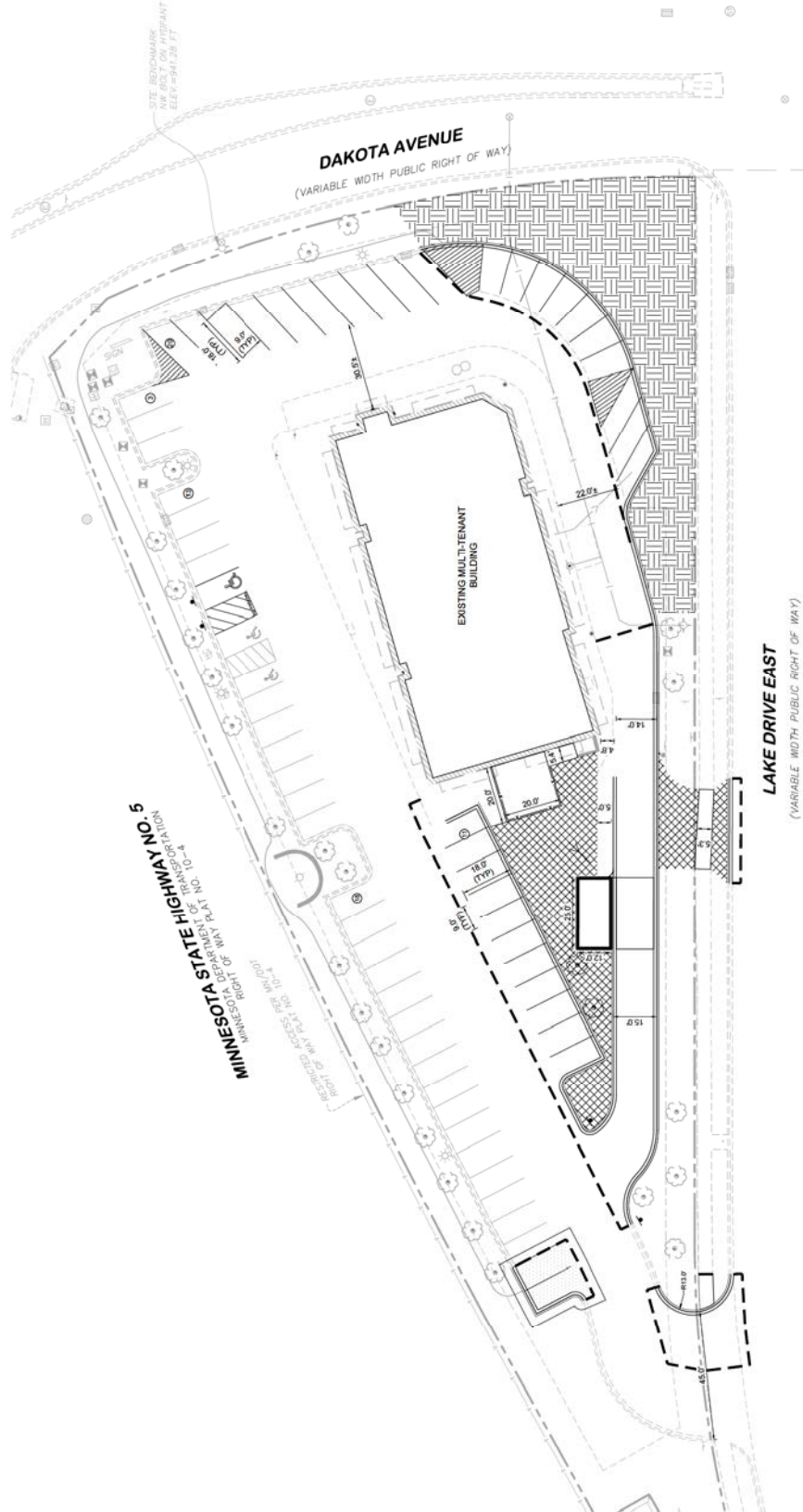
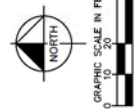
SOIL AMENDMENT PLAN

COFFEE SHOP DRIVE THRU IMPROVEMENTS
KLASIC
PROPERTY
 CHANHASSEN, MN

SHEET NUMBER
C500

PRELIMINARY - NOT FOR CONSTRUCTION

- LEGEND**
- PROPERTY LINE
 - PROPOSED FENCE
 - SETBACK LINE
 - RETAINING WALL
 - PROPOSED CURB AND GUTTER
 - PROPOSED DECOMPOSITION AREA
 - PROPOSED H2O COMPACTION AREA



PRELIMINARY - NOT FOR CONSTRUCTION

ORNAMENTAL TREE

PPC	2	MAUS DENNIS PAURE ROSE	8.8.8	1.5' CAL
RVB	8	RETLA NORDA	8.8.8	5' HT.
OVERSTORY TREE	CODE	QTY	BOTANICAL NAME	COMMON NAME
ARM	3	ACER X FREEMANII	AUTUMN BLAZE	AUTUMN BLAZE MAPLE
INL	5	GLADIOLUS TRICANTHOS VAR. INERMIS	IMPERIAL	IMPERIAL HONEYLOCUST
CONFERTUS SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME
COL	5	CELASTRIS SCANDENS	SEA GREEN	SEA GREEN
SPACINGS	CONT	SPACING	CONT	SPACING
8.5' C.C.	8.5' C.C.	8.5' C.C.	8.5' C.C.	8.5' C.C.



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

-
- A diagram of a tree with a cross-section of its root system. A horizontal line represents the trunk. To the left, a branching structure represents the canopy. To the right, a cross-section shows the root ball. A vertical double-headed arrow indicates the width of the root ball, labeled "2X ROOT BALL WIDTH". Below the root ball, a shaded area is labeled "PLANTING SOIL". A small vertical line at the bottom of the root ball is labeled "SPO".

SCALE: N.T.S.

1067



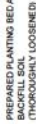
2

100

- CARIFY SIDES AND BOTTOM OF HOLE.
PROCEED WITH CORRECTIVE PRUNING OF TOP AND ROOT.
REMOVE CONTAINER AND SCORE OUTSIDE OF SOIL MASS TO REDIRECT
AND PREVENT CIRCLING RHIZOME ROOTS. REMOVE OR CORRECT STEM
AND ROOTING ROOTS.
WATER THOROUGHLY WITH PLANTING SOIL.
WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL
GAPS.
BACK FILL VOIDS WITH WATER SECOND TIME.
PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS
SOIL MOISTURE IS EXCESSIVE.
MIX IN 3-4" OF ORGANIC COMPOST.

SCALE: N.T.S.

6017



1

6017

- LANDSCAPE NOTES

- LANDSCAPE NOTES

LANDSCAPE
DETAILS

COFFEE SHOP DRIVE
THRU IMPROVEMENTS
PREPARED FOR
KLASIC
PROPERTY
CHANHASSEN

SHEET NUMBER
L101

[illegible]

Kimley»Horn
2022 KIMLEY-HORN AND ASSOCIATES, INC.
707 EUSTIS STREET, SUITE 100, ST. PAUL, MN 55114
PHONE: 651-445-4197
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY
1)	WATERSHED COMMENTS	01/29/2022	ZTH
2)	WATERSHED COMMENTS	01/29/2022	ZTH